This presentation contains a conceptual rendering of the Dining and Community Commons. All designs are subject to change.
Agenda:

1. Site + Landscape
2. Planning
3. Interior Program
4. Sustainability

** This presentation contains a conceptual rendering of the Dining and Community Commons. All designs are subject to change.
1 Site + Landscape
Site Assessment
Provisional Area of Consideration
Program + Planning

Probable Area for New Construction
A conceptual rendering of the Dining and Community Commons. This is the layout of building. Design is subject to change.
A conceptual rendering of the Dining and Community Commons. This is a potential south view of the building. Design is subject to change.
Site + Landscape
Preliminary Massing

A conceptual rendering of the Dining and Community Commons. This is a potential southeast view of the building. Design is subject to change.
A conceptual rendering of the Dining and Community Commons. This is a potential east view of the building. Design is subject to change.
A conceptual rendering of the Dining and Community Commons. This is a potential ariel view of the building. Design is subject to change.
A conceptual rendering of the Dining and Community Commons. This is a potential layout of landscaping. Design is subject to change.
Planting Design

Landscape Types: Lawn
Planting Design

Landscape Types: Meadow
Planting Design

Landscape Types: Permaculture
2 Planning
A conceptual rendering of the Dining and Community Commons. This is a potential floor plan of the basement. Design is subject to change.
Planning
First Floor Plan

A conceptual rendering of the Dining and Community Commons. This is a potential floor plan of the first floor. Design is subject to change.
A conceptual rendering of the Dining and Community Commons. This is a potential floor plan of the second floor. Design is subject to change.
A conceptual rendering of the Dining and Community Commons. This is a potential layout of the building sections. Design is subject to change.
Planning

New Sharples Stair

A conceptual rendering of the Dining and Community Commons. Potential design for a new staircase. Design is subject to change.
3 Interior Program
Interiors - Social
Interiors
Social

Furniture Typologies

Casual Group Seating
Small 1-3 Person Seating
Socially Working
A conceptual rendering of the Dining and Community Commons. This is a potential floor plan of the first floor. Design is subject to change.
A conceptual rendering of the Dining and Community Commons. This is a potential floor plan of the second floor. Design is subject to change.
Interiors - Support
Interiors
Support

Furniture Typologies

Small Work Groups
Meeting Spaces
Task Areas
A conceptual rendering of the Dining and Community Commons. This is a potential floor plan of the first floor. Design is subject to change.
Interiors - Nourish
FURNITURE
TYPOLOGIES

SMALL GROUP SEATING, 4-8
1-3 PERSON SEATING
CLUB/TEAM SEATING
A conceptual rendering of the Dining and Community Commons. This is a potential floor plan of the first floor. Design is subject to change.
A conceptual rendering of the Dining and Community Commons. This is a potential floor plan of the second floor. Design is subject to change.
4 Sustainability
Building Rating System evaluation

From prescriptive to performance based

“Burden of Trust”  “Burden of Proof”

- Alignment with VALUES and Project Goals
- Pre-requisites
- Feasibility of major criteria
<table>
<thead>
<tr>
<th>VALUES</th>
<th>Swarthmore Environmental Framework</th>
<th>LEED v4.1 Certification</th>
<th>WELL Building Standard v2 pilot Certification</th>
<th>Living Building Challenge v4 Full Certification or Petal Certification</th>
<th>Sustainable SITES v2 Certification</th>
<th>ENERGY STAR Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top priorities of environmental factors that impact User Experience</td>
<td>Project checklist as of June 1, 2015</td>
<td>Certification</td>
<td>Certification</td>
<td>Full Certification or Petal Certification</td>
<td>Certification</td>
<td>Certification</td>
</tr>
<tr>
<td>Public Image</td>
<td></td>
<td>Value of Certification</td>
<td>Community</td>
<td>Value of Certification</td>
<td></td>
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</tr>
<tr>
<td>How do design features and programs in the facility illustrate a commitment to environmental stewardship?</td>
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</tr>
<tr>
<td>Beauty &amp; Inspiration</td>
<td></td>
<td>Mind</td>
<td>Beauty</td>
<td></td>
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</tr>
<tr>
<td>What drives, motivates, and inspires your community to go to the facility?</td>
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</tr>
<tr>
<td>Comfort</td>
<td>Indoor Environmental Quality</td>
<td>Indoor Environmental Quality</td>
<td>Thermal Comfort, Light, Air, Sound</td>
<td>Health &amp; Happiness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biophilia; Thermal, Acoustic, Visual Comfort; Air Quality; Building Materials</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td></td>
<td>Nourishment, Movement, Water</td>
<td>Place</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>How to promote healthy eating choices and habits?</td>
<td></td>
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</tr>
<tr>
<td>Equity</td>
<td></td>
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<tr>
<td>How can the facility exemplify inclusion?</td>
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</tr>
<tr>
<td>How important are carbon emissions associated with the design, construction and operation of your facility?</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Land Development</td>
<td>Sustainable Site &amp; Landscaping</td>
<td>Location &amp; Transportation, Sustainable Sites</td>
<td>Place</td>
<td>Site design, construction, operations and maintenance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Path to Petal Certification

### Target: Achieve requirements of 3 Petals

<table>
<thead>
<tr>
<th>VALUES</th>
<th>LBC Petal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Image</td>
<td>LBC</td>
</tr>
<tr>
<td>Carbon</td>
<td>Energy*</td>
</tr>
<tr>
<td>Beauty &amp; Inspiration</td>
<td>Beauty*</td>
</tr>
<tr>
<td>Equity</td>
<td>Equity~</td>
</tr>
<tr>
<td>Nutrition Land Development</td>
<td>Place~</td>
</tr>
<tr>
<td>Comfort</td>
<td>Health &amp; Happiness~</td>
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</tbody>
</table>

- **Operational Energy**
- **Embodied Carbon**
- **Integrating public art**
  - Inspiration & education
- **Human scale + Human Places**
  - Universal access to Nature & Place
- **Equitable Investment**
  - Just Organizations
- **Limits to Growth**
  - Human Powered Living
- **Urban Agriculture**
  - Habitat Exchange
- **Healthy Interior Environment**
  - Biophilic Environment
  - Civilized Environment

* Pursuing ~ Exploring

Registered for this version

Opportunity to upgrade a Petal to this version
Path to Petal Certification

VALUES
- Public Image
- Carbon
- Beauty & Inspiration
- Equity
- Nutrition Land Development
- Comfort

LBC Petal
- Energy*
- Beauty*
- Equity~
- Place~
- Health & Happiness~

Operational Energy

Target: Achieve requirements of 3 Petals

Goal: ZNE | Criteria: 105% of energy produced on-site

Net-Positive Building

Produce 105% more than consumption via a combination of on-site and off-site solar

Path to Net-Positive (EUI - kBtu/SF/yr)

-7 EUI = 110% Offset

* Pursuing ~ Exploring
Path to Petal Certification

VALUES LBC Petal

Public Image LBC

Carbon

Energy* Embodied Carbon

Not part of Petal Certification

Beauty* Energy

Not part of Petal Certification

Beauty & Reflection

Equity~ Equity

Nutrition Land Development

Place~ Comfort

Health & Happiness~

* Pursuing ~ Exploring

Goal: Reduce embodied carbon | Criteria: None

Embodied Carbon Analysis

Focus first on structure: Mass Timber vs Steel
CLT Species: SmartLam - Southern Yellow Pine coming from our Dothan Alabama facility; SPF- Spruce Pine Fir coming from our corporate Columbia Falls facility; Douglas Fir/Larch coming from our corporate Columbia Falls facility

Carbon distribution throughout a tree

Carbon storage life is 100 years in framing
30 years in furniture
6 years in paper
0 when burnt or decays

10/31/2019 - Town Hall
Path to Petal Certification

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<tr>
<td>Public Image</td>
<td>LBC</td>
<td>Goal: Integrate Public Art</td>
</tr>
<tr>
<td>Carbon</td>
<td>Energy*</td>
<td>• Identify opportunities for public art through a charrette</td>
</tr>
<tr>
<td>Beauty &amp; Inspiration</td>
<td>Beauty*</td>
<td>• Schematic design budget includes $20,000 allowance for public art to be incorporated</td>
</tr>
<tr>
<td>Equity</td>
<td>Equity~</td>
<td>Goal: Inspiration &amp; education</td>
</tr>
<tr>
<td>Nutrition Land Development</td>
<td>Place~</td>
<td>• A dynamic dashboard for displaying the ZNE performance of the building from various meters</td>
</tr>
<tr>
<td>Comfort</td>
<td>Health &amp; Happiness~</td>
<td>• An allowance of $20,000 for the development of this dashboard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• An allowance of $20,000 for interpretive signage to teach the visitors and occupants about the building</td>
</tr>
</tbody>
</table>

Pursue during Design Development

* Pursuing ~ Exploring
Path to Petal Certification

VALUES

Public Image

Carbon

Beauty & Inspiration

Equity

Nutrition Land Development

Comfort

LBC Petal

LBC

Energy*

Beauty*

Equity~

Place~

Health & Happiness~

Human scale + Human Places
Universal access to Nature & Place

Equitable Investment
Just Organizations

Target: Achieve requirements of 3 Petals

Goal: Human scale / Universal access | Criteria:
programmatic layout and access to social space needs

• Inherent in the design solutions

Goal: Equitable Investment | Criteria: Private entities donate for public good

• First option – clarifying Swarthmore Need-Based Scholarship program as an alternate
• Second option – upgrade this Petal to LBC v4 where no Equitable investment required

Goal: Just Organizations | Criteria: Members of Project Team should be certified before project certification

• First option – leverage Integral’s Just Label for LBC v3.1
• Second option – DLR Group is considering Piloting Just Label and may be able to satisfy the requirements of TWO Just label organizations including Integral

Further exploration during Design Development

* Pursuing ~ Exploring
Path to Petal Certification

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TARGET: Achieve requirements of 3 Petals

Goal: Limits to Growth / Human Powered Living | Criteria: Site Design metrics
- Inherent in the design solutions

Goal: Urban Agriculture | Criteria: A ratio of site acreage for food production
- Use Swarthmore’s plan to have a garden for the whole campus and the community (minimum 0.3 acres) in addition to permaculture solutions as part of design

Goal: Habitat Exchange | Criteria: Expand existing thriving wilderness areas and protect them from destruction
- Use Crum Woods Stewardship Committee’s Stewardship Plan as an alternate to meet this requirement

Further exploration during Design Development

* Pursuing ~ Exploring
Path to Petal Certification

Target: Achieve requirements of 3 Petals

Goal: Healthy Interior & Biophilic Design | Criteria: Site Design, planning, fenestration and interiors metrics

- Inherent in the design solutions

Goal: Civilized Environment | Criteria: Access to daylight and air

- Daylighting inherent in design
- Access to operable windows needs further design refinement
- An allowance of $20,000 for operable windows control

Further exploration during Design Development

VALUES

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LBC Petal

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Healthy Interior Environment
Biophilic Environment
Civilized Environment

* Pursuing ~ Exploring
Thank you