

University of Kansas Lawrence Campus

**A FRAMEWORK FOR CAMPUS RENEWAL
AND PHYSICAL DEVELOPMENT**



Chancellor Robert Hemenway
Fall, 1997

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FOREWORD

Kansas University has a long and distinguished history, including a history of Lawrence campus plans. Since 1904, planners have tried to imagine what the Lawrence campus should look like, and how KU's physical future can best be shaped. The last serious effort was in 1973, and it set in place many of the planning assumptions we hold today: Jayhawk Boulevard as the academic center of the campus, green spaces a high priority, facilities not integral to the class hour day located outside the core campus.

It is appropriate, however, for KU to continue to evolve on its main campus, so that KU students, faculty and staff in the 21st century will have as beautiful and as functional a learning environment as in the past.

The 1997 Campus Plan has been four years in the making, and has been widely circulated and discussed on the campus and in the Lawrence community. It is a plan with many authors, and everyone who has responded to the various drafts has contributed to its final form. The purpose of this 1997 Campus Plan is to codify planning principles that everyone can recognize and identify with, planning principles that will be in the front of everyone's mind as we make decisions about the physical space we will occupy for the next 20 years.

There are two guiding principles to this process, which we must pledge to hold inviolate. These two principles will inform all of our efforts so long as I am Chancellor, and I hope for Chancellors to come:

- 1. PRESERVE THE BEAUTY OF MT. OREAD**
- 2. CREATE AN ENVIRONMENT WHICH SHOWS RESPECT FOR LEARNING**

Fifty years from now, we will be judged by how well we achieved these goals. When memories of individual personalities have faded away, when the daily political battles for university funding have receded into the pattern predicted by the state's motto, when the fierce immediacy of a momentary academic conflict has cooled to an amusing anecdote at alumni gatherings, our legacy to KU will still be judged by whether or not we preserved the university's beauty, and whether or not we perpetuated and enhanced the university's learning and scholarship.

The principles articulated here will guide the \$155 million dollars of capital construction and landscaping which KU currently has committed to—funding for which has been secured, or is in the process of being sought—and will guide the \$100 million of future projects which we hope to build, assuming funds can be identified, in the next 5–7 years. The lists on pages vii and viii of current and future projects may evolve, and projects may be added to the list, others dropped, as circumstances and realities change. These lists include projects almost complete, and projects which reflect our best

judgments, given current conditions, of what KU needs to do to preserve the beauty of its main campus. Done well, our physical planning will communicate to all, through the media of architecture, landscape, and space, the respect for learning and growth of knowledge which characterize a great university. I ask that all of you take notice of this plan, not because we need to march in lockstep toward particular goals, but so that our future planning in the KU marketplace of ideas will include the values expressed here.

Robert Hemenway
Chancellor
August 5, 1997

CURRENT PROJECTS—LAWRENCE CAMPUS

Budig Hall	\$ 24,000,000
Adams Alumni Center Renovation	1,300,000
Watkins Student Health Center Addition & Renovation	4,500,000
Campus Landscape Master Plan & Implementation	2,000,000
Crumbling Classrooms Projects Campus-Wide	16,700,000
Budig Hall Completion	6,000,000
JRP Hall Renovation and Addition for School of Education	14,000,000
Murphy Hall Addition	10,000,000
Child Development Facility	3,300,000
Dole Institute for Public Service and Public Policy	6,000,000
Templin Hall Renovation	5,000,000
Visitors Center Renovation—Templin Hall	1,100,000
Parking Garage North of Kansas Union	10,100,000
Continuing Education Relocation	3,000,000
Jayhawker Towers Parking Structures Razed	1,200,000
Memorial Stadium and Allen Field House Renovation	32,000,000
Baseball Stadium Improvements	2,700,000
Strong Hall ADA & Fire Code Improvements	2,400,000
Malott Hall ADA, Fire Code Improvements, Research Labs	4,500,000
Lewis Hall Renovation	<u>5,900,000</u>
	\$ 155,700,000

FUTURE PROJECTS—LAWRENCE CAMPUS

Jayhawk Boulevard Improvements	\$ 2,000,000
Campus Entry Improvements	1,000,000
Annex Buildings Razed; i.e., Lindley, Blake	800,000
Facilities Operations Relocation to West Campus	7,000,000
Bailey Hall Renovation	6,000,000
Undergraduate Science Teaching Building—Phase One	25,000,000
Twente Hall Renovation	3,000,000
Learned Hall Addition	13,000,000
Allen Field House Annex	3,000,000
Electrical Distribution Improvements	15,000,000
Library Repository Facility	7,600,000
Wescoe Hall Renovation	10,000,000
Watson Library Renovation	<u>9,000,000</u>
	\$ 102,400,000

SUMMARY

Current Projects	\$ 155,700,000
Future Projects	<u>102,400,000</u>
	\$ 258,100,000

UNIVERSITY ADMINISTRATION**

Robert E. Hemenway, Chancellor
David E. Shulenburg, Provost
Kathleen McCluskey-Fawcett, Associate Provost
Lindy Eakin, Associate Provost
David A. Ambler, Vice Chancellor for Student Affairs
William Crowe, Vice Chancellor of Information Services
Robert Barnhill, Vice Chancellor for Research and Public Service
Theresa Klinkenberg, University Director of Administration
Marlin Rein, University Director of Budget and Government Relations
Bob Frederick, Director of Athletics
Ann Victoria Thomas, General Counsel of the University
Warren Corman, University Architect
Rodger Oroke, University Director of Facilities Management

**The planning initiative begun in 1993 also includes the chancellorships of Gene A. Budig and Delbert M. Shankel

PHYSICAL DEVELOPMENT PLANNING PROCESS

Physical Development Task Force Members

Arthur Anderson, *Lawrence Association of Neighborhoods*
Laura Brophy, *Student Senate*
William Crowe, Vice Chancellor for Information Services, Dean of Libraries
Lindy Eakin, Associate Provost, *Steering Committee*
Stephen Fawcett, Professor of HDFL & Research Associate @ Life Span Institute, *SenEx*
marci francisco, Office of Institutional Research and Planning, *staff support*
Jaisri Gangadharan, *Graduate Student Council*
Edwyna Gilbert, Retired Professor of English, *Steering Committee*
James Hamilton, *Graduate Student Council*
Abbas Haideri, *Graduate Student Council*
Marlin Harmony, Professor of Chemistry, *Steering Committee*
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Joe Lee, Professor of Civil Engineering and Director of Transportation Center
Max Lucas, Professor of Architectural Engineering, *Task Force Chair*
Donna Luckey, Associate Professor Architecture/Urban Design
Mike Miller, Assistant Director Mechanical Systems—F.O., *UPSA*
Jean Milstead, *Chairperson—Lawrence/Douglas County Horizon 2020 Planning*
Linda Mullens, Assistant Vice Chancellor for Student Affairs
Jerry Nossaman, *Alumni Association*
Cindy Riling, *Classified Senate*
Mike Russell, Environmental Health and Safety Officer, *Campus Safety Committee*
Chris Schumm, *Student Senate*

Robert Senecal, Dean of Continuing Education
Sam Shanmugan, Professor of Electrical and Computer Engineering, *SenEx*
Glee Smith, *Alumni Association*
Peter Thompson, Dean of Fine Arts
Fred Van Vleck, Professor of Mathematics, *SenEx*
Fred Williams, President of KU Alumni Association
Edward Zamarripa, Director of Finance and Administration—Life Span Institute

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Greg Wade, Site Development Manager
Thomas Waechter, Campus Planning Coordinator
Allen Wiechert, University Architect (Retired)

Administrative Planning Group

David Ambler, Vice Chancellor of Student Affairs
Maurice Bryan, Director of Office of Equal Opportunity
Andrew Debicki, Dean of the Graduate School and International Studies
Lindy Eakin, Associate Provost
Tom Hutton, Director of University Relations
Richard Mann, Former University Director of Administration
Edward Meyen, Former Executive Vice Chancellor
Rodger Oroke, University Director of Facilities Management
Dave Shulenburger, Provost
Stephen Schroeder, Director of Life Span Institute
Deborah Teeter, University Director of Institutional Research and Planning
Ann Weick, Dean of the School of Social Welfare

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Greg Wade, Site Development Manager; *Development of draft document*
Thomas Waechter, Campus Planning Coordinator; *Production of maps, composition of draft and final document*
Don Whipple, Design and Construction Management; *Aerial photography*

CONSULTANTS

BRW Inc., Transportation Consultants, Minneapolis, Minn.

TRIBUTE TO R. KEITH LAWTON

The physical presence of the campus is a tribute to the contributions of many individuals over an extended period of time. The individual accomplishments of R. Keith Lawton, however, deserve to be specially acknowledged.

In thirty-four years of work for KU in a number of senior administrative and liaison positions, Mr. Lawton has served as advocate, articulator, and interpreter for nearly every aspect of campus development. He identified processes determining viable solutions for capital development. He matched physical solutions with academic and research needs. He was involved in the generation of a comprehensive campus plan as far back as the 1950's.

In well-focused planning initiatives over several decades, Mr. Lawton, in collaborative efforts with many other professionals, pushed forward the physical development of the KU campus. The goal was to meet the needs unique to a public institution of higher education, in times of tremendous social and economic transformation.

Lawton's successes came despite the preoccupation with the day-to-day tasks expected of an individual who was titled alternately as Director of Facilities Planning, Administrative Assistant to the Chancellor, Vice Chancellor for Operations, Vice Chancellor for Campus Planning and Development, director of Parking and Facilities Operations. It is the management of details across a broad spectrum of administration and campus development issues that underlie Mr. Lawton's contribution to the physical qualities of the institution today. The two decades of change since the campus master plan of 1973 reflect Mr. Lawton's breadth of vision. Even though he retired in 1982, his legacy is everywhere.

It has been said by those published in the field of management science that long term planning does not deal with future decisions, but with the future of present decisions. This practice marks the professional career and personal wisdom of Keith Lawton. Our jobs today as planners for the coming generations are much more clearly defined because of these past successes.

INTRODUCTION

Many reasons exist for a comprehensive review of the physical development plans of the University of Kansas. The reasons are as diverse as the needs of the students, faculty, staff, alumni, and other Kansans who form the community of constituents served or touched by KU. Nearly all campus programs or activities have implications for buildings, open sites, and green spaces. The enhancement and support of programs and activities, as well as a commitment to a campus environment reflective of the institution's values and traditions, should be the point of departure for any proposed physical development projects.

Planning for specific program needs should occur within the framework of a grand design. Broader, long-term planning must occur periodically; historically, a new plan has been articulated about every 20 years. The last comprehensive plan was completed in 1973.

Purposes of the Physical Development Planning Process

- *Involve campus constituencies in the formulation of a campus plan.*
- *Provide a statement for the future quality and character of the physical environment of the campus.*
- *Document a plan for the visual quality of the campus including landscape enhancement and overall campus beautification.*
- *Establish campus development guidelines regarding future land use and physical development patterns.*
- *Identify needs for facilities from academic, research, student service and institutional support programs.*
- *Identify future buildable sites and adjacent areas of possible growth.*
- *Address long term concerns regarding the safety and physical design of the campus.*
- *Integrate transportation needs with the physical layout and use of the campus.*

Campus planning is an effort to set an institutional direction that will accommodate change. Such planning must be flexible, for unanticipated change is inevitable. Such planning requires an evaluation of the present physical environment and informed statements about future conditions based on trends, needs, and projected development. Decisions on projects can't be made piecemeal; those decisions must respect the spirit of the campus as it is and adhere to the projections of what it is to become. Physical development planning provides a framework for required physical improvements into the foreseeable future and identifies projects that may be many years in the making.

Physical development planning is about the wise use of physical space to fulfill programmatic needs and to support other activities. But it's also about sustaining traditions and time honored features of a campus. *It must look backward as well as forward.*

A View to the Past in Defining the Future

Because of the inevitability of change, it is important to develop a sense of the historical context in which that change is occurring. A university's constituents tend to hope that a campus won't change too much. In part, this expectation arises because a campus is not subject to the same development pressures experienced by entities outside the university. These expectations intensify as successive generations of students pass through the institution. These expectations are also held by many other individuals, including faculty, staff, and other citizens.

Because of the expectation of continuity, time-honored elements and features are often reiterated when development proceeds in a sensitive fashion. On the KU campus, history, tradition, and a strong sense of place provide the framework for future development.

Continuity and Change

Thus, future development requires balancing the needs for continuity and change. Despite growth in complexity and size of the physical plant, planning helps to maintain and respect existing campus patterns of interaction. One such pattern, for example, is that KU is a university traditionally given to educating its students in classrooms along Jayhawk Boulevard.



However, in addition to respecting the natural and humanly wrought features of the campus, any plan must, as well, take into account certain inevitable changes. The ways we learn and teach continually evolve. For example, the technological revolution is allowing us to exchange information by novel means; structural changes in the physical environment will inevitably follow.

How do we reconcile these sometimes contrary needs to respect tradition and incorporate innovation? This requires a commitment to principles and goals, a definition of objectives, and an aspiration towards quality.

In our quest to preserve the traditional campus, we must acknowledge that its most prominent organizing element for 100 years has been Jayhawk Boulevard. Generations of KU alumni, visitors, and friends share remembrances tied to this feature.

Nevertheless, there is a significant change occurring in the relationship of the boulevard to everyday campus life because of increasing campus density. In addition, construction and a flurry of activities are taking place away from this traditional center. Despite the boulevard's continuing to be a mainstay, those who experience the campus today, compared with those who experienced it in the past, come upon a different arrangement of built space, higher densities of people and structures, and changing patterns of access.

For example, 20 years ago the majority of trips made to KU came from the north and east of campus. Now those trips originate from the south and west. That's because of the overall growth of the campus; the development and consolidation of academic, research, and support space on the south slope of Mount Oread; the development of the surrounding community; and the establishment of major cross-city routes like 23rd Street and Iowa Street. These changes, occurring in a relatively brief time, will continue to impact patterns of campus development.

These changes have made a profound difference in the daily experience of individuals who work, study, and visit here. Still, we wish to ensure the preservation of the traditional experience by taking a long-term perspective that accommodates the needs for continuity and change alike.

Planning Values

Planning should be based on a defensible value system that acknowledges functional requirements, obligations to the university's mission, and preferences of constituencies and institutional leaders. This value system establishes priorities. For example, the need for electrical distribution (a functional requirement) must take priority over the ad-

dition of classroom space (a mission obligation) or the visionary project of a single individual. These values must be applied when identifying the physical development needs of individual programs.

The most prominent organizing element of campus growth in the last century has been Jayhawk Boulevard. This must be acknowledged if we are to preserve the traditional campus.

Planning is a social process. Consideration, debate, discussion, and dissension are all part of the process. Consensus-building among students, faculty, staff, and community members should occur within the framework of an institutional value system.

State Funding/Private Funding

Because of limited state funding, only those projects that are deemed absolutely necessary for the fulfillment of the academic mission are targeted for state funding through the Educational Building Fund. As a consequence, improvement of other facilities and maintenance of infrastructure—functional requirements—are sometimes delayed or not completed. In fact, the Crumbling Classrooms initiative during the 1996 session of the Kansas Legislature arose because of a chronic shortfall in funding for maintenance and rehabilitation.

The pursuit of grant monies and private contributions for capital development is essential to many projects. In many cases, private monies have enhanced KU's development. Both grant funds and private monies support projects that complement academic programs; they do not supplant state responsibility for basic facilities. Unfortunately, basic needs for infrastructure improvements—projects sometimes construed as unglamorous or unnecessary—may be neglected.

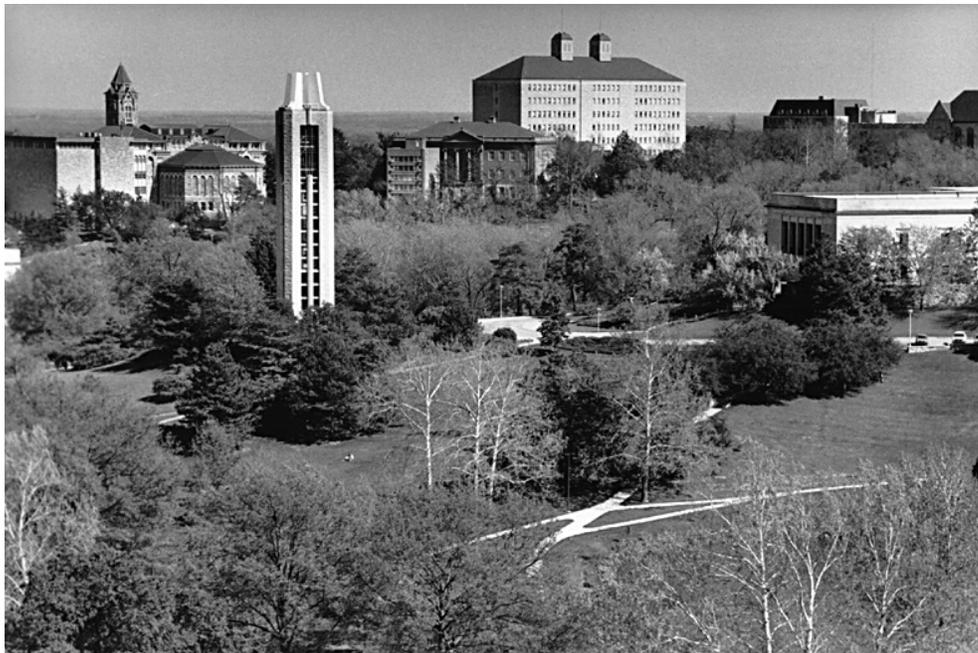
A current list of needed improvements would include upgrades to electrical distribution systems, water supply systems, and storm and sanitary sewers. Such a list would also include a complete review of steam generation and distribution, both for existing systems on the main campus and for proposed central utility systems on west campus. Long-term infrastructure needs now exceed available maintenance funds and may require capital development monies.

Securing private funding for projects other than significant new buildings is a difficult proposition. To raise private funds for these and other projects requires that physical development planning be dovetailed with fund-raising campaigns. Included with this document is a section on institutional issues, options for development, and proposed solutions, as well as a list of recommended projects identified by need. Although this list is not intended to be comprehensive, many of these projects are critical to the future quality of the institution. They will require funding from sources other than the state.

Campus Planning Versus Project Planning

It's important to differentiate between the need for initiative in day-to-day activities and the limitations of a planning document. This document has recorded the best-case scenarios and provided options given the information available at the time it was written. *These ideas and proposals will inevitably be re-evaluated in the light of future opportunities and well-directed institutional initiatives.* Nevertheless, this document will provide a reference point for thousands of decisions over many years.

It is a framework for action, a statement of the best direction for the foreseeable future. It is not a finished story or a prescription for one, but an outline to guide individual campus improvement projects.



HISTORIC PERSPECTIVE

Lawrence Campus: The Past 130 Years

The first KU building was old North College Hall, constructed in 1866 on the north promontory of Mount Oread. At that time, KU was sparsely populated: three professors, a hygiene lecturer, a janitor, and 55 students. About six years later, University Hall, later named Fraser Hall for a KU chancellor, was constructed; it was west of today's Fraser Hall. University Hall was widely acclaimed as the finest structure of its kind in the Midwest. Razed since then, it still holds a significant place in campus history.

When an ambitious new period of construction began in the 1950s, KU undertook an extensive campus-planning effort. The most recent such effort, completed in 1973, looked back at rapid growth in the near past as well as to the future. Plans included replacement of aging, inefficient facilities, conversion of significant buildings to modern uses, and technological improvements. Respect for the academic mission and a carefully structured vision of the future are the legacies of this planning effort.

In 1997, KU includes more than 120 buildings on approximately 950 contiguous acres surrounded by the city of Lawrence. The campus comprises about 24,000 students and 8,000 faculty, staff, and student employees. KU, today, as in the past is supported by state funds. Nevertheless, more than half of KU's buildings have been financed, in whole or part, by funds from students and other private citizens.



The early attempt to build a college on the hill (artist unknown), 1859

The Region

When settlers arrived in eastern Kansas, it was largely prairie-grass country, with wooded areas found only along the rivers. Now it is covered with hardwood trees in upland areas and the indigenous cottonwood and lowland trees in the valleys.

The Kansas City-Lawrence-Topeka corridor is sited along the covered-wagon route followed by pioneers traveling west on the Oregon and California wagon trails. Some of these trails crossed the area in which Lawrence developed, meandering along the ridge between the two valleys of the Kaw and the Wakarusa rivers. Today, of the 2.5 million Kansas residents, well over half reside in the state's eastern third.

Lawrence and vicinity have always been among the most scenic areas in eastern Kansas because of the views of prairie to the west and a valley to the east. Occasionally, the rivers here have surged beyond their banks and caused memorable damage. The solution to flooding—the construction of Clinton Lake—has provided a major recreational resource for the entire region.

KU owns about one-half section of land on Clinton’s south shore. This property, purchased through the Endowment Association and called the Adams Campus, has been developed as a recreation resource and outdoor laboratory for KU.

Other campus lands outside Lawrence include the Breidenthal tract south of the city, near Baldwin; the Robinson reserve and the Lawrence Airport property north of the Kaw River; part of the Army ordnance plant near Desoto; and smaller pieces of property around the state. These properties require careful integration, in order to minimize maintenance and ongoing administrative concerns. The growth of KU away from its traditional center—the establishment of the Edwards Campus in Overland Park, for example—has implications for decisions relative to main campus development.

Lawrence, founded in 1854 on the south bank of the Kaw River, has had a stormy, colorful, and progressive history. Its pioneer heritage, attractive setting, and position between Topeka and Kansas City lend it a unique and stimulating character. KU derives considerable benefit from the region in which it is located. Lawrence citizens greatly appreciate the university’s cultural and aesthetic contributions. With few exceptions, this has resulted in successful city/campus planning ventures.



The first building, North College, 1867

A History of Facilities Development at KU

The 1863 Legislature passed an act allowing for the establishment of a university at “some eligible point” in or near Lawrence, if its citizens would contribute a \$15,000 endowment and a 40-acre site. A gift of \$10,000 from Amos Lawrence of the New England Emigrant Aid Company and a \$5,000 loan from Gov. Thomas Carney formed the endowment. The brow of Mount Oread was chosen because of its magnificent views. On November 2, 1863, Carney announced that the university was in Lawrence to stay.

A charter for KU was passed in 1864, but not until 1865, after the Civil War had ended and the ravages of Quantrill’s Raid on Lawrence were repaired, were the rest of the funds raised for a building. The Regents acquired seven acres east of the original site; an existing foundation there was used for North College Hall. (The site is now occupied by Corbin and Gertrude Sellards Pearson residence halls for women.) The Legislature appropriated \$7,000 for salaries and equipment. The Board of Regents set an opening date of September 12, 1866.

Enrollment increased from 55 students in 1866 to 265 in 1871. North College Hall overflowed, and Lawrence responded by voting to issue \$100,000 in bonds for new university buildings. The Regents decided to use all the funds for one magnificent structure, siting it on the original university tract and naming it University Hall.

In coming years, degrees and coursework would be organized and reorganized. In 1890, the departments of Pharmacy and of Law were designated schools. The School of Music and Fine Arts and the School of Engineering were established in 1891. In 1893, the regents voted that the “part of the university . . . connected with the work leading to a Bachelor of Arts be organized and established as the School of Arts”; today, it’s known as the College of Liberal Arts and Sciences. The Graduate School was organized in 1897. The medical course became the School of Medicine in 1899, and, by 1905, it had expanded to a four-year program. The School of Education was established in 1909, the School of Business in 1924, the School of Journalism in 1948, the School of Architecture and Urban Design in 1960. The Department of Social Work, established in 1947, became the School of Social Welfare in 1969.



The campus, about 1900

As the mission of the university enlarged so did the demand for buildings. The 1893 Legislature authorized the use of the William Spooner bequest for a library and a chancellor’s residence, and it allocated funds for a new physics and electrical engineering building. Between 1899 and 1928, eight classroom buildings extended the campus westward. Also constructed were two laboratory buildings, two museums, a gymnasium, an auditorium, a new library, a student union, Memorial Stadium, the first residence hall for women, and a student hospital. The Depression years, however, saw little construction; the state made no appropriations for buildings between 1928 and 1938. A contribution of \$2 million by Mrs. J.B. Watkins helped during this period.

World War II greatly affected construction. The federal government helped pay for buildings that would be used for defense work during the conflict, and geology, military science and engineering research moved into new quarters in 1943. Increased postwar enrollments led to a long-range planning effort, and the campus doubled in size with acquisition of new land to the south and west.

The 1950s and '60s saw much new construction, especially, after 1954, on the south slope of Mount Oread and at the base of the hill there. Malott Hall, Allen Field House, Murphy Hall, Learned Hall, Robinson Gymnasium, and Haworth Hall were all part of this expansion. Land was acquired for construction of six large residence halls and an apartment building complex for married students. Construction in the core campus included the Campanile, two additions to Snow Hall, and two additions to the Kansas Union. A new Blake Hall for social sciences and additions to Watson Library and Dyche Hall were built on the central campus in the early 1960s. During the late '60s, KU completed new Fraser Hall and the Spencer Research Library.

Development of the west campus also began in the 1960s. Youngberg Hall was built in 1962. Parker Hall and the Printing Services building were occupied in 1968. A pharmaceutical research facility was dedicated in 1969. The early 1970s brought the construction of McCollum Laboratories for the health sciences; Nichols Hall, a space technology building partially funded by NASA; and the Kansas Geological Survey's Moore Hall.

Main campus construction in the 1970s included Wescoe Hall; the Stewart Children's Center addition to Haworth Hall; and an addition to Learned Hall. In the late 1970s New Green Hall, for the School of Law; the Art and Design Building; the Spencer Museum of Art; the Computer Services Facility; and the Burge Union were completed.

Construction projects in the 1980s included additions to Malott Hall, for pharmacy, and to Haworth Hall, for the biological sciences. Robinson Gymnasium was expanded, and a parking garage was built, near Allen Field House, for 750 cars. Major renovations of Watson Library, Lindley Hall, Marvin Hall, Flint Hall, Wescoe Cafeteria, and Snow Hall were completed, along with renovations to Haworth Hall, Grace Sellards Pearson and Corbin residence halls, and Broadcast Hall. The Anschutz Science Library was also finished.

Non-state funds continue to play an important role in the growth of the physical plant. They paid for the acquisition of Oldfather Hall. They have provided support for construction of the Dole Human Development Center; an addition to Summerfield Hall, for the School of Business; Spahr Hall, which houses the engineering library; the Lied Center for the Performing Arts; the Adams Alumni Center; the first phase of renovation of the Kansas Union; the University Press of Kansas building; and the Anschutz Sports Pavilion.

The KANU transmission tower, the Kansas Geological Survey Core Library, and the Kurata Thermodynamics Laboratory have been paid for from university-generated revenues.



Renovated Snow Hall

Projects under way or just completed as of this writing include the Budig Hall/Hoch Auditorium reconstruction; the Dyche Hall storage addition; renovations to Lewis Hall cafeteria, the Kansas Union and Allen Field House; and construction of the Bales Recital Hall, Amini Schol-

arship Hall, Templin Residence Hall, Anschutz Sports Pavilion, and Wagon Student Athlete Center. On the drawing board are scheduled improvements to Pearson Scholarship Hall, Stouffer Place apartments, and Daisy Hill residence halls.

Despite the vigor of this program, many facility needs remain unmet. A number of buildings need major renovation. Temporary facilities provide interim space for important KU programs; other programs are constrained by crowded or outmoded facilities. Adequate facilities are essential to KU's academic strength. To provide for the university now and in the future requires that renovations and new construction be carefully planned.

The Initial KU Planning Documents

In 1904, George E. Kessler and Company, landscape architects, conceived a KU long-range development plan. At that time only the eastern end of the campus—extending as far west as the sites now occupied by Flint and Bailey halls—was developed. Areas west and south of campus were open prairie.

The Kessler plan appears in Figure A. It projected the main academic building as occupying the site currently occupied by Wescoe Hall. In addition, the plan envisioned a football stadium and gymnasium occupying the bowl in which Memorial Stadium is sited today. An imaginary line running between the main academic building and the recreation facilities below was an axis for what was envisioned to be a grand mall. It would be flanked by parks. On the site where Carruth O'Leary sits today, Kessler's plan envisioned residence halls.

By 1910, the campus had buildings as far west as Marvin Hall and the Mechanical Engineering Laboratories (razed in the 1970s to make room for the Art and Design Building). A streetcar linked the

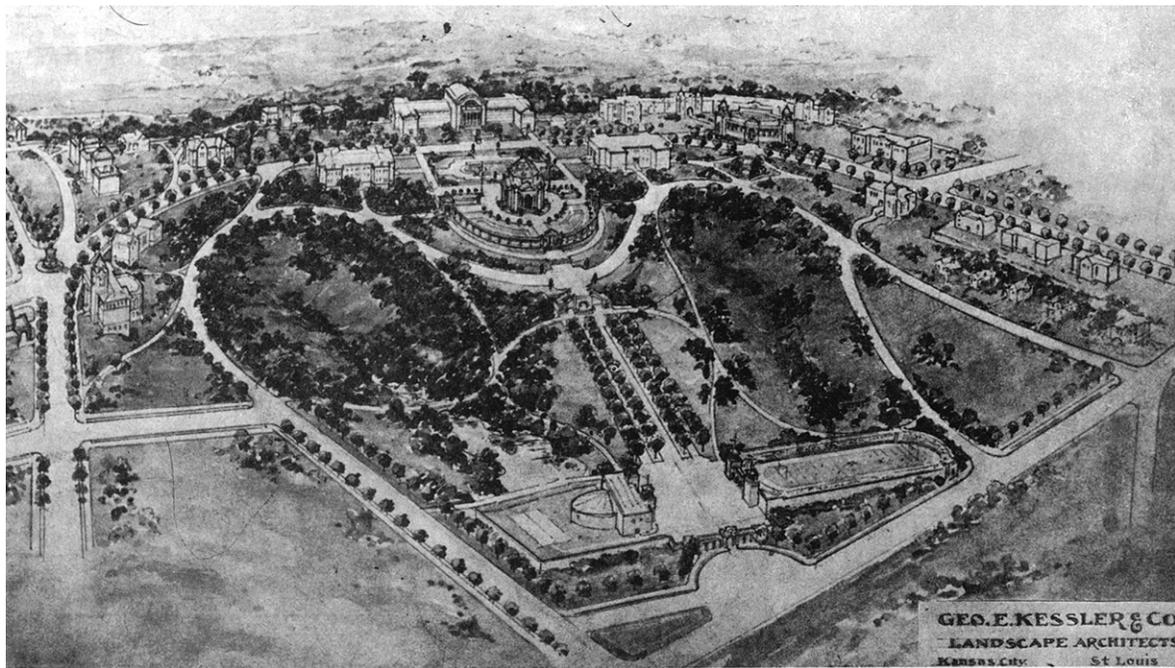


Figure A: Kessler Plan, 1904

downtown with Mount Oread. Old Fraser Hall was the anchor of the campus. The city had grown on the northern and eastern edges of the campus. Most students lived in large homes along the north and northeast slope of the hill.

Between 1920 and 1930, Jayhawk Boulevard emerged as the campus' dominant orienting feature. New buildings were planned for sites north and south of this campus thoroughfare. The first conflicts about the use of vehicles on campus surfaced. A 1922 letter from Chancellor Ernest Lindley to parents makes this plain:

“The University is using every effort to keep among students a fine spirit of democracy, to concentrate students' attention upon serious study and healthful recreation, and to hold to a minimum practices fraught with moral risks. . . . You can help much by making it clear to your sons and daughters that their part is to live simply, honestly, and wholesomely while in the University. For this they do not need a car.”

The 1920s and early '30s were extraordinary years for the university. Among the buildings constructed were Snow Hall, Hoch Auditorium, and numerous fraternities and sororities. Extensive landscaping characterizes this period, as does the paving of Mississippi Street and Jayhawk Boulevard.

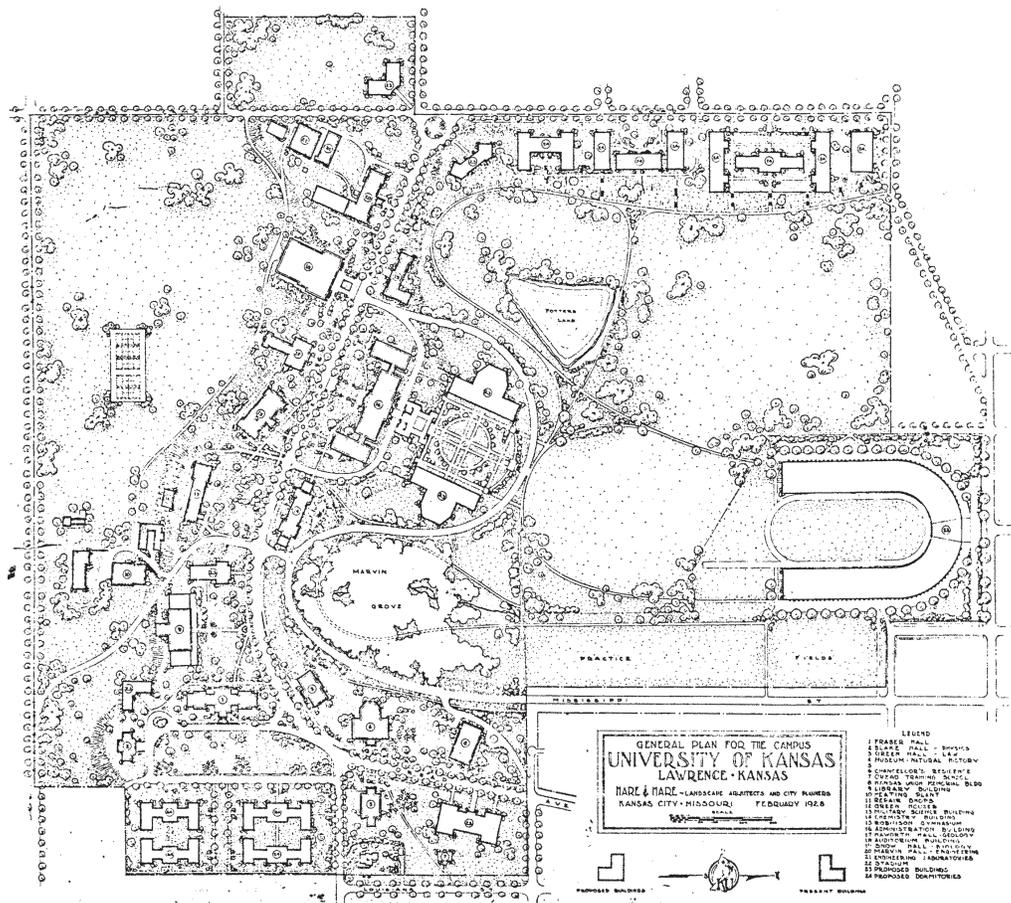


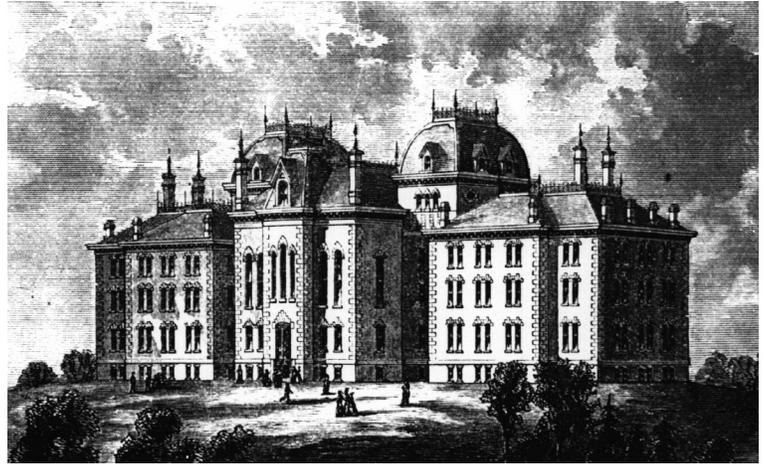
Figure B: Hare and Hare plan, 1928

The second campus development plan was prepared in 1928 by Hare and Hare, of Kansas City, Mo. This plan, like the Kessler Plan, focused on a main academic building—by now, Frank Strong Hall—as the campus centerpiece. And, like the previous plan, it reinforced a commitment to Marvin Grove, developed around the turn of the century, and Potter Lake, created for the purposes of fire prevention, as areas to preserve. It did not, however, preserve the north-south axis of the Kessler Plan. By now, Jayhawk Boulevard had become the “spine” of the campus. The vision in Hare and Hare’s plan, of a landscaped, pedestrian-oriented campus, failed, however, to foresee the impact of streets, parking, and automobile access. A graphic of the Hare and Hare plan is presented in Figure B.

World War II and the Modern Era

The period from 1940 to 1950 began with a proliferation of temporary structures. An exception was Lindley Hall, erected in 1940 and occupied in 1942. The conversion of academic buildings to officer training and living units was a major feature of campus life.

In the fall of 1945, there were only 3,000 students on the Lawrence campus. A year later, the enrollment jumped to 5,200. With the inclusion of returning veterans the enrollment was, by the fall of 1947, approaching 9,000. Prefabricated Quonset huts were hastily constructed for housing and other uses. Some of these “temporary” structures still stand.



Old Fraser Hall

From 1950 to 1960, a vigorous building program transformed the south face of Mount Oread. Fowler Shops, Malott Hall, and housing facilities sprung up. KU began to struggle with the issues of land use and parking, of vehicular and pedestrian traffic. Campus growth engendered renewed interest in planning.

In 1952, the University’s Planning Board launched an extensive study of facilities and program needs. It projected a revitalized core campus. The removal of old Robinson Gymnasium and Harworth Hall in the 1950s ushered in an era of higher-density construction on the main campus. Endowment Association investments helped KU acquire more land to the west.

In the late 1950s and early 1960s, new buildings sprung up, parking lots were constructed or developed, and a new system of traffic control was established on Jayhawk Boulevard. Well-conceived planning principles were the framework for these projects. The goal of traffic and parking management was to emphasize pedestrian uses during the school day by building traffic-control booths that limited access to campus. The development of nearly a million square feet of high-rise residence halls helped to define the student living experience; almost one in three students lived in university housing. This provided the basis for a hilltop community; that sense of community became an integral part of many KU students’ academic experience.

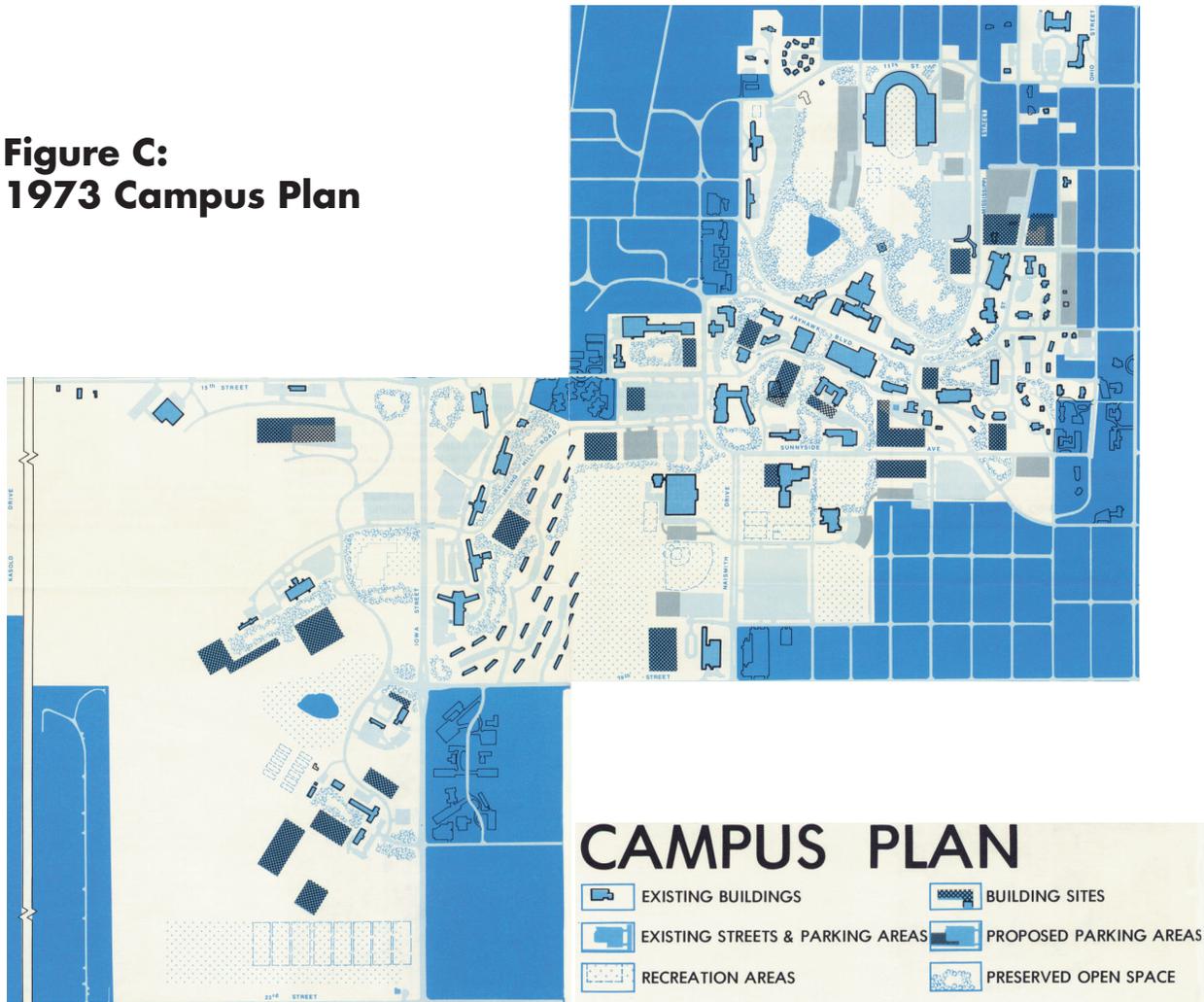
West campus developed as a research campus during the 1960s. Projects there included the construction of the Center for Engineering Research, a building for the U.S. Geological Survey, a NASA-sponsored Space Technology Building, and biological science laboratories.

The 1973 Plan to the Present

The 1973 planning effort was the result of a funded mandate from the Kansas Board of Regents and the Legislature, which wanted long-range plans for the physical development of each Regents institution. The schools were required to make all future capital expenditures in accord with a carefully drawn, coordinated, statewide plan designed to assure both orderly and timely development. The educational programs of the institutions were required to meet the needs of Kansas, and the physical facilities to meet the needs of the schools' programs.

Before this, the continuity in vision that guided KU's expansion had resulted from the long service of key individuals within KU's capital development sector. Through several decades of rapid change, their determination to make thoughtful decisions had benefited KU; now, that work became the basis for an era of more formal facilities planning.

**Figure C:
1973 Campus Plan**



The 1973 plan, a schematic is shown in Figure C, was the first comprehensive physical development initiative. Teaching and research activities were evaluated, as was the physical condition of existing buildings. Future space needs were projected, based on inspection, quantification of square footage requirements, and Regents guidelines. Academic disciplines were assigned space on the basis of accepted standards. The Office of Institutional Research and Planning produced extensive documentation concerning present and projected facility needs.

The firm of Caudill, Rowlett, Scott, of Houston, Texas, produced the workbook that guided the statewide planning effort for the Regents schools. The KU Office of Facilities Planning developed a comprehensive land-use plan for both main and west campuses, evaluated transportation and parking systems, and recommended future improvements. Van Doren-Hazard-Stallings-Schnacke, a Topeka firm, produced the final KU document and helped in the evaluation and mapping of campus utility systems.

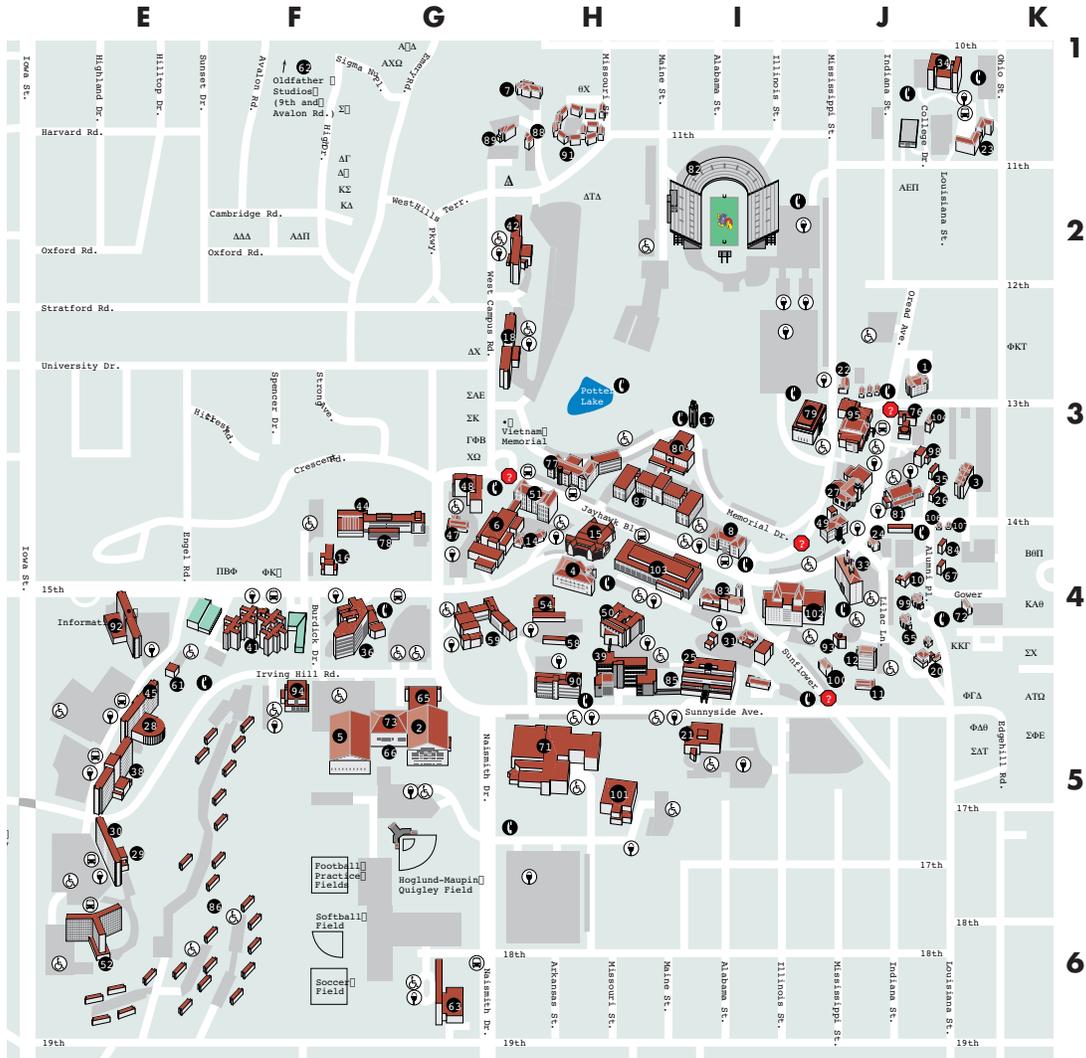
The evaluations that were made in 1973 have served the institution well. Design guidelines and physical development policies were created. However, some of the assumptions and projections that were made at that time now need to be reevaluated. For example, student population was projected, at the time, to stabilize around 18,000. This figure alone illustrates the need to revisit the planning process.

The Growth of the University and the Community

Lawrence has grown significantly in recent decades. Physical expansion of the incorporated area of the city has primarily been to the south and west of the campus since 1973. For years, coordination between the city and KU administration has been pursued and will continue to be needed to solve mutual problems arising from the continued expansion, in both physical size and numbers, of the city and the university. Mutual concerns regarding patterns of land use, the expansion of transportation systems, and the quality of the contribution that the physical presence of the university makes to the metropolitan area are reviewed in this document.

In a larger context and with a view to the future, the city and the university have left our rural pasts behind. The transition requires a planning effort that considers such issues as density of buildings and activities, of convenience and accessibility, within the context of tradition, historic patterns of growth, and future institutional needs. This will continue to be a challenge.

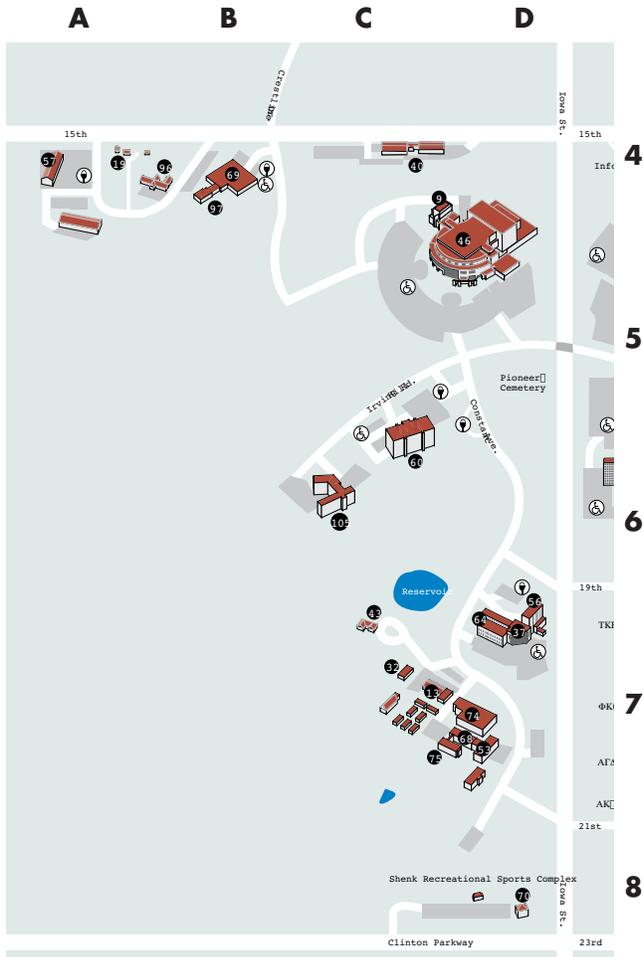
Central Campus Map with Building Names



Central Campus Building Names

- | | | |
|---|---|---|
| 1 Adams Alumni Center (J3) | 35 Grace Pearson Scholarship Hall (J3) | 78 Spahr Engineering Library (G3) |
| 2 Allen Field House (G5) | 36 Green Hall (G4) | 79 Spencer Museum of Art (J3) |
| 3 Amini Scholarship Hall (K3) | 38 Hashinger Residence Hall (E5) | 80 Spencer Research Library (I3) |
| 4 Anschutz Science Library (H4) | 39 Haworth Hall (H4) | 81 Spooner Hall (J3) |
| 5 Anschutz Sports Pavilion (F5) | 41 Jayhawker Tower Apartments (F4) | 82 Stadium, Memorial (I2) |
| 6 Art and Design Building (H3) | 42 Joseph R. Pearson Hall (H2) | 83 Stauffer-Flint Hall (I4) |
| 7 Baehr Audio-Reader Center (H1) | 44 Learned Hall (G3) | 84 Stephenson Scholarship Hall (K3) |
| 8 Bailey Hall (I3) | 45 Lewis Residence Hall (E4) | 85 Stewart Children's Center (H4) |
| 10 Battenfeld Scholarship Hall (J4) | 47 Lindley Annex (G3) | 86 Stouffer Place (F5) |
| 11 Blake Annex (J4) | 48 Lindley Hall (G3) | 87 Strong Hall (I3) |
| 12 Blake Hall (J4) | 49 Lippincott Hall (J3) | 88 Sudler Annex <i>KJHK</i> (H1) |
| 14 Broadcasting Hall <i>KANU</i> (H3) | 50 Malott Hall (H4) | 89 Sudler House (H1) |
| 15 Budig Hall (H3) | 51 Marvin Hall (H3) | 90 Summerfield Hall (H4) |
| 16 Burt Hall (F3) | 52 McCollum Residence Hall (E6) | 91 Sunflower Apartments (H1) |
| 17 Campanile (I3) | 54 Military Science Building (H4) | 92 Templin Residence Hall (E4) |
| 18 Carruth O'Leary Hall (H2) | 55 Miller Scholarship Hall (J4) | 93 Twente Hall (J4) |
| 20 Chancellor's Residence (J4) | 58 Multicultural Resource Center (H4) | 94 Union, Burge (F4) |
| 21 Computer Services Facility (I4) | 59 Murphy Hall (G4) | 95 Union, Kansas (J3) |
| 22 Continuing Education Building (J3) | 61 Nunemaker Hall (F4) | 98 University Relations Center (J3) |
| 23 Corbin Residence Hall (K1) | 62 Oldfather Studios (F1) | 99 Watkins Scholarship Hall (J4) |
| 24 Danforth Chapel (J3) | 63 Oliver Residence Hall (G6) | 100 Watkins Home Hall Center for the Humanities (J4) |
| 25 Dole Human Development Center (I4) | 65 Parking Facility (G4) | 101 Watkins Student Health Center (H5) |
| 26 Douthart Scholarship Hall (J3) | 66 Parrott Athletic Center (G4) | 102 Watson Library (I4) |
| 27 Dyche Hall (J3) | 67 Pearson Scholarship Hall (K4) | 103 Wescoe Hall (H4) |
| 28 Ekdahl Dining Commons (E5) | 71 Robinson Center (H4) | 104 Wesley Building <i>Hilltop Child Care Center</i> (J3) |
| 29 Ellsworth Annex <i>Telecommunications</i> (E5) | 72 Sellards Scholarship Hall (K4) | |
| 30 Ellsworth Residence Hall (E5) | 73 Shaffer-Holland Strength Center (G4) | |
| 31 Facilities Operations (I4) | 76 Smith Hall (J3) | 106 517 W. 14th St. <i>Environmental Studies Bldg.</i> |
| 33 Fraser Hall (J4) | 77 Snow Hall (H3) | 107 1400 Louisiana St. <i>Western Civ. Annex</i> |
| 34 Gertrude Sellards Pearson Residence | | |

West Campus Map with Building Names



West Campus Building Names

- 9 Bales Organ Recital Hall (D4)
- 13 Bridwell Botany Research Laboratory
Herbarium (D7)
- 19 Chamney Barn (A4)
- 32 Foley Hall (C7)
- 37 Hambleton Hall (D6)
- 40 Housing Maintenance Warehouse (C4)
- 43 Kurata Thermodynamics Laboratories (C7)
- 46 Lied Center (D4)
- 53 McCollum Laboratories (D7)
- 56 Moore Hall (D6)
- 57 Motor Pool (A4)
- 60 Nichols Hall (C5)
- 64 Parker Hall (D6)
- 68 Pharmaceutical Chemistry Laboratories (D7)
- 69 Printing Services (B4)
- 70 Recreation Services Building (D8)
- 74 Simons Biosciences Research Laboratories (D7)
- 75 Smissman Research Laboratories (D7)
- 96 University Press Offices (B4)
- 97 University Press Warehouse (B4)
- 105 Youngberg Hall (C5)

- Building number
- Metered parking
- Reserved for physically impaired
- Bus stop
- Emergency phone
- Traffic information booth

THE 1997 PLAN

Institutional Initiatives

The current planning effort, which began in 1992, is the work of a planning task force, a professional facilities planning staff, outside consultants, representatives of constituency groups, and KU administrators.

In late 1992, a Physical Development Planning Task Force was appointed, comprising students, faculty, staff, and alumni, including Lawrence residents. This group of 30 has been involved over the course of more than four years in identifying major issues, framing goals-and-objectives statements, offering proposals, and reviewing elements of the emerging plan.

Although organization for the effort began in late 1992, the official kick-off of the planning process was April 11, 1993, in the K.S. "Boots" Adams Alumni Center. Keith Lawton, former director of the Office of Facilities Planning and Operations, shared his thoughts on the development of the campus and provided those in attendance with a sense of how the campus had evolved and the implications of the past for the future. Lawton's presentation was videotaped for archival and future planning purposes.



Task Force Meeting, Fall 1995

Before initiating this planning effort, KU had completed an evaluation of academic and support programs through a process called Program Review. A report about Program Review was made available to the task force as background information. It provided an overview of academic and institutional support activities on campus. The work of the task force was supported with professional input from both the KU Office of Capital Programs, and, subsequent to a reorganization, the KU Office of Design and Construction Management. The task force recommended that an outside consultant review campus transportation systems. BRW Inc., a Minneapolis-based transportation consulting firm with experience in campus and community planning processes, conducted the review.

We began to gather public input for this document in 1993, when the task force's work began in earnest. The task force and other personnel have, in both meeting and interview formats, attended to such matters as land-use patterns, accessibility, transportation, parking, and the campus environment. Consideration of institutional strengths, as well as of teaching, learning, and research needs, provides the foundation for the resulting plan.

In the planning process, some attention was paid to projecting quantities of space that programs would need in the future, but less so than during the 1973 planning process. We have endeavored to envision a campus that is functionally sound and aesthetically pleasing.

The result was a draft document shared with the public in September 1995. In the course of more than 25 public presentations during 1995–96, the document was shared with governance groups, Student Senate and its transportation board, city and county administrators and commissioners, alumni and endowment groups, and organizations representing neighborhoods close to campus. Many changes were suggested and many were made. During the 1996–97 school year, this final version of the plan was completed.

The final test of any plan comes at the point of implementation. Our goal is to transform good ideas into accomplishable projects within a framework of factors that will, no doubt, shape and reshape the future campus. The following are significant ideas discussed in the course of this document.

The revitalization of Jayhawk Boulevard

- Making physical and functional changes so that Jayhawk Boulevard is a safer environment
- Eliminating the congestion caused by personal vehicles, parking, and two-way traffic and reducing conflicts between pedestrian and vehicular traffic
- Committing a portion of the boulevard for the use of bicyclists
- Reducing the overall width of pavement to gain pedestrian, waiting, and green space
- Establishing consistent design in the matter of landscape planning, including trees, durable ornamentals, seating, walkways and other elements
- Providing high quality gathering and pedestrian spaces
- Developing a consistent image in terms of building signs and lighting
- Developing a comprehensive landscape plan
- Honoring the traditional pedestrian orientation of the boulevard

The evolution of campus access to accommodate growth

- Integrating accessible transit and parking systems to accommodate increased activity within the core campus

The beautification of major campus entry points

The following should be considered:

- 15th Street east of Iowa as a pedestrian campus
- 15th Street west of Iowa, to Kasold, as a major corridor of community access
- Oread Avenue between 12th and 13th, as an entryway reflective of the traditional campus
- Mississippi Street north, beginning at 11th Street, as a major vehicular entry
- Naismith Drive south, beginning at 19th Street, as a major vehicular entry
- The triangle of land at Indiana and Sunflower streets as a minor campus entryway

Site development for main and west campuses

- Evaluation of the development potential of individual areas by reference to site planning principles

Infrastructure

- Maintenance, replacement, and repair of existing systems
- Extension of infrastructure into developing areas and undeveloped areas into which the campus will grow
- Completion of a telecommunications/information fiber optic system

The planning initiatives mentioned above will be developed within a framework of existing patterns of land use, provision for access to campus, and maintenance of KU's image and environment. Implementation of the initiatives may require years, decades, or, in some cases, generations.

The process of projecting future needs, implementing projects, and evaluating results will be ongoing. This is the nature of long-range planning.

CAMPUS DEVELOPMENT PATTERNS

Planning Elements and Processes

To this point, we have discussed the history of campus development and made tentative mention of some of our planning objectives. The next step is to establish the elements that must be considered for planning purposes.

There are many such elements. The composition of the core activities of a campus including classroom, laboratory, and research space is the first of these. The relationship of academic support spaces, such as libraries, is the second. The third includes a complement of spaces that are important to, but not, strictly speaking, mandatory in an academic environment—space for conversation and recreation, for example. The fourth, fifth, and sixth elements are student housing, auxiliary enterprises, and parking. More discussion of each of these elements appears in the next section.

These elements are the building blocks with which planners work. The blocks are brought into relationship by a large governing principle that planners call “affinity” and “adjacency.” The ideal would be to site departments and disciplines that have a natural affinity for each other adjacent to each other. People on this campus who are natural neighbors should be able to communicate quickly and easily. Unfortunately, the principles of affinity and adjacency are not easy to honor. In part, this results from the geographical limits of the main campus; when optimal densities are surpassed, the principles become ever more difficult to respect.

A second problem is that future patterns of development must respect what already exists. For example, adding an east wing to Strong Hall to create new space for administrative activities might provide adjacency for administrative activities but threaten Bailey Hall, which provides space for academic activities and is also a traditional campus feature.

A third problem derives from an assumption that KU will experience modest growth in its activities and population. Even modest growth guarantees both the emergence of new affinities, as new activities and alliances among personnel are forged, and the inevitability of new construction. Thus, when construction is warranted, it should translate functional affinities into physical adjacencies.

This plan honors the principles of affinity and adjacency but acknowledges the limits imposed upon them by geography, tradition, and the likelihood of growth. We now turn to the range of campus activities for which plans must be made.

Relationship of Activities

The following list identifies activities and elements crucial to the academic mission and the planning needs of these core activities. The activities are largely conducted on what is referred to, hereafter, as the “core campus.” The term refers to the some 140 acres bounded on the north by Strong Hall, on the south by Sunnyside Avenue, on the east by Fraser Hall and on the west by Green Hall. A schematic diagram of the core campus area is included in Figure D.

1) On the KU campus, thousands of students and faculty move among classroom, laboratory, and graduate research spaces several times each day. Planning is necessary not only for building space, however, but for outdoor areas used for instructional and recreational activities. High-quality teaching and learning spaces are needed. Connecting those spaces in ways that accommodate the movements of people during class changes is another need.

2) Academic support spaces, including ones for study, office, and administrative activities, as well as libraries, are best sited adjacent to classroom, laboratory, and graduate research spaces.

3) Activities important to an academic environment but not pointedly related to the teaching/learning functions need to be considered. Included here are places for conversation, as well as developed, open, and green spaces for relief, relaxation, and contemplation. These must be consciously planned for because they preserve the felt sense of the traditional campus.

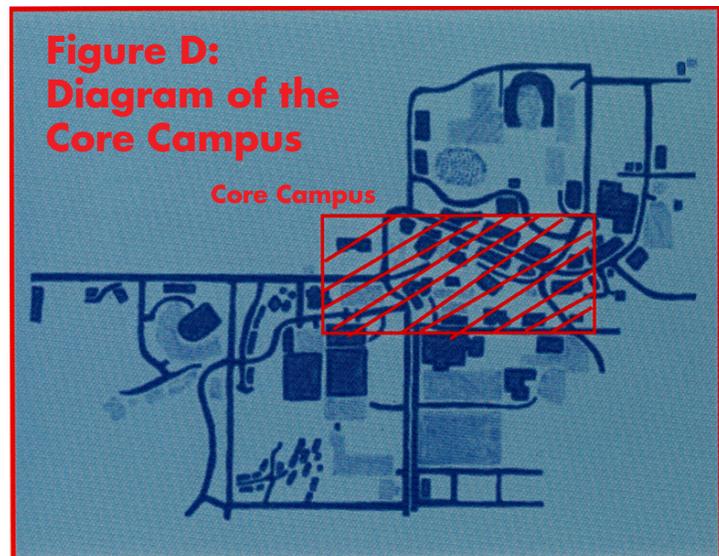
4) Campus housing has diminished in popularity. Two decades ago, a third of the students lived in university housing; at that time, KU was a residential campus. Today, less than a fourth of the students live in university housing. Nevertheless, convenient, accessible housing is a part of the traditional academic experience. Plans for the renovation of existing housing are under way.

5) The student unions; various social, psychological, medical, and academic support services; storage facilities; and maintenance operations are all necessary, yet they aren't, strictly speaking, geared to education or instruction. While the general principle is to site such activities outside of the main campus, their daily contribution to campus life means that this is not always possible.

6) Parking must be designed to accommodate a broad range of individual needs.

Each of these activities and elements has to be evaluated by reference to its centrality to KU's academic purpose. The university has sited, and will continue to site, those activities integral to the day-to-day needs of students, faculty, and staff within the core campus.

This principle was established in the 1973 plan and is respected here.



Buildable and Accessible Sites

Defining buildable sites within a 130-year-old campus is rarely a straightforward proposition. Existing facilities and previous development establish precedents. Nevertheless, individuals, programs, and the community undergo changes that force alterations and adaptations. Even assumptions of modest increases in growth and density can redirect development over the long term. (Reference Assumptions for Planning Purposes, page B-4)

A plan for campus development provides a stock of potential sites and parameters for their deployment. Rarely will proposed sites not have implications for adjacent spaces or buildings. A building demands more space than that which appears on its floor plan: for pedestrian routes, changes in topography, site drainage, service access, and parking. In total, these can consume many times the space committed to the building's footprint.

The land-use patterns shown in the 1973 plan were based on the assumption of a steady enrollment of 18,000 to 20,000 students. Today's enrollment is more than 24,000.

For example, the Lied Center has 88,000 gross square feet of space. Its footprint totals about an acre—yet the developed site is about 20 acres. This example is exceptional given the provision for 1,000 parking spaces close to the center, yet it is common for sites to be several times larger than the buildings that are their focus.

In some cases, building sites will need to be developed as buildings are replaced. Small-footprint, low-rise buildings will give way to larger ones. Where a ratio of open space to built space is to be maintained, future growth may, therefore, involve the removal of some buildings for the long-term development of open and green space. The preservation and renovation of existing buildings along Jayhawk Boulevard should, however, always remain a priority.

Infill projects, additions, adaptive reuse of historically significant but outmoded structures, and other renovations would—as opposed to new construction on empty land—help maintain open space and green space. The land-use patterns shown in the 1973 plan were based on the assumption of a steady enrollment of 18,000 to 20,000 students. Today's enrollment is more than 24,000, and KU has added in excess of 2 million gross square feet in little more than two decades.

This institution is blessed by unusual beauty, a beauty it has sustained despite vigorous growth. Preserving the beauty of Mt. Oread must be a priority.

This plan must look forward 50 years or more if it is to defend the integrity of the traditional campus and establish a sound basis for future growth. The core campus is reaching a point where further development will significantly change its character. This institution is blessed by unusual beauty, a beauty it has sustained despite vigorous growth. The challenge will be to maintain that beauty in the face of future growth. Another challenge will be to ensure that distances traveled in the course of the class day don't overwhelm students. This is a campus in transition. Finding sites to accommodate future academic facilities may involve relocation of activities from their current sites.

Refer to Land Use Map for Central Campus at the end of the section on Elements of Physical Development Planning, page B-26.

Core Campus Activities and West Campus Development

In general, west campus hasn't been developed with undergraduate education in mind. Institutional support services, including the printing service and facilities operations and maintenance, have been relocated to west campus. This pattern of use reflects principles from the 1973 plan. Research units, auxiliary enterprises, recreation fields, and the Lied Center also are part of west campus. Growth on west campus hasn't been constrained by the demands of the class day. Activities there have been established independently of each other and the patterns of development reflect this.

West campus development has occurred on the perimeters of the land tract—predominantly along Iowa and 15th streets. Mixed uses by research, support and auxiliary enterprises; perimeter access; and absence of a planned infrastructure give a sense that happenstance has shaped this area. As a result, west campus lacks identity. The planning challenge is to achieve a coherent pattern of growth on a sprawling 400-plus acre tract that will become home to a wide variety of activities. Integrating the components of land use, access and image will be just as important for west campus as it will be for the core campus.

Refer to Land Use Map for West Campus, page B-28.

Campus Access, Mobility, and Wayfinding

It is a challenge to provide access into and efficient passage through a complex campus about a thousand acres in size. Streets, roads, pedestrian and bike routes, service drives, and emergency access are used for everyday activities and special events. It's necessary to orient and direct individuals by the physical design of these features and to accommodate a variety of individual needs. Mandated improvements like those required by the Americans with Disabilities Act are a high priority. A well-designed system of routes not only provides access to specific destinations, but also lends a broad sense of orientation and of place.

Part of the planning task here is to determine the options for accommodating automobiles in support of the academic day. The configuration of roadways that network the campus, thoughtful design of major points of entry to campus from the community, and the choices for storing cars all have long-term impact on campus access and proximity of parking to office or classroom. These elements carry with them significant financial and management costs. The pedestrian-centered quality of the main campus will continue, even as we work to meet other—sometimes conflicting—needs for convenience and accessibility.

The pedestrian-centered quality of the main campus will continue, even as we work to meet other needs for convenience and accessibility.

The necessary long-term development and maintenance of streets, roads, parking, sidewalks, bike routes, and signage rarely receive funding priority. West campus pedestrian routes are virtually non-existent. As building density increases, so does the need for bike routes and racks, parking, and pedestrian routes. KU continues to work to meet its accessibility needs.

An example here will help make the case. "Wayfinding" is a planning term that describes the multiplicity of information systems that orient and guide drivers, pedestrians, and other to and on campus. Wayfinding systems include directional signs on and off campus, signs at major points of entry to campus, and building-name and room signs. This system is crucial to campus access, yet it's been

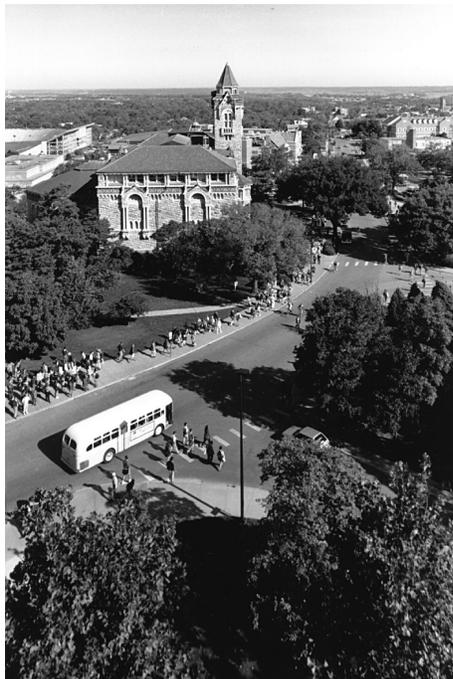
20 years since a comprehensive review of campus signage occurred. The last signage standard was developed in 1975. Today, the opportunity to integrate electronic technologies in the form of information kiosks exists and needs to be considered.

Part of the reason for this kind of lag arises from the process by which KU develops and funds accessibility improvements. For example, individual capital development projects provide sidewalks only as far as the boundary of a building site. Thus, after several decades of uncoordinated and fragmented actions, these independently wrought changes may be inconsistent with each other. And redesign is unlikely to be funded.

Above all, the campus must be preserved as a student-centered place.

Moreover, issues of access can't be considered in isolation from two other crucial concerns: land use and campus image. This plan cannot have as its sole focus the delivery of cars to lots adjacent to classrooms and offices. When cars have entered campus, they must be accommodated by parking lots or structures, and the creation of those affects land-use patterns. When students or staff leave cars, they enter into an experience—of people walking to and from their classes and their offices—that is deeply rooted in the history and traditions of this place.

The campus of the future must be more accessible to everyone, abiding by both the spirit and the letter of the law. To effect that will require a greater financial investment and cooperation between city and university. Above all, this campus must be preserved as a student-centered place. The intention can easily be eroded by increases in traffic, population, and density of buildings.

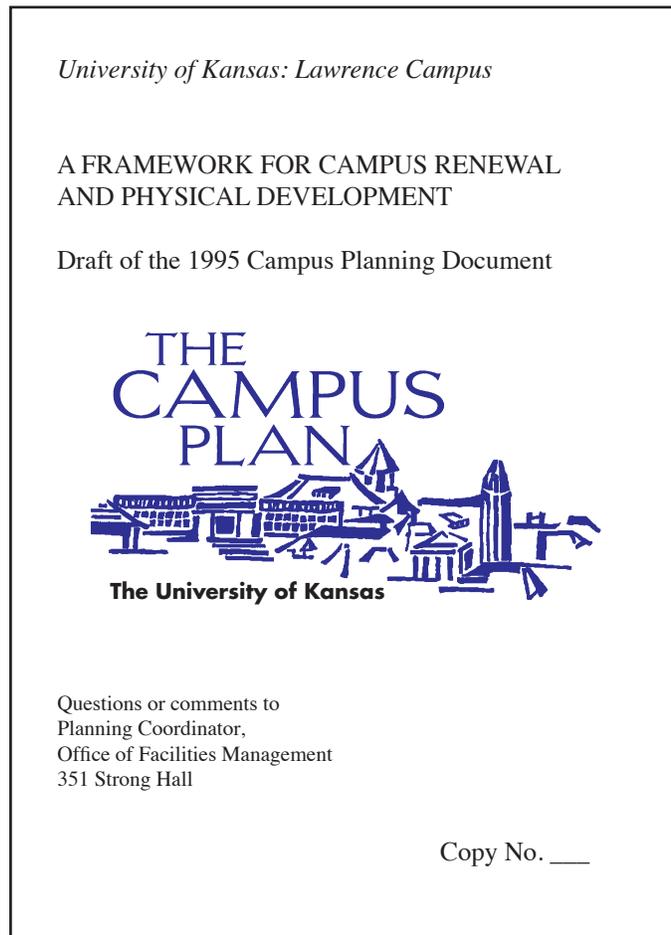


THE PLANNING PROCESS

THE DEVELOPMENT OF THIS DOCUMENT

Institutional administration contributed to this document by providing a set of assumptions about the future and an assessment of current facilities and future needs. A second group, representing students, faculty, staff, alumni, and community interests, was focused more on possibilities and opportunities—and was less tempered by the limiting factors that administrators are so keenly aware of. Members of the second group, who constituted the Physical Development Task Force, possessed a perspective that looked far beyond immediate university need. A third group, city officials, were involved early on in meetings with a task force subcommittee. Together, the officials and subcommittee members explored town-gown issues. These officials also reviewed the transportation consultant's early findings. Finally, they were presented early drafts of this document.

As the groups mulled future plans, they kept in mind trends in higher education: the changing nature of technology and of information and communication networks; the changing composition of the student population, with non-traditional students having an impact on the social, ethnic, age, and economic mix of the student body; and the increasing racial, social, and cultural diversity that will characterize higher education institutions in the next century.



TASK FORCE REVIEW OF ISSUES

After an initial review of academic and support program information, the planning task force was asked to develop statements about the goals and objectives the plan should reinforce. To achieve this, the task force decided to focus on six interest categories: building and building sites, KU/Lawrence relationships, student needs, transportation, environment, and utilities.

Subcommittees were appointed to study each area. The subcommittees met with various on- and off-campus groups. Assumptions and principles were discussed and goals-and-objectives statements were developed. Brief summaries of the work of each subcommittee follow.

Building and Building Sites

The subcommittee identified buildable projects and discussed facilities siting. The siting challenge is twofold. First, a lack of space seriously constrains core campus growth. Second, any given project requires reconciliation of several needs. These needs include 1) justification of additional built space, 2) access to it, and 3) sustainment, despite these changes, of a high-quality environment.

The committee also developed statements concerning parameters for proposed facilities. The fit between physical qualities of possible sites and proposed facilities must be assessed. Goals-and-objectives statements were generated on the topics of technology, space utilization, campus density, historic characteristics of campus, site selection, and health and safety related to the built environment.

The Role of Technology

Planning must assume that individuals will need access to networked information and related technologies whether they are sited on or off campus. It will be essential to differentiate between programs that can be delivered effectively and efficiently by the use of technology and those that will require trips to campus.

Buildings will need to be designed and sited to accommodate expanded activity that occurs not only during the class hour day but into the evenings and weekends as well.

Space Utilization

KU should develop better methods and policies for the assignment and reassignment of space, giving particular attention to the renovation of existing facilities, mandated improvements, and access. In particular, space that opens up when functions are discontinued should be allocated to higher priority use.

Campus Density, Activities, and Facilities

Because of a lack of capital development funding, the university will need to focus on more shared-use facilities. Buildings will need to be designed and sited to accommodate expanded activity that occurs not only during the class hour day but into the evenings and weekends as well.

Assumptions for Planning Purposes

In the early stages of this document's formulation, KU administrators made the following assumptions and commitments.

- 1** — KU will work to ensure that the students who study here have appropriate academic preparation and capabilities.
- 2** — KU will take steps to limit undergraduate enrollment increases on the Lawrence campus to no more than 10 percent of current levels by the year 2005. Enrollment elsewhere will be allowed to grow in accordance with resource availability.
- 3** — The student body will be characterized by greater diversity in age, career objectives, ethnic origin, and instructional-delivery needs. KU will offer more evening and weekend course work to accommodate student needs.
- 4** — KU will rely more heavily than in the past on information technology for instruction and research and will budget for this.
- 5** — In the next 20 years, the state's Educational Building Fund will focus on renovation of existing buildings. If capital outlays are proposed, the proposing unit will help identify possible funding sources.
- 6** — Instructional programs will have priority on the core campus; research and support programs will, when appropriate, be consolidated on west campus.
- 7** — Increased technology-transfer efforts will require business-incubator space on west campus and/or the Edwards campus in Overland Park.
- 8** — KU academic, research, and service programs will expand. To support this expansion KU must develop a long-range plan for land acquisition.
- 9** — Additional child-care services will be required to meet expanding child-care needs.
- 10** — An increasingly crowded campus will make the closing or conversion of Jayhawk Boulevard important to any planning effort.
- 11** — KU will likely be more involved in graduate instruction in Topeka.
- 12** — Federal and state requirements will create a stronger focus on safety, environmental, and access issues.
- 13** — Only concerted efforts will ensure the campus' beauty and traditional features as time, weather, and expansion take their toll.

Budig Hall is a good example of a structure designed in anticipation of more extended and intensive use than was true of facilities designed in the past. Its seating capacity during any single class hour is 2,000 students. Such large, shared-use facilities won't simply affect the ratio of built space to open space on campus. They will have to be designed for heavier pedestrian traffic during more hours in the day. They will inevitably affect the composition of the campus around them.

Historic Preservation, Campus Character, and Campus Image

In an effort to reconcile the evolution of institutional programs and changes in modes of transportation with concerns about environmental issues and about the use and preservation of buildings and open space on the campus, KU should consult with the campus community as early as possible as it plans significant changes.

Site Selection

For the most part, facility siting should promote proximity between academic units and their associated support units—the notion of adjacency. But because of factors influencing the delivery of education, unforeseen innovations will occur in academic programs and their support services. These innovations will dictate new patterns of site selection that may not conform with the older notions of adjacency.

Shared-use facilities will inevitably affect the composition of the campus around them.

Building Environment, Health, and Safety

All university planning for buildings and building sites must take into account the use of energy for heating, cooling, and lighting; effects on the air, water, and soil; and the opportunity to reduce or reuse wastes. In general, such planning should promote the well-being of the environment and the health and safety of people on the campus and in the community.

KU/Lawrence Relationships

The relationship of the university to the surrounding community was the focus of this group. Community access to and use of the campus was one area of concern. Another was the maintenance of consistent lines of communication between city government and KU.

Student, Faculty, and Staff Accessibility

Students, faculty, and staff should have moderately convenient access to areas they use, including the provision of parking space. Any lots constructed to create access to the top of the hill should be compatible with existing architecture. Improved access to parking, better traffic flow, and pedestrian safety are high priorities.

The campus should be safe and accessible day and night to students, faculty and staff.

Pedestrian Accessibility

The campus should be safe and accessible day and night to students, faculty, and staff. Cooperative efforts with the city to improve streets, sidewalks, and lighting in neighborhoods leading to the university should be encouraged.

Neighborhoods

Nearly all issues involving university land use affect the city and the neighborhoods around the university. Continual cooperation and communication with city planners and representatives of neighborhood groups should be the rule. The protection and preservation of surrounding neighborhoods is in KU's interest.

Natural areas exist on west campus for biking and jogging trails, and these should be retained.

Open Space

Open areas for recreation and leisure that create a park-like environment should be maintained and enhanced for the benefit of the entire community.

West Campus Development

The development of west campus should enhance the university's physical image. Natural areas exist for biking and jogging trails and should be retained. The current practice of siting low-cost facilities in highly visible locations should be discouraged.

Property Acquisition

Areas adjacent to campus that could serve the academic mission in the future should be identified and a plan for acquisition encouraged.

Student Needs

Student input into any planning effort is essential. The subcommittee decided to elicit as much input from students as possible. The subcommittee assessed existing facilities and services and conducted a structured survey of students, faculty, and staff as a basis for formulating a set of goals and recommendations.

Focus groups were convened. Meetings with student-service professionals were held to ask their long-range plans. The following issues were addressed: classroom learning, studying, recreation, eating, entertainment, meeting with other students, on- and off-campus housing, health services, hours of offices and programs serving student needs, and parking. The following recommendations and objectives emerged.

Student Housing

KU has an investment to maintain and a need for an initiative to develop additional high-quality housing other than traditional dormitories. The steps that KU takes should provide suitable and affordable accommodations for a more diverse student body in the coming century.

Quality of the Campus Environment

Guidelines for the quality and quantity of open and green space need to be established. Spaces already in existence need to be retained, and recreation areas need to be developed.

Campus Access, Convenience, and Safety

KU should distinguish between structures that require public access and are committed to general classroom operations and those in which more restricted activities, such as research, occur. The issue of safety is one that requires consideration of the entire campus and of surrounding neighborhoods.

Student Recreation Facilities and Spaces

The university should address the need for more and varied formal and informal spaces and facilities to accommodate the recreational interests of a diverse and growing student population.

Student Meeting, Study, and Office Areas

Formal and informal study and meeting spaces, as well as graduate student office space, need to be distributed equitably across campus. The amount of space should be minimized while its effective use is maximized.

Other Services

Services that support the class-hour day should be expanded or reconfigured to reflect changes in demand, demographics, student needs, and ideas of convenience and service. In general, on-campus services should be thoughtfully sited and accessible. In designing these services, KU also should consider their relationship to the class-hour day.

Transportation

Developing an access plan for KU in 1997 is a different matter from the same task faced by the planners of 1973. At that time, enrollment was projected to reach a maximum of 18,000. Today, enrollment exceeds 24,000 students, and the campus faces the likelihood of extending its hours of operation on the weekdays and into the weekends. Even with a projection of modest growth, these factors are likely to complicate the issue of campus access: an increasingly diverse group of users, commuting students, and visitors, along with the demands of special events.

Addressing the issues of transportation and access are crucial to KU's efficient functioning. Solutions to long-standing problems must take into account the location of the campus in the community. Problems of access are complicated by topography and by the existence of two campuses, main and west.

This subcommittee benefited from the advice of an outside consultant experienced in campus transportation planning, BRW Inc., Minneapolis, Minnesota.

An access plan drawn up in 1997 will necessarily differ from that devised in 1973, when enrollment was projected to reach a maximum of 18,000 to 20,000.

Campus Access

A well-coordinated system of access to campus needs to be developed and implemented. The present access model focuses on getting cars to campus and across campus, as well as providing parking. This model is costly in financial and aesthetic/environmental terms.

Streets

The street system, little improved in two decades, will be the major provider of campus access. Near-term and long-term improvements that assure a safe, efficient street network are necessary. Major corridors of automobile access should be coordinated with major parking facilities. Where possible, investment in streets should accommodate alternate forms of transportation, such as bus or bike lanes. This may require funding and coordinated efforts by various state, university, and municipal bodies.

Pedestrians on Campus

A growing campus population makes the achievement of a safe mix of auto, bus, bike, and pedestrian traffic more difficult. Pedestrian access to and use of campus should be promoted by providing safe and efficient routes to and from facilities.

Where alternatives to the use of private automobiles has been implemented, success has been limited largely by the investment that has been made.

Alternate Transportation

Where alternatives to the use of private automobiles have been implemented—KU on Wheels, the student bus service, for example—success has been limited largely by the investment that has been made. Providing alternatives to the use of cars or the necessity of inconvenient walks will protect the campus environment; these alternatives deserve to be promoted. There is also a need to provide incentives that promote ride-sharing.

Bicycles

Bicycles are most often used by people under 35; thus, the bicycle commute with the heaviest volume in Lawrence is to and from the KU campus. Encouraging the use of bicycles on campus may be as simple as providing adequate bicycle lanes, routes, lockers, and so on.

Conveyances of Convenience

Elevators, escalators, moving sidewalks, and other “people movers” ease travel over long distances or up steep slopes. Providing such conveyances at strategic locations is a necessity.

KU will engineer a transportation system whose components include bicycles, buses, shuttles, and single-occupancy vehicles.

Special Events

Because of the location of major sporting and recreational facilities and the traffic they engender at the time of their use, cooperation between the campus and the city will be an ongoing necessity during special events. Such cooperation will help to assure safe use of pedestrian and vehicle routes.

Environmental Issues

The definition of “environmental issues” varies from person to person. For one, the preservation of beauty is important; for another, health and safety; for still another, both. The work of this subcommittee focused on the idea that physical development planning should steer the campus away from potentially negative environmental or health and safety impacts.

General Conditions of Campus Planning

KU needs to make environmental impact an important consideration in campus planning and decision-making. Proactive measures to reduce negative impacts are the most cost-effective means of lessening environmental degradation and potential liability. A KU environmental policy statement giving assurance that impacts are considered would be a good first step.

Transportation

KU will provide a transportation system that includes bicycles, buses, shuttles, and single-occupancy vehicles. A non-automotive transit system will lower construction and maintenance costs, reduce negative environmental impacts, increase pedestrian safety, and improve air quality.

Parking

KU will provide parking that takes heed of the environment. For example, a parking lot shaded by plantings in accordance with established formulas of landscape design reduces heat that radiates from the lot surface and saves utility costs in nearby buildings. Because land is a finite and valuable commodity, when it is used for parking lots, those lots should be constructed with several factors in mind: their accessibility, their potential for service not only to present buildings but to future ones, and their anticipated users.

Open and Green Space

KU will develop and maintain unpaved open and green space. It will seek to minimize the effect of the built environment on these spaces. Green space improves campus views and vistas and preserves and enhances the campus climate.

Building Sites

KU will need to site buildings so as to use financial and infrastructure resources efficiently and to lessen the university’s environmental impact on areas surrounding the university. When possible, buildings should be clustered around shared points of access and parking, thereby consolidating bus stops and making pedestrian movement to and among buildings convenient. Through effective siting, KU can reduce operating and maintenance costs for roads, parking facilities, utility tunnels, and other infrastructure.

Utilities

KU needs to pursue technologies and management methods that minimize use of energy and water resources. The state budgeting process should provide KU the flexibility to return a portion of energy savings to individual units that conserve. This would reward reduced utility use.

Buildings should be clustered so that bus stops can be consolidated and pedestrian movement to and among buildings made convenient.

Campus Environment and Community Health and Safety

All KU-related facilities, activities, and programs should be designed, conducted, and operated in a manner that promotes and protects human health and safety.

Campus Utilities and Infrastructure

Various utility and infrastructure systems pose problems for KU. Recent studies on electrical distribution, water supply, and storm and sanitary sewers have identified the need for several significant improvement projects. This subcommittee's focus was on goals and strategies that are applicable across the campus for a variety of systems. The specific deficiencies of campus utility systems are addressed later in the plan.

Campus Utility Systems

Funds should be set aside each year for upgrades of campus utility systems. The amounts set aside should be based on estimated depreciation and future capital costs. These projects should extend out several decades.

Energy Utilization and System Efficiency

The cost of purchasing and installing energy-efficient fixtures and equipment should be covered by savings that result from decreased energy utilization. Although some of the savings will, as an incentive, be returned to units that conserve, most of the savings will be reinvested in these energy-saving measures.

Technology

The university should continue to develop and implement plans for the installation of proven energy-efficient equipment. It should also incorporate monitoring networks for utility distribution systems and building equipment.

THE ELEMENTS OF PHYSICAL DEVELOPMENT PLANNING

Land Use, Access, Image

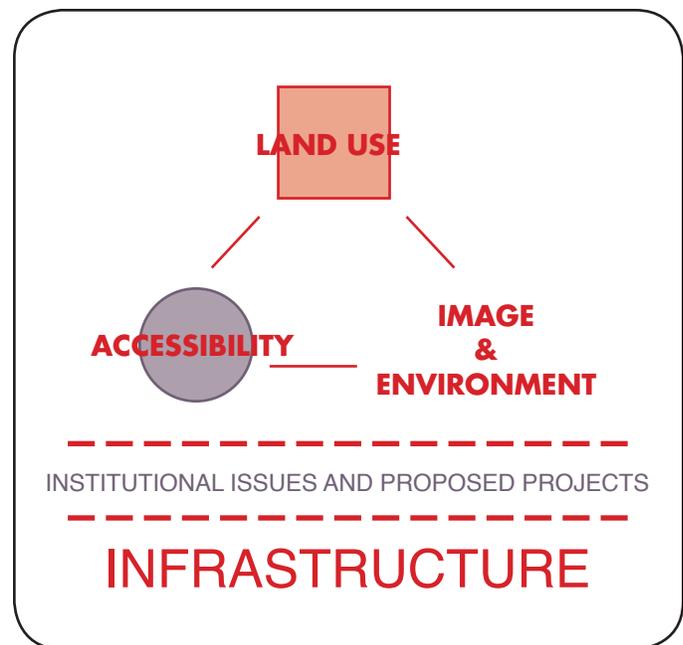
In this section we address elements of land use, access, and image. The relationship between these planning elements should be considered a conceptual model for evaluating various components and necessary investments for this campus. These elements should be considered in any institutional initiative involving the built environment. A diagram of the model is shown below.

For example, in terms of current KU land use, there are ratios among built structures, open spaces, and developed green spaces—the basic elements of a campus—that are important to our sense of place. Perhaps these ratios are comfortable because they are familiar. The composition of buildings, spaces, routes and method of travel inevitably evolves over time. The way we come and go from the campus establishes patterns. The individual’s perception that results from the quality of these experiences provides a unique image. It is very possible that we’ll lose a sense of familiarity if land use changes dramatically—for example, if space on the core campus becomes more densely occupied. In the absence of respect for patterns of land use and ways and means of access, the inherent quality of the physical image may be lost to environmental changes such as urban features of building, paving, and parking.

Yet if it is true that tradition must be respected, it is also true that the physical image of the campus must accommodate the changes that inevitably accompany a period of transition and growth. We must maintain a perspective; we must see near and far at once. We will need to meet near-term needs with near-term plans—look to the past for perspective and forward in time—and consider today’s choices in a context of generations of growth and change.

The failure to attend to each of the three basic needs—for thoughtful land use, the evolution in the model for access to and mobility on campus, and preservation of image expressed by a campus environment—can impose the necessity to make expensive remedies to achieve a balance. We can choose to effect change consciously, with a view to the long-term, and merit the approbation of future generations—or leave matters to chance and, instead, earn their opprobrium.

Development on the south slope of Mount Oread raises issues regarding how to strike a proper balance among the basic needs. The environment of the campus in this area reveals a series of functional considerations in the decision-making process. As a result of construction on sites identified in the 1973 plan, the land south of Jayhawk Boulevard has seen an increase in the ratio of built to open



Relationship of Land Use, Access and Image

space. The construction of the Anschutz Science Library and the Dole Human Development Center, along with the additions to Malott and Haworth halls, has added 500,000 gross square feet of built space to the land there—in less than 20 years, an increase of nearly 60 percent.

Higher densities, of course, can be supported. But an ideal solution requires respect for both functional *and* aesthetic concerns. In the sections that follow we explore our future options in the matters of land use, access, and image.

LAND USE

The components of the KU campus land-use model are these:

- **Open space.** This is land uncommitted at present to any university activities. West campus, owned mostly by the KU Endowment Association, falls into this category.
- **Developed green space.** This is land that has been landscaped and is crossed by pedestrian paths. The land serves the buildings adjacent to it, and activities related to those buildings. It is land whose use may change. The space around Anschutz Science Library is an example.
- **Traditional areas.** These spaces have been preserved for generations. This preservation is expected to continue. The lawn in front of Strong Hall is an example.
- **Areas for academic, research, and support facilities.** These are spaces committed to the fulfillment of KU’s academic mission. On the core campus, these spaces are committed to existing buildings and possible additions. The south slope of Mount Oread is an example.
- **Housing.** These include residence halls, apartment dwellings, and faculty duplexes.
- **Athletic facilities and fields.** These serve student intramural and instructional needs, as well as providing practice and competition facilities for NCAA sports.
- **Buildable areas.** These areas have potential for construction but are not yet dedicated to that purpose. They may be created from parcels of open or developed green space.

Land Use Factors to be considered:

- *Density of activities and the ratio of built area to open space*
- *Adjacency of campus facilities*
- *Affinity of academic disciplines*
- *Accessible routes and parking*
- *Buildable areas and future sites*
- *Possible areas of acquisition*

For a depiction of the projected land-use plans, see the “Central Campus Land Use Options” map on page B-26.

Each of these components will be considered by reference to principles, some of which are formulaic and some of which are more subjective in nature, when land-use plans are made.

1. Land atop Mount Oread is at a premium, and buildable spaces within the core campus are limited. These factors should inform decisions about land uses that would preserve convenience for individuals and accommodate activities that are central to the overall academic mission. The past twenty years have seen very few changes in the configuration of space at the top of Mount Oread as the limit in terms of density of buildings and activities has been reached in previous decades.

2. *Open space should be about three times as plentiful as built area.* There are obviously wide individual differences among various sites on campus in this regard. It is a principle to be considered over the long term for the core campus area and relates floor area to total area of developed sites.

3. *Activities that are complementary should be sited side by side; academic disciplines with affinities for each other should, where possible, be physical neighbors.* A number of functional adjacencies were established in the 1973 plan and exist today. On the other hand, activities that are not complementary, yet exist near each other, should be buffered from each other by intervening space or relocated to areas at the perimeter of the core campus, west campus or to sites off-campus.

4. *Classrooms should be near enough to each other that students on foot can move easily from one class to the next within the time allotted for class changes.* The decision to use land adjacent to Jayhawk Boulevard for classrooms, established in the 1973 plan, reflects this principle. A corollary to this principle is that academic support activities, such as libraries, study areas, and some student services, should be easily accessible.

5. *Space must be dedicated for the streets, roads, parking and sidewalks that are necessary to support any developed tract.* The main campus, because of the topography of Mount Oread and commitments already made to buildings, offers few alternatives to established right-of-ways. Changes in grade and elevation restrict the areas that can be committed to parking for automobiles.

An example of land use decisions regarding the future configuration of parking, would involve commitments to sites for surface lots, decked lots, and garages. The 1973 plan, anticipating a scarcity of land atop Mount Oread, envisioned the development of large parking areas near Memorial Stadium and Allen Field House (the lot south of Robinson Gymnasium). The idea was to provide students, faculty and staff with parking near major event centers and also within reasonable walking distance of the top of the hill. Future land use models should identify parameters for the commitment of space to parking with ready access to the hill.

The pattern of development on west campus—around the perimeter of the 400-plus acre tract—is associated with access, from streets within the tract, like Crestline and Constant avenues, to major city routes like 15th and Iowa streets. Development of buildable areas on west campus will require careful planning of streets and roads given the limitations of topography and major points of access.

6. *Marginal facilities must be removed to create building sites or open space.* The 1973 planning document identified more than twenty 1940s vintage temporary or obsolete structures. Several still exist and are in use. Examples include Bailey, Blake, Military Science, and Lindley annexes, as well as shop, storage, and administrative buildings that constitute the Department of Facilities Operations complex on the main campus. The removal of antiquated structures without replacing them with new ones could help maintain current ratios of open to built space.

7. *The university must plan for property acquisition adjacent to the main campus.* The inevitable crowding of the core campus necessitates property acquisition that will uphold the academic mission of the university. Both a policy and a plan will be required.

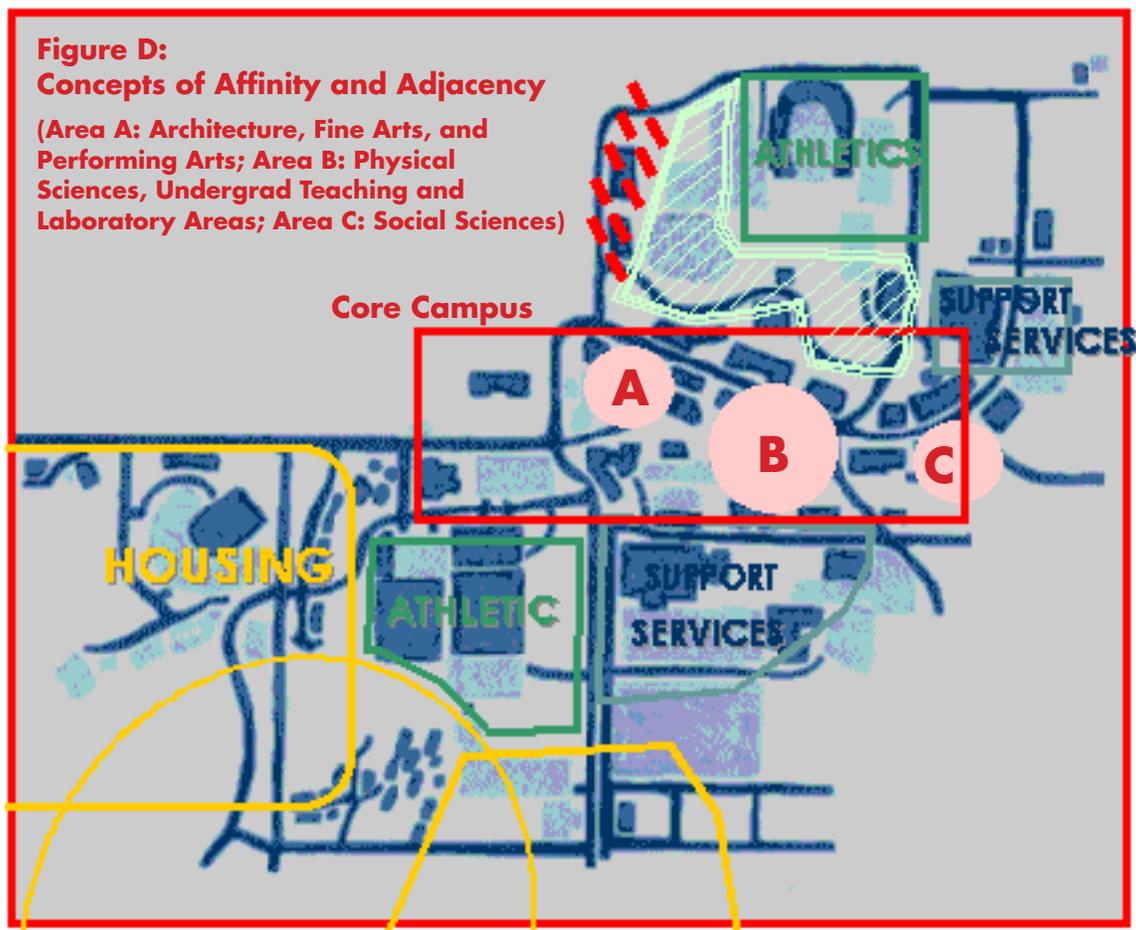
In the sections below, we apply these principles to some specific cases, citing steps that will be necessary to implement the principles and challenges that are likely to arise along the way.

Adjacencies and Affinities

The implementation of principles stated in the 1973 plan has consolidated undergraduate activities on the hill. Activities less relevant to undergraduate programs will continue to be relocated. Research, teaching, and services that aren't tied to undergraduate education will continue to be moved to the periphery of the main campus and to west campus.

There will, of course, be exceptions to this general rule. In some situations, what appear to be "mixed uses" will be sited adjacent to each other. These "mixed uses" are, in fact, compatible activities. For example, Marvin and Murphy halls, along with the Art and Design Building, house programs with strong affinities: architecture, performing arts and fine arts. Still, these buildings comprise a mix of classroom space, laboratory, and performance areas. The land use patterns around these buildings are similarly varied—the courtyard next to Murphy Hall, for example, or the space dedicated to use by architecture students for producing small-scale constructions behind Marvin. By contrast, Blake, Fraser, and Watson Library are more homogeneous in activities and the spaces adjacent to them. Concepts of affinity and adjacency are shown in Figure D.

There are clearly areas that could be put to better use considering the academic function of the main campus. One such area would be the southeast sector, where facilities-operations support activities occupy buildable sites for future academic facilities.



Campus Density

Buildable sites on the main campus are few. A competing need is that for open space and green space. Thus, past building practices are facing a challenge. The challenge is evident on the south face of Mount Oread, where the amount of built space compared with open space doesn't provide for the kind of landscape that has traditionally characterized KU. In some places—such as around Malott, Haworth, and Dole—there is little open space and virtually no high-quality green space. Preservation of open and green space must become an important variable in discussions about campus density.



Aerial photo of main campus looking north on Naismith Boulevard, 1995

Open and Green Space

These include a number of traditional areas and open and developed green spaces that provide visual relief from the built environment. They also supplement the built environment in such forms as lawns, malls, courtyards, pedestrian corridors, and special landscaping.

We have made the following designations of green space and related areas of open space and landscape elements: traditional areas as found in areas with notable characteristics and boundaries, like the lawns in front of Strong Hall, Watson Library and Allen Fieldhouse; existing significant green-space, such as areas around Potters Lake and Marvin Grove; openspace features, referring to those places on campus that are associated with the adjacent architecture or are necessary to preserve views and vistas, such as the open areas along Jayhawk Boulevard or the area in front of Lindley hall.

We have also designated areas east of Robinson Gymnasium as academic/recreation open space and have identified two areas of future significant greenspace proposed on the south slope of the hill. Finally we have included the need for streetscape elements, the enhancement of new and proposed pedestrian routes, and planting and/or buffers as related concerns. There is a need to establish these sites on west campus and to maintain and preserve them on the main campus. Schematic review of open space is shown for central campus and incorporated in land use plans for west campus.

Reference Central Campus Landscape Features map on page B-27.

Central Versus West Campus Development

Investment in a substantial tract of land west of Iowa Street in the 1950s gives the campus options for expansion without acquisition, in instances where that expansion accords with west campus land uses as proposed in this document. This area was substantially developed in the last 20 years but still contains room for growth. The total square footage of west campus buildings has doubled in the last two decades, to nearly 500,000 gross square feet. The possibility of constructing more than 200,000 additional square feet is being considered. West campus development will require a commitment to good management, but this campus offers options and flexibility that the main campus does not.

Experience over the last 20 years has shown that to use west campus for academic activities requires an effective transportation system between the campuses. Development of such a system is included in the transportation section of this report.



Aerial photo of West Campus looking east down 15th Street

This land resource, largely owned by the Endowment Association, is not an unlimited one. Recreation and scenic open spaces should be preserved. In some places, an unbuildable topography that includes steep grades and flood plains will limit development and should be preserved as open and green space. Views and vistas, if carefully developed, have the potential to be as arresting as any on the main campus.

On both campuses, great care must be taken to site structures so that related open spaces are well-designed and useful, not the product of happenstance or of poor site design. Sites proposed in this plan as buildable have been chosen to take advantage of topography, be accessible given anticipated roadway design, preserve pedestrian corridors, and complement views. The sites proposed are not intended as restrictive footprints of future development. The fact is that every building site comes with a variety of site-specific development requirements, such as parking, access, drainage, and retention of storm water, as well as necessary ties to utility and infrastructure systems. All of these may force modifications in plans.

The total square footage of west campus buildings has doubled in two decades.

Above all, future development should recognize the functional requirements imposed by the academic mission; respect the principle of siting side by side those programs and activities that have natural affinities with each other; and effect smooth vehicular and pedestrian movements between the campuses, both day-to-day and during special activities.

Reference West Campus Zoning Map on page B-28.

Land-use Principles

Land-use principles are the basis for decisions that relate functional needs to possible sites for campus activities. Land-use patterns evolve slowly, defining and redefining the campus environment. To alter these patterns is difficult and expensive. Here are some considerations and principles that accompany the wise use of land.

- *The options for developing main and west campus in order to meet present and future institutional uses are limited.* The dedication of lands to significant structures places constraints on the future. This means that choices should reflect a perspective that encompasses decades.
- *Instructional and research activities have priority in laying claim to buildable sites.* Space on the main campus is limited, so non-instructional and non-research activities may have to be relocated.
- *Open space and green space have traditionally been significant features of the campus and should remain so.* Lawns, plazas, green and garden spaces need to be identified, developed, and defended from conversion to occupied space.
- *Campus topography makes views and vistas an important part of the environment.* These assets should be protected.

- *Campus housing is important to a sense of community.* Any plans for future housing development need to be linked to plans for property acquisition.
- *Student intramural and recreation fields, auxiliary and support enterprises, and parking support the institutional mission but aren't central to it.* In the future, it will be important to determine whether these enterprises are contiguous to the main campus or sited elsewhere.

Land Use Planning for Parking

To manage parking resources requires assigning values to land on which lots or structures might be built. The value of land for parking purposes must be assessed by reference to a competing demand: for building sites and for open and green space. Charges for parking must be set by reference to the value of land on which the parking is sited and the cost of the parking accommodation that is built on that site. Therefore, in assessing proposed parking sites, it is important to establish how much individuals are willing to pay for convenient access to their workplaces from those sites.

The challenge for siting lots or structures is twofold. One challenge is the creation of a parking management system that can handle a more complicated parking scheme than currently exists. It must develop criteria for allocating and pricing parking spaces within walking distance of a user's destination and also provide low-cost, remote parking with ready access to campus-bound public transportation.

The value of land for parking must be assessed by reference to competing demands.

The second challenge is to provide these parking options within a framework of careful consideration about their impact on the campus environment and land-use patterns, accessibility to major vehicular routes, integration of transit options, and access to safe pedestrian routes. The solution to these problems is as dependent on thoughtful parking management as on the availability of land.

A long-term strategy is to reduce the pressure on valuable land sites for use as parking.

Near-campus Neighborhoods

There are four distinguishable neighborhoods adjacent to the main campus. The four neighborhoods, which will affect and be affected by the main campus, are the Oread neighborhood to the east and north, the University Place and Centennial neighborhoods to the south, and the West Hills neighborhood to the west. Each has its own place in Lawrence's history, its own size and configuration of lots, and its own way of giving access to vehicles and accommodating pedestrians.

The Oread neighborhood has been a residential area for KU faculty and staff from the earliest days of the university. More recently, conversion of residences and construction of high-density, multi-family units has provided housing for students. The use of neighborhood streets by outsiders for near-campus parking poses ongoing problems. The situation is complicated by the fact that few homes have front driveways, and off-street parking tends to be accessible only via alleyways. The implied boundary for university growth on the east is midway down the hill; an alleyway that runs parallel to Ohio and Louisiana streets, and halfway between those streets, marks the boundary. Amini Scholarship Hall, which is sited along this boundary, respects the residential neighborhood.

University Place is an established neighborhood that serves both long-time residents and renters. Buffering this neighborhood from the university are well-landscaped surface parking and open spaces, in the form of intramural fields. Any development on this flank of the university would require the addition of significant and well-established landscape elements.

Also to the south, Centennial is a neighborhood largely occupied by long-time residents and some renters. It is separated from the campus by a major city thoroughfare, 19th Street. Recent development of the athletic fields and facilities adjacent to 19th and west of Naismith has produced additional activity at the boundary between university lands and the neighborhood.

West Hills neighborhood abuts the main campus along West Campus Road. It is a residential area that shares the ridge of Mount Oread and is readily accessible from campus. As well, it provides sites for a number of fraternity and sorority houses and, more recently, higher-density apartment development at its northern edge. Patterns of access lead to concerns regarding traffic and parking.

The west campus shares a boundary with a neighborhood that has grown up on its southwest edge. As of this writing, the neighborhood has, from time to time, reviewed concerns regarding the development in and around their area but is only loosely organized. It benefits by its siting next to undeveloped areas on west campus. Its lots abut large areas of open space and native Kansas landscape—amenities found in few places within the city limits. It will be necessary to establish significant landscape features and open-space buffers where the university and neighborhood share a boundary.

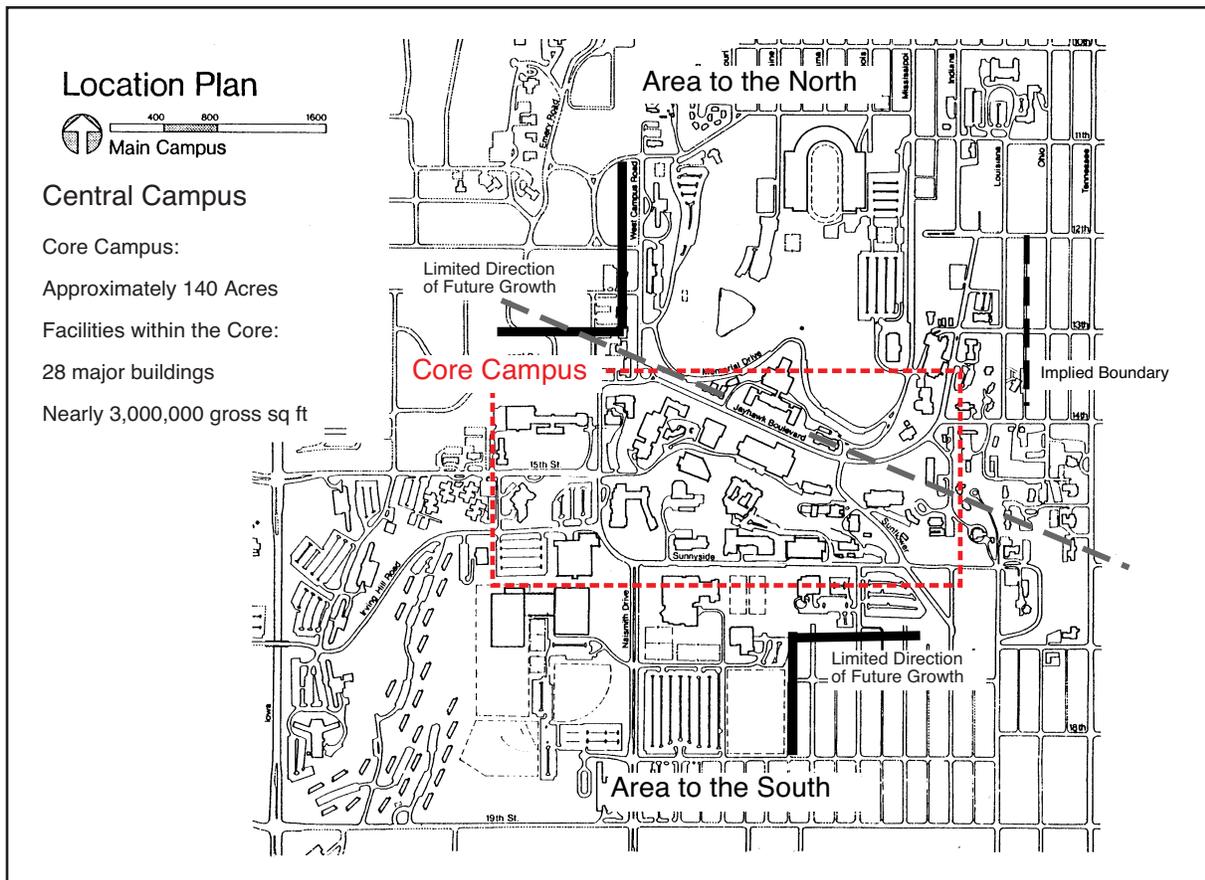


Diagram of established campus boundaries and perimeter

The neighborhoods adjacent to the central campus have experienced both the benefit of being next to a stable, high-quality campus and the downside of high volumes of traffic and parking problems. They've also experienced the destabilization that results from high demand for housing. KU-city planning ventures must include concerns of neighborhood. It's in the best interests of both the university and the neighborhood organizations to define plans clearly and address shared potential concerns for the future. Cooperation between these groups will need to be ongoing.

Property Acquisition

All private properties adjacent to the campus should be respected and protected as much as possible. It is in the interests of both KU and adjacent neighborhoods to establish well-defined boundaries and buffers. Property should not be purchased solely because it is available. Land should be acquired when such acquisition is necessary for the fulfillment of the academic mission.

These factors should inform discussions about possible acquisitions:

- The need for sound structures that will fulfill specific needs
- The need for new facilities and associated parking and service space
- The improvement of traffic flow on the perimeter of the campus and the need for large parking facilities
- The consolidation of scattered properties on the perimeter of the campus
- The acquisition of spaces that are not adjacent to the main or west campus for uses that have no affinity with existing activities on main or west campus

LAND USE OPTIONS

Central Campus: Areas of Campus Expansion

Summary of condition/criteria for areas selected: The seven areas described below are depicted on the attached land use map for central campus on page B-26. These are areas to be considered as options for expansion of academic and support activities. Each has unique characteristics related to the present use, topography, potential for change, etc. Few are without significant concerns requiring the staging of a series of improvements to accommodate future projected use.

Areas shown in red are proposed for possible academic expansion.

The area shown in blue is proposed Services/Auxiliary Enterprise expansion.

Area 1: Southeast Academic Core

- *This is a primary expansion area for activities with direct ties to the core campus.*
- Site development may require removal of marginal facilities such as Blake Annex or small footprint facilities such as Watkins Home.
- Development of sites for academic activities requires relocation of Facilities Operations shops, storage, and eventually administration, probably to West Campus.
- Relocation of infrastructure may be needed. Further study may also determine that refitting or reconfiguring of steam distribution and other utility infrastructure in this area may be possible.
- The significance of Prairie Acre as a traditional landscape feature needs to be evaluated.

Area 2: Northwest Area—West Campus Road and 11th Street

- *This area will undergo significant transformation in terms of activity given the conversion from residential to academic use with the near-term plans for renovation of Joseph R. Pearson Hall for the School of Education and future sites for academic facilities.*
- By being on the hill, the east slope overlooking Memorial stadium provides additional building sites contiguous to significant open and green space areas of central campus. Potential development of this area should be evaluated by considering the principles for locating activities not focused solely on the undergraduate academic day outside of the core campus but within proximity to the central campus.
- The subsurface geology of this east facing slope will need to be evaluated to determine the limitation of specific sites.
- Expansion on the southern end of the east slope is limited by preservation of the greenspace and openspace around Potter's Lake.

- The distance from the core campus points to the need to accommodate the movement of students, faculty, and staff to and from areas south of Jayhawk Boulevard.
- The proximity of this area to the West Hills neighborhood may be problematic. This may be viewed by those living adjacent to the campus as a significant change in the pattern of campus use of land adjacent to the neighborhood given the potential, over the long term, for significant growth.

Area 3: Northeast Campus/Oread Avenue

- *This area is a historic campus entry where public access to the campus is integrated with academic activities.* This area has long been a traditional entry to the campus, but development of the last twenty years continued to move the center of class day activity further south and west.
- This area contains the last few buildable sites for any type of facility on the hill adjacent to Oread Avenue and Jayhawk Boulevard. Sites committed to future development will need to be preserved.
- Given a change in grade from Oread to Mississippi Street of more than sixty feet, the topography in this area is a significant limitation when considering the future use of the land. Manageable pedestrian connections are critical and require integrating grade changes with built solutions.
- Future building in this area includes areas for Union expansion, proposed Alumni Center expansion, proposed site for Continuing Education, and a proposal for a parking structure.
- A solution for integrating parking and the movement of pedestrians may be necessary. For example, it would be possible to construct a significant northwest entry to the Union from Mississippi Street with a crossover connection to a large structured parking area in the vicinity of the stadium.
- Oread Avenue should be considered limited in the capacity to carry increased traffic.
- Additional acquisition of property is ongoing in this area.

Area 4: South Campus/Naismith Corridor

- *This area encompasses space important to academic programs using outside facilities such as tennis courts and intramural fields. Most of these areas will need to be maintained as long as academic activities take place in Robinson Gymnasium.* See Open and Green Space Map, page B-27.
- This area may provide sites for limited development contiguous to the academic core.
- Areas of existing surface parking provides a potential site with good access from a major campus entry to additional high density parking.
- The major pedestrian route east of Robinson Gymnasium is a significant feature connecting the core campus to areas to the south. This route should be reinforced in planning for site development in this area.

- The proximity to the University Place neighborhood will require the creation of a significant border/buffer. This improvement would be initiated as part of a comprehensive campus landscape project.
- Connection of the campus to the south provides access to 19th Street, a major thru-city route, and major campus entry.

Area 5: Memorial Stadium Renovation

- *The stadium and surrounding area will be part of a renovation of facilities for Athletic and special events.* The support areas under the stadium that are not specifically tied to special events will need to be accommodated near term but will migrate to other on- and off-campus locations in the longer term.

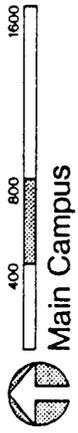
Area 6: Central campus areas for Athletics

- If coordinated with planning to accommodate the needs of intercollegiate athletics, this area may be considered as potential space for additional central campus growth for a variety of activities beyond the next 20 years.

Area 7: Irving Hill Road Development

- *This area is critical to the long term development pattern which ties central campus to west campus. It should be viewed as a development corridor for activities which will be shared between these two areas of campus.*
- The most immediate development should establish a right-of-way to support additional lanes of traffic and pedestrian routes. This will mean providing a roadway designed to support increased use of Irving Hill Road.
- Longer term development of buildable sites adjacent to Irving Hill Road may require removal of those structures in Stauffer Place which are both adjacent to the roadway and have not undergone significant renovation.
- An increase in the numbers of people and vehicles moving between the areas of central and west campus is expected in the near term with the completion of Crestline Drive on west campus. The longer term implications of a campus circulation system, as recommended in a plan for campus access in the following section, may warrant development of additional lanes which would span Iowa Street.

Location Plan



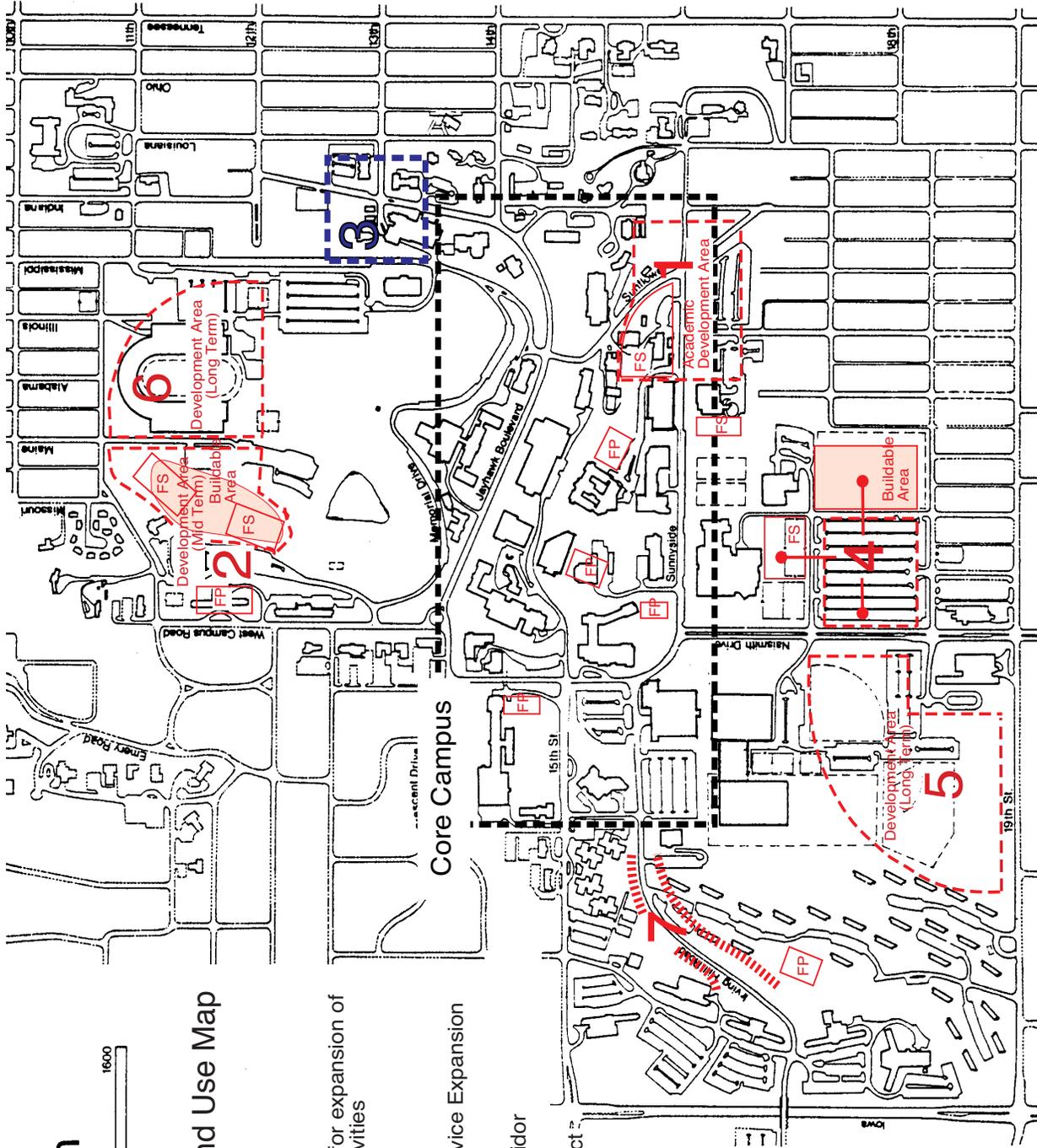
Central Campus Land Use Map

Land Use Options

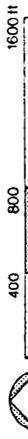
-  Areas considered for expansion of Core Campus Activities
-  Buildable Areas
-  Area of Public Service Expansion
-  Development Corridor

FP - Proposed Future Project

FS - Possible Future Site



Location Plan



Campus West

West Campus

Schematic Development Plan

-  Academic Development Area
-  Proposed Access Routes
-  Proposed Bike Routes
-  Landscape Buffers
-  Building Sites/Areas
-  Recreation/Playfield Area
-  Proposed Projects
-  Institutional Support
-  Open/Green Space
-  Flood Plain/Steep Topography
-  Water Feature/Pond



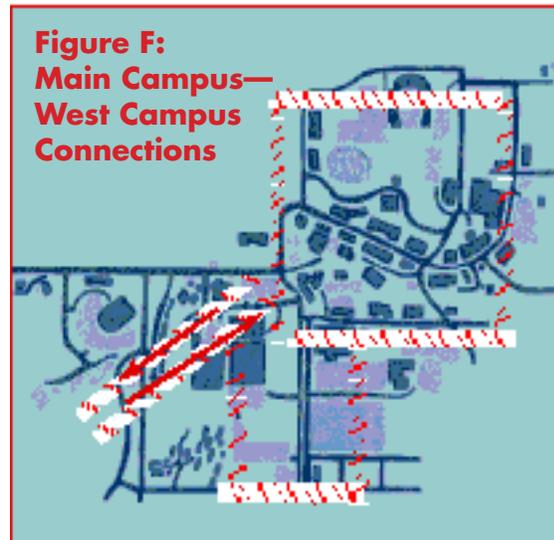
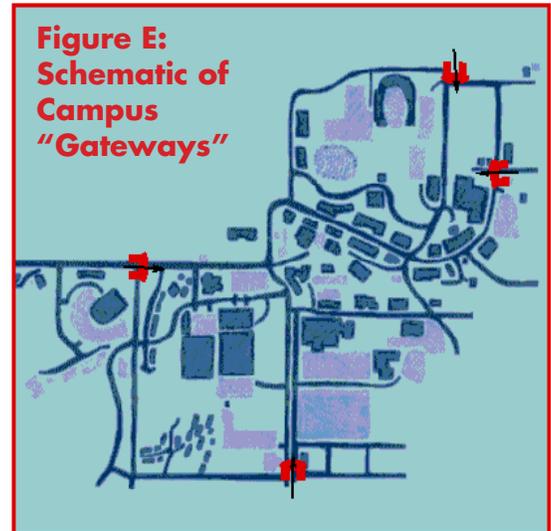
ACCESSIBILITY

Transportation and Campus Mobility

A university must be accessible to the individuals who teach, learn, study, and work there. A network of transportation and traffic circulation systems must provide good mobility to, from, and on campus for students, faculty, staff, and visitors. Planning for access, mobility, and transportation is more than the identification and resolution of traffic problems. It must take into account such factors as topography, human demands for convenience and accommodation, mandated requirements, and environmental impact.

The traditional campus design furnishes a high-quality experience for pedestrians. The expansion of campus activities during the academic day has created long trips across the main campus and between the two campuses. It has become more difficult to cross the main campus within the period of a class change. This plan reviews multimodal systems to transport people to and across campus. It takes into account automobiles, buses, bikes, and pedestrians.

Existing and planned land use will significantly affect any circulation network. Thus, the land-use principles developed in the previous section are integrated into the conceptual model of campus accessibility discussed hereafter.



Movement of people and vehicles to campus and mobility on campus has become more complex with the growth of Lawrence and an increasing number of campus activities. The need to accommodate heavy traffic volume well into the evening has significant implications for the physical design of campus. Underlying the practical concerns of roadway design, parking, and pedestrian routes are the issues of convenience and accessibility. Finally, topography imposes a long-term challenge to the provision of access to and across Mount Oread.

Campus and city traffic-circulation systems are complex and intertwined. The campus hinders development of potential cross-city routes. Roadways like 15th,

19th, Iowa, and Naismith provide access to the perimeter of the campus and deliver drivers to major campus entries. The most significant road in Lawrence, Iowa Street (or U.S. Highway 59), divides the campus. It is important that a circulation system for the campus be compatible and coordinated

with the circulation system of the surrounding community. Working in tandem with the city on planning and implementation of roadway- and intersection-design projects will be necessary. There are difficult and costly problems to be solved over the long term.

Present practices will have to change. Investment in cost-effective alternative systems for moving people may be warranted, and new strategies for management and financing may need to be pursued.

Principles for Transportation Planning

- *The ability to move significant numbers of people on a daily basis is part of the solution to the problems of campus growth and density.*
- *The development of systems of transportation and campus access are evolutionary.*
- *Effective multi-modal transportation solutions are based on established priority and policy decisions.*
- *The important feature of the campus is the quality of the pedestrian experience. It is integral with the image and environment created by the physical features of this traditionally rich and distinctive campus.*
- *Future campus transportation planning will involve a closer coordination with city traffic planning professionals.*

THE TRANSPORTATION PLAN

Developing Multimodal Transportation Systems

Typically, there are more than 60,000 vehicle trips to and from campus each day. Two routes carry about half that traffic: Naismith Drive handles about 16,000 trips; 15th Street, about 14,000. Mississippi Street, with 6,000 trips per day, and 11th Street, with 4,000, are other major routes. Ten other routes in and out of the campus carry the rest.

A long-term transportation plan has to address campus access and mobility needs. It must support land-use models and institutional concerns regarding image and environment. The goal of multimodal transportation planning is the integration of various transportation systems to promote efficient campus access and mobility.

A transportation planning consultant, BRW, Inc., of Minneapolis, Minn., and the KU standing transportation committee, including members of the Physical Development Planning Task Force, have conducted a review of campus access systems. The review makes recommendations concerning automobiles, buses, bikes, and pedestrians.

The review paid particular attention to the movement of people rather than personal vehicles. The KU campus is oriented to pedestrians; thus, the transportation plan makes recommendations to improve and encourage pedestrian circulation. The plan takes into account the unique physical features of the KU campus; it makes accommodations for the differing abilities of individuals to cope with a challenging terrain. Finally, anticipating modest physical and enrollment growth at KU, the plan recommends an expanded role for a campus transit system.

Some of the principles and objectives that inform the plan follow:

- *The need to address pedestrian/vehicle conflicts is a priority.* With Budig Hall open, congestion on and adjacent to Jayhawk Boulevard at that site is a concern. Similar problems now exist on the southern edge of campus, along Sunnyside Avenue.
- *The accommodation of traffic to, from, and across campus will require physical changes to the configuration of roads and intersections.* The required investment needs to be part of a long-term plan.
- *KU will need to expand efforts to manage traffic problems caused by vehicles that cross campus without a campus destination.* For example, many drivers now use Sunnyside Avenue as a cross-city route, causing vehicle-pedestrian conflicts at a major crossing for individuals headed to and from campus.
- *Safety concerns as well as accessibility concerns should inform the management of vehicle access to campus.*
- *A bigger campus requires increased transit offerings to abet the movement of students, faculty, and staff.*

- *Moving people to and from remote parking areas is likely to be an increasingly important part of any access/mobility planning.*
- *A successful campus transit system will deliver people to the top of the hill efficiently, dependably and comfortably.* Features of such a system will include a combination of bus and shuttle service; accommodation for visitors to campus; high-quality waiting areas; and links to the pedestrian features of the campus.



Proposal for Jayhawk Boulevard

- *Effective and pleasing pedestrian routes are dependent on many variables, including widths, relationship to building entry, and the quality of the environment adjacent to the routes.* As the destinations of pedestrian trips change, these routes will be reconfigured.
- *Successful development of a bike-route system will require cooperation between KU and the city of Lawrence.* The campus is a primary destination for bike traffic in Lawrence.
- *Jayhawk Boulevard will continue to be central to KU's image.* The use of a street as a traditional element on a campus is unique despite the problems associated with vehicles. To make significant changes in the configuration or to abandon it as a through route would significantly alter the character of the heart of the campus. Balancing the need for safety and movement of people is central to proposals for enhancement of this campus feature.

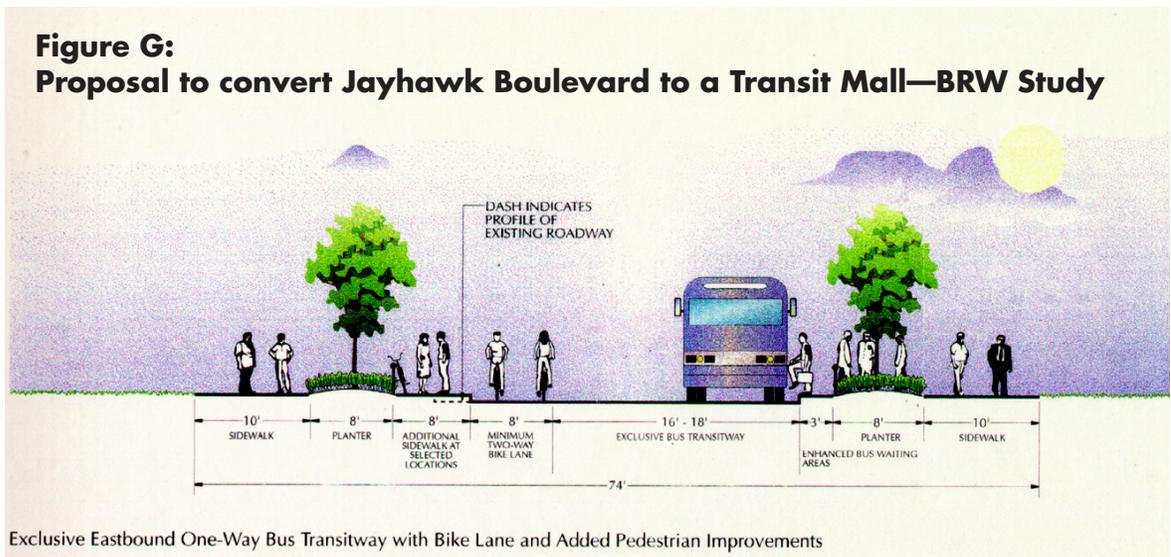
The recommended treatment of Jayhawk Boulevard is shown in Figure G. Under this proposal Jayhawk Boulevard would be a one-way eastbound exclusive transitway during the academic week. The only vehicles allowed on Jayhawk would be buses, service and emergency vehicles. The roadway would be 16 to 18 feet wide which would allow a vehicle to pull around a bus stopped at the curb. The excess right of way would be used to provide an 8-foot exclusive bike path along the north side of the road. With one-way transit operations, bus movements would not conflict with the bike lanes.

Additional excess right-of-way (6 to 8 feet) would be available to widen pedestrian space and could be used for walkways or enhanced bus waiting areas. The proposed one-way transit operations would extend from the Chi Omega fountain on the west to Bailey Hall on the east. Jayhawk/Oread Avenue north of the intersection with Mississippi/Sunflower Street would operate as a two-way street with access control at Oread and 13th. Visitor access to the Alumni Center, the Union, Dyche Hall and Spooner Hall would still be possible.

This alternative for Jayhawk Boulevard is recommended because it:

- Provides direct transit access to the heart of the campus
- Provides additional pedestrian circulation space

- Provides a dedicated bike path with reduced potential for bike/vehicle conflicts
- Reduces the number of vehicles on Jayhawk Boulevard
- Reduces the number of buses on Jayhawk Boulevard



A History of Parking

In 1866, KU faculty, staff, and students were pedestrians, horseback riders, and drivers of horse-drawn vehicles. Mount Oread had been chosen as the site for KU because of its prominence and its magnificent views, considerations that, at the time, ranked above issues of accessibility posed by a difficult terrain.

In the 1880s, streetcar tracks that had served the downtown since 1871 were extended south along Tennessee Street to 17th; the extension gave students service to the foot of the hill at 14th Street. Downtown Lawrence secured “modern” streetcar service in fall 1909. This service was extended to the top of Mount Oread by 1910. In fall 1933, buses replaced the streetcars.

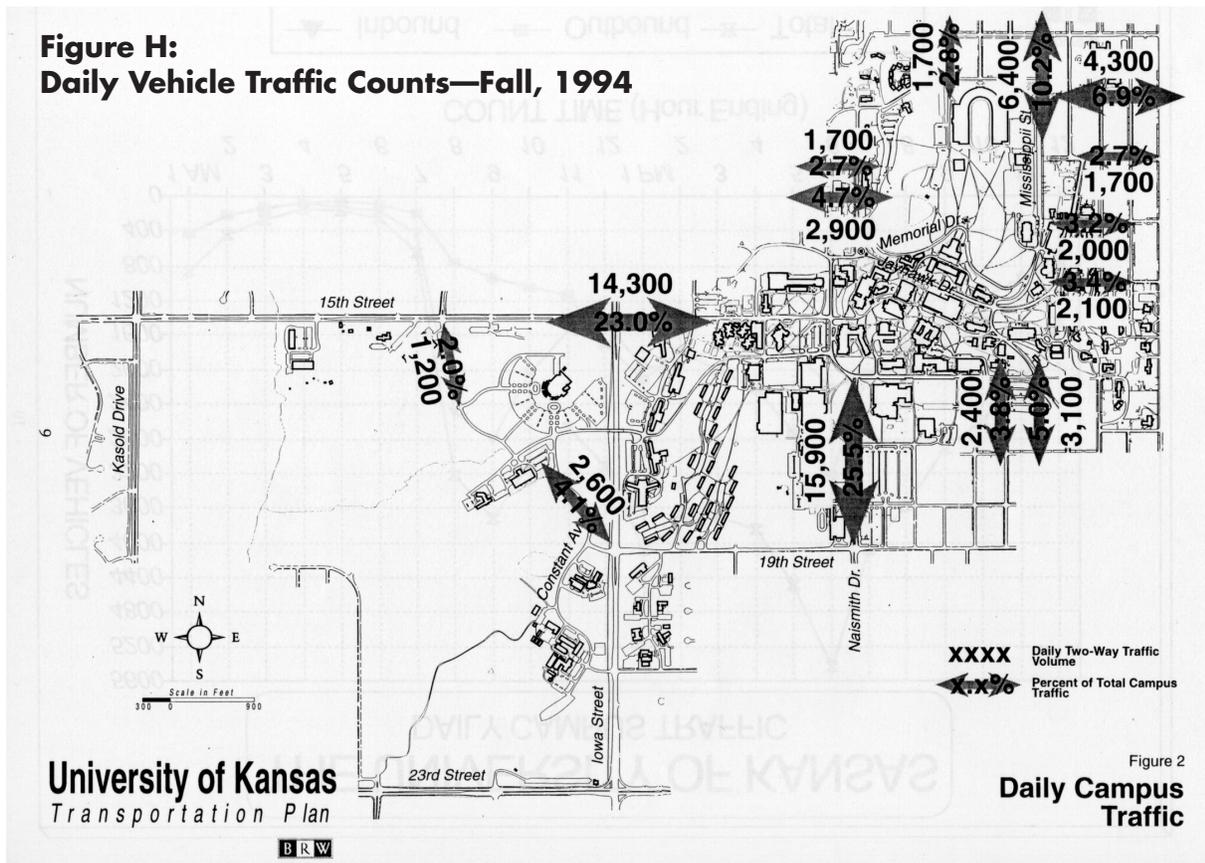
A 1908 photograph is the earliest known image of automobiles on campus. A *University Daily Kansan* reporter observed in 1915 that seven faculty owned automobiles. After World War I automobiles appeared in greater numbers, and parking occurred haphazardly. The problem grew after Jayhawk Boulevard was paved in 1925. Licensing began in spring 1926. Special KU license plates permitted cars to park in restricted areas only and not on the main drive.

Automobile ownership dropped during the Great Depression, and auto use was curtailed during World War II because of production controls on automobiles and gasoline rationing. At the end of the war, personal vehicles became widely available.

Nevertheless, immediately after the war, there was little parking expansion or planning for the future, despite a growth in the numbers of vehicles that matched enrollment growth. Existing lots weren't increased much in size, so Jayhawk Boulevard bore the brunt of the growth. Two lanes of unrestricted traffic and two lanes of parking caused a congested and dangerous situation.

With enrollment increasing rapidly, a University Planning Council was appointed to do long-range planning. The council analyzed parking conditions and demands, conducted surveys, counts, and other studies, and considered these in the context of enrollment and academic planning. A parking report and plan were reviewed by the council in 1972–73.

The plan had three major components. The first identified hilltop parking possibilities and needs. Because academic buildings have priority for space on the main campus and because the hill's topography makes construction difficult and expensive, the intention was to limit parking on the hill. Nonetheless, hilltop parking needs were recognized for people who were elderly and/or physically disabled and for faculty and staff who needed transportation access to perform their duties. In addition, note was taken of an obligation to visitors, especially parents of students, state taxpayers, people who service the campus, and invited guests. The plan called for maintaining some parking on the hill and developing additional parking within the constraints of building-site needs, construction costs, and aesthetic considerations. The general idea was that access to hilltop parking should be based on real need and not be a form of preferential treatment.



A second component of the plan was a scheme for creating parking at the base of the hill. It identified three areas, each within a 10- to 12-minute walk of the top of the hill, for the siting of large reservoir lots. The proposed sites were the play fields northwest of the Kansas Union (with plans to develop new play fields), an area southeast of Allen Field House (which was then under construction), and an area southwest of the intersection of Sunflower and Sunnyside (then the site of a temporary housing project). These sites were selected because they were expandable, accessible, and well-distributed around the main campus. They would accommodate the bulk of the class-day parking load, provide visitors with parking, and serve at times of high-volume special events, performances, and lectures.

The lots, it was argued, would constitute a simple system whose users would feel that they were sharing a walk with others up the hill to campus. As well, the volume of spaces would permit all students to register their vehicles. It was believed that these parking sites would consolidate the approach of traffic to campus. A general goal was to preserve the possibility of walking from one location of reservoir parking to a majority of the campus buildings within the 10-minute interval between classes.

Because concentrated pedestrian movement was regarded as an ongoing feature of campus life, particularly during class changes, the plan's third component addressed the traffic problem on Jayhawk Boulevard. At that time, there were no restrictions on vehicular access to the boulevard, which carried bumper-to-bumper traffic.

This third component noted that closing Jayhawk Boulevard completely would be ideal. The proposed solution restricted access to campus, via the installation of traffic-control booths, and routed traffic around the hill. Staff members working at the booths would not only control access; they would serve as campus guides for visitors. The booths would close after the last class hour of the day, permitting general traffic to cross campus then. During the class day, the system permitted access to campus by buses, taxis, and emergency vehicles, as well as by vehicles with campus-access permits.

With the opening of Allen Field House in 1955 came construction of the first reservoir lot. The parking plan itself was reviewed in a 1962 planning update and found valid. When the administration published the 1962 plan, it announced that traffic control stations would be in place and operating by fall 1963. Implementation of the plan continued as funds permitted. It was again reviewed and validated during the 1973 planning effort.

In 1986, a long-range plan for parking was completed. As a result, a 770-space parking structure was built north of Allen Field House. Then, in 1993, west campus gained a thousand additional spaces in conjunction with the completion of the Lied Center for the Performing Arts.

The most recent study of campus parking needs shows a parking inventory of 11,545 spaces. Almost 9,500 are on the main campus and more than 2,000 on west campus. There are 8,865 permit spaces, 602 metered spaces, and 2,078 other spaces. The number has increased by more than 2,000 since 1989.

The most recent parking study, completed in April 1995, showed peak-occupancy rates of about 65 percent of all available spaces. Rates varied by location. Some showed 100 percent occupancy rates—as well as vehicles parked in areas not designated for parking. Overall, the main campus had an occupancy rate of 75 percent of capacity, the west campus 18 percent. Faculty and staff occupied about 3,000 spaces during the peak hour, students about 4,000 spaces.

Parking in the Future

It's estimated that peak-parking demand will be about 7,700 vehicles by 1998, compared with the 7,449 in 1995 and with the nearly 7,300 in 1993. For a more accurate count, about 260 should be added to each of these numbers, given the present practice of providing parking on main campus for state-owned vehicles. In addition, peak-hour demand by other visitors is projected to increase. By 1998, a deficiency of more than 1,000 spaces is projected for the core campus and adjacent areas.

The peak-hour demand on the core campus would include parking for about 1,800 students, 2,000 faculty and staff, and more than 400 visitors—about 4,200 spaces, with existing capacity at just under 3,300 spaces. Parking in this area has not kept up with the parking demands of all the users who work, study, or visit here. As a result, administrative policy has attempted to limit parking in this area to high-priority needs.

Because of topography and competition with building projects, the creation of parking on and adjacent to the hill has been a problem for decades. Additional parking structures are under consideration. The difficulty of choosing sites for structures is compounded both by the limited number of access points to campus from major city routes and the paucity of sites for any type of development. Clearly, the land-use patterns that have permitted creation of relatively inexpensive surface parking will need to be reconsidered. Buildable sites for academic as well as parking structures on existing lots should be evaluated further.

Following a restructuring of parking fees beginning in the Fall semester of 1997 to provide the required revenue, a site north of the Kansas Union has been selected as the site for an additional parking garage. The proposal is to design an aesthetically compatible structure on the hillside bounded on the east by Oread Avenue and on the west by Mississippi Street. The parking capacity is projected to be near 1000 parking spaces on multiple levels.

Access to this facility will be provided for vehicles both from the top of the hill and from lower level entry/exits on Mississippi Street. The site provides the opportunity to move people through this structure to the top of the hill to provide better access to activities including the Kansas Union and the museums of Natural History and Anthropology. The garage will also serve as additional parking for the Spencer Art Museum as well as providing student, faculty, staff and visitor parking for academic and special events.

The following observations and assumptions should govern parking-related planning.

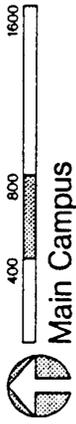
- *Parking and access to campus must be considered together, as part of a whole system.*
- *The demand for parking is tied to campus growth and related development.* The construction of space used by people leads to additional demand for parking.

- *Parking should be provided in the lower levels of structures built in the future.* In many areas, campus topography is conducive to this.
- *Parking should be managed according to these criteria:* the need that some users, such as ranking administrative officers, have for quick access to automobiles; the willingness of users in general to pay differing fees for differing levels of convenience; and the general costs incurred by a parking system that permits use by 7,000 to 8,000 cars during peak hours.
- *The development of shuttle systems must be considered as part of the solution to parking problems.*



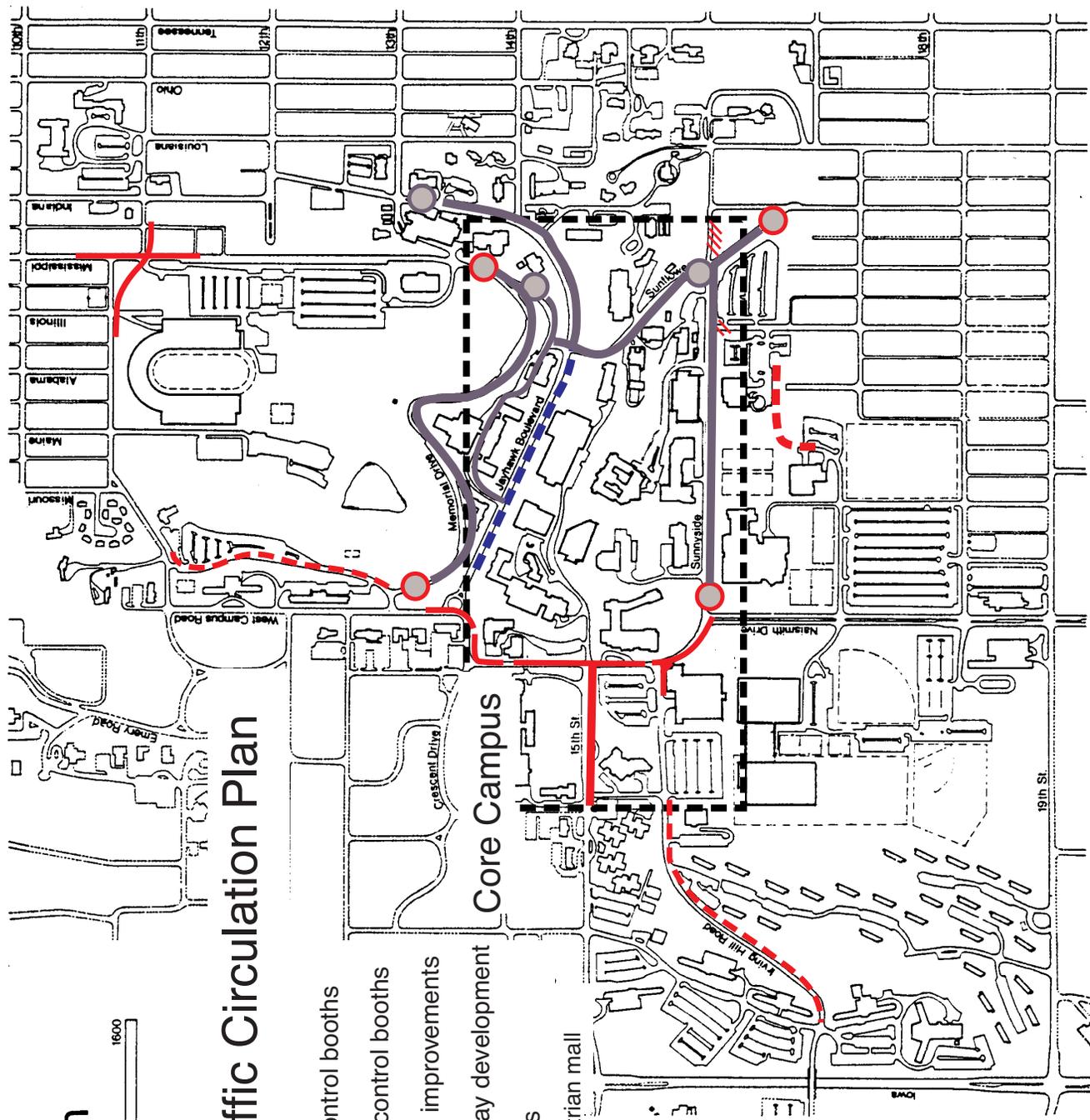
Parking on Jayhawk Boulevard, early 1920's

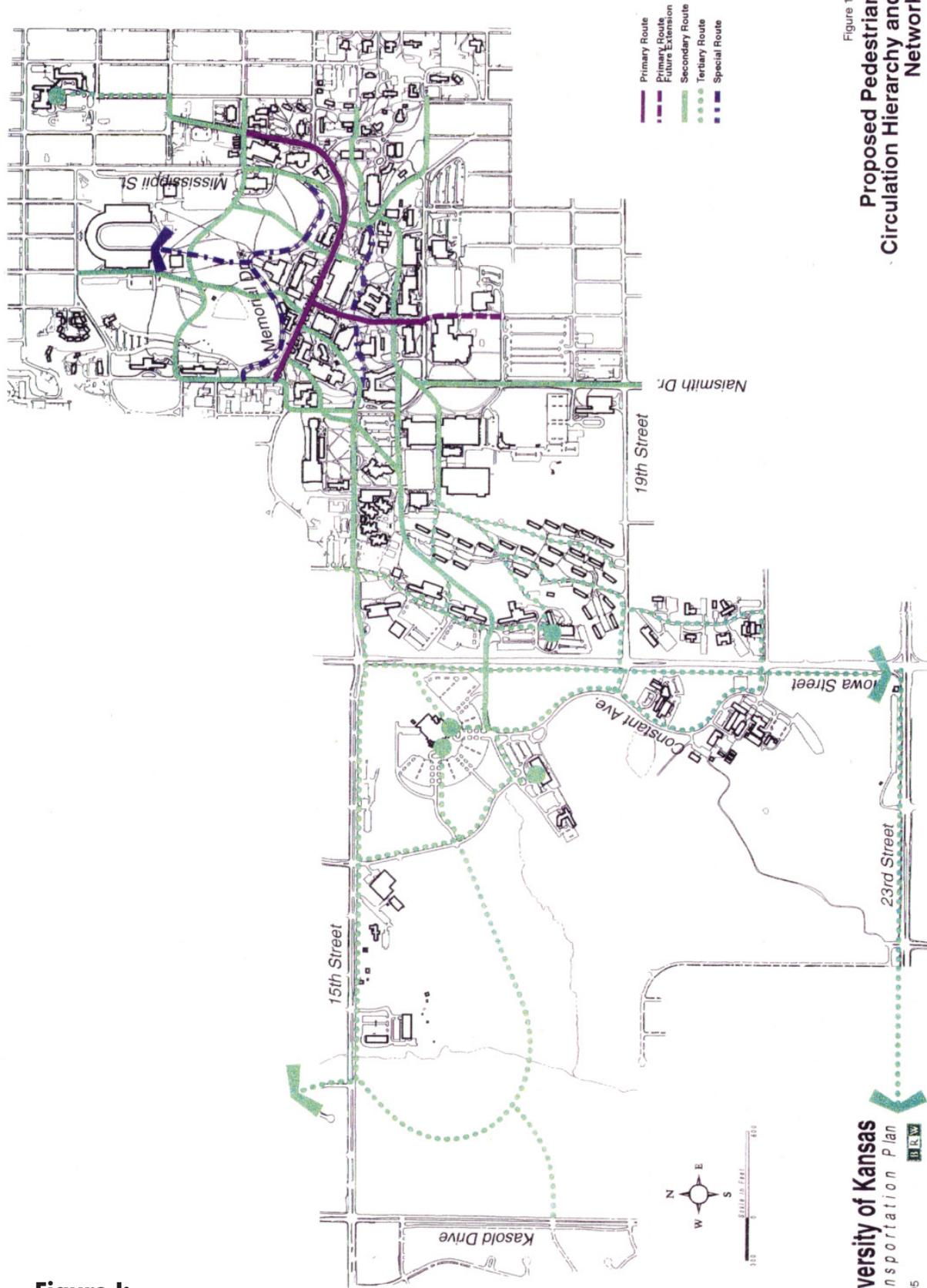
Location Plan



Campus Traffic Circulation Plan

-  Existing traffic control booths
-  Proposed traffic control booths
-  Traffic circulation improvements
-  Additional roadway development
-  Restricted access
-  Transit and pedestrian mall
-  Restricted access





**Figure I:
Existing and Proposed Pedestrian Routes**

**Figure 18
Proposed Pedestrian
Circulation Hierarchy and
Network**

University of Kansas
Transportation Plan
 11.15.11
 8-25-95

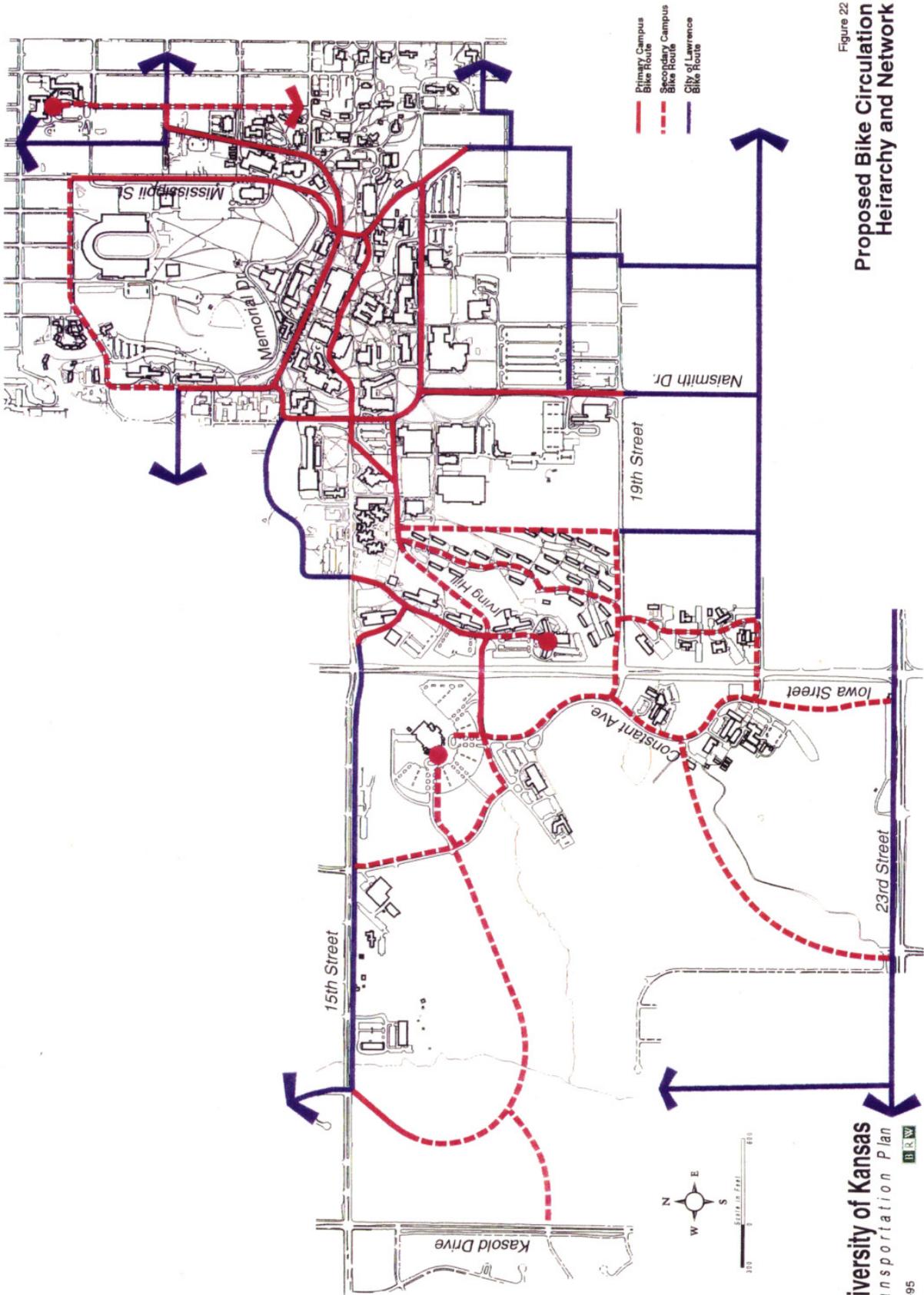


Figure 22
Proposed Bike Circulation Hierarchy and Network

Figure J:
Existing and Proposed Bike Routes

IMAGE AND ENVIRONMENT

The characterizing features of the KU campus include its buildings, views and vistas, and landscaping. These features reflect the tradition of higher education in general and also are a testament to the vision and investment of previous generations of students, graduates, and state residents. The rich and vivid experiences of students and alumni are tied to the physical attributes of Mount Oread, the well-developed and high quality “signature” features hereabouts, and the steady enhancement, since the founding of the university, of one of Kansas’ most notable public institutions.

The KU experience is one defined by the physical surroundings, a sense of tradition, and the individual pursuit of personal and professional development in a secure environment committed to learning, research, and service.



Aerial view of the core campus from the northeast

Here are some objectives in the realm of image and environment.

- *Creating a high-quality learning environment in which classroom experiences and the positive features of a residential campus are mutually supporting*
- *Enhancing campus amenities in support of both curricular and extracurricular activities*

- Ensuring the ability of students, faculty, staff, and guests to orient to, and to find their way around, campus
- Addressing environmental concerns to preserve campus beauty and to assure health and safety

The fulfillment of these objectives would lead to a strong and positive sense of place. The enhancement of the basic KU experience, beyond the obvious teaching and research components, derives from a well-composed campus.

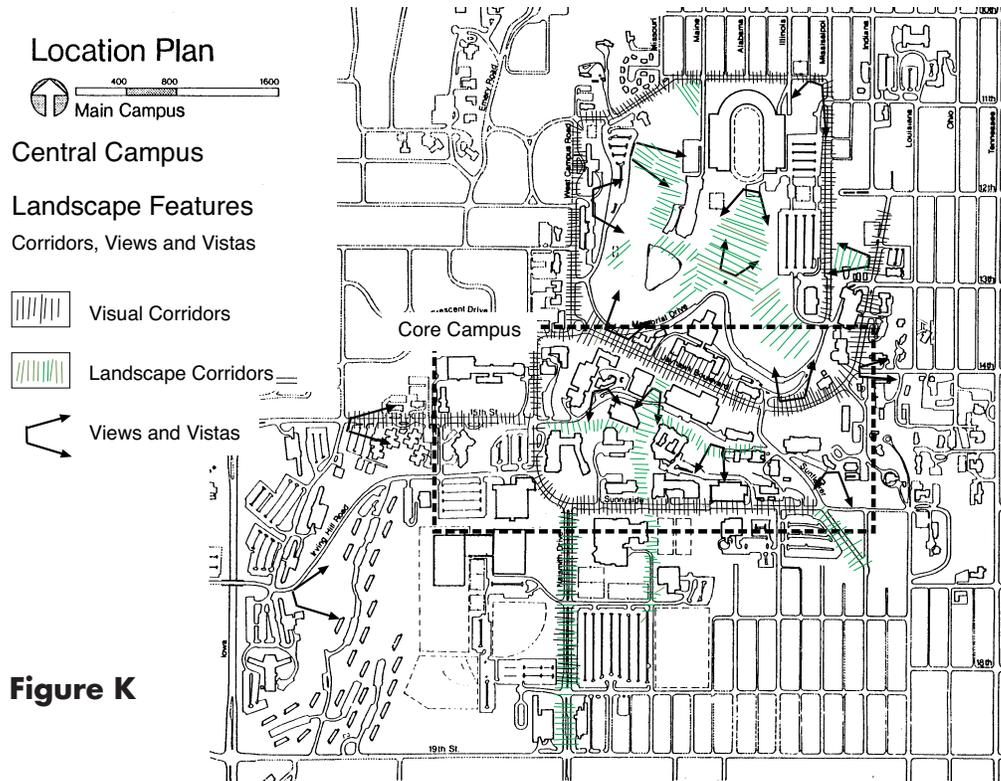


Figure K

Composition of the Built Environment

A university’s image is linked to its physical assets but it is not just the sum of those assets. A university is also a series of experiences that occur in physical space, experiences that derive from thoughtful composition of the built environment. A new visitor might come first to a visitor center—plans for which are being made now and are discussed later in this document. Or that visitor might experience the campus by driving around campus. A university graduate returning to visit would have a much different set of experiences, many of them tied to his or her memories of the built environment.

When *any* individual arrives here, he or she experiences the campus not only as a place that educates students, but also as a campus, whose architecture and landscaping lend it an identity beyond mere functionality. The physical elements integral to this self-projection include the following.

- *Buildings, with their diverse functions, scales, material constituents, colors, fenestration, enclosures, and entries*
- *Planted materials, outdoor furnishings, lighting, and signs*
- *Topography and landscape, which, depending on location, may include views and vistas, open and green spaces*
- *Other elements, such as campus entries, streets, walks, lawns, patios, and traditional spaces*

When visitors arrive, they also experience a campus that has accreted in a unique way, historically and aesthetically. In this accretion, vision has been layered upon vision, but always with respect to what has come before and with respect to higher-education traditions and models. As a result, no place precisely like this one exists on earth, even among educational institutions, and it is our honor and duty to preserve that sense of tradition and of place.

Thus, we must do more in our planning than ensure our routine functioning as an institution of higher learning; we must preserve the sense of this place.

Student Centered Environment on Jayhawk Boulevard



Features of the Campus Landscape

The term “landscape” refers to outdoor elements on campus. The term encompasses these features: campus entries, streetscapes, walks and pedestrian ways, open and green spaces between and adjacent to buildings, views and vistas, plantings of all kinds, pavements and lawns, malls, plazas, and courtyards. Utilitarian aspects of landscape include lights, benches, and signs. The incorporation of signs into an information system is an important component of the campus landscape.

Integrating all of these elements is a significant task, and the integration must occur within the framework of an institution that is continually evolving. A lack of coordination in this task is harmful. Here are some objectives and principles regarding the composition and character of the campus landscape:

- Campus design results from an interaction of topography and placement of significant features. In combination, these engender views and vistas. These views and vistas can be accented, altered, and manipulated for long-term benefit or detriment. See Figure K for diagram of major campus views and vistas.

- It is desirable to consider the addition of simple elements on the campus skyline to maintain its traditional image.

As the main campus becomes more urban, areas between buildings should be committed to gathering places that are thoughtfully oriented to pedestrian circulation.

- Streetscapes, pedestrian ways, and sidewalks should be viewed, first and foremost, as corridors for effecting pedestrian and vehicle mobility on campus. They should be accented and defined by plantings, buildings, and landscape features.

- Open courts, lawns, plazas, and the spaces between or adjacent to buildings require careful analysis in regard to the functions, movements, and scale of activities that occur there.

- High-quality open and green spaces are the result of successful building and site design.

- Landscape features may be as significant to a sense of tradition as signature buildings.

- As the main campus becomes more urban in its ratio of built to open space, areas between buildings should be committed to activities and to high-quality gathering places that are thoughtfully oriented to pedestrian circulation.

- Building entries must be placed not only by reference to a building’s internal layout but by reference to the building’s connections with vehicle and pedestrian routes.



Core Campus Skyline from Daisy Hill

- The system of walks should be functionally adequate: Walks should be sufficiently wide and thoughtfully managed so that they are usable by all people despite changes in grade. Yet functional adequacy is not enough.
- A design sense must be brought to the construction of walkways as much as to the construction of buildings. Primary walkways, those that parallel Jayhawk Boulevard, for example, will have one look and feel, while those paths less traveled, such as a walk that skirts Prairie Acre, should have a different, perhaps more meandering, design.
- Design choices for routes of access to campus and mobility on campus should be made on the basis of anticipated use by individuals with differing physical abilities. Obviously, some designs will have dominance over others; this will lend an overall sense of coherence to the campus and reinforce the idea that the campus welcomes pedestrians.
- Plantings should be thoughtfully designed. They should have definite objectives and specific functional and/or aesthetic purposes. They also should be native to this area, in order to avoid the need for excessive maintenance. The removal of diseased and damaged plantings and trees should be followed by replanting in accord with a long-range plan.

Design choices for routes of access to campus and mobility on campus should continue to be made on the basis of anticipated use by individuals with differing physical abilities.



Proposed mid-hill pedestrian route on south slope

- Good design considers such features as benches, planters, terraces, retaining walls, steps, and stairs as part of the total landscape, not individual entities.
- Illumination is an aesthetically and technically complex field that requires careful design. Lighting should be conceived in a coordinated, campuswide fashion in order to provide safety and orientation.
- The placement of campus signs should be coordinated. Signs should be consistent in their design, shape, typography, color, texture, and size. Text and wording should be governed by campus policy. A comprehensive system that permits people to find their way around campus should be developed following a review of present signing standards and practices.
- Information kiosks should be placed where high volumes of traffic occur. The use of information technologies should be considered as a means of expanding information access.

Architecture

Buildings are elements in spatial composition. Besides fulfilling functional requirements, they must complement each other and enhance the campus. It is a challenge to maintain a continuity of appearance and, at the same time, accommodate the inevitable change that comes with new building projects. The emphasis must be on the achievement of compatibility with the historically and architecturally significant buildings and surrounding areas, as well as the preservation of views and vistas.

A sense of overall organization and design will lend a sense of coherence despite differences among individual buildings. The design of buildings and landscape features should take into account such elements as function, appropriateness to site, and materials. These criteria should not limit the imagination and originality of the architect; they should only provide a framework for proceeding.

Here are principles we believe should be followed as the environment is developed and structures are created:

- Existing campus architecture should influence subsequent development; future buildings must defer to characteristics inherent in existing buildings, which define the nature of the main campus.
- The characteristic colors of the traditional campus are well-established, and materials should be chosen to match existing colors. Pitched roofs should be red.
- Buildings should be designed with attention to scale and sited with sensitivity to their heights and to the distances between them.

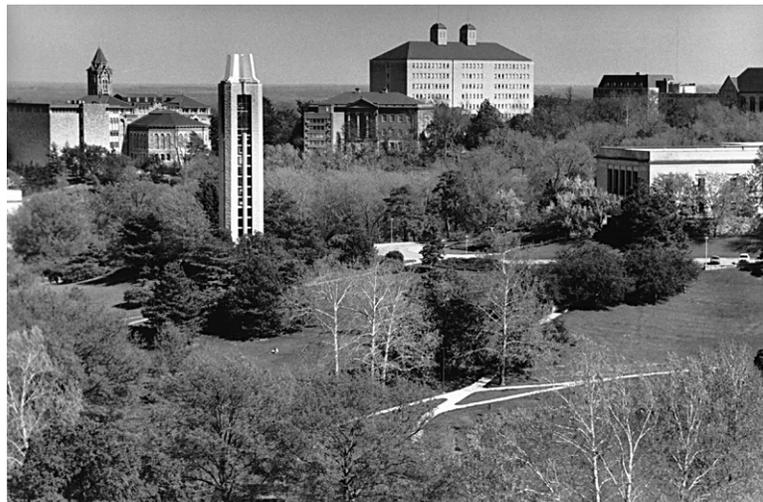


Entry to Lippincott Hall

- The size of buildings should be in keeping with a pedestrian campus. A few significant facilities have set time-honored standards for the buildings here: certain window-to-wall-surface ratios and, tied to those, certain proportions of window-height-to-width. These ratios, as well as choices of building materials, should be respected in an effort to maintain a traditional look for campus.
- Strong composition will be achieved by matching the construction materials already found on campus. A lesser variety of materials used in a straightforward fashion will lead to a more distinguished overall design.

Above and beyond the aesthetic quality of buildings, spaces, and landscapes, campus planners are increasingly subject to regulation of the physical environment by governmental agencies. These regulations can affect function and services. Energy use, waste management, paving and storm water management, air quality inside buildings, and clean air outside are significant issues for the coming decades. Addressing these concerns will assure the overall quality of the campus, its buildings and spaces, and the health and welfare of students, faculty, and staff.

The guidelines set forth above should be supplemented with more detailed requirements for future design, and these should be enforced as criteria for individual projects.



INFRASTRUCTURE

Demands for Expansion and Mandates for Improvement

The term “infrastructure,” as used hereafter, refers to the utility systems that serve campus. Although frequently out of sight, these systems demand resources to maintain because of the continual need for evaluation, repair, replacement, relocation, and expansion. Today, for example, a new and demanding element of infrastructure is the network required for electronic information management, including fiber optic cable, equipment, and wiring.

Maintenance and updating of infrastructure is a costly business. The systems of an institution more than 130 years old are subject to immense wear and tear and will incur the need for a significant, on-going investment. Also costly is the expansion of the institution and the correlated need to add utility capacity. Finally, new regulations emerge to govern the built environment, as do new standards that aim to improve building systems and assure safety, and these, too, incur costs.

Several individual studies of infrastructure have been completed. Moreover, the university is engaged in many repair and rehabilitation projects—usually in cases of obvious deficiency. For example, we live in an era of federally mandated improvements to building cooling systems that employ chlorofluorocarbons (CFCs). Many KU buildings are affected by these mandates. In terms of infrastructure, at this stage, we’re dealing with present problems as well as pursuing the ongoing need to identify the scope of deficiencies, anticipate future need, and expand systems to support growth in demand for utility service.

The campus needs an integrated infrastructure plan for the next several decades, one that will encompass its water and electrical distribution systems, sanitary and storm water collection, steam and chilled water distribution, and tunnel systems. The future will impose many obligations upon KU in terms of management of energy utilization and related infrastructure improvements. Pressures for efficiency in use of energy, water, and other natural resources are already significant and will likely increase. If the goal is a viable utility structure well into the next century, the piecing-and-patching approach of the last few decades won’t do. It is anticipated from studies completed in recent years that significant sections of piping and wiring systems, as well as aging equipment, will have to be replaced. A new infrastructure for communications technology will require the same kind of funding as the installation of any campuswide system. The funding will have to cover anticipated and unanticipated repairs, replacement, growth, and changes in levels of service.

Today’s infrastructure systems are more sophisticated, specialized, and regulated than they were in the past. These systems are routinely included in new building and capital improvement projects, yet the capitalization of many projects extend the systems only to the boundary of the new building site. When the new systems and old systems meet at that boundary, incompatibilities and inefficiencies arise. Our aim should be efficiency throughout any given system. Several systems discussed in the following sections have been studied by outside consultants and information on water distribution and tunnel systems is provided in the form of a map on page B-52.

An overall assessment of the campus infrastructure and development of an infrastructure management system would be good first steps towards achieving a comprehensive program for maintenance and expansion of campus utility systems.

Central Campus

Utility/Infrastructure

Utility Tunnels

Major Repair/Replacement 

Minor Renovation 

Water Distribution

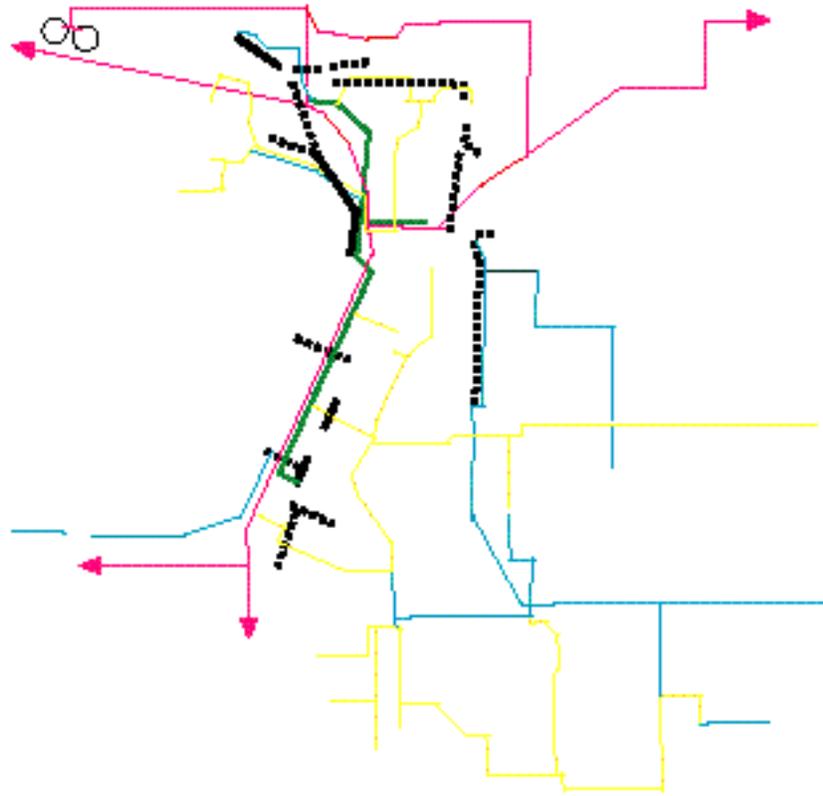
Date of Installation

About 1900 

Before 1960 

Since 1960 

City main 



Electrical Distribution and Campus Lighting

A 1990 study suggested a major upgrade of electrical service for the campus. The study identified \$12 million to \$13 million worth of work. Of that, almost \$5 million was designated for what was deemed a critically needed repair: initial development of a loop feed system and replacement of a cross-campus feed that had exceeded its life expectancy. Also addressed in the study was the need to rewire and re-equip the eastern portion of the core campus and to upgrade electrical service to various buildings.

The design of electrical distribution and the issue of future energy costs and efficiencies are part of physical development planning. The campus distribution system and its metering affect the KU rate structure and long-term expenses related to electrical service. This fact must be considered before KU commits itself to an electrical-distribution plan.

Input from electrical suppliers might help KU determine capacity relative to projected needs. Because of the diversity of electrical use within the institution, including the demands of computers and other equipment, building and outdoor lighting, housing, and special events, KU is one of the area's largest consumers. Significant savings in overall energy costs could be achieved. Under a favorable state energy policy, those savings could be invested in other capital development or maintenance projects within the institution.

The improvement of campus lighting is one of the more successful long-term campus projects. Through the use of student fees and matching state appropriations for lighting, significant portions of the campus have been improved in terms of appearance and safety. This work will be completed over the next several years. Here are some additional planning considerations.

- The extension of improved lighting to include routes taken by pedestrians traveling to and from campus, perhaps in cooperation with the city or other funding agencies
- The development of major electrical distribution hubs for campus lighting service
- The development of an approach to reduce or avoid power-quality problems generated by electronic equipment

Central Heating Plant

The central heating plant produces steam for about 58 buildings on the main campus area. The floor area of these buildings totals more than 3 million square feet. Steam is provided year-round.

The central heating plant houses two 48,000 pounds/hour boilers, one 50,000 pounds/hour boiler, one 15,000 pounds/hour boiler, and one obsolete, non-serviceable boiler. The 50,000 pounds/hour boiler was once rated for 70,000 pounds/hour but burner modifications have reduced its capacity. The 15,000 pounds/hour boiler was once rated for 60,000 pounds/hour; its capacity was reduced when its stack was shortened. Because of its limited size, it's rarely used.

The total steam capacity of the plant is 146,000 to 161,000 pounds/hour; peak demand is about 110,000 pounds/hour. Thus, with one boiler out of operation, the plant may not be able to handle the peak load.

Issues that should be addressed to determine the capacity to meet present need and future growth include the following.

- Studies of the useful life and safety of the boilers, conducted in 1993–94, estimated 10 to 15 more years of use for three of the boilers. Plans for boiler and/or building replacement should identify funding sources. Studies of standby and redundant capacity may be necessary to determine the ability to meet present needs and future demands.
- Environmental mandates will continue to require advanced technological modifications for equipment that controls the boilers. This need should be anticipated in future plans.
- There are two tanks for on-site storage of standby/alternate fuel (currently a 26- to 28-day supply). Their capacities are 259,000 and 230,000 gallons. Future patterns of energy use and storage, as well as environmental regulations linked to underground storage tanks, warrants review of these reserves.
- To make steam, KU relies on natural gas fueled boilers. At times in the past, it's been necessary to replace the natural gas with fuel oil for brief periods in order to continue making steam. During the transition from natural gas to fuel oil firing, a possibility of plant shutdown because of the inability to atomize the fuel oil exists. Equipment now in use should be modified to provide a margin of safety that disallows such a shutdown.
- A study should be made to answer three questions crucial to steam distribution in the future: How much additional capacity do we need, given various projections of future growth? Where would that capacity ideally be sited? Should west campus be served by a centralized facility or according to the existing model, in which each building provides for its own needs?

Utility Tunnels and Steam Distribution Systems

Utility tunnels are located throughout main campus but not on west campus. Most are the walk-through type, housing steam and condensate lines, communication and electrical power lines. To a lesser extent they serve as passageways for domestic water lines, chilled water lines, and sanitary sewer lines. Generally speaking, the tunnels are in adequate condition.

High pressure steam is distributed throughout the main campus from the central heating plant by a piping system that runs primarily through the utility tunnels. The steam is distributed at a pressure of 90 pounds per square inch gauge (psig). The condensate is returned to the central heating plant by a series of pumps. The system that handles the condensate also is located primarily in the tunnels.

Although sections of the distribution and condensate collection systems are buried and subject to deterioration, the capacity of the piping system for distribution of steam should be adequate to accommodate present and anticipated loads of facilities projected for construction on the main campus. West campus, on the other hand, has no steam or condensate piping outside of individual buildings.

Engineering investigation is recommended for the following purposes.

- To identify the work necessary to preserve the long-term structural and functional integrity of the tunnel system. Concerns about ventilation and fire protection of the tunnels and adjacent facilities should also be considered. These levels of protection should be assessed by reference to standards mandated by the Occupational Safety and Health Administration.
- To review the condensate collection and return system of piping which is suspect in its ability to handle present and future capacities. Some pumps are currently working against high downstream back pressure, indicating that the system may be exceeding design capacity. A comprehensive study of the condensate collection and steam distribution systems should be undertaken for assessment and planning purposes.
- To determine how much piping is insulated with asbestos-containing material and how many abatement projects remain.

Air Conditioning and Chilled Water Capabilities

Over the next several years the mandated replacement of systems that employ CFCs will force KU to consider alternative cooling systems. Areas of campus that might be served instead by large chilled water units should be reviewed.

The advantage of centralized cooling facilities is the lower long-term maintenance cost of a single unit versus multiple systems. The challenge is to zone the campus for service from several cooling-distribution points and to choose sites where the accompanying noise can be managed. Similar schemes have been discussed in the past but little has been implemented.

Over the next several years the mandated replacement of systems that employ CFCs will force KU to consider alternative cooling systems. Areas of campus that might be served instead by large chilled water units should be reviewed.

Service to west campus should be studied carefully, as should installation of a central cooling facility when the dormitories on Daisy Hill are renovated.

Storm Sewers

The storm sewer system was studied in detail in the early 1990s. Projects to correct problems of surcharging and erosion were identified and prioritized. Work began in 1993 to minimize surcharging along Naismith Drive from 19th Street north to Schwegler Drive and north of the Robinson Gymnasium tennis courts.

Here are some other observations and recommendations about issues related to the campus storm sewer system.

- At present, Potter's Lake and the pond on west campus near the Kansas Geological Survey building help retain storm water. Ponds might be used elsewhere on campus to increase storm-water holding capacity.

- Retention/detention facilities should be reviewed to verify capacities, rates of flow to and from ponds, the stability of dams, and the integrity of spillways.
- Any new projects being considered for development on central campus or west campus should be studied for their potential impact off-campus as well as on.
- Maintenance activities, such as cleaning inlets to keep them free of grass, leaves, and trash, are an ongoing necessity.

Sanitary Sewers

The sanitary sewer system was studied in detail in the early 1990s. Projects to correct deficiencies in surcharging lines and structural problems in manholes were identified and prioritized. Manhole repair began in 1994, as did work to increase flow capacities in various sections of the main campus collection system.

Continued funding of these projects will minimize problems on campus. But their impact on city collection systems also should be monitored. Maintenance will be required to sustain the effectiveness of the system.

Water Mains

The university power plant is the chief conduit for city water on the main campus. That water is pumped by university equipment through university-owned water lines. West campus, dormitories along Iowa Street, Stauffer Place Apartments, Memorial Stadium, Carruth O'Leary Hall, and JRP and Oliver halls receive city water directly.

Water is supplied to the power plant at two pressure levels. The primary level is about 15 pounds per square inch (psi); a backup, high-pressure system supplies water at 85 psi. All lines have back-flow-prevention devices installed at the points of connection between city lines and university lines. The power plant distributes water to campus at a pressure of 100 psi.

The system has four pumps. They provide 500 gallons per minute (gpm), 750, 1,200, and 2,000. The 1,200 gpm pump, controlled by a variable frequency drive system, is the primary one used in water distribution. As of this writing, the variable frequency drive system was not operational.

Several distribution mains were upgraded in the early 1990s by increasing line sizes, adding more internal loops, and adding a pressure-regulating valve vault to reduce the pressure at facilities at lower elevation, such as Allen Field House. The project also provided additional capacity for the central campus.

The city meters all the water supplied to KU. The university has installed meters at various campus facilities for usage monitoring and/or internal reimbursement purposes. City lines supply water to west campus through a meter sited north of the 19th and Iowa Street intersection, near the southeast corner of Pioneer Cemetery.

Many buildings on main and west campus have had backflow prevention devices installed. Such devices are also part of campus landscape-watering systems. The installation began in the early 1990s and is ongoing.

The aging of distribution pipes is a major concern. As is typical for a campus of this size, water mains were installed at various times over the last nine decades. For example, the lines shown to be running along Jayhawk Boulevard in the map on page B-52 are known to be some of the oldest distribution lines on campus. A line-replacement schedule based on installation dates should be developed. The university can anticipate breaks in water distribution lines, especially older, more deteriorated ones, and should plan for the necessary maintenance.

Fire Protection

Water lines for fire protection are generally the same as those used for water distribution. All water for fire protection is supplied and metered by the city. Fire-fighting equipment is furnished and operated by the city through its fire stations.

An engineering study in the early 1990s led to an improvement project that provided a significant increase in water flow and fire protection capacity. The project involved adding internal loops so that there were major water feeds from two directions rather than from one.

In some places, line size is less than the 4-inch diameter piping recommended to meet flow requirements. Numerous fire hydrants are smaller than those recommended by the state fire marshal. The high water pressures needed for fire-fighting would increase the potential for failure of old distribution piping.

Natural Gas

Natural gas is supplied to the main and west campuses by high pressure lines owned and operated by Kansas Public Service. The main supply to the power plant is metered, and pressure is reduced just west of the power plant to make it usable by the campus. Additional points of supply are sited throughout the two campuses, and all are metered.

KPS upgraded a significant portion of the supply and distribution lines in the early 1990s. The overall natural gas distribution system on campus is in relatively good condition. Its capacity appears adequate for the predictable future. Where deficiencies in capacity exist, the service can be readily upgraded by the gas supplier.

SCENARIOS FOR CAMPUS DEVELOPMENT

Evaluation of the 1973 Plan

The 1973 plan led to the successful consolidation of academic activities along the ridge upon which the university sits. Undergraduate classes were centralized in facilities like Fraser and Wescoe halls. The plan also succeeded in designating building sites on the core campus, and those sites have, for the most part, been developed; it envisioned developing more research facilities on west campus. Indeed, it is our successes that force on us the need, now, to re-evaluate the visions of 1973 from a new base of facts and assumptions.

Since the formulation of the 1973 plan, academic activities on the hill have expanded, east to west—but that expansion cannot go further. Only so much distance can be covered in the brief time between classes. The limiting factor on expansion north or south is the willingness and ability of people to walk further, from either direction, up a fairly steep grade. Overall, adding more area to the campus has made for a more difficult day; the geographic expansion has increased the typical commitment of time necessary to come and go from here, study here, and conduct business here.

The plan's strategy of designating and developing sites within the core campus arose when KU was a community of 18,000 students and a place that could still accommodate growth within a fairly compact core campus. If the strategy of adding built space to the core campus were to continue, we would significantly alter the campus environment and disrupt what we have grown used to.

It is our successes that force on us the need, now, to re-evaluate the visions of 1973 from a new base of facts and assumptions.

In the course of the current evaluation, we discovered some desirable aspects of the 1973 plan that have not yet been implemented. For example, that plan envisioned an expansion of graduate student and faculty research activities to west campus, yet those activities remain sited, by and large, on the main campus. A necessary component of that plan, a transportation infrastructure for moving people between the campuses, is not yet in place. As history demonstrates, planning strategies must consider and respond to the interrelationship among issues of land use, access, and image.

Future Scenarios

The following discussion of the three scenarios explores the effects each would have on land use, on parking and transit needs, and on image and environment. Evaluation of each scenario needs to include consideration of the following.

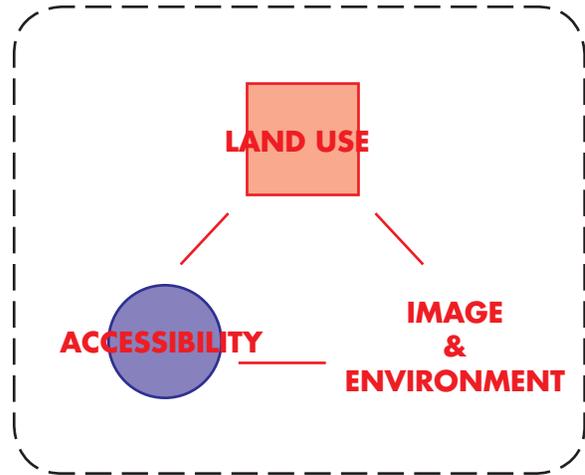
- How and whether the scenario preserves the principles of adjacency and affinity—the siting of like activities (from a universe of activities that includes teaching, research, support services, parking, housing, and athletics, for example) within proximity of each other
- How the scenario would affect the mix of transportation modes to and across campus
- How the scenario would affect people's perceptions, derived from experience, of the campus image and environment
- How the scenario would affect property acquisition policy and planning.

What follows are three development scenarios that take into account issues of land use, access, and campus image and environment. The first scenario projects a main campus that retains its current boundaries and is more densely built and populated; during the class day, it is committed solely to pedestrian use.

The second projects a geographic expansion of the main campus so that its ratio of built to open space is much like today's. In this scenario, the core campus, which continues to be focused on the academic mission, is enlarged yet remains in one piece.

The third scenario projects an expansion of academic activities on parcels of land that are not contiguous with the main campus.

The graphics in the following figures depict schematic land use models for the central campus, not specific areas of development. In addition the scenarios illustrate the interconnection of land use, access, and image. It is that interconnection which must be respected as the university shapes and reshapes the campus. It is what creates a workable, physical environment unique to the institution.



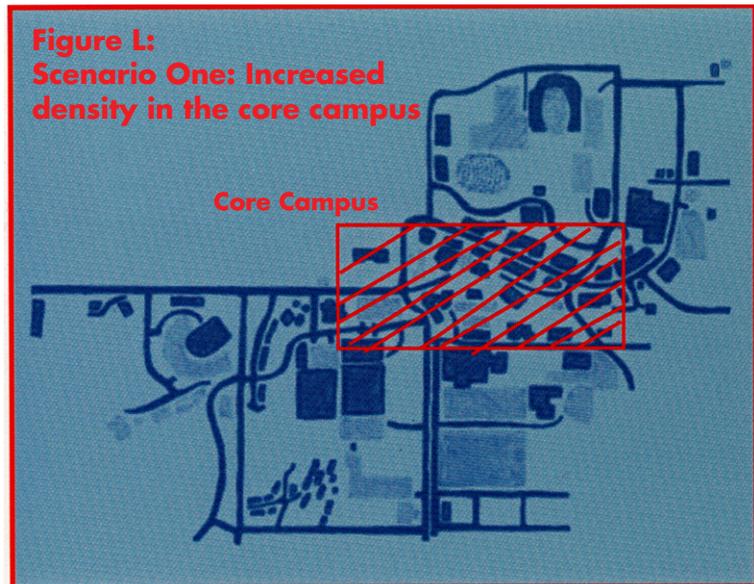
The Basic Elements of Campus Development Scenarios

Scenario One

Increased density within the core campus/No significant increase in area

Major features of this scenario are as follows.

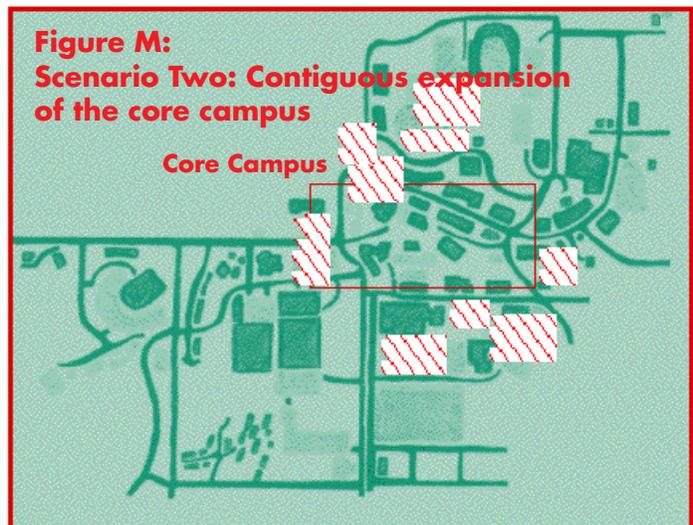
- The removal of nearly all parking from the core campus
- The replacement of low-rise buildings by multistory facilities and replacement of small footprint facilities with larger, higher density development
- An increase in value of, and increased competition for, every buildable site
- Less open and green space and more paved plazas providing a more urban quality of space
- Durable, well-maintained plantings need to replace areas of lawns which can be worn out from the higher densities of activities.



Scenario Two
*Increased area of the academic core/
comparable density*

Major features of this scenario are as follows.

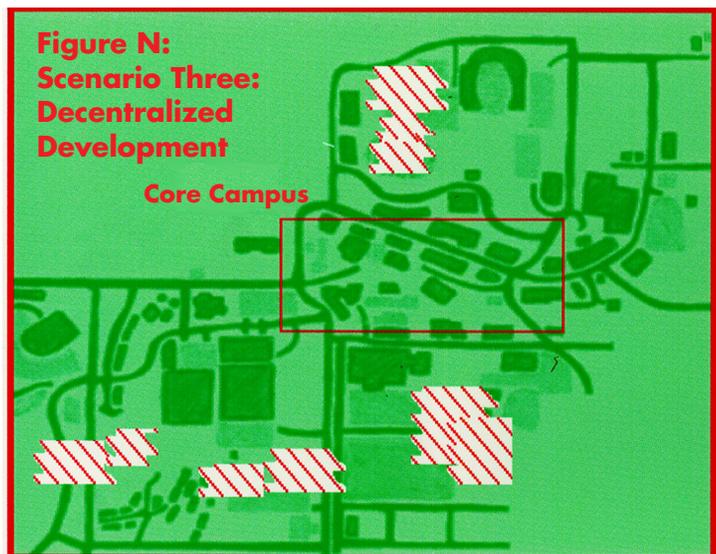
- Preservation of historically significant smaller footprint buildings like Bailey, Stauffer/Flint, and Lippincott halls
- A ratio of built to open space comparable to today's
- Possible relocation of some programs less central to the academic day to facilities at the periphery of the core campus or to west campus
- Acquisition of property adjacent to campus becomes a priority.



Scenario Three
Central campus/west campus development

Major features of this scenario are as follows.

- The need for a coordinated transit system to connect areas of campus development.
- Dedication of the central campus to undergraduate classes or lengthened periods between class sessions to permit time for students to move between the campuses



**Scenarios as a Tool to Guide
Future Decisions**

A commitment at this point to one of these scenarios is less important than a realization that the absence of guiding principles and of conscious decision-making can lead to undesired consequences. Consider, for example, the interlocking consequences that would propagate from a decision to close Jayhawk Boulevard.

Such an option, along with a decision to convert the former boulevard site to a pedestrian mall, was raised in the 1973 plan. In terms of land use, this would have provided for a more densely built main campus, and a building site northwest of Watson Library. Yet it would have been ill-considered to have made that change without taking a broader perspective.

For example, any construction northwest of Watson would have affected the traditional “look” of one of the most established areas of campus—one that carries a traditional significance and is a critical component in creating a sense of place. Had alumni from previous generations been confronted with a new building there, they might have been disturbed by the sight, remembering old Blake Hall, which once occupied this area. Had recent graduates seen that building, they might have noted, with sadness, the loss of an open space that was part of their KU experience. Either graduate would have found his or her perception of this place challenged, for better or for worse.

A decision to close the boulevard also would have engendered new patterns of campus access and challenges to existing ones. Lengthy walks to and from the heart of the campus, from bus drop-off points, might have devalued the bus system. Many of the some 4,000 students who use the KU-on-Wheels system each day would search for other options. A significant number might choose to drive.

The need for road improvements, based on a higher number of vehicle trips, would place additional demands on university funds for streets, traffic control, and protection of pedestrian routes. It would be necessary to provide parking for several thousand more cars in proximity to the campus. Even the option of remote parking, in these circumstances, appears less feasible; with Jayhawk Boulevard closed, it would be more difficult to provide convenient shuttle rides. The wait for a shuttle and the long walk afterwards would increase frustration levels.

The demand for parking garages would increase the ratio of built to open space, as pressures arose to provide those garages as close as possible to the main campus.

Of course the perimeter of the campus would be the best site for these garages. The environment at the perimeter would be transformed as parking consumed open space and potential buildable sites. Because of the increase in numbers of vehicles to specific sites, the patterns of access on campus would change.

In the table on page C-5, we show some of the ramifications that might affect land use, access and image, with pursuit of the unique scenarios.



Area in front of Strong Hall

<i>Major Elements of the Plan. . . .</i>	<i>Patterns of Land Use</i>	<i>Transportation</i>	<i>Image</i>
<p>Land Use Scenarios:</p> <p>Scenario One:</p> <p>Increased Density— Modest increase in area</p> <p><i>Urban quality of campus</i></p> <p>Scenario Two:</p> <p>Same Overall Density Significant increase in area contiguous to central campus</p> <p><i>Traditional campus quality</i></p> <p>Scenario Three:</p> <p>Increased development of areas remote from central campus</p> <p><i>Central Campus—West Campus</i></p>	<p>Land use includes issues of density, adjacency, and property acquisition</p> <p>Building Area Ratio : > 30 %</p> <p>Floor Area Ratio : Built Space to Open Space > 1 : 1</p> <p>Building Area Ratio : < 30 %</p> <p>Floor Area Ratio : Built space to Open Space < 1 : 1</p> <p><i>Priority on Acquisition</i></p> <p>Adjacencies evaluated and less central activities may be relocated</p> <p><i>Property is available</i></p>	<p>Transportation includes access to campus, mobility on campus and general issues of accessibility</p> <p>Major city routes adjacent to campus</p> <p>High density parking at the perimeter</p> <p>Transit service for access to campus—<i>limited circulation</i></p> <p><i>Auto destinations chosen on city routes and distribution is allowed across campus</i></p> <p>Parking distributed and low density</p> <p>Transit service to and across campus</p> <p><i>Transit is critical to this scenario</i></p>	<p>Image is tied to the environment created on the campus</p> <p>High quality pedestrian envi- ronment is needed</p> <p><i>Virtual elimination of autos from the core campus</i></p> <p>An increasing urban quality of campus</p> <p>Quality not solely defined by being “on the hill”</p> <p>May involve defining (or redefining) areas of campus</p> <p>May require two (or more) distinctive areas of development</p>

INSTITUTIONAL CHALLENGES AND RECOMMENDATIONS

Connecting Vision to Action

We see a number of challenges for the future: preserving a sense of place; preserving and refurbishing our most historically significant areas—the northeast corridor, which is discussed below; recognizing and addressing problems arising in areas that are subject to wear and tear because of heavy use; weaving together the traditional campus and the more recently developed south slope of Mount Oread; conducting transportation planning in which needs for access to campus and for parking are reconciled with other land-use demands; planning for open and green space; developing west campus in a thoughtful manner; devising a comprehensive space management program; and dealing with structures that have deteriorated.

The traditional organizing element of the campus has been Jayhawk Boulevard, making KU one of the few campuses in the nation with a street as the principle focus. It creates a strong sense of place, both because of the architecture of many of the buildings that line it and because of certain landscape features, including views and vistas through and across undeveloped areas. Land-use patterns and significant features along the boulevard have changed little in 20 years. The challenge is to add to this community of structures and spaces and still preserve the image of the core campus. The most irreplaceable buildings on campus, historically and architecturally speaking, are in the northeast corridor area. Lippincott Hall, Dyche and Spooner museums, Danforth Chapel, and the most recent generation of the Memorial Union, embodiments of the tradition of Jayhawk Boulevard, are sited in this area. The northeast corridor carries a high volume of pedestrian traffic. Dyche Museum is the most visited tourist attraction in Kansas.

This area provides a grand and historic public entryway to campus from the north, as well as views and vistas to Marvin Grove and to the river valleys below. Patterns of growth in the last 20 years have brought increasing traffic from the south and west, yet tradition has deemed the point at which Oread Avenue becomes Jayhawk Boulevard as an historic campus entryway. The challenge will be to develop this part of campus with a respectful eye to its modest scale and not to invite more traffic into an area where the ridge of Mount Oread narrows.



Jayhawk Boulevard

The physical characteristics of the northeast corridor have changed little, with the exception of additions and renovations at the Union and the construction of the KU Alumni Center. The architecture, the stone and terra cotta, and the traditional red tile roofs establish an aesthetic standard that new construction should strive to match. Despite the preservation of many building facades, open and green spaces, and views and vistas in the last two decades, there have been losses. Many alumni and longtime campus visitors note the absence of towering elms, for example, many of which have been lost to disease and the impact of wind and weather. But this planning effort is about much more

than that. The entire length of Jayhawk Boulevard is in need of revitalization including the landscape elements and areas subjected to wear and tear from the increased levels of activity that the boulevard supports on a daily basis.

High levels of activity have taken their toll. Paved and concrete areas, such as the terraces, planters, stairs, and seating near Wescoe Hall, present hard edges rather than softer landscape features. The transportation plan proposed in this document (see page B-38) would greatly improve the environment by reducing vehicle trips to the heart of campus.

The opening of Budig Hall greatly multiplies class-hour-day activities in this area of campus. During class changes, as many as 4,000 to 5,000 students move within the area between and around Budig and Wescoe halls. The increase in activity appears enormous. There will be problems with access, with bus and bike traffic, and with increased demand for food service and study areas.



Pedestrian Spaces

In the last 20 years, the heart of the campus has suffered from significant wear and tear, the loss of plantings to disease and age, and the lack of a well-developed plan for landscape replacement and renewal. The use of Budig Hall will introduce a more profound change. The transportation plan addresses the safety and accessibility concerns posed by the hall's opening. In addition, the hall's completion invokes a need to design high-quality outdoor spaces and adequate pedestrian routes to serve it.

Since 1973, a second major area of the main campus has evolved in a way quite different from the northeast corridor. The portion of the campus that is on the south slope of Mount Oread and that borders Sunnyside Avenue has emerged as an area critical to the teaching mission. Large buildings have been constructed. Some, like the Academic Computing Center and Green Hall, are freestanding; others, like Haworth and Malott, have evolved into structures made of interconnected pieces. This part of campus, compared to the part on top of the hill, is characterized by a higher density of structures

relative to green and open space. The result is an urban feel. Research facilities take up a large portion of the space in several of these buildings, including Malott and Haworth halls and the Dole building. Unfortunately, these facilities are not in character with the pedestrian scale of the campus elsewhere.



Area of recent campus development

The lack of landscaping here is a problem that will require an effort to remedy. The areas around Malott and Haworth halls are heavily used by pedestrians, as are the routes leading up the hill from reservoir parking

south of Robinson Gymnasium. An east-west, mid-hill pedestrian route, running from Watson Library to north of Murphy Hall and intersecting the established north-south routes in the vicinity of Anschutz Science Library, should be considered.

We propose a long-term investment in such amenities as plantings, seating, and conversation areas. Few places on the main campus are so rich in their potential for such development. We also need to initiate consistent and coherent development of the open and green spaces elsewhere in the core campus. Additions, renovations, and new construction on the south slope of Mount Oread have occurred in patchwork fashion over the course of many years. This area, along with others on campus, has suffered from a lack of funding for practical and aesthetic enhancements.

As stated in the transportation study, many campus roads are now operating near their capacity and, in some cases, are in serious conflict with pedestrian movement. Problems with parking space and distribution are likely to increase, and proposals for parking garages may compete directly for a limited stock of building sites. This problem has been exacerbated, in the last 20 years, by the loss of surface parking to building sites at the same time that campus population has increased. Another aspect of the problem is a high expectation among users that they will be able to park near their place of work. Thus, to accommodate the increased demand, parking management must set out to define user needs in the clearest possible terms.

In the newer portions of the campus, however, open spaces are less well-defined, more incidental, and play a less significant role in the overall design.

This plan emphasizes access to campus for all people. Yet as we grow, the ability to ensure that access within the present model of the campus will diminish. We have met the letter of the law in terms of accommodations for people with disabilities, but to meet the spirit of this plan—the desire for universal access—we will need to do more. Despite the enormous barrier posed by campus topography, such access can be effected by many means. A circulation system within the campus, linked to routes off campus, is illustrated in the transportation plan. The system addresses the practical, long-term need to move more people over greater distances.

Open and green spaces are crucial to the identity of the Lawrence campus. The siting of KU's older buildings emphasized the value of high-quality open space on and adjacent to Mount Oread. In the newer portions of the campus, however, open spaces are less well-defined, more incidental, and play a less significant role in the overall design. Along the 15th Street entryway to campus, buildings have been sited adjacent to streets, with little heed paid to the positive elements of lawn or plazas. Sunnyside Avenue is an even more dramatic example of this essentially



15th Street Entry to Campus

urban style of development. It's necessary for the university to commit itself to preserving the few remaining open areas along these streets.

West campus development poses a different problem. The buildings there have been conceptualized and constructed independently of each other. Even as the landscape is being transformed, there is an overall lack of identity. Buildings are inconsistent in scale and materials. Their wide distribution is detrimental to pedestrian access and the efficient use of transit. The challenge will be the development of a consistent image for west campus, the thoughtful design of open and green space there, and the integration of the two areas of campus.

Assessing Proposals for Capital Projects

A consideration of proposals to build or renovate structures raises the issues of assessment of both quantity and quality of space. Matching scenarios for development to projected need for new and renovated facilities requires a method of assessment of utilization and identification of viable projects.

During the preparation of this plan, the lack of a system of facilities management became apparent. The 1992 Program Review did provide some background documentation concerning space needs. And, as part of the current planning review, a space inventory was completed, using space requirements set forth in Kansas Board of Regents guidelines that informed the 1973 plan. But the inventory's scope was limited: There is a lack of easily accessible information on the quality and assignment of space at KU. The absence of a comprehensive space management program is a serious problem, one that needs to be remedied to ensure effectiveness in resource allocation and equitable distribution of available space. A related problem is that projections of future need are often left to individual departments, which base their expectations about space needs on anticipated changes in their academic and research programs. This makes it difficult to effect unified space management.

As to the problem of quality of space, we take note here of the inevitable deterioration of facilities and the effect that has on the usability, by departments, of those structures. Some "temporary" facilities are still in use 50 years or more after their construction. These include

The absence of a comprehensive space management program is a serious problem, one that needs to be remedied to ensure effectiveness in resource allocation and equitable distribution of available space.

annexes for Blake and Lindley halls, as well as the Military Science Building. Other buildings are in a fragile state. Dyche and Spooner—near or past 100 years old—are impossible to replace and a challenge to preserve; the latter is currently in need of extensive and expensive renovation. The assessment of condition and patterns of use is critical to a successful program of capital improvements.

Other examples exist. The older sections of Malott Hall need to be remodeled and upgraded to meet current health and safety standards. Wescoe Hall, despite the relative recency of its construction, is a heavily used facility suffering from a serious degradation of work and teaching environments. Bailey Hall provides faculty and departmental offices, but its classrooms and other instructional areas have serious limitations. Twente Hall contains offices that once were patient rooms in a student hospital; there are storage rooms that were once restrooms. The electrical and mechanical systems in Strong Hall are a patchwork, and that building's classrooms have changed little since the 1920s.

In general, campus classrooms are undergoing improvements as part of the 1996 legislative appropriation for the Crumbling Classrooms projects. Heating and cooling, lighting, and improvements in room finishes are first on the list of improvements that would also include integration of teaching technologies. As of Fall, 1997, the first projects incorporating these improvements have been completed.

CAMPUS PLANNING STEPS TOWARDS IMPLEMENTATION

The following is a distillation of the principles, objectives and needs for physical improvements outlined by the work of the Physical Development Task Force, consultants and professional staff, and University administration. It has been organized by major areas of concern and should provide a working list of projects to be completed, opportunities to be further researched, and decisions that need to be made to continue to pursue plans for the development of the campus.

This is not simply a summary of recommendations, rather this portion of the document should be considered a checklist of “action” items and tasks with the goal of preserving the beauty of Mount Oread and creating the best possible environment for learning. It will be difficult to consistently implement a plan for the campus without decisions and actions determining the viability both in terms of funding and timelines for these improvements. This is the first step at transforming a framework for campus improvements, prioritizing it based on resources, and creating “the plan” for the campus.

QUALITY OF THE ACADEMIC ENVIRONMENT

The need for improvements in the quality of spaces and management of facilities within the academic sector includes the following recommendations for resource management, project development strategies, and specific capital improvements.

A. Instructional and Academic Support Space

Improve the overall quality of the instructional environment as discussed in the Kansas Board of Regents 1994 report, *Aging Campuses & Crumbling Classrooms: Capital Needs for Kansas Public Higher Education*. This report formed the basis for the \$163 million bond issue passed by the 1996 legislature and includes funding for:

- Major capital projects including the renovation of JRP Residence Hall for the School of Education and an addition to Murphy Hall for the School of Fine Arts.
- Work focusing on classrooms, facility accessibility, fire protection/building egress, and building mechanical systems in a number of campus facilities.

Develop plans to renovate facilities and/or relocate activities to meet minimum space requirements. Two of the buildings and programs identified are Twente Hall, originally the campus hospital, now used by Social Welfare, and Marvin Hall for the School of Architecture to provide space vacated with the removal of Lindley Annex.

Develop plans to renovate, expand, and/or improve the quality of space associated with specific programs:

- Renovate and add to Malott Hall to provide safe and efficient undergraduate teaching laboratory space for the physical and biological sciences.
- Renovate Wescoe Hall to improve office and teaching space for the Humanities.

- Provide an addition to Learned Hall for the consolidation of programs and to provide research space for the School of Engineering.
- Consolidate and provide a stronger physical identity for the College of Liberal Arts and Sciences administrative and academic offices within the core campus.

Develop plans for the following projects, with the aim of improving or enhancing academic and support spaces:

- Complete the unfinished portions of Budig Hall.
- Renovate Bailey Hall.
- Construct a library repository facility and research reading room, perhaps on west campus.
- Renovate a substantial portion of Watson Library to house core collections for instruction and research. Included in the renovation should be individual and public spaces for informal meetings and formal conferences designed to serve as an electronic media information center.
- Renovate Strong Hall to provide modern, centrally air-conditioned space in one of the most heavily mixed-use facilities on campus.

B. Instructional Support

Develop a Center for Teaching Excellence to be housed in Budig Hall.

C. Administration

Evaluate current uses of Strong Hall and relocate activities that are not integral with the functioning of central administration. The goal is to provide space for people and services closely tied to the academic day and the university community.

RESEARCH SUPPORT AND ADMINISTRATION

There is a consistent need to determine the scope of research activities to be supported on the central campus, and what portions of research may be better served on west campus versus within the academic core. Decisions regarding location must reflect the desire of faculty researchers to have access to both teaching and research facilities.

Consider the following criteria when developing spaces and siting facilities for research, supporting equipment and technology, and related services:

- The need for programs and those involved in research to share equipment and facilities, and to be in physical proximity to each other, given the interdisciplinary trends in research and individuals ties to the academic day.
- The roles of information, communication, and the supporting technology in defining scale and location of academic and applied research facilities.

- The need to place sophisticated and expensive scientific equipment in locations that can provide modern infrastructure and utility systems for the operation and maintenance of this equipment.
- The need for access to activities for people both within the University and from the outside given anticipated increases in technology-transfer between KU and the private sector. As the result of the work of the Research Foundation, space will be needed to facilitate that transfer.
- The need to address environmental, health, and safety requirements when deciding whether activities should be on central campus, west campus, or off-campus.

STUDENT SUPPORT

Student support activities outside the classroom and still central to the academic experience require a variety of physical facilities from office space to outdoor areas for recreation. A key concept is that these services are major supporting elements of the academic mission, integral to the educational and personal development of students. These activities require a well conceived plan reflecting the need for physical proximity to both academic spaces and to divisions within the various student services.

In the past, offices, organizations, and activities involved in providing student services have been located alongside those involved in instructional activities. Objectives and specific proposals for the physical development of projects that support a variety of activities related to the academic day are noted below.

A. Student Services

- Consider developing an accessible full-service center for students that provides space for a range of administrative activities related to student life.

B. Housing

- Continue the investment in renovation of on-campus housing according to the following strategic decisions:

- The long-term role that the University will play in providing housing for students in a competitive off-campus residential market
- In defining that role, consider the current trends toward commuter campuses and distance learning on the one hand, and the long term investment in maintaining a residential campus on the other.
- The need to provide living arrangements to a more diverse group of students whose backgrounds vary in terms of age, financial resources, and social and cultural experience.

C. Child Development Center

- Provide a physical development plan for the first phase of construction and potential expansion of a center for the relocation and expansion of activities from the Hilltop Child Development Center. Site selection, building configuration and accessibility will be primary concerns.

D. Visitor's Center

In a space to be renovated in Templin Hall, develop a “front door” to a variety of services focused on campus visitors, particularly those who are here for the first time.

E. Recreation

Develop and coordinate a plan with the Endowment Association for further expansion of the Shenk Complex on west campus to accommodate additional intramural fields and recreation activities.

CAMPUS ACCESS AND MOBILITY

Both in day-to-day practice and in principle for long term development, the institution will need to continue to restrict the movements of traffic passing through campus without a campus destination. This will be necessary to accommodate the expansion of the pedestrian area of the campus.

Changes will be necessary in the configuration of roadways and pedestrian crossings at various locations. Physical solutions will require additional professional study and a source of funding for construction. In some cases these changes will need to be coordinated and perhaps jointly funded with the city of Lawrence.

A. Vehicular and Pedestrian Routes

The following traffic corridors and intersections were identified in the course of the transportation planning as problematic both for the flow of traffic and for points of conflict between vehicles and pedestrians. Short term mitigation and planning for intersection geometrics and traffic control need to be completed for the following:

- Naismith Drive, from Allen Field House north to the Chi Omega Fountain.
- 15th Street from Naismith Drive to Engel Road.
- The intersection of 15th Street and Engel Road.
- Pedestrian crossings near the Chi Omega fountain.
- Sunnyside Avenue from Naismith Drive east to Indiana Street.

B. Campus Access and Mobility

Regarding existing bus and transit service, the University should continue a dialogue with the student-managed KU on Wheels bus system and coordinate the efforts of the Parking Services Department to develop joint funding and management objectives.

In a broader based initiative, University and city-county efforts should identify a strategy to develop, over the long term, an articulated University and Lawrence community system of transit.

In negotiations with KU on Wheels, the University should identify a method of contribution to a transportation system to support the evolution of the campus. Some form of transit will be needed to provide access to activities on campus based on the following transit models:

- A campus circulator system to provide regular cross-campus access to everyone on campus and designed to serve larger areas of central campus with connections to west campus.
- A park-and-ride option that is based on remote sites on west campus or perhaps off-campus parking locations to preserve land for development other than parking.
- A point-to-point shuttle system to support specific activities like connecting the Visitor's Center and Office of Admissions at Templin Hall to central campus locations like Strong Hall or the Union. This need will grow as activities are placed beyond the physical limits of most people traversing this campus on foot and to avoid additional cross-campus automobile trips.

C. Parking

The following are strategies and management objectives related to multi-modal solutions to providing for the use of personal vehicles and the need for transit on campus.

- Review the parking needs of campus constituencies and continue to develop a tiered parking fee system that supports the patterns of users and individual need for access to places on campus.
- Increase the revenue necessary to cover the cost of building parking structures. These structures will need to be designed to optimize the use of the limited commodity of land in and around the academic core of campus. The site for an additional structure is north of the Kansas Union.
- Identify additional surface spaces in existing parking lots.
- Integrate planning and the generation of revenue for parking and transit systems to develop the funding mechanism for a campus-based transit system.

D. Mid-Hill Pedestrian Route

Develop a mid-hill route from Naismith Drive adjacent to Murphy Hall and extending to Watson Library. This route should be designed both for the practical problems of negotiating the grade and to bring a unifying element to the composition of this area of campus. The goal should be to provide well designed and furnished exterior spaces for people. The project should bring a consistent aesthetic quality with the use of paving, planted materials and lighting to this area of campus.

E. Pedestrian Crosswalks

Develop standards and designs for specific locations for pedestrian crosswalks. Solutions should limit the number of lanes pedestrians must cross and encourage use of medians designed for pedestrian safety.

Funding will need to be available in the near term for projects including improvements on 15th Street, along Naismith Drive, and on Jayhawk Boulevard.

F. Bike Route Development

Develop a system of campus bike routes based on the fact that the campus should be a primary destination for Lawrence bicycle commuter traffic. The system should be physically distinct from walks and streets and designated with graphics. It should be coordinated with the city's bicycle routes.

CAMPUS LANDSCAPE

Renewal of the campus landscape should include both specific projects for distinct areas, as well as plans for the general enhancement of exterior spaces and plantings on campus.

A. Develop a Comprehensive Campus Landscape Plan

A comprehensive plan for the campus landscape for both central and west campus should be completed to accomplish the following objectives:

- Establish edges or limits of land use zones, buildable sites and development densities.
- Identify sub-surface geology and the limits of such for proposed areas of development.
- Identify and develop special landscape features which complement the land use model.
- Develop landscape elements which provide and enhance effective routes for campus access and access to principal building entries.
- Develop schemes for enhancements on campus integral with creating a high quality institutional image and campus environment including: a coordinated pallet of construction and landscape materials, design motifs consistent with the traditional image of the main campus, and establishment of a consistent image for west campus.
- Focus on the sustainability in terms of maintenance and longevity of built and planted elements in the landscape.

B. Jayhawk Boulevard

Because of a heavier burden of traffic generated by Budig Hall and a general increase in the day-to-day population on the hill, reconfigure the use of the boulevard to effect safe delivery and movement of people at the top of the hill. The following are steps necessary to achieve this.

- Eliminate parking from Jayhawk Boulevard in a series of staged moves including relocation of accessible parking to additional top of the hill locations. Relocate blue zone parking to Memorial Drive.
- Continue to restrict the use of personal vehicles during the class day.

Maintain Jayhawk Boulevard as a high-quality environment by the following actions:

- Reduce the overall width of pavement to gain areas for pedestrians and green space.
- Enforce measures to reduce the speed and number of vehicles using the boulevard.
- Establish a consistency in planting and landscape enhancements and establish as many large trees as is feasible within a larger campus landscape plan.
- Invest in spaces for pedestrians including areas for seating and socializing, enhance bus stops, and provide areas designed for bicycle parking.
- Develop a consistent image through the use of signage and lighting.
- Preserve the sense of tradition associated with Jayhawk Boulevard while enhancing the safety for the many users of the campus.

C. Designated Campus Entries

Develop the landscape, signage, and plantings for central campus and west campus entries. Through the use of materials the design should reflect the character and image of the University adapted to the scale and requirements at each location. A list of campus entries includes:

- 15th and Iowa Street to be developed as the campus gateway.
- 19th and Naismith as a major campus entry.
- Mississippi and 11th Street as a major campus entry.
- 19th and Iowa as a west campus entry.
- 15th and Kasold as a future campus entry.

D. Memorial Drive Improvements

Develop Memorial Drive as a scenic route with attention to the following objectives.

- Reconfigure parking on the south side of the drive and provide additional pedestrian routes on both the north and south sides of the drive with routes developed to connect to the top of the hill.
- Design a walkway to enhance the movement of people through the Marvin Grove and Potter Lake areas.
- Establish consistency in landscape elements and plantings along Memorial Drive and design the landscaping to emphasize the Campanile as the drive's focal point.
- Over the long term, control vehicular access to Memorial Drive.

E. Malott Garden and Pedestrian Plaza Development

Design a series of spaces that integrate north-south and east-west movements of people on the south slope of Mount Oread. These spaces should become a node of plaza and informal seating development for relaxation and socializing along the Mid-Hill walk.

AUXILIARY ENTERPRISES

These enterprises are often in transition in terms of scope of activities and require ongoing investments in facilities usually funded from self-generated revenue. Providing space, buildable locations, and access to provide service to both the campus constituency and off-campus groups are part of the mix of needs related to physical space that these organizations present.

A. Kansas Union Entry at Mississippi Street

Establish a major pedestrian entry from Mississippi Street to the northwest corner of the Kansas Union. This pathway would create a front door to the lower level of the Union to provide a better introduction to the broad range of services available in this facility. The following related improvements should be considered.

- The creation of a more articulated lower level entry to the Union to accommodate pedestrians approaching from the north and west side and connected at grade to the proposed parking deck north of the Union.
- The creation of a transition zone identified by a redeveloped entry for the Kansas Union that faces onto Mississippi Street to signal to motorists they have arrived on campus.
- Any addition to the facility should provide for new pathways through the Union—especially vertical pathways, such as elevators and escalators—to allow easy movement from the Union’s lower levels up to Jayhawk Boulevard.

B. Food Service Activities

Expand food services at Wescoe Terrace to serve the increased demands resulting from the use of Budig Hall.

C. Additional Athletic Facilities

Complete the renovation of facilities with a focus toward improving services and amenities for competitive inter-collegiate athletic programs including the renovation and addition to Memorial Stadium, enhancements at Allen Field House, and improvements to the baseball stadium.

Evaluate the relocation of existing athletic facilities to off-campus sites. A complete evaluation of the requirements for facilities and the supporting infrastructure for track and field, softball, soccer and tennis should be conducted and incorporated into a master plan for Athletics.

Provide the facility for practice and competition including the development of an Allen Field House Annex for basketball and volleyball.

INSTITUTIONAL SUPPORT ACTIVITIES

The campus plan has identified the need to relocate a number of support activities to make available additional buildable sites on the main campus. Relocation of support activities presently located on main campus will require a significant investment in utilities, infrastructure, and additional roadways if west campus sites are selected.

These projects should be initiated to preserve both the integrity of the academic campus and to support in modern facilities the day-to-day tasks of maintenance and operations for the campus.

A. Facilities Operations

In planning for facilities-operations activities, focus on sites in the interior of west campus. Continued expansion of facilities-operations activities along 15th Street should not be considered a long-term solution.

B. Central Receiving

Consider off-campus locations for the siting of a receiving/warehouse facility to serve many shipping and storage needs of the University.

CAMPUS SIGNAGE

The last campus-wide initiative at developing and implementing a graphics and signage standard on campus was following the 1973 campus plan.

Campus “Wayfinding”

Launch a comprehensive study that includes review and development of design guidelines, locations, and the financial requirements necessary to develop a consistent system of directional, informational, and building signage for both central and west campus.

MANDATES FROM THE AMERICANS WITH DISABILITIES ACT (A.D.A.)

Completion of the “Crumbling Classrooms” package of work will provide for significant additional improvements on campus. To date ADA-mandated projects have included development of accessible exterior routes, building entries, parking spaces, restrooms, and signage improvements.

Additional Work on Projects for Campus Accessibility

Additional work on campus is anticipated to include exterior improvements to pedestrian routes and signage. Evaluation of the existing conditions and proposed projects should be included in a package of landscape improvements and as a significant portion of the work on campus wayfinding.

INFRASTRUCTURE

Recent changes in state policy regarding funding for costs associated with energy use will require changes in the way utilities are managed on campus. In addition, the demands for modern equipment as well as mandated improvements require an on-going assessment of cost and benefit regarding improvements to a variety of utility and infrastructure systems.

A. Electrical Use and Distribution

In accord with recommendations in the 1990 study, complete work that addresses the critical needs for cross-campus distribution and service upgrades.

B. Information Technologies

Identify additional work and continue to fund cross-campus fiber optic installation and building connections.

C. Steam Distribution and Condensate Collection

Undertake a comprehensive study of the steam distribution system. This study will determine current condition, the system sustainability, and future capacity to support additional development. This review should include an assessment of the condition and possible expansion of the tunnel system.

D. Building Cooling

Mandated changes in conversion of building systems using chlorofluorocarbons, or CFC's, and the potential savings in capital and operating costs for economies of size and long term maintenance of equipment point to the need to consider a strategy which may focus analysis and proposed projects and investment in the following ways:

- Review the existing central chiller plant capabilities and potential for expansion to serve additional facilities.
- Study the potential for additional chilled water facilities on campus as part of a zone development to serve existing facilities and provide cooling capacity for the expansion of conditioned space on campus.

E. Water Distribution

Identify additional work for the campus distribution system with a focus on the replacement of lines projected to be beyond their useful life. Recently completed improvements on campus have added to the capacity available. But ongoing work is required to replace many decades old and deteriorated sections of water distribution lines across the campus.

BUILDINGS AND BUILDING SITES

The capacity for development on the central campus is limited by the historic context, the present density of development, and a commitment to the long term use of areas of campus for open space. Where options for academic facilities on central campus do not exist, we will look to west campus for alternatives and solutions. In every foreseeable case, we should avoid solutions deemed appropriate for the near term with little thought given to problems that may be of a duration of fifty years or more.

A. Preserving the Existing Campus

There are limited opportunities for the construction of new buildings in the central campus and careful siting of even modest additions in this area will be important. The following are process steps and principles that need to be adopted and pursued to maintain the present composition and beauty:

- Architecturally significant facilities should be determined based on an evaluation of objective criteria conscious of both the near-term and long-term physical context of the campus. This should become the work of a historic resources committee working with a project management process for capital improvements on campus.
- To the extent possible, we will need to take steps to preserve the historic buildings on the campus and protect the existing balance between built space and open space in areas adjacent to these structures.
- Should a significant building be destroyed by fire or other disaster or be found structurally deficient, the replacement structure should match the scale and character of the original, respecting the relationship of building to adjacent space.
- With buildable areas a limited commodity, sites for specific activities may need to be preserved for decades.

B. Future Building Sites

Evaluate the potential type, size and scale of proposed facilities for areas identified for future development on both central and west campus. Further analysis should be focused on the following:

- Workable ratios of footprint to height where large modern buildings can be envisioned. These ratios should be identified as design criteria for the professionals involved in capital development and campus improvement projects.
- Conscious of the interests of the Endowment Association regarding land not owned by the state, right-of-ways for roadways, utility distribution and service corridors need to be established on west campus to both define and support areas for future development
- The capacity of utility and infrastructure systems to support additional proposed development for both state owned and municipal systems.

C. Removal of “Temporary” Facilities

With provisions for replacement of space for these activities, marginal facilities including Blake Annex, Lindley Annex, and Military Science Annex should be removed to provide space for buildings or to be preserved as open space.

