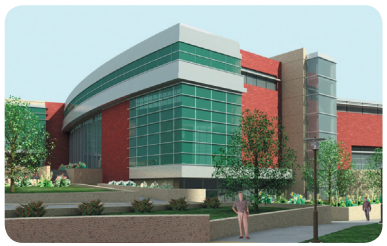
UNMC Facilities Development Plan

2006-2015

September 8, 2006




University of Nebraska Medical Center

A FIVE HUNDRED MILE-WIDE CAMPUS...

OMAHA LINCOLN KEARNEY SCOTTSBLUFF

University of Nebraska Medical Center | FACILITIES MANAGEMENT AND PLANNING

RDG PLANNING • DESIGN

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Section One
Introduction

Section One
Introduction

The UNMC 500 MileWide Campus

As the University of Nebraska Medical Center celebrates the 125th anniversary of the founding of the College of Medicine, it operates a 500 mile-wide campus within the State of Nebraska and reaches out to the nation and the world through research partnerships, premier distance education programs, and global service. UNMC educates the majority of health care providers in the State of Nebraska, is the principal site of biomedical research in the state, and, in partnership with The Nebraska Medical Center, provides the most advanced patient care. UNMC's vision to be a world-renowned health sciences center in partnership with the Nebraska Medical Center is clear and supported by a strategic plan and action to bring that vision into reality. UNMC's principal locations include its midtown Omaha campus as well as sites in Lincoln, Kearney and Scottsbluff. UNMC also maintains clinical education relationships with clinics and laboratories across Nebraska.

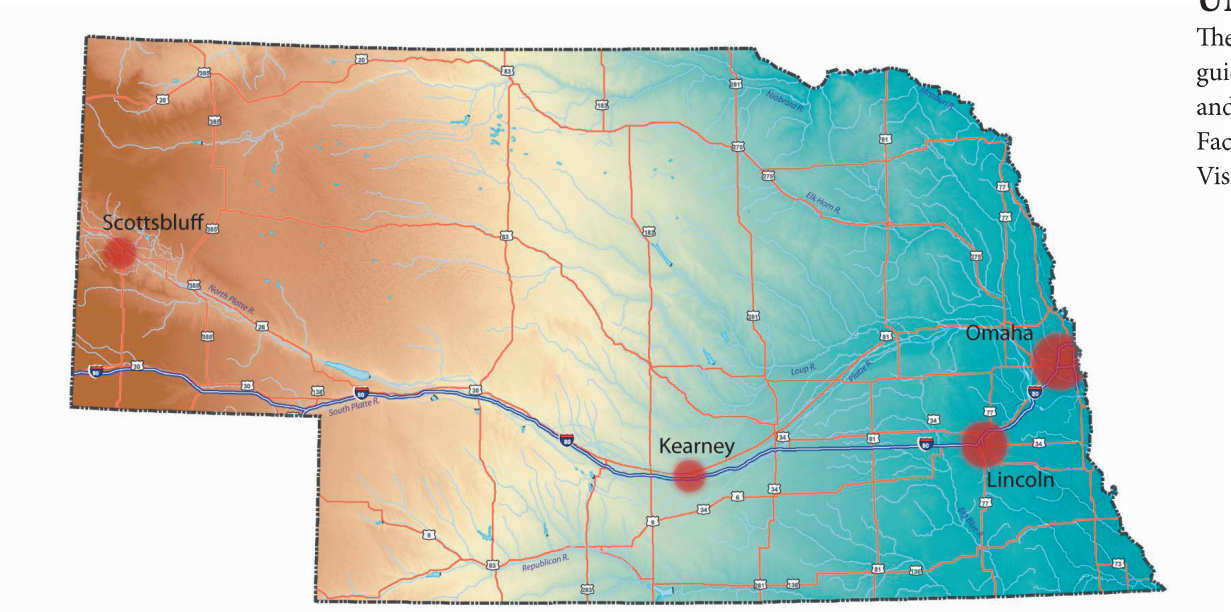
Plan Intent and Scope

The UNMC 2006-2015 Facilities Development Plan provides guidance for the future development of the combined UNMC and Nebraska Medical Center campus areas in midtown Omaha, collectively referred to as the Medical Center, and addresses facilities development at UNMC statewide locations as well. The plan forecasts facilities necessary to implement UNMC's Strategic Plan, identifies future facility sites for UNMC and the Nebraska Medical Center and presents land use, infrastructure, and campus quality concepts to configure the campus to support future growth.

The UNMC Facilities Development Plan addresses the 10-year period from 2006 to 2015, and presents concepts to prepare for campus growth beyond the plan period. The timing of plan implementation will be linked to the accomplishment of campus strategic goals rather than a time-based construction schedule. Nonetheless, plans are categorized as near-term (zero to five years), mid-term (six to ten years) or long-term if beyond the planning period.

UNMC Strategic Plan

The UNMC Strategic Plan is the primary guidance forming the conceptual framework and motivation for the 2006-2015 UNMC Facilities Development Plan. UNMC's Vision, Mission and Values are as follows:



...A 500 MILE-WIDE CAMPUS

University of Nebraska Medical Center Strategic Plan 2006-2009
Approved by the Chancellor's Council on May 16, 2006

Vision

The partnership of UNMC and the Nebraska Medical Center will be a world-renowned health sciences center that:

- Delivers state-of-the-art health care
- Prepares the best-educated health professionals and scientists
- Ranks among the leading research centers
- Advances our historic commitment to community health
- Embraces the richness of diversity to build unity
- Creates economic growth in Nebraska

Mission

The mission of the University of Nebraska Medical Center is to improve the health of Nebraska through premier educational programs, innovative research, the highest quality patient care, and outreach to underserved populations.

Values

Faculty, staff and students of UNMC will:

- Emphasize quality and have high expectations for performance
- Pursue excellence in an ethical manner
- Foster an environment of learning and communication
- Respect individuals for their cultures, contributions and points of view
- Support the mission and vision of UNMC in the best interests of our customers
- Promote individual accountability for organizational success

Facilities Development Plan Goals

The principal goals of the 2006-2015 UNMC Facilities Development Plan are to:

1. Forecast facilities required to achieve the campus vision and strategic goals: to grow research, to expand patient care, and renew education space.

2. Develop new campus configuration and land use concepts to accommodate expanding campus operations and provide direction for long-term campus growth.

3. Develop a framework of infrastructure and campus design concepts to improve campus quality and effectiveness.

4. Support recruiting the best faculty, staff and students through community development.

Planning Perspective and Process

Facility planning at UNMC is focused on adapting the campus physical environment to enable the accomplishment of the institutional vision and mission. UNMC's determination to fulfill its mission by bringing its vision of the future into present reality has generated clear, creative strategies resulting in the concepts presented in the 2006-2015 UNMC Facilities Development Plan. The planning process used for the 2006-2015 UNMC Facilities Development Plan is based on the premise that strategic intention directs both the structure and content of facilities plans and used the following steps:

1. Assess current campus conditions

2. Conduct interviews with campus leaders to understand college, institute and administrative unit plans elaborating the UNMC Strategic Plan and opportunities regarding:
   - Growth
   - Capital Renewal and Plant Replacement
   - Cost Reduction
   - Risk Management Measures and Regulatory Requirements
   - Land Acquisition

3. Analyze and Consolidate Campus Facilities Plans

4. Prepare Campus Facilities Development Plan

5. Test plan concepts with campus and neighborhood groups, community and university leaders.

Prior and Concurrent Planning Efforts

Campus planning at UNMC is ongoing. In addition to the UNMC Strategic Plan, updated annually, the following focused planning efforts have preceded and shaped the 2006-2015 UNMC Facilities Development Plan:

1997 UNMC Campus Physical Master Plan

1999 UNMC Campus Physical Master Plan Update

1999 UNMC Building Condition Study

1999 UNMC Utilities Master Plan

2001 UNMC *Education in the 21st Century* – Education Vision and Education Facility Plan

2004 UNMC Campus Transportation Study

2004 Destination Midtown Study

2005 UNMC Physicians Clinical Space Study – Ongoing

2006 Saddle Creek Relocation Feasibility Study – Ongoing joint project with the City of Omaha

2005, 2006 UNMC College and Institute Strategic Plans

Continuous Planning

Campus planning at UNMC has become a continuous process in order to meet the complex demands of a dynamic and growing campus. UNMC is implementing new systems and staffing to better meet the challenges of growth and change. The campus space inventory is being converted into a campus-wide Intranet accessible database linked to other campus information systems. This project will be completed in 2007 providing additional tools and information needed for floor space and asset management.

Plan Participation

This plan was accomplished with the participation of UNMC Chancellor Harold M. Maurer, MD, Vice Chancellors, College Deans, Institute Directors, and Student and Faculty Senate leaders and the Nebraska Medical Center. The primary planning consultant was RDG Planning and Design. Topical studies were completed by RDG Planning and Design, HDR Architecture Inc, HDR Engineering, The Clark Enersen Partners, Carol Johnson Associates-Landscape Design, and UNMC Facilities Management and Planning. UNMC faculty and staff subject matter experts, UNMC Student Senate officers, UNMC Faculty Senate officers, various civic leaders, and Medical Center area neighborhood organizations contributed to or reviewed the concepts proposed in the plan.



Section Two
Midtown Omaha Campus

Section 2.1

Planning Environment

Campus Community Context

The Medical Center campus is located within the urban context of Midtown Omaha, about 1.5 miles west of Downtown Omaha, midway between Downtown and the University of Nebraska at Omaha campus. The Medical Center occupies over 112 acres of land, contains over 5,000,000 square feet of building space, and has an estimated workday population of 12,000 to 15,000 people.

UNMC has been in its current location in densely developed Midtown for almost 100 years and has grown along with Omaha. The area surrounding the Medical Center represents a sampling of the architectural history of the development of Omaha from the last decade of the 19th Century through the first half of the 20th Century. The adjacent map illustrates the area surrounding the campus as described below.

The Leavenworth Street commercial corridor, a mixed-use district with a land use pattern determined by its history as a major streetcar corridor, defines the southern edge of the campus.

Along the Medical Center's southern edge, a number of campus support functions occupy former industrial structures that line the former Omaha Belt Line Railroad (Missouri Pacific) right-of-way. This railroad angled northwest from about 40th and Leavenworth and turned northward after crossing Saddle Creek Road, joining the main line of the Missouri Pacific that ran adjacent to this drainage way. A pattern of industrial and commercial use developed between the west side of Saddle Creek Road and the right-of-way of the now abandoned railroad. The largest land use is Omaha Steel Castings, a heavy industry located in a triangle west of the campus, and east of 48th Street. Saddle Creek Road currently forms the western campus edge. Further to the west and south lie some of Omaha's most desirable residential neighborhoods.

The northeastern edge of the campus is less well defined and blends into the surrounding urban fabric. Farnam Street forms the northern edge of the densely built campus core area, but Medical Center related uses dominate the corridor between Farnam Street and Dodge Street between 40th and 46th Streets. Major uses include outpatient clinics, supporting parking structures, Clarkson College, and surface parking. Scattered private residential, commercial, civic, and office uses also occur in this corridor. Dodge Street forms a hard northern edge to the campus. Further to the north of the Medical Center lie scattered light industrial areas, remnants of development along the former rail corridor, some residential areas that have suffered from age and lack of sustaining investment, and portions of the Gold Coast National Historic District.

To the east, the campus transitions into the Blackstone neighborhood with its mixed density housing, the remaining early 20th Century mansions of the Gold Coast National Historic District, apartment complexes and office and commercial buildings. The area includes the headquarters of three major corporations: Berkshire Hathaway, Kiewit and Mutual of Omaha. Thirty-eighth Street now forms the eastern limit of campus-related facilities. However, 38th Avenue, one block to the west, is considered the practical eastern campus boundary to protect neighborhood character to the east. Further to the east and southeast are mixed-use areas and residential areas that vary in states of repair and economic strength.

This dense urban context constrains the campus, and limits the Medical Center's ability to grow in area. On the other hand, it presents an important opportunity to exercise thoughtful use of land and building sites, careful management of transportation, and greater emphasis on quality urban design.

Campus Physical Setting

Topography is an important challenge at the Medical Center campus, making campus planning a three-dimensional process. The main campus is located on a hillside, rising steeply from the Saddle Creek drainage shed on the west and Leavenworth Street on the south. A second grade rises east of 42nd Street, creating some of the steepest slopes on the campus. These slopes challenge pedestrian traffic flow and require level changes to maintain the continuity of interior pedestrian ways.

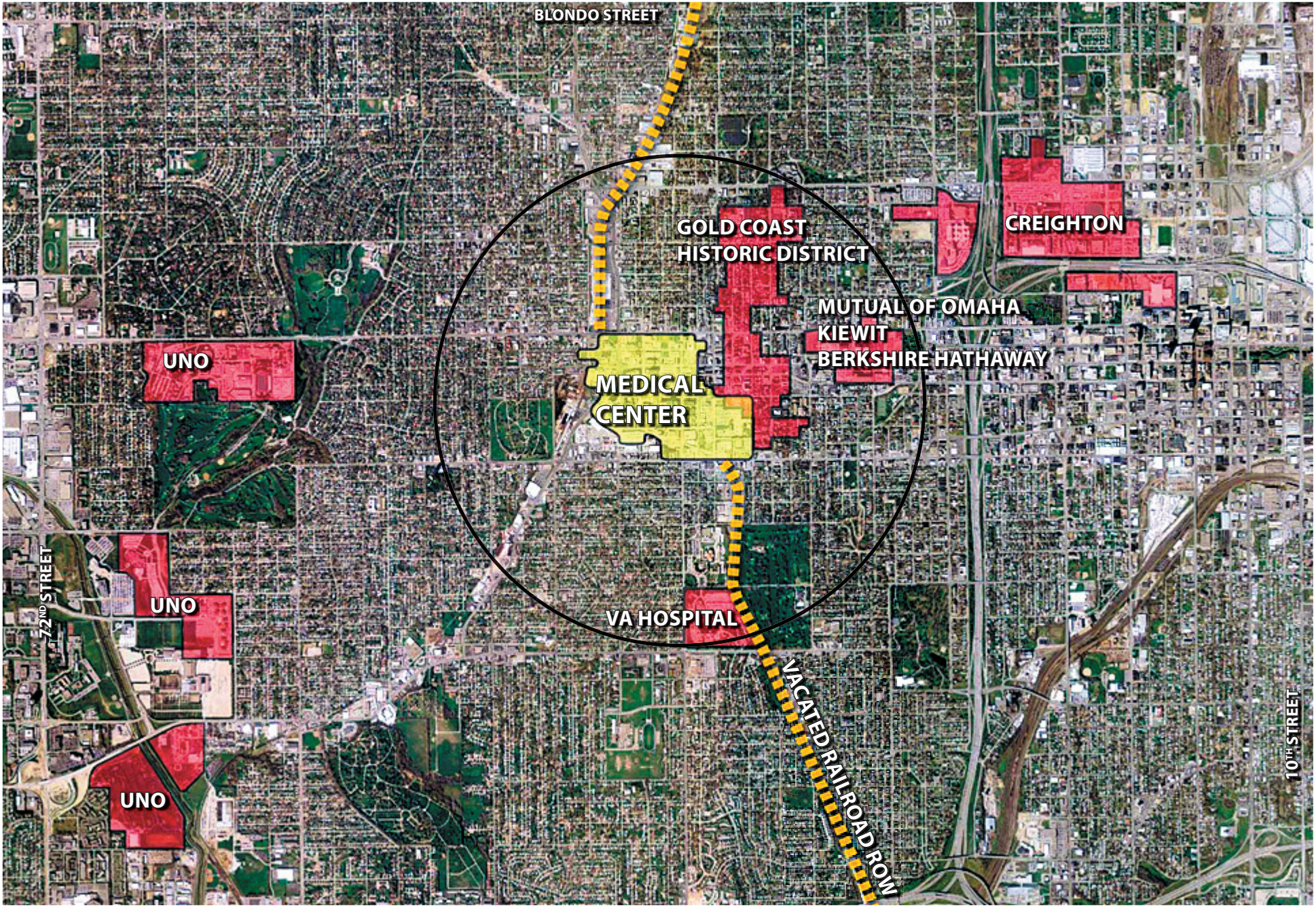


FIGURE 2.1: *Community Relationship: Midtown Omaha*

Section 2.2

Planning Objectives – Campus Area Community Development

Campus-Community Relationship

UNMC has become increasingly aware of the impact and importance of its operations to the economic growth of the State of Nebraska. A reciprocal relationship, with attendant physical and economic impacts and influences, also exists between the Medical Center campus and the community surrounding it. As examples, the appeal of the Medical Center to patients and to prospective students, faculty, and staff recruits are to a degree dependent on the quality of the community surrounding the campus as well as on the quality and potential of the institution and its resources. UNMC and the Nebraska Medical Center recruit hundreds of employees each year. Many prospective employees, as well as students would prefer to live near the campus. They are often deterred by a shortage of quality housing and other livability issues. As the Medical Center continues to grow, the economic viability of the area surrounding the campus will increase in importance.

The Medical Center can act as a catalyst for redeveloping the surrounding area. Community redevelopment is strongly in the Medical Center's interest, creating quality housing and a healthy and vibrant community environment. UNMC believes improving the quality and livability of the greater Medical Center area, Midtown Omaha, will both support recruiting the best faculty, staff and students and meet the operational growth needs of UNMC and the Nebraska Medical Center. To that end, UNMC will collaborate with city and community efforts, and initiate activities that facilitate redevelopment in the greater campus area.

Destination Midtown

Omaha has experienced both rapid suburban expansion and downtown redevelopment. Attracting investment to established areas, such as midtown Omaha requires the creative and collaborative effort of many interests. Recognizing the importance of it's relationship with the surrounding community, UNMC initiated the Destination Midtown study in partnership with the Nebraska Medical Center, area businesses, neighborhood groups, the Omaha Chamber of Commerce and the City of Omaha. The study area boundaries were Saddle Creek Road on the west, 24th Street on the east, Center Street on the south and Cuming Street on the north. The Destination Midtown report, issued in 2004 and subsequently adopted as part of the City of Omaha's master plan, recommended a wide-ranging package of community improvement concepts supported enthusiastically by a broad coalition of community stakeholders.

The mission of Destination Midtown is "to create a premier urban environment where people want to live, work, shop and play. The vision of Destination Midtown is to establish a nationally known, vibrant and distinct urban environment that promotes economic development activities, advances neighborhood goals and forges unique partnerships".

One of the early results of the Destination Midtown effort has been the City of Omaha's designation of a large area along Park Avenue as "blighted and substandard". This permits the city to prepare and implement redevelopment plans that use tax increment financing to facilitate new investment in the area. UNMC continues to be supportive of Destination Midtown community revitalization efforts through its governing board.

Saddle Creek Road Relocation Feasibility Study

The Destination Midtown report recommended relocating Saddle Creek Road, a major city arterial roadway on the western edge of the UNMC campus, as a catalyst to make the area more attractive to redevelopment. The corridor west of Saddle Creek Road presents an opportunity for future campus growth as well.

UNMC has received a federal grant to study the feasibility of relocating Saddle Creek Road more closely. The proposed study, to be jointly conducted with the City of Omaha, will include the participation of the Missouri-Papio

NRD, the Nebraska Medical Center and the Nebraska Department of Roads. The study will focus on the Saddle Creek Road corridor area between Center Street and Cuming Street.

A principal benefit of this study will be to accelerate the process of redeveloping the former rail and industrial corridor along Saddle Creek Road, possibly a once-in-a century opportunity, into a vibrant urban area, complementary to research and attractive to the best and brightest future recruits to the Medical Center. The study will consider opportunities for area economic growth, the development a larger contiguous Medical Center campus area and measures to improve drainage in this flood prone area. Other benefits to be studied include improvements to the intersections of Saddle Creek Road with Leavenworth Street, Farnam Street, and Dodge Street to smooth traffic flow and reduce unnecessary thru-campus traffic.



Saddle Creek Road

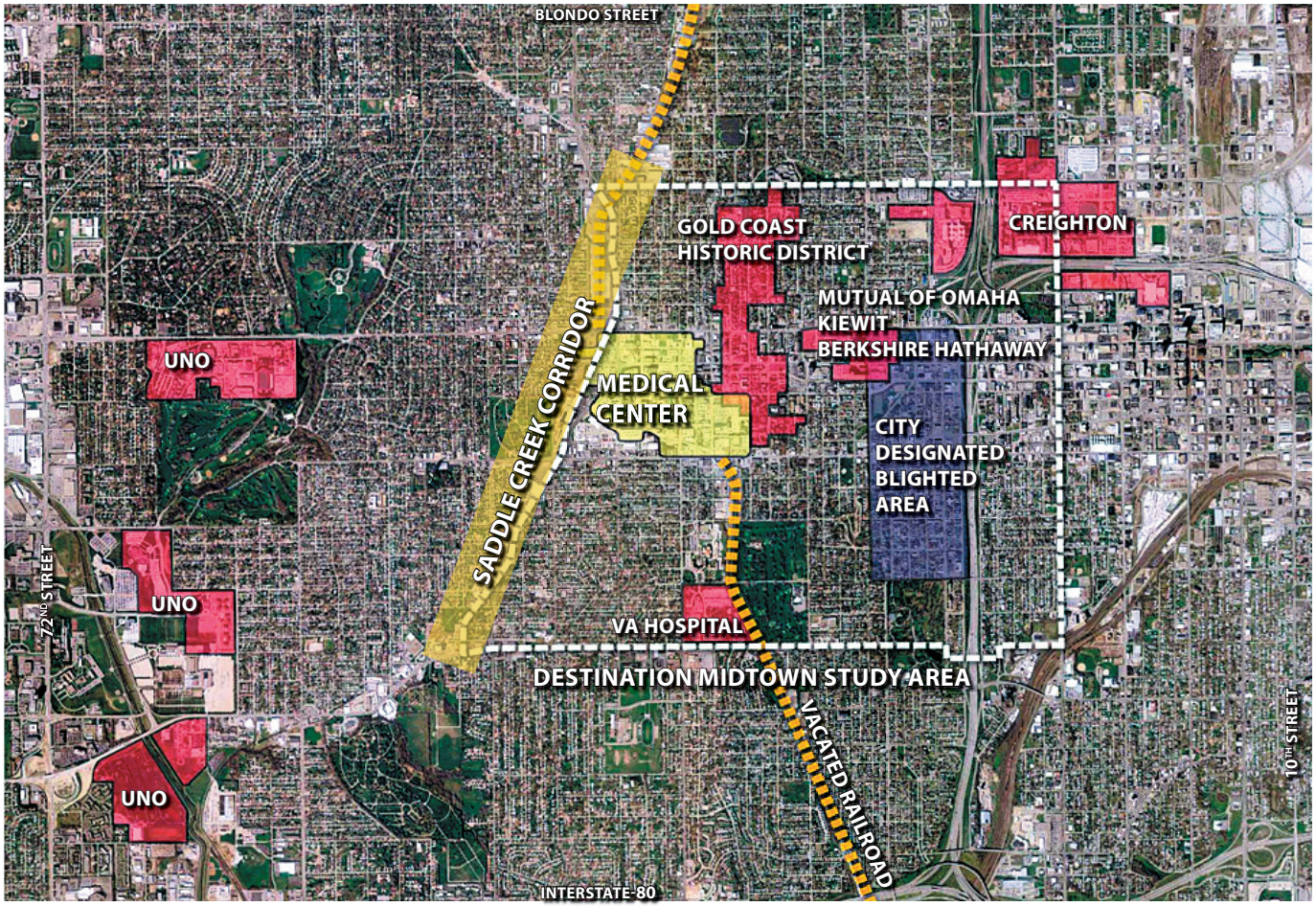


FIGURE 2.2: *Community Development: Midtown Omaha*

Section 2.3

Planning Framework

Current Campus Conditions

Current campus operational and physical factors influence future campus development. These factors include land ownership, current conditions challenging campus growth and development, and desired campus operational adjacencies along with the location of critical campus circulation routes and points of access that begin to orient campus geographic planning.

Campus Land Ownership

Medical Center land comprises an area of about 112 acres. About 79 acres is owned by the Board of Regents. Property ownership adjacent to the campus constrains campus growth and significantly influences campus planning. Figure 2.3 depicts campus area property ownership.

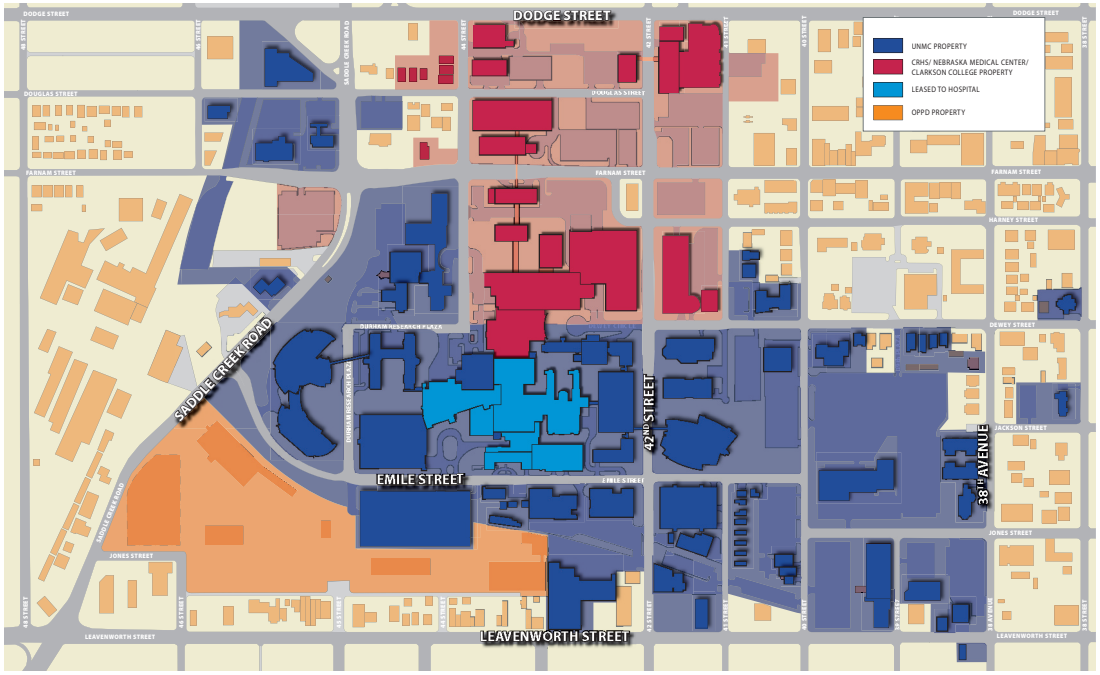


FIGURE 2.3: *Medical Center Land Ownership*

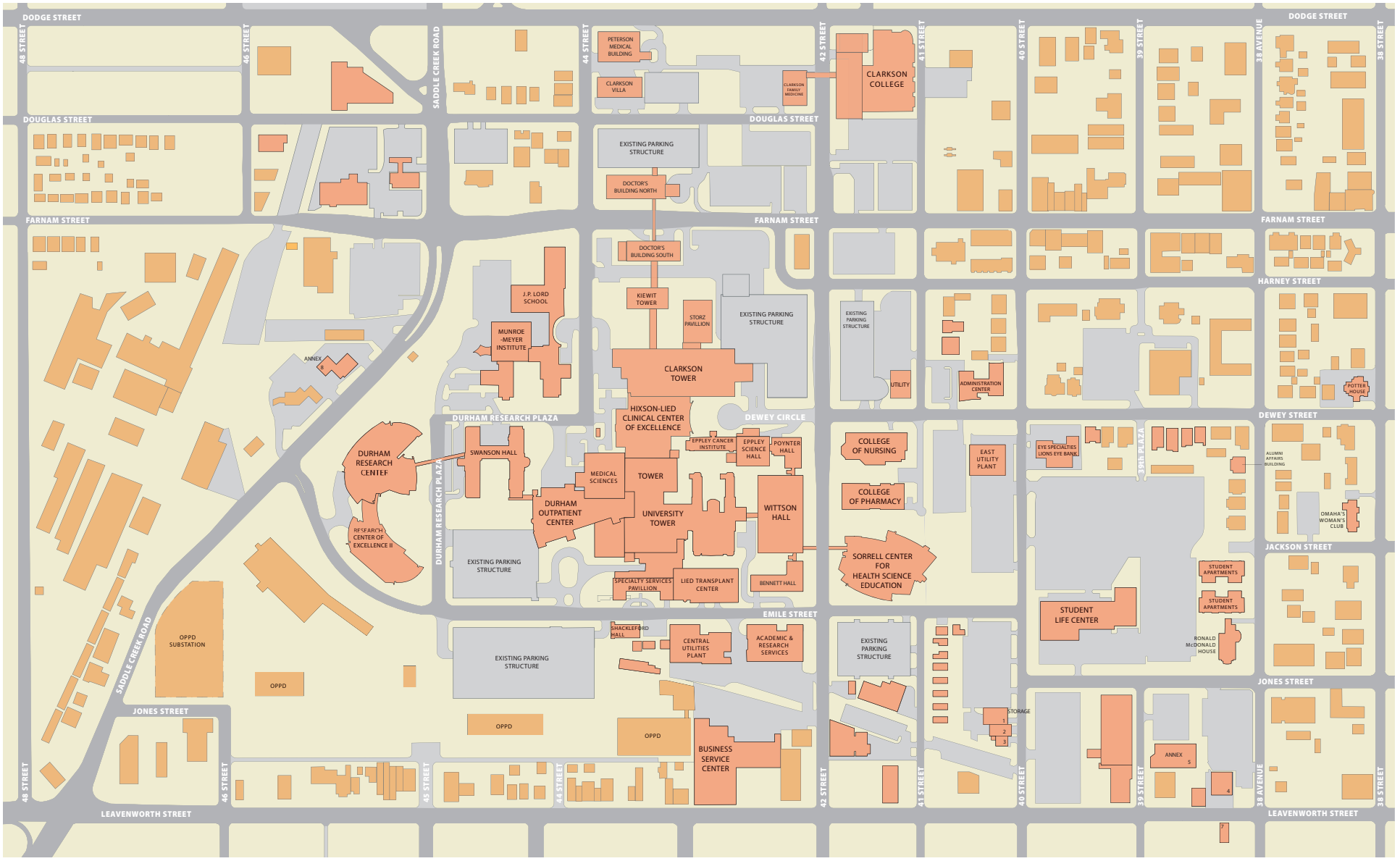


FIGURE 2.4: *Current Campus*

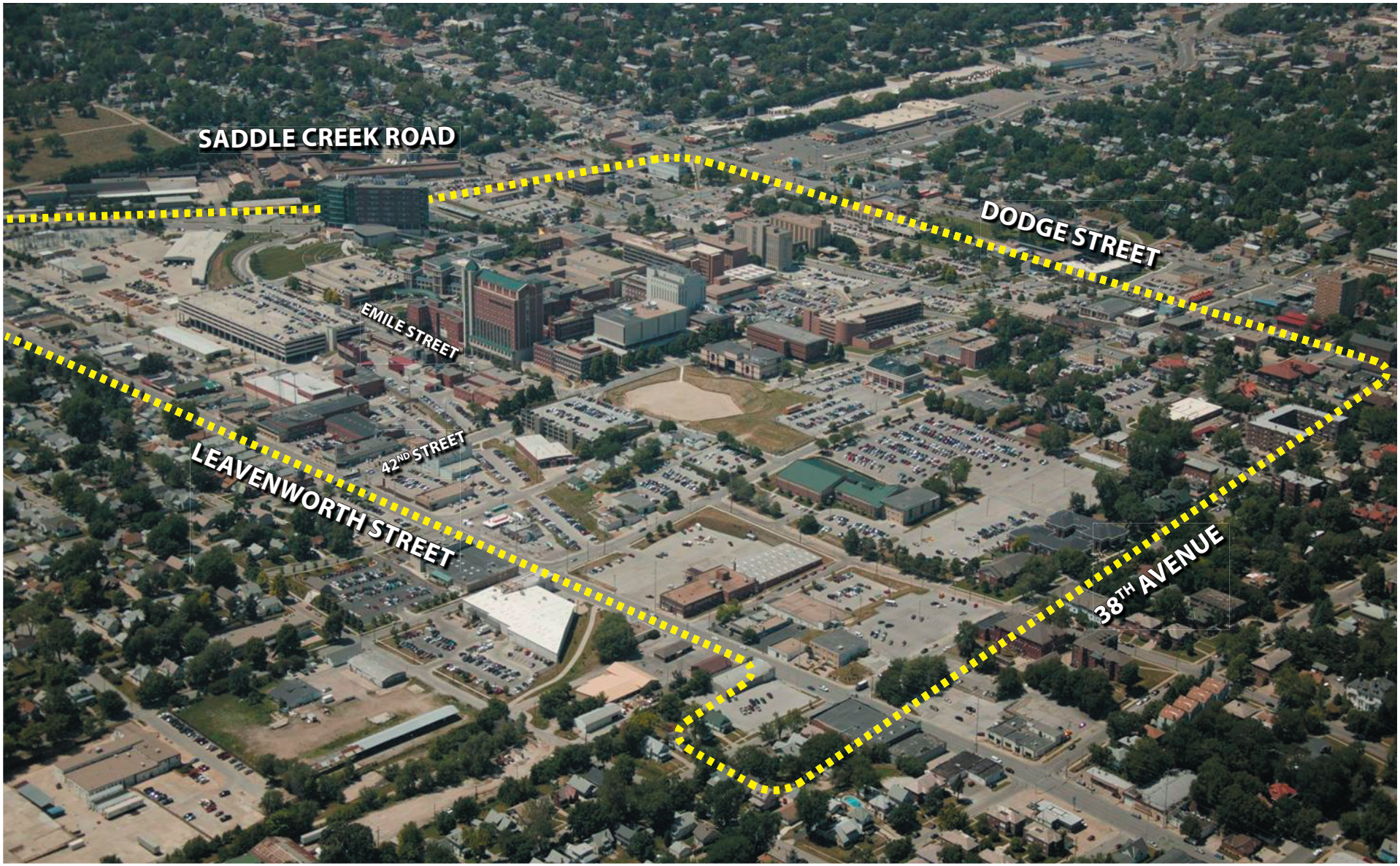


FIGURE 2.5: *Medical Center Campus Area*

Campus Land Use – Functional Adjacencies

Medical Center functional adjacencies are described visually in Figure 2.6. Clinical functions are primarily located in the center of the campus, research laboratories occur in most major buildings, however the weight of research activity has shifted to the west with the completion of the Durham Research Center and the soon to be constructed Research Center of Excellence II. Education activities occur in all parts of the campus, however in general, academic education occurs along 42nd Street, clinical education occurs in the center of the campus in the major hospital buildings and outpatient clinics, and graduate education in the basic sciences occurs in most research labs with classes held in the Durham Research Center. Campus administrative and support functions are located in many campus buildings. Most Business and Finance, and other support functions and have been relocated over time to the periphery of the campus.

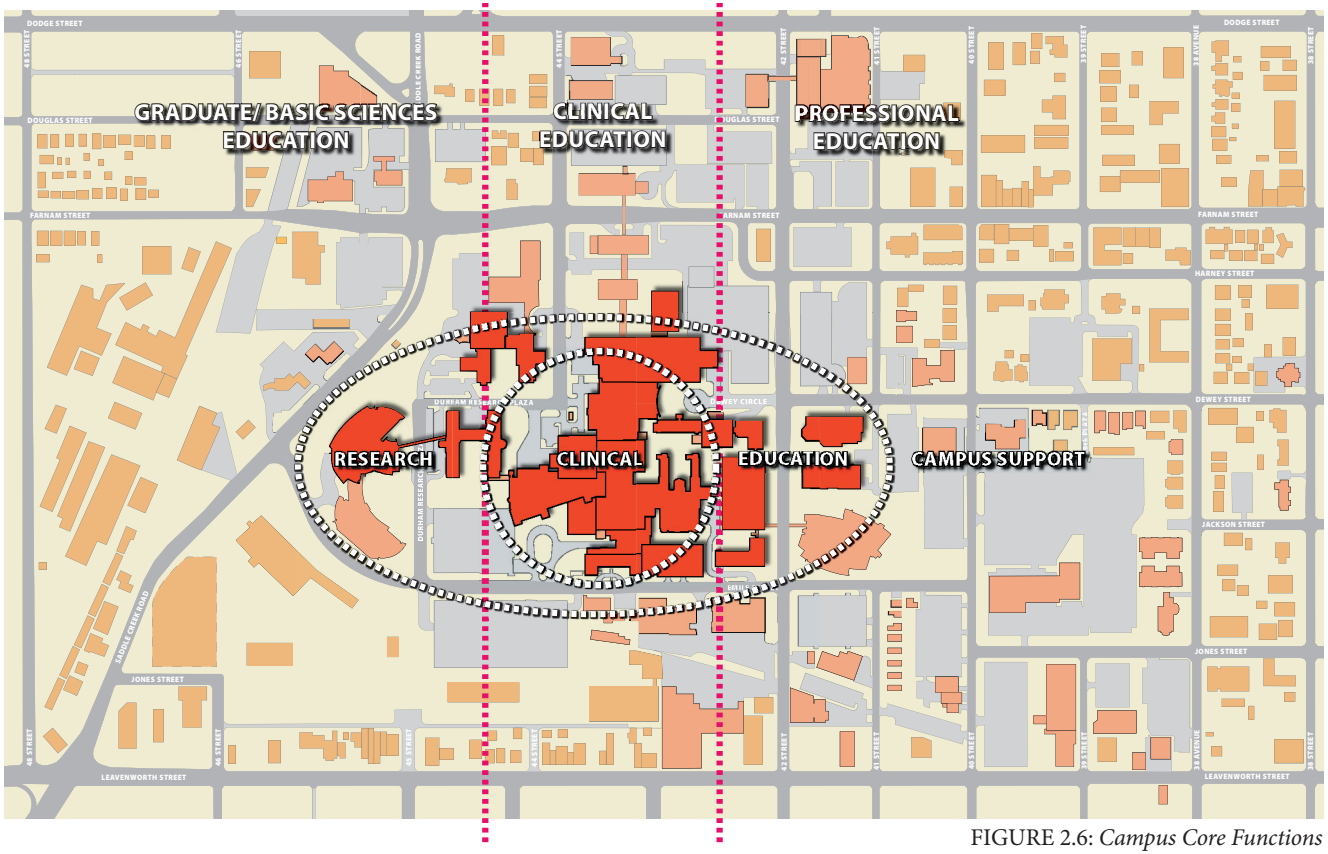


FIGURE 2.6: *Campus Core Functions*

Campus Land Use – The Campus Core

Major facilities of the Medical Center have been clustered tightly to create a central campus core area of about 35 acres containing over 2,500,000 square feet of building space, including UNMC research and education buildings, the hospital towers and the Durham Outpatient Center. This central core is actually a very large and complex mixed-use interior space with its buildings connected by interior corridors, escalators, tunnels and skywalks. This creates a concentration of activities that produces a high degree of contact and convenience.

As is true for any academic health science center, the Medical Center operates more efficiently when it is relatively compact, well connected, and walkable. This configuration accommodates the need for clinical faculty, university staff and healthcare professionals to minimize the travel time between the diverse work locations visited during any given workday, as they balance teaching, research, patient care and support responsibilities, and to create an atmosphere conducive to intellectual interchange. A compact configuration also has the advantage of keeping expensive diagnostic and therapeutic technologies in close proximity to avoid unnecessary duplication. This configuration facilitates the economical distribution of utilities as well.

Buildings in the campus core area have now approached their functional capacity, even though space is assigned competitively and prioritized according to the most important needs of clinical care and education. Older, obsolete buildings in the clinical core that could yield a significant building site have all been replaced by larger buildings. The creation of new construction sites in the campus core area would now require the demolition of buildings that are currently impractical to replace. Maximizing interior utilization of existing campus core buildings, and adapting these buildings to changing models of health care, is a major facility development necessity.

Campus Achievements and Challenges to Growth & Development

Campus Achievements

The Medical Center campus is currently experiencing an extraordinary period of expansion and renewal. New construction has added over 1,300,000 square feet of building space to the campus since the 1997 Campus Physical Master Plan was written. Almost 400,000 additional square feet will be under construction by 2007.

Patient care capacity has been significantly increased with the opening of the Lied Transplant Center in 1999, and the completion of the Hixson-Lied Center of Clinical Excellence in 2005 by the Nebraska Medical Center, to physically merge University and Clarkson Towers.

UNMC has added 164 state-of-the-art laboratories and associated research support capacity during the last ten years with the construction of the Durham Research Center, Lied Transplant Center and Munroe-Meyer Institute addition. As a result, UNMC has been able to triple annual research funding from $27M to $80M.

UNMC has initiated a plan to renew and readapt education space in all UNMC colleges to meet the needs of 21st Century education, culminating with the successful funding and construction of the Michael F. Sorrell Center for Health Science Education. The Sorrell Center will provide a new state-of-the-art home for the College of Medicine and campus-wide education support facilities.

Challenges to Growth and Development

The campus is experiencing the challenges as well as the rewards of recent institutional growth. The 2006-2015 Facilities Development Plan is designed to address these challenges. As UNMC continues to pursue and achieve its strategic goals in research, education and service, and as the Nebraska Medical Center and UNMC Physicians serve more patients, the campus is increasing in population density and operational complexity.

Paradoxically, even with campus growth accompanying the construction of recent new buildings, facility utilization in the campus core area is rapidly approaching 100% capacity:

- In the area of patient care, the Durham Outpatient Center clinics are nearing capacity with over 800 patient visits per day. Hospital beds at The Nebraska Medical Center are utilized at a high rate of occupancy.
- In the field of research, the successful recruitment of biomedical investigators has filled laboratory buildings, including the new Durham Research Center, to near capacity. In addition, the Research Center of Excellence II is projected to reach capacity within 2-3 years of opening.
- Education space is in transition from obsolescent and insufficient to state-of-the-art. The newest space added with the Durham Research center is in high demand. That, along with scattered classroom locations, challenges class scheduling.
- Increasing employment associated with clinical and research growth has nearly exhausted administrative space in campus core buildings.

Campus infrastructure capacity is also challenged by the increased utilization associated with recent campus growth.

- Traffic volume in the campus core area has increased, resulting in safety concerns on campus streets and congestion at passenger drop-off points.
- Parking and utility capacity are currently in balance with demand. However, utility demand is nearing production capacity after recent construction and mechanical upgrades in existing buildings. Demand is forecast to exceed capacity for both parking and utility production with additional growth.

New building sites in the campus core area are in short supply after the construction of recent buildings. Future campus growth is constrained by land availability.



View of Medical Center and Downtown Omaha

New Campus Planning Model

The Medical Center campus has developed over the last century from a compact city campus into a major urban medical center and has now reached a stage in its growth when it must express a more complex level of physical organization in order to expand further.

Two counterbalancing dynamics require attention when planning for Medical Center growth. The first is the strong desire for the campus to remain compact, convenient, connected and walkable as discussed in the description of the Campus Core on page 17; the second is the need to expand in order to provide additional capacity. The land use concepts presented here are intended to accommodate growth with minimum compromise to convenience.

Because of the scarcity of construction sites in the campus core area, new buildings have either been located toward the periphery of the campus core (as in the case of Durham Research Center) or involved redevelopment of underused sites (as with the Sorrell Center for Health Science Education). These developments are beginning to suggest and create campus functional zones, with research functions clustering west of the core and academic uses to the east. This plan proposes to configure the campus for future campus growth by dedicating land adjacent or close to, but outside of the campus core area for the expansion of selected campus activities. These activities must be able to function well at a reasonable distance from the campus core clinical functions as long as good connections and functional adjacencies keep travel distances convenient.

The functions appropriate for this model include research, outpatient care, and academic education. Campus support functions not needing immediate adjacency to the campus core will continue to be relocated to the periphery of the campus. New campus development and future parking structures with the potential to attract a significant volume of vehicular traffic will be located in areas where traffic can be successfully managed.

Figure 2.7 illustrations the adjacency concepts of the new planning model in schematic form:

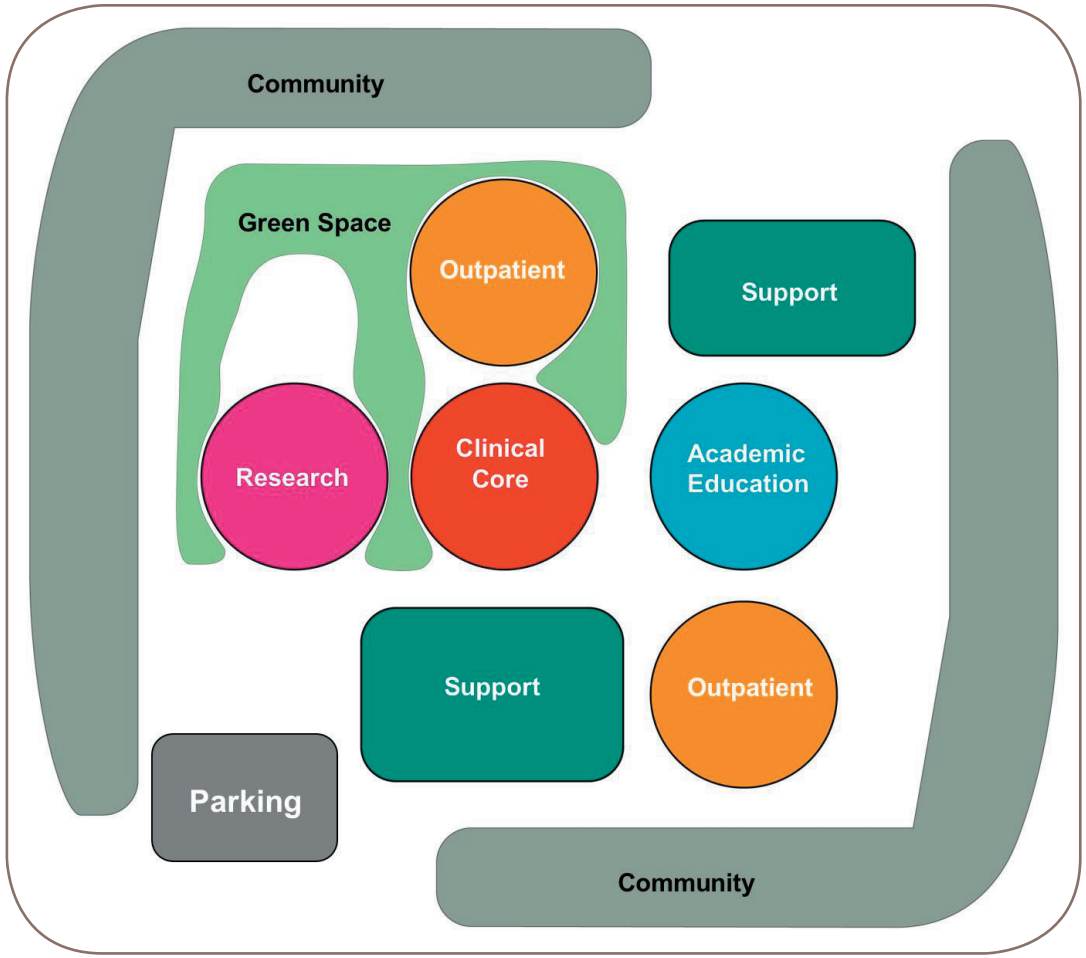


FIGURE 2.7: *Campus Planning Model*

Campus Configuration and Land Use Framework

Figure 2.8 illustrates the new planning model superimposed over the current campus area to configure the campus for future expansion, serving as a framework to discipline future campus land use. In the proposed land-use framework the campus core will continue to be the "mixed-use" crossroads of the Medical Center with clinical care, clinical education and patient service functions predominant. New functional expansion areas will be directly connected to the core and through the core, to each other. An area for inpatient care expansion is identified as an extension of the campus core to the north and northeast. A research expansion area is located to the west of the campus core; an academic education expansion area lies to the east and two outpatient care expansion areas are identified along major public approach routes to the north and south of the campus core. Support and administrative facilities are assigned to the periphery of campus, but are close enough to the center to provide efficient services. Future parking areas and parking structures will be located at important access points near the perimeter of the campus to provide for parking in the functional expansion areas while minimizing traffic increase in the campus core area.

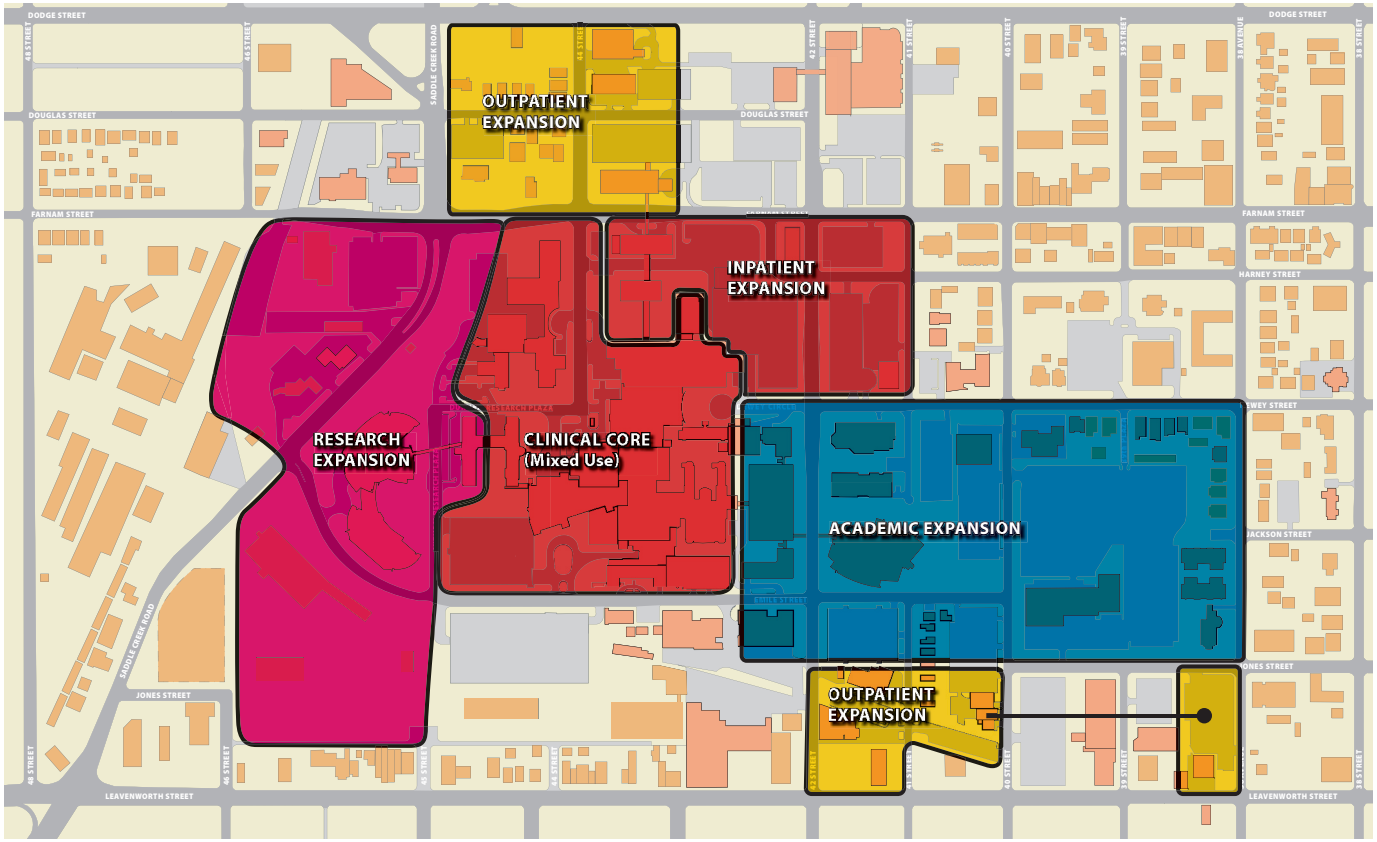


FIGURE 2.8: *Land Use: Dedicated and Connected Expansion Areas*

Section 2.4

Facilities Planning Objectives



Durham Research Center

Research Growth

Vision

The partnership of UNMC and the Nebraska Medical Center will be world-renowned health sciences center that … Ranks among the leading research centers.

UNMC's vision is supported by a strategic goal to grow externally funded biomedical research from today's $80 million annual funding level to $200 million, by becoming the best place to do biomedical research. UNMC's ability to achieve continued growth in competitive biomedical research is dependent on the recruitment of talented investigators, and the availability of high quality laboratory space suitable for the most competitive research, supported by excellent research infrastructure. This goal will require additional state-of-the-art labs supported by accredited Comparative Medicine facilities and highly capable research core infrastructure.

Basic biomedical research contributes almost 80% of the annual research funding at UNMC and is expected to increase in share; patient-oriented, population-based and other research contributes the balance. UNMC has strategies in place to increase its prominence in both categories of research.

Laboratory Research Growth

UNMC currently has almost 380,000 net square feet of research laboratory and laboratory support space. Almost one-half of the total, including 164 state-of-the-art labs has been completed since 1999. Strategies and processes are in place to increase the utilization of existing laboratories by increasing grant productivity per investigator, and by the competitive assignment of laboratory space. These efforts, along with the construction of new state-of-the-art laboratories in the Research Center of Excellence II and the planned renovation of Poynter Hall to accommodate patient-oriented research, are projected to yield the laboratory capacity sufficient to increase annual funded research from $80 million to as much as $130 million.

According to campus projections, UNMC will reach its $200 million annual funding goal during the plan period if additional facilities are constructed. Additional laboratory space approximately equivalent to two Durham Research Centers is planned to achieve this annual funding goal and continue research growth into the future. A Research Center of Excellence III is planned for construction following completion of the Research Center of Excellence II, and will be dedicated to cancer research. A Research Center of Excellence IV will follow this building during the mid-term.

Laboratory Space Renovation

Renovation or re-adaptation of labs in older buildings will also be required during the plan period. This includes labs in Wittson Hall, Eppley Institute, Swanson Hall, the College of Pharmacy and the Eppley Hall of Science, in order to maintain their usefulness to conduct competitive research.

Campus Core Research Infrastructure

As the campus research enterprise grows, additional special purpose research infrastructure will be required to support the ever-increasing technical sophistication required by the most advanced scientific inquiry. High cost, highly specialized laboratory capabilities will be developed as shared/core campus resources and located in or near research labs. Additional core facilities in the fields of Imaging, Nano-medicine, Proteomics and Informatics are expected.

Comparative Medicine Space

Excellent laboratory animal facilities are essential to support competitive scientific research. UNMC Comparative Medicine facilities have been accredited by the American Association for the Accreditation of Laboratory Animal Care (AAALAC) since 1966. Laboratory animal facilities are currently housed in the 4230 Building, Wittson Hall, Eppley Hall of Science Levels 1, 2 and 5, Lied Transplant Center and the Durham Research Center, and will expand into the Research Center of Excellence II.

The Comparative Medicine Department has been steadily upgrading facilities and expanding its capacity to support the increased volume of competitive research and to attract the best investigators. Current upgrading efforts will continue with the consolidation laboratory animal housing into the most technically advanced and operationally efficient locations to provide the best care for laboratory animals and most suitable research support, reducing per-diem costs to investigators. Accordingly, inefficient facilities now in Eppley Science Hall Levels 1 and 2 will be consolidated into the Research Center of Excellence II, as funds are available. The Wittson Hall facility, in good condition, will continue to support research laboratories in the Eppley Hall of Science and Wittson Hall during the plan period. All other facilities are state-of-the-art, having been constructed within the last seven years. Comparative Medicine facilities will require expansion along with the growth of funded research.

Patient-Oriented Research

Patient-oriented research investigations are conducted by faculty investigators in all UNMC colleges, and in a growing number of scattered administrative, clinical and dry lab locations across the Medical Center. Patient-oriented research is defined by the National Institutes of Health (NIH) as research conducted with human subjects (or on material of human origin such as tissues, specimens, and cognitive phenomena) for which an investigator directly interacts with human subjects.

This area of research includes:
1) Mechanisms of human disease
2) Therapeutic interventions
3) Clinical trials, and;
4) The development of new technologies

Current facilities lack the capacity to support substantial growth in patient-oriented research.

UNMC's strategic plan supports the further development and expansion of patient-oriented research. The NIH suggests that competitiveness for clinical investigation proposals requires a new approach and has initiated a new Request for Applications entitled a "Clinical and Translational Science Award" (CTSA), intended to create a "home" for patient-oriented investigations of all kinds on academic campuses. The planned renovation of Poynter Hall, funded by LB 605, will provide a home for patient-oriented research.

In addition to the Poynter Hall renovation, facilities will be needed to increase UNMC's capacity to compete for federally funded (NIH) patient-oriented research grants, support the recruitment of new faculty with extramural grant funding and increase the number of investigators trained to conduct high-quality, patient-oriented clinical research. Future specific planning will determine the nature and quantity of facilities requirements.

Eppley Institute

UNMC Eppley Center for Cancer Research and Cancer Care, an NIH designated cancer center and the umbrella organization for the Eppley Institute for Research in Cancer, is currently pursuing qualification for NIH designation as a Comprehensive Cancer Center. This designation will require additional laboratories, to be provided by the Research Center of Excellence II, and additional office space for patient-oriented research with emphasis on biostatistics. Two facilities initiatives are planned to support the advancement of this goal and continued growth in cancer research:

- Research Center of Excellence III - Following completion of the Research Center of Excellence II, UNMC's next major step in growing research capability will be to construct a laboratory building dedicated to cancer research, currently designated the Research Center of Excellence III.

- Eppley Institute Building Renovation – LB 605 has provided funding to renovate the Eppley Institute building, completed in 1960. Consideration will be given to retiring The Eppley Institute Building, from laboratory use. Analysis of the building shows that complete renovation will be required to continue its present laboratory use in the long term. A more appropriate and lower cost alternative would be to reuse the building for administrative or dry-lab space. This approach would relocate existing research programs into the two floors of the Research Center of Excellence II designated for Eppley Institute research, the Eppley Hall of Science or the Lied Transplant Center. The Eppley Institute building would then be renovated to provide space for patient-oriented research or to house clinical faculty as future needs become clear.

Biotechnology and New Ventures

The UNMC research enterprise has now grown to a size sufficient to implement strategies that will facilitate the transfer of biomedical technology into the market place. Particularly important to future facilities planning will be an emerging demand for new business incubation and start-up space. Other aspects to be considered include identification of suitable commercial partners and opportunities for their location near the Medical Center.

UNMC currently leases dry laboratory space in the Scott Technology Center, adjacent to the UNO campus. UNMC researchers collaborate with the Peter Kiewit Institute at UNO on various projects and are considering further collaborations in the areas of biomedical devices and research software. As the research enterprise continues to grow, UNMC research and technology transfer will stimulate state and campus area economic growth and contribute to campus resources.

Campus Development Concept: Research Expansion Area

Research occurs in most major campus buildings. However, the weight of research has shifted to the western edge of the campus with the construction of the Durham Research Center and the upcoming Research Center of Excellence II. Campus land sufficient for the additional building sites needed to grow research beyond the capacity of approved projects is not available on the western edge of campus.

This plan supports the continued growth of biomedical research through the plan period and beyond by developing a research expansion area on land adjacent to the western edge of the campus (*see figure 2.9*), consistent with the new campus-planning model.

This plan recommends expansion on two sites that together will accommodate at least four new laboratory buildings, similar in size to the Durham Research Center (approximately 300,000 gross square feet), along with associated parking and utility production space. The first site is adjacent to the southwestern edge of the campus on land currently owned by the Omaha Public Power District. The second is the west of the current campus, on the west side of Saddle Creek Road. UNMC owns property in this second area.

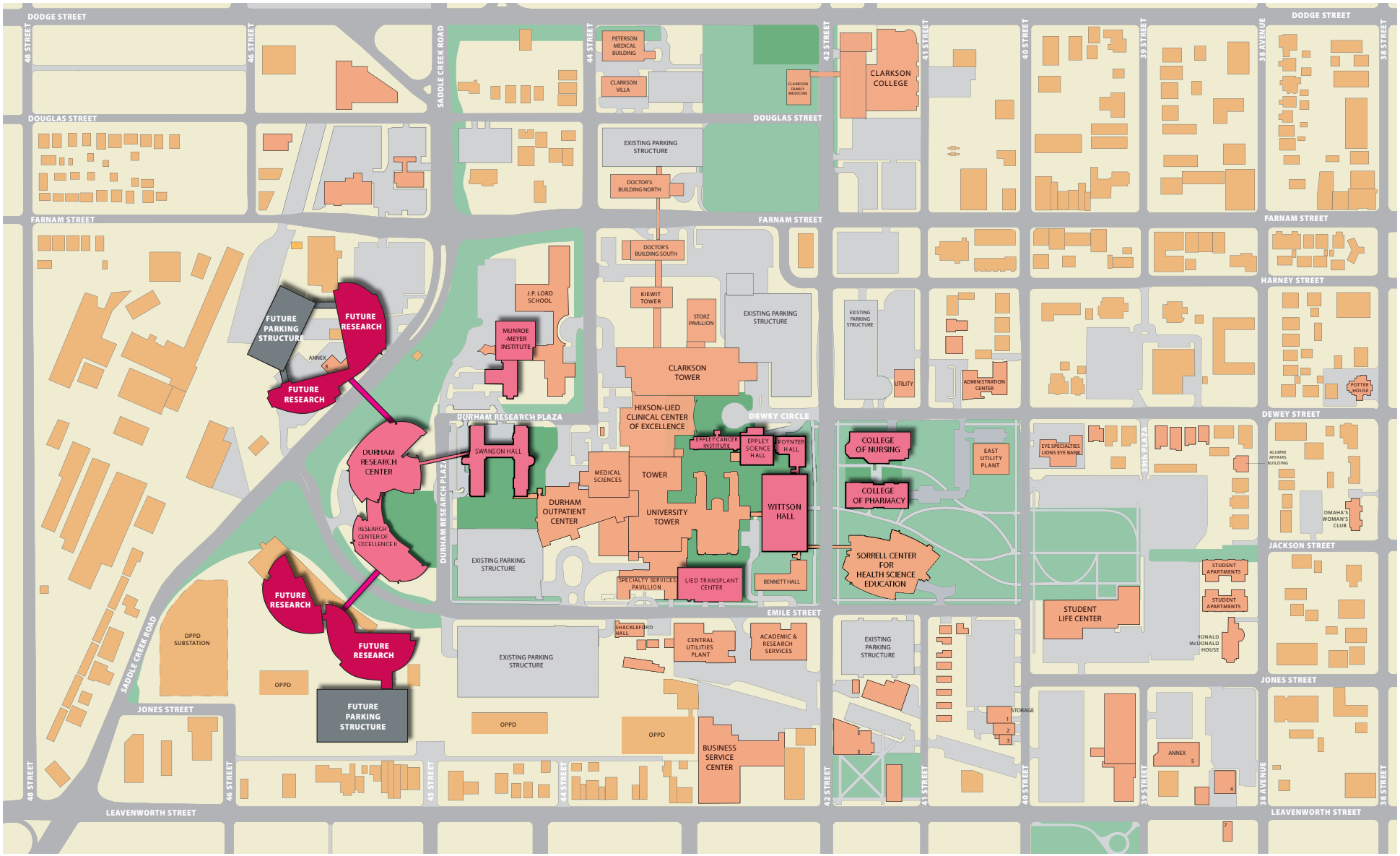


FIGURE 2.9: *Research: Expansion Sites*



Saddle Creek Road Relocation Concept

Campus Development Concept: Research Expansion Area with Saddle Creek Road Relocated

Figure 2.10 illustrates the previously described research expansion area and research growth sites, however with Saddle Creek Road relocated to the west, as discussed in the Community Development section of this plan. In this plan, new research buildings are constructed on an extended contiguous campus area, rather than separated from other research buildings by an arterial street. The realigned Saddle Creek Road would be designed as a parkway, encouraging major area redevelopment, opening opportunities for future research facilities and biotechnology transfer incubator space to develop in close proximity. The former Saddle Creek Road alignment has become a greenway with water features, parkland, and pedestrian and bicycle pathways. Long-term planning will also consider developing fitness facilities, student apartments and other campus amenities in or near the research expansion area.

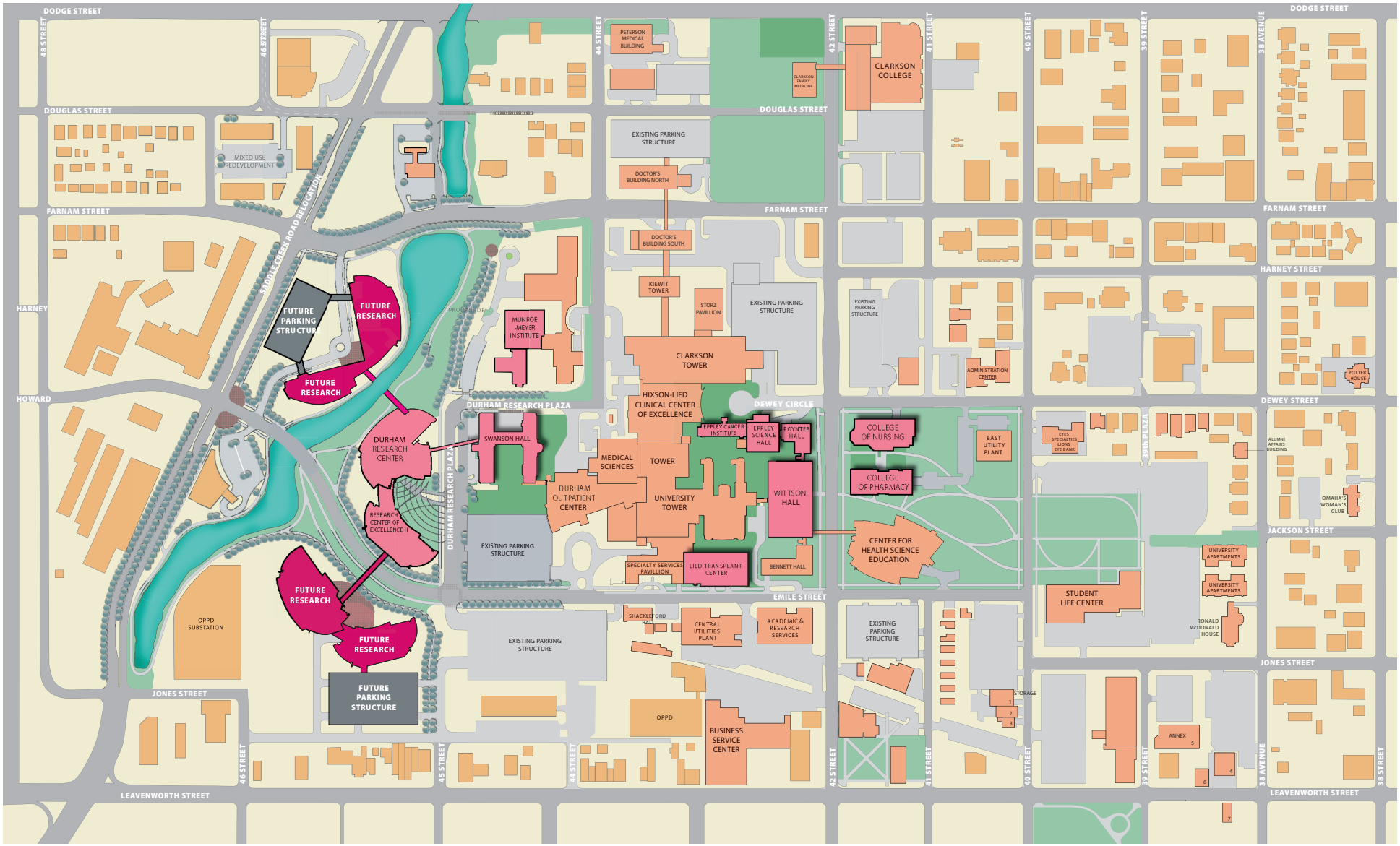


FIGURE 2.10: *Research: Saddle Creek Road Relocation Concept*



Hixson-Lied Center for Clinical Excellence

Patient Care Expansion

Vision

The partnership of UNMC and the Nebraska Medical Center will be world-renowned health sciences center that … Delivers state-of-the-art health care.

Inpatient Care Expansion

The Nebraska Medical Center is currently licensed to operate 689 inpatient beds, along with surgical and highly technical ancillary service space. The need for additional hospital beds and space for ancillary services will vary with changes in patient demographics and clinician population, and with changing hospital strategies. However, facilities for inpatient services will be the dominant driver of change in the campus clinical core. The Nebraska Medical Center has recently added over 175,000 square feet of highly technical patient care space with the Hixson-Lied Center for Clinical Excellence. The hospital is currently pursuing an ambitious plan to renovate and readapt existing space in Clarkson and University Towers, to continue the physical consolidation of the two formerly independent hospitals and expand services.

The Nebraska Medical Center has identified the following sites on the Medical Center campus, to the north and east of Clarkson Tower, for the future expansion of inpatient and ancillary services.

1. A site for a future hospital bed tower is identified immediately to the east of Clarkson Tower displacing the existing parking structure at 42nd Street and Dewey Avenue.
2. The site for a new replacement parking structure is identified as an addition to the existing parking structure on the south side of Harney at 41st Street.
3. A site for a future hotel for long-stay outpatients and the families of inpatients is identified on the east side of 42nd between Farnam and Harney Streets. A new hotel would be ideally connected to the new bed tower by way of the parking structure and a skywalk across 42nd Street.
4. An additional expansion area is identified to the west of the Storz Pavilion from Clarkson Tower north to the South Doctors Tower.

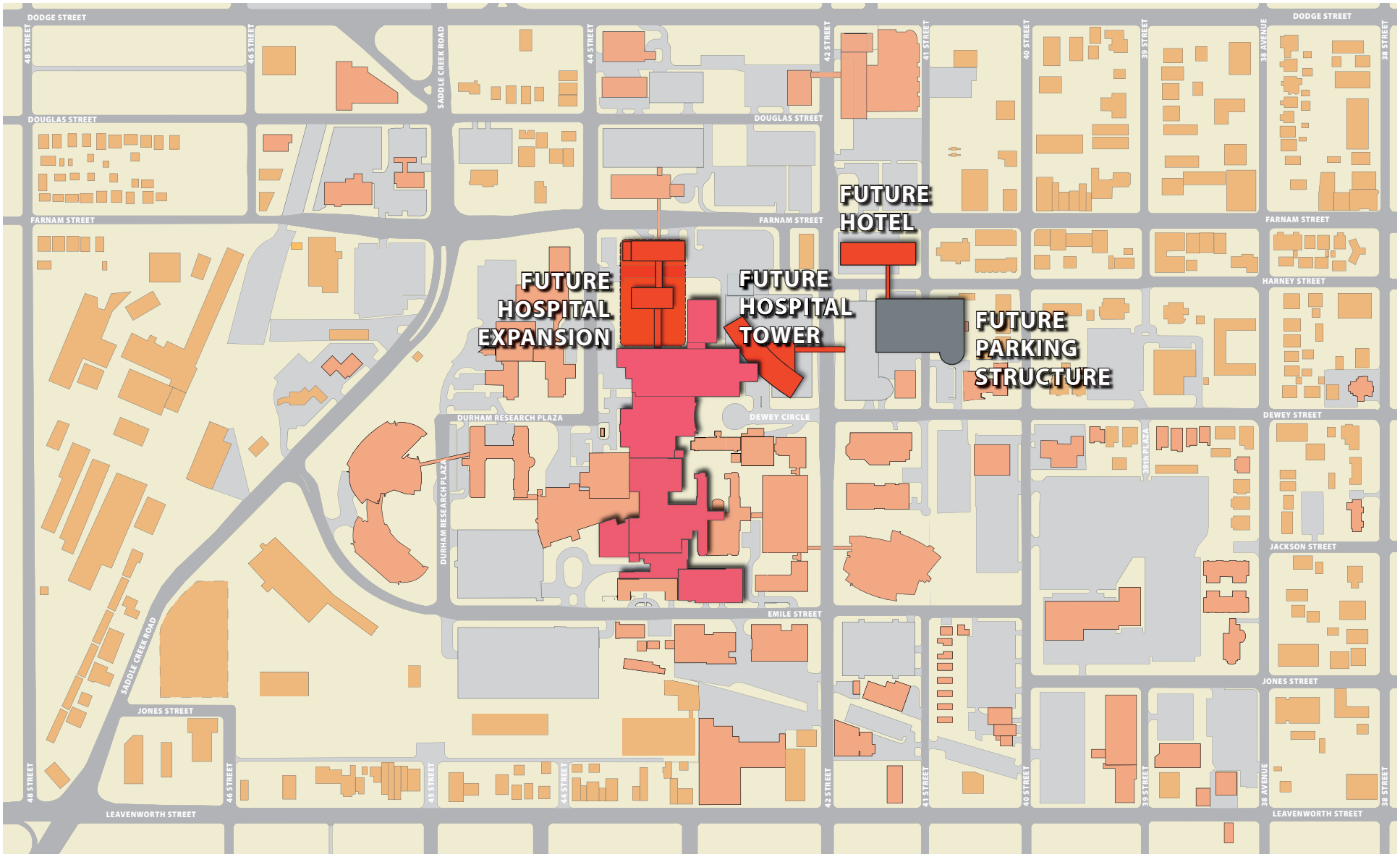
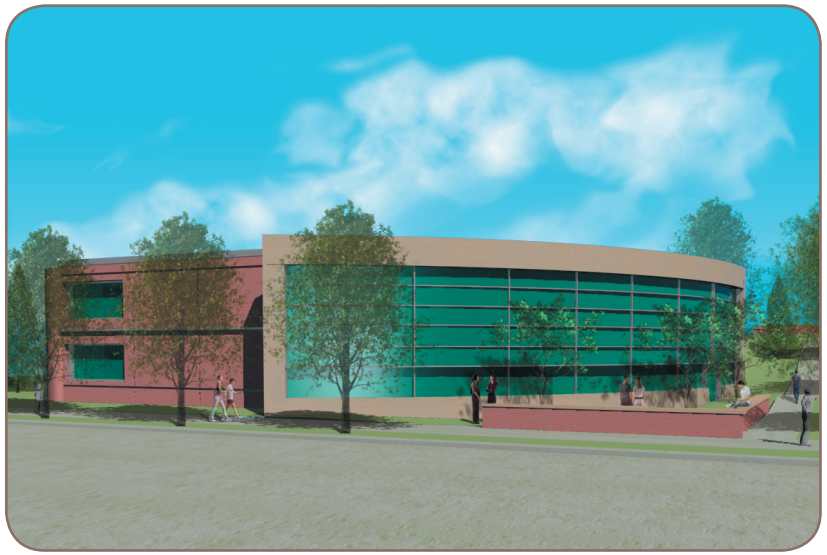


FIGURE 2.11: *Inpatient Care: Future Hospital Development*



Durham Outpatient Center



Future Geriatric Center

Outpatient Care Expansion

Outpatient care services are provided at the Medical Center by UNMC Physicians, University Dental Associates, the Munroe-Meyer Institute, the Nebraska Medical Center, and by private practice physicians as well.

Clinics located in the Durham Outpatient Center now see over 800 patients per day, straining their designed capacity. Other on-campus outpatient clinic locations operate near capacity as well. For example, the capacity of the UMA Eye Specialties building is inadequate for patient numbers and the building is approaching obsolescence. Additional clinic and outpatient ancillary services space is projected for the near-term to accommodate increasing outpatient visits.

Suitable sites for new medical office buildings and associated parking are lacking in the campus clinical core area. This plan identifies two areas for outpatient clinic growth proximate to the clinical core, large enough for parking requirements and long-term clinic expansion, located on public transit lines, and situated near campus entries to provide ease of access and minimize traffic congestion: The first is to the north and northwest of existing hospital buildings. The second expansion area is located at 42nd and Leavenworth Streets, and extends along Leavenworth Street to 38th Avenue. New clinic buildings are expected to develop at the south location first.

A new Geriatric Center is also envisioned on the current site of the Annex IV building at 38th Avenue and Leavenworth Street.

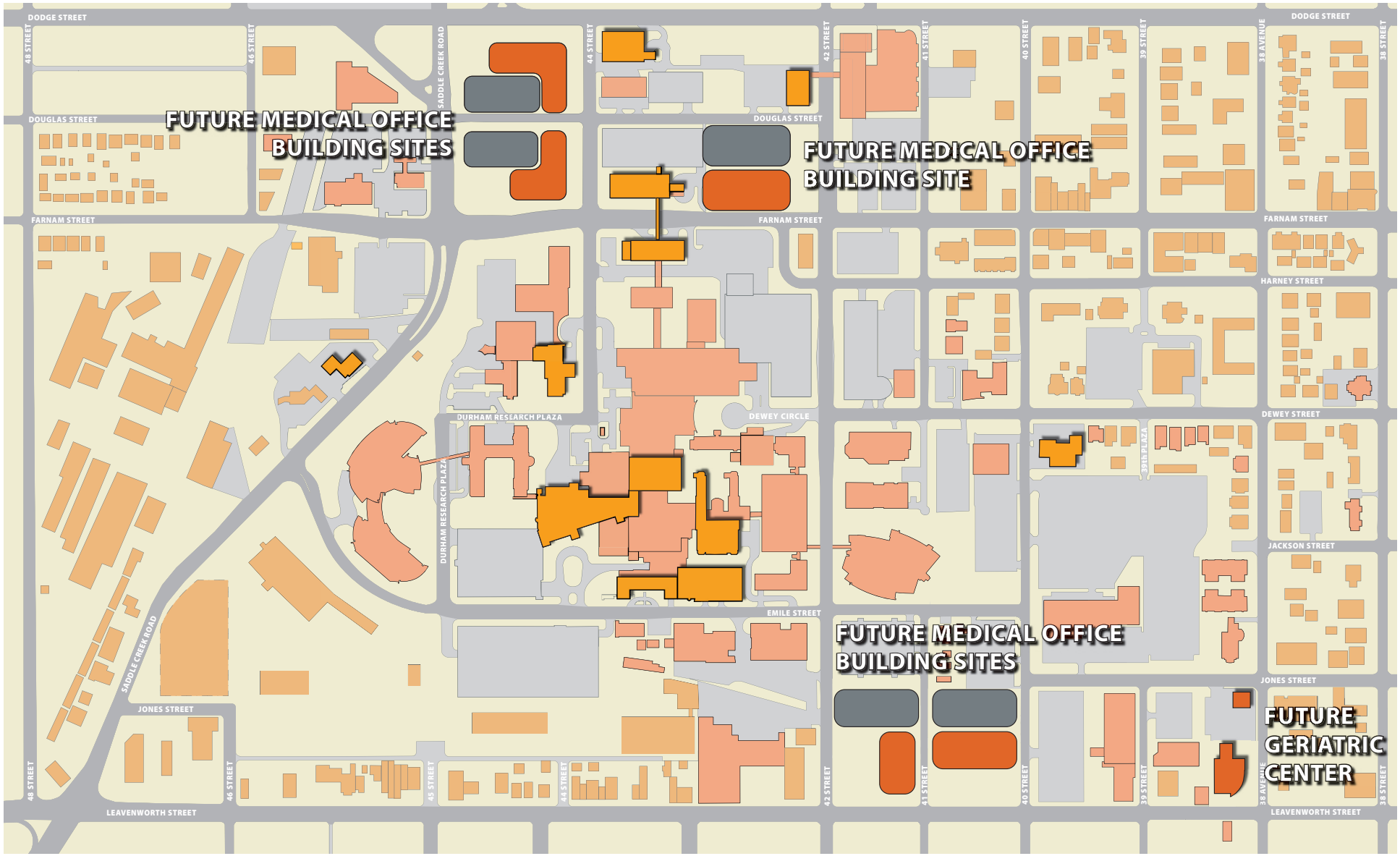


FIGURE 2.12: *Outpatient Care: Future Outpatient Clinic Development*



Michael F. Sorrell Center for Health Science Education

Education Space: Renewal and Expansion

Vision

The partnership of UNMC and the Nebraska Medical Center will be world-renowned health sciences center … that prepares the best-educated health professionals and scientists.

Many factors, including demographic trends, will affect the demand for health science education during the plan period. UNMC prepares the majority of Nebraska's health care professionals and during the next decade, almost one-half of Nebraska's health care professional are expected to retire; at the same time the demand for health care will increase due to projected needs of the aging "Baby Boom" population. Demographic data also show that, during the same period, the available pool of students is expected to decrease. To fill the expected demand, UNMC must continue to maintain and enhance its strong competitive position to attract Nebraska's best and brightest students for future careers in the health science professions. The quality and suitability of UNMC education facilities will be important in that regard.

Academic Education

UNMC is actively engaged in the complete renewal of its academic education space. The "Education in the 21st Century Education Vision and Education Facilities Master Plan", issued in 2001, developed a vision for education attributes at UNMC, and projected in detail the facilities needs for academic education.

That plan found most of the education space for the College of Medicine insufficient or inadequate and called for construction of a new home for the College of Medicine and the renovation of class labs, still appropriate for continued use, and the amphitheater in Wittson Hall. Additional education space and renovation was recommended for the rest of the UNMC colleges in both Omaha and Lincoln.

The Michael F. Sorrell Center for Health Science Education (Sorrell Center), now under construction, resulted from that plan. It will soon form a hub for campus educational activities, provide a new home for the College of Medicine, classrooms for the School of Allied Health Professions, supplement education space for the Colleges of Nursing and Pharmacy, and provide multipurpose event facilities for campus-wide use.

Additional renovation and construction is planned to complete the renewal of UNMC academic education space and prepare for growth:

College of Medicine

The College of Medicine is considering an increase in class size during the plan period in response to a recommendation by the American Association of Medical Colleges to its member colleges to increase class-sizes in the range of 15% to 30%, anticipating a projected future national shortage of physicians. While a class-size increase requires further study, it appears that the Sorrell Center, along with the approved renovation of existing class-lab space in Wittson Hall, would accommodate current scenarios under consideration; providing for the anticipated academic education space requirements of the College of Medicine through the plan period. Teaching technology advances, especially in the area of simulation, will require building adaptation.

College of Medicine – School of Allied Health Professions

The School of Allied Health Professions (SAHP) will for the first time, consolidate its faculty office and administrative space into one location with the approved renovation of Bennett Hall. The completion of the new Sorrell Center along with renovation of existing class-lab space in Wittson Hall will provide the School of Allied Health Professions with state-of-the-art education space in the near-term (Fall Semester 2008). Future growth in SAHP programs is anticipated during the plan period.

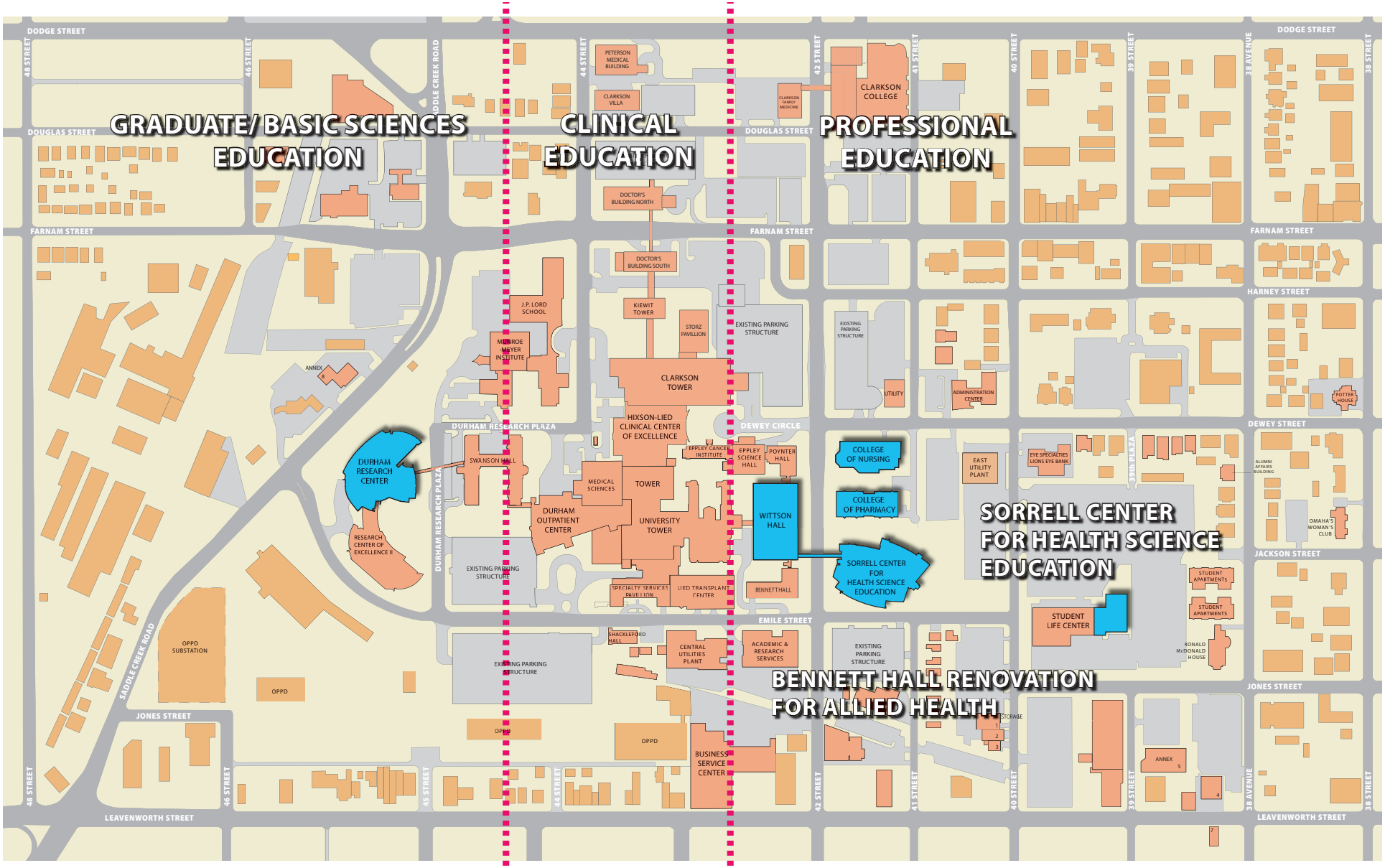


FIGURE 2.13: *Education: Current Campus and Approved Projects*

College of Nursing

The College of Nursing building was completed in 1975. Portions of the building have been remodeled in recent years to provide adequate faculty offices, increase research space and improve education support space. The College of Nursing building will require additional general and education space remodeling along with infrastructure renovation during the plan period.

Completion of the new Sorrell Center will provide the College of Nursing with supplemental clinical skills and classroom facilities in time for the Fall Semester 2008. However, an addition to the current College of Nursing building is planned to support planned enrollment increases, provide additional faculty offices and expand research space.

College of Pharmacy

The College of Pharmacy building was completed in 1976. The College of Pharmacy has pursued a program of research laboratory renovation that will continue in the near-term. Enrollment is expected to remain level. The building will require additional general and education space remodeling along with infrastructure renovation during the plan period.

College of Public Health

The Board of Regents approved the creation of a College of Public Health at UNMC at its July 2006 meeting and forwarded that proposal to the Coordinating Commission for Post-Secondary Education for its approval. A facility to house the new college is planned in the near-term after the college receives final approval. Sites under consideration include a location to the north of the Student Life Center.

Graduate Education – Basic Sciences

Graduate classes in the Basic Sciences are currently sharing classroom and seminar space with the College of Medicine, in the Durham Research Center. Graduate student enrollment in the basic sciences is projected to increase as the research enterprise grows. After completion of the Sorrell Center, the education space in the Durham Research Center will be prioritized for graduate basic science education and is expected to accommodate projected enrollment during the plan period.

Education Support – Library and Private Study Space

The McGoogan Library of Medicine is housed in the top three floors of Wittson Hall. Widely recognized for its excellence, it serves over 6,000 primary users, all Nebraska health professionals, and residents across the state. Given the current trend towards Internet access to information, current floor space for print collections appears to be adequate for the plan period, however the need for information technology will increase. LB 1100 and private donations have provided funds to accomplish significant library renovation; additional building infrastructure renovation has been accomplished with funding from the LB 309 Task Force. The current program of library renovation will continue during the plan period.

Individual and small group study space is in short supply in the Library and on campus, however will be significantly increased with the opening of the Sorrell Center in 2008.

Education Space – Clinical Setting

The current requirements of clinical training for professional and technical degrees in the various colleges are met by rotations in outpatient clinics hospital services, clinical laboratories and in private clinics across the state. As the Nebraska Medical Center and UNMC Physicians expand patient care services with new locations to better serve patients in the growing Omaha area; the variety of opportunities for clinical education will increase. UNMC will continue to work with the Nebraska Medical Center, UNMC Physicians and private clinical training locations to ensure that education support spaces such as study areas and seminar rooms near outpatient clinics, hospital services and clinical laboratories are available for students during clinical training.

Development Concept - Academic Education Campus

Current and planned projects address the renewal and expansion of UNMC education space. The UNMC academic campus would benefit further from a clear sense of place as an academic environment. The 1999 UNMC Campus Physical Master Plan proposed a "College Row" concept for academic building placement along 42nd Street. The Education in the 21st Century Plan identified a need to develop a campus gathering-place or "heart" of the education campus. The construction of student interaction and study space in the Sorrell Center, available for use by all campus students and its exterior plaza, partially fulfill this need.

This plan proposes extending both concepts to a new level by defining and developing a clearly identifiable academic education section of the campus. The new academic campus area would extend from 42nd Street on the west to 38th Avenue on the east and from Emile Street and Jones Street on the south to Dewey Avenue on the north.

The concept of an academic campus builds on opportunities created by the development of a large campus greenway to the east of the Sorrell Center and the presence of the main east-west campus pedestrian corridor passing through the greenway, connecting to the Blackstone neighborhood to the east of 38th Avenue, housing many UNMC students and staff. By the careful placement and orientation of future buildings, additional green space, and well located, landscaped pedestrian pathways, existing academic buildings along 42nd Street would be visually and functionally connected to the Student Life Center and student apartments around central green space to provide a greatly improved sense of academic place, connection and campus image.



FIGURE 2.14: *Development Concept: Academic Education Campus*

Faculty Office Space, Campus Administration and Support

Increasing employment associated with continuing clinical faculty growth in the College of Medicine, and support for the growing campus research enterprise, including research project groups and in the offices of the Vice Chancellors for Academic Affairs and Research, have nearly exhausted administrative space in campus core buildings. Prioritization of remaining resources has become a weekly, senior-level planning task. Additional space will be required during the planning period. Current strategy calls for relocating campus administrative and support functions to the campus periphery to allow maximum use of administrative space for clinical faculty growth and other functions requiring the closest adjacency to campus core functions.

Campus support groups in the Business and Finance organization have been located on the campus periphery for many years. As an example, recent renovations in the Business Service Center (4230 Building) have provided excellent quarters for the Information Technology organization and data center. Buildings acquired with recent land purchases will be considered to supplement existing space for Business and Finance, External Affairs and other campus support groups. Specific plans to relieve the demand for space in the campus core area will be the subject of ongoing study.

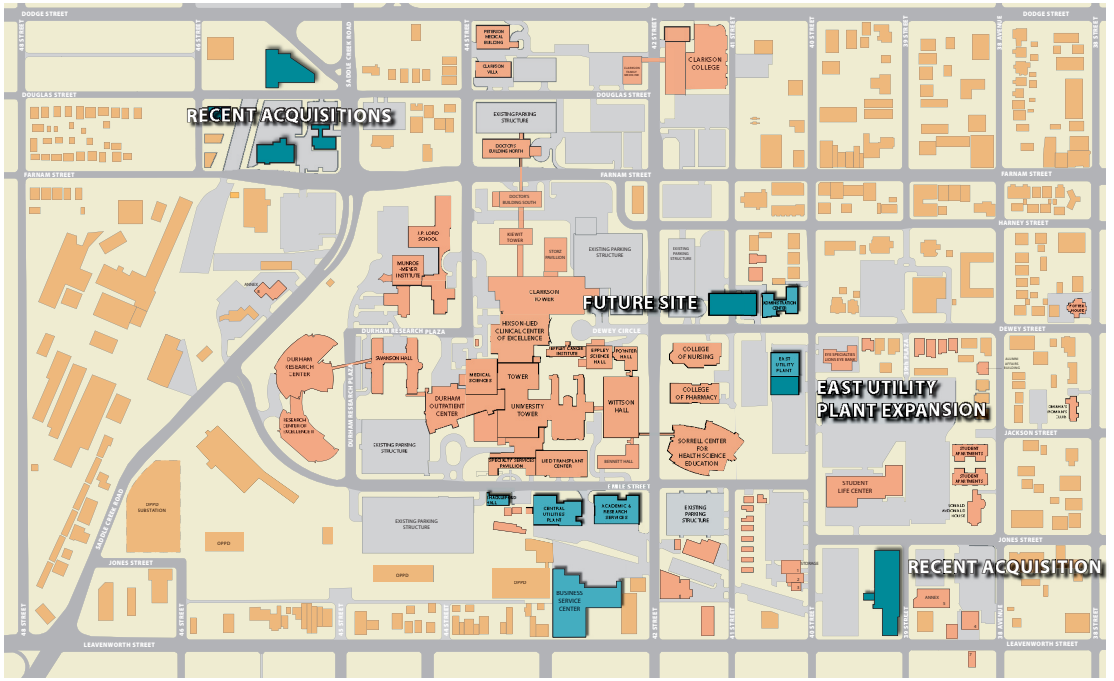


FIGURE 2.15: *Campus Support: Current and Future Sites*

Infrastructure Development

Parking Framework

Parking is the largest single use of land at the Medical Center. Current UNMC parking capacity provides about 4,500 parking spaces in structures and surface lots. UNMC and Nebraska Medical Center parking facilities are managed as a shared resource, increasing the total to about 6,200 parking spaces. Space assignment is prioritized by operational criteria and usage is optimized by oversubscription. Currently, parking supply is in approximate balance with demand. New developments will require additional parking to meet the demand that they create and replace the parking that they displace. Future parking structures will be located to provide good access to the facilities they serve, and be located near campus entry points to minimize increasing traffic. Figure 2.16 illustrates approximate locations for new parking structures.

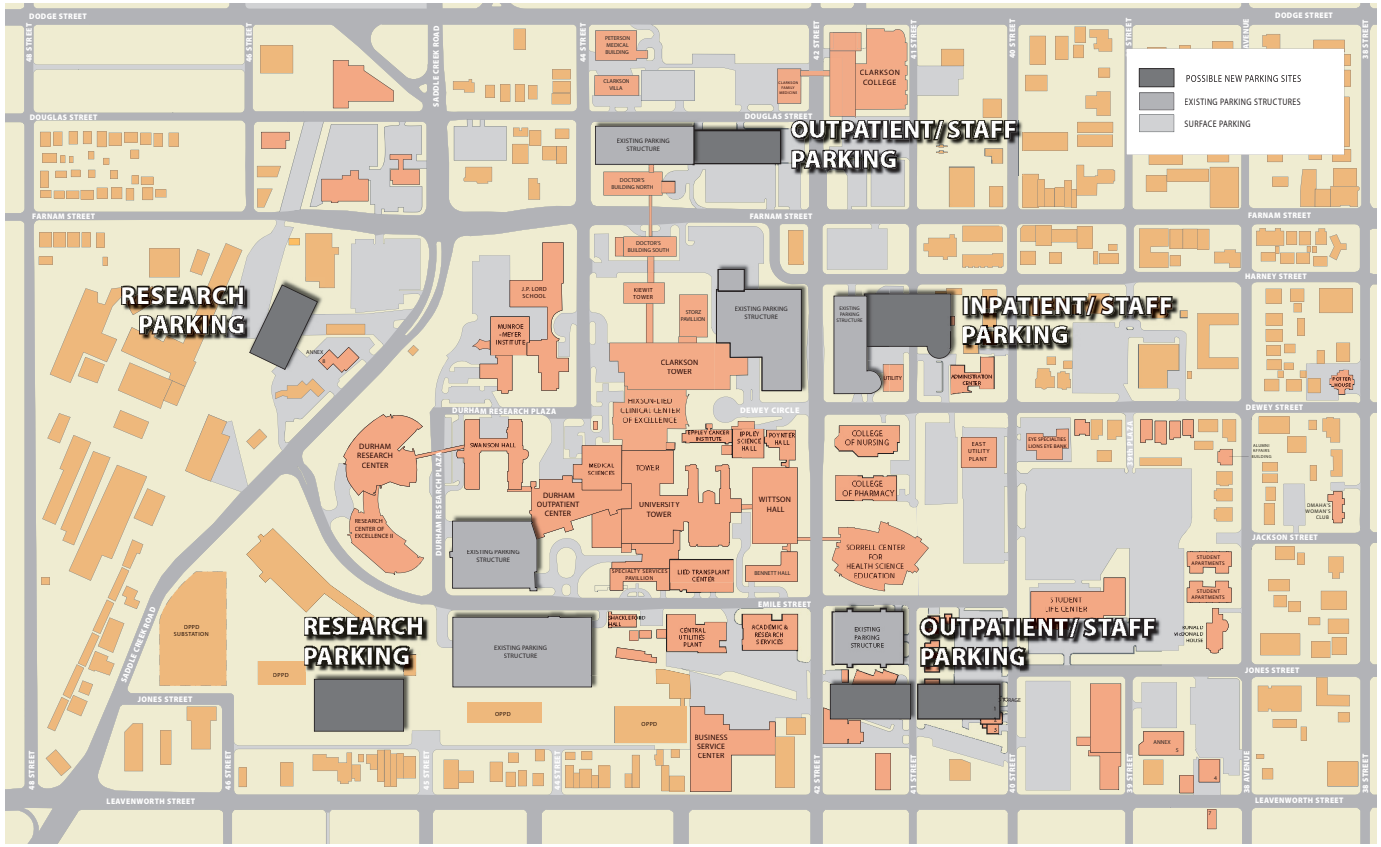


FIGURE 2.16: *Parking Framework*

Section 2.5

Campus Quality and Effectiveness

Campus Access and Circulation

Major city streets, public transportation routes and pedestrian pathways are important for local and regional access to the Medical Center and critical to campus operation. Successful campus planning will achieve a balance between the sometimes conflicting interests of campus pedestrians and the interests of patients, visitors and emergency squads needing convenient vehicular access to clinical core buildings. Traffic management has emerged as a major concern since the 1999 UNMC Campus Master Plan was prepared. As the campus continues to grow during the upcoming plan period, regional access to the campus, circulation and traffic management issues will require continuing attention.

Vehicular Framework and Access Points

Regional Access

Regional freeway access to UNMC is provided by the I-80/I-480/North Freeway system in Nebraska, connecting to I-29 in Iowa. The Harney/Farnam exits from I-480, 42nd Street exit from I-80. and Dodge Street from the North Freeway are principal access points for the Medical Center from this freeway system. However, changes in interchange design and the complete reconfiguration of access from Eppley Airfield with Riverfront development have complicated access to the Medical Center. Other significant regional issues include access to the Medical Center from arterial streets such as Dodge, Leavenworth, and Saddle Creek Road. Clear, regional wayfinding to the campus has been identified as an issue for future transportation planning. Study and resolution of these access issues should be incorporated into current and future transportation studies, including the Saddle Creek Road Relocation Study.

Traffic Management and Circulation

Because of recent campus growth and construction, and general traffic increases in the campus area, vehicular traffic on campus streets has increased noticeably and become an important campus concern. Traffic levels on 42nd Street and Emile Street have been of special concern. According to a recent campus traffic study, there are about 76,000 vehicles per day through the Medical Center campus, of which only about 45,000 are bound for the Medical Center. As a result of this study, 42nd Street is being converted to a three-lane section, both calming traffic and permitting left turns at Leavenworth Street. Changes to the Saddle Creek Road and Dodge Street intersection to improve campus access and divert pass-through traffic will be considered in the Saddle Creek Road Relocation Feasibility Study.

Future Access Planning

The City of Omaha's Destination Midtown Plan called for considering major changes in the arterial system serving UNMC. These proposals included:

- Establishing two-way circulation on Farnam and Harney Streets east of 42nd Street.
- Redesigning Dodge Street as a divided parkway to provide some left turn access and an improved pedestrian environment.
- Relocating Saddle Creek Road to the west, as discussed earlier.
- Redesigning the Saddle Creek/ Dodge interchange.

In 2005, the City of Omaha commissioned a study to consider the feasibility of these recommendations and present design alternatives. The report, released in 2006, presented several alternatives for the Farnam/ Harney one-way pair and recommended building a single point urban interchange (SPUI) at Saddle Creek and Dodge. The SPUI concept would close existing intersections that now provide key access to the Nebraska Medical Center's Emergency Department. Because of the importance of rapid access to the Emergency Department, amplified by the hospital's designation as a trauma center, UNMC and the Nebraska Medical Center will work proactively with the city to ensure full campus access.

Vehicular Circulation and Campus Access Framework

An arterial ring composed of Dodge/Farnam, Saddle Creek Road, Leavenworth, and 42nd Street. This provides primary local and regional approaches to the campus and provides access to the planned outpatient expansion areas from the campus periphery.

A local loop of streets that provides internal access to public entrances and parking facilities. With the previous closing of Dewey Avenue to link University and Clarkson Towers, local access to the campus core area is now provided

only by the loop of streets formed by 42nd Street, Emile Street, Durham Research Plaza, 44th Street and Farnam Street. This loop, combined with 40th Street, serves most of the campus' support and utility facilities, major points of public access, and parking garages. These streets are critical to campus circulation; disruptions of traffic movement on them should be minimized and uniform streetscape elements and visual cues used to clarify their function.

Traffic Management Recommendations

1. Define and improve routes critical for regional and local campus access and operations.
2. Calm traffic in problem areas and increase ease of negotiating those streets to access the clinical core and education buildings.
3. Locate operations likely to attract traffic at sites where traffic can be best managed, near campus entry points.
4. Locate and improve passenger drop-off areas for both patients and employees.

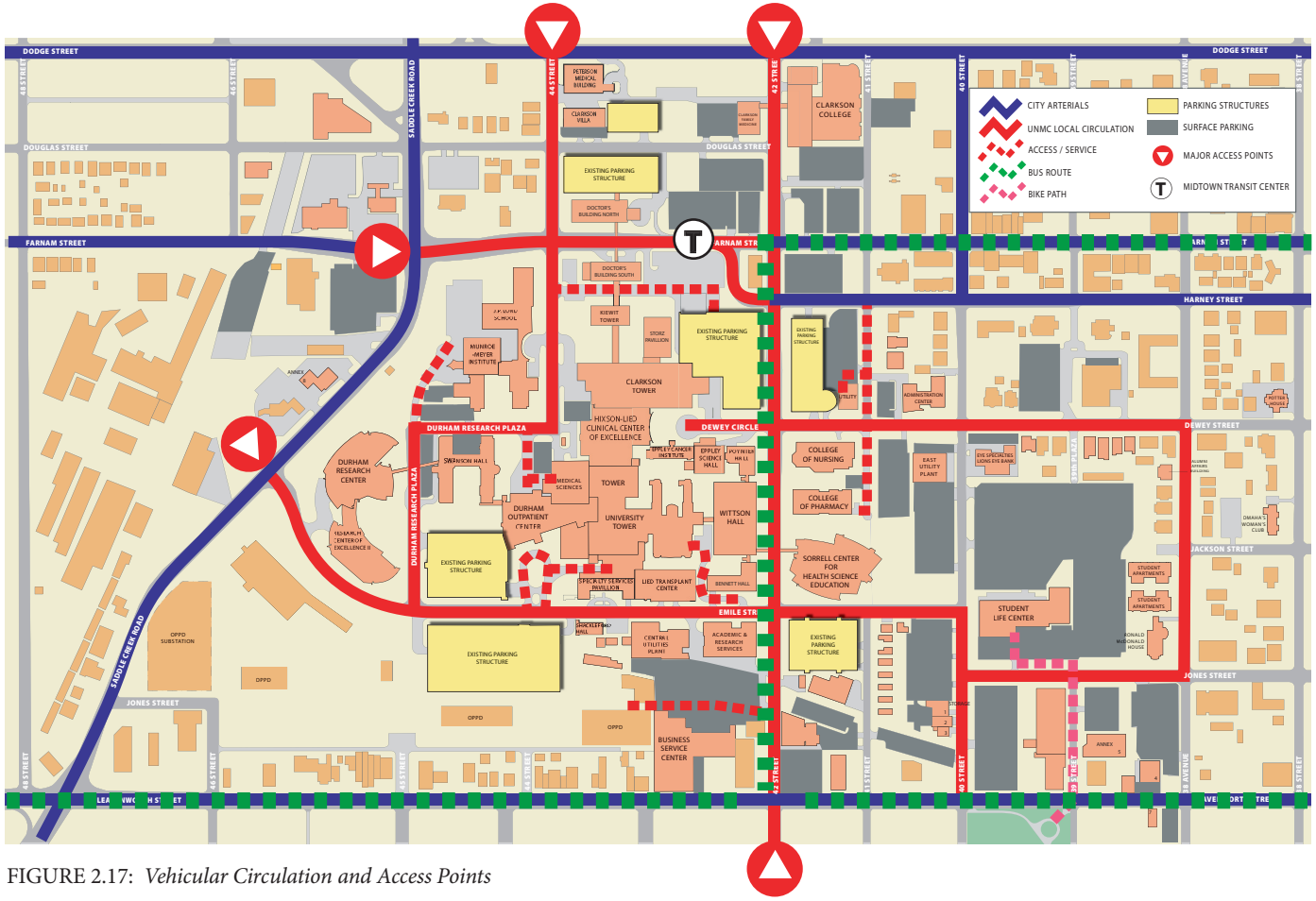


FIGURE 2.17: *Vehicular Circulation and Access Points*

Public Transportation

The UNMC campus is served by a number of Metro Area Transit bus lines, many of which are routed through the Midtown Transit Center, a transfer point located along Douglas Street between 42nd and 44th Streets. Major lines connect UNMC to Downtown, Westroads, Oak View Mall and Crossroads; one of these lines operates through the Center along 42nd Street. Other feeder bus lines link the Medical Center to north and central Omaha neighborhoods. The North Tower of the Doctor's Building is the entrance to the campus' internal pedestrian system closest to the Midtown Transit Center.

Bicycle Pathways

The UNMC campus is adjacent to the Field Club Trail, which extends south from 39th and Leavenworth across from the southern edge of the campus near the Student Life Center, and currently terminates at about 36th and Vinton. Although currently isolated, the Field Club Trail will be linked by a planned connection to the Keystone Trail, using an abandoned railroad corridor that roughly parallels Interstate 80. This project will greatly improve bicycle access to the Medical Center. Pedestrian and bicycle routes to and through the campus from the trail's north terminus are undefined and challenging because of hills. Bicycle travel through the Medical Center is also complicated by traffic congestion. Future circulation planning will consider ways to improve bicycle travel through the campus area.

Pedestrian Pathway Framework

The Medical Center central core is basically a very large interior building complex connected horizontally by building corridors, escalators, tunnels and skywalks. Two major pedestrian pathways act as "main streets" to unify the internal campus and carry the bulk of cross-campus pedestrian traffic:

- A north-south pedestrian pathway that extends informally from the 4230 Building on Leavenworth Street to the Lied Transplant Center. This pathway then uses building corridors and skywalks to connect the campus core, Clarkson Tower, Kiewit Tower and the two Doctors Buildings.

- An east-west "main street" extends from the Durham Research Center through the campus core to the 42nd Street entrance of Wittson Hall. A skywalk will carry this path across 42nd Street to the new Sorrell Center. The east-west pathway now continues informally across the student surface parking lot north of the Student Life Center to 38th Avenue and Jackson Street, a gateway to the Blackstone neighborhood that is home to many students and employees. The Academic Campus concept will greatly improve the quality of this heavily-used pedestrian route.

These two pathways form the axes of a coordinate system that orients users to the complex and connects future campus development. They will create the primary pedestrian linkages among the proposed functional expansion areas. Walking distances for patients are now at the limits of acceptability within the campus core. Wayfinding is also challenging for those new to the campus. Specific projects should enhance the primary pathways, treating them as both vital transportation elements and contributors to the quality of the campus experience. Additional planning for patient access and transport between buildings will be required as campus growth continues.

Pedestrian Access

Pedestrian access to the Medical Center is provided largely through sidewalks along streets. While sidewalks exist along most area streets, the overall pedestrian environment is relatively un-friendly. Sidewalks along Dodge Street and Farnam Street do not adequately separate vehicular and pedestrian traffic and are relatively narrow. Pedestrian access from the north across Dodge is blocked at Saddle Creek and difficult at most other points. Finally, pedestrian access from external streets to major campus entry points is often indirect. UNMC will continue to work with the City to improve the quality and safety of the street environment for pedestrians.

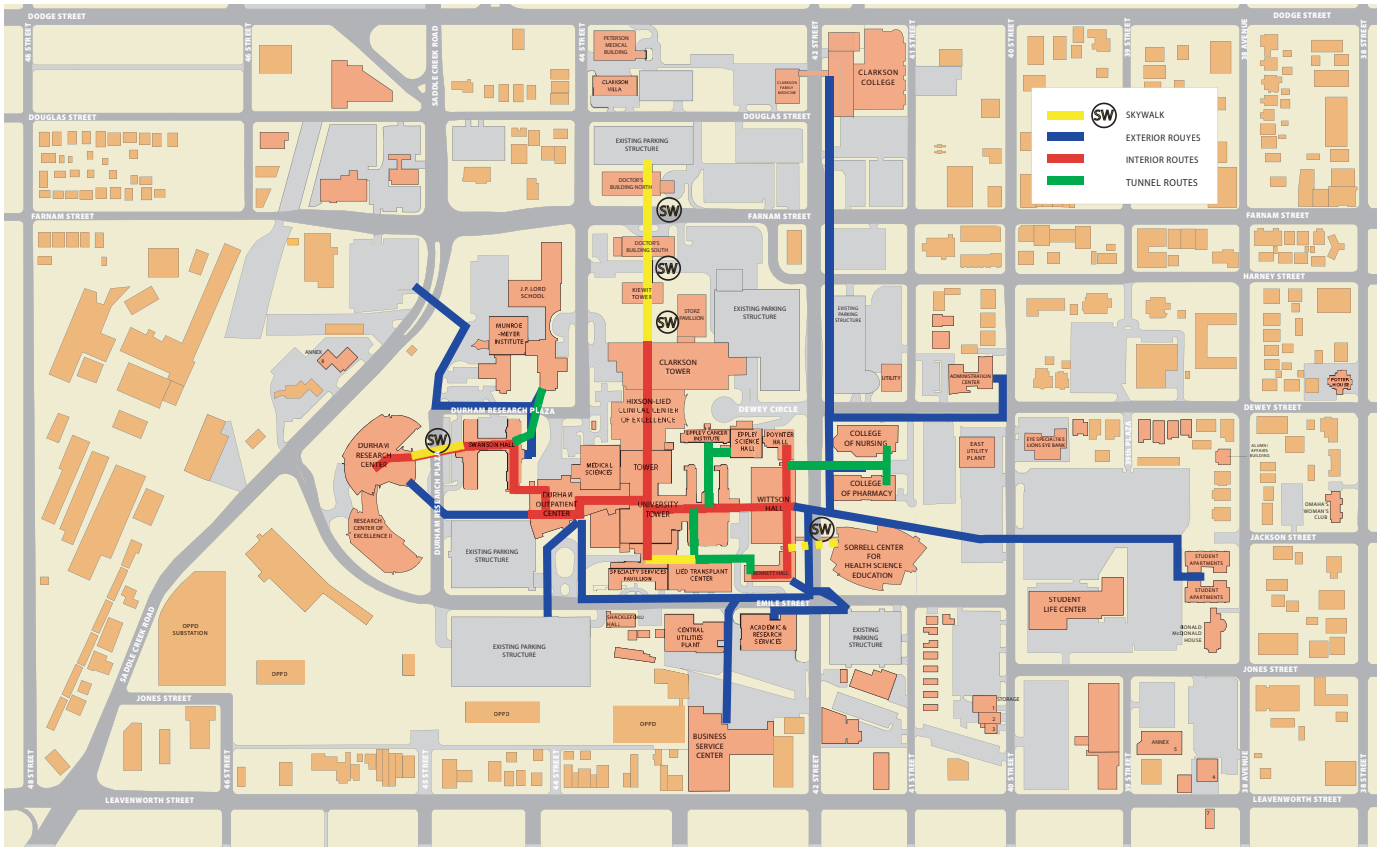


FIGURE 2.18: *Medical Center Pedestrian Pathways*

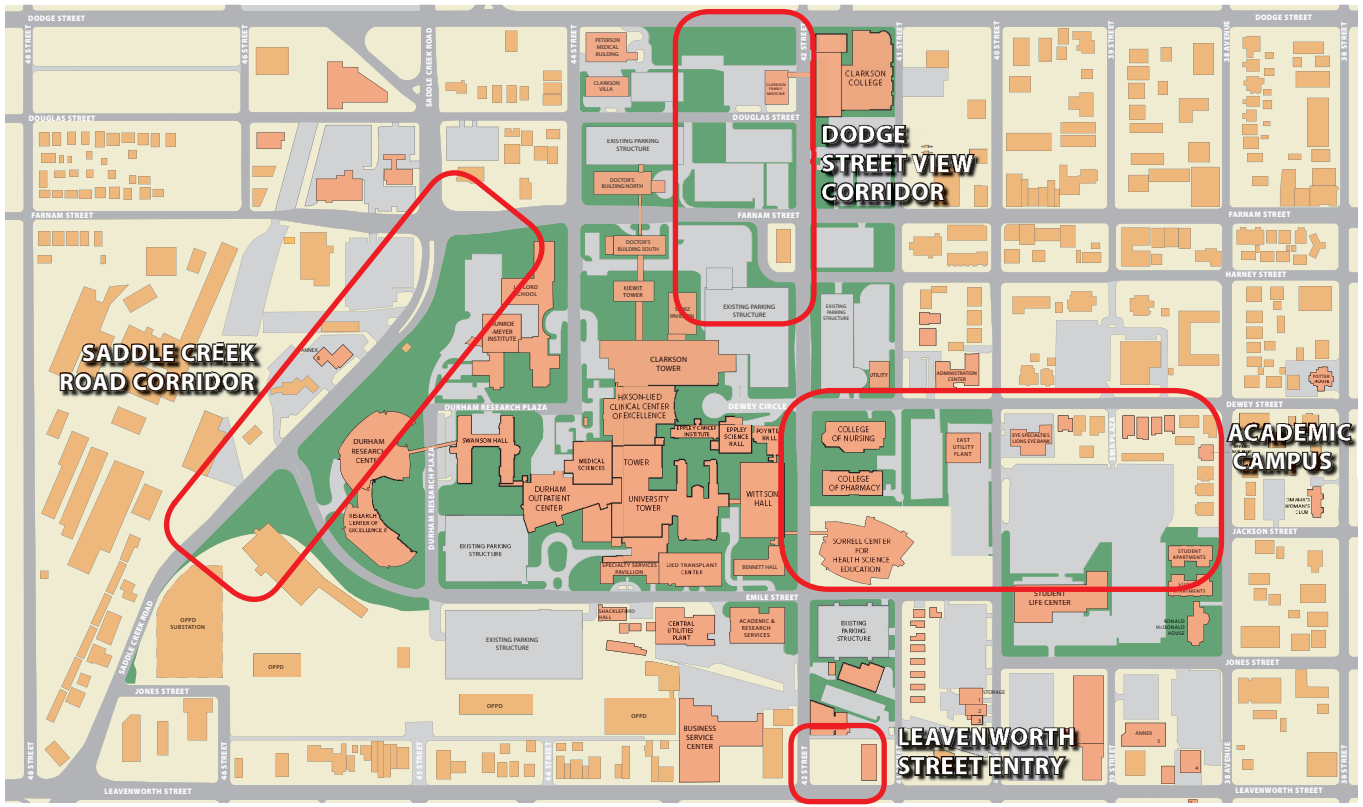


FIGURE 2.19: *Existing Green Space and Priority Areas*





Green Space

The Medical Center campus has become densely urbanized. Additional green space will result in an improved campus ambiance. Many existing open spaces are left over areas between buildings. Those spaces that are designed as functional green areas include the plaza south of Swanson Hall, the Healing Gardens north of the Lied Transplant Center, the Caregivers Plaza to the east of the Hixson-Lied Center for Clinical Excellence, and the open space between the original Medical Center buildings and Wittson Hall, a vestige of the original campus plan.

This plan recommends four priority areas for increasing campus green space, illustrated in Figure 2.19. Additional green space is developed at campus entry points and in expansion areas, improving campus quality and identification and providing natural counterpoint to the urban campus setting.

As the campus development plan is implemented, a green space network will permeate the campus and touch each of the functional expansion areas. Landscaped pedestrian pathways will supplement the internal pedestrian system and provide another level of connection among the campus districts. Green space, defined by future buildings, will function as outdoor rooms rather than as leftover voids. The green space system may also provide signature features and points of individual distinction. An outdoor ice rink, providing winter activity, could be such a community-oriented feature.



UNMC East Utility Plant

Campus Utilities

UNMC distributes steam, chilled water, normal electrical power, emergency power and medical oxygen to campus buildings from two utility plants. A Campus Utilities Master Plan was completed in 1999. The goals of that plan have been largely accomplished and include utility capacity increases with the construction of a new East Utility Plant, and extension of utility distribution to accommodate new buildings. The former Clarkson Hospital campus was integrated into the campus normal and emergency electrical power grids. Energy source flexibility and cost reduction has also been achieved through the installation of two electric boilers.

An update of the campus utilities master plan will follow the approval of the 2006-2015 Facilities Development Plan. Preliminary goals of the 2007 Utility Master Plan Update include:

- Utility Demand, Capacity, Reliability and Location Analysis
- Utility Demand Reduction and Energy Efficiency
- Production Capacity Expansion
- Utility Infrastructure Reliability

Student Apartments, Recreation and Fitness

Student Apartments

UNMC maintains about 100 apartment units for student rental. Some are in older residential buildings on land purchased for campus expansion. Sixty new apartment units were constructed in 2004 to replace older residential buildings demolished to make way for the construction of the Sorrell Center. Additional student apartments may be constructed during the plan period if sufficient demand develops, or if existing rental unit sites are needed for new construction.

Recreation and Fitness

The Center for Healthy Living in the Student Life Center offers fitness facilities, squash court and a gymnasium. An addition to the Student Life Center is planned to enlarge the fitness center and provide an indoor swimming pool as requested by the UNMC Student Senate. Additional satellite fitness facilities are planned in existing buildings. The installation of an outdoor ice rink is also planned in the academic education expansion area.



UNMC Student apartments



UNMC Student Life Center



Section Three
Facilities Development Plan Summary – Midtown Omaha

Section Three

Facilities Development Plan Summary – Midtown Omaha

The campus map shown opposite in Figure 2.20, illustrates the future Medical Center, combining campus and community development concepts proposed in this 2006 – 2015 UNMC Facilities Development Plan. The plan identifies sites for projects planned during the next decade and beyond; forecasts facilities for research growth, inpatient and outpatient care expansion, and the renewal and expansion of academic education space. The plan also provides direction for continuing campus growth by defining functional expansion areas extending out from the densely built campus core area; connected to the core and, through the core, to each other.

The campus central core area remains the mixed-use crossroads of the campus with patient care and clinical education functions remaining the predominant uses. Future construction sites within the campus core area are left for future planning since additional construction within the campus core will require site-specific feasibility studies.

- A research expansion area is developed to provide sites for future research buildings. A Research Center of Excellence III dedicated to cancer research, is the next research building planned for the near-term.
- The relocation of Saddle Creek Road, recommended by the Destination Midtown Plan, expands the contiguous campus area to the west, providing an academic setting for new research buildings. The realigned Saddle Creek Road, designed as a parkway, stimulates the redevelopment of this former rail and industrial corridor, opening opportunities for future research towers and biotechnology transfer incubator space to develop in close proximity. The former Saddle Creek Road alignment becomes a greenway with water features, and pedestrian and bicycle pathways.
- Inpatient care expansion occurs to the north and east of the existing Clarkson Tower.
- Outpatient clinic expansion occurs along main public access routes. Outpatient clinic expansion is expected to develop at the 42nd and Leavenworth Street site first. A new UNMC Geriatric Clinic is planned at 38th Avenue and Leavenworth Street.
- An academic education campus develops from 42nd Street to 38th Avenue, providing a sense of place for a learning-centered academic community, connecting education buildings to campus recreation facilities and student apartments by green space and landscaped pathways. Sites are shown in the area for additions to the College of Nursing and Student Life Center and a facility for the new College of Public Health.
- Campus support space and operations facilities are located near the periphery of the campus, but are close enough to the core to provide efficient services. Future parking structures are located near campus access points on the campus periphery to minimize traffic increase in the campus core area.
- Additional green space is developed at campus entry points and in expansion areas, improving campus quality and identification and providing natural counterpoint to the urban campus setting.

Building Renovation and Removal

UNMC buildings range in quality and functionality from state-of-the-art to those requiring major renovation. The following buildings will require programmatic or infrastructure renovation during the plan period:

- College of Nursing
- College of Pharmacy
- Eppley Hall of Science
- Eppley Institute Building (*See Page 24*)
- Swanson Hall
- Specialty Services Pavilion (*Currently leased to the Nebraska Medical Center*)
- Wittson Hall

LB 605 Funded Projects:

- Poynter, Bennett and Wittson Hall (*partial*)
- Eppley Institute
- College of Dentistry (*Lincoln*)

Buildings annexed with land purchases will also require remodeling or renovation to be useful to the campus mission. Many annex buildings are of limited campus use and are candidates for eventual removal.

Future Planning Tasks

This plan anticipates completion of future specific plans, including:

- Administrative and Clinical Faculty Space Plan (*Ongoing*)
- Saddle Creek Road Relocation Feasibility Study (*Initiated in 2006 and ongoing*)
- Regional Transportation Access
- Patient-oriented Research Space Plan
- Utilities Master Plan Update

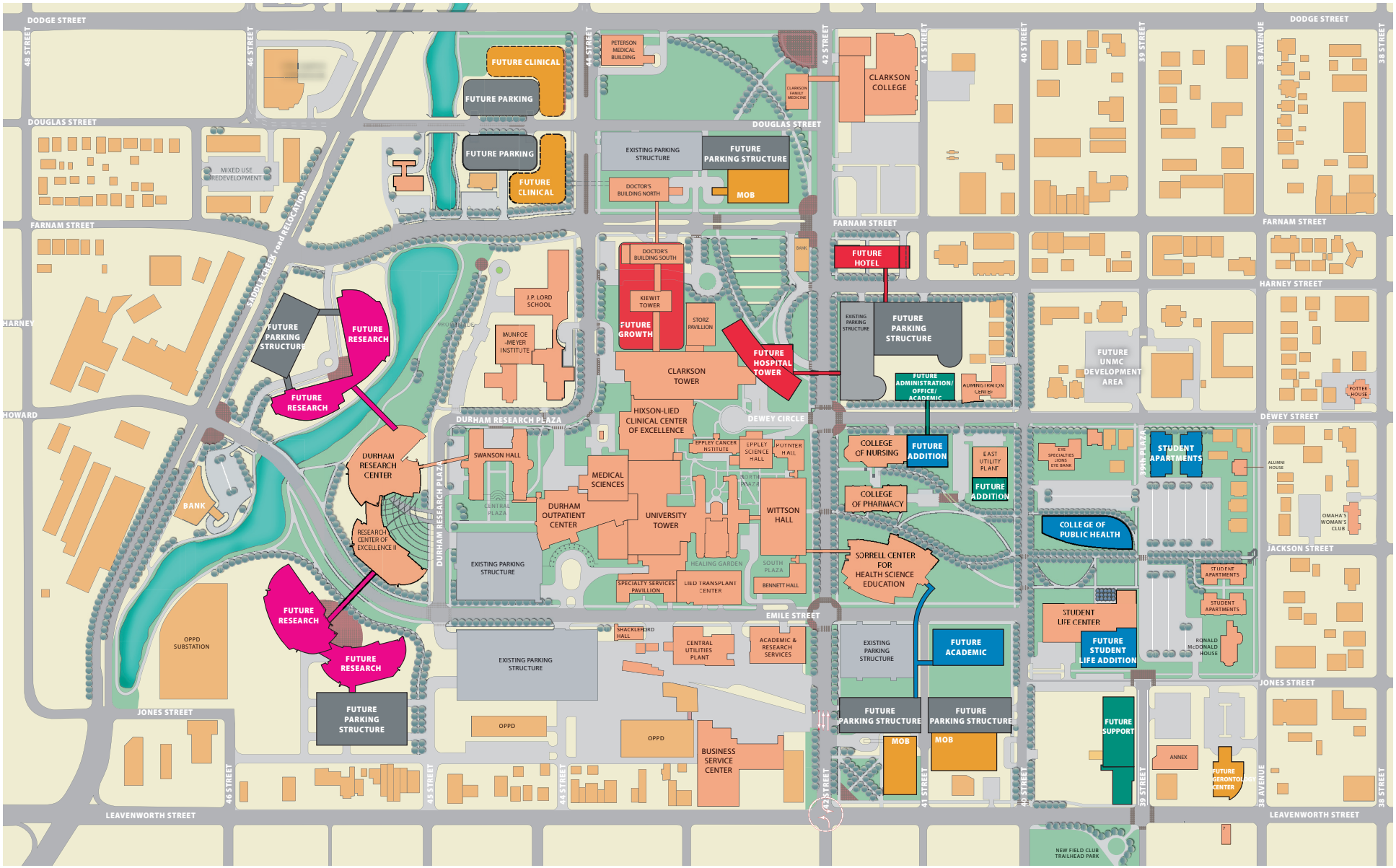
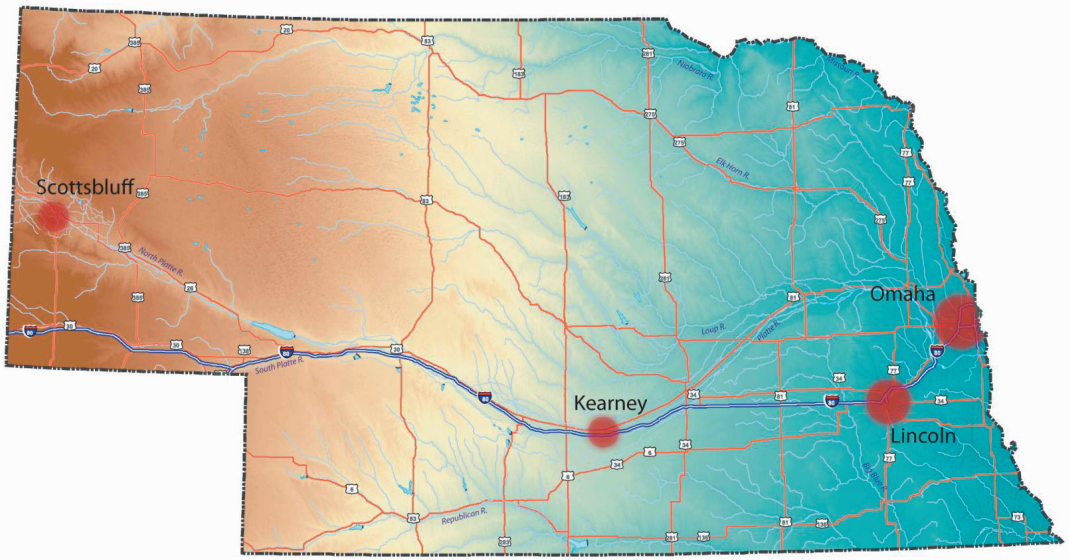


FIGURE 2.20: *2006-2015 Facilities Development Plan Summary – Midtown Omaha*



Section Four
Statewide Locations



...A 500 Mile-Wide Campus



Lincoln, College of Dentistry

Section Four
Statewide Locations

Lincoln

College of Dentistry

The UNMC College of Dentistry building was constructed on the UNL East Campus in 1966 with an addition housing the Cruzan Center for Dental Research in 1998. The building is has been well maintained, but years of use have taken their toll on the buildings infrastructure. New dental operatory equipment has been installed in the teaching clinics to provide students the experience of a contemporary dental practice. The central sterile services facility has been replaced to maintain program accreditation. Teaching clinics have been partially renovated and the balance will be renovated in the near-term. LB 605 has provided funds to accomplish classroom and class lab, building infrastructure and code compliance renovation. Enrollment is expected to remain level for the plan period, however a building addition is planned to increase research laboratory capacity and to correct a shortage of faculty offices.

The College of Dentistry maintains graduate programs in Pediatric and Hospital Dentistry on the Omaha campus along with significant research programs.



Lincoln, College of Nursing



Scottsbluff, College of Nursing



Kearney, College of Nursing

College of Nursing – Lincoln Division

The College of Nursing-Lincoln Division relocated to newly renovated leased space in the Commerce Court building in downtown Lincoln, near the UNL campus, during the summer of 2005. The College of Nursing plans to replace its leased location with a new building on the UNL East Campus, next to the College of Dentistry building, to be complete by the end of the current lease term in 2010. The UNL Facilities Development Plan accommodates the planned new building. The new facility would provide expanded classroom and faculty office space to accommodate additional enrollment, dry laboratory space for research growth, and an on-campus setting.

Kearney

The College of Nursing – Kearney Division is housed in recently renovated space in the West Center Building on the UNK campus. Enrollment is projected to remain stable and consequently, only a modest amount of additional space is projected to be required during the plan period.

The School of Allied Health Professions maintains a Clinical Laboratory Science program in area hospitals in Kearney, Hastings, Grand Island and North Platte. Both the Nursing and Clinical Laboratory Science programs are supplemented by education space and distance education facilities in the UNK Communication Center building. Additional space requirements at UNK will be arranged with the UNK Administration as the need arises.

Scottsbluff

The College of Nursing-Scottsbluff Division is housed in space leased in a former Hiram Scott College building. This location should be adequate in size for the plan period, however some remodeling will be necessary.

The College of Dentistry maintains a Dental Hygiene training program and dental student rotations in Gering at the Panhandle Community Services Health Clinic. This location is expected to be adequate throughout the plan period.

The School of Allied Health Professions maintains a Clinical Laboratory Science program via IP video protocol to Scottsbluff.

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