Award of Merit Higher Education/Research: Babson College - The Weissman Foundry

By ENR New England
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Image courtesy of (Bruce T. Martin, Courtesy Windover Construction Inc.)

Babson College - The Weissman Foundry

Babson Park, Mass.

Award of Merit

- Owner: Babson College
- Lead Design Firm: William Rawn Associates
- General Contractor: Windover Construction Inc.
- Structural Engineer: LeMessurier
- MEP Engineer: Vanderweil Engineers
- Subcontractors: Fortaleza Concrete LLC; Interstate Electrical Services Corp.; J.S. Mortimer Inc. (Mechanical); Lundy Inc. (Plumbing); Lynco Fire Protection Inc.

A variety of advanced virtual design and construction tools helped plan the $5.7-million, 10,000-sq-ft Weissman Foundry, which will support the collaboration of students from three colleges. With multiple construction projects occurring concurrently coupled with the conditions of working on an occupied campus, the technology was critical for managing the logistics, noise impacts and other factors of each phase. Virtual reality helped school officials make informed decisions regarding sizing, layout and decorative features. BIM minimized the potential for clashes prior to fabrication of tightly packed building infrastructure equipment such as boilers, exhaust fans, hydronic piping and main electrical panels, a benefit that provided for the seamless integration of multiple components within the foundry's constrained mechanical room.

Already challenged with having the structure ready in time for the start of the 2018 fall semester, the team tapped its own creativity late in the project as delivery delays for two critical path items threatened the fixed completion deadline. To expedite installation of a late-arriving air handling unit, trade schedules were rearranged so that ductwork and connections could be sequenced "backward." A similar workflow resequencing recovered delays from a longer-than-projected lead time for the building's glass curtain wall. The team's ability to pivot and execute a new sequence resulted in the eight-month project finishing just one day late and on budget.