

# Bridge Square Building

Rochester, NY – Monroe County

*Once considered the gateway to downtown Rochester, the historic Bridge Square Building gets new life as an energy efficient retail and residential space.*

## Background

The Bridge Square building was originally built around 1900 as the headquarters of the J. Hungerford Smith Company, which manufactured flavored syrups and soda fountain products. Since then, the building has served as a City Hall annex, a trade school, and most recently as the Josh Lofton High School.

The Bridge Square building was purchased by Passero Associates, which followed a sustainable design approach to rehabilitate the four-story, 72,000-square-foot space for mixed use. The building now includes retail space, the headquarters of Passero Associates, and two floors of loft-style apartments, as well as a parking garage and fitness area. The Bridge Square building adhered to the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED®) high-performance, green building rating system, and is currently awaiting LEED Certification.

***“NYSERDA made energy efficiency more economically feasible for Bridge Square. All the extras that make the project great were afforded by the incentives we were able to generate from the NYSERDA program. Whether it was LED lighting or high-efficiency HVAC equipment, NYSERDA was there to help get this project done.”***

*– Peter R. Wehner, Senior Project Architect,  
Passero Associates*

## Recommendations

The New York State Energy Research and Development Authority (NYSERDA) retained Erdman Anthony's engineering services, which identified cost-effective improvements that reduced the building's energy consumption, decreased demand on the utility's distribution system, and increased the comfort of its occupants.

Among the energy-efficiency improvements implemented were:

- Improved building shell insulation.
- High-performance windows.
- Interior lighting design with occupancy sensors.



- Exterior lighting design.
- Daylight harvesting with photosensor control.
- New HVAC system.
- Building exhaust energy recovery.
- High-efficiency condensing boilers.
- High-efficiency domestic hot water system.

### Incentives and Energy Savings

NYSERDA's incentive of \$90,091 will be awarded after LEED certification is attained, and will help Bridge Square Building LLC defray a portion of the implementation cost to install the efficiency improvements. In total, the investment could result in:

- Annual energy savings of more than 55,760 kWh.
- Peak demand savings of 53.5 kW in the summer.
- Annual energy cost savings of almost \$41,800.
- Simple payback (after incentive) of 6.13 years for this project.

The Bridge Square building is 29.48% above ASHRAE 90.1-07.



### Environmental Benefits

Energy savings from the measures evaluated in this study could provide additional economic and societal benefits due to reduced emissions from electric power generating plants. These benefits include decreased incidents of respiratory ailments, asthma and allergies, as well as the reduction of negative impacts on property and the environment. While these are examples of reduced costs and liabilities, emissions trading may be an opportunity for increased revenue.

- Annual reduction in nitrogen oxides (NO<sub>x</sub>)—45 lbs.
- Annual reduction in sulfur oxide (SO<sub>x</sub>)—405 lbs.
- Annual reduction in carbon dioxide (CO<sub>2</sub>)—404,079 lbs.

Both the energy and environmental benefits are equivalent to:

- Removing 41 cars from the road.
- Powering 12 households.

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