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Margulies Perruzzi assists Lahey Hospital & Medical Center with new 3,100 s/f COVID-19 testing lab

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Burlington, MA Margulies Perruzzi (MP), one of New England’s most innovative architectural and interior design firms, has taken an active role working with health care clients to meet the demands of the COVID-19 pandemic and recently worked with Lahey Hospital & Medical Center (LHMC) to create a 3,100 s/f COVID-19 testing lab.

During the COVID-19 pandemic, hospitals and providers across the Commonwealth worked in numerous capacities to respond to COVID-19, caring for thousands of patients, re-configuring care settings, and endlessly innovating to meet the rapidly changing demands of this pandemic. Throughout this time, hospitals needed to find new ways to meet the growing demands for COVID-19 testing and analysis and support the achievement of the Commonwealth’s goals to grow testing capacity in the state, which was critical to ensuring robust diagnostic testing and surveillance

of the spread of the disease.

Lahey Hospital & Medical Center, a world-renowned tertiary medical center known for its innovative technology, pioneering medical treatment and leading-edge research, committed to more than doubling its existing COVID-19 testing capacity to meet the demand. The renovation of existing lab space created a new expanded COVID-19 testing lab with rapid throughput testing capabilities of up to 11,100 tests per day that would allow specimens to be resulted in 24 hours or less.

“To make a project like this happen requires an enormous amount of collaboration and alignment to ensure the entire team is working together to meet the project goals,” said Bob Humenn, AIA, director of healthcare strategy at Margulies Perruzzi. “The project team worked closely with LHMC to be sure the lab design would meet their current testing needs as well as future testing requirements.”

Margulies Perruzzi and Columbia Construction worked with LHMC to create a COVID-19 testing lab designed to accommodate new and larger equipment. The design/construction team was challenged to complete the COVID-19 testing lab as quickly as possible to meet the immediate needs for COVID-19 testing during the pandemic. Multiple sites on- and off-campus were explored, and it was determined that creating the COVID-19 testing lab within the main campus laboratory would have the greatest capital and operational cost efficiency. This approach could also be built in the shortest time because the mechanical infrastructure was already in place. The challenge with this option was restrictions on planning based on available space in the existing lab. Creating sufficient contiguous space needed for the Thermofisher testing equipment involved multiple moves of existing lab services and required renovation within an existing functioning laboratory. There were several strategies to accelerate the process, including team working sessions for material approvals and finishes flexibility to work with materials more readily available. Utilizing quick ship options for materials with unavoidably long lead times and using movable lab furniture to provide more flexibility for delivery, assembling and installation.

“LHMC moved quickly during the pandemic to meet the urgent demand for testing services. It was important that the lab could process a lot of tests quickly, but the space needed to be efficient and functional also. The design and construction teams helped us achieve our goals by taking a more proactive role to address issues immediately as they arose to ensure the new lab could open quickly for the benefit of our patients, colleagues and physicians,” said Michael Slejzer, director of planning, design and construction at LHMC.

Project team members include:

Architect/Laboratory Planning: Margulies Perruzzi

Construction Manager: Columbia Construction

Owner’s Project Manager: Lehrer Cummings

MEP/FP: BR+A

Commissioning: CMTA

