OMEGA

PROJECT FACT SHEET:
Omega Center for Sustainable Living (OCSL)

2009–2019 Accomplishments

45,000,000	867,000	510,000	45,000	Net Zero
gallons	lbs.	kWh.	people	kWh.
Waste water reclaimed	Carbon dioxide (CO_2) saved	Energy produced via solar panels	Took an OCSL building tour	Energy used from the grid

Building Sq. Ft.
6,250

Site Acreage
4.5

Sustainability Metrics

The project is certified as LEED Platinum and has earned 'living' status in Living Building Challenge™ 1.3.

Water Reclamation Capacity

Maximum Design Flow

Measured Maximum Flow

gallons per day (GPD)
Estimated annual flow 5 million gallons

Embodied CO2
-1,387

metric tons (+/- 25%)
(Estimated using buildcarbonneutral.com)

Embodied carbon is the carbon released when a product is manufactured, shipped to a project site and installed. The new wetlands plant area greatly offset the embodied CO_2 of the construction project, which resulted in a negative number.

The Construction Carbon Calculator estimates embodied carbon. This calculator looks at an entire project and takes into account the site disturbance, landscape and ecosystem installation or restoration, building size, and base materials of construction.

Rainwater Use for Toilet Flushing

40
gallons. Average Daily Demand

1,800
gallon cistern stores enough water for 45 days

Generation Capacity (Electricity)

2,830
sq. ft. of photovoltaic panels, 211 panels in 3 arrays

134.2
Kw/day
(48.53 Kw/hour max output)

Electricity Demand
132.77
Kw/day (average)

Electricity Usage
-1.43
Kw/day (average) – the building is designed to generate more electricity than it uses

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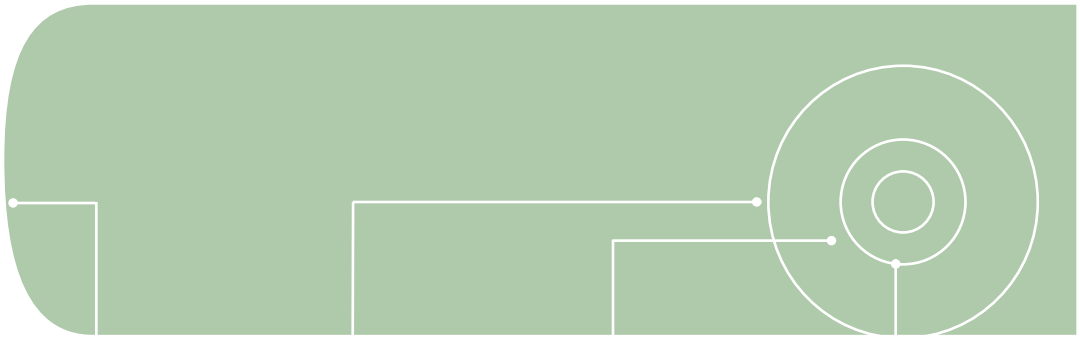
Material Sourcing (based on Living Building Challenge)

More info at: **eOmega.org/ocsl** & **issuu.com/bnim/docs/bnim_flow**



9,000 miles Renewable Energy Technologies (PV systems)

1,000 miles Lightweight Materials (insulation, carpet, fabrics)

500 miles Medium Weight Materials (wood products)

250 miles Heavy Materials (brick, stone, concrete)

Construction Waste Recycling and Diversion (from landfill)

99% of metal scraps recycled

99% of cardboard scraps and waste recycled

99% of rigid foam waste was reused elsewhere or recycled

99% of wood waste was shredded for mulch or stored for future use

100% of food waste was composted

100% of glass waste, paper, and plastic packaging waste was recycled.

Wood Sourcing

All wood is either from FSC Certified Forest sources or reclaimed sources. Plywood roof and wall sheathing was reclaimed from the 2009 Presidential Inaugural Stage. Framing lumber was reclaimed from several deconstructed buildings in New York State.

Reclaimed Wood

1,198 cu. ft. Volume

52,703 lbs. Weight (plywood, framing lumber, siding, doors, trim, paneling)

FSC Certified Wood

111 cu. ft. Volume

3660 lbs. Weight (windows, exterior doors, glu-lam structure, roof sheathing)

Red Materials Avoided (based on list from the Living Building Challenge)

Cadmium, Chlorinated Polyethylene and Chlorosulfonated Polyethlene, Chlorofluorocarbons (CFCs), Chloroprene (Neoprene), Formaldehyde (added), Halogenated Flame Retardants, Hydrochlorofluorocarbons (HCFCs), Lead, Mercury, Petrochemical Fertilizers and Pesticides, Phthalates, Polyvinyl Chloride (PVC), Wood Treatments containing Creosote, Arsenic or Pentachlorophenol

Project Team

Owner: Omega Institute

Architect: BNIM Architects, Steve McDowell, Laura Lesniewski, Brad Clark, Sarah Hirsch, Ramana Koti

Civil Engineer: Chazen Companies, Jim Beninati

Construction: David Sember Construction, David Sember

Ecological Design: John Todd Ecological Design, Dr. John Todd, Chloe Starr, Conor Lally, Kim Robinson, Jonathan Todd

Landscape Architect: Conservation Design Forum, David Yocca, Tom Price, Gerould Wilhelm, Trish Beckjord, Jason Addington

Mechanical/Electrical/Plumbing Engineer: BGR Engineers, Katrina Gerber, Erin Zirjacks, Jim Basquette

Structural Engineer: Tipping Mar + associates, David Mar, Marc Steyer

Water Systems Engineer: Natural Systems International, Michael Ogden, Erin English, Pete Munoz, Olin Christy, Rachel Arrieta