

# The W!LD Center — The Natural History Museum of the Adirondacks

## Tupper Lake, NY

### Client

Board of Trustees of the Natural History  
Museum of the Adirondacks

### Value

US\$1,800,000 — Phase Three  
US\$30,000,000 — The W!LD Center

### Completion

2007 — Phase Three  
2006 — The W!LD Center

### Assignment

Construction Management

### Certification

LEED-NC — Silver

### Awards

*2007 Build New York — New Projects  
Award*  
General Building Contractors of New York  
State



### The W!LD Center

Bovis Lend Lease managed construction of the 38,000 square foot W!LD Center, which features many complex hands-on exhibits, displays, video and interpretative presentations telling the story and history of nature's local glory in the Adirondack Park, wrapped in a setting of native building materials, finishes, and treatments.

By its nature, the W!LD Center was a very complex project; an elaborate core, shell and MEP systems, along with the exhibits and life support systems.

A significant obstacle was incorporating the elaborate MEP systems in and around the life support systems to allow easy access to all. Two distinct air-handling systems are employed. To keep the natural look and feel to the immediate visible surroundings, HVAC and all other necessary systems were hidden throughout the entire building; this requirement was addressed with every design change so previously hidden items would not be exposed. Cold air taps were designed ahead of the reheat coils to allow cold air to blow upon visitors as if they were atop a mountain, as well as standing amongst a huge glacier.

The exhibits required an extensive series of aquarium-type life support systems, filtration and treatment tanks to manage the water needs of the critters, plus the 5,000 gallon "lake tank" measuring ten feet by 25 feet by five feet holding two to three foot live lake trout.



Vast fiber optic systems were installed for the multiple, high-definition video displays and playback systems throughout the center. The 150-seat Flammer theatre features state-of-the-art panoramic high definition video and surround sound audio systems, showcasing the photo artistry of Carl Heilman and other legendary visual chroniclers of the Adirondacks.

This project required that exact environmental tolerances be kept to sustain the wildlife throughout the year, while balancing the safety and comfort of staff and visitors.

### Sustainable Elements

- Local workforce was employed and trained
- Project achieved 50% (by weight) diversion of construction and demolition waste from landfill – waste was sorted into individual recyclable material categories
- Achieved 15% of material construction came from regional sources and manufacturers
- Storm water collection and treatment system, water will be reused for low flow toilets
- Operable windows
- All adhesives, sealants, paints and coatings, and carpet products were low-VOC
- No wood products manufactured with urea formaldehyde-based resins

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- Bovis Lend Lease developed/ implemented a Construction IAQ Management Plan protecting the HVAC system from construction dust, materials from moisture damage and prohibited smoking in the building after the wall board was installed
- Premium efficiency chillers and equipment reduced operating costs and carbon emissions
- Daylight dimming
- Third-party Commissioning Authority to validate the performance of the mechanical, lighting and domestic water systems
- The Museum has a light-colored, highly reflective roof to precluding the "heat island effect" (hot spot) black roofs create

The W!LD Center was dedicated on July 4, 2006.

### Phase Three

Phase Three included various outdoor exhibits, a renewable energy interpretive display, a function patio, a new 3,500 square foot Bio-Building providing space for storage and a maintenance facility for the museum. Space is also set aside as a quarantine area for sick or new animals, as well as new Naturalist office space. This facility features a curved roof with solar panels on one half and a green living roof on the other half.

### Sustainable Elements

- Solar panels
  - 190 panels at 208 watts/ panel
  - Each panel has a peak capacity of 39.52 kilowatts with full sun exposure
  - System should produce approximately 40,000 kilowatts/year
  - Each kilowatt is worth 12 cents — estimated savings \$5,000 per year
- Green roof
- Recycled rubber flooring
- Living walls — two vertical plant wall sections
- No VOC paint, carpet or adhesive
- Local wood — siding harvested and milled in the Adirondacks

The Museum and the Bio Building share the solar power system.