



Howe-Manning Elementary School

Middleton, Massachusetts

General Information

Location: 26 Central St, Middleton, MA 01949

Project Cost: \$25,221,254

Scope: 83,500 ft²

Cost Per Square Foot: \$302/ft²

Completion: 2013

Enrollment: 553

Architect: DiNisco Design Partnership

Engineers: Schofield Bros. of New England, Lin Associates Inc., Robert W. Sullivan Inc., Thompson Engineering Co., 3SI, RDK, Brown Sardina, Inc.

Funding/Grant: Massachusetts School Building Authority

Certification: MA-CHPS Verified



Photo Credit: DiNisco Design Partnership

allowed the design team to further decrease the impact of the building on the surrounding neighborhood by reducing it from a three-story to a two-story building facing the street. The school encourages pedestrian and bike access through the inclusion of bike racks, bike-lanes and sidewalks.

The building underwent a rigorous commissioning process to verify that fundamental building systems were designed, installed and calibrated as intended. The commissioning also provides for ongoing accountability and optimization of building energy performance over the lifespan of the facility. The town implemented a Computerized Maintenance Management System (CMMS) to establish an organized and efficient approach to ensure the proper operation and maintenance of the facility. The school incorporates many other features that make it an ideal learning environment for students and staff.

Project Overview

The Howe-Manning Elementary School, located in Middleton, Massachusetts, is a new construction project that achieved CHPS Verification. Site selection was an important consideration for this project. The new school was constructed directly behind the old school, which remained in operation until the new facility was completed. After demolition, the area where the old school was located was transformed into a small entry plaza. Additionally, the sloping nature of the site

Sustainable Design Elements

Indoor Environmental Quality

- 2 part walk-off mat systems at all high volume entrances
- 90% of classrooms have direct line of sight views
- High performance HVAC filters installed (MERV 13)
- Building flush-out was performed to reduce student/staff exposure to VOCs

Energy Efficiency

- Insulated beyond code requirements
- Windows are low-E, argon insulated, glazing tuned to solar exposures
- High efficiency, condensing hot water boilers

Water Usage

- Indoor water use was reduced by 36%

Lighting

- Central light well/stairway with corridor transom glazing allows daylight to penetrate into the core
- Daylight harvesting – perimeter lighting controlled by photo cell
- High efficiency fixtures
- Occupancy sensors

Acoustics

- Background noise controlled by sound absorbing finishes
- Maximum (unoccupied) background noise levels reduced to 35 dba in all classrooms

- Commissioned irrigation system

