Smith Volunteer Conference

September 22, 2018
Topics

- Neilson Library Update
  - Project Update
  - Program & Library Services
  - Sustainability in Neilson
  - Neilson’s connection to Campus-Wide Sustainability Planning
Neilson Library Update
Burton Lawn View
Neilson Main Hall
Level G Main Entrance
Digital Media Hub
Neilson Main Hall
Learning Commons
North Jewel Box
Special Collections Reading Room
Skyline Reading Room
SUSTAINABILITY IN THE LIBRARY

GIVE US YOUR THOUGHTS

- Rain gardens
- Make use of natural light
- Glass everything + solar panels
- Musical steps
- Double layers of windows and heat escape prevention
- Fireplace
- Water fountains, solar powered lamps, and
-雕像 for plants that automatically shut off when they're not in use

Plant life - On the roof or in the library, students study with nature.
Program: Shared, Flexible Space

- Prioritize functions that answer common needs
- Provide shared/integrated services
- Program in a way that’s less about historical ownership of space and more about modes of work and modes of learning
- Avoid or limit highly-customized/owned spaces
- Focus on intensively used shared space
Footprint: **65,000 less square feet** than existing
Performance Standards

- LEED v. 4
- Healthy Materials
- Energy efficiency and transition to zero carbon
Performance: Materials – Beyond LEED v4

- Encourage manufacturers to eliminate “Red List” chemicals
- Targeted approach by team identifying the products which would have the greatest positive impact on the occupant health and well-being
- Leverage the Neilson project to advocate for positive change in the marketplace
Healthy indoor environments are linked to higher cognitive function

- On average, cognitive function scores were:
  - 61 percent higher in green building conditions
  - 101 percent higher in enhanced green building conditions

Ceilings

- Ceiling tiles are typically made with a formaldehyde based binder.
- The team worked with the manufacturer to identify products that use innovative plant based acrylic binders in order to remove formaldehyde from the project.
Flooring

- Carpeting free of PVC carpet backing, no HFRs and PFCs in fibers
- Kitchen floor free of BPA
- Formaldehyde, BPA, and PVC free cork flooring and rubber flooring
Millwork

- Removed high pressure laminates from project
- Replacing formaldehyde containing particleboard with Red List Free fiber board
- Doors are Red List Free – uses an agri-fiber core
Prefabricated Window Wall

- Laminated timber manufacturer tested three different formaldehyde free binders – none passed the bond strength requirements. The manufacturer committed to continuing to seek formaldehyde free opportunities.
- Removed red list chemicals by specifying an anodized aluminum instead of a traditional painted product.
- Window wall company set up a meeting with our consultant to see how they can better serve healthy materials projects in the future.
Library book stacks and furniture are under review for healthy materials
Educated and advocated to over 100 manufacturers as a result of the targeted approach

Manufacturers have stated that they are noticing a trend in the demand for healthy materials
Already influencing other institutions
Energy Performance

Building Energy Use Comparison

- Sabin-Reed
- Ford Hall
- Campus Average
- Pew Library at Grand Valley State
- William J Clinton Library
- New Neilson
- Park House
- Bechtel Environmental Classroom

btu/ft² sq/yr
Neilson Connection to Sustainability Planning

- Convened academic year 2016-2017
- Charged with examining how Smith, as an educational institution, can most effectively respond to climate change.
- Smith can and should contribute to climate solutions, locally and globally.
- Re-committed the college to carbon-neutrality in operations.
SGCC Connection to Neilson

- Path to carbon neutrality: campus-wide geothermal system
- Neilson Library will be built in anticipation of this plan – “plug and play”
One last note...

♦ Breanna Parker ‘18

♦ Undergraduate Campus Sustainability Research Award

♦ “Designing a Proxy Carbon Price Strategy for Smith College.”

♦ Honors thesis identified and analyzed strategies to incorporate the proxy carbon price into financial decisions. It provides eight recommendations for proxy carbon pricing for Smith.

♦ Association for the Advancement of Sustainability in Higher Education

♦ Followed the recommendation of the Smith Study Group on Climate Change
Questions