

PENNSTATE



ACHIEVE A

MODEL PHYSICAL

ENVIRONMENT THAT

EXEMPLIFIES THE

UNIVERSITY'S VISION

OF EXCELLENCE

AND ENHANCES

PENN STATE AS A

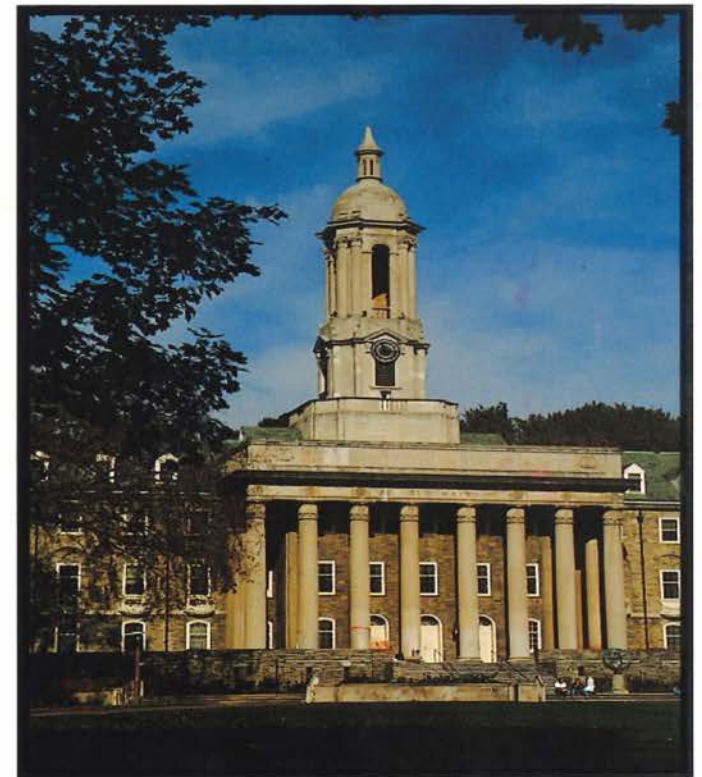
DISTINGUISHED

LEARNING

ENVIRONMENT.

# UNIVERSITY PARK CAMPUS MASTER PLAN

*Summary Report*



## PRESIDENT'S LETTER



I am extremely pleased to present the 1999 Penn State Master Plan for the University Park Campus. It has been 30 months in the making and is the result of thousands of hours of investigation, discussion and careful consideration. As many of you are aware, higher education has entered a period where challenging new concepts, programs, alliances, and exciting opportunities must be addressed if we are to continue to be leaders throughout the twenty-first century. This long-range plan provides a foundation for defining these exciting opportunities for the University's future. The Master Plan demands excellence and a continuing commitment to our students, faculty and staff as well as our neighbors and the people of the Commonwealth of Pennsylvania. Grounded in the Vision Statement of the University Strategic Plan, the Master Plan represents a comprehensive view of our future. It defines a methodology and physical framework for how our campus can grow and mature in ways that are consistent with our values and our future needs. It provides an exciting glimpse into the future, a glimpse of what our campus may look like in the year 2020.

I wish to acknowledge and give special thanks to all of you who worked in the preparation of this Plan. The Master Planning Team has included not only consultants, but also many University and community participants who gave freely of their time, energy and creativity. Thank you, it truly could not have been accomplished without you. I also would like to continue to challenge all of us to remain diligent in implementing the key components of the Plan that you were so instrumental in developing.

Most sincerely,

Dr. Graham Spanier  
President, The Pennsylvania State University



**INTRODUCTION**

**CONTENTS**

**INTRODUCTION** 1

**VISION** 2

**CAMPUS-WIDE OPPORTUNITIES** 4

Open Space 6

Pedestrian Circulation 7

Transportation 8

Buildings 12

Utilities 13

**SUBCAMPUS PLANS** 14

Agricultural 14

Science 16

Engineering/EMS 18

**GUIDELINES** 20

**ACKNOWLEDGEMENTS** 21

The Pennsylvania State University is an historic, Land Grant institution located in central Pennsylvania. Founded in 1855, the University originally began as The Farmer's High School. With a current enrollment of 79,000 full and part time students, it is now one of the 10 largest universities in the country. The University Park Campus supports a total population of 60,000 people including 41,000 students.



Today, University Park is comprised of 5,900 acres of scenic and fertile land of which almost 4,000 acres are committed to agriculture. There are over 600 buildings on the University Park Campus and in its vicinity. The core area of campus is comprised of almost 540 acres of classroom, office, laboratory and residential facilities. A close relationship with local municipalities has proven mutually beneficial in maintaining and balancing the charm of a small town, rural character and an agricultural heritage with the demands of a burgeoning major public research institution. With significant growth in recent years, the institution has maintained its position as a nationally recognized leader in academic and research arenas. Of the 14 million gross square feet of building space, approximately 1 million gross square feet of new space has been added during the last decade.

**EMBODY  
PENN STATE'S  
COMMITMENT TO  
THE LAND GRANT  
MISSION, CELEBRATE  
ITS RURAL HERITAGE  
AND CONVEY A  
HIGHLY ACCESSIBLE  
EDUCATION.**





**VISION**

The Master Plan for the University Park Campus is based both on the University Strategic Plan and on a vision of the campus specific and unique to University Park.

The vision statement as expressed in The Pennsylvania State University's *Academic Excellence Planning for the Twenty-first Century* represents the guiding purpose and ideals that the campus supports.

The vision for the physical campus is to achieve a model physical environment that exemplifies the University's vision of excellence and enhances Penn State as a "distinguished learning environment." This vision embodies the most central ideals of the campus and provides a compelling set of expectations that the Master Plan serves. We envision a campus that:

- 1 embodies Penn State's commitment to the Land Grant mission of the University by design that supports the integration of teaching, research, outreach, creative accomplishment, and service; by celebrating its rural heritage; and by reflections conveying a highly accessible education;
- 2 emphasizes the student by enriching the student experience through the exemplary and memorable quality of the physical environment that accommodates and enhances daily academic and campus-life activities, accentuating them as vibrant, enticing and vital;
- 3 embraces Penn State's uniqueness and identity by preserving and enhancing the best architectural, landscape and planning qualities of the historical center of campus; a "campus in the fields" character, human-scaled spaces and buildings, quadrangles, academic neighborhoods, tree-lined paths and pastoral lawns;
- 4 promotes the University's commitment to the surrounding community by establishing welcoming and mutually beneficial physical relationships between campus and the surrounding community; and
- 5 integrates the physical requirements and visions of the Colleges and support units with the overall vision for the University Park Campus.



ENRICH THE  
STUDENT EXPERIENCE  
THROUGH THE  
EXEMPLARY AND  
MEMORABLE QUALITY  
OF THE PHYSICAL  
ENVIRONMENT.



#### **PURPOSE**

The Master Plan provides a philosophical and physical framework for dealing with growth over the long term. As the University continues to grow, that growth needs to be accommodated in an orderly and efficient way. The Plan is an opportunity plan and not an implementation plan. It identifies opportunities the institution may pursue as needs become more clearly defined. It is not a plan that recommends growth, but rather one that defines opportunities for accommodating the growth that the institutional leadership and Trustees deem desirable and necessary.

The Plan clarifies those factors that are impacted by growth and defines many of the resources needed to achieve it. It endorses a coordinated approach for planning the campus and the components that comprise it. The campus has become too complex to consider a new building as an isolated element. Instead, it must be viewed as a part of a complex puzzle where each piece impacts the others and all must "fit" together to achieve a coordinated and positive campus image. Growth offers a crucial opportunity to create an environment that is guided by the Land Grant heritage and is a demonstration of excellence.

#### **APPROACH**

Consensus has been achieved by involving a wide range of highly motivated and dedicated people from the campus and surrounding communities in all phases of the planning process. Input has been solicited at every major decision point, including regular open campus sessions, as well as open community sessions. Over 150 meetings, workshops, focus group sessions, and one-on-one interviews have been conducted. As a result, the Plan offers a comprehensive and thoughtful perspective on growth and it is well understood across the campus and by local residents.

The Master Plan is comprised of three levels of definition:

- 1** Campus-Wide Opportunities are presented as the Composite Plan. Because of the complexity of the campus, a series of individual System Plans are included that cover key components of the campus. When combined, the System Plans form the Composite Plan (pages 4-13).
- 2** Three Subcampus Areas, each approximately 20 acres have been selected for a more detailed evaluation. They are the Agriculture, Science, and Engineering/EMS Subcampus areas or "blocks." These plans communicate the design character and intent of these areas (pages 14-19).
- 3** Design Guidelines offer guiding principles and illustrate typical solutions for frequently encountered campus design conditions (page 20).





**CAMPUS-WIDE OPPORTUNITIES**

ENHANCE  
THE BEST  
ARCHITECTURAL,  
LANDSCAPE,  
AND PLANNING  
QUALITIES OF  
THE HISTORICAL  
CENTER OF  
CAMPUS.

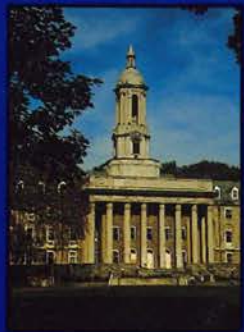
Today, the academic core area is contained between Park and College avenues to the north and south, and between Shortlidge Road and Atherton Street to the east and west. There is insufficient land area available within this area to accommodate the level of expansion that is likely to be needed over the next 20-plus years. The expansion is projected to be driven by new facilities for technology and

research, rather than increased student enrollment; therefore, future buildings will need to expand beyond Shortlidge Road and Atherton Street. This means that athletic land uses must gradually be shifted eastward and agricultural land uses shifted north of Park Avenue.

On West Campus (land area west of Atherton Street), continued growth in classroom, research and housing facilities is anticipated. Development patterns will continue with academic/research facilities concentrated contiguous to Atherton Street and housing to the west. A new road, West Campus Drive, can service these facilities and link them to the future Western Inner Loop Road and Atherton Street.



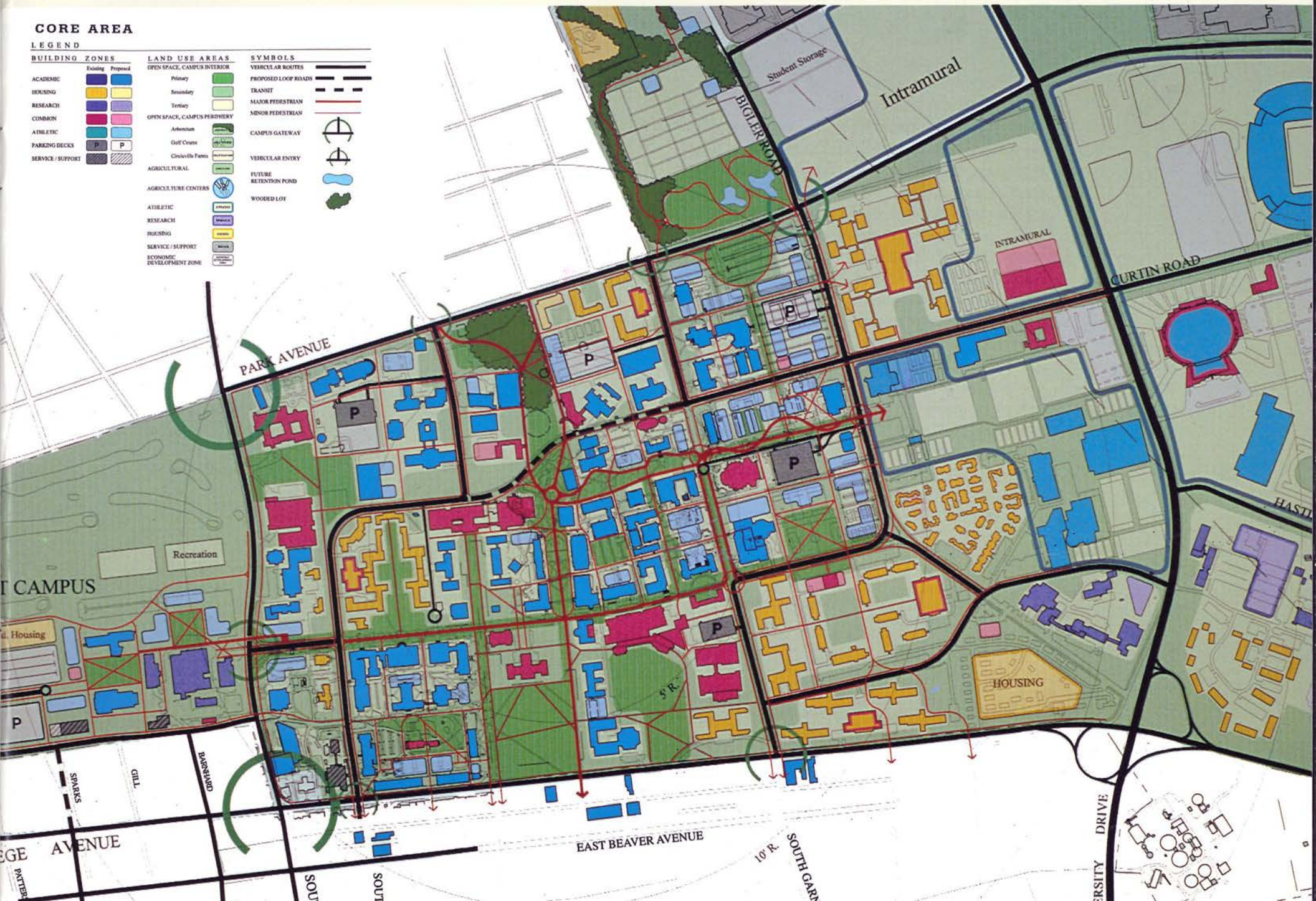
**CAMPUS-WIDE PLAN**



### CORE AREA

#### LEGEND

BUILDING ZONES		LAND USE AREAS		SYMBOLS	
Existing	Proposed	OPEN SPACE, CAMPUS INTERIOR		VEHICULAR ROUTES	
ACADEMIC		Primary		PROPOSED LOOP ROADS	
HOUSING		Secondary		TRANSIT	
RESEARCH		Tertiary		MAJOR PEDESTRIAN	
COMBIN		Arboretum		MINOR PEDESTRIAN	
ATHLETIC		Golf Course		CAMPUS GATEWAY	
PARKING DECKS		Civicville Farms		VEHICULAR ENTRY	
SERVICE / SUPPORT		AGRICULTURAL		FUTURE RETENTION POND	
		AGRICULTURE CENTERS		WOODED LOT	
		ATHLETIC RESEARCH			
		HOUSING			
		SERVICE / SUPPORT			
		ECONOMIC DEVELOPMENT ZONE			





CAMPUS-WIDE OPPORTUNITIES

**SYSTEM PLANS**

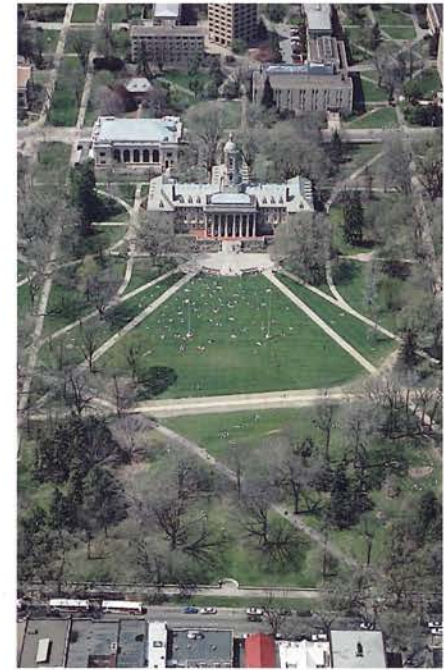
Because of the complexity of the campus and the need to address the fundamental elements that shape it, a series of individual System Plans have been prepared. These include open space, pedestrian circulation, transportation (comprised of vehicular circulation, parking, transit and bicycle circulation), buildings, and utility systems. This planning approach allows each system to be considered individually and in relationship to other systems to ensure that all components of the future campus fit together to create a well-organized and interrelated physical environment.

**OPEN SPACE**

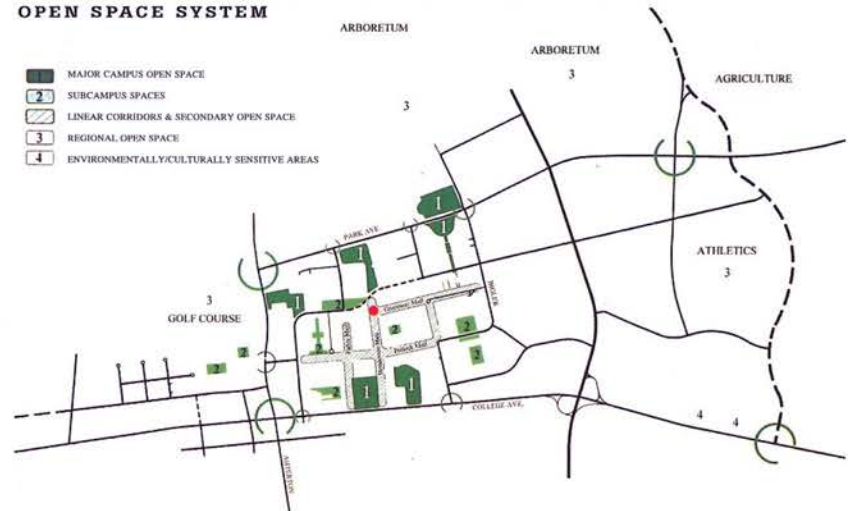
Open space is the backbone of the campus, recalling the Land Grant heritage while conveying a sense of order and priority. Special areas, such as the Old Main Lawn, Pattee Mall, and the HUB Lawn are campus icons that are long remembered. As the campus expands, the open space system is extended to achieve spatial hierarchy and identity, as well as to meet student, faculty and staff needs. Currently, major open spaces face onto major public roads and provide critical visual linkages between the University and the community. The Master Plan proposes that comparable green spaces be developed. One of particular interest is proposed along Park Avenue within the "Agriculture Block" (Shortlidge Road to Bigler Road and Park Avenue to Curtin Road) facing the Arboretum site. Also, remnant sections of the historic Hort Woods on Atherton Street near the Nittany Lion Inn are expanded and celebrated.

Linear malls, so much a part of the existing Penn State experience, are utilized in other areas of campus. The Mid-block Greenway (extending from the Pattee Library to the Jordan Center) and key segments of Pollock Road and Shortlidge Road are shown as linear malls and open spaces.

Additionally, seven secondary open spaces are recommended. Oriented toward the subcampus areas, these spaces are approximately 2 acres and evenly distributed across the campus.



**OPEN SPACE SYSTEM**







**PEDESTRIAN CIRCULATION**

Henderson and Pattee malls exemplify the role and opportunities afforded by major pedestrian travel routes. Three comparable corridors are proposed to accommodate the large numbers of students that move across campus. As the campus expands, pedestrian travel will also increase. The proposed Mid-block Greenway and conversion of segments of Pollock and Shortlidge roads to pedestrian corridors will be essential in order to provide safe, appropriately scaled and attractive travel routes for this movement.

While the major corridors accommodate pedestrian movement across the campus, the secondary routes connect important sub-campus areas. The Master Plan proposes the creation of several

additional secondary pedestrian corridors, as well as the upgrading of a number of existing routes. One of these secondary north/south pedestrian corridors extends north from College Avenue past the HUB Lawn and the Agriculture Block to Park Avenue.

The westward extension of the campus will require that the campus population cross heavily traveled Atherton Street. To ensure safe pedestrian movement, an elevated walkway can be accommodated as an extension of the proposed Pollock pedestrian corridor. Coupled with the prospect of buildings anchoring each end of the elevated walkway, and a "destination" quadrangle or plaza space west of Atherton Street, the walkway offers a functional solution with a powerful entry identity.

**PEDESTRIAN CIRCULATION SYSTEM**





CAMPUS-WIDE OPPORTUNITIES

**TRANSPORTATION**

Vehicular congestion is a barometer that accurately conveys the high level of growth that the region has experienced in recent years. Because the University is a major component of the community, it has actively participated in a number of initiatives that address this issue, including improvements to the interstate highway system, the Eastern and Western Inner Loop Roads, and a number of on-campus recommendations. Park Avenue is proposed as the primary visitor vehicular route to campus from US-322 and I-99. This arrival route

emphasizes the agricultural character and minimizes congestion on College Avenue. The proposed Visitor Center (intersection of Park Avenue and Fox Hollow Road), a major visitor entry at Bigler Road, as well as direct access to a number of major event destinations encourage this approach.

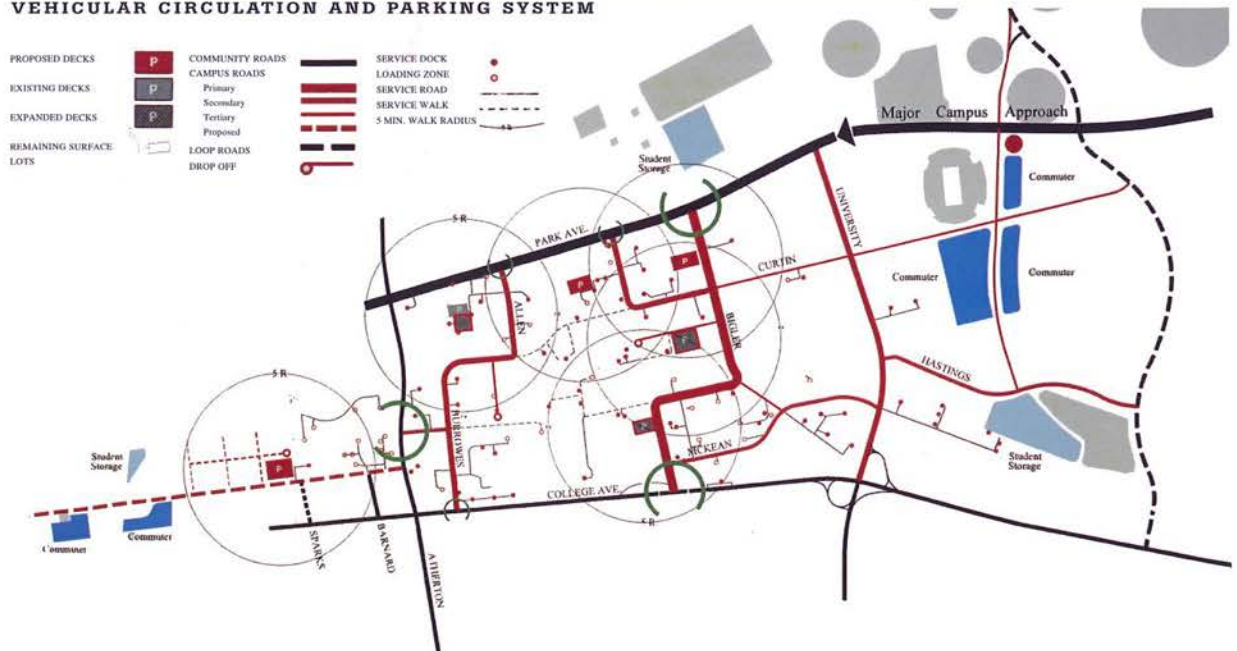
To improve wayfinding and, most importantly, pedestrian safety, vehicular traffic will be redirected along three existing campus roads. Pollock Road (Burrowes Road to Shortlidge Road), Shortlidge Road (Pollock Road to Curtin Road)

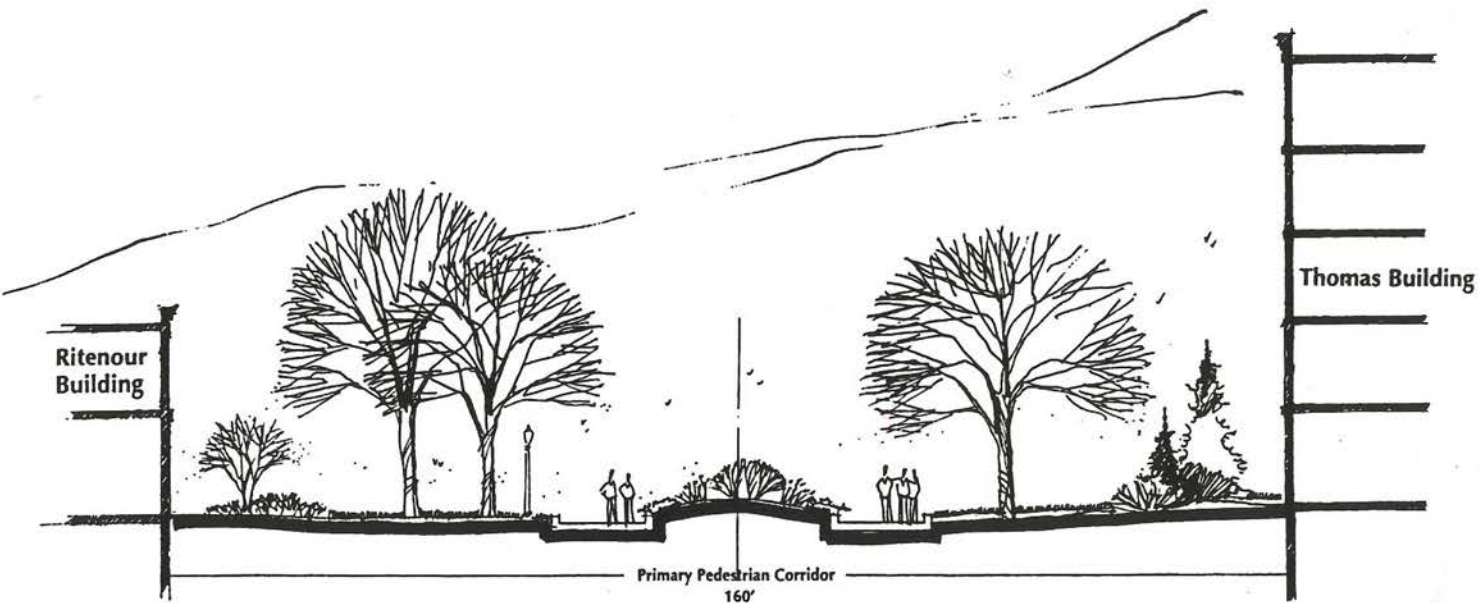
and Curtin Road (Shortlidge Road to Allen Road) are proposed to be converted to pedestrian usage. Automobiles accessing Old Main, vehicles carrying the disabled, and emergency and service vehicles will be permitted access along these routes. Vehicular drop-offs are proposed in order to maintain convenient access to all major public destinations. Use of Curtin Road (Allen Road to Shortlidge Road) is restricted to pedestrians, bicycles and transit vehicles. These recommendations have been carefully considered utilizing the transportation model approved by



View looking east along Park Avenue.

**VEHICULAR CIRCULATION AND PARKING SYSTEM**





*Above*  
Shortlidge Pedestrian  
Mall.

*Right*  
Existing Shortlidge Road  
flanked by the Ritenour  
Building (foreground,  
left) and Thomas Building  
(foreground, right).



the local municipalities, as well as by independent traffic experts. It has been concluded that these modifications can be implemented without significant detrimental impacts from both community and campus perspectives.

The continued development of West Campus requires upgrading vehicular access. West Campus Drive, paralleling West College Avenue, is recommended to connect Corl Street and the Western Inner Loop Road to Atherton Street and to provide secondary access from College Avenue.

The proposed Eastern and Western Inner Loop Road projects are of great interest to the University and community. These projects offer important opportunities to reduce campus and community congestion. The Master Plan shows the Western Inner Loop Road in its approved alignment; however, an alternative alignment for the Eastern Inner Loop Road alignment is suggested in the Master Plan. The Eastern Inner Loop Road alignment has been shifted from University Drive to an alignment east of Porter Road. The new alignment avoids major pedestrian/vehicular

conflicts that will become significant as the campus expands eastward and large numbers of students move from the core area to event destinations east of University Drive. While the re-alignment of Porter Road is preferred by the University, the institution will continue to support the route that works best for both town and community as identified during the federally mandated Environmental Impact Statement (EIS) alternative route evaluation process.



**CAMPUS-WIDE OPPORTUNITIES**

**Parking** becomes more difficult as the campus expands and existing core area surface lots are converted to building sites. The Master Plan illustrates a balance between anticipated supply and demand assuming a modest 5 percent increase in the use of Traffic Demand Management techniques that promote increased transit, bicycle, and pedestrian travel. The parking system compensates for spaces lost due to placing new buildings on existing parking lots, the modest number of spaces removed due to proposed road alterations, and potential increases in the campus population. Three new structures (North Deck, East Deck, and

West Deck) may be needed along with expansion of three existing facilities (Nittany Deck, Eisenhower Deck, and HUB Deck). If alternative travel modes rather than single occupancy vehicles are utilized at higher rates than anticipated (5 percent), all of the proposed parking structures may not be needed. Potential deck sites must be held in reserve until it is clear that shifts in travel mode and parking utilization have been achieved.

Levels of parking service are tailored to the specific needs of each user group. Resident Hall student storage lots are located near major housing

concentrations. Student commuter lots are located at the east and west ends of campus and directly linked by transit and bicycle paths to the campus core. Structured parking, located within the academic core and close to major public destinations, will be available to faculty, staff and visitors. Faculty and staff are not expected to walk more than 10 minutes to major destinations. The parking system recommended allows most to reach their destinations within 5 minutes. Only the Engineering/EMS facilities, located east of Atherton Street, may require up to a 10-minute walk. Visitor parking spaces are accommodated in the parking structures and are projected to be within a 5-minute walk of major visitor destinations, including major events held in the Jordan Center, Eisenhower and Schwab auditoriums and museums.





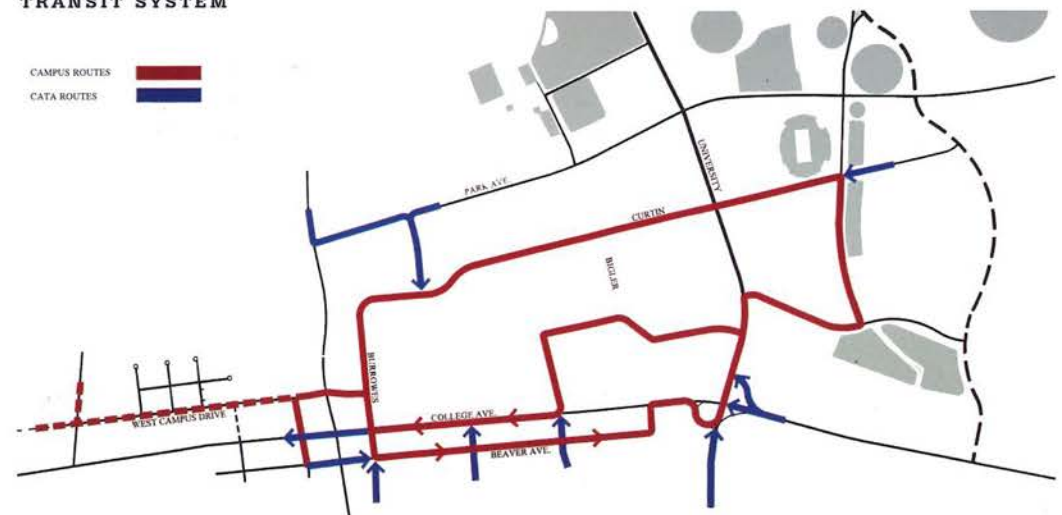
**Transit** utilization is important to the University and community. Buses continue to offer the most flexible, efficient and cost-effective way to move people on and within the campus. It is recommended that the transit system be improved and extended to the east and west to service the developing areas. In addition, numerous transit system refinements are identified. These include the improved integration of regional (CATA) and loop (The Loop) service, bus pullouts, and improved bus stop amenities. It is anticipated that buses should arrive at stops every

4 to 6 minutes during off-peak times and every 3 to 5 minutes during peak times. The creation of an exclusive transitway (Curtin Road from Allen Road to Shortlidge Road) and the consolidation of several stops can reduce travel times.



#### TRANSIT SYSTEM

CAMPUS ROUTES   
 CATA ROUTES 





**CAMPUS-WIDE OPPORTUNITIES**

**Bicycles** are an increasingly significant means of commuting to campus and moving within it. To encourage bicycle use, regional bike routes connect directly to paths that lead to campus destinations. A major east/west bike route utilizes Curtin Road, Burrowes Road, and the proposed West Campus Drive to connect the academic core with commuter lots located at the east and west ends of campus. Major bicycle centers located at Recreation Hall, the White Building and at the Intramural Building allow cyclists to secure their bikes, utilize existing showers and lockers, and change before going to class or office.

A secondary east/west bike route is proposed along the southern edge of campus, utilizing McKean Road, crossing the HUB and Old Main lawns, and continuing along West Campus Drive. Secondary bike routes also lead to individual subcampus areas, thus ensuring comprehensive campus coverage. Traditional bicycle storage is anticipated in clusters at buildings across campus. The Design Guidelines provide principles for locating and treating these storage areas proposed to be located throughout the central area of campus. Within the core area, cyclists will travel much as they do today along walks and campus



roads; however, a “no-ride” bicycle zone is identified along the major pedestrian malls to ensure pedestrian safety.

**BUILDINGS**

A trend of building development on campus over the last 10 years highlights the need for more specialized and technically sophisticated building space. Even though student enrollment is not projected to increase, current program and facility needs suggest the trend for specialized building space will continue. It is important to reiterate that the Master Plan does not recommend that the University grow to a certain size. Instead, it illustrates how the campus can expand most efficiently and effectively if the University and Trustees determine that expansion is desirable.

The Master Plan identifies 48 future building locations. The building zones illustrated on the Plan are conceived as three-dimensional envelopes. The focus of these envelopes and any future buildings suggest a strong emphasis on quality, craftsmanship, detail, and reinforcement of traditional Penn State architectural character. Today, the campus has about 14 million gross square feet of available building space. The Master Plan illustrates opportunities to add approximately 2.6 million gross square feet to this existing total. Of the total capacity identified, approximately 35 percent is concentrated in the

**BICYCLE SYSTEM**

- COMMUNITY ROUTES
- CAMPUS ROUTES
- BIKE WALK ZONES
- STORAGE AREAS
- BICYCLE CENTER



“Science Block” (Pollock Road to Curtin Road and Shortlidge Road to Henderson Mall), 25 percent in the “Agriculture Block” (Shortlidge Road to Bigler Road and Park Avenue to Curtin Road), 10 percent in the “Engineering/EMS Block” (Burrows Road to Pattee Mall and College Avenue to Pollock Road) and 20 percent on West Campus. At the rate of expansion recorded over the last decade, the 2.6 million-gross-square-foot estimate represents a 20-year threshold. To realize this target, the University will need to utilize each proposed building envelope efficiently.

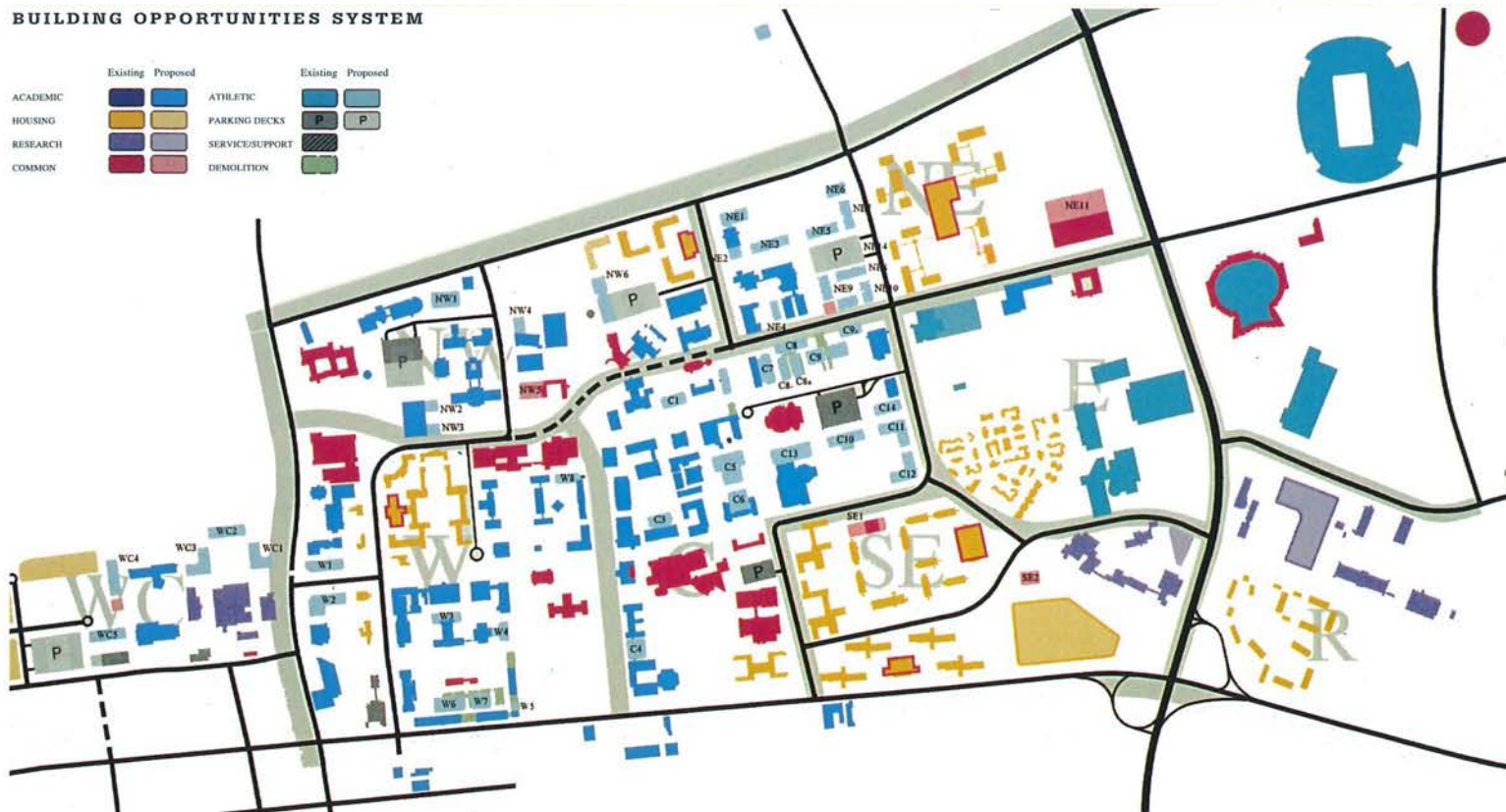


**UTILITIES**

Utilities are frequently taken for granted. As new technologies evolve and the campus expands the University is forced to look closely at a growing list of service needs related to production, distribution and treatment. In order to achieve future capacity targets (2.6 million gross square feet) the University will need to extend distribution lines primarily to the east and west and increase steam production by adding capacity to the East Campus Heating Plant.

**BUILDING OPPORTUNITIES SYSTEM**

	Existing	Proposed		Existing	Proposed
ACADEMIC			ATHLETIC		
HOUSING			PARKING DECKS		
RESEARCH			SERVICE/SUPPORT		
COMMON			DEMOLITION		





**SUBCAMPUS PLANS**

*The Agriculture, Science and Engineering/EMS subcampus areas were selected for a more detailed investigation. In each of these specific areas, the physical expression of the Master Plan can be shown in greater detail.*

**AGRICULTURE SUBCAMPUS**

*(Shortlidge Road to Bigler Road and Park Avenue to Curtin Road)*

This area, currently dominated by surface parking, offers an exciting opportunity to create a new and highly distinctive subcampus area.

A new 3-acre major open space or meadow is the focal point of the Agricultural Subcampus. The Meadow echoes the agricultural heritage and the character of the Old Main and HUB lawns and does so in a manner that creates excitement and visual interest, a sense of order, human scale and connectivity. Facing onto the planned Arboretum, this space welcomes Park Avenue

travelers to the academic area of campus and highlights the importance of the Bigler Road campus entry. The meadow extends southward through the heart of the subcampus, connecting important subcampus destinations as well as the highly significant Mid-block Greenway corridor.

A system of walkways accommodates the high pedestrian volumes generated by the East Halls, the largest concentration of student housing on campus. Major pedestrian routes include east/west walks along Curtin Road and the Mid-block Greenway, as well as important north/south corridors. These alignments and utilization of attractive landscape treatments, special paving and appropriate

illumination will make these walks distinctive, safe and pedestrian-oriented environments.

The 15 potential building zones in this subcampus area represent an additional capacity of approximately 500,000 gross square feet of new building space.

Three of the sites are reserved for greenhouses, should relocation of the existing greenhouses be needed to allow for academic expansion. A major parking structure is located just off Park Avenue and is accessed via the proposed Bigler Road gateway. This deck not only compensates for the loss of the existing surface spaces, but also provides convenient parking for visitors on their way to the Creamery, which is located south of the parking deck.

AGRICULTURE SUBCAMPUS



ESTABLISH A  
WELCOMING AND  
MUTUALLY  
BENEFICIAL  
RELATIONSHIP  
BETWEEN THE  
CAMPUS AND  
SURROUNDING  
COMMUNITY.







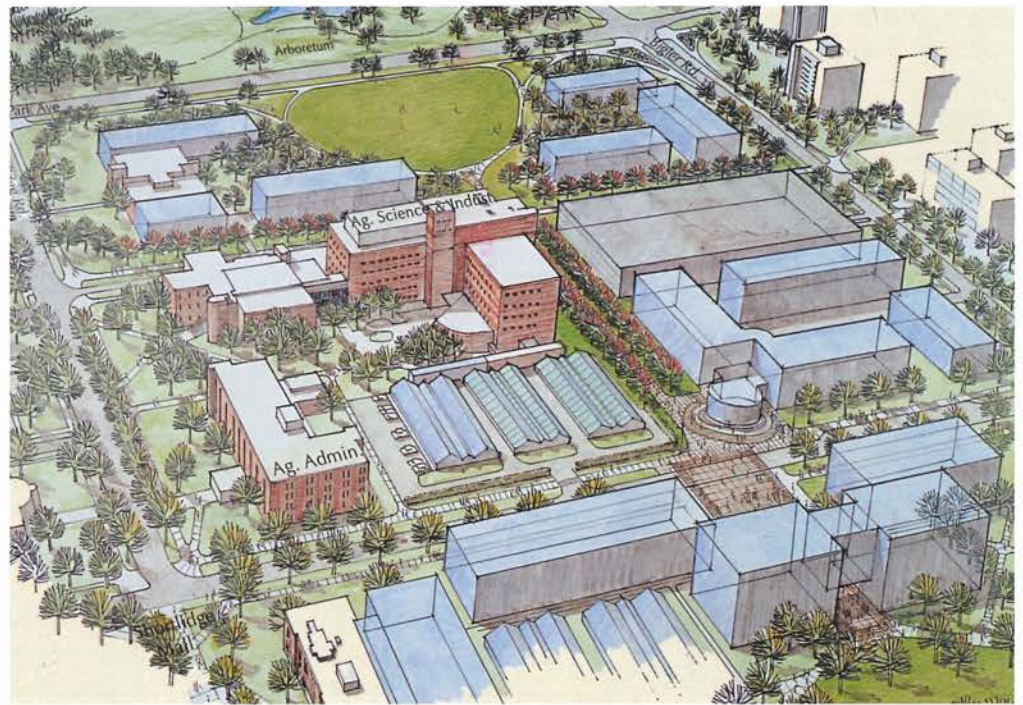
**AGRICULTURAL  
SUBCAMPUS**

*Opposite*  
View looking north from Curtin Road.

*Far Left*  
Subcampus plan.

*Left*  
Aerial view of existing Agricultural  
Subcampus area.

*Below*  
Aerial perspective of proposed  
Agricultural Subcampus area.





**SUBCAMPUS PLANS**

**SCIENCE SUBCAMPUS**

*(Pollock Road to Curtin Road and Shortlidge Road to Henderson Mall)*

The Science Subcampus is the most densely developed and arguably one of the most diverse areas of campus. There are significant differences in building scale, character, density, and open space development patterns in the vicinity of Ag Hill (to the north) as compared to patterns to the south. In general, because of the lack of internal open space and significant building densities, it is difficult to accommodate new technologically advanced science buildings that require large footprints.

Because of the distinctive appearance of the Ag Hill area, existing building and open space patterns need to be carefully emulated. The most significant open spaces within this sub-campus are the areas that roughly define its perimeter. They include Henderson Mall, Ag Hill and the Proposed Mid-block Greenway, Pollock Pedestrian Mall, and the Shortlidge Pedestrian Mall. Because the area to the south is less visually distinctive, new

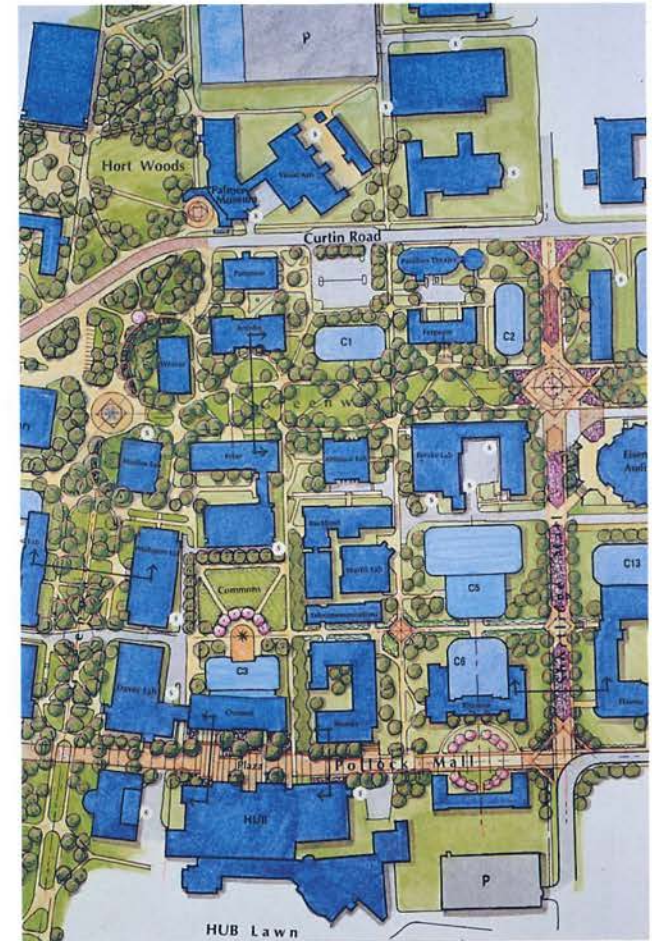
opportunities are proposed to revitalize the area: building placement, the creation of a major quadrangle, inclusion of plazas and soft open spaces, as well as upgrades to the corridors that pass through the proposed area.

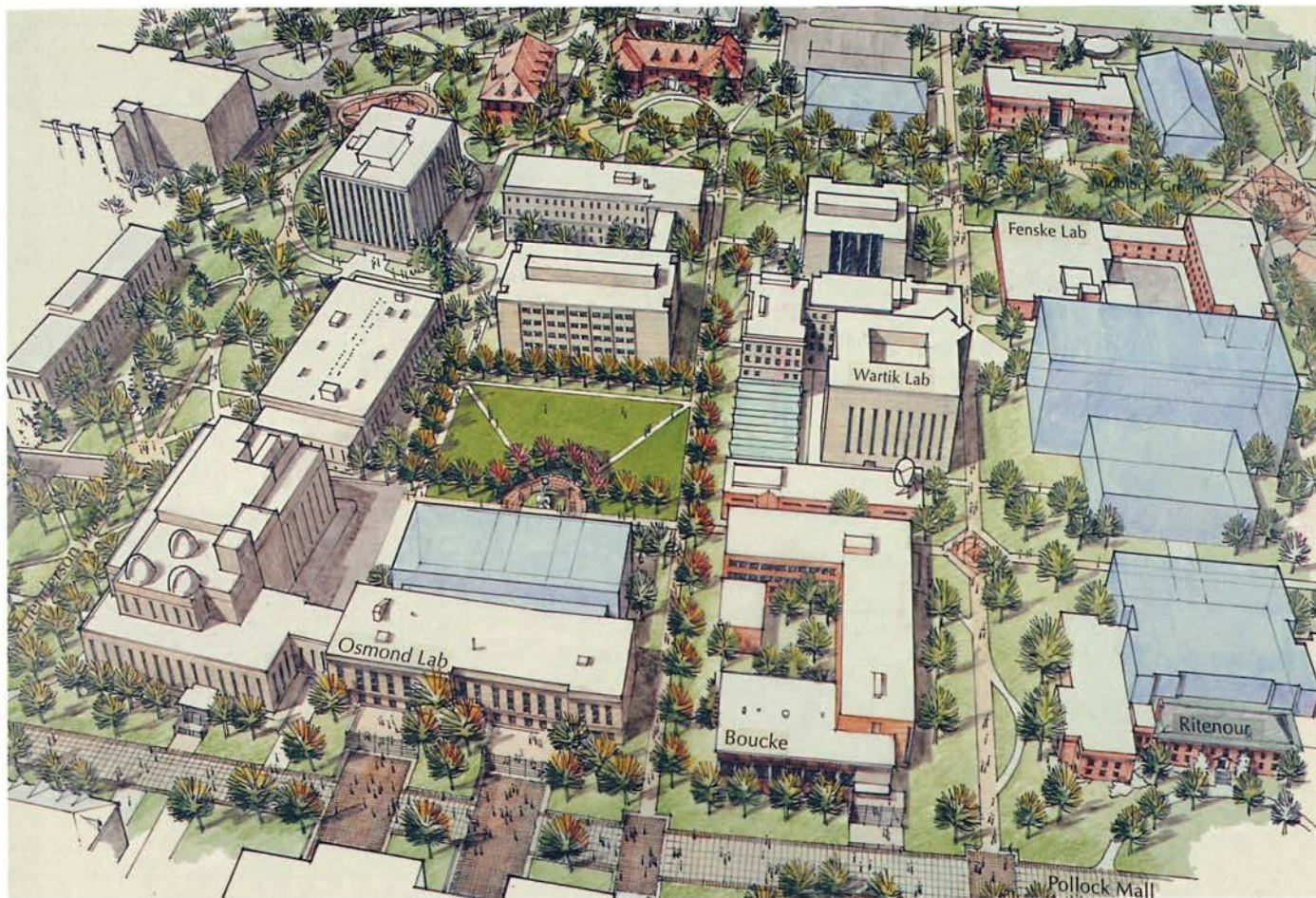
The existing central courtyard is filled with automobiles that obstruct pedestrian movements and present an unattractive image. Exciting opportunities result by converting this asphalt area into a grassy landscape punctuated by tall canopy trees reminiscent of Ag Hill. The quadrangle renders the area visually distinctive, contributes to a sense of order, encourages social interaction, softens the buildings that define its edges, and contributes to the aesthetic experience of traveling the major walks that pass through it. These north/south and east/west routes link the "Science Block" with other contiguous areas, including the HUB to the south, residence halls to the east, and the classroom space and the Fine Arts area to the north. Large numbers of pedestrians not only move through and around this area, but also congregate either on the Osmond Lab steps or in

front of the HUB. While few amenities are available in this area today, an exciting potential exists for making this one of the most highly interactive areas of campus. A second major activity center is envisioned at the intersection of Henderson Mall and Curtin Road. Located at the intersection of major walks, a proposed plaza reflects the major uses that surround it. This area is particularly significant because of the symbolic intersection of the "spiritual" (Eisenhower Chapel), the "cultural" (Palmer Museum of Art) and the "intellectual" (Pattee-Paterno Library) centers of campus. Linear open spaces incorporated into the Pollock and Shortlidge malls further define and enhance the area.

The three major future building zones identified represent 250,000 gross square feet of additional building space. This requires the replacement of inefficiently configured buildings and those past their useful life span, such as the Robeson Cultural Center and the wings of the Osmond Laboratory. One infill site is identified as an addition to Ritenour. This site has been carefully defined to protect the historic and visual integrity of the existing facility.

SCIENCE SUBCAMPUS





**SCIENCE SUBCAMPUS**

*Opposite*  
Subcampus plan.

*Above*  
Aerial perspective of proposed  
Science Subcampus area.

*Right*  
Aerial view of existing Science  
Subcampus area.



**SUBCAMPUS PLANS**

**ENGINEERING/  
EMS SUBCAMPUS**

*(Atherton Street to Pattee Mall  
and College Avenue to Pollock  
Road)*

Through redevelopment and careful infill, the Engineering/EMS Subcampus Plan proposes new patterns that will upgrade and shape this area's image, strengthen physical linkages, and provide new, more flexible building space. The new Alumni Center and historic University House function as the focal feature due to their central location, generous grounds, and proximity to important north/south and east/west pedestrian routes, as well as strong axial relationships with surrounding buildings.

A number of older buildings are removed due to their inflexibility and high renovation costs. While no net increase in space is achieved, the 230,000 gross square feet of replacement space is critical, because this area will remain a vital element of core campus by offering flexible and useful research and technology oriented building space.

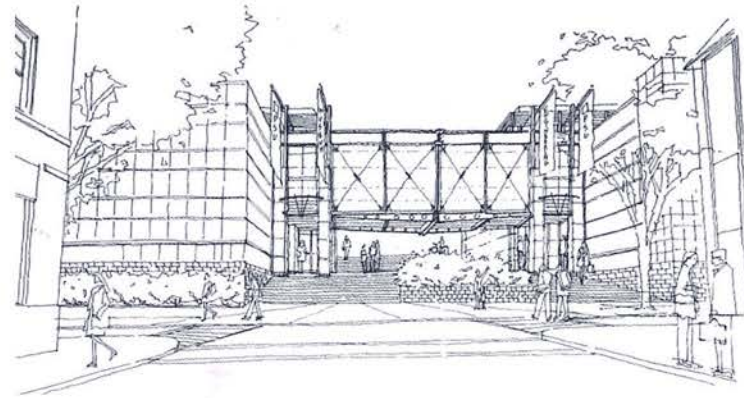
It is proposed that the Engineering Units, the central portion of Hammond, and the northern and southern additions to Sackett be removed. The Hammond Building currently forms a major barrier to the community. To enhance the physical relationship between the campus and town, a 100-foot-wide opening and gateway is created in the center of the building. This generous opening and arrival area accommodates the visual extension of Fraser Street and reinforces a positive town and gown relationship.

Removal of the Engineering Units allows for two important opportunities. The first is the creation of an appropriately scaled open space between the Alumni Center/University House and the proposed building zones to the south. The second is the addition of two new building sites contiguous to the Hammond Building. These new units can share a common atrium with the renovated East and West Hammond Buildings, thus offering an important interface between state-of-the-art research space and recently renovated classroom/office space.

By removing both ends of Sackett, the integrity of the historic central portion is retained, and views from Old Main to the University House and the Alumni Center are promoted. The additions shown to the Electrical Engineering East and West buildings compensate for the lost building space. The Electrical Engineering East addition is particularly helpful because it plays a key role in better defining the

Pattee Mall edge and more effectively framing and giving significance to an important subcampus entry off the Mall. This entry, also an important east/west pedestrian corridor, extends westward, linking the core campus with West Campus. Other important points of access to this subcampus area are from the "corners" and from Pollock Mall and the Burrowes Road/College Avenue intersection.





**ENGINEERING/EMS  
SUBCAMPUS**

*Opposite*  
Subcampus plan.

*Above*  
Aerial view of existing  
Engineering/EMS Subcampus.

*Above, right*  
Hammond entry.

*Right*  
Aerial perspective of proposed  
Engineering/EMS Subcampus area.





## DESIGN GUIDELINES

The third level of Master Plan detail is the Design Guidelines. They are derived from the Guiding Principles and organized by the following six campus "systems":

- 1 Campus-Wide Land Use
- 2 Open Space and Natural Systems
- 3 Pedestrian Circulation
- 4 Vehicular Circulation
- 5 Architecture
- 6 Utility and Service

The guidelines offer a basis for insuring continuity, reinforcing quality, and extending the heritage of the older areas of campus in those that are evolving. Comprised of 140 pages, this "how-to" workbook uses both graphic and written formats to communicate critical concepts and relationships. This document will serve as an important tool for the University to implement the Master Plan.



INTEGRATE THE  
VISIONS OF THE  
COLLEGES AND  
SUPPORT UNITS  
WITH THE OVERALL  
VISION FOR THE  
UNIVERSITY PARK  
CAMPUS.

DESIGN GUIDELINES ■ OPEN SPACE AND NATURAL SYSTEMS

**2.1.2 LANDSCAPE PATTERNS**  
Concepts 6 and 7

*Preserve and protect historical open spaces such as Hart Woods, Old Main Lawn, Ag Hill, etc. that create lasting and memorable experiences and images for the campus.*

*Create and build upon existing landscape patterns such as Pattee Mall; open, grassy interior quad spaces; informal landscaping; and selective use of axial relationships to strengthen and articulate character.*

**Discussion**

Historic landscapes contribute to the culture and quality of the campus. Like historic buildings, natural forests, axial malls (Pattee and Henderson Malls), historic gardens and open space areas create a unique and memorable setting that underlines the creativity in the University's mission and links the current campus population to the heritage created and preserved by past generations. Like older buildings, older landscapes require an ongoing commitment of resources to retain their viability and effectiveness. To warrant preservation, older landscapes must be notable in terms of their quality and/or their historic importance. Pattee Mall and the patches of remnant hardwood forests found in Hart Woods are excellent examples. Because they are important reminders of Penn State's ecological and cultural heritage, they must be continue to be carefully managed and preserved.

Trees, shrubs and ground cover play an important role in unifying the overall campus and in defining key areas that share similar functions and a common visual image. Existing landscape patterns, defined by the consistent selection and use of plant material, have been used to give different areas of campus a distinctive character. These landscape patterns should be extended as new landscapes are created and existing open space areas are improved.

2.1-9

DESIGN GUIDELINES ■ ARCHITECTURE

**2.3.3 Relationship and Transition**

*Neighborhoods are created through buildings placed and designed to form coherent and interconnected groups or quarters following the existing and well-established campus grid.*

*Separation and articulation of an individual building site gives focus and hierarchy to and within a building ensemble.*

- Create compatible building materials and architectural character within an assembly or neighborhood to form a coherent and easily identifiable place.
- Relate building mass and size within an assembly or neighborhood.
- Align building facades to work with adjacent facades to reinforce the clarity of the open space around which the buildings are grouped.
- Give attention to enhance circulation patterns within an ensemble. Building entries should be related to one another, to the primary activities of the specific neighborhood, and to the internal functions of the buildings.
- Give attention to siting buildings to form seamless transitions between areas of different character. This allows views to and from adjacent building groups and neighborhoods.
- Encourage axial relationships (major or minor) and the alignment of neighboring buildings and spaces to form transitions between neighborhoods.

2.3-10

DESIGN GUIDELINES ■ PEDESTRIAN CIRCULATION

**2.2.6 ALIGNMENT AND VIEWS**  
Concept 6

*Align and configure pedestrian corridors to focus on distant views to regional features as well as to direct views to major buildings, key features and open spaces.*

**Discussion**

Movement through the campus is a constantly changing visual experience. By focusing views on regional features, major buildings and open spaces, the pedestrian experience and appreciation of the environment are enhanced and focusing views on regional features, major buildings and open spaces reveals the larger civic structure. Penn State's location at the base of Mt. Nittany in the heart of the Nittany Valley surrounded by the Tannery and Bald Eagle Mountains offers dramatic views to regional natural features. The campus and community also provide a rich cultural inventory of historic buildings and sacred open spaces.

The alignment of pedestrian corridors to focus on regional and cultural landmarks must be carefully balanced with the need to preserve the established north/south and east/west axial structure of the campus. Visual corridors that align with landmark views should be identified within this grid framework, rather than creating diagonal corridor alignments just to capture a view.

In addition, the configuration and placement of site elements within pedestrian corridors to preserve landmark views must be balanced with the need to create a comfortable, humanly scaled environment. In order to balance these needs, optimum viewing locations, or primary observation zones, must be identified within key pedestrian corridors. The goal is to focus and preserve landmark views from specific locations, rather than to attempt to preserve a view along the entire length of the corridor. Site elements can then be organized to maximize a landmark visual opportunity in some corridor locations, while the design of other locations is devoted to providing shade, enclosure and other human comforts.

2.2-11

DESIGN GUIDELINES ■ ARCHITECTURE

*They feel quadrangle is the best example of a group of buildings able to provide three-dimensional definition and enclosure to help form a series of distinctive, memorable, outdoor public spaces.*

**2.3.4.3 Facades, Edges and Details**

- Design and locate building facades, edges and entries to define, enclose and animate the spaces and movement corridors that make up the civic structure of the campus.
- Align or work with adjacent building facades to reinforce the clarity of public spaces and the cohesiveness of building groups.
- Treat and design building facades that are oriented to public spaces or major pedestrian corridors as "campus fronts" to activate and animate campus life with easily identifiable, visible points of entry and human scale elements such as windows, doors and details.
- Articulate facades oriented to public space to inform and mark internal circulation areas as well as to give clues to the academic or social activities inside.
- Give special attention to the "backs" of campus buildings. This is often where service and utility access take place, yet is also likely to be adjacent to pedestrian routes.

*Building facades and edges should be used to define and animate open spaces and movement corridors with visible points of entry and human scale elements such as doors, windows and details.*

2.3-16

## ACKNOWLEDGEMENTS

Because of the highly interactive nature of this study, the recommendations presented in this report reflect the combined ideas offered not just by the Consultant Team, but by the many faculty, staff and student representatives, as well as local residents who participated in the effort. Because of their persistence, questioning, and frequently challenging outlook, they helped to ensure that the Master Plan responds to both University and community needs. Recognizing the complexities, competing opportunities and diverse responsibilities of a public Land Grant institution, consensus is often difficult to achieve, especially within a context where change is often controversial. Because of the dedication and commitment of the committee participants identified below, this Master Plan is a consensus plan and reflects board support.

Special recognition is due to many; however, those listed below are particularly worthy, including a number of key University representatives who gave inordinately of their time and skill. These include Gary Schultz, for his determination to do things right; William McKinnon, for his concern for detail; William Anderson, for his fresh perspective; Eliza Pennypacker, for her commitment to Principles; and Charles Brueggebers, who shared freely from his twenty-seven years of campus experience.

### STEERING COMMITTEE

Richard Rigterink, *JIR, Chair*  
 Charlie Brueggebers, *University Architect, Project Director*  
 Michael Fifield, *Head, Department of Architecture, Faculty Planning Consultant*  
 Eliza Pennypacker, *Professor and Head, Department of Landscape Architecture, Faculty Planning Consultant*

### MASTER PLAN ADVISORY COMMITTEE

William McKinnon, *Senior Associate Vice President for Finance and Business, Chair*  
 Theodore Alter, *Interim Dean of the College of Agricultural Science*  
 P. Richard Althouse, *Budget Officer of the University*  
 William J. Anderson, *Assistant Vice President Physical Plant, Vice Chair*  
 Robert Bini, *Director, Centre Regional Planning Agency*  
 Julie Ann Bubolz, *Higher Education Program, Student Representative*  
 Larry Burton, *Associate Dean, College of Engineering*  
 Timothy Curley, *Director, Intercollegiate Athletics*  
 Teresa Davis, *Director, Transportation Services*  
 Peter Deines, *Professor, Geosciences*  
 Jawaid Haider, *Professor and Head, Department of Architecture*  
 Deborah Howard, *Director, Facilities Resources and Planning*  
 Neil Porterfield, *Dean of the College of Arts and Architecture*  
 Louise Sandmeyer, *Executive Director Center for Quality/Planning*  
 Robert Steele, *Dean of the College of Agricultural Science*  
 David Wormley, *Dean of the College of Engineering*

### FACILITIES PLANNING ADVISORY BOARD

Jawaid Haider, *Professor and Head, Department of Architecture, Chair, Facilities Planning Advisory Board*  
 Anthony Baratta, *Professor, Nuclear Engineering*  
 Charlie Brueggebers, *University Architect, Secretary*  
 Eric Burnett, *Professor, Civil and Architectural Engineering*  
 Richard Craig, *Professor, Plant Breeding*  
 Barbara Garrison, *Professor, Chemistry*  
 Deryck Holdsworth, *Professor, Geography*  
 Deborah Howard, *Director, Facilities Resources and Planning*  
 C. Gregory Knight, *Professor Geography*  
 Veronica Burns Lucas, *Associate Professor of Landscape Architecture*  
 Sally McMurry, *Associate Professor, History*  
 Eliza Pennypacker, *Professor and Head, Department of Landscape Architecture*  
 Kenneth Thigpen, *Associate Professor, English*  
 David Wormley, *Dean of the College of Engineering*

### OFFICE OF THE PRESIDENT

Graham Spanier, *President*  
 John Brighton, *Executive Vice President and Provost*  
 Gary Schultz, *Senior Vice President for Finance and Business/Treasurer*

### CONSULTANT TEAM

JJR Incorporated  
 Peter Berg  
 James Christman  
 Constance Dimond  
 Neal Kessler  
 Douglas Kozma  
 Richard Rigterink  
 Dale Sass  
 Karl Steavenson  
 Diane Wilson-Kutcher

KCF/SHG  
 Charlotte Kosmeia  
 Mark Maves

Travers Associates  
 Kenneth Newman

