

College of Lake County Green Building Guidelines

Compiled by the Environmental Action Committee 2009 – 2011:

Buildings, Energy, and Water Subcommittee

American Colleges and Universities Presidents Climate Commitment Subcommittee

Native Landscapes Subcommittee

100% of college-owned and operated facilities are maintained in accordance with the procedures listed in this document. The College of Lake County's Green Building Guidelines include:

- I. New Construction & Major Renovations**
- II. Operations & Maintenance of Existing Buildings**
- III. Maintenance of Indoor Air Quality**
- IV. Integrated Pest Management of Campus Grounds**

I. New Construction & Major Renovations

The College of Lake County Green Building Guidelines for New Construction and Major Renovations are aligned with Illinois Public Act 096-0073*. Passed by the Illinois General Assembly on July 24, 2009, this Act requires that all new State-funded building and renovation projects be a minimum of LEED Silver Certified or equivalent. The college works with LEED accredited architects and designers to ensure all new projects meet or exceed this requirement. With the adoption of this policy, the College of Lake County commits to the following, with regards to new construction, and major renovation projects:

The College of Lake County commits to meeting the current LEED Silver standard or equivalent for all new construction and major renovation projects whenever practicable within the project budget. A major renovation is defined as a project with a construction budget that equals 40% or greater of the building's current replacement cost. The following would be reasons the college could not meet this commitment.

- An unreasonable financial burden would be placed on the college and taxpayers, taking into account the operating and construction costs over the life of the building and total cost of ownership of the building
- Obtaining LEED certification would create an unreasonable impediment to construction
- The LEED guidelines would impair the principal function of the building
- The LEED guidelines would compromise the historic nature of the structure

**Full Text of Public Act 096-0073 can be found at:*

<http://www.ilqa.gov/legislation/publicacts/fulltext.asp?Name=096-0073>

II. *Operations & Maintenance of Existing Buildings*

All college-owned buildings are operated and maintained in accordance with Sustainable Operations and Maintenance Guidelines that cover the items listed below. Guidelines were established based on practices adopted by the Facilities Department and through use of a Computerized Maintenance Management System (CMMS). The Facilities Department reports operations quarterly to Environmental Action Committee Buildings, Energy, and Water Subcommittee.

- **Impacts on Surrounding Site**

- 49.65 acres of college-owned land remains DEED-restricted to be preserved as high-quality wetland and natural habitat for native plant and wildlife species.
 - Enhanced wetland area approved by Army Corps of Engineers
- Additional 10.03 acres of college-owned land remains as dedicated prairie preserve
- Additional 10.67 acres of college-owned land remains as dedicated arboretum preserve
- Illinois native plant species prioritized for use in grounds landscaping
- Reduced light pollution by replacement of non-directional parking lot light fixtures with Omni-directional LED fixtures

- **Energy Consumption**

- Continual commissioning of all Heating, Ventilation, and Air Conditioning (HVAC) systems by Facilities Department
- Use of occupancy sensors for lighting and HVAC control where possible
- Use of Direct Digital Control (DDC) Building Automation Systems for temperature set-backs, lighting, and HVAC equipment scheduling
- Use of DDC Building Automation Systems and CMMS to monitor and manage energy consumption
 - Monthly scheduled check of utility consumption by Facilities Department and graph-back procedure for all diversions from typical utility rates
- Voluntary participation in utility load-shedding program by Facilities Department
- Use of double-paned glass for all windows
- All traditional lighting applications converted to energy-efficient T-8 Fluorescent Bulbs or better, including T-5 Fluorescent Bulbs in Gymnasium and Automotive lab and LED lighting in select locations
- Use of High-Albedo roofing material at the following locations
 - Grayslake Campus: C Wing, Building 7
 - Lakeshore Campus: 111 N. Genesee
 - Southlake Campus: V building

- **Usage of Environmentally Preferable Materials**

- Composite lumber used in all outdoor furniture and deck applications
- 80% of cleaning products used by custodial staff certified by Green Seal™
- All new carpet materials follow Cradle-to-Cradle principals:
 - Made from recycled materials
 - Recyclable at end-of-life
- All new carpet installed as tile for more efficient replacement and maintenance
- Exclusive use of paint containing low Volatile Organic Compounds

- **Water consumption**

- Sensors on grounds irrigation system detect soil moisture content to allow system to water only when necessary
- Automatic motion sensors on all toilets, urinals, and bathroom faucets
- Use of low-flow aerators on all faucets
- All new toilets and urinals built at low capacity where possible to allow for 50% reduction in water use

III. Maintenance of Indoor Air Quality

Indoor environmental quality is regulated by the college Indoor Air Quality Plan (IAQ Plan):

Building Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) engineers operate and monitor the DDC Building Automation System. System continually adjusts return air, mixed air, discharge air, and percentage of outdoor air which enters the building. This ensures correct air flow and percentage of fresh air ventilation. Building HVACR engineers perform daily planned maintenance procedures which include inspections and filter changes.

Known pollutant sources are contained and stored within designated isolation areas to prevent contamination of indoor air quality.

IV. Integrated Pest Management of Campus Grounds

All campus grounds are maintained in accordance with the college Integrated Pest Management Plan (IPM Plan):

This plan is comprised of a four-tier approach to sustainable management of campus grounds.

Tier-1: Set Action Thresholds

Facilities Department, Native Landscapes Subcommittee, Biology Division, and Horticulture Department identify key action thresholds and natural areas of greatest concern. Current priority areas include:

1. Willow Lake and Buffer:
 - a. Erosion along shoreline and surrounding sump drain
 - b. Invasive species in buffer strip
 - c. Weakening dam
2. Utilities Easement along Prairie:
 - a. General restoration
3. Invasive Species Control in all campus natural areas
 - a. Increased proactive control of invasive species including planting of native species

Tier-2: Monitor and Identify Pests

Grounds team staff are trained in horticulture to identify and monitor pests and other problems. The college consults with the Illinois Farm Bureau for up-to-date pest identification and management strategies.

Tier-3: Prevention

Preventative maintenance occurs regularly in wetland area including cut-back of invasive species before seed. The college contracts with an environmental consultant for maintenance and restoration of wetland and prairie areas.

Tier-4: Control

Continuous weed and pest control management by Grounds staff. Consultation has been requested from Lake County Stormwater Management Commission and internal Civil Engineering Faculty member to work on site management projects.