

MRC 3216
DELTA
Classroom



Poe Hall
Education
Library



North Carolina State University is involved in many projects focused on sustainability. The newly reformed CEST Administrative Advisory Council allows any campus community member to contribute to sustainability policy. NC State has also completed their first greenhouse gas inventory and takes many steps to encourage energy conservation within its buildings, such as temperature setbacks during the holidays and installing LED lighting. NC State transportation encourages students to walk, ride bicycles, or use the Wolfline to get around campus. University dining composts and purchases meats and produce from local farms while also using milk from campus dairy cows. There are many ways for students to get involved with sustainability on campus. The Wolfpack Environmental Student Association and the Sustainability Commission within the Student Government are great ways to dive into sustainability here at NC State!



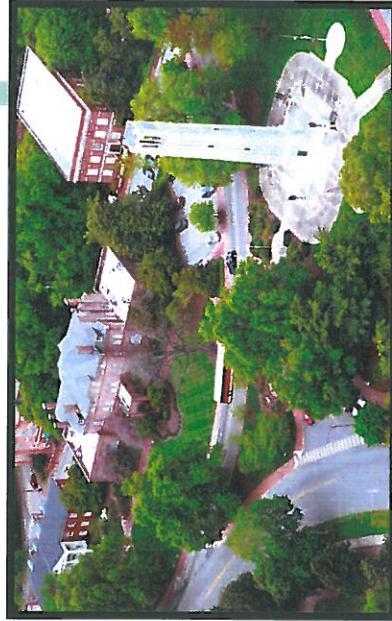
Randall B. Ferry,
Jr., Companion
Animal Veterinary
Medical Center



Millstone 4H
Camp



Erdahl-Cloyd
Patio



Building Working Group's Tactics for 2012

University Sustainability Office

Administrative Services Building III
2701 Sullivan Dr.
Raleigh, NC 27695
sustainability@ncsu.edu

5 Sustainability Tactics for 2012



1

The first tactic that the CEST Building Working Group has established is to include a sustainability vision for all future projects, regardless of size to being start of fiscal year 2012. To help quantify sustainability achievements, a checklist is being developed specifically for projects over \$50,000 to identify objectives for the design and building process such as: were recycled materials used in the renovation, and were the materials manufactured less than 500 miles from campus, and was indoor air quality considered during the construction process?

2

The second tactic is to develop and implement a construction waste management plan for projects over \$50,000 to integrate sustainability strategies into all projects on campus beginning the start of the 2012 fiscal year. This plan will result in at least a 65% diversion rate from landfill disposal, meaning that 65% of reusable and recyclable material, will be diverted from the landfill. Any equipment or materials that can be reused or recycled will be identified before demolition and will go either to the University surplus for reuse, or to Habitat for Humanity Re-Store.

3

The third tactic is to exceed LEED silver on campus buildings by sharing energy usage information with building occupants. The vision for this tactic is to have an "energy dashboard" that shows the energy consumption data for each building. The intent of this "dashboard" is to encourage campus members to reduce the amount of energy they utilize and just to be aware of how much energy it takes to power a building and the costs associated with the usage. This project will be in progress through spring, and the first "dashboard" will be installed in the Hunt Library on Centennial Campus this September. An example of what an "energy dashboard" might look like is shown below.



5

The final tactic for the 2012 Fiscal Year is to develop an "Interior Finish" guideline for the NC State Design and Construction Guidelines that address interior finishes for durability, recycled content, portability, and life cycle cost. These guidelines will help inform design to assure finishes are as long-term resources.. Some examples within the "Interior Finish" guideline include vinyl flooring in areas subjected to spills, solid black entrance mats that will help keep dirt and debris from outside in a confined area, and ceilings that allow easy access to crucial points of utilities.

4

The fourth tactic deals with undertaking holistic building modifications by incorporating energy audit data into the FCAP (Facility Condition Assessment Program) deficiency data to document energy inefficiencies around campus. By linking the energy data, the FCAP report becomes a more powerful tool. Small energy upgrade projects could be funded to repair air infiltration leaks will be very useful in minimizing energy utilization in buildings. This tactic is underway and to be completed by May.

Land Use Working Group

Status Report

March 26, 2012

Strategy 1: Update the campus Physical Master Plan to integrate and coordinate transportation, land use, utilities, buildings, and storm water planning.

- Finalizing Advisory Committee membership
- Outline schedule created
- Focus group meetings in April

Strategy 7: Enhance utilization and management of campus and building space to increase efficiency and to reduce the need for new construction.

- Research Space Standard update by end of March
- College Space Analysis kick-off in May
 - Enrollment numbers just published
 - Need to finish Research Space Standard first for inclusion in College Space Analysis

Strategy 8: Create Pedestrian-friendly, mixed-use neighborhoods to reduce the distance between necessary services and to avoid single-occupant vehicle use.

- 4 projects from Bike & Pedestrian Master Plan have been funded for year-end projects
 - Missing walk on Dan Allen Drive south of Western Blvd
 - Missing walk on east side of Gorman btw Western Blvd. and Faucette
 - New stairs with bicycle trough from Morrill Dr. to Rocky Branch Greenway
 - Supplemental wayfinding signage on Rocky Branch Greenway
- Regarding Blue Ridge Road Corridor study, submitted comments to City of Raleigh encouraging a more robust network of pedestrian paths

Strategy 9: Increase the acreage of campus open spaces.

- Design of Greenways continues along Walnut Creek
- Complete Recreational Sports Master Plan

Strategy 13: Strengthen tree reforestation plan for campus

- Have begun tree conservation plan for Greek Village
- Have begun information gathering re: precedents for Heritage Tree Program with kick-off meeting March 28th.

CEST Building WORKING GROUP - summary

rev 2.27.2012

2.1.2012

Building WG STRATEGY	Year One Tactic	Individual Tactic Metric	Overall (High-Level) Metric	Person Responsible	Road Blocks	Milestone	Cost to Meet Goal	Date Completed	Year Two Tactic
Sustainability Vision Statement for all projects	Create sustainability checklist for projects over \$50,000	How many DCS projects utilized new checklist before the end of the FY?	projects were designed using "Green" Strategies in FY 12-13?	Intern - Michael Hogan and Lisa Maune/DCS	Difficulty in determining most appropriate options for small projects.	Which project is the first to realize sustainability "benefits" due to checklist?	Staff time/intern time	Draft 4/1/2012, implemented by 6/1/2012	Integration - Develop a procedure for integrating sustainability teaching, research and extension
Integrate Sustainability Strategies for all projects on campus	Develop and implement construction waste management plan for all projects over \$50,000	How many DCS projects utilized new checklist before the end of the FY?	Amount in lbs of waste diverted from the landfill (or as a %) during FY 12-13.	Nessa Stone and Willy Yamamoto	Which project is first to utilize CWN plan and how many cubic yards/tons of waste were diverted from waste stream?	Staff time/cost premium that contractors will charge	Staff time/cost premium that contractors will charge	Outreach- Make campus-wide sustainability efforts and progress more visible	Outreach- Make campus-wide sustainability efforts and progress more visible
Exceed LEED Silver	Share energy consumption data with building occupants	How many buildings or groups of buildings did we share energy information with in FY 12-13?	Paul McConachio w/ Energy Office and Bill Davis w/ CPM	Timing/coordination with Energy Office's programs/ agreement on vehicle for data	Which buildings are we able to provide energy consumption information to occupants?	Staff time/cost for dashboard and control interface for each building	Staff time/cost for dashboard and control interface for each building	3/15/2012	Integration - Instill the values of total cost of ownership and total life cycle costing in to purchasing and project
Undertake Holistic Building Modifications	Tie in energy efficiency/energy consumption data to the FCAP deficiency data to indicate energy problems (low-hanging fruit)	How many FCAP reports added energy audits before the end of FY 12-13?	Kevin Ingalls w/ R&R Shops and Paul McConachio w/ Energy Office	Difficulty in transferring energy audit information into FCAP program	Which building was the first to combine energy audit info with FCAP system?	Staff time, \$ for energy audits for all buildings	Staff time, \$ for energy audits for all buildings	3/15/2012	Outreach - Training, education, and funding to get buy in of new technology use, operation, and maintenance. (see integration/total cost of ownership)
Design New Buildings as Long-term Resources	Develop "Interior Finish" guidelines for the NC State Design and Construction Guidelines that addresses interior finishes	How many projects utilized the new Interior Finish standard in FY 12-13?	Liz Moore w/ OUA	New standard may not "alter" the outcome of interiors selections.	Which project is first to utilize new standard, and how did it change from old course of action?	Start time	Start time	4/15/2012	Integration - Make sustainability part of Fac Mod process that includes external review (checklist, refer to university guidelines, narrative...)

