

# Thompson Exhibition Building



## Key Facts

Some key facts and numbers behind the newest addition to the nation's leading maritime museum.

- ⚓ The building has 14,000 square feet of interior space.
- ⚓ The 5,000-square-foot Collins Gallery has 26-foot high ceilings, enough room to exhibit a fully rigged sailboat.
- ⚓ Each beam is 105 feet long.
- ⚓ The main beams are made of 22.5 miles of laminated Douglas fir (glulam) fabricated near Montreal, Canada, and trucked to Mystic Seaport in sections to be erected on-site.
- ⚓ Glulam is an engineered wood product of glued, laminated timber. Layers of wood are bonded together with a structural adhesive and then curved. The product is moisture-resistant and very strong. The laminating process allows timber to be used for much longer spans, heavier loads, and complex shapes.
- ⚓ The building is wrapped in more than 22,000 linear feet of cedar siding.
- ⚓ The outdoor decking required 26,250 linear feet of mahogany, and 46,500 deck screws hold it in place.
- ⚓ The exterior railings use 8,400 linear feet of stainless steel wire.
- ⚓ The geothermal heating and cooling system consist of four miles of tubing buried in deep wells around the site.
- ⚓ The geothermal system contains 850 gallons of fluid to transport heat to and from the ground.
- ⚓ The roof is a PVC membrane over rigid insulation designed to withstand hurricane-force winds.

## Architect

CENTERBROOK

Established in 1975, the firm designs buildings for clients nationwide. Centerbrook has designed new museums and has expanded existing ones for clients large and small. [[centerbrook.com](http://centerbrook.com)]

## Construction Manager

AZ  
CORP

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# Thompson Exhibition Building Green Facts



The Thompson Exhibition Building uses geothermal technology for heating and cooling. The energy-efficient system circulates liquid through a series of 20 closed-loop wells—each 465-feet deep—that will extract needed heat or cooling from the ground depending on the season.

This system operates through five water-to-water heat pump chiller / heaters, and three HVAC units utilize the hot and cold water to control the interior climate. The exhibition space maintains a relative humidity of 50%  $\pm$ 2% and temperature of 68 degrees with  $\pm$ 2 degrees.

The roofing material is a PVC membrane manufactured by Sika Sarnafil, the first roofing company in the U.S. to receive certification from UL Environment regarding the recycled content of its roofing membrane products. They contain an average of 10% recycled vinyl content from pre- and post-consumer sources. The roofing membrane can also be recycled at the end of its useful life.



The aluminum in the curtain wall system is a highly recycled and recyclable material.

The acoustical tiles in the ceiling are manufactured by Tectum Inc. in an environmentally safe, non-toxic process. The panels have been made from renewable, FSC-certified wood sources, magnesium from seawater, and recovered magnesium waste. The panels contain no toxic binders, asbestos, or formaldehyde, and they are naturally biodegradable.

The BOLYU broadloom and modular carpet tiles used in the Thompson Building are 100% PVC-free and contain at least 40% post-consumer recycled content along with up to 30% pre-consumer recycled content. The carpet was manufactured in the United States in an EPA GreenPower Partner facility powered by green energy sources.



The project employs a comprehensive stormwater collection and treatment system for the entire McGraw Gallery Quadrangle project. Runoff is collected in a drainage network that directs it to an underground retention basin immediately to the west of the Thompson Building. The basin filters the water before it is released into the Mystic River. In addition, permeable paving technology was used, enabling water to percolate into the underlying soil for natural treatment.

The Museum's gardening staff constantly evaluates environmentally-responsible methods to improve their work on the Museum's grounds. Of note is a comprehensive composting program that provides healthy, 100% organic compost for the entire campus.

