

Tool Kit: Strategies to Reduce the Risk of Disease Transmission

Noelker and Hull is actively engaging in research and working with clients across markets to determine the best strategies for reducing the risk of disease transmission for various projects. Each project is unique and there is no one single solution that will eliminate the potential for disease transmission. Please reach out to talk with our team about the best strategies for your project.



**NOELKER
AND HULL**
ASSOCIATES, INC.
ARCHITECTS



DECREASED DENSITY

Decrease density by providing additional space per person in shared spaces and scheduling building and room occupancy.



DESIGN FOR FLEXIBILITY

Design for flexibility to allow "normal" building use and "pandemic" building use.



ANALYZE CIRCULATION

Analyze circulation through site and building to accommodate social distancing and decrease unwanted contact.



PRIORITIZE OVERALL HEALTH

Design for human health and wellness beyond COVID-19.



CHOOSE MATERIALS WISELY

Use easily cleaned surfaces and materials that do not support the growth of pathogens.



RECONSIDER FURNITURE

Reconsider furniture types, materials, and layouts to prioritize easy cleaning and social distancing.



ENCOURAGE CLEAN HANDS

Encourage proper hand hygiene by providing additional hand washing/sanitizing stations.



GO TOUCH-FREE

Provide touch-free fixtures and appliances.



INTEGRATE TECHNOLOGY

Provide technology for symptom screening and to support virtual meetings, product-ordering, payment, etc.



OPTIMIZE HVAC SYSTEMS

Increase ventilation and filtration in HVAC systems.



POST SIGNAGE

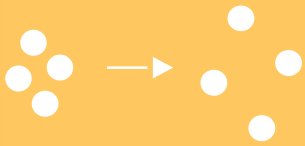
Use signage to indicate proper social distancing, encourage healthy occupant behavior, and display company protocols.



CLEAN REGULARLY

Implement rigorous cleaning protocols.

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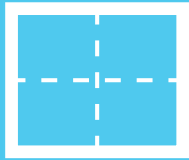


1

Decreased Density

Decrease density by providing additional space per person in shared spaces and scheduling building and room occupancy.

- Consider staggering employee schedules between working in the building and working from home to decrease building occupancy.
- Consider scheduling staggered use of high-occupancy spaces, such as break rooms and conference rooms, to eliminate larger gatherings during peak demand times.
- Encourage proper social distancing in high-occupancy spaces by removing furniture or providing signage and visual cues.
- Reduce crowding in lobbies/waiting rooms by asking patients/patrons to remain in vehicles or outdoor waiting areas until they are called into the facility for their appointment.
- Provide pickup windows or other accommodations for curbside services, where appropriate.
- Use outdoor space for socially-distant gatherings that are unable to be accommodated in indoor space, such as meetings, meals, breaks, etc.
- Keep records of all building occupants in case contact tracing is required.



2

Design for Flexibility

Design for flexibility to allow “normal” building use and “pandemic” building use.

- In pandemic times, convert small conference rooms that cannot support socially distant meetings into temporary private offices.
- In pandemic times, use temporary divider panels at open workstations to increase height of partitions.
- Consider breaking building occupants into smaller groups and providing each group with dedicated resources, such as a break room, restrooms, work room, etc., to limit number of occupant interactions.
- Reconsider shared storage, such as coat closets, and instead either provide dedicated lockers or require occupants to keep personal belongings with them at all times.
- Consider the benefit of designing more private offices in lieu of open workstations.
- Provide additional single-user toilet rooms to decrease demand of large multi-user restrooms.
- Consider increasing the number of shared equipment, such as hoteling workstations or workout equipment, so that in pandemic times, some equipment may be taken out of order to accommodate social distancing.
- Provide additional orientations and training to staff in an effort to create a sense of preparedness, calm, security, and confidence.



3

Analyze Circulation

Analyze circulation through site and building to accommodate social distancing and decrease unwanted contact.

- Consider the need for outdoor queuing areas and provide accommodations, such as overhead covering, accessible access points, etc.
- Organize and design car and bus drop-off and pick-up to accommodate social distancing.
- Design wide corridors to allow for multi-directional traffic while maintaining social distancing, where possible.
- Where corridors are too narrow to allow people to pass while maintaining social distancing, designate one-way corridors.
- In buildings with multiple stair towers, designate each as either “up” or “down” in non-emergency use to eliminate cross-traffic.
- Examine space adjacency and operational flow to limit undesirable contact between building occupants, including between staff, patients/residents, public, deliveries, etc.



4

Prioritize Overall Health

Design for human health and wellness beyond COVID-19.

- Provide additional orientation and training to staff in an effort to create a sense of preparedness, calm, security, and confidence.
- Encourage the use of Personal Protective Equipment (PPE) during pandemic times.
- Provide health and wellness education and training and collect surveys on occupant wellness, comfort, and satisfaction.
- Maximize daylight and intentionally design lighting to create a healthier and more productive environment.
- Provide healthy food and beverage options to occupants, including those with dietary restrictions and food allergies.
- Monitor indoor air quality and reduce exposure to pollutants.
- Consider providing operable windows to be opened when outdoor air quality is optimal.
- Provide access to drinking water that is free of contaminants and unpleasant taste or odor.
- Encourage physical activity in the design of the circulation system, selection of active furniture, and offering opportunities for commuters to walk or bike.
- Consider offering access to physical activity spaces and equipment, whether on the premises, or by partnering with a local gym/fitness studio.
- Design strategies to optimize acoustical comfort and privacy.
- Avoid the use of materials or substances that are harmful to humans or the environment.
- Support psychological health by providing outdoor views and access to nature and outdoor space.
- Promote mental health awareness by offering training, education, programming, and access to support services and care.
- Provide opportunities for social engagement and encourage family and community involvement.



5

Choose Materials Wisely

Use easily cleaned surfaces and materials that do not support the growth of pathogens.

- Consider using nonporous countertops such as solid surface with as few seams as possible at highly-utilized, shared spaces.
- Use disposables for menus and other high-touch items that would otherwise be difficult to clean.
- Use disposable desk mats and placemats for easy protection of shared surfaces.
- Consider using epoxy paint behind wall-mounted sanitizer dispensers to protect the surface from the liquid sanitizer.
- Consider increasing the gloss level of paint at highly-touched surfaces to improve ease of cleaning.
- Consider using a non-porous, easy-to-clean epoxy grout to reduce the possibility of the grout housing pathogens at wall tile locations.
- Approach the use of antimicrobial materials/chemicals in building materials with caution.
- For furniture, consider prioritizing the use of materials that are easily cleaned, or consider using polyurethane fabric slip covers on task chair backs for ease of cleaning.
- Review and select materials with an understanding of recommended cleaning practices and chemical resistance to allow for operational efficiency.

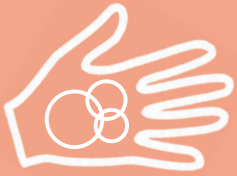


6

Reconsider Furniture

Reconsider furniture types, materials, and layouts to prioritize easy cleaning and social distancing.

- Consider furniture that can be rearranged to accommodate various spacing and density arrangements.
- Design the reception desk/area to create space between the receptionist and the public.
- Review the need for transparent screening to provide protection for the receptionist.
- Consider prioritizing the use of materials that are easily cleaned, or consider using polyurethane fabric slip covers on task chair backs for ease of cleaning.
- For informal seating, such as in a lobby or break Room, consider movable individual chairs in lieu of larger pieces to encourage social distancing.
- Minimize nonessential items, such as decorations and area rugs, to simplify cleaning.
- Consider operational situations where dividers/screens are beneficial and effective, and implement regular cleaning protocols for dividers/screens.



7 Encourage Clean Hands

Encourage proper hand hygiene by providing additional hand washing/sanitizing stations.

- Consider providing sinks outside of bathrooms to accommodate frequent handwashing.
- Provide hand sanitizing stations throughout buildings, especially at entrances/exits to shared spaces.
- Post signage throughout buildings to remind people to wash hands and sanitize frequently, and to direct them to hand sanitation stations, sinks, or bathrooms.
- Post clear instructions for proper handwashing at sinks.



8

Go Touch-Free

Provide touch-free fixtures and appliances.

- Eliminate non-essential high-touch shared items that could be cross-contaminated, such as magazines, books, candy bowls, etc.
- Use automatic fixtures, such as flush valves, faucets, towel dispensers, and soap dispensers.
- Use open-top or foot-pedal trash receptacles in lieu of those requiring touch operation.
- For cabinet doors, consider automatic and/or hands-free door operators.
- For drinking fountains, consider models with integral automatic bottle-fillers, or discuss alternatives with local jurisdiction.
- Eliminate doors where possible or provide a means to hold doors open where possible.
- Provide alternatives to traditional door knobs and levers, such as foot pulls or arm pulls, or provide automatic door operators.



9

Integrate Technology

Provide technology for symptom screening and to support virtual meetings, product-ordering, payment, etc.

- Design and provide for health screening prior to building entry, such as temperature scanning and surveys/questionnaires.
- Provide options for remote engagement such as telework or virtual appointments.
- Use touch-free electronics for ID scanning.
- Accommodate touchless check-in from phone (app, text, or call) or at a kiosk or tablet with sanitizing wipes.
- Integrate technology for smartphone ordering and payment.
- Integrate technology for virtual meetings in conference rooms.
- Consider touch-free elevator calling, such as voice activation or smartphone calling.
- Update company website frequently with up-to-date company protocols and revised business hours.



10

Optimize HVAC Systems

Increase ventilation and filtration in HVAC systems.

- Where feasible, increasing ventilation and filtration may improve air quality, but will require additional maintenance and cost.
- Consider building commissioning to be sure systems are performing as designed.
- Noelker and Hull Associates, Inc.'s consultants can provide additional expertise concerning UV-C lights, humidity control, bipolar ionization, and other strategies to optimize the HVAC systems in your project.



11

Post Signage

Use signage to indicate proper social distancing, encourage healthy occupant behavior, and display company protocols.

- Post signage throughout buildings to remind people to wash hands and sanitize frequently and to direct them to hand sanitation stations, sinks, or bathrooms.
- Post clear instructions for proper handwashing at sinks.
- Use signage to direct traffic in narrow corridors or aisles.
- Use signage to decrease unwanted circulation, such as identifying staff-only areas.
- Provide floor markings to indicate proper social distancing in queuing.
- Indicate maximum room capacity to emphasize reduced capacity in times of social distancing.
- Use signage on furniture to indicate proper social distancing.
- Post reminders of company protocols to staff and employees.
- Post company protocols in areas visible to public/patrons to raise the confidence of visitors.



12

Clean Regularly

Implement rigorous cleaning protocols.

- Implement rigorous cleaning protocols and schedules for cleaning staff.
- Encourage all building occupants to participate in frequent cleaning of touched surfaces.
- Provide cleaning kits throughout the building, especially at shared rooms, with items such as disinfecting wipes for users to clean surfaces between scheduled staff cleaning.
- Consider posting use and cleaning protocols for shared equipment, such as microwaves, refrigerators, coffee makers, printers, copiers, phones, etc.
- Change air filters regularly and clean HVAC air intakes daily.
- Prioritize providing adequate storage for cleaning materials.