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Hoffman Architects wins Mass. Historical Commission Preservation award for WPI's Washburn Shops restoration

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According to Hoffmann Architects, Washburn Shops restoration at Worcester Polytechnic Institute for a Massachusetts Historical Commission 2012 Preservation Award.

The Massachusetts Historical Commission presents Preservation Awards annually to "projects that have displayed an outstanding commitment to historic preservation in Massachusetts." The Washburn Shops was selected in the Rehabilitation & Restoration category. Secretary of the Commonwealth

William Francis Galvin, chairman of the Commission, commented that "the careful restoration and rehabilitation of the Washburn Shops demonstrates a strong commitment to historic preservation that goes well beyond what is normally expected." Completed in 1868, the Washburn Shops was the brainchild of Worcester Polytechnic Institute founder Ichabod Washburn, who established a "Department of Practical Mechanism" in the building to provide hands-on experience for engineering students. Designed by prominent local architect Elbridge Boyden in the Second Empire style, the Washburn Shops is listed on both the Massachusetts and National Registers of Historic Places. It is the oldest structure in the nation used continuously for engineering education.

In 1938, a hurricane tore the cupola from the Washburn Shops and dropped it through the roof of the building. Although reconstructed shortly after, the cupola was attached insecurely, such that by the time of the restoration, it was loose enough to be pushed out of place by hand. In addition, configuration of tower corners did not adequately transfer loads from one plane to the next, raising concerns about structural integrity.

When the attic was converted to conditioned space in the 1980s, temperature differentials across the roof led to leaks, and warping of the roof deck displaced and damaged the slate shingles. Other renovations traded original elements, such as divided light wood dormer windows, for historically inaccurate replacements.

The building envelope restoration included slate roof replacement, improved waterproofing protection, historically correct dormer windows, restored woodwork and trim, and reconstruction of the tower and cupola. Copper roofing at the tower was also replaced, and masonry was reconstructed to improve stability and resolve deterioration.

The Shops' distinctive arm-and-hammer weathervane, which serves as a symbol of the school, was also restored. Priority was given to maintaining the historic character of the building while improving durability, performance, and structural integrity.

Hoffmann Architects served as the architect/engineer for the restoration, with senior engineer Steven Susca, PE acting as project manager. Cutler Associates provided construction services.

Secretary Galvin noted, "The restoration of the Washburn Shops ensures that this historic educational building will continue to serve Worcester Polytechnic Institute's students for generations

to come."

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