

CornellEngineering

Breaking Rules to Advance Engineering Science

**Facilities Update
April 4, 2014**

JoAnne Williams and Bill Bader

Facilities: Key Thrust Area

- **Recruit students and faculty**
- **Retain faculty**
- **Advance research innovation**
- **Enhance learning environments**
- **Support new pedagogy**
- **Sustain long term COE goals**

CornellEngineering

Master Plan Update

- **New Construction**
 - Gates Hall– new home for CIS – moved in!
 - New BME Building – undergraduate program
 - New façade plan
- **Major Renovations on Quad**
 - Kimball Hall
 - Upson Hall
 - Other

CornellEngineering

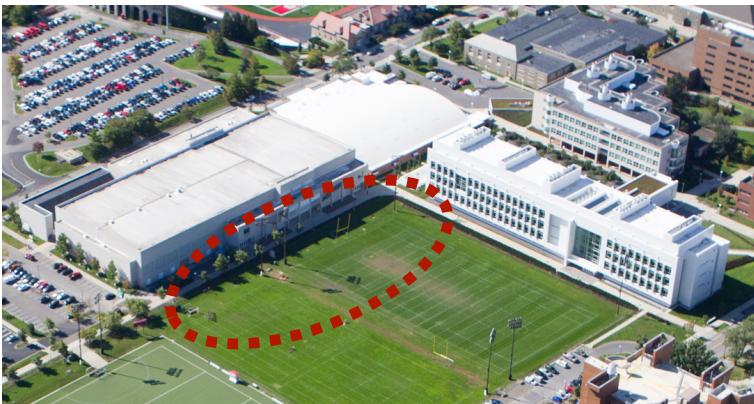
BME Building

- **Supports**
 - New undergraduate program
 - Wet lab research growth
 - Instructional labs & department home
- **Requires philanthropy – excitement growing**
- **Adjacent to Weill Hall**
 - Site selection challenges
 - Town of Ithaca
 - Enabling projects
 - Benefits
 - Proximity to vivarium
 - Co-location in biology research cluster

CornellEngineering

Building Site Status

- **Site approval project plan – May 2014**
- **Impact to Campus Master Plan**
- **Approval for fund raising – September 2014**
- **Need building ~ Fall 2019**



CornellEngineering

Façade Plan Update

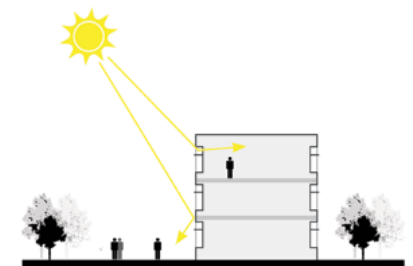
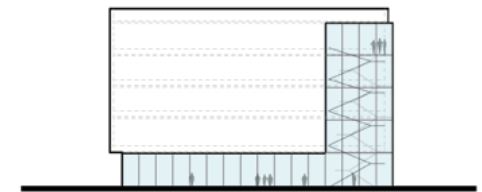
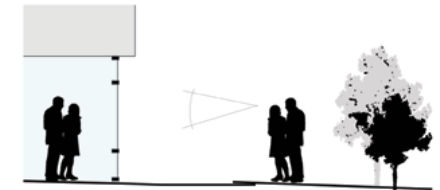
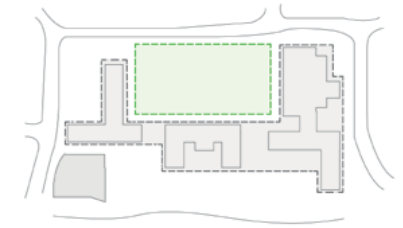
- Report complete April 2014
- University review & approval
- Potential lead donor identified



CornellEngineering

Façade Plan Highlights

- Enhanced entrances
- Transparency at ground level
- Active and connected public spaces
- Sustainable practices & durable materials
- Contemporary, coherent & flexible design
- Best use of land, landscaping & lighting



CornellEngineering

Major Renovations

- **Kimball – wet labs**
- **Upson – hybrid labs**
- **Impact to COE**
 - **Increased**
 - Faculty & student satisfaction
 - Long term sustainability
 - **Decreased**
 - Deferred maintenance \$10M
 - Startup costs by 33% ~ \$500k/year

CornellEngineering

Lab Needs

Wet

- Fume hoods, biosafety cabinets, wet services
- Used by 25% of faculty by 2016 – ↑7%

Hybrid

- Larger equipment/areas, flexibility
- Used by 35% of faculty in 2016 – ↑2%

Student Project & Instructional

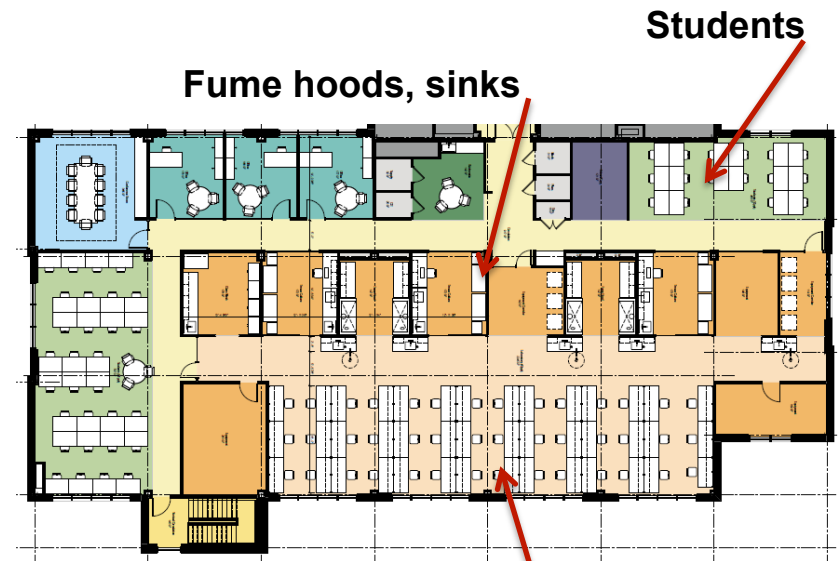
- Wet & hybrid above plus multi-function use, daylight, ventilation, & other features
- ↑ 22% by 2016

CornellEngineering



Kimball Hall – Wet Labs

- Design complete
- Enabling projects complete June 2014
- Full project complete June 2015



CornellEngineering

Benches

Kimball Hall – Wet Labs

Wet Lab Video – fume hoods, sinks, space

CornellEngineering

Upson Hall – Hybrid and Project Labs

- In programming and pre-schematic design
- Design complete November 2014
- Construction complete September 2016/17



CornellEngineering

Upson Hall – Hybrid Labs

**Wet and Hybrid Lab Video - Temp control,
ventilation, water connections**

CornellEngineering

Upson Hall – Instructional Lab

Robotics – Inadequate space

CornellEngineering

Upson Hall – Project Labs

CUAUV – Inadequate space; logistics issues



CornellEngineering

Carpenter and Other – Project Labs

Systems Engineering - Inadequate space



CornellEngineering

Emerson Machine Shop – Project Labs

Experiential Learning- Inadequate space



CornellEngineering

Weill Hall Labs

New space, adequate; anticipated result of renovation



CornellEngineering

Student Discussion:

- **Students from videos and others at Gates Hall**
- **Join them through telepresence robot**



CornellEngineering