

# Whitney Water Purification Facility

Location: New Haven, CT

Architect: Steven Holl Architects

## Overview

Designed to provide water to South Central Connecticut, the Whitney Water Purification Facility also features a public park and educational facility. The water purification occurs beneath the park (a 30,000 ft<sup>2</sup> green roof), while the operational programs are housed in a 360-foot long stainless steel building that forms a reflective line in the landscape.

Like an inverted drop of water, the building's shape creates a curvilinear interior space that opens onto expansive views of the surrounding landscape. The interior facilities include an exhibition lobby, laboratories, a lecture hall, conference spaces, and extensive operational facilities.

## SUSTAINABILITY SNAPSHOT

- Percent of total building area that is daylight: **50**
- Percent of building that can be ventilated or cooled with operable windows: **50**
- Precipitation managed on site: **100**
- EPA Energy Reduction:
- Percent total energy savings:
- Lighting Load after Controls (W/sf):

## Jury Comments:

"They reinvented the building type. They reinvented the programmatic understanding of a water purification facility by combining it with a park, putting some thing under ground, and being really inventive with form-making." – **John Quale, Assistant Professor / University of Virginia School of Architecture / Charlottesville, VA**

"They made this a learning experience about water. And it is formally strong." – **David Brems, FAIA / Gillies Stransky Brems Smith / Salt Lake City, UT**

"This project is talking about water in its very being. The building is about water ... and the site is taking care of its own water ... demonstrating better practice." – **Anne Schopf, FAIA / Mahlum Architects / Seattle, WA**

"This seems organic to the site." – **Susan Szenasy / Metropolis / New York, NY**





## Sustainable Design Intent & Innovation

This project was designed to demonstrate today's best green design and watershed management practices. The design fuses the architecture of the water purification plant with the landscape to form a public park. The landscape design also enlarged and augmented the existing wetlands—used by migrating birds—with indigenous species. Natural habitats were preserved in the landscape to maintain biodiversity.

Skylights in the green roof bring daylight to the treatment plant below. The below-grade location of the process spaces, the insulation value of the green roof, the thermal mass of the extensive concrete tanks and walls, and a ground-source heating and cooling system minimize the project's energy consumption.

Materials were selected for their durability in addition to recycled content, rapidly renewable content, and low chemical emissions. All regularly occupied spaces are daylight and naturally ventilated via operable windows.

### Primary Design Team Members

Steven Holl Architects

CH2M Hill

Tighe & Bond

Renfro Design Group, Inc.

Michael Van Valkenburgh Associates, Inc.

Rolf Jensen & Associates, Inc.

South Central Connecticut Regional Water Authority

### Full project profile:

[www.ariatopen.org/hpb/overview.cfm?ProjectID=839](http://www.ariatopen.org/hpb/overview.cfm?ProjectID=839)

Steven Holl

(Primary Contact)

Steven Holl Architects

450 West 31st Street, 11th Floor

New York, NY 10001

212-629-7262

[www.stevenholl.com](http://www.stevenholl.com)