



Preparing people to lead extraordinary lives

Loyola University Chicago

Lake Shore Campus

Green Building Tour Script

OVERVIEW:

Thank you for your interest in Loyola University's Lake Shore Campus and our sustainability efforts. We hope that the following notes will be useful additions to your tour and might even cause you to look at the buildings and landscape in a new way.

If you are limited for time please focus on those items highlighted in bold.

Highlights of Loyola's Sustainability efforts:

- Loyolans want to improve their environment. Over 96% of Loyolans consider themselves environmentally aware.
- Because of our urban location and high-performing infrastructure, the environmental footprint of a student at Loyola is 30% less than the average college student.
- Loyola has saved more than \$6 Million dollars on our utility bill since 2008.
- The Sustainable Endowment Institute gave Loyola an A- on sustainability and we are listed in the Princeton Review's Guide to Green Schools.
- Loyola's landscape is a peaceful respite in the dense urban city. Our ample tree canopy and attractive landscaping provide cooling shade in the summer and help address the urban heat island effect, caused by dark surfaces such as paving and buildings. Our buildings rely on the shade of the trees and cool lake breezes to save on cooling costs.
- Loyola is lucky to be located along a number of major transit corridors. Express buses travel Lake Shore Drive and the Red Line is an easy trip between lakeside campuses and the loop using the UPass.
- Many students and staff choose to bike to class along the world-renowned lakefront bike path. Chainlinks rents bikes for the day week or school year.

Loyola is committed to sustainability across our student experience and is making significant investments in our buildings, academic programs and student resources that will prepare the next generation of sustainability leaders.

- There are many student clubs including the Student Environmental Alliance, the Bike Club, the Growers Guild, the Cuisine Team, Eco-programming Committee,

the Green Initiative Fund Committee and even the United Student Government Alliance has a Chief Sustainability Officer.

- The Office of Sustainability and many other groups provide student programming on sustainability topics including workshops on biking in the City or how to compost correctly, educational presentations on waste or water issues and special events like Earth Week events, Arbor Day tree planting and conservation competitions between dorms on energy and recycling.
- One unique way that Loyola supports students as they explore the topic is Loyola Limited. These are student designed and run businesses around campus that connect the financial lesson of running a business with the environmental and social lessons of doing good for their community. The Flats is a short-term apartment building on the west side of campus. Felice's is a Roman-style pizza restaurant and ChainLinks is a bike rental and repair shop. Each one must meet financial targets to be fiscally sustainable while meeting certain social and environmental goals to make improvements around campus.

At the Klarchek Information Commons:

- **The Klarchek Information Commons was built in 2008 to provide a view through the building to Lake Michigan. The first of Loyola's 'green buildings', the IC has a number of elements that make it unique.**
- **Building uses 45% less energy than a traditional building built the same time. This is because of passive heating and cooling techniques that use the energy of the sun or the temperature of the air outdoors to heat and cool the building.**
- The best example of this is the atrium area when you first enter. This atrium acts like a chimney with air heated by the sun rising through a set of windows at the top. This draws in air from lower levels and provides free ventilation.
- The building is completely automated with hundreds of sensors for temperature, wind and other equipment. It can be controlled by Facilities staff from their office on Broadway.
- It is certified Silver through the Leadership in Energy and Environmental Design (LEED) by the US Green Building Council. All buildings at Loyola have to meet at least LEED Silver.
- **Since 2008, Loyola has saved over \$6 Million dollars on our utility bills through energy conservation and reduced our environmental impact by over 15%.**

As you tour across the campus, especially around the East Quad, the Chapel Garden or near the Lake:

- **Another aspect of sustainability at Loyola is our connection and responsibility to Lake Michigan. Through the landscape we manage rain water on our campus by cleaning it and returning it to the Lake. Unlike 99% of the rest of Chicago where rainwater is**

directed to a combined sewer system, rain water at Loyola enters a stormwater system that filters the water and releases it into Lake Michigan. Over 10 Million gallons of water is kept out of the sewer system each year.

- Other locations look to harvest rainwater to be used for other purposes. There is a large cistern under the Institute of Environmental Sustainability. The water is then pumped back into the Ecodome greenhouse for use in agriculture and research projects. Other areas of the landscape have cisterns that hold and slowly release the water into the ground following heavy rains.
- This helps take the pressure off of the out-of-date and over-burdened sewer system preventing basements from flooding and reducing pollution to the Chicago River and Lake Michigan.
- **Although you probably can't see them, Loyola has more green roofs than any other college in the Midwest. Mundelein, Quinlan, Cuneo, the IC, Damen, Norville, the Institute, di Nobili and Baumhart all have growing rooftops. These roofs capture rainwater, provide cooling in the summer and add habitat for wildlife and birds year-round.**
- At Loyola, we don't take our access to water for granted. We've reduced our water consumption each year and have a goal to reduce it by 25% more by 2015. We've made our equipment more efficient, we have smart irrigation systems for our landscape and retrofit showerheads and faucets to save water and money.
- One of the major student-led initiatives dealing with water was the complete ban on the sale of bottled water on our campus. A student group was concerned about private companies controlling access to safe and healthy drinking water both locally and especially in developing countries. In order to make a statement about water access, a two-year long campaign called 'UnCap LUC' led to a referendum where a majority of the student body voted in support of this ban. The group of students has continued to educate students, staff and faculty around this issue and is currently fundraising to donate a well to a community in India. Refillable bottles are provided to first-year students and at university events and refill stations can be found in most buildings.

At Cuneo:

- **Like the Information Commons, Cuneo Hall is a high-performing building that tries to reduce the energy needed to heat and cool its spaces.**
- **Cuneo is very energy efficient using over 60% less energy than the building code requires and only 1/10th the energy per square foot that the building it replaced (Damen Hall) used.**
- The atrium serves as a thermal chimney (just like the front of the IC) with windows on the roof and ductwork that connects into the classrooms to draw outdoor air into the building as hot air rises from the first to the fourth floor.
- Unique systems include the energy dashboard that shows how much energy the building is using versus traditional buildings.
- The indicator lights that you can see in the classrooms let you know what mode the building is in. If it displays a green light, the building is in passive heating mode and encourages the teacher or students to open the window. This will allow the building to

function more effectively by using the outdoor temperature and the thermal chimney effect of the atrium.

- Each classroom has suspended 'clouds' that serve to add heating and cooling to the room. Because these have many small tubes with hot or cold water in them, they can transport the energy into the air more effectively and respond to the heating and cooling that happens during a 50 or 90 minute class period.
- When Damen Hall came down, almost 90% of the debris (bricks, metal, glass, etc.) were recycled). As a university we recycle over 30% of all waste and are trying to get to 50% by 2015.
- Another project that helped inform the design at Cuneo was a research project with Argonne Lab, SCB Architects, Elara Engineering and the Physics Department. A class studied the energy use and inefficiencies of Cuneo's 'twin' building, Dumbach Hall. Although Dumbach is 104 years older, many of the strategies to heat, cool and light the building were used for Cuneo. Similarly, many of the cutting-edge technologies that are used in Cuneo are being added to Dumbach.

At the Institute of Environmental Sustainability Building (or building site, depending on the timing)

- **The newest of Loyola's green buildings is the IES. This building will house various academic units, a 400 bed residence hall (San Francisco Hall) and a green café and lounge. Some of the more special spaces include a 3,100 square foot greenhouse called the Ecodome and Engrained, a GreenCafe, featuring organic, local and seasonal food options.**
- The building is the ultimate hybrid design. Consisting of Wright Hall, a building that used to be the dormitory for the Sisters of the Blessed Virgin Mary that taught at Mundelein College, and the entirely new construction of San Francisco Hall, the building embodies Loyola's commitment to blend the academic, community and infrastructure towards sustainability.
- With the new facility we have new spaces for our Environmental Science programs including our award winning Biodiesel program. The new Clean Energy lab allows waste cooking oil to be recycled into biodiesel fuel for use in vehicles. The shuttle buses and other on-campus diesel vehicles utilize this fuel. We annually process over 3,000 gallons of fuel but expect this to increase to over 30,000 gallons per year with the new capacity of the IES.
- The Ecodome is a 3,000 square foot greenhouse used for research and to propagate plants for use at our campus gardens. We have active vegetable gardens on top of Quinlan Life Science, the Mertz balcony, the Winthrop demonstration garden and the Vege-water community garden on Sheridan. Loyola also runs an independent community farmer's market May through October providing local fresh produce. We have food gardens at the Rome and Maywood campuses as well as a true organic farm at the Retreat and Ecology Campus. Loyola is very committed to sustainable food production and procurement. The Green Café located in the IES is striving to meet the strictest organic, local and sustainable food goals with special seasonal offerings,

educational programs from farmers and chefs and energy and water conserving equipment and materials.

- One of the most impressive aspects of the Institute is what you can't see. Underneath the new part of the building is 92 wells that each extend 500 feet deep. These 'Geothermal' wells bring up the temperature of the ground (roughly 58 degrees F year-round) and use this energy to heat and cool the building. While this temperature is completely sufficient to cool the building all summer, some additional heating is needed in the winter. This is provided by the Biodiesel I mentioned before. The biodiesel leaves the lab and goes by pipe into the basement to be burned in a boiler providing hot water that meets the rest of the heating demand required by the building. The geothermal system is the largest of its kind in the Chicago Area and the first of its size to be installed underneath a building.
- **The Biodiesel, the Farm at LUREC, the Farmers Market and the gardens were all products of the Solutions to Environmental Problems course. This unique course introduces students to environmental issues that we are facing and challenges them to explore and test solutions. A new classroom and lab space is included as part of the IES on the second floor. This experiential learning model has been incredibly effective at creating the next generation of community leaders and making real change here at Loyola.**

Damen Student Union

Opened in Spring of 2013, the Damen Student Union is the center of student life here at Loyola. The building is targeting LEED Silver and should be awarded sometime in early 2014.

- Over 75% of all waste generated during the construction of Damen recycled and kept from a landfill.
- As a center of student life there is co-curricular programming taking place all the time from environmental campaigns and outreach to documentary film screenings and debates.
- The Damen dining hall highlights many of our sustainable food options. We have tray-free dining which reduces over food waste and our catering program donates food to a local food pantry.
- Loyola is rapidly reducing the amount of waste we produce by changing the way we purchase, use and dispose of materials. Our active composting, recycling and Residence Hall Move In/Move Out programs reduce waste and save money.
- Directly across Sheridan Ave from Damen is the site of Loyola's Farmer's Market running from June to October, local farmers and crafts are sold for students and community members, including materials from the student-run farm at the Retreat and Ecology Campus.

- To the North of Mertz is Loyola's Demonstration Garden. The Winthrop Garden is operated as an urban community garden but conducts experiments on food production and composting. You can purchase Winthrop's produce at the Loyola Farmer's Market.

