ARCHITECTURE BUILDING:
GREEN BY DESIGN

INDOOR ENVIRONMENTAL QUALITY

Low emitting materials

This project used low-emitting materials in construction, including low-emitting adhesives, sealants, paints, coatings, floor systems and composite wood and agrifiber products.

CO2 Monitoring

CO2 monitoring sensors were installed to help Air Quality. They also work with the building automation system to identify occupied areas, ensuring building systems run only when needed.

SUSTAINABLE SITES

Public Transportation and Bike Amenities

Temple is easily accessible by regional rail and transit, such as bus and subway. Transportation emissions from commuting are a top contributor to the university's greenhouse gas emissions. This project provided ample bike parking for building occupants to encourage alternative forms of transportation. Shower facilities are in Annenberg, the building adjacent to architecture.

Green Space and Plantings

The project maximized available open space by creating a shared courtyard and a small front and side yard. Newly planted trees line 13th Street in front of the Architecture building. The trees not only help with efforts to reduce stormwater runoff.

WATER EFFICIENCY

Low Flow Fixtures & Rainwater Pumping

This building features low flow fixtures in the bathroom, which help to conserve water.

Green Roofs

The first of its kind on Temple's Main Campus, the Architecture Green Roof spans four levels and encompasses nearly 2/3 of the roof (~ 9,351 square feet).

The primary purpose of the green roof is to assist in stormwater management for the site. Planted with draught resistant, native species, the green roof captures rainwater during a storm and holds it before releasing it to the building's rainwater plumbing. This rainwater moves from roof to roof until the green roof is irrigated. The remaining water is captured in a rainwater cistern and temporarily held during a rain event.

MATERIALS AND RESOURCES

Water Bottle Refilling Stations

Water bottle refilling stations provide students with the convenience of chilled and filtered water without the waste associated with bottled water. This visible reminder of the university's sustainability efforts contributes to Temple's waste minimization efforts.

Recycled Materials

This project was designed with the intent to reduce the amount of virgin materials used in construction. This both lowers the embodied energy of the project, but also minimizes the amount of waste entering the landfill. The structure of the building is made of steel with a high level of recycled content. The interiors also feature reclaimed furniture, such as the studio desks and pin up boards.

ENERGY & ATMOSPHERE

Shared Systems

This building is designed to maximize the presence of existing systems in the adjacent building. Many systems such as fire protection, chilled and hot water systems are fed from the adjoining building.

Lighting Features

This building features energy efficient lighting fixtures utilizing induction lamps. Induction lamps have an average life span of 15 years, which is typically longer than a florescent bulb.

While induction lamps do use mercury, the university operates a mercury recycling program to provide for the safe recovery of the mercury in the lamps.

Daylighting

The windows in this building provide more than a stunning view of campus life at Temple. They allow building occupants to use natural light to light their space. More than 75% of the building's facade is comprised of glass. The windows have a highly energy efficient glazing and low-e coating. The southern wall of the building abuts an existing building, further reducing radiant heat loss.

Motion Sensors

The lighting systems in the Architecture building are designed to maximize energy conservation. The built-in motion sensors are present to make sure that the lights are only on when the room is in active use.

INNOVATION DESIGN

Building Module & Construction Waste

The Architecture building was constructed using panelized wall systems, which is a resource efficient way to build. In addition to resulting in minimized waste stream, this type of construction allows for a shorter construction period. From start to finish, the construction of the Architecture building took one year, compared to an average build time of 18 months to two years.

In addition to reducing the amount of construction waste generated, the project also utilized Revolution Recovery to recycle 77.9% of the construction waste generated.

Temple University

Project ID: 1000009604
Status: Certified
Certification level: Silver
Certification date:
11/26/2014

Philadelphia, PA

Temple University Architecture Building

LEED for New Construction & Major Renovations (v2009)

Attempted: 56, Denied: 0, Pending: 0, Awarded: 59 of 110 points

SUSTAINABLE SITES		17 OF 26
SSp1	Construction Activity Pollution Prevention	Y
SSc1	Site Selection	1 / 1
SSc2	Development Density and Community Connectivity	5 / 5
SSc3	Brownfield Redevelopment	0 / 1
SSc4.1	Alternative Transportation-Public Transportation Access	6 / 6
SSc4.2	Alternative Transportation-Bicycle Storage and Changing Rooms	0 / 1
SSc4.3	Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	0 / 3
SSc4.4	Alternative Transportation-Parking Capacity	2 / 2
SSc5.1	Site Development-Protect or Restore Habitat	1 / 1
SSc5.2	Site Development-Maximize Open Space	1 / 1
SSc6.1	Stormwater Design-Quantity Control	0 / 1
SSc6.2	Stormwater Design-Quality Control	0 / 1
SSc7.1	Heat Island Effect, Non-Roof	0 / 1
SSc7.2	Heat Island Effect-Roof	1 / 1
SSc8	Light Pollution Reduction	0 / 1

WATER EFFICIENCY		8 OF 10
WEp1	Water Use Reduction-20% Reduction	Y
WEc1	Water Efficient Landscaping	4 / 4
WEc2	Innovative Wastewater Technologies	0 / 2
WEc3	Water Use Reduction	4 / 4

ENERGY AND ATMOSPHERE		15 OF 35
EAp1	Fundamental Commissioning of the Building Energy Systems	Y
EAp2	Minimum Energy Performance	Y
EAp3	Fundamental Refrigerant Mgmt	Y
EAc1	Optimize Energy Performance	8 / 19
EAc2	On-Site Renewable Energy	0 / 7
EAc3	Enhanced Commissioning	0 / 2
EAc4	Enhanced Refrigerant Mgmt	2 / 2
EAc5	Measurement and Verification	3 / 3
EAc6	Green Power	2 / 2

MATERIALS AND RESOURCES		3 OF 14
MRp1	Storage and Collection of Recyclables	Y
MRc1.1	Building Reuse-Maintain Existing Walls, Floors and Roof	0 / 3
MRc1.2	Building Reuse, Maintain 50% of Interior	0 / 1
MRc2	Construction Waste Mgmt	2 / 2
MRc3	Materials Reuse	0 / 2
MRc4	Recycled Content	1 / 2

MATERIALS AND RESOURCES	CONTINUED	
MRc5	Regional Materials	0 / 2
MRc6	Rapidly Renewable Materials	0 / 1
MRc7	Certified Wood	0 / 1

INDOOR ENVIRONMENTAL QUALITY		9 OF 15
IEQp1	Minimum IAQ Performance	Y
IEQp2	Environmental Tobacco Smoke (ETS) Control	Y
IEQc1	Outdoor Air Delivery Monitoring	1 / 1
IEQc2	Increased Ventilation	0 / 1
IEQc3.1	Construction IAQ Mgmt Plan-During Construction	1 / 1
IEQc3.2	Construction IAQ Mgmt Plan-Before Occupancy	0 / 1
IEQc4.1	Low-Emitting Materials-Adhesives and Sealants	1 / 1
IEQc4.2	Low-Emitting Materials-Paints and Coatings	1 / 1
IEQc4.3	Low-Emitting Materials-Flooring Systems	1 / 1
IEQc4.4	Low-Emitting Materials-Composite Wood and Agrifiber Products	1 / 1
IEQc5	Indoor Chemical and Pollutant Source Control	1 / 1
IEQc6.1	Controllability of Systems-Lighting	0 / 1
IEQc6.2	Controllability of Systems-Thermal Comfort	0 / 1
IEQc7.1	Thermal Comfort-Design	1 / 1
IEQc7.2	Thermal Comfort-Verification	1 / 1
IEQc8.1	Daylight and Views-Daylight	0 / 1
IEQc8.2	Daylight and Views-Views	0 / 1

INNOVATION IN DESIGN		5 OF 6
IDc1.1	Innovation in Design	0 / 1
IDc1.1	Innovation in Design	0 / 1
IDc1.2	Innovation in Design	0 / 1
IDc1.3	Innovation in Design	1 / 1
IDc1.3	Innovation in Design	0 / 1
IDc1.4	Innovation in Design	1 / 1
IDc1.4	Innovation in Design	0 / 1
IDc1.5	Innovation in Design	0 / 1
IDc1.5	Innovation in Design	1 / 1
IDc2	LEEDÂ® Accredited Professional	1 / 1

REGIONAL PRIORITY CREDITS		2 OF 4
SSc4.2	Alternative Transportation-Bicycle Storage and Changing Rooms	0 / 1
SSc5.1	Site Development-Protect or Restore Habitat	1 / 1
WEc3	Water Use Reduction	1 / 1
EAc2	On-Site Renewable Energy	0 / 1
MRc1.1	Building Reuse-Maintain Existing Walls, Floors and Roof	0 / 1
IEQc8.1	Daylight and Views-Daylight	0 / 1

TOTAL	59 OF 110