

Post Pandemic Healthy Hotels and Resorts

Facility Renovation and New Construction Considerations for Healthy Hotels



Hotel Paradox, Santa Cruz, CA © Matthew Millman Photography

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As we find ourselves half way through the year 2020, you must admit the days are often filled with a multitude of emotions that range from frustration and apprehension, to optimism with moments of joy, and then right back to frustration in the form of panic and concern. Beginning full force in March we experienced the rapid onset of the COVID-19 novel corona-virus, putting a major dent in the world-wide economy and mostly stopping the hospitality industry. Our leaders and medical professionals have been learning more and more every week and have tried to steer us through these difficult times. It is clear that we are not back to normal, nor have we reached a 'new normal' yet, and most agree the virus is here to stay for some time.

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As tension continues to build between a desire for normality and a concern for safety for ourselves, our employees and our guests, the demand for quality healthy hotels will steadily increase. People, and businesses are moving toward a new normal that includes leisure and limited business travel. We are a social people, and we crave interaction and collaboration with other like-minded people. The limited reopening we experienced in the past 4 to 8 weeks has given us a taste of what we've been missing, and it is fueling a re-surg-ing market from a traveling public that seeks quality accommodations, where we can have new and safe experiences. This re-surg-ing market will boost the economy and help us realize the "New Normal."

How can the hospitality industry support the reemerging demand for both leisure and business travel, while increasing safety for the guests and minimize or eliminate pathogen transmission? The answer is by providing healthy hotels that



are well buildings. Well buildings are not a new concept—hospitals have been designed as well buildings for decades. Can a hotel be a healthy/well building while providing a superior experience in an aesthetically pleasing environment?

Absolutely; hotels have been a component of the Wellness Economy since wellness was considered a trend and industry many years ago. So what is the Wellness Economy? The Global Wellness Institute defines:

“The Wellness Economy is a colossal global industry, estimated by the Global Wellness Institute (GWI) as \$4.5 trillion and representing roughly 5.3 percent of global economic output in 2017. Defined as industries that enable consumers to incorporate wellness activities and lifestyles into their daily lives, the wellness economy encompasses 10 varied and diverse sectors.”

Source: Global Wellness Institute, Global Wellness Economy Monitor, October, 2018

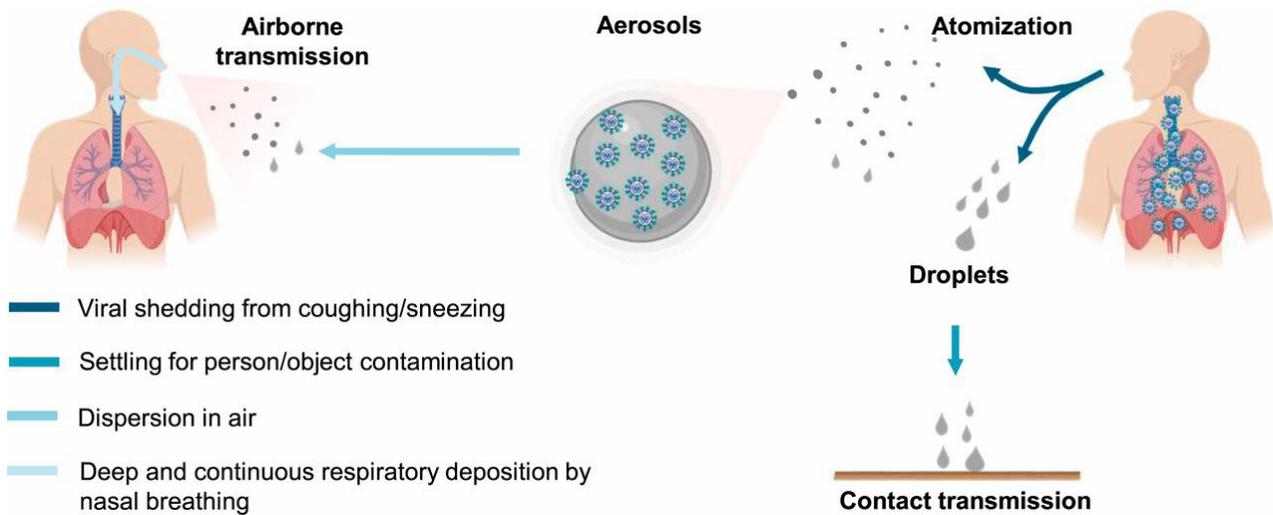


So what is a well building? Considered by the Well Building Institute, a well building is one that provides a built environment that supports human health and wellbeing, through air, water, nourishment, light, fitness, comfort and mind.

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How can we design new hotels and enhance existing hotels that are defensive against COVID-19 and future epidemics and pandemics? There are four primary areas of consideration for the design and renovation of hotels to support the fundamentals of healthy hotels. These are referred to below as the four pillars of healthy hotels.

The First Pillar, and perhaps most important, is Air Quality. Scientific studies have shown that viral pathogen transmission occurs via two primary vehicles, first from atomization of contaminated aerosols via the air from the infected person into the lungs and eyes of other people, and second, from contact with contaminated surfaces. As you can see from the diagram



Source: National Academy of Sciences

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above, published by the National Academy of Sciences, an infected person will produce infected aerosols by speaking, singing, coughing or sneezing. The heavier droplets fall out of the air and contaminate surfaces while the smaller and lighter aerosols float in the air and can be ingested by healthy people. Increased hygiene and sanitation easily minimizes the possibility of infection from surface contact, but elimination of airborne transmission requires either a physical barrier (face mask and eye protection for all) or air sanitation-filtration to direct the contaminated air flow away from people where it can be filtered with true HEPA filters and/or sterilized with UV-C light before returning the clean air back to the occupied spaces.

To be most effective, architects and engineers can design and specify advanced systems within the mechanical equipment to filter and sterilize the air, thus removing pathogens from the air before it is returned to the public space. This equipment includes anti-microbial HEPA filtration, UV-C lighting at the coils of the HVAC equipment, UV-C lighting in the air stream, bi-polar ionization, or photo-catalytic ionization. Simply described, HEPA filtration captures and removes pathogens from the air, UV-C light at the HVAC coils kills pathogens that can develop in a pathogenic sludge on the coils, UV-C light in the air stream kills pathogens in the air that is sent to the occupied rooms and ionization infuses the air with ionized particles that seek out microbials and kills them in the air and on surfaces. Installing a combination of these technologies will greatly increase the safety of hotels and public buildings, and an educated consumer will select a healthy hotel over a traditional hotel.

The Second Pillar, is Light. Helen Oyeyemi, a young British author, is quoted as saying *“where there is air and light and open space, things grow.”* Light is one of the three

primary elements required for life, and is an important element of the healthy hotel for many reasons. First, natural daylight introduces warmth and wellbeing in the interior spaces and when used with other elements it can provide theatre through shade and shadow. Second, artificial light, carefully designed and curated, supports circadian rhythms which enhances the health of the hotel guests. Third, light



Marriott SpringHill Suites/Residence Inn, Orlando, FL

can serve a natural sanitation function by sterilizing surfaces, fixtures and air. Continuous sanitation in occupied interior spaces can be achieved by careful specification of Far UV-C Light (200 to 230nm) or Indigo light (405nm). UV-C light can be utilized in unoccupied spaces for surface sanitation and air sanitation, it can be used in mechanical equipment to kill pathogens within the equipment and utilized in the air stream of mechanical supply ducts to sterilize the air supplied to interior occupied spaces. Care must be taken with the specification of sanitizing light as direct exposure to UV-C light and the generation of Ozone can be harmful to people.

The Third Pillar, is Sanitation. The major quantity of information recently published by the hotel industry, revolves around cleanliness and cleaning protocols and this remained consistent since the onset of this pandemic. As described in the first pillar, surfaces become contaminated through contact with infected people and by infected heavy aerosol droplets that fall from the air and contaminate surfaces. An enhanced cleaning protocol is an important component for healthy hotels and must be maintained in all areas of the hotel including guestrooms, public areas,

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Hilton - Clean Stay

food and beverage outlets, meeting/conference spaces and back of house facilities.

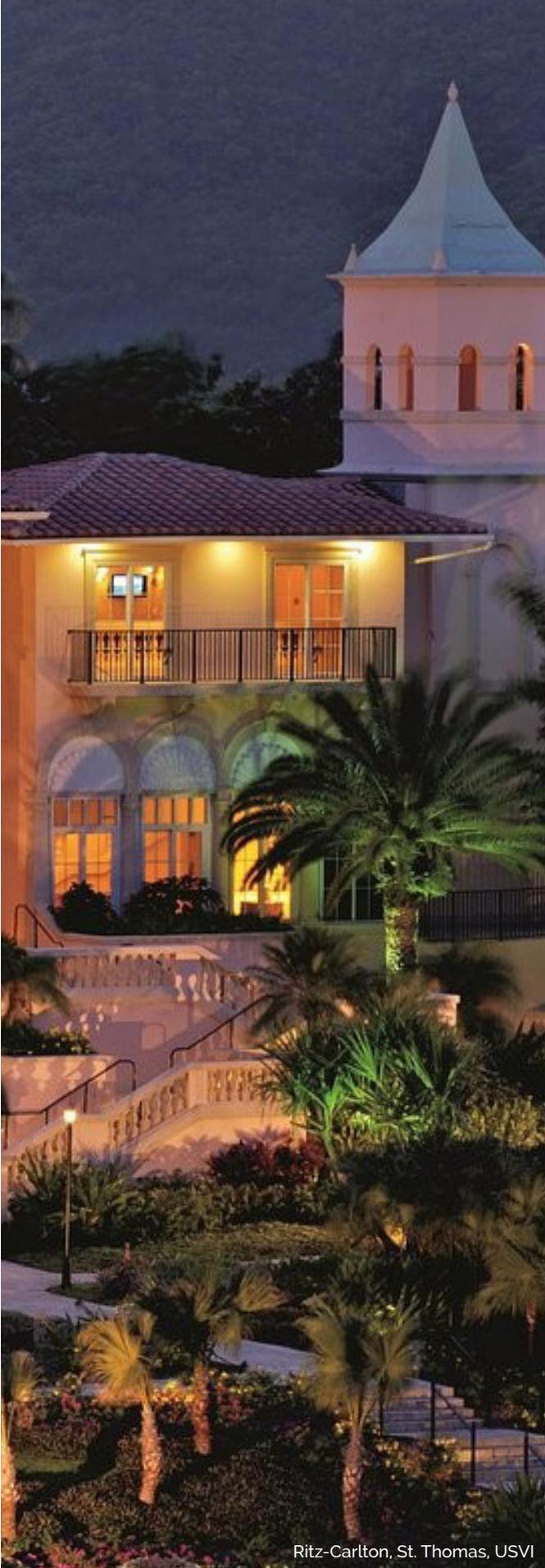
The Forth Pillar, supports increased Health

for the guests and the staff that enjoys the hotel. This pillar covers a broad range of components and elements that combine to maintain a healthy environment for the guests while enhancing the individual health of each guest. Health can be enhanced with quality Water, Fitness, and Nutrition.

Water - The hotel must provide clean and safe water for hydration and for food and beverage service within guestrooms and at all amenities. This can be accomplished with a property-wide water purification system or individual purification devices for guest hydration stations, property wide.

Fitness - Opportunities for guests to maintain and enhance their fitness while traveling has become a higher priority. This can be accomplished in three locations: First, in a traditional fitness center. The fitness center should include advanced air filtration/sterilization and continuous light sanitation for surfaces and equipment. Second, in-guestroom fitness equipment could be provided. This could include an interactive fitness monitor such as "Mirror," or an interactive cardio fitness machine such as "Peloton" or "Hydrow." Third, open-air group fitness classes could be offered on roof top or exterior lawn areas. **Nutrition** - A quality healthy hotel will provide clean food and drink options for the guests that support a healthy lifestyle, with natural, organic food options. The food and beverage offerings should be served in quality spaces that include proper air filtration and separation by distance or physical screening such as glass or natural planting. In addition to indoor outlets, tempered climate controlled exterior facilities should be offered that provide views, natural light and natural ventilation.

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Ritz-Carlton, St. Thomas, USVI

In light of the current pandemic facing the world and the possibility of future outbreaks, it is paramount for hotel owners and operators to augment the physical and operational components of their hotels and resort properties to reestablish and increase occupancy and market share. It is important that the consumer has confidence in the facility, its cleanliness, and the quality of the hotel, thus selecting superior properties over that of traditional hoteliers. The implementation of modern systems, refined organizational planning metrics, and wellness components will not only make the hotel safer, but will contribute to provide a new level of wellness not currently present in hotels and resorts.

Prior to COVID-19, the United States had begun a paradigm shift to a larger wellness economy. The onset of the virus, with its catastrophic effects, has educated the population concerning our vulnerability and has served to reinforce the need for wellness and healthy buildings. Most areas of the Wellness Economy are applicable to a healthy hotel and will become more important to guests in the future.

Tim Lemons is a Hospitality Architect registered in 24 US states, and his firm L2 Studios specializes in the design of hotels and resorts. They are available to assist hoteliers with the renovation of and the design of new hotels and look forward to the prosperous time ahead.

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