

# THE UNIVERSITY OF ARIZONA<sup>®</sup> COMPREHENSIVE CAMPUS PLAN UPDATE

# 2009



THE UNIVERSITY OF  
**ARIZONA**<sup>®</sup>  
TUCSON ARIZONA

**“The universities will maintain an ongoing planning process and conduct comprehensive plan reviews and updates at approximately five-year intervals.”**

**Arizona Board of Regents Policy (Chapter VII)**



# THE UNIVERSITY OF ARIZONA<sup>®</sup>

## COMPREHENSIVE CAMPUS PLAN UPDATE

# 2009

FINAL DRAFT FOR THE ARIZONA BOARD OF REGENTS  
submitted 20 October 2009

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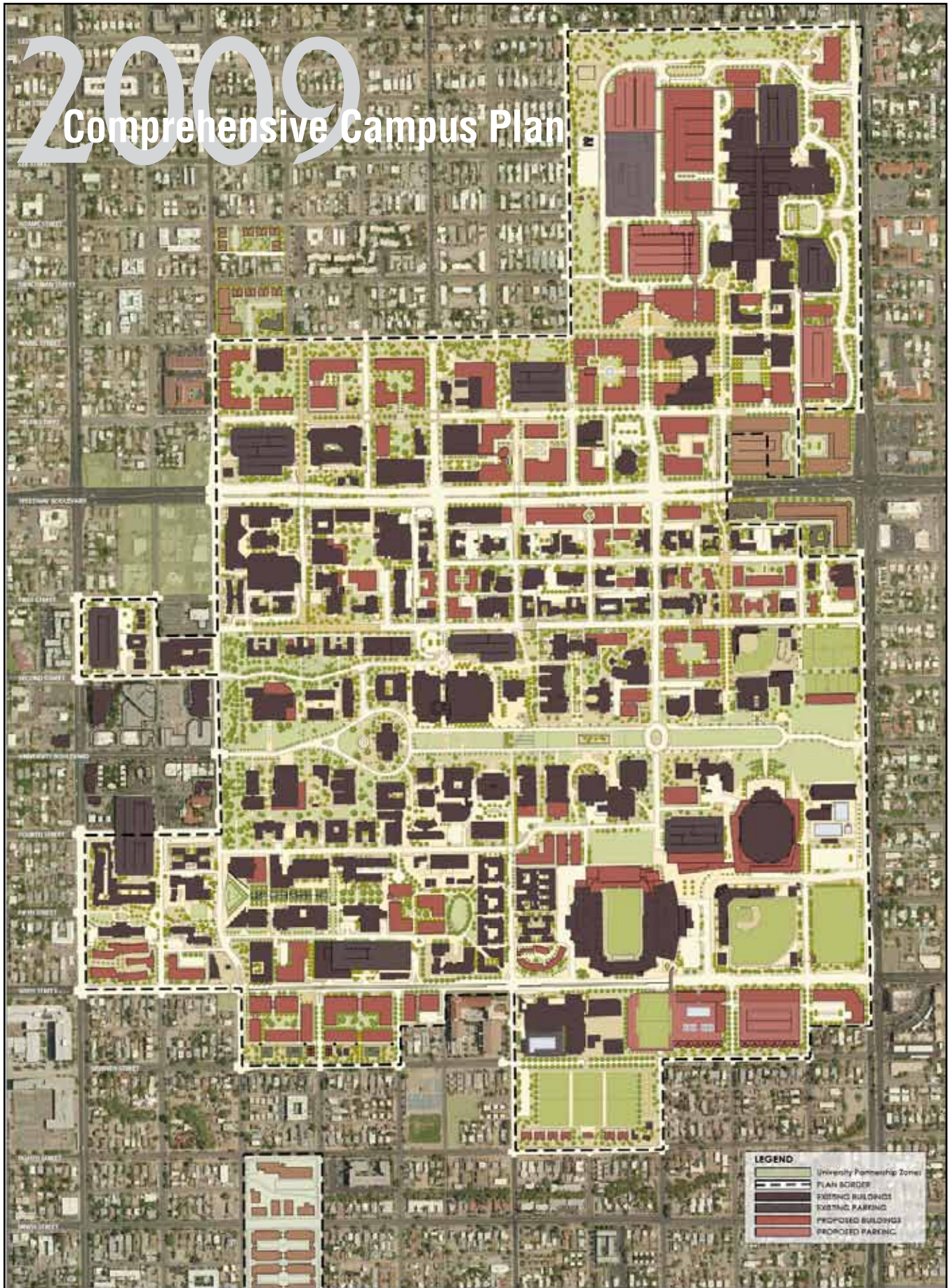
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## TABLE OF CONTENTS

<b>Executive Summary</b>	1
<b>I. Introduction</b>	7
Background & Purpose	
Planning Process	
<b>II. Observations 2003-2009</b>	11
Introduction to the 2003 Plan	
Implementation of the Plan 2003-2009	
Sustainability 2003-2009	
<b>III. Comprehensive Campus Plan Update 2009</b>	21
2009 Planning Themes	
Sustainability	
Campus & Community: Edges & Gateways	
Opportunities for Collaboration	
University Partnerships	
2009 Issues & Opportunities	
Comprehensive Campus Plan Update 2009	
Concept Plan	
Housing & Student Life	
Transit, Transportation & Parking	
Infrastructure	
Arizona Health Sciences Center	
Greater UA Campus (Agricultural Center, Science & Tech Park, etc.)	
<b>IV. Precinct Plans Update 2009</b>	38
Precinct 1 & 3: Campus Core & North Campus	
Precinct 2: Arizona Health Sciences Center	
Precinct 4: South Campus	
<b>V. Implementation &amp; Recommendations</b>	45
Sustainability	
Campus & Community	
Process & Implementation	
<b>Acknowledgements</b>	49

# 2009 Comprehensive Campus Plan



The University of Arizona (UA) has initiated an update of the 2003 Comprehensive Campus Plan, consistent with Arizona Board of Regents (ABOR) policy of updating campus physical plans every five years.

This comprehensive campus plan update is especially timely given the institutional strategic planning process which began in 2008. While the full impact of the UA Transformation Plan will take the next year or more to be fully realized, the physical and strategic planning processes are inter-related. The Strategic Plan and its vision of the future informs the physical planning process, so that the updated campus plan better reflects the University's long-term educational, research and public outreach missions.

Objectives for this update include:

- Represent the successful implementation of the Comprehensive Campus Plan since 2003;
- Determine how the Plan has served the campus and Tucson community;
- Most importantly, address new issues, including those identified in the Transformation Plan, and make changes as needed to align the campus physical plan with the University's vision of its future.

While changes in the higher education landscape continue to impact the University, this Campus Plan Update responds to the changes that have already occurred and provides a vision for the physical development of the campus which will guide administrative decisions into the future.



### Changes to the Planning Context

Since the adoption of the 2003 Comprehensive Campus Plan, there have been significant changes to the greater context within which the plan is being developed. There have been significant institutional investments, initiatives, and activities undertaken by the University that should be reflected in the update. Most significant among them are:

- Completion of improvements to campus facilities - Over 1 million gross square feet of academic, research or institutional support space has been added to the campus. The campus environment has benefited from projects improving the pedestrian environment, bike routes, and open space including new landscape, hardscape and streetscape improvements.
- Enrollment growth continues to impact space needs with direct bearing on programs. The 2003 enrollment cap has been removed and substantial growth is now expected which must be accommodated in the campus plan.
- The American College & University (AC&U) Presidents Climate Commitment, signed by UA President Robert Shelton in 2007, expanded UA leadership in environmental sustainability education, research and practice. The Campus Sustainability

Committee has been actively working to meet the Climate Commitment goals, moving sustainability to the forefront of campus initiatives.

- The UA Transformation Plan has already yielded comprehensive academic and administrative reorganization. This will affect how the University utilizes existing space as well as programs, new facilities and development of the campus physical environment.
- A constrained State fiscal environment has restricted the University's capital improvement planning program. This has limited the University's ability to implement many of the goals, objectives, plans and projects outlined in the campus plan. This environment has encouraged more creative approaches to realizing projects, including a rise in public-private development partnerships.
- Broader changes in the economy, including the cost of oil and an increased demand for more compact urban settlement has fostered support for new transit options. The Tucson Modern Streetcar line will connect the UA campus with downtown Tucson, creating new opportunities for the University to actively engage the city.

### Planning Process

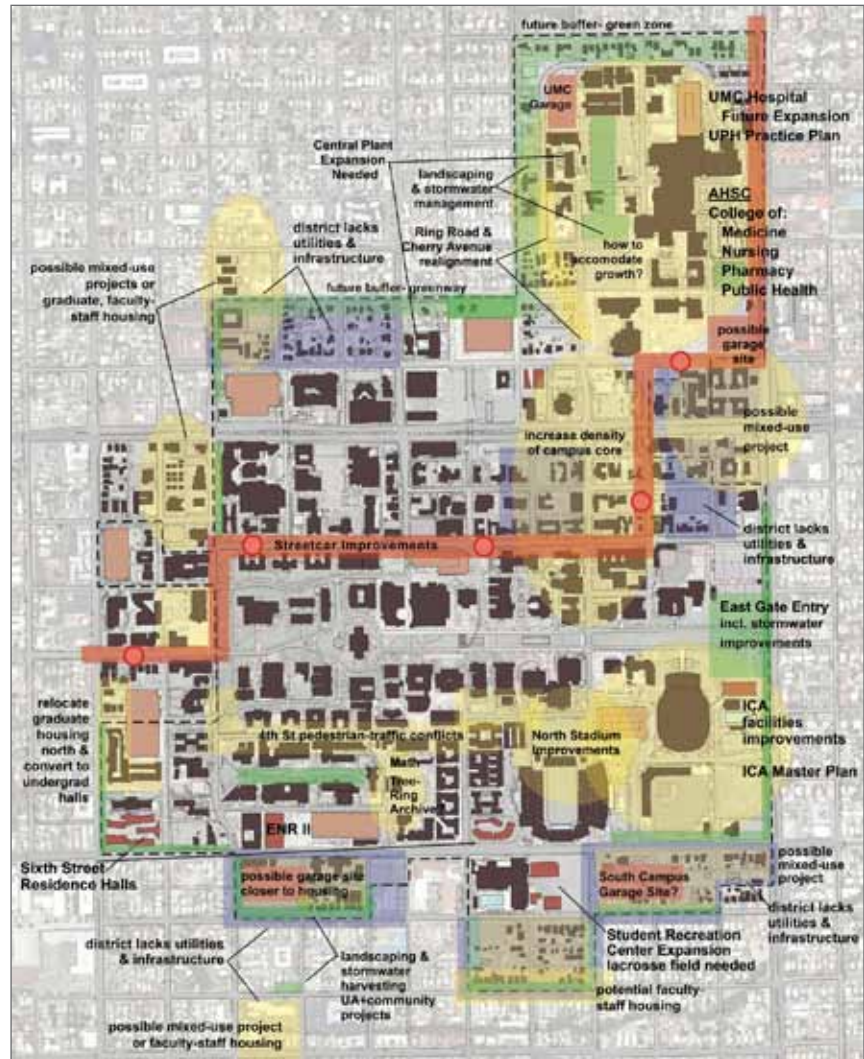
To complete the updating of the campus plan update in the Fall of 2008 the University of Arizona retained Ayers Saint Gross, the planning consultant for the 2003 Comprehensive Campus Plan. A six month planning process was led by a Project Steering Committee and managed by the Department of Campus & Facilities Planning. Three interactive workshops, open to faculty, staff, students, neighbors and representatives of community groups, were planned. The Update completion was overseen by UA's newly formed Planning, Design and Construction unit (PDC), which will be responsible for its implementation.

### Observations Phase

The planning process was initiated with an Observations Phase which included:

- Establishing a new background plan;
- Addition of footprints for capital projects completed since 2003 and for proposed new projects;
- Synthesis of completed planning studies including the Historic Preservation Plan, Intercollegiate Athletics Master Plan, and Stormwater Master Plan;
- Interviews with key campus departments and planning sessions with departments responsible for implementing the Campus Plan;
- Workshops with all stakeholders, including sessions devoted to sustainability and evening sessions to facilitate community participation.

At the conclusion of the Observations Phase, the planning team identified issues to be addressed in the 2009 planning (illustrated on the map of the existing campus above).



*This map was added to throughout the planning process; the full-size map is provided on page 30.*

### Concepts Phase

The Concepts Phase developed new plan concepts and explored options for key areas where changes to the 2003 Plan were being considered. The workshops refined the precinct plans, incorporating ideas about sustainability and opportunities for improved campus and community relationships. Precinct plans studied and revised included:

- South Campus (Precinct 4) along the Sixth Street corridor;
- North Campus (Precinct 3) east of Park Avenue along Helen Street;

- Arizona Health Sciences Center (Precinct 2) which includes the University Medical Center;
- Central Campus (Precinct 1) which had some refinements for additional density and to accommodate current plans for University Village.

### Final Plan Phase

The 2009 Comprehensive Campus Plan Update will be established as the new master plan with the acceptance of the President's Cabinet and approval of the Arizona Board of Regents, anticipated by the end of this year.



**Presidential Priorities & Direction**

Early in the update process, the planning team met with President Shelton and Provost Hay to identify key issues and priorities for the 2009 Update.

**Campus & Community**

Maintain a consistent process for working with the greater Tucson community and especially with the neighborhoods around the main campus. The 2009 Update should build upon on the 2003 Plan concept of edges, gateways and connections. The update should include planned gateway projects – entrances to the campus are important to the image and identity of The University of Arizona.

**Partnerships**

Think more broadly about the University's role in Tucson and the broader region, including all UA programs and locations. The Tucson Modern Streetcar presents new opportunities for a significant UA presence downtown and along the streetcar route.

**Sustainability**

The University of Arizona should continue to be recognized as a leader in sustainability, with the campus serving as a living laboratory.

**Growth & Flexibility**

The 2009 Update must acknowledge the elimination of an enrollment “cap”, allowing for growth as needed based on demographics. The updated campus plan should allow for future flexibility and identify strategies for accommodating growth. Projects like Keating BIO5 should be the model for future flexibility in interdisciplinary research facilities.

**Housing**

The University's goal is for all freshman

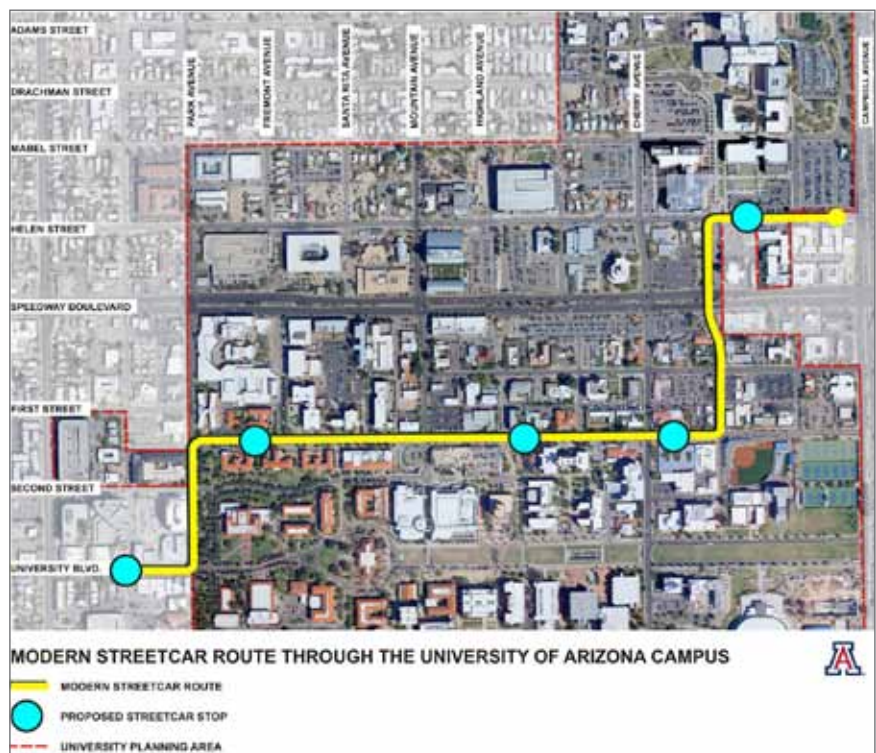
to have the opportunity to live on campus (estimated at 30% of undergraduates) with appropriate student-life facilities. Partnerships should be sought to develop expanded options for older, graduate and married students. Development of affordable housing for faculty-staff should also be a priority.

The planning team was given clear charges for the 2009 Update including:

- Engage the City of Tucson in the planning process;
- Work with the Arizona Health Sciences Center to actively involve all the stakeholders, especially the University Medical Center (UMC);
- Seek out additional sustainability initiatives, including identifying a campus-community infrastructure demonstration project for the buffer-greenway which could incorporate stormwater management and other sustainability concepts.

**An Expanded Vision for the University of Arizona Campus and the Tucson Community**

The recurring theme of connections, community and partnerships has been advanced by the planned Tucson Modern Streetcar which will connect the AHSC and UA campus with downtown. This theme has been expressed in many ways, from new UA programs downtown which engage the business and professional community, to possible mixed-use development for student or faculty-staff housing. The 2009 Update encourages University Partnerships, recognizing that the University can serve as a positive catalyst for development or redevelopment beyond the main campus when done in full partnership with the private sector, local property owners, neighborhoods and the City of Tucson. By seeking out appropriate partners, the University can expand the range of opportunities beyond traditional campus facility development.



**Changes to Plan & Precinct Plans**

The base map for the Campus Plan was updated to reflect projects completed since 2003, projects currently planned or under construction, and to incorporate sub-area master plans. Each precinct was studied to address stakeholder identified issues and the areas affected (*shown below in yellow*).

**Central Campus - Precinct 1 & 3**

The core of the campus is well established and only required a few modifications to the 2003 Plan. These include the Modern Streetcar route with public realm improvements along 2nd Street and larger buildings along Cherry and Warren Avenues to maximize future capacity.

**AHSC Campus - Precinct 2**

This area of the campus continues to have the greatest potential for significant growth and the planning team spent considerable time working with stakeholders in this precinct. Notable plan changes include: future UMC hospital expansion with a new main entry on the north side; simplified access to the Ring Road from Cherry Avenue; providing for the future Tucson Modern Streetcar route; increased capacity for new research and teaching facilities; and enhanced open space and stormwater management on the Warren, Highland and Mabel Street pedestrian malls and the greenway/buffer. To better serve this area, the Update proposes a new centrally located mixed-use garage with offices, shops and maintenance yard for both UA and UMC Facilities Management functions. This facility could also house a central AHSC loading dock, below-grade tanks for capture/storage of rainwater, and parking for over 300 FM trucks and 2000 UA and UMC visitors, staff and faculty. The plan balances UA and UMC needs to expand the AHSC capacity for future growth.

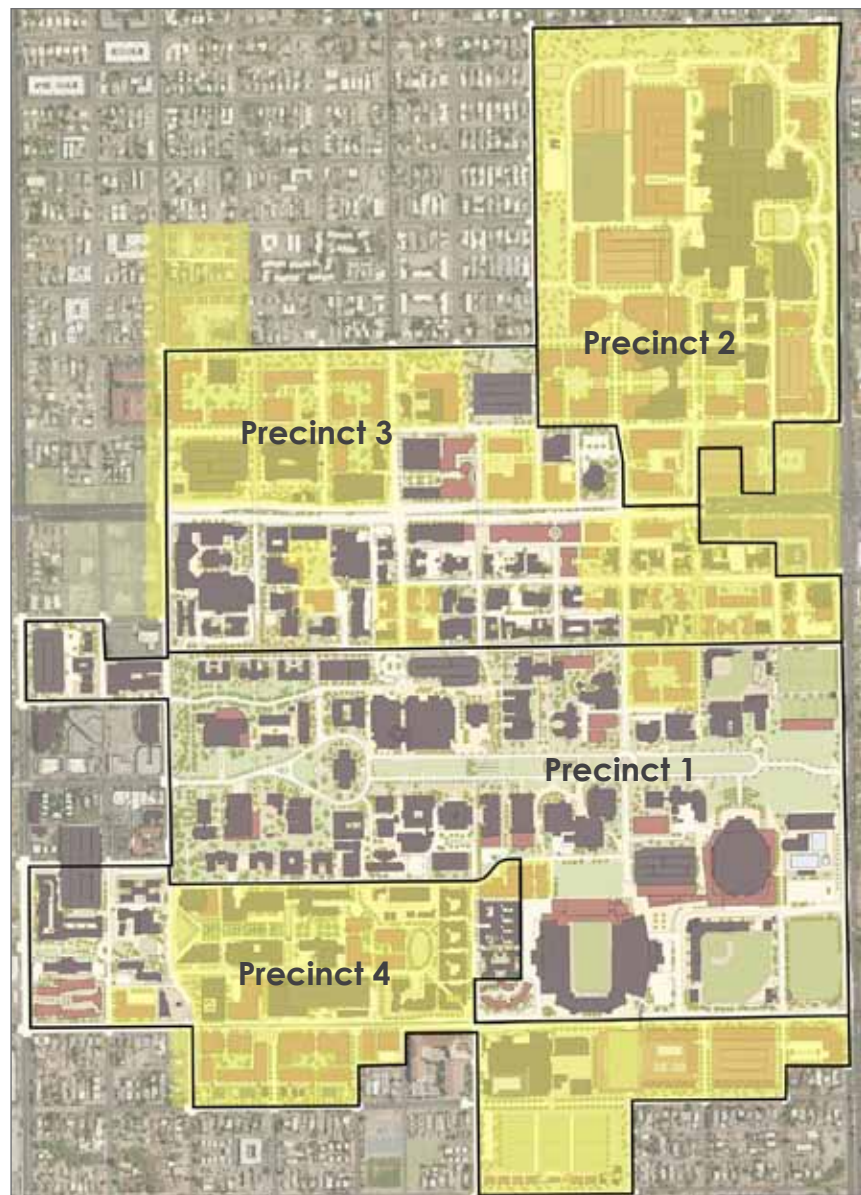
**North Campus - Precinct 3**

Revisions were made to increase housing in University Village; to provide large lecture hall space near the professional schools (law, business); and to increase student housing and recreation north of Speedway Boulevard. This plan also illustrates a possible University partnership housing project on UA property located north of the planning boundary.

**South Campus - Precinct 4**

The south campus precinct plan

accommodates infill academic buildings north of Sixth Street as well as areas of future development to the south. Changes include: refinements to the academic/research quads; mixed-use buildings at the east end of Sixth Street with storefront retail, housing, student recreational facilities and structured parking; faculty-staff housing facing the neighborhood on Seventh and Eighth Streets; and expansion of the greenway/buffer to include rainwater harvesting and community-oriented uses such as greenhouses and community/campus gardens.



*Precinct Plans illustrate campus development and are intended to guide but not limit future flexibility.*

### Values & Recommendations

Values guiding the 2009 Update include an ongoing commitment to quality, balance, flexibility, consistency and sustainability.

The plan serves as a guide which should:

- Be responsive to future needs;
- Ensure that the future development is of the highest quality;
- Reflect a balance of new construction and adaptive reuse of older structures, moving towards increasing density;
- Promote consistency in land and facility development practices;
- Ensure that the campus develops in a sustainable way over time, reducing its carbon footprint and use of resources, especially potable water.

The Update process has identified broad recommendations to build on the policies and proposals contained in the 2003 Comprehensive Campus Plan. An overview of these recommendations follows.

### Campus and Community

The University should provide for the timely development of the landscaped edge and gateways at the perimeter of the University Planning Area. The greenway/buffer is proposed to be reinterpreted in a variety of forms (greenway, garden, oasis, xeriscape, etc.) offering opportunities for active campus and community civic engagement and benefit.

The University should continue to be diligent in working through the Campus Community Relations Committee (CCRC) to keep the neighborhoods informed of University activities. For proposed projects along the boundary edge, UA must engage the community during the planning, design and implementation process. The University should continue to strive towards reducing undesirable impacts from

University operations and activities on the neighborhoods adjacent to the campus, with effective management, especially along the edges of the campus.

To pursue opportunities for collaboration and engagement, the University should identify programs appropriate to downtown locations which could benefit from downtown resources. New opportunities downtown or along the Modern Streetcar line which might spur new University programs and downtown revitalization should be embraced. There should be a well-defined planning process for all development of any partnership project, downtown or in the identified University Partner Zones. This process would include collaborative visioning and planning, and cooperative project implementation between the University, the City of Tucson, the private sector and property owners, and the neighborhoods.

### Sustainability

This plan update incorporates practices of sustainable development, including representation of infrastructure projects such as surface stormwater management. Well-planned infrastructure designed with a holistic and integrated approach to sustainability is critical to supporting efficient building projects and campus-wide sustainability practices. The University should continue to update design guidelines and standards, building on the current minimum Leadership in Energy and Environmental Design (LEED) Silver standards:

- for campus landscape, streetscape, site furnishings and materials;
- to include operational guidelines codifying “greener” facilities policies and operational standards; and
- to continue the greening of campus

utilities and infrastructure, including increasing energy generation (especially solar), recycling, and water harvesting (including graywater).

### Process & Implementation

The University must continue to be diligent and consistent with the process of capital planning and implementation to the extent feasible and appropriate. University design standards should be applied to all campus development projects, even those considered “temporary.” This should be especially true for projects along the campus edges where the added benefit to campus image and community relations justifies additional expense.

Many areas of the campus cannot currently accommodate planned buildings due to the lack of adequate utilities infrastructure. District infrastructure projects (steam, chilled water, etc.) must be planned, funded and installed in advance of building projects for the most efficient development of these campus precincts.

This Update recommends increasing density within the campus core through moderately increased building heights. Due to a number of planning and economic factors, many of the infill building sites developed since 2003 were built out below recommended capacity. If this trend is allowed to continue, it could have long range implications for the development capacity of the campus.

Planning for the future should identify main campus “core” functions - those functions vital to the academic core mission, teaching, research and student life - which must be on the main campus; and those functions which might be more appropriately located off the main campus to free up capacity.



2009 perspective view of the campus from the east edge of the campus looking west down the Main Mall.



2003 perspective view of the campus from the east edge of the campus looking west down the Main Mall.

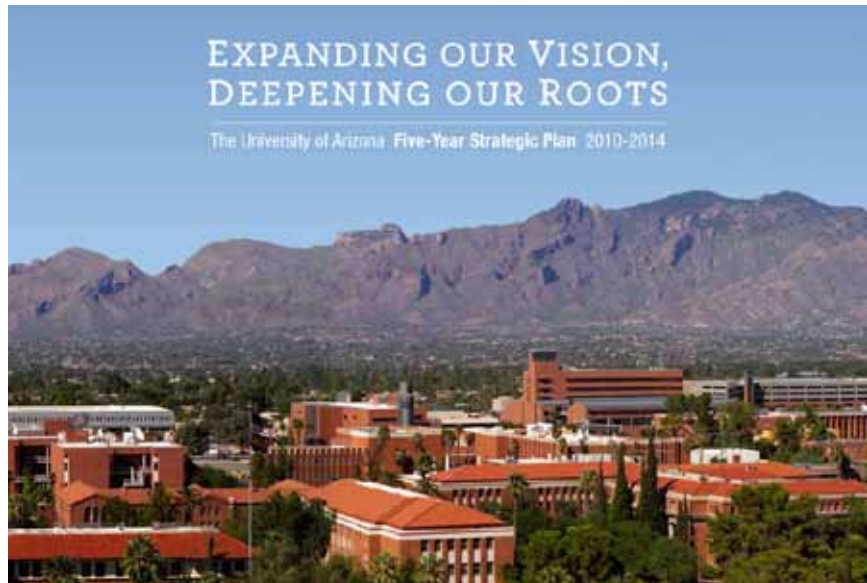
## Background & Purpose

In 2008, The University of Arizona initiated an update of the 2003 Comprehensive Campus Plan, consistent with Arizona Board of Regents (ABOR) policy which requires state universities to update their campus physical development plan approximately every five years. The purpose of these updates is to ensure that the campus plan is a living document, responding to changing conditions while actively guiding campus development. This process also provides a mechanism for providing a development overview to ABOR, reporting progress towards implementation and identifying trends or issues which could impact the long range plan.

The campus plan update scheduled for 2008 was extended into 2009 to follow the Transformation planning process initiated by the President. While the full impact of the Transformation Plan and proposed reorganization will take the next year or more to be fully realized, the two planning processes are nonetheless inter-related. The Transformation Plan and its vision of the future has informed the physical planning process, so that the updated campus plan better reflects the institution's long-term educational, research and public outreach missions.

Objectives for this update include:

- Represent progress made toward implementation since 2003, incorporating completed projects into the base map;
- Determine how the plan has effectively served the campus and Tucson community, including identification of where the plan has been less effective or has not achieved desired results; and



- Identify new issues to be addressed, including the results of the UA Five Year Strategic Plan for 2010-2014, and make changes to the Plan as needed to align with the University's evolving vision of the future.

## Planning Process

To update the 2003 Comprehensive Campus Plan, The University of Arizona retained Ayers Saint Gross, the planning consultant for the 2003 Comprehensive Campus Plan. The 2003 Plan was guided by the Campus Planning Committee, chaired by Dr. Richard Eribes, Dean of the College of Architecture and Landscape Architecture at the time. Dr. Eribes also led the 2009 Update process as Assistant Vice President for Campus & Facilities Planning, the department which managed the planning process. A Steering Committee was formed to represent the many stakeholder groups, both on campus and in the community at large. Professor Corky Poster, Director of the Drachman Institute and former Interim Dean of the College of Architecture and Landscape Architecture, chaired the Steering Committee.

Professor Poster was one of many who had participated actively in the planning process for the 2003 Comprehensive Campus Plan, bringing a wealth of background and experience to the update.

The intention for the 2009 Update was to undertake a limited review and modification of the original 2003 Plan following the same planning process, but over a shorter timeframe. A six-month planning process was scheduled to include site visits and workshops with meetings every month.

The site visits were set up to gather background information with working meetings on specific issues and user interviews or reviews as needed.

The workshops were planned as highly interactive sessions open to faculty, staff, students, neighbors and representatives of community groups. Both daytime and evening workshops were planned to encourage maximum participation and involvement from the on-campus and greater Tucson community.

Workshops included:

- Observations: computer-aided-drafting (CAD) and geographic-information-systems (GIS) updates, data gathering, identification of issues, and review of vision and principles;
- Concept Plan: review of updates from 2003 to the present, including incorporation of adopted area plans and development of options for precincts where changes are indicated;
- Final Plan and Precincts: held as an open house to present the planning process and the updated Comprehensive Campus Plan and to receive any additional feedback.

The team tracked the planning progress of the Update in working sessions with staff from the Department of Campus & Facilities

Planning (CFP). At the conclusion of each site visit or workshop, the team summarized the planning progress for the Project Steering Committee asking for input and direction. A monthly report was also made to the Campus Community Relations Committee (CCRC), either by staff or the consulting team. Materials developed during the process were posted on the UA/CFP website as the project progressed. The final report was completed in collaboration with UA's newly formed Planning, Design and Construction unit (PDC), which will be responsible for its implementation.

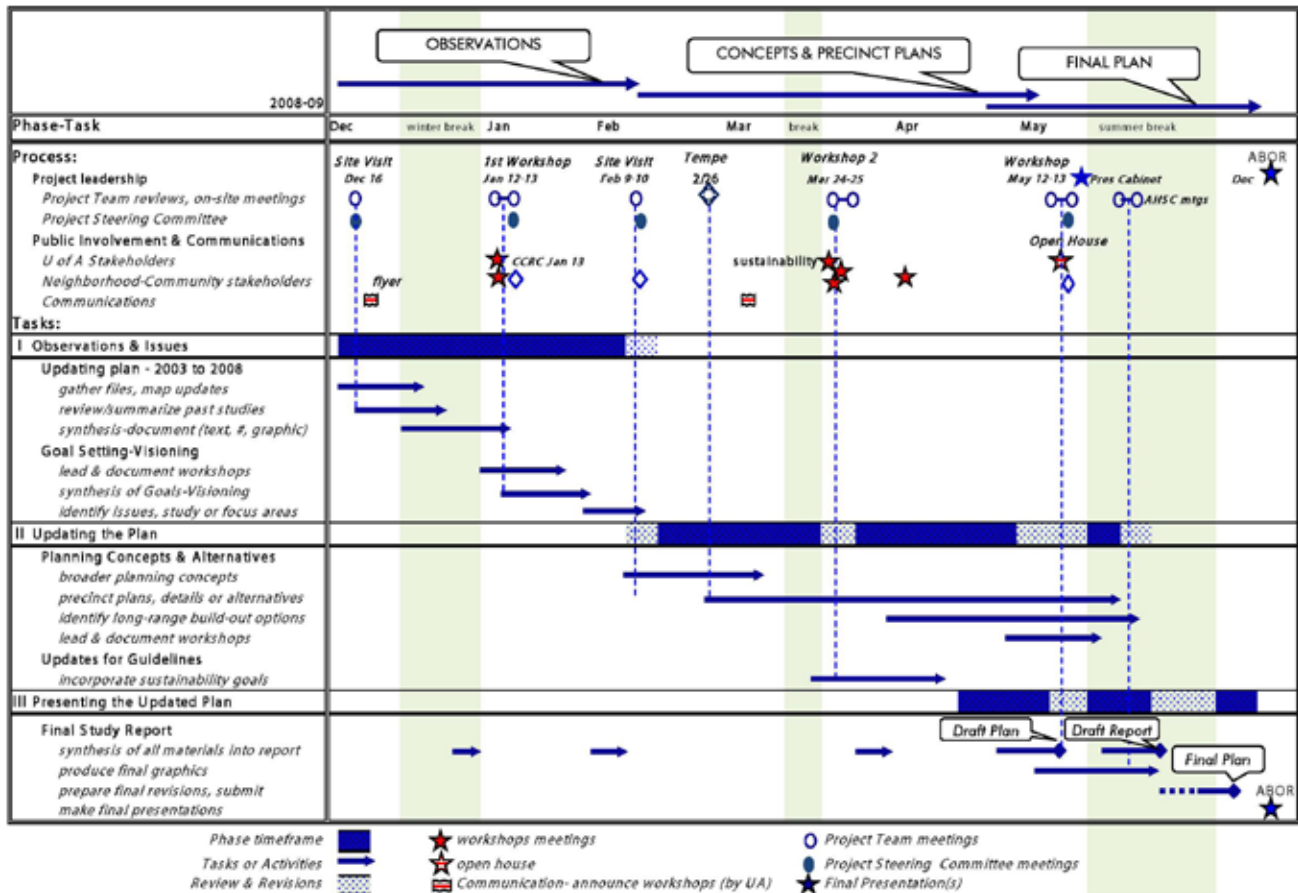
**Observations Phase**

The Update planning process was initiated with an Observations Phase which included:

- Establishing a new background plan based on digital CAD and GIS files

to provide an accurate background; aerial photographs were used to fill in existing conditions including landscape/hardscape improvements;

- Adding footprints for capital projects completed since 2003 and proposed new projects;
- Synthesizing plans and recommendations from planning studies and new initiatives, including:
  - Historic Preservation Plan
  - Intercollegiate Athletics (ICA) Master Facilities Plan
  - Surface Stormwater Master Plan
  - East Gate Entry Charrette
  - UA Parking Needs Assessment
  - Tucson Modern Streetcar Plan
  - Second Street Charrette
  - AHSC NW Sub-Area Plan





*On-campus planning workshops*

Workshops were held on campus with all stakeholders invited to identify issues to be addressed in the update process. The team met with area property owners and members of the local development community who expressed interest in planning and partnering with the University on projects. The Observations Phase also included touring areas of interest especially related to sustainability and stormwater management on and off campus including portions of the Rincon Heights and the West University neighborhoods and the AHSC.

At the conclusion of the Observations Phase, the team met with senior University leadership (President and Provost) to identify issues and establish priorities for the 2009 Update. The team was directed to:

- Conducting interviews with key campus departments including:
  - Residence Life
  - Campus Recreation
  - Parking & Transportation Services
  - Facilities Management
  - Campus & Facilities Planning
  - Facilities Design & Construction
  - Intercollegiate Athletics
  - Community Relations
  - Real Estate Administration
  - UA Foundation
  - Arizona Health Sciences Center including College of Medicine, College of Nursing, College of Pharmacy, College of Public Health, University Medical Center, University Physicians Healthcare group, and UMC-Facilities Management
- Conducting round table meetings with interest groups including:
  - UA Transformation Plan Group
  - Surface Water Working Group
  - Utilities Planning Group
  - Campus Sustainability Committee
- Work with the community, especially the neighborhoods around the main campus in a consistent process.
- Represent campus edge and gateway projects which are important to the image and identity of the University.
- Consider all UA programs and locations, including opportunities downtown which are more achievable with the planned streetcar line.
- Allow for future growth and flexibility, identifying strategies to accommodate growth based on projects like Keating BIO5 as a model for future interdisciplinary research facilities.
- Plan to house all freshman on campus (est 30% of undergraduates).
- Seek out public-private partnerships to develop expanded options for older students, graduate and married students on and around the campus. Development of affordable housing for faculty-staff should also be a priority.
- Engage the City of Tucson in the planning process.
- Work with the Arizona Health Sciences

Center to actively involve all the stakeholders in this precinct, especially University Medical Center (UMC);

- Be a recognized leader in sustainability with the campus serving as a living laboratory. The President suggested identifying an infrastructure campus community demonstration project for the buffer/greenway edge which could incorporate stormwater management and other sustainability concepts.

### Concepts Phase

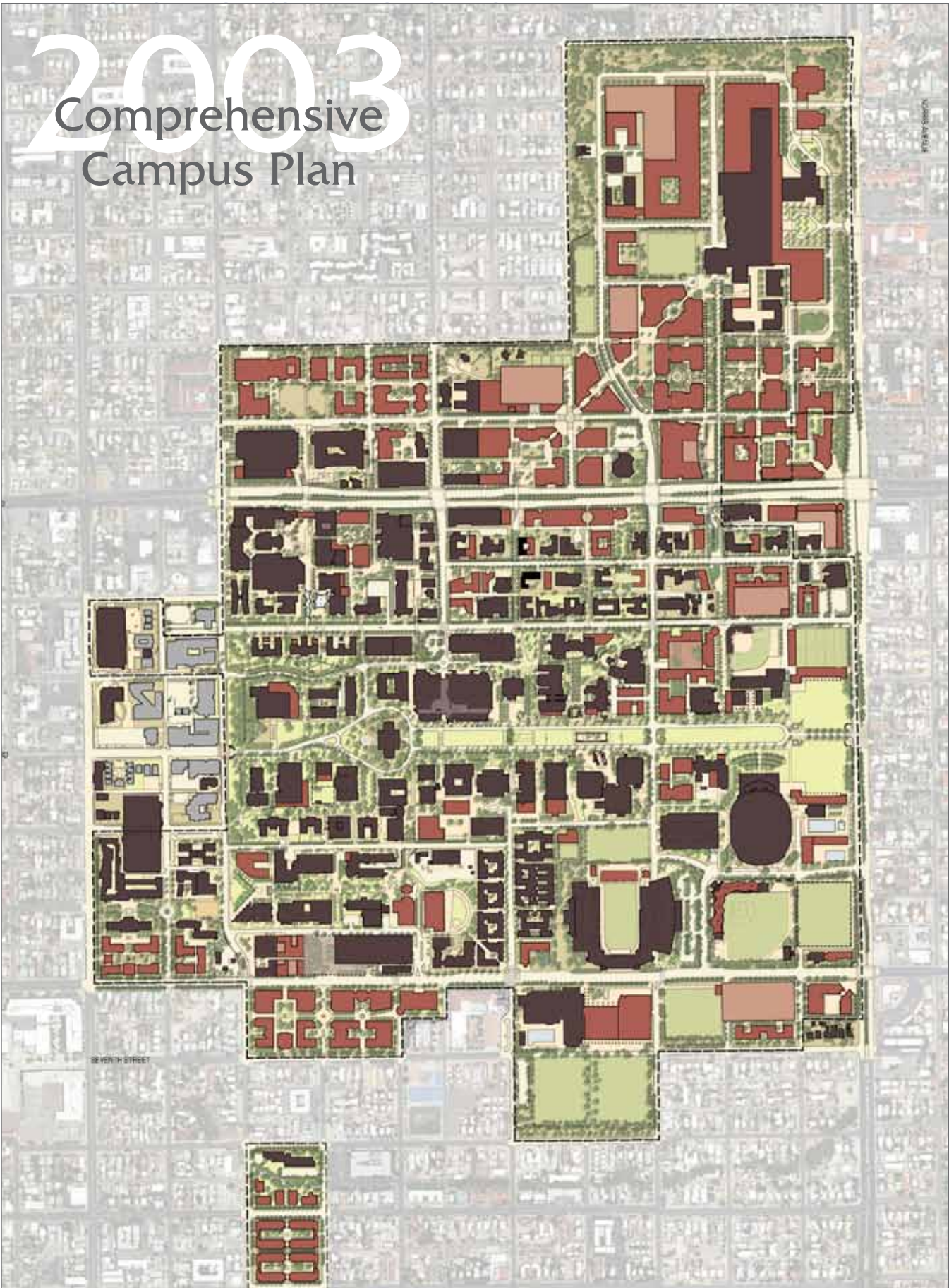
The Concepts Phase developed revised plan options for key areas, including: the South Campus (Precinct 4) at both ends of Sixth Street; North Campus (Precinct 3) along Helen Street; and the Arizona Health Sciences Center (Precinct 2) where the most future growth is projected. Workshops refined these plans further, incorporating ideas about sustainability and suggesting opportunities for improved campus community relationships.

This phase included planning sessions with those who have significant implementation responsibilities in the departments of Campus & Facilities Planning, Facilities Design and Construction, and Facilities Management.

### Final Plan Phase

The 2009 Update was reviewed with the President's Cabinet before completing the final plan. The Update was presented to the CCRC and Steering Committee, and posted for comment during a campus open house. The final 2009 Comprehensive Campus Plan Update documents will be adopted as the new campus master plan with the acceptance of the President's Cabinet and approval of the Arizona Board of Regents.

# 2003 Comprehensive Campus Plan





### Introduction to the 2003 Plan

In 2000, the University began a three-year process to create a comprehensive campus plan for the Tucson campus. There was a strong appreciation of the value of the historic core of the campus with its lush oasis landscape. But campus growth had begun in patterns of lower density and the hard, impervious surfaces combined with the hot, dry climate created a sometimes harsh environment. The 2003 Plan embraced the character and quality of the campus oasis, expanding the concept of the open space network. Infill development was planned to increase density which more than doubled on-campus space. Surface parking lots were replaced by new buildings with courtyards set in welcoming landscapes. Parking was consolidated into well-located larger structures. Greater emphasis was placed on connectivity, improving edges, gateways, pedestrian paths and outdoor spaces to benefit the campus and surrounding community.



### Planning Principles

Early in the 2003 planning process, five principles were identified, reflecting the philosophical position of the University. These principles were revisited in the first 2009 Update workshop and continued to be touchstones guiding the Plan.

### Academic Advancement

The physical plan promotes, reflects and supports the core mission of the University to serve the people of Arizona through education, research, creative expression and community engagement. Investment in

the UA campus and facilities supports this mission.

### Climate for Learning

The campus takes full advantage of the Arizona climate by creating and linking usable outdoor intellectual and social spaces. The campus encourages an active healthy lifestyle by facilitating walking, biking, and recreation.

### Earth, Water & Sky

The campus respects and is informed by the natural systems and indigenous cultures of the Sonoran Desert region. Best practice standards provide for good stewardship of water, land and resources drawn from the natural environment.

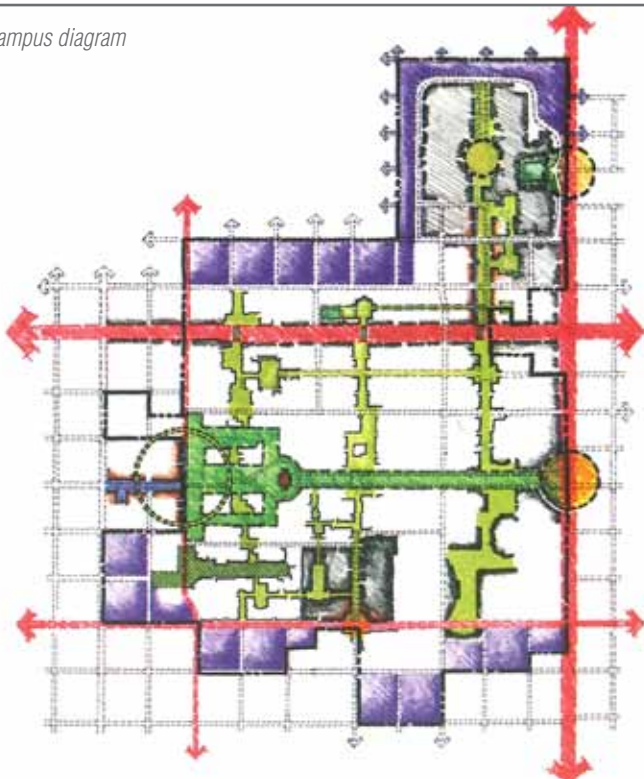
### Creating Community

The University is an active, integral partner that respects and supports its neighbors. The University, its neighbors, and the City of Tucson benefit from the creation of community within and surrounding the campus.

### Regional Solutions

The Campus Plan is coordinated with regional solutions to the built environment including traffic, transit, energy and water resources management. The campus contributes to the positive long-term development of the city, region and state.

2003 campus diagram



**Consistent Themes**

The themes of the 2003 Plan continue to resonate with planning participants in the 2009 update process. While the emphasis may vary, with the 2009 Update putting a higher priority on the edges, transit and sustainability, these concepts continue to guide implementation of the plan and have become only more significant over time.

- Open Space
- Connections
- Edges & Gateways
- Infill Strategy
- Housing
- Transportation/Transit
- Infrastructure
- Sustainability

**Concept Plan**

The 2003 Plan built on the work of previous campus plans developed during the 1980's and 90's. While this plan demonstrated how the campus can accommodate significant new infill construction, the emphasis was less on buildings and more on the overall organization. The 2003 Plan recognized that while formal learning and research occurs largely within buildings, it is the open space on a campus that fosters a true sense of connectivity and community. The careful, intentional development of exterior space allows for reflection, chance encounters, or for small groups to participate in active learning experiences. They create the sense of place vital to a true intellectual community.

The diagrams below show the nuanced quality of existing and proposed campus open space in the 2003 concept plan. Improvements to the main mall and the Warren Avenue pedestrian mall demonstrate the value of this approach. The north-south connection created by the extension of the Warren Avenue pedestrian mall is extremely successful and is embraced by the campus and surrounding community. Similarly, the completed greenway/buffer on the north side the Highland Garage, with stormwater basin, walking path, benches and extensive landscaping, is very well received. But this is only a small part of the greenway proposed around the campus edge. It was anticipated that more of this essential element would be completed.



2003 Open Space Types



2003 Courtyard Mosaic

### Space Needs and Forecasts

The 2003 Plan evaluated space needs from 2000 (base year) to 2010 (target year). That analysis projected full-time enrollment increasing from 31,000 Full Time Equivalent (FTE) to 37,000. The space needs analysis showed that The University of Arizona Tucson campus had a shortfall in assignable square feet of more than 1,551,000 with a projected shortfall of nearly 3,000,000 at the target year.

The 2003 Campus Plan assumed an enrollment “cap” of 40,000 although planners estimated a carrying capacity of more than 44,000. The 2003 Plan increased gross square feet (gsf) of on-campus buildings from 8.6 million gsf existing to approximately 17 million gsf. Based on

the 2003 Plan, the University has made significant strides to close the identified space shortfalls. Including the first phase projects (some of which were counted as completed in the 2003 area calculations), more than 1.6 million gsf has been added to the campus.

The 2009 planning began with enrollment already exceeding the levels projected for 2010. The UA Five Year Strategic Plan projections show total UA enrollment reaching 44,000 FTE by 2014, with continued steady growth. The Strategic Plan, in alignment with the Arizona Board of Regents 2020 Vision Plan, eliminates the concept of an “enrollment cap” and embraces steady growth in response to state demographics and educational goals.

### Implementing the Plan 2003-2009

#### *Projects Completed*

As the Comprehensive Campus Plan was being adopted in 2003, forces were in motion to implement the plan and its recommendations. Since then, over \$646 million of construction has been, or is being completed.

#### **Completed Projects:**

- Main Library Expansion
- La Aldea Residence Hall
- Park Union Expansion
- Pima Hall Expansion
- Gittings Complex Expansion & Stevie Eller Dance Theatre
- Sixth St Parking Garage & Offices



2003 Aerial Photo (left) and the 2003 Campus Plan (right) with sites of major projects developed between 2003-2009.

**Completed Projects (con't)**

- Highland Residence Halls
- Highland Commons
- CALS Greenhouse Complex Relocation
- Chemistry Building Expansion
- Roy P. Drachman Hall
- Medical Research Building
- Keating Bioresearch Building
- Highland Parking Garage
- Meinel Optical Sciences West
- Helen S. Schaefer Poetry Center
- CALA West Expansion
- Cherry Ave. Garage Expansion
- Law Commons & Annex
- Family & Consumer Sciences, McClelland Park Building
- Old Main Renovations
- ICA Additions & Renovations
  - Hillenbrand Aquatic Center Diving Well
  - Indoor Practice Facility
  - Gymnastics Training Center Expansion
  - Intercollegiate Athletics Promenade
- Visual Arts Graduate Research Laboratory
- Diamond Children's Medical Center



*Thomas W. Keating Bioresearch Building*



*Roy P. Drachman Hall*



*Stevie Eller Dance Theatre*



*Helen S. Schaefer Poetry Center*



*Meinel Optical Sciences West*



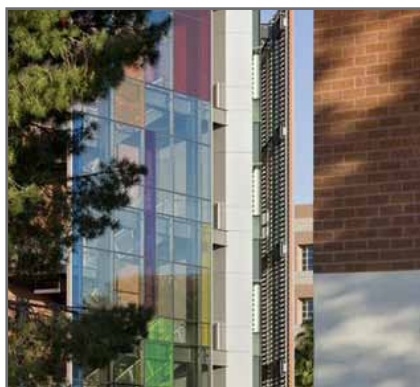
*CALA West Expansion*

**Under Construction:**

- Student Recreation Expansion
- Hazardous Waste Facilities
- Sixth Street Residence Halls

*The Meinel building received the National Design Excellence Award from the American Institute of Architects; it is the only Southern Arizona building to ever receive this award.*

Along with these additions to the campus, a significant number of building renovations and upgrades for improved efficiency, safety, and long term sustainability of systems and facilities were also completed. The Residence Life Building Renewal program has completed two of four phases, with Phase Three and Four now underway.



*McClelland Park*



*Chemistry Addition*



*Integrated Learning Center*



*Highland Quadrangle*



*Olive Underpass & Arts Oasis*



*Warren Avenue Underpass*



*AHSC Open Space w/Stormwater Detention*



*Warren Avenue Pedestrian Mall*



*Drachman Plaza*



*Chemistry Walk*

**Implementing the Plan 2003-2009**

*Open Space, Landscape & Infrastructure*

The campus environment has benefited from a significant number of completed projects improving pedestrian routes and open space with new landscape, hardscape and streetscape. These include:

- Alumni Plaza
- Chemical Sciences Plaza
- Highland Quadrangle
- Intercollegiate Athletics Promenade
- Learning Services Quadrangle
- Main Mall & Integrated Learning Center
- Marroney Theatre Plaza
- Warren Avenue Pedestrian Mall
- Women's Plaza of Honor
- CALA Landscape demonstration project

Planned projects including those listed in the UA Capital Improvement Plan and Capital Development Plan are:

- CALA Building Green Roof
- Engineering Research Building I
- McKale Center Renovations
- Centennial Hall Renovation/Expansion
- UMC Northwest Parking Garage
- Bryant Bannister Tree-Ring Building
- Environment & Natural Resources II
- ICA North End Zone Stadium Expansion
- Center for Integrative Medicine
- 2nd Street Modern Streetcar Improvements, Plazas & Streetscape

Major University projects planned off the main campus include:

- Phoenix Biomedical Campus
- UA Science Center and Arizona State Museum, Downtown Tucson
- Red Rock Agricultural Center Infrastructure
- Veterinary Sciences Research Building

### Implementing the Plan 2003-2009

#### *Planning Context and Studies*

Since the adoption of the 2003 Plan, there have been significant changes to the context in which the campus plan is being developed. There have also been significant institutional investments, initiatives, and activities undertaken by the University that should be reflected in the Update.

President Shelton has brought renewed energy and additional priorities to the campus. In 2007, UA signed the American College & University Presidents Climate Commitment, expanding UA leadership in environmental sustainability education, research, and practice and an increased emphasis on working within the greater community.

Enrollment growth continues to impact instructional space and student life facilities needs and the Campus Plan Update must consider strategies to accommodate this growth. The Transformation Plan considered the growth needed to meet the ABOR 2020 Vision Plan in the context of more constrained resources. The Transformation Plan is producing reorganization which will affect how the University uses existing space, impacting plans for new facilities. Strategies to address these impacts include planning for more shared facilities, evaluation of reuse vs. replacement of building facilities, and increasing both the flexibility and the density of future development on the campus.

Renewed emphasis on environmental responsibility, combined with rising energy costs and concern about dependence on foreign oil, is increasing support for renewable sources of energy, more

compact development, and new transit/transportation options. In Tucson the Modern Streetcar line will connect the UA campus to downtown Tucson, creating new opportunities to address these issues and for the University to actively engage the city.

Finally, Arizona's challenging economic and political environment is also giving rise to new approaches to realizing projects. This includes alternative delivery processes currently employed for on-campus projects, and potential public-private partnerships. Development partnerships are more appropriate for projects at the edges of campus, downtown, or along the Tucson Modern Streetcar route. The redevelopment of Main Gate Square at University Boulevard and Park Avenue demonstrates how challenging, but still successful, this type of development can be. The 2009 Update anticipates that to meet these challenges, the University will need to continue to seek creative opportunities, alternative approaches and new partnerships to meet future needs.

### Planning Studies 2003-2009

Building on the 2003 Plan, the University has continued with more detailed planning studies and analysis, including:

- Historic Preservation Plan
- Transportation & Parking Study
- Tucson Modern Streetcar Plan
- Surface Water Implementation Plan
- Intercollegiate (ICA) Master Plan
- Modern Architecture Preservation Study
- UA Five-Year Strategic Plan 2010 – 2014

### Earth, Water & Sky

*The campus respects and is informed by the natural systems and indigenous cultures of the Sonoran Desert region. Best practice standards provide for good stewardship of water, land and resources drawn from the natural environment.*



## Sustainability 2003-2009

### *Achievements & Initiatives*

The planning principles which are at the foundation of the 2003 Comprehensive Campus Plan included respect for the natural environment. The University of Arizona has been a leader in the area of environmental stewardship and strives to be at the forefront of research and education for sustainable practices. The 2003 Plan included recommendations on sustainability at three levels and the University has made significant progress in each of these areas:

- University-wide Philosophy/Administration/Operations
- Campus Planning Strategies/Initiatives
- Project Implementation.

The 2003 Plan built on a UA tradition of sustainability. The main mall, opening to the mountains to the west, is lined with buildings oriented north-south, the best orientation for shading and energy conservation. University buildings incorporate energy efficient systems and design with a range of shading, sun control, screen walls, thermal mass walls, and other strategies. The 2003 Plan built on this tradition with an infill strategy to achieve a more compact campus, reducing impervious surfaces and run-off stormwater by replacing surface parking lots with garage structures and increasing open space.

The 2003 Design Guidelines also recommended additional practices for sustainability incorporated into the University's architectural and engineering design standards, and facility maintenance and operations policies.

### **Facilities Construction & Operations**

The University has made major strides in the application of sustainable practices



campus-wide in facilities maintenance and the construction of new facilities. This includes implementation of the practices listed below, as well the metering of all buildings, and the retrofitting of facilities, where feasible, with more efficient equipment and fixtures.

### **Water**

Campus water management focuses on conservation of this precious resource, including:

- Reclaimed water network: reclaimed water now provides the majority of landscape irrigation campus-wide;
- Rainwater harvesting on pilot projects and all new facilities;
- Participating Agents in Resource Allocation for Sustainable Living (PARASOL) students installing cisterns for water recapture and re-use, and rain gardens and solar stills to improve water quality;
- Implementation of a campus surface water/stormwater management plan;
- Over 300 waterless urinals installed;
- Demonstrating the water-energy nexus.

### **Energy**

Energy solutions on campus combine efficiency, conservation and innovation to save energy and reduce costs, including:

- Innovative thermal ice storage system saves \$1million annually;
- Clean gas turbines provide 40-50% campus electrical power;
- Over 300 high performance fume hoods save \$700,000 annually;
- Implementation of design-efficiency standards and new central plant equipment reduce energy use by 30%, eliminating 39,000 tons of CO<sub>2</sub>;
- New cooling towers & chiller for a 25% efficiency increase;
- Insulated and "cool coat" roofs;
- Major solar initiative undertaken:
  - UA Visitor Center solar installation;
  - photovoltaics across campus and at Agricultural Extensions statewide;
  - Solar heating for intercollegiate and recreational pools;
  - Major solar farm outside Tucson;
  - Solar test yard at the Biosphere will provide two-thirds of the conference center's energy needs;
  - Advanced solar energy collection & concentration research.

UA is also one of 20 universities and colleges selected for the biannual Solar Energy Decathlon. The UA interdisciplinary team has worked for two years to develop their entry entitled 'SEED (pod)' which competed on the National Mall in Washington D.C. in October 2009.

**Transportation**

The University has made huge strides towards reducing auto traffic and parking on campus and promoting alternative modes of transportation. In 2008, the University undertook a study evaluating travel demand management (TDM) measures and options for increased funding through the regional Pima Association of Governments (PAG) Transportation Improvement Program (TIP). The result has been increasingly effective strategies to reduce cars and increase use of transit or other alternatives. The UA Travel Reduction Program has expanded to include:

- RideShare Carpooling, Vanpool;
- Sun Tran Free 2 Ride;
- U-Pass (50% discounted bus pass);
- Cat Tran Shuttle;
- Mapping of bike routes;
- More bike lanes & bike storage;
- Bike sharing program proposed;
- Campus car sharing/rental program;
- The UA shuttle bus fleet is 100% alternative fuel vehicles and 30% of the service fleet is now using E85 fuel.

Since 2003, the campus has become increasingly pedestrian/bike friendly and has won the "Best Workplaces for Commuters" award from the U.S. Environmental Protection Agency four times. The opening of the Tucson Modern Streetcar line connecting the campus to downtown will further enhance use of transit for commuting and offer new options for transit-oriented development.

**Materials & Recycling**

The University participated, campus-wide, in Recycle Mania for the first time in 2008-2009, finishing fourth in this ten week long nationwide competition. Individual UA residence halls have been participating in this competition for eight years. Last year, UA recycled over 300 tons of aluminum, paper and plastics and the university continues to support paperless office environments.

**Indoor Air Quality**

- Using low volatile organic compound (VOC) cleaning products;
- Instituting mold prevention and reduction policies; and
- Eliminating use of toxic and hazardous materials.

**Sustainability Report Card**

The University of Arizona recently received an "Exemplary" campus sustainability rating in the National Higher Education Report published by the National Wildlife Federation in conjunction with the Princeton Survey.



UA is equally proud of the research and academic programs which are advancing our understanding of sustainable practices, including:

**Institute of the Environment**

This interdisciplinary institute studies the interaction of human and natural systems including global climate change. The Institute will boost the visibility, research competitiveness, and effectiveness of scholars who make the University a leader in environmental studies

**Water Resources Research Center**

The Center develops water management practices and policy, working with agencies and communities to promote conservation and environmental preservation.

**Laboratory of Tree-Ring Research**

The Laboratory of Tree-Ring Research was founded in 1937 by Andrew Ellicott Douglass, founder of the modern science of dendrochronology - the science which discovered this record of historical climate change. The Laboratory is a widely known educational resource.

**Environment & Natural Resources Complex**

Interdisciplinary research in environmental & earth sciences, including Institute of the Environment, Arid Lands Studies, School of Environment, Arid Lands Studies, School of Geography and Development, School of Natural Resources and the Environment, Atmospheric Sciences, and Water Resources Research Center.

**Biosphere 2**

As the world's largest controlled climate lab for unique ecosystem studies and experiments with climate change, the Biosphere is a high-profile environmental science outreach facility for the University.





### Major Sustainable Capital Projects

Significant buildings have recently been completed on campus incorporating sustainable green practices as well as unique demonstration projects including:

#### Integrated Learning Center (2001)

- UA's first green roof
- Irrigated with reclaimed water
- Courtyard daylighting
- Arcade tempered with A/C relief air

#### Stevie Eller Dance Theatre (2003)

- Shading - deep overhangs, screens
- Screens facilitate daylighting
- Rainwater harvested for healing garden
- Reclaimed water for landscaping

#### Helen Schaefer Poetry Center (2007)

- Passive solar design
- Shading - deep overhangs,

programmed exterior space

- High performance systems for heating, ventilation and air conditioning (HVAC) and lighting systems

#### Meinel Optical Sciences West (2006)

- Breathable exoskeletal skin with convection chimney effect
- Interior light shafts for daylighting
- Tempered sunken plaza
- Permeable ground surfaces and low-water landscaping

#### CALA Expansion (2007)

- Three story rainwater collection system
- Condensate & graywater recycling
- Green wall screen for shading & daylighting
- Multi-habitat bioswale and demonstration garden

*CALA building addition green wall (behind) and the multi-habitat bioswale and demonstration garden with recycled rain water (in front).*



#### Proposed CALA Green Roof Laboratory

- Sonoran desert materials
- Landscape experimentation
- Photovoltaics testing
- Teaching and design tool

#### MRB & Keating BIO5 Institute (2006)

Multi-disciplinary, collaborative leading-edge research includes disease prevention, world hunger, and global warming

- Active solar shading
- Courtyard daylighting

#### UA Visitor Center (2008)

- Photovoltaic panels
- Cistern for rainwater capture/reuse
- Involved student participation

#### Student Recreation Center (2009)

- The first LEED certified building on campus, on track to achieve Gold certification



2008 Aerial Photo of the existing campus

**2009 Planning Themes**

The workshops and meetings developing the 2009 Update began to see recurring themes which were woven through the many issues considered. These same themes seemed to resonate with both the campus community and the greater community and public attending the afternoon and evening workshops.

- Sustainability
  - *Campus as a Living Laboratory*
  - *Presidents Climate Commitment*
- Campus & Community
  - *Edges, greenways*
  - *Gateways*
- Opportunities for Collaboration
  - *Modern Streetcar line*
  - *Engaging downtown Tucson*
  - *Public-private partnerships*

**Sustainability**

*Campus as a Living Laboratory*  
This well-established development theme was endorsed at Update workshops by community members, faculty, staff and students - that the campus should serve as a living laboratory for developing, evaluating and testing sustainable practices developed at the UA and around the world.

The Tucson region has sustained human settlements for over 4000 years in a challenging desert environment which offers valuable lessons in sustainability. For instance, management of water as a resource and as a flood or drought risk has been a driving factor in regional planning and development. Also, the vocabulary of Sonoran vernacular architecture creates spaces which are comfortable for people and responsive to the climate, seasons and natural environment. The development of the UA main campus should continue to provide tangible examples of these lessons.

*Climate Neutrality*

In 2007, The University of Arizona signed the American College & University Presidents Climate Commitment, pledging the University's commitment to work towards achieving climate neutrality. The Campus Sustainability Committee has advanced new initiatives including Project Sage, the University's web site serving as a central source for the diverse policies, programs, strategies and initiatives that reflect the University's sustainability leadership.

American College & University Presidents Climate Commitment

**University of Arizona**

1. Develop plan to achieve climate neutrality
  - 2 mo: create institutional structures to guide plan development & implementation*
  - 1 yr: inventory greenhouse gas emissions*
  - 2 yrs: develop an action plan*
2. Initiate 2 or more tangible actions
  - *LEED Silver or higher*
  - *Encourage use of public transportation*
  - *Participate in Recycle Mania*
3. Make the Action Plan, Inventory & Reporting public (AASHE web site)

**Campus & Community**

Another theme which arose at workshops and user meetings, especially from neighbors attending evening workshops, was a desire to see improvement where campus and community come together at the perimeter of the campus. The completed Highland Parking Garage includes a deep setback and a beautiful green stormwater detention area with walks, benches and lush landscaping. This greenway/buffer zone project is a huge success. But it has also contributed to an impatience about seeing the greenway/buffer more fully developed.

The University should provide for the timely development of the landscaped edge and gateways at the perimeter of the University Planning Area, to the extent that economic and budgetary conditions allow. A survey of the campus perimeter noted that much of the edge is landscaped, but with a wide variety of forms, from greenway, to rain gardens, to xeriscapes. Ideally, future campus edge improvement projects could offer opportunities for active civic engagement and mutual campus/ community benefit.

Opportunities, issues, and initiatives cited at community workshops include:

- Community partnership projects are being planned, including a neighborhood planting list for boulevard landscaping;
- The Campus Community Relations Committee (CCRC) continues to be effective in keeping the neighborhoods informed of University activities. The CCRC should be informed of any proposed project along the boundary edge to engage the community during the planning, design and implementation process;
- The University should seek to reduce undesirable impacts from University operations and activities on adjacent neighborhoods with effective management of UA properties, temporary activities, demolition, or site clearing, especially along the edges of the campus;
- Lester Street & Vine Avenue "Likins Garden" project which was the result of a cooperative effort to improve a small parking area; and
- Rincon Heights Neighborhood Association has expressed interest in University supported Employer-Assisted Housing.

**Opportunities for Collaboration**

*Modern Streetcar*

The Modern Streetcar route enters campus at University Boulevard, turns onto Park Avenue and then winds through the heart of the campus on Second Street to a temporary terminus at Helen Street and Campbell Avenue. Eventually, the route may extend along Campbell north to the UA Agricultural campus and UMC North and south past the Arizona Bioscience Park to the airport.

The streetcar could offer new transit-oriented development opportunities at appropriate downtown redevelopment sites as identified by the City, within ¼ mile

of proposed stations. When the Tucson Modern Streetcar is fully operational, students or faculty could go from the UA campus to downtown Tucson in less than 30 minutes, suggesting a greater ability to offer downtown programs.

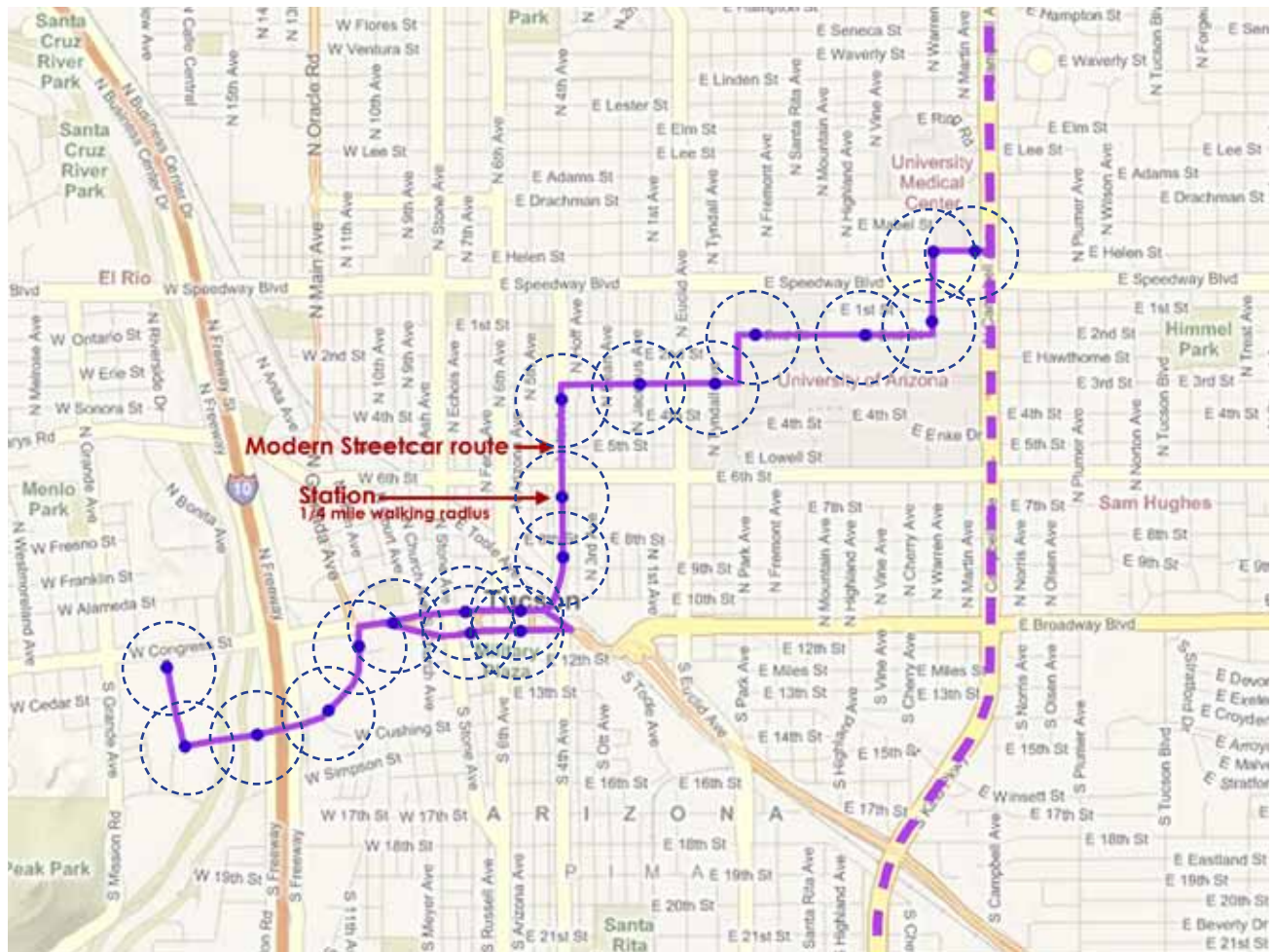
*Engaging Downtown Tucson*

There is strong support for The University of Arizona to have a meaningful and demonstrable presence in downtown Tucson. To pursue opportunities for collaboration and engagement, the University should identify programs appropriate to a downtown location which could benefit from downtown resources, as well as new opportunities downtown

or along the Modern Streetcar line which might spur new University programs and uses.

In addition to the UA Science Center and Arizona State Museum, new programs discussed for location downtown include:

- Public Administration;
- Media and Communications, related to local TV and radio stations;
- Professional programs, especially continuing education programs;
- Architecture, Planning, Landscape Architecture and Urban Design.



**Main Campus Public/Private Partnerships**

Public-private partnerships became an emerging theme of the 2009 Update.

The Tucson Modern Streetcar offers new opportunities for the University to engage growth and development downtown and along the streetcar line by seeking out appropriate public-private partnerships. Potential University partnerships were also discussed for potential redevelopment sites adjacent to, or even within, the University Planning Area boundary. Property owners and local developers expressed potential interest in working with the University on this type of project.

The Planning, Design and Construction department is working with Residence Life leaders to initiate a public-private student housing project that could serve as a model for high quality developments. The University Partnership concept recognizes that The University of Arizona can serve as a positive catalyst for development or redevelopment beyond the main campus if done so in full partnership with private property owners, neighborhood associations and the City of Tucson.

By seeking out appropriate partners, the University can expand the range of opportunities beyond what traditional campus development makes possible.

To establish an active presence downtown, the University might acquire or lease an existing building or become part of a mixed-use development rather than construct a 'stand-alone' downtown campus. Closer to the University planning boundary, this type of partnership might allow for a greater range of mixed-use development including new housing types.

Many examples exist of this type of development energizing commercial streets while respecting the character and scale of existing neighborhoods. One model of this approach is the Main Gate development which includes the University and private sector working with the West University Neighborhood Association and the Arizona Historical Society (adjacent property owner) to create a vibrant mixed-use district.

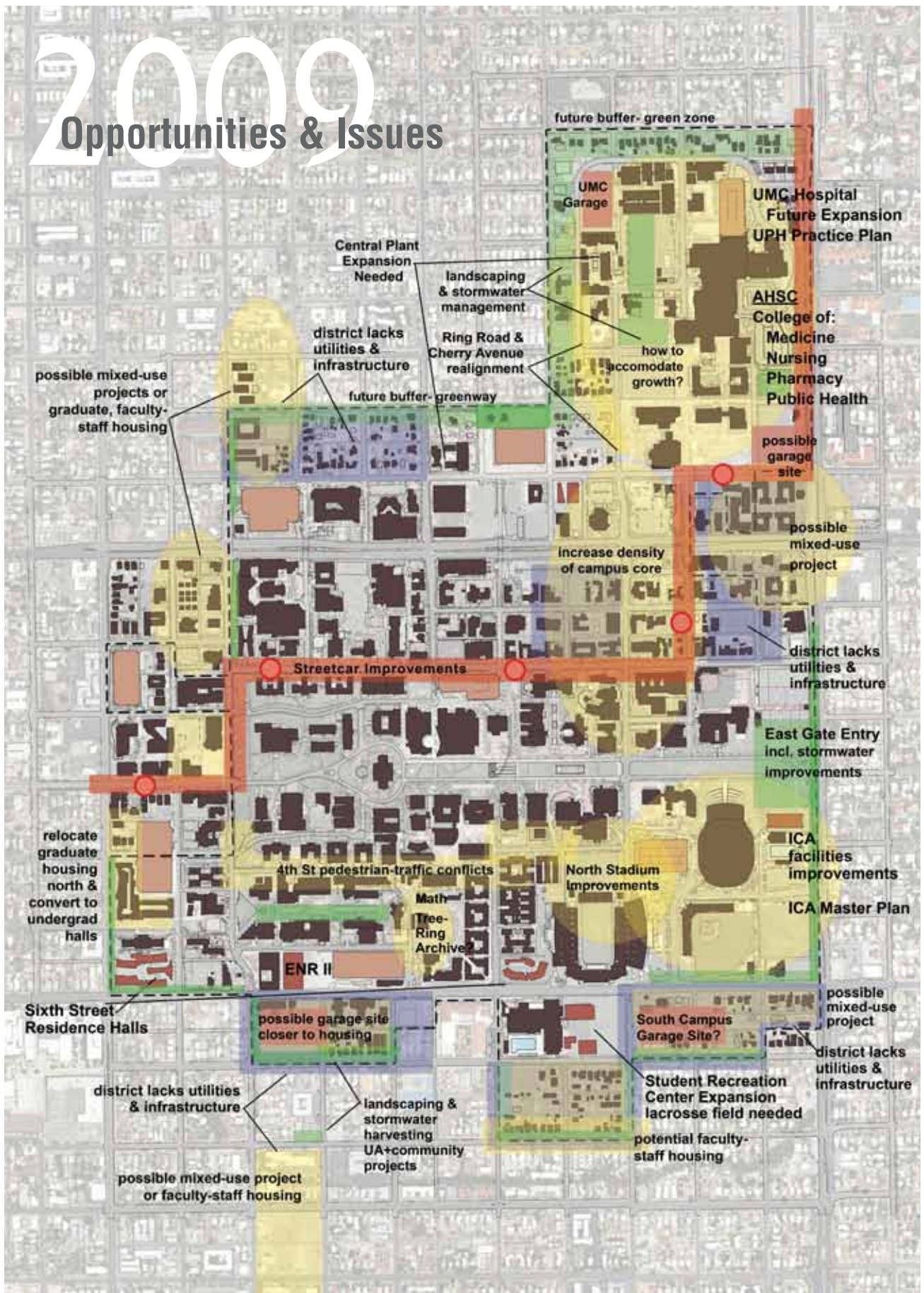
The 2003 Plan included this type of mixed-use private sector or public-private partnership development on Campbell Avenue at the corner of Speedway Boulevard and also at Sixth Street. At the 2009 workshops, successful examples were presented from campuses around the country and there was broad support for this approach.

**Implementation**

To move these ideas forward, the 2009 Plan proposes designation of areas in which the University should continue to engage the private sector to encourage new development which would support both University and community needs and goals. There should be a well-defined planning process for the development of any partnership project, whether it is downtown or in an identified University Partner Zone closer to the main campus. This planning process would include collaborative visioning and planning and cooperative project implementation between the University, the City of Tucson, private sector developers, property owners and the neighborhoods.



# 2009 Opportunities & Issues



**2009 Opportunities & Issues**

The initial meetings and workshops sought to identify not only the successes of the 2003 Plan (including projects completed or under construction), but what has been less successful or has not yet been accomplished. The map opposite shows where opportunities or issues were identified during the Observations Phase.

**Growth and Flexibility**

At planning workshops, concerns were raised about future growth, especially with the Board of Regents goals to increase access to a state university education and to increase the number of advanced degrees issued statewide. Questions were raised about expansion beyond the previous “cap” of 40,000 FTEs on the main campus. In the absence of an enrollment “cap”, what impact (traffic, parking and utilities infrastructure) will growth have as the campus density increases? How will housing demand be addressed? There is already market pressure driving student housing into the neighborhoods surrounding the campus. Can the plan be flexible enough to adapt to meet the evolving needs?

**Modern Streetcar**

The Tucson Modern Streetcar will connect the campus to downtown Tucson. The streetcar is seen as an opportunity not only for encouraging commuting and reducing demand for on-campus parking, but also for improved pedestrian space on-campus, and as a way to connect to programs or new housing downtown.

**Traffic**

While the campus continues to become increasingly pedestrian and bike friendly, there are places where traffic volume or circulation paths produce conflicts.

The streets around student housing areas are especially challenging, with Fourth Street and Highland Avenue being one of the most challenging intersections.

**Parking**

Parking is an issue on every campus. The 2003 Plan included construction of several new parking garages which have since been completed. But the Plan also recommended investing in new travel-parking demand strategies. The UA Travel Reduction Program encouraging alternative modes of transportation is expanding these strategies. Cost is also helping to reduce demand and provide an incentive for alternate ways of getting around campus.

Parking Issues for the 2009 Update include:

- Parking garage south of Sixth Street, ideally located close to new housing;
- Parking garage at the north end of the campus, ideally located close to the streetcar line terminus on Helen Street;
- More parking near athletic facilities;
- More parking at the AHSC including parking to replace lots lost to future new buildings;
- Developing new goals for demand/density to determine future needs.

**Housing Issues**

Demand for housing continues to exceed the available beds and the expectation is that freshman classes will continue to grow at a rate of 200-300 year. The community is unhappy with ad-hoc student housing (mini-dorms, etc) in the neighborhoods, but without adequate University housing on-campus, that may be inevitable. The neighbors are supportive of faculty/staff housing which could stabilize the neighborhoods and act as a transition to on-campus student housing.

**Student Life & Recreation**

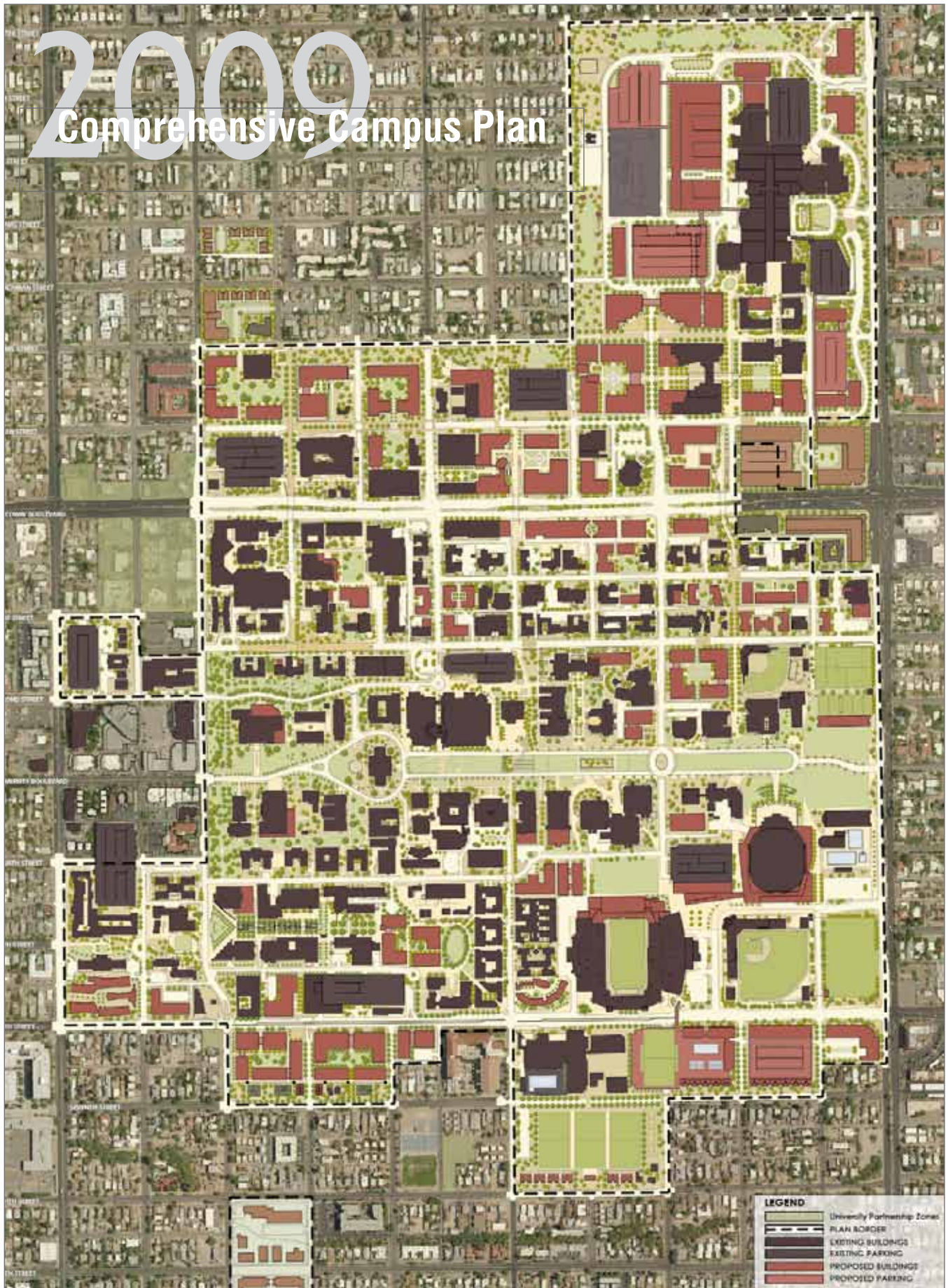
Demand for recreational space and student life facilities continues to grow as enrollment grows and new housing is built. The expansion of the Student Recreation Center on Sixth Street, anticipated in the 2003 Plan, is now under construction. But the 2003 Plan assumed Recreation and Athletics (ICA) would share facilities which has been problematic both in scheduling and in the size/configuration of the facilities. Campus Recreation is seeking more dedicated facilities including field space, basketball, tennis and sand volleyball courts, swimming pool, and passive recreation opportunities such as trails and walking/bike paths.

**Community**

The concerns most often cited by community members have to do with the edges of the campus and include:

- Campus identity, edges and gateways which still need improvement;
- The greenway or buffer zone proposed in the 2003 Plan is incomplete;
- University property acquisition outside the planning boundary;
- Property acquisitions within the boundary being cleared for temporary uses (parking, FM storage), increasing neighborhood insecurity about likely long-term use;
- A “temporary” building constructed in the planned greenway area without landscaping or buffer setbacks;
- Communication with community has not always been consistent, especially for demolition and interim or temporary projects;
- Major routes into campus (both Speedway Boulevard and Sixth Street) were frequently identified as potential locations for better quality development, including mixed-use and housing.

# 2009 Comprehensive Campus Plan





## Concept Plan

In the process of identifying what was accomplished in the 2003 Plan and what is still to be done, a range of new issues was raised and it became clear that some precinct plans should be revisited or refined. But on the whole, the concepts which shaped the 2003 Plan continue to be valid in guiding the plan for campus development and these same principles guided the refinement of the precinct plans.

## Overall Concept Plan Objectives

The objectives for the 2009 Update are consistent with the 2003 Plan objectives:

- Plan for increased enrollment growth within the responsible carrying capacity of the campus;
- Prioritize academic facilities in the campus core with strategies which increase campus density, reduce and consolidate parking, and relocate less 'mission critical' functions to less central locations, on or off campus;
- Enhance campus community through connectivity and open space;
- Demonstrate continuing leadership in addressing sustainability;
- Guide current and future campus development and building projects; and
- Further engage the community and City of Tucson as partners.

## Open Space

The courtyard mosaic concept continues to be reinforced and further refined in the 2009 Update. Refinements include:

- Replacing larger quadrangles with smaller, interwoven courtyards;
- Planning courtyards and their defining buildings to offer more shade; and
- Planning for smaller building footprints to facilitate incremental development.

The 2003 Plan emphasized open space on campus to foster connectivity and community. Improvements to the main mall and the Warren Avenue pedestrian mall have demonstrated this value. The north-south connection created by the new pedestrian mall has been extremely successful and is embraced by both the campus and the surrounding community. The 2009 Update reinforces these pedestrian connections extending the routes on Olive Road and Highland Avenue north to connect with the greenway.

The 2003 Plan represented the intentional development of a range of types of exterior spaces to allow for reflection, chance encounters or for small groups to gather, encouraging active hands-on learning experiences. Many of these spaces have been realized and the sense of place they created has shaped the growing UA intellectual community. The 2009 Update embraces this concept with a range of types of exterior space and greater emphasis on smaller, more easily shaded spaces.

## Historic Preservation

The 2003 Plan recommended development of a plan for management of campus historic resources. Completed in 2006, the UA Preservation Plan outlines the growth of the campus and includes recommendations for preserving its historical character.

*"The historic core and mall demand special attention to the history and traditions of the University of Arizona"*

Modern campus architecture is included in the Plan and was the subject of recent discussion about the updating of potential UA historic register candidates. The 2009 Update recommends furthering this work with a detailed study of UA buildings constructed between 1939 and 1979. This study will allow the University to develop

strategies for the maintenance of resources worthy of preservation while planning for continued campus growth.

## The Modern Streetcar

The planned Tucson Modern Streetcar will also support public space improvements along Second Street and around station areas. Design objectives include:

- Enhanced bicycle and pedestrian routes and safety at crossings;
- Maintain access to existing buildings;
- Unified design themes for stations, streetscape and landscape.

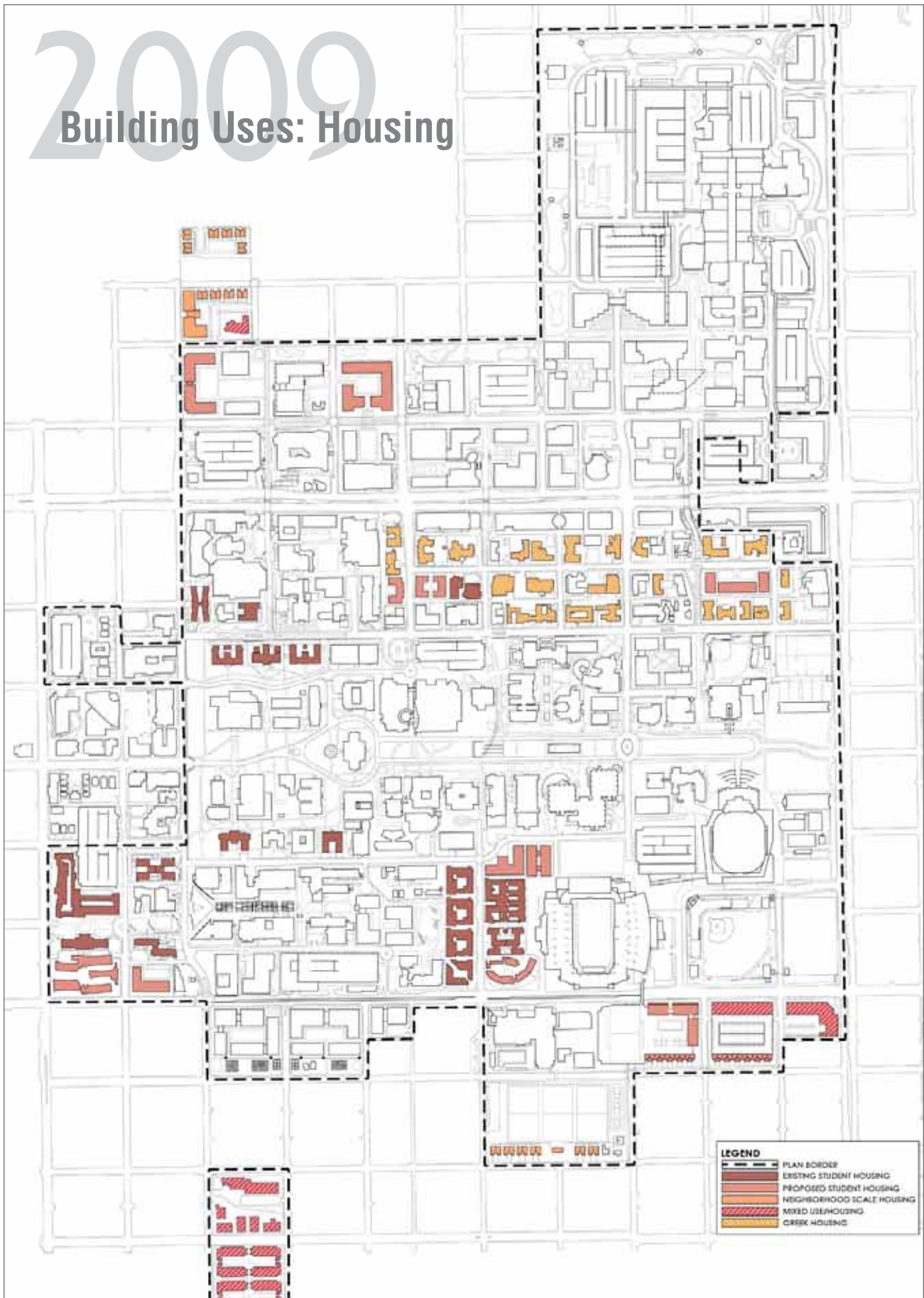
## Surface Stormwater

Since the 2003 Plan, surface stormwater management to prevent flooding and capture of runoff for landscape irrigation has become increasingly important. The 2008 Surface Water Implementation Plan identifies campus watersheds and problem areas. The plan suggest 'best practices' including swales and raingardens, surface detention areas, and sub-surface detention approaches. Infrastructure projects, including road improvement projects, should consider stormwater runoff and incorporate runoff management and/or capture practices. The 2009 Update included several suggested projects, including the East Gate Improvements which could incorporate sub-surface detention (*illustration below*), and cisterns as an option in the future to replace existing AHSC surface detention areas.



# 2009

## Building Uses: Housing



**Housing & Student Life**

On campus, academic life is inextricably tied to residential life. The 2003 Plan recognized the value of housing a greater percentage of the students on campus. The 2003 Plan added 2,300 undergraduate beds and 1,400 graduate or married student beds to the existing 5,467 beds on campus. The Plan also encouraged the University to seek out partnerships to develop ownership opportunities for faculty and staff housing which could serve as a transition between neighborhoods and the campus.

As the 2003 Plan was being completed, several significant housing projects were underway, including:

- La Aldea Residence Hall
- Pima Hall Expansion
- Highland Residence Halls
- Phased upgrades of residence halls

The Sixth St. Residence Hall project, with 1,066 beds, has moved ahead slowly, unexpectedly delayed for several months by state reviews. But even after the new halls are occupied, housing demand will be over 100 beds short; this unmet demand has significant impact on students and on the neighborhoods surrounding the University.

**Housing Issues for the 2009 Update**

Demand for housing continues to exceed the available beds with an estimated 1,040 bed shortfall this past year. The UA Five-Year Strategic Plan projects continued growth of the freshman class at a rate of 200-300 per year. The added demand for beds on campus also drives the need for student life amenities, such as recreation and dining facilities where new housing is planned.

The development of new student housing on campus has become increasingly

difficult and costly. Replacement of existing lower density housing can require expensive demolition, asbestos removal, utilities relocations or extensions and stormwater mitigation measures. Campus infill housing sites with smaller building footprints are difficult to develop as efficiently as larger sites, and cramped construction staging and access increases construction costs. But the larger on-campus sites are in areas where the existing utilities aren't adequate to meet the increased demand and the cost of new infrastructure to support the project can also drive up cost. Additionally, on-campus housing must be built to UA design standards to assure operating efficiency and maintainability, making it more expensive to build than typical off-campus housing. For all these reasons, core campus housing is focused on first year students. Alternative development methods will be needed to provide for other housing needs.

**2009 Housing Solutions**

Residence Life is investigating a wide range of ideas for meeting increasing housing needs. Ideally, housing is located on the perimeter of the campus with the core dedicated to academics. Generally, undergraduate housing is better situated on the southern end of the UA campus where student recreation and services are in place. New housing planned for the north side of campus should seek to include these student life amenities within new projects.



The 2009 Update identifies opportunities to increase on-campus housing density and meet housing goals, including:

- Replacing 1 and 2-story older residence halls, such as Hopi Hall;
- Adding housing to the north campus along Park Avenue;
- Illustrating the potential for housing to wrap the garage proposed along the east end of Sixth Street;
- Development of mixed-use housing projects in partnership with the private sector around the edges of the campus or along the streetcar route.

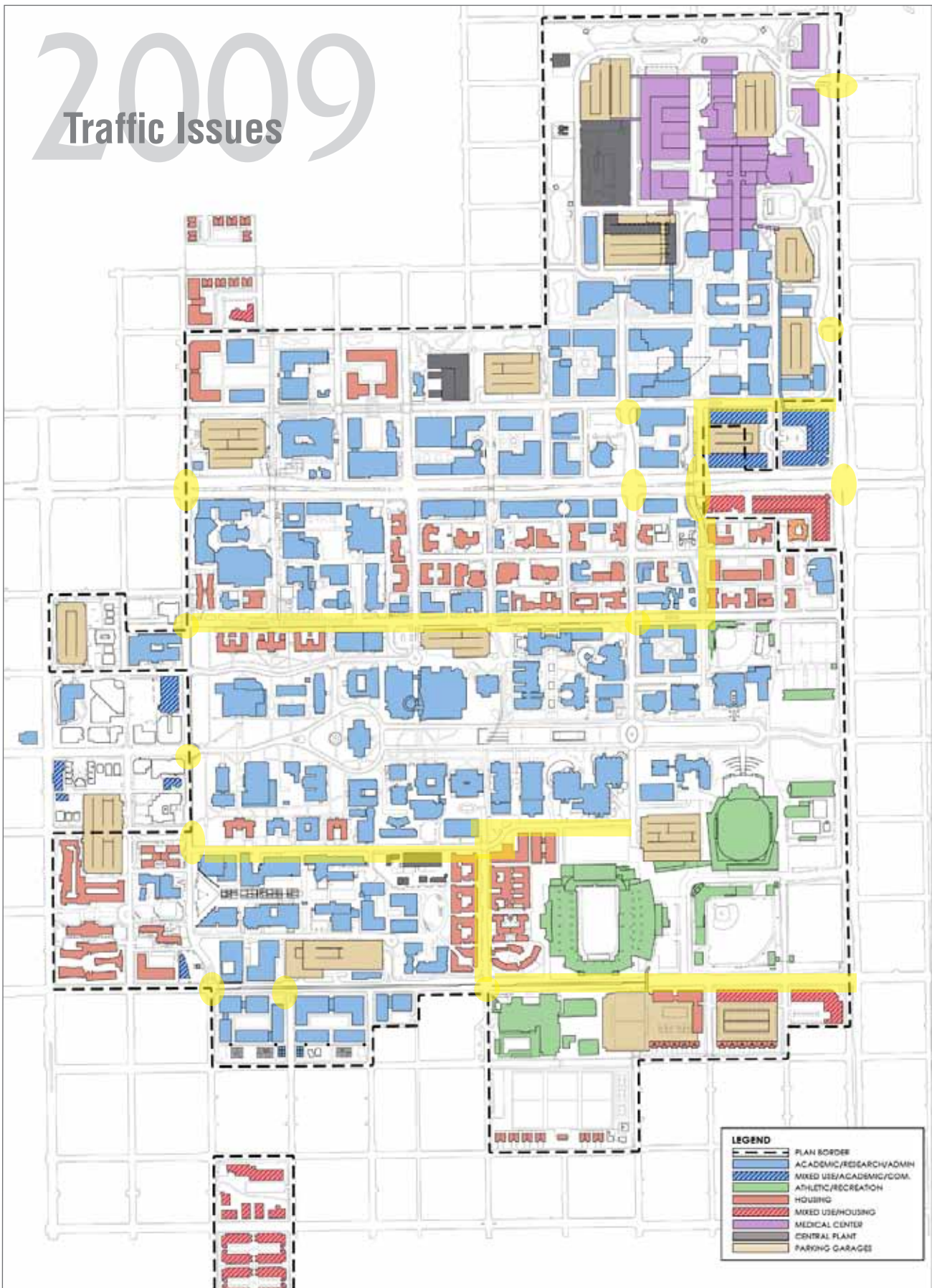
**Student Life & Recreation**

Demand for recreational space and facilities continues to grow. Expansion of the Student Recreation Center will help. But the 2003 Plan assumed Recreation and Athletics (ICA) sharing facilities, which is problematic both in scheduling and in the size/configuration of the facilities. Ideas mentioned for possible additional facilities in the future include:

- Recreational swimming pool, ideally adjacent to the existing pool; Update shows an option for a new pool near the Student Recreation Center;
- Full-size lacrosse field located on a raised deck over parking, adjacent to the Student Recreation Center expansion;
- More courts, including sand volleyball;
- Parking near fields or courts;
- Renovation of Bear Down Gym for various uses, including a Well University Center;
- Recreational facilities added in the northern precinct where new housing is planned; and
- More opportunities for passive recreation with designated trails and walking paths in the greenway/buffer.

# 2009

## Traffic Issues



*Cited areas of traffic conflicts or possible future traffic controls are highlighted in yellow*

**Transit, Transportation & Parking**

The University continues to make strides toward a truly pedestrian-oriented campus environment. The completion of the north end of the Warren Avenue Mall has successfully showcased many of the ideas advanced in the 2003 Plan. Similar improvements are planned for the south end and for the other N-S pedestrian connectors at Highland and Fremont Avenues. The 2012 opening of the Tucson Modern Streetcar will see the implementation of improvements at UA station areas on Second Street and greatly expand transit options connecting the main campus and AHSC with downtown.



**Traffic Issues & Solutions in Update**

- The 2009 Update attempts to address problematic intersections at Fourth Street and Highland Avenue to reduce auto/pedestrian conflicts;
- Fourth Street east of Park Avenue is narrow with heavy traffic - auto, bikes and pedestrians - producing conflicts. This street should be considered for future closure to automobiles, except to service access (and move-in day);
- Traffic lights may be needed in the future at high volume intersections, including Park Avenue at University Boulevard and at Second Street;
- Highland Avenue north of Sixth Street is also narrow and through traffic



should be discouraged, but the street needs to accommodate traffic exiting from the Cherry Avenue Garage;

- UMC Northwest Garage traffic impact study has just been completed. But there are concerns that plans for future growth of the AHSC and UMC hospital expansion will increase demand for parking and worsen traffic issues;
- Bicycle routes have to be well planned, which is a challenge through the AHSC; should trails be routed through the AHSC on the Ring Road or on the Warren mall? Could the greenway or a new stormwater open space accommodate bicycle trails?
- Realignment of the Ring Road and Cherry Avenue is still very important; UMC changes might create new opportunities for redesign.

**Parking Issues & Solutions in Update**

The 2003 Plan included construction of several new parking garages, which have since been completed on Sixth Street and Highland. The Plan also recommended investing in new parking demand strategies and the Travel Reduction Program, encouraging alternative modes of transportation, continues to expand. Currently, demand for parking is down due to higher permit and fuel costs, and the Modern Streetcar will

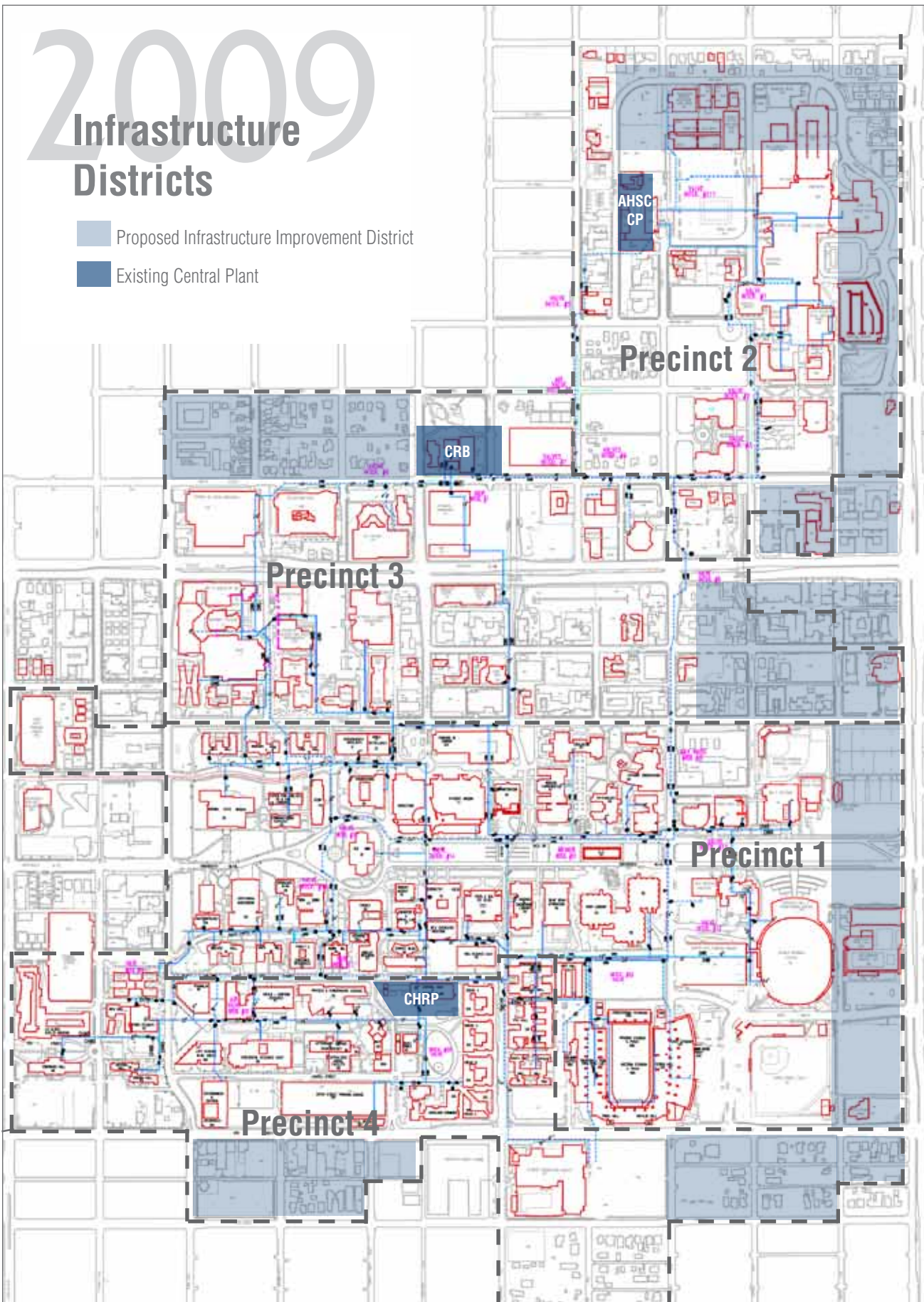
further reduce demand. But changing economic conditions make it difficult to calculate future parking demand. The 2003 Plan assumed a 1:4 ratio for parking (1 space/4 student FTEs). But it may be more economical, and certainly more sustainable, to work on reducing demand than to increase parking based on growing enrollment. Currently, there are about 18,000 parking spaces on campus and the intention is to maintain that capacity. But more structured parking will be required as surface parking lots are replaced by new buildings.

- Parking garage planned south of Sixth Street should be part of a mixed-use development which includes housing; this parking is also well located to accommodate visitors attending on-campus athletic events;
- Parking garage at the streetcar terminus on Helen Street should also serve AHSC visitors and faculty;
- Mixed-use parking garage, serving both UA and UMC, would accommodate 2000 cars in addition to FM trucks, shops and yards.
- Recommendations that all garages are built with the structural capacity for two more floors, increasing future capacity, but noting that this may not be the most cost effective solution.

# 2009

## Infrastructure Districts

- Proposed Infrastructure Improvement District
- Existing Central Plant



*Chilled water distribution plan shows existing central plants and areas in need of significant infrastructure improvements.*

**Infrastructure**

The 2003 planning process included a detailed analysis of the existing campus infrastructure. This analysis included: the three central plants and distribution of steam and chilled water; the electrical, data and communications systems; fire protection, fire alarm and security systems; reverse osmosis water, reclaimed water, public potable water and sanitary sewer; compressed air, natural gas; and cable television. Local utility companies provide electricity, water, gas, and television, in conjunction with the University systems. Objectives identified in the 2003 Plan which continue to be valid include:

- Expansion and modernization of campus systems;
- Completion of distribution loops;
- Relocation of non-plant functions out of central plants to free area for expansion;
- Plan for central plant expansions;
- Plan for extending services to developing areas, evaluating options for serving these areas;
- Consider and minimize the aesthetic impacts of above ground facilities; and
- Develop and periodically update an Implementation Program used to plan and construct infrastructure to precede or accompany facilities development.

**Infrastructure 2009 Issues/Solutions**

Development of the main campus has reached a point where, in certain areas, the addition of a single new building could trigger the need for large-scale infrastructure extension work. This might include sewer augmentations, extension of steam and chilled water, as well as data/telecommunications and surface infrastructure. The 2009 planning process did not include a re-evaluation of the existing infrastructure, but meetings

reviewed the current infrastructure ten year plan for ongoing maintenance, upgrades and replacements. Areas were identified where the existing infrastructure is inadequate to service the planned development (*included on the 2009 Issues & Opportunities map*).

The 2009 Update proposes to identify Infrastructure Improvement Districts in each of the precincts where significant new development is anticipated. Before any significant new building projects can proceed in these districts, major utility extensions will also have to proceed. Infrastructure projects could be developed as stand-alone projects preceding new development or could be completed in conjunction with a new building project. The development of precinct-wide infrastructure improvements that serve several projects, rather than piecemeal utilities extensions, is more cost effective and more efficient. Planning in advance for infrastructure provides the opportunity to develop campus-wide systems in a more holistic and sustainable way.

**Central Plants**

The University's three Central Plants are interconnected and provide chilled water and steam through a distribution network that currently serves UA buildings in all four precincts. The University also has a high-voltage electrical distribution system that serves UA buildings in all four precincts. Development in any precinct would necessitate a load evaluation to determine existing utility distribution capacity within the area, as well as Central Plant and sub-station capacity. The Arizona Health Sciences Center (AHSC) and Central Refrigeration Building (CRB) plants have capacity expansion capability, while the Central Heating & Refrigeration

Plant (CHRP) in the core of the campus is limited.

**Precinct 1**

With the exception of the extreme eastern portions of this precinct, UA chilled water, steam and electrical distribution systems are accessible. Development of the eastern edge of the campus would require extension of the existing distribution systems. Off-site sewer capacity would require evaluation and stormwater mitigation is a major issue throughout the precinct.

**Precinct 2**

With the exception of the extreme northern and eastern edges, this precinct has good access to UA chilled water, steam and electrical distribution systems. Major development at the northern and eastern edge would require significant extensions of the existing distribution systems and off-site sewer capacity is very limited and would require evaluation. Stormwater mitigation is also a major issue in this precinct and the adjacent neighborhoods.

**Precinct 3**

Most of this precinct will require significant investment in new infrastructure to support development, particularly north of Speedway Boulevard and east of Cherry Avenue. The CRB plant in this precinct will be expanded to meet future needs.

**Precinct 4**

Most of this precinct will require significant investment in infrastructure, including a possible utility tunnel to support new development south of Sixth Street. Significant development will require evaluation of the existing CHR Plant, off-site sewer capacity, and stormwater mitigation, which is a major concern in the Sixth Street corridor.



2009 perspective view of the campus from AHSC looking towards downtown.



2003 perspective view of the campus from AHSC looking towards downtown.

### Arizona Health Sciences Center

The north campus (Precinct 2) is the location of the Arizona Health Sciences Center (AHSC) which includes the University Medical Center (UMC) hospital, University Physicians Healthcare (UPH), College of Medicine (COM), College of Nursing (CON), College of Pharmacy (COP), and College of Public Health (COPH). Facilities Management (FM) also has a substantial presence around the perimeter (largely in the designated buffer) at this end of the campus. Much of the significant growth on the UA campus has occurred in this area, including Drachman Hall, Medical Research Building and Keating Bioresearch buildings, and this growth trend is expected to continue.

### AHSC 2003 Plan

The 2003 Plan for the AHSC precinct was more conceptual than the detailed infill plans developed for the core of the campus. Given the extensive plans for building projects and improvements to the main mall, it was appropriate that the 2003 Plan focus on those areas of the campus. Unknowns about UMC's future plans also kept the 2003 Plan from being fully developed. In late 2003, the AHSC Sub-Precinct Plan was developed to guide the build-out of the research quadrant along the Warren Avenue pedestrian mall.

In 2009, a new AHSC coordinating group was formed to provide input into the planning. The initial group meetings raised concerns about how realistic the 2003 Plan was, requesting the 2009 Update be more detailed, pragmatic, and resource-driven. UMC was completing a major expansion and working on a master plan for the future. A Stormwater Management Plan was also being completed which needed to be incorporated into the Campus Plan Update.





## AHSC 2009 Plan Issues

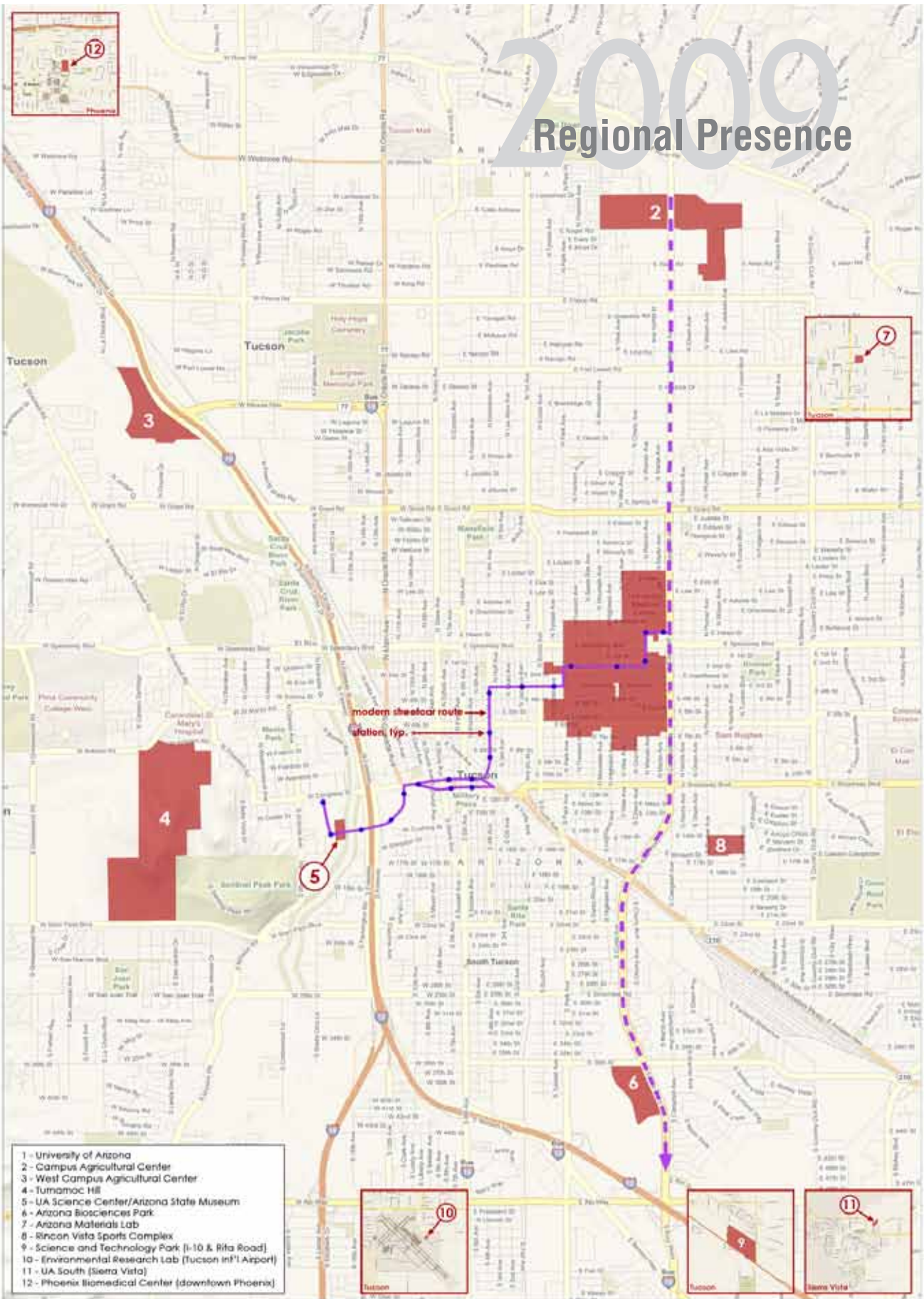
The AHSC will need to accommodate substantial growth in the Health Sciences. The 2002 Program showed the AHSC colleges to have the greatest space deficits and this area of campus continues to require the replacement of outdated, undersized facilities. Meetings with the AHSC planning group identified issues to address, including:

- Overall density: is there room for the required growth? Can the density be increased?
- How should this plan relate to other health sciences plans and facilities? Can more uses be relocated or off-loaded from this area of the campus to other locations? If so, how will priorities be established for on-campus vs. off-site for future expansion or programs? (off-site locations include: UMC North; SE corner of Grant Road & Campbell Avenue; Science & Tech Park; Arizona Biosciences Park; USA complex; and the Phoenix Biomedical Campus.)
- Diamond Children's Medical Center (DCMC) has growing needs (including full imaging suite) but the DCMC expansion and new entry conflicts with the Cancer Center loading dock.
- Plans for a Gateway Building(s) strengthening an east-side entry to this precinct which could provide administrative, faculty office and medical office or clinic space.
- Need to better define the mixed-use development plans for the Speedway Boulevard corner and Helen Street property, especially with planned streetcar terminus.
- Density creates demand for parking and traffic. There are concerns that future plans could back up entrances

- and overwhelm Ring Road capacity;
- Realignment of Ring Road and Cherry Avenue which is important for ambulance access;
- Where is future parking best located?
- UMC wants to see a new "front door" for the future expanded or replacement hospital with a parking garage immediately adjacent;
- Access and circulation must be well planned and managed and space needs to be "zoned" appropriately;
- UMC expressed the difference between open space in an academic setting and in a healthcare setting. For the AHSC open space needs a more nuanced definition which identifies qualitative differences:
  - Academic campus open space can be more active, programmed;
  - Healing open space needs to be quieter with more limited access and may be best if fully interior;
- Interior open space can also provide therapeutic daylighting;
- Campus mall: pedestrian oriented, limited auto access, passive uses;
- Hospital mall: busy, service-oriented serving multiple purposes (ambulance, patient pick-up/drop-off, etc): safe crossings are critical; not an area appropriate for bikes;
- Greenway/buffer and stormwater detention claims large areas of open space. Is this appropriate? Can these spaces be shared (community uses, recreation and bike routes, etc.)?
- Facilities Management occupies significant space in this area; much of it in the planned greenway/buffer. What services must stay in this location (central plant, sub-station, etc) and what could be located elsewhere? What will be needed to service future expansion? Should there be a consolidated location for FM?



# 2009 Regional Presence



**The University of Arizona Campus**

The University of Arizona is a land-grant university dedicated to education, research and public service founded in 1885. Today, after almost 125 years of service, the University reaches beyond the limits of the main campus in Tucson.

**Main Campus**

The Tucson main campus occupies roughly 490 acres northeast of downtown Tucson. The campus has over 200 buildings and facilities with almost 10 million gross square feet (gsf). Total enrollment at the time of this campus plan update was 38,800 students bringing the overall campus population to more than 55,000. In recognition of anticipated enrollment increases, the 2009 Update allows for increasing density on the main campus to accommodate the projected growth. The build-out capacity of the main campus will increase from roughly 44,000 students noted in the 2003 Plan to an estimated capacity of over 50,000 students in the 2009 Update, largely due to moderate increases in future core campus building heights.

**UA in Downtown Tucson**

The 2003 Plan included a section on the discussions between the University and the City of Tucson about potential projects in downtown. At that time, projects being considered included the Rio Nuevo Master Plan which included the Flandrau Science Center and the Arizona State Museum. The 2003 Plan suggested that strengthened transit connections between the UA and downtown would create a synergistic relationship between campus and downtown.

With the opening of the Tucson Modern Streetcar line in 2012, those connections

will become a reality. Students or faculty could go from the UA campus to downtown Tucson in less than 30 minutes making downtown programs an attractive option. The 2009 planning process demonstrated strong support for a meaningful UA presence in downtown. Several programs appropriate to a downtown location or which could benefit from downtown resources have been identified, including:

- Public Administration;
- Media and Communications, related to local TV and radio stations;
- Professional programs, especially continuing education programs; and
- A downtown architecture and urban design studio.

The Modern Streetcar also offers new transit-oriented development opportunities to meet University needs, at appropriate downtown redevelopment sites as identified by the City, within ¼ mile of proposed Modern Streetcar line stations.

**Greater UA**

While the 2009 Update was focused on the main campus the UA has programs and facilities beyond the main campus. As the main campus becomes more densely populated and approaches full build-out,

it will become increasingly necessary to consider the relationship of the main campus to these other locations. The map opposite shows the locations of many of these major UA facilities, programs and planned expansions. Current facilities include:

- Campus Agricultural Center
- West Campus Agricultural Center
- UMC North
- Kino Campus with University Physicians Healthcare
- Arizona Bioscience Park
- Arizona Materials Lab
- Rincon Vista Sports & Recreation Complex
- Science & Technology Park
- UA South Campus at Sierra Vista
- Phoenix Biomedical Campus

Major University of Arizona projects planned off the main campus include:

- Major expansion of the Biomedical Campus in downtown Phoenix.
- UA Science Center/Arizona State Museum in downtown Tucson
- Veterinary Sciences Research Building
- Red Rock Agricultural Center Infrastructure





**Precinct Plan 2009 Updates**

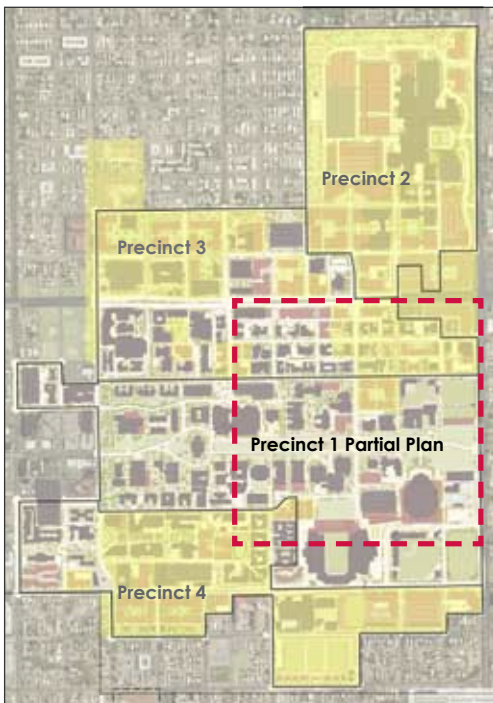
Precinct plans were updated in response to significant changes made since 2003 or issues raised in the 2009 planning process. Precinct plans are intended only to illustrate and guide campus development, but not to limit future flexibility to respond to evolving needs and conditions.

**North Campus - Precinct 3**

The 2003 Plan for this area of the campus required refinements to accommodate changing needs. The 2009 Update changes included:

1. New mixed-use educational building to accommodate larger lecture halls, conferences, student activity areas or other uses, with underground parking;
2. Helen Street blocks made pedestrian-friendly with landscape/streetscape;
3. Additional student housing & quads;
4. Academic space including planned expansions for Law and Engineering;
5. Central Plant expansion;
6. Extension of Highland Avenue pedestrian route to connect with greenway/buffer;
7. Greenway/buffer with rainwater capture, stormwater detention and trails.

The precinct plan above also shows concepts for housing on UA property located outside the planning boundary. This area could be potentially developed as a University Partnership project, with housing for graduate students, married students, and/or faculty and staff at a scale appropriate to the surrounding neighborhood. This proposed use reflects desires expressed by the community for new housing solutions.



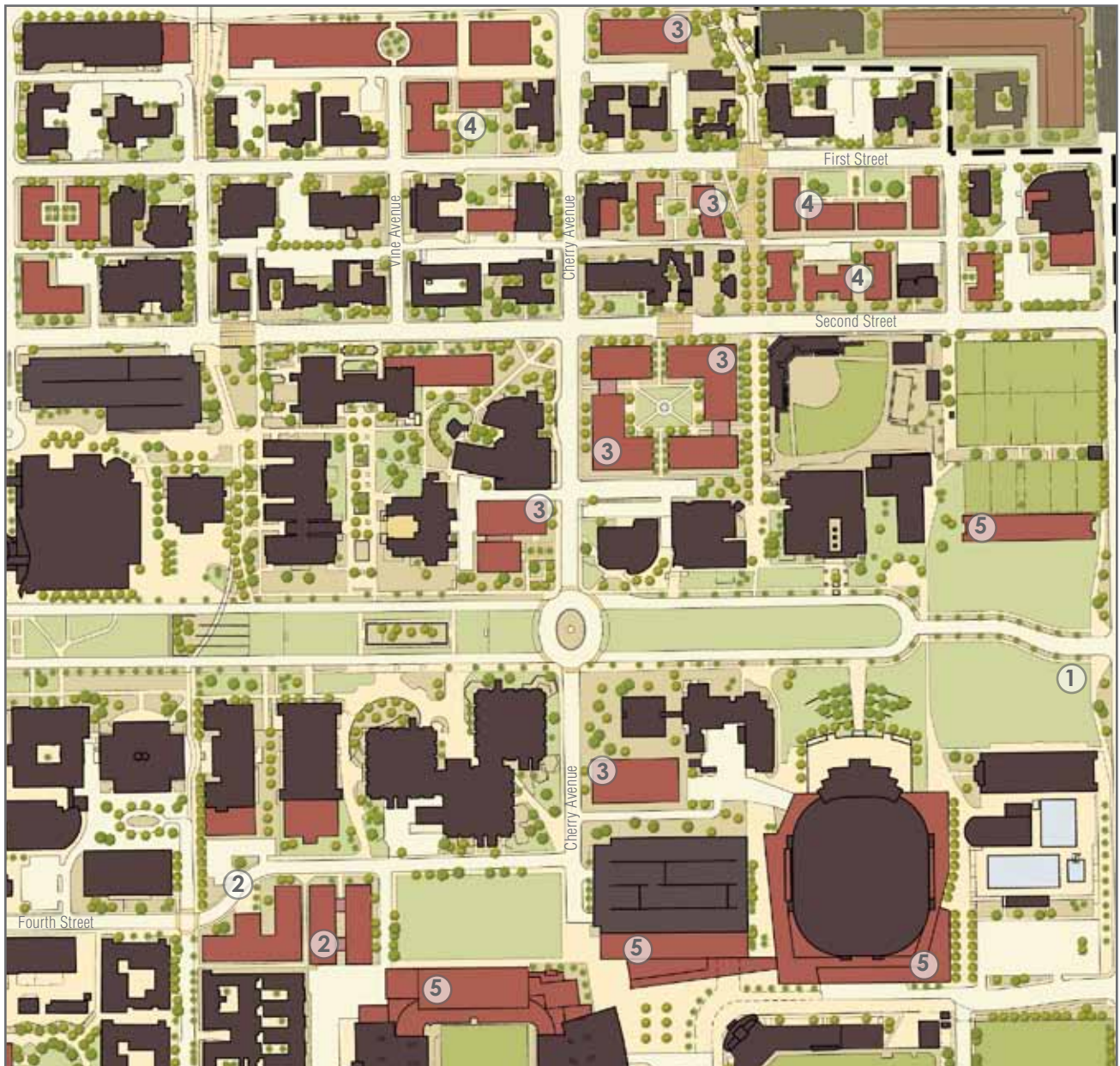
*The plan at left shows areas where changes were made to the 2003 Plan in yellow. The red outline shows the partial precinct plans included above and at right.*

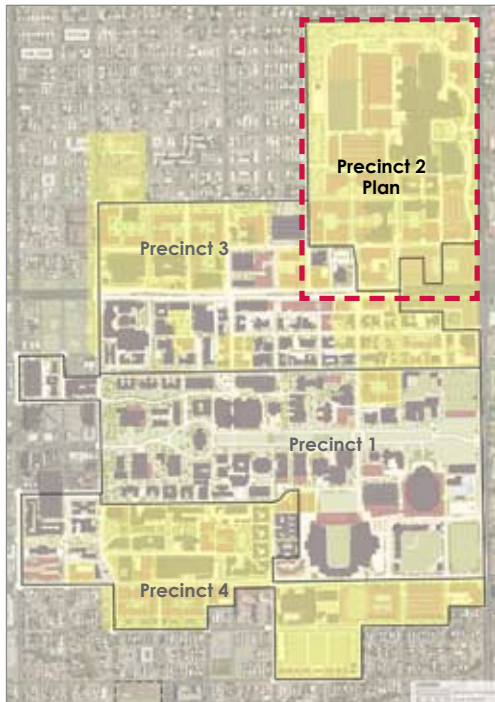


**Central Campus - Precinct 1**

The core of the campus is well established and only required a few modifications to the 2003 Plan. These changes include:

1. East Gate entry and stormwater management project;
2. Improved Fourth Street & Highland Avenue intersection with new residence halls;
3. Building sites near the Warren Avenue pedestrian mall strengthened with larger building footprints for greater density and future capacity (*assumes existing NOAO & AURA national programs and facilities are included in new higher density buildings or relocated*);
4. More freshman housing and potential new Greek sites on campus;
5. ICA projects including: upgraded tennis facilities; McKale Center improvements; Cherry Avenue Garage expansion; and the Arizona Stadium expansion and improvements.





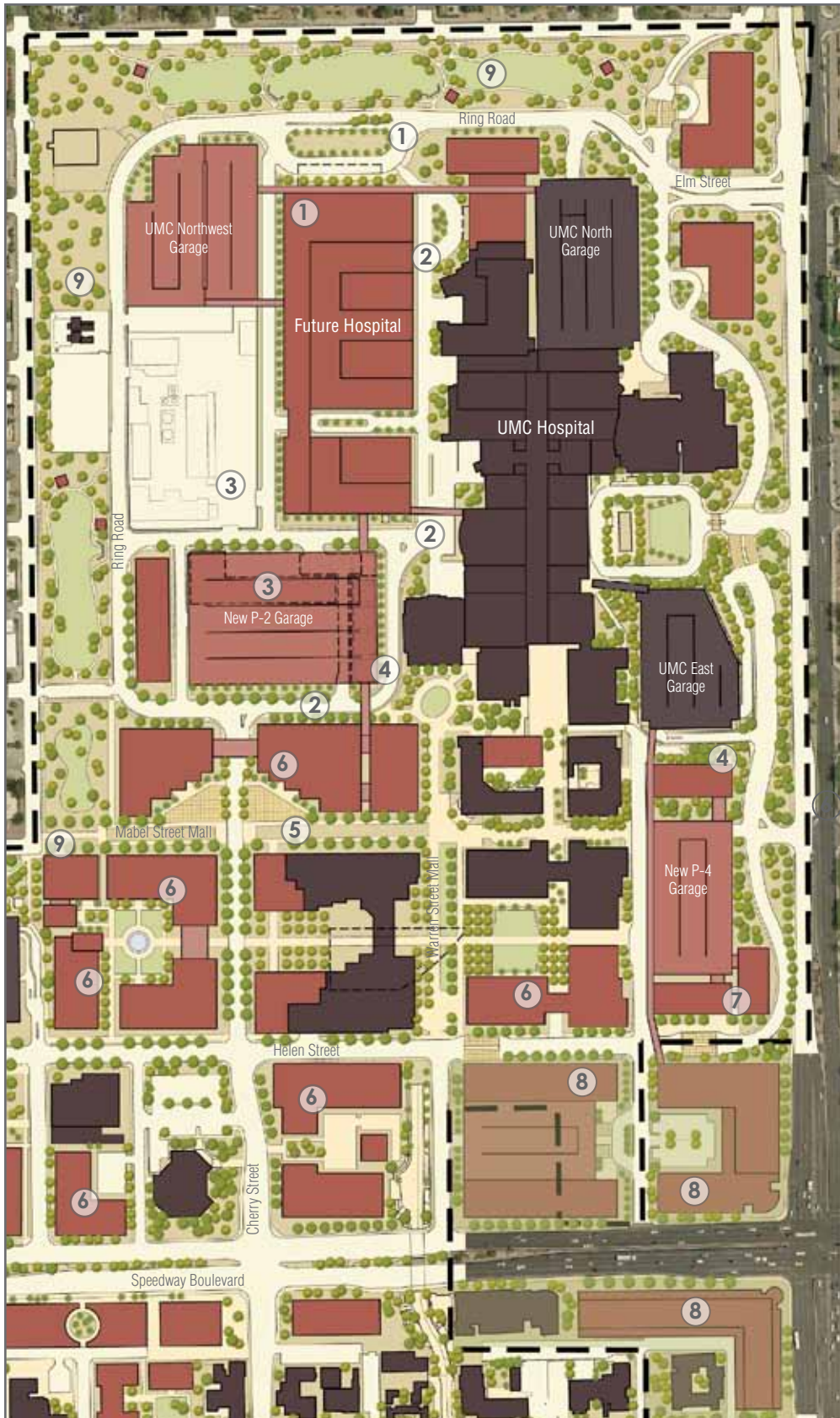
The plan above shows areas where changes were made to the 2003 Plan in yellow. The red outline shows the precinct plan included at right.

### AHSC Campus - Precinct 2

The Arizona Health Sciences Center (AHSC) precinct is a high-growth area where several significant projects have been completed since 2003. This is one of the most complex areas of the campus with the greatest demand and capacity for continued future growth. A 2003 sub-area plan was developed for the AHSC precinct which guided the development of several research and academic buildings (including Keating BIO5, MRB and Drachman). But that plan did not address the expansion of the University Medical Center (UMC) hospital diagnostic/treatment floors or inpatient bed towers. A new sub-area plan addressing surface stormwater management in this area was nearly complete when the 2009 Update planning began. That plan, which asked UMC to identify future expansion, provided a starting point for the new precinct planning. Significant time and effort was focused on this precinct working closely with UA and UMC stakeholders to produce a more detailed implementable precinct plan.

Changes from the 2003 Plan to the 2009 Update (from north to south), include:

1. Planned expansion of the UMC hospital facilities oriented to a new main entry with a large drop-off area and atrium lobby facing north; lobby is connected to a new main hospital building adjacent to clinic buildings, existing AHSC buildings and parking garages (UMC Northwest & UMC North);
2. Designation of access drives for ambulance and service vehicles will keep patient, visitor, faculty/staff and all through traffic on Ring Road;
3. Designation of well-defined service areas including: the main service yard with AHSC Central Plant, emergency generators, hazardous waste facilities, etc.; Tucson Electric Power (TEP) substation and expansion; relocated UA and UMC facilities maintenance shops, service yards and vehicle parking within a new mixed-use parking garage; new P-2 garage also includes space for a consolidated loading dock and approximately 2,000 AHSC parking spaces;
4. Existing stormwater detention basins in the center of the AHSC are proposed to be replaced by less land-intensive stormwater management solutions including cisterns below the P-2 garage which could retain water for reuse;
5. Mabel Street mall connects pedestrian and bicycle routes from the Warren Avenue mall through the AHSC to proposed trails in the perimeter greenway;
6. New multidisciplinary research and academic buildings surround quadrangles and courtyards replacing the previous plan's diagonal connection to the engineering quads. This plan allows for more efficient building layouts and greater flexibility to meet future needs;
7. The phase-one terminus of the Modern Streetcar is shown as a possible mixed-use development with office buildings and a major parking garage;
8. Mixed-use development planned as a possible public-private partnership on the corner of Speedway Boulevard and Campbell Avenue has been simplified in Update with a central parking garage; and,
9. The greenway proposed for the buffer area includes walking paths, bike trails, stormwater detention basins and existing, necessary uses such as the TEP substation.



**South Campus - Precinct 4**

The south campus includes well-developed areas north of Sixth Street and areas of future expansion south of Sixth Street.

On the west end of this precinct, changes to the 2003 Plan include:

1. Refined plan for the replacement of the math & sciences buildings to include the Laboratory of Tree-Ring Research;
2. Sciences concourse improvements including rainwater capture, stormwater management, landscaping and shade structures;
3. Planned Environment & Natural Resources Phase II (ENR II) building project shown with north-south pedestrian connections;
4. Refinements to the larger academic and research buildings to simplify the footprints and facilitate phasing; and,
5. Expansion of the greenway/buffer edge to vary in width and landscape type and include rainwater harvesting, stormwater management and potential community-oriented uses such as greenhouses, community gardens and retention/reuse of historic houses where appropriate and feasible.

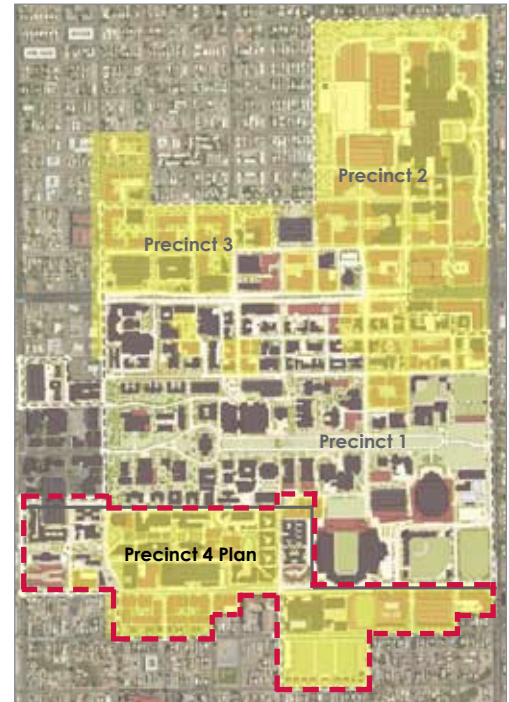




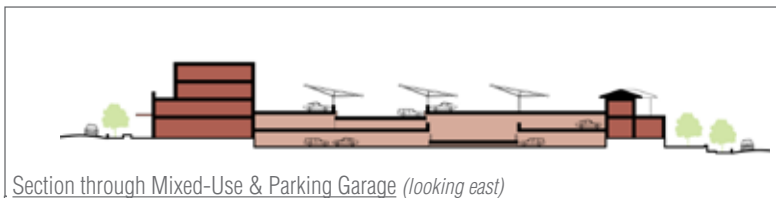
On the east end of this precinct, changes from the 2003 Plan include:

1. Mixed-use buildings along Sixth Street and at the Campbell Avenue corner, including storefront retail with housing or offices above;
2. Student recreational facilities: lacrosse field, swimming pool and ball courts on a “deck” spanning Cherry Avenue, with parking below; a pedestrian bridge across Sixth Street is also proposed;
3. Central parking garage serving all uses; ideally shaded with solar panels;
4. Neighborhood-scaled housing edging the parking garage and recreation deck;
5. Greenway to include recreation, trails, existing historic homes and new housing appropriate to the neighborhood.

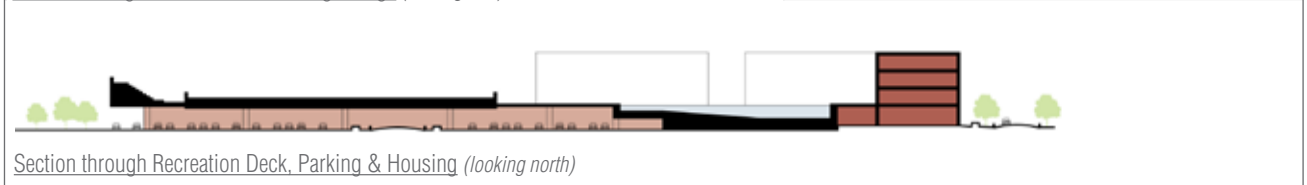
This plan offers opportunities for potential University Partnership projects including the mixed-use development on Sixth Street and the housing along Seventh and Eighth Streets.



The plan above shows areas of change in yellow. The red outline locates the precinct plan included below and left.



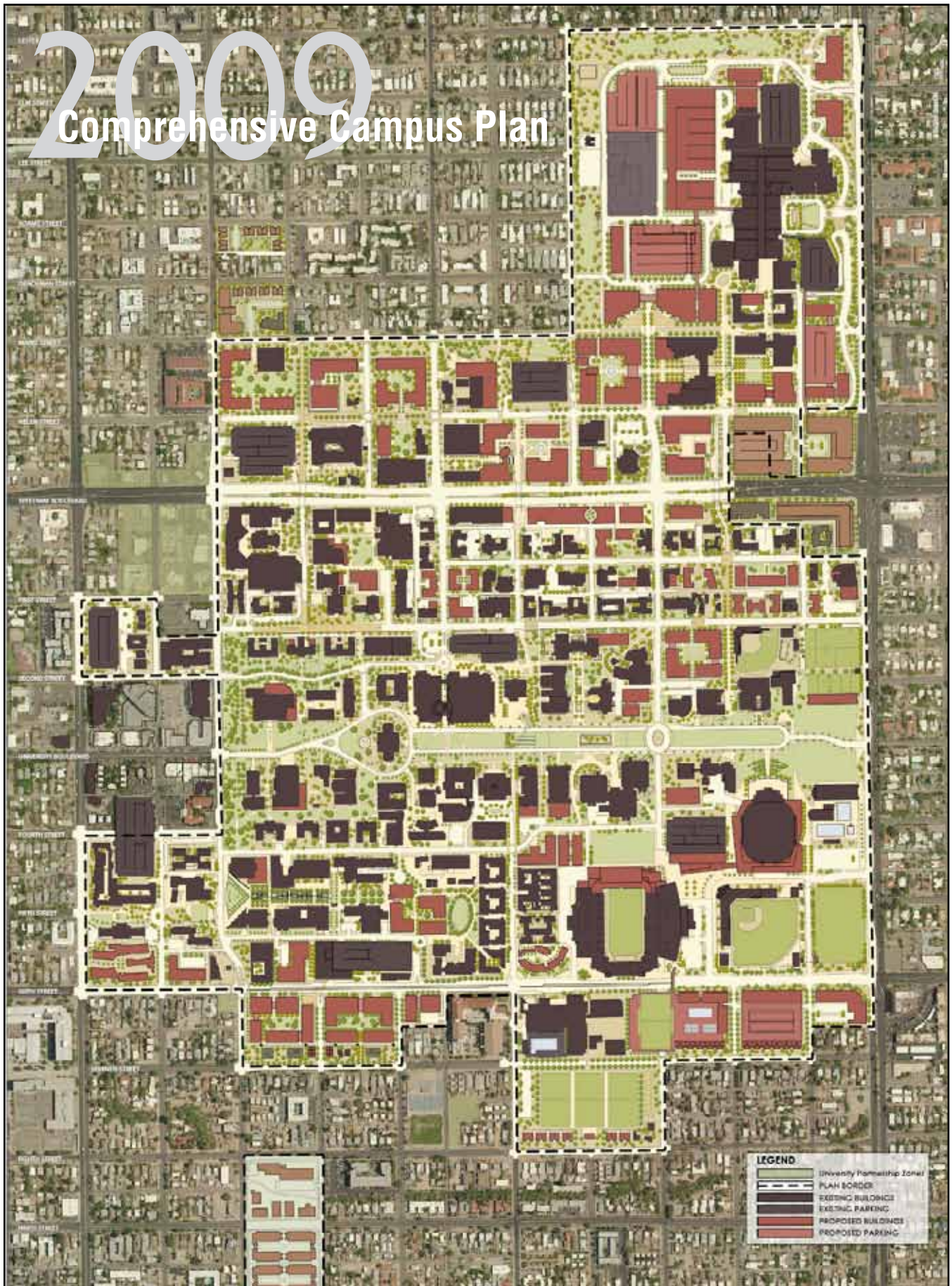
Section through Mixed-Use & Parking Garage (looking east)



Section through Recreation Deck, Parking & Housing (looking north)



# 2009 Comprehensive Campus Plan



This document is complementary to the Comprehensive Campus Plan adopted in June 2003 by the Arizona Board of Regents, which will continue to be in effect, except as revised by this update. This section of the 2009 Update makes recommendations for additional policies or policy revisions, updating the “Design Standards” and “University Development and Procedural Policies” sections of the 2003 Plan. Specific recommended policy revisions are included at the end of this section.

## Guiding Values 2003 to 2009

Values guiding the 2009 Comprehensive Campus Plan Update reflect those stated in the 2003 Plan, including the ongoing commitment to quality, balance, consistency and sustainability.

- The campus plan should continue to ensure that the future development of the campus is of the highest quality. The University's stewardship responsibility requires that we leave the campus to future generations in a better condition than when it was conveyed to us.
- The plan should reflect a balance of new construction and adaptive reuse of older structures, including those identified as historic or significantly contributing to the historic character of the campus, moving towards increasing the density of campus development.
- The University of Arizona should be consistent in its land and facility development policies and practices, especially when applied in sensitive areas such as the edges of the campus or the historic core.
- The campus plan, standards and guidelines should ensure that the campus develops in a sustainable way over time.

The 2009 Comprehensive Campus Plan Update process identified specific areas where additional guidelines or policies may be needed, building on the policies in the 2003 Comprehensive Campus Plan. An overview of these recommendations follows.

## Sustainability

The 2009 Update recommends the drafting and adoption of “Campus Sustainability” policies to support the University's sustainability goals.

- Although the UA Design Guidelines have been updated since 2003 and now require all new building projects meet LEED Silver requirements at a minimum, the University should continue to evaluate standards for sustainability as applied to the campus landscape, streetscape, site furnishing and materials and overall campus development.
- All existing buildings on campus or on any University property should be evaluated for adaptive reuse potential, with recommendations for rehabilitation where viable. No building should be demolished without this evaluation.
- The greening of campus utilities and infrastructure should continue and include energy generation (solar especially), campus-wide recycling, rainwater harvesting and graywater systems. To the extent possible, plan and fund these systems in a holistic and integrated way that will support increasing sustainability practices.
- University operational guidelines and policies should continue to be developed for “greener” operational, facilities management and purchasing standards.

## Campus and Community

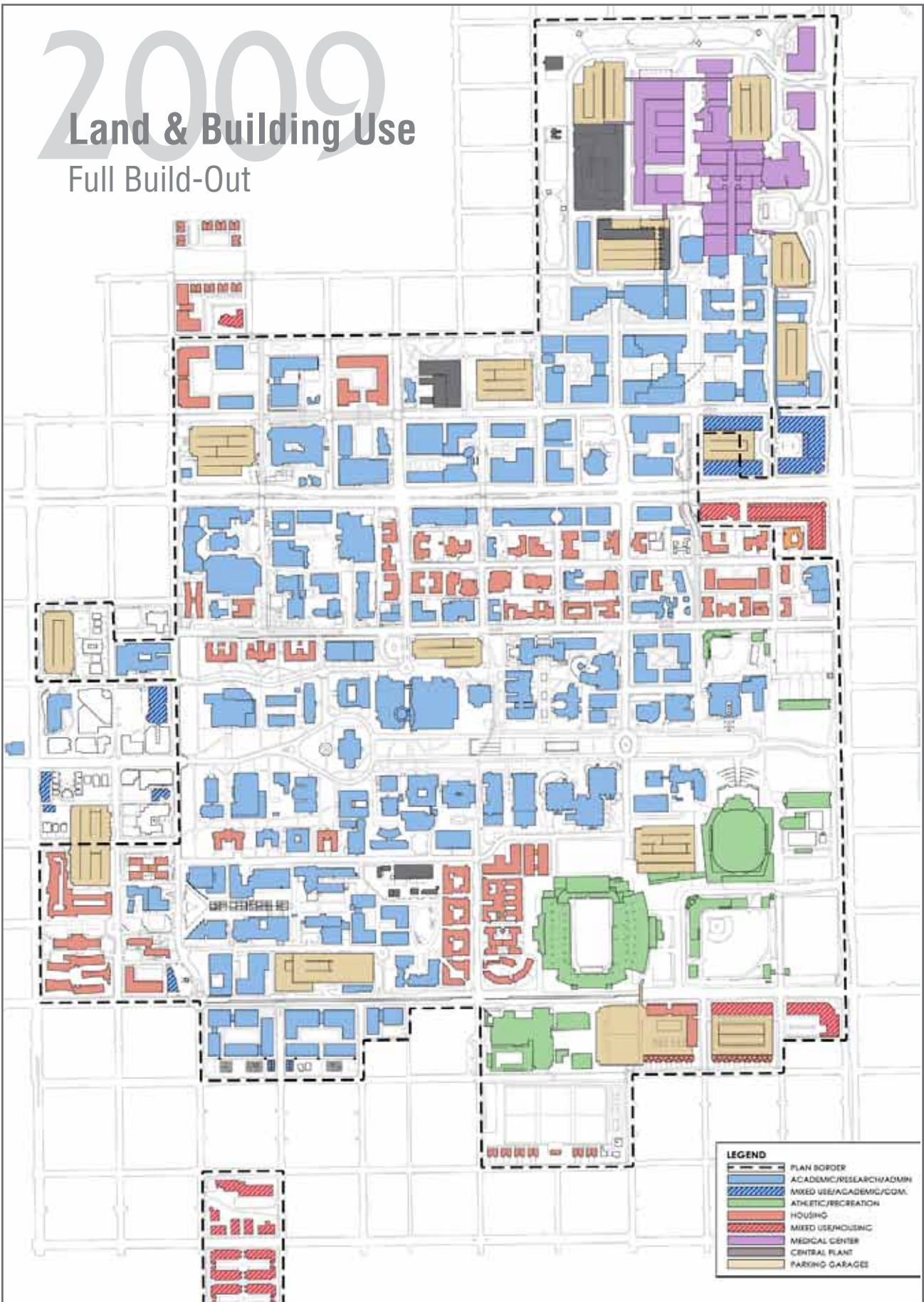
Specific issues were raised during the 2009 Update, including aspects of the 2003 Plan that have not been realized or policies that the neighborhoods feel have not been followed. This Update recommends review of policies to address these issues.

- Provide for the timely development of the landscape greenway/buffer along the perimeter of the University Planning Area boundary. The 2009 Plan proposes this edge be reinterpreted in a wider variety of forms than the 2003 Plan illustrated. The edge of the campus should offer opportunities for active engagement, such as stormwater management and rainwater harvesting, passive and active recreation, and community gardens or similarly appropriate facilities.
- Continue to be diligent about the process of working through the CCRC to keep the neighborhoods informed of University activities. For all proposed projects along the boundary edge, actively engage the community during the planning, design and implementation process.
- Seek to limit, to the degree feasible, undesirable impacts from University development, operations, and activities on adjacent neighborhoods. This includes effective management of all University properties, temporary construction, parking lots, vacant buildings, and demolition or site clearing along the perimeter of the University Planning Area boundary.
- Establish a University presence in downtown Tucson by identifying University programs appropriate to a downtown location, programs which could benefit from resources downtown and opportunities which might spur new University uses.

# 2009

## Land & Building Use

### Full Build-Out



*The Land Use map is intended to guide campus development but not to limit future flexibility to respond to evolving needs and conditions.*

## Process & Implementation

The 2009 Update recommends continued diligence and consistency in the process of planning and the implementation of campus development.

- Increase density in the core of the campus through increased building heights. One major observation about the implementation of the 2003 Plan is that some infill building sites have been under-built. If this continues, there could be significant implications for the programming and budgeting of future space needs and capital projects and the long-term development capacity of the campus.
- Continue to plan for future growth and enhanced campus capacity by identifying main campus core functions - those functions critical to academic core mission, teaching and student life which must be on the main campus, and those which might be more appropriately located off the

main campus to make available future capacity. To build on this concept, future comprehensive planning should consider all the University facilities, locations and campuses.

- Apply University design standards to all campus development projects, even those considered “temporary” to the extent feasible and appropriate. This policy should be especially adhered to on projects along the campus edges or similar high-visibility areas where the added benefit to campus image and community relations justifies additional expense.
- Provide a well-defined planning process for all proposed University Partnership projects which would entail collaborative visioning and cooperative planning between the University, the City of Tucson, private sector developers and property owners, neighborhood associations, and any other interests.

## University Development and Procedural Policies Amendments

This section of the 2009 Update is intended as an update to the “University Development and Procedural Policies” section of the 2003 Comprehensive Campus Plan, which remains in effect except as revised in this Update. The following headings, policy numbers and page numbers cited refer to the 2003 document.

### D. Land/Property Acquisition

#### Policy 6

The Historic Preservation Plan, as called for in this policy, was completed in 2006. A subsequent study identified modern structures which have cultural or historical value and which may be eligible for historic designation. Policies listed under F. Stewardship of Campus Historic Resources would still apply.

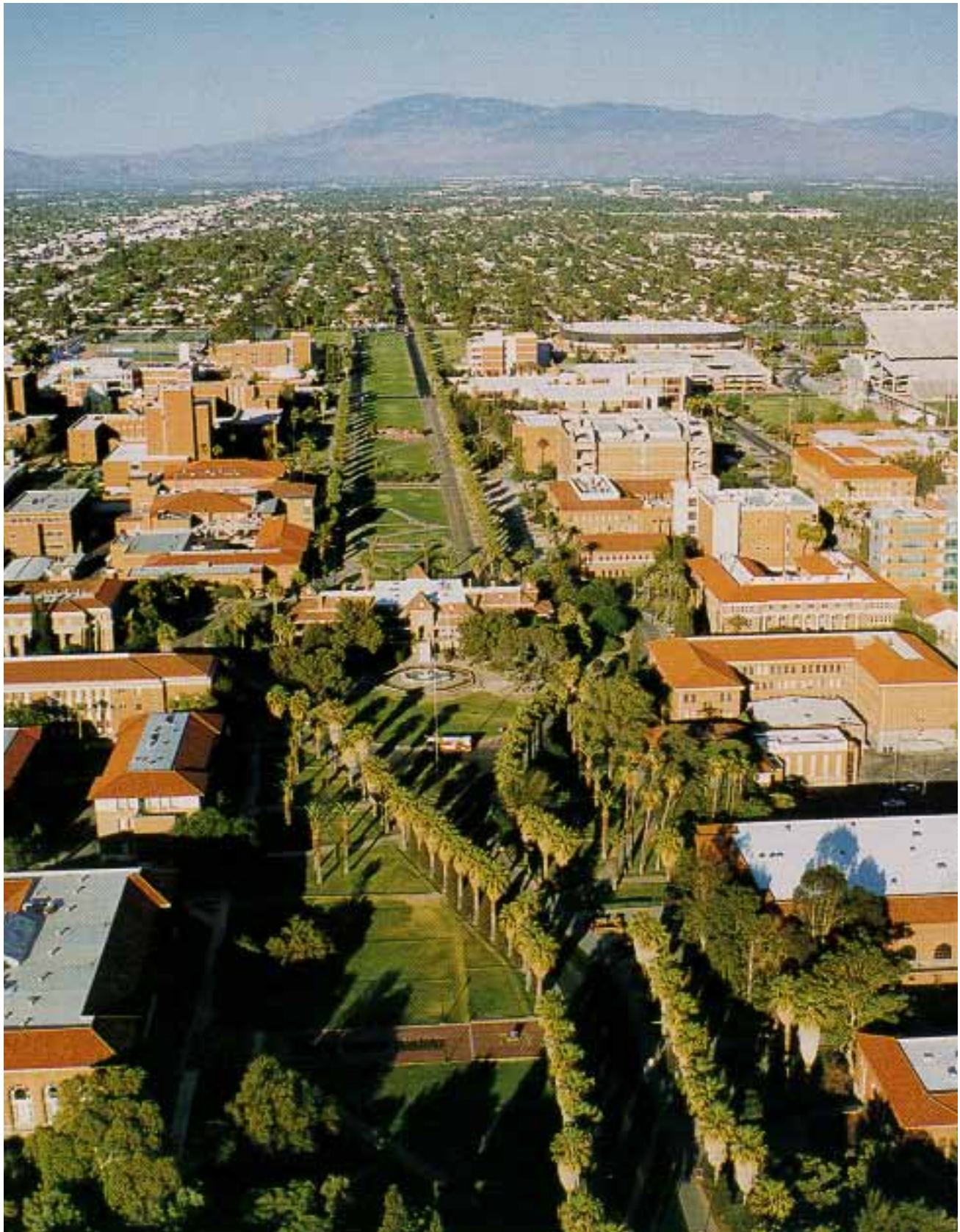
### G. Campus Infrastructure

#### Policy 2

The 2003 Plan describes land being set aside for stormwater detention/retention. The 2009 Update recommends that open space such as the greenways be designed to incorporate rainwater collection and stormwater management best practices and introduces subsurface stormwater collection and storage concepts, where feasible, to allow for a more densely developed campus.



*Land Use Map from the 2003 Plan. The 2009 Update substituted green for Athletics and Recreation for improved readability.*



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