The University of Vermont
STEM Initiative

RFP Site Visit and Informational Meeting
Fleming Room 101
June 27, 2013
Science Technology Engineering and Mathematics (STEM) Agenda

- Introductions
- Facilities Design & Construction Website
- Defining STEM
- Existing Utility Infrastructure
- Campus Master Plan Guidelines
- Regulatory Land Use Process
- Contract
- Fee Proposal Matrix
- Architect-Engineer Checklist of Services
- RFP Highlights
STEM Investment and Initiatives

“In order to truly prepare students for the jobs of the future and set itself apart in excellence, UVM can lead by educating a new generation of engineers and scientists, well-grounded in the traditional STEM disciplines and the emerging field of complex systems, while also versed in the arts, humanities, health, natural resources, and the social sciences so as to be holistic thinkers.”

UVM STEM Vision

• The STEM vision for the University of Vermont is to design interdisciplinary facilities to provide 21st century classroom, teaching and research laboratories, enhanced with the latest in technology.

• This multidisciplinary approach will include the program requirements of Chemistry, Physics, Engineering, Mathematics and Statistics, and Psychology in a phased project concept.
# Conceptual Program Components By Department/Function

<table>
<thead>
<tr>
<th>STEM Program</th>
<th>Net Assignable Square Feet (NASF)</th>
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<tbody>
<tr>
<td>Chemistry</td>
<td>43,349</td>
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<tr>
<td>Physics</td>
<td>23,315</td>
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<tr>
<td>Psychology</td>
<td>22,023</td>
</tr>
<tr>
<td>Mathematics &amp; Statistical Sciences</td>
<td>15,336</td>
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<tr>
<td>Computer Science</td>
<td>5,066</td>
</tr>
<tr>
<td>School of Engineering</td>
<td>37,111</td>
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<tr>
<td>Engineering, Dean’s Office</td>
<td>11,112</td>
</tr>
<tr>
<td>Registrar’s Office (General Purpose Classrooms)</td>
<td>6,035</td>
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<tr>
<td>Chiller Plant (Utility Area)</td>
<td>8,400</td>
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<tr>
<td><strong>Grand Total</strong></td>
<td><strong>171,747</strong></td>
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The University of Vermont Campus Map
Facilities – Existing Buildings Impacted

- Dewey Hall: Psychology
  Year Built: 1905
  45,169 Gross SF

- 16 Colchester (Henry Lord House)
  Math & Stats
  Year Built: ca1890
  11,475 Gross SF

- 12 Colchester (Pearl House)
  Math & Stats
  Year Built: ca1789
  9,165 Gross SF

- Mansfield House
  Math & Stats
  Year Built: 1891
  6,679 Gross SF

- Perkins Hall
  Engineering & Math
  Year Built: 1891
  21,366 Gross SF

- Votey Hall
  Engineering & Math
  Year Built: 1964
  21,234 Gross SF

- Angell Lecture Hall
  Year Built: 1969
  11,070 Gross SF

- Cook Physical Science
  Chemistry & Physics
  Year Built: 1969
  117,494 Gross SF

UVM BOUNDARY (APPROXIMATE)
Facilities – Existing Building Deficiencies

Dewey Hall
- Psychology
- Year Built: 1905
- 45,100 Gross SF
- DM: $4,000,000
- Roof replacement
- Front stair replacement
- Rebuild interior to improve functionality

12 Colchester (Pearl House)
- Math & Stats
- Year Built: ca1780
- 6,195 Gross SF
- EST DM: $657,000
- New metal roofing required
- Aged plumbing
- Elevator upgrade required
- Local fire alarm only

Mansfield House
- Math & Stats
- Year Built: 1891
- 6,679 Gross SF
- DM: $300,000
- New boiler required
- Aged fire alarm & electrical
- Aged interior
- Moisture issue in basement

Angeli Lecture Hall
- Year Built: 1969
- 11,079 Gross SF
- DM: N/A
- Inefficient use of land
- Classroom standards

16 Colchester (Henry Lord House)
- Math & Stats
- Year Built: ca1890
- 11,475 Gross SF
- DM: $820,000
- Total building envelope work required
  (siding, porches, roof)
- Aged interior
- Aged lighting, power, fire alarm, plumbing
- Single glaze windows, storm windows required
- ADA lift non-functioning

Perkins Hall
- Engineering & Math
- Year Built: 1961
- 21,853 Gross SF
- DM: $2,000,000
- Roof replacement
- ADA codes
- Exterior
- Heating system

Votey Hall
- Engineering & Math
- Year Built: 1964
- 81,204 Gross SF
- DM: $8,000,000
- Lack of research space

Cook Physical Science
- Chemistry & Physics
- Year Built: 1969
- 117,494 Gross SF
- DM: $24,000,000
- Building envelope
- Ventilation & exhaust rates
- Temperature & humidity control
- Vibration limitations
- Emergency power & system redundancies
STEM Conceptual Plan – Phased Approach
STEM Conceptual Plan – Phase I
Demolish Angell Lecture Hall, Construct STEM Laboratory Facility
STEM Conceptual Plan – Phase II
Renovate Cook Physical Science Building into STEM Classroom/Administrative Facility
STEM Conceptual Plan – Phase III
Renovate Laboratories in Votey Building in Phased Sequence
Main Green View Corridor
## STEM Facilities – Next Steps

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
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<tbody>
<tr>
<td>August 30, 2013</td>
<td>Select Design team</td>
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<tr>
<td>November 15, 2013</td>
<td>Complete programmatic planning with deans and architect</td>
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<tr>
<td>December 15, 2013</td>
<td>Review of conceptual design options and decision on final selection</td>
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<tr>
<td>January 1, 2014</td>
<td>Complete Conceptual Design and Cost Estimate</td>
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<tr>
<td>September 1, 2014</td>
<td>Completion of construction drawings and go out to bid</td>
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<tr>
<td>November 1, 2014</td>
<td>Begin construction of STEM Laboratory Facility</td>
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<tr>
<td>January 1, 2016</td>
<td>Cook reconstruction as STEM Classroom/Administrative Facility goes out to bid</td>
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<tr>
<td>August 1, 2016</td>
<td>Complete construction and move Cook occupants to STEM Laboratory Facility</td>
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<tr>
<td>September 1, 2016</td>
<td>Begin Cook reconstruction as STEM Classroom/Administrative Facility</td>
</tr>
<tr>
<td>August 1, 2018</td>
<td>Complete STEM Classroom/Administrative Facility and move Math &amp; Statistics and Psychology Departments; Complete renovations in Votey</td>
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