

# READINESS DESIGN

5 INSIGHTS FOR SENIOR LIVING COMMUNITIES  
TO CONSIDER POST-PANDEMIC



MEYER

ARCHITECTURE + INTERIORS

SENIOR LIVING STUDIO

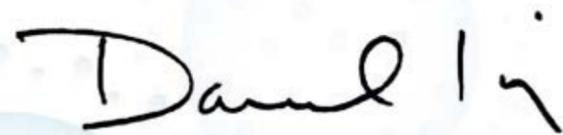
# Is your community ready for what's next?

In order for senior living communities to thrive and remain a safe haven for residents and staff, we must consider new, emerging and evolving design practices and applications to help mitigate or possibly prevent an outbreak.

Here at Meyer, the rapid spread of COVID-19 has caused us to reevaluate how we approach senior living design, and what it might mean to design for a world that will never be quite the same, especially for the senior living communities across the country. The coronavirus pandemic has unleashed fundamental change throughout the world as everyone comes to terms with this new, unprecedented reality.

As a team of design professionals, Meyer's Senior Living Studio has researched and explored how design will change and affect senior living communities in the immediate future and in the long term. Readiness Design is awareness, applications and tools for senior living developers, operators and owners to consider in order to combat the spread of COVID-19 or other potential outbreaks while maintaining a safer and healthier community.

Sincerely,



Dan King, AIA  
Principal, Senior Living Architecture



Shannon Remaley, NCIDQ, LEED GA  
Principal, Senior Living Interiors



Matt Wittemann, CPSM  
Director of Client Services

## INSIGHTS

1 LAYOUT + FLEXIBILITY

2 TECHNOLOGY

3 BUILDING SYSTEMS

4 MATERIALS + FINISHES

5 WELLNESS

[VIEW OUR READINESS DESIGN  
SERIES ONLINE](#)

# 1

# Layout and Flexibility



[VIEW ONLINE](#)

There are a multitude of ways common spaces and amenity areas, dining areas, corridors, entryways and even storage can be reconsidered. An efficient and well thought out layout that meets the needs of residents, staff and the entire community is essential. Incorporating flexibility into these spaces can enable communities to adapt and adjust to different situations. In a post-pandemic situation, increasing protections and providing a healthier environment for future infectious intrusions, and implementing practical solutions should be the goal. Here are some reprogramming, layout and flexibility thoughts to consider:

- **Flexible common spaces off the elevators for dining alternatives.** This could be an art studio, multi-purpose room, pub, or other activity space. Having the flexibility to provide group dining services on floors that have not been infected allows the operator to continue to provide group dining experiences without shutting down the entire building.
- **Offices and/or storage rooms convertible for overnight stays.** For example, if your building has extra space in an office or storage area, you might consider having a cot available in the event of a major weather event or emergency so a staff member can stay overnight. Reducing the comings and goings of caretakers can greatly reduce the risk of spreading infection.
- **Telemedicine rooms.** These can be established on each floor, possibly in a Wellness room. At its base all you need is a good broadband connection and a video platform. The space and millwork should be designed such that a laptop or computer can be set up to face a resident sitting in a comfortable chair across from the monitor for virtual visitations.
- **Adding flexible wall solutions,** such as a NanaWall, to common spaces on each floor so that smaller groups have access to the outdoors without traveling through the entire building.
- **Better access to the outdoors.** Private balconies are a great solution to required isolation/quarantine. If balconies are viewed as a liability or cost-prohibitive, Juliet balconies are a safe and inexpensive alternative in addition to providing access to porches and patios off the first floor.
- **Breaking up floors into compartments.** This may be as simple as creating building forms that don't have one long continuous corridor but shorter wings that branch off from a central core. These wings could then be used as isolation units in and of themselves without shutting down the rest of the community.
- **Provide showers in a staff restroom.** Much like washing your hands, thoroughly showering before or after a shift can do much to remove any contaminants one may be carrying in and out of a community.
- **Explore vestibules for public restrooms** with no barriers or doors for entry and exit. This not only eliminates a high-touch surface, but also is more friendly for seniors with mobility concerns.

# 2

# Technology

Senior living providers are relying on technology now, more than ever. Not only as a tool to combat social isolation by remotely connecting residents with family members and medical workers, but also one that can be designed and installed directly into the building to help mitigate and even warn of a potential outbreak. We must seek solutions to safely maximize interaction during an outbreak and implement certain technologies that can bring stability into a time of general uncertainty. Some technologies for senior living communities to consider include:

- **Advanced security measures** such as temperature screening and the use of Infrared Fever Screening Systems (IFSS) to scan visitors, staff, and even residents as they enter and exit a building.
- **Touchless and voice-command technology** for doorways and entry, lighting controls, temperature controls, audio/visual controls, elevators, and dining service.
- **Self-cleaning restrooms.** Self-cleaning toilets include automatic mechanisms that clean and sanitize the toilet bowl. Take it a step further with touchless fixtures, auto-drying floors, occupancy sensors and a handicap safety system.
- **Produce your own natural cleaning solutions** on-site with electrolyzed water. Electrolyzed water is the result of a process called electrolysis: salt is electrically separated into its two main ions, sodium and chloride. Those two ions are then mixed into separate streams of freshwater, producing two solutions: Hypochlorous Acid (PureSan) and Sodium Hydroxide (PureClean). Viking Pure's generators produce two kinds of natural cleaning agents: a surface cleaner called PureClean and a sanitizer called PureSan.
- **Micro-farms**, for dining and food service, can be placed in dining areas or kitchens to grow herbs, vegetables,

and produce to help with supply, quality, and freshness. Not only can you reduce your carbon footprint, but goods harvested from micro-farms are higher in nutrients since it doesn't have to travel across the country before consumption.

- **Mobile devices** such as an iPad or Amazon Echo Show are easy to use, cost-effective technology tools for communities to have available in resident rooms. At the push of a button, residents can interact with family and friends without having to leave their units.
- **Technology for activities** is also available, but sometimes it can be difficult for residents to engage. Most activities are being conducted on a one-on-one basis inside resident units. Try to keep residents active and nourished with apps like Vitality Society, Curefit and Freeletics.
- **Ultraviolet (UV) light:** A 2018 study concluded that the use of far-UVC light in indoor public locations is a promising, safe, and inexpensive tool to reduce the spread of airborne-mediated microbial diseases. While this is still an evolving tool, healthcare facilities around the world have adopted machines that sterilize rooms and equipment with powerful blasts of light that are harmful to viruses without damaging human skin.

# 3

# Building Systems

[VIEW ONLINE](#)

It is likely that new mechanical codes will play a large role in dictating what measures developers and operators will need to take in future developments. ASHRAE has already mobilized a task force to look at all building classifications and system design in a post pandemic world. Some of these measures can be implemented now. Here are a few of the more practical ones that may not significantly impact construction costs:

- **Increasing airflow particularly from outside air.** This will promote cleaner air and cycle out older air more quickly. A Dedicated Outdoor Air System (DOAS) can provide 100% outdoor air to common areas utilizing more ductwork and using VAV boxes to maintain minimum ventilation amounts.
- **More robust filtration system in mechanical units.** Merv 13 filtration systems, an anti-microbial filter which captures a higher percentage of particulate matter, can be provided in units that serve common spaces such as restrooms and dining spaces—this could result in more energy consumption. Another step includes a more aggressive maintenance program to change out filters on a shortened replacement schedule.
- **Mandatory anti-microbial coatings within ductwork.** Consumers and businesses alike are looking for innovative and effective ways to address odor causing bacteria, mold and mildew. Anti-microbial coatings and protected clean surface technology is leading the way by design.
- **Higher humidity levels** greater than 40% can render most viruses inactive in a short amount of time. Consider adjusting your humidity levels with your HVAC system.
- **Air purifiers** not only clean existing air but can increase air changes when the existing HVAC systems are unable to increase airflow. Portable air purification units are cost effective and easier to locate around a community. Additionally, Air purification units can also be permanently installed in the ceiling and switched on and off as needed.
- **Far-UVC light:** As mentioned in Insight 2: Technology, specifically designed ultraviolet (UV) technology can sanitize and eliminate up to 99.9% of germs, bacteria, and viruses by modifying and destroying their genetic material (DNA/RNA) preventing further replication. UV lamps in direct recessed lights, downlights or even in ductwork can kill microorganisms within the airstream. A more cost effective solution would be to install UV germicidal sterilization right at the source of outside air introduced into the building. Future codes may require UV lamps on resident unit HVAC equipment.

## 4

# Materials and Finishes

[VIEW ONLINE](#)

As the senior living industry continues to explore ways to make senior living environments safer, it is important to not overlook the materials and finishes that residents, staff and families touch and feel on a daily basis. As we look to pivot our design decisions in a post-pandemic world, designers—in collaboration with senior living communities—will need to find the balance between sterile environments/materials and maintaining an environment that residents and their families feel at home. Here are examples of products and applications that may be considered:

- **Wipeable and naturally antibacterial surfaces for high use amenity spaces.** Krion is a new generation of solid surface developed by PORCELANOSA. It is a material that is warm to the touch and similar to natural stone. Krion does not have any pores, which prevents the buildup of bacteria or fungi to grow, and is antibacterial without any type of additive and is easy to clean.
- **Addition of flexible decorative glass, resin vertical dividers, or barn doors** between large spaces to create a better ability for physical separation of space and multiple smaller group gatherings of residents and staff.
- **Copper or brass hardware for high-touch door and millwork handles.** Studies have shown that coronaviruses such as SARS and MERS have shorter life spans on copper surfaces. Recent design trends support this safety measure, as designers are opting for metal finishes with warm, brushed and mellow toned gold metals in combination with matte black metal finishes in lieu of all stainless steel or polished brass metals.
- **Touchless and voice command fixtures and handles** to help avoid high-touch surfaces. Products such as Touchless not only provide protection against high-touch mechanisms, but can also be senior friendly in mobility challenges.
- **Wipeable seating arms** such as wood-look metal or polymer for high traffic areas such as dining areas and activity rooms. The wood look metal or polymer allow for communities to keep a residential aesthetic with a wood grain while still having durability and cleanability.
- **Textile products that are easily cleanable and durable against sanitizers.** Manufacturers such as Architex provide information on what they call the Four Families of Healthcare cleaners and highlight the testing that their fabrics have gone through to maintain performance while being sanitized day after day. Other products such as Chilewich are versatile to be used on walls, floors and textiles on furnishings and are easily cleanable and provide a wide range of aesthetics.
- **Microbicidal paint finishes** such as Sherwin William Paint Shield®. Paint Shield® continues to kill 90% of bacteria even after repeated contamination on painted surfaces (Microbicidal does not protect against COVID-19). The effectiveness lasts for up to four years as long as the integrity of the surface is maintained.

# 5

# Wellness

[VIEW ONLINE](#)

Wellness has been a buzzword in senior living for some time, and some providers believe it is replacing “care” as the driving concept for community operations. Residents are not only living longer but are remaining healthier and more active than previous generations. Fostering wellness in a community can take many shapes, but as it relates to design, there is a guideline called The WELL Building Standard that developers and operators may want to consider in their communities.

The WELL Building Standard (WELL) is the leading global rating system for improving the health and wellness of building occupants through better design, operations, and organizational policies. With over 350 million certified SF accumulated since its introduction in late 2014, this evidence-based process highlights the benefit of investing in a building that promotes health and well-being.

Portions of WELL focus on construction materials or systems which overlap with the Leadership in Energy and Environmental Design (LEED) rating system, such as indoor air quality, interior lighting and thermal comfort. However, where WELL outshines LEED is in the human impact its operational concepts and features can have on the built environment such as:

- **Outline a schedule of sanitization** and disinfection of high touch surfaces to help reduce exposure to pathogens, allergens and harming cleaning chemicals
- **Set daily cleaning protocols** for water dispensers to promote safe hydration.
- **Provide accessible and sanitary hand washing facilities**, including sealed liquid soap cartridges, paper towel dispensers in lieu of air dryers, and adequate sink sizes

One WELL concept that shows extreme value in a post pandemic world is the **Mind Concept**. The vital role mental health plays in overall health has become increasingly undeniable, and developing spaces that support a healthy mental state can have significant psychological and physical benefits. WELL places emphasis on this in a few different ways:

- **Access to therapies** or volunteer opportunities that help promote relaxation and address mental or emotional trauma healing.
- **Guidelines for healthy sleep habits**, which is essential to good health and to maintain sustained mental and physical performance.
- **Work/life balance and self-care** through policies that help ensure that employees are able to take the necessary time off for self-care and balance their work and personal lives in a healthy manner.
- **Bring awareness of individual biomarkers** associated with health and wellness with self-monitoring devices.
- **Encourage biophilia**, the idea that humans have an affinity towards the natural world, in the design of spaces through lighting, patterns, natural plants or gardens.

*Is your community ready for what's next?*

FOR MORE INFORMATION: VIEW OUR  
READINESS DESIGN SERIES ONLINE



Transforming the Senior Living Experience.  
Architecture. Interior Design. FF+E. Branding.