



Meeting the Challenges of Healthcare Construction & Design in a Changed World

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Healthcare construction and design has changed dramatically as a result of the events of the last 18 months, which will have a lasting impact on the industry, noted Jaimee Nardiello, Partner at leading construction law firm, Zetlin & De Chiara.

As part of Commercial Observer's 5th Annual Healthcare Construction Forum, Ms. Nardiello moderated a panel of industry experts who gave their unique perspectives on how the pandemic will change healthcare facilities and thus design in a post-pandemic world.

Topics discussed included building add-ons like airborne pathogen detectors, negative pressure rooms, and air handling systems, as well as how designers, managers, and construction teams can work together to build care-centered facilities.

In addition to Ms. Nardiello, speakers at the event included:



- Patrick Burke, FAIA, AVP, Capital Project Management, Columbia University Irving Medical Center
- Carrie Cremin, Project Manager, AKF Group
- Raquel Diaz, Senior Project Executive, Gilbane Building Company
- Steven J. DiFlora, P.E., LEED AP, Senior Executive Director, MG Engineering D.P.C.
- Emil Martone, Director of Design & Construction, Weill Cornell Medicine

Important Takeaways from the Discussion

1. How can a facility strategize on adaptability measures they should implement

The approach to each project is changing; ventilation and air filtration are major areas of concern - especially with in-patient care.

There is an increased need for dialysis and oxygen systems, as well as multiple units being negatively charged. Many systems are being designed to change from neutral to negative pressure by using a return system and negative balancing, or a fully dedicated system that can switch by a push of a button. These changes have cost implications. Even if projects do not have this as a part of a design, if there is a way to build flexibility into the system, like considering a different air system, this can offer a lot of flexibility to the building going forward.

Infection control in air systems has been a huge focus within the last year. The air monitoring systems are also able to help monitor air pressure.

It is crucial for design professionals to work with a construction manager early on to maximize efficiency in cost design.

2. Material, labor and supply pipeline challenges have been common throughout the pandemic. How were those handled?

Many projects are facing challenges in these areas. As teams of builders come together and utilize technologies and skill sets of construction managers, maintaining flexibility has helped to ensure that all aspects of a project are there when they are needed, and that they are going to be meeting the budget, schedule, and pipeline management.

Constant communication among the developer, contractor and design team is critical when working to overcome supply chain issues.





3. How is design going to evolve to respond to and continue to respond to infection control?

Covid highlighted gaps in the patient safety system that we needed to address.

Architecture, specifically, creates an important role in physically spreading out patients, and pulling apart the cross-pathing between the care providers and the patients.

Designing the space around waiting times is becoming more important than ever. More exam rooms and bigger waiting rooms decrease congestion and get people into exam spaces faster, and then keep providers separate from patients until the exam. Bigger facilities with more square footage is great news for some owners, and a challenge for others.

Many recent projects were looking at reducing space in waiting rooms and checkout areas from a functional real estate/patient satisfaction standpoint. One way patient flow is also very important from a human and wellness standpoint.

Technology filled in gaps and eased pressure on facilities issues, such as creating an app to make checking in and checking out as easy as possible.

Going forward, it is important for building management systems to utilize newer technologies to inform everyone that oversees the system regarding quality and air consumption. Additionally, airborne pathogen monitors may be something to consider in the future.

To view the panel, click here.

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