



James Madison Morton Middle School

Fall River, Massachusetts

GENERAL INFORMATION

Location: 376 Presidents Avenue, Fall River, MA 02720

Project Cost: \$47,814,757

Scope: 322,105 ft²

Cost Per Square Foot: \$398/ft²

Completion: August 2014

Enrollment: 625 students in grade 6-8

Architect: Mount Vernon Group (MVG) Architects, Inc.

Engineers: C.A. Crowley Engineering, Inc. (mechanical); Shepherd Engineering, Inc. (electrical); SAR Engineering, Inc. (plumbing)

Funding/Grant: \$52,000

Certification: MA-CHPS Verified Leader

PROJECT OVERVIEW

The Collaborative for High Performance Schools (CHPS) recognized James Madison Morton Middle School as a MA-CHPS Verified Leader with 46 points earned under the 2009 MA-CHPS Criteria.

The James Madison Morton Middle School was built on the same site of the demolished school building. The wood trusses, vestibule, cast stone windows, mantel, and rose medallions were salvaged and re-installed as historical features of the new school building.

The school's roof has a 60 kW photovoltaic (PV) system that produces clean energy and reduces dependence on fossil fuels. The energy produced from renewable sources is displayed on a TV monitor that promotes student awareness of energy conservation.

The landscape areas consist of drought resistant plants, making permanent irrigation no longer necessary, which prevents water shortages during the summer months and reduces stress on wastewater treatment plants, aquifers, and rivers.

The school encourages use of bicycles as alternative transportation to and from the school. Bike racks are provided at main entrances and showers are available for staff use. Electric vehicle (EV) charging stations were installed on the sidewalk adjacent to the school's parking lot.



Salvaged wood truss



Solar PV system on roof



EV charging station



Salvaged stone and natural light

SUSTAINABLE DESIGN ELEMENTS

Energy Efficiency

- Energy efficient building systems consume 21.7% less energy than the ASHRAE 90.1 code requirements
- Electric vehicle charging stations
- 60 kW photovoltaic system installed on roof

Materials

- Wood trusses, cast stone windows, mantel, vestibule and rose medallions were salvaged and re-installed as historical features

Acoustics

- All classrooms and other core learning spaces meet the reverberation time requirements of ANSI S12.60

Lighting

- All classrooms have indirect/direct dimmable pendant light fixtures that can be adjusted in response to varying ambient light levels from outside

Water Usage

- Drought resistant landscaping
- Seasonal irrigation prevents water shortages during hot and dry summer months
- Low-flow plumbing fixtures reduce potable water consumption by 29.76% beyond the baseline

This case study was prepared by NEEP with information provided by MVG Architects. To learn more about this project, please contact **Arnel Catalan**, AIA, MVG Architects at acatalan@mvgarchitects.com. For more information about High Performance Schools, please contact **John Balfe**, NEEP's Senior Buildings & Communities Solutions Associate at jbalf@neep.org or 781-860-9177 x109. All photos credit to MVG Architects.