



Relocatable Modular Education under 10,000 sq. ft.

Entry Name: Pine Forge Academy STEM Classroom

Entrant: Modular Genius, Inc.

Number of Modules: 2

Affiliate: Diamond Builders, Inc.

Location: Pine Forge, PA

Total Square Feet: 1680

Building Use: STEM Classrooms

Days to Complete: 123

Architectural Excellence

A Baltimore Architectural firm was chosen by a Historical private School to assist with a STEM classroom building. Modular Genius was the successful bidder on the project. The classroom buildings totaled 1,680 SF and the building was originally intended to be a long term temporary solution. However, due to site restrictions and excessive environmental requirements, the building had to be situated in a more central location to the campus. As a result, the owners wanted a more permanent look and feel for the STEM Modular Building that would blend in to the existing buildings. MGI suggested a brick wainscot from grade to just beneath the finished floor of the modular buildings' exterior. Smart panel siding was utilized and painted to match the existing color scheme of the existing buildings. The new modular classrooms were designed to be functional, durable, & easily accessible for all students. As such, ADA compliant decks, steps, ramps were provided.

Technical Innovation & Sustainability

The school's plan was to have the STEM classroom function primarily as a robotics and engineering teaching space, flexibly furnished for both group work and traditional front-facing lectures, with a capacity for sixteen (16) students per class. To accomplish this, the rooms were square like in shape as opposed to a rectangular room. This configuration was incorporated to allow the work spaces to be more flexible and adaptable by allowing both the front and side walls to be flexibly used as roughly equally dominant teaching surfaces. The Architect specified high end commercial grade overhead-suspended cord reels, one above every student work area cluster and one above the teacher demonstration bench. Custom brackets were designed in the field to allow for a clean and sturdy installation of the cord reels.

Cost Effectiveness

Careful planning of the modular building size by the Architect and MGI was a necessity to ensure that the STEM classrooms were sized appropriately and yet work with typical industry standard modular building dimensions for cost-savings and economy. Industry standard materials were utilized; including but not limited to, smart panel siding, low E windows, acoustical ceiling, vinyl covered floor tile and vinyl covered gypsum. Combining these materials with the brick wainscot skirting allowed MGI to keep the project within budget and on schedule due to their off the shelf availability and cost effectiveness. All site prep; including but not limited to, underground electric, water, and sanitary were tied into the existing building/public systems. flatwork, building access systems were provided by MGI as well.