

An aerial photograph of the University of Louisville campus, overlaid with a semi-transparent red filter. White architectural models of various buildings are placed across the campus map, showing the layout of the university. The text 'UNIVERSITY OF LOUISVILLE' is in a smaller white font, while 'CAMPUS MASTER PLAN' is in a very large, bold white font. Below it, '2024' is also in a large white font.

UNIVERSITY OF LOUISVILLE

CAMPUS MASTER PLAN

2024

UNIVERSITY OF LOUISVILLE

CAMPUS MASTER PLAN

2024

Message from the President

The vision for what would become the University of Louisville began in 1798, just six years after the Commonwealth of Kentucky was established. In the two and a quarter centuries since, the university has grown to be a premier metropolitan research university that impacts students’ lives and infuses our community with knowledge and innovation that changes lives.

This master plan prepares us for the next steps in our growth.

Our foundation is rooted in the city we call home, and city and campus have grown in tandem. To look forward, we must first understand how we arrived here.

In the late 1800s/early 1900s as Louisville itself was expanding from a former frontier town, the University of Louisville campuses as we know them began to take shape. The Health Sciences Center started in 1907 with seven medical schools and the College of Arts and Science. Belknap Campus was established in 1925 and became the core of the university.

The period between 1930 and 1980 was a time of urbanization and growth. Belknap Campus moved its boundaries beyond Shipp Street and expanded into the neighborhoods at the northern part of the present-day campus. The U.S. Navy took over campus to accommodate training during World War II. The university integrated when it welcomed students from Louisville Municipal College. The HSC campus built new structures in a modern, brutalist style and the university acquired the land that would become Shelby Campus.

The campuses grew as the number of students exponentially increased and UofL joined the state university system. The construction of additional student housing to create a more robust campus life kicked off

a period of residential and research revitalization from the 1980s through 2010. Since 2010, the university has progressed with a focus on research growth on the HSC campus, additional academic and housing development on Belknap and the opening of a business park at Shelby Campus to welcome community partners including Steel Technologies and Churchill Downs.

Now three campuses spanning Jefferson County, the university is keeping its eyes on the future to facilitate 21st Century learning. The campus master plan provides a comprehensive vision for development, landscape and open space, stormwater management, mobility, parking and wayfinding supported by specific investments over the next decade. Improvements and new construction will expand opportunities for research and innovation, provide a stronger community to meet the evolving needs of our students and ensure UofL is engaging in sustainable, responsible growth that benefits our city.

The components of the master plan take into account UofL’s dedication to creating a safe, accessible and inclusive physical environment that will boost health and wellness of the Cardinals who live, work and study here each day. It also considers our commitment to environmental sustainability and to being a good neighbor.

This city is our home, and we are determined to ensure our campuses reflect the possibilities of the future. This master plan sets us up for success.

Thank you to the members of the Cardinal community who dedicated their time and expertise to crafting a plan that will lead us into our next centuries of excellence.



Steering Committee

- Sajid Mian** | Asst VP Facilities Mgmt
- Glenn Todd** | Dir HSC Phys Plant Maintenance
- Michael Mardis** | Dean of Students/VP Student Affairs
- Kim Butterweck** | Exec Dir Brand and Marketing
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- Keith Sherman** | Exec Dir/COO UL Foundation
- Rick Graycarek** | VP Budget & Finance
- Michael Ortman** | Assoc Athletic Dir
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- Meg Campbell** | Asst VP Planning, Design & Construction
- Christy McElfresh** | Dir Facilities Planning - HSC

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- Mary Elizabeth Miles** | VP Human Resources
- Gail DePuy** | Senior Vice Provost
- Meg Campbell** | Asst VP Planning, Design & Construction
- Christy McElfresh** | Dir Facilities Planning - HSC

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EHI	Engagement
CMTA	Utilities
Faithful and Gould	Facilities Assessment
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READING THE PLAN

The University of Louisville Campus Master Plan (Campus Plan) is a long-term development plan that supports the university’s strategic planning goals and aspirations. The report chapters align with the organizational structure of the Campus Plan and offer specific recommendations.

1 / Introduction

The Introduction of the Campus Plan presents the purpose and process of how the Campus Plan was developed.

- Purpose
- Creating the Plan
- The Planning Process

2 / Plan Drivers

The Plan Drivers chapter discusses enrollment growth, the space needs in strategic areas of academic growth for UofL, space utilization, and a building conditions assessment to help prioritize deferred maintenance needs.

- 2023-25 Strategic Plan
- Campus Population & Growth
- Space Assessment
- Building Conditions
- Program Summary

3 / University Vision

The university Vision chapter grounds the Campus Plan in overarching Principles to guide future development across the multi-campus system and provides planning recommendations and design strategies. The chapter includes a focus on Sustainability and Diversity, Equity, and Inclusion, in line with the cultural priorities of UofL.

- Planning Principles
- Historical Context
- Multi-Campus Strategy
- Sustainability & Resilience Goals
- Diversity, Equity, and Inclusion Goals

4 / Belknap Campus

The following chapters of this report break down key interventions by campus—focusing on the Belknap Campus and the Health Sciences Center Campus. For each campus, the Frameworks section describes thematic groupings of campus-wide strategies as they relate to development, academics and research, campus life, landscape, and mobility. The Focus Areas section zooms in to specific geographic areas for campus transformation, highlighting proposed place-based design interventions.

- Vision & Strategies
- Frameworks
- Focus Areas

5 / Health Sciences Center Campus

The Health Sciences Center Campus chapter articulates a vision for UofL’s presence within the Louisville Medical & Education District (LOUMED) downtown.

- Vision & Strategies
- Frameworks
- Focus Areas

6 / Wayfinding & Signage

The Wayfinding and Signage chapter proposes a new sign family, design elements, and offers ways to think about how and where to locate signage.

- Design Elements
- Design Guidelines

7 / Implementation

As a living document, the Implementation chapter offers recommendations for a phased approach to the Campus Plan’s recommendations while providing a flexible and adaptable decision-making framework that allows for the inevitability of changing needs, priorities, or funding sources in the future.

- Phasing
- Path to Sustainability



INTRODUCTION

The University of Louisville Campus Master Plan establishes a comprehensive vision that guides future development and transformation on Belknap and Health Sciences Center campuses to support the university's mission, vision, and strategic plan. The Campus Plan serves as a 20-year framework, strategically strengthening UofL's distinct identity as both a top-tier research institution and community-engaged university.



CREATING THE PLAN

The Campus Plan began as an in-depth process focused on the University of Louisville's flagship residential Belknap Campus and the downtown Health Sciences Center (HSC) Campus. The Shelby Campus is largely excluded from this effort, with the understanding that it will be developed by the UofL Foundation, with a particular emphasis on nurturing strategic partnerships to advance the university's research endeavors.

The previous updates to the Campus Master Plan for the Belknap and Shelby Campuses were finalized in 2009, while the plan for HSC was completed in 2006.

The Campus Plan builds upon several foundational plans conducted by the university, including:

- UofL 2023-2025 Strategic Plan
- Sustainability Plan
- UofL Diversity Plan 2017-2021

While this document primarily centers on the Campus Plan, it is also complemented by a series of additional plans and studies, including:

- The **Landscape Plan** (complementary to the Campus Plan), which outlines a vision for landscaping and open spaces on the Belknap and HSC Campuses.
- The **Space Utilization Study** (found in the Appendices), which analyzes the utilization of academic and administrative space across the campuses and explores strategies for enhancing efficiency and the overall experience.
- The **Building Conditions Assessment** (also in the Appendices), which assesses the physical conditions of 62 facilities on the Belknap and HSC Campuses.

STRATEGIC PLAN

PLANNING PRINCIPLES

DESIGN STRATEGIES

Extend the campus core.

Create synergistic academic clusters.

Increase vitality through additional campus life spaces.

Improve the quality of open spaces and working landscapes.

Activate the edges.

Densify campus core and relieve deferred maintenance burden.

Expand space for research growth.

Increase opportunities for interprofessional education.

Create a campus life hub.

Enhance pedestrian safety, connectivity, and the public realm through campus.

Improve the UofL HSC presence and identity using new front doors and improved wayfinding and signage.

Build a stronger connection and facilitate cross collaboration with Belknap Campus.

LEARN

DISCOVER

CONNECT

WORK



BELKNAP

HSC

HSC

BELKNAP

THE PLANNING PROCESS

The planning process for both Belknap and HSC Campuses unfolded through three distinct phases, designed as an integrated approach to planning for UofL.

The 12-month process commenced with research and campus interviews in Phase 1: Discover and Analysis, aimed at understanding the needs and opportunities on Belknap and HSC campuses. Phase 2: Concept Alternatives explored and tested strategies for accommodating campus needs with guiding principles and goals. This phase was marked by a collaborative and iterative approach, leading to a preferred development framework for each campus. Finally, the process culminated in Phase 3: Final Plan, with planning documentation and an implementation strategy.

Throughout all three phases, a robust commitment to stakeholder and campus engagement was established with the primary objective of ensuring that those affected by the Campus Plan were well-informed, actively consulted, empowered to collaborate, and involved in the process.



Phase 1: Discovery and Analysis

The Discovery and Analysis Phase of the Campus Plan encompassed a comprehensive array of activities. This included interviews with a wide-ranging list of campus stakeholders, in-depth research focusing on the existing physical conditions, historical context, and cultural elements, as well as the synthesis of various data sets, including but not limited to, space utilization and building conditions. Additionally, Phase 1 featured campus-wide engagement initiatives aimed at gaining a deeper understanding of the personal experiences and needs of students, faculty, and staff. A summary of the results from the online CoMap survey can be found in the Appendices.



Phase 2: Concept Alternatives

During Phase 2, guided by the insights gathered from stakeholder interviews and the CoMap survey, two concept alternatives were developed for each campus. These alternatives were rigorously assessed and refined in close collaboration with stakeholders and university leadership. The ultimate selection of a preferred direction was informed by an array of factors, including programmatic needs, facility conditions, deferred maintenance considerations, and sustainability objectives. As part of Phase 2, an Open House event was held during the early 2023 spring semester for the UofL community, providing an opportunity to present the findings of Phase 1, share results from public engagement efforts, and solicit feedback regarding the objectives for each campus.



Phase 3: Master Plan Development

In the concluding phase, the preferred concept for each campus was seamlessly integrated with various elements of the plan. This integration encompassed an assessment of its impact on utilities and infrastructure, as well as its relationship to wayfinding and signage. The final documentation of the plan was crafted in close partnership with the university, resulting in the creation of a feasible and adaptable implementation plan capable of responding to the evolving needs, priorities, and funding considerations of the campus community.

Community Engagement

Engagement with the Cardinal community played a pivotal role throughout the planning process, fostering a collaborative and inclusive approach. Several methods were employed to ensure their active participation:

Campus Tours

Guided by historian Tom Owen, the design team embarked on immersive campus tours delving into the rich history of the University of Louisville. These tours not only provided insights into the university's physical evolution across its various geographic locations but also shed light on key historical events and the university's remarkable physical transformation and growth. From the House of Refuge to the enduring legacy of Shipp Street, the narratives shared by Tom Owen have profoundly influenced the shaping of the Campus Plan.

CoMap Survey

The CoMap Survey is an online mapping tool designed to gain a comprehensive understanding of how community members interact with their campus. It sought to elucidate where they primarily spend their time, how they navigate through the campus, and their perceptions of different locations on campus. Notably, this survey garnered 1,105 responses from students, faculty, and staff, providing valuable insights into the campus community's perspectives and needs. Results of this survey are available in the Appendices.

Stakeholder Engagement

Engagement with stakeholders was a paramount aspect of the planning process, involving over 20 diverse stakeholder groups, both internal and external to the University. These engagements occurred at multiple touch points, ensuring that stakeholders were consistently informed about the progress of the Campus Plan.



BELKNAP COMAP SURVEY



HSC COMAP SURVEY





PLAN DRIVERS

PLAN DRIVERS

The Campus Plan is informed by ongoing planning efforts at UofL, the university’s Strategic Plan and its growth objectives, as well as the physical and development constraints unique to each campus.

Five plan drivers shape the Campus Plan:

- **Strategic Plan:** Central to the foundation of the Campus Plan are the overarching objectives outlined in the 2023-2025 Strategic Plan, which emphasizes the key pillars of Learn, Discover, Connect, and Work. These strategic goals provide the fundamental framework for shaping the direction and priorities of the Campus Plan, aligning campus development with the broader mission and vision of the university.
- **Enrollment Growth Targets:** Another critical driver is the pursuit of modest yet purposeful enrollment growth targets for the university. This expansion plan anticipates a proportional increase in the overall UofL population to a total of 33,100, factoring in the evolving needs of the academic community and the broader university ecosystem.
- **Space Assessment:** The Campus Plan places a strong emphasis on a Space and Program Assessment, offering a high-level overview of the existing space inventory and projecting future space requirements. This analysis is instrumental in optimizing space to align with the university’s evolving needs and priorities.

- **Building Conditions:** An important component of the Campus Plan is the Building Conditions Assessment, which evaluates the condition of existing structures. This assessment serves as the basis for prioritizing renovation projects and asset preservation efforts, with a focus on addressing critical and urgent needs.
- **Campus Development Program:** The development program consolidates these influential drivers into a succinct summary, providing a clear snapshot of the planned square footage for development on each campus, categorized by major space types.



2023-2025 STRATEGIC PLAN

University of Louisville’s 2023-2025 Strategic Plan positions the university as a both a thriving R1 research institution and a Community Engaged university, a “vital ecosystem that creates thriving futures for our community and society.” The Strategic Plan identifies four strategic goals that will allow the university to become “change agents for a better tomorrow.”

- 1. **LEARN** Redefining student success.
- 2. **DISCOVER** Research & innovation powerhouse.
- 3. **CONNECT** Premier metropolitan university.
- 4. **WORK** Living our mission.

To support these strategic goals, some of the actions listed in the Strategic Plan that translate into special recommendations in the Campus Plan include:

LEARN

The key metric to gauge success is the number of degrees awarded with the goal of increasing that number by 14% over the next decade.

- Create interdisciplinary degrees and credentials driven by community, society, and workforce needs.
- Increase and support non-traditional student populations including adult, commuter, online, transfer, international, etc.
- Continue to identify and remove barriers to improve retention and persistence to graduation and ensure progress toward equal outcomes for underrepresented, under-prepared, low-income student sub-populations.

DISCOVER

The key metrics to gauge success are an increase in research expenditures and improvement in our Blue Ridge Institute for Medical Research rankings.

- Build and enhance institutional infrastructure to support UofL research, scholarship, and creative activities.
- Expand innovation and translational research support including clinical research and clinical trials.

CONNECT

The key metrics to gauge success are an increase in community and industry partnerships, and growth of philanthropic funds raised.

- Develop the Research and Development district adjacent to Belknap Campus to create new pipelines for students to industry or research.
- Enhance the town gown around Belknap to better connect the campus to its adjacent neighborhoods.
- Reinforce the urban grid at HSC to maintain connections to Louisville Medical Education District (LOUMED) and the city broadly.

WORK

The key metrics to gauge success will be the inclusion in the Great Colleges to Work For program and on the Forbes’ list for America’s Best Employers.

- Campus life development and renovation in the Campus Plan is also targeted to improve the quality of work life for faculty and staff, including new administration buildings.

The Campus Plan seeks to support the Strategic Plan with continued investment in academic and research facilities, campus life amenities, student housing, landscape, mobility, and infrastructure improvements that enhance the campus experience for students, faculty, staff, and visitors.



CAMPUS POPULATION & GROWTH

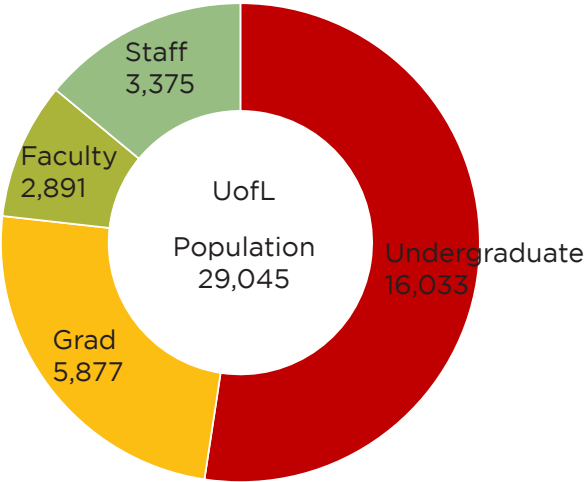
Changes to the overall campus population are an important driver for planning the physical environments at each campus. The Campus Plan integrates assumptions of continued student enrollment growth in line with historic trends to support the university’s research and academic goals. UofL’s target growth in student enrollment over the next 10 years is an additional 3,000 students, with maintained ratios of undergraduate to graduate students.

In the fall of 2022, the University of Louisville’s student body consisted of just over 16,000 undergraduate students and around 6,000 graduate students, making up a total student population of over 22,000. At this time, UofL employed approximately 2,900 faculty, and 3,300 staff.

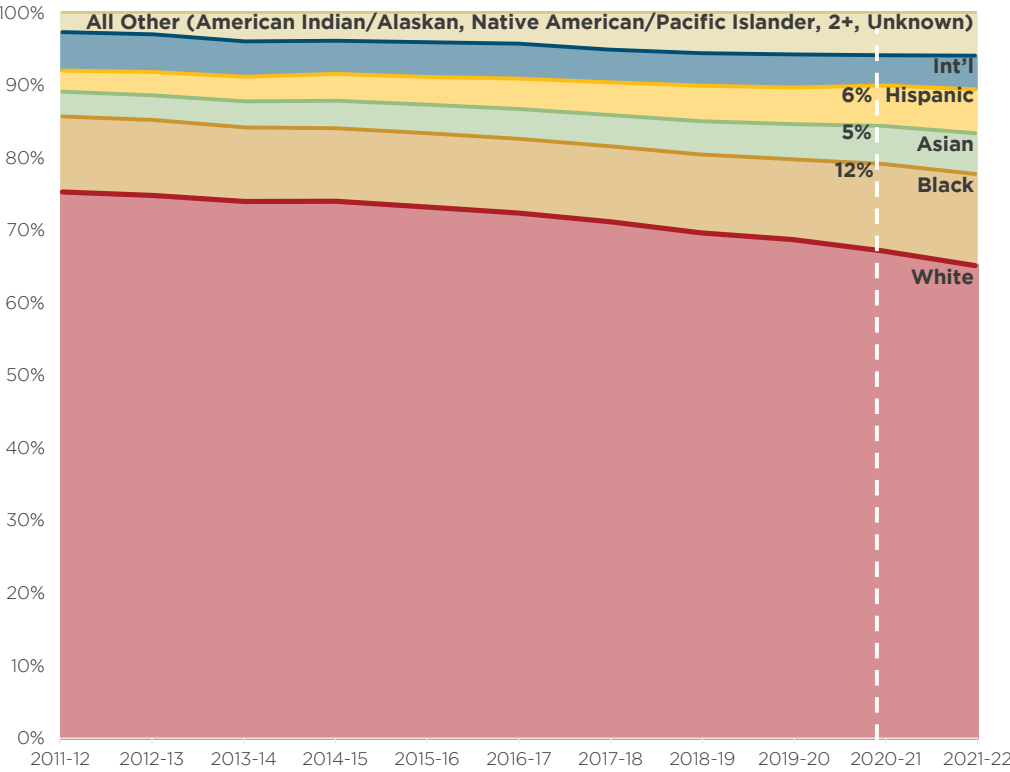
A enrollment growth by 3,000 will lead to a, overall population growth of up to 33,100.

Racial demographics have been shifting in the last 10 years to more closely represent Louisville, with a decline in White students and an increase in Black, Hispanic, Asian, and other races. UofL almost achieved its target of 6% Hispanic, but is still short of the 14% target Black population. As campus population is targeted for growth, the Diversity Plan’s goals should be maintained.

	African American	Hispanic
2016-17	10.2%	4.2%
2017-18	10.4%	4.5%
2018-19	10.8%	4.9%
2019-20	11.1%	5.0%
2020-21	12.0%	5.6%



UOFL POPULATION OVERVIEW



STUDENTS BY RACE



SPACE ASSESSMENT

Space utilization data on each campus provides an understanding of the current space types and capacities as related to current demand.

The existing space across campuses follows the distribution shown on the right. Notably, classroom space even at Belknap is only 7% of the total assignable square footage. Health Sciences Center (HSC) Campus has a severe lack of student life and library/study spaces.

An excel-based space needs model shows that several space types on both campuses can accommodate UofL’s target student enrollment growth of 3,000 in the next 10 years simply with higher space utilization efficiencies. However, the spaces that need significant expansion to accommodate this growth at Belknap include research labs, campus life spaces, dining and retail, and recreation and wellness spaces. At HSC, spaces that require growth are open labs, research space, campus life, and recreation and wellness spaces.

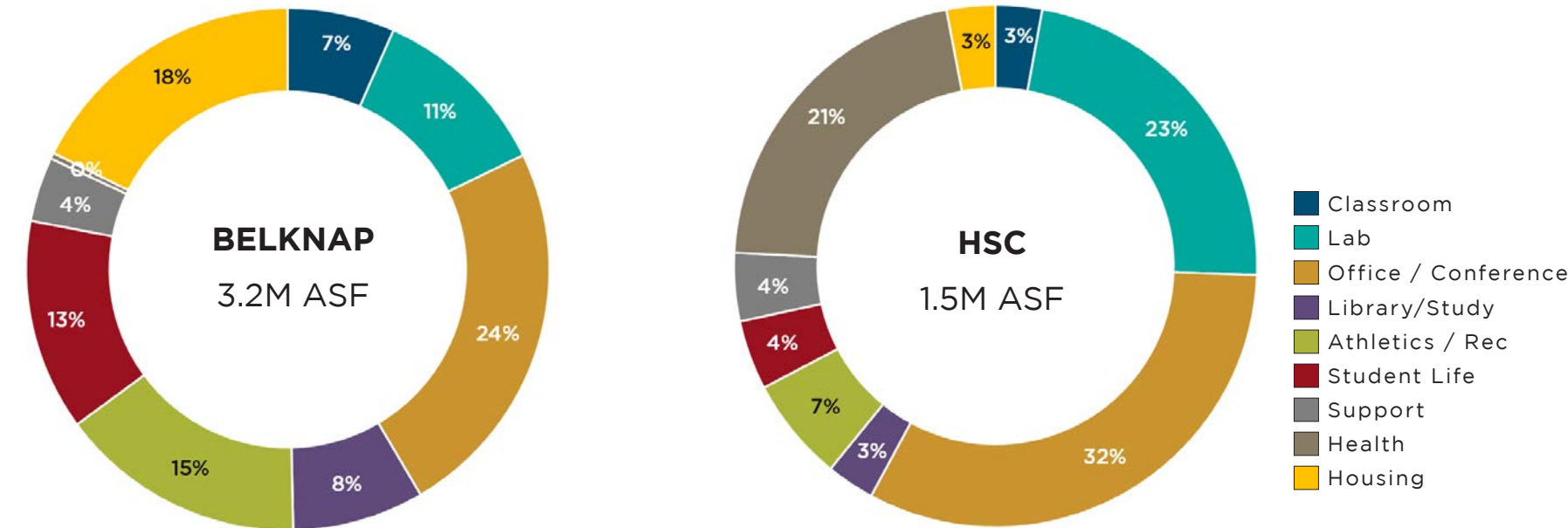
Additionally at Belknap Campus, with changing trends in campus housing and the desire to provide closer student housing to reduce car commutes around campus, this report finds a significant oversupply of traditional dorm-style housing, opportunity for an additional 1,000 semi-suite and suite style housing, and only a marginal increase in apartment-style housing in the next 10 years to accommodate the target enrollment growth while maintaining current undergraduate to graduate student ratios.

To round out the quantitative space utilization data, this comprehensive space needs analysis collated results from stakeholder interviews and an online survey for students, faculty, and staff to assess their lived experience and quality of spaces. Key findings of the qualitative analysis indicated a need for

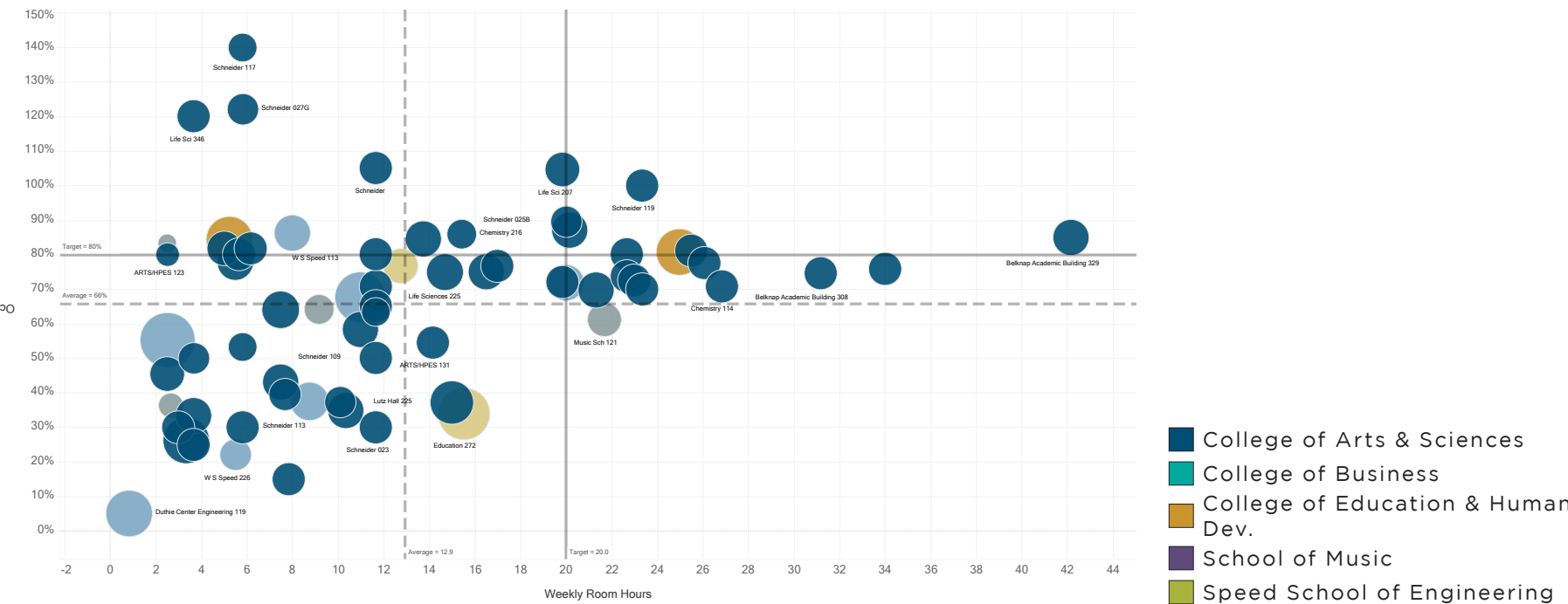
more cultural spaces for student groups, Office of Institutional Equity, a curated admissions experience, more campus housing near Belknap, more student services at HSC, and an interest in developing a Research and Development District adjacent to Belknap.

Key Findings

- Classrooms: there is an oversupply of large classrooms and undersupply of small classrooms. With some renovations and increase space utilization efficiency, there is adequate classroom space on both campuses for projected growth.
- Class/Open Labs: there is a moderate need for labs at Belknap but a greater need for an Interprofessional Education building at HSC.
- Research Space: there is a substantial need for increased research space at both campuses, especially within STEM programs.
- Study: while the libraries at each campus are more than sufficient, study space should be increased outside the libraries and be better distributed across campuses.
- Campus Life: meeting/event spaces, dining and retail services, and recreation & wellness program are the biggest needs at both campuses.
- Housing: on and close to Belknap Campus, there is an oversupply of traditional-style housing units but an under supply of suite and semi-suite style units.



EXISTING SPACE TYPES

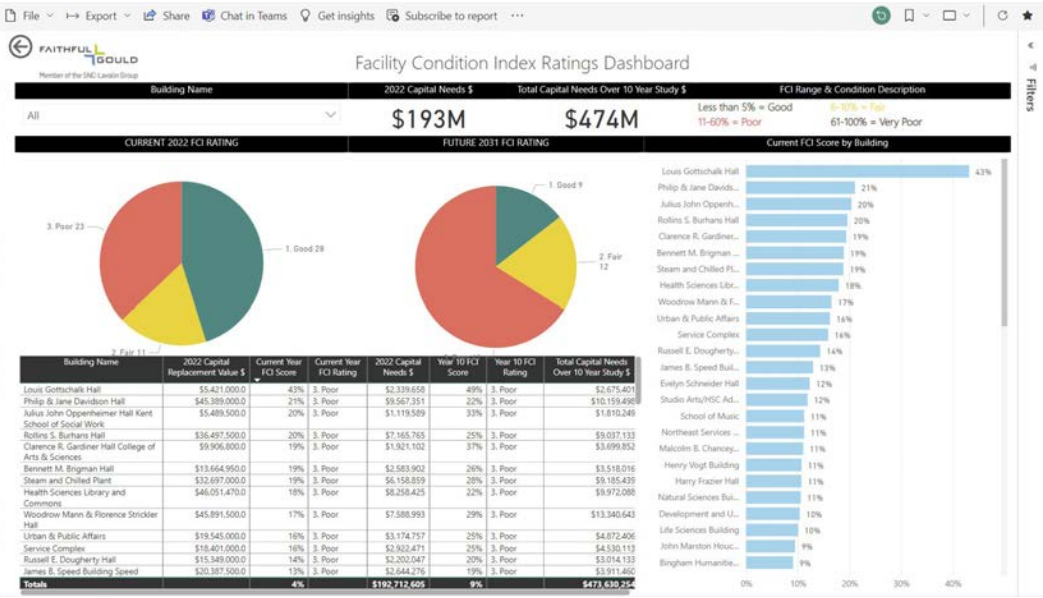
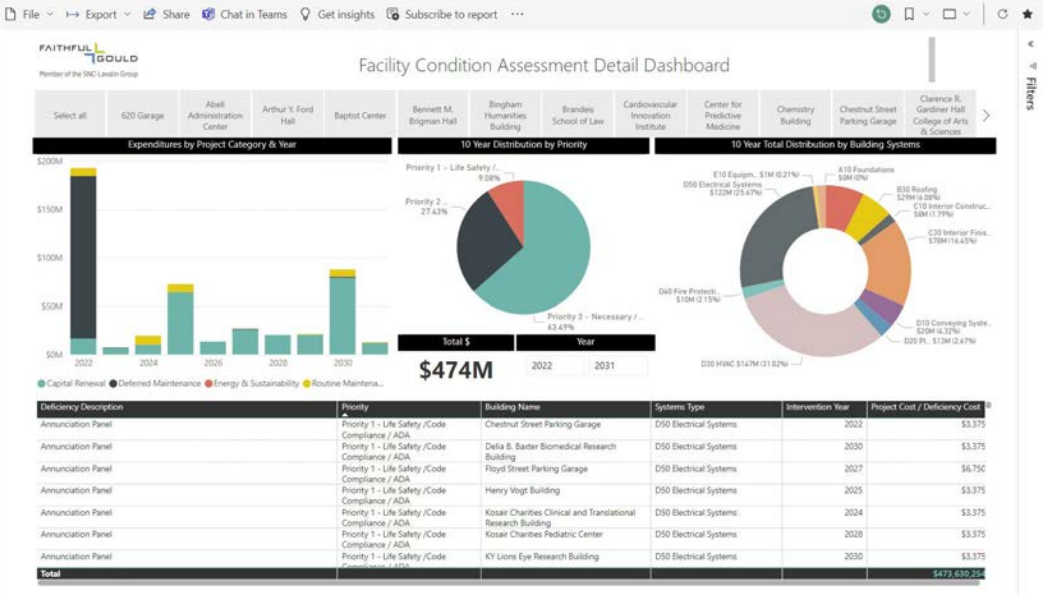


BUILDING CONDITIONS

A comprehensive Buildings Conditions Assessment found that 23 out of the assessed 62 analyzed buildings had a Facilities Conditions Index of Poor or Very Poor. Further, the costs for current facilities are estimated around \$41M for Life Safety, Code Compliance, or ADA issues across 56 buildings; nearly \$130M for currently critical systems across 45 buildings; and over \$300M in repairs or replacements that are necessary but not critical across 60 buildings.

The methodology for this assessment began with gathering any existing facility asset data, followed by on-site data validation and asset inventory. Next, the analysis of asset data, factors such as building age, maintenance levels, location, and utilization were used to understand the need for repairs or asset replacements. A value was assigned to the maintenance, repair, and replacement of the asset. This value against the current replacement value of the facility produced a Facilities Conditions Index (FCI), which was categorized in three priority groups: life safety or code compliance needs, currently critical, or necessary but not critical. Final FCI scores serve to prioritize buildings that are in critical need of immediate major renovations. The UofL Facilities Team and user surveys were also used to validate the data on building conditions.

Among buildings with the worst FCI scores, the Campus Plan prioritizes the replacement or major renovation of those that occupy a prominent site on campus or serve a relatively large student population.



FACILITIES CONDITIONS ASSESSMENT DASHBOARD

CAMPUS DEVELOPMENT PROGRAM

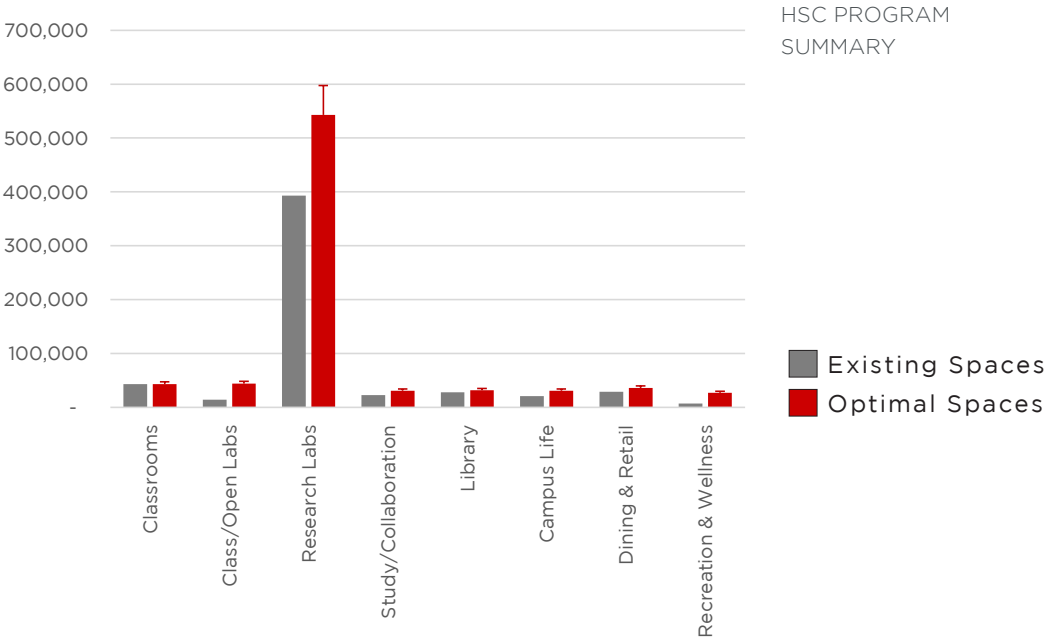
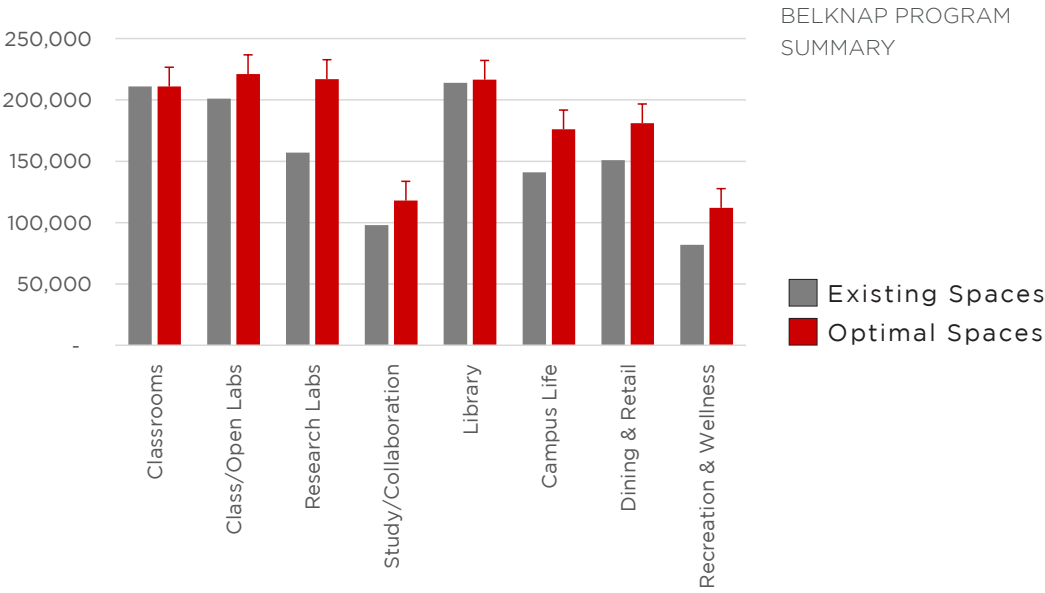
The future development program needed at Belknap and HSC campus has been informed by a combination of the Strategic Plan goals, stakeholder interviews, community surveys, current space utilization data analysis, and enrollment projections.

The minimum program needed to accommodate current needs and future growth in Gross Square Feet (GSF) includes:

- Belknap Campus
 - 20,000 GSF of classrooms and open labs
 - 60,000 GSF of research labs
 - 20,000 GSF of study / collaboration spaces
 - 2,500 GSF library space
 - 35,000 GSF of campus life spaces including student group meeting spaces, offices, and more
 - 30,000 GSF of dining and retail
 - 30,000 GSF of recreation and wellness spaces
 - 980 beds of suite and semi-suite style housing
 - 20 units of apartment-style housing
 - Reducing 840 traditional beds on campus

HSC Campus

- 30,000 GSF of classrooms and open labs
- 150,000 GSF of research labs
- 8,000 GSF of study / collaboration spaces
- 4,000 GSF library space
- 10,000 GSF of campus life spaces
- 7,000 GSF of dining and retail
- 20,000 GSF of recreation and wellness spaces





**UNIVERSITY
VISION**

UNIVERSITY VISION

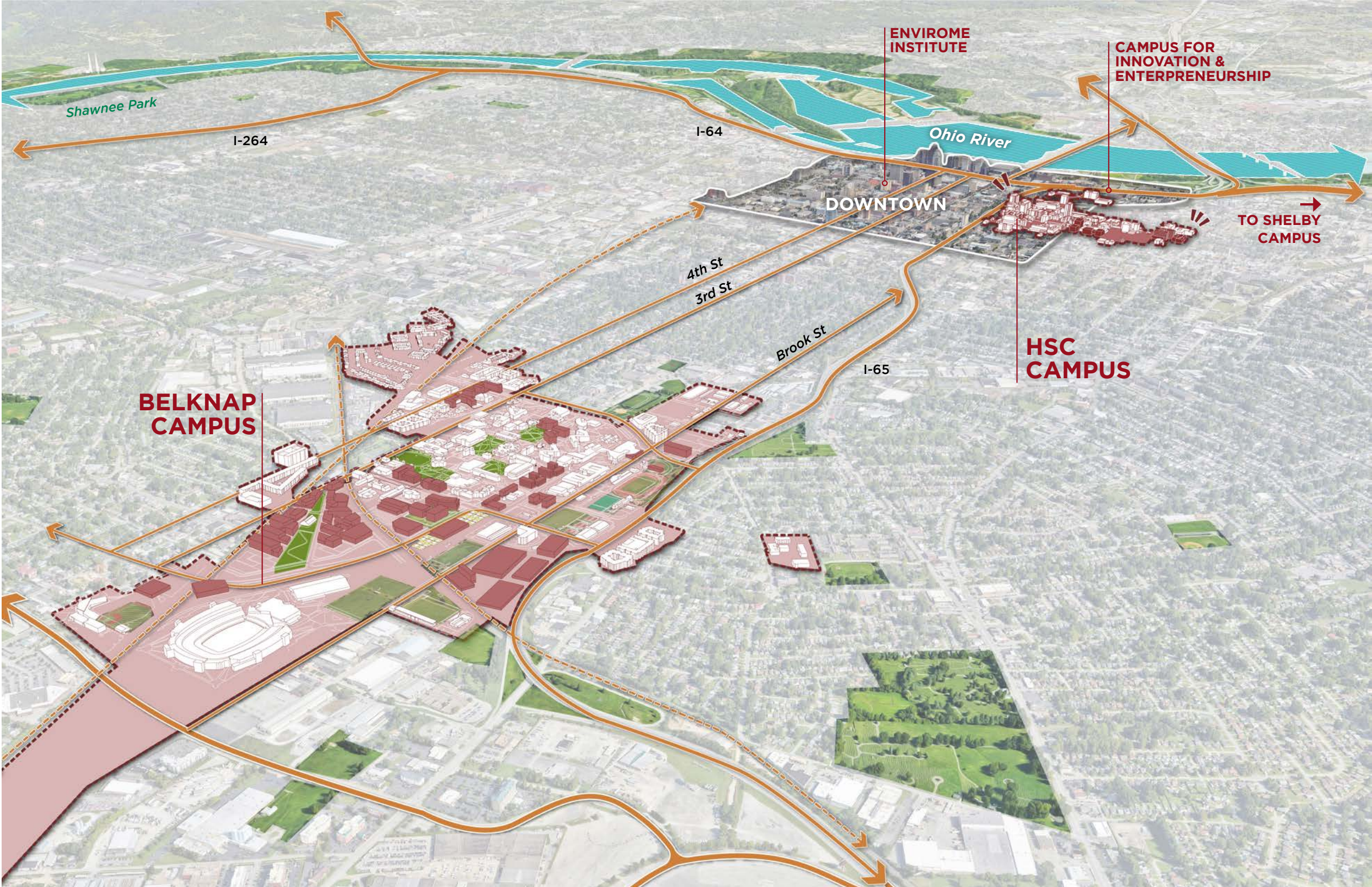
The Campus Plan establishes a vision for a vibrant multi-campus system grounded in the history of Louisville and responsive to the unique sense of place and the future academic, research, and campus life needs of the University of Louisville.

The Campus Plan establishes a vision for a vibrant multi-campus system and a growing university with 21st century research, academic, and campus life investments. As one of the nation’s first city-owned, public universities, the University of Louisville is deeply rooted in and dedicated to the Louisville community. The Campus Plan recognizes the multifaceted and rich history that has played a pivotal role in shaping UofL and embraces the unique context for each campus, while strategically planning a holistic vision for the future of the metropolitan research university.

The Belknap campus will continue to flourish as a residential campus, with a deep commitment to undergraduate education and the student life experience. Simultaneously, strategic investments will be made to attract graduate students, especially in STEM programs, and to bolster research opportunities.

The Health Sciences Center campus will remain the epicenter of health sciences education and research within the broader downtown Louisville Medical Education District. Proximate to the Christina Lee Brown Envirome Institute and the J.D. Nichols Campus for Innovation and Entrepreneurship, HSC will focus on health and well-being and building strategic partnerships.

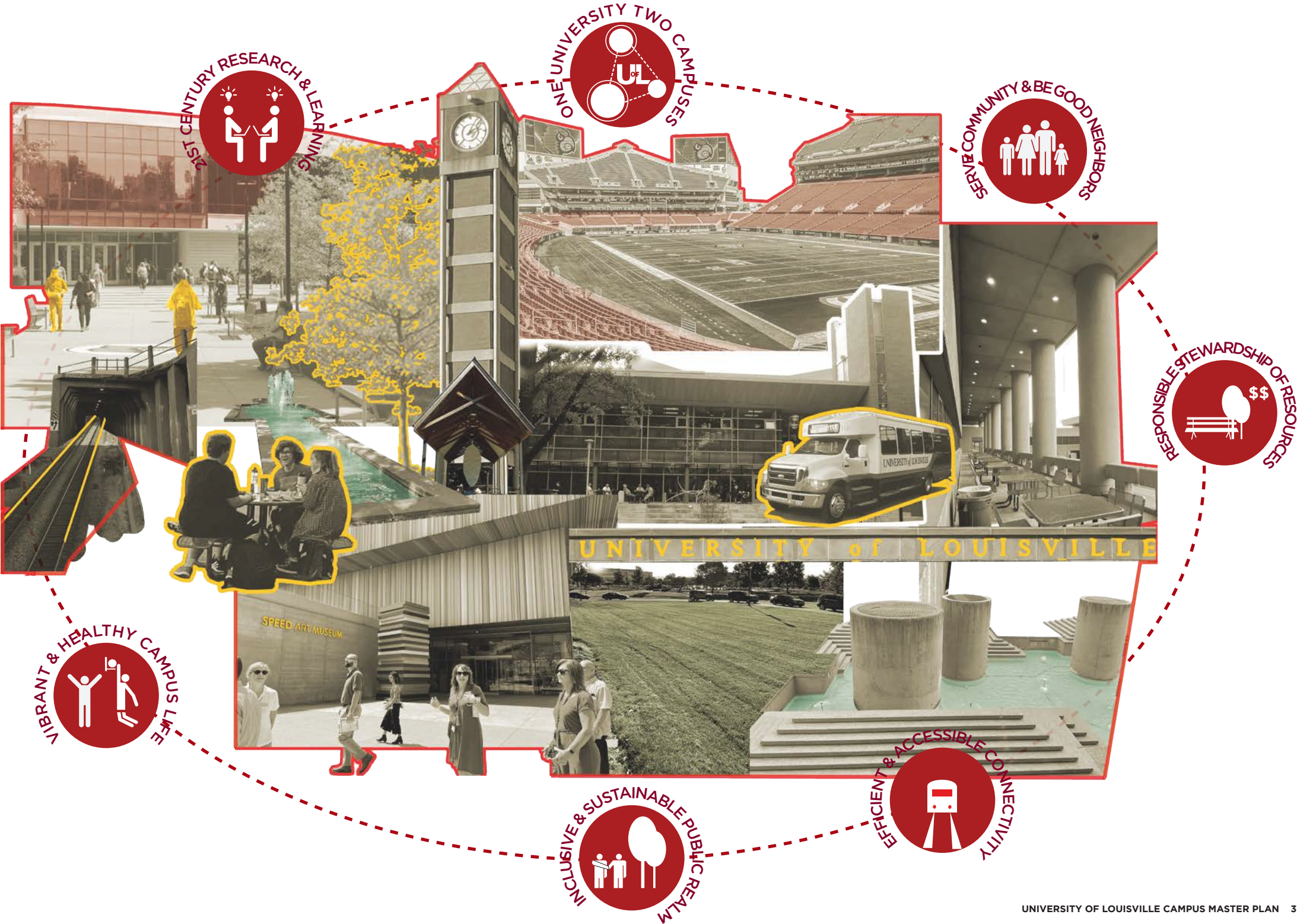
To foster collaboration, connectivity, and enhance the overall educational and research experience for the Cardinal community, the Campus Plan envisions improved mobility between campuses, with more efficient transit options and bicycle infrastructure.



PLANNING PRINCIPLES

The Campus Plan is guided by seven planning principles that amplify the objectives of the Strategic Plan: Learn, Discover, Connect, and Work. The principles are:

1. **One University, Three Campuses:** Reinforce three unique campus identities in support of one University of Louisville.
2. **21st Century Learning and Research:** Promote 21st century learning and research through contemporary, hands-on, interdisciplinary environments.
3. **Vibrant and Healthy Campus Life:** Foster healthy and vibrant campus life experiences.
4. **Inclusive and Sustainable Public Realm:** Promote an inclusive, beautiful, and sustainable public realm.
5. **Efficient, Convenient, and Accessible Connectivity:** Enable efficient and convenient inter-campus and intra-campus mobility, connectivity, and accessibility.
6. **Responsible Stewardship of Resources:** Serve as a steward for UofL's physical, environmental, and financial resources.
7. **Serve Community and Be Good Neighbors:** Embody the values of being “a university for and of Louisville.”



HISTORICAL CONTEXT

The University of Louisville’s history is deeply interwoven with the rich tapestry of the land on which it stands and the broader context of Louisville’s development. This historical backdrop shapes the foundation of the Campus Plan.

Early Settlements and European Influence

The Ohio River made this land particularly well-suited for indigenous settlements, but as early as 1775, European settlers began formal planning and platting of downtown Louisville, which created the earliest infrastructural legacy of the HSC Campus.

The House of Refuge and Belknap Campus

The land now known as Belknap Campus was built within the House of Refuge, originally a home for orphaned and delinquent children. Remarkably, eight of the original buildings from that era still stand on the campus today.

Rapid Growth and Olmsted’s Legacy

In the late 1800s, Louisville experienced significant growth, industrialization, and infrastructure development. Black voters played a pivotal role in ensuring that the Belknap Campus was established in the city rather than in the suburbs. During this time, Frederick Law Olmsted, a pioneering figure in American landscape architecture, introduced a parks plan that continues to shape the Belknap Campus, with Eastern Parkway and Stansbury Park lining the core.

Medical and Educational Growth:

Simultaneously, what is today the Louisville Medical & Education District (LOUMED), begins to attract medical facilities from various institutions.

“The University of Louisville recognizes the land upon which the university sits (now known as Kentucky) is primarily Shawnee, Cherokee, Osage, Seneca-Iroquois, Miami, Hopewell, and Adena land. We acknowledge the ongoing legacy of colonialism that continues to permeate our nation today, and our role in perpetuating the dominance of white, European culture.” - UofL

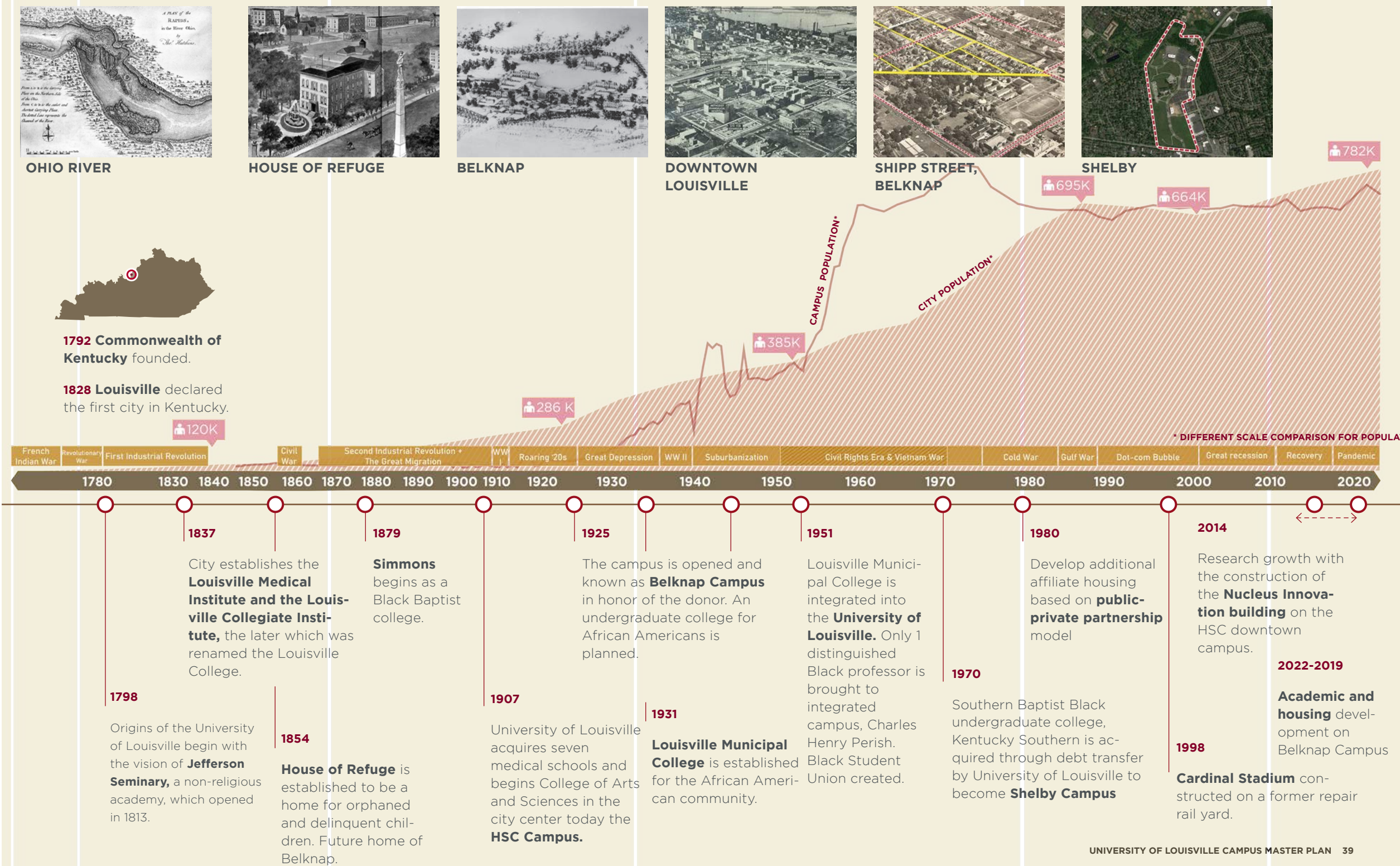
Post-World War II Expansion

In the post-World War II era, HSC’s medical buildings were constructed, and the Belknap Campus expanded beyond Shipp Street, necessitating the removal of over 250 homes. Over the last four decades, academic and research facilities on both campuses have continued to flourish. The UofL Foundation acquired an additional 230 acres of land in 1970, which is now known as the Shelby Campus, envisioned as a research park.

Recent Years

Recent years have seen social and political upheaval in Louisville, marked by the tragic murder of Breonna Taylor and the rise of the Black Lives Matter movement. Throughout this time, Black voters continue to have a significant influence on the University of Louisville, and the university remains dedicated to serving Louisville with a commitment to equity and inclusion.

Despite its complex social and political history, the university has exhibited remarkable adaptability and growth, consistently meeting the evolving demands of a burgeoning research institution that contributes significantly to the city, region, and the Commonwealth of Kentucky.



MULTI-CAMPUS STRATEGY

The University of Louisville is strategically positioned across three distinct and characteristically unique locations in Louisville, each contributing to the university’s diverse academic and research landscape.

Spanning 274 acres, **Belknap Campus** serves as the university’s traditional residential campus. It is situated south of Old Louisville, nestled within the airport’s flight path, and in close proximity to iconic landmarks like Churchill Downs and Old Louisville. Belknap Campus is home to eight prominent schools and colleges, including: the College of Arts & Sciences, College of Business, College of Education and Human Development, Graduate School, Kent School of Social Work, Brandeis School of Law, School of Music, and Speed School of Engineering.

Comprising 60 acres, the **Health Sciences Center Campus** is an urban campus located in Downtown Louisville. It is embedded in the Louisville Medical & Education District (LOUMED) district, along with UofL Health, Norton Healthcare, and Jefferson Community and Technical College. The HSC Campus is the academic and research home to four vital schools: the School of Medicine, School of Nursing, School of Dentistry, and School of Public Health & Information Sciences.

Covering 230 acres, the **Shelby Campus** serves as a suburban research haven with limited academic programming. It hosts Event and Conference Services,

The Center for Predictive Medicine, and UofL Foundation-owned properties leased to office buildings. While Shelby Campus is poised for future development, given its strategic location and the Foundation’s plans for collaborative partnerships, it currently offers limited opportunities for academic program expansion. Consequently, the Campus Plan does not propose specific strategies or projects for development at this juncture.

Multi-Campus Strategy

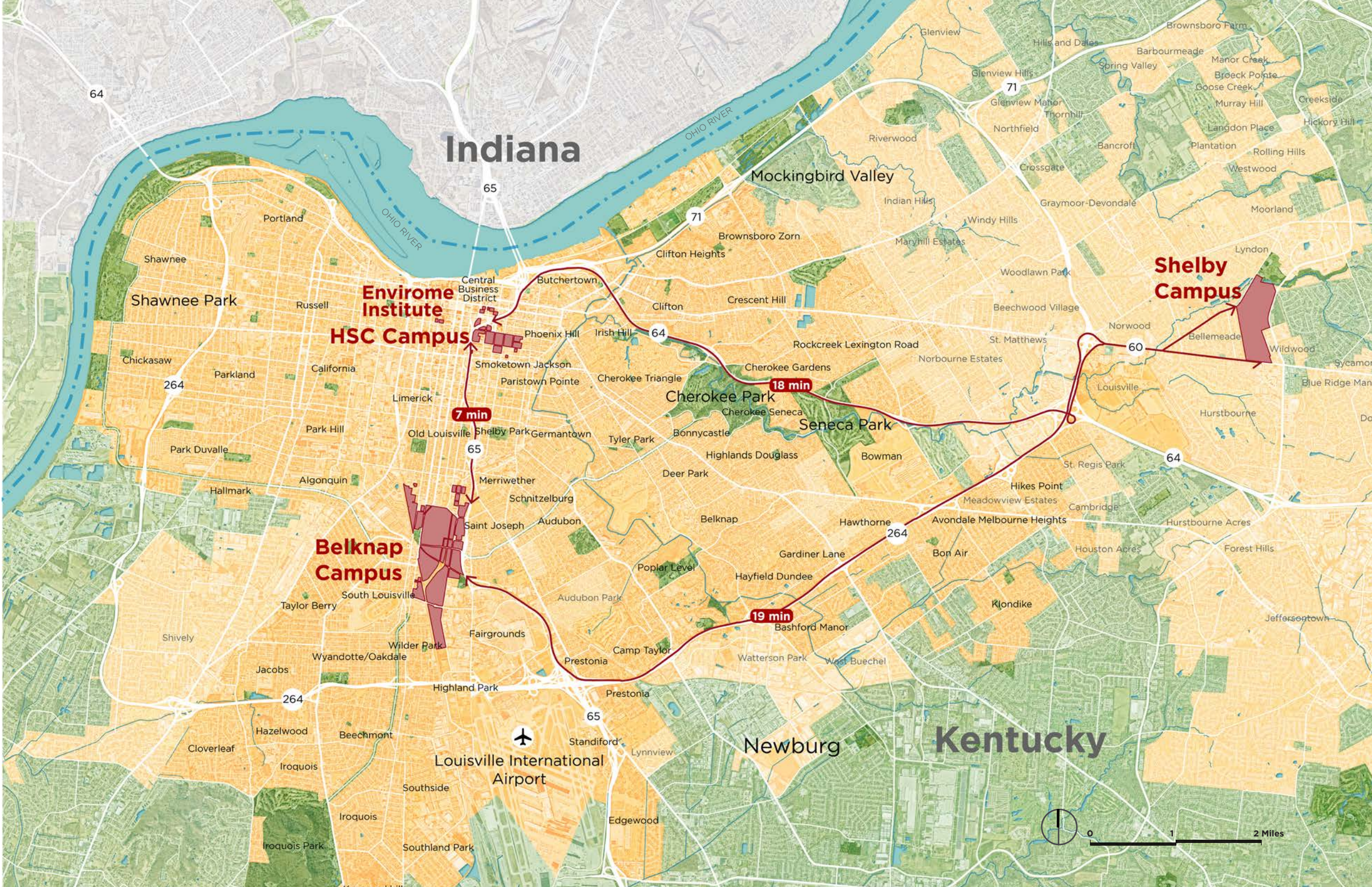
The Campus Plan proposes:

Belknap will continue to flourish as a residential campus, retaining its unwavering commitment to undergraduate education. Simultaneously, strategic investments will be made to attract graduate students, especially in STEM programs, and to bolster research opportunities. The creation of a research district on Belknap will foster industry partnerships and forge new pathways for students.

HSC will remain the epicenter of health sciences education and research within the broader Louisville Medical Education District (LOUMED). Strategic initiatives will be undertaken to cultivate STEM opportunities, creating synergies with the Belknap Campus.

To fortify better access and collaboration between Belknap and HSC, the Campus Plan calls for improved connectivity. This includes the enhancement of bike infrastructure and the establishment of more efficient transit options, such as frequent shuttle services.

In summary, the multi-campus strategy outlined is designed to leverage the distinct attributes of each campus while fostering collaboration and synergy to enhance the overall educational and research experience for students, faculty, and staff.

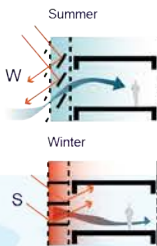


SUSTAINABILITY & RESILIENCE GOALS

The Campus Plan operates in harmony with and bolsters UofL’s commitment to sustainability and resilience, as delineated in the 2022 Sustainability Plan Pathway to Platinum and the 2008 Climate Action Plan. The Campus Plan aligns with UofL’s objectives in the following key areas:

- Social Impact
- Economic Impact
- Built Environment
- Natural Environment

Five overarching Sustainability and Resilience goals, each accompanied with recommendations aimed at achieving these objectives are embedded in the Campus Plan. They serve as goals for shaping the physical and operational facets of the campuses, ensuring that sustainability and resilience remain at the forefront of planning and development.



Energy & Carbon



The Sustainability Plan for University of Louisville is built around advancing the current AASHE STARS Gold status toward Platinum. The Campus Plan offers strategies to further this goal.

- 1 Increase energy efficiency of buildings with each renovation.
- 2 Use low temperature hot water, geothermal energy, and solar photo-voltaic where possible in renovations and new building construction.
- 3 Design future buildings with optimal solar orientation, better indoor air quality, and with healthy and sustainable materials.
- 4 In regards to food sustainability, reduce meat consumption in campus dining facilities, and source food more locally and seasonally.

Landscape & Stormwater



Design intentional landscapes to provide physical and mental health benefits to the campus community and mitigate environmental impacts such as flooding, urban heat, and air quality.

- 1 Make landscape a destination.
- 2 Create visual and aesthetic continuity.
- 3 Foster environmental and ecological sustainability.
- 4 Design intentional opportunities for health, wellness, and socialization.
- 5 Plan for adaptability and flexibility.
- 6 Minimize maintenance needs & costs.

Mobility



Driving remains the primary mode of transportation for many of the University of Louisville’s students, faculty, and staff. Provide infrastructure and incentives for alternate modes of circulation to create more healthier and sustainable mobility options.

- 1 Improve pedestrian and bicycle infrastructure across campuses.
- 2 Maintain and enhance parking supply but keep the core of campus car-free.
- 3 Design for safety, particularly at the edges of campus and at over- and under-passes where pedestrians or bicyclists cross railway tracks and major arterial roads.
- 4 Improve connection between campuses to facilitate inter-campus travel.

Community & Environmental Justice



UofL’s commitment to being a good neighbor is underscored by the Campus Plan, which recognizes the importance of addressing the environmental impact of its campuses on adjacent Communities Initiatives such as road diets, the conversion of an old warehouse in Portland to the Center for Archeology and Cultural Heritage, financially supporting TARC service, and the Farmer’s Market at HSC have made positive contributions. The Campus Plan acknowledges that more can be done, including:

- 1 Reduce air and river pollution.
- 2 Mitigate areas that flood on and around campus.
- 3 Reduce urban heat effects by increasing green cover and tree canopy.

Campus as a Living Lab



The Campus Plan envisions the university’s campuses as living laboratories for sustainability. Making recent sustainability projects visible around campuses will help spread awareness, build support for more sustainability initiatives, and bolster a culture of care for the environment and UofL’s impact within it. To achieve this, the university can consider:

- 1 Environmental signage at infiltration and green infrastructure sites.
- 2 LEED plaques on buildings that showcase sustainability credentials.
- 3 Energy metering and consumption information transparency by school or department.
- 4 Educational signage to raise awareness about the environmental impact of mobility choices and pollution on adjacent communities.



DIVERSITY, EQUITY, & INCLUSION GOALS

UofL is working to create an authentic institutional identity with regards to diversity, equity, and inclusion.

The Campus Plan aligns with the University of Louisville's commitment to establishing a genuine institutional identity rooted in diversity, equity, and inclusion. It complements the ongoing efforts of the Office of Institutional Equity while building upon the Diversity Plan, with the overarching aim of creating an inclusive environment where all individuals can reach their fullest potential without the burden of prejudice or bias.

Recommendations

Recent years at the University of Louisville have seen a significant expansion of inclusive programs and spaces, such as the Cultural and Equity Center. With this success, the Campus Plan recognizes the ongoing need for spaces that create a sense of belonging and make room for historically underrepresented groups. It also acknowledges the importance of design that is accessible and inclusive of

individuals of all abilities. Furthermore, the Campus Plan underscores the significance of providing services that empower everyone, irrespective of factors such as race, religion, culture, gender, sexual orientation, age, or ability.

Four overarching DEI goals and physical recommendations are integrated into the Campus Plan to foster greater inclusion for all members of the campus community to thrive.

Identity & Inclusion



Foster inclusion for all identity groups by enhancing the network of indoor and outdoor campus spaces.

- Increase the amount of multicultural and intersectional space for identity groups to gather.
- Increase hosting and meeting places for Office of Institutional Equity.
- Incorporate multicultural art that represents the campus community.
- Increase spaces for early learning centers.
- Provide all-gender restrooms in every building.
- Disaggregate student, faculty, and staff data by race.
- Disaggregate student, faculty, and staff data by gender identities, including non-binary identities.

Health & Wellness



Improve health & wellness of the community through restorative landscapes, recreational areas, self-care and personal rooms, and healthier food options.

- Improve and expand food options that accommodate cultural and dietary needs.
- Provide more indoor and outdoor spaces for recreation and relaxation.
- Improve pedestrian and bicycle infrastructure to encourage active mobility.
- Provide more personal and self-care rooms across campuses.

Safety & Accessibility



Design new buildings and major renovations to include accessible entrances and spaces that adhere to Universal Design principles, including:

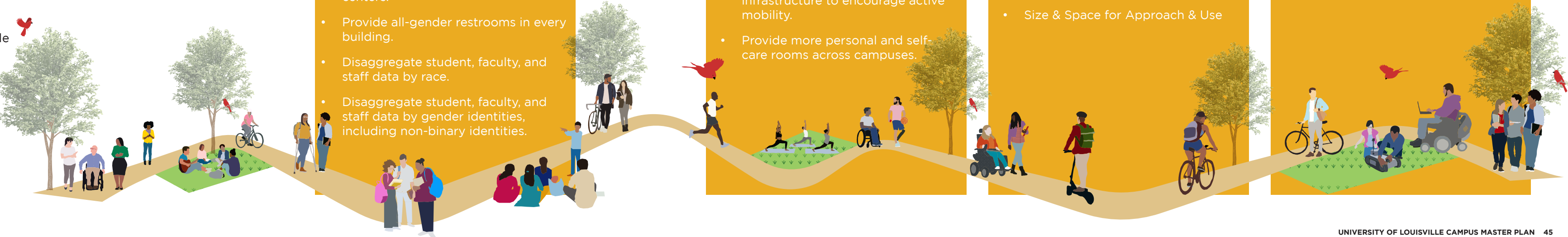
- Equitable Use
- Flexibility in Use
- Simple & Intuitive Use
- Perceptible Information
- Tolerance for Error
- Low Physical Effort
- Size & Space for Approach & Use

Environmental Justice

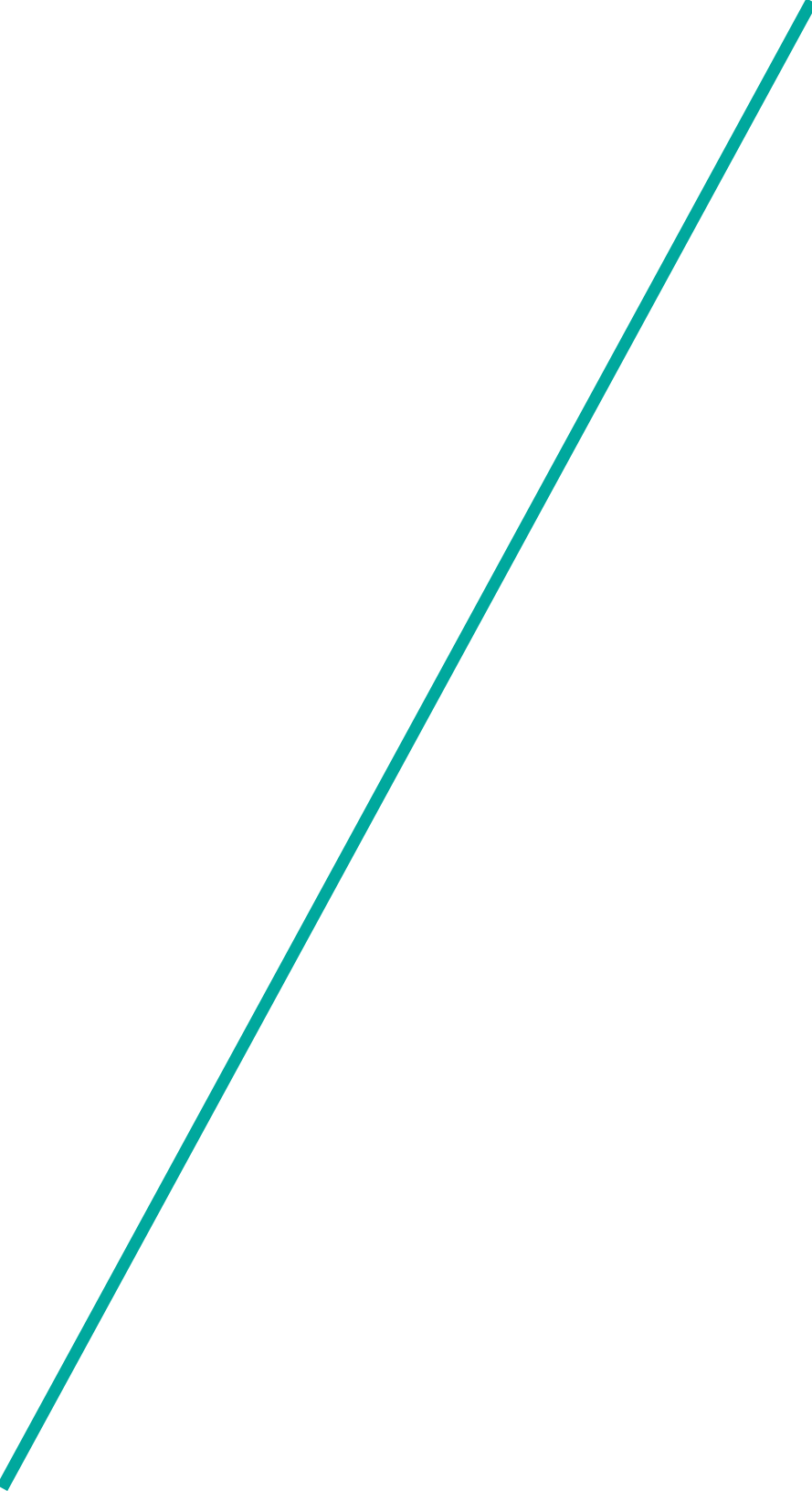


Use improved landscape to ensure environmental justice for campus community and neighbors.

- Employ green infrastructure to mitigate localized flooding.
- Increase pervious surfaces and tree canopy cover to reduce urban heat effect and air pollution.
- Plant native species aimed at enhancing local ecology and remediating contaminated areas.



**BELKNAP
CAMPUS**

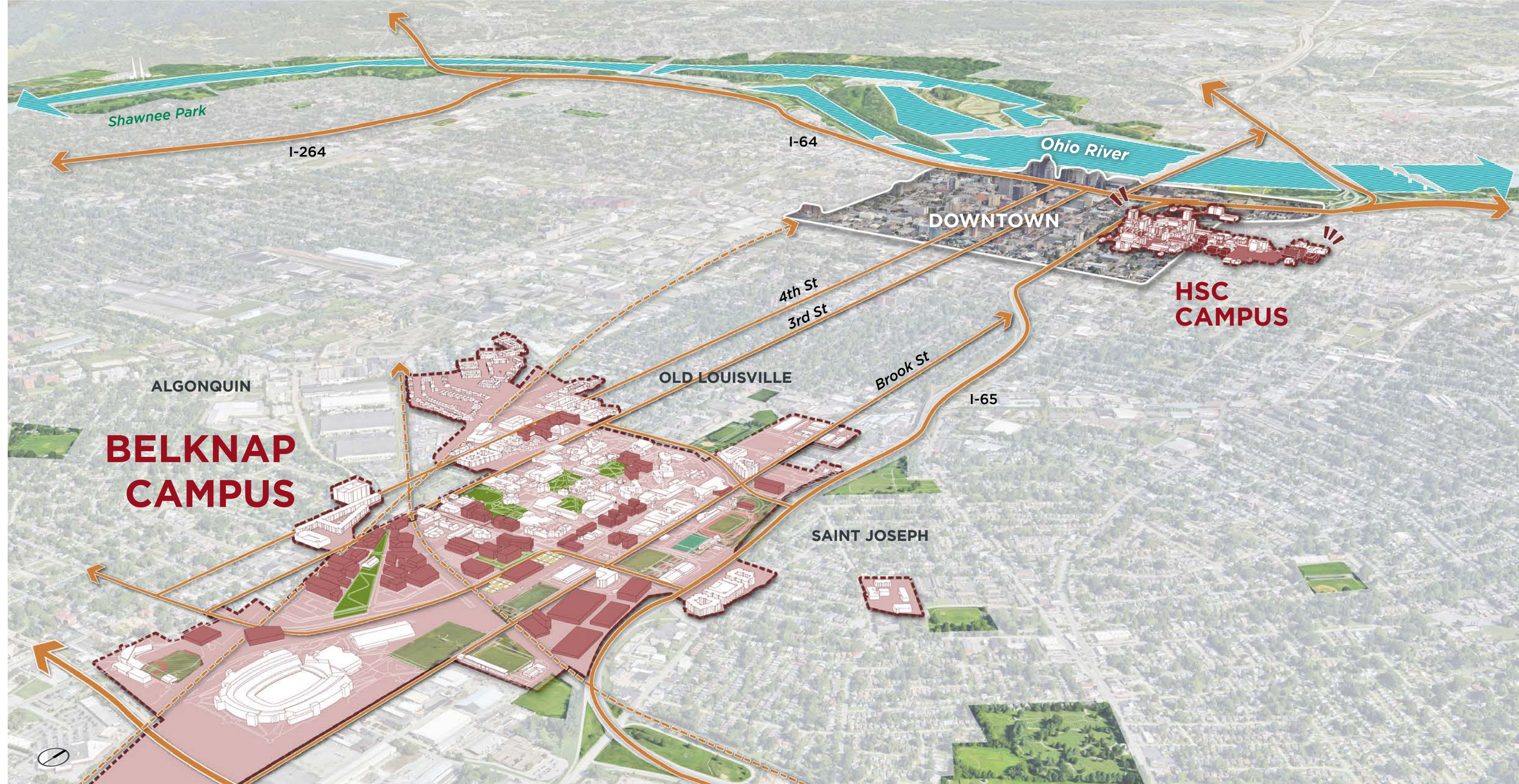


VISION & STRATEGIES

VISION & STRATEGIES

The Campus Plan envisions a thriving, inclusive, and sustainable Belknap Campus that serves the academic, research, and campus life needs of UofL, while fostering collaborations with private research and development partners.

The overarching strategies to realize this vision are intricately woven into the fabric of the Campus Plan, responding to key Plan Drivers, including honoring the historical elements of the land, optimizing space for academic and research purposes, and enhancing the overall experience for all members of the UofL community and beyond.



CAMPUS CONTEXT

Belknap Campus is situated in a diverse urban setting that combines residential, industrial, and cultural elements, alongside major transportation routes like Interstate-65. This context comprises:

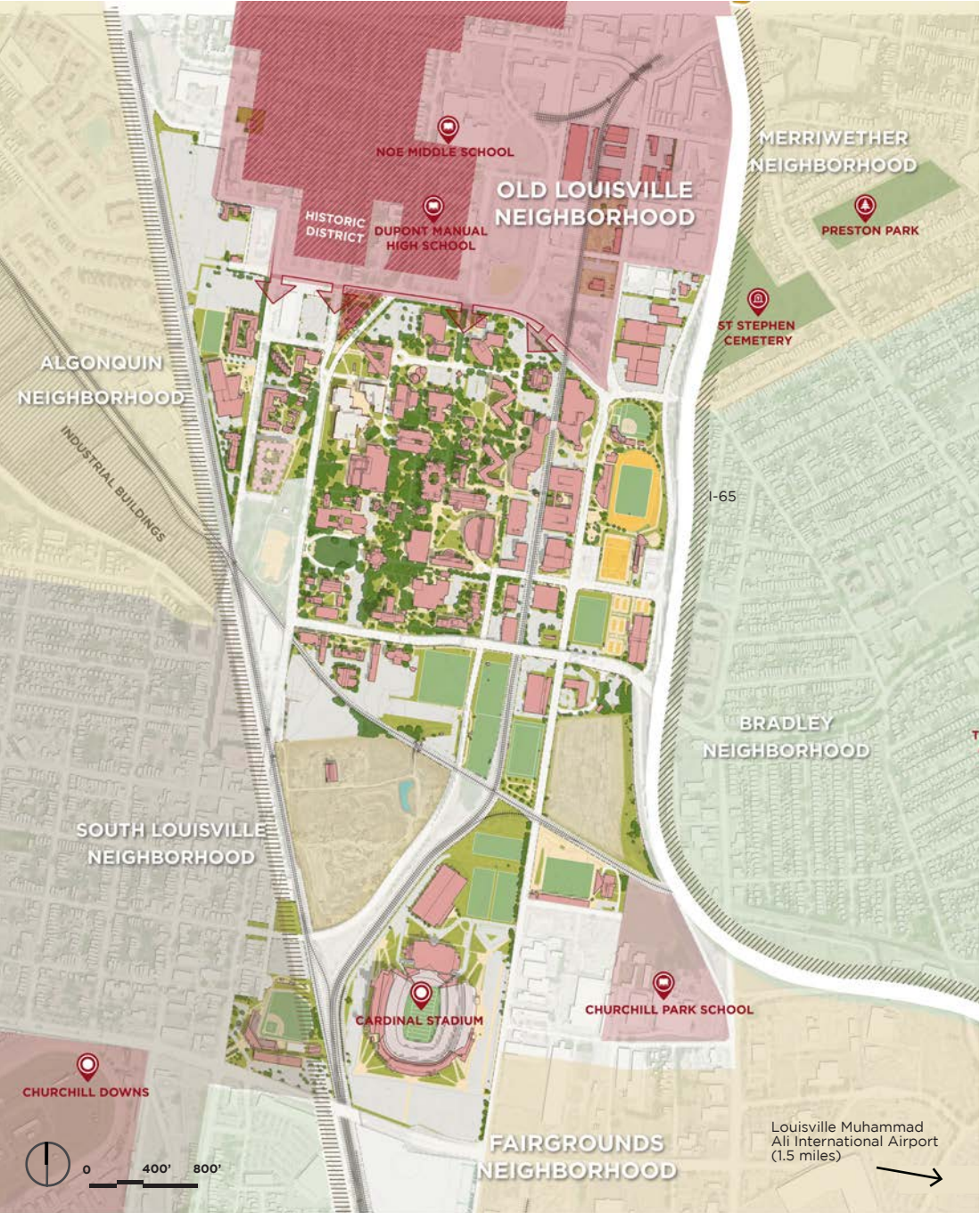
Located to the north, Old Louisville is a historic residential district known for its Victorian architecture and tree-lined streets, adding historic charm to the campus surroundings.

Southwest of the campus, Churchill Downs is a globally renowned cultural institution, famous for hosting the Kentucky Derby.

Louisville Muhammad Ali International Airport is approximately 1.5 miles from the campus. The campus benefits from its proximity to this major transportation hub, facilitating accessibility for students, faculty, staff, and visitors.

Beyond the immediate vicinity, there are industrial areas encompassing manufacturing, warehousing, and logistics operations, showcasing diverse land use within the region.

This blend of residential neighborhoods, historical districts, cultural landmarks, industrial zones, and transportation hubs enriches the campus environment. It underscores the significance of the Campus Plan's vision to harness these surroundings for enhancing the campus's attractiveness, accessibility, and overall appeal.



EXISTING CAMPUS

Belknap Campus offers a distinctive blend of attributes, combining a pedestrian-friendly core, lush tree canopy in select areas, and significant iconic spaces that instill a strong sense of place.

The biggest challenges facing Belknap today include the years of deferred maintenance, the oversized rights-of-way and large infrastructure on the east, west, and south of campus, the unequal distribution of campus life spaces, and the lack of hierarchy within the public realm.

The key opportunities on Belknap include modernizing and right-sizing academic spaces, sustainability and climate adaptation through landscaping and open spaces, and creating safer, more comfortable, and inviting transitions between the campus and its surrounding areas, fostering better connectivity and integration.



PROPOSED VISION

The Belknap Campus vision reimagines the 287-acre campus with strategic investments to improve the learning and research environment, enliven the campus life experience, and create a sustainable and enduring sense of place. Home to seven academic colleges, athletics, and the Speed Art Museum, the growth and transformation of Belknap will focus on the following:

Building Renewal and Modernization: The vision recognizes the urgent need for building renewal and modernization across a substantial portion of the campus. It emphasizes the importance of addressing deferred maintenance and creating asset preservation strategies to ensure that campus facilities are conducive to learning, discovering, working, and living.

Academic Clustering: The Campus Plan right-sizes instructional space, rethinks existing facilities for more compatible and suitable uses, and creates academic clusters with improved adjacencies.

Campus Life Spaces: Campus life spaces contribute to a sense of belonging and community formation. Extending a network of spaces for dining, recreation, collaboration, social activities, and housing—particularly in the southern half of the campus—will provide more amenities to the campus community.

Accessible Campus: Safety and accessibility for pedestrians and bicyclists are paramount. The Campus Plan creates safe and inviting environments at the edges and gateways of the campus. This includes establishing a “Town Gown” interface to the northwest and improving connections to the south via 4th Street, 3rd Street, Brook Street, Floyd Street, and Eastern Parkway.

New Visitor Experience: The visitor experience begins with a new “Town Gown” gateway district that celebrates Freedom Park, the Speed Art Museum, and a reconfigured Third Street entry. In addition, new signage and wayfinding will help visitors and campus community members navigate the campus.

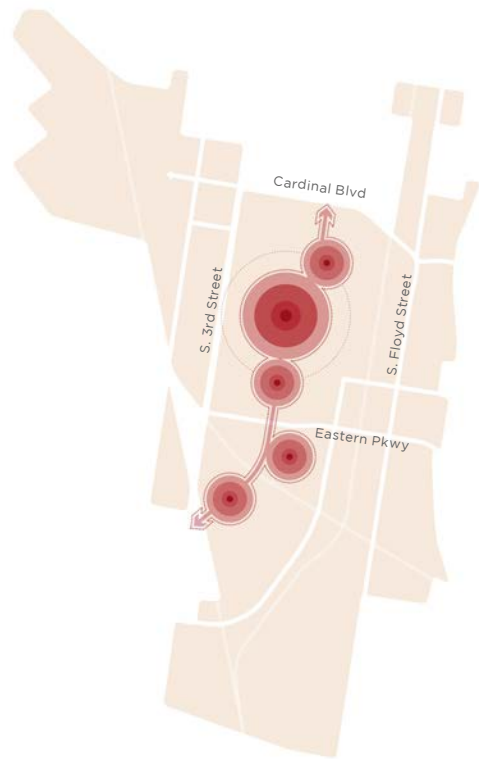
Open Space Network: Belknap’s beautiful park-like campus provides an array of beautiful open spaces. By designing the landscape to integrate strategies for health, wellness, climate, and sustainability, the campus becomes a more versatile and inviting environment.

- Proposed Building
- Renovated Building
- Existing Building
- Athletics Master Plan

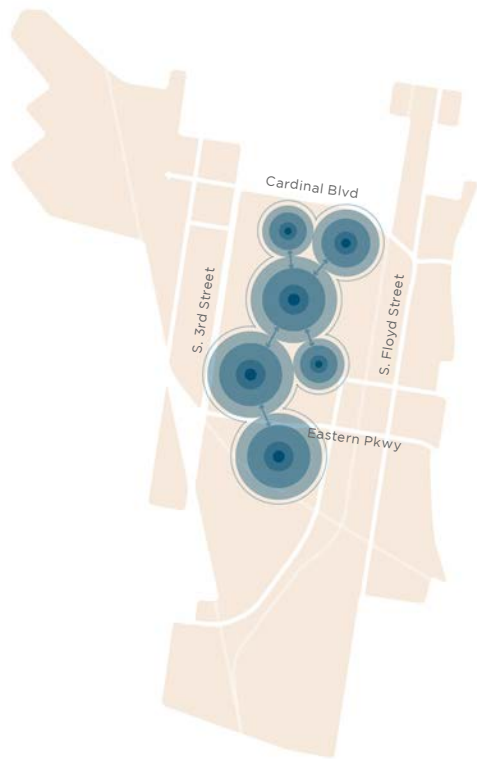


STRATEGIES

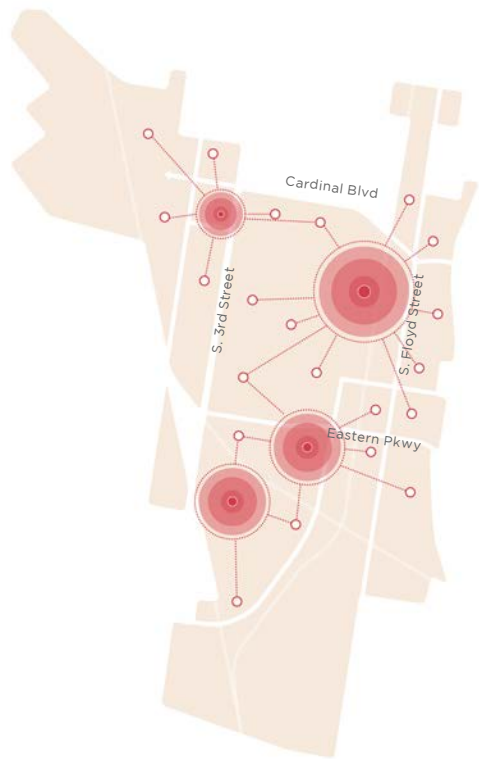
Based on conversations with campus leadership and the Cardinal community, the following strategies have been identified to address the six essential priorities on campus.



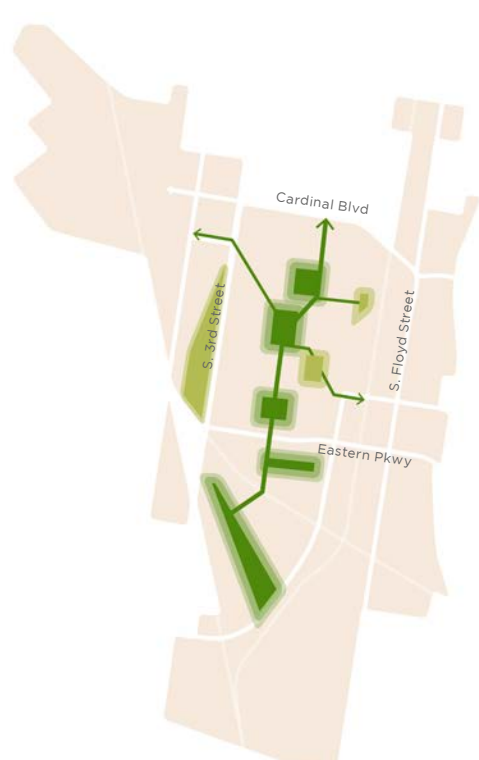
1. Extend the Academic Core: The plan envisions extending the academic core from Cardinal Boulevard in the north to the railway tracks in the south, spanning between Third and Floyd Streets. This expansion aims to create a cohesive academic environment and potentially connect to a future research district in the southern part of the campus.



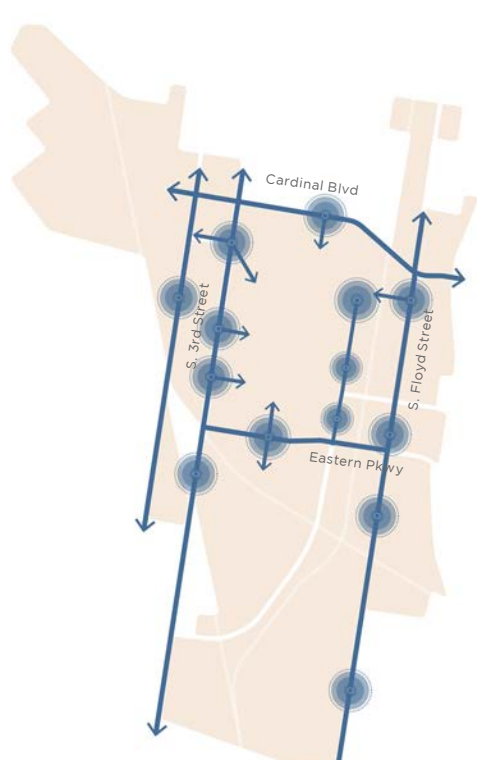
2. Cluster Academic Programs: Within the academic core, the plan proposes clustering complementary academic programs together. This proximity enhances collaboration and facilitates resource-sharing among departments and schools.



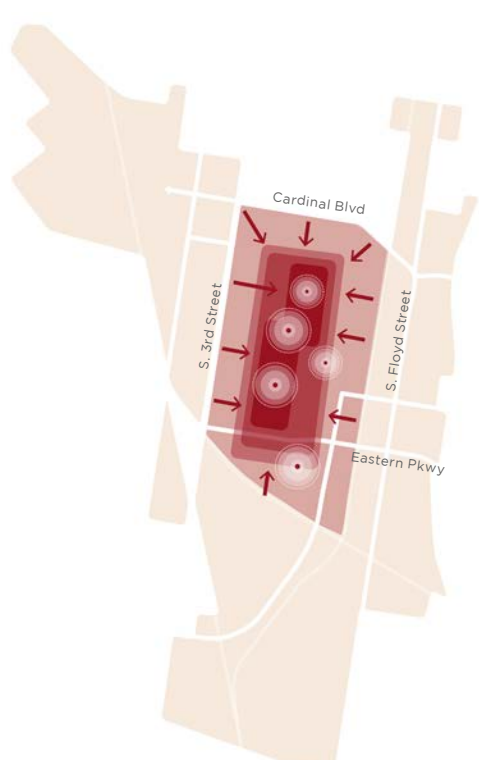
3. Enhance Campus Life: The plan suggests adding more spaces for campus life, including dining, health, wellness, recreation, social, and study areas. These spaces are intended to serve the entire campus community and contribute to its vitality.



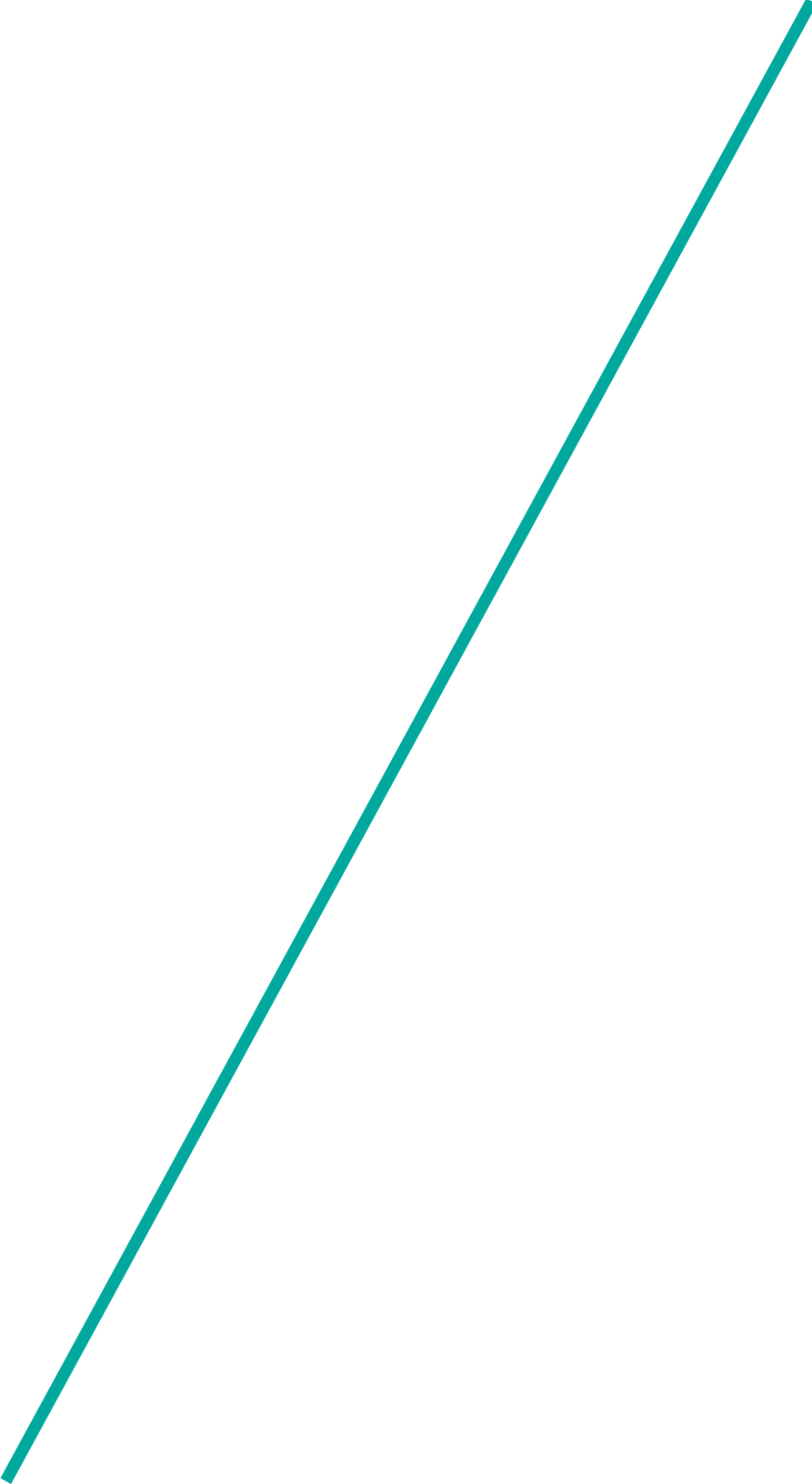
4. Improve Open Spaces: A focus on enhancing the quality of open spaces and working landscapes is outlined. The plan envisions a diverse range of outdoor areas and activities, with an emphasis on climate adaptation, improved air quality, and reduced urban heat.



5. Activate Campus Edges: To create better connections and a sense of arrival on campus, the plan proposes improving access points, over- and under-passes, particularly on the east, south, and west sides. These enhancements aim to make these areas more inviting, safe, and comfortable.



6. Density the Campus Core: Future development within the academic core is planned to address deferred maintenance challenges systematically. This includes renovating and replacing buildings with the highest deferred maintenance needs, contributing to the overall revitalization of the campus.

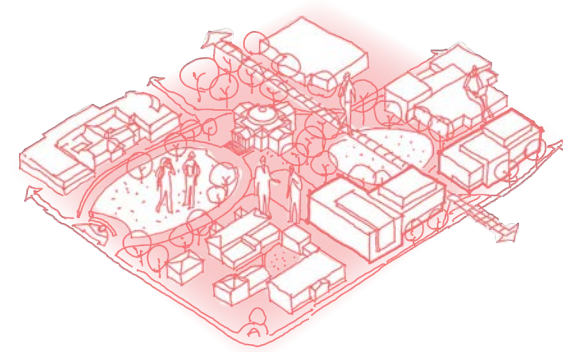


FRAMEWORKS

FRAMEWORKS

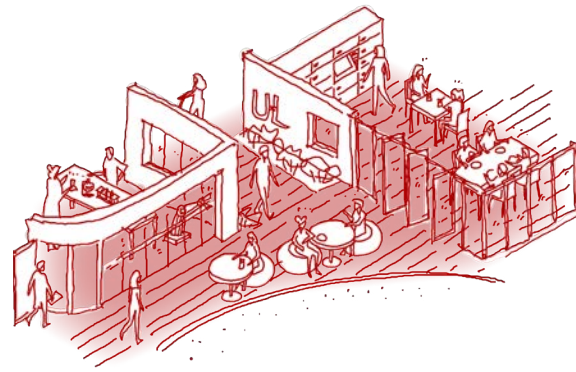
The Campus Plan incorporates six thematic Frameworks to guide future development and transformation at Belknap Campus. These frameworks collectively provide a flexible and adaptable guide for achieving the vision of a thriving, inclusive, and sustainable Belknap Campus, aligning development efforts with strategic priorities and community needs.

1 DEVELOPMENT FRAMEWORK



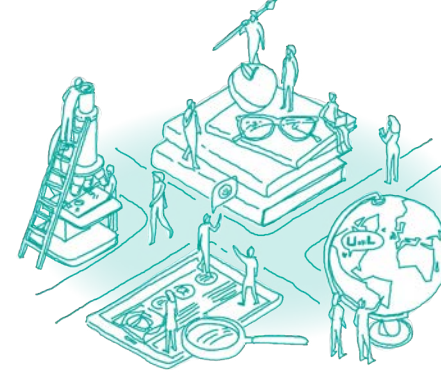
The Development Framework offers guidance on new construction, renovations, asset preservation, demolition, and property acquisition. The vision recognizes the urgent need for renewal and modernization while ensuring campus facilities are accessible, functional, and conducive to learning and research.

2 CAMPUS USE FRAMEWORK



The Campus Use Framework aims to maintain a concentrated campus core while accommodating compatible uses that contribute to nearby retail areas and neighborhoods. It prioritizes synergistic adjacencies and creating a legible campus experience.

3 ACADEMIC & RESEARCH FRAMEWORK



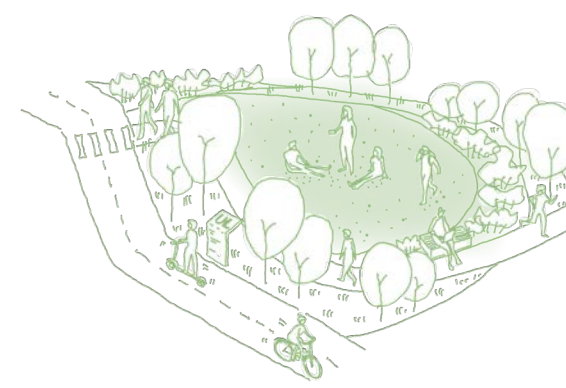
Aligned with UofL's Strategic Plan, the Academic & Research Framework identifies facilities for enhanced 21st-century learning and research. It emphasizes investment across academic units, improved interdisciplinary spaces, and cluster development for STEM and Arts and Sciences.

4 CAMPUS LIFE FRAMEWORK



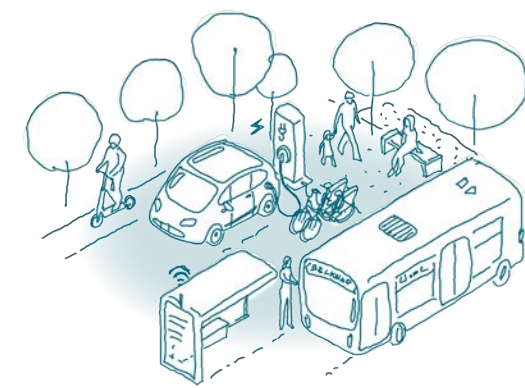
The vision recognizes the importance of enhancing campus life spaces, particularly in the southern half of the campus. By creating vibrant and inclusive gathering spaces, the plan aims to enrich the overall campus experience for students, faculty, staff, and visitors. It also addresses future on-campus and near-campus housing options.

5 LANDSCAPE FRAMEWORK



The Landscape Framework envisions new and improved open spaces that promote health, wellness, recreation, and climate resilience. It includes major public realm networks, a Shipp Street promenade, and enhanced pedestrian and bicycle connectivity.

6 MOBILITY FRAMEWORK



The Campus Plan envisions a pedestrian-friendly campus core, improving connections to HSC campus and creating safe and inviting environments at the edges and gateways of the campus.

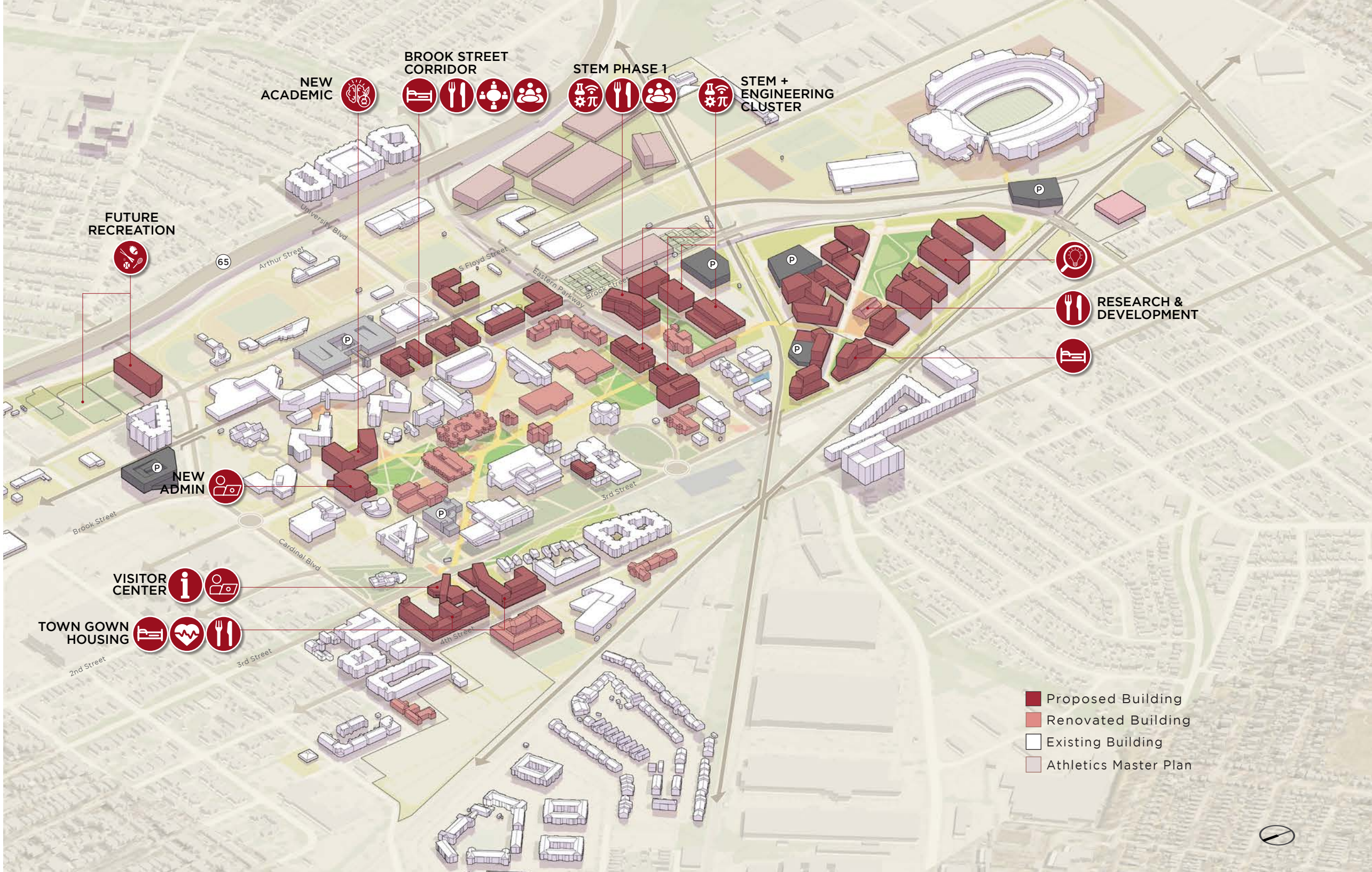
1 DEVELOPMENT FRAMEWORK

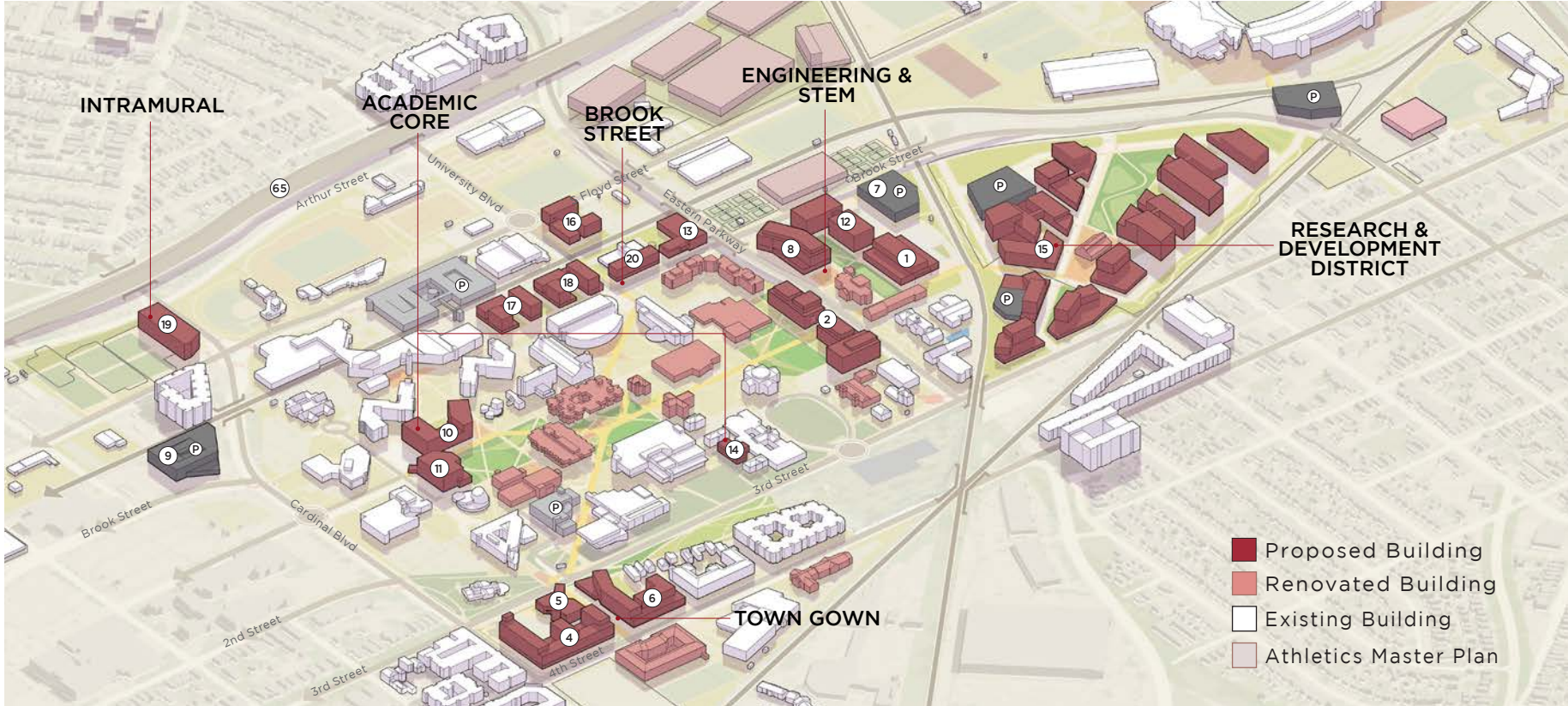
Future development on Belknap Campus has the power to shape learning and working environments for students, faculty, and staff and influence the ability of the campus community to perform at its best.

The two major drivers of future development on campus are UofL's growth goals and the need to address a large accumulation of deferred maintenance. This framework focuses on new construction, demolition of key buildings, and select facilities for major renovations. A comprehensive list of facilities for major renovations and

asset preservation based on the Facilities Conditions Assessment is provided in the Appendices. New construction is proposed primarily at the south end of campus where there are large areas of open land, and infill development within the campus core. Demolitions are strategically proposed to alleviate the highest deferred maintenance burdens, and a sequence of development is proposed to allow phased renovations of core buildings.

The Campus Plan references the proposed Athletics buildings.





Proposed New Construction

New construction on campus is recommended based on the growth needs of STEM and Engineering departments, campus life improvements, replacement of aging facilities, and the new Research and Development District. New construction is predominantly recommended at the peripheries of campus with the exception of a new academic and administrative building bounding a new quad where Davidson Hall currently sits. Details on phasing, square footages, and costs can be found in the Appendices.

Science, Technology, Engineering, and Math (STEM)

Some of the earliest recommended new construction is located in on either side of Eastern Parkway to extend the Engineering facilities into a larger STEM cluster. These projects will allow UofL to achieve its growth goals in the STEM departments.

Town Gown

A high priority area for infill development is the Town Gown located on the northwest corner of campus at Third Street and

Cardinal Boulevard. The two new housing buildings will more than replace the lost beds from the demolition of Unitas and University Tower Apartments and integrate additional campus life spaces. The proposed Visitor Center will leverage the walkability of this area to serve the campus community, visitors, and especially newcomers with a new landing pad and a starting point for a campus tour.

Intramural Fields

Intramural fields in the long-term are recommended to be located with a new

intramural building northwest of Cardinal and Floyd Street. Short-term relocation of the remaining fields is also recommended at the southern edge of the Research and Development District.

Academic Core

A new academic and administrative building bounding a new quad where Davidson Hall currently sits will help reduce the deferred maintenance on buildings within the core.

The expansion of Brandeis School of Law will provide the opportunity to develop a 21st Century addition to the building.

Research & Development District

As the Research and Development District begins phased construction, Foundation-owned facilities on the northeast of campus can shift into these new buildings, making room for the permanent relocation of intramural fields. Full buildout of the R&D district will create opportunities for research and industry pipelines for UofL students.

Brook Street

Brook Street corridor is envisioned with additional housing and campus life on the ground floor to activate this corridor, the relocation of the service complex to alleviate the high deferred maintenance burden of the existing complex, and a potential new façade and academic space in front of the Steam and Chilled Plant to offer classes on sustainability.

Proposed New Construction	GSF
Engineering & STEM	
① Engineering 1	115,000
② STEM 1	120,000
⑦ Garage	162,000
⑧ STEM 2	300,000
⑫ Engineering 2	150,000
Town Gown	
④ Housing + Campus Life	214,000
⑤ Visitor Center	41,000
⑥ Housing + Campus Life	200,000
Intramural Fields	
⑰ Intramural fields & building	140,000
Academic Core	
⑩ Academic	150,000
⑪ Administrative	95,000
⑭ Law School expansion	44,000
Research & Development	
⑮ Phased construction of R&D district	-
Brook Street	
⑬ Service Complex	44,000
⑯ Housing + Campus Life	108,000
⑰ Housing + Campus Life	108,000
⑱ Housing + Campus Life	108,000
⑳ Academic	46,000



Proposed Demolition

Unitas and University Tower Apartments are already slated for demolition due to their poor condition. The proposed student housing development along Third and Fourth Streets will more than accommodate the beds lost due to this demolition.

The demolition of Natural Sciences and Davidson Hall will alleviate the deferred maintenance burden of these two facilities. They will be replaced by new academic buildings of a larger footprint. The sequence of demolition and new construction will also allow phased renovations of core buildings.

More detail on the sequence can be found in the Appendices.

Similarly, the condition of the Service Complex indicates that replacing it, and moving it to a more suitable location, would be more beneficial than renovating it in place.

Brodschi Hall and the Baptist Center are only demolished because they are not the highest and best use of the land they sit on. Both can be accommodated in the proposed academic and campus life spaces that are reimagined as a Brook Street campus life corridor.

Proposed Demolition

- ① Unitas
- ② University Tower Apts & Louisville Hall
- ③ Natural Sciences
- ④ Davidson Hall
- ⑤ Baptist Center
- ⑥ Univ. Relations & Dev.
- ⑦ Studio Arts / HPES
- ⑧ Brodschi Hall
- ⑨ First Build
- ⑩ Athletics Broadcast Ctr
- ⑪ Archeological Survey
- ⑫ Houchens Building
- ⑬ Service Complex

- Proposed Building
- Renovated Building
- Existing Building
- Athletics Master Plan

Studio Arts is currently an isolated academic program, which can be absorbed into the new academic building in the campus core. Houchens can also be consolidated with other administrative uses in a new administrative building. These demolitions unlock the Brook Street corridor for on-campus housing and campus life buildings.

Finally, First Build, Athletics Broadcast Center, and the Archaeological Survey buildings can be relocated into the R&D district and this site can become an extension of the athletics facilities to house intramural fields.



Renovation & Asset Preservation

Renovations and Asset Preservation projects are based on inputs such as deferred maintenance needs, Facilities Conditions Index (report summary included in the Appendices), and lived experiences of the campus community.

Renovation projects include gut renovations such as replacing most or all building systems, envelope upgrades, accessibility and universal design retrofits, surrounding landscape or utility work, and/or all new furniture, fixtures, and

equipment (FF&E). Renovation projects would require a building to be vacant during construction and therefore the implementation sequence of constructing new buildings to relocate program temporarily or permanently is critical.

Asset preservation projects have a smaller scope compared to Renovations. These may include upgrading energy systems, envelope maintenance or repair, accessibility upgrades, and/or some new FF&E. Asset preservation projects can be completed with partial occupancy in buildings during construction.

Proposed Renovation

- ① Miller IT
- ② Gottschalk
- ③ Gardiner
- ④ Brigman
- ⑤ Life Sciences
- ⑥ Strickler Hall
- ⑦ Bingham Humanities
- ⑧ Schneider Hall
- ⑨ Miller IT
- ⑩ Ernst
- ⑪ Chemistry
- ⑫ Brandeis School of Law
- ⑬ WS Speed

- Proposed Building
- Renovated Building
- Existing Building
- Athletics Master Plan

Proposed Asset Preservation

- Frazier / Business
- College of Education
- Dougherty
- Oppenheimer
- Ford Hall
- Stevenson Hall
- Grawemeyer
- JB Speed
- Sackett
- Vogt
- Ekstrom
- Shumaker

2

CAMPUS USE FRAMEWORK



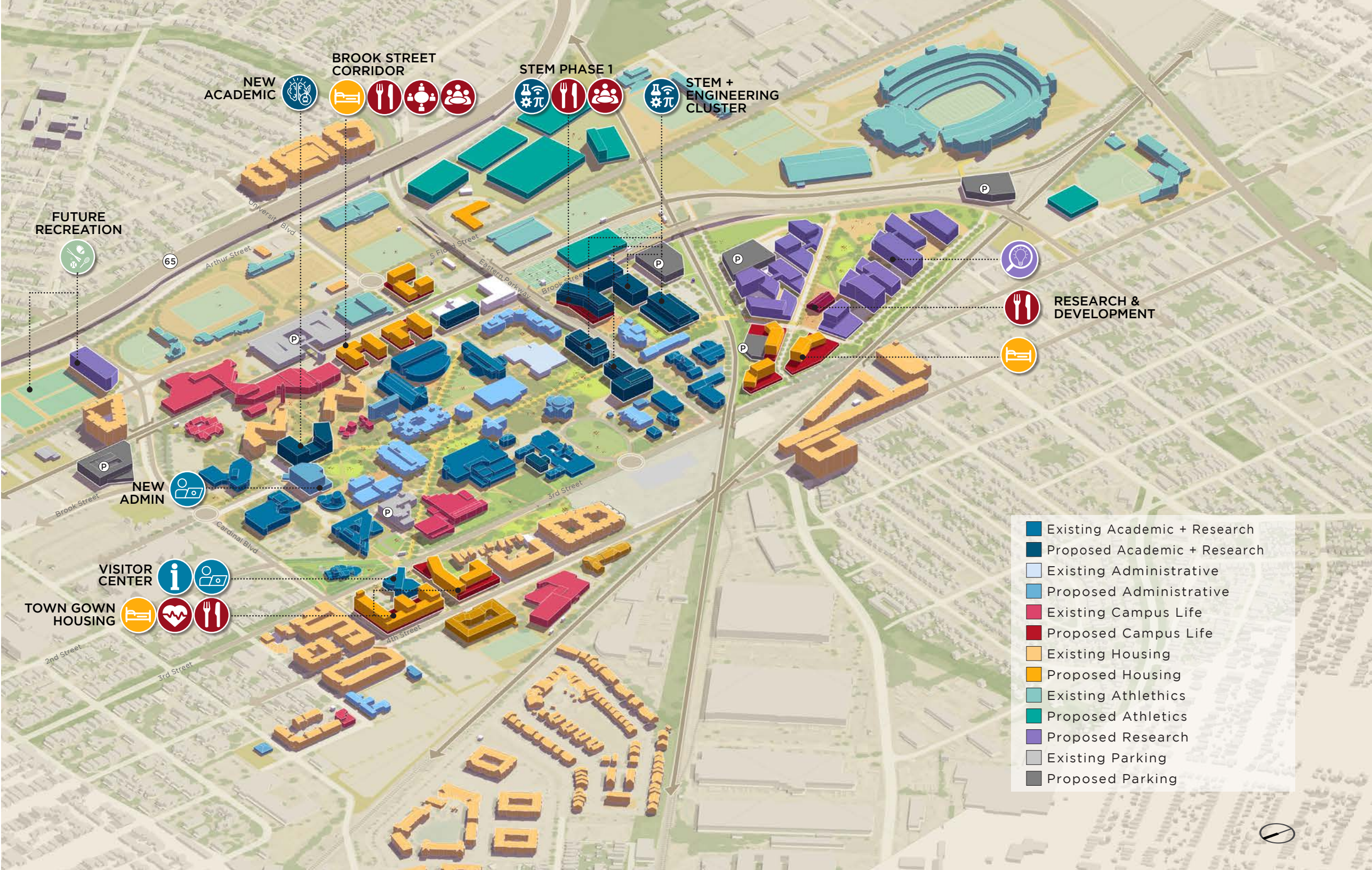
The Campus Use Framework focuses on the strategic organization of building uses across the Belknap Campus. It aims to maintain a concentrated campus core while planning for compatible campus uses that contribute to adjacent retail corridors, districts, and neighborhoods. Key elements of this framework include the following.

Academic & Research Core: The core of the campus is designated for academic and research buildings to support the university’s educational and research mission.

Student Housing & Campus Life: Student housing and campus life amenities are positioned along the edges of the campus, providing convenient access for students. A “Town Gown” district is proposed as a gateway from downtown to Belknap.

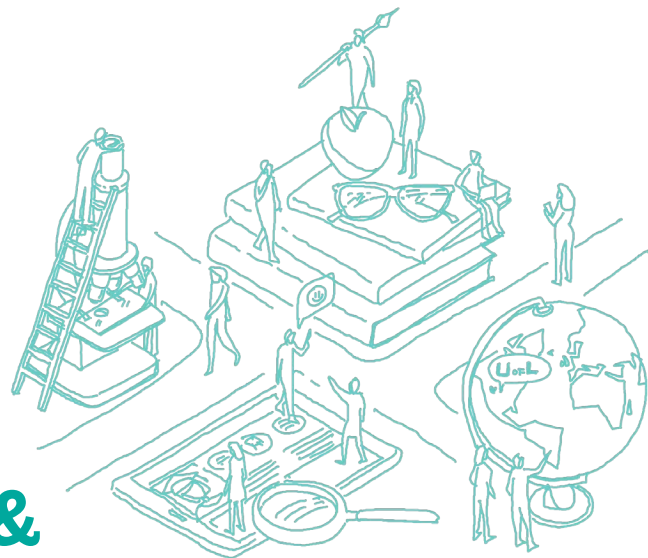
Research and Development District: A new Research and Development District is proposed at the southern edge of campus, aiming to foster industry partnerships and create pathways for students to enter the professional world.

This framework offers a strategic approach to organizing building uses to enhance the campus experience and promote collaboration between academic, research, and student life spaces.



3

ACADEMIC & RESEARCH FRAMEWORK



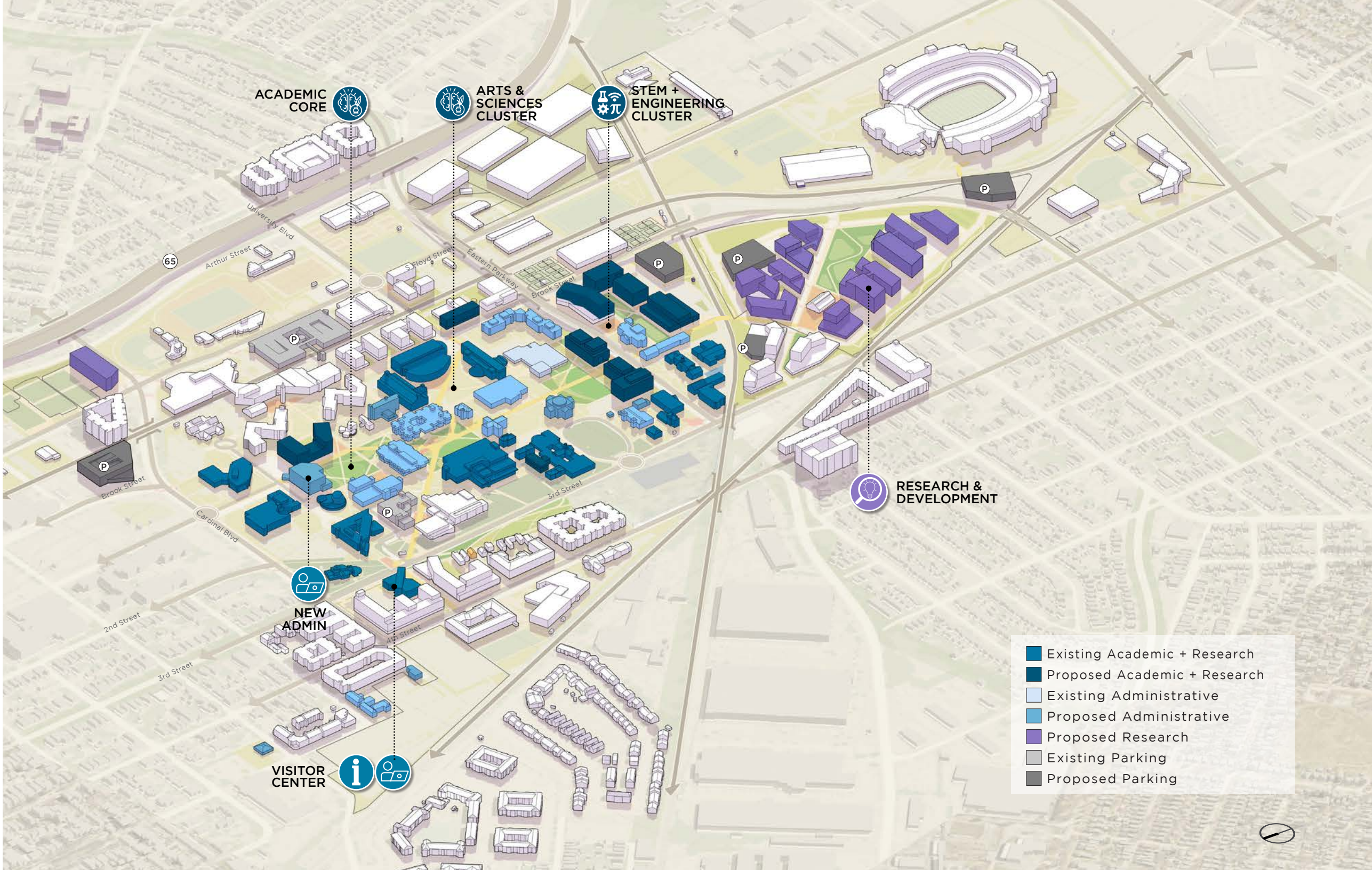
This framework prioritizes academics and research at the core of the Belknap Campus. The key elements of this framework include the following.

Growth in STEM and Engineering: Responding to UofL’s growth needs in STEM and Engineering programs, this framework recommends the construction of two new academic buildings near the existing Engineering facilities.

Phased Renovations: To facilitate phased renovations of existing buildings within the academic core, swing spaces are proposed in new academic buildings. These swing spaces would temporarily house programs from buildings like Bingham Humanities, Strickler Hall, and Life Sciences during major renovations.

Research and Development District: This framework envisions a Research and Development District on a brownfield site that aims to expand research opportunities and foster partnerships with the private sector. It emphasizes leveraging view corridors and implementing soil remediation strategies to support these goals.

Overall, the Academic & Research Framework is designed to align with the university’s mission, accommodate growth in key programs, and create opportunities for research collaboration and innovation.



STEM CLUSTER

The STEM Cluster focuses on optimizing the use of land currently occupied by recreational fields south of Eastern Parkway to accommodate the growth and development of STEM (Science, Technology, Engineering, and Mathematics) programs. Key components of the STEM Cluster are:

Reallocating Land: The plan proposes repurposing the recreational fields, which are currently occupying this area, to better support STEM facilities in alignment with the UofL’s strategic planning.

New Engineering Building: A new engineering building is already planned for the area south of Eastern Parkway to accommodate short-term (0-5 year) enrollment growth.

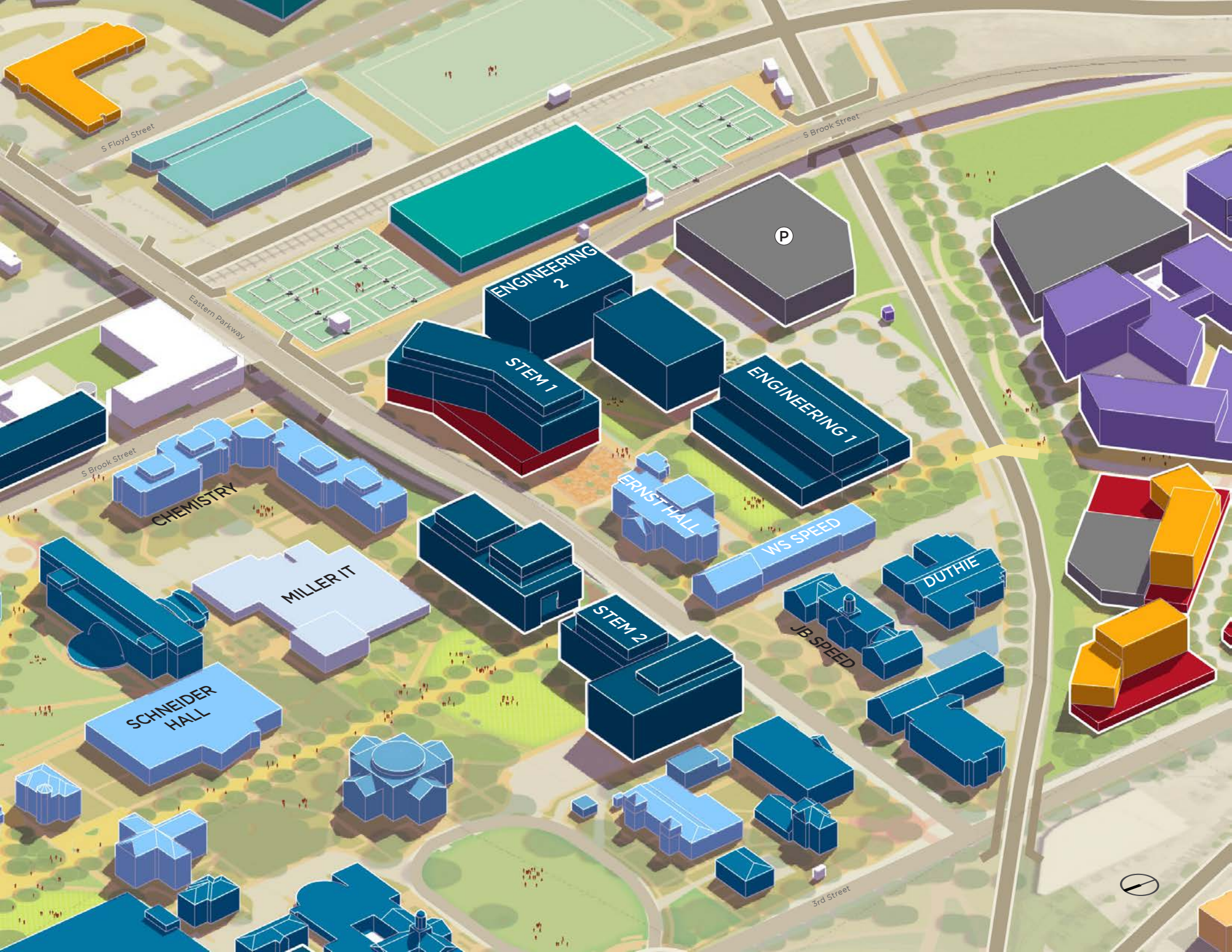
STEM Building: An early project recommended in the Campus Plan is the construction of a new STEM building. This building would serve as a hub for STEM-related activities, including dining and campus life functions. It would also allow for the relocation of programs from the Natural Sciences building to free up space for future STEM construction.

Future Growth: In later phases, the plan proposes the construction of a second Engineering building and a second STEM building to meet the expected demand for these departments in the future.

Design Principles: The new construction within the STEM Cluster is guided by design principles that emphasize natural lighting, ventilation, universal design, ground-level access, integration with open spaces, a mix of program uses (including dining, campus life, meeting/study rooms), and effective wayfinding and signage.

The STEM Cluster is designed to support the growth and development of STEM programs while creating modern and adaptable learning environments.

- Existing Academic + Research
- Proposed Academic + Research
- Renovate Academic + Research
- Existing Administrative
- Proposed Administrative
- Proposed Research
- Proposed Campus Life



ARTS & SCIENCES CLUSTER

The Campus Plan addresses the challenges of dated buildings within the academic core, particularly focusing on the Arts & Sciences Cluster. Key components of the Arts & Sciences Cluster are:

Renovation vs. Replacement: The plan seeks to balance renovation efforts with the need for facility replacement. It evaluates whether it is more cost-effective to renovate or replace specific buildings within this cluster.

STEM Building Expansion: The addition of a second STEM building in the STEM Cluster is intended to house Life Sciences, including a vivarium. This consolidation of STEM and Engineering programs fosters clarity, legibility for students, and opportunities for cross-program collaboration. Once the current Life Sciences building is vacated, it can undergo renovations as per the Building Conditions Assessment. After renovations, it will become a new home for Bingham Humanities, enabling the needed renovations for that building. Subsequently, program spaces from Strickler can relocate into Bingham Humanities, leading to the third major renovation of core academic buildings. Finally, a new academic building is proposed to replace Davidson Hall. After the relocation of Davidson’s program to the upgraded academic facility, Davidson can be demolished to make room for a new quad.

Arts and Sciences Growth: The overall increase in gross square footage for the College of Arts and Sciences will also allow for the relocation of Studio Arts and the HPES (Health and Physical Education and Exercise Science) program into the core campus, eliminating their isolation at the eastern end of campus.

Design Guidelines: New construction buildings within the Arts & Sciences Cluster should follow design guidelines similar to those in the STEM Cluster. Recommendations for major renovations include considerations for ground floors and their relationship to the public realm, adding glass on facades, allowing light into central spaces, incorporating collaboration and gathering spaces, and effective wayfinding and signage.

The plan for the Arts & Sciences Cluster focuses on creating updated, collaborative, and welcoming spaces while optimizing the allocation of resources between renovation and replacement efforts.

- Existing Academic + Research
- Proposed Academic + Research
- Renovate Academic + Research
- Existing Administrative
- Proposed Administrative
- Proposed Research
- Existing Campus Life
- Proposed Campus Life



RESEARCH & DEVELOPMENT DISTRICT

The Campus Plan outlines the development of a Research and Development (R&D) district on UofL Foundation-owned property. This former industrial site presents unique opportunities despite the need for soil remediation. Key aspects of the R&D district proposal include the following.

Strategic Location: The site’s strategic location at the southern end of campus offers adjacency to students, the broader Louisville community, and proximity to the Louisville Muhammad Ali International Airport. This location is intended to expand opportunities for student research, internships, and academic engagement.

Adaptive Reuse: The plan acknowledges the historical significance of the existing Drop Forge structure on the site and proposes adaptive reuse that respects its industrial heritage.

Central Quad: The proposed configuration of the R&D district centers around a major central quad that serves as the focal point of the district. This space is envisioned to accommodate campus life, dining, and recreational activities. It also offers clear sightlines from the Drop Forge building to Cardinal Stadium.

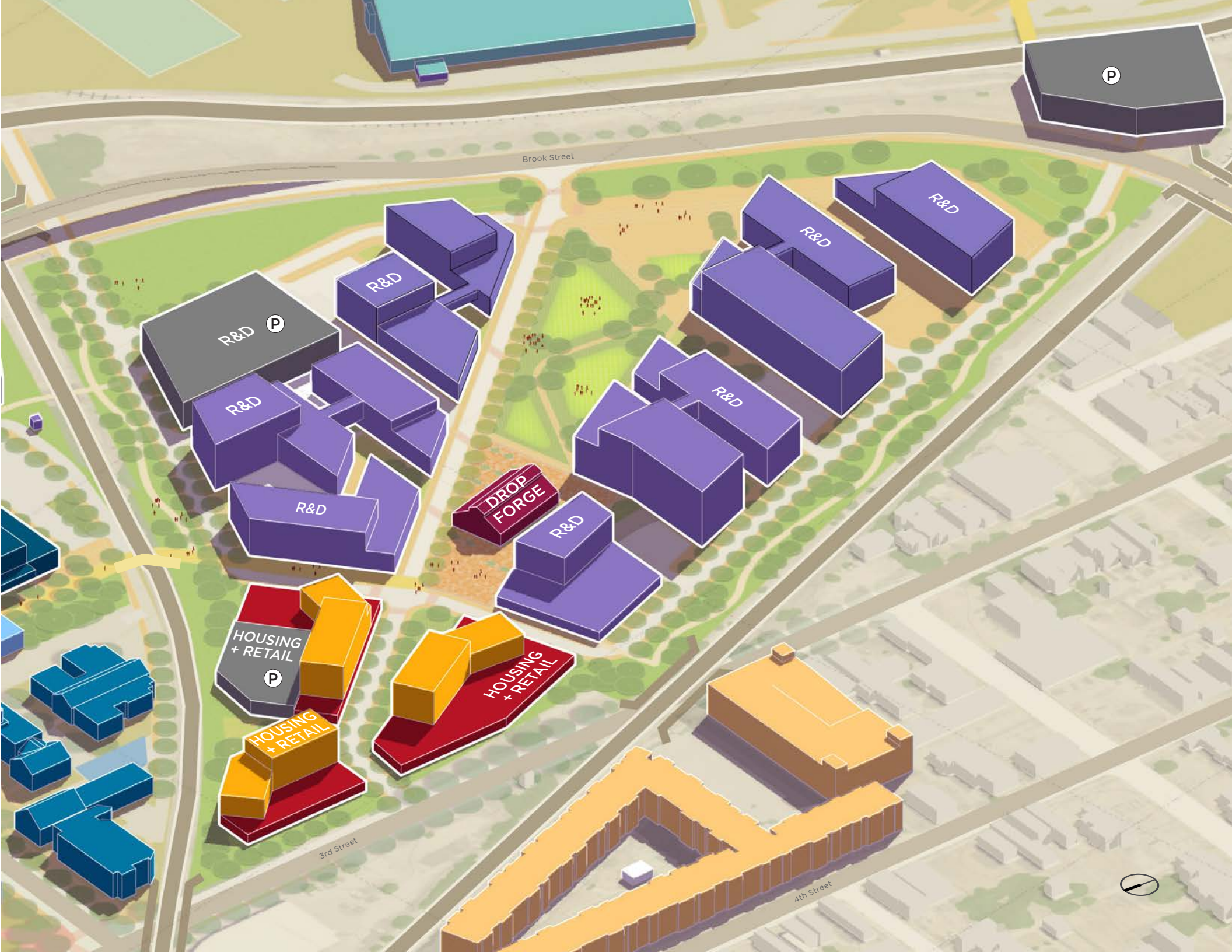
Green Loop: A green 1-mile loop surrounds the perimeter of the district, acting as a buffer between the proposed buildings and the potential noise, vibrations, and air pollution from nearby railways. This green space contributes to the overall sustainability and wellness of the district.

Pedestrian Connectivity: An accessible pedestrian bridge is proposed along the north-south spine through the main campus, seamlessly connecting into the R&D district. This bridge enhances connectivity for students and staff moving between campus areas.

Phased Construction: The R&D district’s phased construction allows for the relocation of Foundation-owned properties northeast of campus, including FirstBuild, Athletics Broadcast Center, and the Archeological Survey building. This relocation unlocks the Foundation-owned properties bounded by Cardinal Boulevard, Floyd Street, Bloom Street, and Arthur Street for the future relocation of intramural fields.

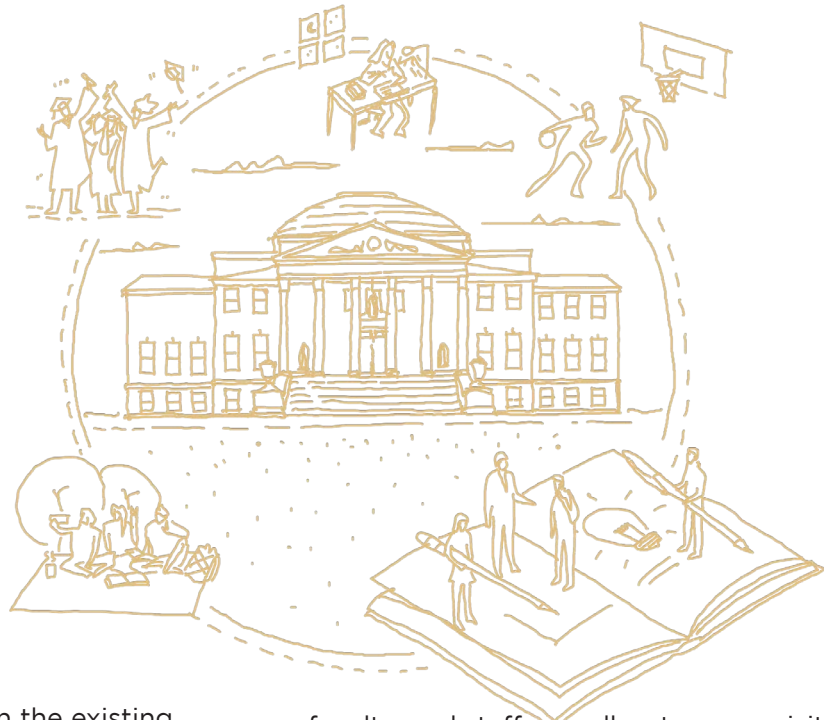
The R&D district is designed to be a dynamic and collaborative space that fosters research, innovation, and partnerships while respecting the site’s history and addressing logistical challenges such as soil remediation and adjacent railways.

- Proposed Research
- Proposed Campus Life
- Proposed Housing



4

CAMPUS LIFE FRAMEWORK



The Campus Plan aims to build upon the existing campus life hubs in order to improve the overall quality of life and the on-campus experience for students, faculty, and staff. This enhancement plan focuses on expanding various aspects of campus life, including inclusive indoor and outdoor spaces, dining options, recreational facilities, and student housing.

Distribution of dining, gathering spaces, and new student housing: The plan addresses the need for a more balanced distribution of dining and gathering spaces across the campus. Currently, these spaces are primarily concentrated at the Student Activities Center and the northwest off-campus area. The plan proposes enhancing the Town Gown district to the northwest, which involves replacing the Ville Grill with a broader range of food options. New on-campus housing and student life facilities will also be developed along Brook Street, contributing to a more vibrant campus experience. In addition, the plan proposes market-rate housing to support the Research and Development district, and a new dining facility south of Eastern Parkway to support the new STEM and Engineering cluster. Each of these zones seeks to foster a safe, comfortable, and inclusive experience for students,

faculty, and staff as well as to serve visitors and potential industry and business partners.

Integration of cultural and faith-based organizations: Cultural and faith-based organizations on campus will over time be relocated on the ground floors of new campus housing along Brook Street, to both activate the corridor and build community by consolidating campus life with residential and dining facilities. For example, an expanded Cultural and Equity Center and a displaced Baptist Center should be incorporated in the ground floors of future on-campus housing buildings. The Miller IT building also presents a future opportunity to become a student life hub, hosting a new International Student Center, Interfaith Center, and ever-growing needs for multicultural student support spaces.

The Campus Plan seeks to create a more balanced and inclusive campus environment by expanding dining, housing, and student life facilities across various zones. This approach not only enhances the campus experience but also encourages collaboration and community-building among students, faculty, staff, and potential external partners.



TOWN GOWN

The Town Gown area, situated northwest of the Belknap Campus, serves as a vibrant and walkable zone with numerous campus life amenities. This area plays a crucial role as the primary location for UofL and affiliated student housing, including the Student Recreation Center. To enhance this area and create a more inviting environment, the Campus Plan proposes several key initiatives:

Demolition and Replacement: The plan includes the demolition and replacement of University Tower Apartments and Louisville Hall, addressing the need for updated and modernized housing facilities.

Public-Private Partnerships: The Campus Plan envisions a public-private partnership to develop the blocks fronting Cardinal Boulevard, Third Street, Fourth Street, and Brandeis Avenue. This development aims to create a welcoming entry point to campus for pedestrians, cyclists, and transit users, diverting them away from vehicle-centric routes. The proposed Visitor Center on this block will serve as a landing point for visitors, prospective students, faculty, and staff. The design of the Visitor Center will also establish a new axis through campus along Shipp Street and enhance the campus tour experience.

Active Ground Floors: New housing facilities in the Town Gown area are recommended to have active ground floors. These spaces will incorporate Campus Health services, new dining options, areas for

socialization, and meeting rooms for student affinity groups.

Pedestrian-Only Right-of-Way: Brandeis Avenue is planned to become a pedestrian-only right-of-way. The plan proposes extending pedestrian-friendly features, such as wide pedestrian zones, trees, and lighting, all the way across the railways. This extension aims to improve the connection from campus to affiliated housing, benefiting a significant portion of the student population.

By implementing these strategies, the Town Gown area can become a dynamic and welcoming zone that enhances the overall campus experience, especially for students and visitors.

- Existing Campus Life
- Proposed Campus Life
- Existing Housing
- Proposed Housing



BROOK STREET CORRIDOR

The Brook Street Corridor on campus has recently undergone design improvements that have transformed it into an inviting public space while also contributing to flood mitigation efforts along this corridor. Key elements like the Student Activity Center, new residential halls, and the Belknap Academic Building have successfully activated Brook Street. The Campus Plan identifies opportunities to further enhance this area by reimagining the uses along Brook Street.

The Campus Plan proposes the following changes to optimize the Brook Street Corridor.

Relocation of University Relations and Development Building: The University Relations and Development Building is suggested for relocation to the proposed administration building north of Davidson Hall, along with Houchens. This relocation frees up the current University Relations and Development Building site for future on-campus housing development.

Relocation of Service Complex: The Service Complex, currently situated along Brook Street, is recommended for relocation to the south of the Steam and Chilled Plant. This strategic move allows for the demolition of the existing Service Complex and opens up opportunities for on-campus housing. The new buildings in this area are also envisioned to have ground-floor spaces dedicated to campus life uses, further enhancing the activation of Brook Street.

Student Housing and Cultural and Faith-Based Organizations: Over time, cultural and faith-based organizations on campus will be relocated to the ground floors of new campus housing along Brook Street. This strategic move aims to activate the

corridor, build community, and consolidate campus life with residential and campus life facilities. For instance, an expanded Cultural and Equity Center and a displaced Baptist Center may find new homes in the ground floors of future on-campus housing buildings. There is potential to integrate an Interfaith Center and International Center as part of this corridor development as well.

Frontage Design: To extend the pedestrian and bicycle-friendly corridor along Brook Street, the frontage design of the proposed Service Complex should align with the principles of creating an inviting and accessible space. This design continuity is intended to span from the current location of the Steam and Chilled Plant to the proposed dining facility on the ground floor of the new STEM building, creating a seamless and attractive pathway for pedestrians and cyclists.

By implementing these recommendations, the Brook Street Corridor can continue to evolve into a vibrant and accessible area, contributing to the overall appeal and functionality of the campus.

- Existing Campus Life
- Proposed Campus Life
- Existing Housing
- Proposed Housing



RESEARCH & DEVELOPMENT DISTRICT

The Research & Development (R&D) District expansion envisions the development of parcels adjacent to the UofL Foundation property at the southern end of the Belknap Campus. Currently not owned by UofL or the Foundation, these parcels hold strategic potential for future development that could include market-rate housing, retail, and various commercial uses. Key consideration are the following.

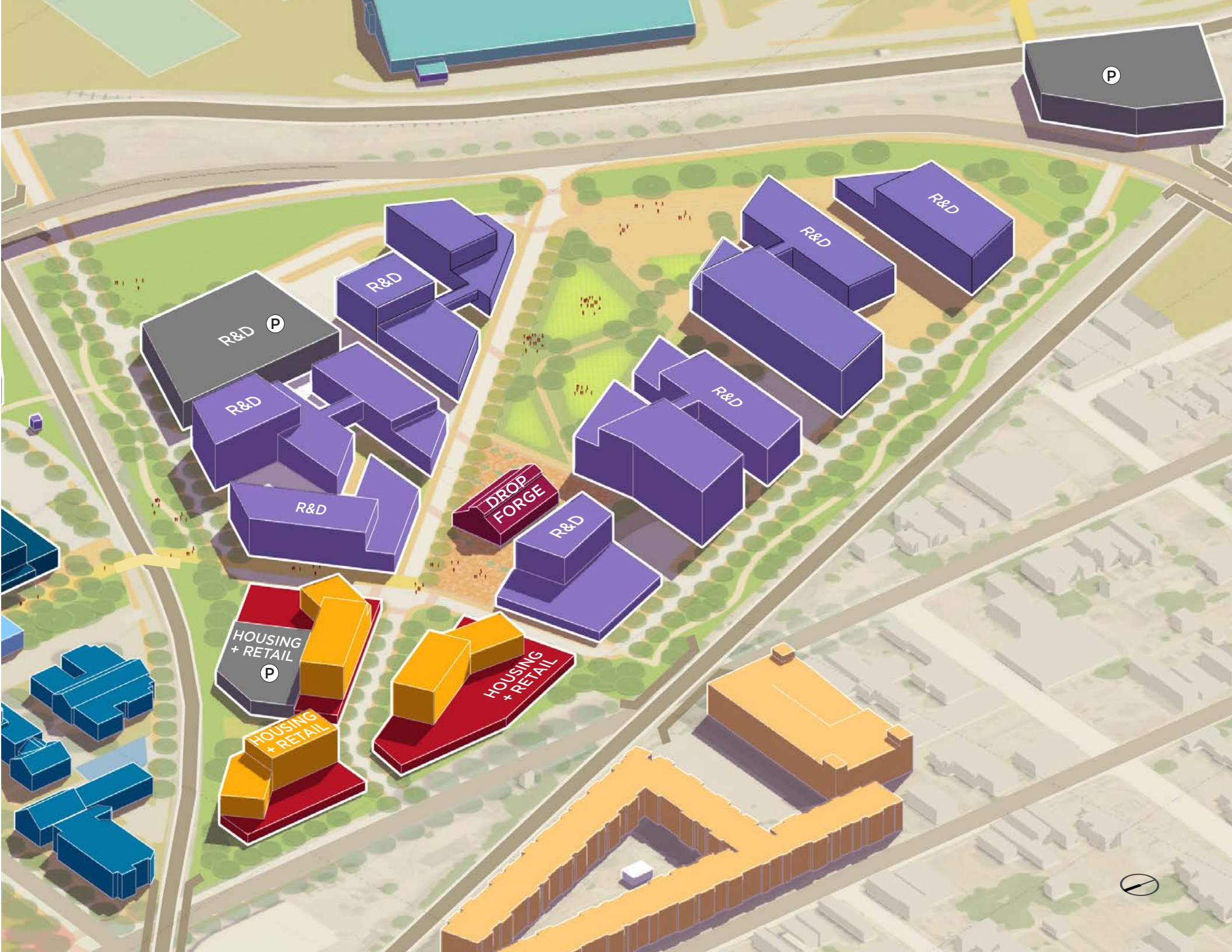
Strategic Location: The proposed expansion area’s strategic location makes it an attractive site for development due to its proximity to the UofL campus and the Research & Development District. This proximity offers the opportunity to leverage synergies between the academic, research, and commercial sectors.

Market-Rate Housing: The expansion area could accommodate market-rate housing, which can cater to students, faculty, staff, and members of the broader community. Such housing options could contribute to the vibrancy of the area and support the diverse needs of the campus and surrounding neighborhoods.

Retail and Commercial Uses: The expansion area’s development may also include retail spaces and various commercial uses, further enhancing the amenities and services available to the campus community and local residents. This could create a dynamic mixed-use environment that serves a wide range of needs.

Overall, the expansion of the R&D District into these adjacent parcels represents an opportunity for UofL to strategically develop and utilize this valuable land to benefit both the university and the broader community.

- Proposed Research
- Proposed Campus Life
- Proposed Housing



5

LANDSCAPE FRAMEWORK

The Landscape Framework at Belknap proposes enhancements to the public realm that create variation and hierarchy of open spaces lined by two major axes through campus.

Thoughtful design of the public realm at Belknap has the power to enhance the campus experience, improve health and wellness, increase opportunities for recreation, build climate resilience, and restore natural ecosystems for the campus community and its neighbors. The proposed Framework is composed of two axes creating connective paths through campus, new quads, improvement of the current Quad, and the acquisition of a park. While The Campus Plan includes the high level recommendations for the landscape at Belknap, the complementary Landscape Plan delves into detailed design guidelines for Belknap's public realm.



LANDSCAPE FRAMEWORK

The Landscape Framework for Belknap Campus includes several key elements, each with unique characteristics and design considerations:

Shipp Street Corridor

Shipp Street, once a significant connector through what is now the Belknap Campus core, has been folded into the new fabric of the campus realm. Its existence is still hinted at, through the presence of a diagonal path that threads South Third Street at the Speed Art Museum with the heart of campus, the Quad, through the Belknap Academic Building Quad all the way to University Boulevard.

Historically, Shipp Street was and continues to be a major utilities corridor and was at one point the edge of Belknap Campus. Now, its significance has largely been erased with campus development and the introduction of, and adherence to, the campus’ current north-south orientation. But this corridor still provides important public realm services from access, circulation, and mobility perspectives. The current pathway (that has taken the place of the NW portion of Shipp Street) is an introduction to the campus environment. It is a bridge between residential neighborhoods to the north and west and the core of campus.

This campus path is an opportunity to enhance this diagonal corridor, reassert its significance, work to establish a new sense of place within a path, define a circulation hierarchy by:

- Establishing a new footprint. Broadening its width to 16 feet at its widest, making a physical statement about its significance as an introduction to the

campus; as a major connection between academics and student life.

- Making this path a place. Providing amenities, places to sit and study along its length, and introducing thoughtful paving materials.
- Defining and beautifying its edges. Let the landscape respond to this corridor with shade trees, strategic plantings, and pedestrian-scale lighting.

Davidson Quad

The Davidson Quad is an opportunity to imagine a new, central public space. In contrast with the tree-covered existing quad, the Davidson Quad would focus on flexible spaces for play, events, and relaxation at the campus’ northern core. It is an opportunity to provide a fresh landscape perspective on the classic quad composition. Similar to the way the Belknap Academic Building Quad introduces a new, yet cohesive set of geometries and landscape program, the Davidson Quad has the potential to make contemporary design gestures that bridge new architecture with their setting and with each other. The Davidson quad is:

- An open, multi-purpose space, distinct in character from existing quads, but possessing the same ingredients that make other Belknap landscapes successful.
- A place that is pedestrian-focused, direct in the organization of its paths, while accommodating dimensional requirements of maintenance and emergency vehicles. The north-south spine highlighted in the existing Quad to the south would continue as a broad, straight connector through this space.
- A place of layered and diverse edge types; lines of trees, bands of naturalistic, understory groundcover or grasses, seat walls, linear plazas. While buildings will ultimately provide the visual and functional edge of this new quad, the landscape will also serve to define this public realm.

- A vast, open interior green; a way to take in the breadth of the Quad, while also serving campus functions, activity.
- A landscape that, once established, provides ecosystem benefits.

Green Heart

The Quad’s “Green Heart” is a remarkable space. Its patchwork of mature shade trees dots the entirety of the area, hinting at the age of the space and its longevity. It is a space that is central in location, but also central to the character of what has come to define Belknap’s historical public realm.

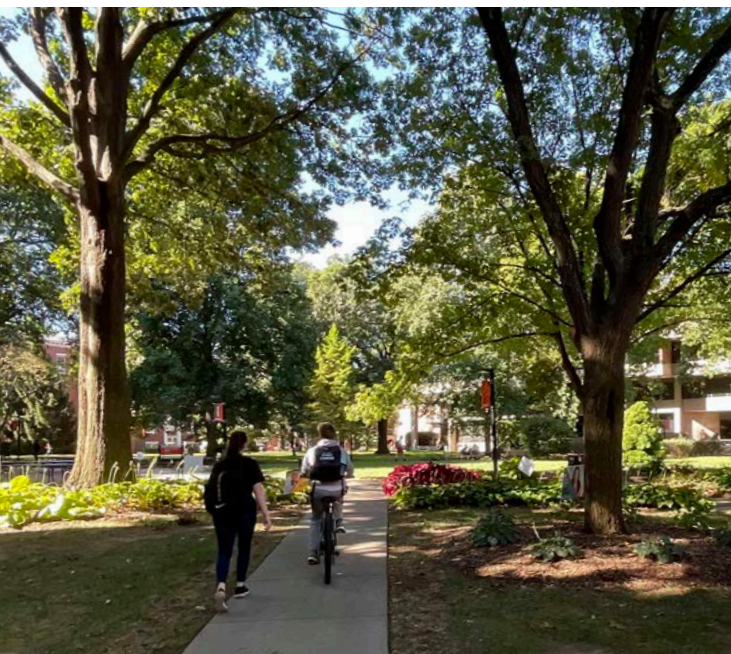
While this landscape is already successful in many ways, there are surgical design moves that can enhance its appearance and the many services it provides. They key to intervention, here, is working with the existing conditions, opportunities, and constraints:

- Strategically remove ailing trees. Consider relocating small, recently established trees to create better sight lines and a greater sense of openness.
- Connecting stands of existing trees with native understory plant material, grasses, or groundcovers to create small, pocket forests.
- Extend and/or consolidate select lawn areas to create more functional (and healthy) spaces.

South Quad (Engineering)

A proposed academic core south of Eastern Parkway deserves a central open space all its own; a place for students to gather, share ideas, study, relax. The South Quad will help to create a center for activity and interaction; a sense of place for the area.

Proposed development will be grounded with new connections, pedestrian-focused amenities, and a beautiful new landscape. This new South Quad



presents an opportunity to create a new, multi-faceted public realm, while capturing aspects of the STEM mission and reflecting these values through design.

- The South Quad public realm should be anchored to the greater Belknap Campus through the north-south Campus Spine. The Spine should be considered a major pedestrian crossing at Eastern Parkway and afforded proper consideration and attention. The Spine will also establish clear sight lines - uninterrupted views - into and out of South Quad, broadening and uniting campus zones of Eastern Parkway. This visual connection serves as an experiential stitch.
- The Spine will also serve as the western end of the South Quad, at which point it can take on the role of a linear plaza, acting as a bridge between the landscape of the central lawn and the architecture of the renovated WS Speed building.
- Develop a meaningful connections to the Brook Street Corridor.

Research Quad (Nature’s Quad)

Proper, thorough environmental investigations will be critical to any development of this parcel and will help to frame design opportunities and objectives.

There are, however, design ideas that can be employed to help this district realize a unique and compelling identity and purpose.

The Research Quad is an opportunity to introduce an entirely new landscape character into the collection of Belknap’s open spaces. While it lies at the southern fringe of the campus, it offers visual ties between academic districts and the athletics and recreation corridor. It has wide, engaging vistas that feel removed from the campus and from the city around it. These views are incredibly distinct, with a single architectural relic – the Drop Forge Building – a reminder of its industrial past.

- Create a major open space/landscape that places Drop Forge as a central architectural element, framing views of the Cardinal Stadium and encouraging visual connections with surroundings.
- Re-imagine Drop Forge as a heart of the public realm, re-purposing it as a pavilion or covered event space. Create a plaza around it, to allow for further activation - with seating and amenities - and to ground the building, reinforcing its position as a central element.
- The quad is a unique opportunity to celebrate the “wild” or “untamed” character of a successional landscape. Establish a vast, native meadow planting to enhance biodiversity and habitat as well as preserve views.
- Establish a “working” landscape through phytoremediative design, bioswales, rain gardens.
- Shape topography to create subtle land-forms, adding visual interest and a rationale for a sinuous central path corridor, sometimes hidden from view.
- Introducing recreation or activities not seen or possible in other parts of campus; a 1-mile trail loop, a woodland walk, nature paths.



KEY DESIGN STRATEGIES

Develop a Cohesive Design Rulebook

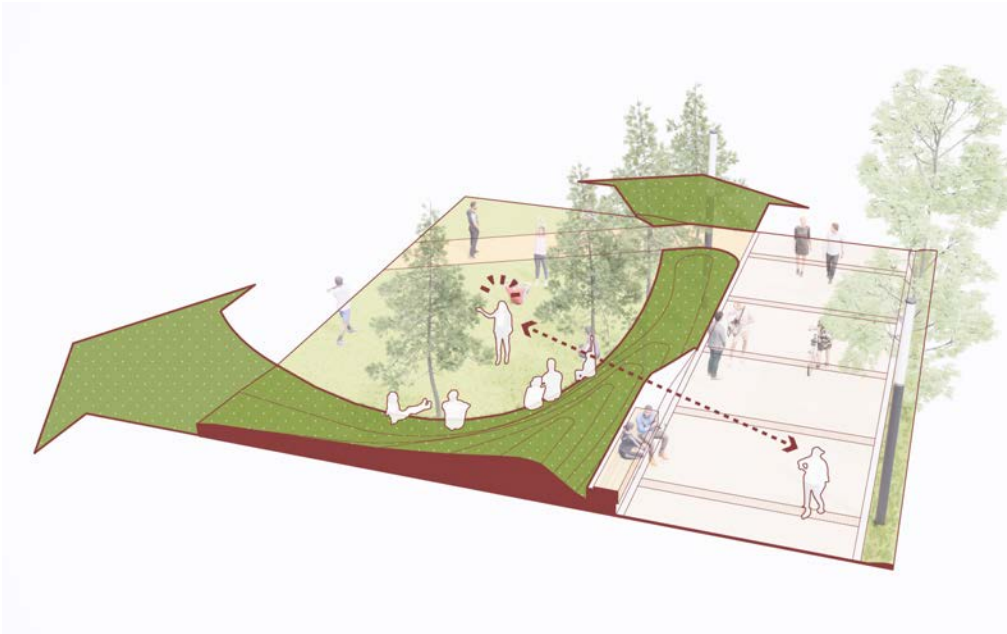
Consistent ideas about how to treat landscape, the services it provides, the way it looks and functions, how to shape its growth and evolution, and how to maintain it are all key players in the design process. Here, the objective is to create common landscape identities that unify the campus character:

- Use plant material to blend old and new, establishing continuity in the landscape, mediate between architecture types, program, spaces and quads.
- Define character zones, enhance them according to a set of design rules.
- Preserve beloved and significant features.
- Generate a design toolkit to apply to new or restored landscapes.

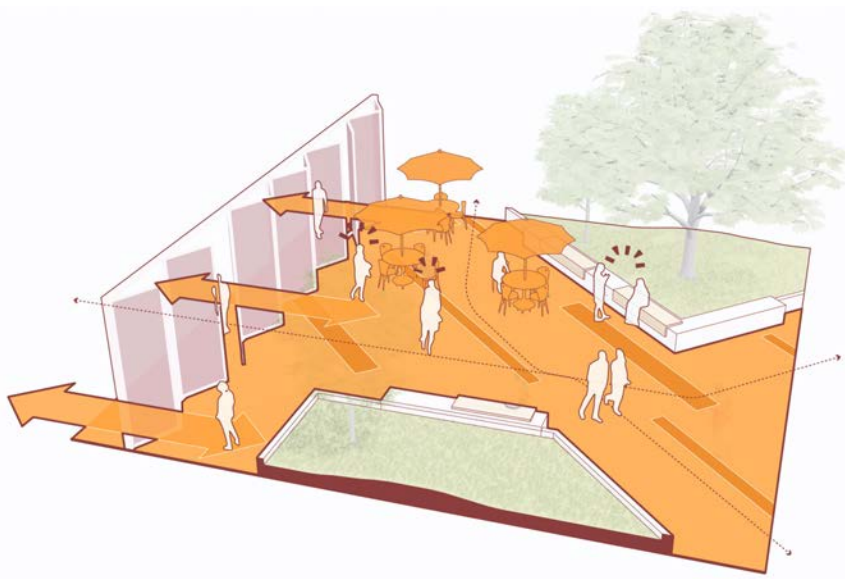
Create Living Laboratories

Make campuses a demonstration project or model through which to teach sustainable practices. Apply a long-term net zero vision to mitigate future climate change effects.

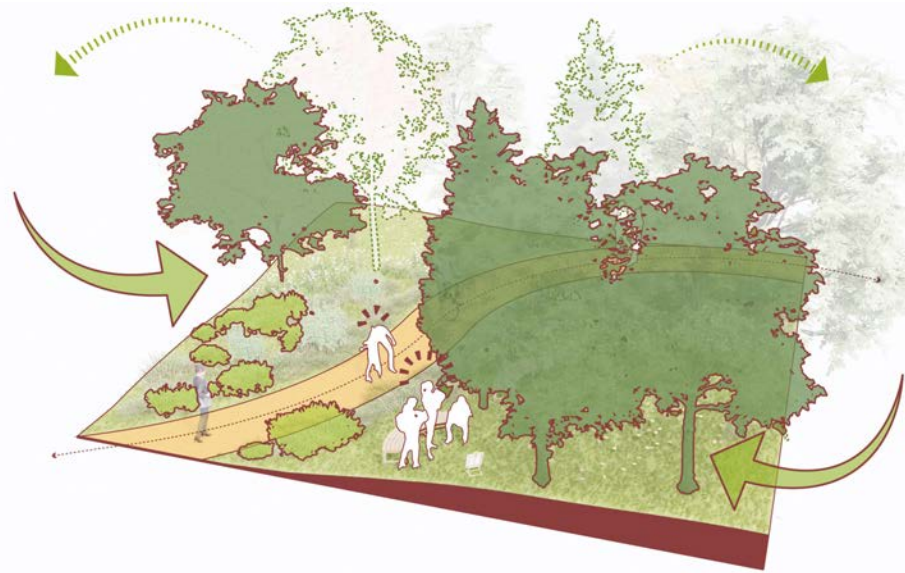
Incorporate carbon sinks and enhance carbon sequestration, implement phytoremediation when appropriate; deploy green infrastructure; enhance habitat and biological diversity.



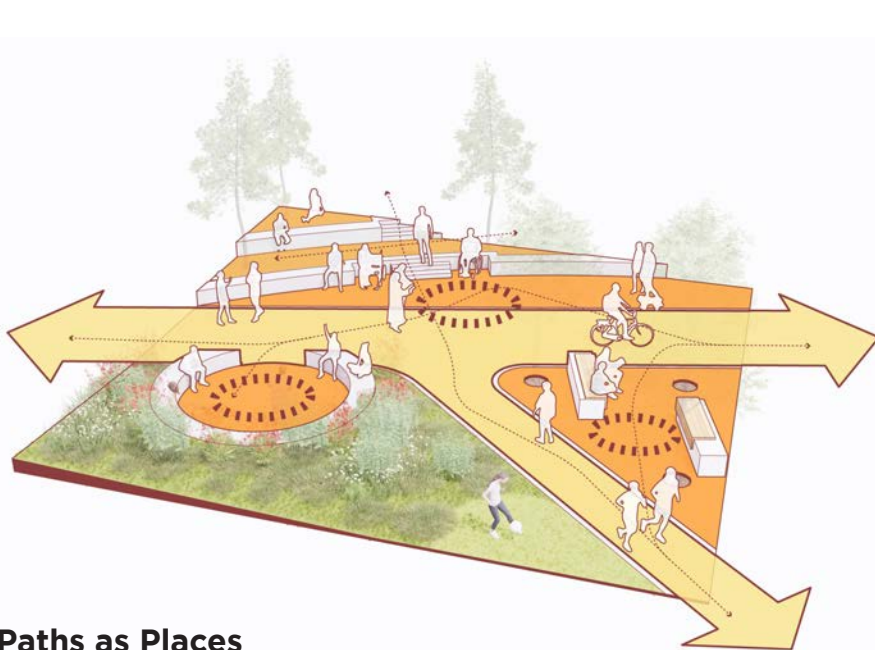
Design Rulebook



Outdoor Living Rooms



Living Laboratories



Paths as Places

The following are key guidelines related to improving campus ecosystem services:

- Landscape projects should comply with the requirements of SITES™. SITES is a national rating system that encourages sustainable practices in landscape design, construction, operations, and maintenance.
- Convert large lawn areas and traditional landscapes to a more resilient native landscape, particularly in locations where this change will not compromise use of the landscape.
- Employ native plant materials to maintain landscape resiliency, conserve regional biodiversity, and celebrate the landscape character of the area.
- Address flooding, compaction, and infiltration issues on campus by increasing green infrastructure footprint. Make green infrastructure a visible component of the landscape as educating the campus community of its values. Celebrate successes to date.

Consider Paths as Places

Make orderly and beautiful connections and corridors. Couple paths with amenities, such as seating a tables to make them desirable areas to inhabit.

Envision a Network of Outdoor Living Rooms

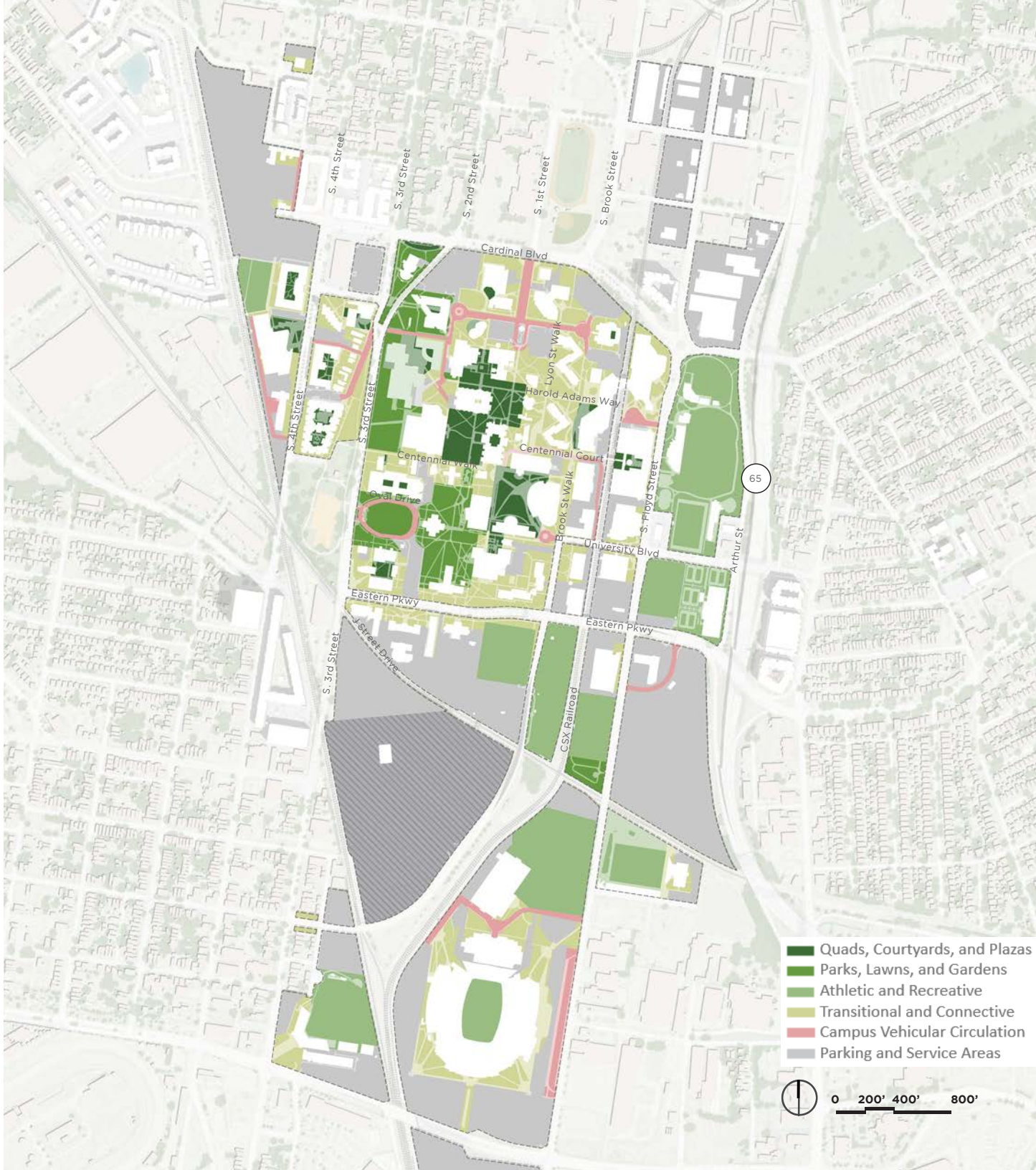
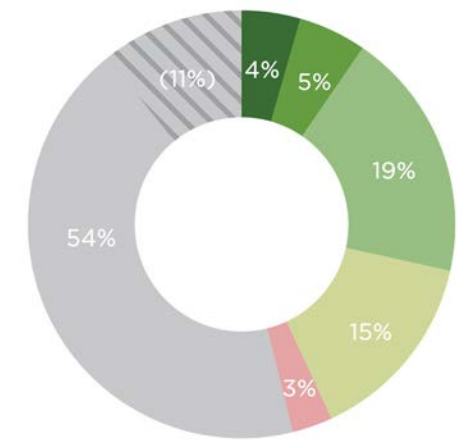
This means a dedication to the improvement of formal outdoor spaces and the services they can provide. These are the places for events and gatherings, for study and socialization. They are the places the University community points to as landmarks; as defining landscape assets. They should be connected, but distinct in function. They should feel like the campus' outdoor living rooms.

LANDSCAPE TYPOLOGIES

Despite its beautiful and extensive green spaces, more than half of the current Belknap Campus is comprised of impervious surfaces.

Open space typologies identified here are the types of outdoor spaces that exist on Belknap today. Each typology serves a variety of functions and has distinct characters.

The Landscape Plan provides a detailed review of the proposed changes in open space types throughout Belknap Campus.



STORMWATER STRATEGIES

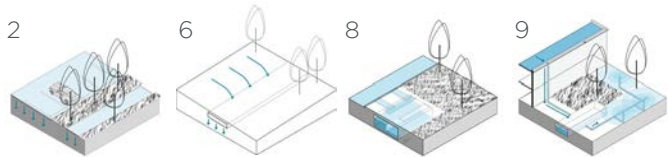
The Belknap Campus is currently home to six stormwater Best Management Practices (BMPs), five of which are underground detention systems scattered throughout, and one of which is a rain garden located outside the College of Business building.

The incorporation of BMPs into a landscape is an effective way of slowing, cleaning, and infiltrating rainwater which can help reduce flooding and system backup on campus due to reduced loads being sent to the overloaded CSS. BMPs can take a multitude of forms from permeable pavement, to rain gardens, to underground infiltration systems.

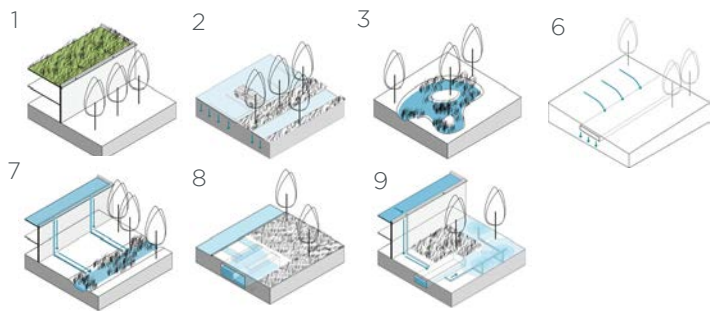
The Landscape Plan details recommendations for stormwater management at Belknap.

- 1. Green Roof
- 2. Permeable Pavers
- 3. Rain Graden / Bioretention
- 4. Bioswales
- 5. Detention / Retention Basins
- 6. Underground Detention / Infiltration Systems
- 7. Downspout Disconnection
- 8. Water Quality Treatment Structures
- 9. Rainwater Harvesting / Recycling

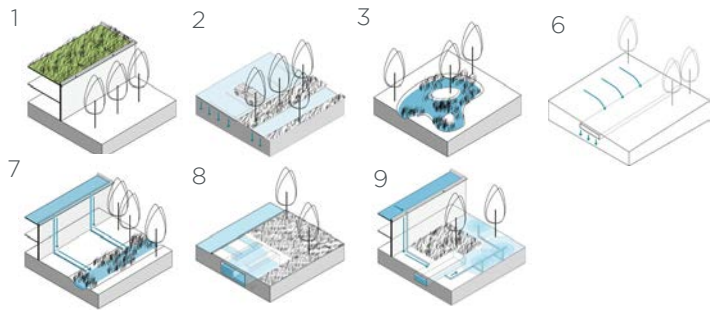
• Belknap Plaza



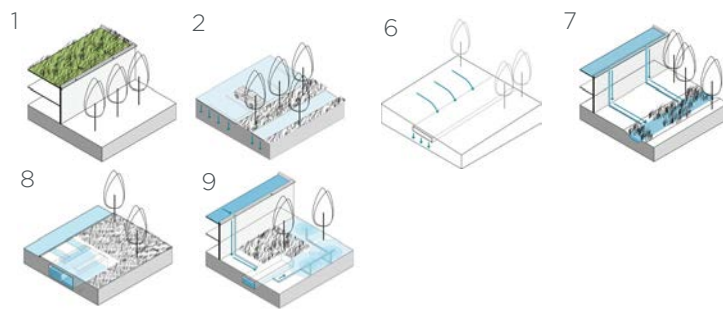
• New Quad



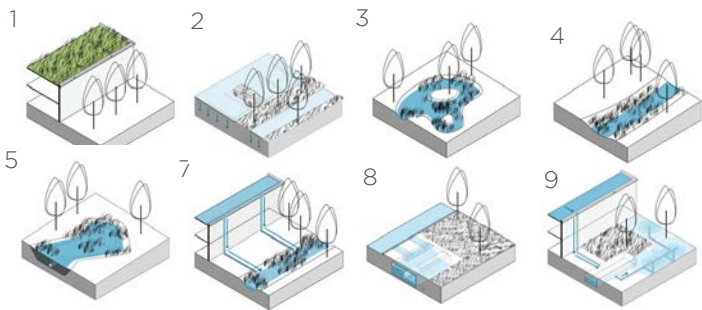
• Green Heart



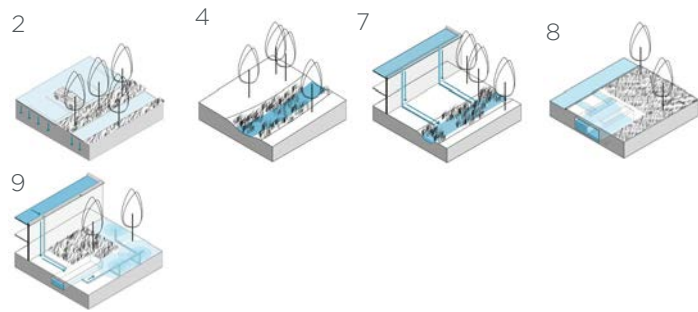
• Engineering Quad



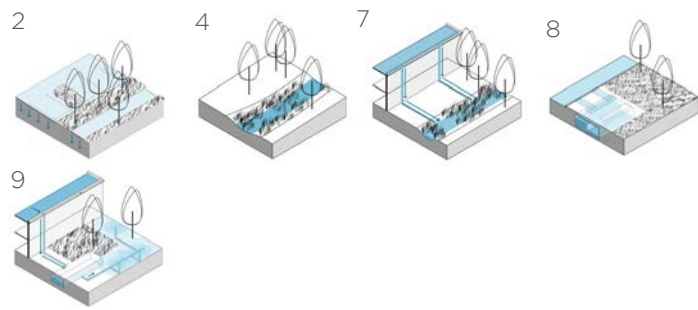
• Natures Quad



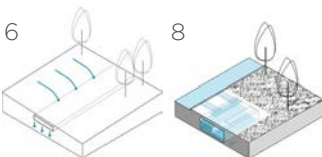
• Greening Second Street



• Campus Thread

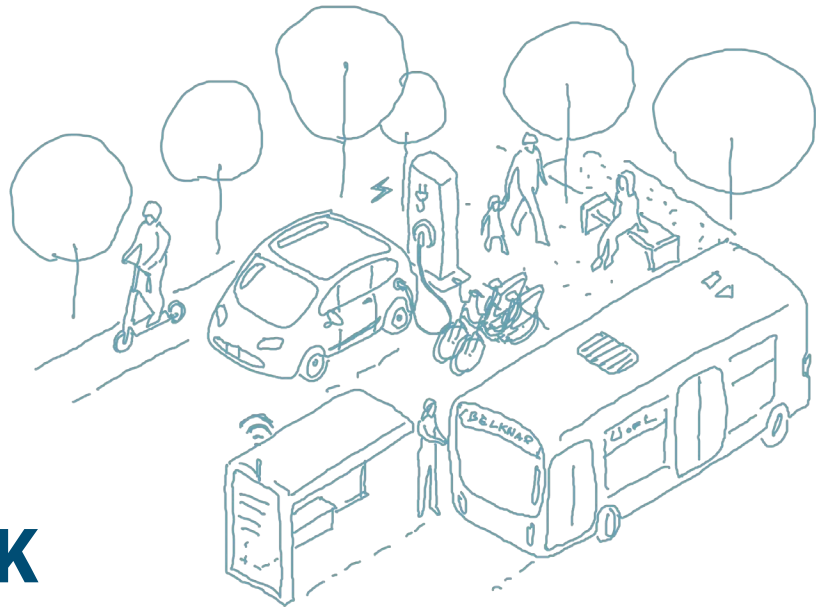


• Intramural Fields



6

MOBILITY FRAMEWORK



Campus is hemmed in on three sides, by railroad tracks and Interstate Highway 65. University properties and student housing that lie outside those boundaries can only be reached via limited crossing points. On the other hand, this compressed geography makes for a compact, walkable campus core. The Campus Plan preserves and strengthens the campus core by clarifying circulation patterns, building on the logic of its pathways, and establishing protocols for harmonizing the movements of people using them. At the same time, it identifies strategies to connect the main Belknop Campus with the peripheral districts west of Third Street and south of Eastern Parkway. It also recommends a strategy to improve access between Belknop and the HSC.

The Belknop Campus Mobility Framework responds to the Campus Plan's major structural elements, including:

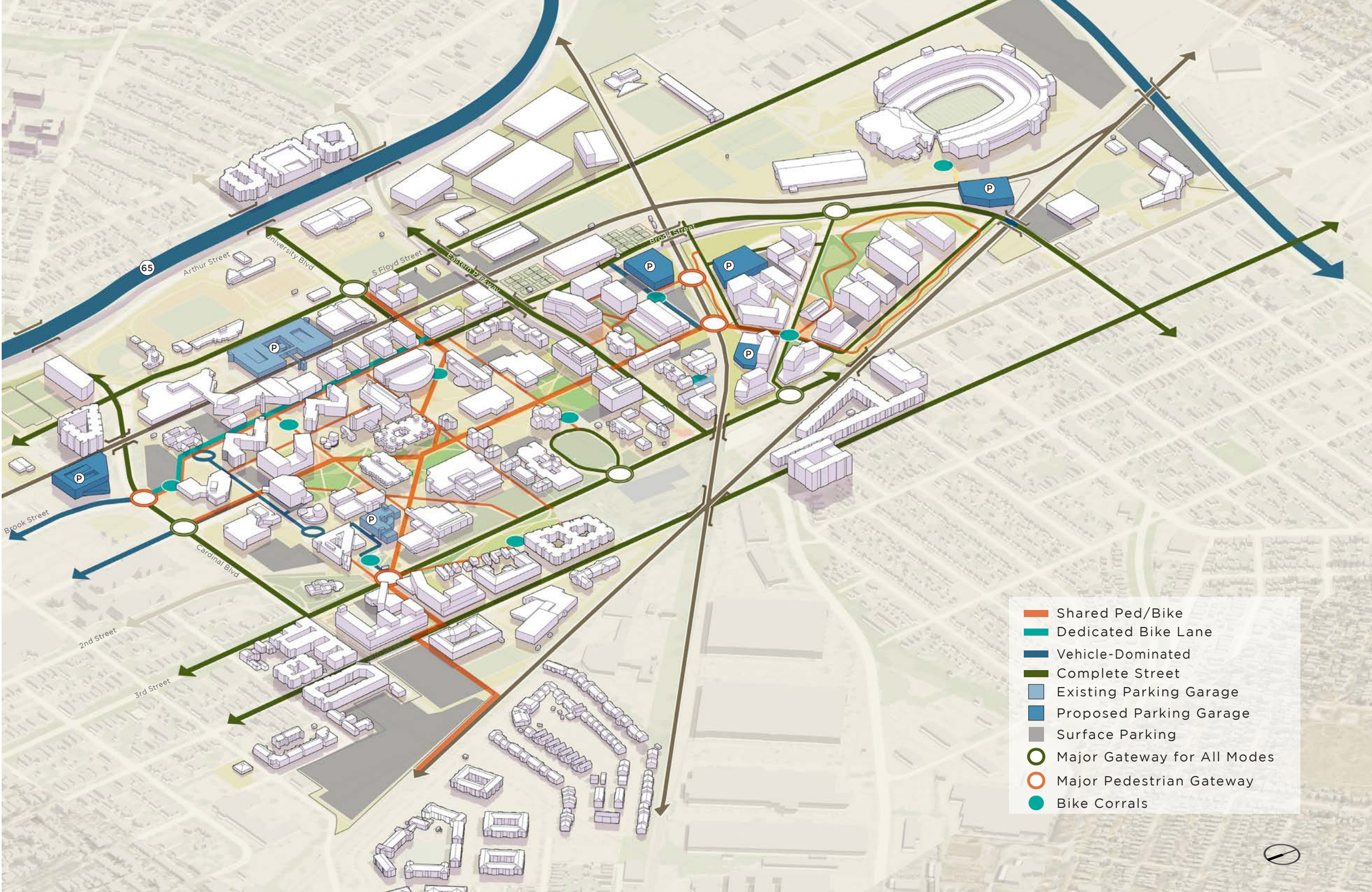
- The closure of Second Street south of Cardinal Boulevard
- The redevelopment of southern campus
- Strategic building infill, resulting in the removal of some surface parking lots

It also seeks to promote transportation alternatives that are sustainable and minimize the impact of automobiles

on the campus. In concert with the City of Louisville, there are great opportunities to foster bicycle and transit use through infrastructure investment and traffic management on public streets.

Gateways

- With the development of the Research and Development District and its new parking garages, the Floyd Street gateway will carry more traffic to and from I-65. Bicycle lanes on Brook Street south of University Blvd should be protected or moved above the curb.
- The new Cardinal Boulevard and Brook Street intersection can become a gateway for bicycles and pedestrians, connecting to the new garage and the bike route to HSC.
- The new visitor center at Third Street and Brandeis Avenue will create a pedestrian gateway for visitors and resident students.
- Improvements to underpasses and rail crossings for safety and flooding with warning signs, directional signs, art by local artists, and adequate lighting.



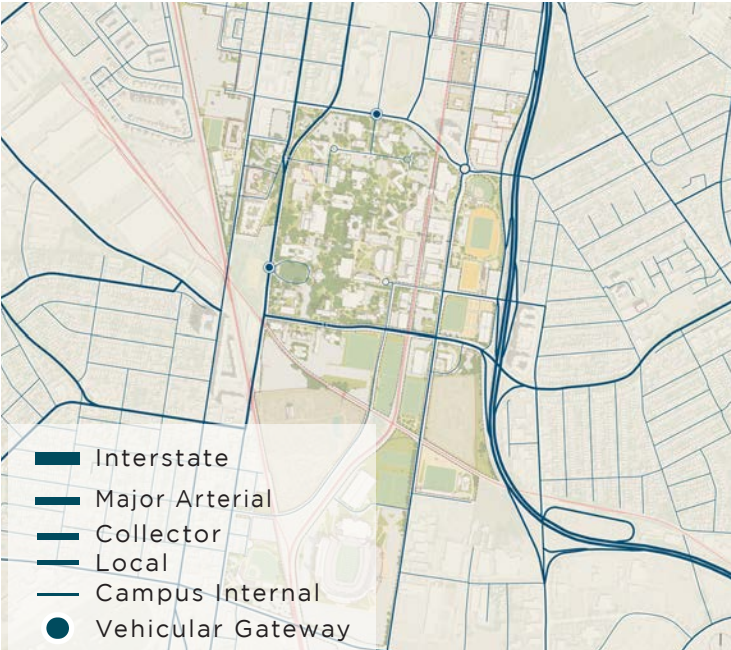
- Shared Ped/Bike
- Dedicated Bike Lane
- Vehicle-Dominated
- Complete Street
- Existing Parking Garage
- Proposed Parking Garage
- Surface Parking
- Major Gateway for All Modes
- Major Pedestrian Gateway
- Bike Corrals

Vehicular Network

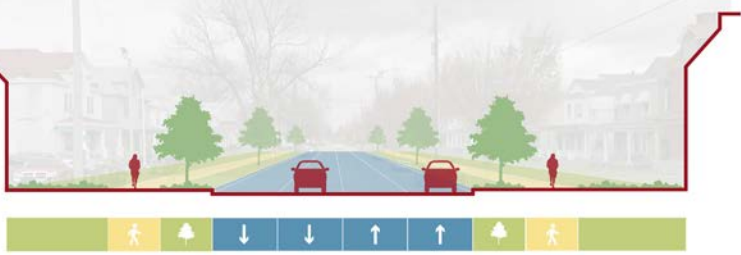
The proposed Plan maintains the compact, quiet, and walkable campus core, with relatively little impact of vehicular traffic. Auto access will continue via the boundary streets. Strategic placement of the proposed parking garages will help minimize vehicles entering the campus core.

Relatively few surface parking lots mark the campus interior, but a few that occupy high-potential sites.

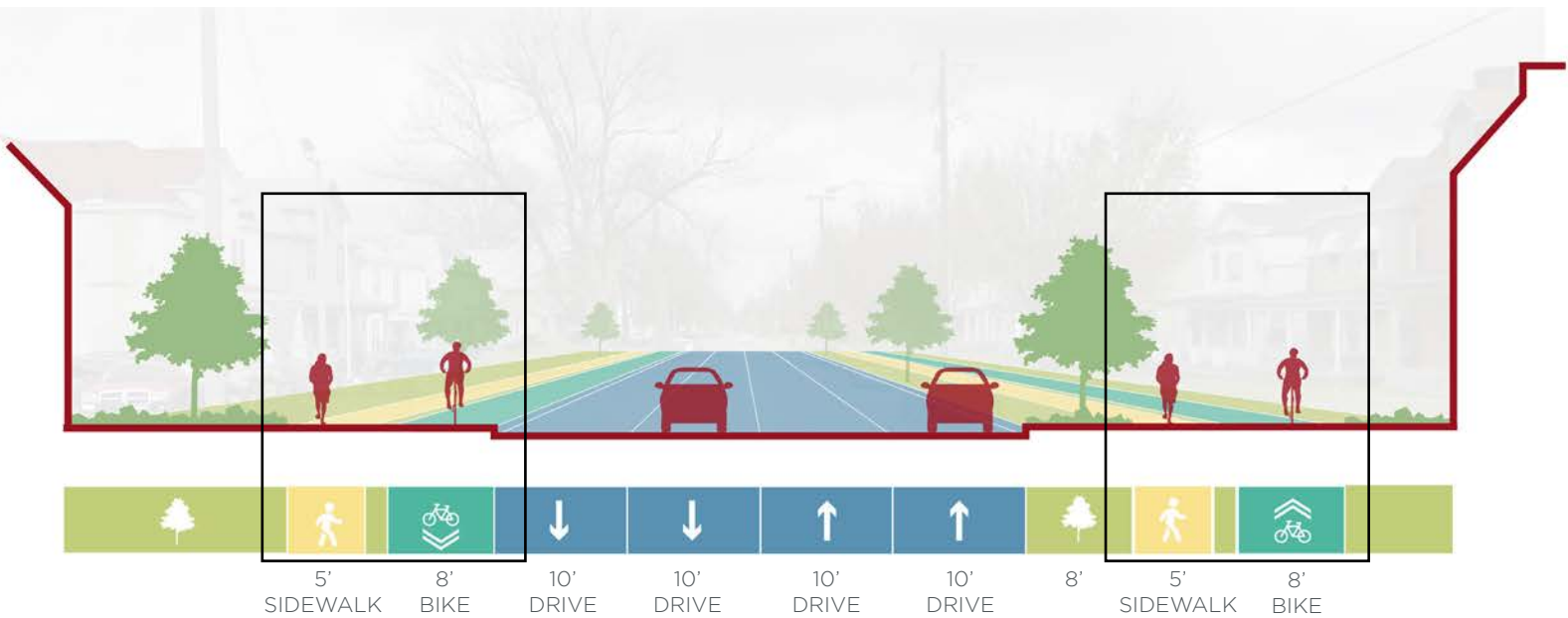
To compensate for the removal of surface parking from sites with higher and better uses, five new parking garages are proposed, containing a total of approximately 2,700 spaces. In keeping with the university’s longstanding planning policy, the new garages will be located on the campus periphery to preserve the pedestrian character of the campus core. The result will be a net increase of over 1,300 spaces, which will serve the R&D District and ensure continued adequate parking supply.



Existing Third Street



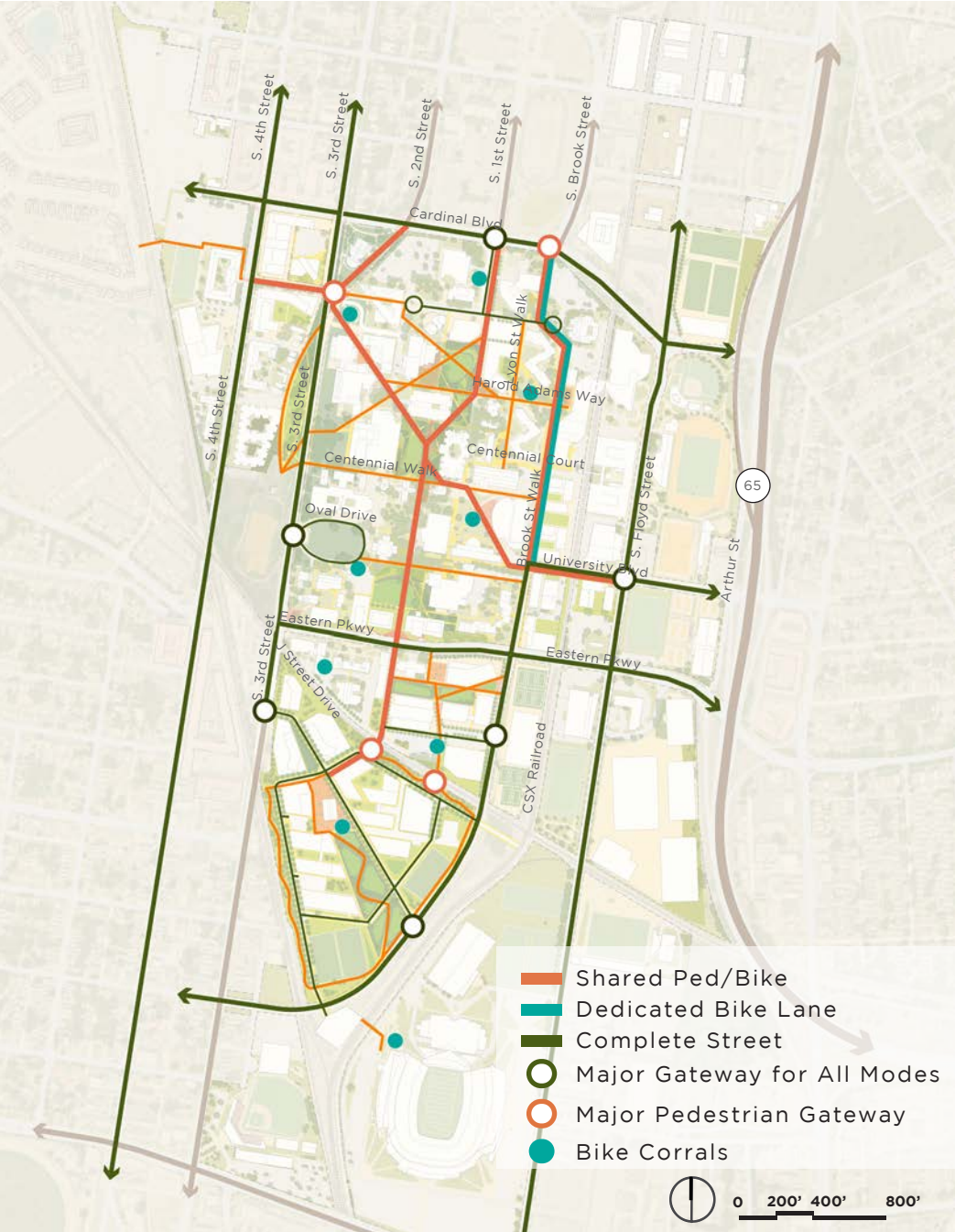
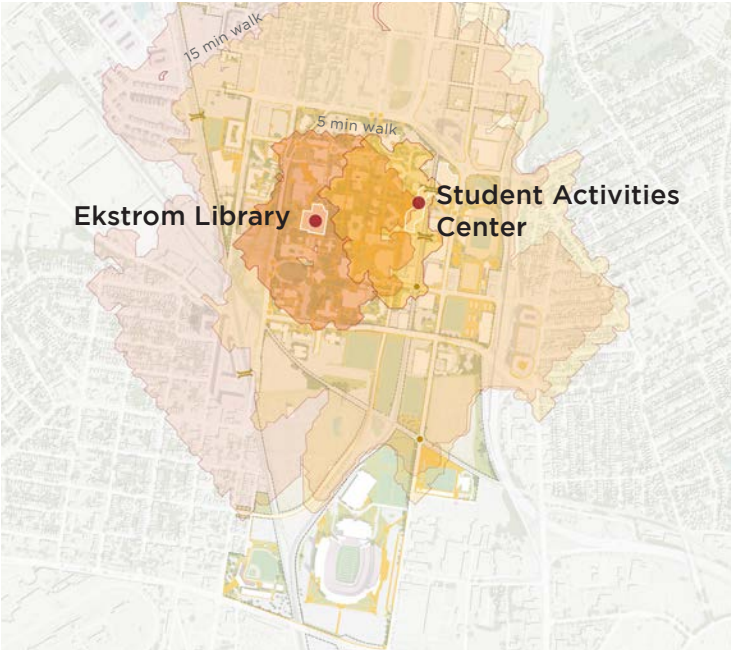
Proposed Third Street



Pedestrian/Shared Network

Four boundary streets – Third Street, Eastern Parkway, Floyd Street and Cardinal Boulevard – define the original campus core. More recent development outside these boundaries (student housing to the west, engineering to the south, and athletics/recreation to the east) creates a need for safe and direct crossings, particularly of Eastern Parkway and Third Street.

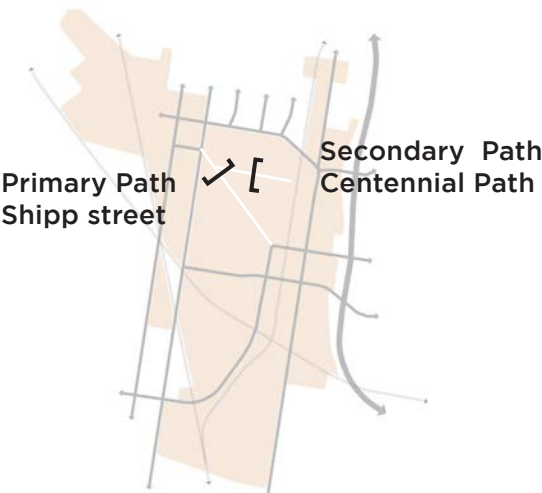
In order for the Belknap Campus to grow while maintaining safe, comfortable and enjoyable conditions for all, it will be necessary for all modes of mobility to function cooperatively within a shared space. The first priority is to protect pedestrians, bicyclists, micro-mobility users and those with mobility challenges from motorized traffic. Beyond that, the goal is to make travel across the campus as fluid and unhampered as possible by keeping people out of each others’ way. Accomplishing this harmony will require both physical accommodations and a shared understanding



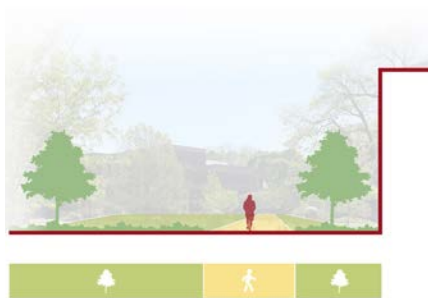
among the campus community of how to move among one another. To convey that understanding, the Campus Plan indicates a preferred protocol for the management of pedestrian and bicycle traffic on campus pathways. The proposed pattern of paths is legible and elegant, defining a progression of open spaces that frame the campus’ historic and new buildings.

The Brook Street corridor accommodates pedestrians and bicycles with separate lanes, connecting directly to the HSC bike route.

On other pathways, pedestrian and bicycle traffic can be managed according to a new protocol. Currently, pathway markings indicating where bikes and pedestrians should go are unclear. The best way for the two modes to coexist is according to the standard protocol of keeping to the right. Faster traffic (bicycles and micro-mobility) should generally stay to the center and pass pedestrians on the left.



EXISTING



PROPOSED TYPICAL PRIMARY PATH



16’ SHARED PED/BIKE

PROPOSED TYPICAL SECONDARY PATH



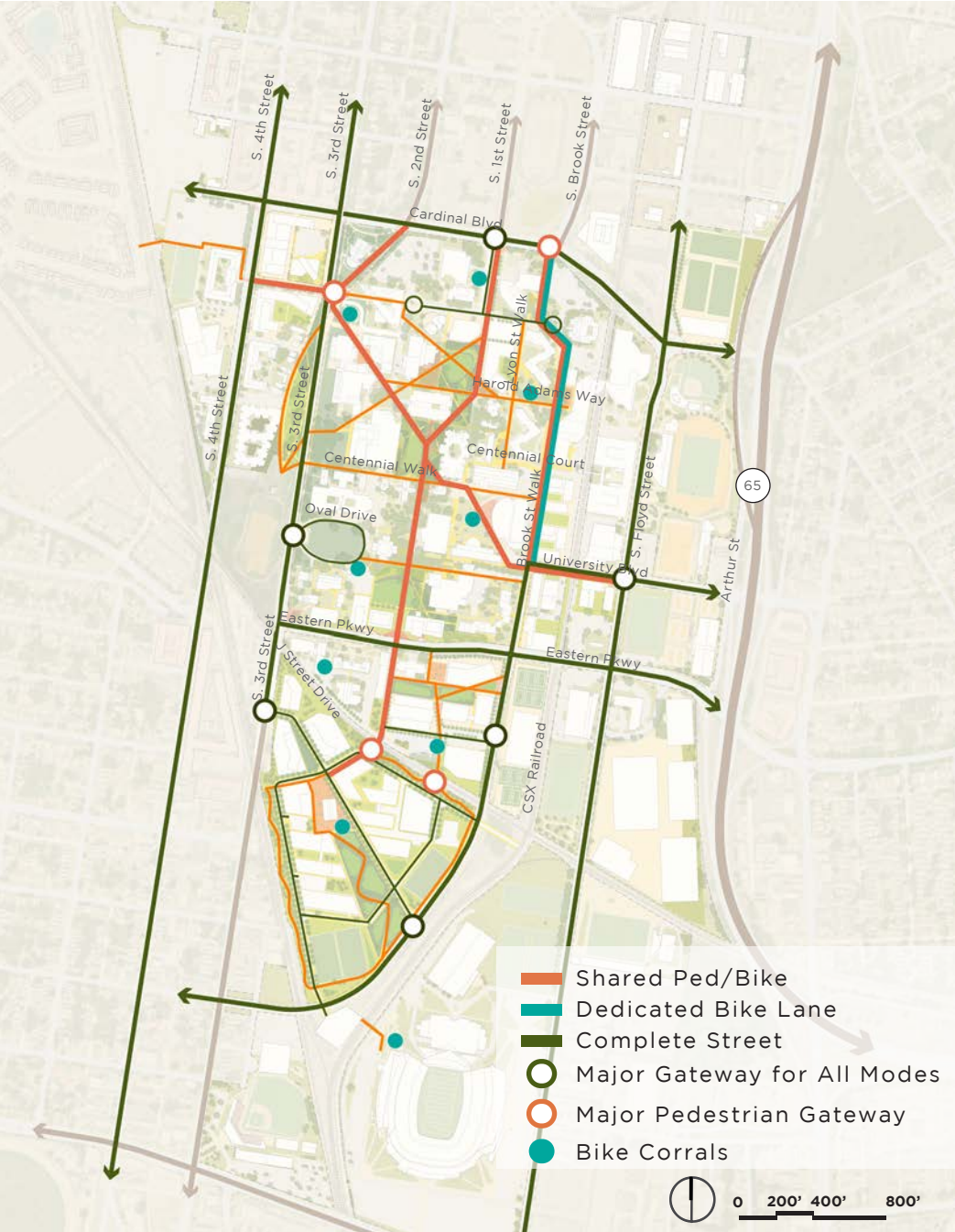
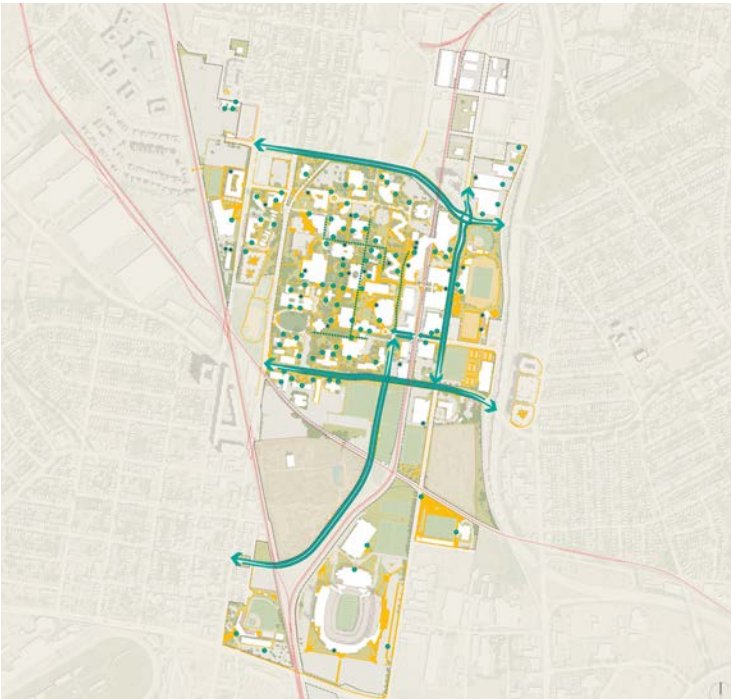
8’ SHARED PED/BIKE

EXISTING



Bicycle Network

The purpose of these recommendations is, in part, to encourage and facilitate bicycle use. Cycling is well recognized as an ideal mode of transportation to and around college campuses, as evidenced by the prestige of the League of American Bicyclists’ “Bicycle-Friendly University” (BFU) designations. UofL has been a BFU since 2013, and currently holds a Silver status. This is a tribute to the university’s commitment to bicycling; however, that effort is not reflected in actual bicycle use, which is conspicuously low for an institution having such favorable conditions for cycling in terms of weather and topography. In recent years the City of Louisville has made major improvements in the cycling infrastructure. The Campus Plan recommends a complementary push by the university, to make bicycling more attractive to students and employees.



In particular, the campus can be made more bike-friendly by:

- Clarifying the protocol for bicycle/pedestrian interaction – all traffic should keep to the right and pass on the left.
- Providing bicycle parking in quantities and locations that make cycling convenient.
- Designating a ‘bike gateway’ at the Cardinal Boulevard and Brook Street intersection, as a Belmont terminus to an enhanced bike route to the HSC campus.
- Providing bicycle accommodation along Third Street on both sides.

EXISTING CENTENNIAL



PROPOSED CENTENNIAL



EXISTING SHIPP STREET

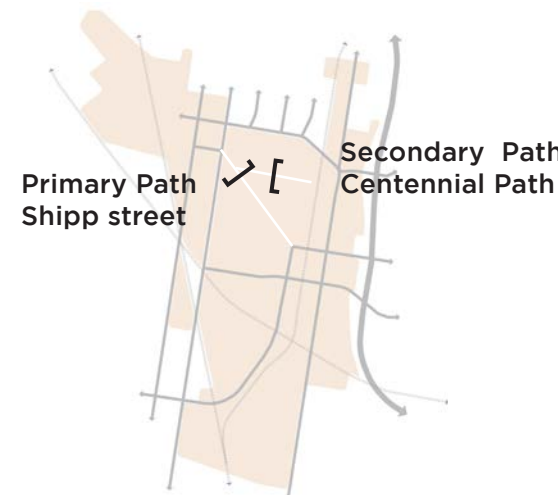


13' PEDESTRIAN

PROPOSED SHIPP STREET



16' PEDESTRIAN



Transit Network

Transit service is provided by the Transit Authority of River City (TARC). Routes utilize the boundary streets to gain convenient access to the campus core. Route 94 serves as a campus shuttle, running south to Central Avenue to encompass Cardinal Stadium. Routes 2 and 18 connect to the HSC, running along Third Street, Eastern Parkway and Floyd Street, respectively.

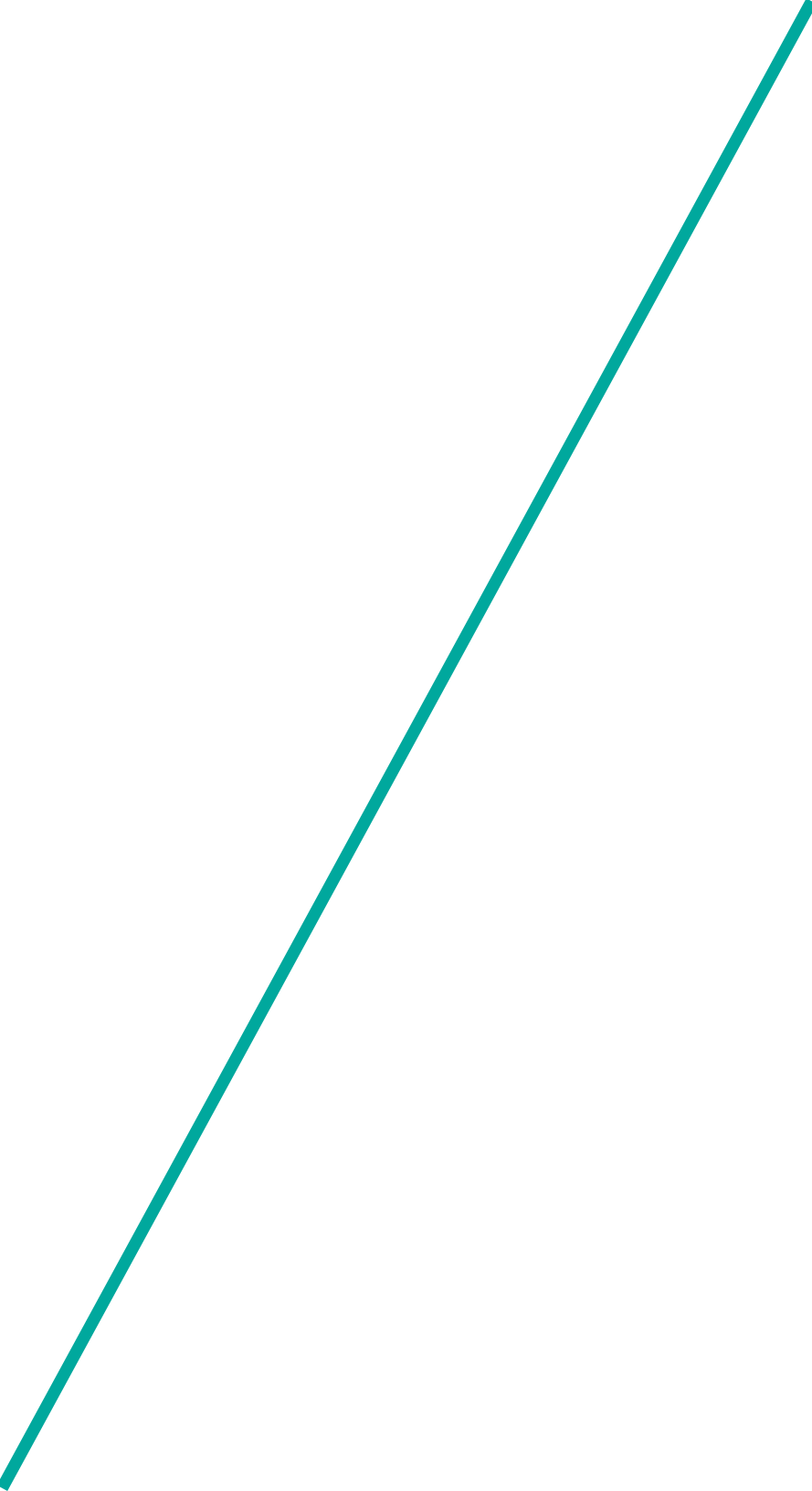
TARC bus routes are adequately designed to provide access from both the east and west sides of campus to the HSC. The primary problem with inter-campus transit is the infrequency of service. The university should work with TARC to secure adequate headways – ideally no more than 20 minutes for Routes 2 and 18.

The university supports the city’s Complete Streets policies, as expressed in the 2022 Complete Streets Ordinance.



The design of streets such as Third Street, Cardinal Boulevard, Floyd Street and Eastern Parkway should be consistent with the city’s Complete Streets Design Manual. Third Street, which currently has no bike lanes or other bicycle accommodations, should be designed in accordance with the manual.

Sidewalks should be at least 8’ wide; bicycles and micro-mobility should be accommodated either with off-street multi-use paths or on-street bike lanes. Pedestrian crossings should be well-marked, visible, and generously wide, and crossing distances should be minimized through the implementation of curb extensions.



FOCUS AREAS

FOCUS AREAS

The Campus Plan identifies several Focus Areas within the Belknap Campus, each characterized by its unique attributes and potential for transformation. These Focus Areas serve as key zones for reimagining and integrating buildings, landscapes, open spaces, and mobility improvements to enhance the overall campus environment. While the plan covers specific areas, it's important to note that these are not exhaustive, and other parts of the campus may undergo transformation as well. The Focus Areas outlined in the plan include:

- 1

TOWN GOWN
- 2

ACADEMIC CORE
- 3

BROOK STREET CORRIDOR
- 4

SOUTH ACADEMIC CORE
- 5

RESEARCH & DEVELOPMENT DISTRICT



TOWN GOWN

Northwest campus becomes a new gateway district as a town gown destination. This new gateway to Belknap will be a transformative and inviting landing pad that will meaningfully alter the campus experience for all visitors as well as the UofL community.

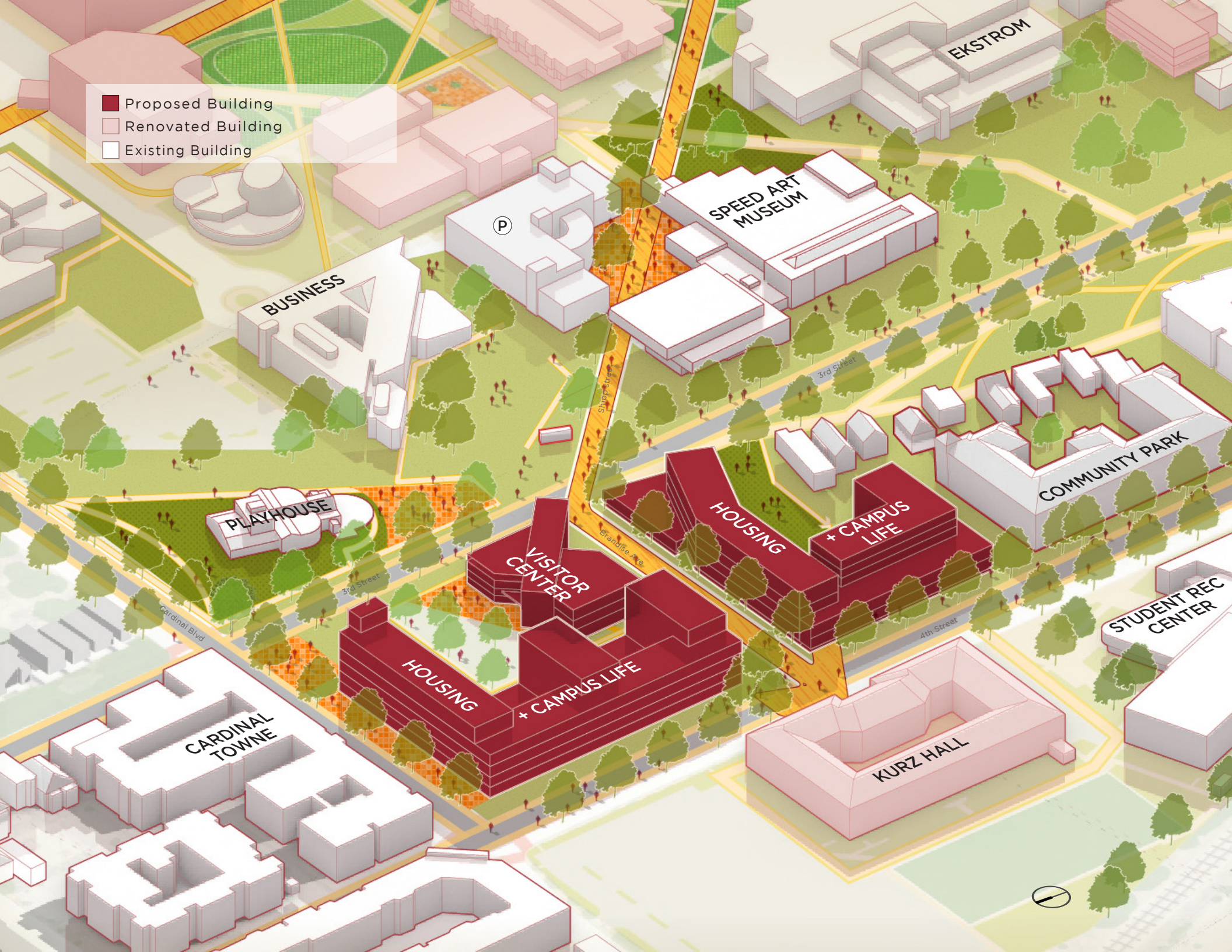
Vision

UofL’s new gateway district welcomes campus community members and visitors along Third Street as part of a ceremonial entrance into campus from downtown Louisville. The mixed use district forms a vibrant Town Gown precinct and creates a sense of arrival that celebrates Freedom Park and the Speed Art Museum with a new UofL Visitor Center, new student housing, and campus life amenities.

Proposed Development

With expressive, iconic, and bold architecture, the design for the Visitor Center will create a unique first impression for the university and be an anchor for the district. The Visitor Center is envisioned as a one-stop-shop for all administrative services for visitors and new students.

Cardinal Boulevard and Fourth Street will be lined with active ground floor uses like retail and dining, with upper floors dedicated to student housing with social lounges and study spaces.



Public Realm

The Town Gown district becomes more pedestrian-friendly with the planned greening of Second Street east of the Playhouse and the proposed streetscape improvements on Brandeis Avenue. The Visitor Center orients pedestrians toward the historic Shipp Street promenade, an axis and path that links key landmarks on campus with the proposed housing on Brook Street and a connection to University Boulevard, another major gateway to campus.

Town Gown District



Existing



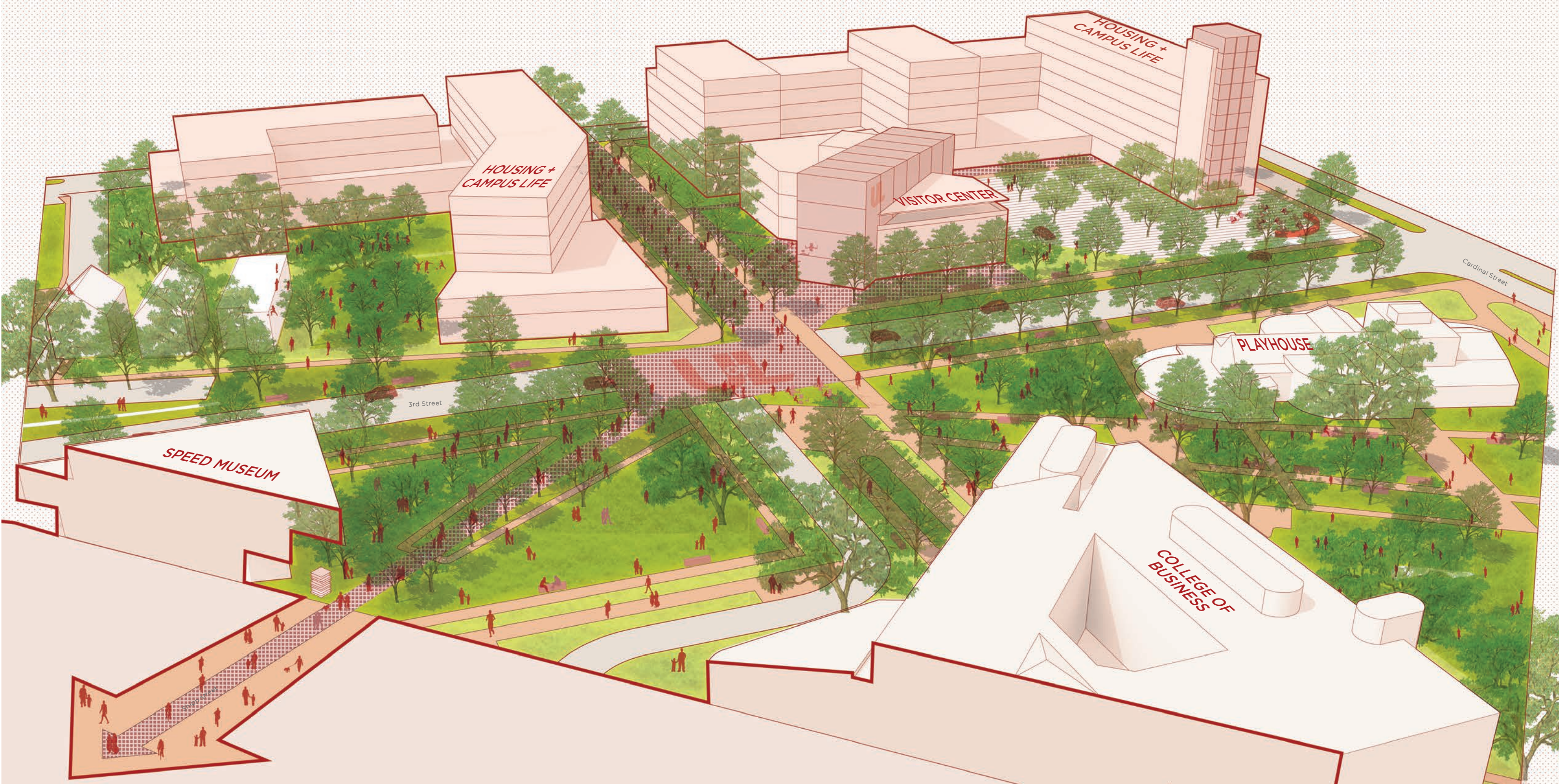
Housing + Campus Life

Housing + Campus Life

Visitor Center

Mobility

With the planned closure of Second Street between Brandeis Avenue and Cardinal Boulevard, a section of Third Street will become two-way. Mixed use development will have front doors on Third Street and Fourth Street to ensure access to a key north-south corridor in the city that links several historical and cultural attractions from the Louisville International Airport all the way to downtown Louisville.



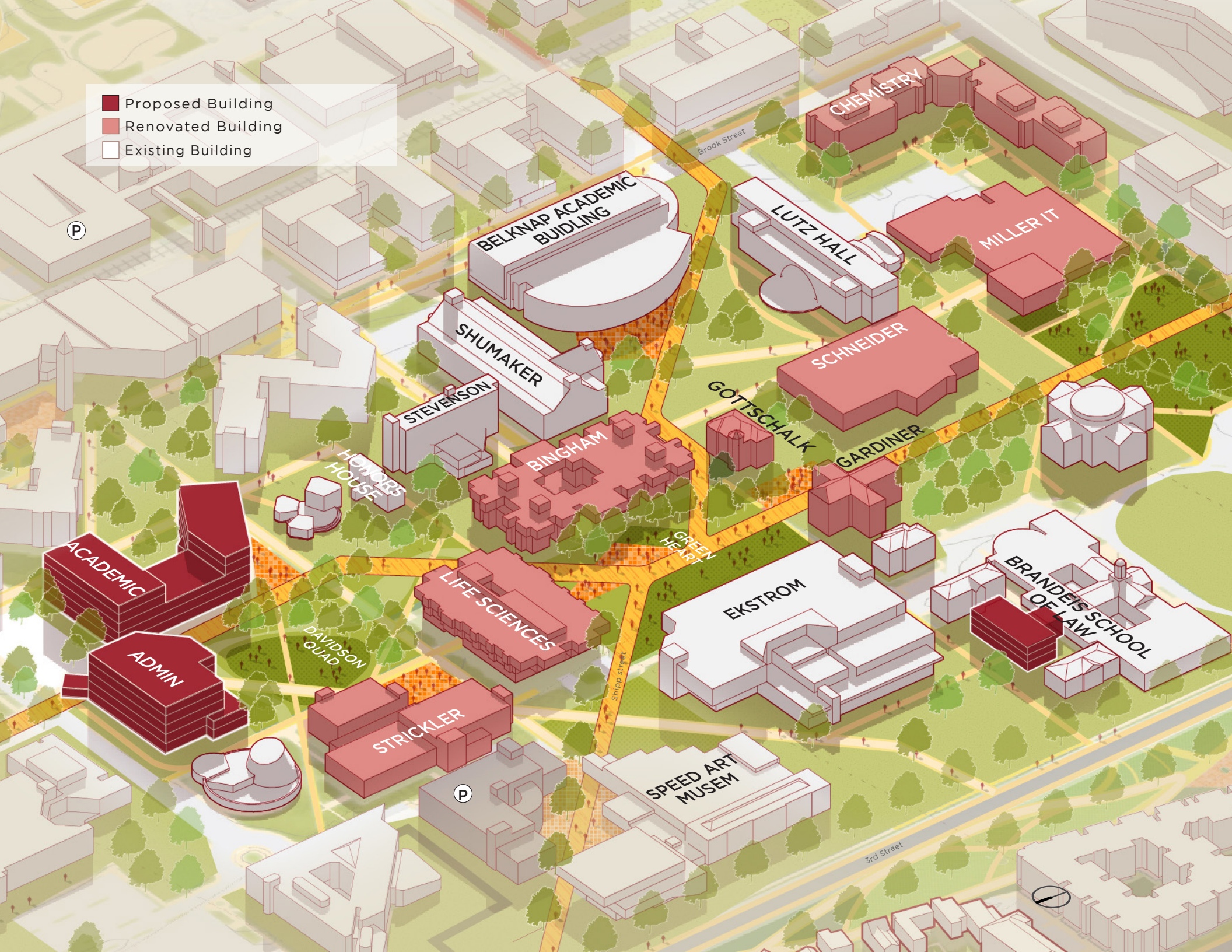
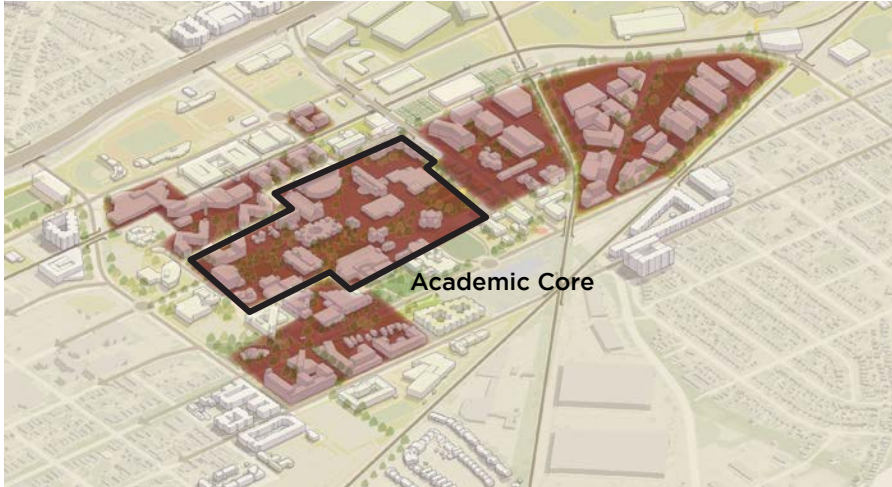
ACADEMIC CORE

The academic core is envisioned with a new quadrangle that is enclosed by a new 21st Century academic building to the east and an administration building to the north.

The academic core of campus today centers on The Quad, bounded by Ekstrom Library to the west, Life Sciences to the north, and Bingham Humanities to the east. Other prominent academic buildings within the core include Davidson Hall, Strickler Hall, and the Belknap Academic Building. The Quad has an extensive tree canopy, and the core is overall a safe and comfortable pedestrian-first area of campus.

Vision

The vision for the North Academic Core involves upgrading mid-century academic buildings surrounding the Quad to meet 21st Century academic needs, promoting student development, enhancing the public realm, and fostering organic interactions within the campus community.



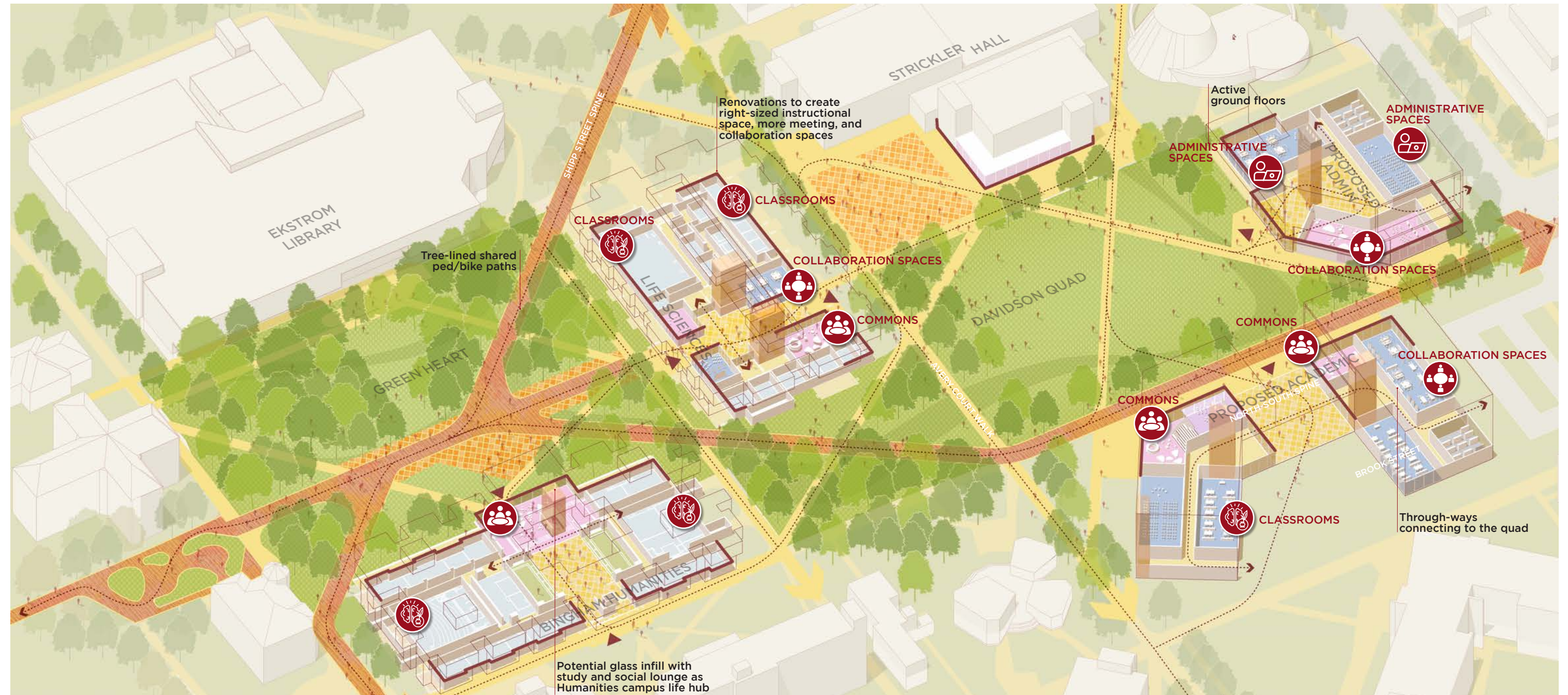
Proposed Development

To address the significant deferred maintenance issues within the academic core, the Campus Plan proposes replacing Davidson Hall with a new academic building to accommodate programs from Davidson Hall and Studio Arts, along with additional campus life spaces that would activate the ground floor. An administration building is also proposed to house administrative programs from Houchens and Stevenson, enabling the demolition of Houchens and asset preservation for Stevenson.

Public Realm

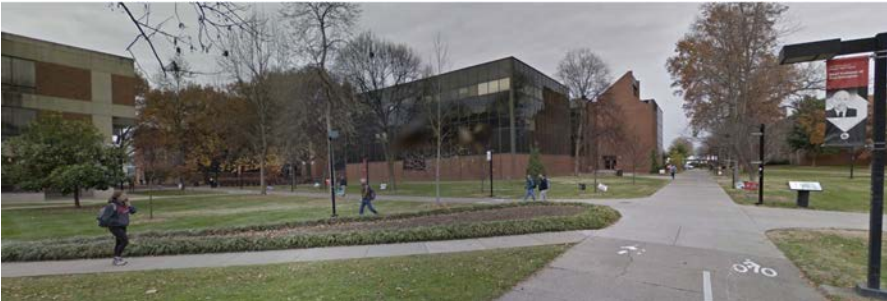
The landscape vision for the Academic Core proposes a new quad (where Davidson Hall currently sits), extending the open space network of the forest-like Quad fronting Ekstrom Library to a contemporary public space anchoring new development to the north.

The New Quad will be, like the architecture proposed around it, rooted in the character of its context, and express the defining qualities of the university, while also offering modern landscape gestures and amenities that benefit students, faculty, staff.



Mobility

To promote a pedestrian-friendly academic core, parking and service areas are to be strategically located to not conflict or create barriers for pedestrians. All primary corridors throughout Belknap are proposed to be shared between pedestrians, bicycles, and micro-mobility users. The new north-south corridor and Shipp Street are recommended to be wide paths with no bicycle or pedestrian lane markings. Secondary pedestrian paths are recommended to be a minimum of 8-feet wide, also shared by pedestrians and bicyclists.



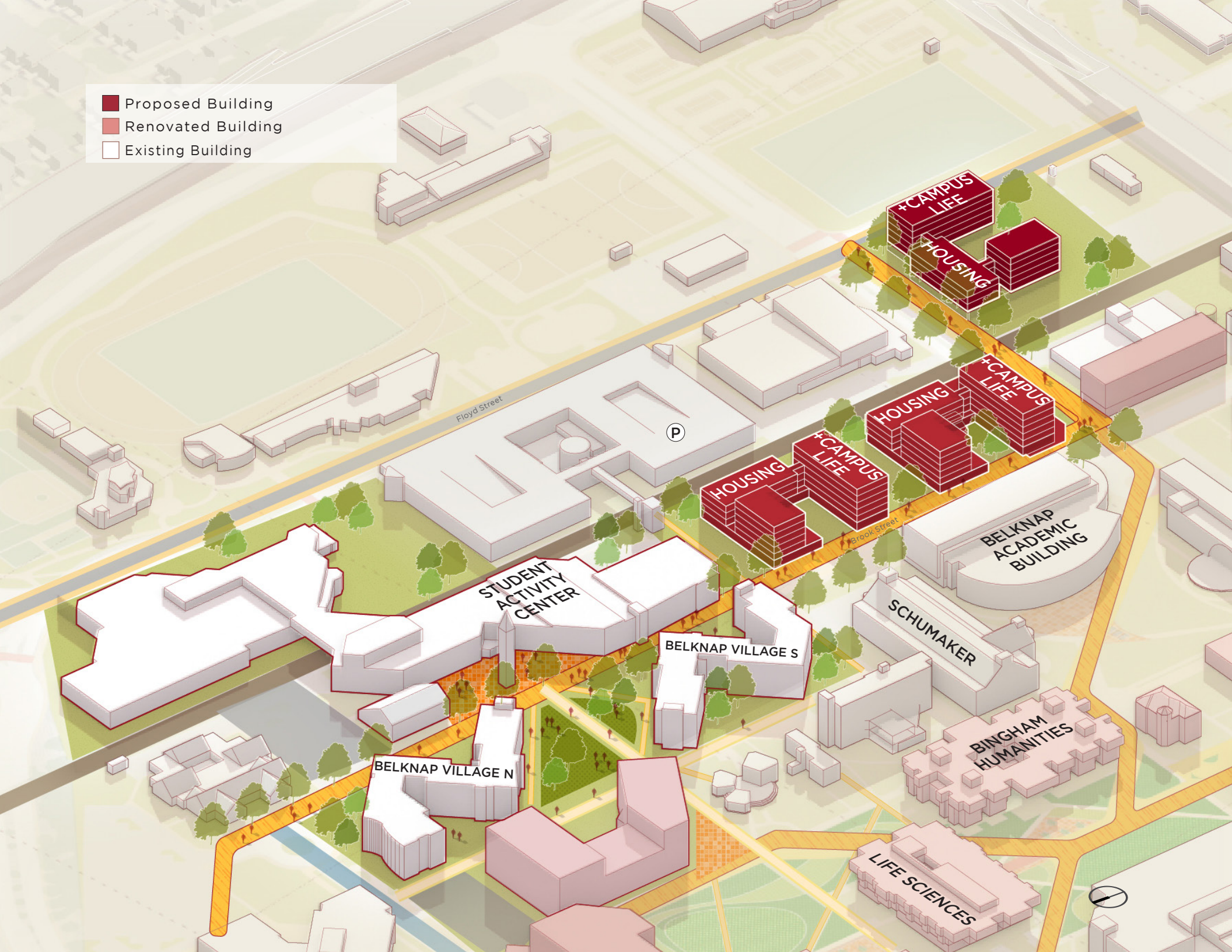
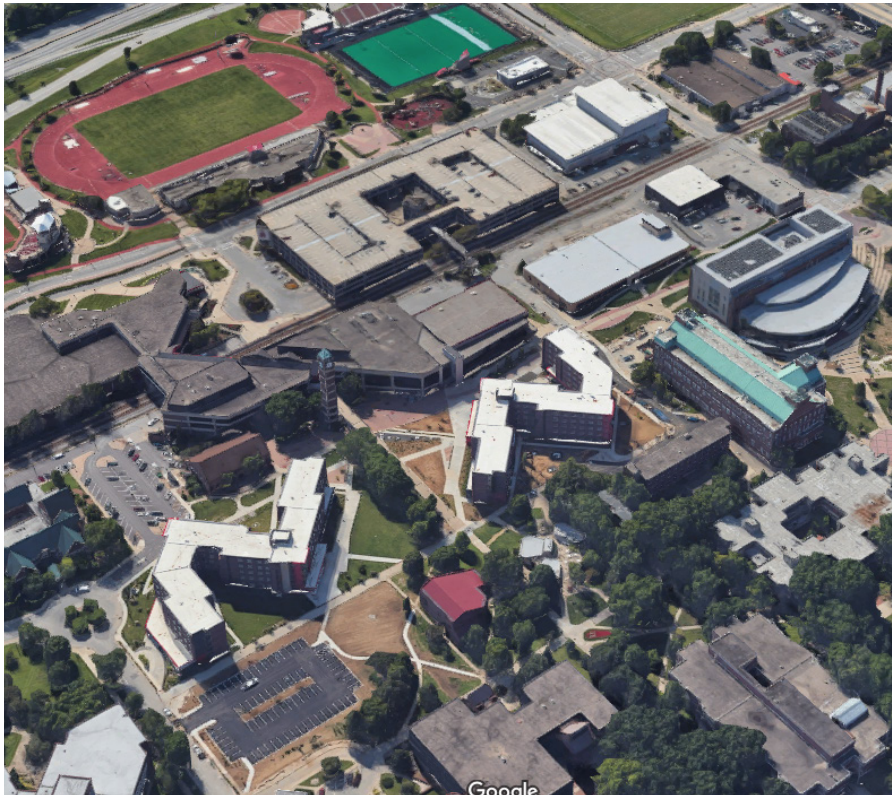
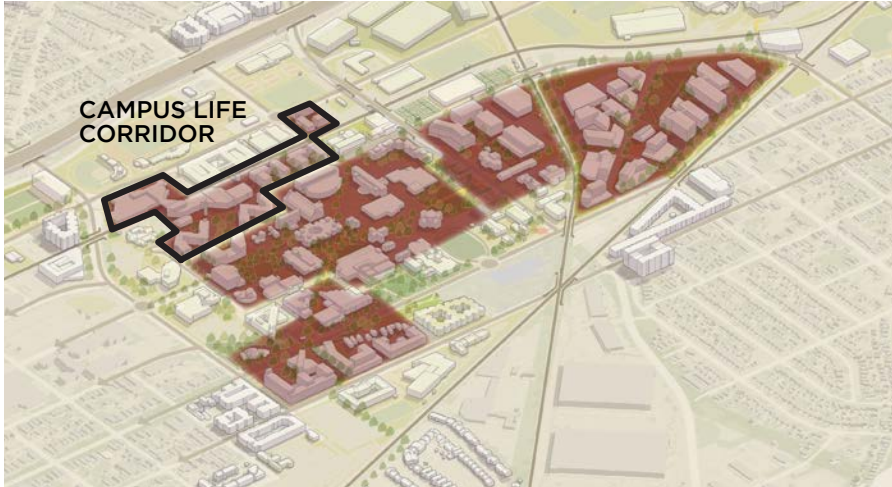
BROOK STREET CORRIDOR

The campus life corridor extends the activation of Brook Street from the Student Activity Center and the Belknap Academic Building southward, aiming to provide more distributed dining services, inclusive spaces, and other campus amenities.

Currently, the stretch of Brook Street between the Student Activity Center (SAC) and the recently completed residential halls is bustling zone with significant student and faculty traffic. However, this activation decreases as you move southward from the SAC due to the uses along the east side of the corridor and their large setbacks, which create zones for parking and service access. As a major north-south connector, not just across Belknap but also to the Health Sciences Center (HSC) campus, the location of the Service Complex and Houchens is considered suboptimal for these sites along Brook Street.

Vision

Brook Street corridor is envisioned as a mixed use zone that integrates student housing and a network of campus life spaces (including space for affinity groups, maker space, and collaboration space) as a new campus neighborhood that builds off of the Student Activity Center (SAC), Belknap Village North and South, and the Belknap Academic Building. This corridor would continue as a multi-modal street through Old Louisville, strengthening the link between HSC and Belknap campuses to better serve both communities.



Proposed Development

A sequence of projects is proposed to unlock the two sites south of the SAC along Brook Street for future housing and campus life buildings. Additional on-campus housing will serve to reduce the number of students commuting by car, improve the quality of life, and enhance opportunities for collaboration for UofL’s undergraduate students. These housing facilities should have ground floor activation, incorporating the displaced Baptist Center, increasing affinity group meeting spaces, and providing food services.

Public Realm

The Campus Plan proposes to extend recent public realm improvements along Brook Street, while also introducing additional elements to its design palette to enhance the street’s appearance and functionality. The corridor should also serve as a “living laboratory” for green infrastructure projects, raising environmental awareness and offering educational opportunities. New developments should continue to utilize the natural topography to manage stormwater effectively, directing stormwater away from buildings.

One of the other major challenges for Brook Street occurs at its intersection with the elevated Eastern Parkway. Transforming this area with seating, tables, lighting, art, and bicycle storage can create a welcoming and safe environment for crossing from north campus into the proposed STEM cluster south of Eastern Parkway.

Mobility

Brook Street is the only corridor on campus that is designed with separate paths for pedestrians and bicyclists. Connecting the Brook Street Corridor to the HSC bike route, via the bicycle gateway at Cardinal Boulevard, will strengthen its character as a bike corridor. Brook Street is already a major bicycle thoroughfare, and the proposed housing and campus life programs along this route are expected to increase bicycle traffic.

Brook Street Corridor



Existing



Brook Street Green Infrastructure

Wet floodproofing and flexible furniture for flood resilience

Student life spaces: commons, affinity group meeting spaces

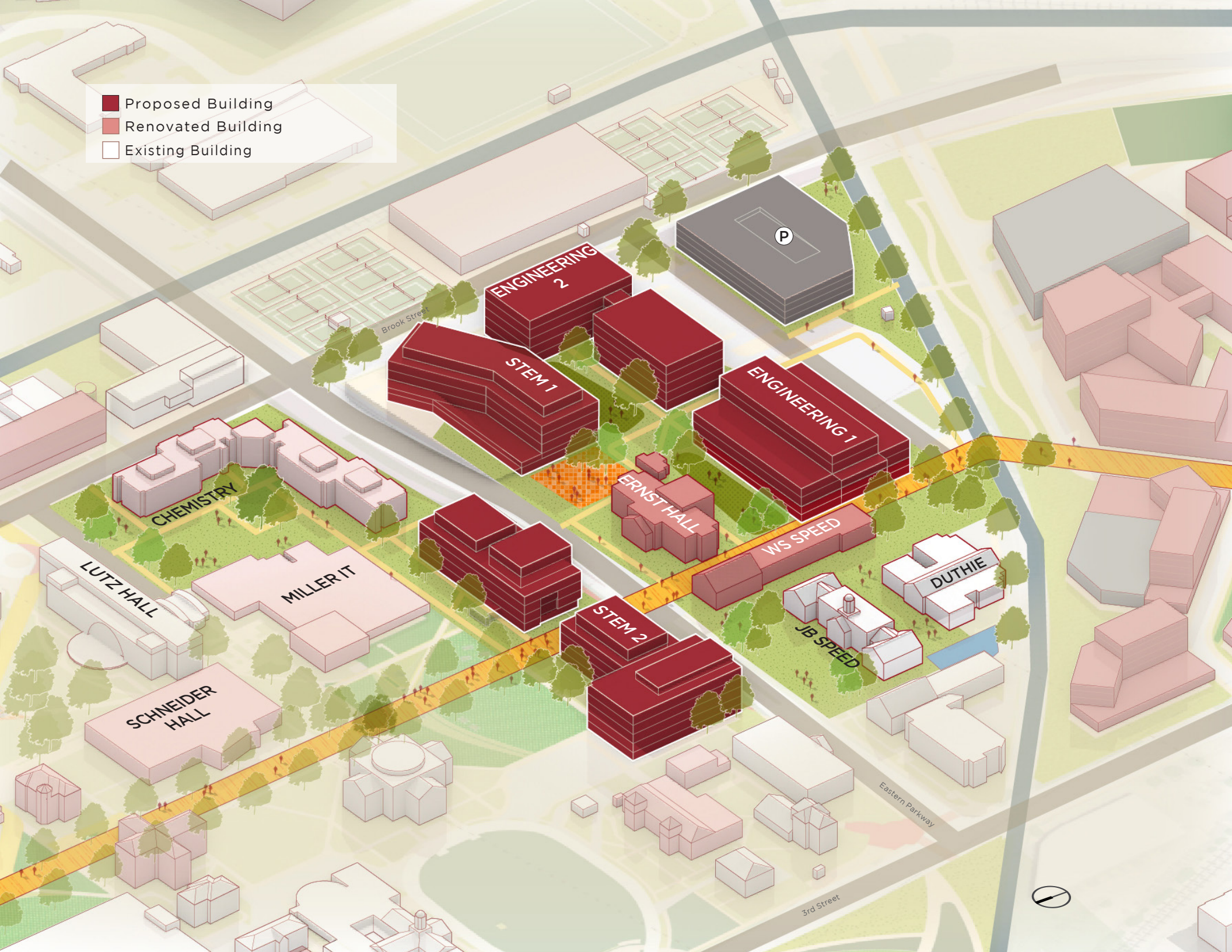
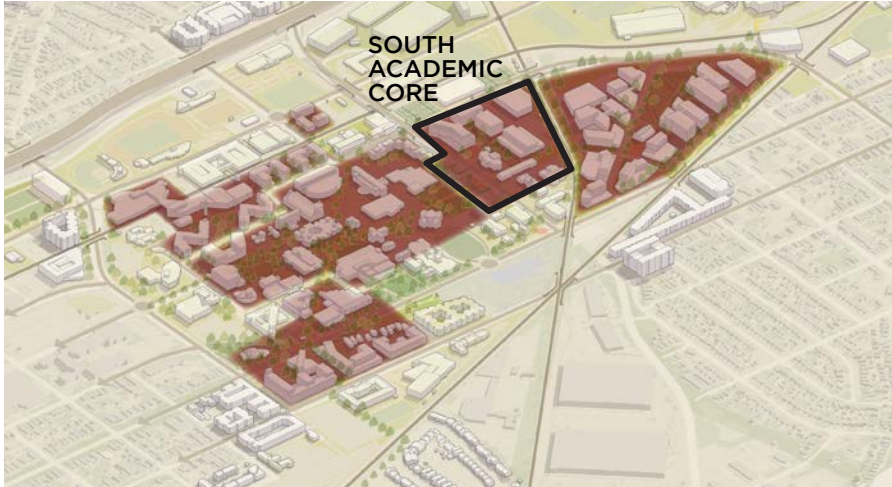
SOUTH ACADEMIC CORE

The expansion of new Science, Technology, Engineering, and Mathematics (STEM) buildings will usher in a reimagined South Academic Core, centered around a new South Quad and much-needed dining services south of Eastern Parkway.

Eastern Parkway currently acts as a major vehicular right-of-way (ROW) that effectively divides the campus. The grade separation of the eastern portion of this ROW poses challenges for connecting academic zones between the north and south. Eastern Parkway currently acts as a major vehicular right-of-way (ROW) that effectively divides the campus. The grade separation of the eastern portion of this ROW poses challenges for connecting academic zones between the north and south.

Vision

The proposed academic core to the south of Eastern Parkway aims to better serve the campus community by increasing classroom and research spaces, creating a new dining hall, introducing a new South Quad, and rethinking the connection across Eastern Parkway along the north-south pedestrian corridor.



Proposed Development

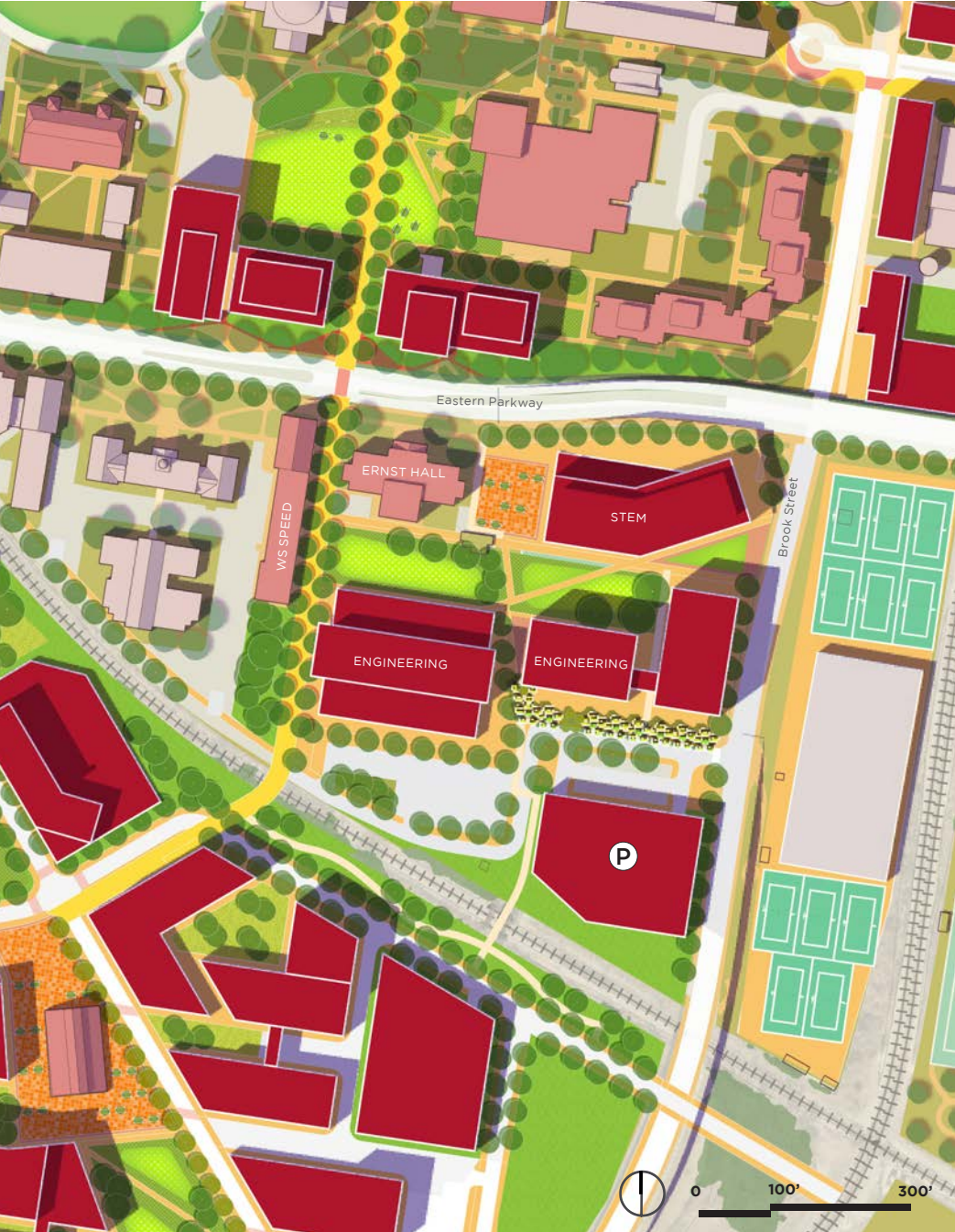
Relocating the intramural fields will free up space for a new STEM Phase 1 building at the northeast corner of Eastern Parkway and Brook Street. This addition, along with the proposed campus life improvements north of Eastern Parkway, would further activate Brook Street as it continues past Eastern Parkway. The design of the STEM Phase 1 building could also begin framing a new South Quad, which would serve as a focal point for the emerging STEM cluster.

The STEM Phase 1 building should be designed to accommodate the program currently in the Natural Sciences Building, enabling a second STEM building offering upgraded facilities and a seamless connection along the north-south corridor to existing Engineering buildings. The final build-out of STEM facilities will include space for the program from the Life Sciences Building, including the vivarium.

Public Realm

As an entirely new development, there is great potential for the public realm in the STEM cluster to reflect the STEM mission and ideals of today and connect back to the north campus seamlessly. Incorporating hardscape, local materials to reduce embodied carbon, carbon sequestration, habitat enhancement, and green infrastructure should be integral to the design of the South Quad. Enhancing ground floor transparency and activation of the surrounding STEM buildings would further encourage engagement and activity in the South Quad.

- Proposed Building
- Renovated Building
- Existing Building



Mobility

To improve safety along Eastern Parkway and seamlessly integrate the new South Academic Core, measures should be taken to slow traffic, such as extended crossings at signals, gateway treatments at the Third Street and Eastern Parkway intersection, and at the point where Eastern Parkway crosses over Brook Street.

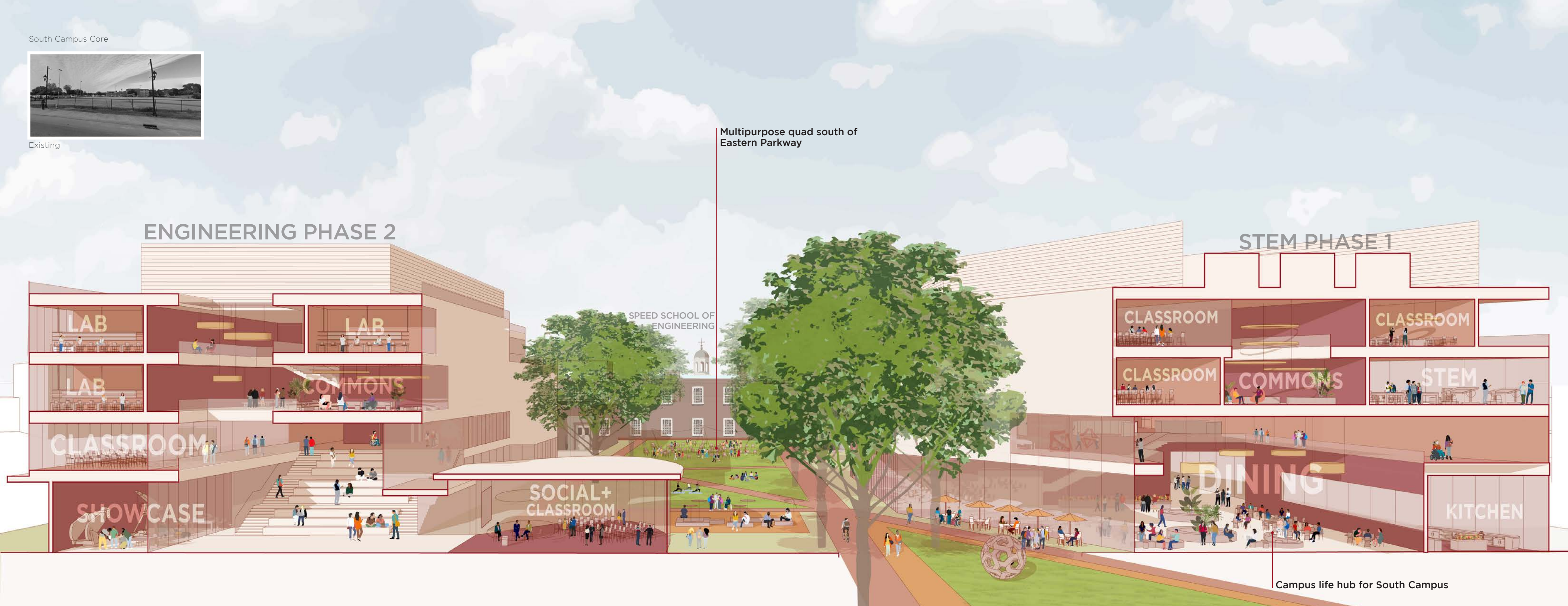
If Eastern Parkway could be narrowed, pedestrian crossings could be made shorter and safer. Putting the bike lanes above the curb would reduce the width of the street, making crossing easier and mitigating traffic speeds. Further east, along the parkway's elevated segment, bike lanes above the curb would make the bicycle connection safer and much more pleasant.

South Campus Core



Existing

Multipurpose quad south of Eastern Parkway



Campus life hub for South Campus

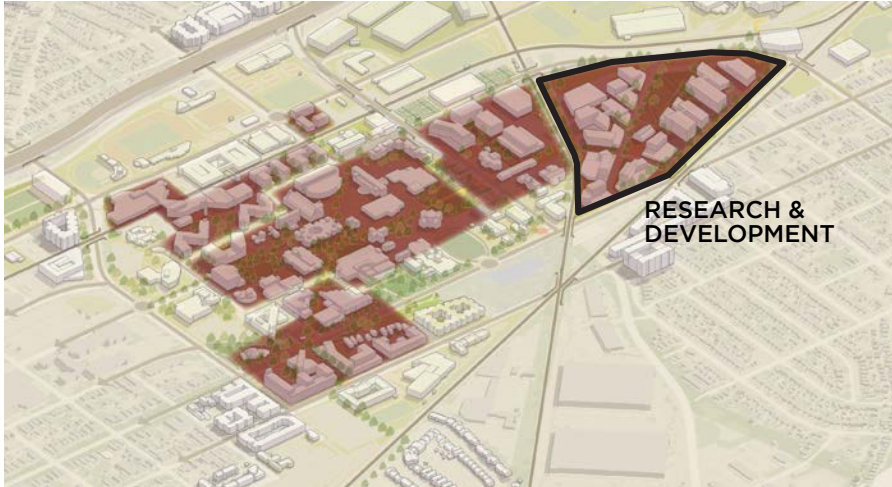
RESEARCH & DEVELOPMENT DISTRICT

The Research and Development (R&D) District is designed to address various contextual contextual factors, offering state-of-the-art facilities for industry partners and researchers while maintaining a connection to its historical roots.

Owned by the UofL Foundation, the site sits vacant, bearing the legacy of a former industry with soil contamination. Additionally, the limited access points at its perimeter, caused by railways and the grade-separated Brook Street, present significant challenges. The iconic Drop Forge structure is seen as a potential landmark with a view to Cardinal Stadium.

Vision

To address soil contamination, leverage the historical significance of the Drop Forge structure, and protect future uses from the challenging edges, this district centers around a “Nature’s Quad.” This unique space employs native species to aid ground remediation, proposes an adaptive reuse of the Drop Forge building to activate the quad, and establishes a green, tree-lined buffer at the site perimeter.



Proposed Development

An adaptive reuse of the Drop Forge building can provide a place for food trucks, recreation, and relaxation.

In the short term, the displaced intramural fields are accommodated on this site, along the southern edge and adjacent to athletic facilities. In the short term, the displaced intramural fields will be accommodated on this site, along the southern edge, adjacent to athletic facilities. As phased construction of the R&D buildings commences, program elements from the UofL buildings at Cardinal Boulevard and Floyd Street will find a new home in this district. Each R&D building is proposed with internal courtyards to maximize lighting and provide health and wellness spaces dispersed throughout the district.

As program elements from the northeast of Belknap transition to the R&D district, the select buildings can be demolished, making way for a more permanent home for the intramural fields and a proposed structure to house band equipment and other storage.

With the relocation of the intramural fields to the northeast, the remainder of the R&D district will become available for future building phases. A parking garage is also proposed across Brook Street, with an entrance and connection to the R&D district below the elevated portion of the Brook Street corridor.

- Proposed Building
- Renovated Building
- Existing Building



Public Realm

Comprehensive environmental investigations are critical for any development of this parcel and will guide design opportunities and objectives.

Despite the site’s challenges, there are design ideas that can give this district a unique and compelling identity and purpose.

“Nature’s Quad” presents an opportunity to introduce a distinctive landscape character into Belknap’s open spaces. Positioned at the southern fringe of the campus, it offers visual connections between academic districts and the athletics and recreation corridor. This area boasts wide, engaging vistas that feel distinct from the campus and the surrounding city. A single architectural relic, the Drop Forge Building, serves as a reminder of its industrial past. The Nature’s Quad embraces the “wild” or “untamed” character of a successional landscape, incorporating vast native meadow planting to enhance biodiversity and habitat while preserving views from the landscape. This working landscape integrates phytoremediation, bioswales, and rain gardens.

Furthermore, a one-mile loop of woodland and natural paths around the R&D district acts as a natural buffer from the sounds, vibrations, and poor air quality around the railway tracks.

Mobility

The R&D District is significantly constrained by railways and an elevated road structure, limiting vehicular access to two points: the existing South Lot driveway off Third Street and the existing entrance off Brook Street before the elevated causeway. The connection between these two driveways will form the spine of the district’s street system, with side streets providing access to the proposed garages. A third garage, located between the Brook Street Connector and

the railroad track Y west of Cardinal Stadium, will be accessed via an existing portal under the elevated structure.

Pedestrian access will be available through these driveways as well as via the existing portal under the railroad tracks south of the Intramural Complex, with a proposed second portal further north.

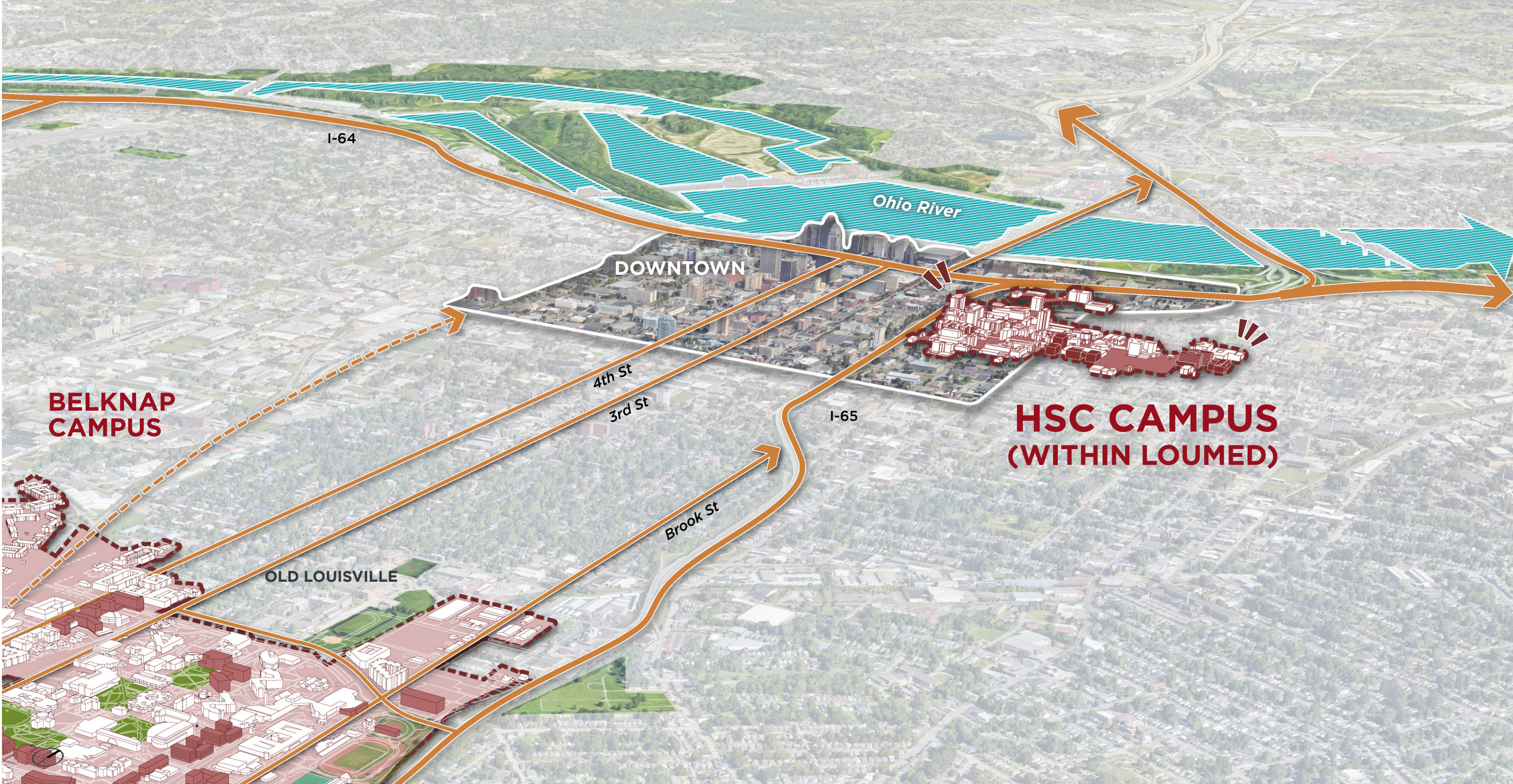
For access between the R&D and Athletic Districts, pedestrians can utilize the proposed bridge over the railroad tracks at the stadium, primarily connecting the athletic district to the new parking garage.

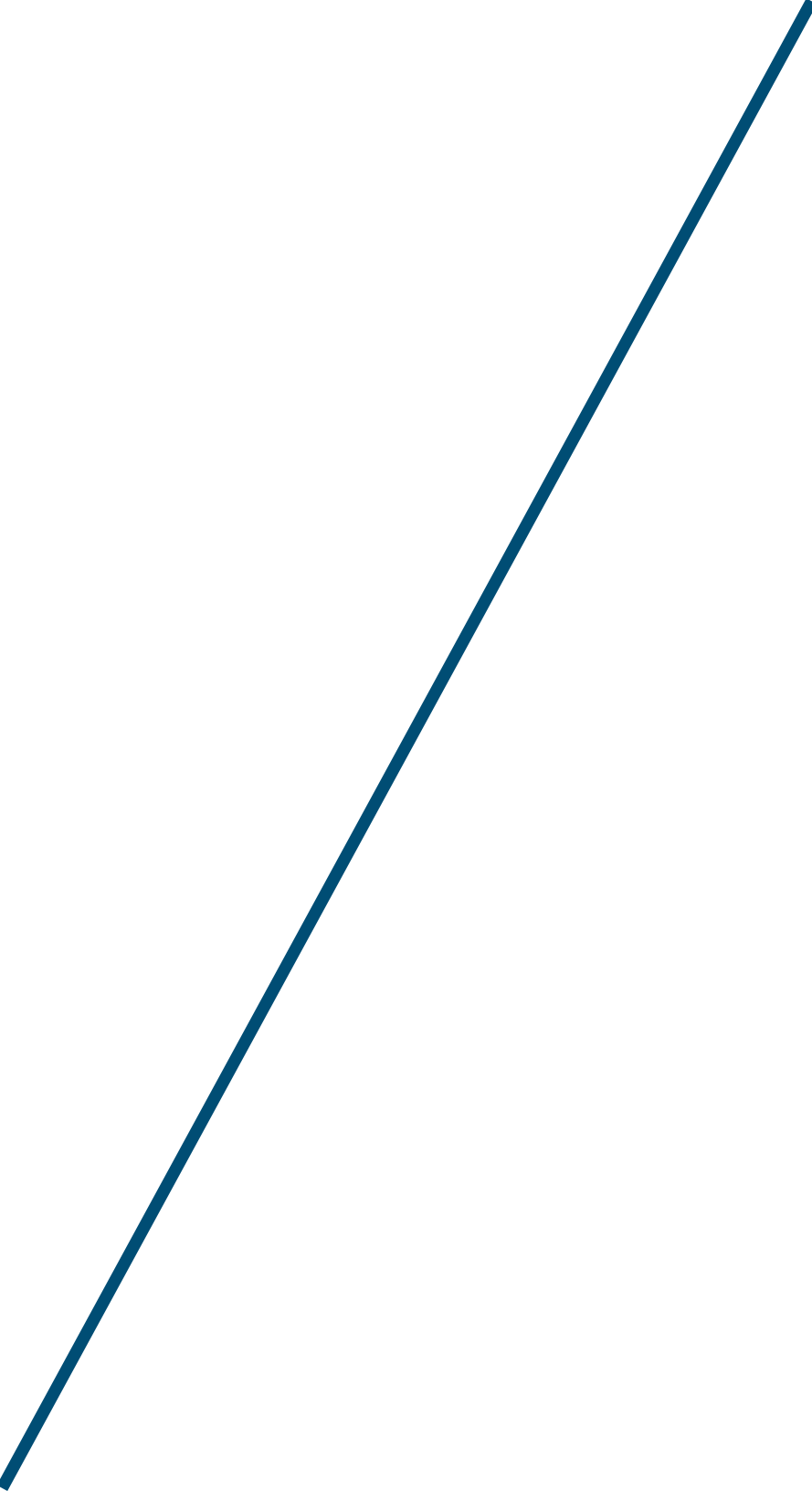
**HEALTH
SCIENCES
CENTER
CAMPUS**

VISION & STRATEGIES

The HSC Campus plays an important role in the university’s commitment to healthcare education, research and innovation with the School of Medicine, School of Nursing, School of Dentistry, and School of Public Health & Information Sciences. UofL has significant influence within the Louisville Medical Education District.

The Health Sciences Center (HSC) Campus is a dense, active, and well-connected medical academic and research campus with tremendous opportunity to expand opportunities for interprofessional education, research, and campus life amenities.





VISION & STRATEGEIS

CAMPUS CONTEXT

The HSC campus sits amidst a dense, active area of Louisville.

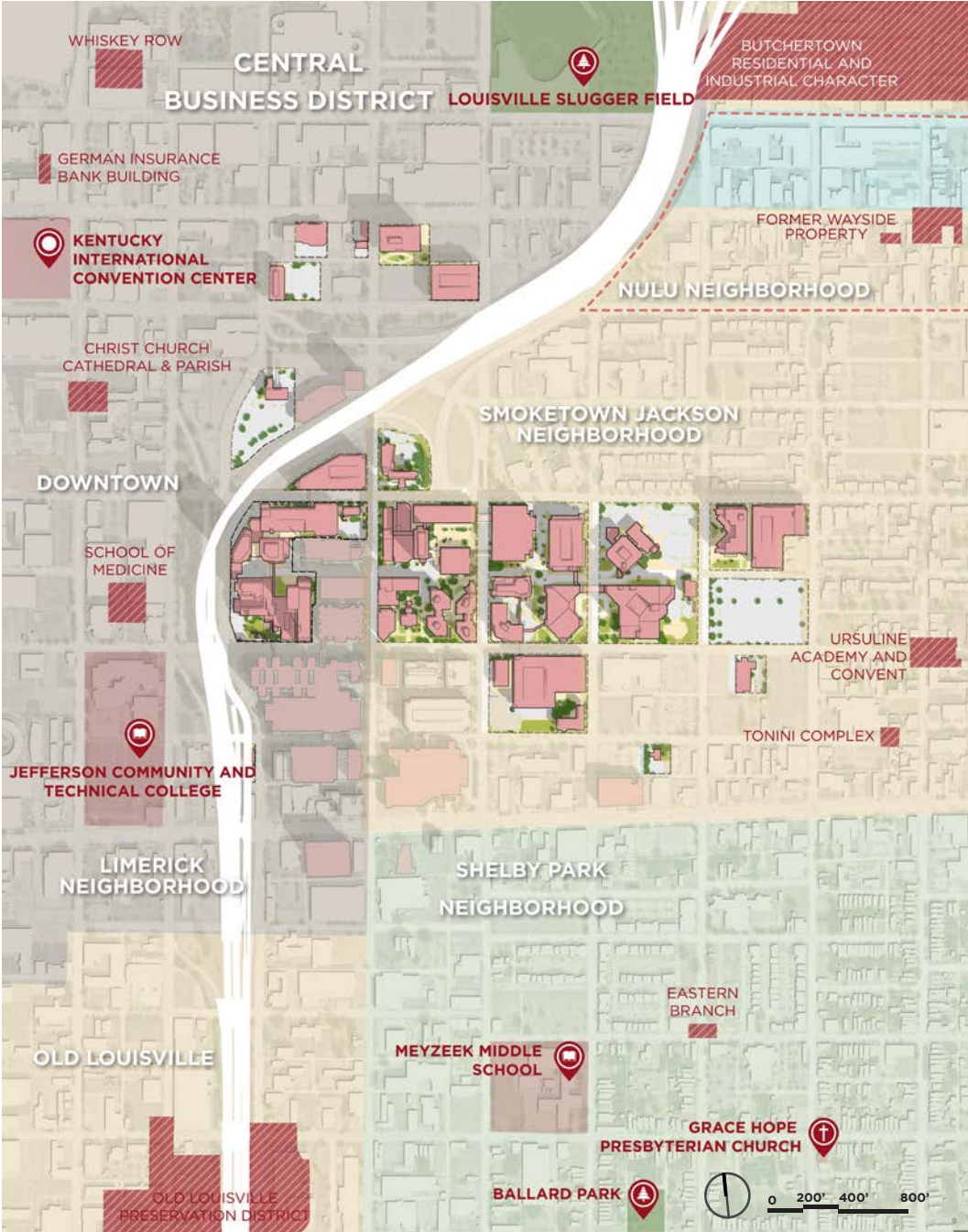
The proximity to downtown, just to the west, provides access to the city’s central business district, cultural attractions, and various amenities.

The emerging NuLu (New Louisville) district, north of the HSC campus, is home to a cultural scene with numerous galleries, restaurants, boutiques, and businesses.

The HSC campus is enveloped by the Louisville Medical Education District (LOUMED). This district is made up of four interconnected institutions: Jefferson Community & Technical College, Norton Healthcare, University of Louisville Health Sciences Center, and UofL Health.

There is high vehicular traffic due to Interstate Highway 65 bounding the western edge of the campus, while the eastern edge abuts residences. City rights-of-way permeate LOUMED, presenting ample opportunity to connect with the campus’ surroundings.

HSC campus is well poised to connect to all parts of UofL, including Belknap Campus, the Christina Lee Brown Envirome Institute, and the Campus for Innovation and Entrepreneurship to the north.



EXISTING CAMPUS

Comprehensively, the LOUMED district provides healthcare, education, and research facilities. HSC’s adjacencies to these three other institutions presents incredible partnership opportunities. HSC is also walking distance from the UofL Foundation-owned Campus for Innovation and Entrepreneurship to the north and the Envirome Institute, home to the Christina Lee Brown Envirome Institute as an urban laboratory investigating environmental factors on public health, to the west.

However, the city-owned street grid permeating LOUMED and the need for vehicles and service functions to exist through the center of LOUMED present major challenges and limit UofL’s control over the public realm between HSC buildings.



PROPOSED VISION

The HSC Campus vision strengthens the academic and research enterprise of the urban medical center by investing in the learning and research environment, improving the campus life experience, and building partnerships. Home to four academic colleges within the LOUMED district , the growth and transformation of Belknap will focus on the following:

Expanding and Enhancing Academic and Research Space: The HSC campus vision aims to facilitate the growth of academic and research activities, renovating existing buildings, and providing state-of-the-art facilities that support innovation, collaboration, and cutting-edge scholarship.

Prioritizing Safety and Comfort: The plan seeks to create a safe and comfortable environment for all members of the HSC community as part of this urban campus. This includes implementing measures to enhance security, while designing welcoming public spaces.

Creating a Vibrant Campus Life Experience: The plan aspires to build a thriving campus community that fosters engagement, inclusivity, and well-being. This involves the development of spaces and programs that enrich the daily lives of students, faculty, and staff.

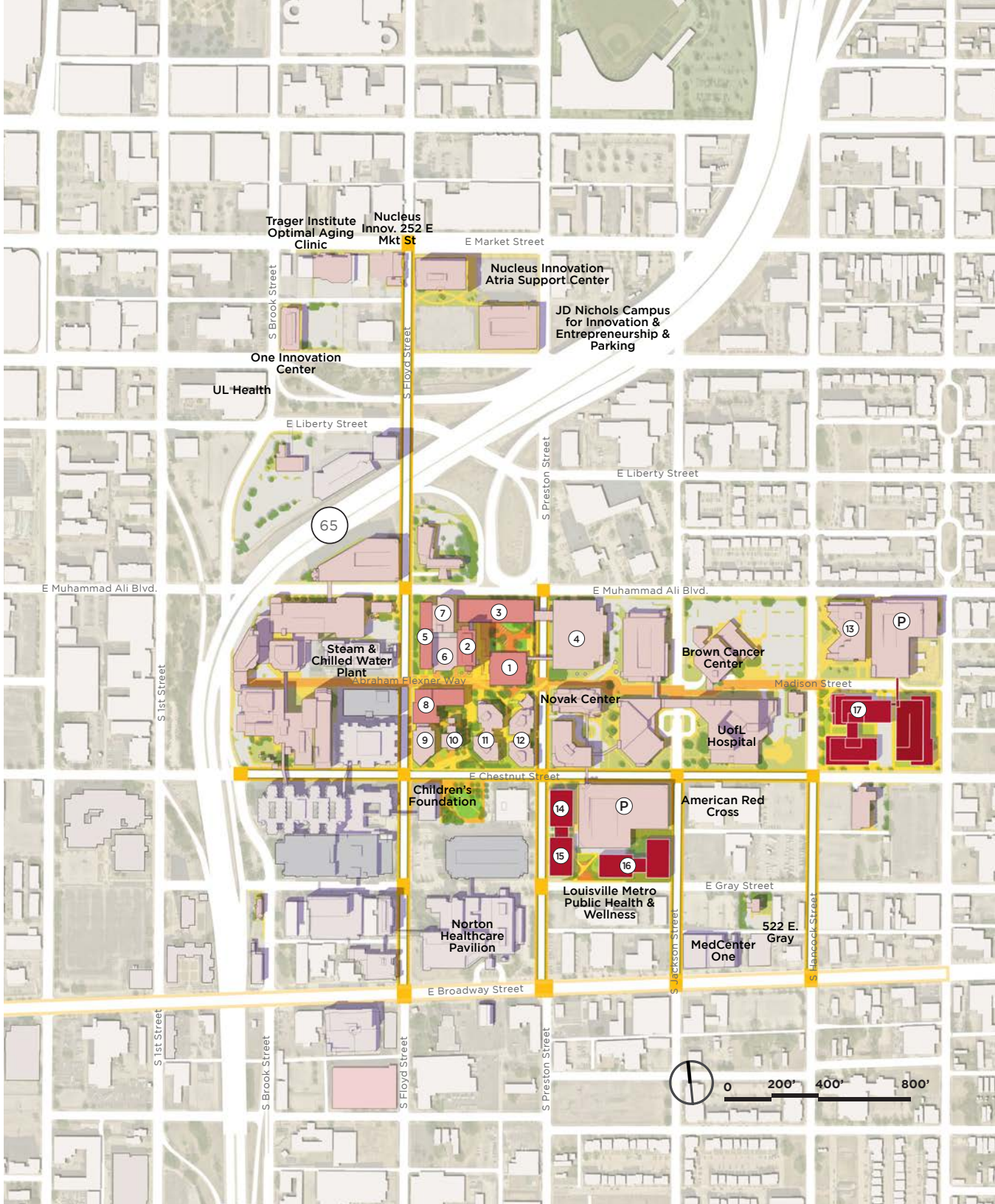
Establishing a Distinctive Identity: While embracing collaboration within the LOUMED framework, the plan seeks to carve out a unique identity for the HSC Campus. This identity will reflect a commitment to excellence in healthcare education, research, and service.

Strengthening Inter-Campus Connections: To promote a sense of belonging within the larger UofL ecosystem, enhanced connections between HSC, the Belknap Campus, the Campus for Innovation and Entrepreneurship, and the Envirome Institute are envisioned. This collaborative network will facilitate interdisciplinary interactions and resource sharing.



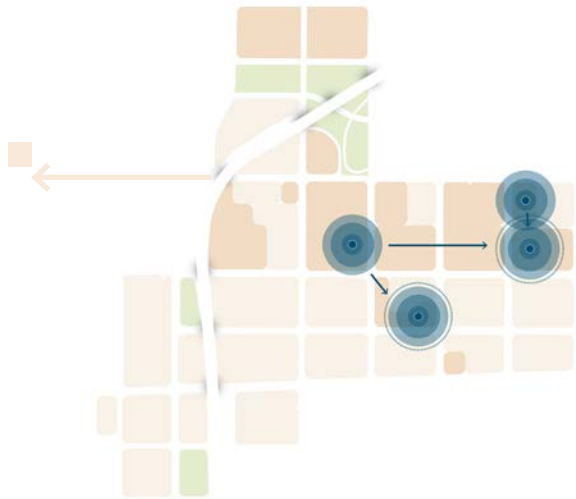
- ① Kornhauser Library & Commons
- ② School of Medicine
- ③ Health Sciences Building
- ④ School of Dentistry
- ⑤ Medical Dental Research (MDR)
- ⑥ Research Resources Center (RRC)
- ⑦ Cardiovascular Innovation Institute (CII)
- ⑧ School of Nursing
- ⑨ Kosair Charities Pediatric Center
- ⑩ Abel Administration Center
- ⑪ Donald Baxter Research I
- ⑫ Delia Baxter Research II
- ⑬ Clinical & Translational Research (CTR)
- ⑭ Interprofessional Education (IPE)
- ⑮ School of Public Health & Information Sciences (SPHIS)
- ⑯ Research
- ⑰ Research

- Proposed Building
- Renovated Building
- Existing Building

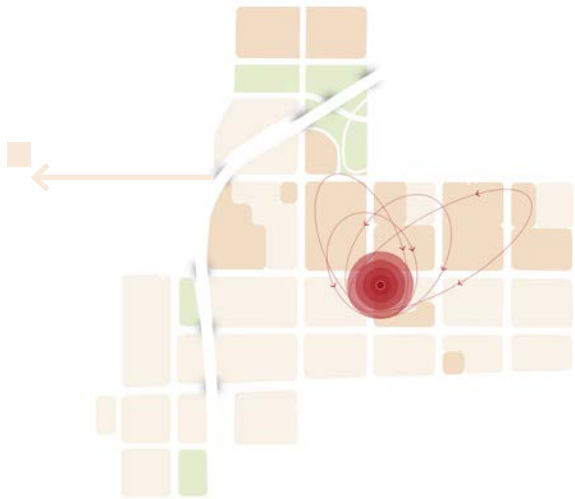


STRATEGIES

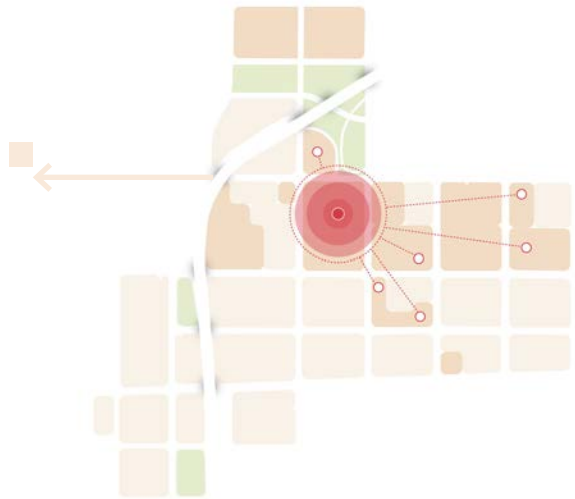
The following six priorities at HSC reflect conversations with the UofL community and leadership.



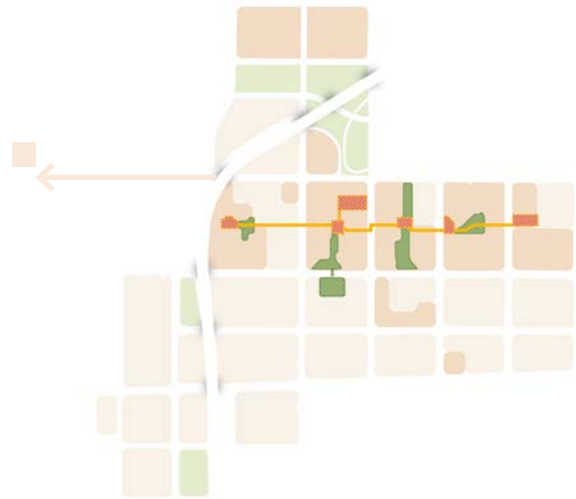
1. Expand Space for Research Growth: The plan envisions creating 21st century research space that accommodates the needs of the HSC campus with a new research hub on east campus.



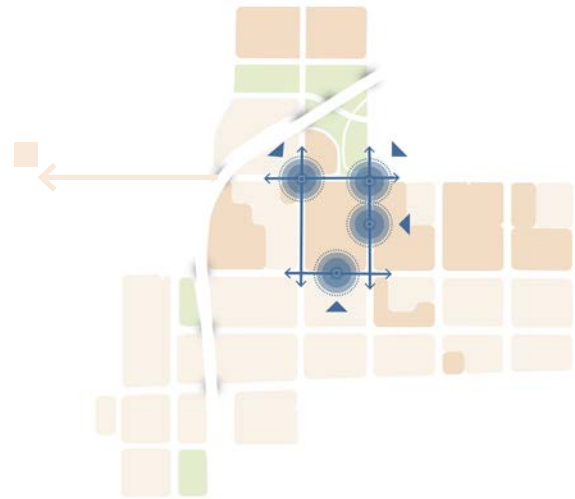
2. Increase Opportunities for Interprofessional Education: In an effort to foster more collaboration among students and professionals from various healthcare disciplines, the plan proposes an interprofessional center that provides access to team-based approaches to patient care.



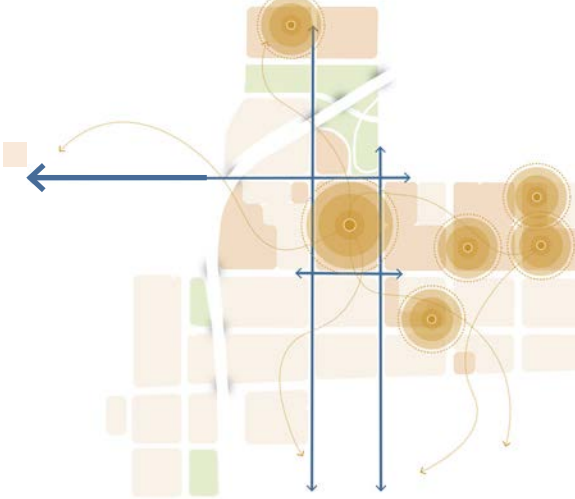
3. Enhance Campus Life: The plan recommends adding more campus life spaces to enhance the HSC experience. This network of needed spaces include improvements to dining, health and wellness, recreation, social, and study areas.



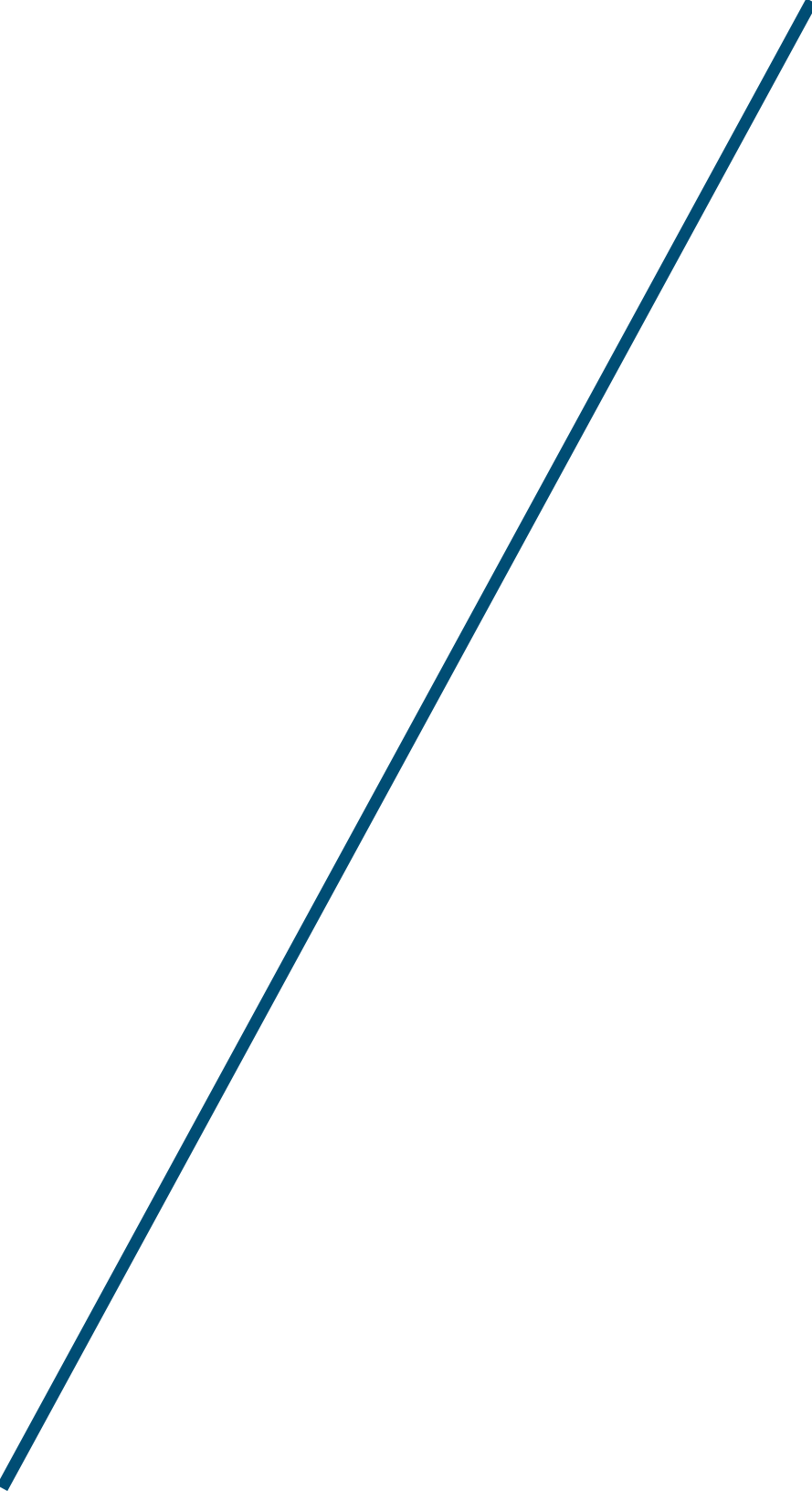
4. Improve the Public Realm: The public realm provides a unique opportunity in providing pleasant outdoor spaces and accessible pedestrian paths. The public realm can contribute to the HSC campus identity and emphasize the health and wellness benefits of healthy environments through human comfort.



5. Welcoming Gateways: To create better connections and a sense of arrival on campus, the plan proposes improving wayfinding through clearly demarcated gateways, “front doors” of campus buildings, and signage.



6. Connectivity and Collaboration: In creating a network for interdisciplinary collaboration, investment in shared research facilities and greater mobility connections are necessary between the HSC and Belknap Campuses.

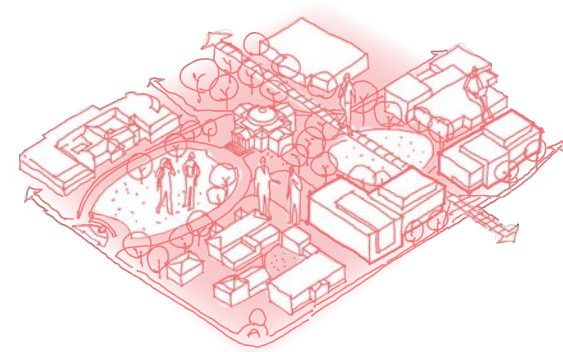


FRAMEWORKS

FRAMEWORKS

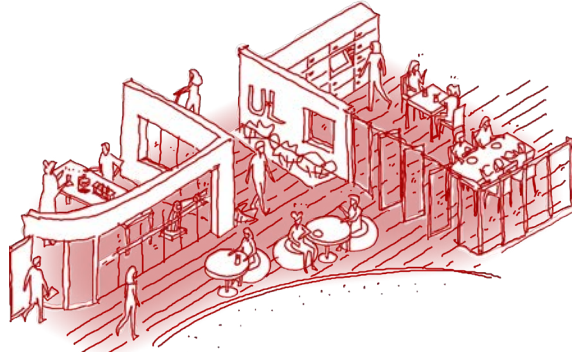
The Campus Plan incorporates six thematic Frameworks to guide future development and transformation at HSC. These frameworks collectively provide a flexible and adaptable guide for achieving the vision of a thriving, inclusive, and sustainable HSC campus, aligning development efforts with strategic priorities and community needs.

1 DEVELOPMENT FRAMEWORK



As UofL plans to grow enrollment, expand strategic academic programs and research, and tackle deferred maintenance, the Development Framework offers guidance on new construction, renovations, asset preservation, and demolition.

2 CAMPUS USE FRAMEWORK



The Campus Use Framework aims to maintain a concentrated HSC core within LOUMED, while accommodating research clusters within the greater district.

3 ACADEMIC & RESEARCH FRAMEWORK



Aligned with UofL's Strategic Plan, the Academic & Research Framework identifies facilities for enhanced 21st-century learning and research. It proposes a new Interprofessional Education facility, replacing the School of Public Health and Information Sciences, a brand new research facility, and renovations for buildings at the HSC core.

4 CAMPUS LIFE FRAMEWORK



To enhance the experience and collaboration spaces for students, faculty, researchers, and staff, the Campus Life Framework proposes ways to distribute amenities, services, dining, and inclusive spaces across campus, as well as connections to Belknap to access broader services and events.

5 LANDSCAPE FRAMEWORK



The Landscape Framework envisions an enhanced public realm with open spaces that promote health, wellness, recreation, and climate resilience.

6 MOBILITY FRAMEWORK



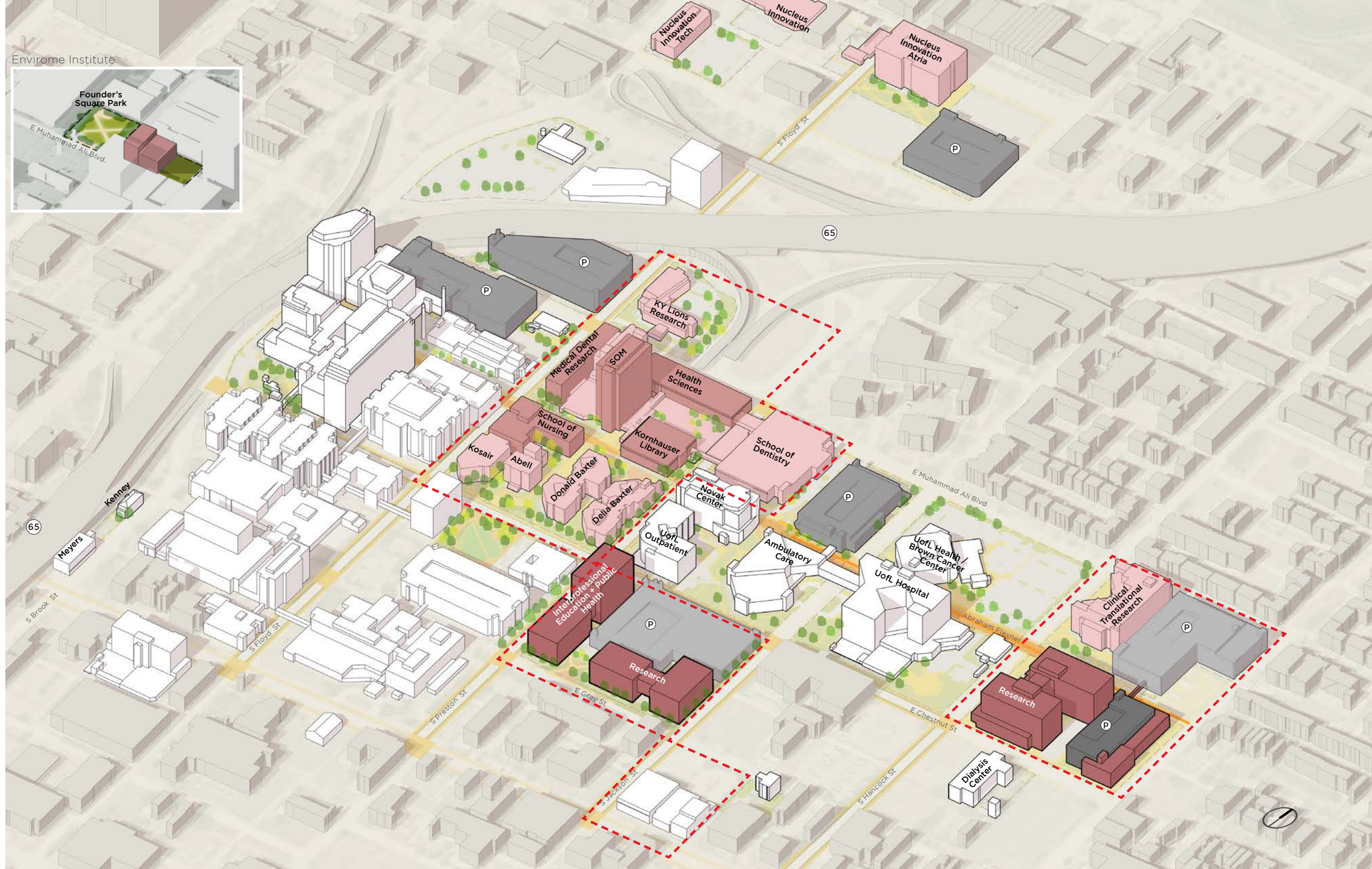
The Mobility Framework proposes improved right-of-way and intersection designs along Abraham Flexner Way as well as enhanced connections at the edges of HSC and to the other UofL campuses.

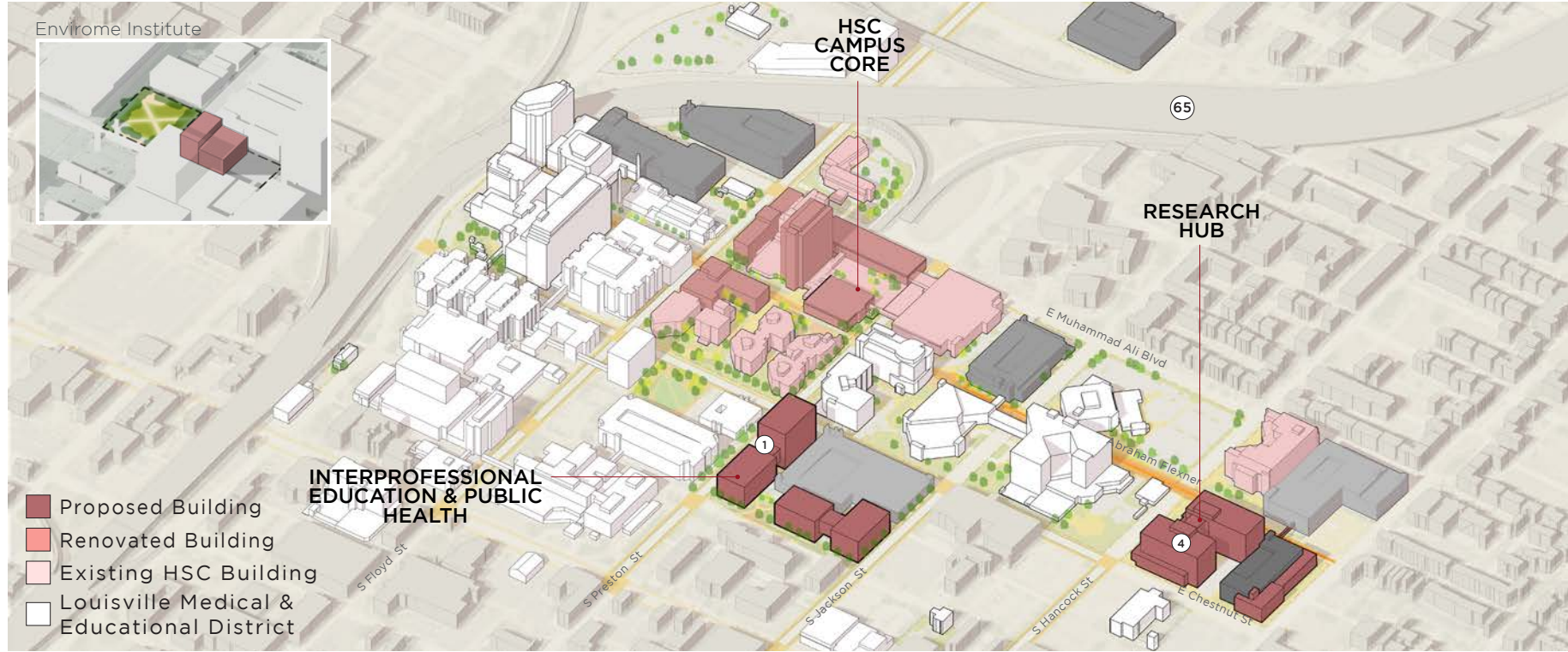


DEVELOPMENT FRAMEWORK

The future development of the HSC campus holds the potential to elevate the research, academic, and working environments for students, faculty, staff, and visitors. In accordance with the University of Louisville's Strategic Plan, this Campus Plan presents a vision for renovations, replacements, and new developments.

- Proposed Building
- Renovated Building
- Existing HSC Building
- Louisville Medical & Educational District
- HSC Focus Areas





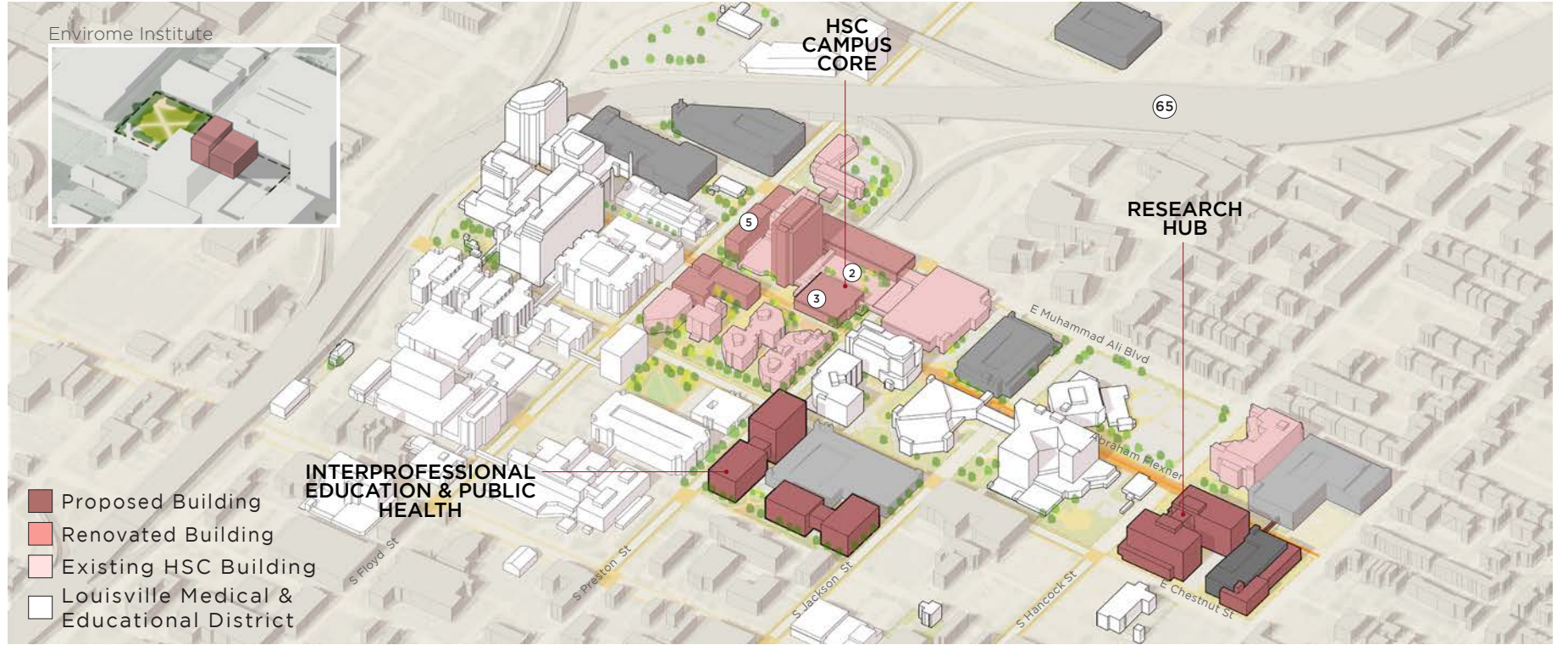
New Construction

The plan envisions the transformation of the block bordered by Chestnut Street, Gray Street, Preston Street, and Jackson Street. This area is earmarked for the construction of a new Interprofessional Education facility and a dedicated home for the School of Public Health and Information Sciences. These developments will replace the Kidney Diseases Building and introduce cutting-edge instructional spaces, research laboratories, and campus-wide amenities, including an accessible auditorium.

The Interprofessional Education facility (IPE) will house simulation labs and instructional spaces to immerse healthcare students in a team-based delivery model. As part of the IPE development, a School of Public

Health and Information Sciences (SHPIIS) building with new state-of-the-art auditorium and dining services will activate the ground floor. Phase 1 of this development is proposed to replace the Kidney Diseases Building. Subsequently, Phase 2 of this project will replace the old SHPIIS building to expand research facilities as well as partner with and absorb the Louisville Metro Public Health and Wellness Department.

To support UofL's commitment to research excellence, a new research facility is proposed to the east of the campus, located south of the Clinical and Translational Research building. This facility will serve as a hub for research endeavors, fostering innovation and collaboration among scholars and scientists. The new research hub mirrors the scale and appearance of CTR and creates an eastern anchor to the LOUMED district.



Renovations & Asset Preservation

Major renovations are planned for the core buildings of the HSC campus to enhance the HSC experience. A central focus of this initiative is the transformation of Kornhauser Library and Commons. The library's ground floor will be reimagined to offer accessible dining options, flexible study spaces, and social gathering areas. These updates will provide a modern and engaging environment for students and the broader HSC community.

Renovations of the HSC core center around the HSC plaza. Renovations of the buildings that front onto the plaza should increase transparency on the ground floor all around the perimeter of this block and add front doors on Muhammad Ali Boulevard and Abraham Flexner Way.

Proposed Projects

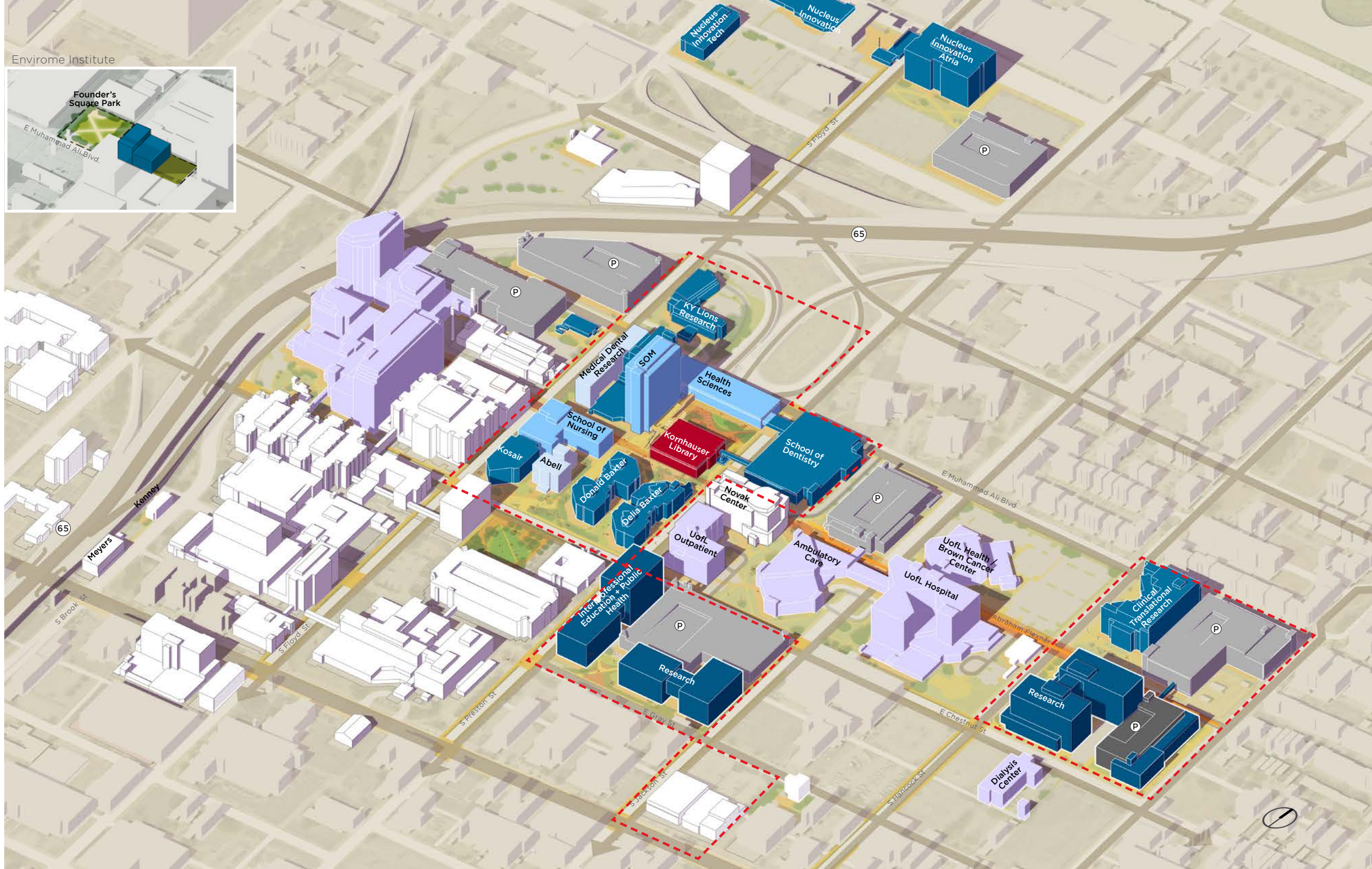
- ① New Interprofessional Education & Public Health buildings
- ② HSC Plaza Revitalization
- ③ Kornhauser Library and Commons Renovation to add campus life
- ④ New Research Hub
- ⑤ MDR & core renovations

2

CAMPUS USE FRAMEWORK

Predominantly academics and research, the Campus Use framework considers synergies and partnerships with Louisville Metro Health and Wellness, leverages adjacencies with existing research facilities, and strategically situates campus life functions at the nexus of connections from HSC to the Campus for Innovation and Entrepreneurship, Envirome Institute, and Belknap Campus.

- Existing Academic + Research
- Proposed Academic + Research
- Renovated Academic + Research
- Renovated Campus Life
- UofL Buildings
- Louisville Medical & Educational District

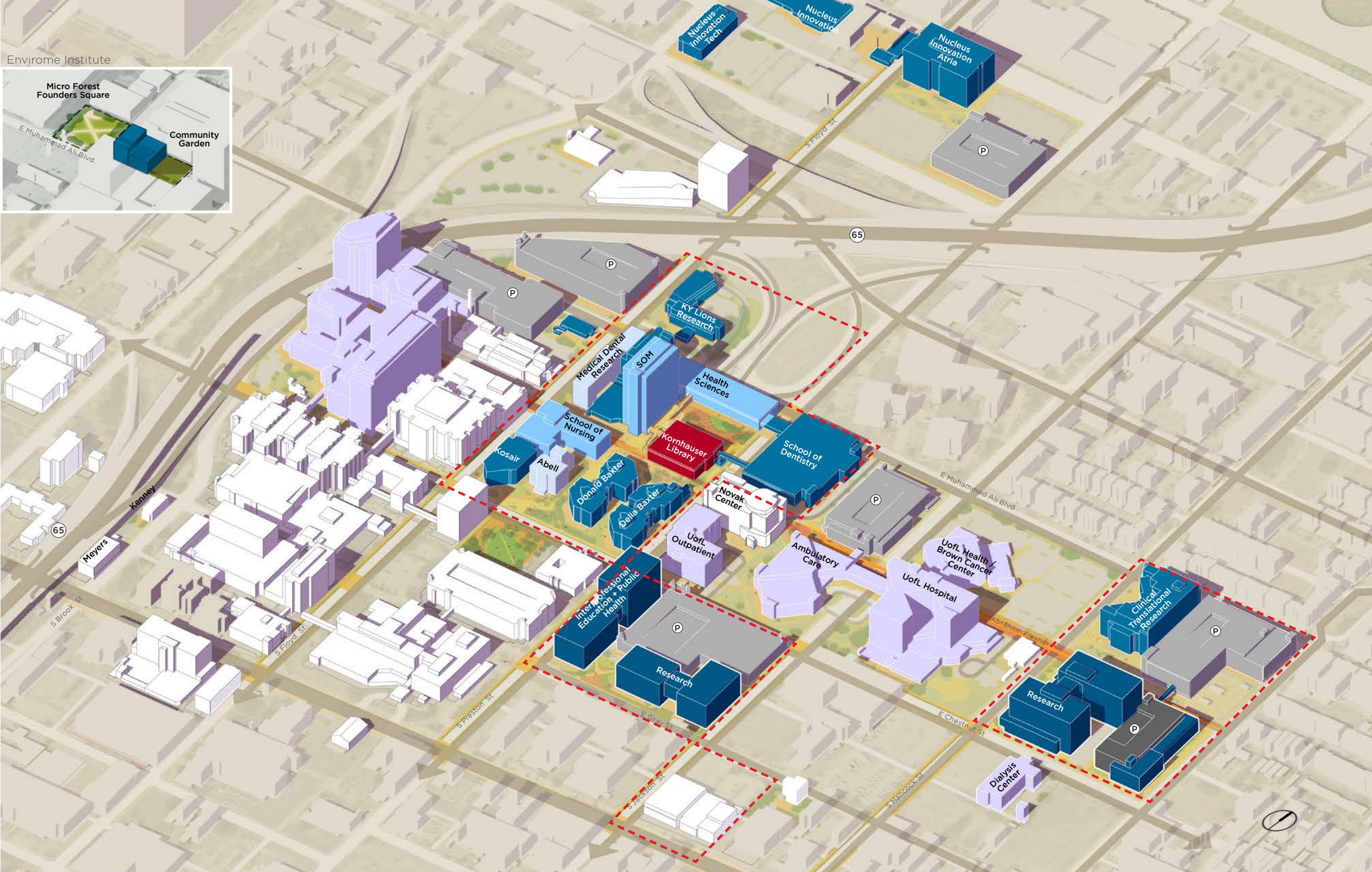


3

ACADEMIC & RESEARCH FRAMEWORK

The Academic & Research Framework maintains a concentrated academic core with the School of Public Health and Information Sciences relocated in a new building along Preston Street along with a new Interprofessional Education facility, proximate to the School of Nursing, School of Medicine, and School of Dentistry. Investment in a new research hub to the east anchors LOUMED. To the west, the Envirome Institute provides an anchor along Muhammad Ali Boulevard.

- Existing Academic + Research
- Proposed Academic + Research
- Renovate Academic + Research
- Renovate Campus Life
- UofL Buildings
- Louisville Medical & Educational District



INTERPROFESSIONAL EDUCATION & SCHOOL OF PUBLIC HEALTH & INFORMATION SCIENCES

The Interprofessional Education (IPE) Building and School of Public Health and Information Sciences (SPHIS) campus development encompasses two phases:

Phase 1: Interprofessional Education Building and School of Public Health and Information Sciences

In Phase 1, the plan calls for the construction of an Interprofessional Education (IPE) building located at the northwest corner of the designated block. Simultaneously, at the southwest corner, a new home for the School of Public Health and Information Sciences (SPHIS) is proposed. The IPE building will house essential facilities, including a new auditorium, which will replace the inaccessible one in the Kornhauser Library. Additionally, the building will include simulation labs, instructional space, dining/ cafe, and spaces dedicated to campus life activities. Adjoining the IPE building, space is designated for the new School of Public Health and Information Sciences (SPHIS), facilitating the expansion of research and academic functions. An innovative feature of this development is the incorporation of the Louisville Metro Public Health and Wellness Department in partnership with the city.

The ground floor of this block, being in an urban setting, is envisioned as an active, open, and welcoming space. The northwest corner, closest to the HSC core, will be particularly inviting. The building design will consider the surrounding context, with appropriate heights and massing that reflect the higher density of the area.

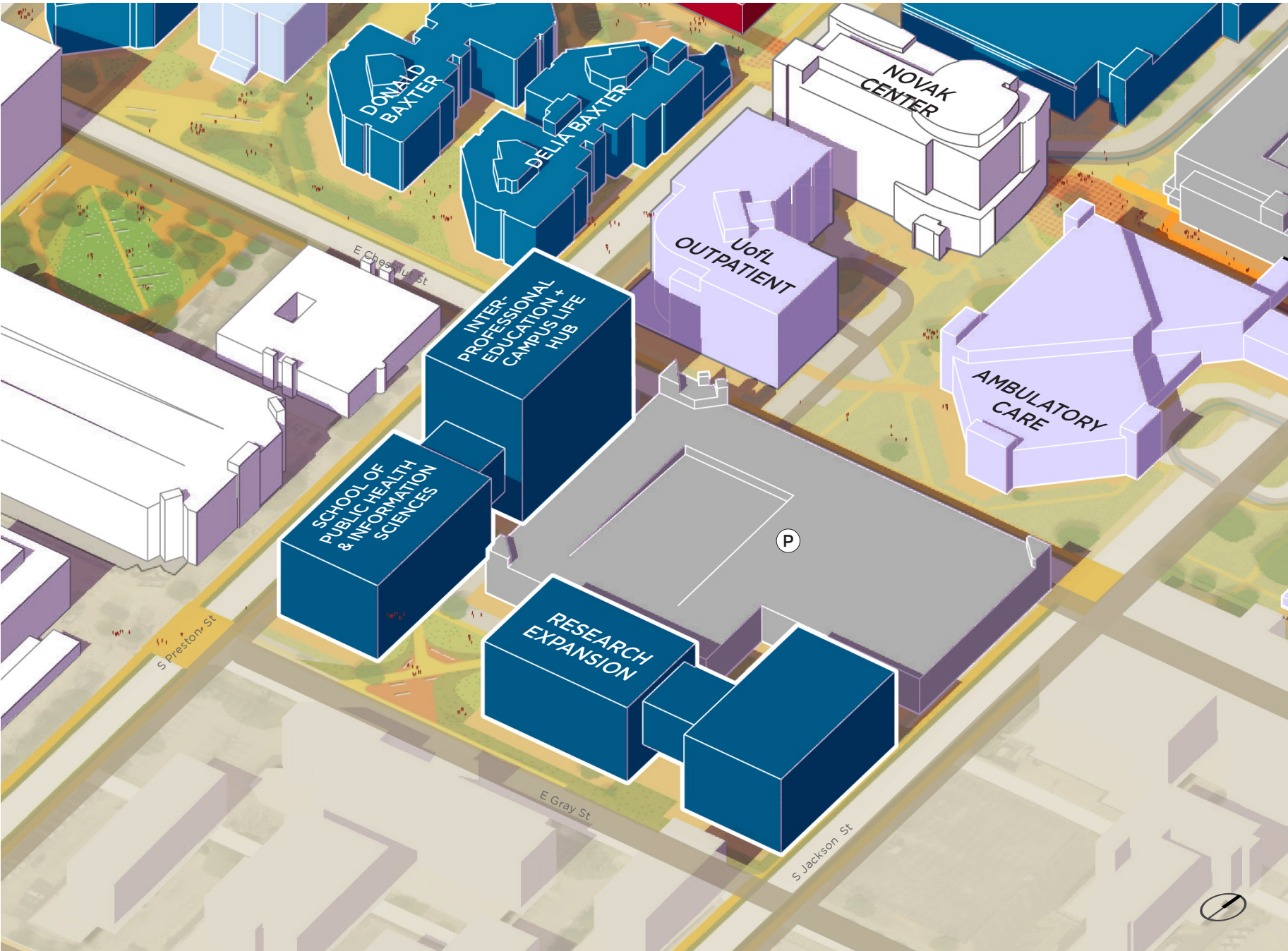
The proposed construction project takes advantage of the ideal location, including the demolition of the Kidney Diseases Program building. This strategic positioning allows for the creation of the first new construction project at HSC.

Phase 2: Future Research Expansion

In Phase 2, the development extends to the southeastern corner. This phase includes plans to replace the existing SPHIS building with research, which potentially would serve as an interdisciplinary and inter-campus hub for HSC and Belknap’s STEM research. Notably, between Phase 1 and Phase 2, a second entry/exit point for the parking garage will be constructed to enhance accessibility and traffic flow.

The development plan represents a strategic approach to creating modern, collaborative, and welcoming facilities for the HSC community. The strategic use of space and partnerships with the city demonstrate a commitment to excellence in healthcare education, research, and public health within an urban context.

- Existing Academic + Research
- Proposed Academic + Research
- Renovate Campus Life
- UofL Buildings
- Louisville Medical & Educational District

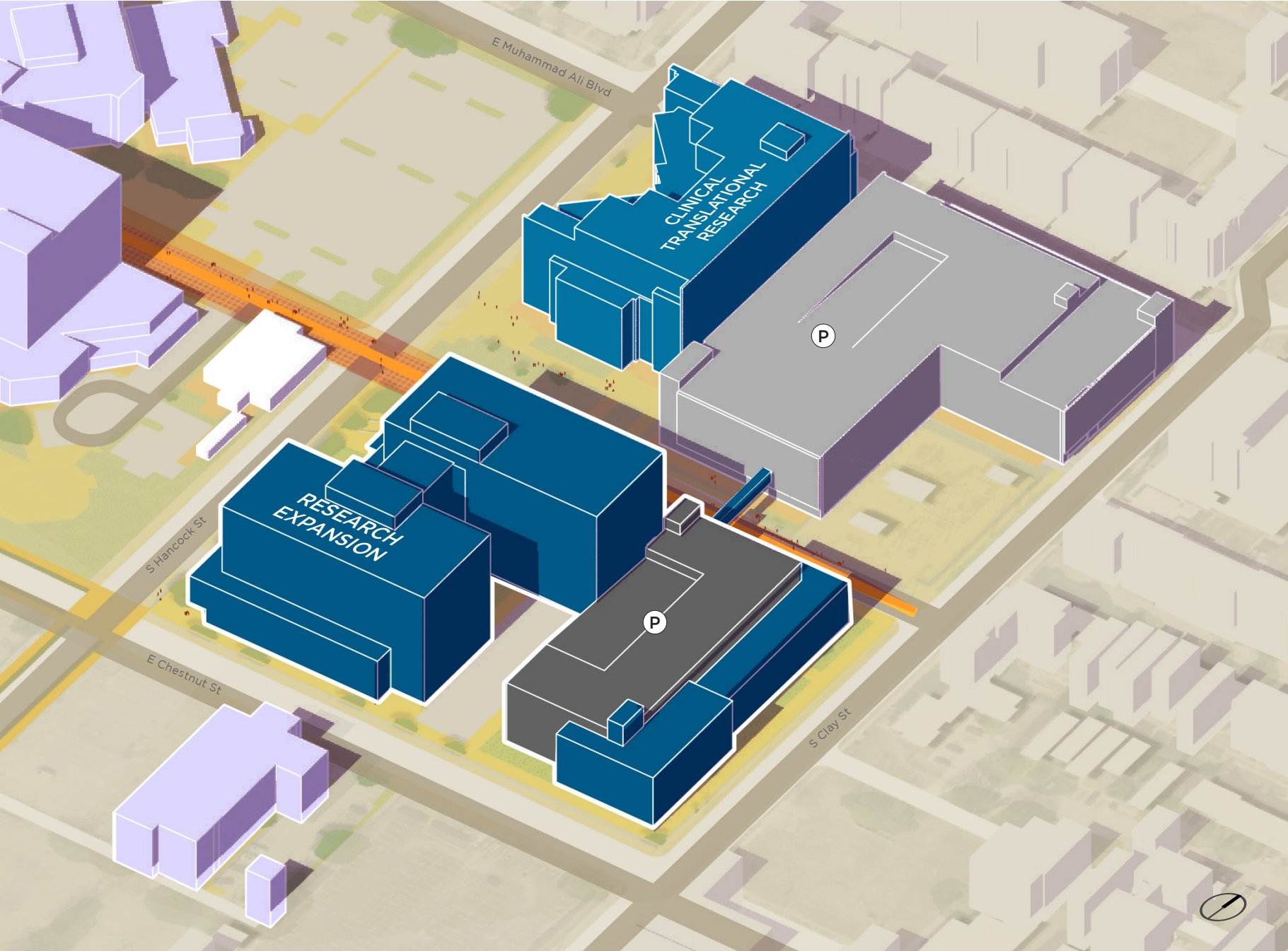


RESEARCH HUB

As the core buildings within the HSC campus, such as the Medical Dental Research building, become increasingly inadequate for modern research needs, there arises a pressing need for a cutting-edge research facility that mirrors the excellence of the Clinical and Translational Research (CTR) building. This new research hub will serve as a catalyst for innovation, enabling the migration of both wet and dry research facilities to the eastern side of the campus.

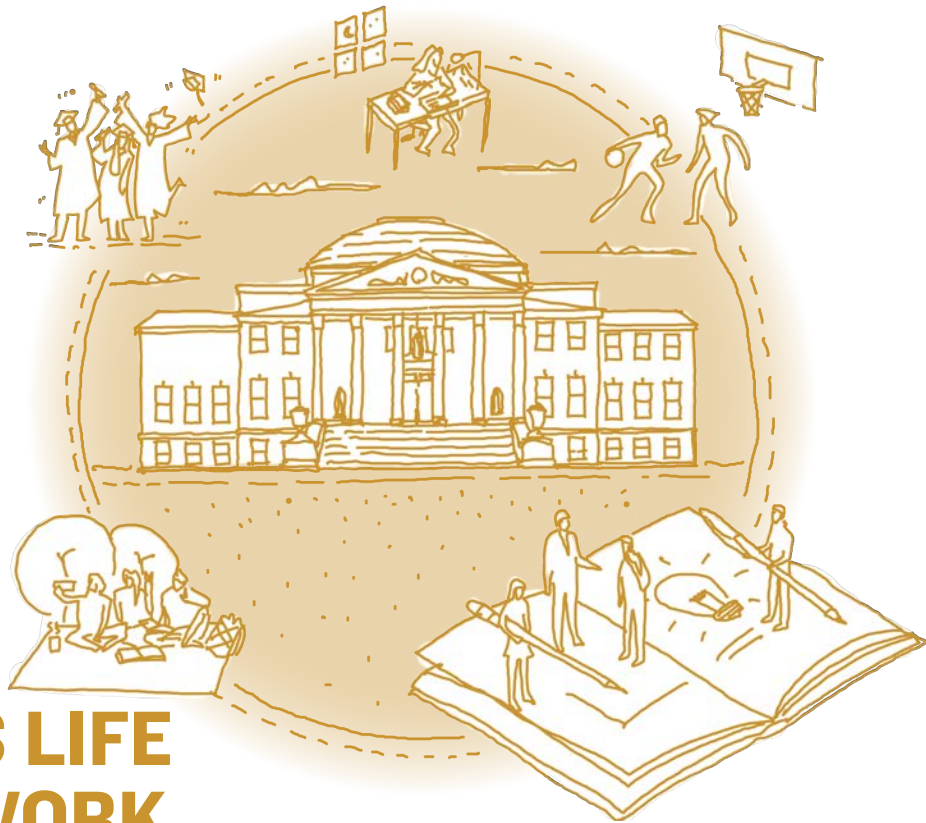
The proposed location for this research hub involves the replacement of the existing surface parking lot, thereby optimizing the use of this valuable space. In addition to research facilities, this development will incorporate essential elements such as parking structures, as well as additional dining and retail facilities, catering to the diverse needs of the HSC community.

- Existing Academic + Research
- Proposed Academic + Research
- Renovate Campus Life
- UofL Buildings
- Louisville Medical & Educational District



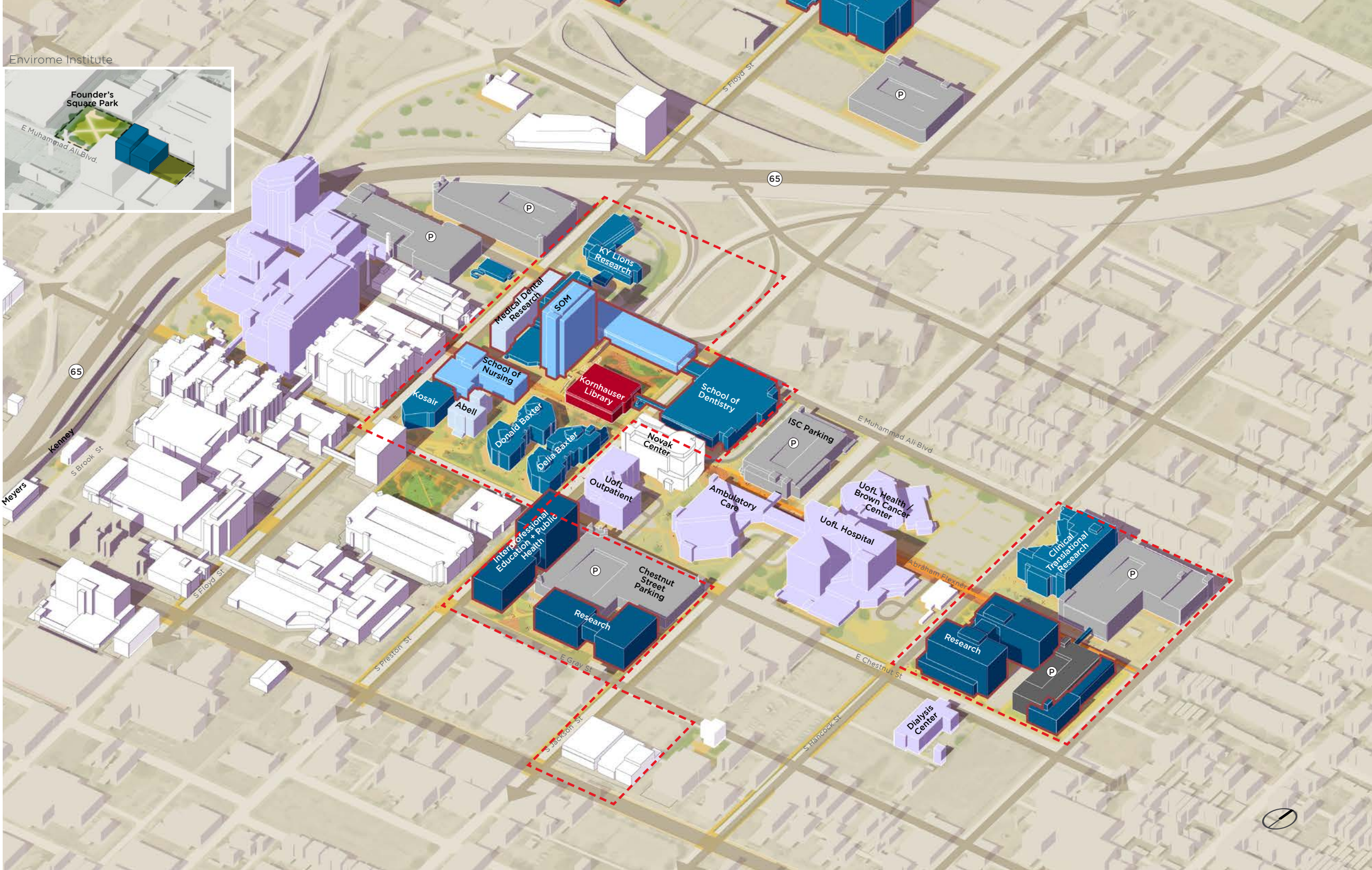
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CAMPUS LIFE FRAMEWORK



To meaningfully expand campus life amenities at HSC, this Campus Plan proposes extending campus life facilities across the HSC core block. Current campus life centers around the HSC Plaza and the Kornhauser Library and Commons. However, there is a lack of student and faculty services, Office of Institutional Equity spaces, and dining options. The central location of this block will allow it to serve the campus community at HSC.

- Existing Academic + Research
- Proposed Academic + Research
- Renovate Academic + Research
- Infused Campus Life
- Renovate Campus Life
- UofL Buildings
- Louisville Medical & Educational District



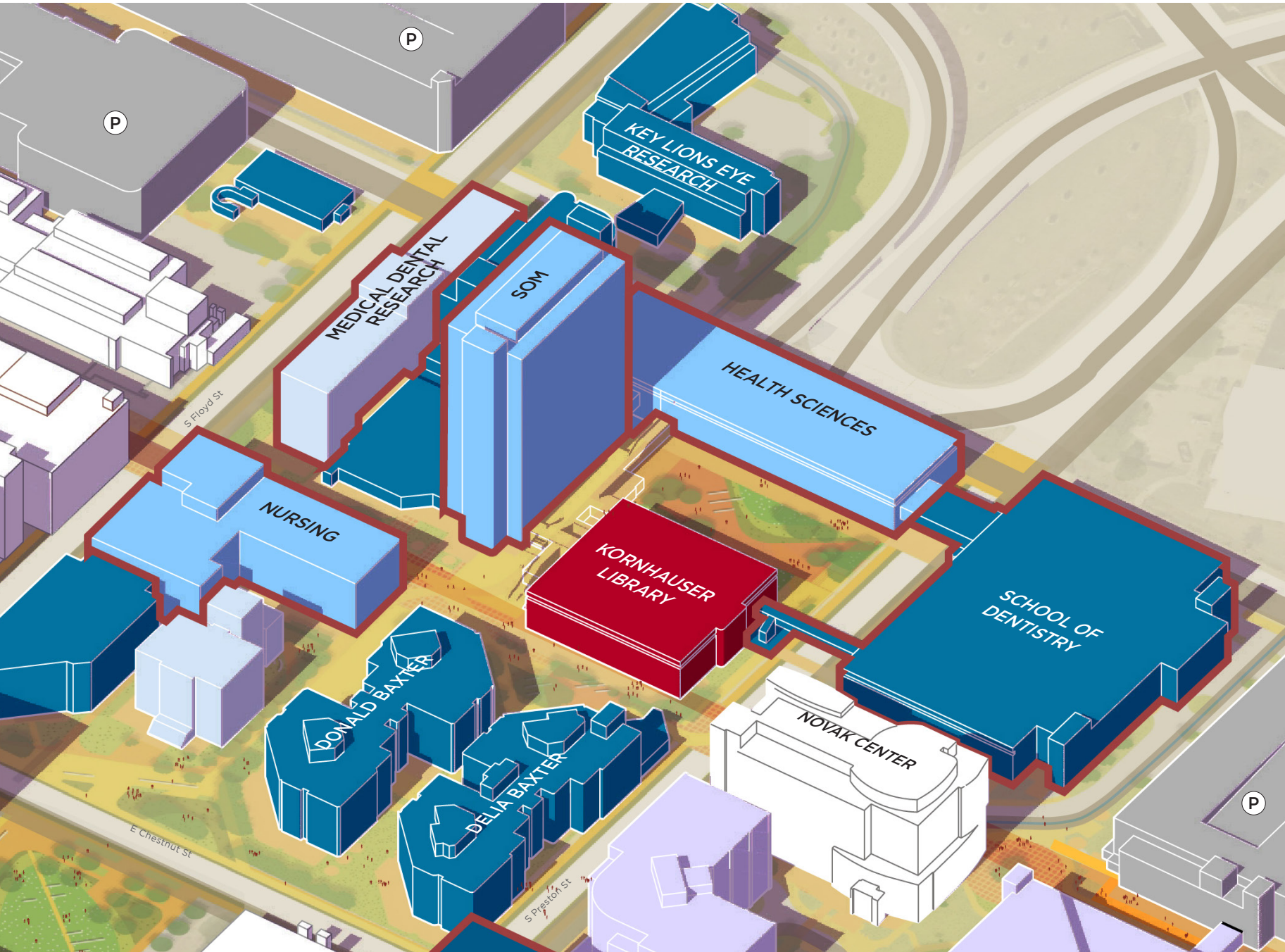
KORNHAUSER LIBRARY AND COMMONS

As a significant destination, Kornhauser Library and Commons is reimagined as a contemporary campus life hub. With the relocation of the auditorium to the new IPE building, the ground floor will be renovated to accommodate an accessible array of HSC services and campus life spaces. This renovation should include increased transparency on the south and north facades of the building to help activate the plaza, a large common open space that invites organic interdisciplinary interactions, wellness and recreation spaces, dining services, and student organizations. Especially with its adjacency to the HSC Plaza, this building is poised to become the campus life hub for all of HSC.

The renovation of Kornhauser Library and Commons is just one component of a broader strategy to enhance campus life at HSC. Phased renovations of other buildings within this block will prioritize the creation of spaces for student groups to meet, dine, and gather. The aim is to disperse campus life facilities throughout HSC, ensuring that they are readily accessible and available to serve the entire HSC community.

The proposed renovation of Kornhauser Library and Commons and the overarching vision for campus life improvements reflect a holistic approach to creating a vibrant, inclusive, and student-centric environment at HSC. These initiatives will contribute to the well-being and success of students, faculty, and staff, fostering a sense of community and belonging throughout the campus.

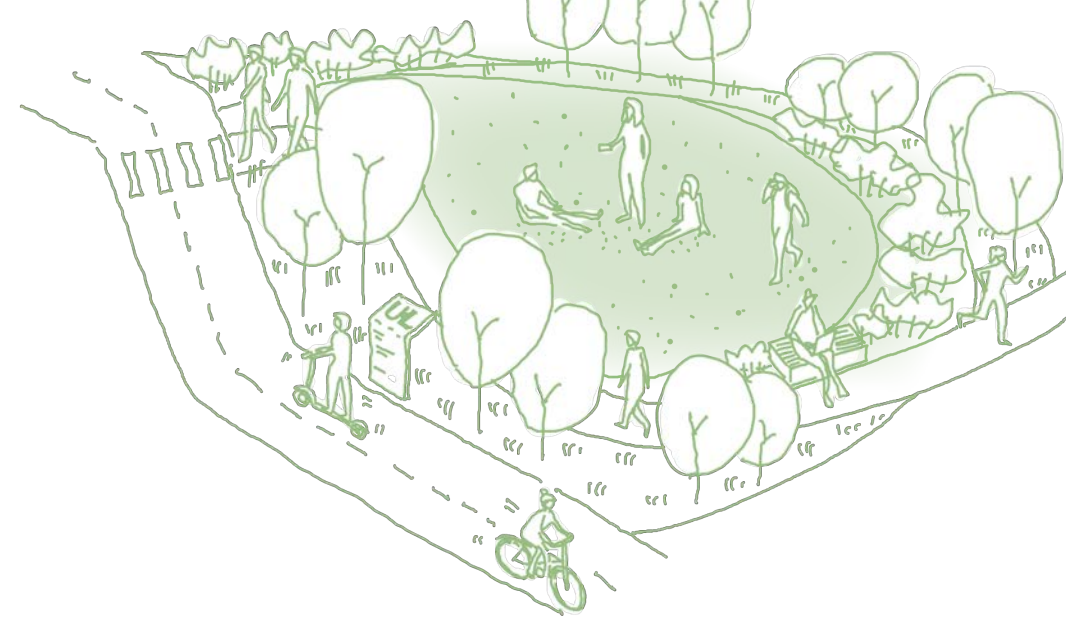
- Existing Academic + Research
- Proposed Academic + Research
- Renovate Academic + Research
- Infused Campus Life
- Renovate Campus Life
- UofL Buildings
- Louisville Medical & Educational District



5

LANDSCAPE FRAMEWORK

The public realm at HSC is inextricably linked with that of LOUMED, and as such, this Campus Plan proposes close collaboration with all institutions within LOUMED to create a cohesive, legible, safe, and comfortable landscape. HSC Plaza, the stretch of Abraham Flexner Way between Floyd and Preston, and the proposed Wellness Walk are within UofL's purview, and as such, the Campus Plan offers specific design recommendations for these areas.



HSC CAMPUS CORE

The public realm vision for the HSC campus is an ambitious one. Public realm proposals can be organized into four main moves: Central Plaza re-imagining, Abraham Flexner Way improvements, the Wellness Walk, and the Campus Court.

Central Plaza

With the Central Plaza being at a higher elevation than the ground floors and streets around it, there is a great opportunity to reconsider this space through fresh eyes, with contemporary design gestures and modern amenities. The Central Plaza should showcase a wide variety of keep design strategies.

- Weave pockets of green into the space. Groves of shade and understory trees, swaths of lawn and grasses.
- Create areas of fixed seating as transitional elements between planted spaces and hardscape areas.
- Provide zones of flexibility for a variety of uses. Movable tables and chairs, kiosks, and food carts.
- Create welcome mats by defining and celebrating connections; to the street and streetscape, between buildings, and to the north-south Wellness Walk
- Thoughtfully select pavement types to provide a clear hierarchy to circulation and intended function
- Integrate pedestrian scale lighting and signage; cues for wayfinding, enhancements for safety

Abraham Flexner Way

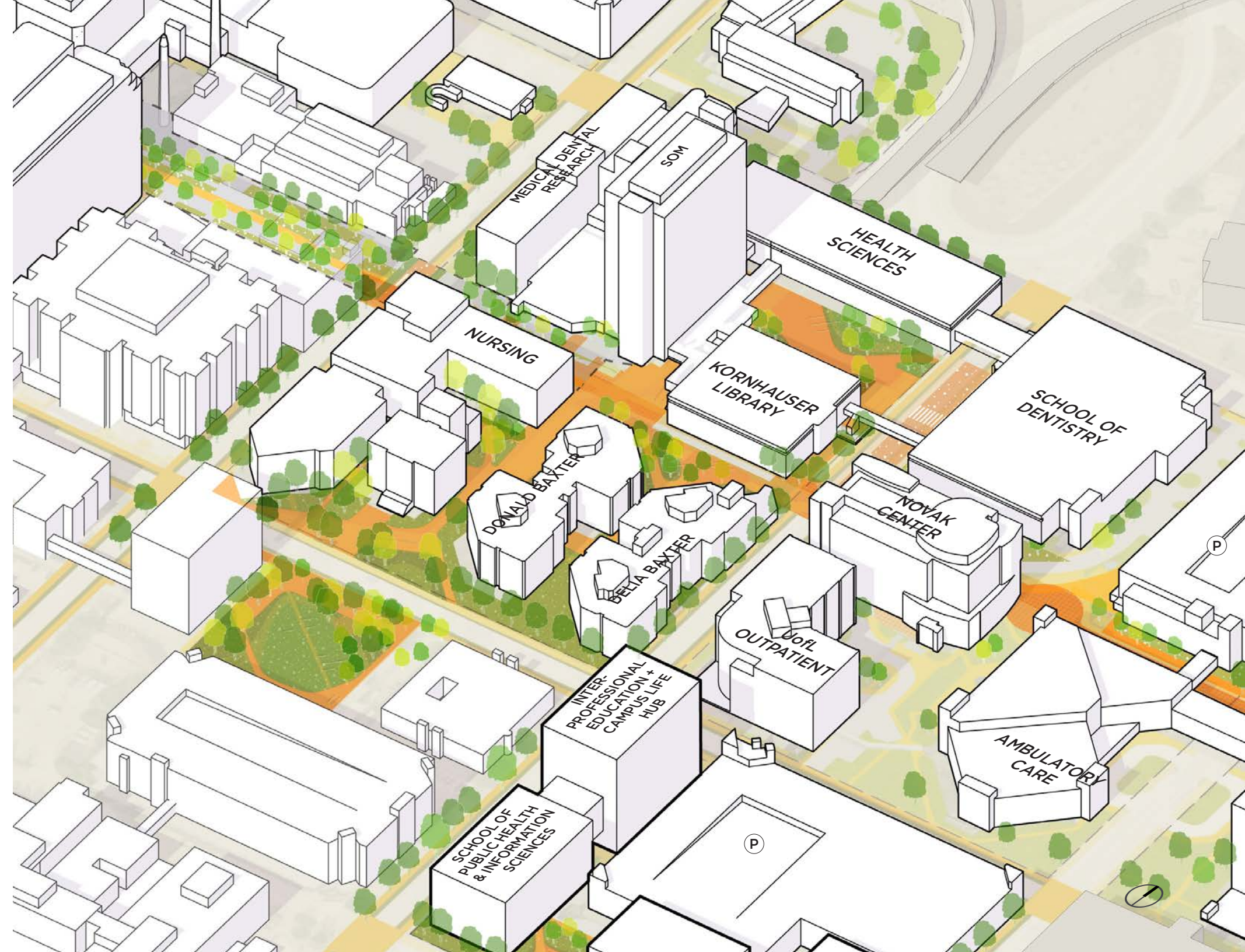
Abraham Flexner Way should be redesigned as a shared corridor. Without modifying space allocations to parking and loading areas, AFW can:

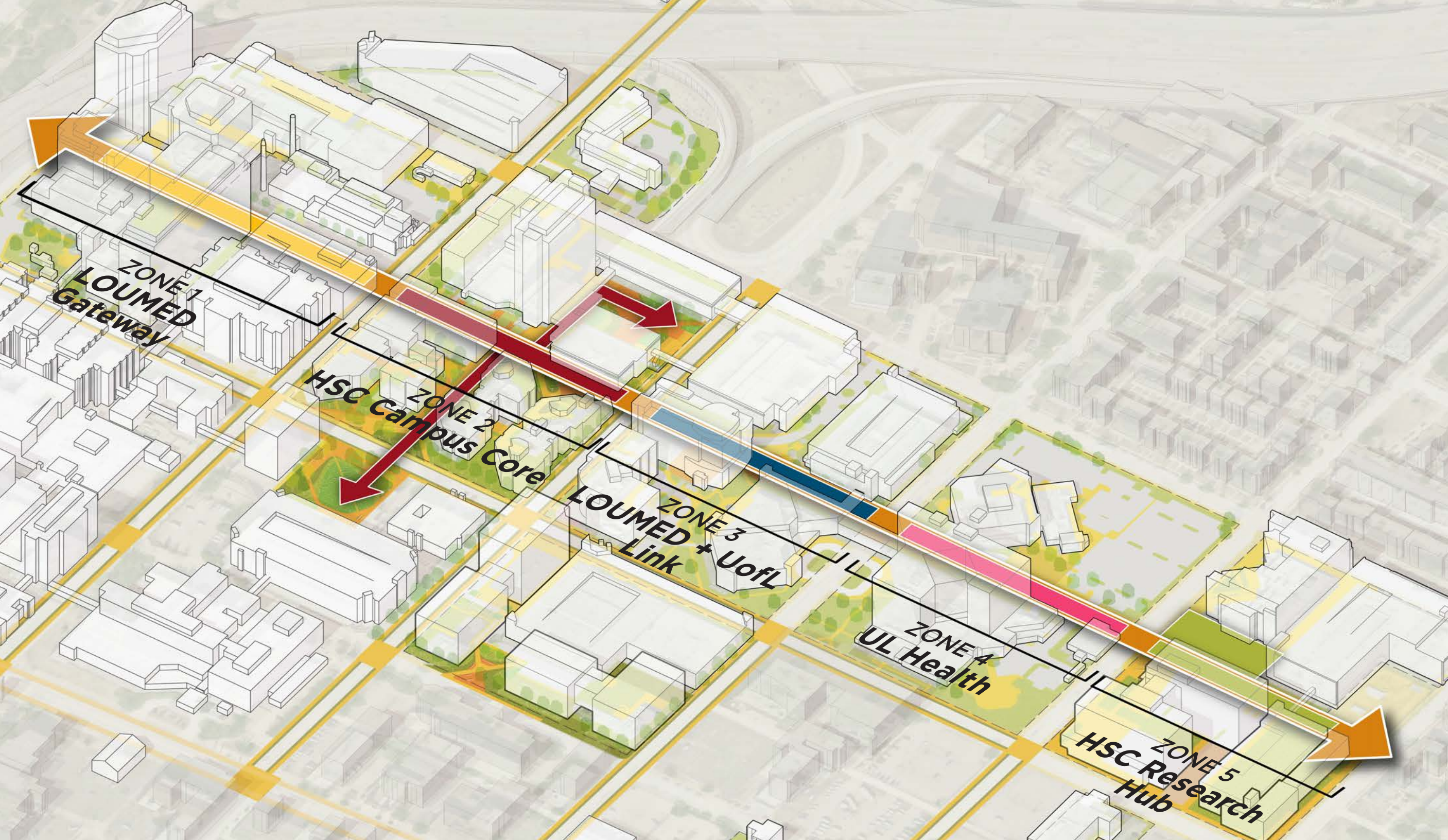
- Enhance and unify green spaces by introducing uniform stretches of groundcover, populated with small groves of understory trees for shade and visual interest

- Create more flush conditions between areas for cars and areas for pedestrians
- Echo the design language of the Central Plaza within the pedestrianized zone south of Kornhauser library. This will work to unify the spaces and establish a visual and programmatic dialogue that is recognizable as a heart of the public realm
- Thoughtfully select pavement types to provide clear hierarchy to circulation
- Explore integration of green infrastructure and permeable pavements
- Integrate pedestrian scale lighting and signage
- The Wellness Walk is an opportunity to establish a north-south circulation spine that connects E Chestnut Street and the future “LOUMED Park” with the Central Plaza and points beyond. The Wellness Walk should be designed to:
 - Act as a path and a place; a connection and a destination. This is achieved by increasing its width and providing variability in terms of plant material, seating, sight lines, lighting, and activities along its length
 - Feel like a stroll through nature; be the defined route off of which pocket healing gardens and areas of repose can be accessed
- Explore integration of green infrastructure and permeable pavements

Campus Court

The Campus Court is an opportunity to introduce habitable exterior space for study, social, green space to the HSC campus. It should have an intentional relationship with the LOUMED community around it, drawing people in and inviting them to stay. Enhanced street frontage of court area, accessible paths, seating, and layered plantings will coalesce as design gestures that promote a new and dynamic public realm.





ABRAHAM FLEXNER WAY

Abraham Flexner Way is the primary internal circulation for LOUMED and is used by both pedestrians and service vehicles. To look at Abraham Flexner Way holistically and acknowledge HSC's ability to influence design along the whole stretch of this corridor, this Campus Plan offers recommendations for the five identified zones. Overall, to unify this corridor, it is recommended to rename the whole stretch Abraham Flexner Way and create consistency in materials, plants, lighting, and furniture design. Additionally, limiting parking to one side will offer more space to pedestrians and bicyclists. How each of these zones should be treated differently is outlined below.

Planning and design in Zone 1 should be focused on signage and wayfinding to enhance the entryways and exits into this area of LOUMED.

Zone 2 is the priority zone in the Campus Plan because of the ownership and control HSC has in this segment. Vehicles with accessibility needs and service functions can continue to enter and exit from Floyd Street on the west, but the length of the block should be curbless, built with pavers, and populated with hardy, shade-loving, native plants. These design recommendations will signal a pedestrian-first experience, akin to MIT's North Corridor. Additionally, renovations of Kornhauser should include transparent facades along the southeast, south, and southwest corners

to create visual interest and bridge the indoor and outdoor environments. The loading zones and accessible parking spots should be maintained in this zone.

Intersections on either side of Zone 2 should be campus-oriented with curb extensions to reduce the vehicular right-of-way and markings for pedestrian and bike crossings.

A cul-de-sac currently interrupts Zone 3, which strategically serves to restrict through-traffic along Abraham Flexner Way. However, the current design also interrupts the linear pedestrian route and should be redesigned to allow continuity of the pedestrian path over the planted circle.

Zone 4 creates a pinch-point in circulation due to the placement of the Brown Cancer Center and University of Louisville Hospital buildings. The eastern half of this zone would benefit from a double-wide sidewalk, increasing the space allotted for pedestrians and bicycles.

Zone 5 is the second highest priority zone for this Campus Plan because the sites to the north and south here are owned by UofL, allowing more influence over the design. As the eastern end of LOUMED, this zone has the potential to transform as an anchor for LOUMED as well as for the residential community around it. Extending the grass lawn south of CTR into the Abraham Flexner right-of-way using materials such as pavers would create a plaza where food trucks and community events can contribute to an identity for HSC and a community building bridge. Cortex Innovation Community plaza is an example of how Zone 5 could become a new anchor for the Abraham Flexner Way spine.

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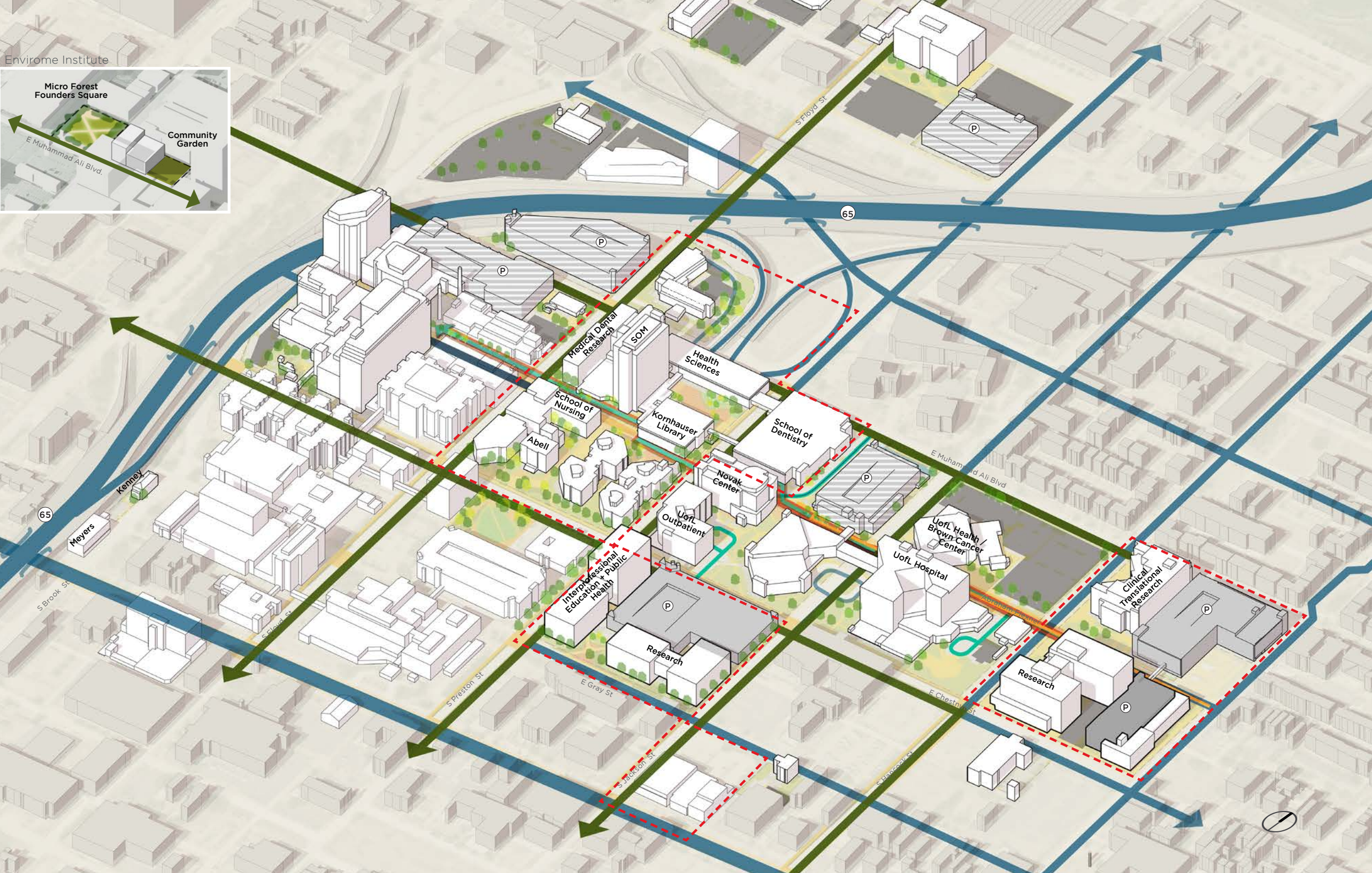
MOBILITY FRAMEWORK

The Mobility Framework proposes a strategy for providing improved pedestrian connectivity, transit, and parking, and integrating a legible wayfinding and signage system. While the street grid through LOUMED is an asset to HSC and its connectivity to its surroundings, there is opportunity to design paths for pedestrians and for micromobility. To the degree possible, this Campus Plan recommends coordinating with the City of Louisville to implement Complete Streets principles on all the streets running through LOUMED.

As described in the Landscape Framework, recommendations for Abraham Flexner Way, which is the primary internal circulation at HSC, encourage parking be allocated to one side of the corridor and the public realm design be improved to increase safety for this shared service and pedestrian corridor.

HSC is poised to become a central location among UofL's campuses and as such, should offer enhanced connections for alternate modes of transportation to the Campus for Innovation and Entrepreneurship, Envirome Institute, and Belknap Campus.

- Shared Ped/Bike
- Dedicated Bike Lane
- Vehicle-Dominated
- Complete Street
- Existing Parking Garage
- Proposed Parking Garage
- Surface Parking
- Major Gateway for All Modes
- Major Pedestrian Gateway
- Bike Corrals



Connectivity to Campus for Innovation and Entrepreneurship and Envirome Institute

The less than half-mile proximity to the Campus for Innovation and Entrepreneurship and the Envirome Institute should encourage walking or biking to and from HSC. However, due to the challenging pedestrian environment along Muhammad Ali Boulevard and Floyd Street, the HSC community frequently opts to drive. In collaboration with the City of Louisville, these two streets can be enhanced with the city's Complete Street design tools, such as Universal Design sidewalks, pedestrian lighting, street trees, bicycle parking, bus shelters, and more.

A particular focus should be placed on areas where these streets pass under Highway 65, as these underpasses can often feel unwelcoming. Improving the pedestrian experience at these locations can be achieved through the integration of public art, bright and welcoming lighting, and regular cleaning to maintain a pleasant atmosphere.

Connectivity to Belknap

While Floyd Street and Brook Street offer a direct connection between HSC and Belknap, there are gaps in these corridors that do not ideally serve alternate modes of transportation.

TARC bus routes are adequately designed to provide access from both the east and west sides of Belknap Campus to the HSC. The primary problem with inter-campus transit is the infrequency of service. The

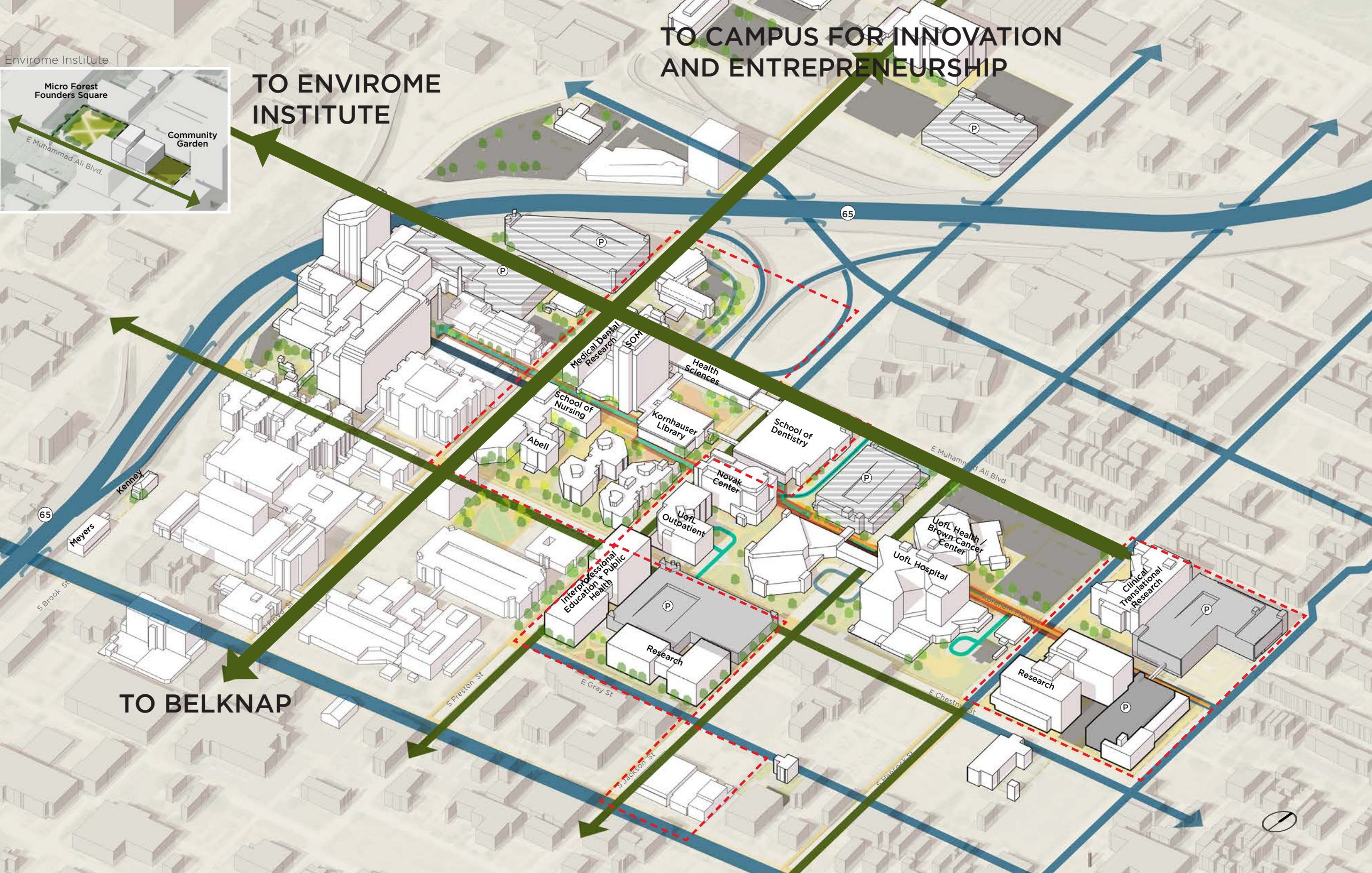
University should work with TARC to secure adequate headways – ideally no more than 20 minutes for Routes 2 and 18.

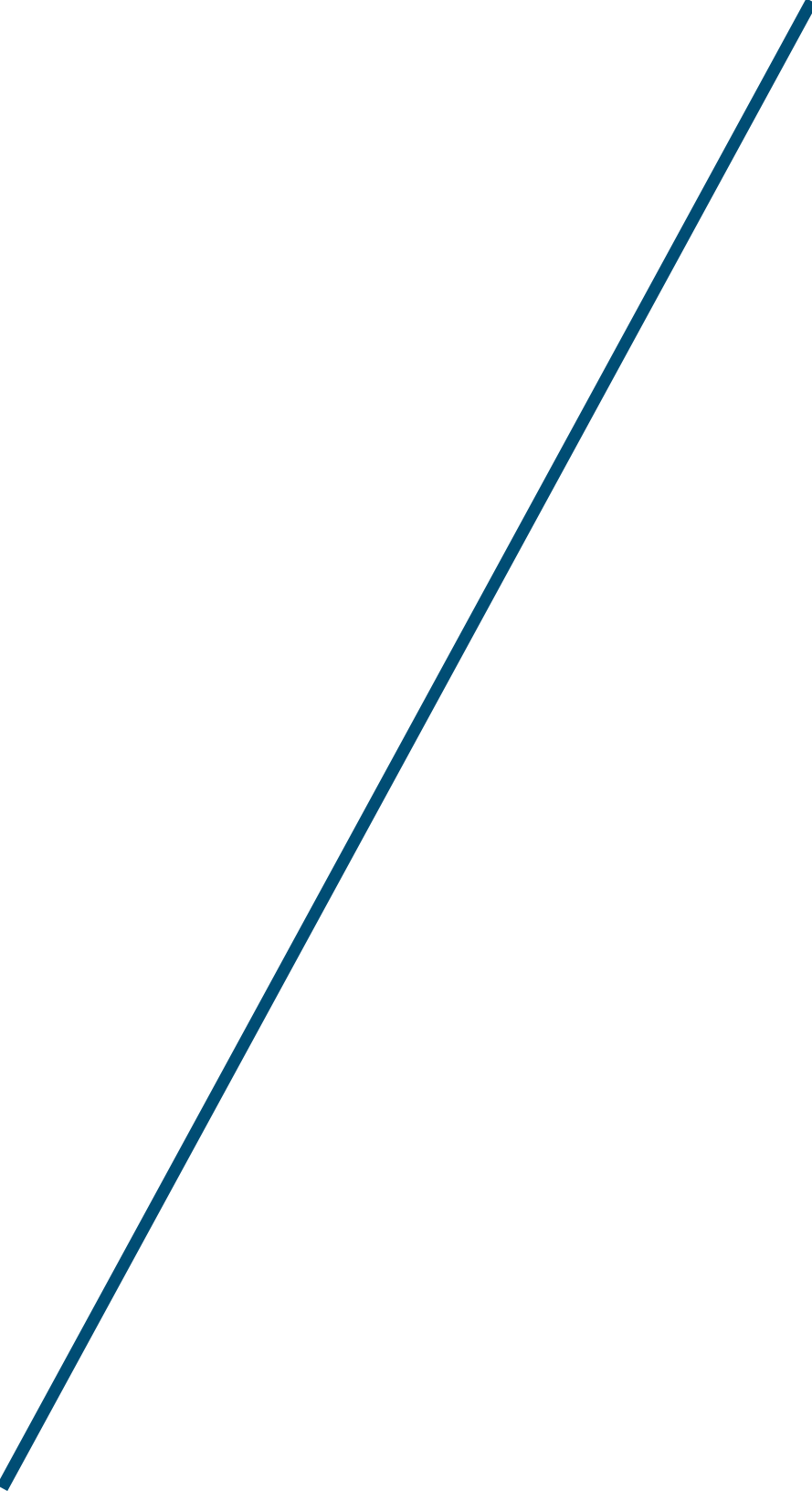
Bicycle lanes currently run along First Street (southbound) and Brook Street (northbound), almost connecting the Belknap and HSC campuses. The missing links can be provided relatively easily utilizing complete street principles, such as lane narrowing and/or the removal of parking from one side of the street:

- On First and Brook Streets, between and Magnolia Avenue and Woodbine Street
- On College Street between First Street and Floyd Street
- On Floyd Street between College Street and the HSC

In any case, maintenance of the roadway surface and its markings is paramount. As the Complete Streets Design Manual states, bike lanes must be swept to keep them free of road debris. Many streets, including those on the edges of Belknap Campus, have bike lane markings that are nearly invisible from age. Most important, the quality of the paved surface is the main determinant of the ease and attractiveness of urban bicycle facilities. Commitment to maintenance, both immediate and long-term, is a key to a bicycle-friendly city.

- Shared Ped/Bike
- Service Roads
- Vehicle-Dominated
- Complete Street
- Existing Parking Garage
- Proposed Parking Garage
- Surface Parking





FOCUS AREAS

FOCUS AREAS

The Campus Plan identifies several Focus Areas within the HSC campus, each characterized by its unique attributes and potential for transformation. These Focus Areas serve as key zones for reimagining and integrating buildings, landscapes, open spaces, and mobility improvements to enhance the overall campus environment. While the plan covers specific areas, it's important to note that these are not exhaustive, and other parts of the campus may undergo transformation as well. The Focus Areas outlined in the plan include:

- 1 INTERPROFESSIONAL EDUCATION & PUBLIC HEALTH
- 2 RESEARCH HUB
- 3 HSC CAMPUS CORE



INTERPROFESSIONAL EDUCATION AND PUBLIC HEALTH

Vision

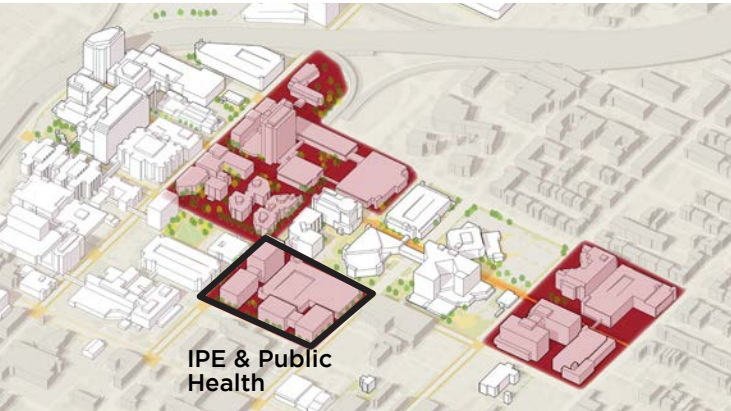
The proposed vision for the block between Chestnut Street and Gray Street and Preston Street and Jackson Street is to create a new academic anchor with a new facility for the School of Public Health and Information Sciences, a new Interprofessional Education building for shared simulation labs, campus life, and event space, and a future research facility. The new development would contribute to the HSC identity within the LOUMED district.

Proposed Development

Phase 1 consists of the new Interprofessional Education (IPE) building and a new School of Public Health and Information Sciences (SPHIS) building. The IPE building proposed on the northwest corner of the block would be designed with a grand and inviting entrance, offer dining and campus life spaces on the ground floor, and absorb the auditorium from Kornhauser Library and Commons. The upper floors would be a combination of simulation labs, classrooms, research offices, and campus life spaces.

The southwest corner of this block would become a new home to the SPHIS as well as potentially the Louisville Metro Public Health and Wellness Department, permitting the demolition of the current SPHIS to make room for a new 21st Century research facility.

Phase 2 proposes a new research space which will in turn allow the decanting of research spaces from the Medical-Dental Research (MDR) building which is in dire need of renovation and downcycling to offices and campus life spaces.

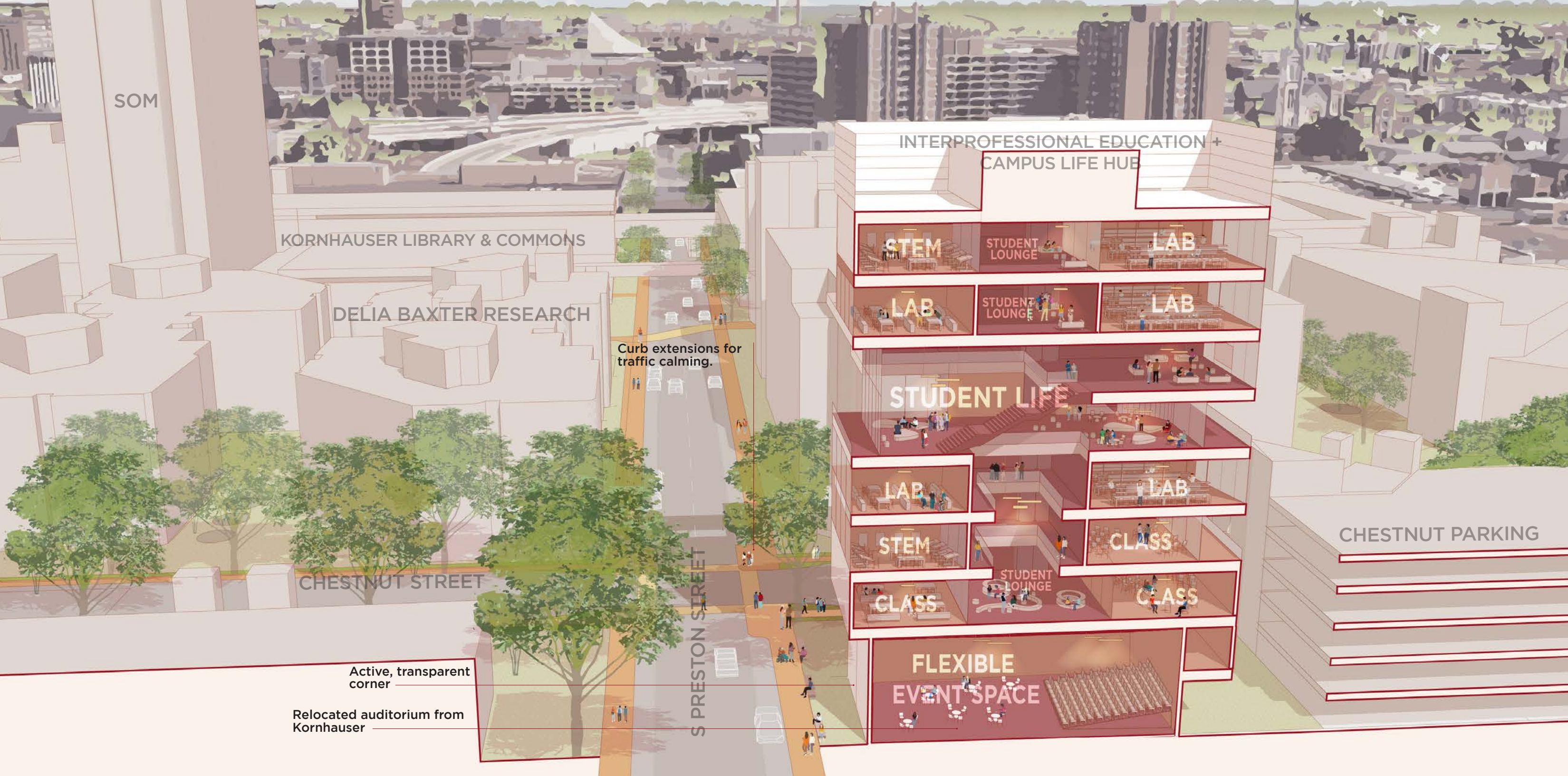


Public Realm

Close to the geographic center of HSC campus, this block is an opportunity to showcase a “living edge” along Gray, Preston, and Jackson Streets. This is an opportunity to establish a consistent landscape language through street trees, a green buffer adjacent to sidewalks, seating nooks, mid-block crossing, and pocket wellness gardens.

Mobility

This block is bounded by Preston, Gray, Jackson, and Chestnut Streets, all of which are primarily vehicular streets. To make the area more welcoming and comfortable for pedestrians, and more bicycle-friendly, the city should fully implement its Complete Streets guidelines with regard to plantings, furniture and bike lanes. On its side, UofL can complement such measures by making front doors visible and welcoming, by offering protected bike parking and providing directions to nearby TARC bus stops.



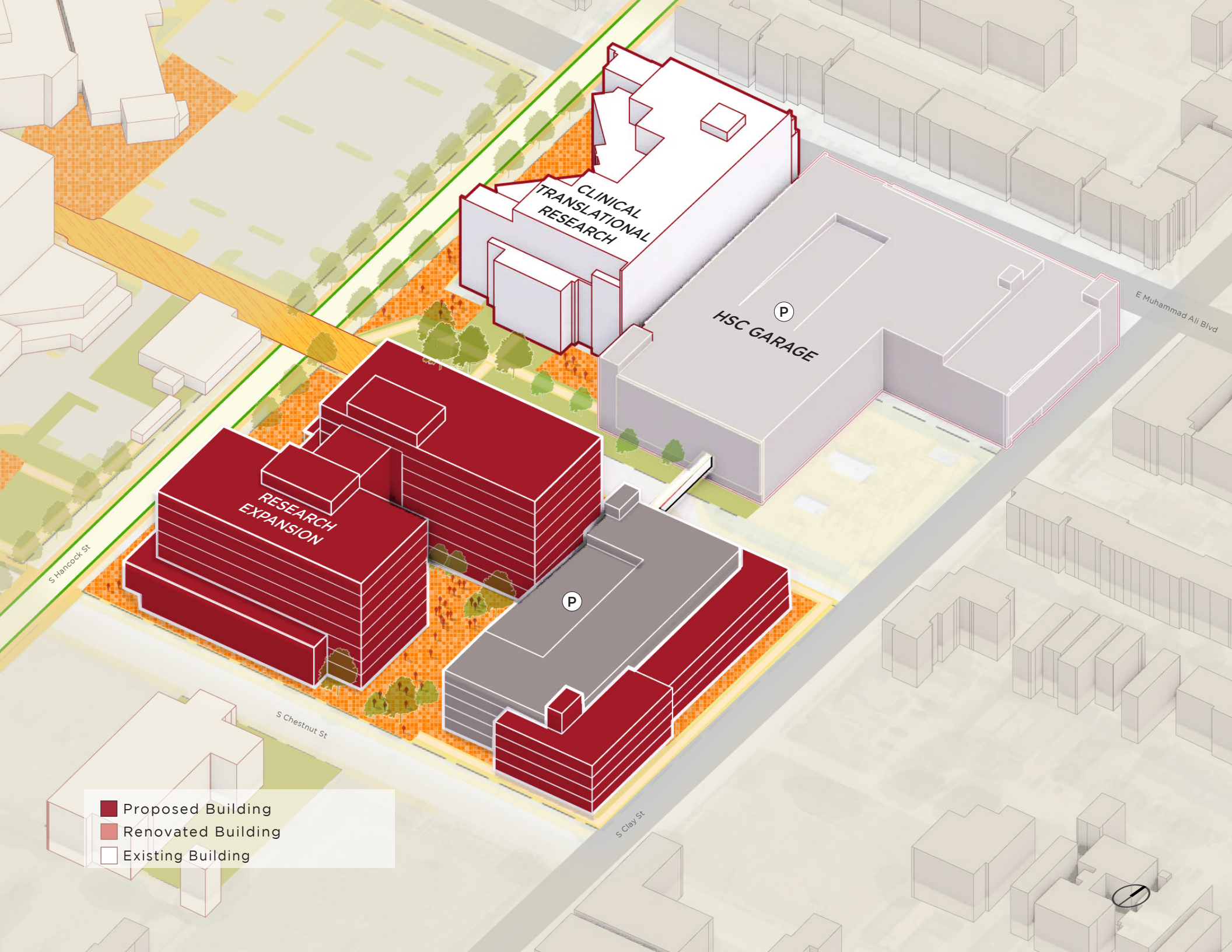
RESEARCH HUB

Vision

A new research facility, complete with additional parking wrapped with ground-floor retail uses, will achieve UofL’s strategic goal for research expansion at HSC. As the eastern bookend of Abraham Flexner Way, this area is envisioned as a hub of activity and state-of-the-art research and vivarium facilities.

Proposed Development

A new multistoried research facility that mirrors the Clinical Translational Research (CTR) building will act as an extension of wet and dry research facilities for HSC. This will not only address the need for increased research capacity, as identified in the Strategic Plan, it will also allow a consolidation of specialized research facilities and unlock the HSC Campus Core for campus life renovations.



Public Realm

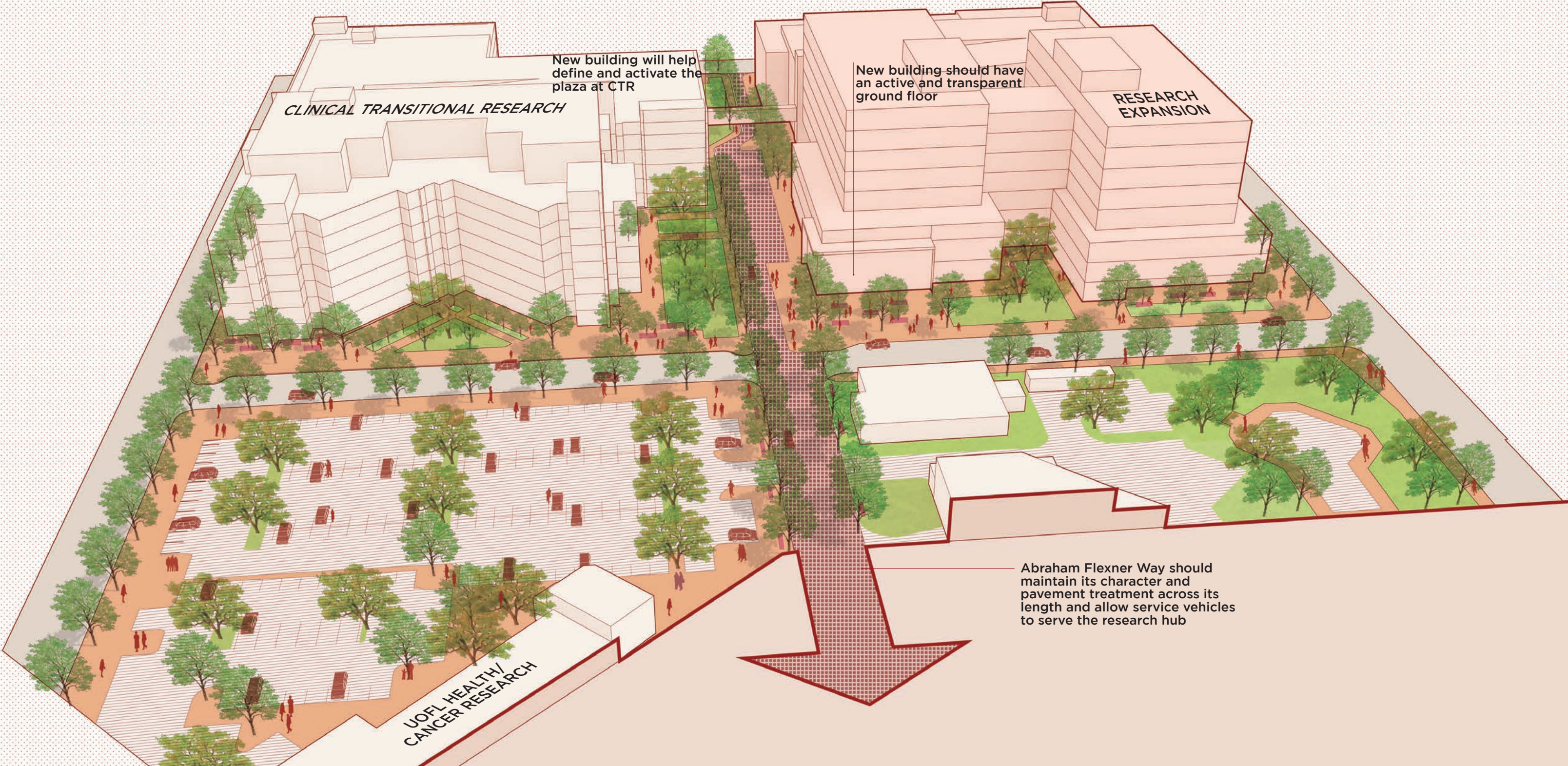
The public realm vision for the Research Hub introduces landscape features and appropriately scaled urban spaces.

The bookend plaza, at the western edge of the Hub is an opportunity to present a public realm anchor to Abraham Flexner spine, a beautiful introduction to the new buildings and programs of the Hub and provide much-needed outdoor amenities to the greater campus. This is intended to serve as an outdoor destination for the Hub, equipped with seating and shade.

The design of the eastern face of the parking garage should be inviting and aesthetically pleasing, creating a positive interface with the residential neighborhood located to the east of LOUMED. This approach enhances the campus’s connection with the surrounding community, fostering a sense of integration and shared public realm benefits.

Mobility

The addition of nearly 400,000 square feet of research space in this area calls for a new parking garage with over 450 spaces. Entry and exit to this garage are recommended along Chestnut Street to allow Abraham Flexner Way to reduce daily vehicle traffic. Pedestrian access from the adjacent community should be facilitated from all directions to the proposed plaza between CTR and the new research hub.



HSC CAMPUS CORE

Vision

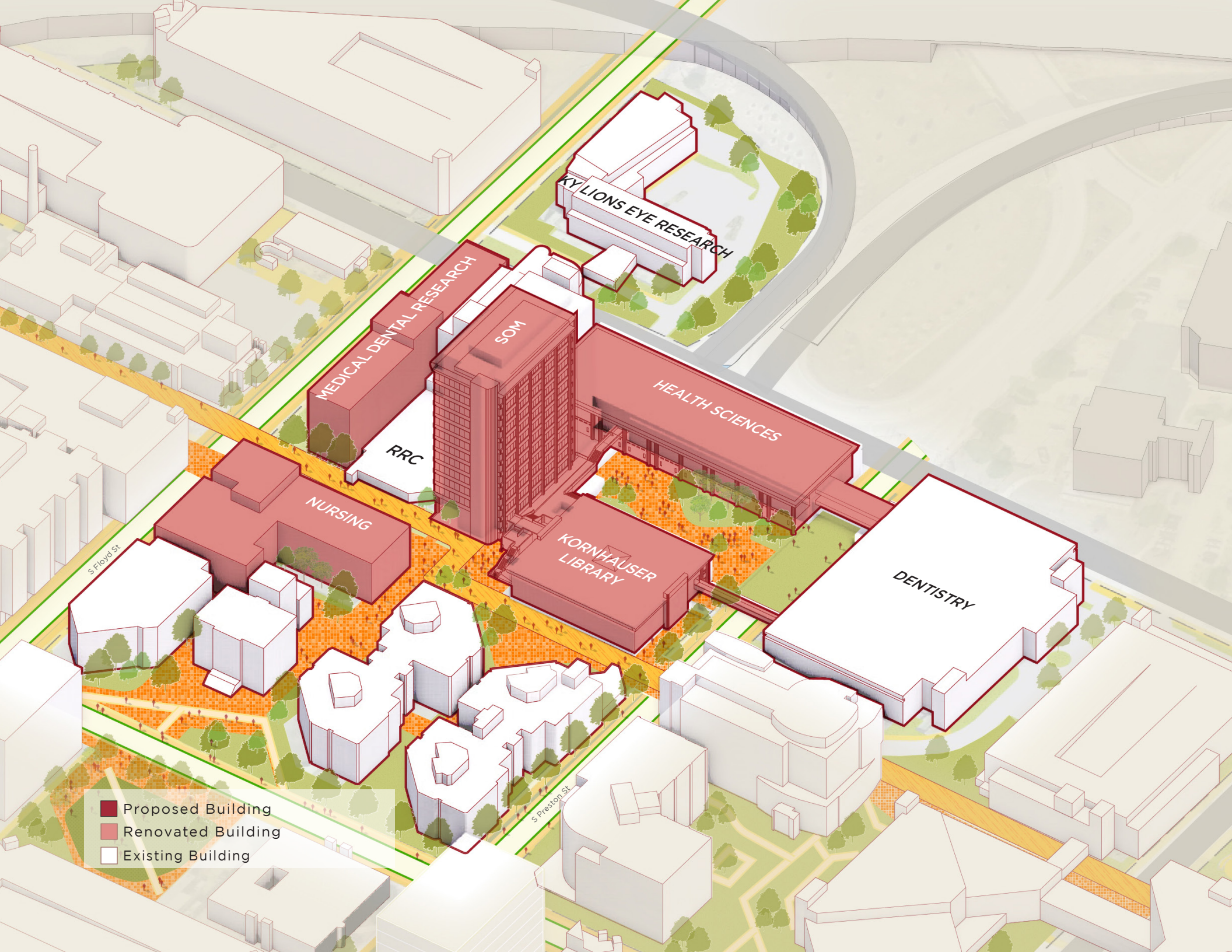
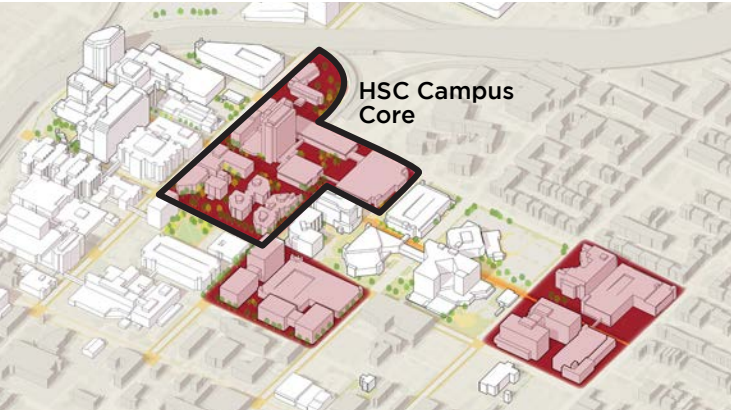
The HSC core block is envisioned as a more welcoming, activated, and transparent area offering more student services, social space, meeting rooms, and informal gathering spaces for the HSC community.

Proposed Development

The HSC Campus will strategically phase renovations to improve the quality of the learning, research, and campus life experience within the modernist buildings that make up the HSC campus core.

The highest area of impact will be a major renovation for Kornhauser Library and Commons, the adjacent stretch of Abraham Flexner Way, and the HSC Plaza. The proposed design for this building opens up the ground floor to both sides, the HSC Plaza and Abraham Flexner way, inviting the campus community into a large open space for socializing and dining. Dining services positioned on the eastern edge make it open to access from Preston Street as well. The overall experience of Kornhauser, particularly on the ground floor, should become a major hub of gathering, studying, and dining.

As the Public Health and Research Hub facilities develop, research programs can be decanted from the HSC core into the proposed facilities and make room for more major renovations in the core. Renovations within core buildings are recommended for an infusion of campus life amenities such as meeting rooms, study areas, socialization spaces, and dining services throughout the core buildings.



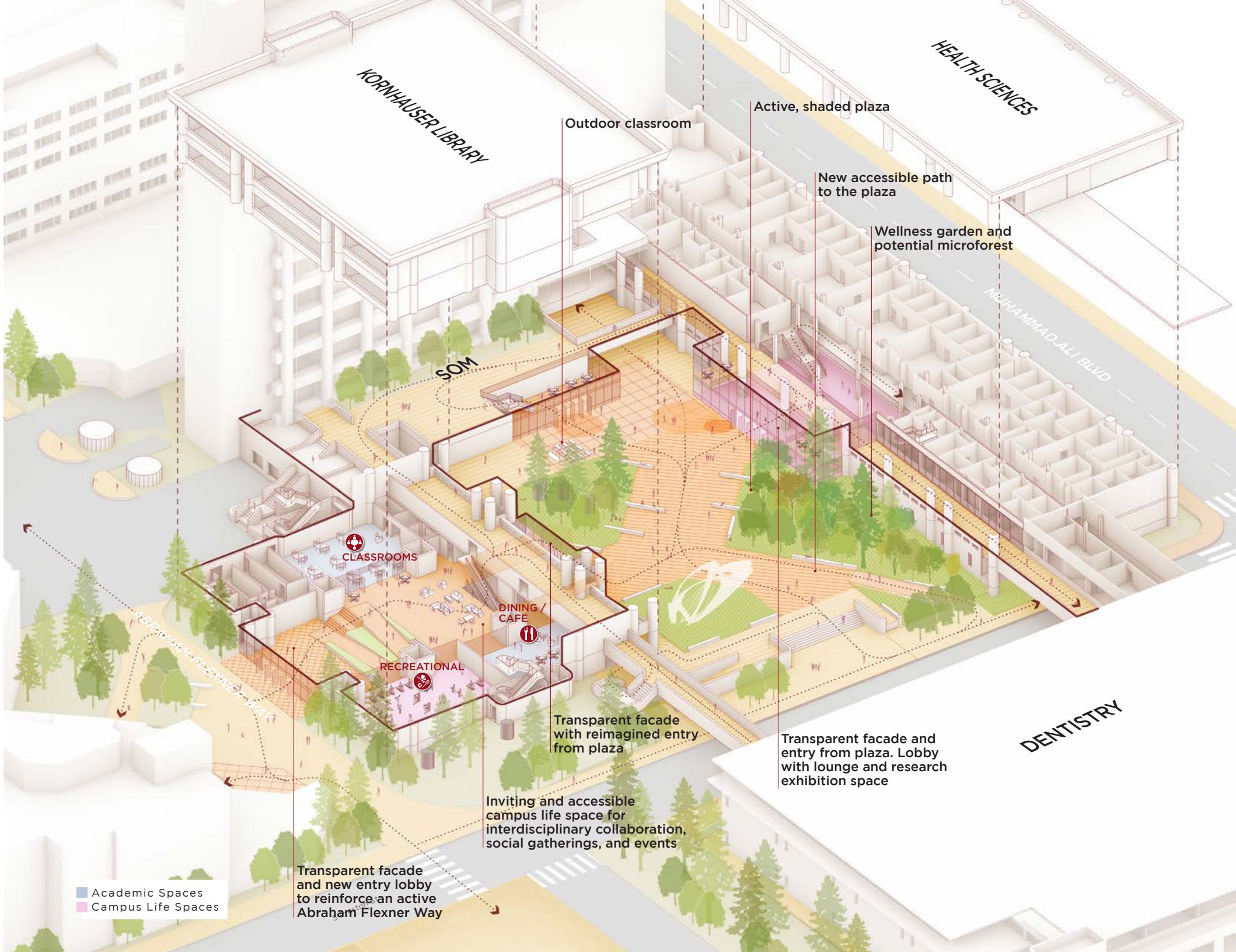
Public Realm

The Central Plaza has the potential to be the campus heart for HSC with pockets of green space, areas for fixed seating, pedestrian scale lighting and signage, and transparent ground floors to enhance connections to buildings around the plaza.

The campus core should have welcoming front doors on all sides, while maintaining Abraham Flexner Way as a shared pedestrian and service corridor.

Mobility

Enhanced pedestrian and bicycle infrastructure along Floyd Street and Muhammad Ali Boulevard would strengthen connections to Envirome Institute and the Campus for Innovation and Entrepreneurship, and completing the bicycle infrastructure gaps along Floyd Street will improve the connection to Belknap Campus.





WAYFINDING & SIGNAGE

INTRODUCTION

The University of Louisville wayfinding and signage program is a component of University of Louisville Campus Master Plan. As such, it serves to acknowledge the substantial impact signs have on the campus landscape and the ability of visitors to navigate the Belkanp and HSC campus environments successfully. Disorganized and inconsistent signs can detract from a campus environment, leading to the complaint of “sign clutter” on campus while risking campus visitors’ confusion. In the absence of a formally documented sign program, inconsistency of execution over time can cause campus signs to evolve to this state despite the best efforts of those who maintain (or more appropriately, contain) them.

The program summarized in this set of guidelines sets out to formalize a family of signs to enhance the campus environment and improve wayfinding. Beyond a collection of sign designs, these guidelines, as a component of the Master Plan, serves as a definitive sign policy for the University of Louisville. The sign design responds to the character of the main campus and creates an effective yet “low-key” presence in the landscape. Simultaneously, the design builds on the University of Louisville graphic identity and provides a means to consistently apply that identity to facilities campus wide. Components of the program are designed to be flexible at a variety of installation conditions.

GUIDING PRINCIPLES

Provide user-friendly functionality

- Reinforce a strong sense of place at entrances and along edges

- Consistency of information

- Accessibility of signs for the visually impaired users

Design to accommodate change

- Provide direction for an increasingly pedestrian campus

- Flexibility and a foundation for future campus growth

DESIGN PHILOSOPHY

Timeless simplicity

- Contemporary typographic treatment that is legible and distinctively singular to the signage and wayfinding system

- Sign forms emphasize classic character, but with contemporary refinement

- Emphasis on simplicity through proportion and lightness of form

System continuity

- Each element has been designed to coordinate with all the other elements so that all components will function together as a unified system.

GUIDELINES USAGE

Intended use

The Signage Guidelines is intended for use by administrators, consultants, and planners. When special conditions arise which are not addressed in this document, consult with the University of Louisville Planning, Design & Construction team.

Guidelines components

The main body of the manual explains the design of each sign in the program, along with guidelines for its application and implementation. As such, it should be consulted for information regarding the appropriate use for a given sign, standards for sign messages, and location and orientation in the campus environment. Consistent application of these guidelines over time will ensure a coherent, uncluttered, and easily navigable signage system.

Revisions and updates

The first implementation of these signs should incorporate a prototype review phase in order to confirm design details and standardize fabrication methods. Design refinements as a result of prototype review should be incorporated into future revisions of this document.



DESIGN ELEMENTS

DESIGN ELEMENTS

A strategy of design standards, applied throughout the sign program, helps maintain consistency of look and feel and the presentation of information. Standards have been developed for the following design elements.

Logos

The University of Louisville One-Line Logo & Monogram should appear on signs only as specifically designated in this manual. The use of the UofL logos in the sign and wayfinding program follows standards outlined in the UofL Brand Guidelines. louisville.edu/brand



Third party logos

Third-party logos, including commercial logos, shall not appear on any signs without prior written approval.



Typography and Symbols

The standard typeface for the sign program is Gotham which is part of the University of Louisville brand fonts. Specific weights of the font are used for various applications and are called out for each sign type. Characters from each font are shown here for visual reference.

Do's and don'ts

- Do not distort or “squeeze” letter-forms to fit a limited space
- Do not substitute a different typeface that “looks similar” to Gotham
- Do not apply “effects” to letters, such as drop shadows
- For italic text, use the actual italic font. Do not apply an italic style or distort the font.

Symbols

Symbols used in the system are custom designed for the university or are accepted standards established by:

- Federal Highway Administration
- Society for Environmental Graphic Design
- American Institute of Graphic Arts

Gotham Book

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890

Gotham Bold

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890

~~Parking~~ ~~Parking~~ ~~Parking~~



Sign Colors

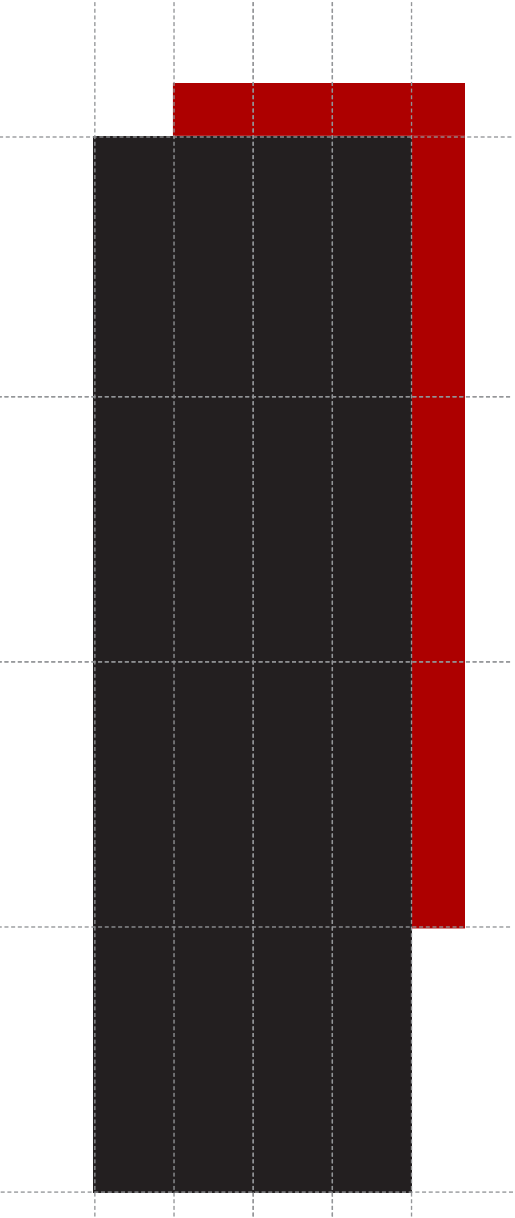
All the signs use a combination of black, white and Cardinal Red (Pantone 1797). The consistent application of these colors distinctly identifies the university and reinforces its brand.

The colors shown here are for visual reference only and are not to be used for color matching. Due to the limitations of the printing process, the colors on this page may not appear accurately.



Extrusion Proportions

The extrusion used throughout the sign family is intentionally proportional to the primary signage panel. The extrusion should always be 3/4 the height and width of the primary signage panel.



Exterior Building
Signage

Fabricated aluminum lettering painted or powder coated dual tone Brandeis Ash/Silver, pinned off the building face. Text may be 8", 10" or 12" depending on message length.

Building names may be formal or informal but should be consistent with the adjoining building identifications.

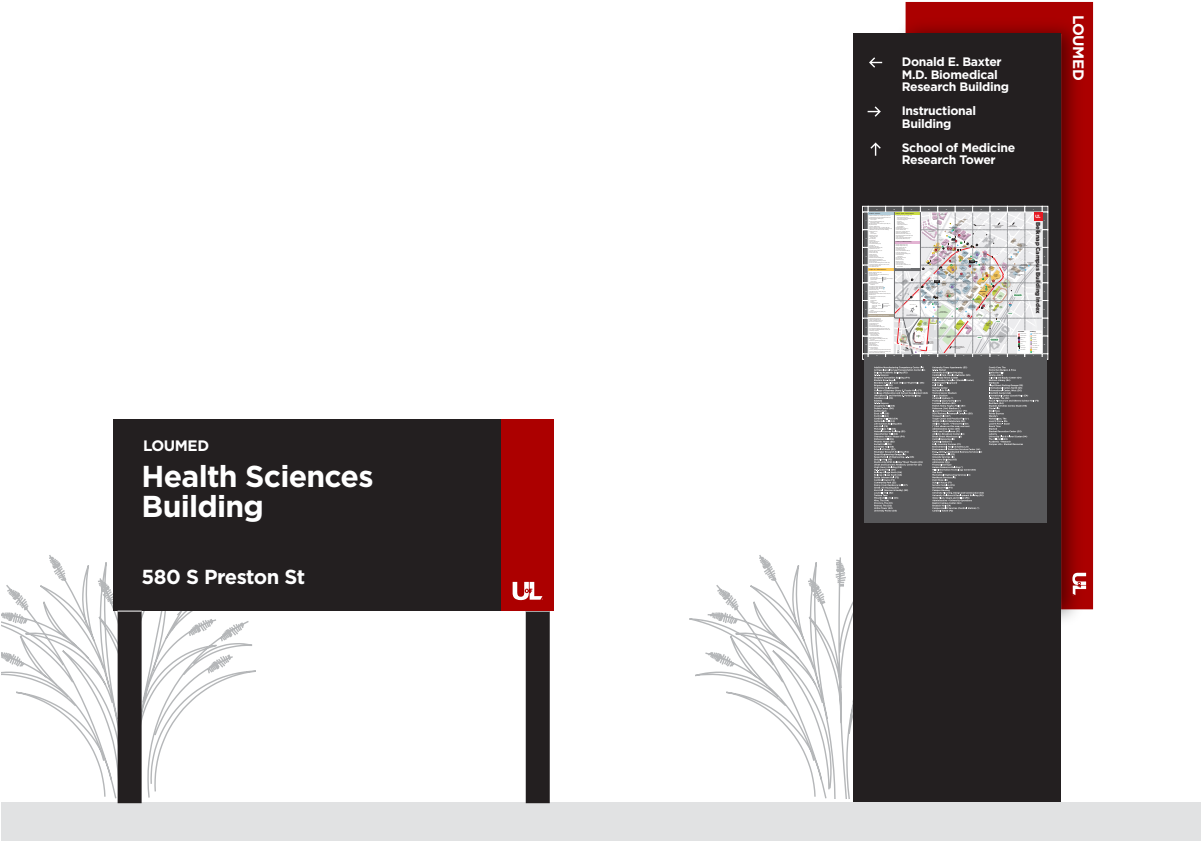
On new construction, the building architect should consider the graphic standard and incorporate a suitable location into the facade design. The building name may be centered over an entrance, or centered or left justified on an open wall either next to an entrance or visible from a key view. On parking decks, the name should be centered over each vehicular entrance.

Henry Vogt Building



LOUMED

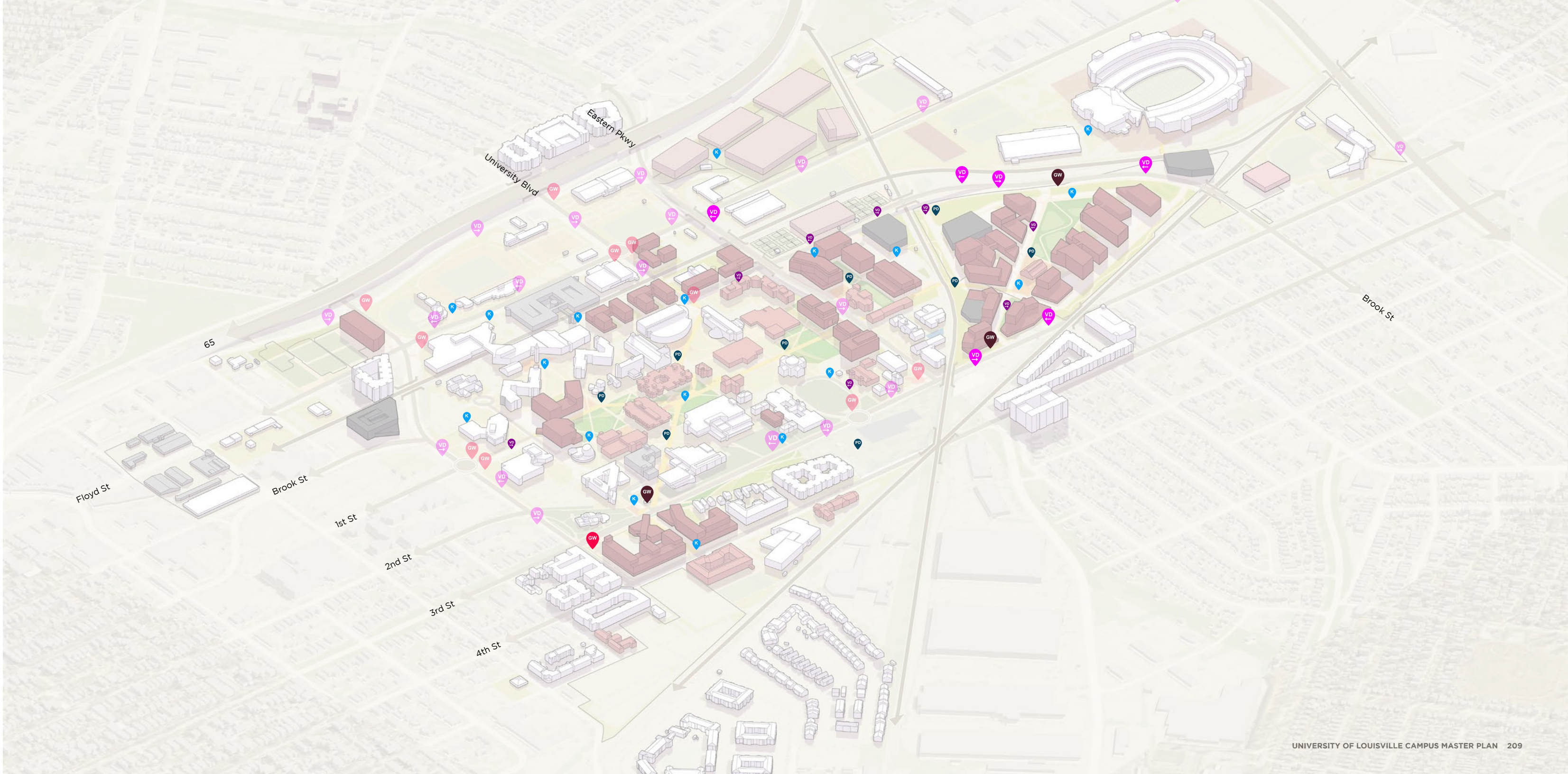
Identifying LOUMED on signs within the HSC campus can be achieved through various methods. Signs featuring an extrusion, like a kiosk, can integrate the LOUMED lettering within that extension. Alternatively, signs without an extrusion can opt for LOUMED lettering positioned above the main building name.



**Sign Locations
Belknap Campus**

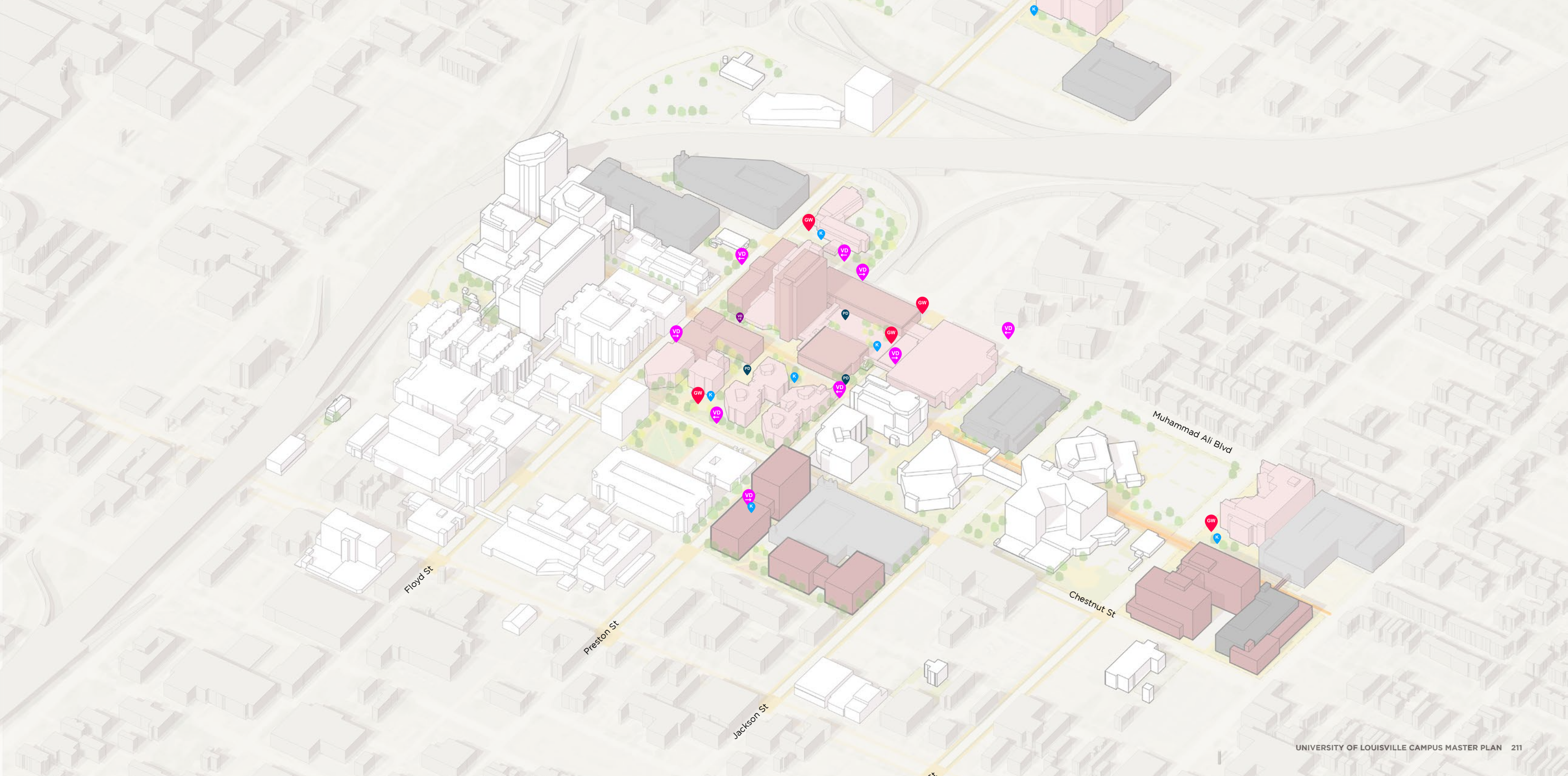
- Gateway Primary (GW-1)
- Gateway Secondary (GW-2)
- Vehicular Directional Perimeter (VD-1)
- Vehicular Directional Interior (VD-2)
- Digital Kiosk (K)
- Pedestrian Directional (PD-1)

Note: Transparent markers identify existing sign locations, while solid markers signify proposed sign locations.



**Sign Locations
HSC Campus**

- Gateway Secondary (GW-2)
- Vehicular Directional Perimeter (VD-1)
- Vehicular Directional Interior (VD-2)
- Digital Kiosk (K)
- Pedestrian Directional (PD-1)





SIGN DESIGN GUIDELINES

SIGN DESIGN GUIDELINES

The sign system components were designed individually for optimal functionality while complementing each other in form and finish to create a unified sign family. Signs fall within the following functional categories:

Campus Entry

Signs and structures distinguishing campus edges or entry portals.

- Gateway (Primary) GW-1
- Gateway (Secondary) GW-2

Vehicular Directional and Parking

Signs serving to direct vehicular traffic to campus and within, culminating in a clear system of regulatory parking signs.

- Vehicular Directional (Exterior) VD-1
- Vehicular Directional (Interior) VD-2
- Parking Lot ID PK-1

Pedestrian Wayfinding

Signs and maps intended to orient and direct individuals on foot throughout the campus.

- Pedestrian Directionals PD-1
- Digital Kiosk K-1

Interpretive

Signs intended to inform and educate.

- Interpretive INT-1

Building Identification

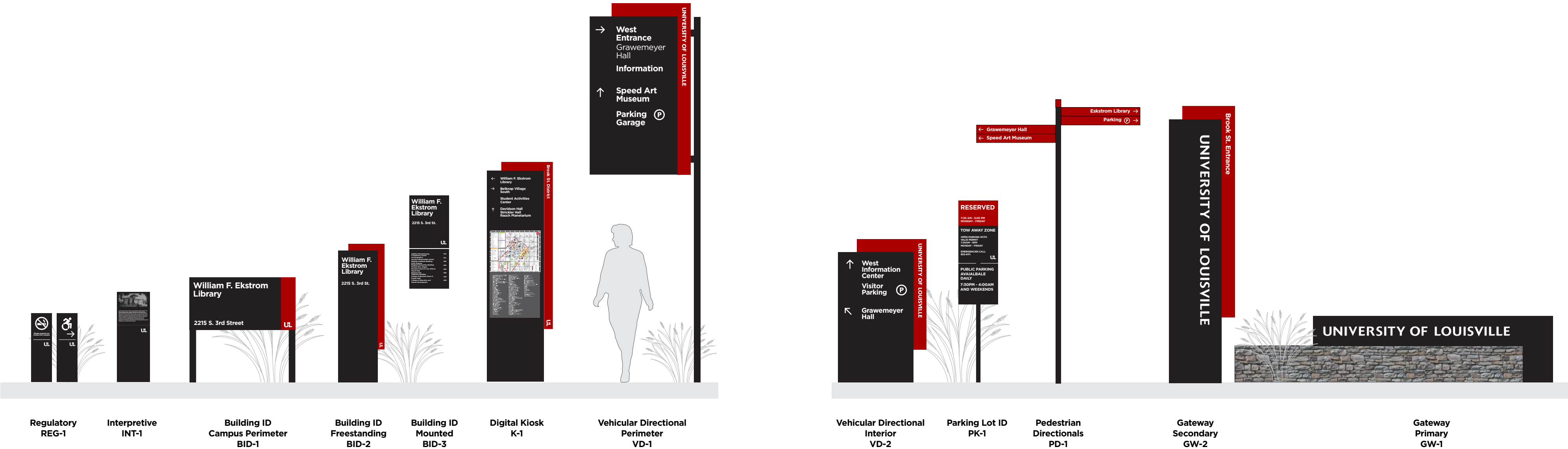
Signs identifying the name of a building or facility, including building-mounted and freestanding configurations.

- Building Identification (Campus Perimeter) BID-1
- Building Identification (Freestanding) BID-2
- Building Identification (Mounted) BID-3

Miscellaneous

- Regulatory Blade REG-1

SIGN FAMILY



**BUILDING ID
CAMPUS PERIMETER
BID-1**

Campus Perimeter Building ID are used by buildings that are located around the campus perimeter. They are intended to identify building name and address for emergency personnel.

Construction

These are double-sided fabricated aluminum cabinet signs, with a cardinal red painted extrusion. Mechanically fastened to existing sign posts.

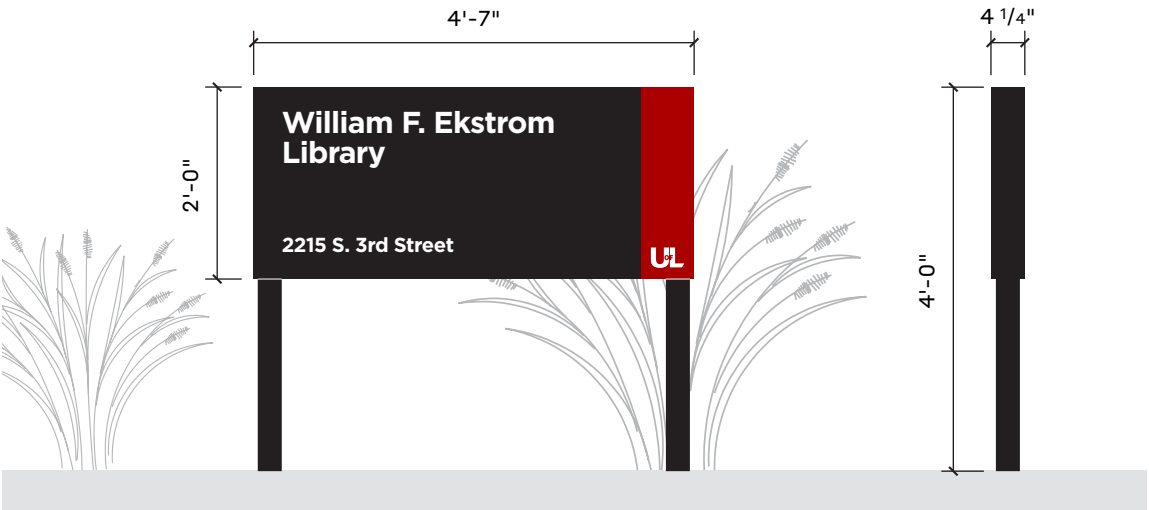
Building name text: 2 3/4" tall
Address text: 1 3/4" tall

Message Guidelines

The building name should be displayed prominently on the top of the sign. The building address as well as UofL monogram should be displayed at the bottom of each sign panel.

Location Guidelines

Freestanding Building ID signs are intended for use around the perimeter of campus. They are intended to replace existing post and panel signs found on campus. We suggest reusing the existing post's when possible.



**BUILDING ID
FREESTANDING
BID-2**

Freestanding Building Identification is used at primary entries for on-campus buildings. These signs may be used with or without Mounted Building ID's (BID-3).

Construction

These are double-sided fabricated aluminum cabinet signs, with a cardinal red painted extrusion. Mechanically fastened and epoxy to concrete footer, pad or sidewalk. See page 205 for extrusion proportions.

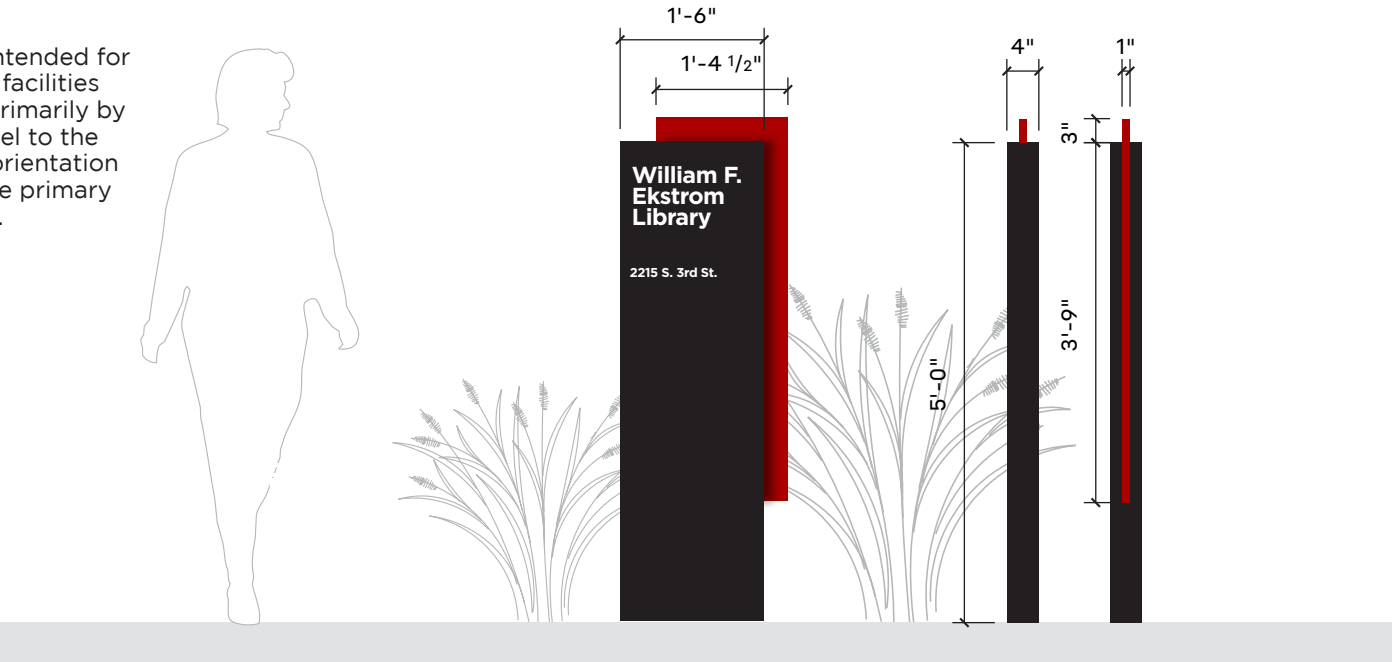
Building name text: 2" tall
Address text: 1 1/4" tall

Message Guidelines

The building name should be displayed prominently on the top of the sign.

Location Guidelines

Freestanding Building ID signs are intended for use in the core campus, or for other facilities where transit between buildings is primarily by foot. Signs should be oriented parallel to the building face by default unless this orientation would obscure the message from the primary pedestrian approach to the building.



BUILDING ID
MOUNTED
BID-3

Mounted building identification is used for buildings containing a formal building name on campus. These signs identify the building at the secondary entrances or for smaller on-campus buildings, or student residential buildings, where neither of the primary building identifications is desired or able to be located.

Construction

These are fabricated aluminum pan signs, mounted to the wall adjacent to major entry doors for the buildings and campus facilities. Sides of panel should be painted Cardinal Red. Sign should be mechanically fastened to mounting blocks with tamper-resistant fasteners.

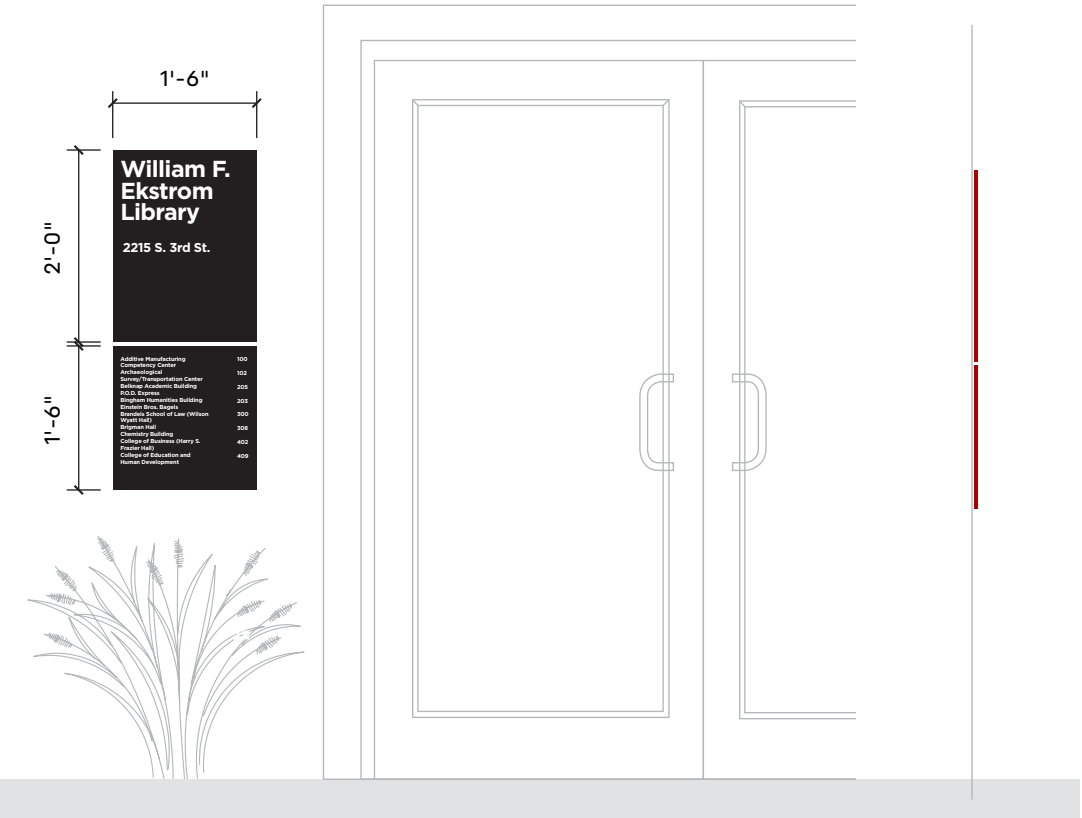
Building name text: 2" tall
Address text: 1 1/4" tall
Building directory text: 1/2" tall

Message Guidelines

At a minimum, the building name should be displayed, along with the building's address. Additionally, the departments located within the building can be listed below on a separate panel.

Location Guidelines

Mounted Building ID signs are intended for use on the building entry or adjacent to the entry door. The message should be install so that the bottom of the sign should be 5' above the ground, or aligned to nearby architectural features.



DIGITAL KIOSK
K-1

Digital Kiosks are used to orient and direct pedestrians along major corridors and neighborhoods throughout the campus.

Construction

These are double-sided fabricated aluminum cabinet signs with touch screen monitors. They are a cardinal red painted extrusion. Mechanically fastened and epoxy to concrete footer, pad or sidewalk. See page 205 for extrusion proportions.

Fabcon also produces a smart campus kiosk that is an off the shelf solution.
fabcon.com/smart-campus-kiosks

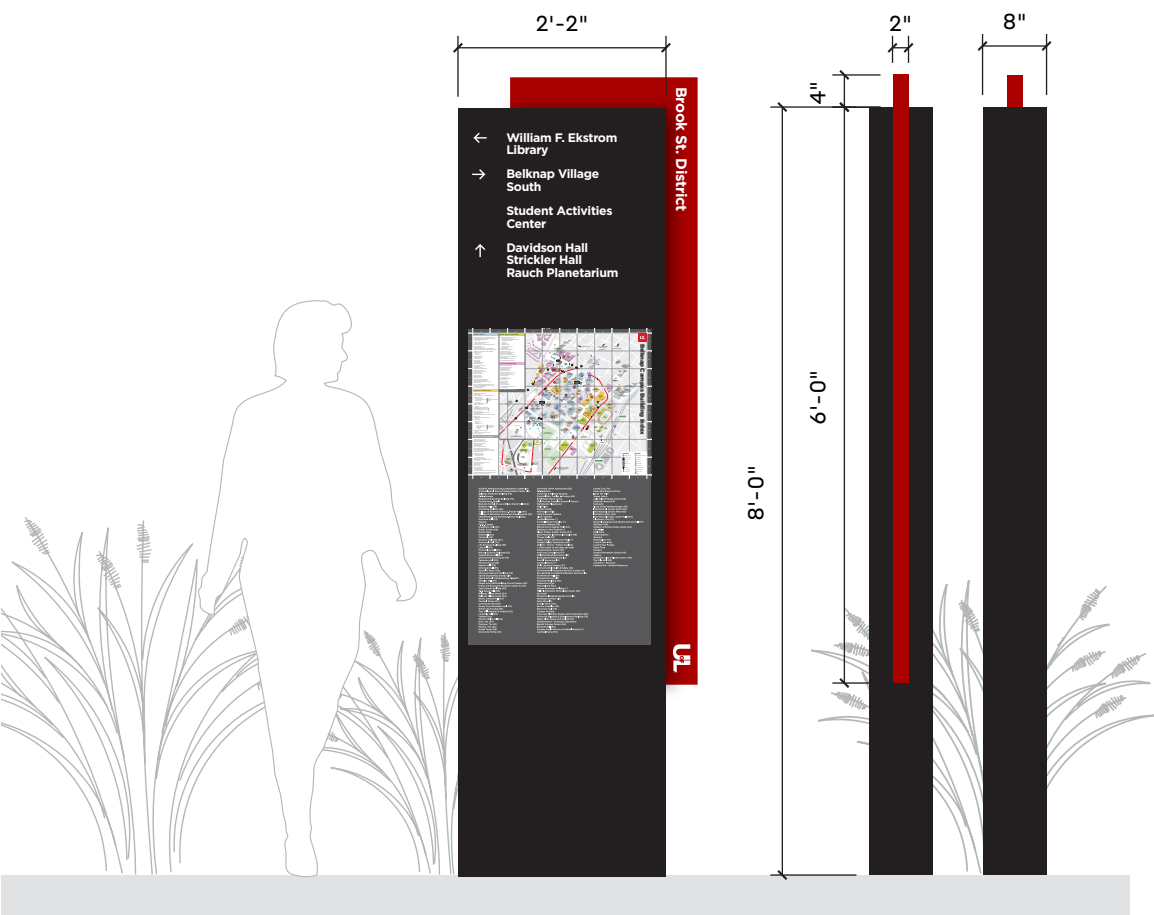
Destination text: 7/8" tall

Message Guidelines

The university map with destinations should be displayed in the center panel of the sign. Directional arrows with pedestrian destinations should be listed above map. The extrusion has the option to list the signage location and UofL monogram.

Location Guidelines

Locate the Kiosks as needed to achieve directional and orientation goals. If located along a path, set back 6" from the path edge. Sign placement must not obstruct any accessible path.



**VEHICULAR DIRECTIONAL
PERIMETER
VD-1**

Perimeter Vehicular Directionals are used to designate destinations and inform users of upcoming paths and deviations from around the perimeter of the UofL campus.

Construction

These are two-sided post-mounted fabricated aluminum cabinet signs, secured to the post with a cardinal red painted extrusion. The University of Louisville wordmark should fit within the extrusion.

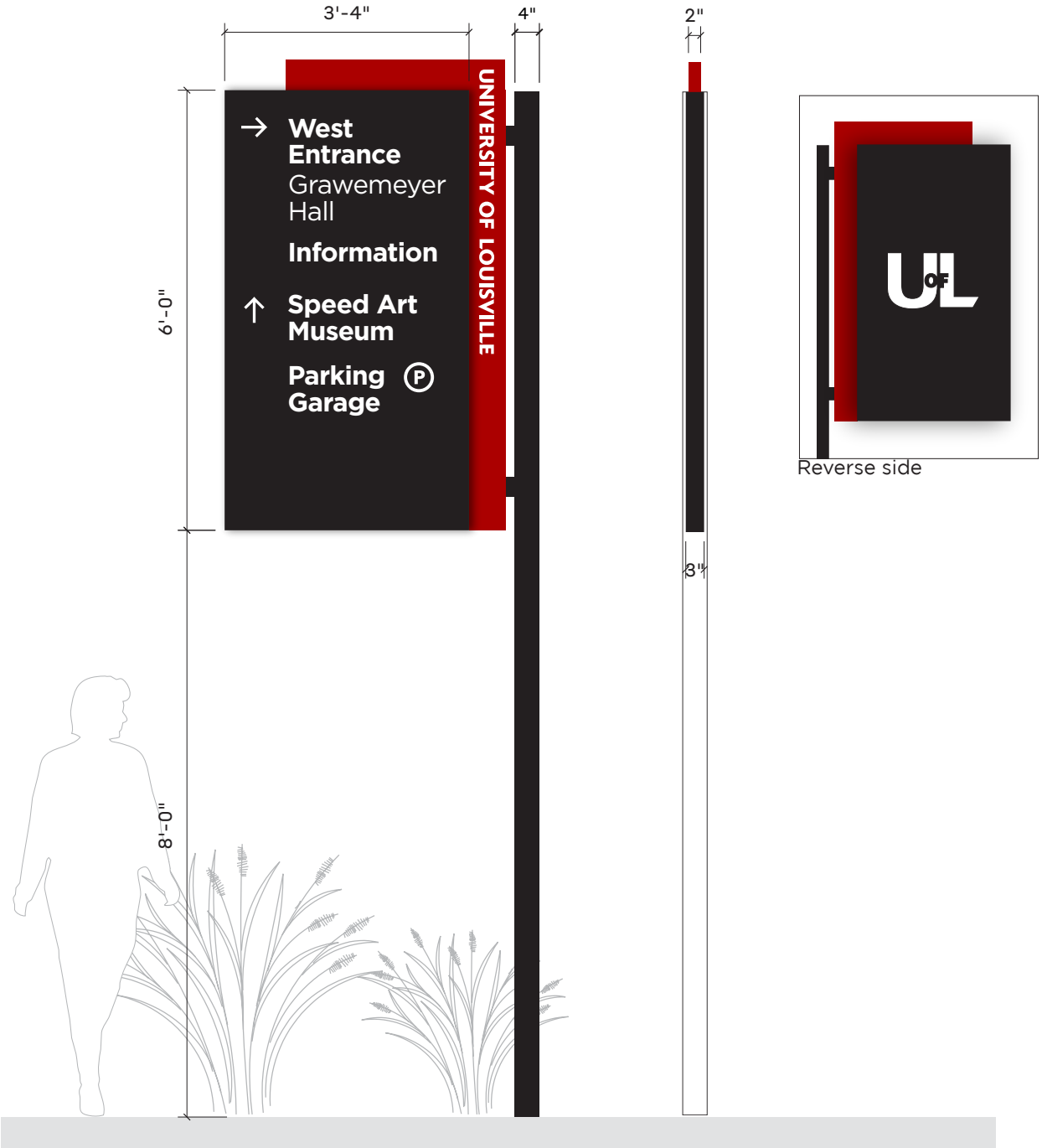
Destination text: 3" tall

Message Guidelines

Vehicular Directionals should list major university destinations including gateways, parking destinations and public facing facilities via preferred vehicular route.

Location Guidelines:

Vehicular Directional should be located in advance of the intersection to which they refer, in order to give direction in time to execute the desired maneuver. Where possible, 200' minimum in advance of the turn is preferred. Maintain a minimum of 30' approach clearance between small trees and signs.



**VEHICULAR DIRECTIONAL
INTERIOR
VD-2**

Interior Vehicular Directionals are most appropriate for directing campus facilities or major destinations along slow-speed through campus streets.

Construction

These are double-sided fabricated aluminum cabinet signs, with a cardinal red painted extrusion. Mechanically fastened and epoxy to concrete footer, pad or sidewalk. The University of Louisville wordmark should fit within the extrusion. See page 205 for extrusion proportions.

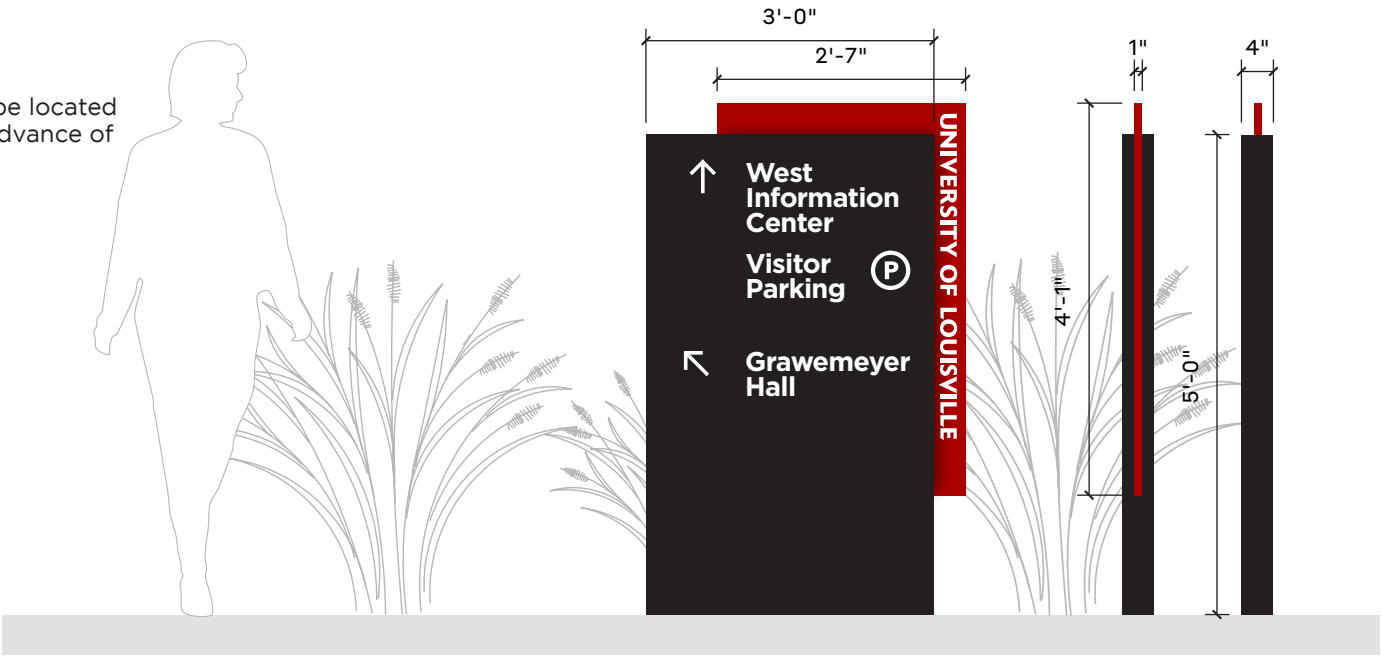
Destination text: 2 3/8" tall

Message Guidelines

Vehicular Directionals should list major university destinations and parking destinations via preferred vehicular route.

Location Guidelines

Interior Vehicular Directional should be located within the interior of the campus in advance of intersections and major destinations.



PARKING LOT ID
P-1

Primary Lot Identification should be used at all permit parking lots and garages throughout campus.

Construction

These are single-sided painted aluminum panels, Screw-mounted to an existing or new pole. The pole should be painted to match aluminum panel. These signs can also be building mounted depending on location.

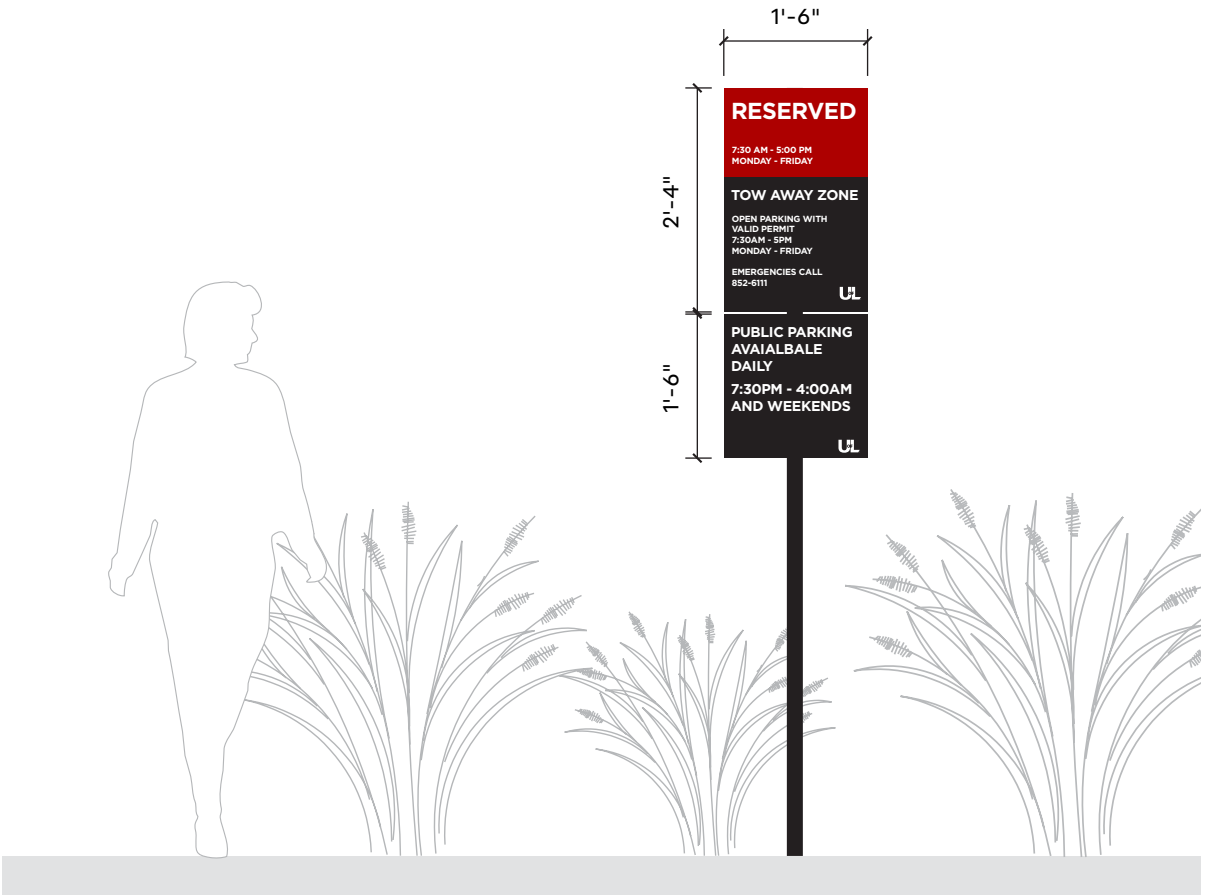
Primary text: 2" tall
Secondary text: 1 3/8" tall
Alternate text: 3/4" tall

Message Guidelines

The primary message should indicate the permits needed to access the lot, lot name or address and hours of access. Any and all messaging should be confirmed by the University Parking and Transportation Services.

Location Guidelines

These signs should be located at the entrance to the lots, taking care not to block view cones for oncoming traffic. Signs should be oriented perpendicular to the path of traffic by default unless this orientation would obscure the message from the primary approach to the lot.



PEDESTRIAN DIRECTIONAL
PD-1

The Pedestrian Directional signs direct the pedestrians to a specific destination within the University of Louisville campus.

Construction

These Pedestrian Directional are based on the Octopus finger post system by encompass sign.

The finger panels are part of a modular system and can be rotated in 8 different standard positions. The panels are double-sided painted aluminum attached to a fabricated aluminum post.

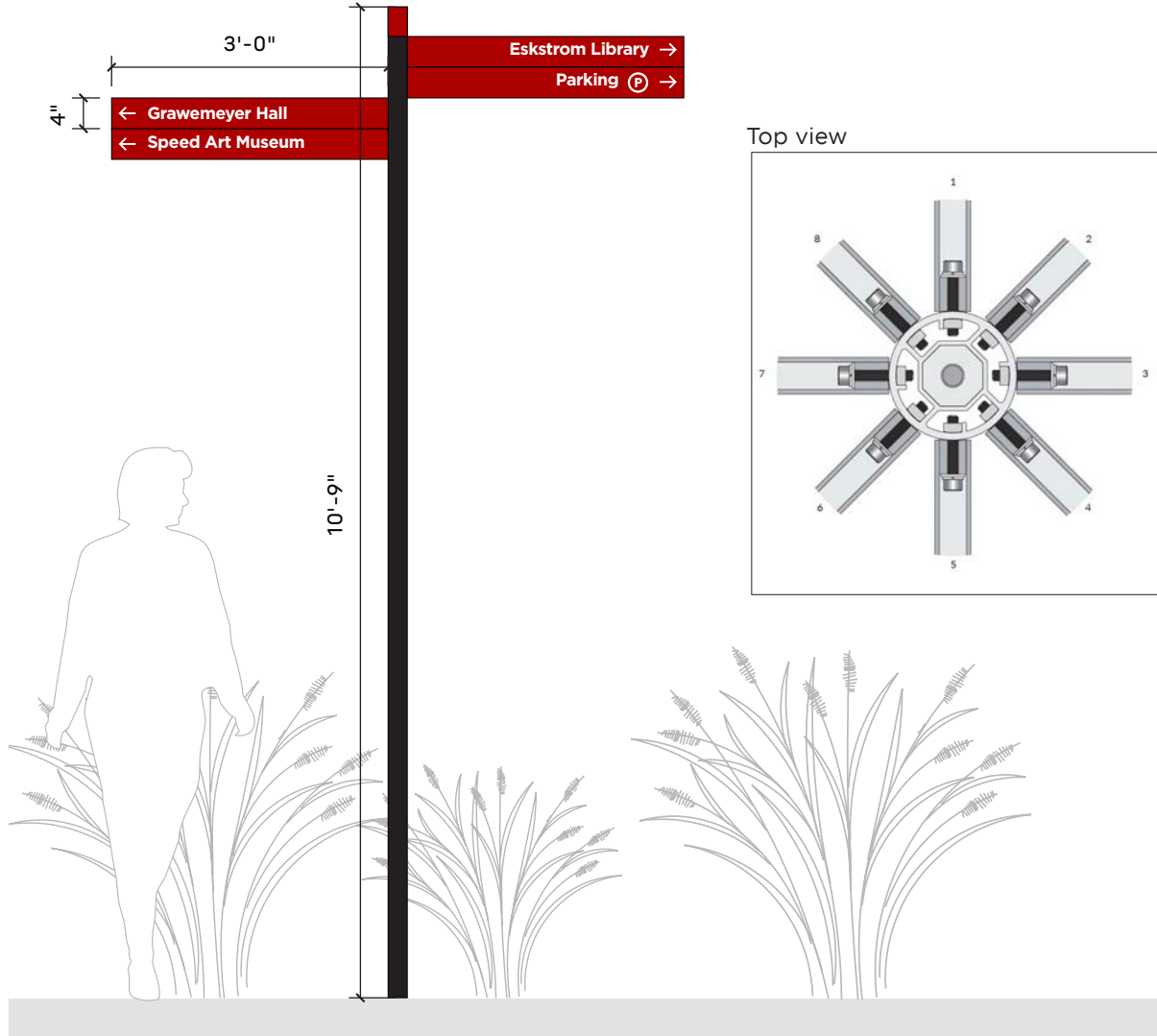
Destination text: 1 1/2" tall

Message Guidelines

Pedestrian Directional signs should have the name of the specific destination along with a directional arrow that points to it.

Location Guidelines

Pedestrian Directional signs are intended for use in the campus core, along major pedestrian routes. Signs should be oriented perpendicular to major pedestrian pathways in between kiosk locations.



GATEWAY PRIMARY
GW-1

Primary Gateway's signs are used to reinforce the campus identity to vehicular traffic. They are located at specific intersections around the perimeter of the Belknap Campus.

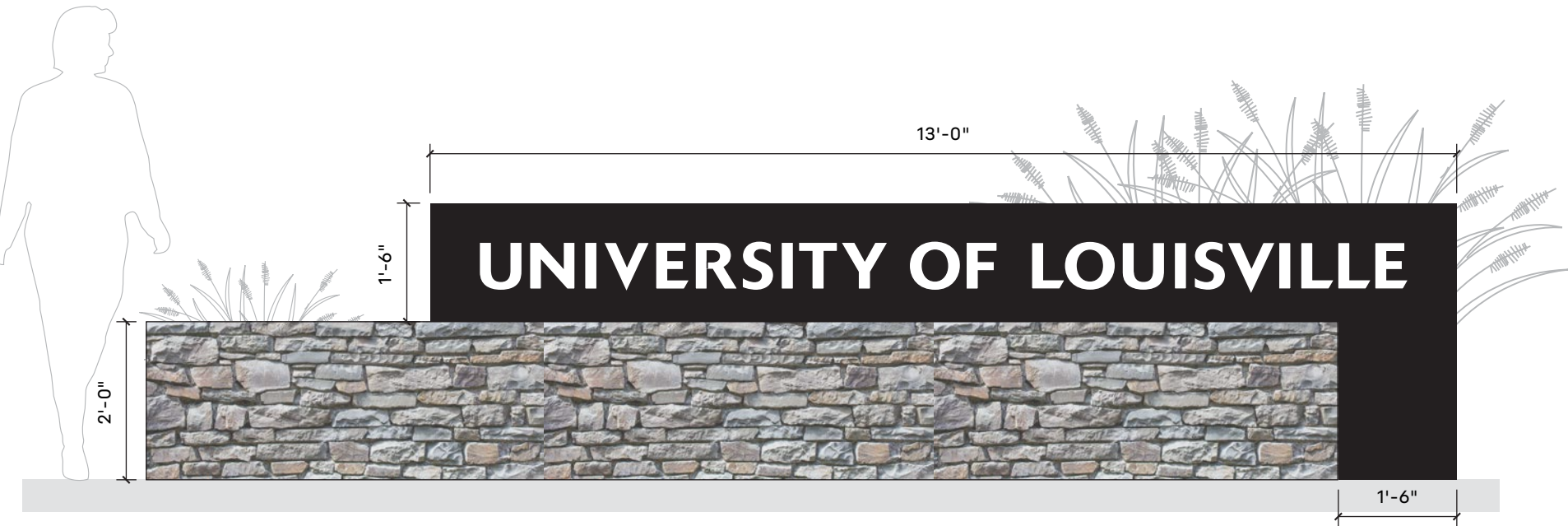
Construction

These are aluminum cabinet signs with a stone wall base. The University of Louisville wordmark should be dimensional and illuminated.

Sizing of the sign can vary depending on the specific location.

Location Guidelines

These signs have specific locations. Please reference the sign location plan on pages 208 and 211.



GATEWAY SECONDARY
GW-2

Secondary Gateways are intended to the announce entry into the campus, both for pedestrian and vehicular users. Additionally, they will establish the visual language inherent to the sign system. They should be used in situations where Primary Gateway's are not appropriate.

Construction

These are double-sided fabricated aluminum cabinet signs, with a cardinal red painted extrusion. Mechanically fastened and epoxy to concrete footer, pad or sidewalk. See page 205 for extrusion proportions.

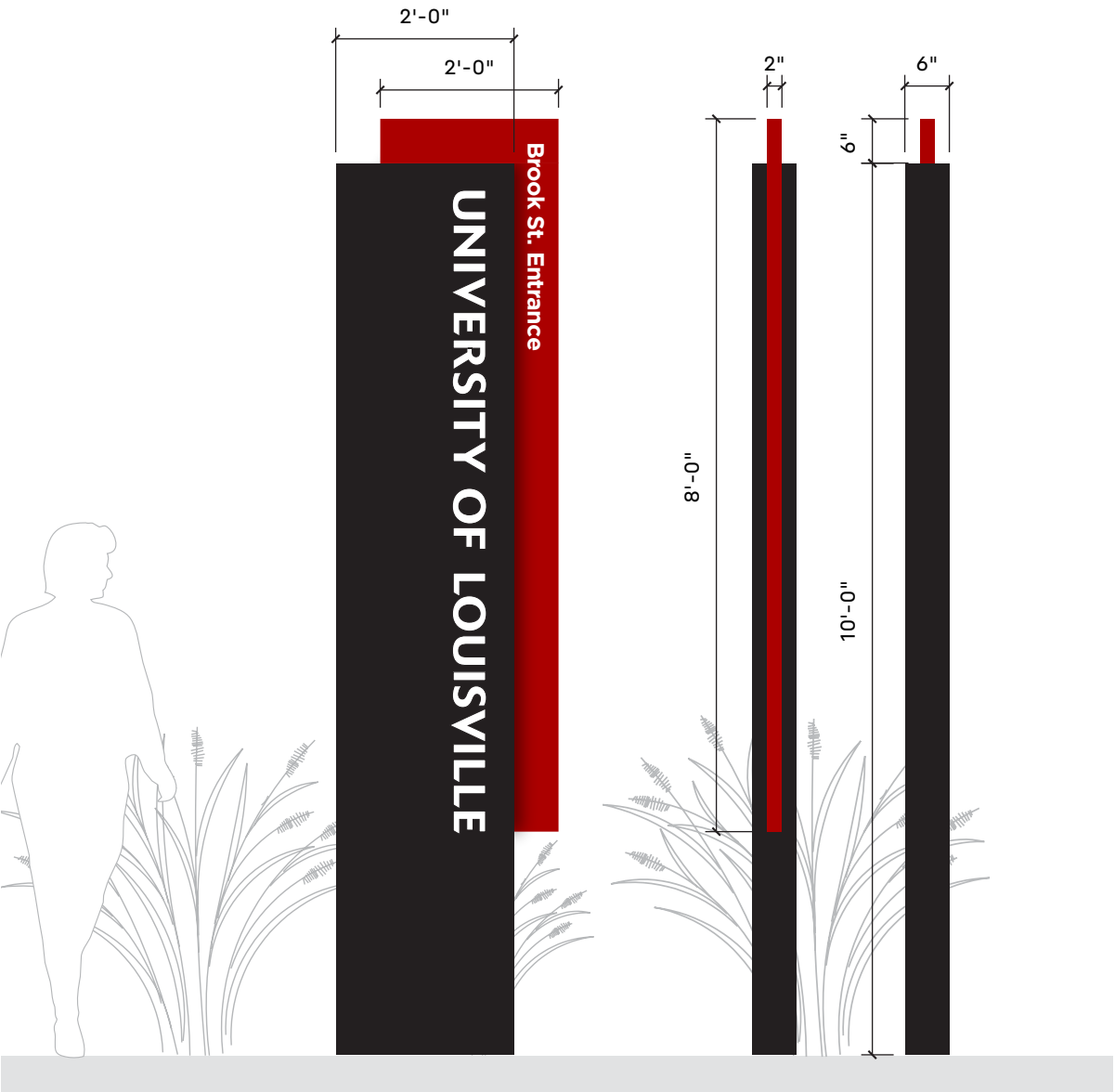
University logo: 4 3/8" tall

Message Guidelines

These signs should only display the University of Louisville wordmark. There is an option to place the specific campus entry location within the signs extrusion.

Location Guidelines

These signs have specific locations. Please reference the sign location plan on pages 208 and 211.



**REGULATORY
REG-1**

Regulatory signs are intended to indicate safety and liability concerns—what is and isn't acceptable around the campus. They are used to establish and reinforce rules and safety standards.

Construction

Single or double-sided (depending on location) fabricated aluminum directional blade sign. 1/2" thick panel, painted to match UofL colors and vinyl graphics applied. Mechanically fastened and epoxy to concrete footer.

Message Guidelines

Regulatory signs should indicate rules and regulations (no smoking; no firearms) and compliance standards (ADA accessibility). They should display a pictograms, arrows and the UofL monogram.



**INTERPRETIVE
INT-1**

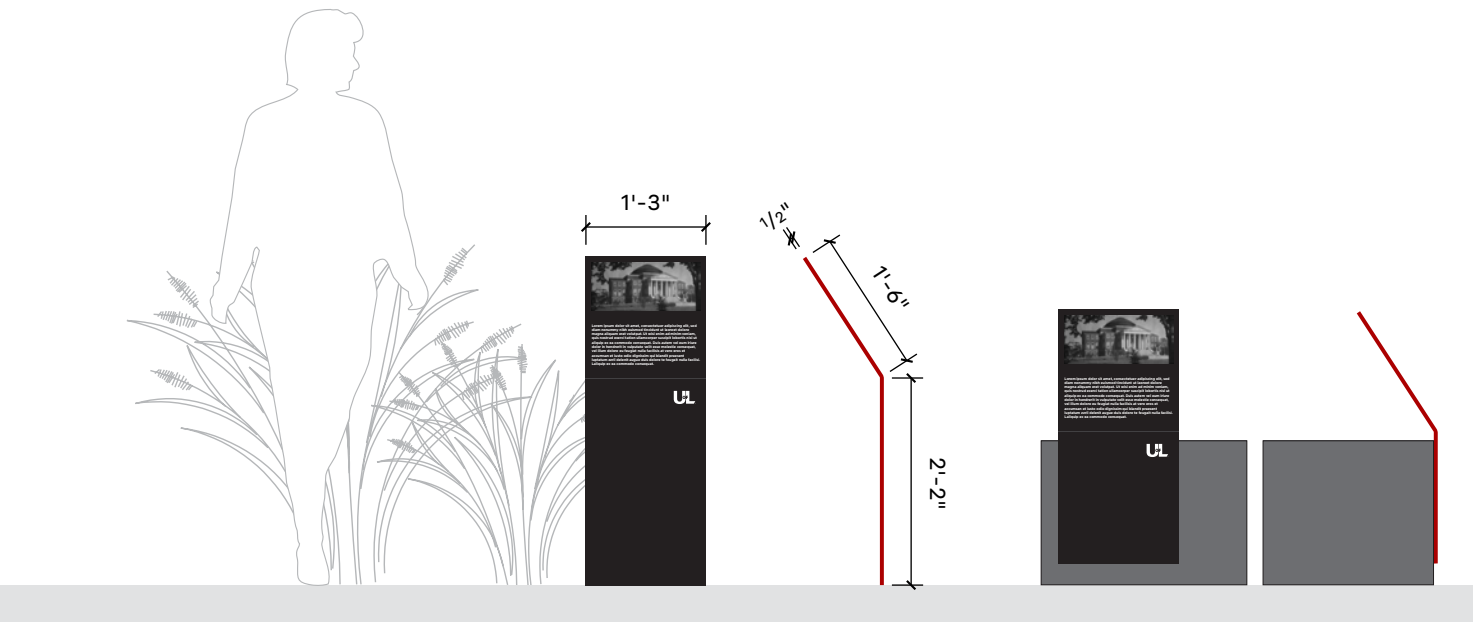
Interpretive signs are intended to inform and educate at any major corridors throughout the site when necessary. They call attention to specific campus features that enhance the University of Louisville campus.

Construction

Single-sided bent aluminum blade sign. 1/2" thick panel, painted to match UofL colors and vinyl graphics applied. Mechanically fastened and epoxy to concrete footer, pad or landscape feature.

Message Guidelines

Interpretive signs should display a representative image or graphic with complementary text and the UofL monogram.





IMPLEMENTATION



PHASING

PHASING

Proposed developments are phased to achieve programmatic goals while balancing capital planning considerations. Four 6-year phases were created to anticipate development:

Phase 1: 2023-2029

Phase 2: 2029-2035

Phase 3: 2035-2042

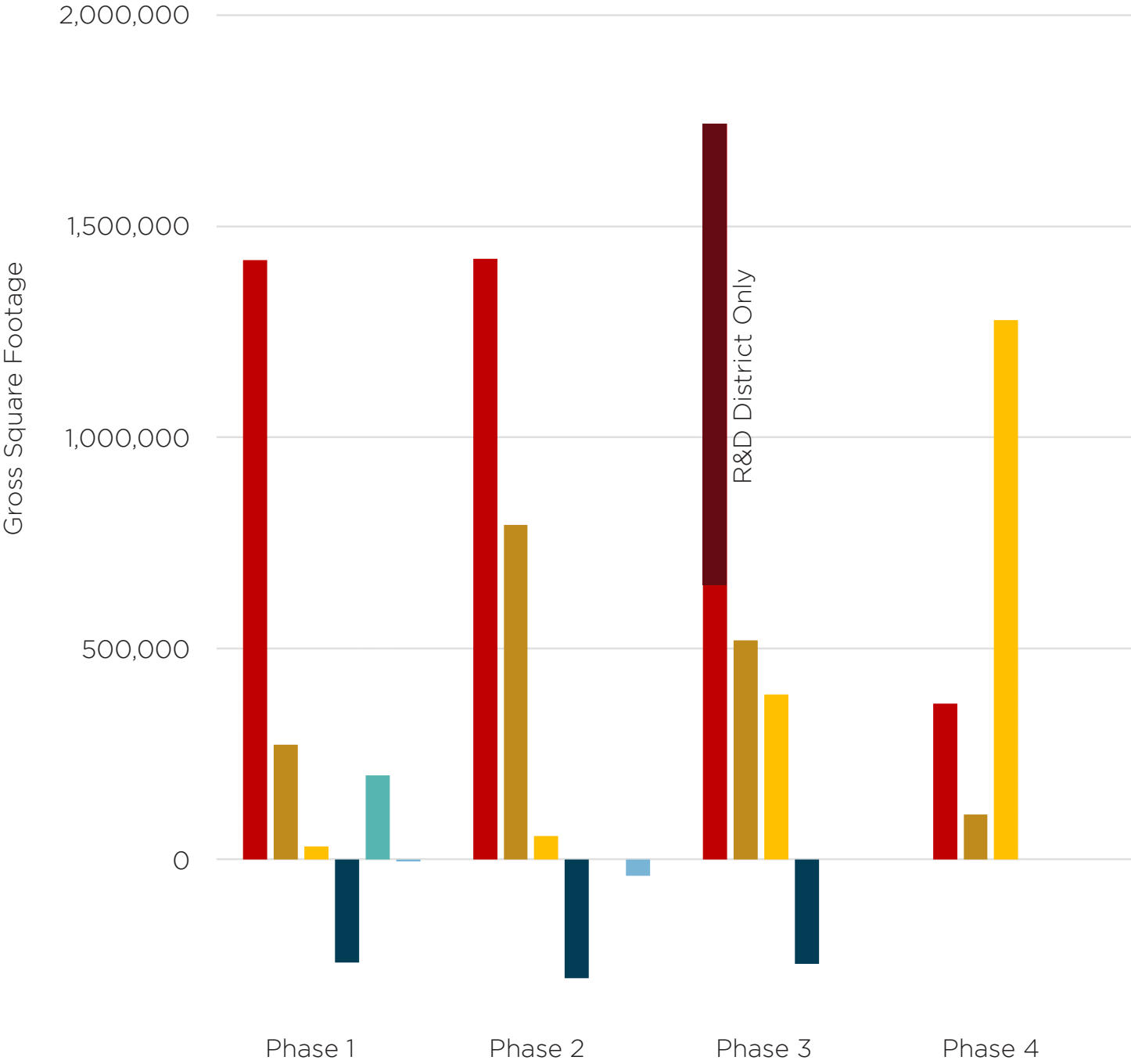
Phase 4: Beyond 2042

Short-term developments either already have funding allocated or are currently being reviewed for inclusion in upcoming capital plans.

Over the next six years, approximately 1,421,000 gross square feet (GSF) of development is proposed, accompanied by 245,000 GSF of demolition. The resulting net gain of 1,176,000 GSF represents an 17% expansion of development across campuses. The graphic to the right illustrates the new construction, demolition, renovation, asset preservation, acquisition, and disposition in GSF for subsequent six-year increments. New construction total includes the Belknap, HSC, and Research & Development District owned by the Foundation.

Once all Campus Plan projects are complete, the University of Louisville will have added 4,313,000 GSF of development, an increase of approximately 63%. Of course, as funding, programmatic, and operational conditions change over the coming years, UofL will continue to review projected completion dates and adjust the development phasing accordingly.

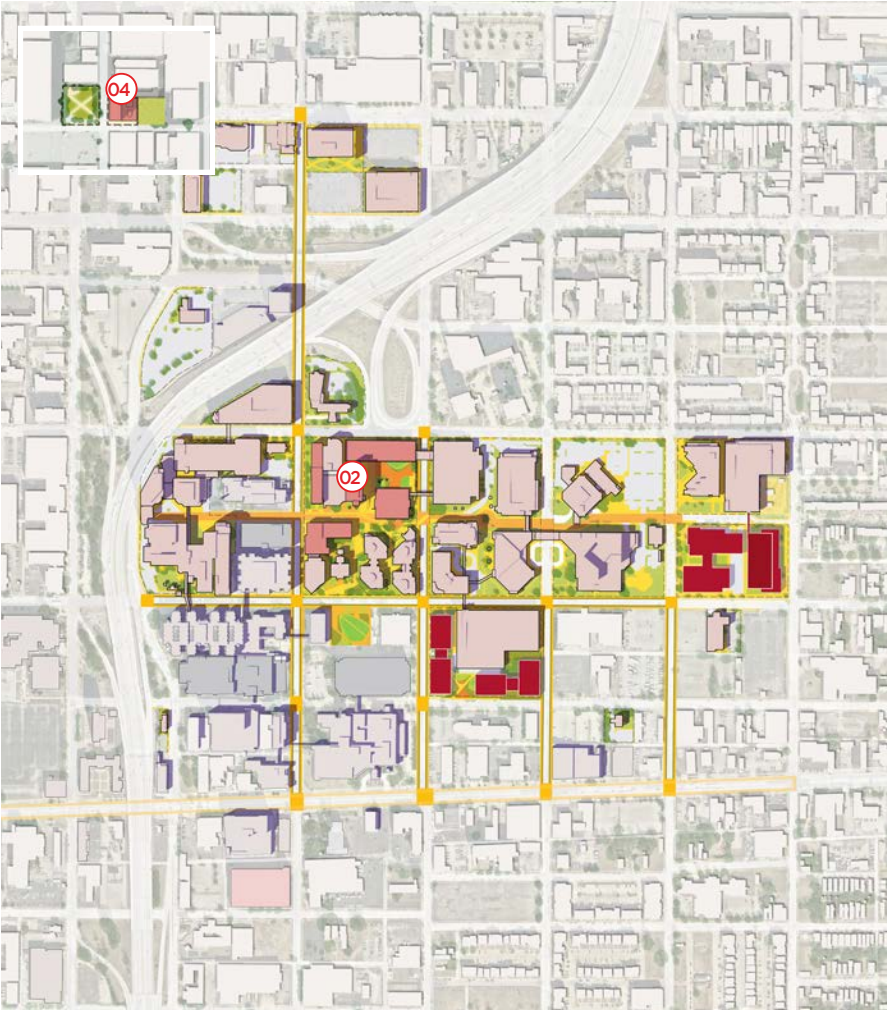
- New Construction
- Demolition
- Renovation
- Acquisition
- Asset Preservation
- Disposition



PHASE 0

Phase 0 refers to projects that are currently underway as of the writing of the Campus Plan. Between HSC, Belknap, and Envirome Institute, the Med-Dent Apartments have recently been demolished, renovations at Miller IT and the School of Medicine Tower are ongoing, Envirome Institute buildings are being redesigned, and there is already a near-final plan for the Engineering Phase 1 building.

Project	GSF
01 Miller IT Renovations	--
02 School of Medicine Floors 8+9 renovation	--
03 Engineering Phase 1	115,000
04 Envirome Campus	--

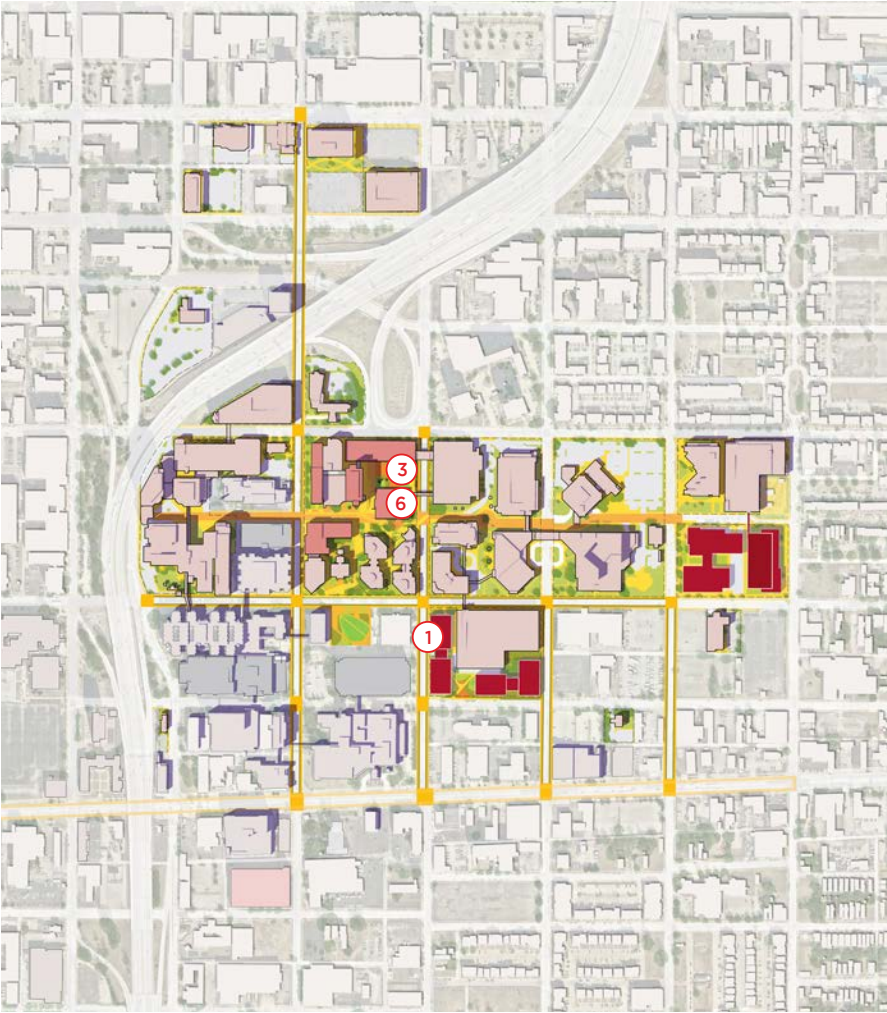


PHASE I

Phase 1 refers to the next six years. The proposed new construction, demolition, and key renovation projectst are shown here. The list of renovation projects is more extensive but will depend on available funding. The listed renovation projects here are shown because they are required for other projects in the Campus Plan to become feasible. For further prioritization of renovation and asset preservation projects, consider the Facilities Conditions Report in the appendix.

For future phases, so much is unknown that instead of creating a static project list in the Campus Plan, the Dashi tool will become a live tracking and prioritization tool for future projects.

Project	GSF
① Interprofessional Education Building (requires KDP demo)	252,700
② STEM Phase 1	120,000
③ Plaza renovation with improved adjacent Abraham Flexner Way segments (Collaboration with LOUMED)	36,500
④ Demolish UTA & Unitas	155,800
⑤ New visitor center building & student housing	40,000 +213,500
⑥ Kornhauser Library Commons Renovation	72,500
⑦ Demolish Natural Sciences	88,300
⑧ Parking for Engineering Cluster	162,000





UTILITIES & SUSTAINABILITY

SUSTAINABILITY STRATEGIES

UofL has goals for carbon neutrality by 2050 and milestone reduction from the 2008 carbon metrics listed in Table 1 to achieve that goal. The university has made significant progress but as we move close to the carbon neutral goal it is more challenging to squeeze out operational energy and carbon production on-site.

2020 emissions data on campus showed nearly 60% from Scope II and nearly 20% from Scope I emissions. While this Campus Plan proposes a large net increase in building footprint across campuses, the following recommendations offer a path toward net carbon reduction in Scope I and II from campus buildings.

New Construction and Major Renovations

Higher building standards for all new construction and major renovation projects can lead to a reduction in Scope I and Scope II emissions.

- 1
- The target operation carbon goal for construction projects shall be 50% better than a code compliant building and no additional combustibles shall be added to the campus with the exception for the agreement with Medical Center Steam & Water Plant. The decision shall be made in the design process to ensure this goal is achieved and on-site solar is a viable contributor to the energy goal. Since technology is continuously changing and there are many paths to carbon neutrality, the details to achieve this goal will vary on a project-by-project basis.
- 2
- Require building pressure testing: Single Building Envelope Air Leakage by Fan Pressurization Test using Door Blower equipment to pressurize and

YEAR	GOAL % REDUCTION	MTCO2e PRODUCED	
2008	Baseline	218,540	
2020	Progress: 35% reduction	141,279	Scope I: 25,995 (18.4%)
			Scope II: 84,623 (59.9%)
2030	60% reduction	87,416	
2040	80% reduction	43,708	
2050	100% reduction	0	

depressurize the building will establish the building air leakage rate at a pressure differential of 75 Pa when tested according to ASTM E 779. Perform infrared imaging in conjunction with Building Envelope Air Leakage by Fan Pressurization Test using the ISO 6781: (1983) and ASTM C1060-90: (2003) standards to demonstrate thermal anomalies at the exterior enclosures with associated report containing infrared and visual images side by side, including comments characterizing the anomalies. Testing will include interior, exterior, and aerial (UAV) infrared imaging. A Building Envelope Air Leakage by Fan Pressurization Test Report shall be used to provide recommendations for envelope remediations in renovations and achieve a performance metric for building envelope tightness that includes achieving a building pressure testing goal of 0.15 CFM/SF for new construction.

- 3
- All new projects and major renovations shall include energy sub-meters for gas, electric and steam. The energy will be tracked and compared to the model to ensure the projects are meeting the required carbon goals.
- 4
- New projects shall target a lighting power density of 0.35 watts per square foot or less for classroom / office / general spaces and 0.5 watts per square foot for laboratory spaces.
- 5
- All projects shall incorporate daylight modeling to incorporate strategies to reduce solar heat gain and glare while maximizing daylight.

- 6
- All projects shall include the following for enhanced indoor air quality. MERV 8 / MERV 13 bag filters per the university standards. Demand control ventilation to peak at 1000 PPM carbon dioxide (CO2), and the sequences shall utilize enthalpy to maximize the utilization of increased ventilation in the economizer mode.

Asset Preservation

Selective improvements on a lower budget in buildings can also meaningfully reduce Scope I and Scope II emissions.

- 1
- Replace outdated building automation systems as these are the largest energy saver for the campus.
- 2
- Replace air handling units past useful life and incorporate 2-way control valves, 15 deg delta T chilled water coils and low temperature hot water coils. This shall include eliminating all multizone air handling units and converting constant volume units to variable.
- 3
- Incorporate heat recovery chillers for summer reheat in lieu of a natural gas boiler. This provides reheat with efficient waste heat from the heat recovery chiller. This eliminates carbon production on site through combustibles.
- 4
- Incorporate energy recovery wheels, plates, coils where possible.
- 5
- Eliminate the use of steam and incorporate low temperature hot water systems.

Utility Grade Solar

The university has entered an agreement with Louisville Gas and Electric (LG&E) for 10 MW of utility grade solar.

The LG&E billing structure encourages demand control strategies in lieu of strategies like solar Photovoltaics on the campus. It is recommended in 2029 to purchase additional utility grade solar to close the gap and achieve the 60% reduction goals. This approach can be used in 2039 and 2049 to reach milestones.

Energy Service Performance Contract

Utilize an ESPC and where possible couple with asset preservation or capital funding to maximize the impact of financing upgrades with energy reductions and thus lower Scope I and Scope II emissions.

Allow the ESPC to study the entire campus for a holistic phased approach to drastic energy reduction. This will maximize the overall results. Goal for this process is a 20-25% carbon reduction.

Central Plant Upgrades

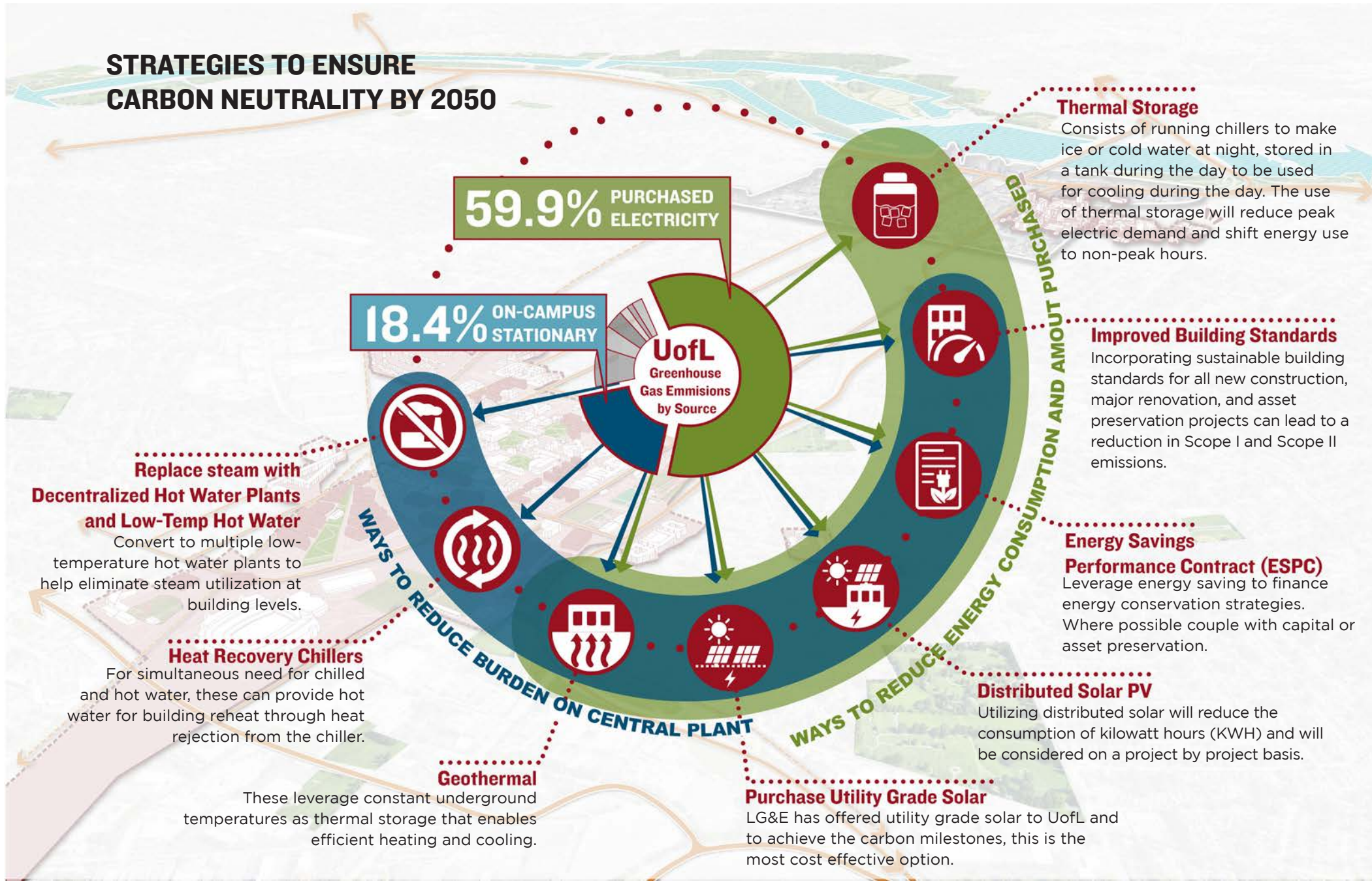
The majority of the Belknap Campus is serviced by a central plant where the majority of the chilled water plant equipment is past useful life. The university completed a chilled water masterplan and is requesting a capital project to address deferred maintenance while reducing the campus carbon footprint.

The university will plan to incorporate cold water **thermal storage** into the central chilled water plant to offset the peak demand and produce chilled water more efficiently in the evening at a time with more favorable outdoor conditions.

The Belknap Campus is recommended to incorporate into the planning the elimination of steam. A conversion to low temperature hot water (<140F) to provide campus heating. **Heat recovery chillers** are installed at the

building level and as the campus transitions from central steam to low temperature hot water the central plant will incorporate heat recovery chillers to allow reheating/ heating from the central plant with waste heat. This is in line with the reduction of Scope I carbon production on-site related to building heating.

As major renovations and new construction projects are completed the owner will study the ability to incorporate **geothermal heating and cooling** to reduce future dependence on the central plant systems. They will also evaluate **solar photovoltaics** if and when energy billing structures begin to add economic value or to achieve building design energy goals.



BELKNAP UTILITIES

The Belknap Campus relies on multiple utility service providers to meet its diverse energy and telecommunications needs. These services are essential for the smooth operation of the campus and require careful management and maintenance to ensure efficiency and sustainability. Several key utility services and infrastructure aspects are highlighted below.

Electric and Natural Gas Services

Electric and natural gas services are provided by LG&E (Louisville Gas & Electric), ensuring a reliable source of energy for campus operations.

Ongoing maintenance and upgrades may be necessary to enhance energy efficiency and reduce environmental impact.

Telecommunications Services

Telecommunications services, including data and voice communication, are provided by local utility companies such as AT&T and Spectrum.

Maintaining robust telecommunications infrastructure is vital for facilitating research, education, and administrative functions.

Water Supply

The campus relies on the Louisville Water Company for its water supply, ensuring access to clean and potable water for various purposes.

Efficient water management practices, conservation efforts, and infrastructure maintenance are important for sustainability.

Heating and Cooling Systems

The Unicentral plant provides steam and chilled water to most of the campus buildings for heating and cooling. Planned equipment replacement at the chilled water plant and reduced reliance on central steam for future

construction are part of the long-term strategy (within 10-15 years).

Electrical Switchgear

The central plant houses the electrical switchgear that serves a significant portion of the campus. This switchgear was replaced in 2017 and in good work condition. There are secondary distribution points on the campus medium voltage network that require replacements and upgrades are planned, including the replacement of switchgear in the basement of Grawemeyer which is currently out to the bid market. The network of subgrade switches are of varying age and should be replaced once 30 years of age.

Electrical Loops

There are four medium voltage electrical loops that serve the campus, all of which are connected back to the central plant switchgear. While the loops on an individual basis have capacity, the total load at the service is nearing the capacity limits.

Addressing deferred maintenance and expanding electrical infrastructure building levels will be necessary to accommodate campus growth without overburdening the central plant.

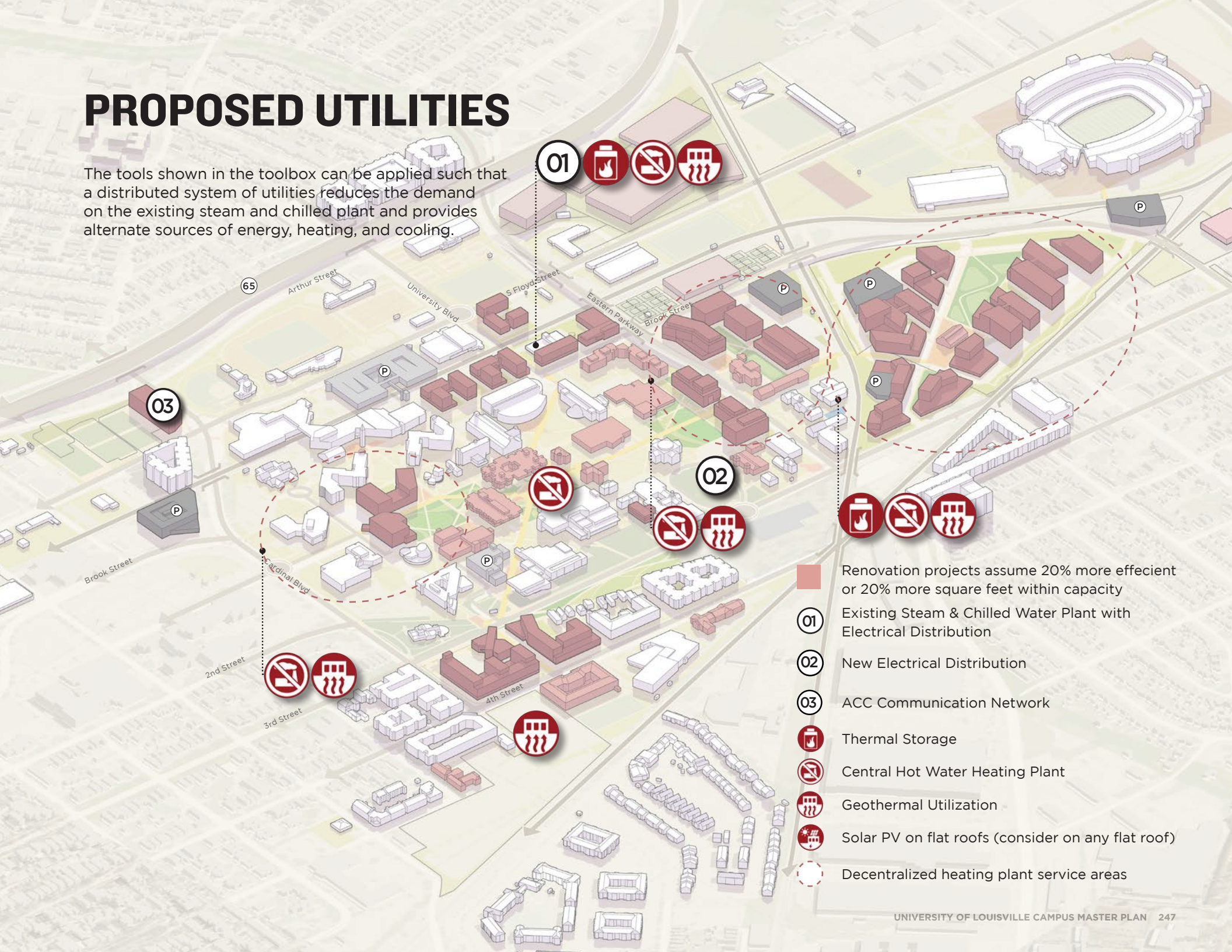
Sustainability and Efficiency

Sustainability and energy efficiency should be at the forefront of utility and infrastructure planning, with a focus on reducing consumption, minimizing environmental impact, and exploring renewable energy sources.

In summary, ensuring the reliability and sustainability of utility services on the Belknap campus requires a comprehensive approach that encompasses maintenance, upgrades, and long-term planning. The goal is to meet the current and future energy and telecommunications needs of the campus while minimizing environmental impact and promoting efficient resource use.

PROPOSED UTILITIES

The tools shown in the toolbox can be applied such that a distributed system of utilities reduces the demand on the existing steam and chilled plant and provides alternate sources of energy, heating, and cooling.



HSC UTILITIES

The HSC campus relies on multiple utility providers to ensure the smooth operation of its buildings and facilities. These services are essential for maintaining the campus’s functionality. Currently, the university receives the following utilities from various providers.

Chilled Water and Steam

Chilled water and steam are supplied to the campus from the Medical Center Steam & Water Plant located in downtown Louisville. These utilities are vital for climate control and various operational needs.

Electricity and Natural Gas

Electricity and natural gas services are provided by LG&E (Louisville Gas & Electric), ensuring the energy needs of the campus are met efficiently.

Telecommunications

Telecommunications services, including internet and phone connectivity, are sourced from local utility companies, such as AT&T and Spectrum, to facilitate communication and data exchange.

Water Supply

The Louisville Water Company provides the campus with a reliable source of water, a fundamental resource for various purposes within the campus.

It’s important to note that UofL is not responsible for maintaining the physical infrastructure of these utility services to the buildings but relies on these external providers for their delivery and upkeep.

PROPOSED UTILITIES STRATEGY

Over the next 10-15 years, the focus of the university will revolve around ensuring the reliability and efficiency of these utility services. The proposed approach includes the following key elements:

- **Updating End-of-Life Equipment:** To maintain the campus’s functionality, priority will be given to updating equipment that has reached the end of its operational life. This proactive approach ensures that critical systems remain reliable and efficient.
- **Energy Conservation:** Addressing deferred maintenance and implementing energy-saving strategies will be central to the UofL’s utility strategy. This approach aligns with sustainability goals and aims to reduce energy consumption and operational costs.
- **Collaboration with Utility Providers:** The university maintains a cooperative relationship with its utility providers. A representative on the Board for the Medical Center Steam & Water Plant ensures close coordination and communication with utility partners. This collaborative effort ensures the continued provision of essential services.

In summary, the UofL’s utility strategy encompasses a proactive approach to ensure the reliability and efficiency of essential services on the HSC campus. This includes updating aging equipment, implementing energy-saving measures, and maintaining close collaboration with utility providers. These efforts collectively contribute to the sustainability and functionality of the campus.



APPENDICES

APPENDICES

Appendix A: Co-Map Survey

Appendix B: Space Assessment

Appendix C: Building Conditions Assessment

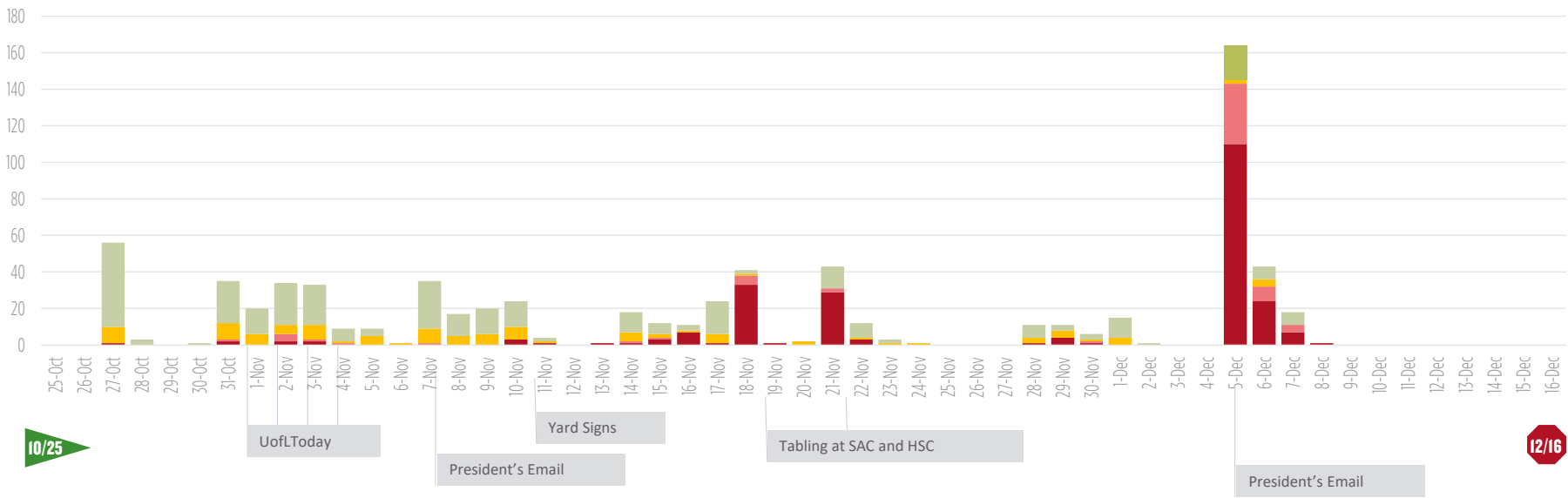
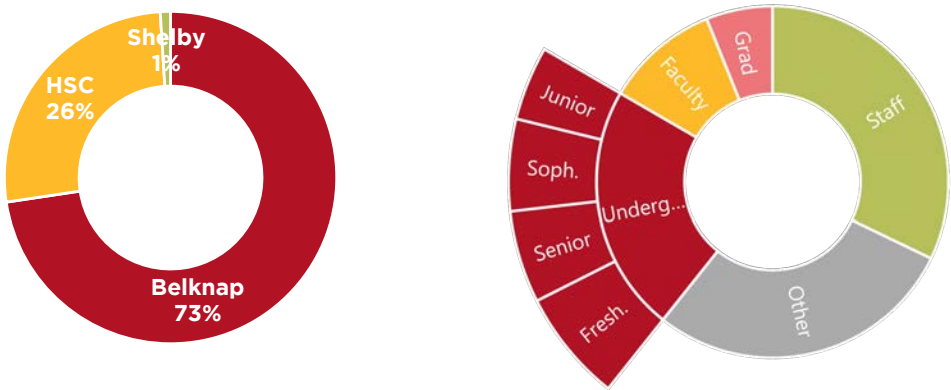


Appendix A

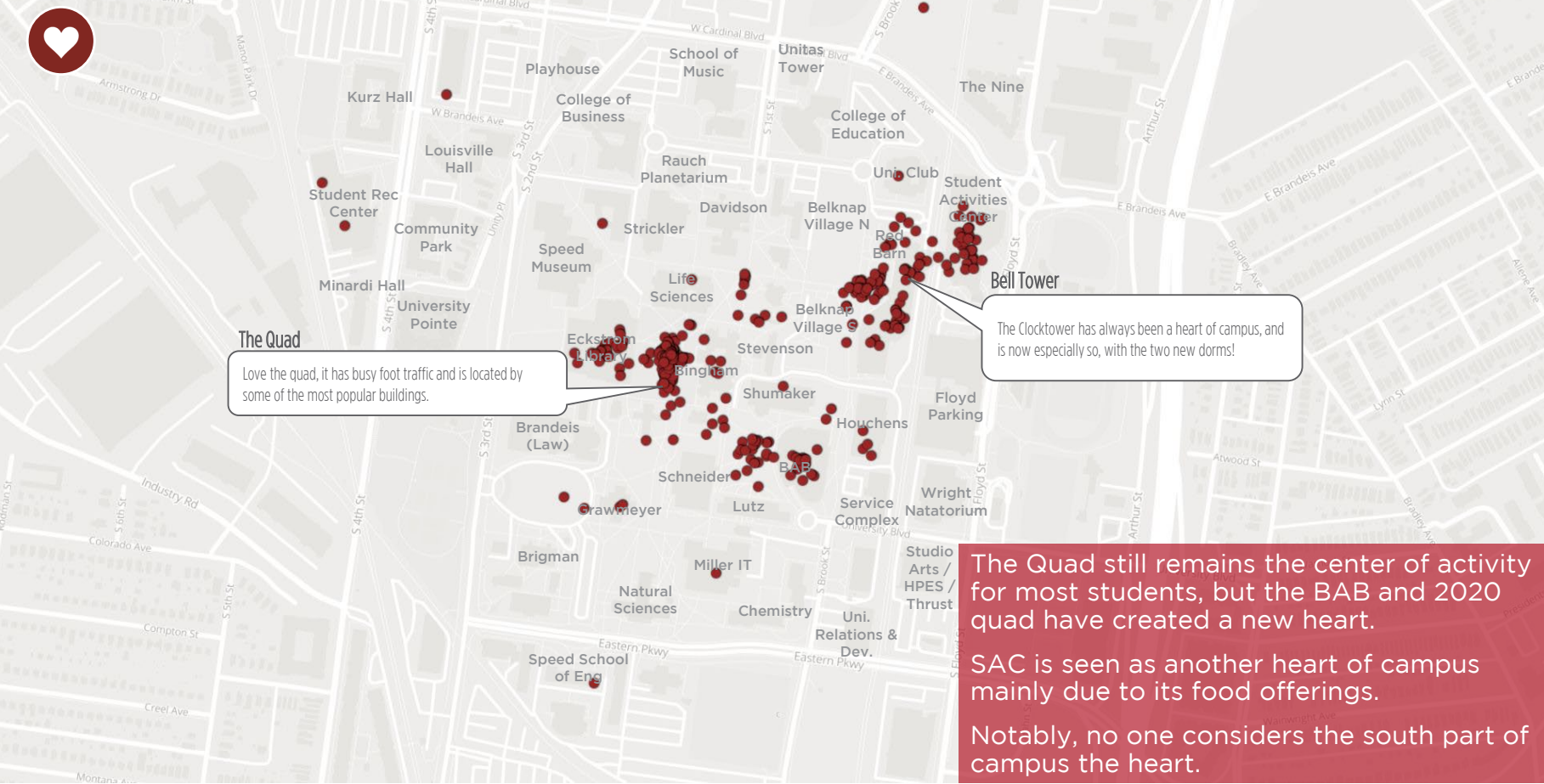
CO-MAP SURVEY

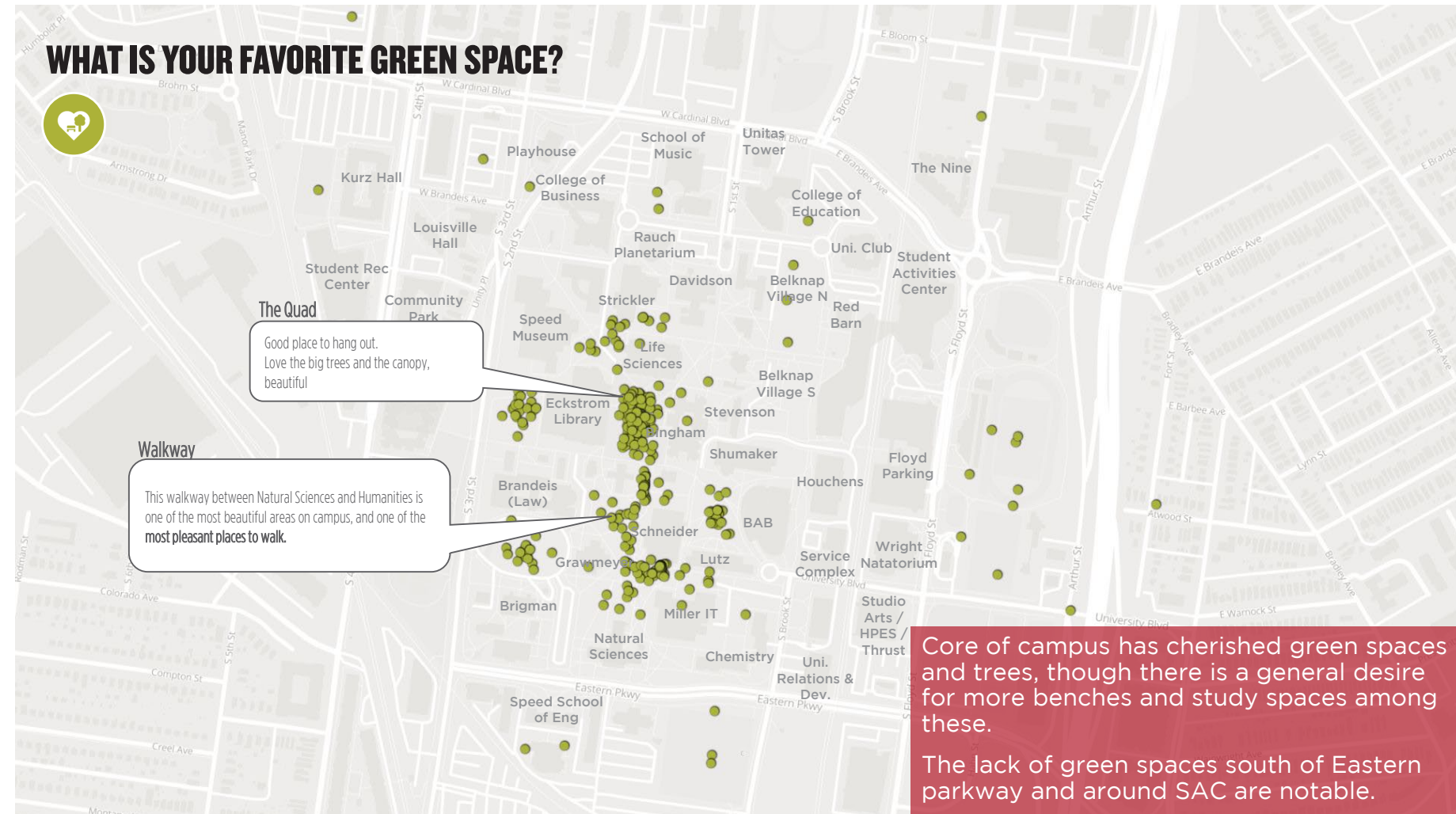
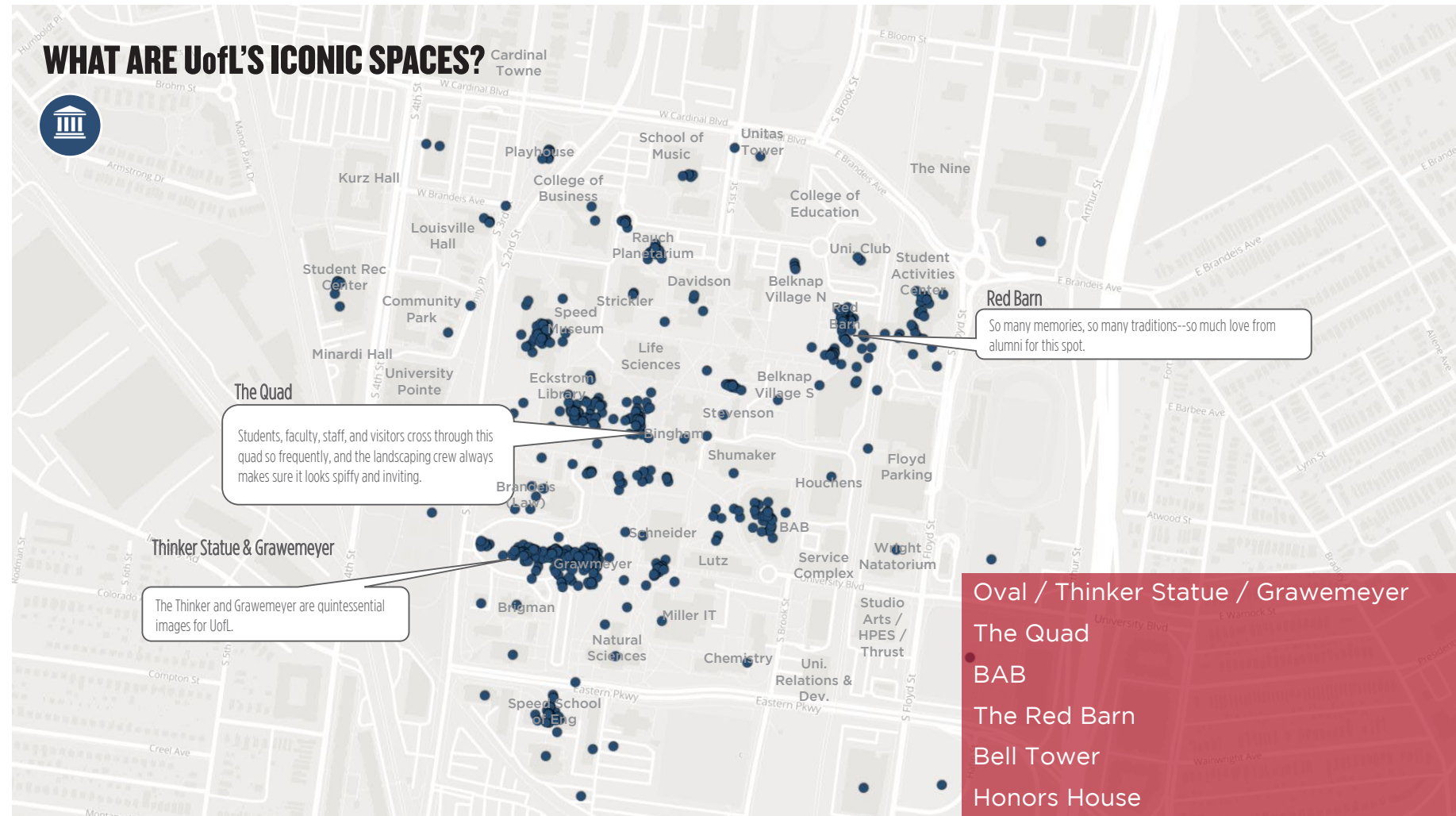
COMAP SURVEY

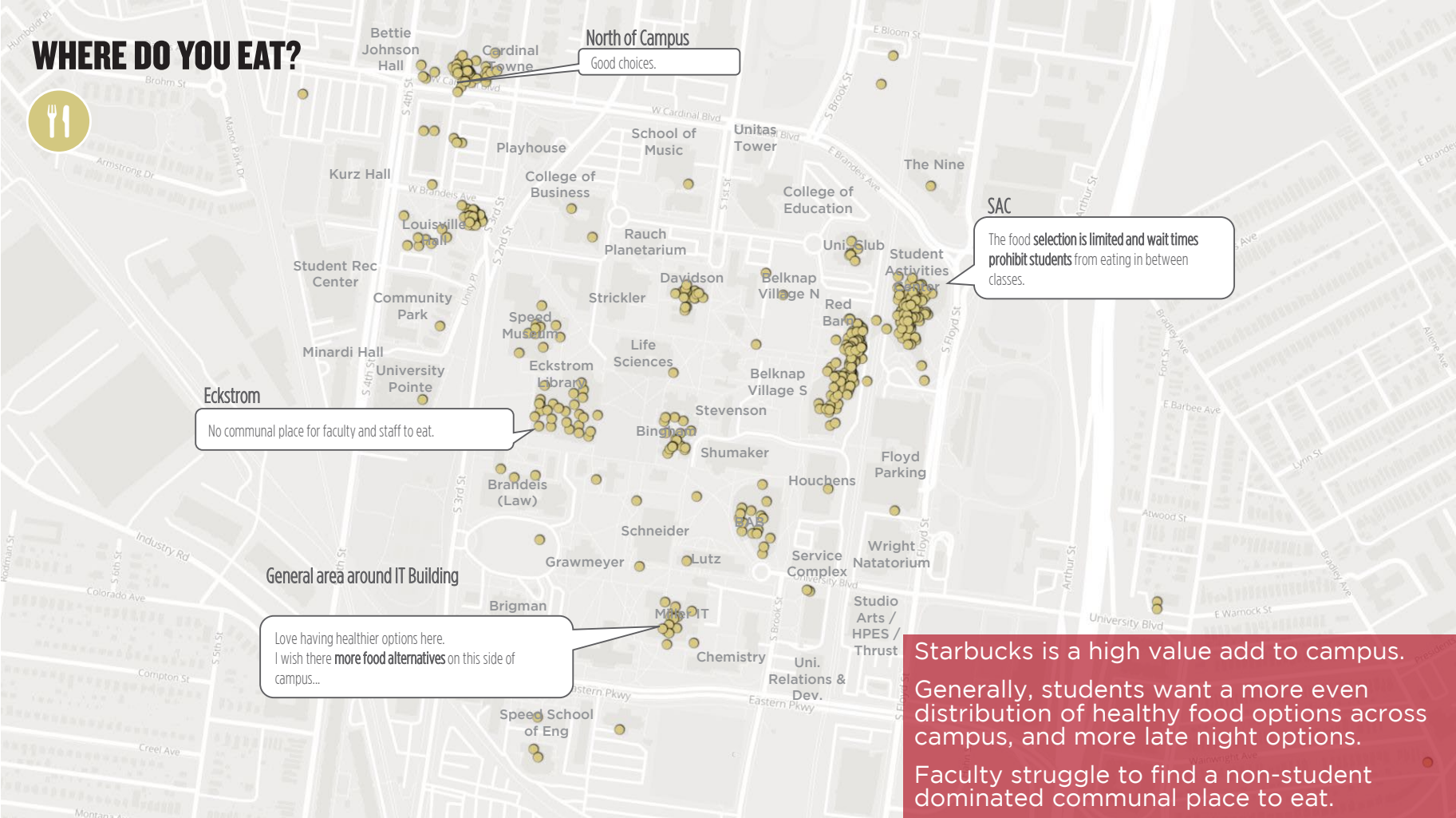
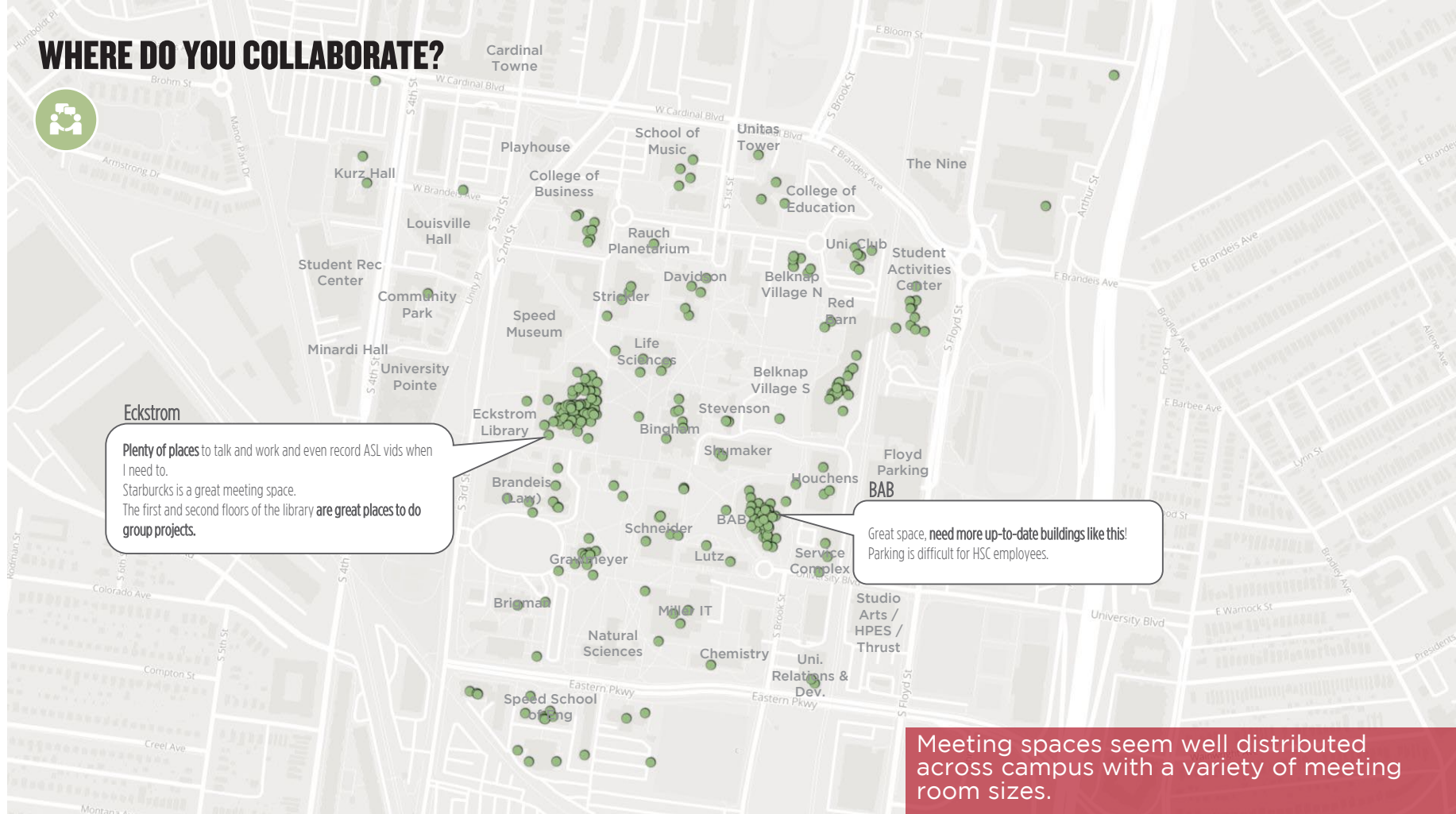
1,036 respondents
7,776 icons
2,186 comments

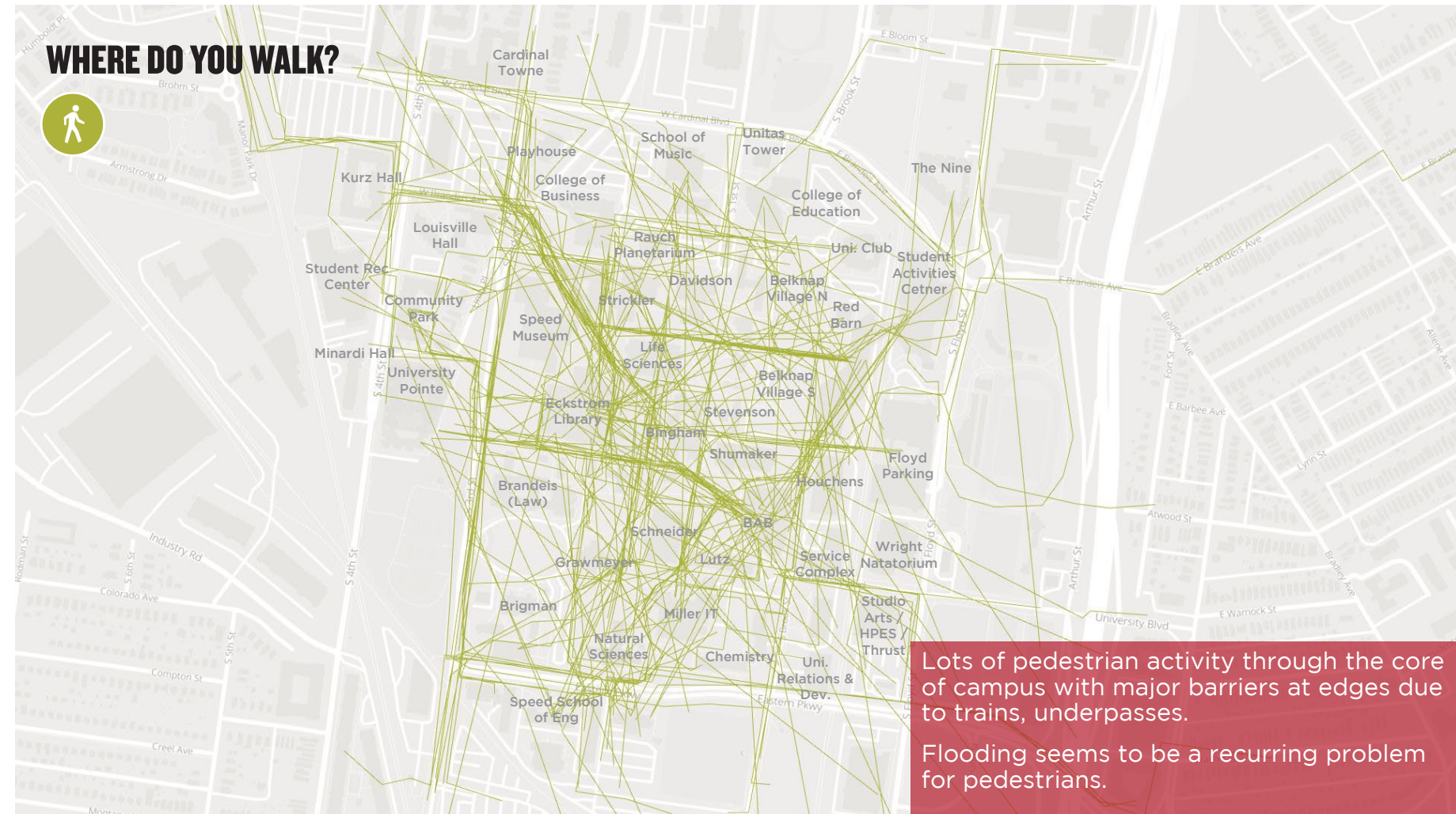
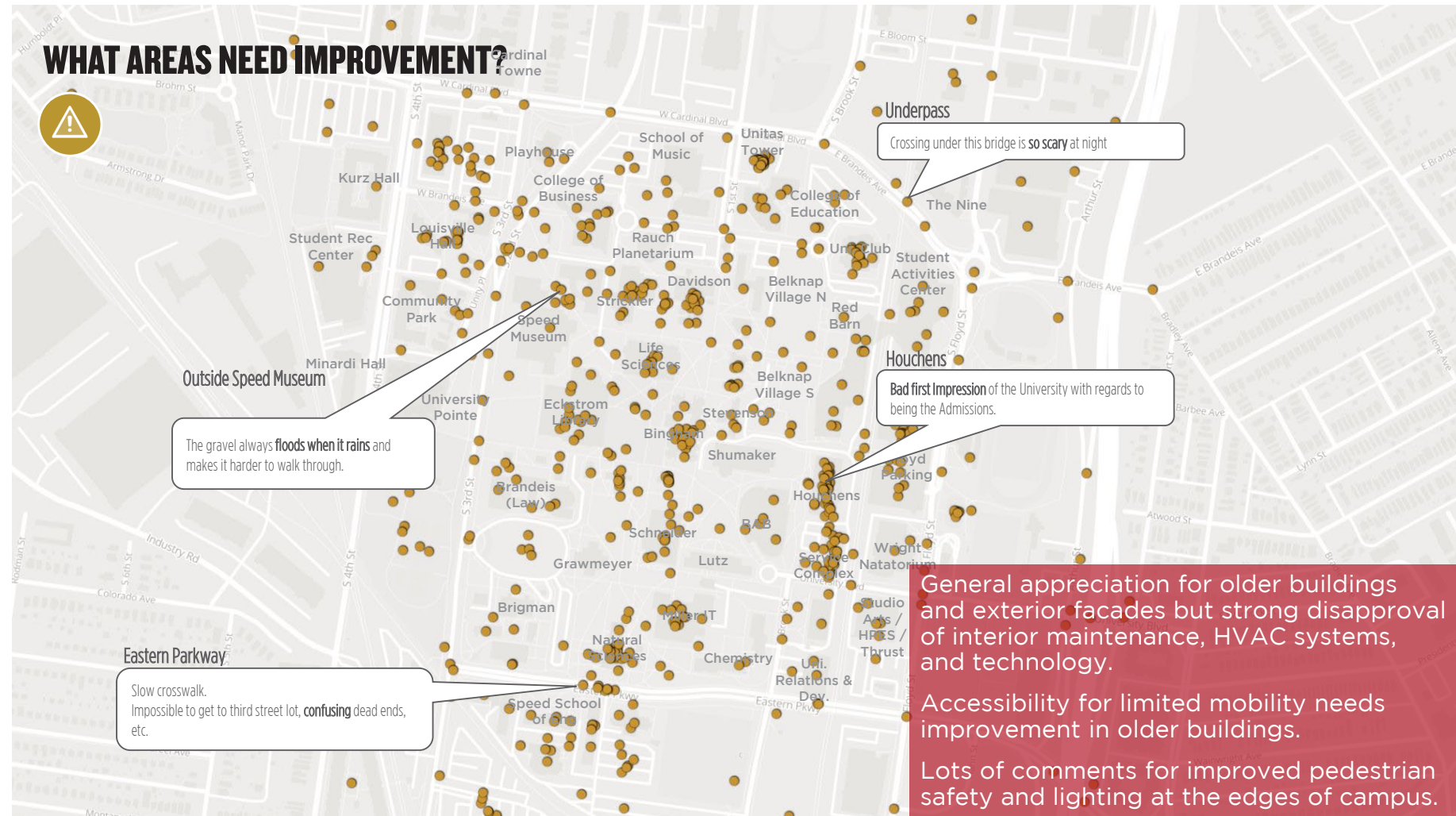


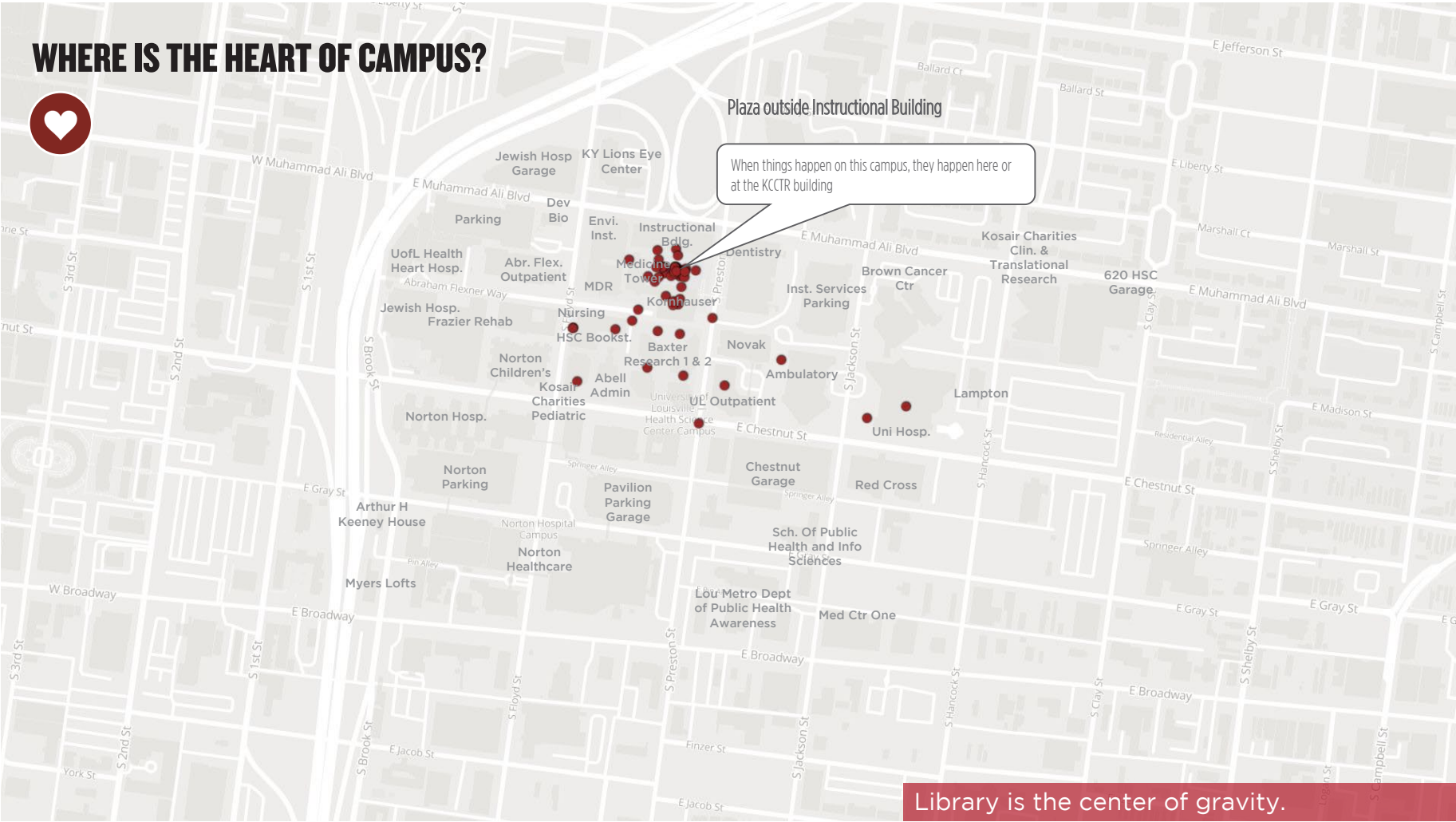
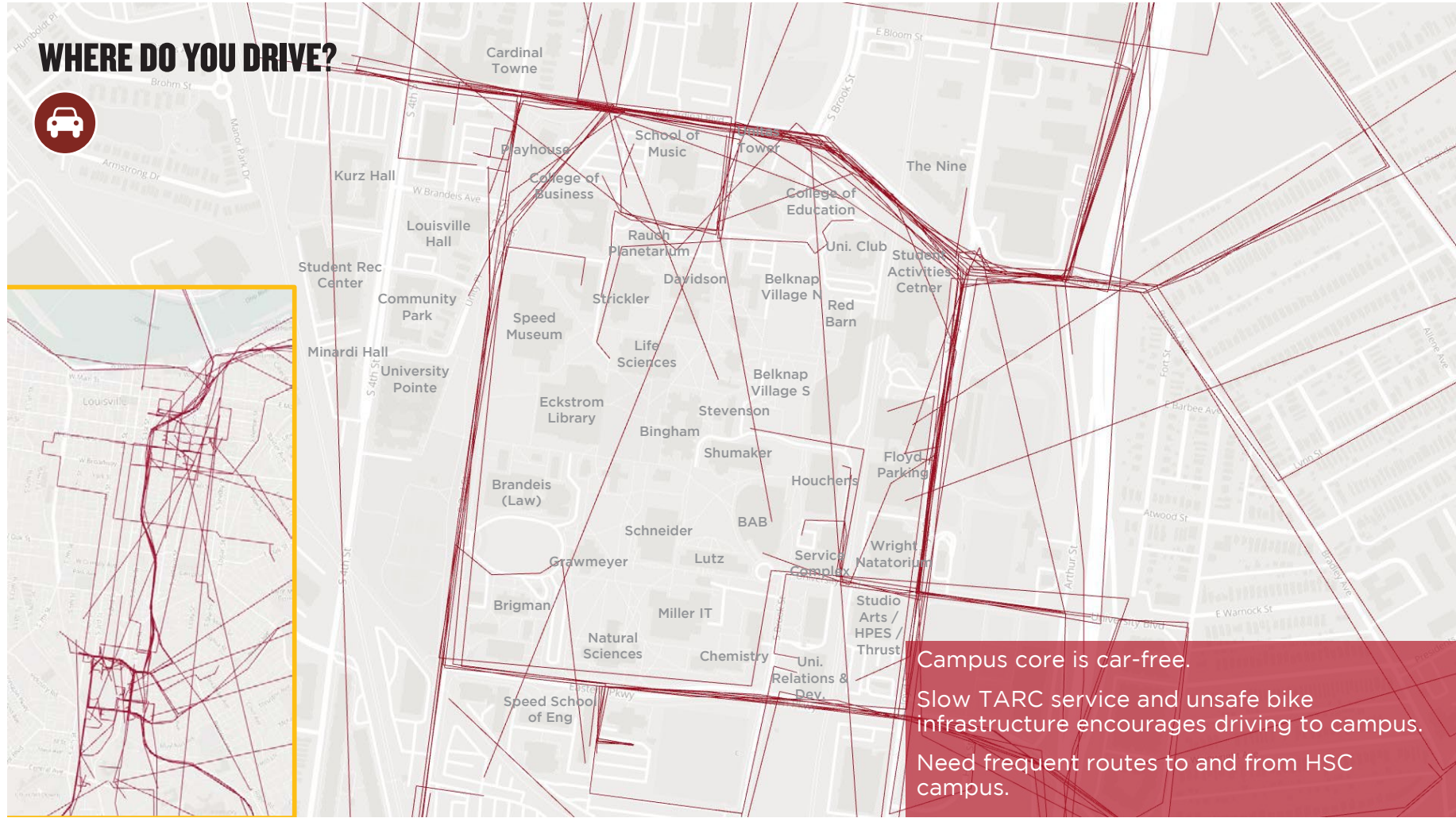
WHERE IS THE HEART OF CAMPUS?

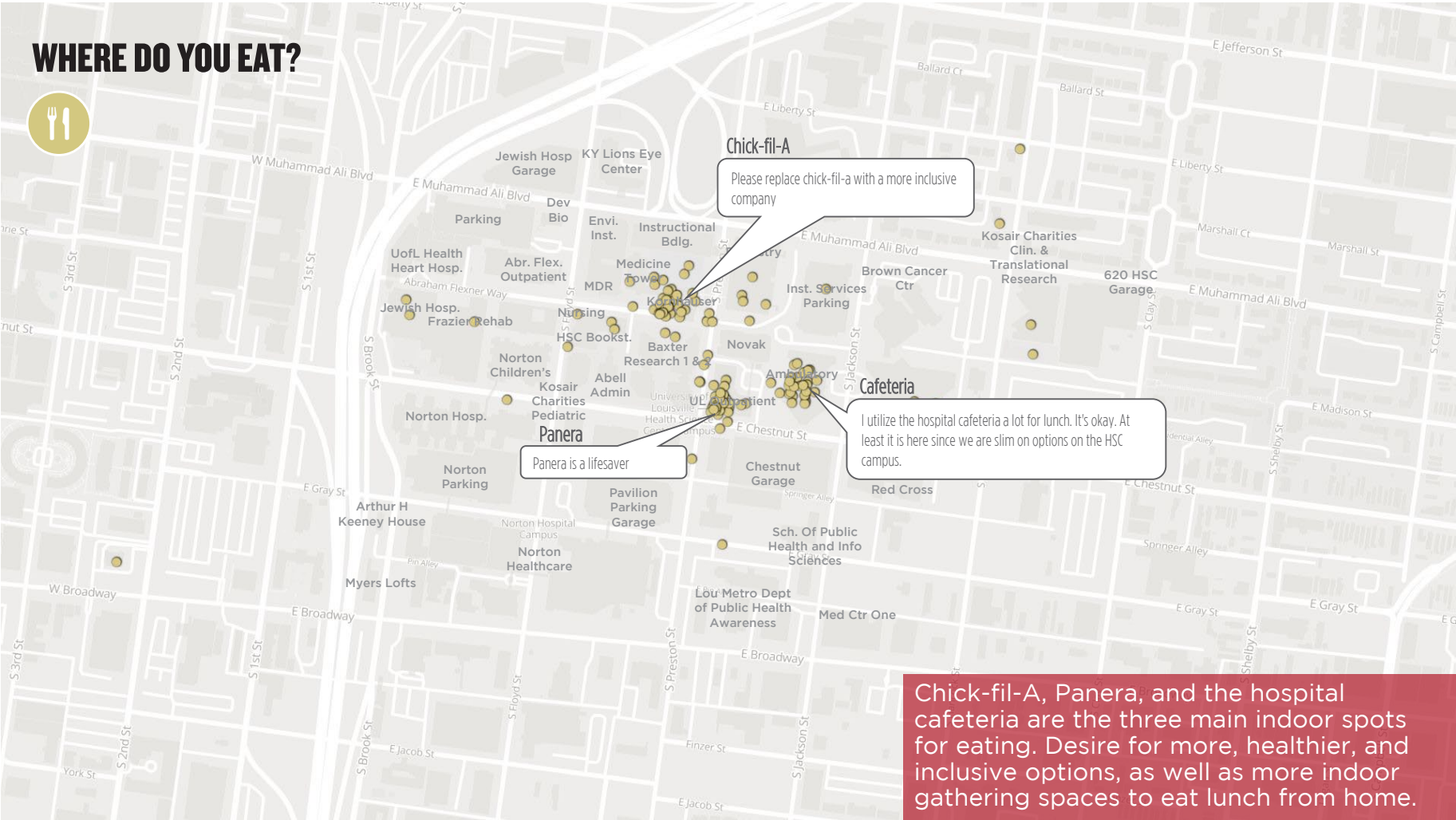
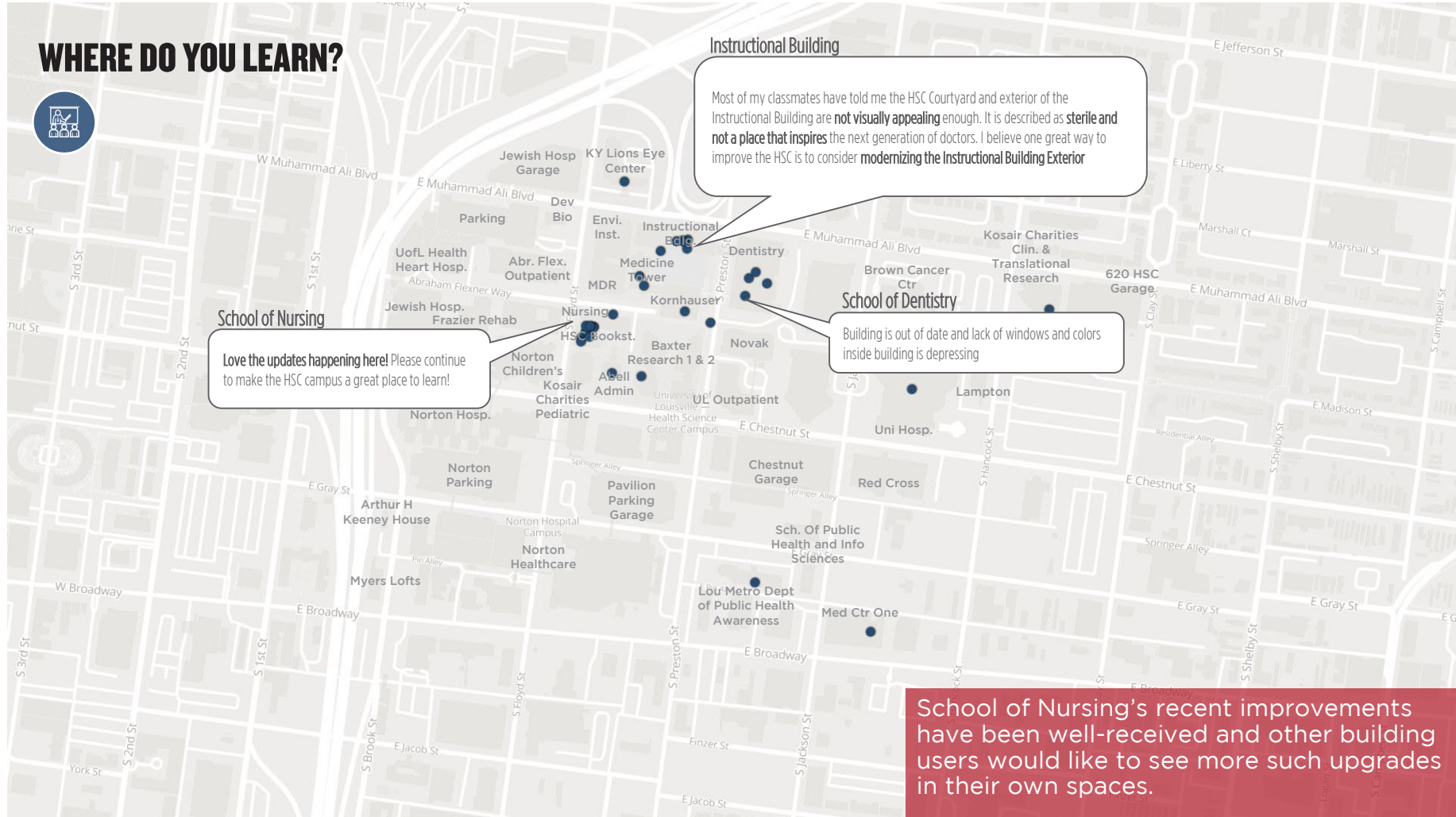


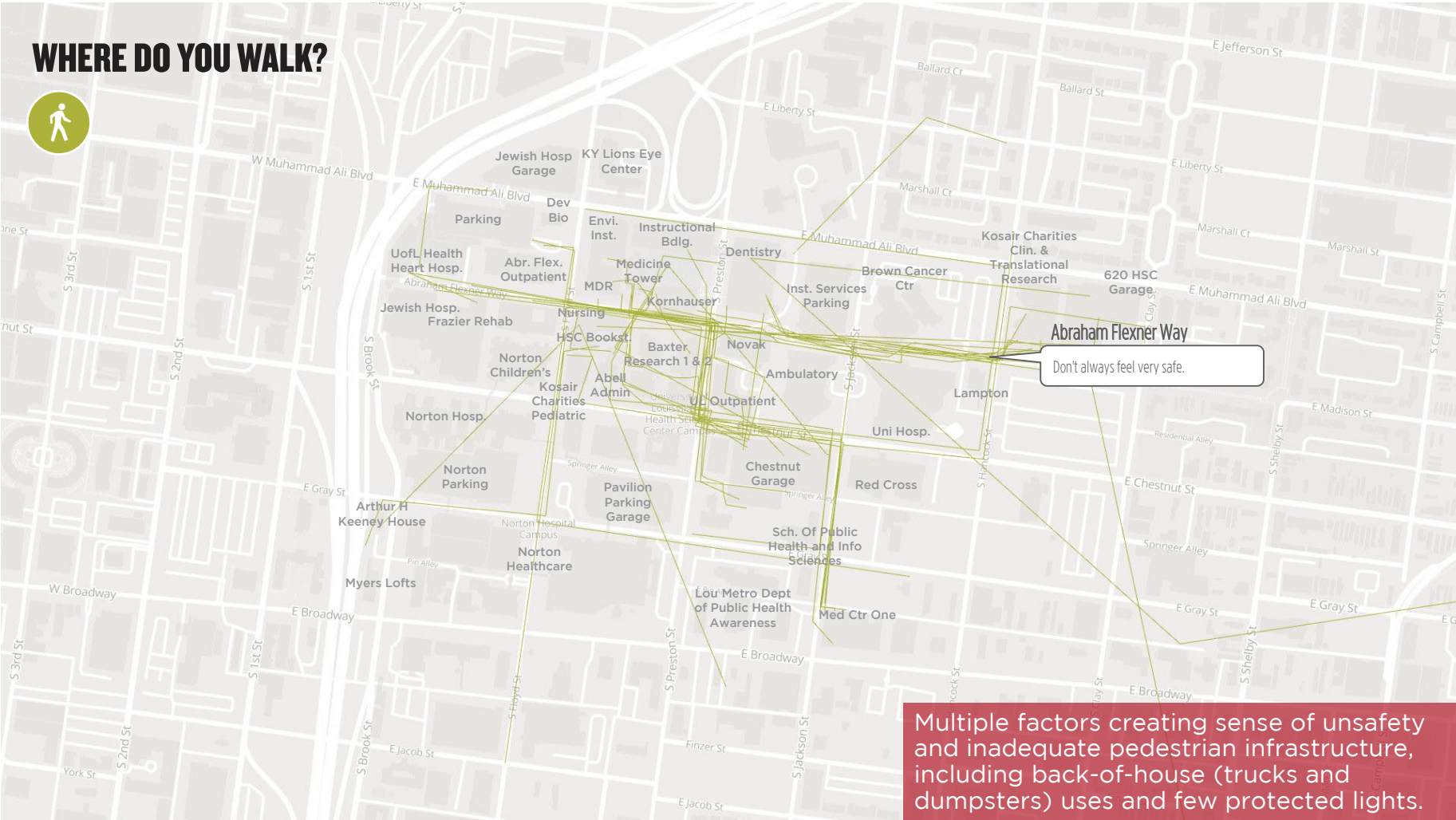
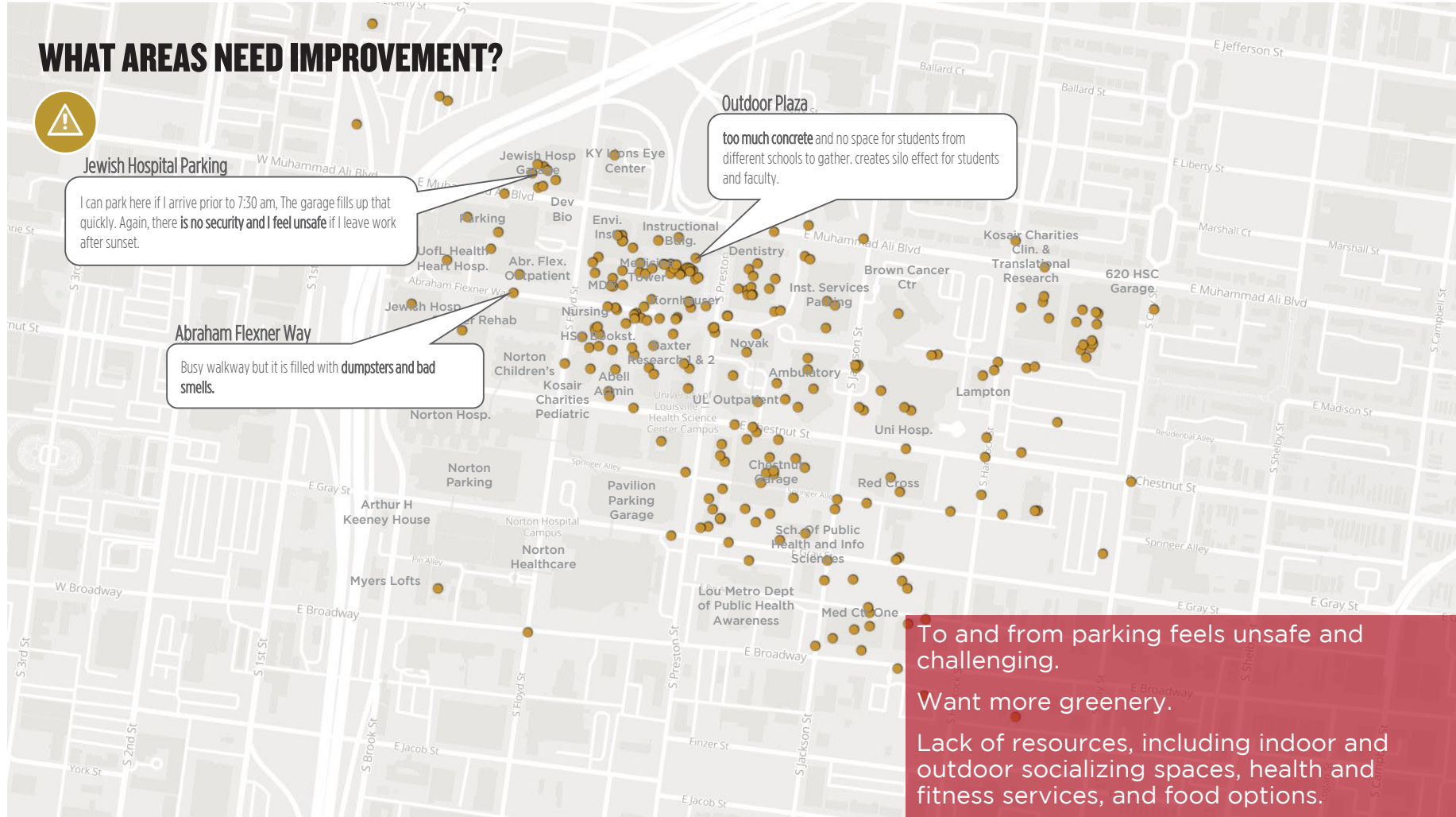


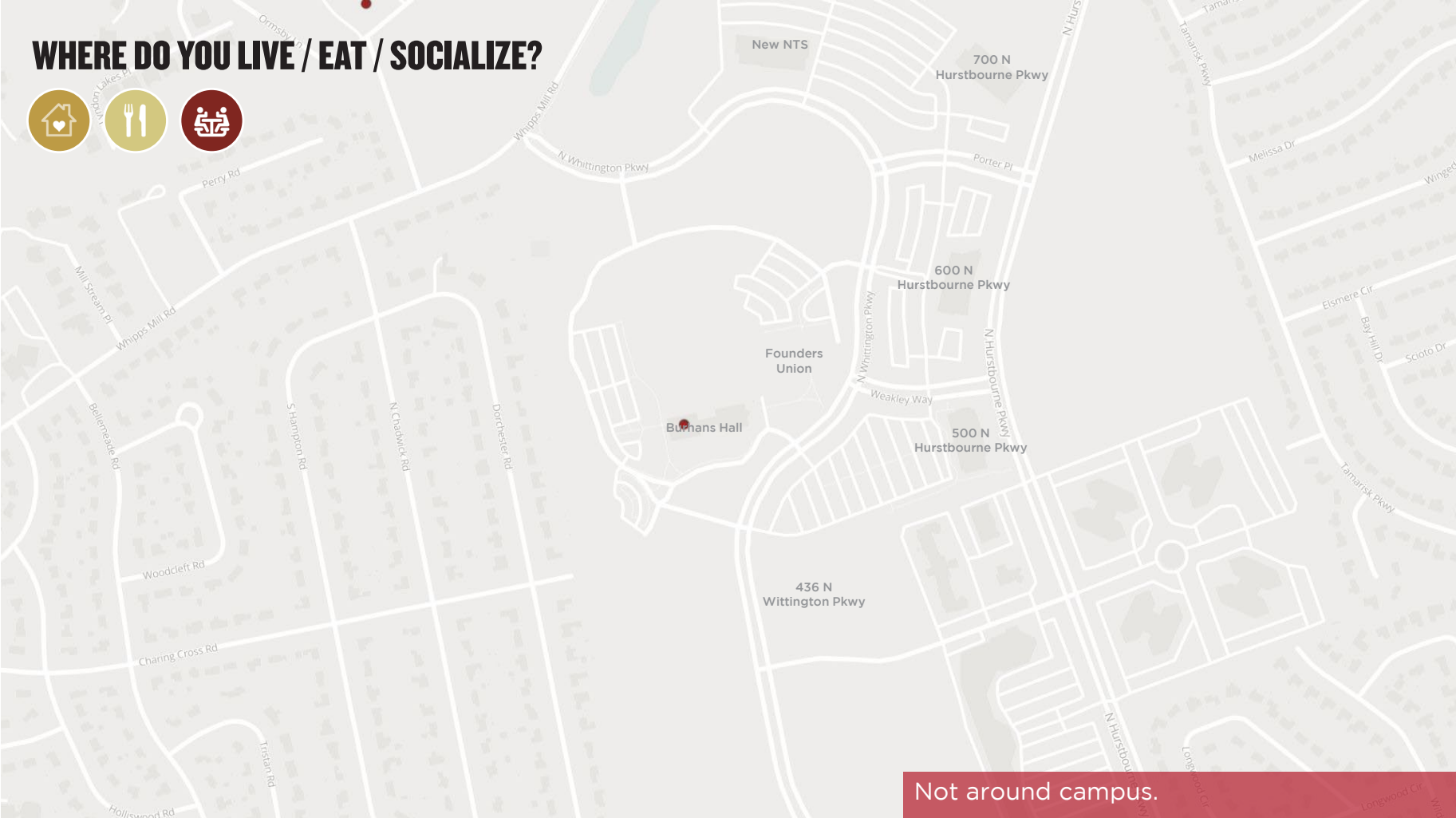




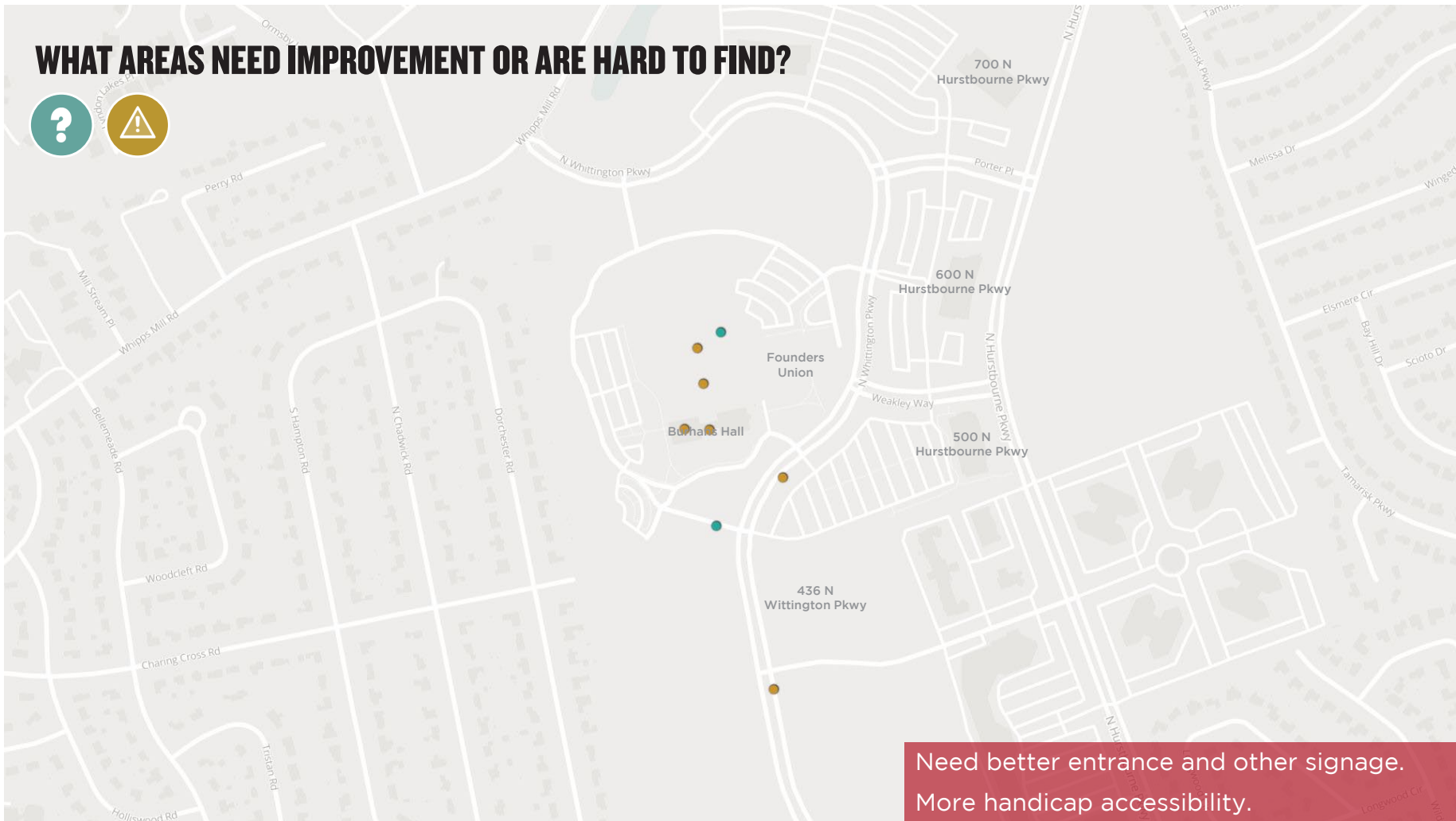




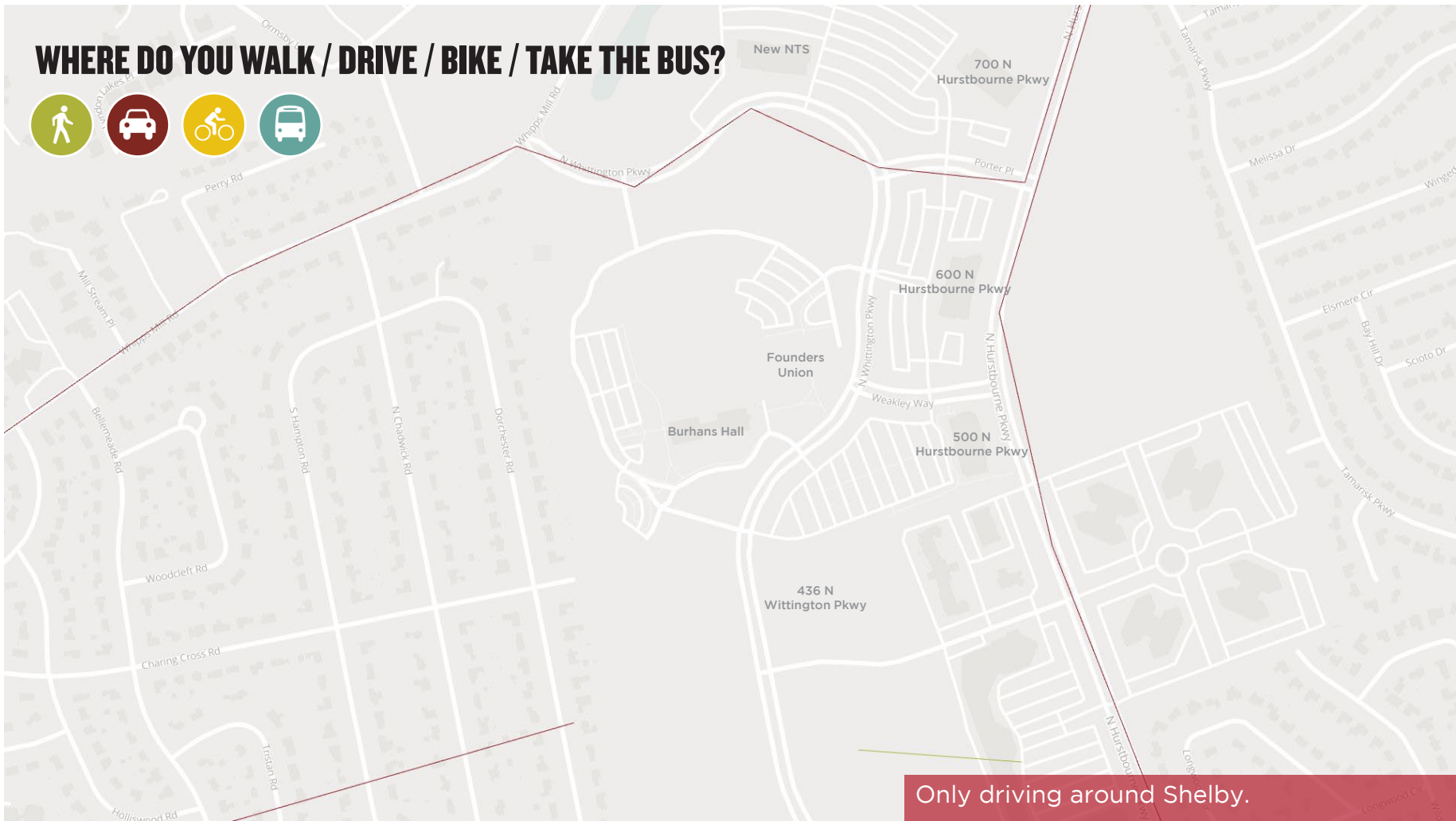




WHAT AREAS NEED IMPROVEMENT OR ARE HARD TO FIND?



WHERE DO YOU WALK / DRIVE / BIKE / TAKE THE BUS?



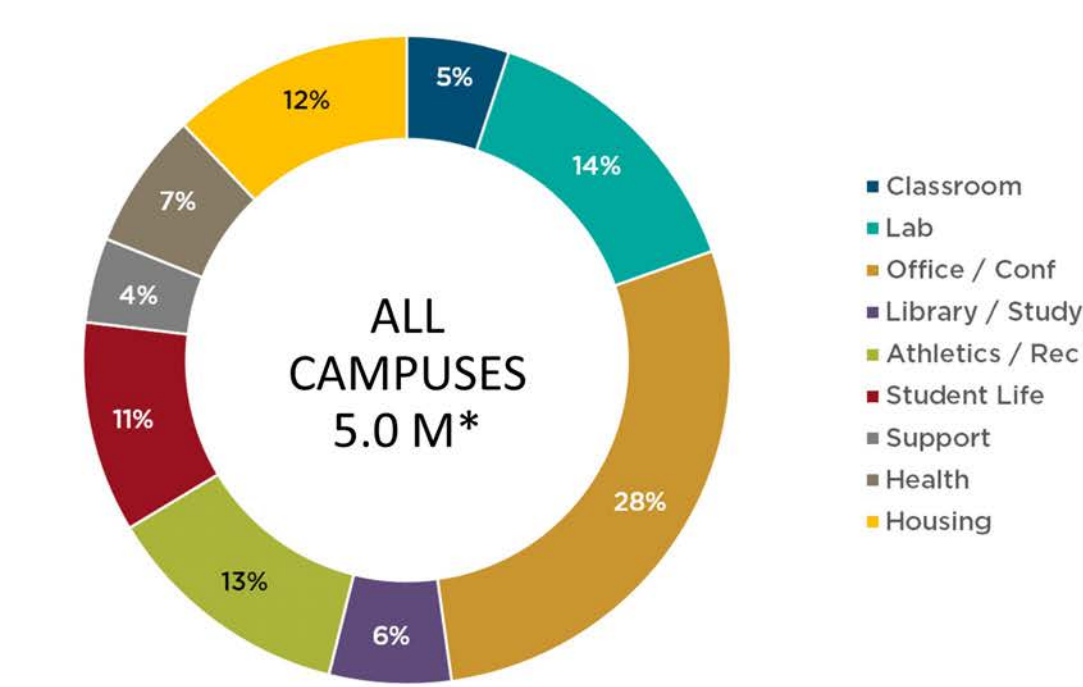


Appendix B

SPACE ASSESSMENT

ASSIGNABLE SQUARE FEET - SUMMARY

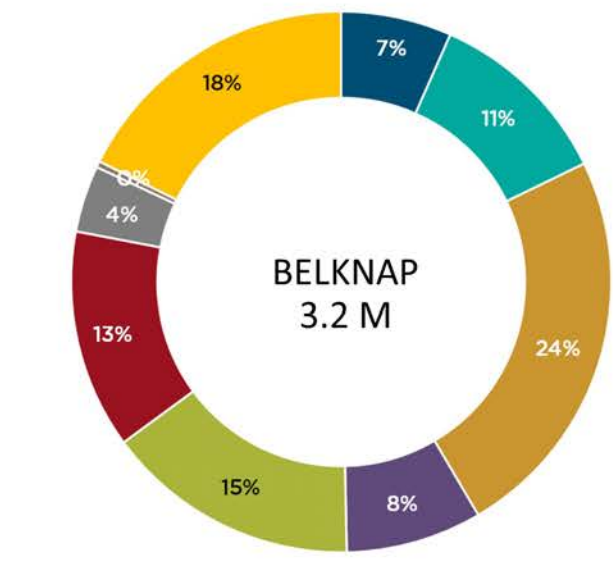
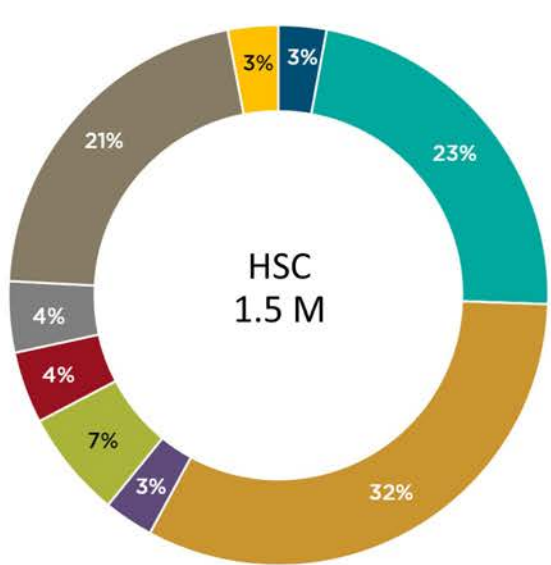
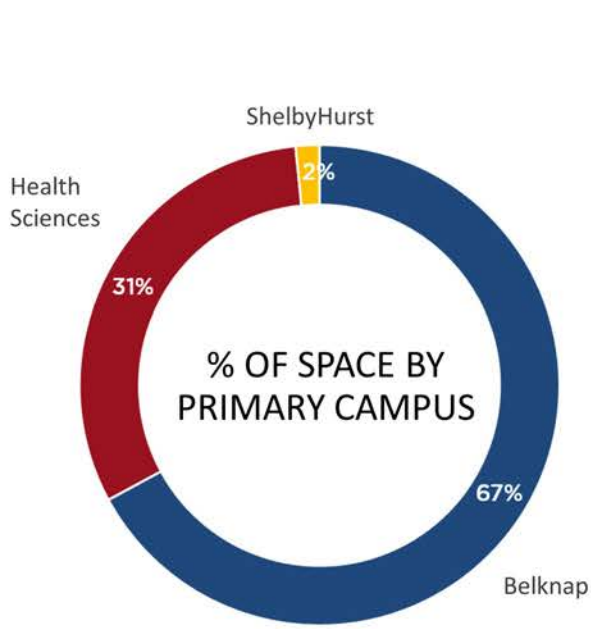
Office space accounts for over one-quarter of university space. How does the future of work inform how we think about space use on campus?



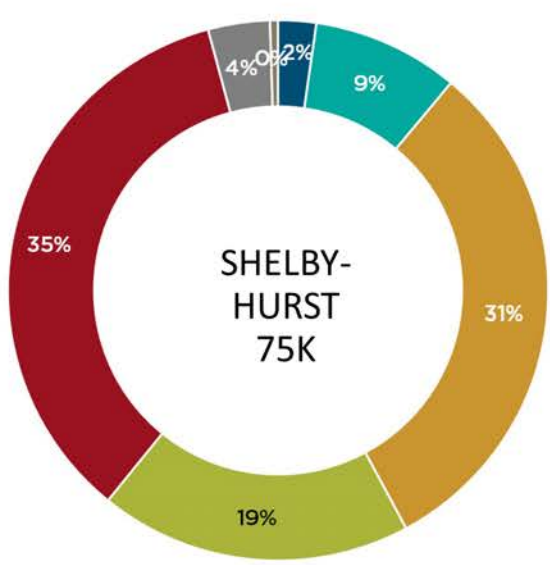
*Includes other off-campus and Foundation properties in

ASSIGNABLE SQUARE FEET - SUMMARY

Even on Belknap, classroom space accounts for only 7 percent of all space



- Classroom
- Lab
- Office / Conf
- Library / Study
- Athletics / Rec
- Student Life
- Support
- Health
- Housing



CLASSROOMS TODAY

Belknap Campus: Active Learning Rooms

- Several newly constructed and renovated rooms support new approaches to active learning
- Variety in approaches... layout/furniture, technology, fit out, etc.
- Is this approach intentional based on pedagogy, school preferences, and/or experimentation?
- Or have room types evolved organically over time?



CLASSROOMS TODAY

Belknap Campus: Traditional Rooms

- Many rooms adhere to more traditional, fixed, lecture style setups
- Inclusive design and accessibility limitations in several rooms
- Wide variety of room types, layout/furniture, technology, etc.
- Density of tablet arms can limit the flexibility to support alternative active learning setups
- Several buildings look and feel tired and in need of a refresh



CLASSROOMS TODAY

Health Sciences Center Campus

- Many rooms have been recently refreshed
- Older, tiered rooms can be difficult to renovate for active learning setups
- Some Sch. of Nursing rooms have very dense seating



THINKING AHEAD...

Enhanced Tech/AV



Environment & Wellness



Furniture Diversity



Learning Studios



2 Rows per Tier



Team Seating



In the Round



INFORMAL LEARNING SPACES

- Belknap Academic Building provides a template for incorporating a variety of collaboration spaces
- Opportunity to think creatively about retrofitting tired spaces to create a similar dynamic in older facilities
- Potential to use a lighter, faster, cheaper approach with high-impact on strengthening the academic environment



THINKING AHEAD...

Student Wellness



Faculty Interaction



Reinvented Corridors



Outdoor Connections



Flexible Uses



Focus Booths



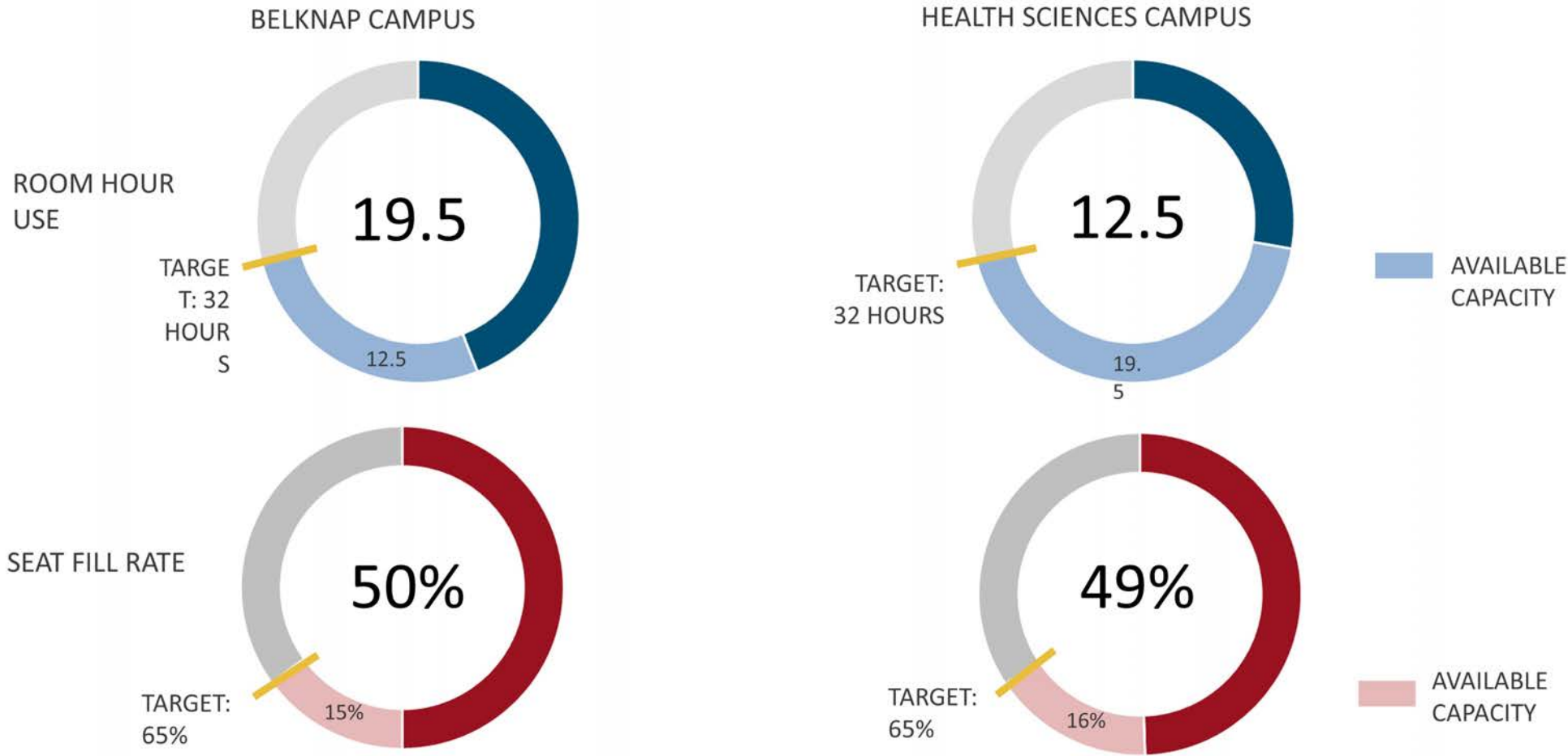
Technology



Informal Nooks

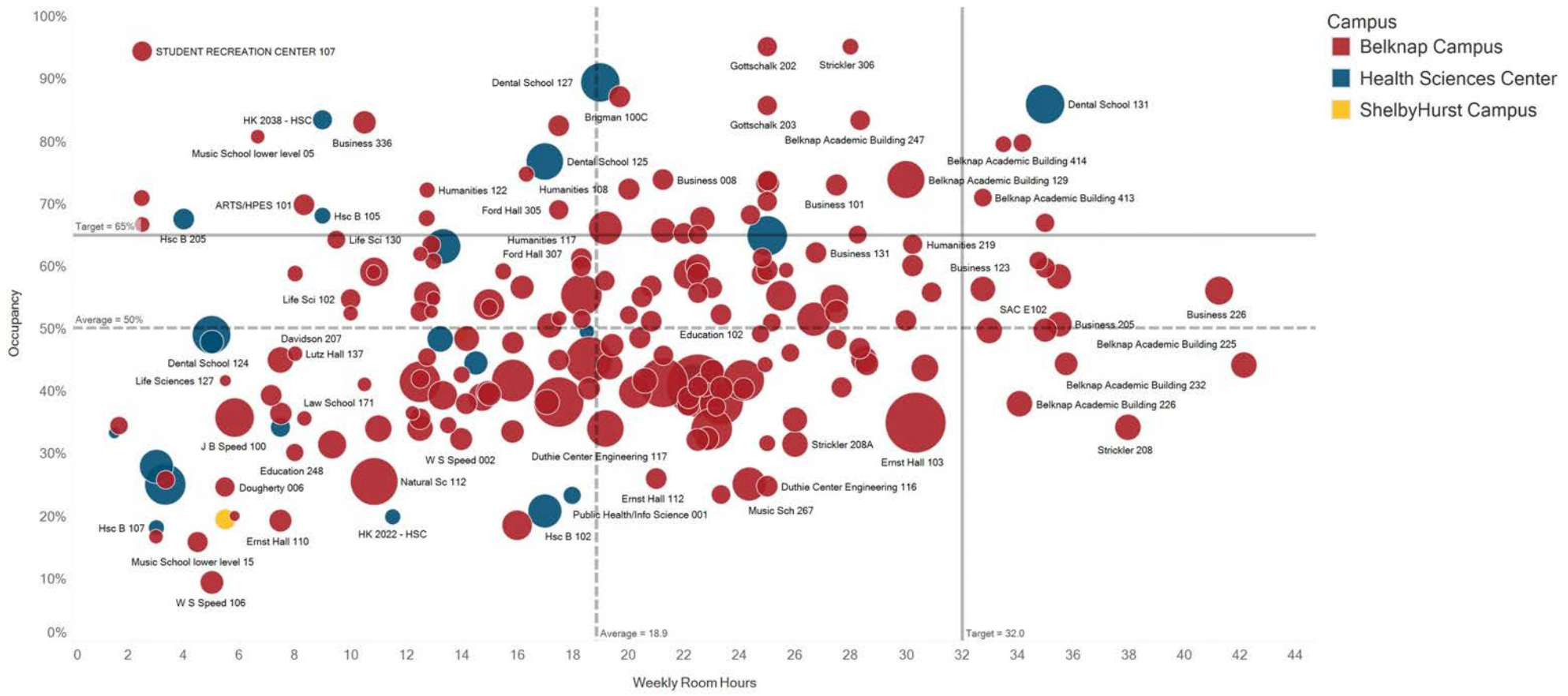


SUMMARY OF CLASSROOM UTILIZATION



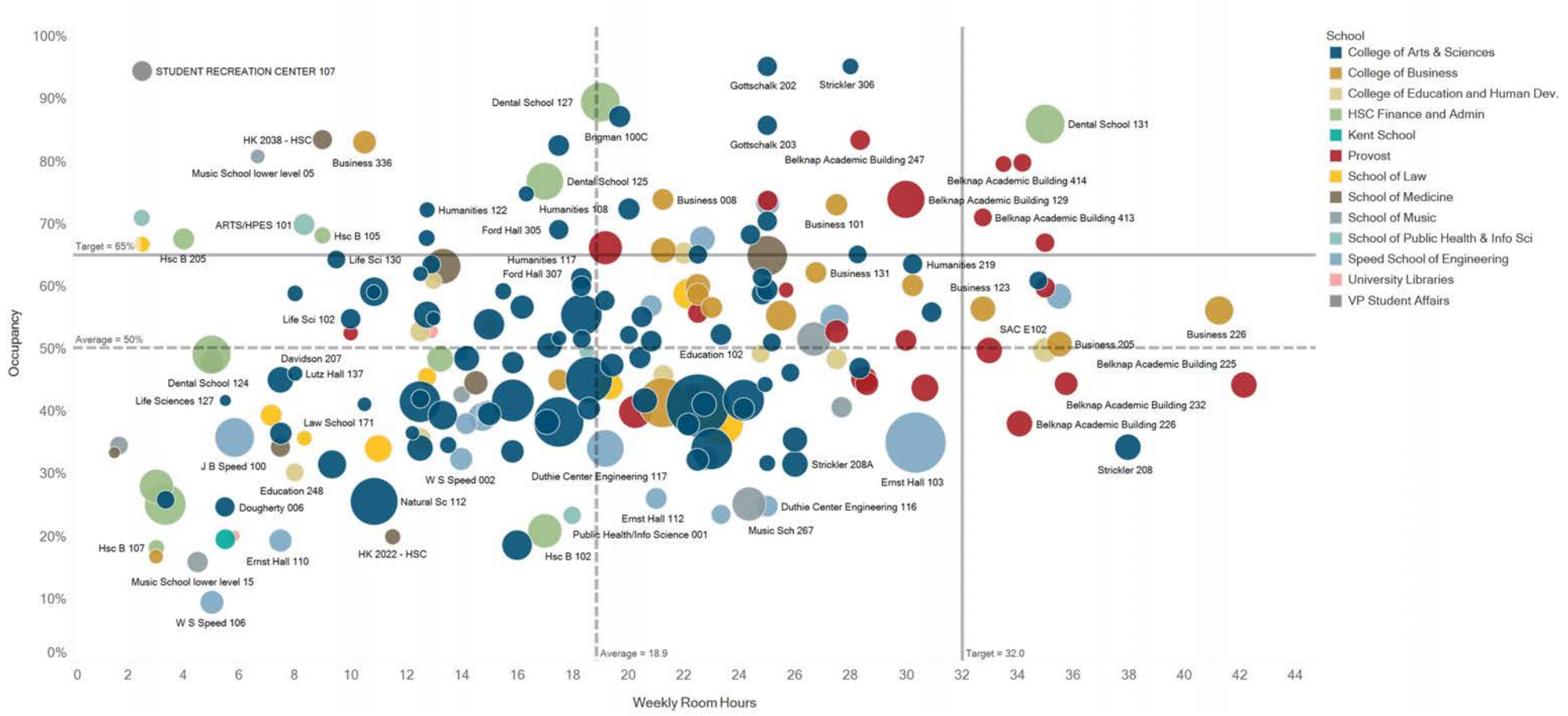
CLASSROOM WEEKLY ROOM HOURS + OCCUPANCY

Few classrooms reach target seat occupancy or weekly room utilization.



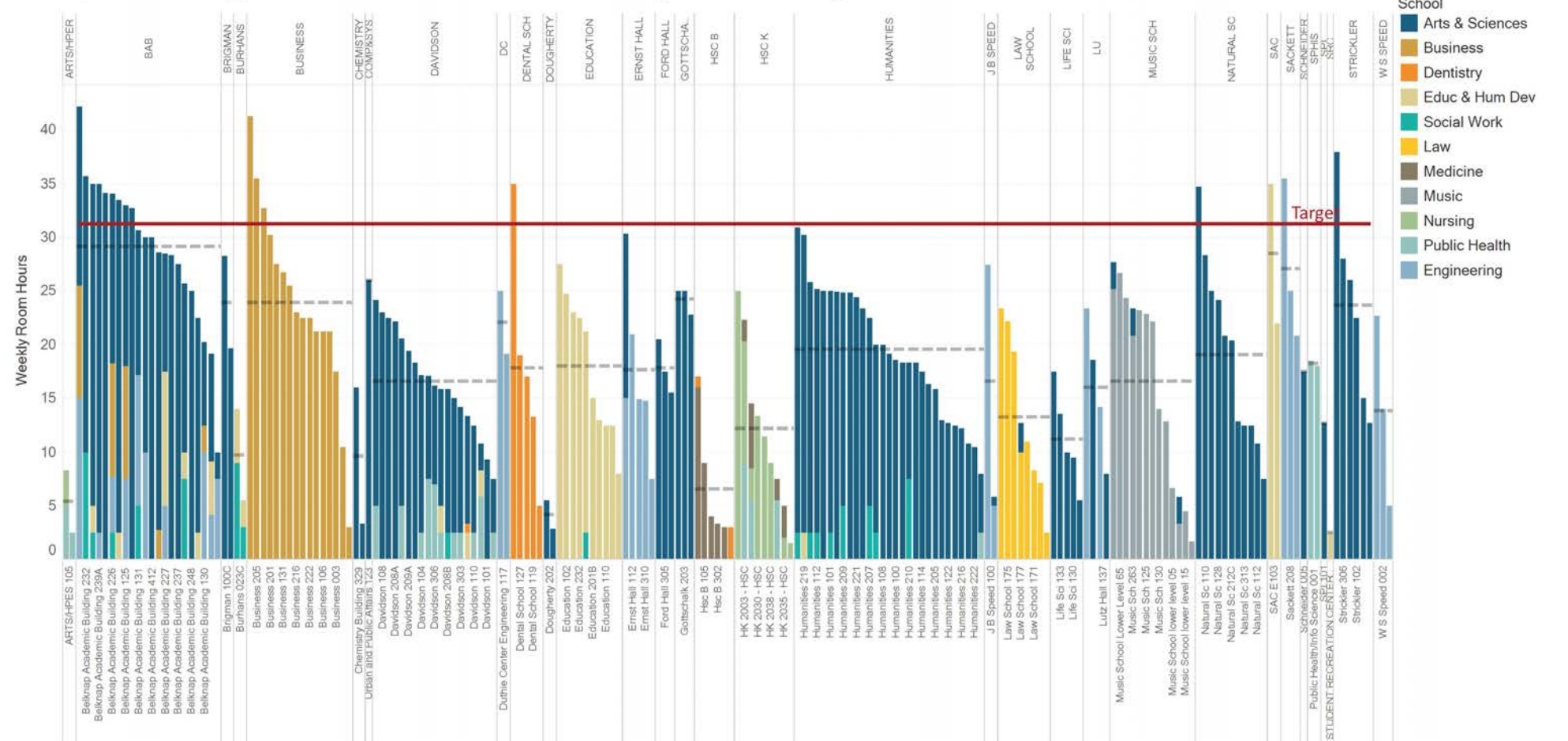
CLASSROOM WEEKLY ROOM HOURS + OCCUPANCY

At Belknap Campus, BAB has the most highly utilized classrooms; at HSC, Dental School has most highly utilized rooms



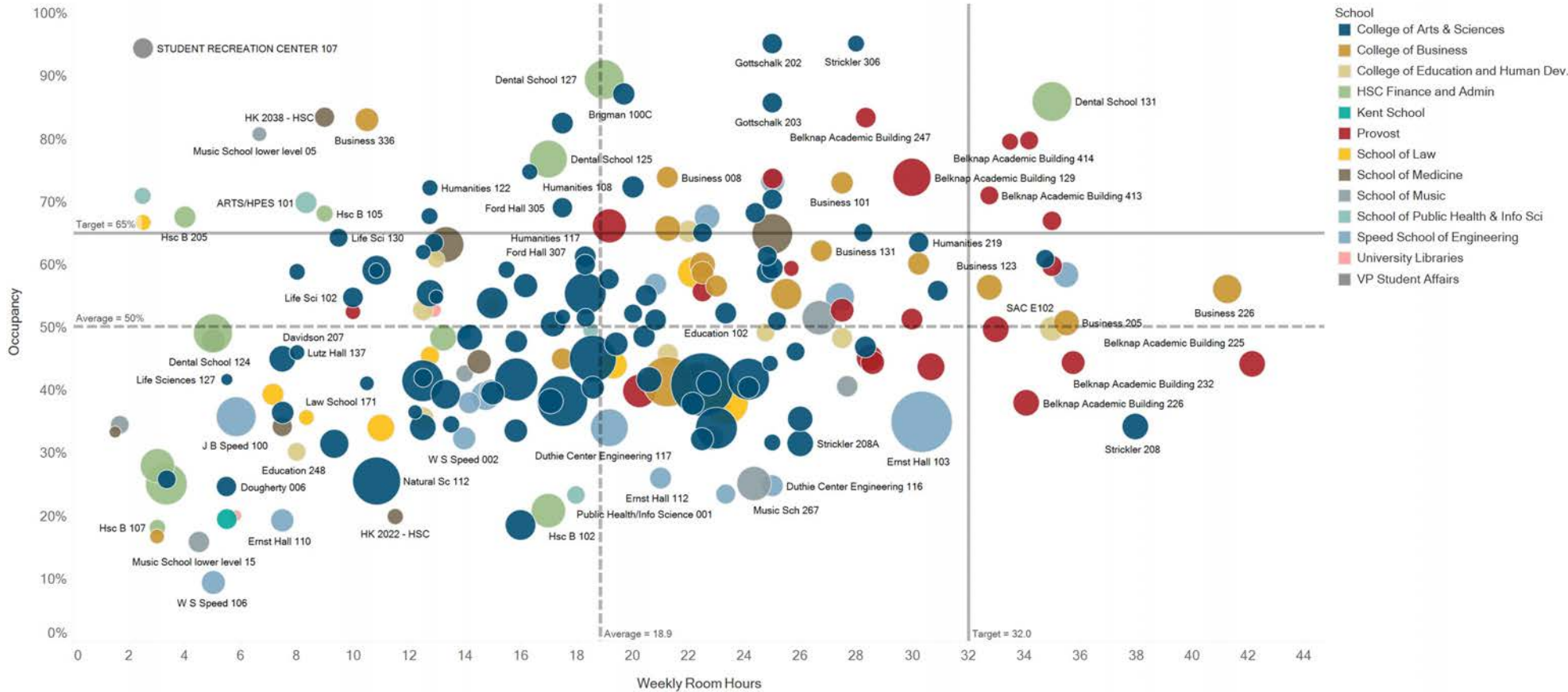
CLASSROOM WEEKLY ROOM HOURS BY SCHOOL

Very few buildings have classrooms that meet weekly utilization targets but BAB comes close



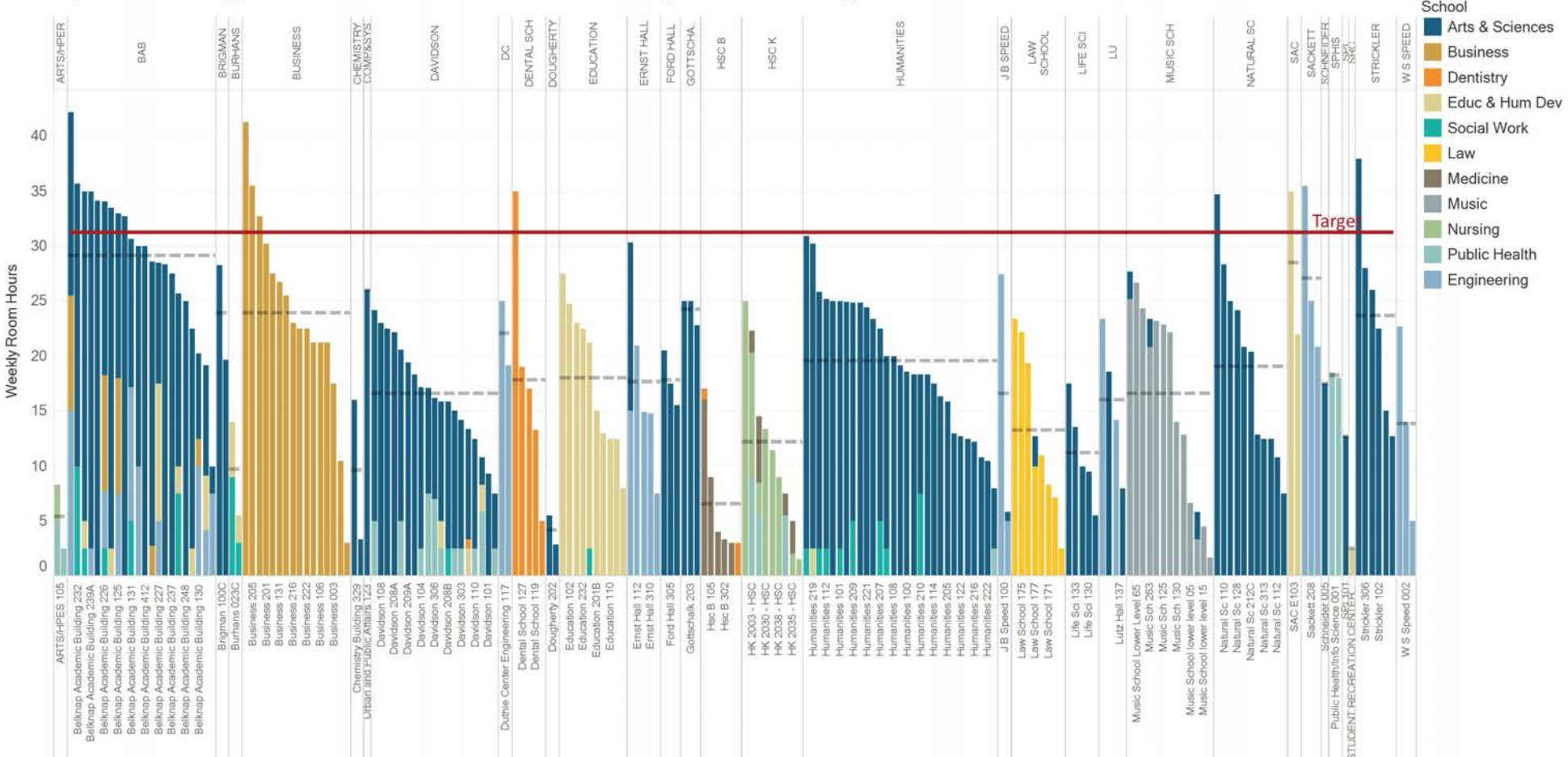
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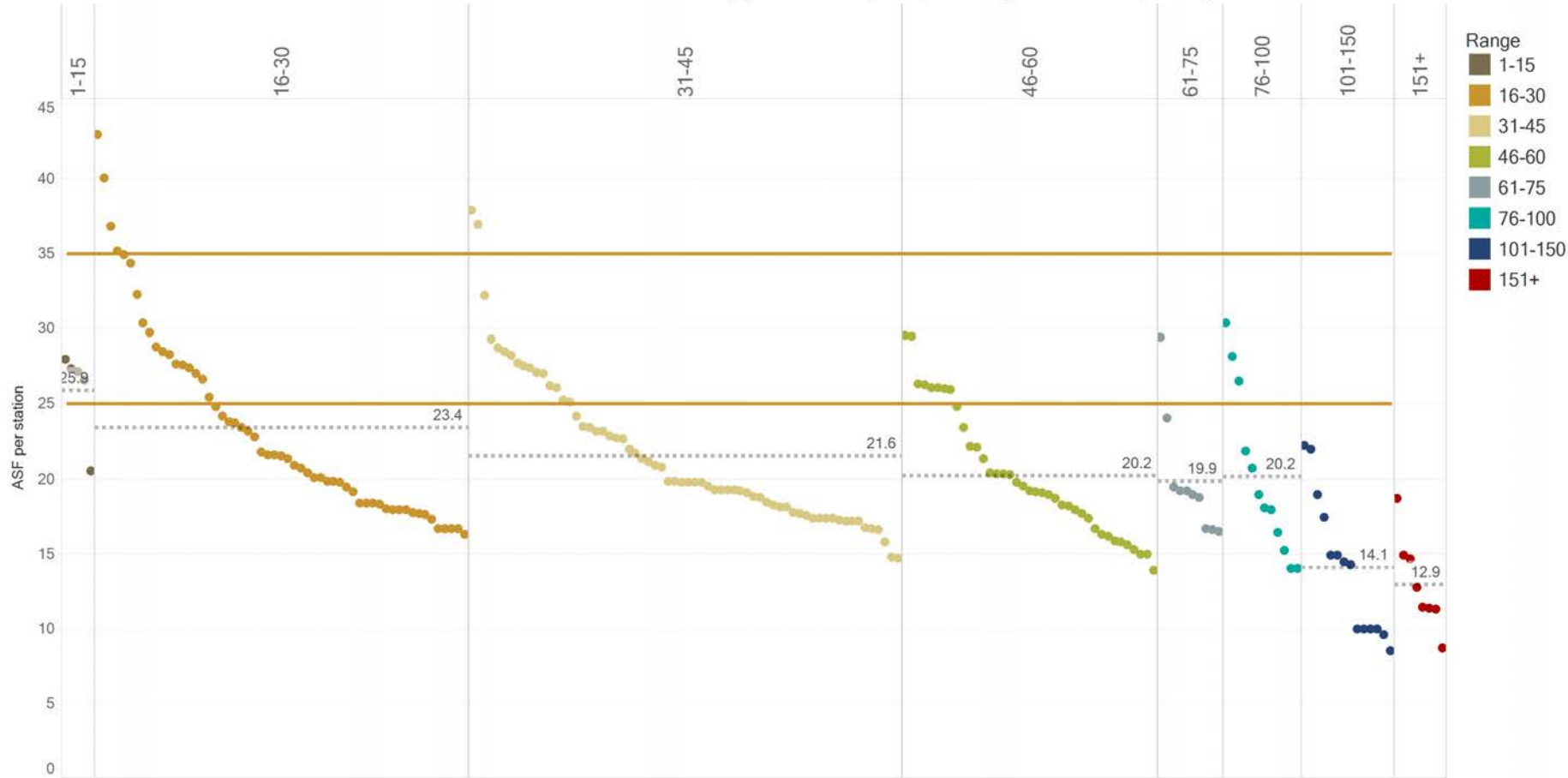
CLASSROOM WEEKLY ROOM HOURS BY SCHOOL

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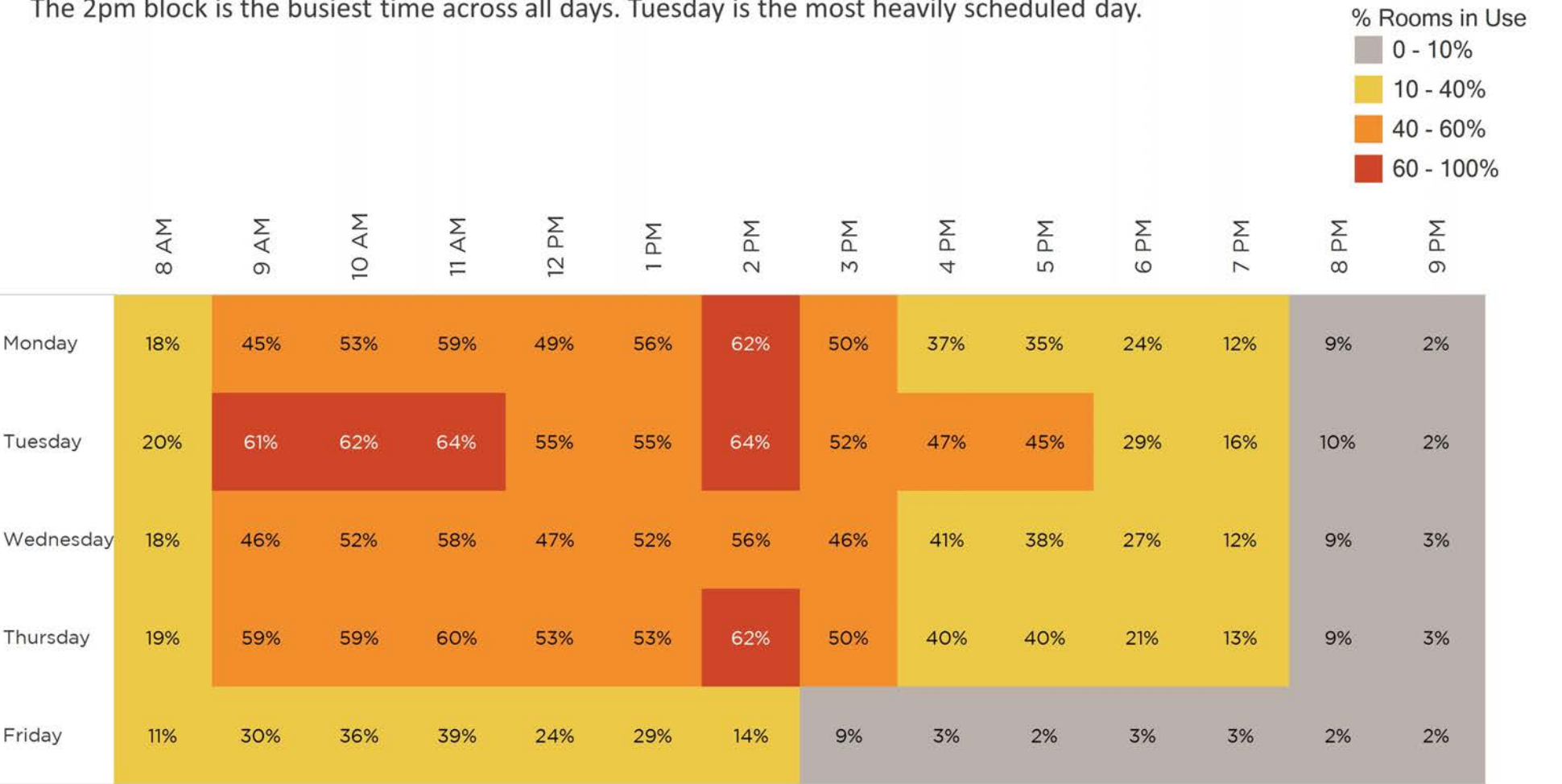
CLASSROOM ASF PER STATION BY SEAT RANGE

Station sizes are smaller than ideal in rooms of all sizes, potentially impacting seat occupancy.



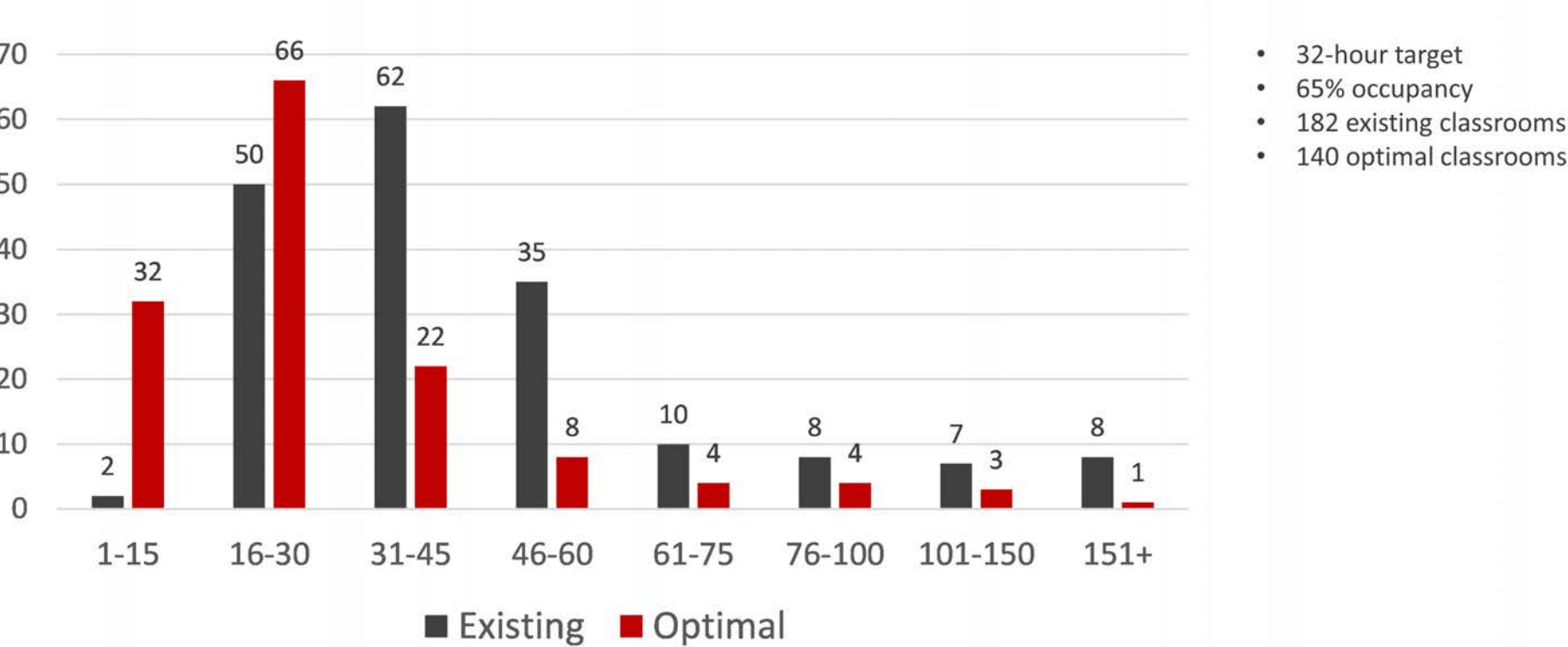
CLASSROOM UTILIZATION

The 2pm block is the busiest time across all days. Tuesday is the most heavily scheduled day.



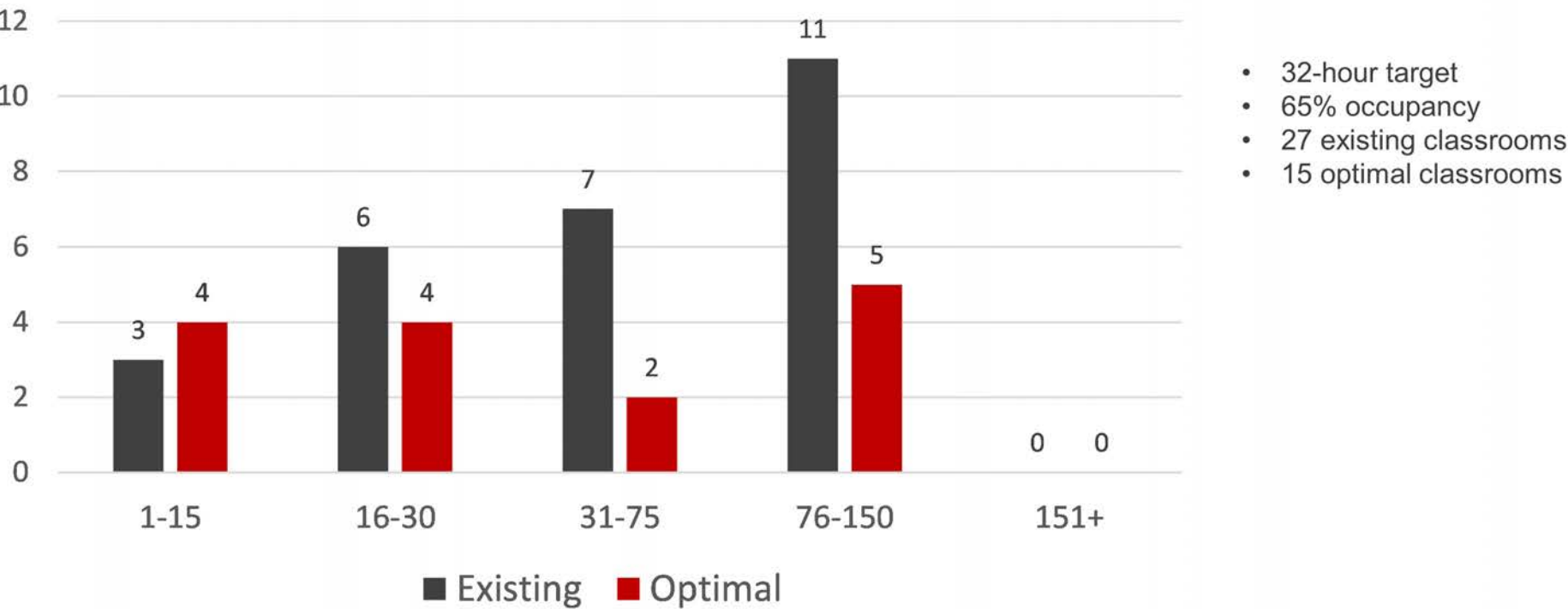
CLASSROOM OPTIMIZATION: BELKNAP

Overall, there are more than enough classrooms to meet campus-wide demand. There is a general oversupply of higher-occupancy instructional spaces, and an undersupply of lower-occupancy instructional spaces. Smaller sections can meet in higher-occupancy spaces, which may be preferable given smaller-than-ideal average station sizes.



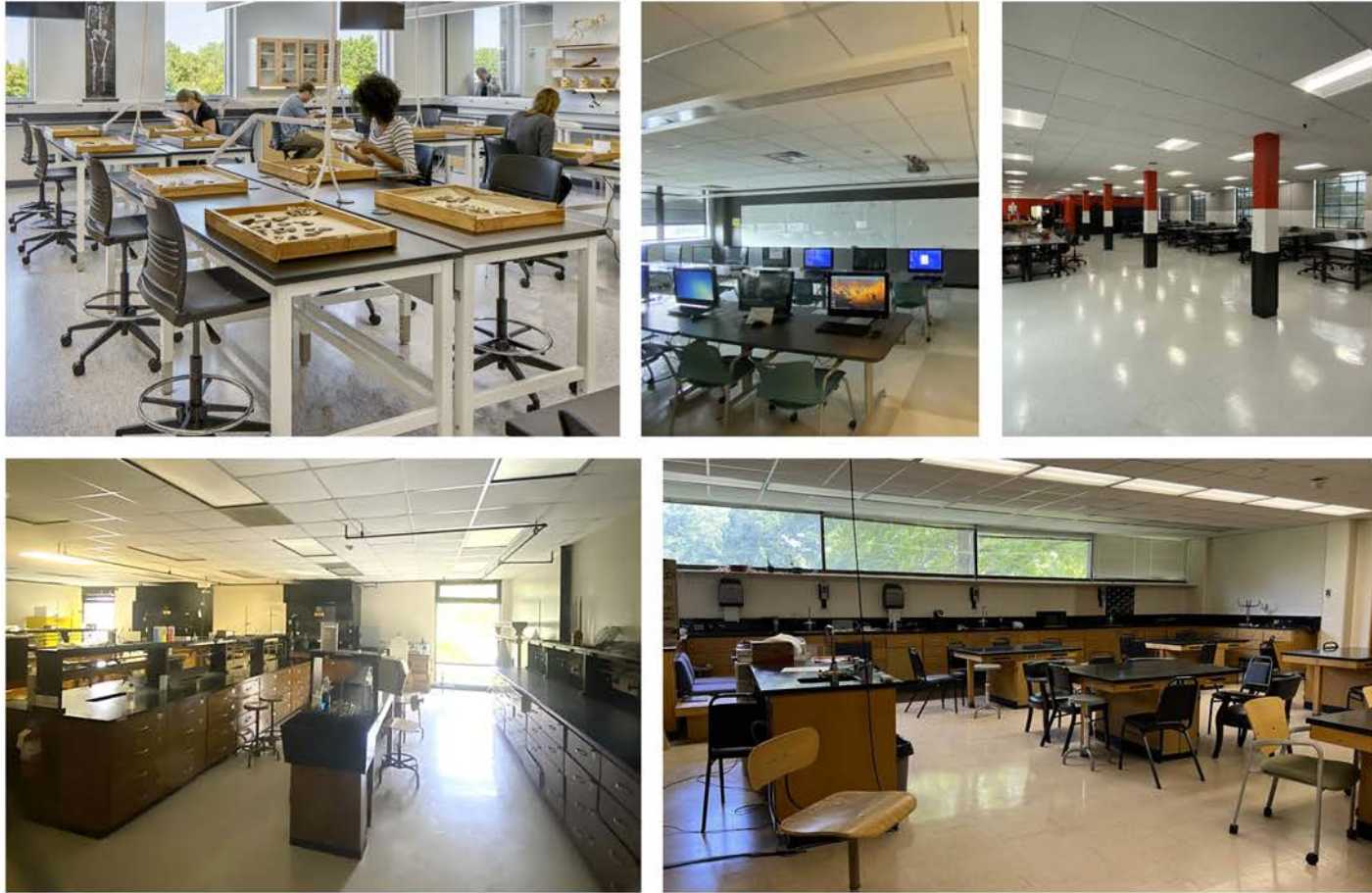
CLASSROOM OPTIMIZATION: HSC

Overall, there are more than enough classrooms to meet campus-wide demand. There is a general oversupply of higher-occupancy instructional spaces, and an undersupply of lower-occupancy instructional spaces. Smaller sections can meet in higher-occupancy spaces, which may be preferable given smaller-than-ideal average station sizes.



TEACHING LAB SPACES

- Wide disparity in the quality of labs in the Belknap Academic Building and other science facilities
- Resourceful renovations have enhanced some lab environments
- Fixed layouts and benches in older labs limit opportunities for exploring alternative courses and pedagogies, such as combined lecture & lab



THINKING AHEAD...

Enhanced Tech/AV



Combined Lecture + Lab



Post Session Write up



Project Team Space



Radical Flexibility



Maker Spaces for All

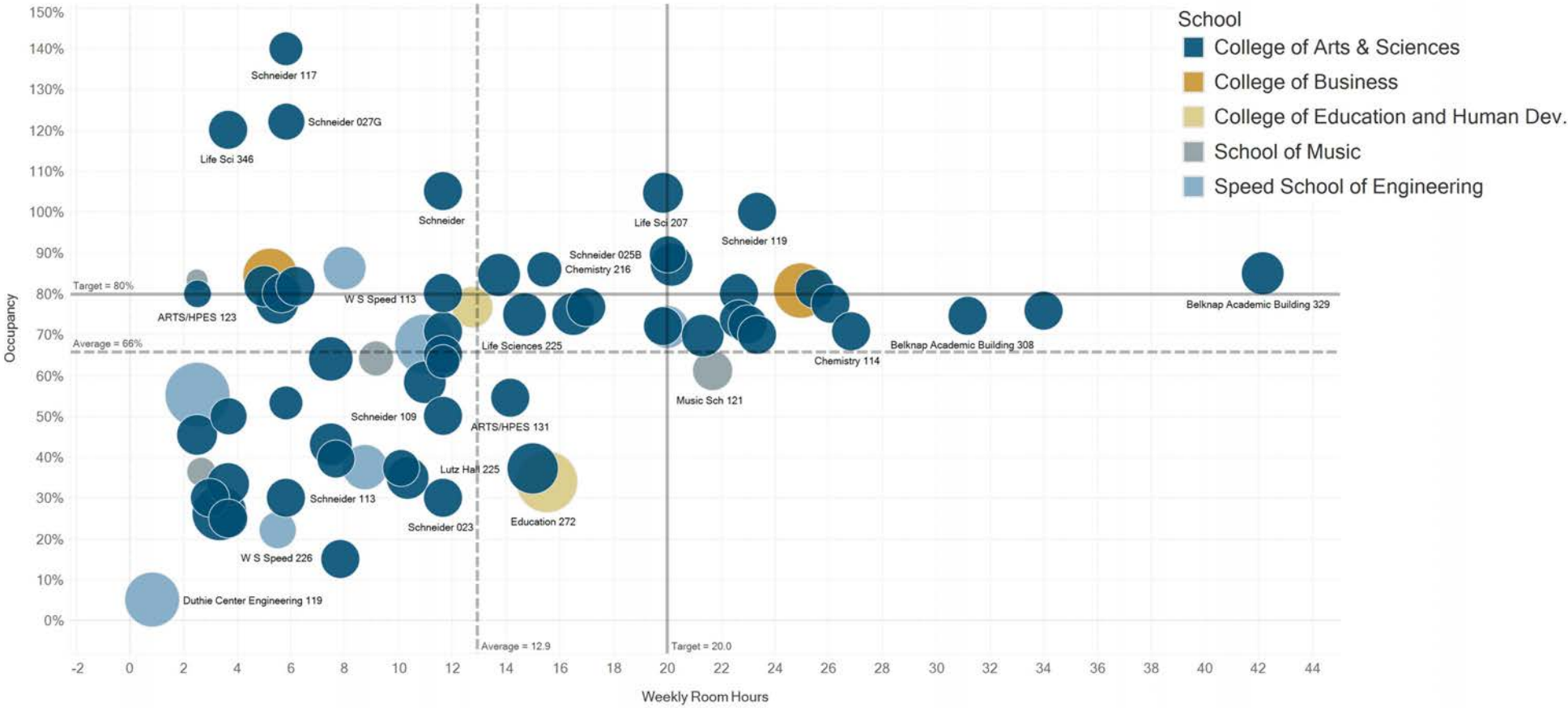


Hybrid Classroom + Lab



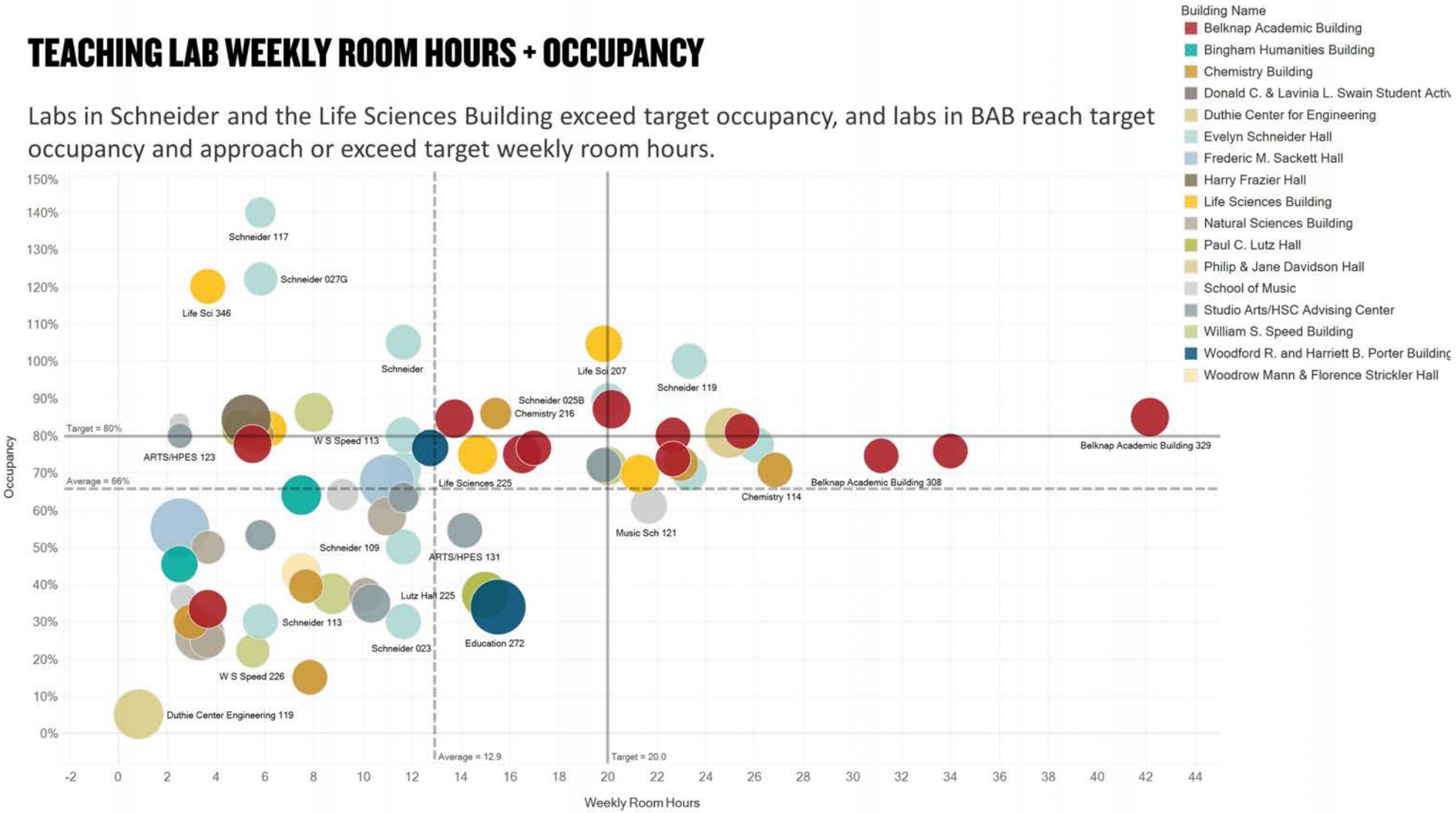
TEACHING LAB WEEKLY ROOM HOURS + OCCUPANCY

Few labs reach target seat occupancy or weekly room hours; however several in BAB experience hyper-utilization.

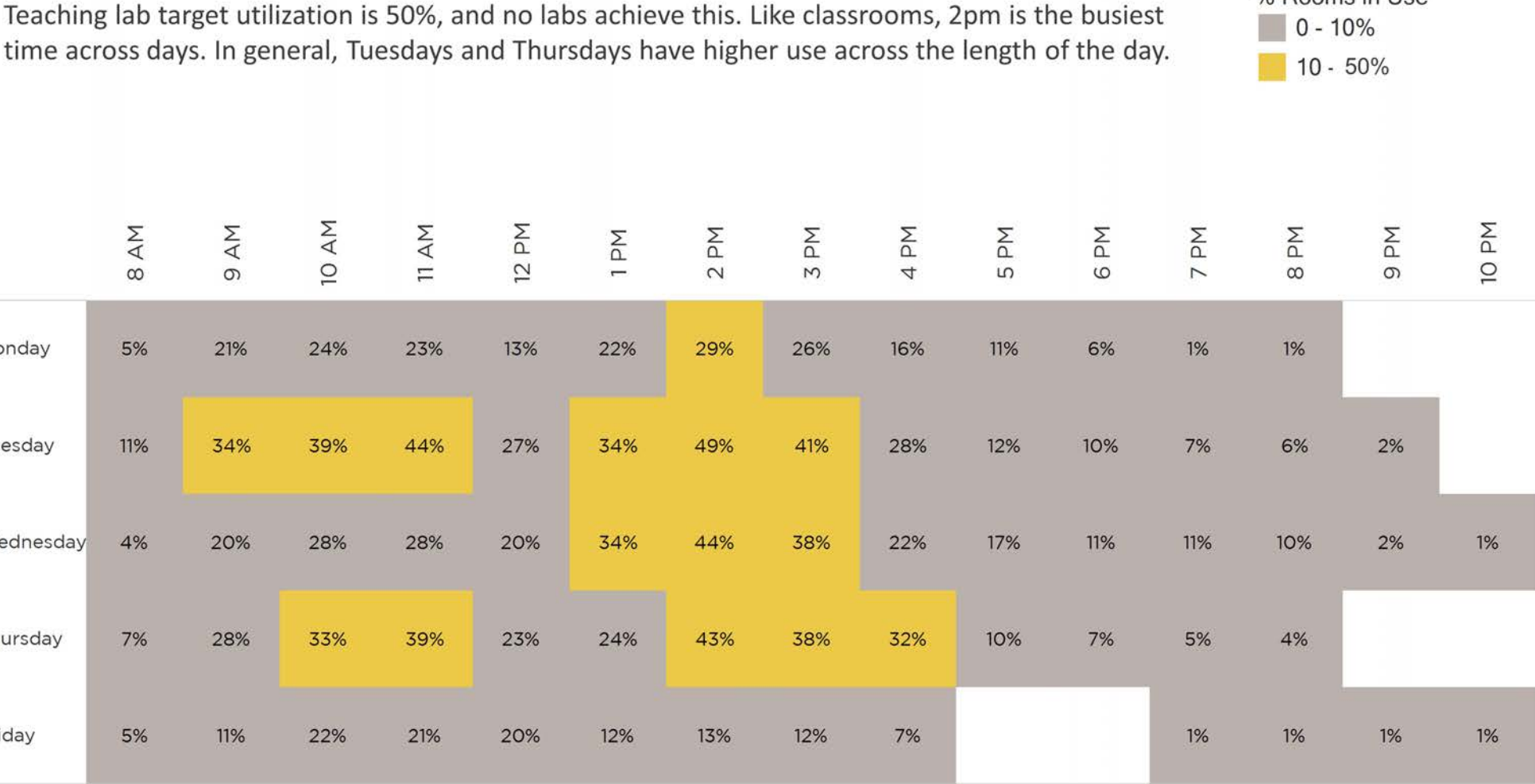


TEACHING LAB WEEKLY ROOM HOURS + OCCUPANCY

Labs in Schneider and the Life Sciences Building exceed target occupancy, and labs in BAB reach target occupancy and approach or exceed target weekly room hours.



TEACHING LAB UTILIZATION



TEACHING LAB: RANGE OF POTENTIAL NEED

While there may be a modest need for additional labs, attention should focus on improving the quality of existing labs to better distribute utilization rates.

College	Department	Existing	Net Need @ 22 Hrs	Net Need @ 18 Hrs	Net Need @ 18 Hrs + 5%
College of Arts & Sciences	A&S Chemistry	13	0	2	3
College of Arts & Sciences	A&S Fine Arts	12	0	1	1
College of Arts & Sciences	A&S Physics	8	0	0	0
College of Arts & Sciences	A&S Biology	8	1	1	3
College of Arts & Sciences	A&S Theatre Arts	3	0	0	0
School of Music	Music Instruction	3	0	0	0
Speed School of Engineering	Spd-Acad Student Support	3	0	0	0
College of Arts & Sciences	A&S English	2	0	0	0
College of Arts & Sciences	A&S Geography/Geosciences	2	0	0	0
Speed School of Engineering	Spd-Elec & Computer Eng.	2	0	0	0
College of Arts & Sciences	A&S Anthropology	1	0	0	0
College of Business	COB-Info Sys, Analytics &	1	0	0	0
College of Education and Human Dev.	ED-Education Instruction	1	0	0	0
College of Education and Human Dev.	ED-Dean Administration	1	0	0	0
College of Arts & Sciences	A&S Communication	1	0	0	0
		61	1	4	7

RESEARCH & INNOVATION

Grand Challenges

Empowering Our Communities



UofL strives to empower communities — promoting equity, eliminating disparities and strengthening the ability of all individuals to achieve well-being and prosperity. Our research focuses on improving educational access and attainment, preventing violence and trauma, and confronting inequities to reduce social, educational, economic and health disparities. *We will help create communities where everyone has a voice, a choice and the opportunity to thrive.*

Advancing Our Health



UofL strives to advance human health, leading a transformative shift in how we understand, promote and recover health through all stages of life. Our research focuses on revealing and decoding the nature of individual and environmental factors that promote good health and wellbeing, thereby preventing disease, rather than simply treating it. *We will help people live lives that are not just longer, but healthier and more resilient.*

Engineering Our Future Economy

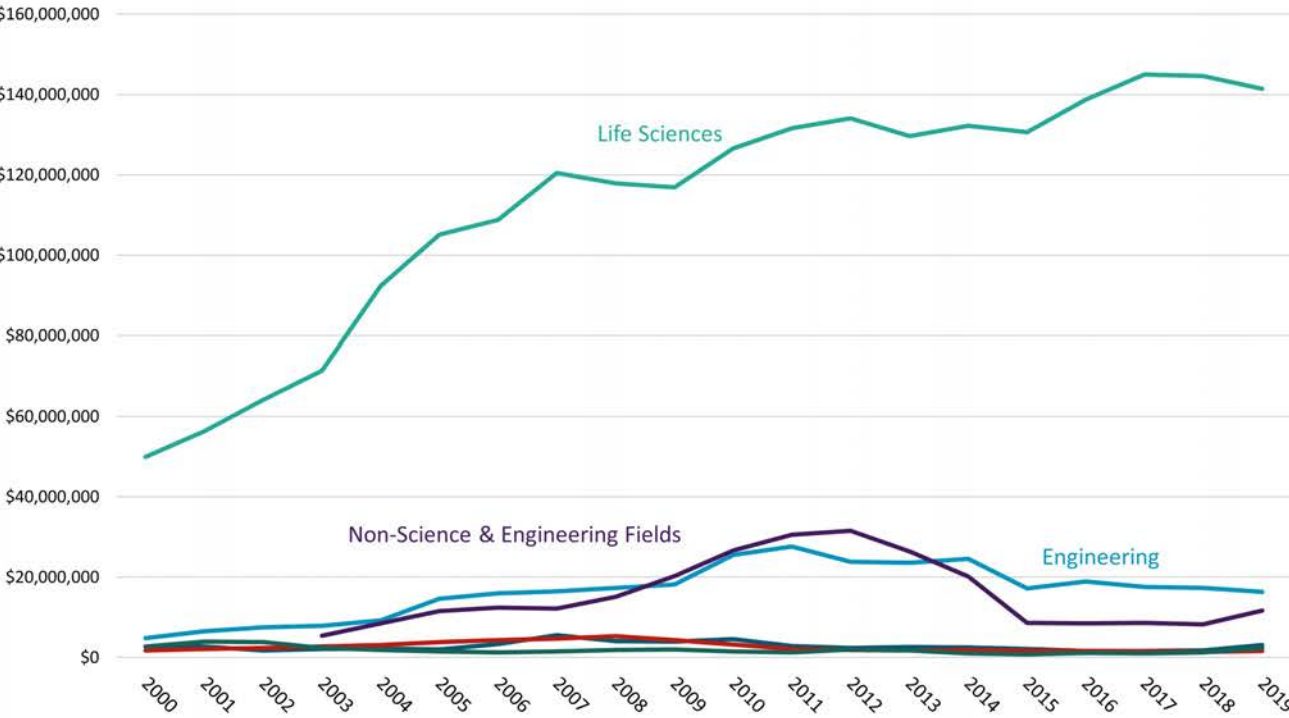


UofL strives to engineer a future economy made possible by cutting-edge technology and ideas in the world of work. Our research focuses on developing and harnessing technological advancements for the digital and robotic transformation of the workforce, advances in manufacturing and the development of materials and processes for a new energy economy. *We will drive the evolution of our economy, designing a future of unparalleled opportunity and limitless possibility.*

RESEARCH TRENDS



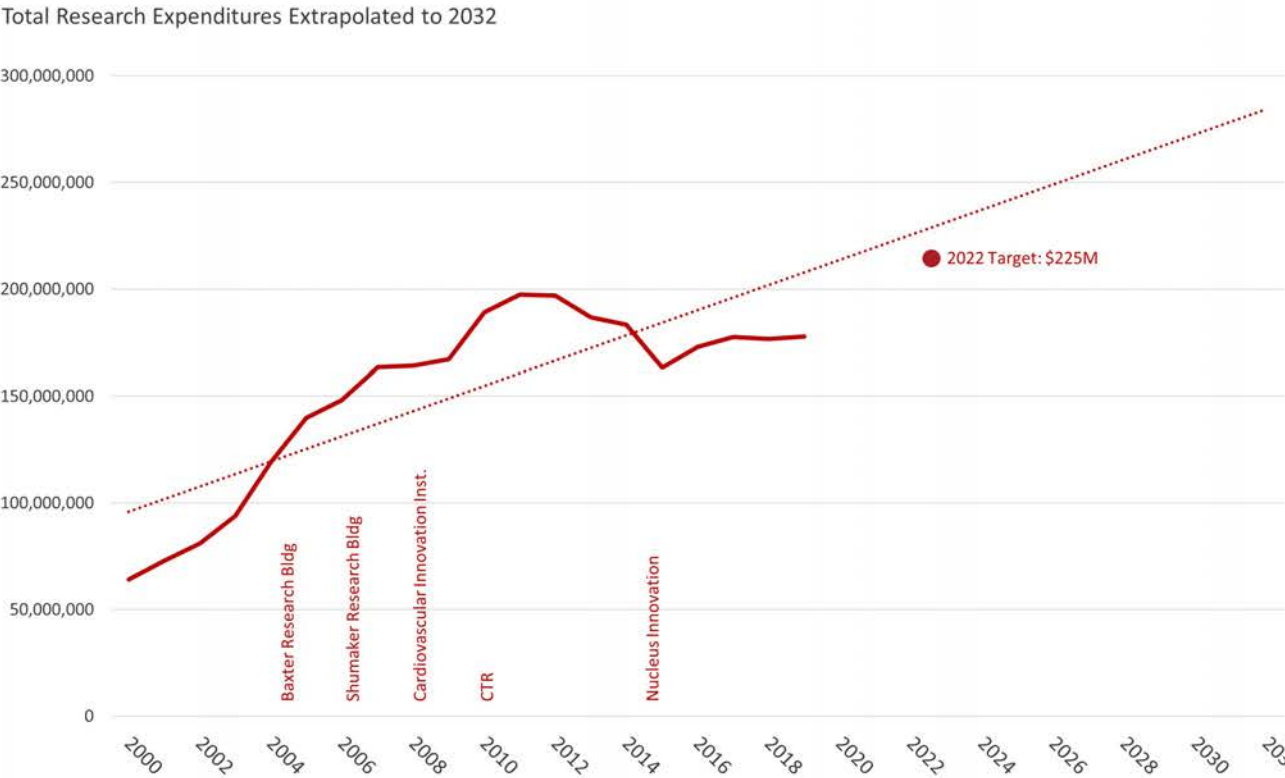
Research Expenditures by Broad Field



Source: National Center for Science & Engineering Statistics; Higher Education Research & Development Survey

PLANNING FOR FUTURE GROWTH

- Linear trend line analysis suggests potential 2032 research expenditures between \$250M - \$300M



Source: National Center for Science & Engineering Statistics; Higher Education Research & Development Survey

KEY TAKEAWAYS

UofL Space

Teaching and Learning

- For each campus, sufficient quantity of classroom space; invest in quality
- Need to better distribute use across buildings; BAB runs the risk of hyper-utilization
- Furniture de-densification is low-hanging fruit that can help to modernize and right-size classrooms and improve station sizes
- Consistent technology across classrooms will ensure more flexibility and predictability leading to higher utilization
- For teaching labs, consideration for shared support and storage space can lead to the design of more flexible labs and thereby drive higher utilization

Research

- Trends in interdisciplinary research pose questions about how research space is provided between campuses and also within campuses to foster collaboration.
- What is the institutional will to reassign less productive research spaces?
- Dual need to support existing researchers as well as provide space to attract new recruits



Appendix C

**BUILDINGS CONDITIONS
ASSESSMENT**

Executive Summary Report for
Facility Condition Assessment Services

For
University of Louisville



Date of Report : August 2023
Provided By

Faithful+Gould
Provided For
University of Louisville



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Six-Phase Methodology 5

Facility Details 6

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Condition Rating 8

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Summary of Expenditure Findings 10

Funding Scenarios 11

Capital Expenditure Plan by Building 13

Prioritization of Work 14

Needs Sorted by Plan Type 15

Conclusion 16

QUALITY CONTROL TRACKING STAMP (3-STEP)			
Version 1		Date: 1/6/2017	
QC DOCUMENT:			
QC REVIEW ACTIVITY			
1. READY FOR REVIEW		ORIG:	Scott Edson
		Date:	12/01/20022
2. QC REVIEW		REV:	Jennifer Ryder
■ (Red = correction)		Date:	12/20/2022
3. CHANGES MADE AND VERIFIED		ORIG:	Jennifer Ryder
■ (Blue check next to comment = accept)			
■ (Yellow highlight over red comment = change made to address comment)		Date:	08/11/2023
ORIG = Originator, REV = Independent Reviewer			
Atkins North America, Inc.			

Executive Summary

Introduction

In accordance with the agreement held between the University of Louisville and Atkins North America Inc. dba Faithful+Gould, this completed report provides a combined executive summary of the individual building Facility Condition Assessments for the University of Louisville.

This report provides an overview summary containing: a summary of the scope of the work provided, a summary of the buildings, a building expenditure summary, prioritization of work, and an identification of work type over the study period. A Facility Condition Index (FCI) of the portfolio is also included. The FCI is used by Facilities Management professionals to provide a benchmark to compare the relative condition of a group of facilities. FCI scores are primarily used to support asset management initiatives of federal, state, and local government facilities organizations.

This report provides a summary of the anticipated primary expenditures over the 10-year study period. Further details of these expenditures are included within each respective report and within the 10-year expenditure forecasts.

Readers should note that the Current Replacement Values (CRVs) as outlined in this report are direct like-for-like replacements using construction methods and materials readily available at the time of a building's construction. As time progresses, upward pressures of inflation as well as evolution of building standards and codes are expected to increase the overall construction costs of a given building. Our current replacement values only factor in the current size, style, and construction type of the building. Any expansion, upgrade, or enhancement of the building type, architecture, or construction is not considered as part of the Current Replacement Value, nor is it accounted for in this report.

Our cost rates to produce life-cycle and replacement cost estimates are based on our knowledge of the local regional market rates. The data in this report represents an opinion of the probable cost of construction and is made on the basis of the experience, qualification, and best judgement of professional consultants familiar with the construction industry. Our line item costs assume that the work will be undertaken by either in-house or direct sub-contract.

We have applied a 60% soft costs uplift to the net construction costs to account for general contractor overhead, profit, etc. The projected costs in this report are Net Present Value with 2022 construction pricing. Annually, these costs projections should be uplifted with the current construction inflation index so that, each year, they represent the current year's Net Present Value construction cost.

Limiting Conditions

This report has been prepared for the exclusive and sole use of the University of Louisville. The report may not be relied upon by any other person or entity without the express written consent of Faithful+Gould.

Any reliance on this report by a third party, any decisions that a third party makes based on this report, or any use at all of this report by a third party is the responsibility of such third parties. Any reuse without written verification or adaptation by Faithful+Gould for the specific purpose intended will be at user's sole risk and without liability or legal exposure to Faithful+Gould.

The assessment of the building/site components was performed using methods and procedures that are consistent with standard commercial and customary practice as outlined in ASTM Standard E 2018-15 for PCA assessments. As per this ASTM Standard, the assessment of the building/site components was based on a visual walk-through site visit, which captured the overall condition of the site at that specific point in time only.

No legal surveys, soil tests, environmental assessments, geotechnical assessments, detailed barrier-free compliance assessments, seismic assessments, detailed engineering calculations, or quantity surveying compilations have been made. Therefore, no responsibility is assumed concerning these matters. Faithful+Gould did not design or construct the building(s) or related structures and, therefore, will not be held responsible for the impact of any design or construction defects, whether or not described in this report. No guarantee or warranty expressed or implied, with respect to The Property, building components, building systems, property systems, or any other physical aspect of The Property is made.

The recommendations and our opinion of probable costs associated with these recommendations, as presented in this report, are based on walk-through non-invasive observations of the parts of the building which were readily accessible during our visual review. Conditions may exist that are not as per the general condition of the system being observed and reported in this report. Opinions of probable costs presented in this report are also based on information received during interviews with operations and maintenance staff. In certain instances, Faithful+Gould has been required to assume that the information provided is accurate and cannot be held responsible for incorrect information received during the interview process. Should additional information become available with respect to the condition of the building and/or site elements, Faithful+Gould requests that this information be brought to our attention so that we may reassess the conclusions presented herein.

The opinions of probable costs are intended for global budgeting purposes only. Faithful+Gould has no control over the cost of labor and materials, general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions. The data in this report represent an opinion of probable cost of construction and is made on the basis of the experience, qualifications, and best judgment of the professional consultant familiar with the construction industry. Faithful+Gould cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates. The scope of work and the actual costs of the work recommended can only be determined after a detailed examination of the site element in question, understanding of the site restrictions, understanding of the effects on the ongoing operations of the site/building, definition of the construction schedule, and preparation of tender documents.



Scope of Work Provided

Faithful+Gould visited the University of Louisville to undertake Facility Condition Assessments (FCA) for their owned and operated City facilities.

The Facility Condition Assessments (FCAs) include an assessment of the architecture, structural, mechanical, electrical, and plumbing elements. The assessments determine the current condition of the facilities, identifying physical or operational deficiencies, and provide cost estimates and prioritized schedules of repair work over a 10-year period. Our cost rates to produce life cycle and replacement cost estimates are based on our knowledge of the local and regional market rates. The data in this report represents an opinion of probable cost of construction and is made on the basis of the experience, qualifications, and best judgment of the professional consultant familiar with the construction industry.

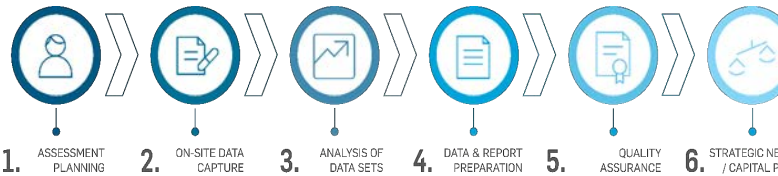
The assessments were conducted using facility information, equipment inventories and a visual only (non-invasive) inspection of the facilities. The assessment of the building and site components was performed using methods and procedures that are consistent with standard commercial and customary practice as outlined in ASTM Standard E 2018-15 for property condition assessments. As per this ASTM Standard, the assessment of the building and site components was based on a visual walk-through site visit, which captured the overall condition of the site at that specific point in time only.

The five key steps listed below were followed to effectively manage facility and infrastructure assets:

1. Establish baseline asset inventory of city facilities.
2. Establish meaningful baseline data about asset conditions through a detailed, structured assessment process.
3. Estimate short- and long-range asset renewal needs using the data obtained from actual field analysis.
4. Utilize decision-support models to determine priorities and reinvestment rates to obtain desired asset conditions.
5. Communicate the asset condition and impact on mission support to governing boards, senior management, and line management responsible for maintaining the portfolio.

Six-Phase Methodology

Our approach to FCA has been key to our success in delivering strategic advice to clients for more than 60 years. Our deliverable is best described through the six phases of our project methodology and plan, shown below, which outlines the key high-level tasks and milestones. Each of our proposed services will follow the same six-phase methodology and execution plan.



Facility Details

The University of Louisville maintains a portfolio of many facilities that vary widely in construction, style, and date in service. Faithful+Gould assessed facilities at 62 site locations, which are listed below:

620 Garage	Julius John Oppenheimer Hall Kent School of Social Work
Abell Administration Center	K Building
Arthur Y. Ford Hall	Kornhauser Health Sciences Library and Commons
Baptist Center	Kosair Charities Clinical and Translational Research Building
Bennett M. Brigman Hall	Kosair Charities Pediatric Center
Bingham Humanities Building	KY Lions Eye Research Building
Brandeis School of Law	Life Sciences Building
Cardiovascular Innovation Institute	Louis Gottschalk Hall
Center for Predictive Medicine	Malcolm B. Chancey Jr. University Club & Alumni Center
Chemistry Building	Medical Dental Research Building
Chestnut Street Parking Garage	Natural Sciences Building & Solvent Storage
Clarence R. Gardiner Hall College of Arts & Sciences	Northeast Services Building
Comparative Medical Research Unit	Paul C. Lutz Hall
Delia B. Baxter Biomedical Research Building	Philip & Jane Davidson Hall
Development and University Relations Building	Robert Craig Ernst Hall Conn Center for Renewable Energy Research
Donald C. & Lavinia L. Swain Student Activities Center	Rollins S. Burhans Hall
Donald E. Baxter Biomedical Research Building	Russell E. Dougherty Hall
Duthie Center for Engineering	School of Dentistry
Evelyn Schneider Hall	School of Medicine Tower
Floyd Street Parking Garage	School of Music
Frederic M. Sackett Hall	School of Public Health and Information Sciences
Guy Stevenson Hall	School of Urban & Public Affairs
H. Charles Grawemeyer Hall	Service Complex
Harry Frazier Hall	Steam and Chilled Plant
Health Sciences Building	Student Recreation Center
Henry Vogt Building	Studio Arts/HSC Advising Center
Interfaith Center	The Ville Grill
James B. Speed Building Speed School of Engineering	William F. Ekstrom Library
James G. and Jesse Miller Information Technology Center	William S. Speed Building
John Marston Houchens Building Student Services Center	Woodford R. and Harriett B. Porter Building College of Education & Human Development
John W. Shumaker Research Building	Woodrow Mann & Florence Strickler Hall

This report is a summary of the findings for each building as well as an aggregated overview of the University of Louisville Portfolio.



Facility Condition Needs Index (FCI)

The FCAs reviewed substructure systems, shell systems, interior systems, service systems, equipment, and site systems. Each Facility Condition Assessment calculated an FCI which gave an overall condition rating for The Property.

The FCI is the ratio of accumulated Deferred Maintenance (DM) (total sum of immediate required and recommended works) to the Current Replacement Value (CRV) for a constructed asset. Calculated by dividing DM and Needs by CRV. The range is from zero for a newly-constructed building, to 100% for a constructed asset with a Deferred Maintenance value equal to its CRV. Acceptable ranges vary by Building Type, but as a general guideline, the FCI scoring system is as follows:

$$FCI = \frac{\text{Deferred Maintenance, Immediate Repair Needs and Replacement Deficiencies.}}{\text{Current Replacement Value of the Facility (s) (CRV)}}$$

If the FCI rating is 60% or greater, then replacement of the asset/building should be considered instead of renewal.

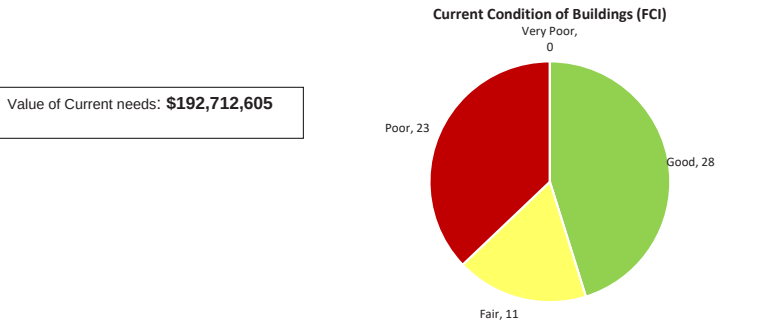
Condition	Definition	Percentage Value
GOOD	In a new or well-maintained condition with no visual evidence of wear, soiling or other deficiencies	0% to 5%
FAIR	Subject to wear and soiling but is still in a serviceable and functioning condition.	5% to 10%
POOR	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	Greater than 10%
V-POOR	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal now necessary	Greater than 60%



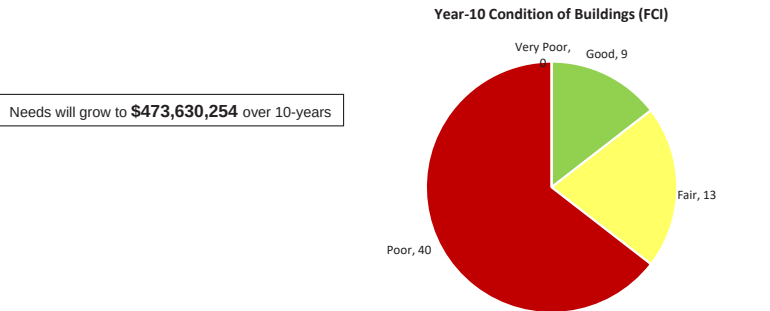
Condition Rating

The University of Louisville portfolio consists of 62 site locations which are currently rated in Good to Poor condition. Twenty-eight sites are currently rated in Good condition, eleven sites are in Fair condition, twenty-three sites are in Poor condition and zero sites are in Very Poor condition. As a whole, the University of Louisville's portfolio has a current FCI rating of 3.7% and is considered, overall, in Good condition. As time progresses, it is anticipated that the condition of the buildings will decline without proper maintenance. If there is no capital investment performed during the study period, it is anticipated that the FCI will increase to 9.1% in year 10, which relates to a Fair Condition. Further information regarding the individual FCI scores for each building is provided on the following page.

The chart below indicates the percentage of buildings with their current FCI condition rating.



The chart below indicates the total FCI ratio of the various buildings over the 10-year period.



Individual Site FCI Summary

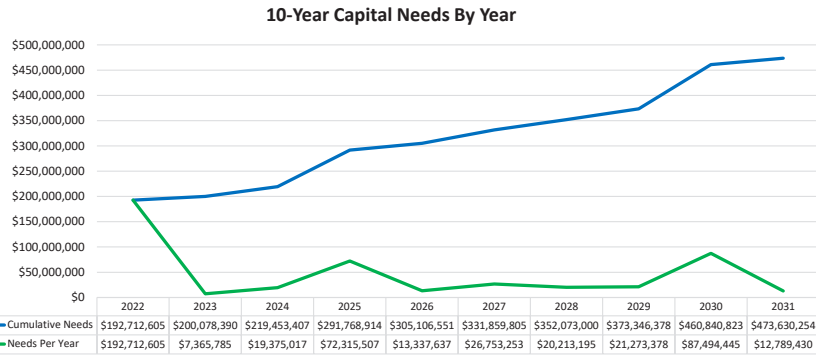
Facility	Gross Square Footage	Current Replacement	Immediate Capital Needs (\$)	Total Capital Needs Over 10 Years	Current Year FCI Rating %	Year 10 FCI Rating %
620 Garage	678,478	\$610,630,200	\$0	\$18,279,035	0.0%	3.0%
Abell Administration Center	32,721	\$28,176,800	\$818,777	\$7,256,630	3.1%	27.7%
Arthur V. Ford Hall	12,432	\$2,216,000	\$15,970	\$667,330	0.3%	10.7%
Baglist Center	11,757	\$5,290,650	\$4,347	\$4,492	0.1%	0.1%
Bennett M. Briggman Hall	21,023	\$13,664,950	\$2,583,902	\$3,518,016	18.9%	25.7%
Bingham Humanities Building	114,993	\$69,570,765	\$6,335,627	\$10,597,973	9.1%	15.2%
Brandeis School of Law	145,962	\$97,429,635	\$7,266,035	\$12,662,687	7.5%	13.0%
Cardiovascular Innovation Institute	102,227	\$120,116,725	\$264,718	\$4,751,022	0.2%	4.0%
Center for Predictive Medicine	48,859	\$57,409,325	\$0	\$1,220,285	0.0%	2.1%
Chemistry Building	108,559	\$119,414,900	\$4,568,439	\$10,497,394	3.8%	8.8%
Chestnut Street Parking Garage	454,310	\$397,521,250	\$4,915,239	\$11,041,153	1.2%	7.0%
Clarence R. Gordiner Hall College of Arts & Sciences	24,767	\$9,906,800	\$1,921,102	\$3,699,652	19.4%	38.3%
Comparative Medical Research Unit	39,272	\$49,090,000	\$689,315	\$4,566,105	1.4%	9.3%
Delia B. Baxter Biomedical Research Building	143,628	\$152,604,750	\$834,904	\$5,408,044	0.5%	3.5%
Development and University Relations Building	18,462	\$9,231,000	\$958,990	\$966,990	10.4%	10.5%
Donald C. & Lavinia L. Swain Student Activities Center	429,348	\$279,076,200	\$5,905,766	\$17,409,753	2.1%	6.2%
Donald E. Baxter Biomedical Research Building	116,608	\$128,269,800	\$2,660,642	\$7,554,382	2.1%	5.9%
Dutrie Center for Engineering	35,087	\$20,175,025	\$2,867	\$1,346,033	0.0%	6.7%
Evelyn Schneider Hall	66,422	\$43,174,300	\$5,314,871	\$7,330,045	12.3%	17.0%
Floyd Street Parking Garage	357,387	\$321,648,300	\$3,778,341	\$8,734,791	1.2%	2.7%
Frederic M. Sackett Hall	27,800	\$13,900,000	\$571,954	\$571,954	4.1%	4.1%
Guy Stevenson Hall	40,902	\$20,451,000	\$1,135,748	\$1,501,324	5.6%	7.3%
H. Charles Grawemeyer Hall	39,935	\$1,983,341,500	\$1,983,331	\$5,389,846	5.5%	16.0%
Harry Frazier Hall	127,963	\$63,931,500	\$6,849,018	\$10,433,025	10.7%	16.3%
Health Sciences Building	112,024	\$56,012,000	\$60,796	\$11,303,592	0.1%	20.2%
Henry Vogt Building	33,487	\$22,101,420	\$2,372,434	\$3,567,579	10.7%	16.1%
Interfaith Center	28,616	\$14,308,000	\$719,622	\$1,949,982	5.0%	13.6%
James B. Speed Building Speed School of Engineering	40,775	\$20,387,500	\$2,644,276	\$3,911,460	13.0%	19.2%
James G. and Jesse Miller Information Technology Ce	105,797	\$72,354,338	\$3,766,175	\$8,460,458	5.2%	11.6%
John Marston Houchens Building Student Services Ce	66,290	\$33,145,000	\$3,144,485	\$6,246,571	9.5%	16.8%
John W. Shumaker Research Building	121,173	\$133,290,300	\$2,468,927	\$17,095,461	1.9%	12.8%
Julius John Oppenheimer Hall Kent School of Social W	10,979	\$5,489,500	\$1,119,589	\$1,810,249	20.4%	33.0%
K Building	106,875	\$79,087,500	\$626,839	\$7,344,778	0.6%	9.3%
Kornhauser Health Sciences Library and Commons	112,024	\$46,051,470	\$8,258,425	\$9,972,088	17.9%	21.8%
Kosair Charities Clinical and Translational Research Bu	312,069	\$343,275,900	\$1,315,114	\$18,735,534	0.4%	5.5%
Kosair Charities Pediatric Center	59,786	\$38,869,900	\$1,211,998	\$4,602,963	3.1%	11.8%
KY Lions Eye Research Building	80,472	\$64,377,600	\$4,419,044	\$5,761,917	6.9%	9.0%
Life Sciences Building	112,725	\$78,907,500	\$7,944,059	\$11,262,418	10.1%	14.3%
Louis Gottschalk Hall	10,842	\$5,421,000	\$2,339,658	\$2,675,401	43.2%	46.4%
Malcolm B. Chaney Jr. University Club & Alumni Cente	34,292	\$20,576,200	\$2,276,474	\$3,205,242	11.1%	15.6%
Medical Dental Research Building	116,816	\$128,497,600	\$6,547,392	\$7,484,377	5.1%	13.6%
Natural Sciences Building & Solvent Storage	88,299	\$66,224,250	\$7,005,120	\$9,568,089	10.6%	14.4%
Northeast Services Building	13,122	\$6,561,000	\$737,770	\$999,389	11.2%	15.2%
Paul C. Lutz Hall	89,438	\$60,370,648	\$5,163,778	\$13,058,306	8.6%	21.6%
Philly & Jane Davidson Hall	90,778	\$45,389,000	\$9,567,351	\$10,159,495	21.1%	22.4%
Robert Craig Ernst Hall Conn Center for Renewable En	48,232	\$29,542,100	\$2,384,392	\$5,130,827	8.0%	17.4%
Rollins S. Burhans Hall	72,995	\$36,497,500	\$7,165,765	\$9,037,133	19.6%	24.8%
Russell E. Dougherty Hall	30,698	\$15,349,000	\$2,202,047	\$3,014,133	14.3%	19.6%
School of Dentistry	236,406	\$184,396,680	\$125,582	\$14,443,532	0.1%	7.8%
School of Medicine Tower	177,748	\$194,872,800	\$7,362,872	\$27,623,106	3.0%	14.2%
School of Music	160,276	\$80,138,000	\$9,013,053	\$15,448,677	11.2%	19.3%
School of Public Health and Information Sciences	36,209	\$20,820,175	\$116,592	\$2,188,161	0.6%	10.5%
School of Urban & Public Affairs	39,090	\$19,545,000	\$3,174,757	\$4,872,406	16.2%	24.9%
Service Complex	36,802	\$18,401,000	\$2,922,471	\$4,530,113	15.9%	24.6%
Steam and Chilled Plant	32,697	\$32,697,000	\$6,158,859	\$9,185,439	18.8%	28.1%
Student Recreation Center	169,644	\$118,750,800	\$47,994	\$7,046,231	0.0%	3.5%
Studio Arts/HSC Advising Center	32,998	\$16,449,000	\$1,857,219	\$3,581,608	11.9%	21.8%
The Ville Grill	16,445	\$10,689,250	\$293,881	\$1,884,212	2.2%	17.6%
William F. Ekstrom Library	324,617	\$324,615,000	\$6,788,779	\$20,856,696	2.1%	6.4%
William S. Speed Building	39,531	\$22,532,670	\$831,075	\$1,129,696	3.7%	5.0%
Woodford R. and Harriett B. Porter Building College of	95,722	\$47,861,000	\$1,569,466	\$12,075,731	3.3%	28.2%
Woodrow Mann & Florence Strickler Hall	91,783	\$45,891,500	\$7,588,993	\$13,340,843	16.6%	28.1%
Totals	6,586,774	\$5,231,057,576	\$192,712,605	\$473,630,254	3.7%	9.1%

Summary of Expenditure Findings

The University of Louisville has immediate capital needs of **\$192,712,605** with a total of **\$473,630,254** in capital needs over a 10-year study period.

Key Findings	Metric
Immediate Capital Needs (included in FCI)	\$192,712,605
Total Capital Needs Capital Needs	\$473,630,254

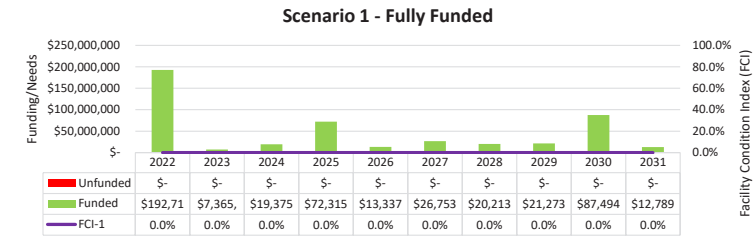
The chart below provides a summary of yearly anticipated expenditures over the 10-year study period for the University of Louisville. Further details of these expenditures are included within each respective report section. The results illustrate a current or deferred anticipated expenditure of **\$192,712,605**. However, assuming there is no capital investment in the 10-year study period, the need will grow to **\$473,630,254**.



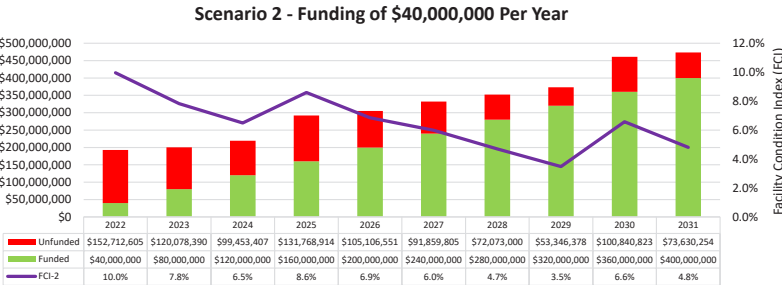
Funding Scenarios

The charts below provide a summary of what impact varying funding levels per year will have on the accumulative yearly need over the 10-year study period for the University of Louisville. A comparison is also made with the Facility Condition index and how the funding levels will impact the condition rating.

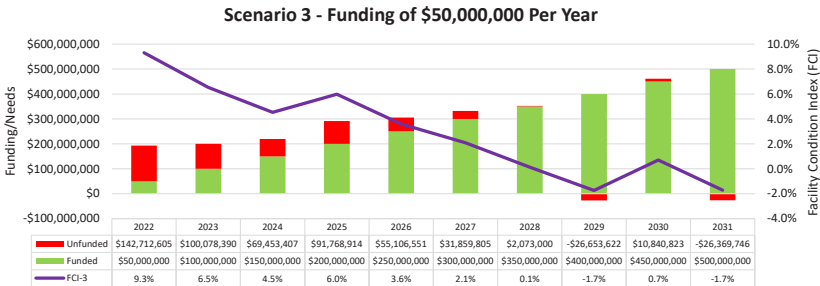
The **Scenario 1** chart illustrates a funding profile where all needs are fully funded each year. The FCI Index will remain at 0% (Good).



The **Scenario 2** chart illustrates the proposed annual funding of \$40M per year. In this scenario, Year 1 will have an unfunded current Deferred Maintenance need of \$152,712,605. This unfunded need will decrease over the next 10-years to \$73,630,254. The FCI will start at 10.0%, representing a Fair-to-Poor condition, and decrease to 4.8%, representing a Good condition.



The **Scenario 3** chart, below, illustrates an example of annual funding of \$50M per year. Year 1 will have an unfunded current Deferred Maintenance need of \$147,712,605. This unfunded need will decrease further over the next 10-years to -\$26,369,746, meaning the expenditures would be fully funded by the end of the study period. The FCI begins at 9.3% at the beginning of the 10-year study period, equating to a Poor condition rating, and decreases to -1.7% by the end of the 10-year study period, representing an Excellent condition rating.

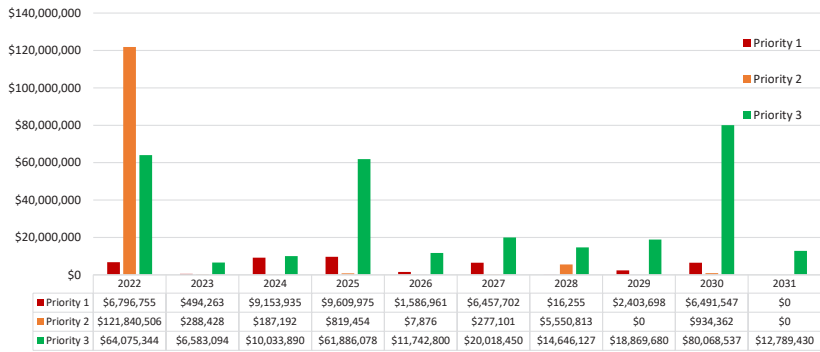


Prioritization of Work

Faithful+Gould has prioritized the identified work in order to assist with analyzing the deficiencies found during the assessment. The baseline prioritization model is not just based on replacement year or criticality but uses four key data attributes to build an overall importance metric for every recommendation: system type, the cause or nature of the issue, timing and building mission incorporated into the model with relative weighting to provide an overall priority score. Priority categories are shown below:

Priority 1: Fire/ Life/ Safety/ Code	• Systems that require upgrade or replacement to comply with current Fire, Life, or Safety Codes and accessibility. These systems should be replaced immediately upon reaching the end of their useful life so as not to compromise the safety of the building.
Priority 2: Currently Critical	• Systems requiring immediate action that have failed or are nearing the end of their useful life, if not addressed will cause additional deterioration and added repair costs.
Priority 3: Necessary / Not Critical	• Lifecycle replacements necessary but not critical or mid-term future replacements to maintain the integrity of the facility or component.

10-Year Needs Per Year By Priority



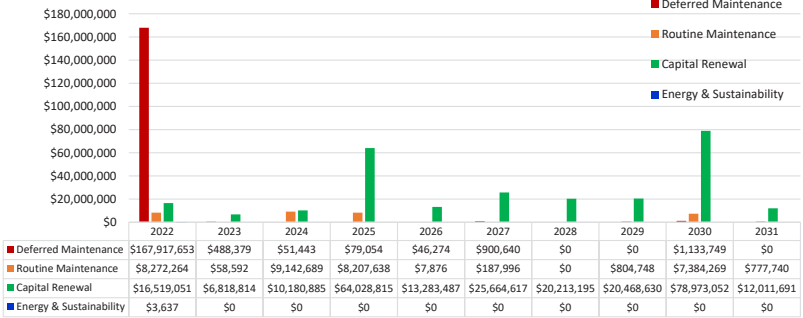
Needs Sorted by Plan Type

Faithful+Gould has prioritized the identified work according to the Plan Type or deficiency categories in order to assist with analyzing the deficiencies found during the assessment.

Plan Type 1: Deferred Maintenance	• Maintenance that was not performed when it was scheduled or assets that are past the end of their useful life resulting in necessary immediate repair or replacement.
Plan Type 2: Routine Maintenance	• Maintenance that is planned and performed on a routine basis to maintain and preserve the condition of the building system.
Plan Type 3: Capital Renewal	• Planned future replacement of building systems that have or will reach the end of their useful life during the study period.

The chart below illustrates the breakdown of expenditures, according to the Plan Type or deficiency category, to provide an opportunity to strategically plan and effectively direct funding. As can be observed from the chart below, the current capital needs for Deferred Maintenance of **\$167,917,653** is the highest expenditure during the study period. However, Capital Renewal, with a total cost of **\$268,162,237**, is the highest expenditure across the study period.

10-Year Needs Per Year By Plan Type



Conclusion

The University of Louisville portfolio consists of 62 site locations which are currently rated in Good to Poor condition. Twenty-eight sites are currently rated in Good condition, eleven sites are in Fair condition, twenty-three sites are in Poor condition and zero sites are in Very Poor condition. As a whole, the University of Louisville's portfolio has a current FCI rating of **3.7%** and is considered, overall, in Good condition. As time progresses, it is anticipated that the condition of the buildings will decline without proper maintenance. If there is no capital investment performed during the study period, it is anticipated that the FCI will increase to **9.1%** in year 10, which relates to a Fair Condition.

The Facility Assessments determined the immediate capital needs of **\$192,712,605**. However, assuming there is no capital investment in the 10-year study period, the need will grow to **\$473,630,254**.

The predominant area of expenditures early in the study period is Deferred Maintenance, with **\$167,917,653** allocated to this category for the first year, and a total of **\$170,517,192** being allocated to Deferred Maintenance across the study period. In addition to these paramount expenditures early in the study period, the study found **\$268,162,237** should be allocated to Capital Renewal. Further, **\$34,843,813** is allocated to Routine Maintenance, and **\$3,637** is allocated to Energy & Sustainability.

There are **\$43,011,091** rated as Priority 1 - Critical expenditures, which represent systems that present a hazard to staff or public safety, or require upgrade(s) to comply with current code. As part of this assessment, some of the Priority 1 and Deferred Maintenance expenditures have been categorized for replacement despite their observed condition due to the end of the asset's remaining useful life. Though the asset may be functional, failure is anticipated to be imminent. The resulting asset failure may result in equipment downtime, possible life/safety concerns, or remediation costs that will be higher than the asset replacement expenditure.

There are **\$129,905,732** rated as Priority 2 - Currently Critical expenditures, which represent a system or component that is at or nearing the end of its useful life. If not addressed, items under this categorization will result in additional deterioration and added repair costs.

There are **\$300,713,430** categorized as Priority 3 - Non Critical expenditures, which represent an asset that is expected to reach the end of its useful life in the mid-term or late part of the study period. Replacement is necessary but not critical to maintain the integrity of the facility or component.

Finally, there are **\$0** categorized as Priority 4 – Aesthetics, which represents an asset that is expected to reach the end of its useful life in the mid-term or late part of the study period. Replacement is necessary but not critical to maintain the integrity of the facility or component.

With the information presented, we recommend detailed planning of executable projects based on the end of useful life and priority.

