

Rebuilding A National Historic Landmark.



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Wisconsin is well known for manufacturing wood windows and doors. Before the development of woodworking machinery the production of millwork was a hand-tool process. Each building called for its own truly custom millwork. In many cases the doors and windows were produced at a small shop near the building site. At the turn of the last century there were still accomplished “carpenters” who were millwork journeymen who often produced the mouldings and assemblies right on the jobsite.

From about 1855 to 1915, sawmills and millwork plants were founded along the Mississippi River. The river mills supplied the plants with abundant raw materials as the giant log rafts floated down to them. Combined with the growth of national railroads, the Midwest became the center of millwork production during that time.

Lumber production in the Lake States reached its peak between 1880-1890. Wisconsin, with its wide-ranging stands of northern White Pine, was a key supplier for door and window makers.

Students in the Cabinetmaking & Millwork program at Madison College are extending and experiencing this tradition.

OREGON PUMP HOUSE

Recently, **students produced custom windows** for a national historic landmark in the Village of Oregon, Wisconsin.

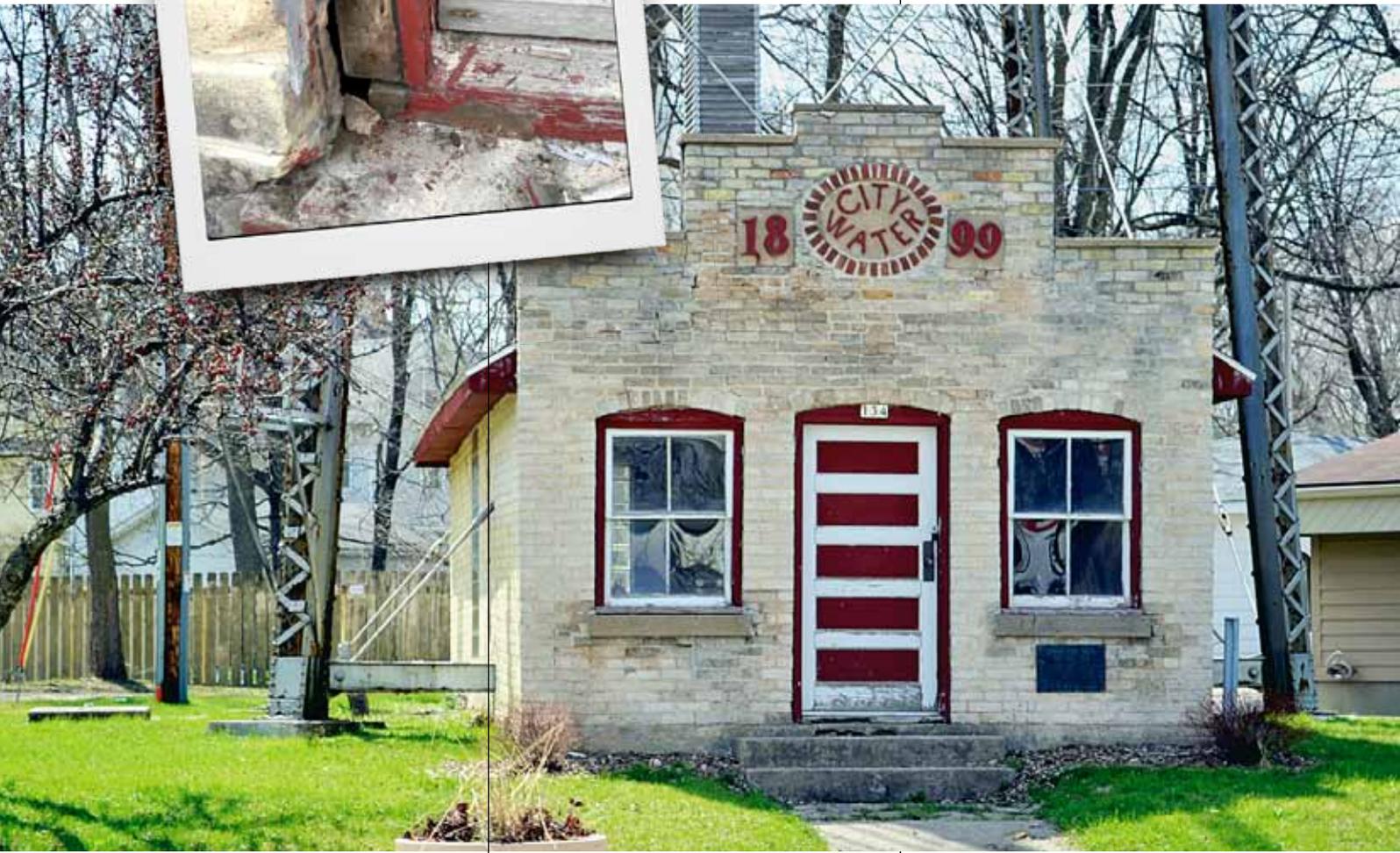
The Oregon Pump House was built in 1899. After years of neglect, this historic structure is being brought back to life as a welcome center for the village.

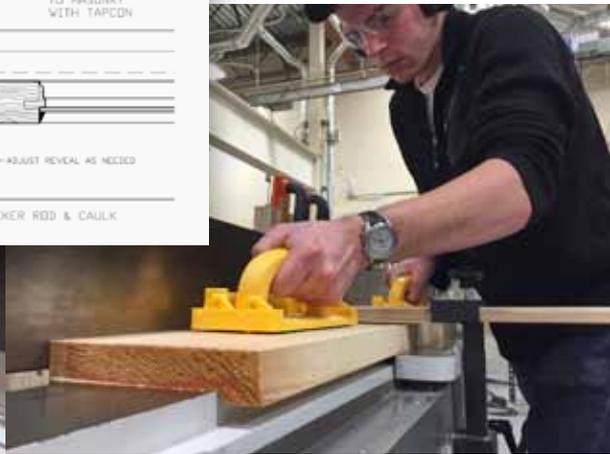
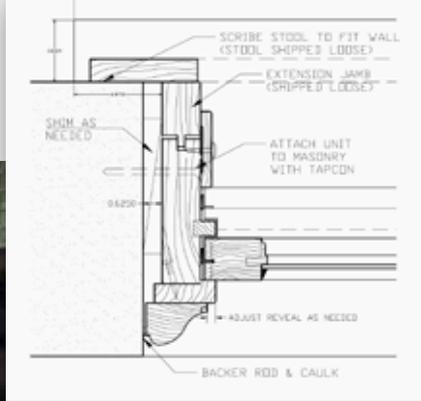
Madison College students have built five windows and an entry door to replace the existing windows, which had fallen into disrepair. Building stile and rail doors and windows is challenging in itself. **Building them with curved tops** presents an increased level of difficulty for the woodworker. The front door and two front windows had been modified over time into rectangles. The renovation project returned them to the original curved tops, as shown in the images.

While the windows elsewhere in the renovation were fairly standard 6-over-6 double hung units, they were also rather large. Care is needed when making units of this size with such delicate stiles, rails, and mullions. Engineering details and shop drawings were created by Patrick Molzahn, the faculty member at Madison College in charge of the project. Working from the remains of the original millwork, carefully removed and preserved, a balance between historical replication and modern function was found.

The **originals were in pretty rough condition**. Areas were rotted away, and pieces were missing.

The class worked together, building on strengths of each individual to solve the mysteries of milling and construction done by those skilled hands so many years ago. They grew to respect the skill and craftsmanship of the original builders. They held in their hand woodwork created nearly 100 years ago.





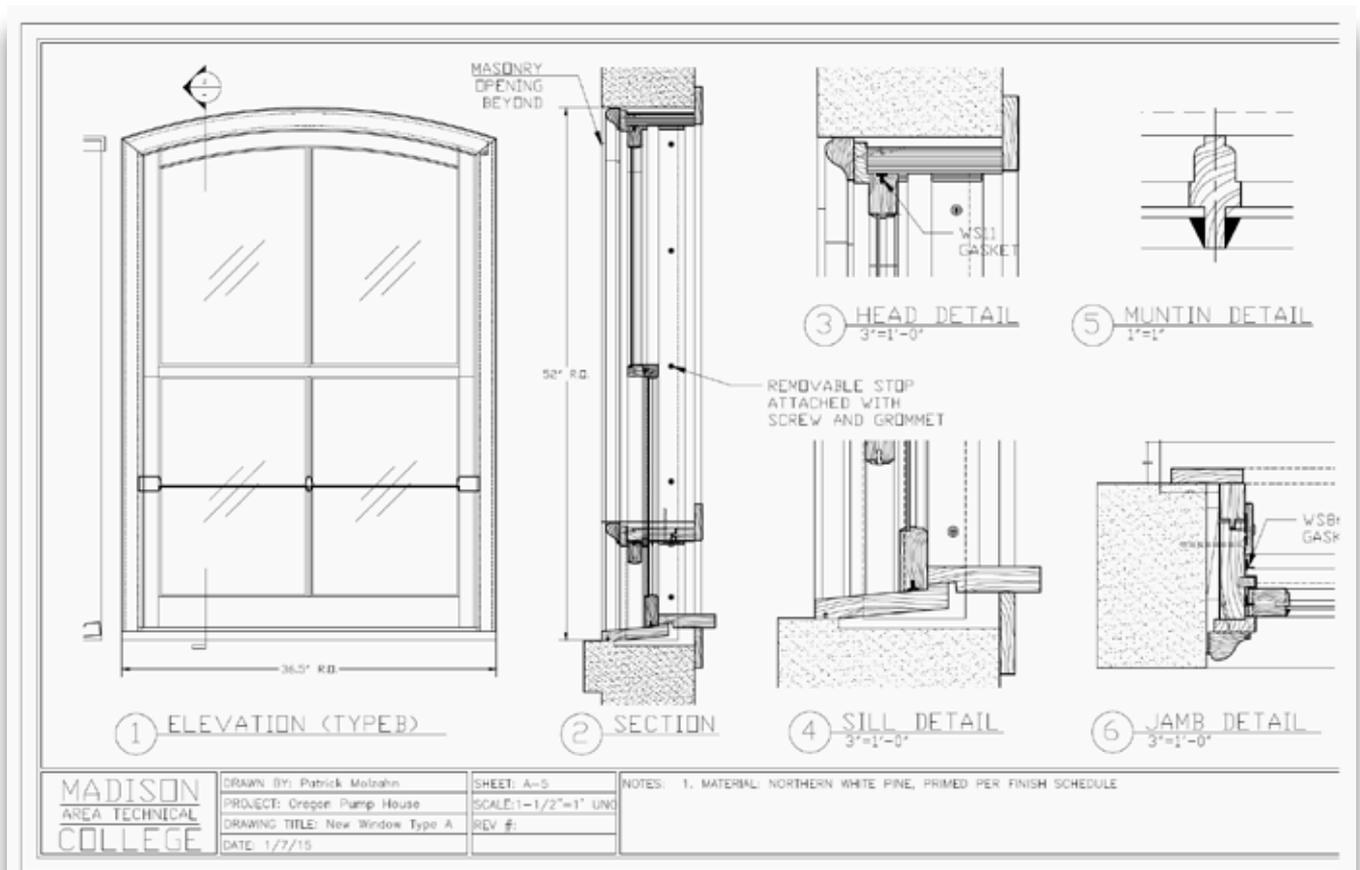
INTENSE PLANNING

Creating cutting lists and process route sheets from the engineered drawings illustrated to each student the amount of **sophisticated planning essential** before you turn on the machines. Shaping the curved jambs, trims, and rails gave each student priceless experience in doing some of the fine woodworking which is a vital part of advanced wood manufacturing.

“The best memory,” notes Major Glennon, “was the day we assembled the whole front door on the bench.” Having worked for days on parts and pieces, the students **saw the whole project come together**. The building has become a visitor center, displaying the history of Oregon, Wisconsin, for current and future generations. The class has visited the completed center, taking understandable pride in the part they played in the

renovation. As an old woodworker, I feel the warmth in my heart as I realize the truth of the old saying, ‘From our hands to your hands we pass on the craft.’”

The drawings and pictures tell quite a tale. I'll let them do the talking. Of particular note are the **three seals shown on drawing A-8**, full set with **details.pdf**. These modern additions to the traditional restoration/renovation will ensure a good seal and economical HVAC performance for the building. 





Author's Note: This was not only a class project but also a classy project. The men and women involved carry a lifetime of memories for their contributions to the renovation of the historic building. Special thanks to **Patrick Molzahn, Ben Cooper, and Major Glennon** for their insight and guidance during the writing of this article. For more information on the Cabinetmaking & Millwork program at Madison College, visit: <http://madisoncollege.edu/program-info/cabinetmaking-and-millwork>. For more information or to obtain photos for publication, contact **Patrick Molzahn** at 608.246.6842 or pmolzahn@madisoncollege.edu.

