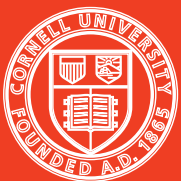


Master Planning at Cornell University

Lessons Learned from Peer Universities'  
Planning Experiences

Summer 2005

Campus Planning Committee



Cornell University

## Executive Summary

Over the past academic year, the Campus Planning Committee reviewed a range of master plans from six universities across the country as well as three campus sustainability initiatives. This process served to educate the CPC membership about what a master plan represents to a university as well as campus-wide planning issues and different approaches to sustainability. These findings have been compiled in a report that summarizes and evaluates different types of master planning documents. The report also outlines a series of factors that contribute to the success and viability of a master plan. Illustrative examples from the universities are included as also the relevance of each of these to Cornell's future planning process.

The master plans that the Committee reviewed are:

- 1) The Ohio State University 1995 Master Plan & 2003 Update
- 2) Duke University 2000 Master Plan and 2002 Action Plan
- 3) University of North Carolina at Chapel Hill 2001 Master Plan, Development Plan and Stormwater Management Plan.
- 4) University of Iowa 1998 Sesquicentennial Campus Planning Framework Update
- 5) Brown University 2003 Strategic Framework for Physical Planning
- 6) Harvard University: Planning for Allston

The Campus Sustainability Initiatives that were reviewed are:

- Brown University's "Brown is Green" Program
- Harvard University's "Green Campus Initiative"
- University of California at Santa Cruz's "Blueprint for a Sustainable Campus"

The factors influencing the plan's success and viability address many different areas of master planning, including process, content and implementation. They are:

- **Type of Master Plan**

The diversity of universities and colleges across the country is evident in the variety of plans produced by those institutions and their processes. Most master plans in their structure and content are within the range of a spectrum between a Planning Framework and the Fixed Siting/Development Plan. For a campus as large and diverse as Cornell, it may be appropriate to consider a plan that has aspects of both according to need.

- **Vision and Principles**

The vision is different for every institution, stating the purpose of the campus plan, and what the university hopes to accomplish with the plan. A set of principles is connected with the vision. Some universities use principles to guide their master plan instead of a vision.

- **Scope**

The scope is a necessary early step in the process and establishes how the university's future planning and development decisions will be implemented and measured for success against the vision and principles. Scopes vary from a broad, holistic approach to more focused, near-term guidelines for managing growth and are closely tied in with the choice of plan type and structure.

- **Involvement of the Campus Community**

Most campuses include representation from the broader campus community in their master plan processes. While the manner and extent of engagement varies, many plans indicate that the involvement of key members of the campus community is essential to the plan's effectiveness.

- **Coordination of Scope/Consultant Resources**

The coordination of scope elements and consultants is an essential step in the master planning process as a lack of coordination can result in a fragmented and less effective plan. Many universities choose to produce work internally towards the master plan as well as coordinate the scope elements and consultants. However it is carried out, this will be an important factor for Cornell to consider towards the success of its plan.

- **Management Structure**

A management structure within the institution, organized by the President, is typically established to guide the master planning process, and tasked with the overall management and implementation of the master plan. Most master plans studied had a committee made up of key campus stakeholders for this task best suited to that institution's needs.

- **Community Outreach**

The campuses whose plans we examined helped reduce short and long term conflicts by engaging local municipalities, residential neighbors, business owners and other interested groups in their planning processes. Early outreach efforts helped establish good working relationships with host communities, and in gaining their acceptance of the master plan. Early outreach and opportunity for input will be a necessary part of planning for Cornell, given the extents of the campus over four host communities.

- **Adaptability/Flexibility**

Changes in the goals of a university often occur within a few years after the completion of a master plan, necessitating its adaptability to handle these changes. A built-in update process can ensure flexibility by allowing the plan to address changing issues and goals within the original structure and context. A recurring schedule can be established for updates to ensure that a master plan is continually up to date and relevant. Adaptability to change is important to a plan for Cornell, given its diversity, size and the need to stay ahead of its peers.

- **Sustainability**

Many universities have taken great strides towards implementing campus sustainability initiatives. These initiatives are implemented variously through a combination of faculty efforts, student organizations and facilities staff but few of these sustainability initiatives are directly connected to a master plan. Cornell has before it a great opportunity to emerge as a leader in this field by successfully integrating approaches to sustainability into its master plan.

## Introduction

Strategizing for the long-term growth of a campus, especially one as large and diverse as Cornell, is a significant task. Campus master plans can provide vital input and guidance for managing physical growth, preserving open space and aesthetic features, addressing transportation concerns, and realizing the academic goals for an institution.

As a document and process that will define how a university campus will develop physically, programmatically and esthetically, a campus master plan and its subsequent implementation create a unique opportunity for the university to step back and examine the campus holistically, from many different points of view, while allowing discussion about the possibilities of the future.

The report first summarizes different types of master planning documents. It then outlines factors that the committee found to contribute to the success and viability of a master plan. Illustrative examples from the universities that the committee has studied are included, along with observations of how the findings are relevant to Cornell. It is important to note that these findings are meant to be informative and not prescriptive.

The master planning documents that the CPC reviewed are listed below.

- 1) The Ohio State University 1995 Master Plan & 2003 Update
- 2) Duke University 2000 Master Plan and 2002 Action Plan
- 3) University of North Carolina at Chapel Hill 2001 Master Plan, Development Plan and Stormwater Management Plan.
- 4) University of Iowa 1998 Sesquicentennial Campus Planning Framework Update
- 5) Brown University 2003 Strategic Framework for Physical Planning
- 6) Harvard University: - Planning for Allston

Sustainability initiatives

- 7) Brown University's "Brown is Green" Program
- 8) Harvard University's "Green Campus Initiative"
- 9) University of California at Santa Cruz's "Blueprint for a Sustainable Campus"

The factors address many different areas of master planning, including process, content and implementation. They are:

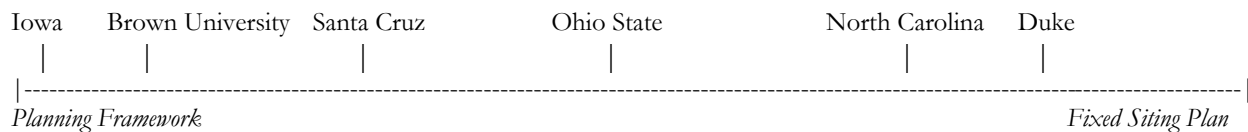
- Vision and Principles
- Scope of Plan
- Involvement of the Campus Community
- Coordination of Scope / Consultant Resources
- Management Structure
- Reaching Out to the Community
- Adaptability/Flexibility
- Sustainability

Ultimately, a successful plan for a campus is one that is sustainable in the broadest sense, while meeting the institution's requirement for space to fulfill its overall vision and goals. Many campus master plans are undertaken but do not incorporate campus wide decision making into the process. The most useful plans seem to develop as a result of well-designed planning processes. These processes create useful plans when they engage the campus community on major issues that are addressed within the scope of a master plan.

## Types of Campus Master Plans

One of the most important findings was that no two master plans are alike. The diversity of universities and colleges across the country is evident in the variety of plans produced by those institutions. The committee felt that it was beneficial in addition to examining plans from other universities, to keep in mind the relevance of the findings to Cornell.

### Campus Planning Documents Reviewed by the Campus Planning Committee



- Spectrum of Comprehensive Campus Planning Documents

Planning documents typically fall within a spectrum of structure and content. At either end are the Planning Framework and the Fixed Siting/Development Plan. The former at its most extreme, outlines goals and objectives for physical growth on campus, but does not necessarily address specific building siting, leaving this to subsequent, more focused planning efforts. The latter at its extreme, is a site specific plan, which addresses physical growth on campus in the context of detailed program development, often with graphic representations of future building footprints and open space up to 20 or more years in the future. Each approach has its pros and cons and the choice of each depends upon the overall goals of the plan. Most plans fall somewhere in between, with the general guiding structure being either a Framework or a Fixed Development Plan. The points below outline the pros and cons of the two types of planning documents at their extreme.

- Planning Frameworks

- Pros

- If time and/or money are short, focusing on a vision and goals for planning on campus in an overall guiding document can set the stage for more detailed analyses to be conducted at a later date for sub-areas of campus or for systems (e.g. transportation, residential areas, etc.).
- A planning framework is typically more flexible than fixed development plans, and can more easily accommodate unanticipated changes such as the emergence or enhancement of a department or college, or a rise in priority of one building over others previously planned.

- Because planning frameworks are broad and general, they allow the campus community to shift its focus from particular sites to the opportunities and constraints of campus' environmental, historic and community setting.
  - Cons
    - Because planning frameworks lack specificity about such details as building footprints or renderings, administrators and the broader campus community may have more difficulty relating the planning framework to particular implementation steps.
    - The very flexibility of the planning framework can reduce its legitimacy within the campus community if it is used to justify unplanned growth.
    - If it is to succeed, a planning framework requires a campus culture that values planning and has appropriate systems for ensuring implementation in the process of developing, conserving, and redeveloping the campus according to the framework. In particular, a framework can require a more knowledgeable and engaged planning staff.
- Fixed Development / Siting Plans
  - Pros
    - For campuses that have detailed and organized future capital development plans, a building siting plan can show what a campus might look like 5 to 20 years in the future.
    - Fixed development plans can provide analysis for site development and physical growth for small institutions that do not have planning offices.
  - Cons
    - Fixed siting plans are only as good as the duration of the capital plan or current planning objectives set at the time of the document. The static nature of a fixed development plan leaves little flexibility for incorporating changing academic priorities and addressing their unanticipated impact on the physical campus.
    - Fixed development plans often are too building-specific, ignoring other important planning elements, such as infrastructure or landscape networks over large areas of campus.
    - Graphics that show specific building sites or massing can often work against the flexibility of a plan by implanting ideas that a specific type or size of building must be placed on a site as represented.

The choice of either type of plan is tailored to the different principles and goals of different universities. The size and complexity of Cornell as well as the need to be flexible to change make it advantageous to consider a planning framework with elements of the fixed siting plan, where necessary.

## Vision and Principles

All the campus plans that we studied established guiding elements before addressing specific issues of growth or campus development. This typically began with an institutional vision, endorsed by the President and senior administration, as well as the campus community at large. It is important because it states the purpose of the campus plan, and what the university hopes to accomplish with the plan. It is a broad declaration that guides the entire campus plan.

The vision is accompanied by a set of principles. Sometimes, campuses stipulate principles rather than adopting a vision statement. The principles identify various defining ideas of what the university is and should be. They are more focused and detailed than the more general vision statement. The vision and principles are different for each institution.

- An example of a vision and principles from The Ohio State University's master plan is presented below:
  - Vision/Purpose:
    - To maintain the integrity of campus land and environment, address the significant amount of land resources and their context within a large urban area, and conserve land resources & manage growth over the next 30 years.
  - Principles:
    - *Unified Campus Concept*: Recognize requirement for a compact/centralized plan with a sense of academic unity
    - *River Campus Concept*: Recognize the Olentangy River as an invaluable campus asset
    - *Pedestrian Campus Concept*: Recommend the elimination of most vehicular traffic within the primary academic zone.

From the plans that the committee has studied, it seems to be extremely important not only to establish the vision and principles of a master plan very early within the process of developing the plan, but also to give careful and timely consideration to make sure the vision and principles are well suited to the institution.

## Scope

The next step after the establishment of vision and principles is the process of determining the goals and the scope of the plan. To determine the scope, the institution must consider several factors, including the academic and physical development needs of the institution, goals set for the future, previous planning for growth and development on campus, existing planning documents, and the current implementation structure. Determining the scope of a plan is a crucial element because it establishes how the university's future planning and development decisions will be implemented and measured for success against the principles of the plan.

The scope of the plan varies according to what the institution wishes to accomplish with it. Campuses always balance breadth and depth in planning. When it chooses an approach resembling the planning framework, a campus also commits itself to a broad survey of campus conditions, needs and alternatives that sacrifices depth in particular areas. Under the best circumstances, these

broad plans will identify issues, areas or systems that will require more intensive analysis sometime in the future as well as processes by which that analysis will occur.

When a university pursues a fixed development/siting plan approach, at the other extreme, the university sacrifices the holism and synergies that can come from a more comprehensive approach but provides itself with a useful near-term guide for managing change in specific areas or systems. A campus can avoid some of the pitfalls of the fixed development/siting plan approach by assuring the consideration of new information as the plan is carried out and as conditions change.

The university plans we examined provide several examples about how campuses balance breadth and depth as they decide the scope of their master plans.

- Ohio State chose to comprehensively address planning and development on campus over a 30 year period. The university had not had a master plan since the 1960s, and it also wanted a plan that stood the test of time without requiring another laborious and costly process to follow soon after the 1995 effort. The elements of Ohio State's master plan included categories such as Land Use, Open Space, Density of Development, Primary Circulation Systems and Linkages with the Surrounding Community. These broad categories helped the university manage planning and development on its campus with a holistic and comprehensive approach.
- Brown University did not have a strong history of planning, or a strong planning structure on campus. It needed to support an ongoing academic initiative, as well as the university's capital plan. Faced with these goals, but having limited time and resources, the university chose to prepare a Planning Framework to provide the broad principles for growth and development on campus. The Framework consisted of two primary segments: Analysis - that provided historic and present context; and Recommendations - that outlined the growth and development goals of the university. More detailed short and long term strategies based on the Analysis and Recommendations sections of the Planning Framework were intended to be produced when time and resources permitted.
- In producing its master plan, the University of North Carolina (UNC) focused on one broad principle and several more specific goals. The university was concerned that its development was straying from its historic roots. Additionally, the university faced a requirement to add significant enrollment and gross square footage to the campus. Therefore, the scope of the UNC master plan consisted of separate plan elements that addressed these specific issues, rather than the comprehensive approach of Ohio State and Brown University. Design Guidelines address the aesthetics and design relationship between new buildings and old. A Development Plan provided analysis of how the campus would handle the new demands, both physically and programmatically. Separate plans for stormwater management, and transportation supported the development plan in analyzing key factors and issues for the significant anticipated growth.

To produce a master plan that is comprehensive in nature, it may be beneficial to consider what elements of a plan can be accomplished within the time frame and resources presently available to the university, and what elements can be produced at a later date.



## **Involvement of the Campus Community**

Most campuses incorporate internal administration & faculty in their master plan processes. Involvement differs among the seven plans, however, according to whether the entire campus community is engaged or simply important members of the campus community. However, it seems clear that if certain members of the campus community are not involved in the decision making process, or do not approve of strategies presented in a campus plan, that plan has significantly less power as an effective document for future physical growth.

- Ohio State engaged in a year and a half long internal process to garner support from important members of the campus community before moving forward with hiring a consultant to create the strategic development plan. This internal process also resulted in the production of the first volume of their planning document, which addressed the principles, history and context for the university.
- Harvard University has gone to great lengths to include faculty, staff and students on all its major committees for planning on campus. For its Allston planning initiatives, four Allston Task Forces were developed to specifically involve faculty, students and staff in the planning process. These four task forces covered topics of Culture, Housing, Transportation and Retail. These groups were tasked with analyzing these issues in the context of the university's expansion into the Allston neighborhood to develop a program for growth.
- The University of Iowa engaged its campus community with a series of forums hosted by its Campus Planning Committee that sought to elicit responses about the campus' strengths, weaknesses and future development strategies. The participation process also helped the campus produce significant portions of its Planning Framework.
- UC Santa Cruz was able to utilize well-organized student and faculty groups on campus that actively sought out the ability to provide input into the university's Long Range Development Plan. Topic-based committee groups worked to address key issues such as Campus and Community, Housing and Student Life, Infrastructure and Technology, Land Use and Environment and Transportation and Circulation.

The Call to Engagement initiative solicited input from the campus community about Cornell's future. A similar process would be a good opportunity for the Cornell community to provide input and insight into the master planning process.

## **Coordination of Scope/Consultant Resources**

The organization and coordination of the elements of its scope affect how the final plan is utilized and understood. Uncoordinated analyses on different topics that are prepared by different sources can end up disorganized, resulting eventually in a less effective plan. The selection of a consulting firm is an important factor in this consideration.

Different consulting firms have different skills and approaches. A consulting firm that might be an excellent fit for one university's planning efforts is not necessarily a good fit for another. There are several important factors to consider when maximizing the role and the productivity of the consulting firm(s). A consulting firm should be able to engage the campus community in the most productive manner possible. It must be able to accommodate and elevate input from campus and

community stakeholders. It must also ensure that key stakeholders understand and accept the process and decisions made about the future of the campus. This holds true for members of both the campus and the host communities.

Campus master plans that are more comprehensive in nature may require several different consulting firms to work on different elements. However, the coordination and contribution of different consultants to the overall goal needs to be carried out with great care in order to avoid a fragmented approach and sub-optimal implementation in the future.

Another factor is the extent of work the university produces on its own before and during its work with a consultant. Most of the planning documents the CPC studied had some portion written internally. There are many reasons why a University would choose to produce certain elements of its master plan internally. The campus administration may wish to establish its vision and principles prior to hiring a consultant. It may also wish to use consultants on specific areas of expertise, but use internal facilities and planning staff for overall coordination.

Our examination of plans shows that even when a university produces or commissions different planning documents produced at different times, it can design its master planning process to integrate these efforts.

- The framework for Ohio State's plan was produced by the university, the product of a year and a half long internal process before hiring a consultant. The university used two primary consultants on its master plan, one to focus on planning and physical development, the other on landscape.
- The University of Iowa used a consultant to produce various maps and analyses, but the process of engaging the campus community, establishing principles and developing the guiding structure to implement of physical development projects were all undertaken internally by the university.
- UNC at Chapel Hill has several different baseline documents for its master plan, each addressing specific topics and produced by different sources. The design guidelines, storm water management plan and transportation plan were each produced by different consulting firms. A development plan was produced internally to tie together most, but not all, of these studies. While UNC was able to achieve good, detailed analysis when it came to the specific elements it wished to address, the different documents are not well integrated, and do not represent a unified master plan similar to the other master plans reviewed.

For the number of issues that need to be addressed on a campus as large and diverse as Cornell's, it is very important early on to be clear about the goals and intent of the plan. This will enable the selection of the most appropriate consultants, in which case, the scope elements and consultant efforts will need to be well-coordinated for a unified, effective plan.

## **Management Structure**

Most plans need an arrangement within the institution to manage and guide the master planning process. This group, singly or in consultation with other groups, is typically organized by the President and is tasked with the overall management and implementation of the master plan,

including the development of the vision and principles, and establishing the scope of the master plan, amongst other tasks. Most university plans the CPC studied had a committee made up of important members of the campus community who were responsible for these tasks.

- Duke University used a Master Plan Oversight Committee (MPOC) comprised of various members from the faculty, staff and administration. This standing committee is the key group on campus to guide campus development and guarantee action on the master plan. It oversaw the production of the original 2000 master plan, but its primary role is to create and guide the subsequent Action Plans, which are discussed in the next section.
- Ohio State uses a variety of committees to guide its past and present master planning efforts. The Interim Master Planning Advisory Committee (IMPACT) leadership from the faculty, staff and administration. This group selected the consultants and worked with them to develop the Long Range Plan. The IMPACT group also prepared the first volume of the Plan. The IMPACT II group is a different set of campus stakeholders that is in charge of updating the master plan. Also integrated into the update process is the External Review Team (ERT), a committee that includes municipal officials and external planning and design professionals. The role of the ERT is to provide input and insight from outside the campus community.
- In its Allston master planning initiative, Harvard University uses a variety of committees. These include:
  - The University Physical Planning Committee (General oversight duties w/ faculty and administrators).
  - The Allston Executive Committee (Faculty and Administrators), specifically tasked with planning for Allston.
  - Allston Task Forces (Four Focus Areas for internal campus input, consisting of faculty, students and staff).
  - The Master Planning Advisory Committee (24 person committee including chairs of the four Allston task forces, nine faculty members, two undergraduate students, two graduate students and three administrators).
- Brown University did not use a committee structure to guide its master planning process, but hired an Executive Vice President to oversee the university's Planning Framework, with the Director of Facilities managing the day to day operations of the project. In addition, the consultant was hired to advise the administration for future planning and development efforts, such as the production of Area Master Plans to supplement the Planning Framework.
- UC Santa Cruz used two cross-campus committees that worked on different issues of campus growth. The Strategic Futures Committee (SFC) was asked to identify the range of potential academic programs that might be considered by the university. The Long Range Development Plan (LRDP) Committee was responsible for overseeing the development of the university's updated Long Range Plan. The LRDP committee was made up of faculty, administrators, staff, and students, as well as representatives from the City of Santa Cruz, the County of Santa Cruz, the UC Office of the President, and UCSC Alumni Association, and the UC Santa Cruz Foundation.

The trend in most master planning processes that were studied is to establish a committee of campus leaders from within the faculty, staff, students and the administration. In each case, the management structure is tailored to the specific needs of the institution and its plan.

## Reaching out to the Community

Tensions with host communities are common to most university and college campuses. The campuses whose plans we examined helped reduce short and long term conflict by engaging local municipalities, residential neighbors, business owners and other interested groups in their planning processes. The master planning process offered these campuses a valuable opportunity to address particular concerns with outreach efforts to establish good working relationship with the host community.

- Harvard University engaged in an extensive effort to include its neighboring communities and municipalities in its planning process for the university's expansion into the Allston neighborhood of Boston. These efforts have gained early buy-in and praise from local community groups, particularly the Allston Civic Association. One of the primary university/community partnerships is a steering committee of community residents, business owners and Harvard representatives assisted by a consulting firm and tasked with creating a land use plan to serve as a framework for future planning and development for all of the land within the study area.
- Brown University sought at a very early stage to reach out to the community to address concerns on both sides. Important to this process was the ability of the President and senior administrators to be able to attend several of these meetings with the community. This representation went a long way towards building trust with the community, and signaling that the university was serious in its efforts to involve the community in its own planning efforts.
- The LRDP committee of UC Santa Cruz also worked with a consulting firm to hold a series of well-publicized public workshops during the academic year. Throughout this process, regular press releases kept the campus and broader community informed of opportunities to become involved in campus planning, including LRDP public workshops. Periodic updates were posted on UCSC's Long-Range Development Plan website.

Both Brown University and Harvard were able to address contentious university/community issues through their master planning process, building a great deal of trust among community members. Given the advantages gained by these two universities and the number of contentious issues Cornell has with its own neighboring community, strategies for engaging the host community to the end of building trust and support for its master plan are highly recommended.

## Adaptability/Flexibility

As campus master plans are typically strategies for long-range development, redevelopment and conservation, it is important that institutions not limit themselves in their options for growth. The university must understand that institutional goals and objectives may not remain the same five, 10 or 20 years in the future. A building and development strategy that might have been supported or thought appropriate at one time may not be sustainable as administrations change and academic research foci shift. Changes in the goals of a university can occur within a few years after the completion of a master plan. Therefore, a significant test for a master planning document is

whether it can handle these changes without the need to produce another master plan. The master plans studied appear to address flexibility either by staying away from fixed siting plans, or by integrating a process for updating the master plan, or both.

- Ohio State's master plan delineated "development zones" which outlined specific areas on the campus where physical growth was allowed to occur. However, it did not refer to specific building footprints, massing or programs. Out of the master plans studied, this appeared to be the best method to address site issues while maintaining flexibility for particular sites.
- The University of Iowa and Brown University hoped to avoid the dangers of obsolescence by producing Planning Frameworks rather than siting/development plans, which they considered too specific and rigid. The frameworks outlined the development goals and objectives for the university, and then established a process by which the university would engage in site analysis for new projects as needed.
- UNC at Chapel Hill visualizes the sites and footprints of potential buildings, but does not address what the proposed buildings should consist of programmatically. This allows the plan to show the future physical shape of the campus without risking the obsolescence that comes from rigid specification of which buildings should go in which locations.

A built-in update process also helps make a master plan more flexible. Updates help address changing issues and goals in the context of the original plan, avoiding the creation of new planning documents that might contradict the previous master plan. By establishing a recurring time-period with which to update the master plan, a university can make sure that its master planning document is continually up-to-date. Some campuses choose to revise master planning documents when they are needed, but do not necessarily have a schedule for updates. Some universities scheduled regular updates to revisit and improve the master plan. These updates are typically carried out every two to seven years, and can save time and resources by not requiring the university to go through an entirely new master planning process in the face of changing and unanticipated circumstances at the institution. Universities studied that had focused goals tended to update their entire master plans every 10 to 15 years.

- Ohio State's Master Plan called for periodic reviews to determine the Plan's continuing relevance, evaluate its overall effectiveness and prepare updates that respond to changes, new problems or need for clarification. These updates were intended to occur every five years, although the first update happened eight years after the publication of the master plan. The update process includes two committees. The first, IMPACT II, updates development strategies while the other, ERT, reviews the findings of the plan from an external perspective. The 2003 Update focuses mainly on concerns that have arisen since the publication of the Master Plan.
- Duke University refers to its update process as "Action Plans". Action Plans are designed to be produced bi-annually, and connect directly with the implementation plan in the Master Plan. Through this process Duke intended that a regular planning process refine, update and potentially modify the directions proposed in the Master Plan. The first Action Plan was included in the first Master Plan. Two subsequent Action plans have since been produced, in 2002 and 2004. Each identified 10 or more capital projects that were intended to be started within the two year time period. For each project, the Action Plan provides a

description, important considerations, supporting graphics, and a section that outlines the project's relationship to the Master Plan's goals and principles.

- UC Santa Cruz produced two master planning documents in the past 15 years, both covering 15 year time periods and addressing specific campus growth targets over those time periods. While Ohio State sought a master plan that would hold for thirty years, with 5 year updates produced in between, UC Santa Cruz produced two 15 + year plans to cover the same time period. UC Santa Cruz's scope was much more focused than Ohio State's plan, in that both the 1988 and 2005 plans were produced primarily to plan for significant enrollment increases.

Cornell would be well-served to make its master plan as flexible as possible in order to maximize its resources and efforts in the future. In addition, a planning structure that is flexible would be well-suited to handle new academic priorities as well as changing circumstances resulting from existing ones. How Cornell decides upon its own update process is a matter to address in the scope of the plan.

## **Sustainability**

Sustainability initiatives on campuses have a wide range of applicability. The Campus Planning Committee chose to study three campuses, where the sustainability movements related to the physical planning and development. Each initiative was different in both how it originated, how it was administered and in how it connected to the campus master plan.

- Brown University's "Brown is Green" program originated with an academic push for more sustainable programs on campus. This evolved into an initiative managed through the administration and coordinated by an adjunct lecturer in the Center for Environmental Studies who also works under the Director of Facilities. Brown University's program is oriented around the economic benefits of sustainable programs, and focuses primarily upon energy efficiency, recycling and green building design.
- Harvard University's "Green Campus Initiative" began when the current director of the program was hired by the University's administration as a result of her efforts at promoting sustainable programs in Australia. The Green Campus Initiative covers a great deal of ground, utilizing over 15 full and part time staff to run and advise programs for resource efficiency, green buildings, greenhouse gas inventories, and research on sustainable issues and best practices.
- UC at Santa Cruz has a strong student-led movement on campus to focus on sustainable issues. This has led to the publication of the "Blueprint for a Sustainable Campus" which outlines goals for the sustainable movement focused on transportation, the curriculum, waste prevention, green buildings and others. The organization that produced the Blueprint, the Student Environmental Center, also hosts an annual Campus Earth Summit and a Sustainability Conference. Movements such as this across the University of California system have led the UC Regents to adopt a Green Building Design policy, which calls for most major building projects built after a certain date on UC campuses to incorporate the standards of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED).

All three campuses had strong sustainability initiatives and an incorporated process to implement sustainable goals in the physical development of the campuses. However, all of these sustainable movements emerged independently of their respective master planning processes. The three universities have since established ties between the sustainability movements and physical development, but the links between the institutions' master plans and the sustainability initiatives are rudimentary. There is an opportunity for Cornell to break new ground by successfully and innovatively incorporating the diverse sustainability efforts on campus into its master plan.