



THE AMERICAN UNIVERSITY

Washington College of Law

LEED-NC v2009

4300 Nebraska Ave NW, Washington D.C. 20016

BUILDING HISTORY

American University WCL, established in 1896, was the first law school to be founded by women. Prior to merging with AU in 1949, WCL had several temporary locations across Washington, D.C. and eventually settled on campus in 1964, before moving a mile from campus to Spring Valley in 1996. Most recently, in 2016, WCL moved from the Spring Valley Building to AU's 8.5 acre Tenley Campus.

Tenley Campus was formerly home to the School of Professional & Extended Studies in the Constitution Building, including the Washington Semester Program, University Publications, Media Relations, and the Osher Lifelong Learning Institute. Two dormitories in Tenley, Federal and Congressional Halls, housed over 300 students. In addition, Federal Hall had computer labs and a dining hall. A chapel was also preserved from the former Immaculata Seminary that occupied Tenley Campus and was converted into a courthouse. However, several of these offices and the buildings that housed them were demolished in 2013 to make way for a new home for WCL.

Tenley Campus is located one block from the Tenleytown Metro Station. Its state-of-the-art facilities now include five courtrooms, a 5,400 square foot outdoor courtyard, and over 300,000 square feet of space across all buildings. With the move to Tenley Campus, WCL increased their library space to 847 seats in the two and a half floor Pence Law Library and created a 500-seat conference center in Claudio Grossman Hall.

PROJECT HIGHLIGHTS

LEED (™) Facts

Washington College of Law
The American University
2015



Location.....4300 Nebraska Ave NW, Washington D.C. 20016
Rating System.....LEED-NC v2009
Certification AchievedGold
Total Points Achieved.....62

Sustainable Sites.....21/26
Water Efficiency.....6/10
Energy and Atmosphere12/35
Materials and Resources.....6/14
Indoor Environmental Quality.....11/15
Innovation in Design.....6/6

100% *Amount of green electricity used in the building*

90% *Percent of construction waste diverted from landfill*

45% *Reduction in water usage compared to a standard building*

2,500 *Square feet of green roof on top of the WCL garage*

Please only print this project if necessary. If printing is required, please print double sided and recycle when finished.

PROJECT TEAM

Owner: The American University	Mechanical Engineer: Smith Group JJR
Architect: Smith Group JJR	Civil Engineer: Wiles Mensch Corporation
Contractor: Whiting-Turner	Structural Engineer:
LEED Professional: Smith Group JJR	Commissioning Agent: Facility Dynamics



ADDITIONAL RESOURCES

Office of Sustainability:

www.american.edu/sustainability/

University Facilities:

www.american.edu/facilities/

U.S. Green Building Council:

www.usgbc.org

GBCI:

www.gbci.org

View details for all of AU's LEED buildings:

www.gbci.org/collections/18029



SUSTAINABLE SITES

Green buildings reduce the impacts of air pollution and greenhouse gas emissions by choosing sites that promote sustainable transportation. Site design can also reduce environmental impact through reduced water usage, improved stormwater management, reduced pesticide use, and a decrease in the heat island effect. Selecting a location that is well connected to public transportation and basic services such as schools and grocery stores can reduce vehicle reliance and create easy community connectivity. WCL is located on the southwest side of Tenley Circle in a dense urban area with easy walkable access to amenities, including restaurants, banks, places of worship, and retail. The building is well connected to the rest of Washington, D.C. by metro bus and the Tenleytown-AU metro, just a block away from WCL. In addition to public transportation, over 200 secure bike racks on the Tenley Campus encourage easy alternative commuting.

Additionally, design features that minimize the heat island effect and reduce runoff lessen the environmental impact of the building. WCL has over 75,000 square feet of reflective surfaces on building roofs and 100,000 square feet of non-roof hardscapes across the campus, which reduces the overall temperature outside. Excess stormwater is captured by bio-retention ponds throughout the site which help to reduce runoff.

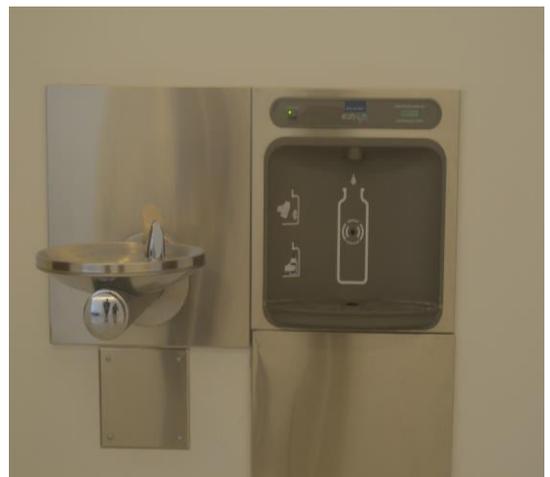
WCL is also home to the largest green roof on AU's campus. Green roofs reduce runoff and the heat island effect while increasing biodiversity and improving air quality. The nearly 2,500 square foot vegetated green roof is located above the parking garage.



WATER EFFICIENCY

Reducing potable water use in buildings decreases the total amount withdrawn from bodies of water. Water efficiency, both indoors and outdoors, reduces potable water waste and the amount of water sent back to energy intensive wastewater treatment facilities as well as protecting the natural water cycle.

Water efficient plumbing fixtures are used throughout WCL. The lavatory faucets, toilets, and urinals all conserve potable water by having flush and flow rates lower than standard fixtures. Through the use of efficient fixtures, WCL uses 45 percent less water indoors than a standard building, saving over 7.5 million gallons of water annually. Additionally, WCL installed landscaping and irrigation systems that reduce water consumption by 88 percent compared to standard landscaping. These practices reduce the demand for potable water and use water on campus efficiently.



ENERGY AND ATMOSPHERE

Green buildings strive to provide occupants with a comfortable indoor environment that uses energy efficiently. Sustainable building design, high efficiency equipment, and energy conserving practices minimize the energy used for heating, cooling, ventilating, and illuminating building spaces. American University is committed to reducing energy usage on campus as part of its effort to reduce greenhouse gas emissions.

Electricity consumption is reduced in WCL through the use of efficient lighting fixtures which results in 17 percent less energy use than a conventional building. Additionally, because American University purchases renewable energy for all campus electricity use, 100 percent of the building's electricity consumption is offset with renewable energy credits. Furthermore, WCL's buildings are equipped with Radiant Ceiling Panels (RCPs) that heat shared occupant spaces, which conserves about 30 percent of energy used for heating and improves comfortability for occupants. WCL was also commissioned to verify that the buildings were designed, constructed, and operated as intended.



MATERIALS AND RESOURCES

Using sustainably sourced, recycled, and reused building materials reduces the environmental impact of construction while improving the building environment. Sustainable materials are responsibly extracted and processed, or locally sourced, thereby minimizing air pollution. Additionally, green building project teams look for ways to reuse and recycle construction waste when possible.

The construction of WCL diverted 90 percent of construction waste from going to a landfill through recycling and material reuse. All building waste was sent to recycling centers in the DMV area. Over 16 percent of the material used in the building is recycled, including construction material, such as rebar, and hardware. Local materials account for 24 percent of the total construction including material in the ceiling and wall structure. Additionally, WCL uses low emitting adhesives, sealants, paints, and carpets to improve air quality and reduce occupant exposure to chemicals. Zero waste containers can be found throughout the building, including a compost bin and recycling bins for paper, bottles, and cans.



INDOOR ENVIRONMENTAL QUALITY

Indoor environmental quality has a significant impact on a person's wellbeing because Americans spend about 90 percent of their time indoors. A healthy indoor environment positively impacts the way people learn, work, and live. Air quality, thermal comfort, acoustics, and lighting all play a role in the productivity, comfort, safety, and security of building occupants.

WCL has several features that help improve air quality to ensure a healthy indoor environment. Careful placement of sunshades on the south and west facades reduce solar heat gain by 80 percent and minimize glare while maintaining high-levels of daylighting. These sunshades increase comfortability of occupants and create a healthy environment. In addition, all paint products, flooring, sealants, and wood inside the building are low in VOCs (volatile organic compounds). These compounds can affect occupants' long-term health and lead to respiratory and immune complications. Ventilation and air filtration are used to eliminate exposure to these potentially hazardous particulates and pollutants.



INNOVATION IN DESIGN

The innovation in design section of LEED recognizes design and construction features that go beyond sustainable design standards. The WCL project team included several innovative sustainability features during the building's design and construction.

American University purchases 100% Renewable Energy credits to compliment campus electricity consumption, therefore all the electricity used in WCL is sourced from green power. The low-flow fixtures also exceeded expectations on WCL's campus, reducing water use by 45 percent. Outreach efforts through sustainability focused building signage and campus sustainability tours provide campus visitors with the opportunity to learn more about the university's green buildings. WCL's maintenance also follows LEED's green housekeeping standards, which uses the lowest concentration necessary for all chemical cleaners.



LEED SCORE CARD

Washington, DC

Project ID: 1000022717
 Status: Certified
 Certification level: Gold
 Certification date: 02/16/2017

American University-WCL

LEED for New Construction & Major Renovations (v2009)

Attempted: 62, Denied: 2, Pending: 0, Awarded: 62 of 107 points

Category	Score	Status	Category	Score	Status
SUSTAINABLE SITES	20 OF 26		MATERIALS AND RESOURCES	CONTINUED	
SSp1 Construction Activity Pollution Prevention	Y		MRc5 Regional Materials	2 / 2	
SSc1 Site Selection	1 / 1		MRc6 Rapidly Renewable Materials	0 / 1	
SSc2 Development Density and Community Connectivity	5 / 5		MRc7 Certified Wood	1 / 1	
SSc3 Brownfield Redevelopment	0 / 1				
SSc4.1Alternative Transportation-Public Transportation Access	6 / 6		INDOOR ENVIRONMENTAL QUALITY	11 OF 15	
SSc4.2Alternative Transportation-Bicycle Storage and Changing Room	1 / 1		IEQp1 Minimum IAQ Performance	Y	
SSc4.3Alternative Transportation-Low-Emitting and Fuel-Efficient V	3 / 3		IEQp2 Environmental Tobacco Smoke (ETS) Control	Y	
SSc4.4Alternative Transportation-Parking Capacity	0 / 2		IEQc1 Outdoor Air Delivery Monitoring	1 / 1	
SSc5.1Site Development-Protect or Restore Habitat	0 / 1		IEQc2 Increased Ventilation	0 / 1	
SSc5.2Site Development-Maximize Open Space	1 / 1		IEQc3.1Construction IAQ Mgmt Plan-During Construction	1 / 1	
SSc6.1Stormwater Design-Quantity Control	1 / 1		IEQc3.2Construction IAQ Mgmt Plan-Before Occupancy	0 / 1	
SSc6.2Stormwater Design-Quality Control	0 / 1		IEQc4.1Low-Emitting Materials-Adhesives and Sealants	1 / 1	
SSc7.1Heat Island Effect-Non-Roof	1 / 1		IEQc4.2Low-Emitting Materials-Paints and Coatings	1 / 1	
SSc7.2Heat Island Effect, Roof	1 / 1		IEQc4.3Low-Emitting Materials-Flooring Systems	1 / 1	
SSc8 Light Pollution Reduction	0 / 1		IEQc4.4Low-Emitting Materials-Composite Wood and Agrifiber Products	1 / 1	
			IEQc5 Indoor Chemical and Pollutant Source Control	1 / 1	
WATER EFFICIENCY	6 OF 10		IEQc6.1Controllability of Systems-Lighting	1 / 1	
WEp1 Water Use Reduction, 20% Reduction	Y		IEQc6.2Controllability of Systems-Thermal Comfort	1 / 1	
WEc1 Water Efficient Landscaping	2 / 4		IEQc7.1Thermal Comfort-Design	1 / 1	
WEc2 Innovative Wastewater Technologies	0 / 2		IEQc7.2Thermal Comfort-Verification	1 / 1	
WEc3 Water Use Reduction	4 / 4		IEQc8.1Daylight and Views-Daylight	0 / 1	
			IEQc8.2Daylight and Views-Views	0 / 1	
ENERGY AND ATMOSPHERE	12 OF 35		INNOVATION IN DESIGN	6 OF 6	
EAp1 Fundamental Commissioning of the Building Energy Systems	Y		IDc1.1 Exemplary Performance: SSc4.1 Public Transportation Access	1 / 1	
EAp2 Minimum Energy Performance	Y		IDc1.1 Innovation in Design	0 / 1	
EAp3 Fundamental Refrigerant Mgmt	Y		IDc1.2 Exemplary Performance: WEc3 - Water Use Reduction	1 / 1	
EAc1 Optimize Energy Performance	8 / 19		IDc1.2 Innovation in Design	0 / 1	
EAc2 On-Site Renewable Energy	0 / 7		IDc1.3 Exemplary Performance - SSc5.2 Maximize Open Space	1 / 1	
EAc3 Enhanced Commissioning	2 / 2		IDc1.3 Innovation in Design	0 / 1	
EAc4 Enhanced Refrigerant Mgmt	0 / 2		IDc1.4 Innovation in Design	0 / 1	
EAc5 Measurement and Verification	0 / 3		IDc1.4 Innovation in Design: Green Cleaning	1 / 1	
EAc6 Green Power	2 / 2		IDc1.5 Innovation in Design	0 / 1	
			IDc1.5 Innovation in Design - Green Building Education	1 / 1	
MATERIALS AND RESOURCES	6 OF 14		IDc2 LEED® Accredited Professional	1 / 1	
MRp1 Storage and Collection of Recyclables	Y				
MRc1.1Building Reuse-Maintain Existing Walls, Floors and Roof	0 / 3		REGIONAL PRIORITY CREDITS	1 OF 1	
MRc1.2Building Reuse - Maintain 50% of Interior Non-Structural Ele	0 / 1		SSc6.1Stormwater Design-Quantity Control	1 / 1	
MRc2 Construction Waste Mgmt	2 / 2				
MRc3 Materials Reuse	0 / 2				
MRc4 Recycled Content	1 / 2				
			TOTAL	62 OF 107	

40-49 Points
 CERTIFIED

50-59 Points
 SILVER

60-79 Points
 GOLD

80+ Points
 PLATINUM