



GREEN BOAT PROJECT *Green Construction and LEED™ Processes*

The *Explorer* design team thoroughly researched US and global standards for designing an environmentally friendly and sustainable vessel, but found none that were comprehensive enough for the goals of this project. One of the most mature and flexible green design standards within industry today is the US Green Building Council's (USGBC) Leadership in Energy and Environmental Design or LEED™ standard.

Pittsburgh, a leader in green buildings for over ten years, has amongst the largest number of square feet of LEED™ certified space than any other city in the world, including the first certified convention center, historic building, university residence hall and children's museum. Our team determined that applying the LEED™ process to the design of *Explorer* was the best approach to holistically evaluate the boat design using an objective standard.



Pittsburgh's David L. Lawrence Convention Center

We also think it appropriate that Pittsburgh continue to set new trends in environmental thinking and practice in keeping with our history of global innovation.

www.RiverQuest.org
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RiverQuest's *Explorer* is the first boat to apply the LEED™ process to its design and construction.



Many boat subsystems such as HVAC, lighting, interior design and materials, plumbing and windows are practically identical to buildings.

The project has required a close team effort with considerable education of our contracted shipyard and contractors about green material selection and construction techniques.

The LEED™ process had a significant impact in our boat design approach for:

- **Windows** – Energy efficient custom architectural windows replace marine windows – for the same price.
- **HVAC** – Chiller size requirements have been reduced through energy modeling
- **Insulation** – Thermal breaks are added to wall construction.
- **Materials and Coatings** – Cabinetry is made from renewable materials that are new to the contractors building the boat and the industry.

Green Construction Team:



Perkins Eastman

