



LUMICHRON Clock Restoration

If you have a tower clock needing service, repair, or restoration, give us a call! From setting and keeping the correct time to repair or complete restoration, LUMICHRON can help. For information and pricing, call **888-788-4838**. Or send an email to info@lumichron.com.

For complete restoration of your historic clock tower, post clock or street clock, LUMICHRON has the experience and expertise to return a landmark to its former glory. From dismantling the existing clock and controls, to replacing missing or broken components (re-making or re-finishing), to installing new state-of-the-art timekeeping, LUMICHRON makes the process turn-key. It all starts with a conversation, so give us a call or drop us a line; we'd love to hear from you!

On the following pages are examples of a few renovations of historic clocks. Some of these were mechanical clocks originally made about 100 years ago by Seth Thomas. Time took its toll on the cast iron dials, but even when broken pieces are missing, LUMICHRON can fill in and restore these clocks to their former glory.



Clock Restoration Examples – References



LONGWOOD UNIVERSITY, Lancaster Hall, Farmville, Virginia

New clockworks, restored original cast-iron dial

LUMICHRON was awarded the contract for the replacement/refurbishment of the four 54" diameter historic clocks at Longwood University in Virginia. This is a viable option when original mechanical clockworks need to be replaced, and the display clock is in good condition. In this case, the Seth Thomas 5-foot diameter Roman clock dials, made of cast iron with glass panes, just needed re-finishing, with new glass to replace broken or cracked panes.

Work began with a site visit. Then LUMICHRON staff removed the original cast-iron, glass-paned clock dials and brought them back to our shop in Michigan for sand-blasting, re-finishing, and cutting all new ¼" thick tempered glass panes, with a white translucent finish. We also fabricated new clock hands, and replaced the mechanical clockworks with "up-to-the-minute" slave clock movements and an automatic master clock controller with GPS synchronization for exact time keeping and bell striking functions

Alternates for future consideration on similar projects, depending on Historical or customer requirements:

- Sign-grade polycarbonate (UV protected) in lieu of glass
- A 4-way central-drive clock mechanism with 4 dial gears

(See more historic clock renovations after the photos on the next page)



Clock Restoration Examples – References

LONGWOOD UNIVERSITY Clock Restoration, continued





Clock Restoration Examples – References

Restored Seth Thomas clock returns to Eastown's landmark Kingsley Building

Grand Rapids Press/ MLive

December 12, 2013 at 12:52 PM



GRAND RAPIDS, MI — A forgotten beacon has been unstuck in time.

The antique Seth Thomas clock hands atop the landmark Kingsley Building are turning again, greeting drivers approaching Eastown on Lake Drive SE as they once did.

Originally built in 1926, the clock was restored this summer by Grand Rapids clockmaker Ian Macartney's company **Lumichron**, and was installed last week on the top floor of the five-story building.

"It's as close to original-looking as we could get it," said Baird Hawkins of Bazzani Associates, which redeveloped the historic building at 1415 Lake Dr. SE. "It's cool at night. You can see it from a couple blocks away."

For years, the clock face and frame were frozen in stasis behind a square, modern clock with a Kent Records Management logo on the front of the building.



Clock Restoration Examples – References

Restored Seth Thomas clock returns to Easttown's landmark Kingsley Building, continued

The clock's original inner-workings, brass gears, pendulum and wooden arms were **donated** to Bazzani in 2011 by Alan Teelander of Lowell, who saved them in his garage after Zondervan Publishing Co. moved from the building in 1974. The restored clock reuses the original cast-iron frame, but the original machinery could not be re-integrated into the clock, said Hawkins.

Instead, the clock has been automated with modern controls that are tied to a master clock in the building that "does everything but make hot chocolate." Back-lighting and seasonal time changes are all handled automatically. The clock face is backlit from dusk to dawn each day.

The restoration by Macartney took four months. Hawkins said the white translucent glass on the clock face was extremely difficult to locate in large and thick enough quantity, but Macartney found an art glass foundry in Pennsylvania which had some residual stock.

The clockmaker's other work can be seen around Grand Rapids at the new downtown Amtrak station and the Fulton Street Farmers Market.

Building architect George S. Kingsley used Seth Thomas clocks as a trademark in many of his designs, said Hawkins. Last year, the Kingsley Building was **added to the National Register of Historic Places**. The 87-year-old structure is the tallest building in the immediate area, and is built on an old lumberyard once owned by a former mayor of Grand Rapids. The building features 16-foot-high ceilings and plate glaze terra cotta tile.

Hawkins said Bazzani is in final stages of leasing the last ground floor retail space in the building. The upper floors will remain in use as bulk storage for several years. Eventually, the plan is to build apartments and/or condo units on the third, fourth and fifth floors with parking underground, he said.

A historic plaque dedication ceremony is planned for the spring.

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Clock Restoration Examples – References

Courthouse clock running smoothly again

Kent Tempus, OCR Editor 11:43 a.m. CDT September 30, 2014



Oconto County, Wisconsin



People visiting the Oconto County Courthouse can again trust the century-old tower clock, thanks to a recently completed restoration project.

Installation of a new movement put all four faces of the 7-foot diameter clock in sync, said Karen Macartney, vice president of Lumichron, the Grand Rapids, Mich., company that did the work.

The state-of-the-art European movement is controlled by a computer that follows the government's atomic clock, and can adjust the time after power outages or switching to daylight savings time.

"They should definitely be able to rely on the time," Macartney said.

The courthouse clock hasn't kept good time for years, as many of the parts have worn out and couldn't be replaced. One of the hands had fallen off.

The work was completed in three days by Macartney's husband, Ian, the president and founder of the company, along with his shop technician Dan Mudde. They were assisted by Jeremy Berry, a Green Bay man hired to work outside the tower because of his experience with rigging. He went through the removable centers of each dial to clean the exterior and provided other assistance.



Clock Restoration Examples – References

Courthouse clock running smoothly again, continued.

The Seth Thomas clocks were installed as part of a renovation after a 1907 fire. The works were replaced in the early 1950s. Macartney said that clock was commonly used in churches and municipal buildings at the time, and they've worked on that model before.

"It was a popular clock back then," she said.

The Roman numerals and hands were made of wood. The hands were replaced with ones made of heavy-duty aluminum that had been powder-coated.

As part of the project, Lumichron also installed an LED light system to improve the illumination of the dials at night, replacing mercury vapor lights that cast a yellow sheen.

With the white LEDs, also controlled by the computer, the clock shines up at dusk.

"It's brighter and it looks nice," said administrative coordinator Kevin Hamann.

Lumichron also installed a new striker system for the cast bronze bell.

Courthouse employees have noticed that the chime sounds different than it used to.

"It's as loud, but it's a softer tone you can't really hear as well," Hamann said. "Maybe that's also a benefit for some people."





Clock Restoration Examples – References

Andrew Jackson School, New Orleans, Louisiana

Another antique clock renovation LUMICHRON completed a few months ago is this cast bronze 5-foot diameter clock with original stonework surround. It sits atop the historic Andrew Jackson school, now home to the International School of Louisiana. It is located in the Lower Garden District of New Orleans, Louisiana, near Coliseum Square and a short walk from the Magazine Street arts neighborhood.

The clock restoration included replacement of the glass panes with translucent white polycarbonate. The verdigris patina on the bronze dial was left intact. New hands match the original, and an impulse-drive clock movement with a GPS-controlled master clock will keep the clock ticking in synchronization with Atomic time. New LED illumination was included in this restoration, which will turn on at dusk and off at dawn, automatically, every day throughout the year.

Andrew Jackson School
1400 Camp Street
New Orleans, LA 70130

