

Space Management @ Cornell

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Space Management Generalities
Planning Context at Cornell
4 Good Things – Recommended!
2 Unique Things
Final Thoughts
Q & A



Quick Survey



Situational Specific

- Institutional
 - Goals, initiatives, priorities
 - Culture
- Personal
 - Skills & abilities
- Timelines
 - Long game vs. short

Where Cornell was and is...

- 2007: Finished campus master plan
 - Predicting growth
 - Where is it coming from?
- 2007-2008: Director of Space Planning as new position
- Signed American College and University Presidents Climate Commitment
- 2008: Financial collapse

Where Cornell has been...

- 2008-today
 - New budget model for campus
 - Creating framework for space management
 - While instituting a cost for space
 - Sustainability as major focus, instigator
 - Turned off the tap on capital construction
 - Comprehensive space study

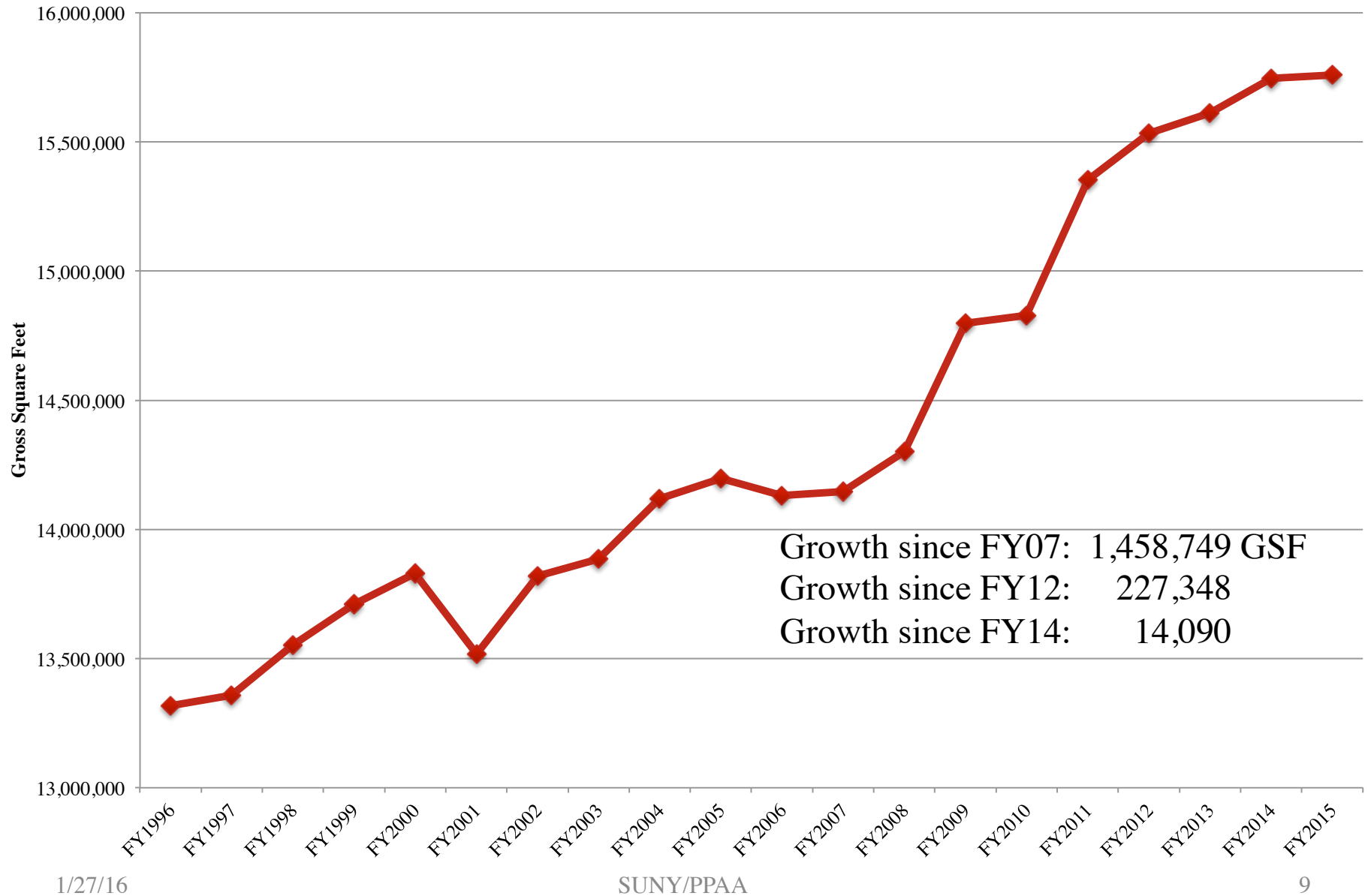
And where Cornell may be going...

- 2015: New President, new Provost
- A new space study!
- More active involvement of the center in college capital planning and project development
 - Controlled (no?) growth
 - Investments in existing buildings
 - Prioritize space allocations
 - Address deferred maintenance
 - Programmatic renewals

Campus Growth

- Average new GSF per decade
1860-2010: 1,137,000
1961-2010: 1,884,000
- Master plan predicted 3-4M gross square feet (GSF) in 30 years (2037)

Ithaca Main Campus



What I bring (and don't)

- Academic training in Natural Resources
- Professional background in research and environmental health and safety

NOT

- Interior design
- CADD

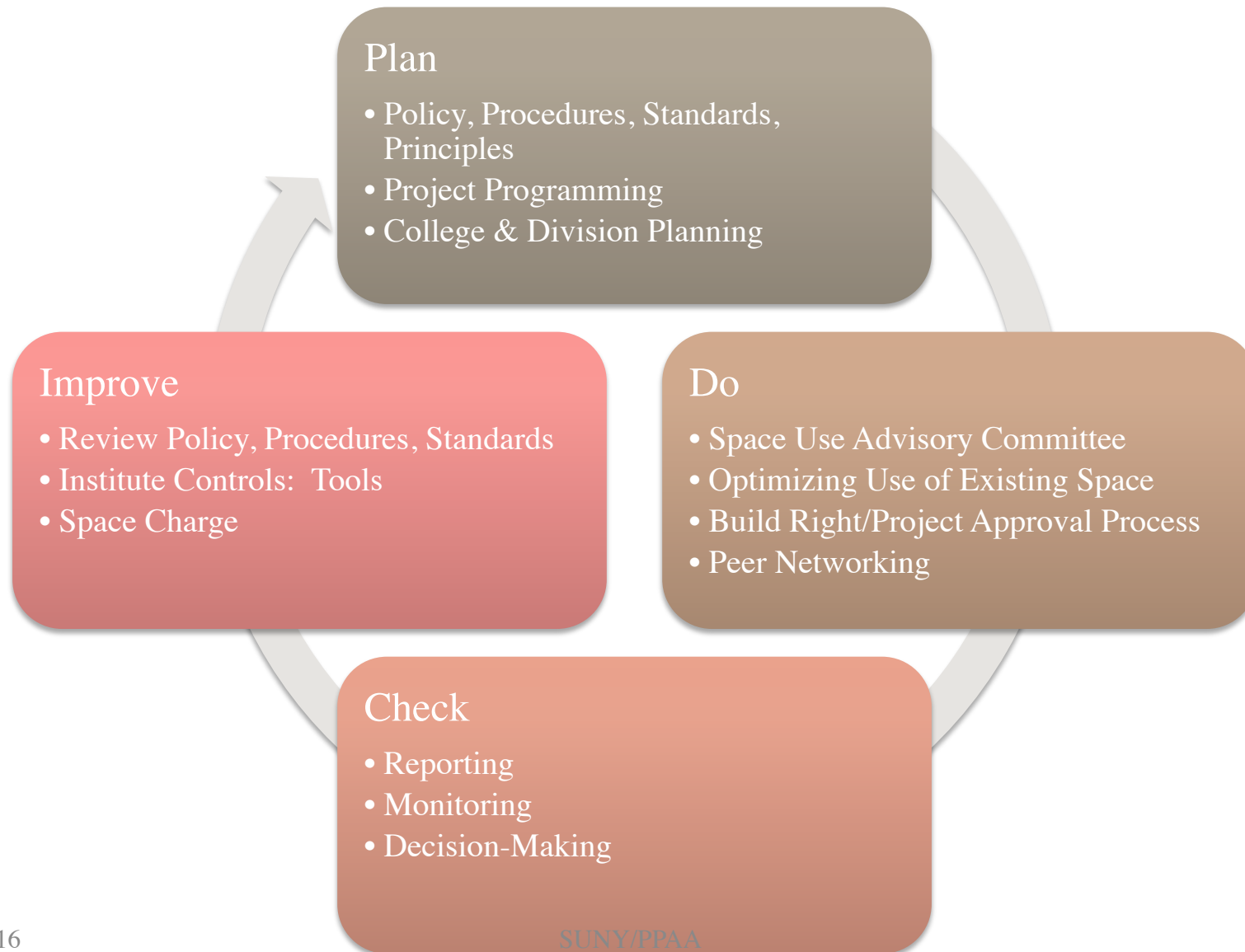
Space Planning Role at Cornell: Generalist

- Guidance – documentation, standardization
- Space reallocations
- Problem-solving
- Study management
- Space program review
- Sustainability
- Culture change agent
 - Managing space as a resource, not an amenity

NOT

- Code compliance
- Move coordination
- Real Estate acquisition and management

Space Management Program Framework



4 Good Things

1. Formed space committee
2. Adopted principles
3. Developed reallocation procedure
4. Developed space request process



Space Use Advisory Committee

- Governance
- Represent the key stakeholders/users of space
- Develop policies, procedures and other recommendations
 - Use and renovation of space
 - Allocation of existing space
 - Plans for future allocation needs
- Make recommendations on all allocations of University space, including off-campus leased space

3 Things the Space Committee Helps to Sort Out

1. People
2. Priorities
3. Politics

Space Management Principles

- All space belongs to the University
- Ownership begins with President & Provost and is delegated down
- Accountability begins locally and proceeds upward
- Space assignments are not permanent
- Space Use Advisory Committee charged as broker
- Space allocations based on existing facilities
- Space decisions based on articulated needs

“Basis of Design”

INTENT

Increase access to classroom and event space *to support mission-driven activities of the institution and promote more efficient use of campus space in accordance with the Cornell University Space Management Principles approved by the Capital Funding & Priorities Committee on April 24, 2012.*

Procedure for Space Reallocation

- Occupying unit identifies space as excess
- Tells space planner
- Space committee approves for reallocation
- Space planner collects proposals
 - Standard format
- Space committee evaluates, ranks top 3
 - Published prioritization criteria

Reallocations

Then:

- Free for all
- Most politically successful, regardless of true need, mission alignment, ability to pay, etc.

Now:

- Everyone has a chance
- Space allocation prioritized based on need, practically achievable vision, adjacencies, financial feasibility

TRANSPARENT, “FAIR”

Space Request Process

- Short Form, Long Form
- Submitted to space committee
- Who, what, when, where, why
- Dean or Vice President signature
 - *By signing, the dean/vice president/vice provost asserts that the need requested here cannot be met within existing space controlled by the College/Division. Further, the signer acknowledges the applicability of budget model requirements concerning the distribution of operations and maintenance expenses for space based on unit space allocations.*

Space Requests

Then:

- Backroom deals
- No obvious path to resolution
- Build new rather than deal with politics

Now:

- One master list of institutional priorities
- Dean/VP signature makes units work harder to resolve locally
- Gracefully deal with “random” requests

Other Reference Documents

- 1994 Space Planning Guidelines
 - Office & classroom now in revision
- Space Mgmt Principles as applied to Cornell Instructional Space
- Space Use Principles for Registered Organizations
- Fees for Internal Users of Cornell Physical Space
- Guidelines for Space Needs Studies

2 Things Relatively Unique to Space Management @ Cornell

1. Space charge
2. Key action in climate action planning

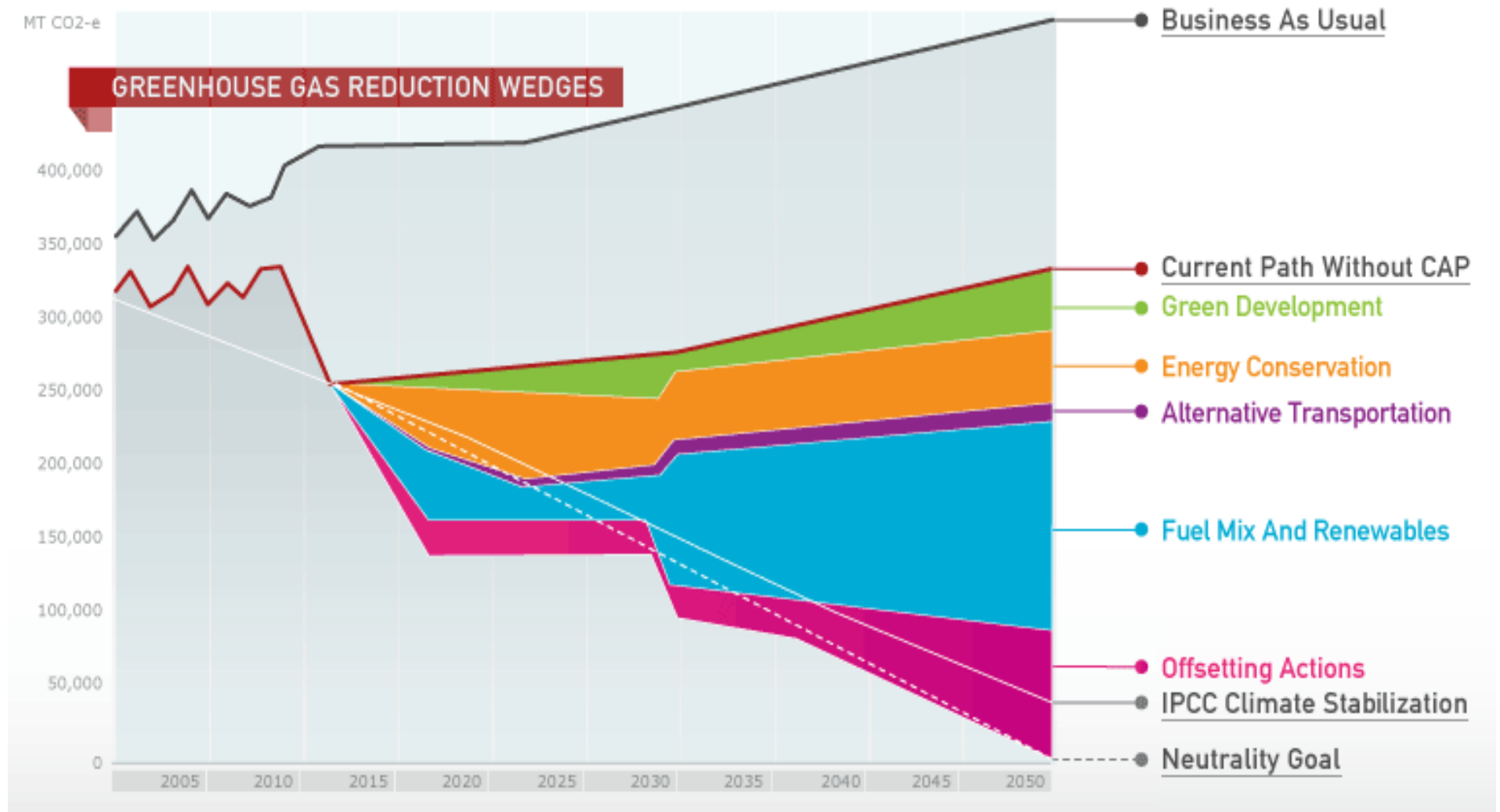
Space Charging

- Peer institutions (e.g., Stanford, University of Michigan)
 - More direct pressure to reduce the rate of growth, due to municipal restrictions or other physical constraints
- At Cornell:
 - Built into budget model through facilities costing: stewardship, utilities, operations & maintenance
 - Incentivizing closer look at utilization

Sustainability & Space at Cornell

- Climate Action Plan (2009)
 - Focused on carbon-equivalent emission reductions
- Green Development “wedge” working group
 - Building energy
 - Smart growth

Emissions Forecast



How to define greenhouse gas savings?

Analysis of building efficiencies

Project	Project Type	Current Size	Possible Size	% Change
A	New office building	119194 gsf	100618 gsf	(16%) GROSS
B	Replacement lab building			(15-24%) GROSS
C	Gut renovation of office/ classroom building	328 people	381 people	16% PEOPLE
D	Unit master plan - proposed mix of renovation & new construction			(10%) NET
E	New office with minor classroom component	58274 nsf	56056 nsf	(4%) NET
F	New lab building			(28%)

Table 1.1: Financial Performance of Facilities-related Actions

Action	Life Cycle NPV (\$M; 5% discount rate) Through 2050		2050 Annual GHG Reduction (1000 MT CO ₂ e*)	Other Primary Benefits
	Capital Costs	Net Benefit <i>Savings - Cost</i>		
Space Planning and Management	2	114	7	Sustain open space; reduce future operating costs Flex work offers higher employee satisfaction
Bldg Energy Standards	20	21	29	Higher comfort; smaller systems
Energy Conservation*	103	155	48	Higher comfort and HVAC control
Commuter Travel	0	3	2	Less campus traffic; better services
Business Travel	2	5	8	Improved video-conferencing capacity
Campus Fleet	3	4	2	PR: Campus vehicles are visible symbol
Upgrades to Hydro Plant	2	2	1	Some capital needed anyway to maintain
Replace TG-1	1	2	1	Will also extend life
Co-Fire Wood	0.3	(1)	<1	Local (community) economic benefit; may enable future actions; improved fuel security
Hybrid EGS and Biogas	142	9	112	Regional economic benefit (jobs)/national tech interest
Large Scale Wind	28	6	13	PR: Visible symbol of sustainability
Landfill Gas @ Geneva	0	6	5*	Not part of inventory total; reputational enhancement
TOTAL FOR ALL ACTIONS	\$303 million	\$230 million	211,000 MT	*GHG and Net Benefit Figures not additive; sum of actions creates lower net savings due to interplay between recommended actions.



Green Development Actions

- **Building Energy Standards** – Less Energy per Square Foot
- **Space Planning and Management** – Maximize Use of Existing and New Space
- **Improved Land Use** – Maintain a Compact, Efficient Campus

5 Challenges

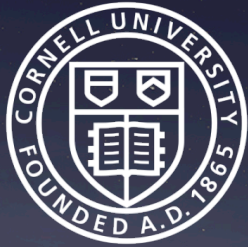
1. Peer competition
2. Space managed locally
3. Space as status
4. Money doesn't keep up with trends
 - Active learning classrooms
5. Trends differ: business vs. higher education
 - Hot desking/hoteling
 - Alternate work strategies

OKAY, **5** More...

6. New construction – gifts/recognition/legacy
7. Existing buildings – structural constraints
8. Academic calendar
9. No static state
10. Multiple stakeholders, complicated issues & sometimes no clear decision-maker
 - Classroom scheduling, management & technology

5 Final Thoughts

1. Easier to do space management in times of restricted resources
2. Space resources are integral to so many priorities – e.g., faculty growth, delivery of new pedagogies – involved in many interesting discussions
3. Rewarding – shape the oversight and use of space resources
4. Smart people can solve complex problems when empowered to do so
5. Fun!



Thank You!

<http://dbp.cornell.edu/home/offices/space-planning/>

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Bonus Slide

