

Building Policies and Practice Webinar



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Overview of policy and programs

No specific “Green Building Policy” yet, but green practices are incorporated into other policies. The goal is to develop a standard or policy for sustainable/green buildings over the next few years.

Overview of policy and programs

UNC Charlotte Internal Policies

- Signed ACUPCC (December 2009).
- Policy 110: “Waste Reduction and Recycling”.
- “Design and Construction Manual” specifications require minimum of LEED certification or equivalent.
 - Bioinformatics achieved LEED Silver.
 - EPIC, Center City (uptown campus) and Phase IX aiming for LEED Silver.
- Exploring benefits of obtaining a Phase II NPDES permit (stormwater).
- New campus master plan encourages low-impact design.



Overview of policies and programs

External Policies

- UNC system “Sustainability Policy” addresses building performance levels and encourages campuses to work towards “zero waste” (adopted October 2009)
- NC General Statutes
 - 143-64.12 (SL 668) addresses energy and water conservation
 - 130A-309.10 bans certain items from landfill
 - 130A-309.14 requires State agencies to make recycling bins available in all buildings



Overview of policies and programs

Operational programs:

- Green cleaning programs in place with all housekeeping groups.
- Construction and demolition recycling program.
- Retro commissioning.
- Grounds working on utilizing native plants.
- Energy efficiency infrastructure improvements.
- Performance contracting (RFP issued).



Overview of policies and programs

Program tools

- Utilizing life cycle cost calculations
- Charlotte Green Initiative – oversees Student Green Fee
- Increasing awareness
 - Posters/information inside buildings
 - Sustainability tours
- Utilizing internal assets
 - Day-lighting lab
 - EPIC
 - IDEAS



Laying the Groundwork

- Students establish a recycling program in one of the residence halls – late 80's/early 90's.
- Hired full time recycling coordinator – 1992.
- 1999 – Executive Order 156 (reduce waste by 40%) and Utility Savings Initiative implemented
 - Set groundwork for UNC Charlotte Policy 110 – mainly covers office/residence hall recycling, but also refers to construction and demolition waste.
 - “Conservation Awareness Team” formed to help with utility savings initiative. Engineer hired to help monitor and manage energy and water usage.

Laying the Groundwork

- 2003 – 2005 catalyst years
 - Period of growth for UNC Charlotte – approximately 14 buildings in various stages of development.
 - Student-led initiative to make the proposed Student Union, a student funded project, a green building.
 - UNC Charlotte hires campus construction and demolition recycling coordinator.
 - Energy and water reduction goals, and C&D recycling goals incorporated into facilities management strategic plans.

Program Milestones

In the years since:

- Change of university administration.
- Awareness of green building grows with the continued acceptance of LEED.
- Sustainability coordinator hired (January 2008).
- Sustainability goals added to strategic plan (2009).
- Energy manager hired (February 2009).

Where are we Heading?

- Past successes have led to greater acceptance
- Campus master plan encourages green infrastructure and green design practices
- Climate action plan will impact green building policies
- Build internal green building resource
- Incorporate metrics from LEED-EB to help “green” renovations
- Will it always be LEED? – moving to building performance metrics

Projects In Progress...

Phase IX Housing and Center City Building

- Water and energy conservation measures
- Low VOC finishes
- Recycling waste stream
- Regionally-sourced materials
- Recycled-content materials

Projects In Progress...

Energy Production and Infrastructure Center (EPIC)

- Water
 - Graywater system (condensate from HVAC system)
 - Cistern for rainwater harvesting
 - Structural stormwater BMPs
- Energy
 - Daylighting analysis
 - HVAC system incorporates chilled beam technology
- Recycling/Materials Usage
 - 50% C&D recycling
 - Low-emitting materials
 - Using regionally-sourced and recycled-content materials
 - Green cleaning program

Challenges and lessons learned

- Challenges
 - Communication – the University is getting better about communicating with architects and builders. We still need to improve the communication between the people building the building and the people who will use and maintain the building.
 - Surplus properties – rules make it difficult to salvage items for reuse – they have to be bid on, and it is much easier to throw in the dumpster than to get through all the red tape. LEED-EB may help.

Challenges and lessons learned

- Challenges
 - Continue incorporating “green” thinking and sustainable practices into the planning mindset. Project managers are willing to incorporate when they can, but they have other priorities in design.
 - Financial questions – increased cost to get actual LEED certification. Is it worth the cost?

Challenges and lessons learned

- Lessons learned
 - Support from upper administration is vital
 - Incorporate sustainability/green building ideas into the discussions as soon as possible
 - Student support is critical
 - Timing is everything – take advantage of new laws, policies and regulations that are out there
 - Show value – monetize the benefits
 - Success breeds success

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