

Erland Construction Named as Construction Manager to Renovate Dow Chemical Analytical Lab



Marlborough, Massachusetts –

Erland Construction was selected to transform an existing office space into a state-of-the-art analytical lab for the Dow Chemical Company, the largest chemical company in the United States. The company's facility in Marlborough supports Dow's Electronic Materials business, a leading global supplier of enabling materials in applications such as consumer electronics, flat-panel displays, and telecommunications. The newly updated analytical lab on the 110-acre campus will enable the research and design of Dow's electronic materials including microelectronic, circuit board and packaging, and finishing technologies. Erland is four-months in to this 8,226-square-foot seven-month renovation.

The facility, which includes multiple functioning fabs for creating parts on-site or individually isolated fabrication areas where products are being assembled, will remain completely operational throughout construction. The lab, located on the second floor, requires the installation of new mechanical systems in the basement and sub-fab, and new rooftop equipment including energy recovery ventilators, exhaust fans, and humidifiers. The project requires extensive coordination efforts to ensure that all the supply, exhaust and return ductwork, as well as process utilities and electrical, fit above a ceiling that was originally designed as office space.

Due to the anticipated chemicals being used in the lab, the fire rating of the former office space needs to change to a one-hour assembly. This requires adding extra fire rating materials to existing structural steel columns as well as replacing the existing ceiling tiles with tiles carrying a one-hour rating. In accordance with this change, all light fixtures are required to have a 'tenting structure' built on top of them to give them the rating as well.

Additional utilities such as argon, nitrogen, clean dry air, a process vacuum, and a series of specialty gases are required to be piped to the lab. The lab also needs to maintain a critical humidity level. A humidifier is being installed on the roof with dispersion tubes connected to the energy recovery ventilator. New steel is being installed on the roof to support the energy recovery ventilator, humidifier, and exhaust fans.

"During these extensive renovations, the entire project team will work together to ensure that safety was the number one priority, especially since the building is fully occupied while construction is taking place. Erland's Safety Program is aligned with Dow's Safety Procedure to successfully secure daily work permits, hot works permits, pick plans, and welding permits," said Dan Cobb, Group Manager, Advanced Technology/Life Sciences Group. "We are proud to partner with Dow Chemicals to manage a project that will help further support this group's mission of advancing technology and identifying innovative solutions now and for future generations to come."

In more than 40 years, Erland Construction has successfully grown into the Northeast's leading open shop construction management and general contracting firm. The Company is headquartered in Burlington, Massachusetts and has specialized expertise for new construction, additions, and renovations in major market sectors including advanced technology/life sciences, academic, corporate, commercial, residential, senior living, hospitality and special projects/strategic accounts. For more information, visit www.erland.com.