



Photography: © CJ Berg

ARCHITECT

ECI/Hyer Architecture & Interiors
Anchorage, Alaska

GLAZING CONTRACTOR

Doors/Windows Unlimited, Inc.
Soldotna, Alaska

FEATURED PRODUCTS

- 1600 Wall System™1 Curtain Wall
- 1600 SunShade™
- 8225TL Thermal Windows
- 512 Ventrow Thermal Ventilator
- 350 Tuffline™ Entrances
- 350 Heavy Wall™ Entrances
- 360 Insulclad™ Thermal Entrances
- Trifab™ VersaGlaze™ 451 Framing System
- Trifab™ VersaGlaze™ 451T (Thermal) Framing System
- IR 500 Framing

Homer Public Library

HOMER, ALASKA

BUILDING "OUTSIDE THE BOX" TO CREATE A GREEN FACILITY IN ALASKA

A small seaside community with approximately 4,000 residents, the town of Homer, Alaska, may seem like an unlikely location for a state-of-the-art construction project. However, from the start, the vision for Homer Public Library was clear – an architecturally striking, green structure that would not only become a sanctuary for the community, but would push the landscape of the area forward in both design and function.

The plans for the 17,200-square-foot facility had been developed and discussed for years prior to its opening. The location of the building site and the town itself presented several unique challenges. Extreme temperatures, high wind loads and seasonal sunlight issues were important considerations for the design, engineering and construction of the project.

Awarded LEED Silver® certification by the U.S. Green Building Council, Homer Public Library was not only the first LEED®-certified municipal building in Alaska, it was only the second facility in the state to achieve the Silver rating.

DESIGN HIGHLIGHTS

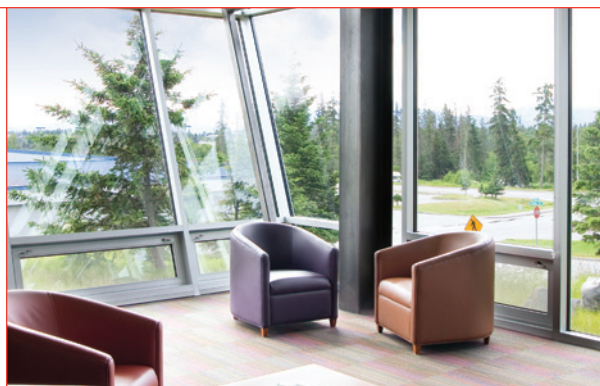
With a long, narrow finger of land jutting 4.5 miles into the bay, Homer's geography played a critical role in the design considerations. Constructing an efficient building with numerous glazed elements had been a major challenge in the area, but the project architects wanted to push beyond the status quo of the "brick boxes" found in much of the region. Their design featured numerous glazed elements, including a curtain-walled community reading room and multiple windows throughout.

CHALLENGES

- Solar heat gain was a critical issue for the project, as the angle of the sun and duration of sunlight varies greatly throughout the four seasons in Alaska. The summertime sun is high and can blaze for up to 19 hours a day, while in spring and fall, the sun is low and intense. In midwinter, the area can get as few as five hours of daylight in a 24-hour period.
- Another challenge came from the extreme wind loads that plagued the area. Precise engineering and flawless fabrication were required to ensure the structure could withstand the elements.

SOLUTIONS

- To ensure efficiency, the team used thermally broken curtain wall, windows, doors and framing, including Kawneer's 1600 Wall System™1 Curtain Wall, 8225TL Thermal Windows, 512 Ventrow Thermal Ventilator, 360 Insulclad™ Entrances and Trifab™ VersaGlaze™ 451T Framing System. The high-performance products helped to create a light-filled community reading room and provide abundant natural light throughout without sacrificing thermal efficiency.
- Two rows of 1600 SunShades™ were incorporated into the curtain wall system, defending against solar heat gain and protecting the interior of the facility from the sun's harsh effects.
- The team also relied on Kawneer's steadfast engineering department to provide a solid system and sound plans to meet the wind-load issues. They utilized deeper mullions and cable wind-load supports on the interior, making fabrication slightly more challenging but ultimately successful.



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Kawneer Company, Inc.
Technology Park / Atlanta

555 Guthridge Court
Norcross, GA 30092

770.449.5555
kawneer.com

