

Innovative Solutions that can be Quickly and Easily Implemented

As BSA works with healthcare partners through this unprecedented time, we are reconciling what we already know about how to protect people from viruses with the unique aspects of the novel coronavirus.

This means we need to create innovative solutions that can be quickly and easily implemented. As with any airborne infectious disease, COVID-19 patients need to be isolated to protect the health of other individuals in the facility. Since most hospitals only have a few isolation rooms, the pending influx of COVID-19 is problematic. The efforts to create these isolation spaces are three-fold. First, 100% exhaust air is required. As with any airborne infectious isolation room (AIIR), the air in a COVID-19 patient room should not be recirculated. Second is to create a negative pressure room to protect the other patients and staff in the hospital. Since the supply air to the room is typically designed to the code minimum, creating a negative pressure must be controlled through the exhaust system. The third step is providing 100% outdoor air to provide as much clean air as possible.

For the most part, finding a way to exhaust patient room air and create a negative room is two parts to one problem. BSA has been able to help partners devise a few different solutions to make this possible, which has been a minor challenge; however, providing 100% outdoor air is a much bigger problem. Most facilities do not have an infrastructure designed with this capability. In each instance, a thorough analysis of the existing heating, cooling, fan output, and controls must be considered. The total system impacts need to be understood and considered. This is a difficult issue but one that is absolutely necessary in the case of COVID-19.

Author:

Samuel Jackson PE, LEED AP

Director, Engineering

Email: sjackson@bsalifestructures.com

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bsalifestructures.com

800.565.4855