



UNIVERSITY OF LOUISVILLE
LANDSCAPE MASTER PLAN
2024

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INTRODUCTION

PURPOSE

The University of Louisville Landscape Plan is intended to establish unified sets of ideas and recommendations for the university’s common exterior spaces. The objective of this plan is to provide strategies for landscape enhancements across campus scales, from plant species and maintenance practices to circulation systems and quad programming. The hope is to guide the university toward a consistent, vibrant, sustainable, and beautiful aesthetic that supports the many parallel and complementary campus improvement efforts.

The University of Louisville is already a diverse and dynamic place of study, recreation, socialization, nature, growth, and wellness. Part of the purpose of this effort is to enhance these defining qualities and explore how best to highlight and enhance the relationships between them.

At their best, university landscapes have the ability to guide an experience of a campus, to support a unique and recognizable character, to promote sustainability and green infrastructure, and to support economical operations and maintenance practices.

The Landscape Plan focuses on Belknap and HSC campuses as the main areas of landscape analysis and development. Shelby Campus is largely excluded from this effort with the understanding that many of the ideas presented herein will apply, when appropriate.

Our first experience of a place is often through its landscape. Landscape can be an introduction to a campus, a foreword to an education, a ceremonial finale to a learning experience.

Grawemeyer Hall gateway ►



PROCESS

The landscape planning process for both the Belknap and HSC campuses was carried out in parallel, rooted in a consistent analytical foundation.

The campus landscape is not only about nature and its many forms, roles, and services, but also about the profound and foundational relationships between campus elements and the people (the students, the faculty and staff, the visitors, the greater Louisville community) with whom they interact.

The Landscape Plan complements and builds on the following plans and studies conducted by the university.

- UofL Campus Plan 2023
- 2023-25 Strategic Plan
- Sustainability Plan
- UofL Diversity Plan 2017-2021

Campus landscape planning is a multidimensional process that blends aesthetics, functionality, sustainability, and engagement with stakeholders and staff. This involved studying campus context, existing conditions, their successes and shortcomings, their relationships, finding landscape patterns and commonalities to enhance and celebrate, and collaborating to help shape consistent narratives.

Specifically, the landscape planning process included:

Site Analysis

The process commenced with an analysis of existing conditions, encompassing factors such as topography, climatic conditions, historical context, use, program, and much more. This analysis informed the identification of site-specific opportunities and challenges, setting the foundation for tailored principles, guidelines, and recommendations.

Vision and Goals

Developing a clear vision and set of goals is imperative to guide the landscape planning process. This step involved engaging stakeholders, including students, faculty, and staff to understand their aspirations and needs and to test goals and assumptions.

Classification of Exterior Spaces

Typologies were identified through the classification of spaces based on their common functions, design elements, and usage patterns. Categories include quads, recreational areas, gardens, gathering spaces, and transitional corridors. Each typology embodies a distinct purpose, which determines its design principles.



Pedestrian path through Life Sciences ►

RELATIONSHIP TO THE CAMPUS PLAN

The Landscape Plan is structured to provide a landscape framework that harmonizes with the Campus Plan and reflects the priorities of the university’s leadership and community.

The Landscape Plan is a companion document to the Campus Plan, which lays out a vision and spatial strategies for how future development can achieve the seven overarching Campus Plan principles:

- 1. One University, Three Campuses: Reinforce three unique campus identities in support of one University of Louisville.
- 2. 21st Century Learning and Research: Facilitate 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- 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: Be a university for and of Louisville.

A primary goal of the Landscape Plan is to provide a more detailed level of ideas and decision-making for the development of the public realm in support of the Campus Plan. The Landscape Plan is also informed by the university’s strategic planning sustainability efforts.

A campus landscape plan operates as a microcosm of the larger campus development strategy. It aligns with the overarching goals, vision, and mission of the institution. The landscape serves as a canvas upon which the narrative of the campus’s identity is vividly painted.

Alignment of Aesthetics and Function

This plan aims to enhance the aesthetics of the campus, augmenting its visual appeal and creating a lasting impression on students, staff, visitors, and community alike. Similar to campus architecture, landscape will serve as a tangible representation of the institution’s values, culture, and heritage. Landscape elements, such as iconic plazas or green corridors, will become emblematic features of the campus identity.

This plan is intricately woven into the fabric of the larger campus development strategy. Pathways, open spaces, and recreational zones are seamlessly integrated with academic, research, campus life, and campus support buildings. This integration ensures a complimentary relationship; that functionality and accessibility remain at the core of the campus experience.

Similar to the Campus Plan, the Landscape Plan must be future-ready, incorporating a flexibility that accommodates evolving trends in education, recreation, socialization, mobility, climate change, and broader urban design. Spaces designed today can be adapted for emerging needs, extending the longevity of the plan’s relevance.

Community engagement at the SAC ►





VISION

LANDSCAPE PRINCIPLES

The Landscape Plan imagines:

- A landscape celebrated for its beauty, legibility, identity, and the services it provides
- A multi-purpose, multi-function landscape, with:
 - Lawns and open spaces
 - Pockets of nature
 - Habitat, ecological, stormwater corridors
 - Gardens for wellness and reflection
 - Areas for play – sports and recreation, trails, events
- A campus landscape that fashions space for learning and study, gathering and events
- A landscape that connects places within and to surrounding neighborhoods
- A landscape dedicated to sustainability and longevity

The objective of the Landscape Plan is to tell a story of thoughtful renovation, sensitive growth, and planned evolution, guided by a set of overarching principles:

Human Connection

The campus landscape holds profound emotional significance for many, as it shapes their formative years and daily lives. This connection can evolve into a deep affection for the place, influencing recruitment, retention, and contributions. A coherent landscape with a distinct identity enhances this human connection.

The Experience of Nature

The campus landscape offers a genuine connection to the natural world of plants, which sustains all life. In an era of virtual experiences and detachment from nature, such connections gain greater importance. The designed landscape represents our cultural relationship with nature. A campus design that consistently honors the value of experiencing nature enriches the campus community.

Sustainability and Resilience

A well-planned campus landscape supports the university's commitment to sustainability and resilience. It enhances ecosystem services, including air and water purification, climate regulation, soil conservation, habitat enhancement, and the well-being of individuals. These benefits extend to the surrounding community. Well-designed outdoor spaces also promote sustainability by providing easy access to facilities for walking, cycling, public transportation, and recycling.

Appropriateness

A campus landscape inspired by the local environment and the native flora of the Bluegrass physiographic region embodies authenticity and ecological pragmatism. The region's plant communities, evolved over thousands of years, offer a resilient palette for the campus landscape. This approach also conveys a regionally appropriate campus image.

Aesthetic Value

While beauty is not a necessity for education, it is crucial for a complete education. Attention to the quality of the daily experience through campus architecture and landscape is significant for its intrinsic value and as a reference that shapes the values of graduates and future leaders. The psychological benefits of beautiful surroundings are as vital as the landscape's functional aspects.

Use and Accessibility

A well-designed landscape meets the functional needs of campus constituents. Thoughtfully structured spaces for circulation, access, socializing, recreation, and gatherings cater to the requirements of students, faculty, staff, and visitors.

Efficient Management

An organized, intelligent, and purposeful landscape brings order, efficiency, and systematization to landscape maintenance, ensuring its long-term sustainability and appeal.

These guiding principles form the foundation of the university's commitment to creating a campus landscape that not only meets functional needs but also enhances the well-being and experiences of all who interact with it.

KEY THEMES

Themes play a pivotal role in landscape planning, serving as unifying ideas that can elevate a campus’s identity to the status of an institution’s signature. They have the power to encapsulate the values, ethos, and aspirations of the university.

For instance, consider a university celebrated for its unwavering commitment to sustainability. This dedication can be reflected in design choices, from eco-friendly buildings to lush green spaces. In this scenario, the theme becomes an immediate identifier, nurturing a sense of pride and unity among students, faculty, and staff.

Now, envision strolling through a campus where each building, plaza, and walkway possesses a distinct personality. While diversity is often embraced, it can also result in a fragmented experience. Themes serve as bridges, connecting these diverse elements into a cohesive whole. They play a pivotal role in harmonizing the campus environment, ensuring that it speaks with a unified voice and resonates with the individuals who interact with it.

Landscape Plan key themes include:

Placemaking

Placemaking is a foundational theme that centers on creating spaces with a distinct sense of identity and purpose. Campuses are not merely collections of buildings; they are living, breathing entities with their own character. Placemaking involves designing quads, plazas, and other gathering spaces that evoke a sense of belonging and foster a shared sense of community. These spaces serve as the defining agents of the campus, encouraging interaction, reflection, and cultural expression.

Visual and Aesthetic Continuity

While typologies serve distinct functions, visual coherence across the campus is essential. A unifying design language that includes consistent materials, color palettes, and forms helps create a sense of continuity. This visual thread binds the campus realm into a cohesive campus landscape. This means a clear, beautiful system of circulation, access and accessibility. This means designing paths as places.

Environment & Ecology

The university’s student body is the next wave of caretakers. Integrating ecological considerations into planning promotes sustainability and environmental harmony. Native plant selections, water-efficient irrigation, and stormwater management systems align with the institution’s commitment to education in responsible ecological stewardship.

Accessibility & Universal Design

Accessibility must be a thoughtfully integrated cornerstone of a campus landscape approach. Ensuring that the landscape is accessible to all individuals fosters inclusivity.

Allen R Hite Fountain ►



Sustainability

Sustainability should be a driving force in planning and design. It encompasses environmental stewardship, resource efficiency, and resilience. By adopting sustainable practices, the university can minimize its ecological footprint, align with global environmental goals, and provide students with tangible examples of responsible citizenship.

Wellness

The physical environment can significantly impact mental and physical well-being. The Landscape Plan must prioritize the incorporation of green spaces, walking paths, and gardens to encourage healthy habits. Thoughtfully designed landscapes provide spaces for relaxation, recreation, stress relief, and outdoor activities, contributing to the overall well-being of the campus community.

Maintenance

Maintenance is a theme that ensures the health, safety, and longevity of campus planning efforts. A well-maintained campus not only preserves its aesthetic appeal but also upholds the services it provides.



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.

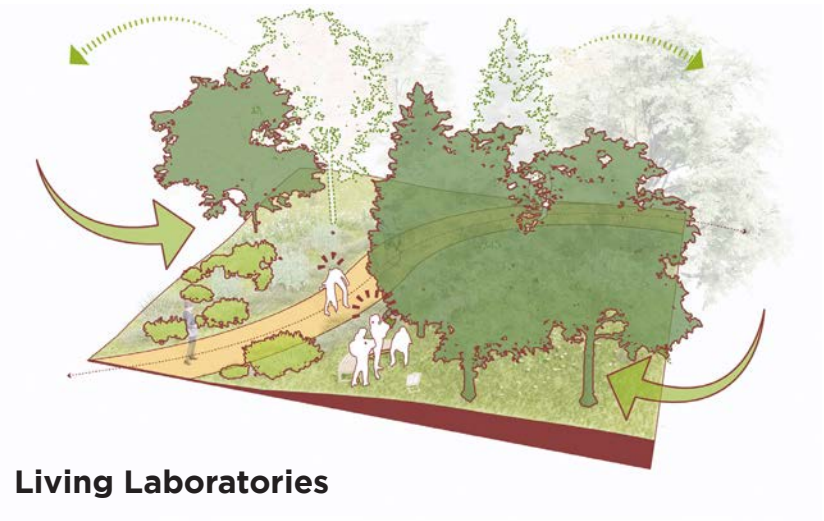
Incorporate carbon sinks and enhance carbon sequestration, implement phytoremediation when appropriate; deploy green infrastructure; enhance habitat and biological diversity.



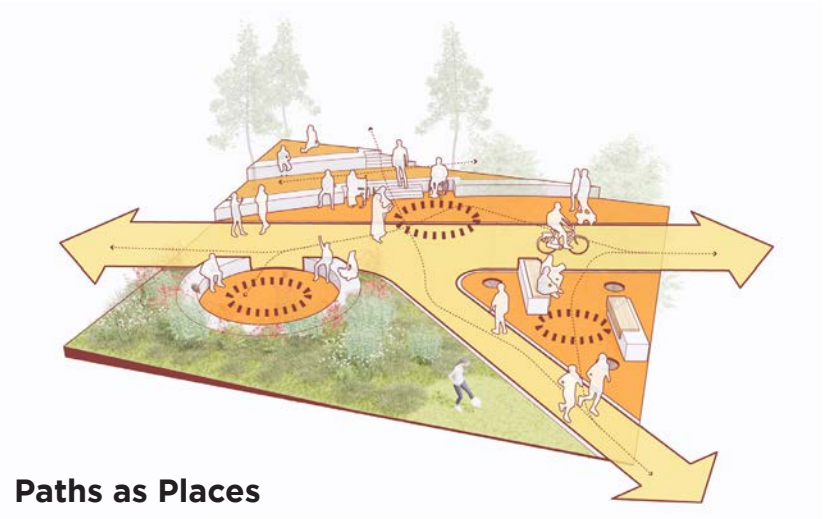
Design Rulebook



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.
- Add signage and educational information on landscape projects throughout campus.

Consider Paths as Places

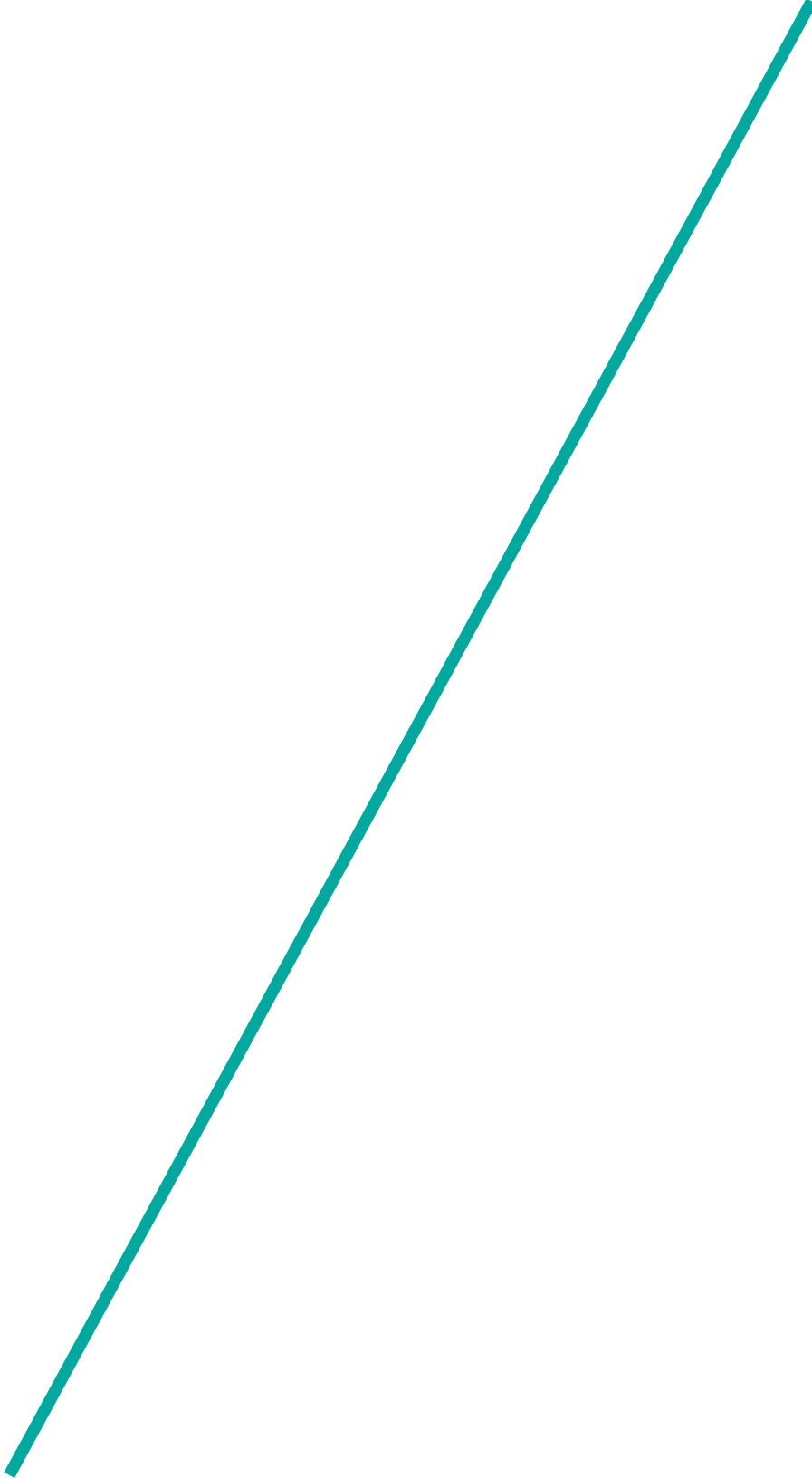
Make orderly and beautiful connections and corridors. Couple paths with amenities, such as seating and tables to make them desirable areas to inhabit.

Envision a Network of Outdoor Living Rooms

Improve 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.



**BELKNAP
CAMPUS**



**EXISTING
CONDITIONS**

EXISTING CONDITIONS

The Belknap campus is a collection of landscapes - the historic core of mature trees, the formerly industrial southern reach, the eastern edge of recreation - connected with a vast path network. It is also a campus defined by massive transportation infrastructure, creating a divide between the university and the communities around it.

Belknap is a 274-acre traditional residential campus, located south of Downtown Louisville, within the flight path of the airport, and adjacent to Churchill Downs and Old Louisville. This campus houses 8 main schools and colleges on campus: 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.

Despite its beautiful and extensive green spaces, more than half of the current Belknap campus is comprised of impervious surfaces. A breakdown of Belknap campus landscape character shows:

- Hardscape-dominant: More than half the campus land area (~162 acres) is parking/service.
- Northern Green: A shady, old growth core (~27 acres of quads, courtyards, plazas, parks, lawns, and

gardens) north of Eastern Parkway interlaces with the historic neighborhood street grid to the north.

- Edges of Service and Play: Parking, service, athletic, and recreational areas are concentrated to the south and along the campus edges.
- Spaces Between: The spaces between buildings and around paths comprise 15% of the Belknap's land area. This is an opportunity to develop landscape function and character in meaningful, cohesive ways.

This broad evaluation of the Belknap Campus provides a glimpse of the quality and composition of its spaces. For a more detailed understanding, the Landscape Plan organizes and analyzes the campus by landscape typology.

Avery Court Walk ►



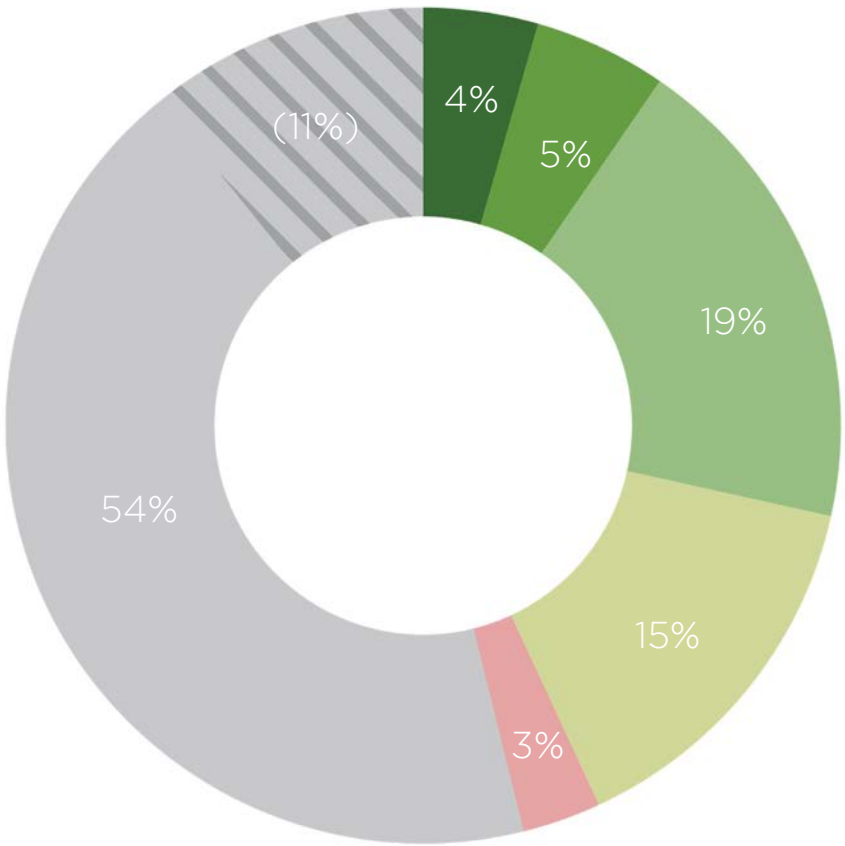
Campus Typologies

Landscape typologies offer a comprehensive snapshot of the character of Belknap’s outdoor spaces. Studying these zones and applying lessons learned bolsters design recommendations by highlighting opportunities and constraints, plethora and deficiencies of the campus environment.

Patterns in the landscape tell us a story about what a campus is made of, how its pieces work, and what the experience of this place might be.

This categorization tells us that:

- Only 4% quads, courtyards, or plazas
- Only 5% parks, lawns, or gardens
- Around 20% dedicated to athletics and recreation
- Around 15% is for transitional and connective spaces
- 3% used for vehicular circulation
- Remainder for parking and service areas



- Quads, Courtyards, Plazas
- Parks, Lawns, Gardens
- Athletic & Recreative
- Transitional & Connective
- Vehicle, Parking, and Service Areas



Existing Landscape Typologies

A classification of open spaces by typology shows the distribution and diversity of services the landscape offers to the campus community. The following are the types of open spaces identified at Belknap campus.



Quads, Courtyards, and Plazas

The multipurpose and flexible outdoor living rooms of student life.



Parks, Lawns, and Gardens

High-intentionality green spaces with unique or curated features or amenities.



Athletic & Recreative

Characterized by sports fields and facilities for active recreation and spectatorship.



Transitional and Connective

The places people move through, not to.



Campus Vehicle Circulation

The extension of the city grid into campus for automotive mobility and access.



Parking & Service

Paved spaces that facilitate vehicular storage and back-of-house access/service.

STORMWATER OVERVIEW

Hydrology

When downtown Louisville was developed, the natural hydrological process for addressing and conveying stormwater runoff was disrupted. What was once a series of waterways and tributaries is now an intricate, manufactured stormwater system with defined watersheds. This urbanization also led to the loss of pervious surfaces, compaction of soils, and removal of dense vegetation that once acted to intercept, retain, store, and evapotranspire rainwater. Now, much of this water becomes runoff that picks up debris and other pollutants. It then enters the combined sewer system (CSS), and is eventually sent to the Ohio River creating combined sewer overflows (CSOs).

Combined Sewer

The CSS in the surrounding area of the Belknap Campus is controlled by the Louisville Metropolitan Sewer District (MSD), and dates back to the 1800s before their state-wide ban in 1955 due to safety and environmental concerns. There are both regional and local consequences due to the aging and outdated CSS surrounding the Belknap Campus.

Regionally, CSOs are a major environmental hazard, as untreated stormwater and sewage is dumped in high volumes into the Ohio River during heavy storms. In 2018 during an unprecedented rainfall event, the river saw more than 4 billion gallons of raw sewage. The Waterway Protection Tunnel project, which was completed by MSD in June of 2022, is a four-mile long, 20 ft diameter tunnel running from 11th and Rowan streets to Grinstead Drive and Lexington Road. It stores a volume of up to 55 million gallons of CSO until

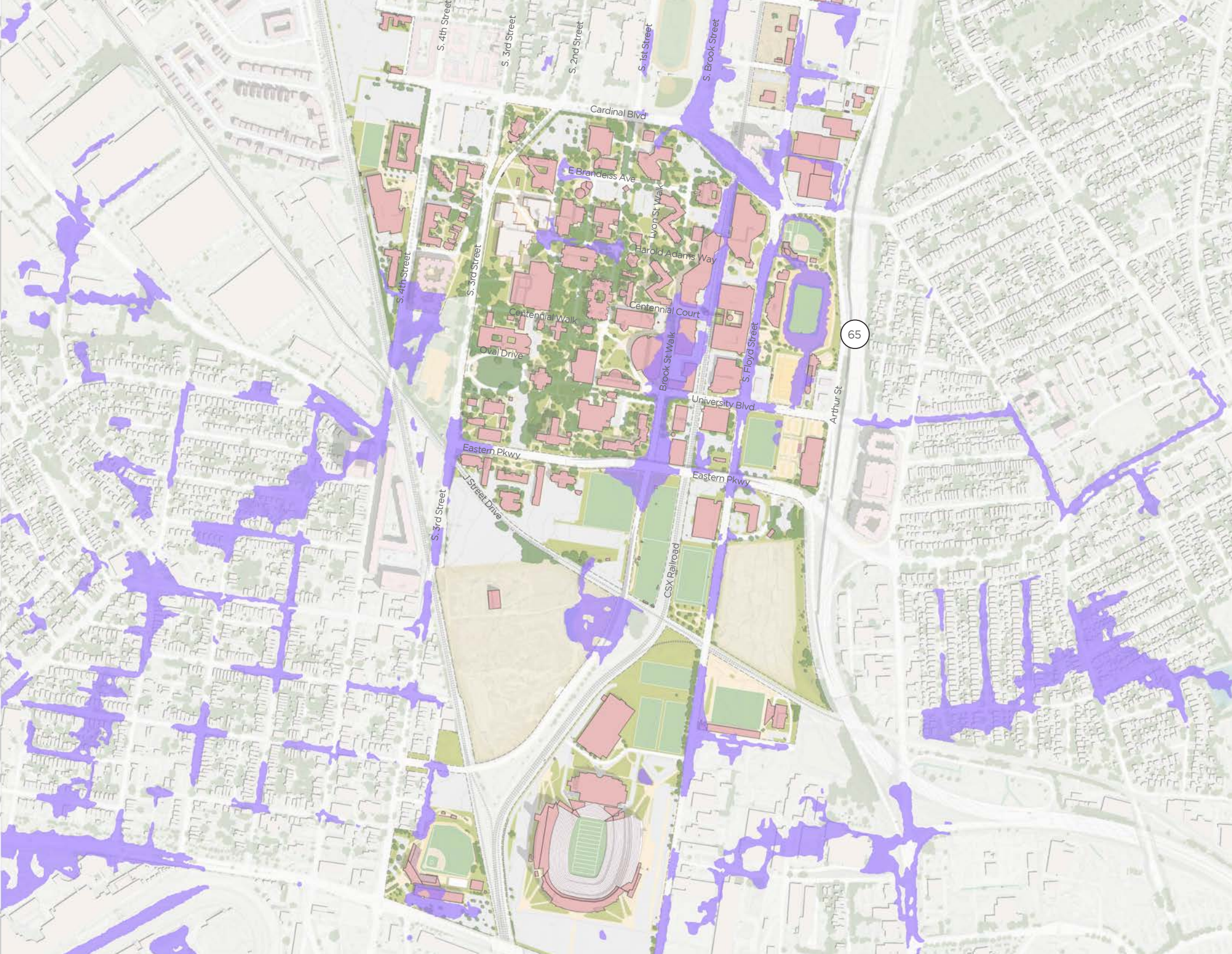
treatment capacity is available, preventing 439 million gallons of untreated water per year from entering Beargrass Creek and the Ohio River. This increased storage is a partial fix to a long-standing issue. There are still great opportunities for increased intervention of stormwater before it reaches the CSS to reduce loads on storage and treatment facilities.

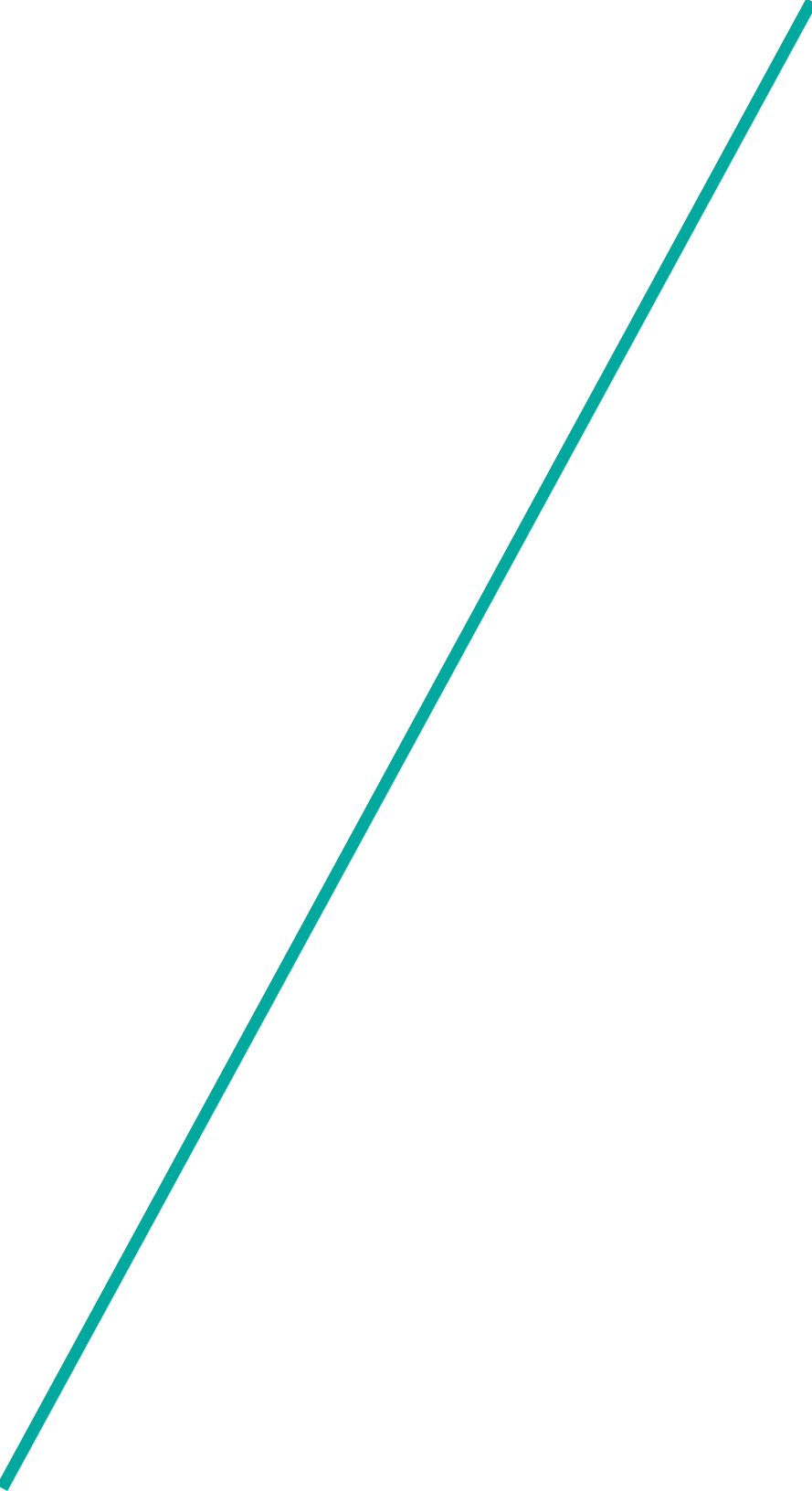
Locally, the Belknap Campus sits in a particularly difficult location in relation to the system, being just downstream of a problematic CSS restriction. A major line of the system runs through campus under what was previously South Brook Street, then turns a corner under West Cardinal Boulevard. A large 7'-6" x 10' culvert becomes a smaller 7' pipe just after turning the corner, creating a bottleneck condition and causing sewer and stormwater backup and flooding on campus during rainfall events. This flooding frequently inundates South Brook Street and the East Brandeis Avenue underpass, as well as other localized parts of campus. These flooding events have major impacts on the experience, safety, accessibility, mobility, and overall functionality on the campus.

Stormwater Management Policies

The Louisville MSD Design Manual provides local guidelines for the planning and design of stormwater and sewer systems, flood protection measures, erosion control, and more. It also outlines the standards, submittal requirements, and approval procedures to be adhered to during development projects. Chapter 18 provides valuable guidance for effectively implementing green infrastructure in site design projects, outlining:

- Stormwater regulations
- Green infrastructure strategies
- Green infrastructure selection
- Infiltration testing
- Pretreatment requirements
- Green infrastructure educational signage





LANDSCAPE FRAMEWORK & GUIDELINES

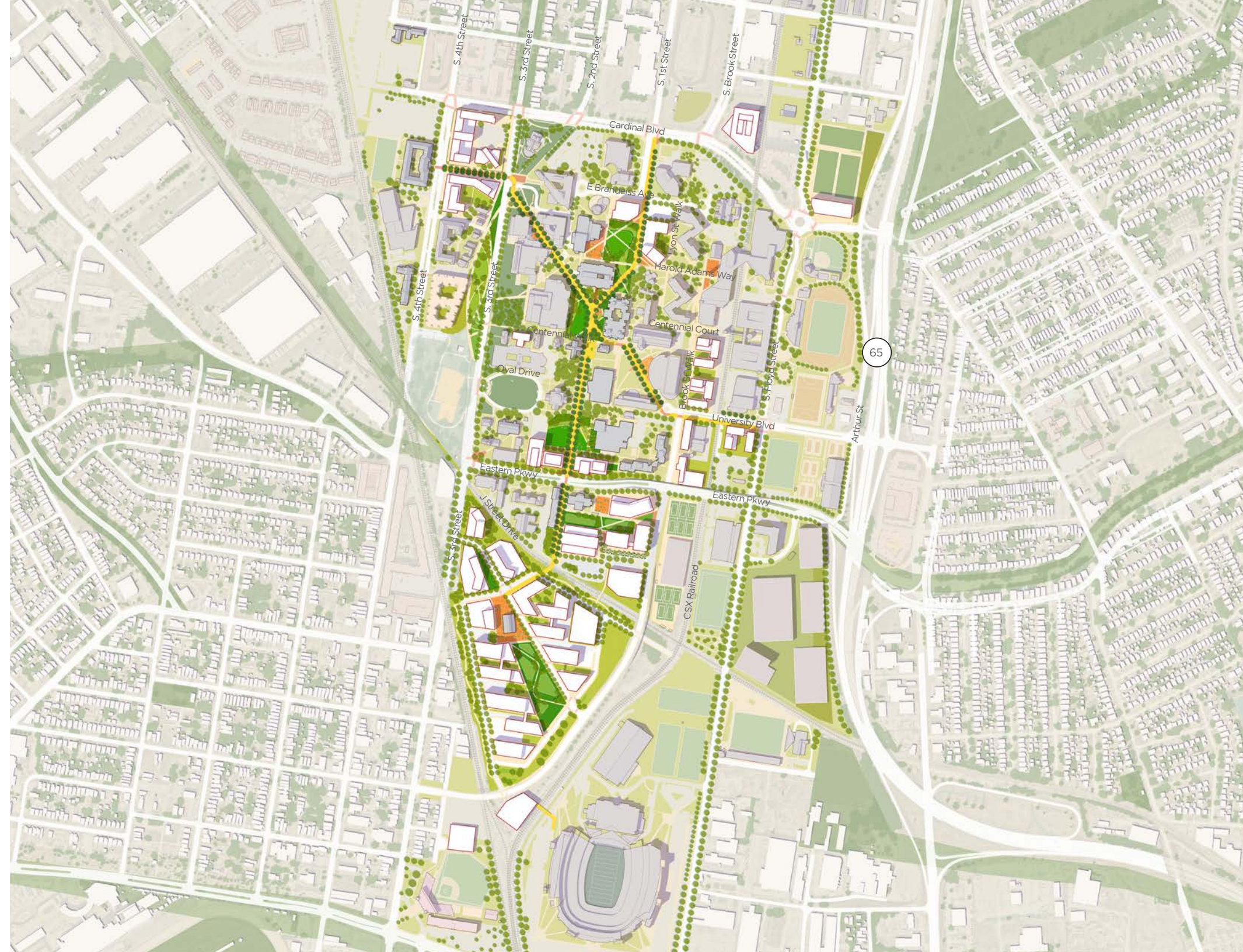
PROPOSED LANDSCAPE FRAMEWORK

Thoughtful planning and design of the public realm has the power to enhance the campus experience, improve health and wellness, increase opportunities for recreation, build climate resilience, and improve natural ecosystem functions for the campus community and its neighbors.

The Campus Landscape Framework is composed of several interrelated parts, including physical elements (walkways, green spaces), social spaces (courtyards, gathering areas), functional elements (parking, accessibility), and sustainability features (habitat corridors and green infrastructure). These components are orchestrated to create a harmonious, purposeful, and engaging campus environment.

The proposed Framework is composed of:

- Two central axes that create a connective thread through campus, uniting new quads with existing ones, and establishing a clear hierarchy to campus mobility.
- A diversification of open space types by introducing multipurpose quads, lawn spaces, and wellness gardens.
- Two new quads that anchor academic building clusters.
- A “Nature’s Quad” designed to remediate soil contamination in the historically industrial part of campus.
- Widening of pedestrian paths where possible to accommodate bicycles and pedestrians.



PROPOSED LANDSCAPE FRAMEWORK

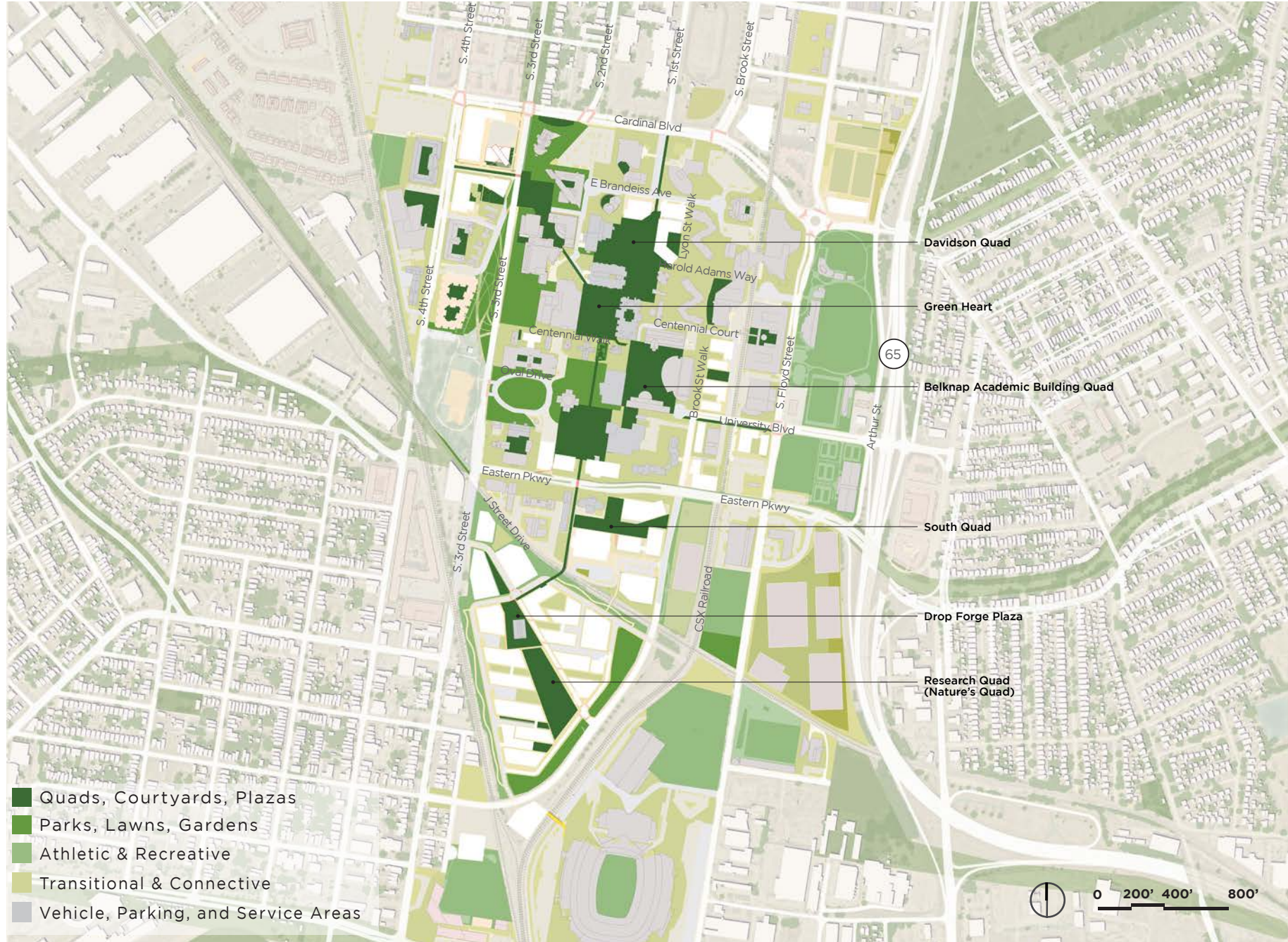
LANDSCAPE GUIDELINES

Landscape guidelines emphasize improvements that are particular to each landscape typology. Each guideline is founded in shared principles and key themes, one intended to support the next.

The intended effect of the guidelines is to yield a campus where moving from one landscape type to another feels natural and complementary.

In this section of the Landscape Plan, guidelines offer an evaluation and recommendations for each open space typology. The recommendations should be considered as strategies for the overall enhancement of the public realm, not as specific design directives.





Quads, Courtyards, and Plazas

Campus quads, courtyards, and plazas are vital university spaces that foster social interaction, learning, and relaxation. Their visual character and compositional elements define the greater campus landscape aesthetic. When enhancing and designing these areas, several factors must be considered.

Existing Constraints

- High intensity and frequent uses
- Undefined, inconsistent, or outdated landscape character
- Shade: Too much, or too little
- Limited site lines and viewsheds

Opportunities

Aesthetic Continuity: Create consistent, visually appealing landscapes that reflect the university’s identity and history. For instance, build upon the many successes of these landscape types - majestic shade trees, active social areas, and signature historic character - to create cohesive spaces.

New Site Lines and Connections: There are few spaces that adequately communicate the vastness and capture the complexity of Belknap campus. Site lines and landscape vistas certainly exist, but they often fall short of engaging the full character or spirit of the landscape. The implementation of broad, straight pathways, the surgical removal of ailing trees to create a more open and healthy expanse of lawn, or a grove planting to reinforce the character of a densely-planted area are tactics to define user focus and experience.

Topography: A subtle shaping of the land can define spaces and edges, add visual interest, and direct stormwater. Topography is a simple way of defining what areas are intended for use by people, versus those areas intended for plants.

Social Interaction: Greater opportunities for students, faculty, and visitors to gather, collaborate, and engage in discussions in all landscape types.

Learning Environments: Courtyards can serve as outdoor classrooms, encouraging interactive and experiential learning; plazas as performance venues; quads as outdoor event spaces.

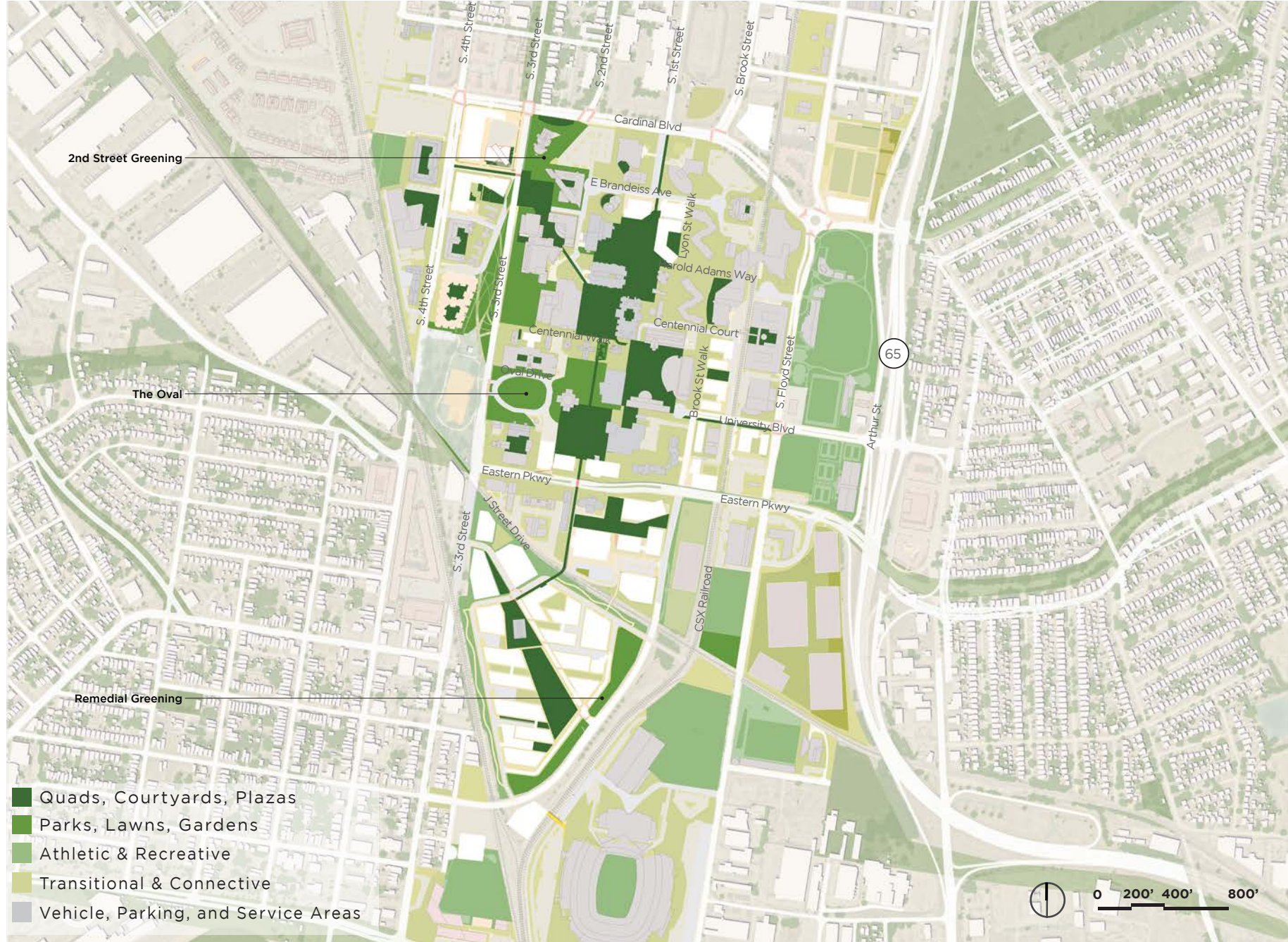
Guidelines

- **Character & Order:** Bridge landscape types with a cohesive design language - plant and material palettes - allowing them to harmonize and complement one another across the campus. With a single glance, quads, courtyards, and plazas should communicate a visual identity and appear orderly and consistent. Locate active plaza areas near buildings and pathways, while quieter zones can be paired with more intimate, densely-planted spaces.
- **Experience (prospect & refuge):** Allow quads to “breathe”. Establish sufficient swaths of open, uninterrupted space, with meaningful site lines and viewsheds. Support their vastness with expanded lawns and clearly defined edges. Craft courtyards as sanctuaries, merging greenery with contemplative seating and contextual hardscape; peaceful refuge for reflection, conversation, and study. Provide a mix of seating options, including benches, movable furniture, and stepped seating, catering to different preferences, providing variations in experience and aesthetic variety. Use seating to define pathways and gathering spots, encouraging organic movement and interaction.

- Vibrant Intersections: Plazas should emerge as dynamic, bustling crossroads, alive with collaborative spaces, engaging activities, and fluid connectivity.
- Landscape Composition: Planting should be refined and orderly in style, with naturalistic elements as aesthetic and functional highlights. Landscape should be considered in three layers. In some cases, these layers can exist together. In most instances, a single layer, or a pair of layers together, will define the landscape:
- The Overstory - large shade trees: either in groves, allees, or solitary specimens
- The Understory - massing of shrubs, multi-stem understory trees, and/or tall meadow grass. Understory plantings should not be ornamental. Rather, they should establish a consistent texture and large-scale character.
- The Groundcover - expanses of lawn or low groundcover plantings, pavement, or water features.
- Experience (prospect & refuge): Allow quads to “breathe”. Establish sufficient swaths of open, uninterrupted space, with meaningful site lines and viewsheds. Support their vastness with expanded lawns and clearly defined edges. Craft courtyards as sanctuaries, merging greenery with contemplative seating and contextual hardscape; peaceful refuge for reflection, conversation, and study. Provide a mix of seating options, including benches, movable furniture, and stepped seating, catering to different preferences, providing variations in experience and aesthetic variety. Use seating to define pathways and gathering spots, encouraging organic movement and interaction.

Shared path through the Quad ►





Parks, Lawns, and Gardens

Parks, Lawns, and Gardens are intentional green spaces with unique or curated features or amenities. This typology plays with the relationship between natural and artificial. It presents a designed and manicured form of nature. It is intentional in use and program, catering to a specific purpose and audience.

- Parks are green open spaces with amenities for passive recreation.
- Lawns are formal open spaces characterized by large swaths of turf.
- Gardens showcase horticultural features and programming.

Existing Constraints

- Isolation: Lack of connectivity with surrounding landscape and/or campus function
- Intensive maintenance requirements
- Lack of aesthetic continuity
- Caught between places for people and places for nature

Opportunities

Be deliberate in design by enhancing the existing qualities of these landscapes. Make the planted zones wilder and more hospitable to birds and pollinators. Make the lawns and manicured spaces more inviting to people.

Explore the harmony between eco-friendliness and knowledge by integrating sustainable materials and showcasing the interconnectedness of disciplines.

Design landscapes that change with seasons, reflecting the cyclical nature of learning and encouraging ongoing exploration.

Celebrate the diverse heritage of the university community by designing spaces that blend cultural motifs, fostering cross-cultural understanding.

Guidelines

- Be deliberate in design by enhancing the existing qualities of these landscapes. Make the planted zones wilder and more hospitable to birds and pollinators. Make the lawns and manicured spaces more inviting to people.
- Explore the harmony between eco-friendliness and knowledge by integrating sustainable materials and showcasing the interconnectedness of disciplines.
- Design landscapes that change with seasons, reflecting the cyclical nature of learning and encouraging ongoing exploration.
- Celebrate the diverse heritage of the university community by designing spaces that blend cultural motifs, fostering cross-cultural understanding.

Lawn outside Ekstrom Library ►





Athletics and Recreative

This landscape type is characterized by sports fields and facilities for active recreation and spectatorship, designed with specific intended uses, to prescribed standards, using prescribed features.

While these areas often include vast green spaces, they often carry with them rules and expectations governing uses, access, and maintenance.

This typology often falls at the perimeter of, and largely on the east side of, the campus, paired with parking and service. These areas experience periods of intense usage and periods of quiet between events.

Existing Constraints

- Vast, single function areas that are unpopulated most of the time
- Exacting maintenance requirements
- Extensive support services - both area of footprint and operations
- Visual discord with surroundings

Opportunities

This landscape type should be considered within its greater context and on its own. Explore how the landscape beyond the playing fields can be designed to better integrate with their surroundings.

There is an opportunity to create a strong corridor of athletics and recreation along the east side of campus, running N/S, that is serviced in multi-part fashion. Generating a sports path network (or loop), consolidating parking and service, identifying opportunities for connective green spaces, and establishing a common aesthetic language for how to address the areas between athletic fields will all support the effort to create a more dynamic, appealing, and efficient band of activity.

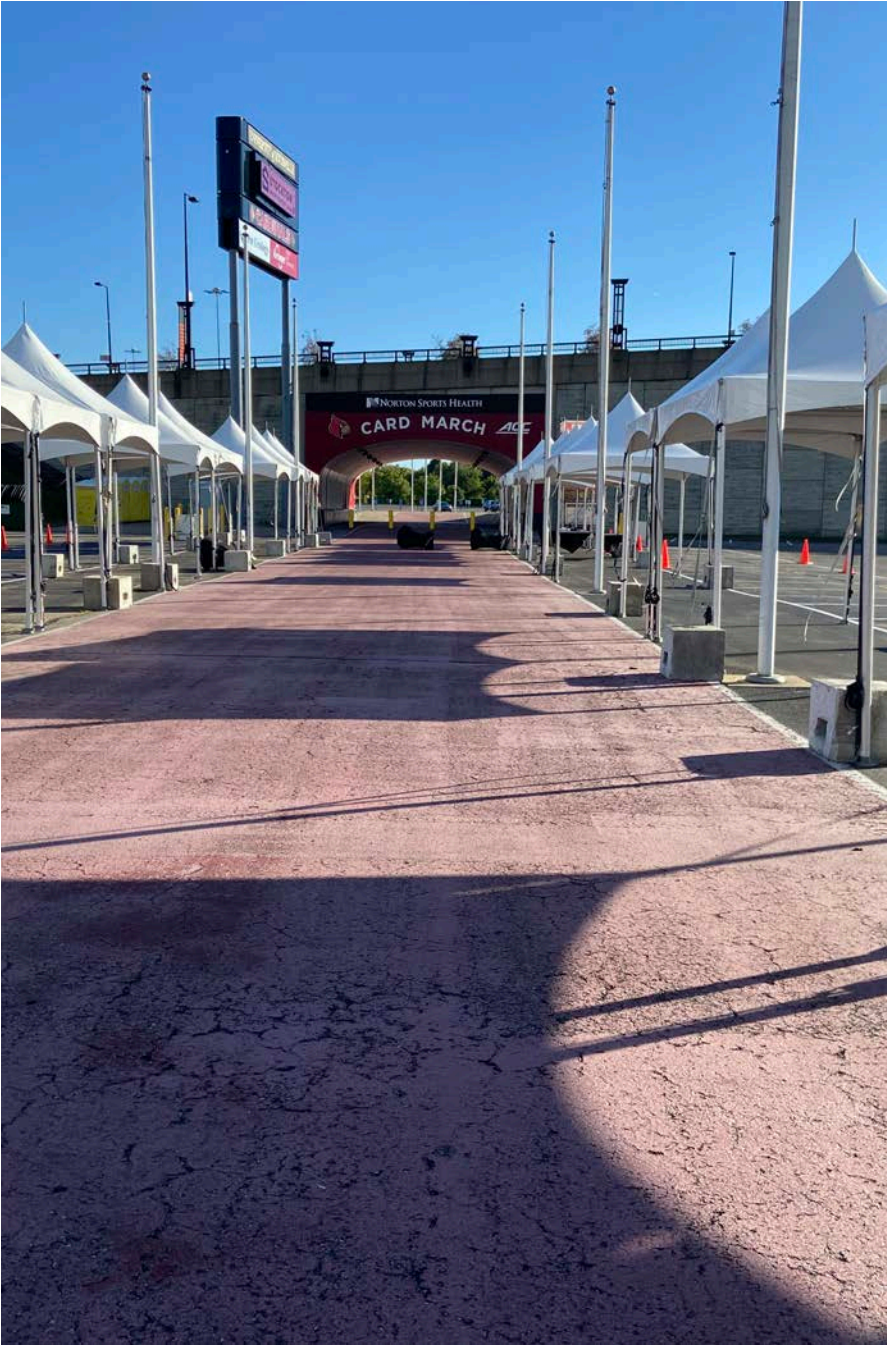
Guidelines

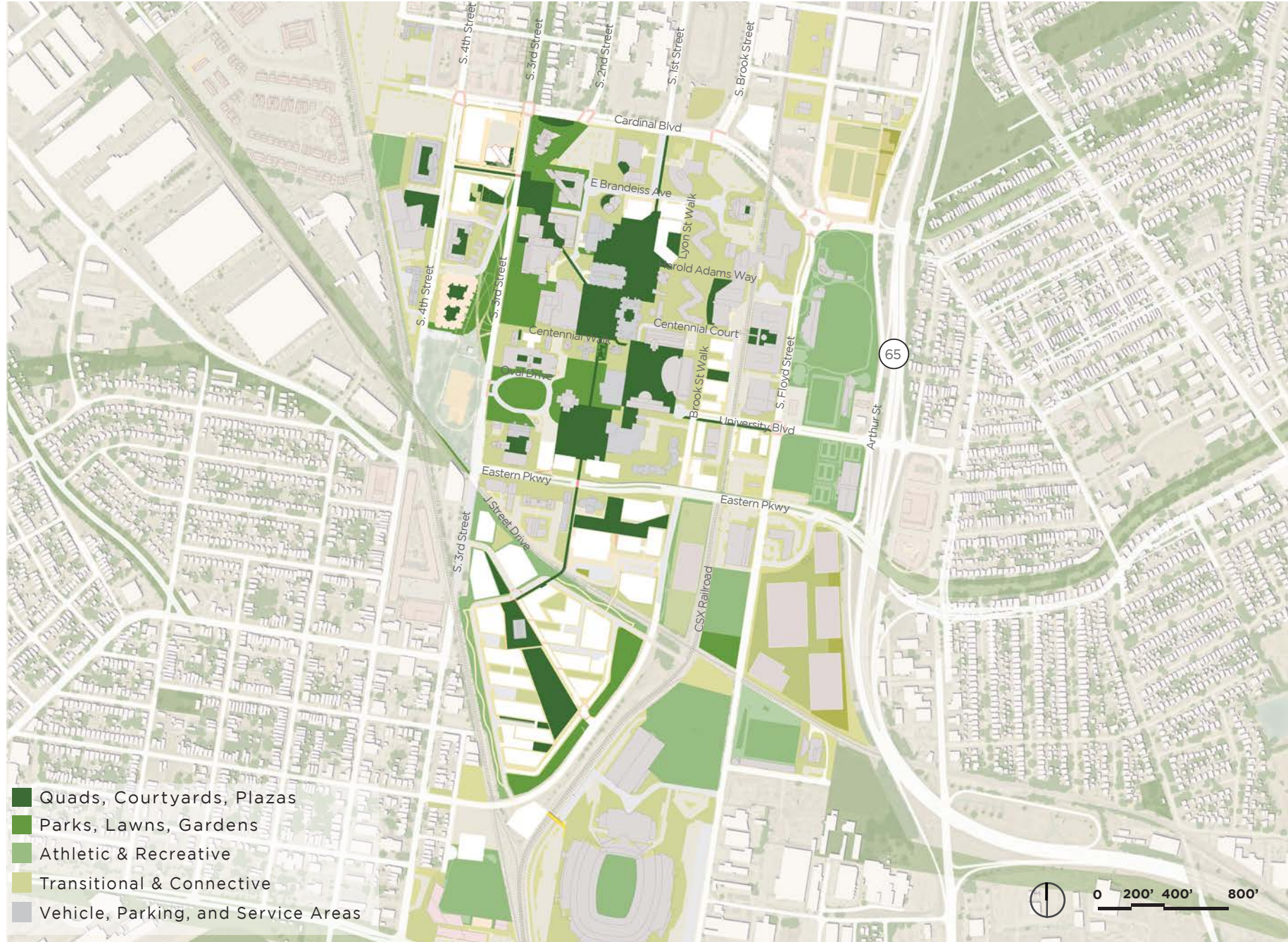
Connectivity: Create a path network with increased access and mobility, to support connections between and across the corridor.

Edges: Creatively integrate the spaces beyond the playing fields - their edges - to better fold this landscape type into its surroundings.

Function & flexibility: For those fields that are designated for informal use, identify strategies for activating the spaces outside of intramural use.

Athletics facilities at Belknap ►





Transitional and Connective

This typology is the fabric of, and the backdrop to, the campus landscape. They are multi-functional, interstitial spaces that people primarily experience by moving through, rather than inhabiting or gathering in.

These are the areas that shape the experience from streets to parking areas, and along paths, and between buildings. They can be ornamental or provide a specific function, but at their best they are the visual and operational glue that ties the pieces of the campus together into a cohesive whole.

Existing Constraints

- Often considered as exterior “filler” or “dressing”
- This landscape type tends to be overly ornamental and uninspired

Opportunities

This typology can play a role in shaping better connections; between buildings, between campus and neighborhoods, and as part of the overall experience of Belknap campus.

Plan and design in terms of character zones and function; make a statement about the character of the place with simple design gestures that reflect an intention and support surrounding activity and function.

Consider this type as both the welcome mat and the guide, leading users between and through spaces. It can either reinforce a building or plaza aesthetic, or it can be a bold counterpoint to a greater landscape experience.

Guidelines

Character: This landscape type should celebrate a consistent uniformity and provide a calm backdrop to campus elements that provide specific function, provide specific services, or make specific aesthetic statements. The landscape character should take the form of naturalistic groves of trees, expanses of lawns or meadow grasses, or stretches of simple ground cover.

Material design and composition of paths should be consistent throughout, adhering to campus standards (concrete, red brick, pre-cast concrete pavers) and offering a subdued canvas for movement.

Connectivity: Multi-faceted connectivity is the foundation of this landscape type. This means visual connectivity; cueing an arrival or framing a view. This can take the form of an allee of trees or a uniform swath of groundcover that leads the eye forward, onward, or providing a definitive object to rest upon.

This also means physical connectivity and the effectiveness of path networks. In addition to the material composition of a path, its trajectory goes a long way in telling the story of a campus journey.

Functional connectivity can include environmental or infrastructural functionality but can also address efficient maintenance practices and ease of training around caring for landscape types.

Experience: There can be an overt beauty to considering, operating within, and realizing a thoughtful, well-edited, and restrained landscape design. It can feel wonderfully intentional, providing a hierarchy to the campus spaces, as it serves as a backdrop for architecture and activity.

Seating along paths ▶
▼





Vehicular Circulation, Parking and Service

Campus streets are extensions of the city grid. They are one of many organizational drivers. Their primary purpose is in service of the vehicle; the platform for access, service, and maintenance, but their composition and quality can be diverse and multifaceted. Parking lots and structures are located almost exclusively at the campus edge, with select routes and opportunities for accessibility and service.

This arrangement prioritizes the pedestrian, marking a shift from a traditional public realm. It is part of what defines the campus environment.

Existing Constraints

Finding the right balance of campus realm compositional elements is always a challenge, and this landscape typology is no exception. Vehicular circulation, parking, and service should fade to the background, but in the campus environment, defining "back-of-house" can be exceedingly difficult. This is due to a prevalence of paths, and absence of alleys.

Opportunities

Parking, service, and circulation require exacting specifications, and must be compliant with applicable rules and regulations. There are, however, ways of introducing pedestrian and environmentally friendly measures to help create more welcoming and sustainable places.

Trees for shade and select green infrastructure elements for stormwater infiltration or detention can be strategically incorporated into this typology.

Guidelines

Cohesion: To the greatest extent possible, establish a “shared streets” approach to design. This means that the hierarchy between vehicles, bicycles, pedestrians, and landscape be balanced to promote a more harmonious relationship between these elements. It involves assigning visual, functional, and aesthetic significance to sidewalks and planters, tree lawns and bike lanes.

Function: To the greatest extent possible, create planting areas within medians and at the end of parking aisles, carve out space for pedestrian-friendly routes for increased safety, and incorporate green infrastructure into the design of this typology.

Green infrastructure can take the form of flush or curb-cut bioswales or rain gardens, and permeable pavements. Benefits include decreased stormwater runoff volume to combined storm-sewer, increased carbon sequestration, shade, and aesthetic benefits.

Service roads through campus ►



New Construction Guidelines

Planning, design, and construction of a razed site comes with an approach that is very different from the renovation or enhancement of an existing landscape. Designing a “new” landscape warrants and permits opportunities that may be limited in renovation projects.

Creating Harmonious Integration

- Begin by understanding the existing campus architecture, landscape, historical context, and the functional needs of various stakeholders. For example, the proposed Nature’s Quad in the Research and Development district responds to sight lines of the Cardinal Stadium, the need for brownfield remediation, and the stakeholder desire for an active public space at the heart of this new district. Further, it leverages a historical structure, Drop Forge, to create a revitalized dining and socialization space.
- Seek to integrate new design seamlessly with the existing campus fabric, blending contemporary elements with the established architectural language. For instance, in the proposal for a new Quad at the center of the STEM cluster, the open space is framed by new buildings to create a scale of an outdoor room. Campus life and dining spaces on the ground floors of new buildings open up to the quad to activate both indoor and outdoor spaces. The design proposes open lawn as well as a more formal plaza between buildings, offering a diversity of outdoor spaces.

Embrace Sustainability

- Incorporate sustainable design principles such as using native plants, maximizing multi-functional and service-based green spaces, and minimizing water consumption.
- Integrate renewable energy sources, efficient irrigation systems, and permeable surfaces to minimize environmental impact.

Functional Character Zones

- Clearly define zones for different functions like relaxation, study, socializing, and active recreation, as well as the connections between them.
- Ensure proper circulation pathways that are accessible to all.
- Design spaces that can be adapted for different uses and events, providing versatility and maximizing utilization. In addition to densely vegetated or tree-planted areas, create open lawns that can be adapted for different events and programmatic needs.

Scale and Proportion

- Maintain a balanced scale and proportion with the surrounding buildings and the overall campus layout.

Visual Continuity

- Create visual continuity by aligning landscape features with architectural lines and axes, enhancing the coherence of the campus layout. For example, the new north-south pedestrian and bike corridor carves out space between the STEM phase 2 building so that it can visually and physically connect to the STEM cluster south of Eastern Parkway



Renovation Guidelines

It is important to consider how guidelines are applied to existing landscapes to be renovated, versus entirely new landscapes.

This requires a balance between existing physical constraints, historical significance, functional versatility, and ecological mindfulness. The campus boasts mature trees, revered by the university community, while serving as a nucleus for social activities. The aim is to harmonize the existing character with surgical design interventions, creating a multi-functional space that embraces native plantings and habitat corridors.

Preserve Historic Integrity and Defining Characteristics

This encompasses the architectural heritage, significant landmarks, and even the stories that have unfolded within its boundaries. A well-preserved historical identity not only honors the past but also serves as a link between generations, fostering a sense of continuity and pride. One example in the proposed plan is the significance given to the historical Shipp Street. As a former edge to Belknap campus, this corridor connects major buildings from the northwest of campus to the southeast. From the proposed Visitor Center, through the Speed Art Museum, to the older academic core, Belknap Academic Building, and terminating with the proposed housing and campus life corridor at Brook Street and University Boulevard.

Reinforce Zones of Function

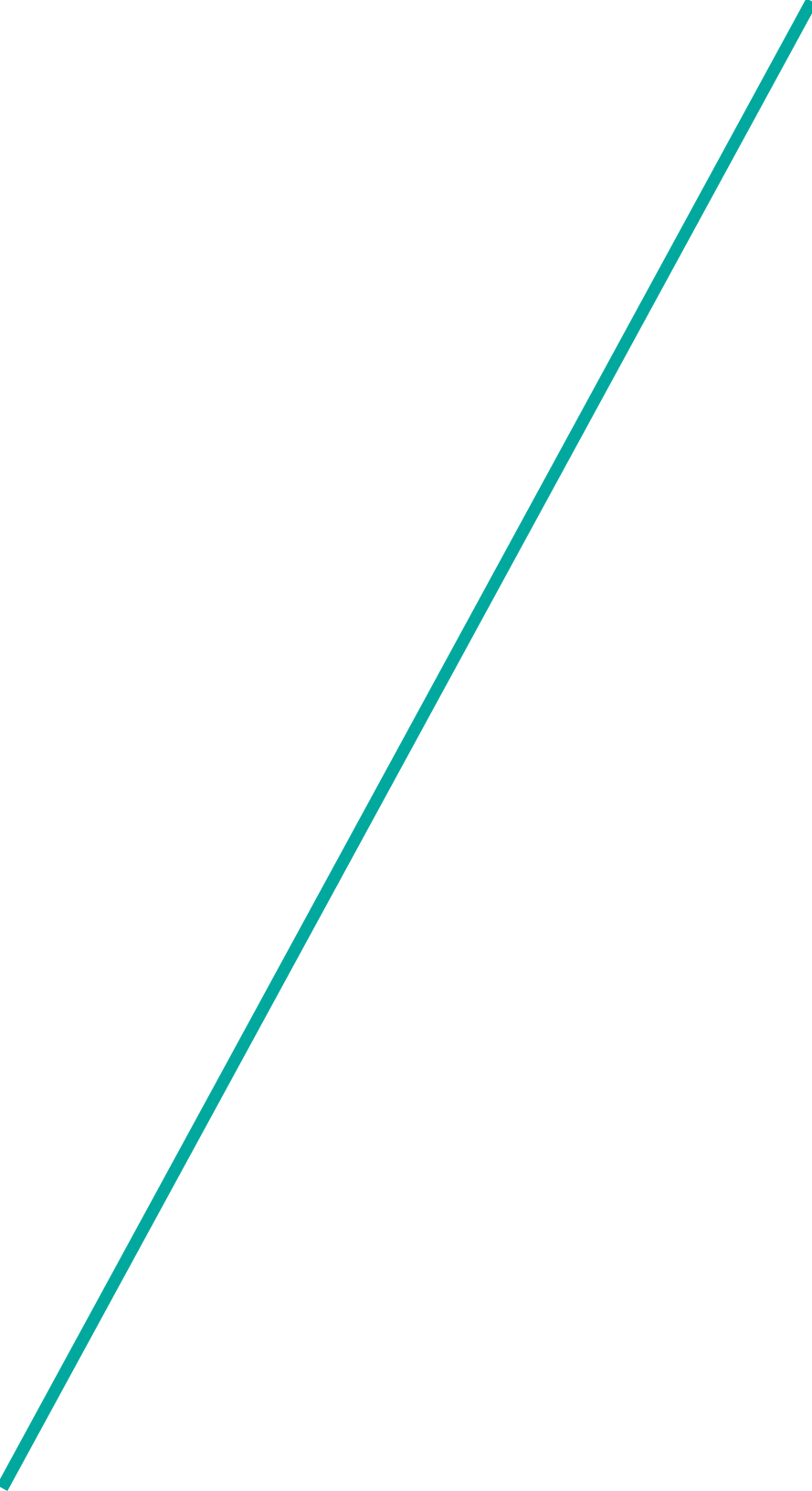
A quad is a multi-functional space that caters to a variety of activities. Successful quads demarcate functional zones thoughtfully. From quiet study areas to open lawns for relaxation, to amphitheaters for events, each zone serves a specific purpose and contributes to the quad’s versatility.

Enhance Pathways and Connectivity

Embrace multi-use pathways that guide individuals through the campus, encouraging exploration and interaction with the landscape as well as architecture.



Landscape around Davidson Hall ►



FOCUS AREAS

FOCUS AREAS

While the Landscape Guidelines offer general ideas and recommendations for planning and design of each typology, the following Focus Areas section provides examples and recommendations of how to apply design ideas in a site-specific fashion. A closer look at each of these focus areas provides a path forward in campus improvements, pairing locations with desired experience, physical composition, and function.

Focus areas chosen for representation in the Plan are thematic and complement the work represented in the Campus Master Plan. Five focus areas have been identified for the Belknap Campus:

- 1

TOWN GOWN
- 2

ACADEMIC CORE
- 3

BROOK STREET CORRIDOR
- 4

SOUTH ACADEMIC CORE
- 5

RESEARCH & DEVELOPMENT DISTRICT

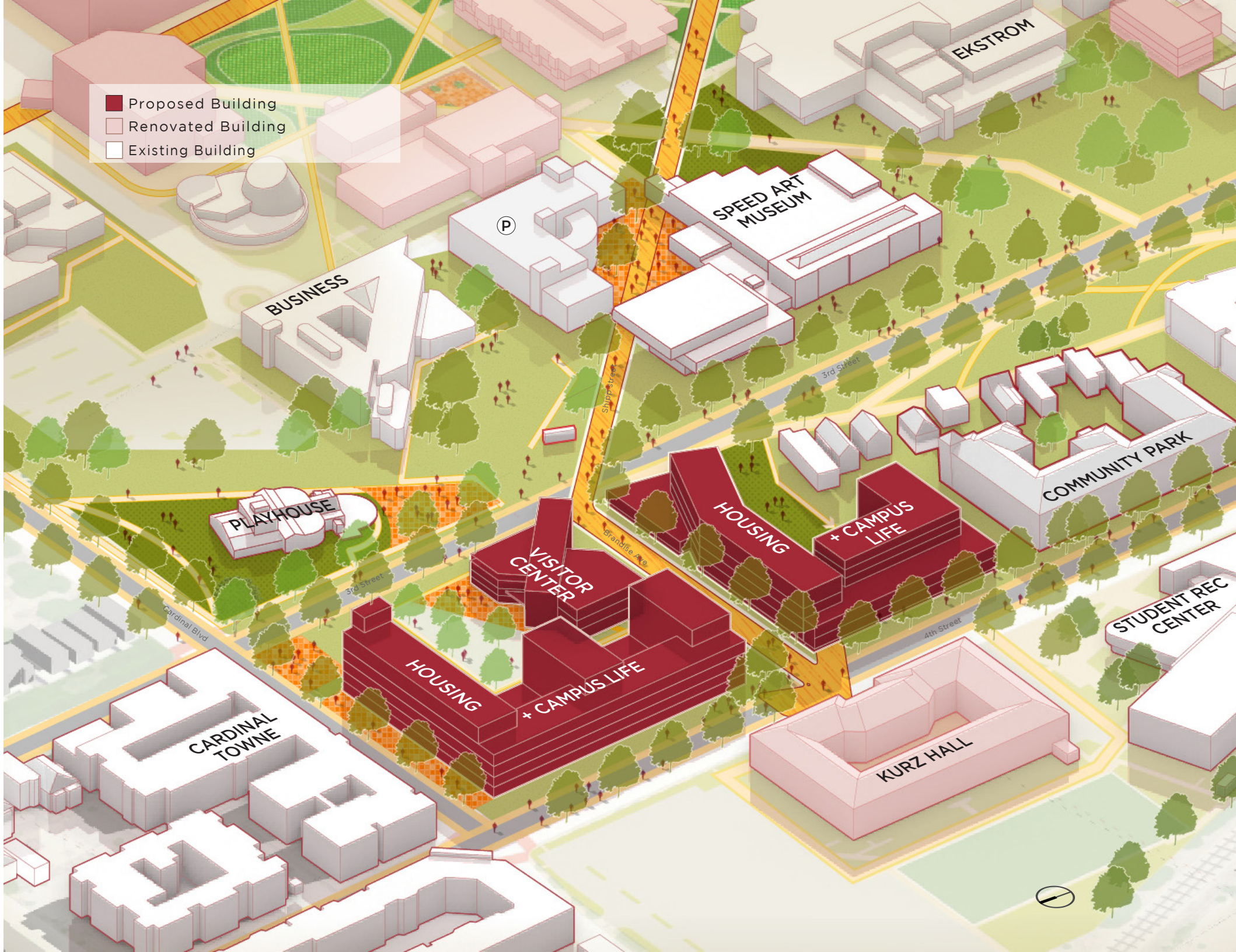


TOWN GOWN

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.

The Belknap campus lacks a grand gateway moment, where students, visitors, and staff feel they are ushered into the campus environment in a meaningful and beautiful way. In particular, the campus community finds that the current experience for most administrative processes, particularly for new students and visitors on campus, is incredibly confusing and the process of campus arrival, welcome, and exploration is under-baked. There is a wonderful opportunity to create a welcoming new public realm and gateway into campus.

Currently, most folks approach campus by vehicle, park at the Floyd Street parking garage and then proceed to navigate a railway crossing to reach points on campus. The Third Street and Cardinal Boulevard intersection is an opportunity to establish a new public realm Gateway of plaza, path, landscape that follows the footprint of the historic Shipp St into the Belknap core. This site is currently occupied by a bank and a vast parking lot. The Gateway would also take advantage of the planned pedestrianization of Second Street, between W Cardinal Boulevard and W Brandeis Avenue (east of the Playhouse), to create an exciting new hub of pedestrian activity at the threshold between campus and neighborhood community life.



Vision and Recommendations

This new gateway envisions a new university visitor center at the southeast corner of Third Street and Brandeis Avenue, developed as a public-private partnership with the addition of affiliated housing on the rest of the site.

The visitor center should be oriented directly toward Shipp Street on campus, creating a tangible design dialogue between the student life neighborhood in which it sits and the Belknap campus. Emphasis placed on the diagonal connection will also serve to reinforce the significance of the former, and direct, Shipp Street connection to the center of campus.

This idea leverages the potential of this axis to link the Playhouse, Freedom Memorial Park, Speed Museum, the Quad, Belknap Plaza, the proposed housing on Brook Street, all the way to University Boulevard, another major entry to campus.

Unifying features of this Shipp Street corridor include the Speed Art Museum, Ekstrom Library and the North Academic Core, the Belknap Academic Building, all the way to a proposed campus life and housing corridor along Brook Street. At Brook Street, the campus tour turns south toward the new STEM cluster on campus, which guides a visitor or campus user through a new South Quad back to the North-South Connector.

A Welcome Mat: Create a campus plaza at the entry to the new visitor center with gateway signage at the corner of Third Street and Cardinal Boulevard.

- Use traditional, contextual materials (brick, granite, pre-cast and exposed aggregate concrete, etc.) in a contemporary fashion, providing a nod to the structure and composition of Freedom Park, while intimating a progressive design aesthetic.
- Provide shade trees and seating for visitors and prospective students, staff.



There are opportunities to enhance the appearance and functionality of the 3rd St corridor with design moves that enhance and extend planted areas, while also incorporating traffic calming, pedestrian-focused efforts, such as bulb-outs.

A re-envisioning of the 3rd St corridor allows for exciting new opportunities to mark UofL's presence at the vibrant W Cardinal Blvd intersection. A new threshold or gateway plaza can welcome students, while knitting the campus environment into the larger neighborhood context.

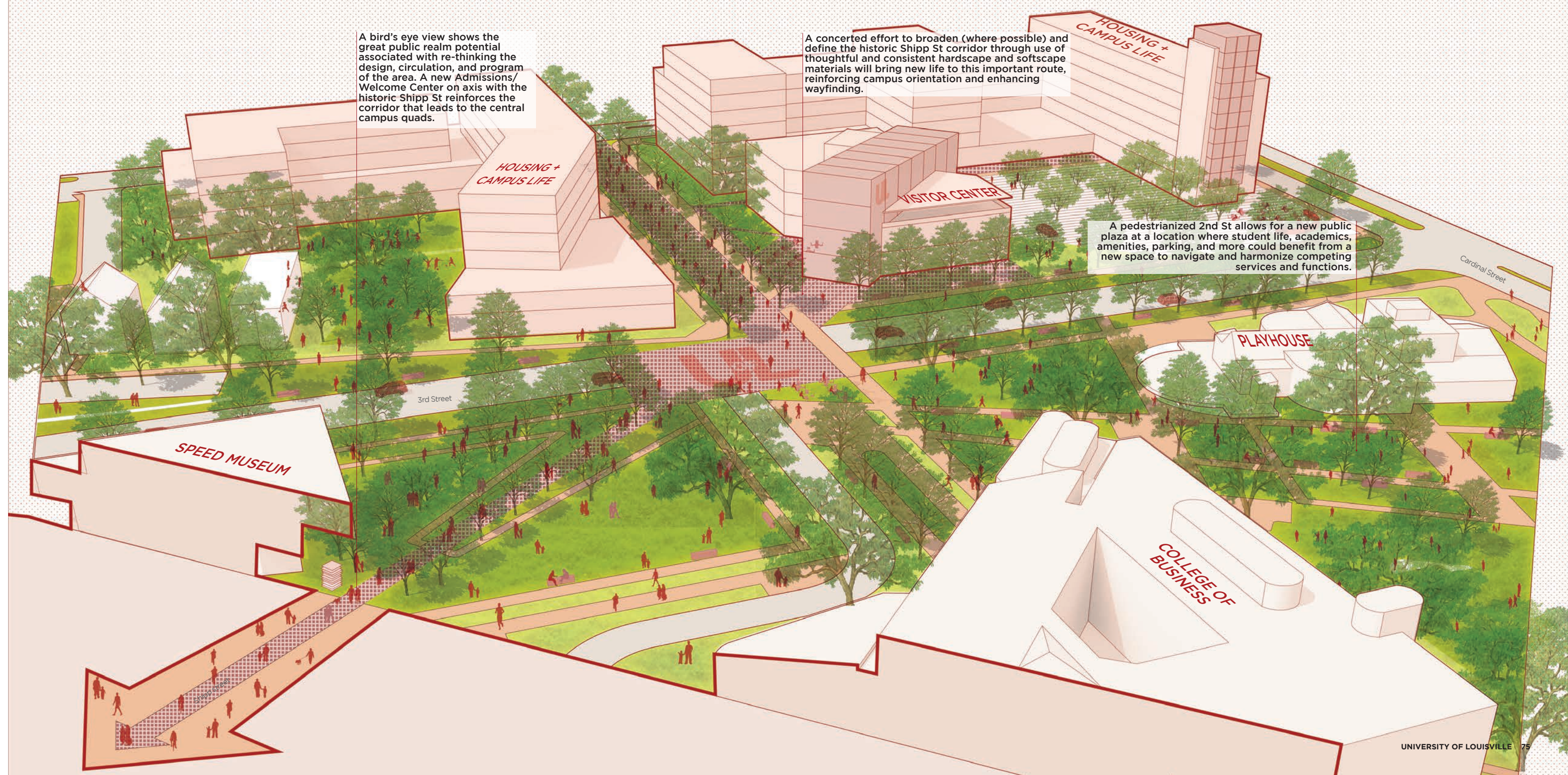
Incorporation of special pavements, such as pre-cast concrete pavers, will signal the significance of the space as a valued pedestrian environment.



- Soften the plaza edges with subtle rises of topography, densely planted with drifts of grasses or groundcovers. This design tactic will keep sight lines open, but will also direct focus both inward, back to the visitor center, and outward across Third Street to the main campus.
- Orient the plaza diagonally, toward campus, along historic Shipp Street. This design move will serve as a clear signal of the plaza's purpose and affiliation.

Shipp Street Campus Thread: This is an opportunity to enhance and extend the diagonal corridor that already exists (in many materials, at varying widths), infusing a historical corridor with fresh significance.

- Consider this diagonal route as a linear plaza. It should be broad (+/- 16 feet in width), possess stretches of allees, lined with seating, and provide access to pockets of lawn, seating and/or study areas.
- This axis should take precedent over other intersecting paths, establishing a hierarchy to circulation patterns.
- Identify and invest in a "special" pavement type that is contextual but signifies the importance of this linear pathway.
- Provide pedestrian-scale lighting (i.e. bollard lights) and strategic and subtle lighting of the linear plaza's plant material. This will reinforce the focus on the pedestrian, help to create a welcoming experience, while also adding a unique significance to the corridor.



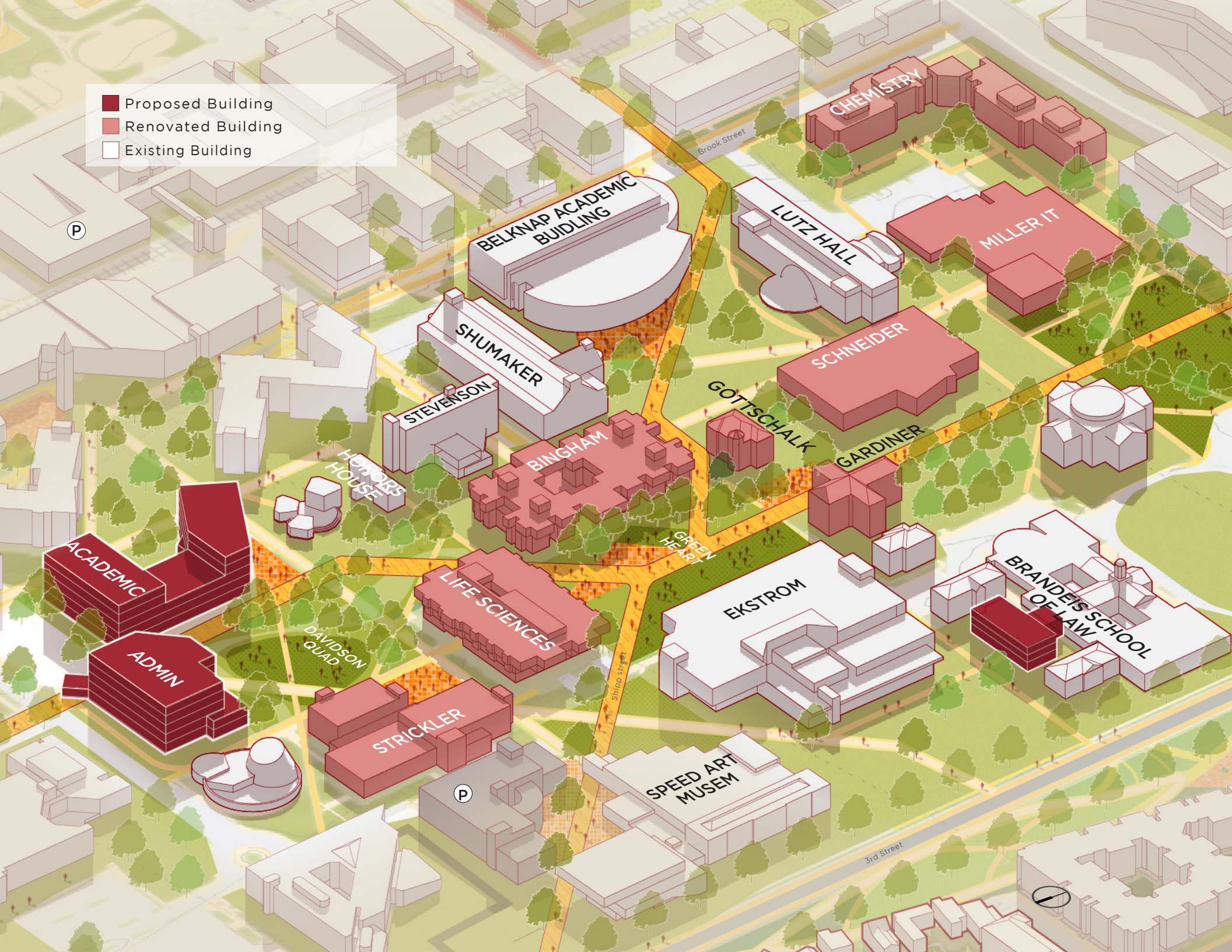
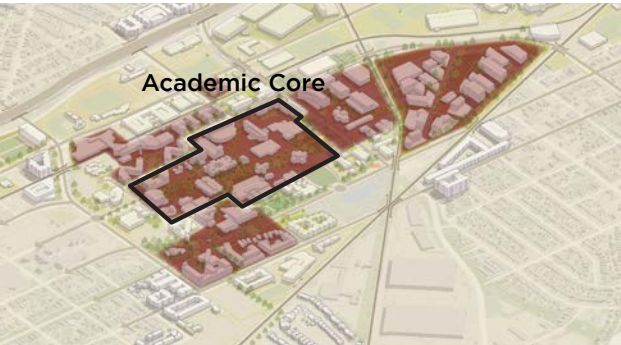
ACADEMIC CORE

The Landscape Plan proposes a new quadrangle for the campus, distinct from the existing Quad.

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, mature tree canopy of varied species, including natives such as Flowering Dogwood, White Ash, and Shumard Oak. Overall, the core is a safe and comfortable pedestrian-first area of campus. Yet, certain specimens have suffered storm damage and struggle from battles with insect infestation. Recent storms have exacerbated certain health issues.

The Quad's extensive tree cover has a bifurcated impact on the landscape experience. It creates wonderful, welcome, expansive areas of shade; amenable to sitting, relaxing, studying on hot spring, summer, and fall days. But the even blanket of shade can impact the health of the widely used and maintained lawn grasses. Further, the existing arrangement of trees, often scattered throughout an area, but rarely organized into groves or allees, can limit site lines and limit the ecological services and benefits the plant material could provide. Rather, it promotes a “ring of mulch” approach to design and grounds maintenance. This practice keeps Quad users at a distance and places an odd aesthetic significance on these ground plane circles of shredded bark. Decorative hedges and random borders of groundcovers line limited portions of intersections and foundations.

The path network in and around the Quad is comprised primarily of cast-in-place concrete walks, with some areas (small plazas and seating bump-outs) in brick pavers or asphalt. This path system offers logical connections between buildings and across the greater district, but lacks dimensional and material hierarchy, which prevents easy identification of the paths that are significant cross-campus corridors.



Vision and Recommendations

The landscape vision for the North Academic Core is a seamless pairing of old and new; a refined and enhanced public realm that celebrates the many wonderful qualities of the Quad - its mature trees and forest-like atmosphere, its sense of permanence and history - while introducing a new, contemporary public space to its north. The multipurpose Davidson 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, and environment.

A 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.

Paths as Places

Provide a simplified network of paths of varying width, per their use or function.

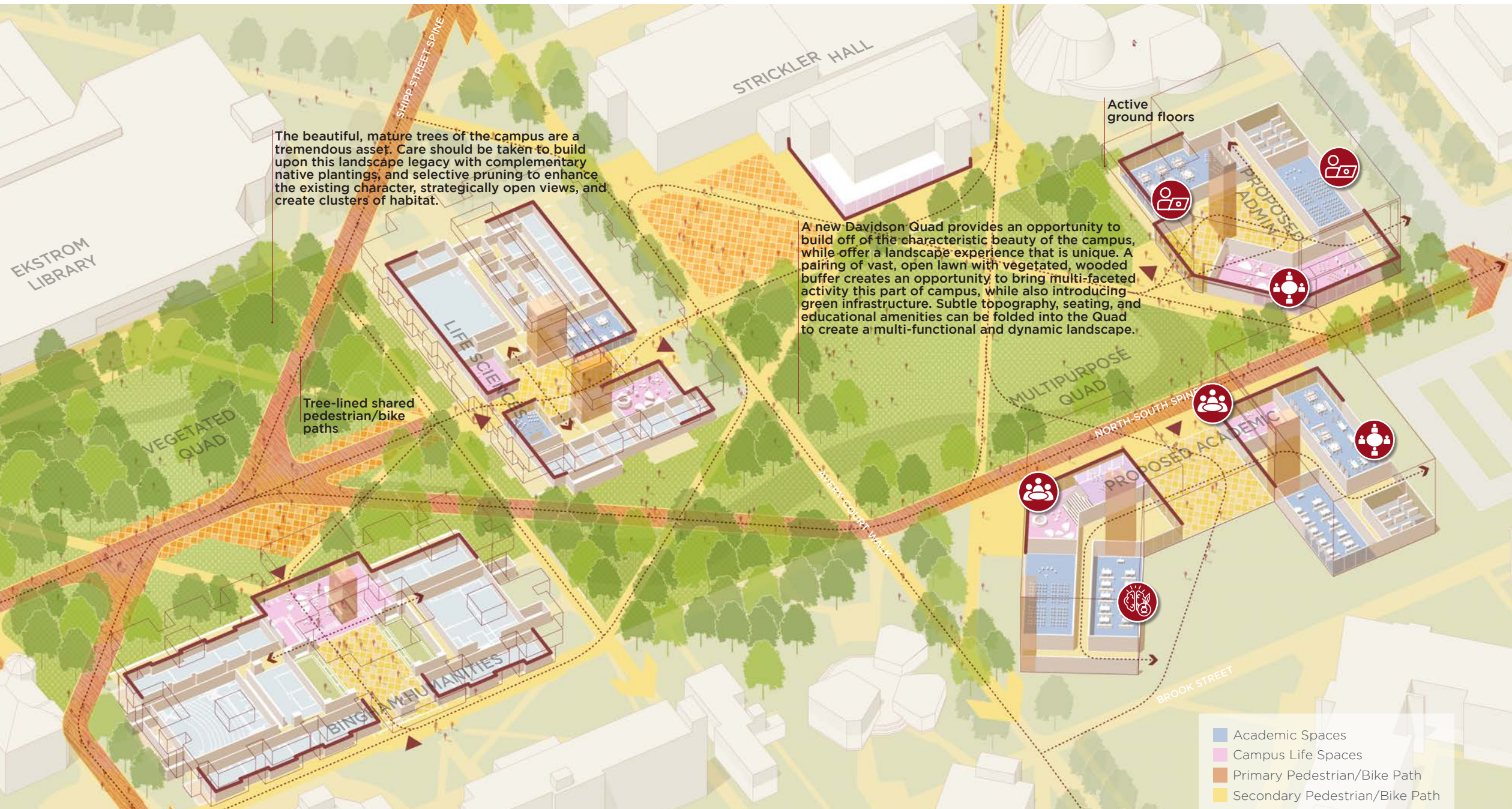
Create and institute a design rulebook for seating; what it looks like, how it functions, and where and when it should occur.

Integrate the diagonal Shipp Street "campus thread" of linear plaza into the Quad's design. Enhance the central north-south circulation spine to mimic the character and physical qualities of the "campus thread". At their intersection, design a dynamic new gathering space, with amenities geared toward socialization and study.

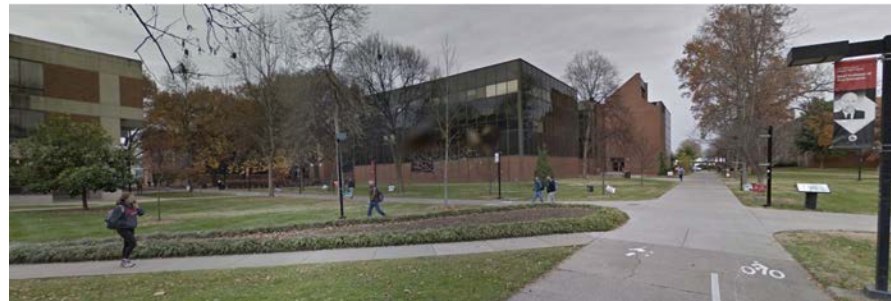
Davidson Quad

This is an opportunity to imagine a new, central public space - for nature, for play and events, for 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 proposed 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 services.



BROOK STREET CORRIDOR

The Brooke Street corridor extends mixed use development from the Student Activity Center and the Belknap Academic Building southward to offer more distributed dining services, inclusive spaces, and other campus amenities.

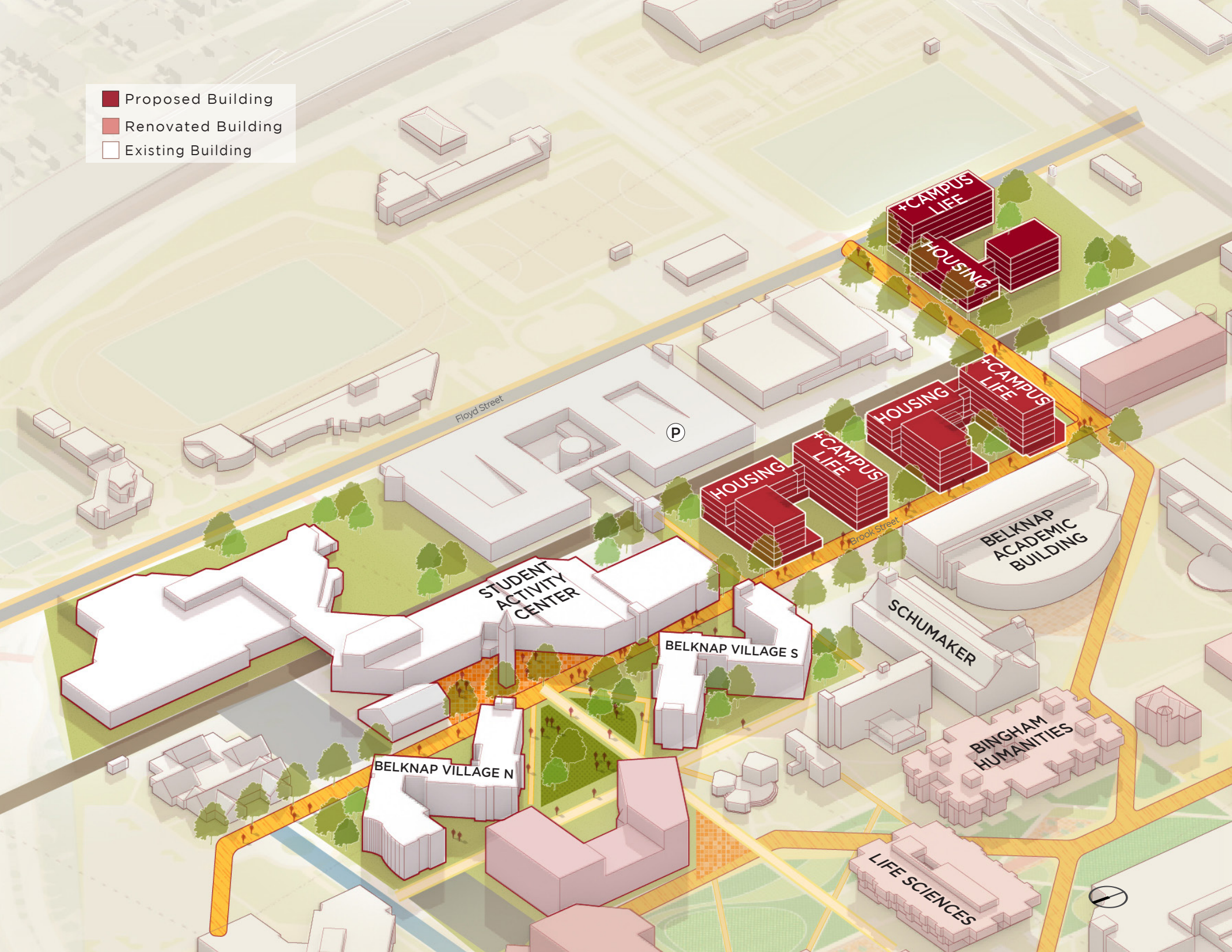
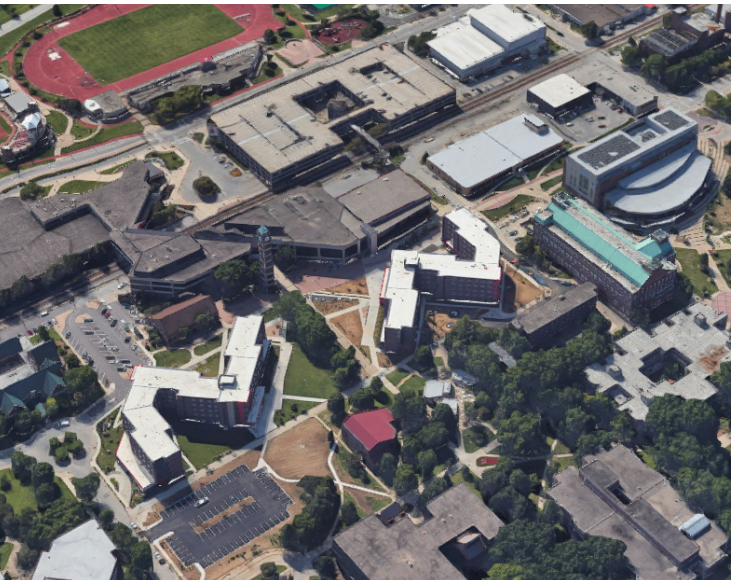
Currently, the stretch of Brook Street between the Student Activity Center (SAC) and the recently completed dorms is a high activity zone with lots of student and faculty traffic. This activation on Brook Street dwindles as you move south, away from the SAC, due to the uses along the east side of the corridor and their large setbacks that create room for parking and service access. As a major north-south connector not just across Belknap, but all the way to the Health Sciences Center (HSC) campus, the Brook Street Corridor should extend a vibrancy of use and environment into the landscape, promoting a multi-use, multi-function environment, while also establishing an aesthetic that is unique to its role.

Vision and Recommendations

Distinct from the north-south pedestrian corridor running parallelly through the academic core, the Brook Street corridor is imagined as a multi-modal corridor that is activated at all times of the day, thanks to the infusion of campus life uses and housing. This corridor continues as a multi-modal street through Old Louisville and strengthens the link between HSC

and Belknap campuses so services and amenities can better serve the communities at both campuses.

The Brook Street corridor has received significant investment of late, including road re-grading and alignment, mixed-use pathways, establishment of subterranean stormwater chambers, lighting, and street tree plantings. These improvements have enhanced the look and functioning of the street. This plan proposes to extend these public realm improvements, while also introducing additional elements to its design palette.



A Living Laboratory

Introducing visible green infrastructure (GI) into the fabric of this corridor can be an impactful way of easing the burden carried by the existing storm-sewer system and subterranean detention areas, while also providing opportunities for habitat enhancement, beautification, and education.

GI can consist of bioswales or rain gardens, composed primarily of native plant material. It can be an opportunity to engage with students to design and learn from their environment through pilot or demonstration projects, monitoring, data collection, and analysis efforts, and maintenance practices.

Integrate interpretive signage to spread awareness and education about GI efforts.

Shape with Topography

The existing Brook Street corridor already uses topography to its advantage; for directing stormwater runoff, for setting rules for planting design, and for integrating seating and gathering areas. New design efforts should extend these practices, build upon them.

A Space Beneath

The Brook Street underpass at Eastern Parkway presents an exciting opportunity to enhance an otherwise overlooked and underutilized space, especially considering its potential future relationship with the proposed South Academic Core.

Outfit the space beneath the underpass with:

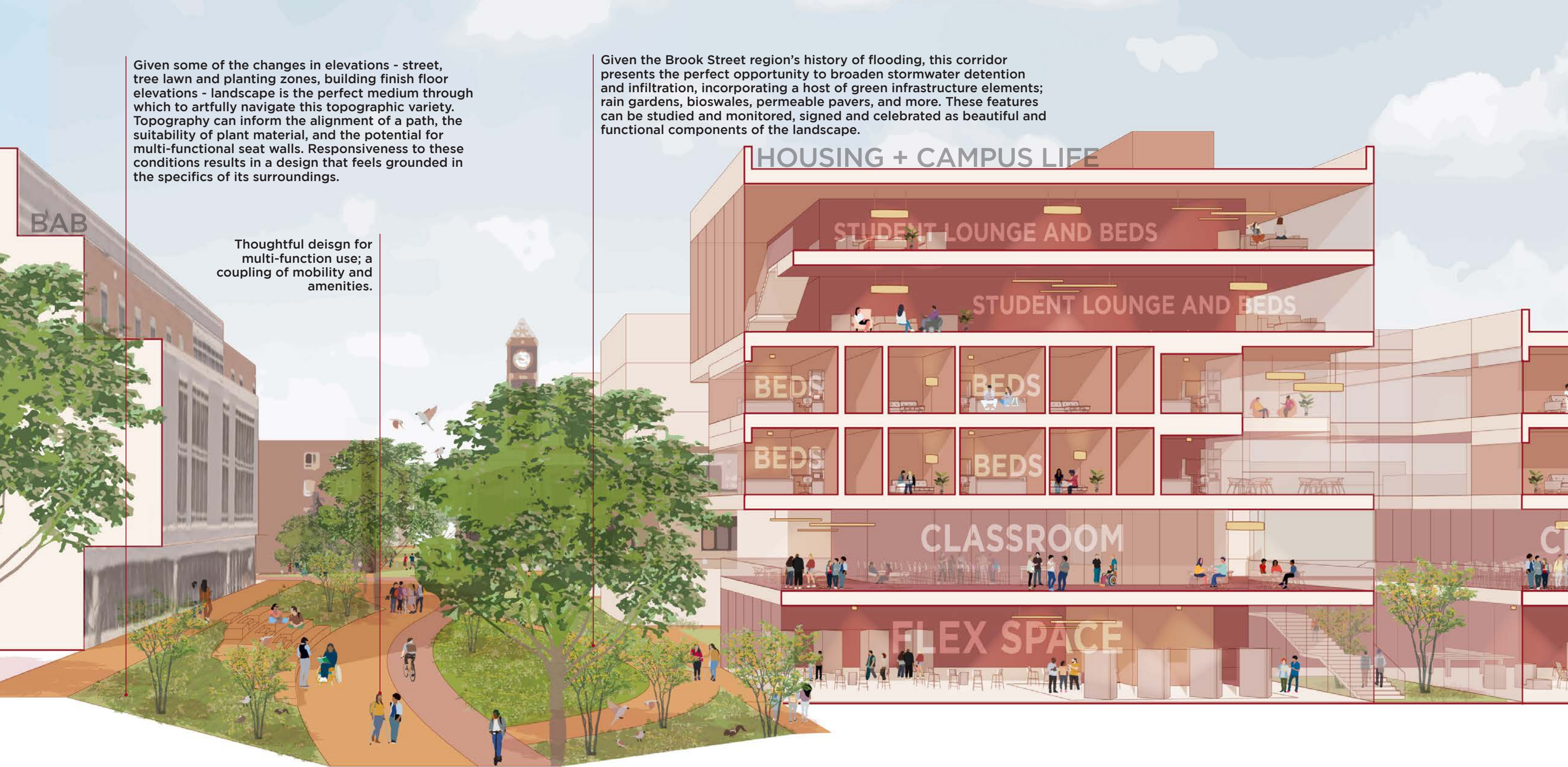
- Seating, tables, gathering areas
- Lighting (artistic and functional)
- Art
- Bicycle storage

The space could serve both as a gateway to the proposed South Academic Core and a threshold of the Brook Street corridor.

Given some of the changes in elevations - street, tree lawn and planting zones, building finish floor elevations - landscape is the perfect medium through which to artfully navigate this topographic variety. Topography can inform the alignment of a path, the suitability of plant material, and the potential for multi-functional seat walls. Responsiveness to these conditions results in a design that feels grounded in the specifics of its surroundings.

Thoughtful design for multi-function use; a coupling of mobility and amenities.

Given the Brook Street region's history of flooding, this corridor presents the perfect opportunity to broaden stormwater detention and infiltration, incorporating a host of green infrastructure elements; rain gardens, bioswales, permeable pavers, and more. These features can be studied and monitored, signed and celebrated as beautiful and functional components of the landscape.



SOUTH ACADEMIC CORE

The build-out of new Science, Technology, Engineering, and Mathematics (STEM) buildings will introduce a South Academic Core, centered around a new South Quad, and offering much-needed dining services south of Eastern Parkway.

Eastern Parkway is a major vehicle right-of-way (ROW) that divides today's Belknap campus. The grade separation of the eastern half of this ROW exacerbates the challenge of connecting the academic zones from the north to the south. The land south of Eastern Parkway and east of the current Engineering buildings is used for intramural sports, which is not the highest or best use for this land.

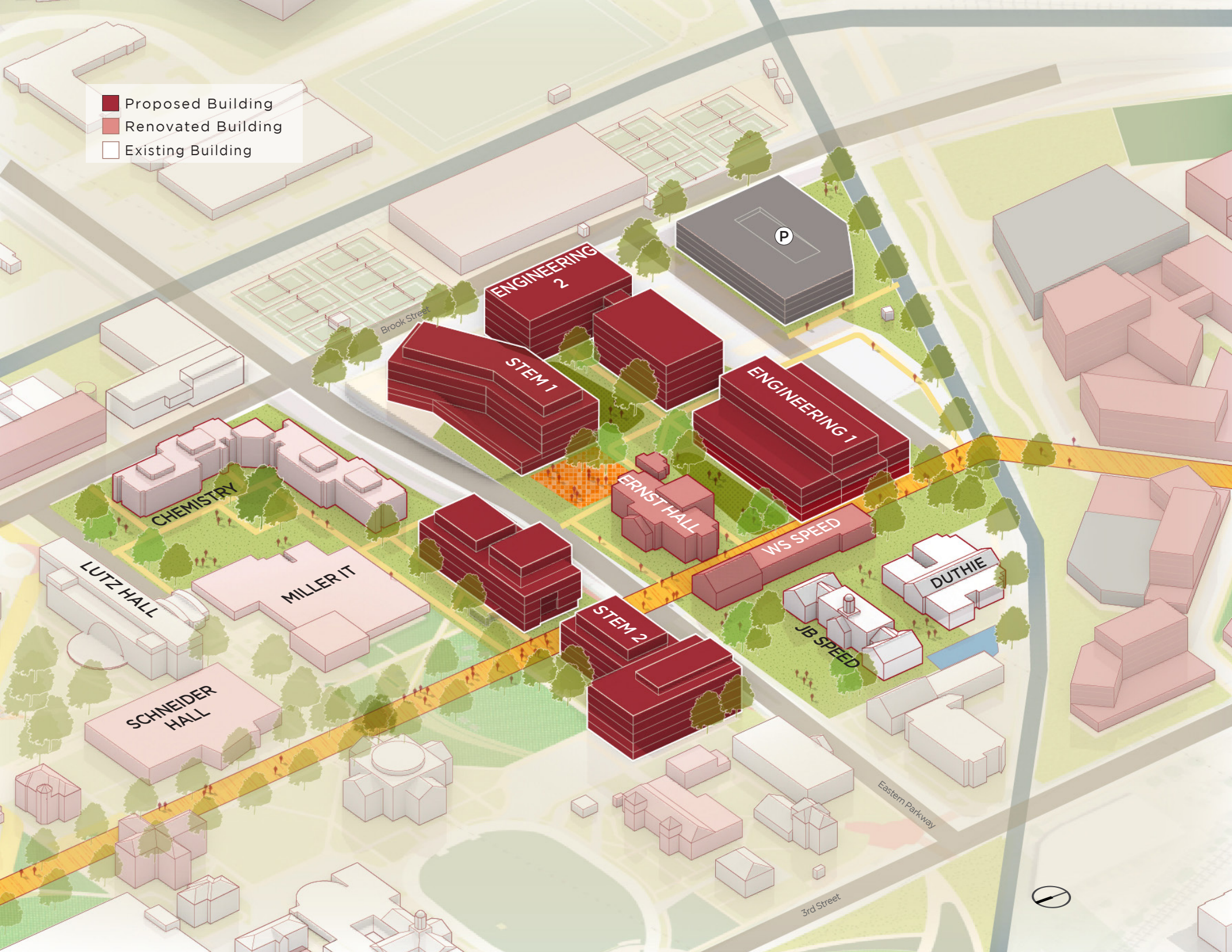
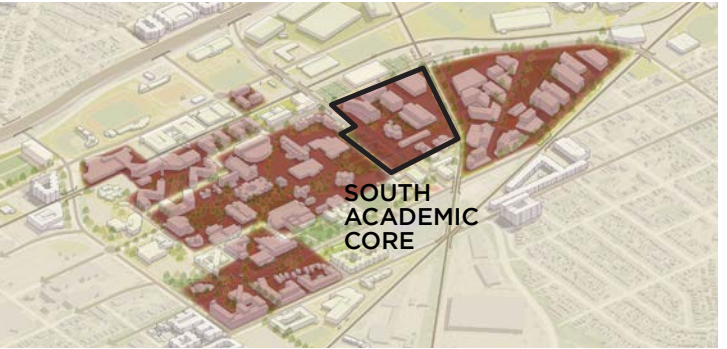
While public realm improvements have been made to this stretch of campus to improve safety and appearance, it still lacks aesthetic continuity and feels disconnected. It remains a significant campus mobility barrier.

Vision and Recommendations

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.

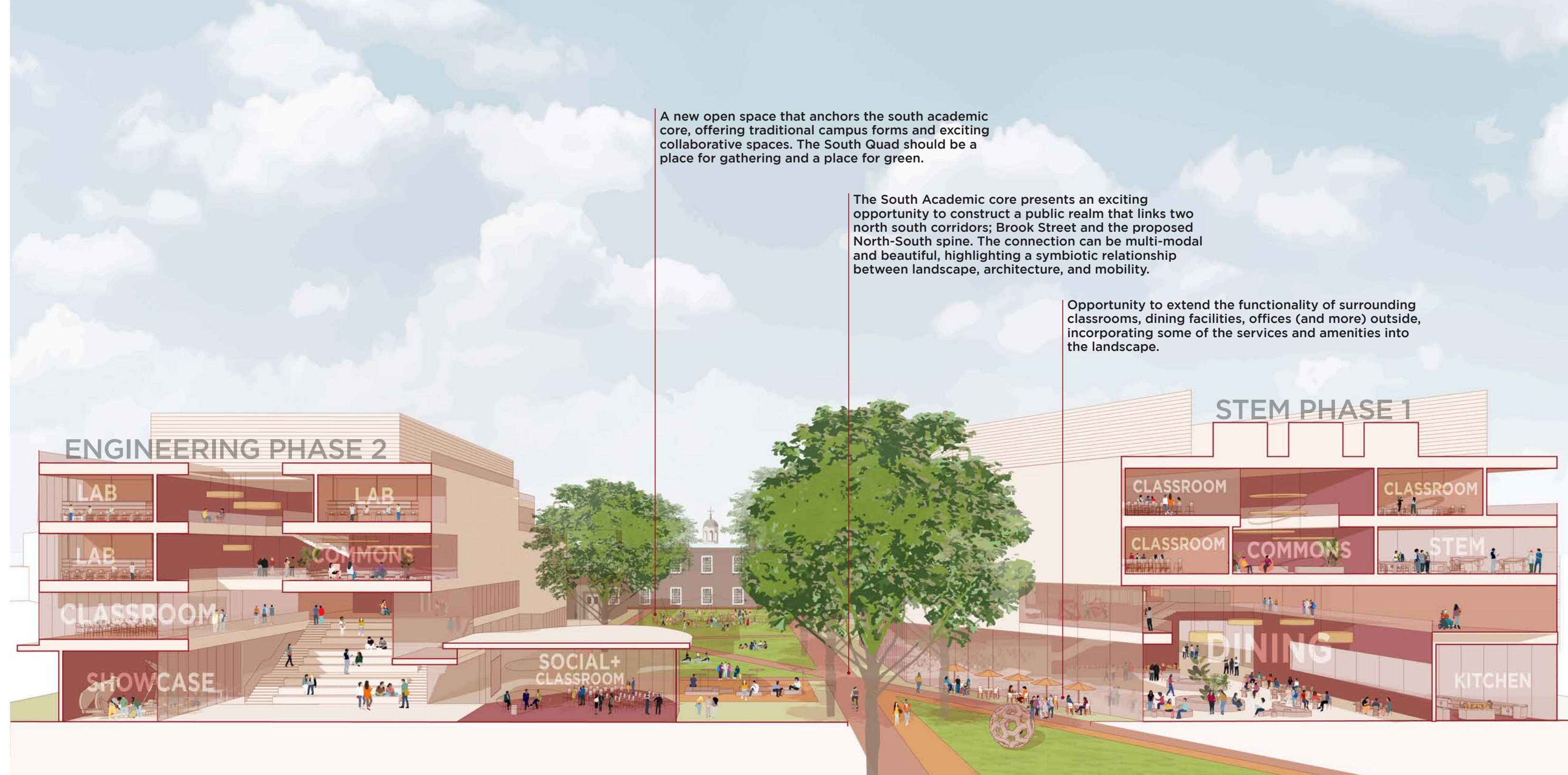
Reflect the STEM mission and ideals of today and anticipate the future objectives. This means a sensitivity to:

- Hardscape materials and their impact on the environment; sourcing and promotion of use of local materials, consideration of embodied carbon in design.
- Landscape and its potential for carbon sequestration, habitat enhancement, green infrastructure
- Program: spaces designed for an inclusive mobility - ease of walking and biking
- Establish a naturalized railway track buffer. Consider the buffer as a green edge that frames the South Quad and as an opportunity to establish an ecological corridor.

A new open space that anchors the south academic core, offering traditional campus forms and exciting collaborative spaces. The South Quad should be a place for gathering and a place for green.

The South Academic core presents an exciting opportunity to construct a public realm that links two north south corridors; Brook Street and the proposed North-South spine. The connection can be multi-modal and beautiful, highlighting a symbiotic relationship between landscape, architecture, and mobility.

Opportunity to extend the functionality of surrounding classrooms, dining facilities, offices (and more) outside, incorporating some of the services and amenities into the landscape.



RESEARCH & DEVELOPMENT

The Research and Development (R&D) District is designed with site history in mind, while offering state-of-the-art facilities for industry partners and researchers.

This wedge-shaped site owned by the UofL Foundation is currently vacant. Its complicated legacy is largely industrial, with soil contamination as evidence of past use. Despite its campus adjacency, the site feels isolated, with limited points of access at its perimeter due to two existing railway lines and the grade-separated Brook Street comprising its perimeter.

Despite these challenges, however, the site is incredibly compelling. It offers expansive views of the neighborhood and of Cardinal Stadium. The Drop Forge structure sits as an architectural expression point in the landscape. It is an attraction that is unlike anything else in Belknap. Drop Forge has the potential to serve as a placemaking icon, authentically rooting the R&D district in history, while positioning it for new, future prosperity.

Vision and Recommendations

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.

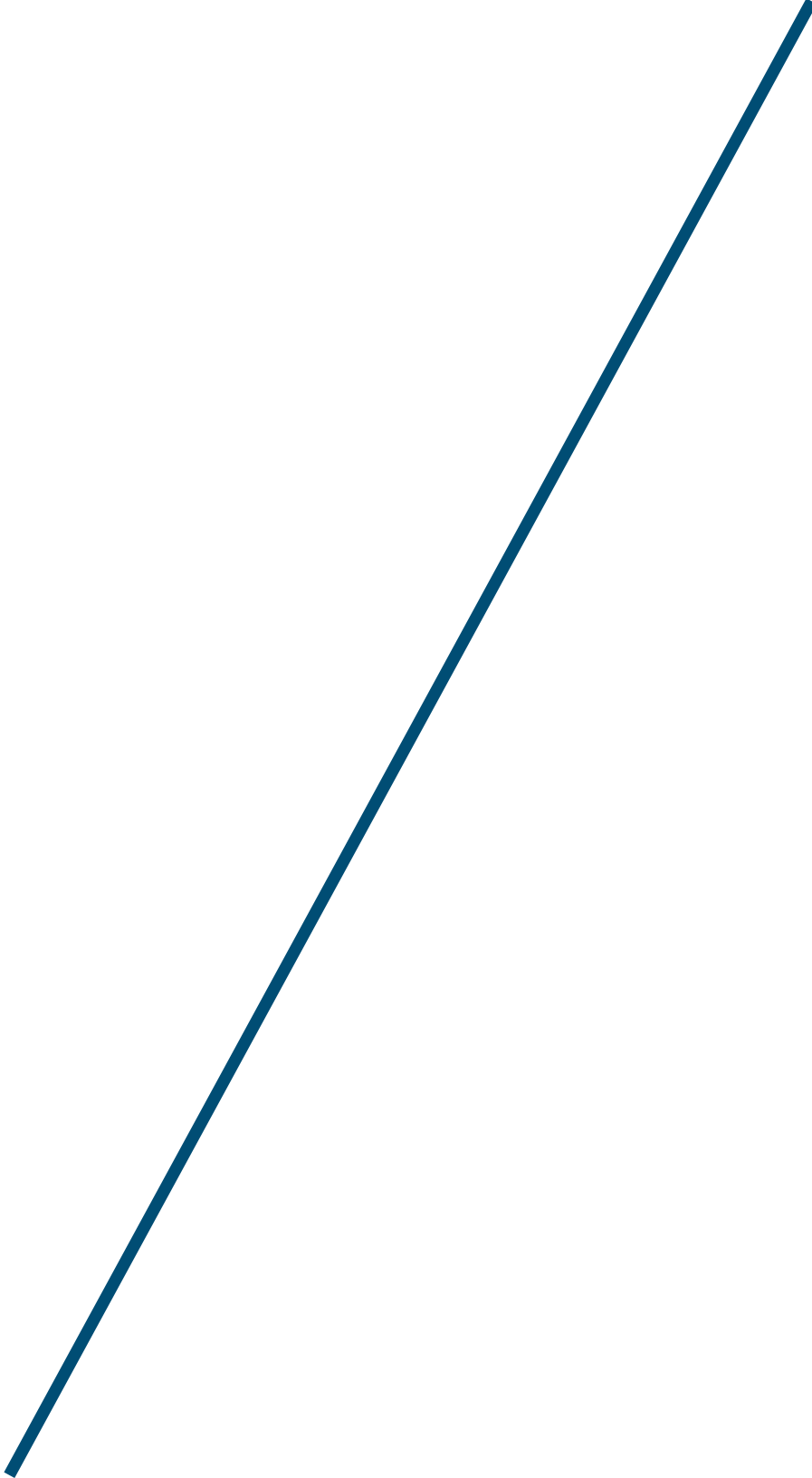
- Create a landscape that places Drop Forge as a central architectural element, framing views of the Cardinal Stadium and encouraging visual connections with surroundings.
- Re-imagine Drop Forge as a heart of the public realm, re-purposing it as a pavilion or covered event space. Create a plaza around it, to allow for further activation - with seating and amenities - and to ground the building, reinforcing its position as a central element.
- Nature's 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.

- Proposed Building
- Renovated Building
- Existing Building





HEALTH SCIENCES CENTER CAMPUS



**EXISTING
CONDITIONS**

EXISTING CONDITIONS

The Health Sciences Center (HSC) campus is situated among a larger Louisville Medical and Education District (LOUMED), along with UofL Health, Norton Healthcare, and Jefferson Community and Technical College. HSC is home to cutting edge research and four academic schools: School of Medicine, School of Nursing, School of Dentistry, and School of Public Health & Information Sciences. Due to its dense context and disjointed ownership, punctured by city rights-of-way, the public realm is currently neglected in terms of intentionality. One of the major challenges within LOUMED is the major service axis along Abraham Flexner Way, which also serves as the primary pedestrian circulation from east to west. There is a major opportunity to enhance the HSC Plaza to complement a renovation of Kornhauser Library and Commons and become the center of activity, socialization, and outdoor studying for the HSC community. There is also a need for functional organization and design improvements along Abraham Flexner Way to increase safety for pedestrians while continuing to serve as the major service corridor that it is.

HSC Plaza ►



Existing Landscape Typologies

The five overarching typologies describe the core exterior conditions of the Health Sciences Center Campus.



Courtyards and Plazas

The outdoor living rooms of student life. These are the campus civic spaces. They are the outdoor living rooms of student life. They serve as ground for gathering and expression, for community. They are spaces uniquely fashioned to guide and shape the student experience.

Courtyards occur along the edge or in the center of campus buildings.

Plazas are non-continuous, outdoor, hardscape spaces of gathering, often featuring seating and tables.



Parks, Lawns, and Gardens

High-intentionality green spaces with unique or curated features or amenities. Lawns are intentional green spaces with unique or curated features or amenities. This typology plays with the relationship between natural and artificial. It presents a designed and manicured form of nature. It is intentional in use and program, catering to a specific purpose and audience.

Lawns are formal open spaces characterized by large swaths of turf.



Transitional and Connective

The places people move through, not to. This typology is the fabric of the campus landscape. They are multi-functional interstitial spaces that people primarily experience by moving through rather than inhabiting or gathering in.

These are the areas that shape the experience from streets to parking areas, and along paths, and between buildings. They can be ornamental or provide a specific function, but at their best they are the visual and operational glue that ties the pieces of the campus together into a cohesive whole.



Campus Vehicular Circulation

Streets are an extension of the city grid and the organizational drivers. Their primary purpose is in service of vehicles; the platform for access, service, and maintenance, but their composition and quality can be diverse and multi-faceted.



Parking and Service Areas

Paved spaces that facilitate vehicular storage and back-of-house access and services.

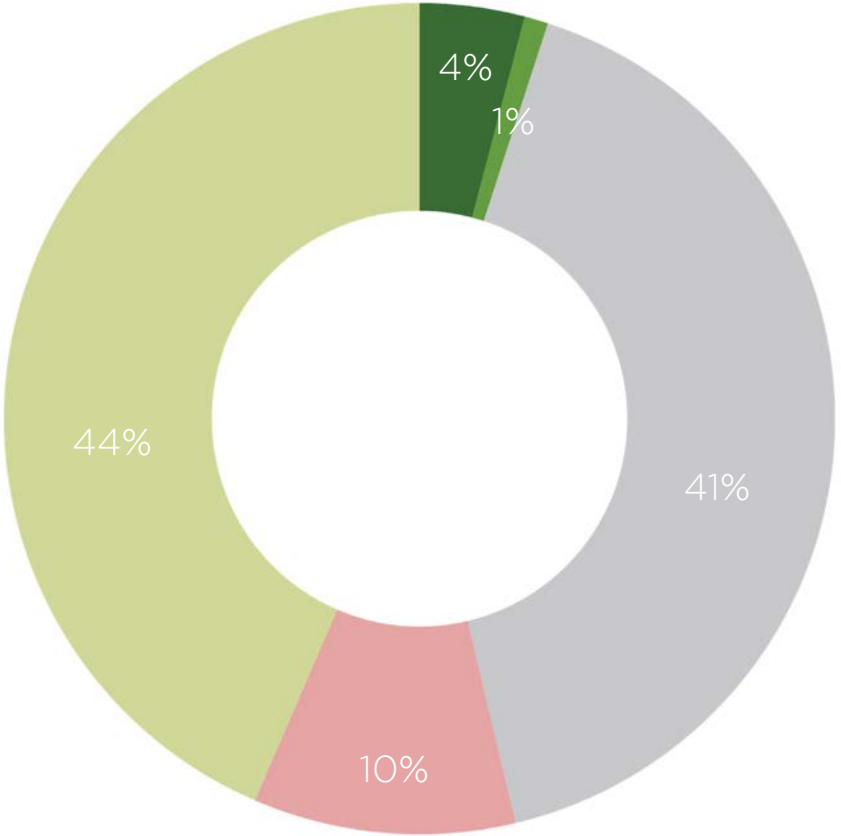
Campus Zones

HSC is part of the neighborhood fabric, nestled into the greater city grid. It feels, however, distinct from its surroundings. This is a result of its physical composition - its architecture and urban design - and use and unique service requirements as a health sciences operation. Elements such as emergency access and circulation, loading and back-of-house functions reign paramount and have profound impacts on the look and feel of this campus.

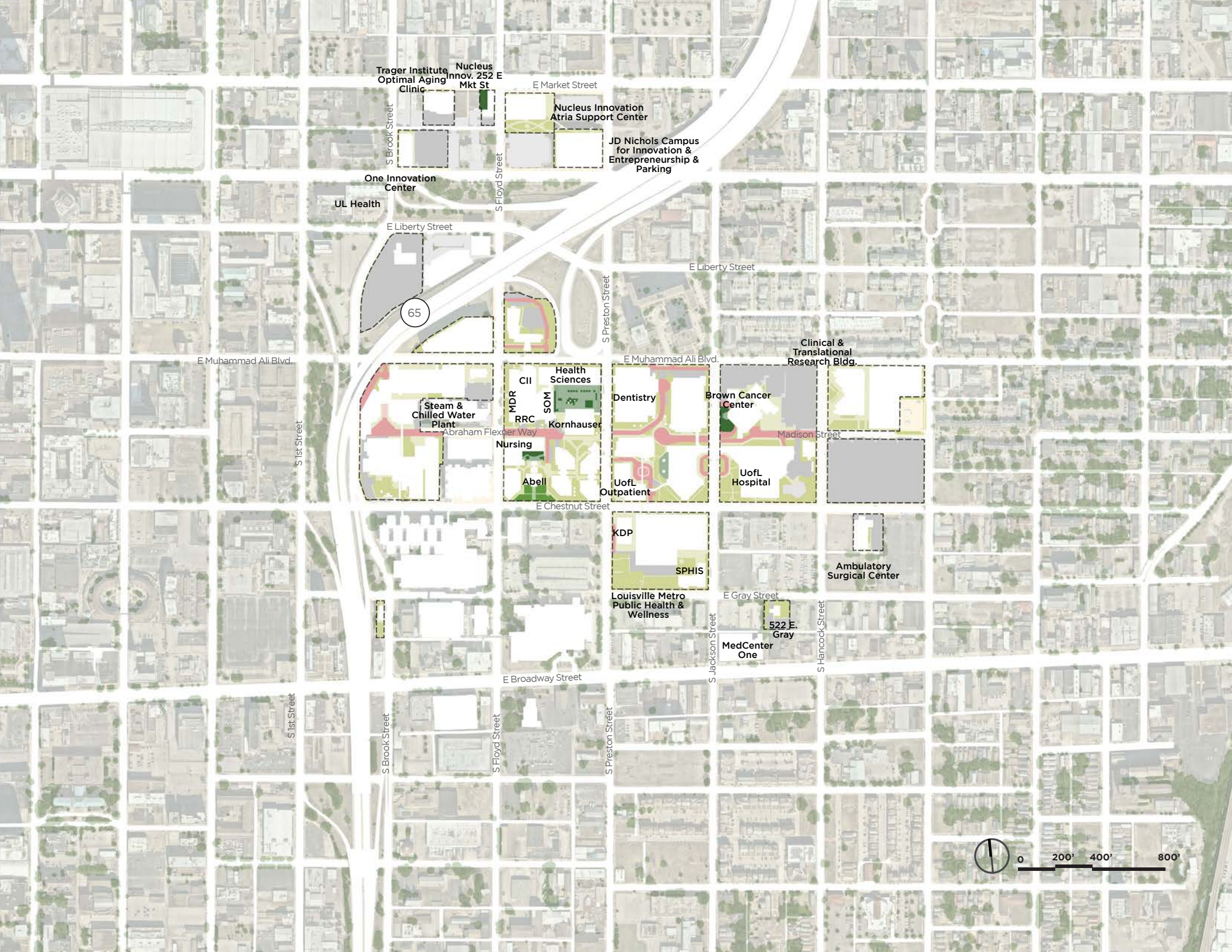
Specifically, in terms of the public realm, this equates to a three-part land use (and character) composition:

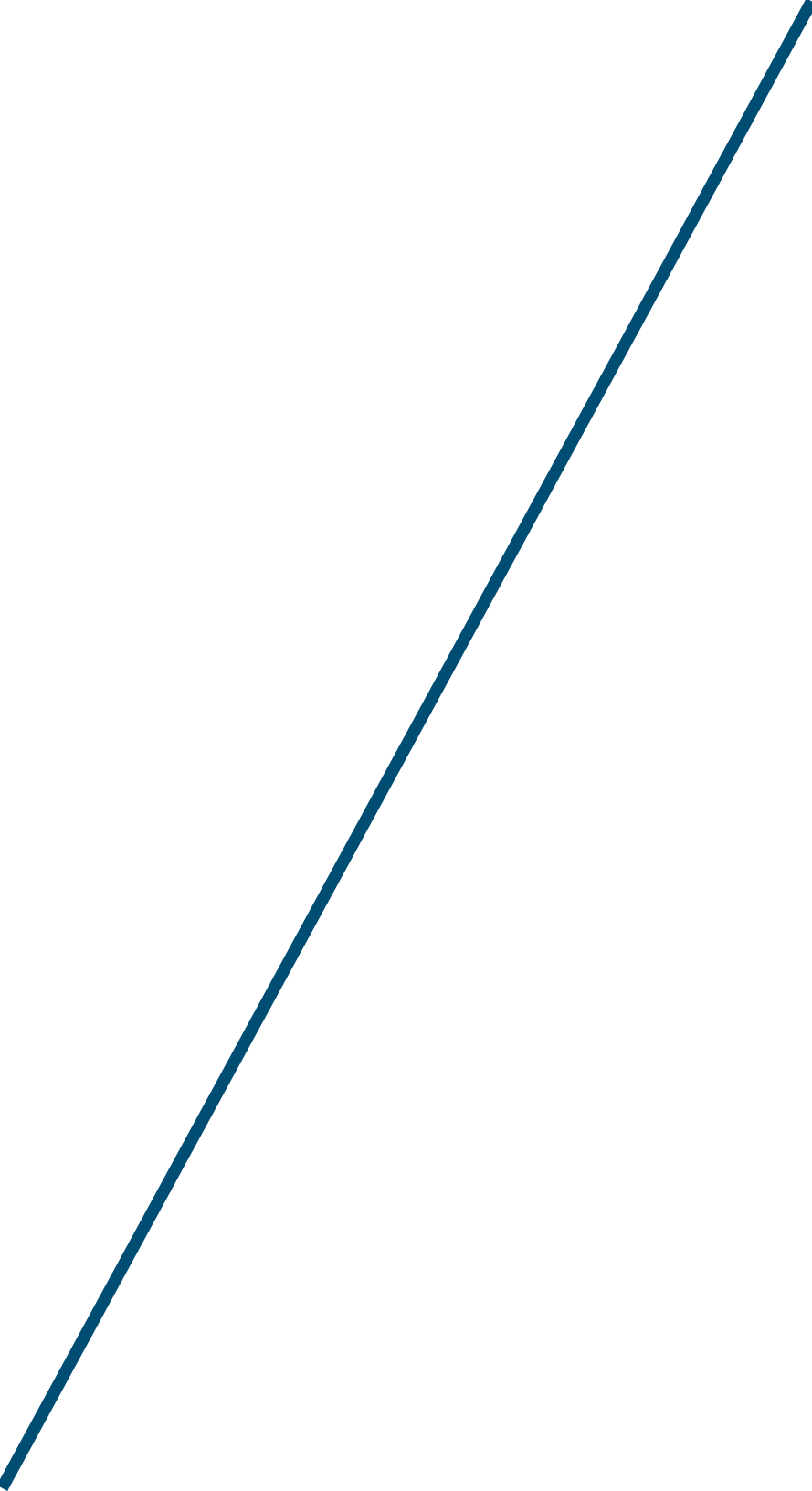
- 44% of the campus can be classified as Transitional or Connective.
- 41% of the campus can be classified as dedicated to Parking or Service.
- 10% of the campus is dedicated to vehicular circulation.

The result of this public realm makeup is a place that is siloed, with a campus character that lacks hierarchy. As such, it is difficult to determine the “heart” of the HSC campus.



- Courtyards and Plazas
- Lawns
- Transitional and Connective
- Campus Vehicular Circulation
- Parking and Service Areas





LANDSCAPE FRAMEWORK AND GUIDELINES

PROPOSED LANDSCAPE FRAMEWORK

The Landscape Framework imagines new and improved open spaces that enhance health and wellness, connectivity, and safety for campus and LOUMED community. The public realm at HSC is inextricably linked with that of LOUMED, and as such, this 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, this Plan offers specific design recommendations for these areas, while offering higher level recommendations for the areas of LOUMED that would require consensus and collaboration.

LANDSCAPE GUIDELINES

Landscape guidelines emphasize improvements that are particular to each landscape typology. Each guideline is founded in shared principles and key themes, one intended to support the next. Shared themes include:

Legibility of the Public Realm

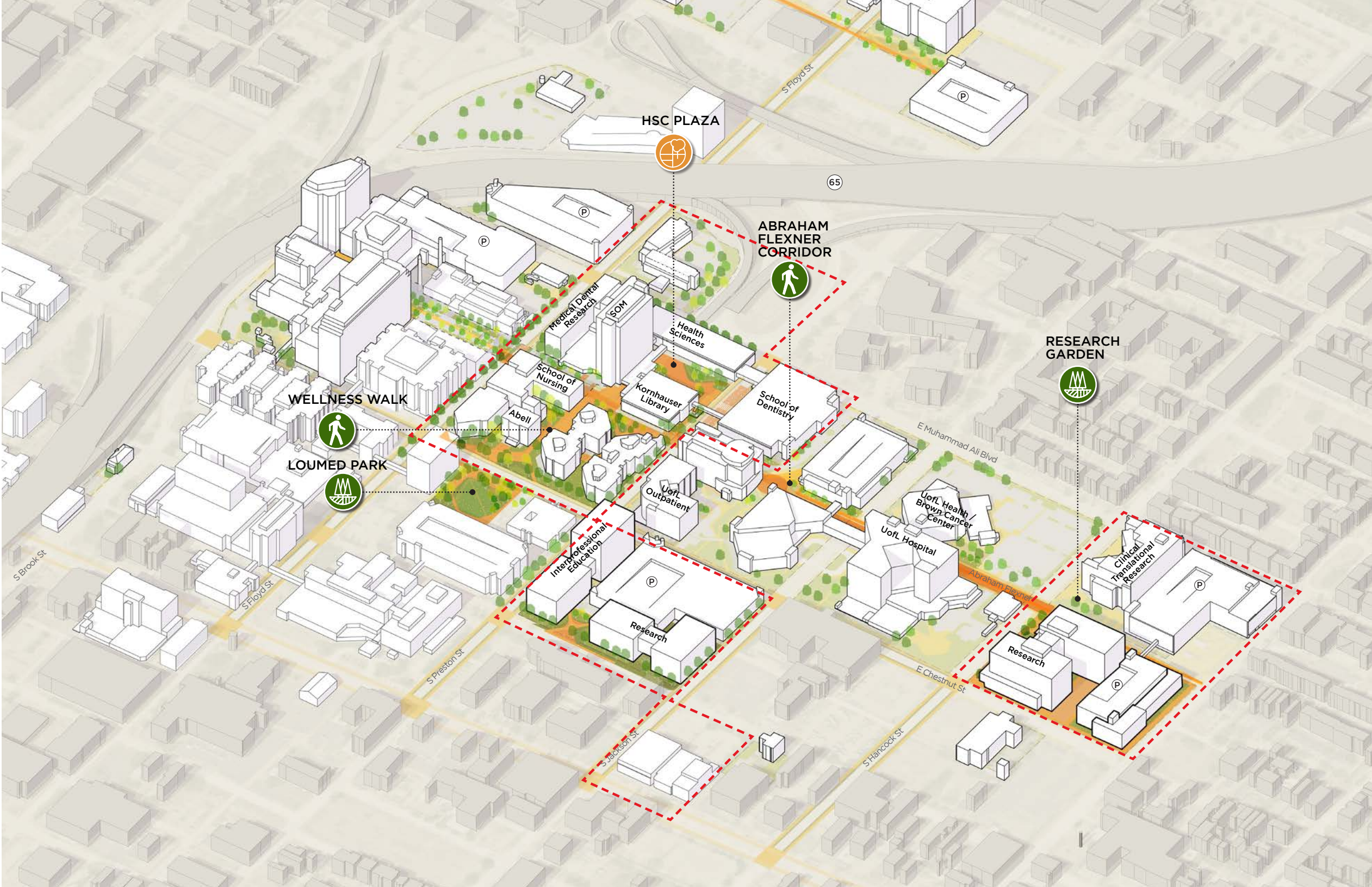
Intuitive wayfinding and mobility through thoughtful placement of pathways, signage, and transportation hubs. Pedestrian-friendly environments promote walking and cycling, reducing vehicular congestion and air pollution. Wayfinding ensures logical navigation, enhancing accessibility for all members of the campus community.

Health and Wellness

Activity and mental wellness are integral to the collegiate experience. The guidelines designate spaces for leisure, reflection, and socialization. Wellness gardens can serve as urban oases. These spaces encourage healthy lifestyles, stress reduction, and promote overall well-being of students, faculty, and staff.

Sustainability and Environmental Impact

A thoughtful approach to greening the HSC campus will yield a welcoming place that helps to reduce urban heat island effect, detains and infiltrates stormwater runoff naturally and in-place, and aids in carbon sequestration. But this approach can go beyond greening and green infrastructure. With solar panels, energy-efficient lighting, and passive design principles, HSC campus can reduce energy consumption and greenhouse gas emissions. These measures not only align with global sustainability goals but also inspire environmentally conscious behaviors within the campus community.



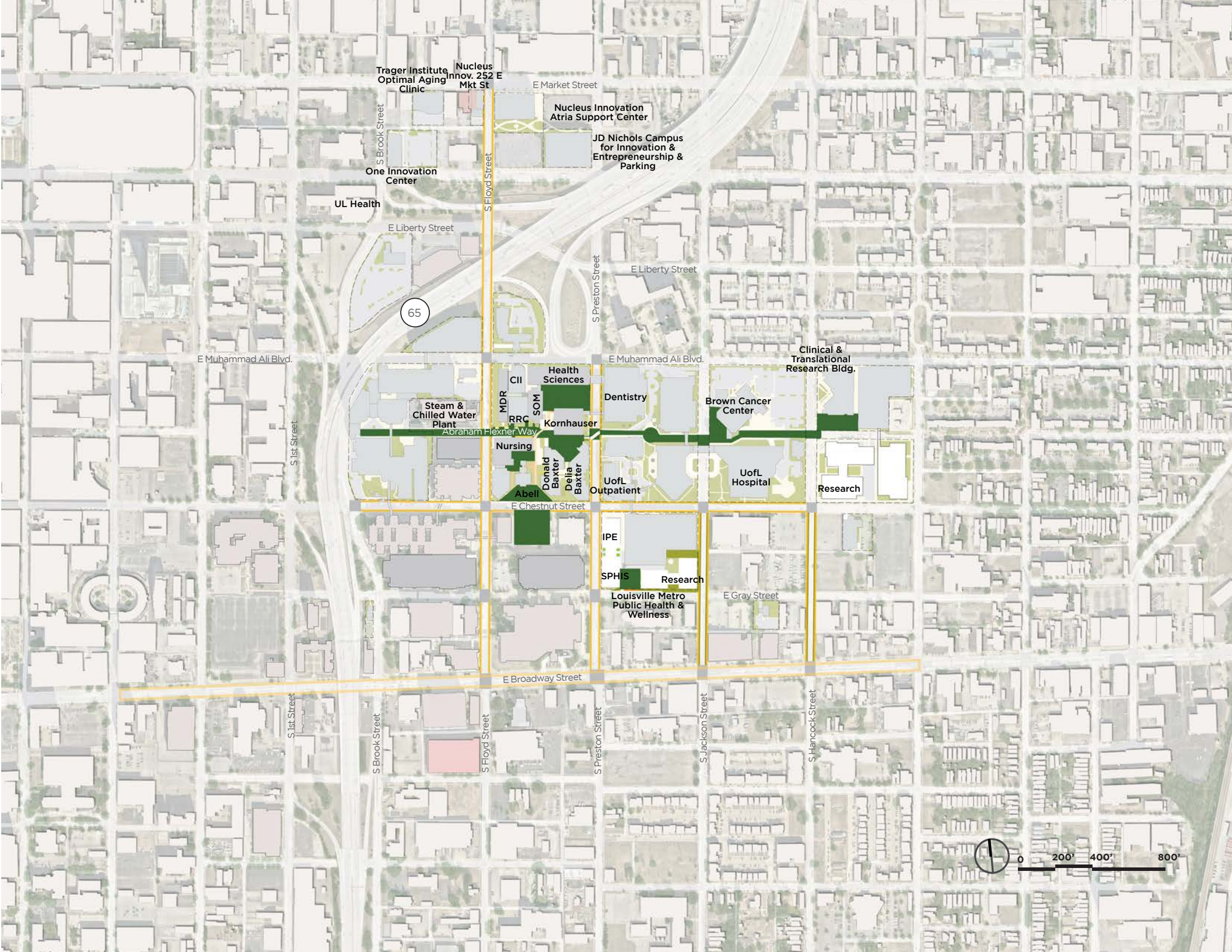
Proposed Campus Zones

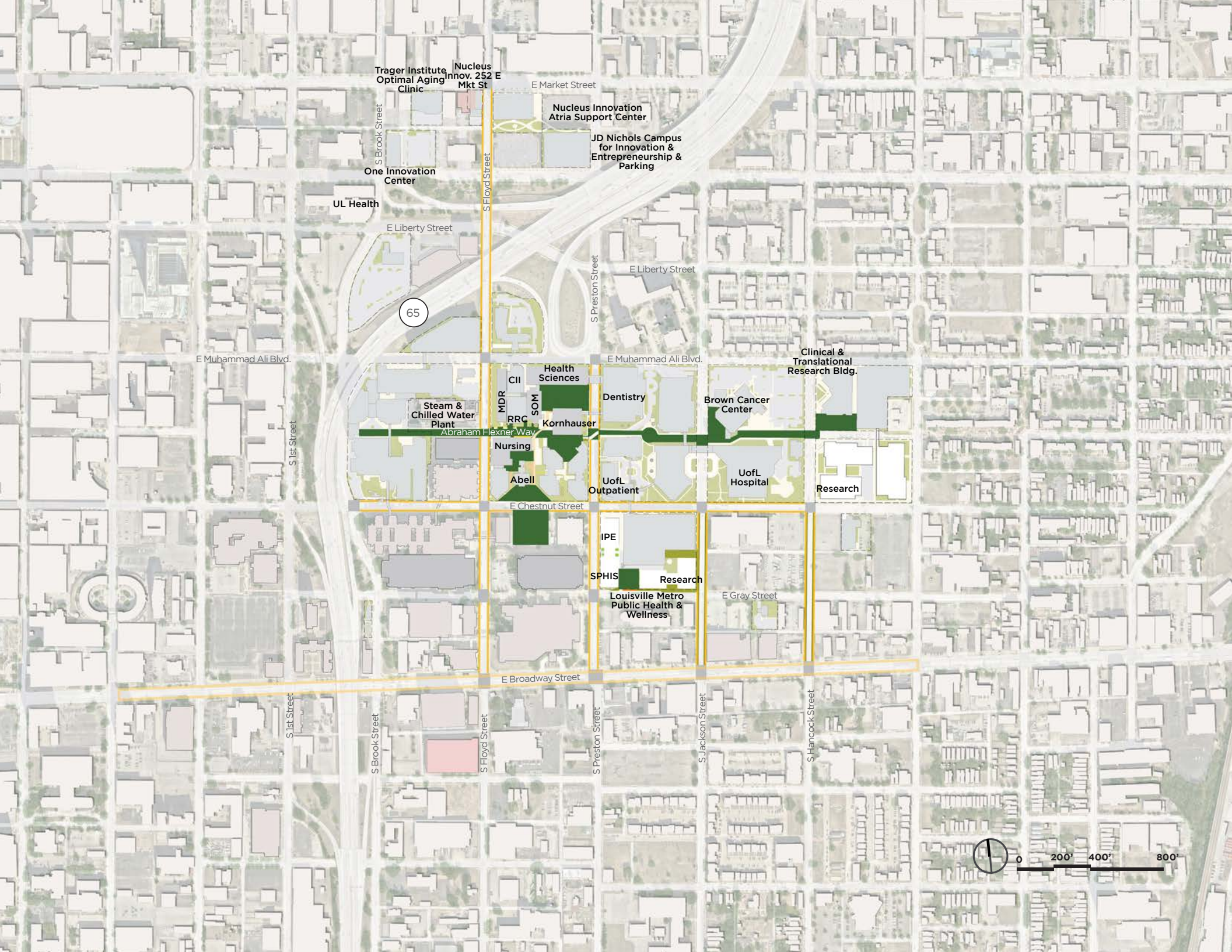
Given the campus' exacting space and use requirements, the most significant strategy for public realm enhancement lies in the treatment of HSC's Transitional and Connective zone. The objective is to carve usable, inviting destinations and circulation - paths as places - from this typology. Instead of simply identifying these spaces as areas to pass through, the idea is that they can also become places to inhabit. This typology should accommodate green infrastructure and wellness gardens.

Second, zones dedicated to vehicular parking, services, and circulation can be systematically analyzed and re-imagined to become more flexible in use and accommodating of bicycles and pedestrians. A shared space approach is critical to enlivening these zones and making them feel more affiliated with a campus environment.

Third, the Lawns, Courtyards, and Plazas typologies require renovation and redesign. Given the existing paucity of engaging and activated public space, it is critical to provide amenities often and effectively.

- Courtyards and Plazas
- Lawns
- Transitional and Connective
- Vehicle, Parking, and Service Areas





Courtyards and Plazas

Courtyards and plazas are a critical element of any campus experience. Though, at HSC campus, they comprise only 4% of the public realm. This places increased pressure on these spaces to feel significant, visually impactful, and flexible and efficient in the services and amenities they provide.

Existing Constraints

Kornhauser plaza, the main HSC campus plaza, is elevated above the adjacent Preston Street and lacks shade and amenities. It is a hidden heart of campus that feels inhospitable and unwelcoming with limited site lines and viewsheds

Courtyards are scattered throughout campus and lack identity and function. They serve as building dressing and do not create spaces to inhabit.

Opportunities

Greening: HSC campus’ courtyards and plazas should receive an infusion of plant material. This plant material should not be considered ornamental. Rather, this campus greening effort should be thought of in terms of functions such as shade, carbon sequestration, stormwater runoff infiltration, and as part of an effort to establish a consistent identity for this typology.

Aesthetic Continuity: Create consistent, visually appealing spaces that adhere to a set of design rules. Adopt and adhere to a particular hardscape and softscape palette of materials.

Social Interaction: Create more and better opportunities for students, faculty, and visitors to gather, collaborate, and engage in discussions in all landscape types.

Learning Environments: Courtyards can serve as outdoor classrooms, encouraging interactive and experiential learning; plazas as performance venues; quads as outdoor event spaces.

Guidelines

Experience: Campus courtyards and plazas should merge greenery with activity using a contextual hardscape; a suite of materials that aligns with existing and proposed architecture but is also an identifiable design gesture on its own. The experience of this typology should be diverse and engaging. Provide a mix of seating options, including benches, movable furniture, and stepped seating, catering to different preferences, providing varied opportunities for socialization and aesthetic character.

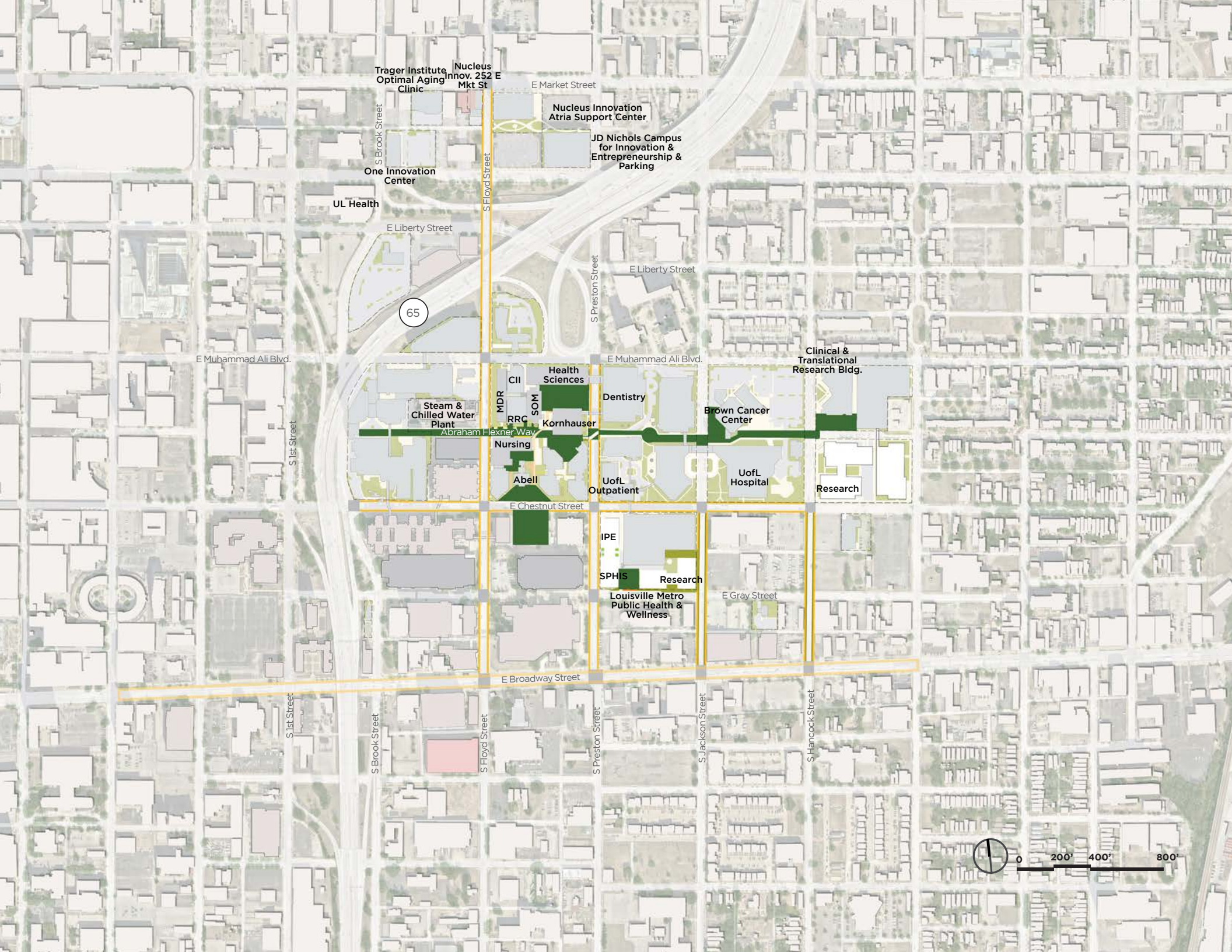
Accessibility & Visibility: Efforts must be made to integrate Kornhauser plaza with its surroundings; the streets, sidewalks, buildings around it. This plaza, as with all HSC Campus plazas, should feel like it is a natural part of the campus' urban fabric. This can be achieved through aesthetic moves that tie plazas to their greater environment like; through improvements to access, circulation, and mobility; and through thoughtful design of the interior space to promote activity and program.

Landscape Composition: Planting should be refined and orderly in style, with naturalistic elements as aesthetic and functional highlights. Landscape should be considered in three layers. In some cases, these layers can exist together. In most instances, a single layer, or a pair of layers together, will define the landscape:

- The Overstory - large shade trees: either in groves, allees, or solitary specimens
- The Understory - massings of shrubs, multi-stem understory trees, and/or tall meadow grass. Understory plantings should not be ornamental. Rather, they should establish a consistent texture and large-scale character.
- The Groundcover - expanses of lawn or low groundcover plantings, pavement, or water features.

School of Medicine entrance from HSC Plaza ►





The lawn at the Abell Administration ▲

- Courtyards and Plazas
- Lawns
- Transitional and Connective
- Vehicle, Parking, and Service Areas

Lawns

Lawns, considered a foundational element of the traditional campus landscape but occupy only 1% of HSC’s public realm. Beyond its scarcity, campus lawns are ornamental; of a size and arrangement that does not invite use.

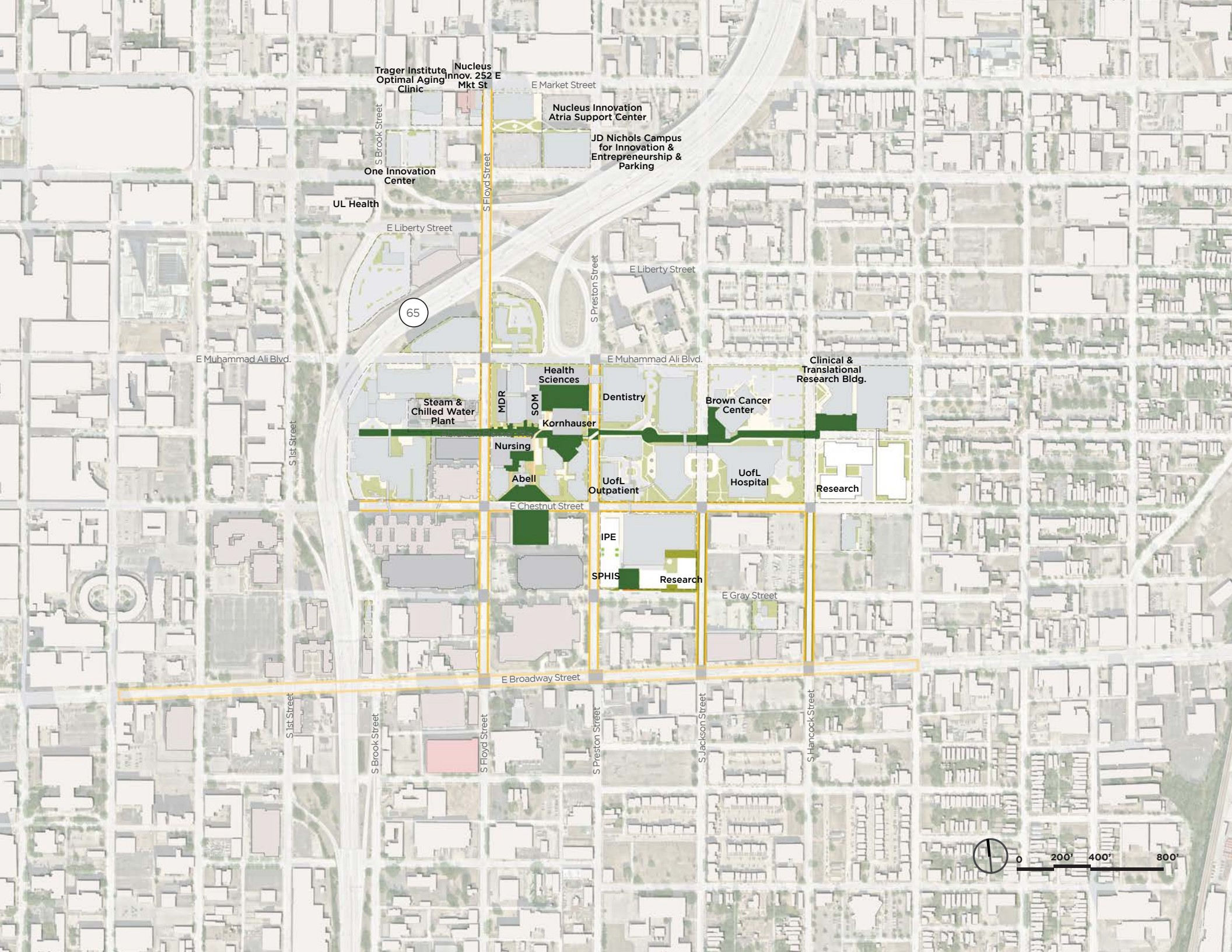
Opportunities

Be deliberate in design by enhancing the existing function of this typology. Pair lawns with seating and/or small groupings of shade trees. Make the lawns and manicured spaces more inviting to people.

Guidelines

Lawns should be considered as usable, inviting spaces; in terms of their intended function. This will guide composition and maintenance, from grass species to irrigation regime.

Lawns should be designed with access and circulation in mind. Whether pathways serve as edges to the open lawn area, traverse their expanse, or provide simple points of access, design of these spaces should prioritize integration with surrounding environment.



Transitional and Connective

This typology comprises 44% of the HSC campus public realm. At its best, it is the fabric of, and the backdrop to, the campus landscape experience. They can be ornamental or provide a specific function, but are most successful as the visual and operational glue that ties the pieces of the campus together into a cohesive whole.

Existing Constraints

- Often considered as exterior “filler” or “dressing”
- This landscape type tends to be overly ornamental and uninspired

Opportunities

Given the dearth of green space at HSC campus, this typology should also be viewed as ground for exploration and contemplation; an opportunity to make the transition from city street to place of research, study, or care and treatment.

This typology should integrate healing gardens and wellness walks; specialized aesthetics and functions that activate spaces in particular ways and engage in specific ways.

These specialized elements should be set against simple design gestures that support surrounding activity and function, facilitate wayfinding with clear sight lines and connections.

- Courtyards and Plazas
- Lawns
- Transitional and Connective
- Vehicle, Parking, and Service Areas

Guidelines

Connectivity: Connectivity must be the foundation of this landscape type. This means visual connectivity, cueing an arrival, or framing a view. This can take the form of an allee of trees or a uniform swath of groundcover that leads the eye forward.

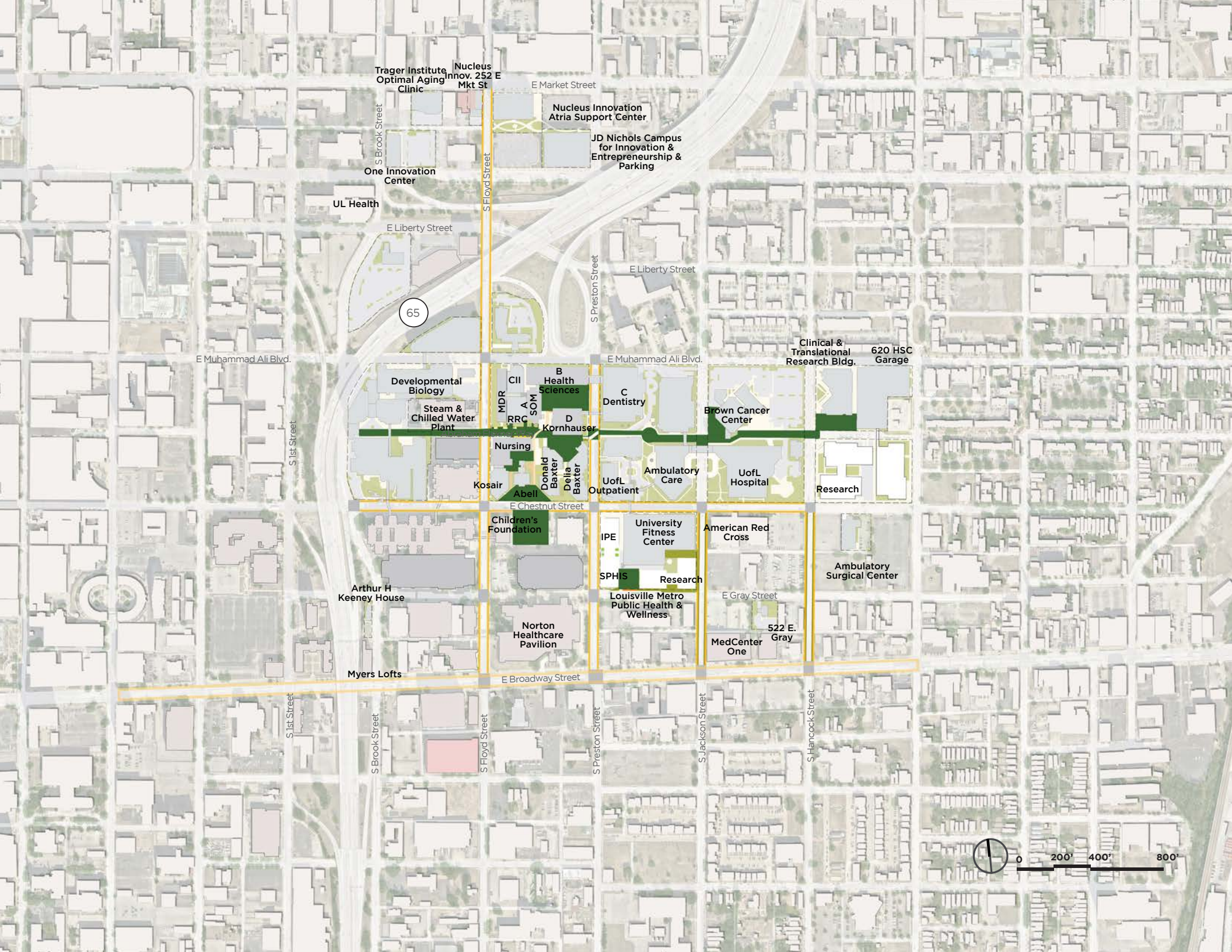
This also means physical connectivity and the effectiveness of path networks. In addition to the material composition of a path, its trajectory goes a long way in telling the story of a campus journey.

Function: Given the extent of this typology, additional public realm services should be worked into its composition. Healing Gardens and Wellness Walks are two particular landscape elements that could be folded into the typology's footprint, with the circulation system serving as the armature off of which to hang additional design program and services.

Each should be considered as distinct, highly-orchestrated pockets within the landscape. While a common design language can be pursued (to aid with maintenance, ease attic stock requirements), both are opportunities to make small, transformative design moves unlike any other elements of the campus public realm.

Existing network of arcing paths on campus ►





Vehicular Circulation, Parking, and Service

Vehicular circulation systems, parking, and service are vital components of the HSC campus public realm. They provide critical function, allow for emergency transport, facilitate access, and establish the infrastructure for campus operations to run smoothly. Without an attention to the proper workings of this typology, HSC campus and its complex, interrelated parts, would not exist.

Existing Constraints

- This typology adheres to a single use and single function.
- Materials used in the design and construction of these typologies are typical of the urban street environment. Concrete and asphalt dominate, retain heat, are often sterile environments that generate sterile experiences, discouraging activities not vehicle-focused.

Opportunities

While it is often the case that parking, service, and circulation require exacting specifications, there are ways of introducing pedestrian-friendly measures that help to establish a more inviting and dynamic environment.

Plant material and select green infrastructure elements can be strategically incorporated into this typology.

- Courtyards and Plazas
- Lawns
- Transitional and Connective
- Vehicle, Parking, and Service Areas

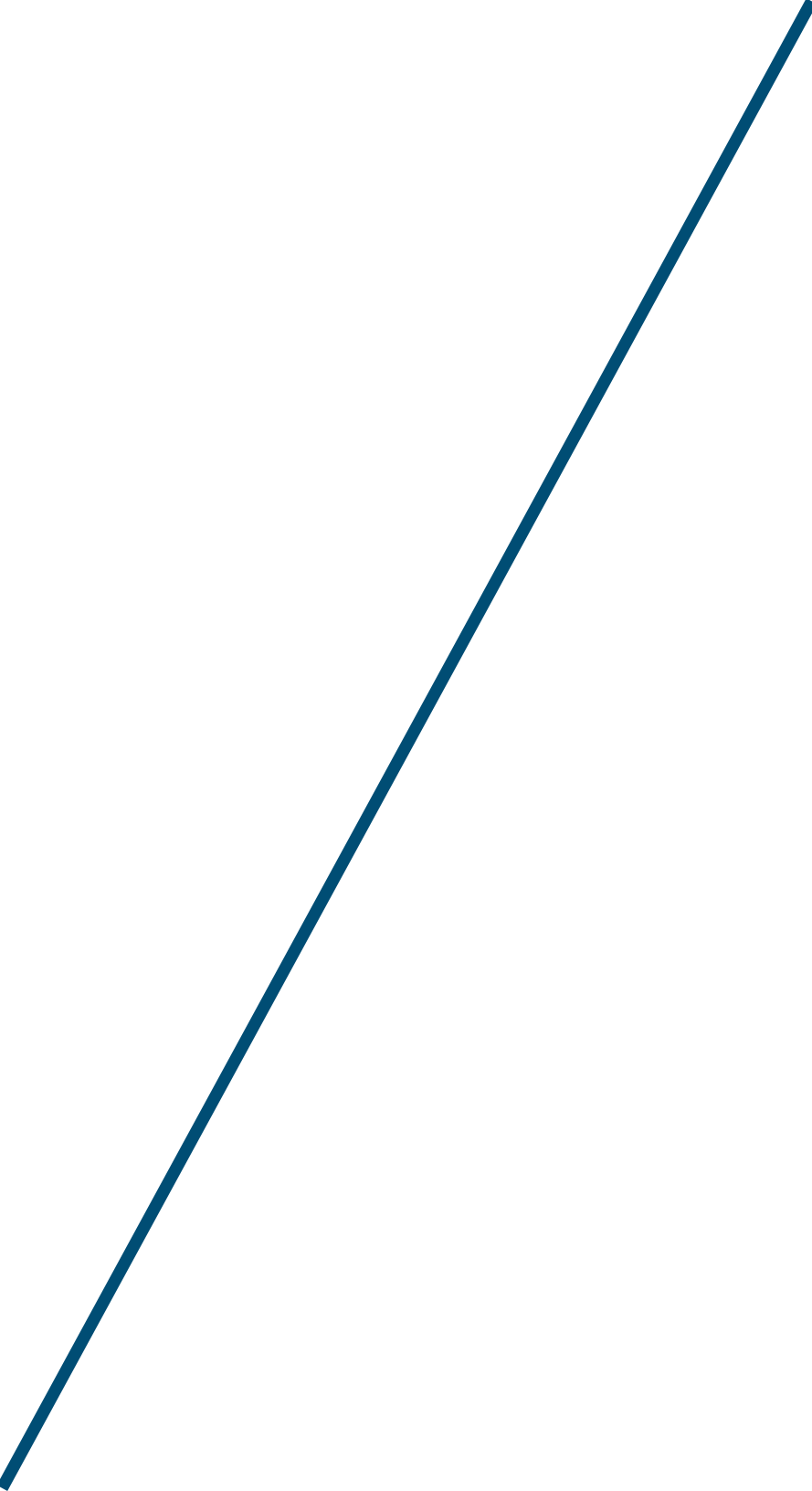
Guidelines

Cohesion: To the greatest extent possible, establish a “shared streets” approach to design. This means that the hierarchy between vehicles, bicycles, pedestrians, and landscape be balanced to promote a more harmonious relationship between these elements. It involves assigning visual, functional, and aesthetic significance to sidewalks and planters, tree lawns and bike lanes.

Function: To the greatest extent possible, incorporate green infrastructure into the design of this typology. Benefits include decreased stormwater runoff volume to combined storm-sewer, increased carbon sequestration, aesthetic benefits. Green infrastructure can take the form of flush or curb-cut bioswales and permeable pavements.

Abraham Flexner Way ►





FOCUS AREAS

FOCUS AREAS

While the Landscape Guidelines offer general ideas and recommendations for planning and design of typologies on campus, focus areas take a closer look to provide a path forward in campus improvements, pairing locations with desired experience, physical composition, and function.

Focus areas chosen for representation in the Plan are thematic and complement the work represented in the Campus Master Plan.

HSC Campus focus areas covered in this plan include:

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



INTERPROFESSIONAL EDUCATION & PUBLIC HEALTH

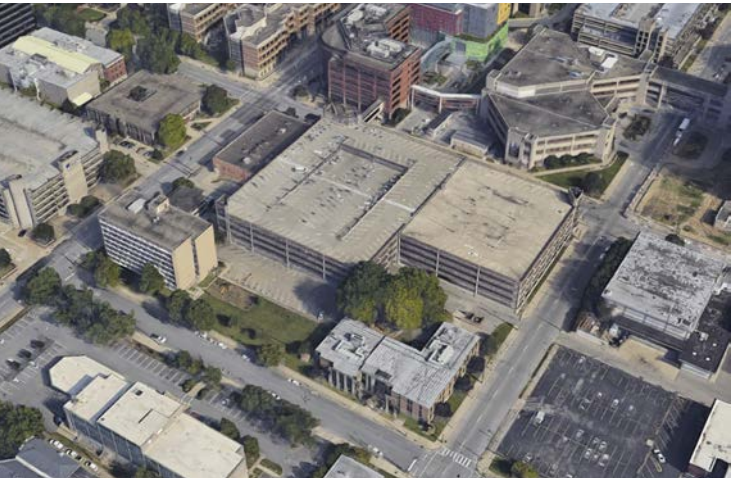
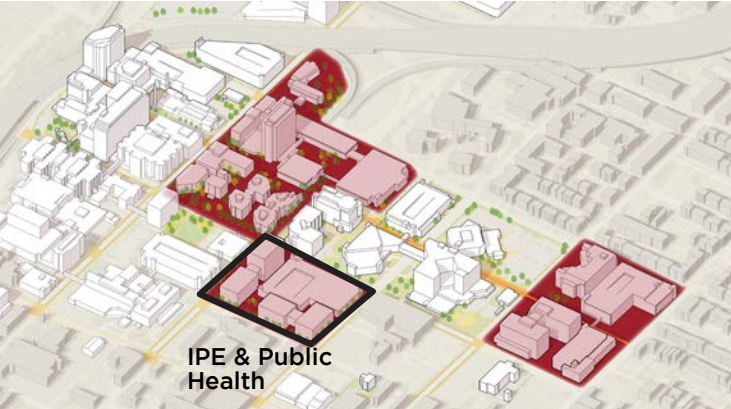
The public health block is an exciting new chapter in the landscape evolution of the HSC campus. From a public realm perspective, this block is all about improvements to edge conditions. It is about enhancing a multi-purpose streetscape, setting a visual, experiential tone for new HSC campus development and ensuring a meaningful dialogue between campus realm and the neighborhood around it.

Vision and Recommendations

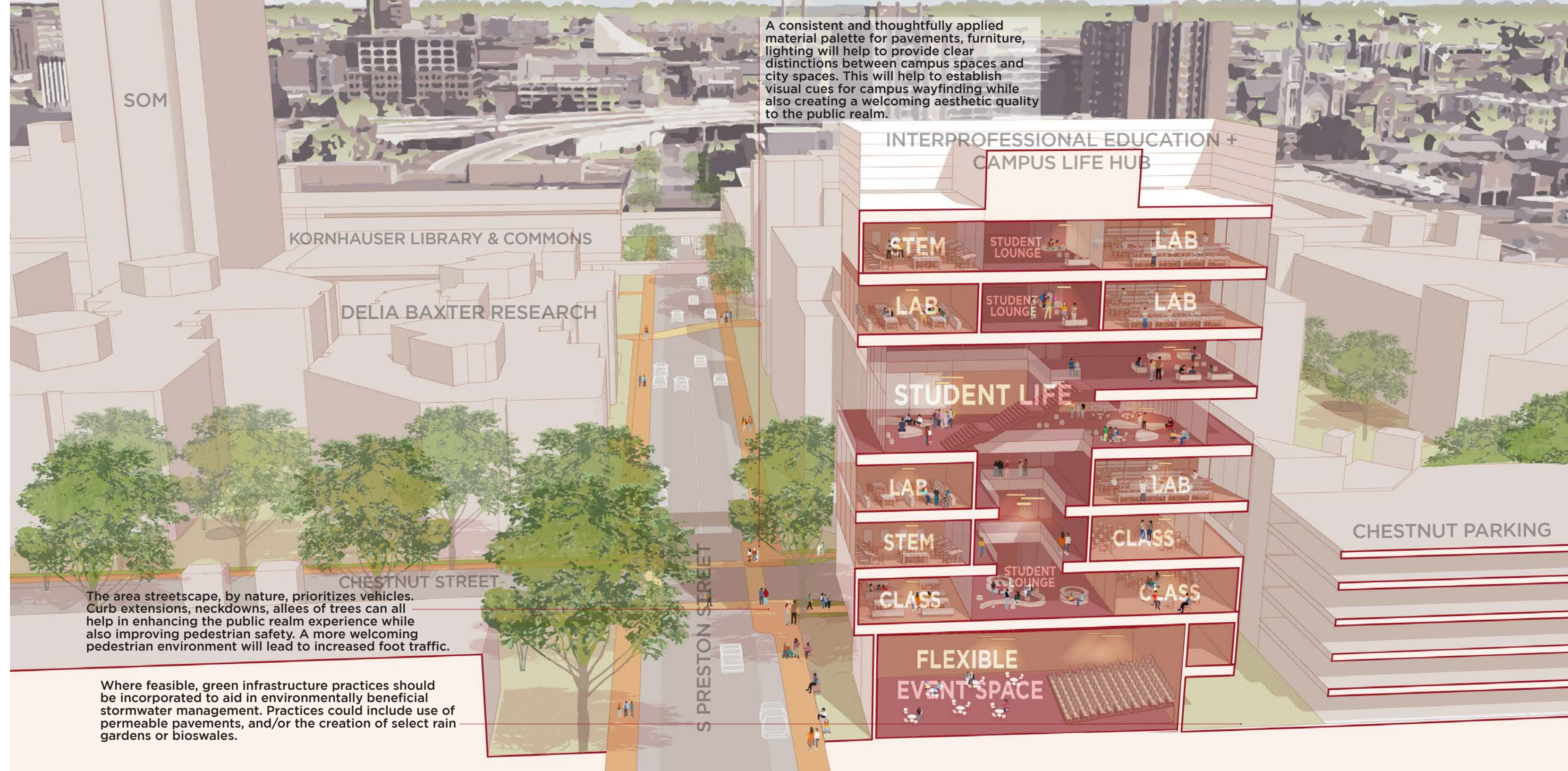
Close to the geographic core of campus, the Interprofessional Education (IPE) and Public Health block is a wonderful opportunity to showcase a wide variety of key design strategies.

Create a “living edge” along Gray, Preston, and Jackson Streets. This is an opportunity to establish a consistent landscape language through:

- Lines and/or allees of street trees (of limited species)
- Long, linear stretches of sidewalk-adjacent lawn or groundcover
- Seating nooks that cut into the planted strips, signaling programmatic relationship with buildings, while offering a transition from street life to academic life.



- A Gray Street mid-block court that marks a significant point of campus entry and access to classrooms and parking facilities at the existing Chestnut Street Garage; a new green heart for the block.
- Pocket wellness gardens tucked into the densely planted wedges of the courtyard; opportunities to rest, study, reflect while removed from the “built” environment, surrounded by nature.
- Fixed, durable, modern seating that straddles the border between campus and street, inviting interaction and connections between the two.



RESEARCH HUB

At the eastern end of the HSC campus flanking E Madison Street, the Research Hub will occupy an important position in the greater public realm. The Research Hub will serve as an academic anchor and a bookend to the central Abraham Flexner Way corridor that runs east-west through campus. The Hub must also embrace the residential communities on its eastern side. Consideration and integration of Abraham Flexner Way corridor, new academic destinations, and surrounding city life is at the core of how this place should take shape. The Research Hub’s public realm must respond to these elements, enhancing the quality and character of spaces.

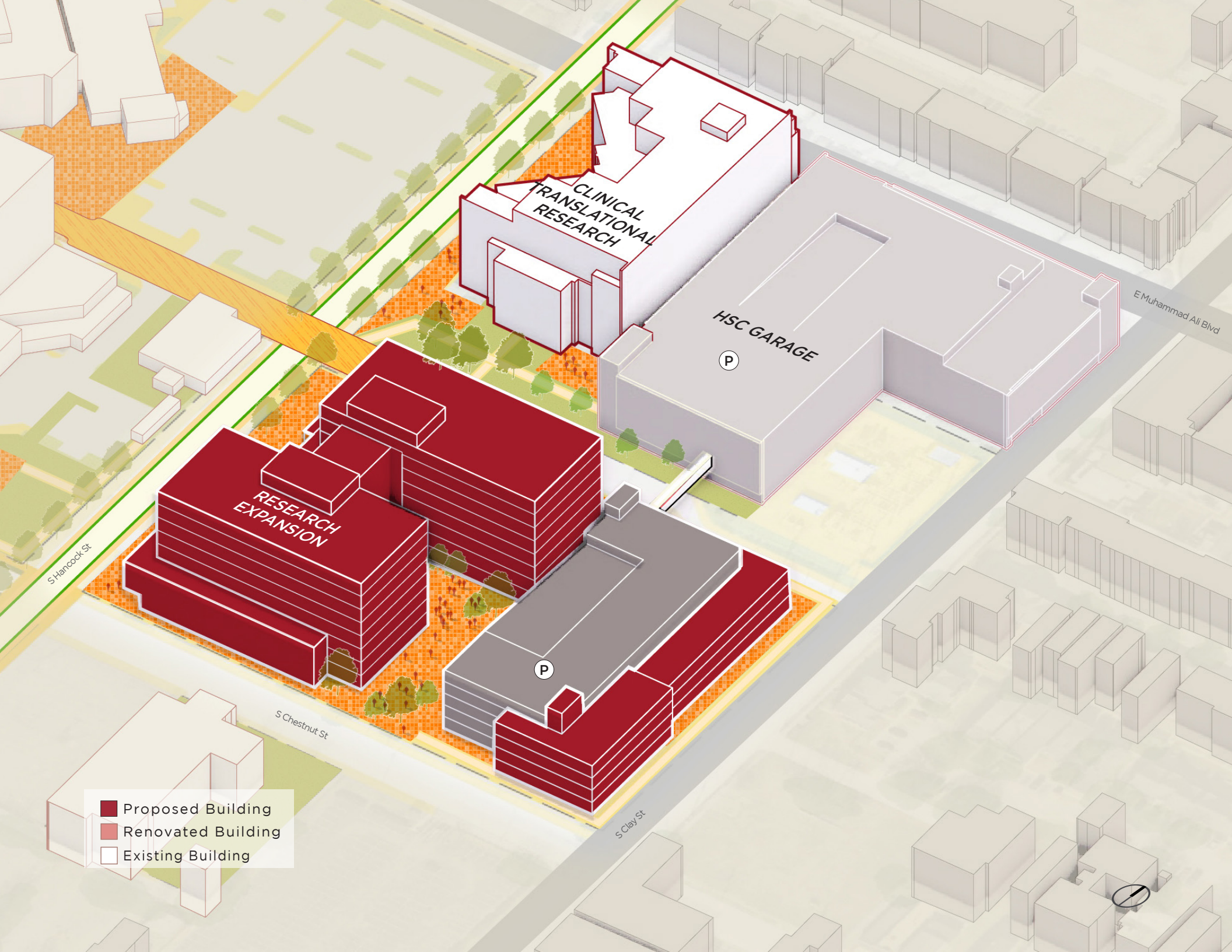
Vision and Recommendations

The public realm vision for the Research Hub concentrates on introducing complementary arrangements of landscape features and appropriately scaled elements. Research Hub design proposals can be considered in three basic parts, organized according to their location: the bookend plaza, the central court, and the eastern green.

The bookend plaza, at the western edge of the Hub, where E Madison and S Clay Streets intersect is an opportunity to present a public realm anchor to the five zones of the 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 of the Hub, equipped with seating and shade. From E Madison and AFW, the plaza should appear as a welcoming beacon; the modern forecourt that invites interaction.

The Plaza should:

- Be comprised of durable hardscape materials that visually tie the new building design to the landscape.
- Contain multiple forms of seating - fixed, movable – in order to serve appropriate functions and special uses. Fixed seating should reflect the quality of the architecture around it, while introducing additional landscape functionality, such as edging for paths or plantings, or retaining of earth.
- Utilize native plant species that promote local habitat



The central court is the stretch of E Madison Street between S Hancock and S Clay Streets. The central court should develop a character that is both unique to the character of the Research Hub – of the architecture, program, and in support of surrounding access and mobility objectives – while also reinforcing the broader thrust of AFW as a significant public realm spine. The court should:

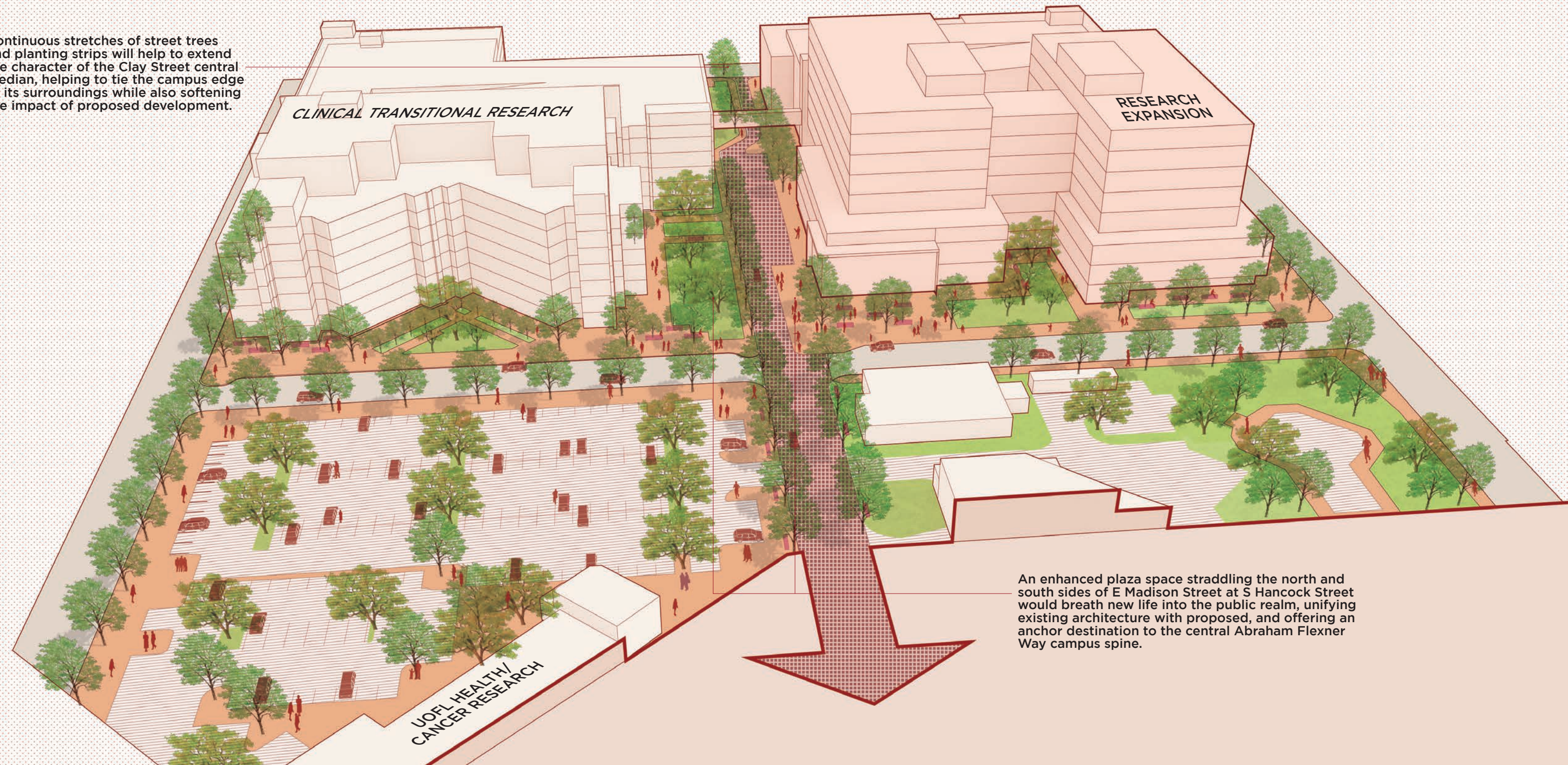
- Value cyclists and pedestrians as part of an effort to balance mobility objectives, introduce a more traditional campus feel to the interior of the Hub.
- Prioritize beautification through well-planned treatment of ground plane (material selection), plant palette, site furniture, and consistent and appropriate street tree selection.
- Provide opportunities for students, faculty, and staff to inhabit the plaza streetscape. This means creating seating opportunities, shade, interesting views.

The eastern green is the streetside transitional zone between campus and the surrounding urban, residential community. The eastern green is envisioned as a linear stretch of densely planted space adjacent to S Clay, intended to soften the scale of the new development while establishing a recognizable and unique visual marker of HSC's edge.

The eastern green should:

- Have a consistent character throughout; incorporate continuous stretches of street trees, planting strips wherever possible.
- Act as an extension of, and addition to, the S Clay St central median green space to the north and the pedestrianized E Madison Street to the east.
- With a layered approach to planting material and design – canopy, understory, and ground cover – promote a delineation of campus and neighborhood spaces while softening the difference of academic and residential building scales.

Continuous stretches of street trees and planting strips will help to extend the character of the Clay Street central median, helping to tie the campus edge to its surroundings while also softening the impact of proposed development.



An enhanced plaza space straddling the north and south sides of E Madison Street at S Hancock Street would breath new life into the public realm, unifying existing architecture with proposed, and offering an anchor destination to the central Abraham Flexner Way campus spine.

HSC CORE

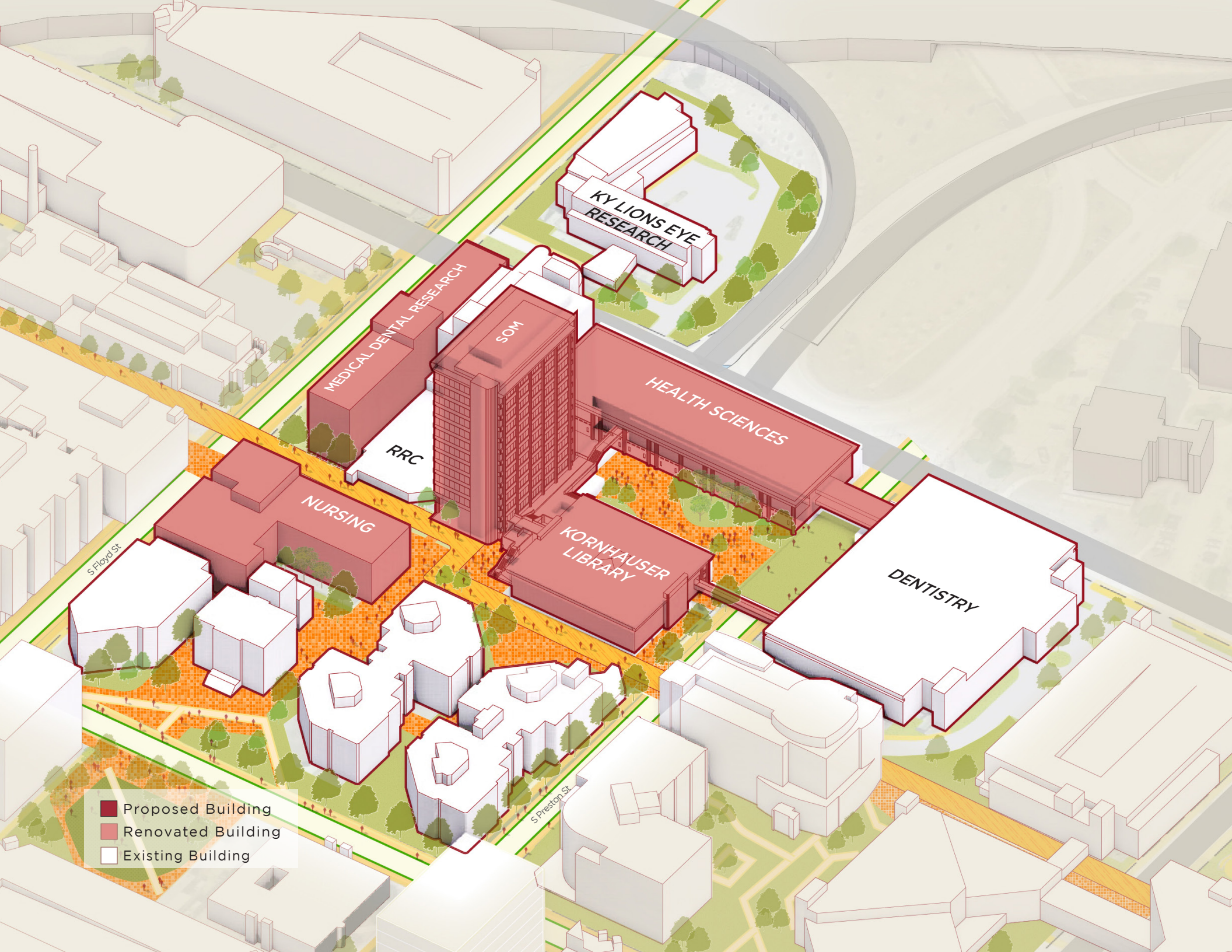
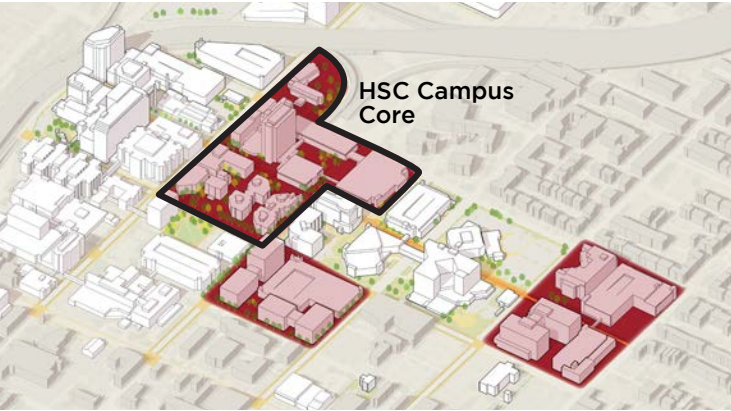
As the Campus Life Core, this block possesses some of the greatest public realm opportunities for impact on student life and amenities, environment, and clarity and definition of internal campus circulation systems. This area also presents some of the most distinct and complex challenges among three major public realm elements: Kornhauser Plaza, Abraham Flexner Way, and a lawn by the Abell Administration building.

The existing Kornhauser Plaza is the only plaza space on campus. It is, however:

- Elevated above surrounding street grade (3' - 3.5' above adjacent grade)
- Difficult to access from three sides and disconnected from its surroundings
- On structure
- Hot in the summer, cold in the winter
- An amenity “desert” in exactly the spot that warrants a campus heart

Abraham Flexner Way (AFW), between Floyd and Preston Streets is UofL-owned and maintained; one of the few private street segments of the campus. It also provides accessible parking and accesses a 12-bay reserved parking lot. AFW also provides substantial loading and service functions as the primary vehicular access route for MDR, the School of Medicine Tower, Kornhauser Library, Delia Baxter Research II, Donald Baxter Research I, Abell Administration Center, and the School of Nursing. These functions are critical to proper building operations and the vast staff and student bodies they support.

The composition and design of AFW changes as one moves west to east. Where the western portion of the roadway is vehicular-focused, its eastern stretch adjacent to Kornhauser Library takes on a more plaza-like, shared-function feel. A broad, +/-24' width paved way combines sidewalk, driving lanes, service, access, loading in a single, flush composition.



The Abell Administration Building, generously set back from E Chestnut Street possesses the only sizable expanse of lawn on the HSC campus. The organization and design of this swath of public realm is formal and traditional. The function of this space is aesthetic, providing a ceremonial entrance to a historic building. The design of this space sets the building apart from the streetscape, disconnecting it with sets of stairs and hedges from its surroundings. Two large, low-branched maples and a hedge obscure a small seating area and a north-south circulation route to Abraham Flexner Way, Kornhauser Library, and the central plaza.

Vision and Recommendations

The existing Kornhauser Plaza is the only plaza space on campus. It is, however:

- Elevated above surrounding street grade (3' - 3.5' above adjacent grade)
- Difficult to access from three sides and disconnected from its surroundings
- On structure
- Hot in the summer, cold in the winter
- An amenity “desert” in exactly the spot that warrants a campus heart

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

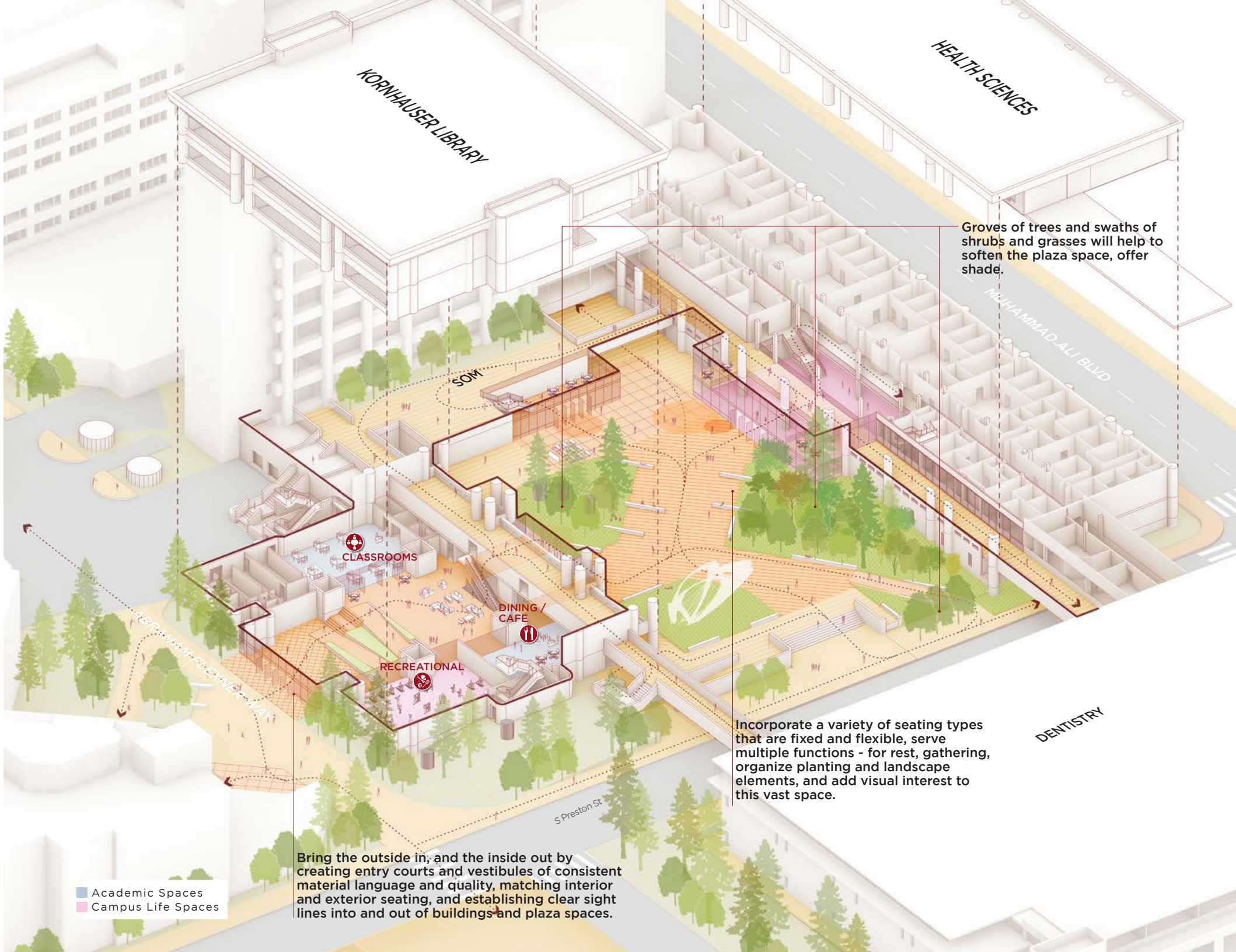
- Enhance and unify green spaces by introducing uniform stretches of groundcover, populated with small groves of understory trees for shade and visual interest
- Create more flush conditions between areas for cars and areas for pedestrians

- 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

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.



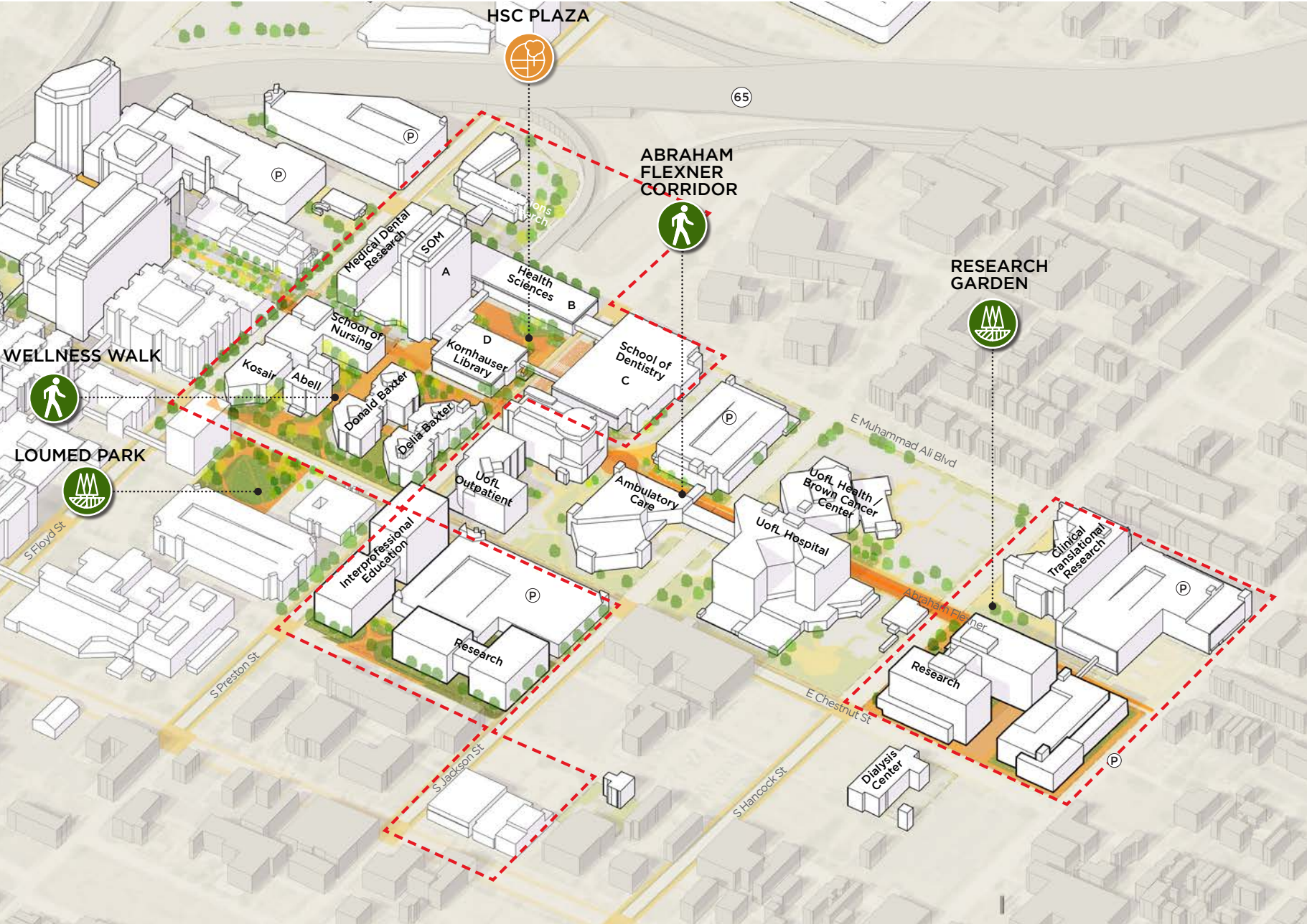


STORMWATER GUIDELINES

Belknap Landscape Framework



HSC Landscape Framework



Proposed Stormwater Strategies

All stormwater practices, construction, or expansions shall be in compliance with the Louisville Metropolitan Sewer District (MSD) regulations.

The incorporation of Best Management Practices (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.

Belknap campus has several water quality BMPs to divert over a million gallons of stormwater from the combined sewer system. These BMPs include infiltration basins, green roofs, bioswales, permeable pavers, and water quality treatment structures. In 2023, the university created CardStorm, a geographical information system (GIS) established to identify the geographical location of over 100 green infrastructures included within BMPs. This GIS system enables University Facilities personnel to better locate, inspect, and maintain this infrastructure.

Examples of various types of BMPs that are relevant to the campus, how they function, as well as their advantages and disadvantages are explored below.

This table provides a recommendation for the types of BMP tools that are well-suited for existing and new open spaces on Belknap campus.

- 1 Green Roofs
- 2 Permeable Pavers
- 3 Rain Gardens / 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 Stormwater Strategies

Belknap Plaza

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8

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Davidson Quad

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6

7

8

9

Green Heart

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2

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8

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South Quad

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9

Belknap Stormwater Strategies

Natures Quad

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• Greening Second Street

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9

Shipp Street

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Intramural Fields

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8

HSC Stormwater Strategies

Interprofessional Education & Public Health

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8

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Research Hub

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HSC Campus Core

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Green Roofs

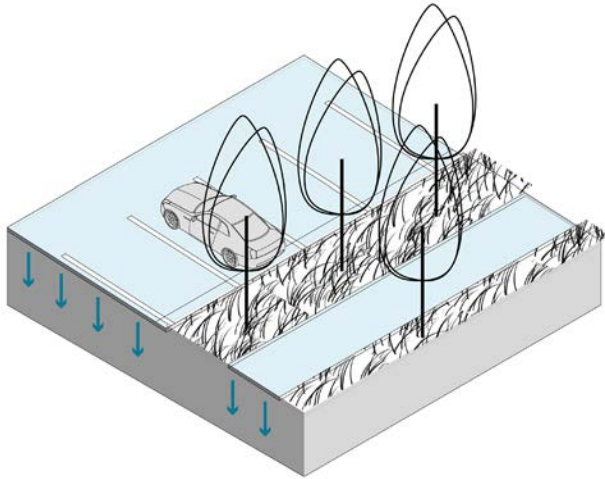
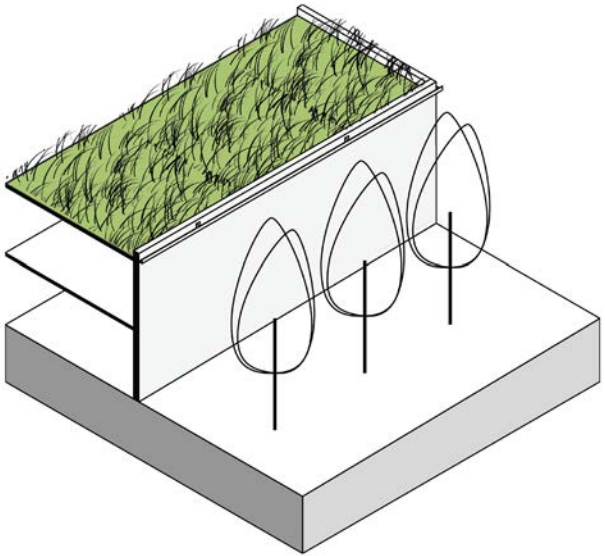
Green roofs refer to layered vegetation and soil media on tops of buildings that aid with passive cooling/heating and stormwater management. They store and filter rainwater, improve air quality, reduce the urban heat island effect, and provide habitats for birds, pollinators, and potentially native plant species. They also provide a visual and programming amenity.

Advantages

- Provide stormwater runoff detention and/or retention
- Reduce impervious area
- Offer passive cooling, insulation (reduced energy costs)
- Potential synergy w/ rainwater harvesting
- Improve air quality
- Reduce heat island effect
- Provide micro-habitats
- Visually attractive amenity
- Programming amenity

Disadvantages

- Additional structural load relative to traditional roof
- Additional cost relative to traditional roof
- Additional maintenance of planting
- Potential concern with wind erosion



Permeable Pavers

Permeable pavers refer to any type of porous pavement that allows water to infiltrate through the material and into an underlying layer of soil and gravel. The pavement may also filter pollutants, provide groundwater recharge, and reduce the need for drainage structures in the surrounding area. Permeable paving may come in the form of unit pavers, porous asphalt, or porous concrete.

Advantages

- Reduces overall site runoff
- Reduces need for additional storm drainage structures
- May provide treatment/infiltration
- Visually attractive options for hardscaping
- Less standing water
- Cooler surfaces (reduce heat island effect)
- Durable, requires less de-icing

Disadvantages

- Not ideal for high traffic/high speed areas
- Requires experienced contractor for proper installation
- Requires special snow removal procedures
- Sometimes prone to clogging, requires additional maintenance/vacuum cleaning

Rain Gardens & Bioretention

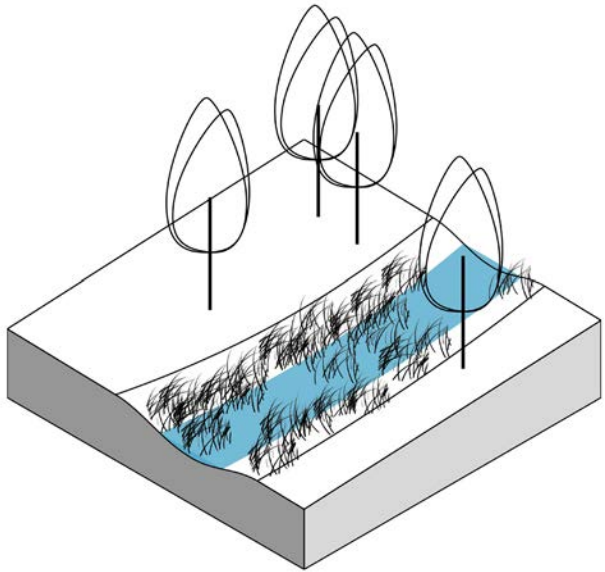
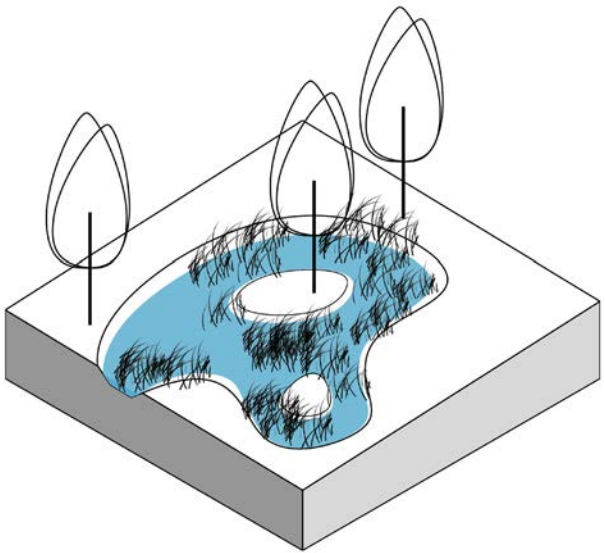
A rain garden is a depression in a landscape that allows for the collection of rainwater from the surrounding areas. These basins include native flora and fauna that help naturally filter out runoff pollutants. Rain gardens that incorporate more complex drainage systems or treatment methods are often considered bioretention systems.

Advantages

- Provide stormwater runoff detention and/or retention
- Provide stormwater quality treatment/pollutant removal
- May promote groundwater recharge via infiltration
- Aesthetically pleasing
- Flexible sizing

Disadvantages

- Additional maintenance / landscape management
- Sometimes susceptible to clogging or flooding if not managed properly
- Not ideal for steep slopes



Bioswales

A bioswale is a linear above ground stormwater channel that absorbs low flows of rainfall using thick native grasses, often located alongside a path or roadway. Bioswales naturally infiltrate nearly all of the water that is produced from a small rain event, and also provide water quality treatment through the absorption of pollutants in runoff.

Advantages

- Cost efficient in comparison to underground piping
- Provide groundwater recharge via infiltration
- May provide stormwater runoff detention and/or retention area depending on size
- Provide water quality treatment
- Aesthetically pleasing
- Low maintenance

Disadvantages

- Specific size and shape requirements need to be coordinated with grading design
- May require some irrigation

Detention & Retention Basins

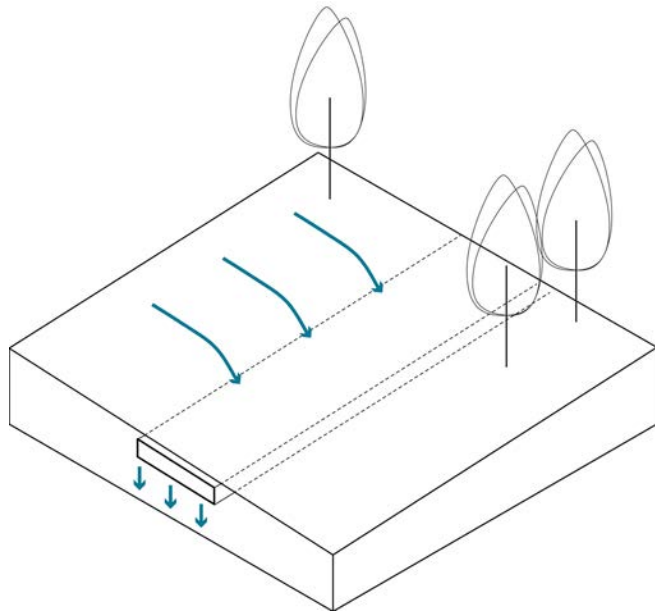
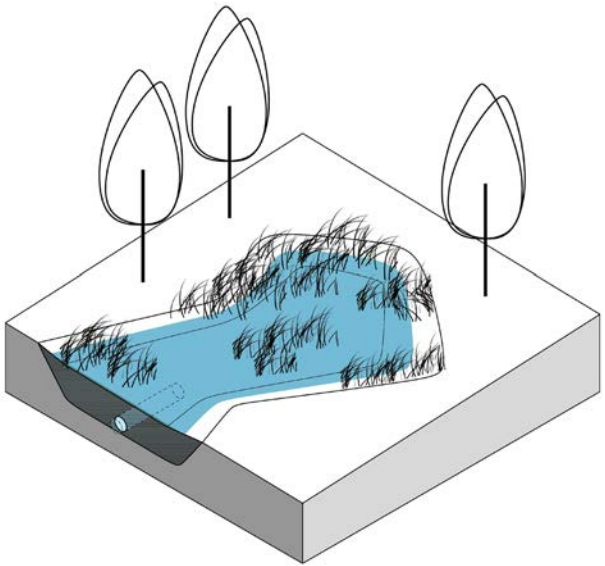
Detention/retention basins (also referred to as stormwater ponds) receive stormwater runoff and may have a temporary (detention) or permanent (retention) pool of water. They provide stormwater volume management, and may provide treatment through settling and/or infiltration through the vegetation and ground.

Advantages

- Provide significant stormwater detention/retention function
- Promote biodiversity by creating micro-habitats for wildlife and plant species
- Low operating and maintenance costs
- Can handle variant water levels and storm events
- Offers recreational value
- Aesthetically pleasing
- Potential to promote groundwater recharge/infiltration

Disadvantages

- May require space depending on storage capacity needed
- Requires some maintenance of outlet control structures and planting



Underground Detention & Infiltration Basins

Underground detention systems utilize underground storage vessels or reservoirs that capture and hold large volumes of storm runoff. They may also provide groundwater infiltration. Ideal for dense, urban areas, they require practically no space at ground level, and are typically used under parking lots, plazas, athletic fields, or areas where at-grade detention ponds or basins are not a viable option.

Advantages

- Ideal for highly urbanized areas or areas where land is limited
- Quick installation and construction
- Provide stormwater runoff detention and/or retention
- May provide groundwater recharge via infiltration

Disadvantages

- Infiltration systems are not recommended for areas with high groundwater tables (geotechnical investigation required)
- Requires additional excavation compared to at-grade stormwater systems
- Certain proprietary storage chamber/vessels have high costs
- Requires additional maintenance

Downspout Disconnection

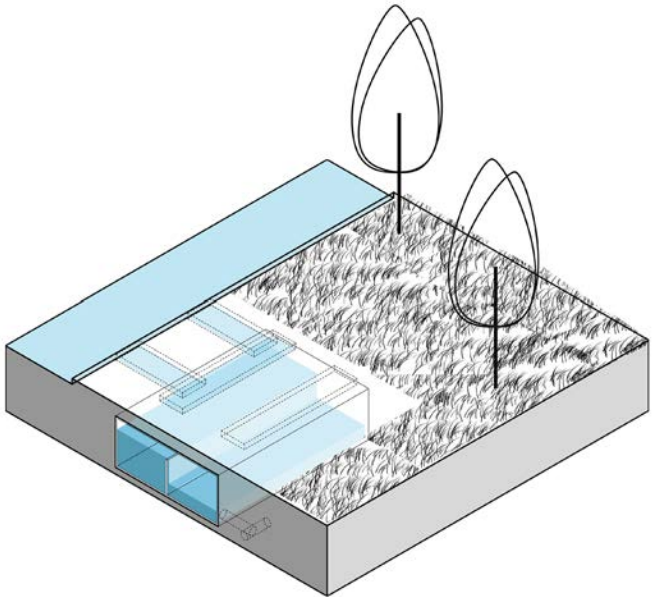
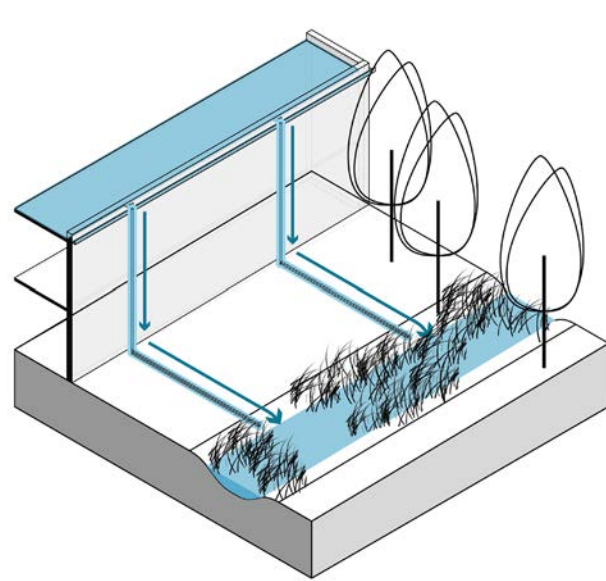
Downspout disconnection is the redirection of stormwater runoff from a building’s downspout into a lawn, garden, or rain barrel, as opposed to an underground stormwater drain network.

Advantages

- Reduces the stormwater runoff entering the local system
- Inexpensive installation and can be easily retrofit to existing buildings where applicable
- May reduce irrigation needs

Disadvantages

- Requires garden or rain barrel
- May require some additional maintenance



Water Quality Treatment Structures

Water quality structures are any structure that improves the quality and reduces pollutant loading in stormwater runoff. The design of water quality structures is constantly evolving with innovations in technology. Often, these systems treat water as it enters the structure with filters, separators, swirl chambers, porous media, and/or debris screens. Different structures are designed to treat different types of pollutants, such as nitrogen, phosphorus, bacteria, trash, silt/sediment, oils, and/or grease.

Advantages

- Effective at treating runoff, improving water quality, and reducing pollutant loading
- Can be incorporated into existing stormwater infrastructure
- Simple to design and incorporate into future projects
- Can be designed to remove a wide variety of pollutants

Disadvantages

- Requires additional cost at time of construction
- Requires additional maintenance (e.g. vacuum trucks, filter cleaning/replacement)

Rainwater Harvesting

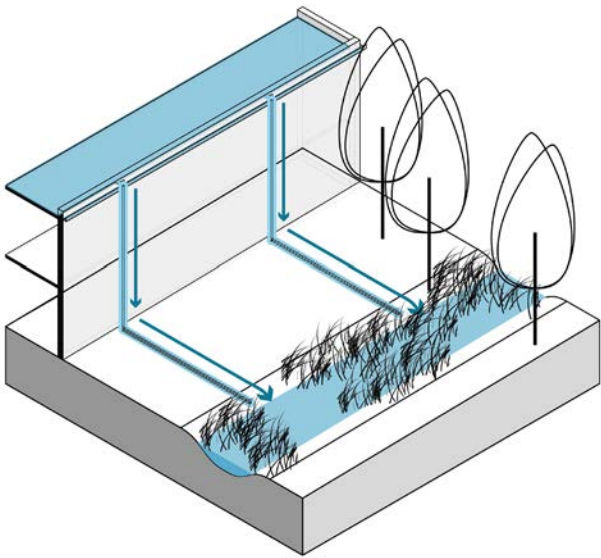
Rainwater harvesting refers to a system that collects and stores runoff from a roof. The runoff is stored in a tank or cistern that can then be utilized for toilet flushing, landscape irrigation, and/or other non-potable uses.

Advantages

- Reduces potable water costs and consumption
- Can be utilized for any size project or area
- Reduces stormwater runoff volume/detention requirements
- Provides a relatively “clean” source of non-potable water supply

Disadvantages

- Requires additional infrastructure (storage cisterns, filtration systems, and pumps)
- Requires additional maintenance
- Requires additional space
- Requires additional costs
- Requires additional energy



		Attribute						
		Volume Reduction	Land taken	Capital Cost	Maintenance Burden	Aesthetics	Habitat Provisioning	Amenity Potential
Ranking value	0 Poor	N/A	Significant			No Improvement		
	1 Fair	Low	Moderate			Good		
	2 Good	Medium	Minimal			Better		
	3 Excellent	High	No Impact			Best		
Weighted priority		3	2	1	1	0.75		

	BMP Ranking							Total Weighted Ranking
	Volume Reduction	Land taken	Capital Costs	Maintenance Burden	Aesthetics	Habitat Provisioning	Amenity Potential	
Green Roofs	2	3	0	0	3	2	3	18
Permeable Pavers	3	1	1	1	2	0	1	15.25
Rain Gardens / Bioretention	3	1	2	1	3	3	3	20.75
Bioswales	1	1	2	2	2	2	1	12.75
Detention / Retention Basins	3	1	2	2	1	2	1	18
Underground Detention / Infiltration Systems	3	2	0	1	0	0	0	14
Downspout Disconnection	1	3	2	2	0	0	0	13
Water Quality Treatment Structures	0	3	1	2	0	0	0	9
Rainwater Harvesting / Recycling	2	1	1	1	0	0		10.75

BMP Performance Scorecard

Each BMP tool performs at varying levels of success depending on the given metrics. This table provides an overview of relative performance based on stormwater volume reduction, required land area, capital cost, maintenance burden, aesthetics, habitat provision, and amenity potential.



PLANTING GUIDELINES

URBAN ECOLOGY AND PLANT SPECIES GUIDELINES

These guidelines outline the considerations and recommendations for plant species selection and urban ecology on the campus, taking into account the appropriateness for the Bluegrass Physiographic Region of Kentucky, site suitability, planting size, and tree succession.

Species

The primary palette of plants on the campus should predominantly comprise species naturally found in the Bluegrass physiographic region of Kentucky, with an emphasis on those from the Oak-Hickory Forest, the region’s dominant native plant community.

Preference should be given to natural species over cultivars of the same species, except in special space-constrained conditions. Cultivars with marked differences from the parent species should be used sparingly. Cultivars that enhance existing features, such as improved flower quality or pest resistance, are acceptable and often desirable.

Site Suitability

Plant selection should prioritize habitat suitability. This means selecting plants that thrive in the specific soils, sun-shade exposure, moisture conditions, and size of the chosen site. Aesthetic considerations should only come into play once habitat conditions are satisfied.

Planting Size

The initial size of trees and shrubs can be as small as practical for protection and maintenance. Smaller plants have advantages such as lower costs, potential for installation by university staff, and better acclimation to site conditions.

Research has shown that smaller plants catch up with larger ones due to longer acclimation time for larger plants. Immediate visual impact should be balanced with the understanding that university grounds are continually evolving with results aimed at future generations.

Tree Succession

Protecting aging trees is essential. This protection primarily involves preventing damage, especially to their root systems.

All utility, building, and paving projects should include existing campus tree and topography information in plans from concept design to construction documents. This information should be used to minimize disturbance around major trees.

Projects with anticipated impacts on trees should engage experienced professional arborists to help develop methods and procedures for protecting campus trees.

Guidelines ensure that plant selection and urban ecology on the campus are both environmentally responsible and aesthetically pleasing, contributing to a thriving and sustainable campus landscape.

TREE LIST

The following tree list has been carefully curated, drawing from known native species of the Bluegrass bioregion, existing native trees on campus, and trees listed in the State of Kentucky nursery list. While all of these trees are suitable for campus use, some are favored more than others.

It is important to note that a few of these trees may not be readily available in large sizes and may need to be grown from whips. For instance, species like Carya and Sassafras fall into this category. However, in the long run, these trees are expected to be hardy, durable, and well-suited to local conditions. Their resilience and adaptability make them valuable additions to the campus landscape.

FAVORED NATIVE TREE LIST

Acer rubrum	Red Maple
Acer saccharum	Sugar Maple *
Aesculus flava	Yellow Buckeye
Aesculus glabra	Ohio Buckeye
Amelanchier sp.	Serviceberry
Asimina triloba	Paw Paw
Betula nigra	River Birch
Carpinus caroliniana	Ironwood
Carya illinoensis	Pecan
Carya laciniosa	Shellbark Hickory
Carya ovata	Shagbark Hickory
Mockernut Hickory	Carya tomentosa
Catalpa speciosa	Catalpa
Cercis canadensis	Eastern Redbud
Chionanthus virginicus	Fringetree
Cladrastis kentukea	Yellowwood
Cornus amomum	Silky Dogwood
Cornus drummondii	Roughleaf Dogwood
Cornus florida	Flowering Dogwood
Cornus racemosa	Gray Dogwood
Craetegus phaenopyrum	Washington Hawthorne
Dispyros virginiana	American Persimmon
Gleditsia triacanthos inermis	Honeylocust
Gymnocladus dioicus	Kentucky Coffee Tree

Hamamelis virginiana	Witchhazel
Hamemilis vernalis	Vernal Witchhazel
Ilex opaca	American Holly
Juniperus virginiana	Eastern Red Cedar
Liquidambar styraciflua	Sweetgum
Liriodendron tulipifera	Yellow Poplar
Magnolia acuminata	Cucumbertree
Magnolia macrophylla	Bigleaf Magnolia
Magnolia tripetela	Umbrella tree
Nyssa sylvatica	Black Gum
Ostrya virginiana	Hop Hornbeam
Pinus echinata	Shortleaf Pine
Pinus strobus	Eastern White Pine
Pinus taeda	Loblolly Pine
Pinus virginiana	Virginia Pine
Platanus occidentalis	Sycamore
Prunus americana	Wild Plum
Prunus serotina	Black Cherry
Quercus alba	White Oak
Quercus bicolor	Swamp White Oak *
Quercus coccinea	Scarlet Oak *
Quercus falcata	Southern Red Oak *
Quercus imbricaria	Shingle Oak
Quercus lyrata	Overcup Oak

Quercus macrocarpa	Bur Oak
Quercus muhlenbergii	Chinkapin Oak *
Quercus nigra	Water Oak
Quercus pagoda	Cherrybark Oak *
Quercus palustris	Pin Oak *
Quercus phellos	Willow Oak *
Quercus prinus	Chestnut Oak
Quercus rubra	Northern Red Oak *
Quercus shumardii	Red Shumard Oak *
Quercus texana	Nuttall Oak
Quercus velutina	Black Oak
Quercus michauxii Swamp	Chestnut Oak
Quercus stellata	Post Oak
Sassafras albidum	Sassafras
Taxodium distichum -	Bald Cypress
Tilia americana	American Basswood *

Note: * = Potential Street Trees

In addition to the preferred native tree list, it is highly desirable to complement native flora with non-invasive species that harmonize visually and horticulturally with the native landscape. Many non-invasive Asian adjunct species, which can thrive on the campus, offer diversity, resilience, and richness to the landscape without appearing out of place.

Similarly, numerous European-origin plants that thrive in Louisville should not be excluded from consideration. Examples include representatives of the genera Tilia and Platanus. These plants, while not native, have adapted well to the local environment and can be valuable additions to the campus landscape, enhancing its overall beauty and biodiversity.



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 Belknap 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



UNIVERSITY OF LOUISVILLE®

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't s

- 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

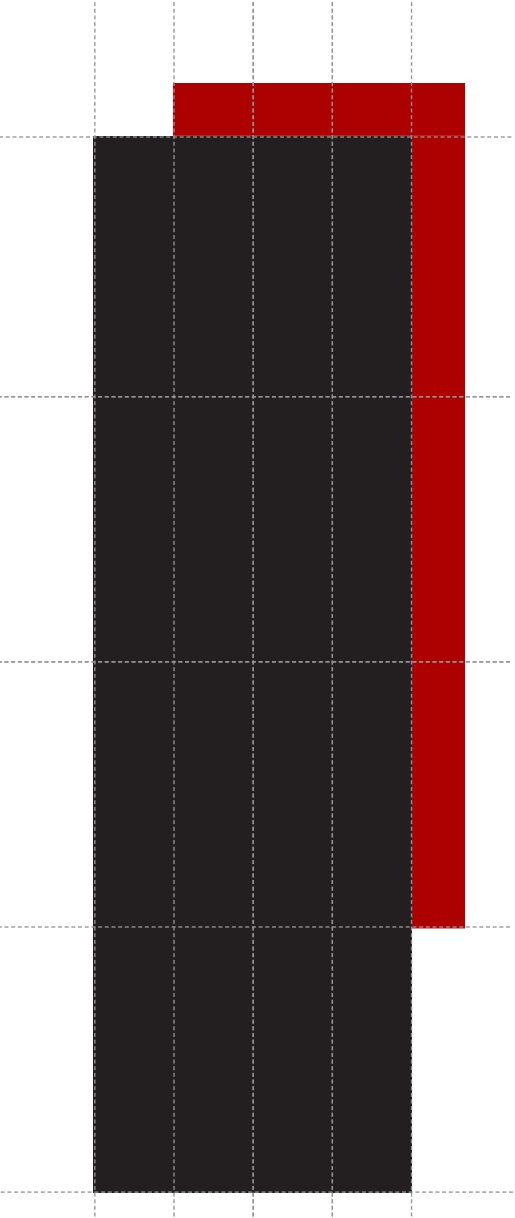
All the signs use a combination of black, white and Cardinal Red (Pantone 1797). The consistent application of these colors distinctly identifies the University and reinforces its brand.

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

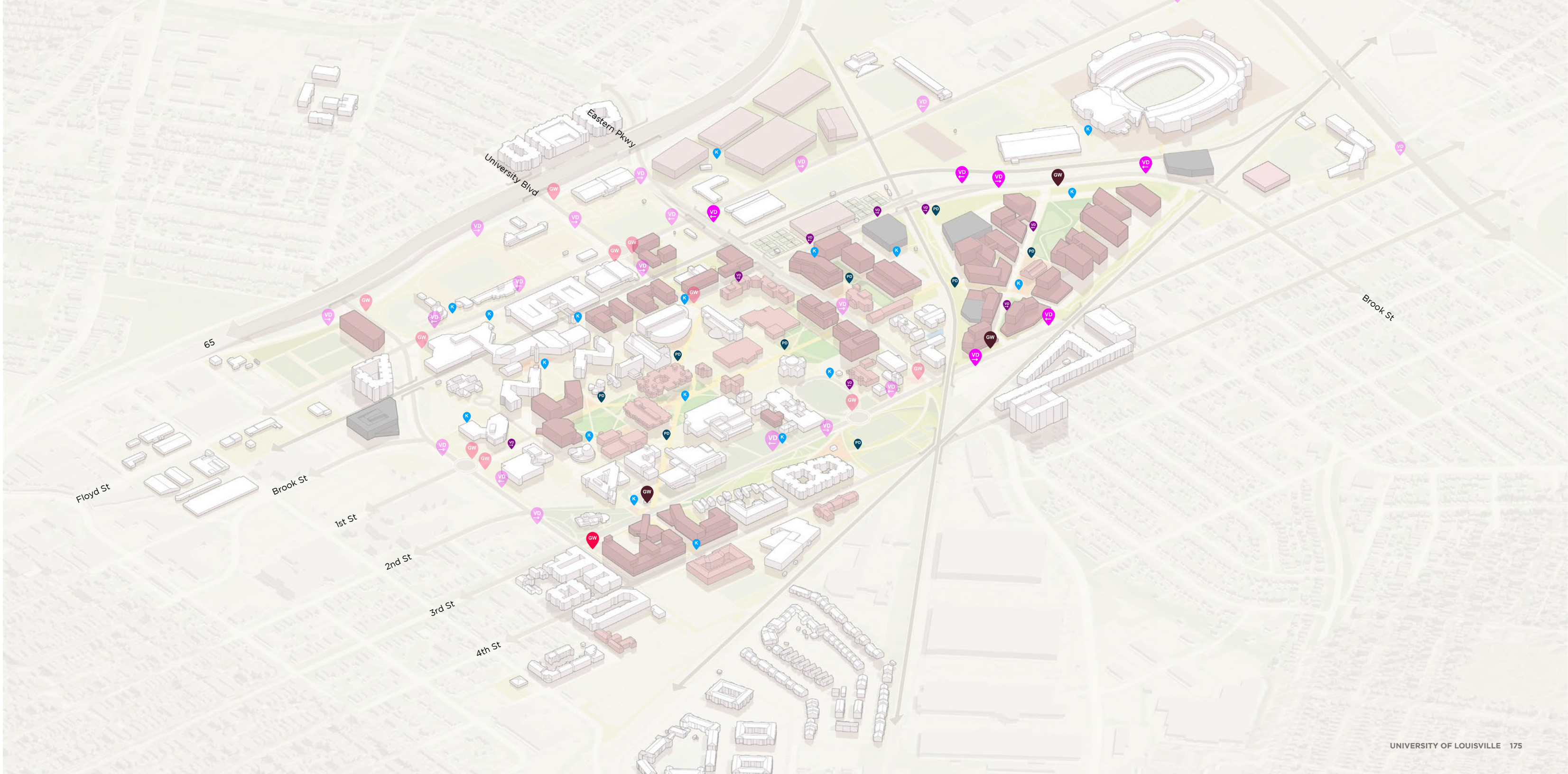
Identifying LOUMED on signs within the HSC campus can be achieved through various methods. Signs featuring an extrusion, like a kiosk, can integrate the LOUMED lettering within that extension. Alternatively, signs without an extrusion can opt for LOUMED lettering positioned above the main building name.



**Sign Locations
Belknap Campus**

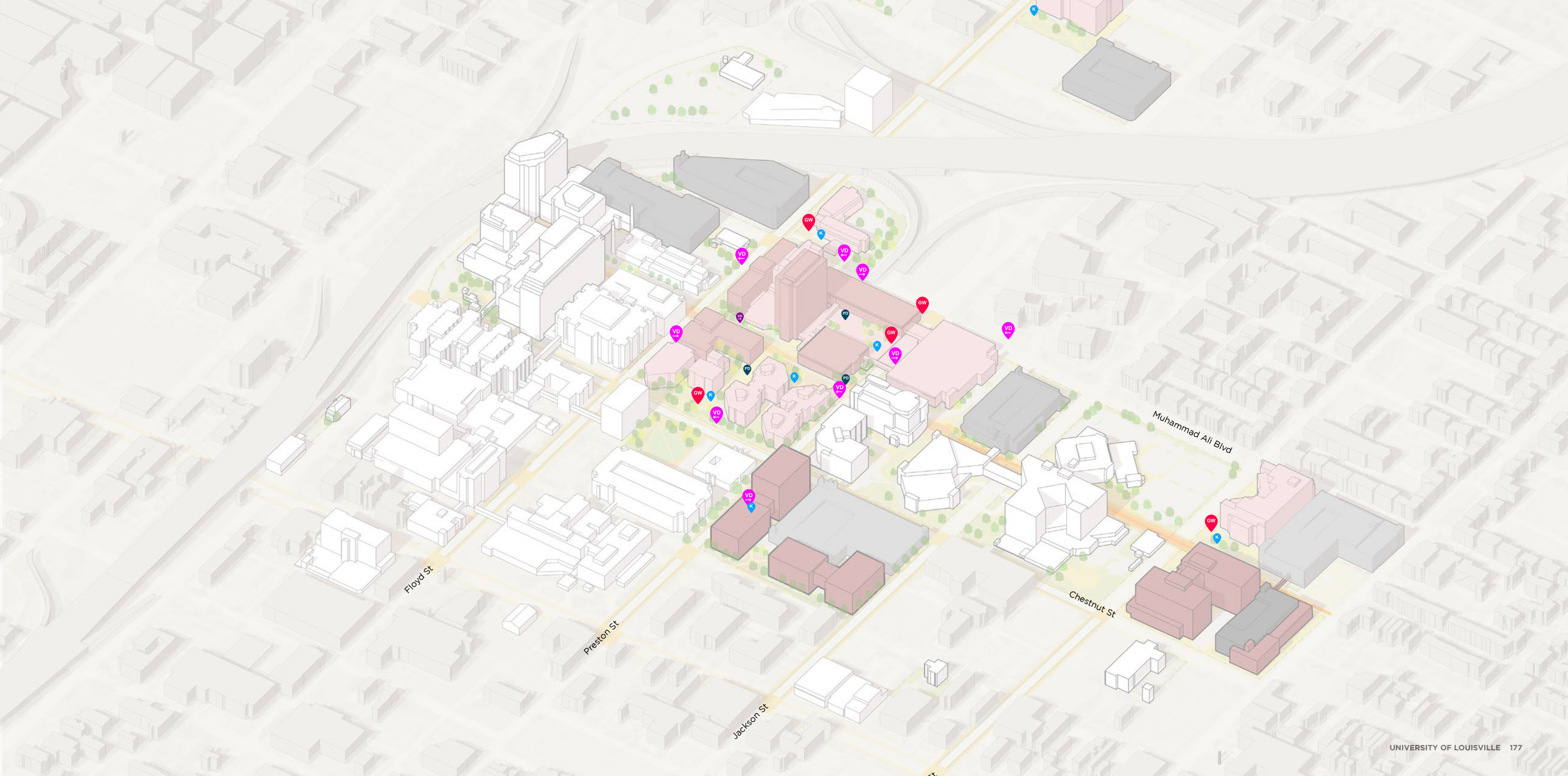
-  **Gateway Primary (GW-1)**
-  **Gateway Secondary (GW-2)**
-  **Vehicular Directional Perimeter (VD-1)**
-  **Vehicular Directional Interior (VD-2)**
-  **Digital Kiosk (K)**
-  **Pedestrian Directional (PD-1)**

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

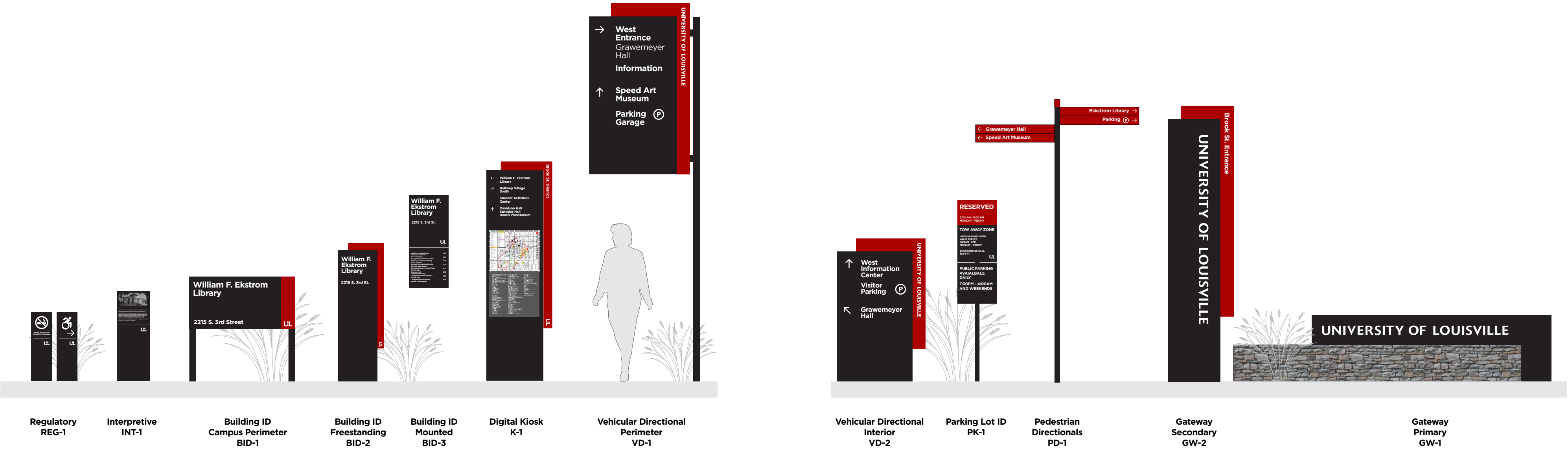
Signs identifying the name of a building or facility, including building-mounted and freestanding configurations.

- 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.

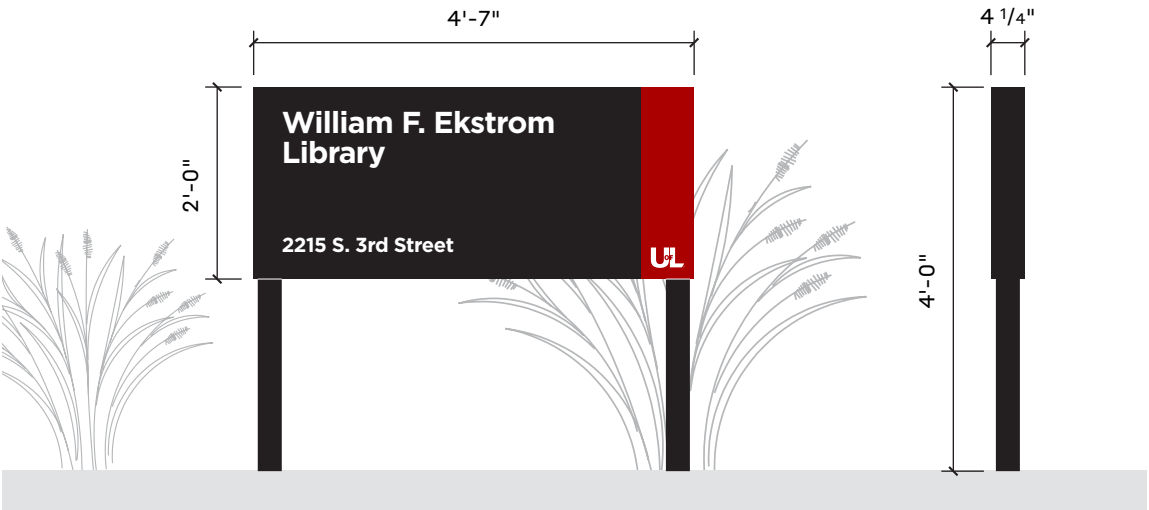
Building name text: 2 3/4" tall
Address text: 1 3/4" tall

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 171 for extrusion proportions.

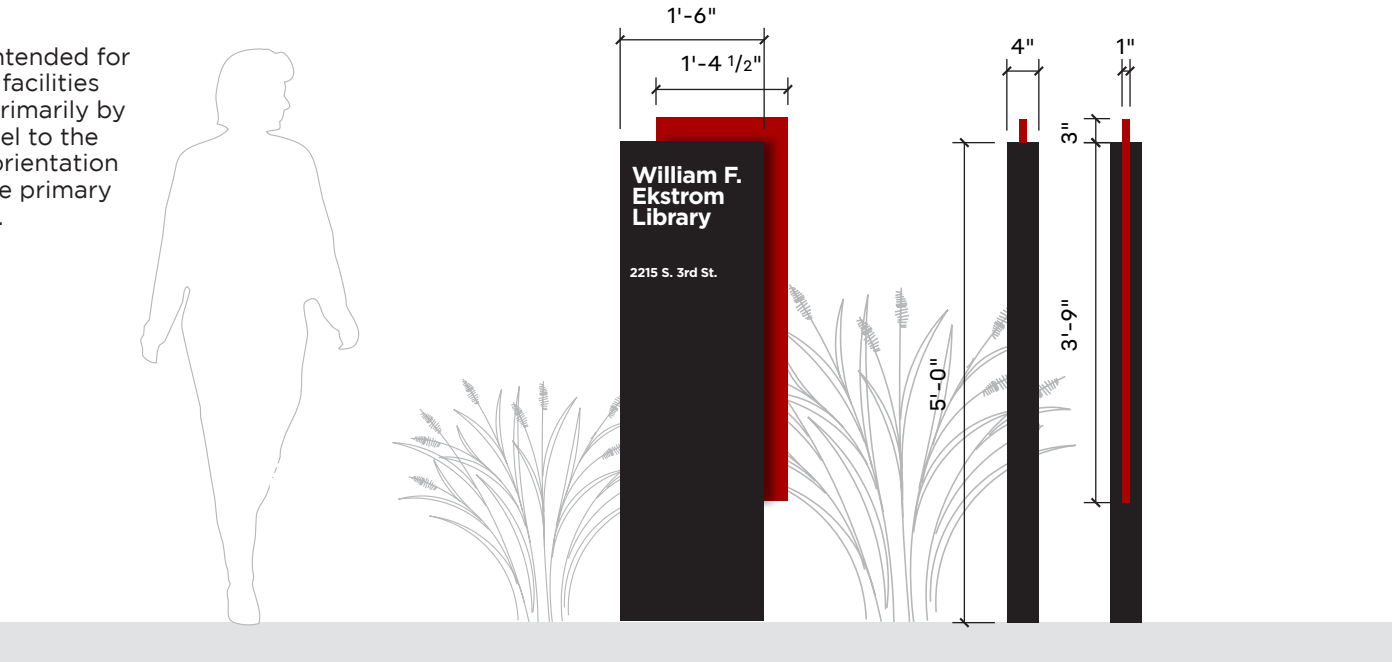
Building name text: 2" tall
Address text: 1 1/4" tall

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.



**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 171 for extrusion proportions.

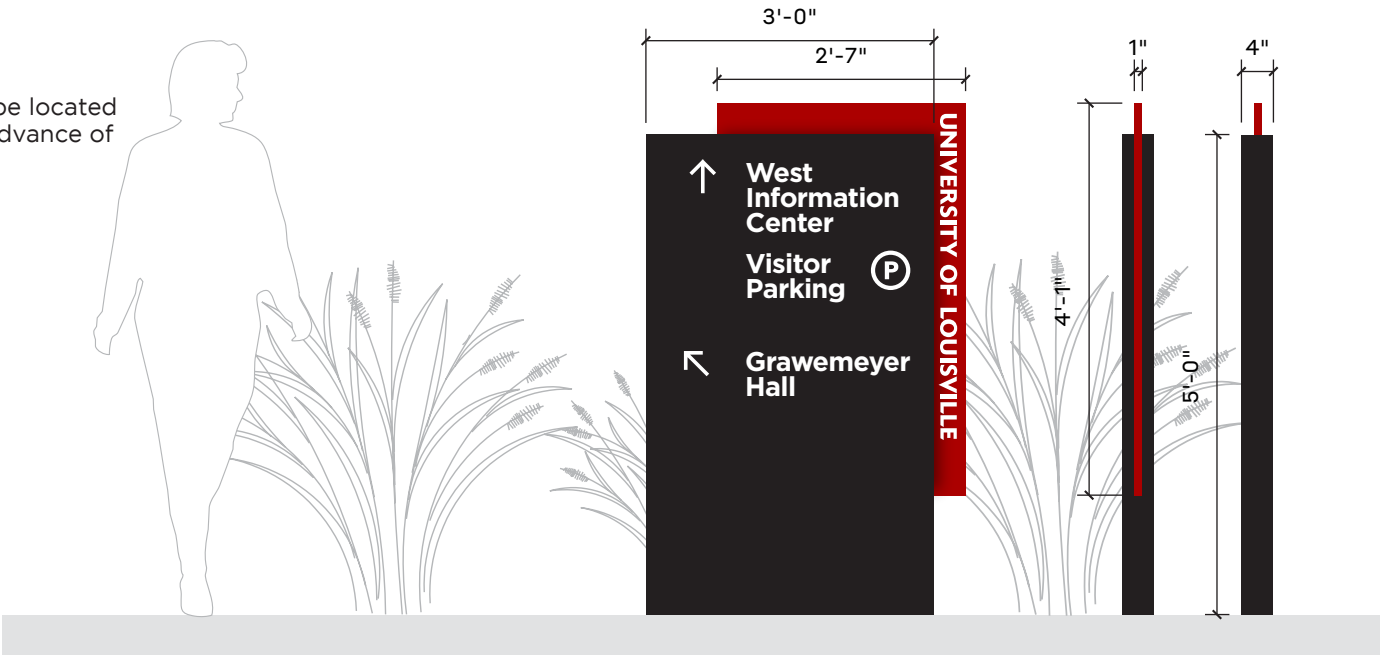
Destination text: 2 3/8" tall

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.

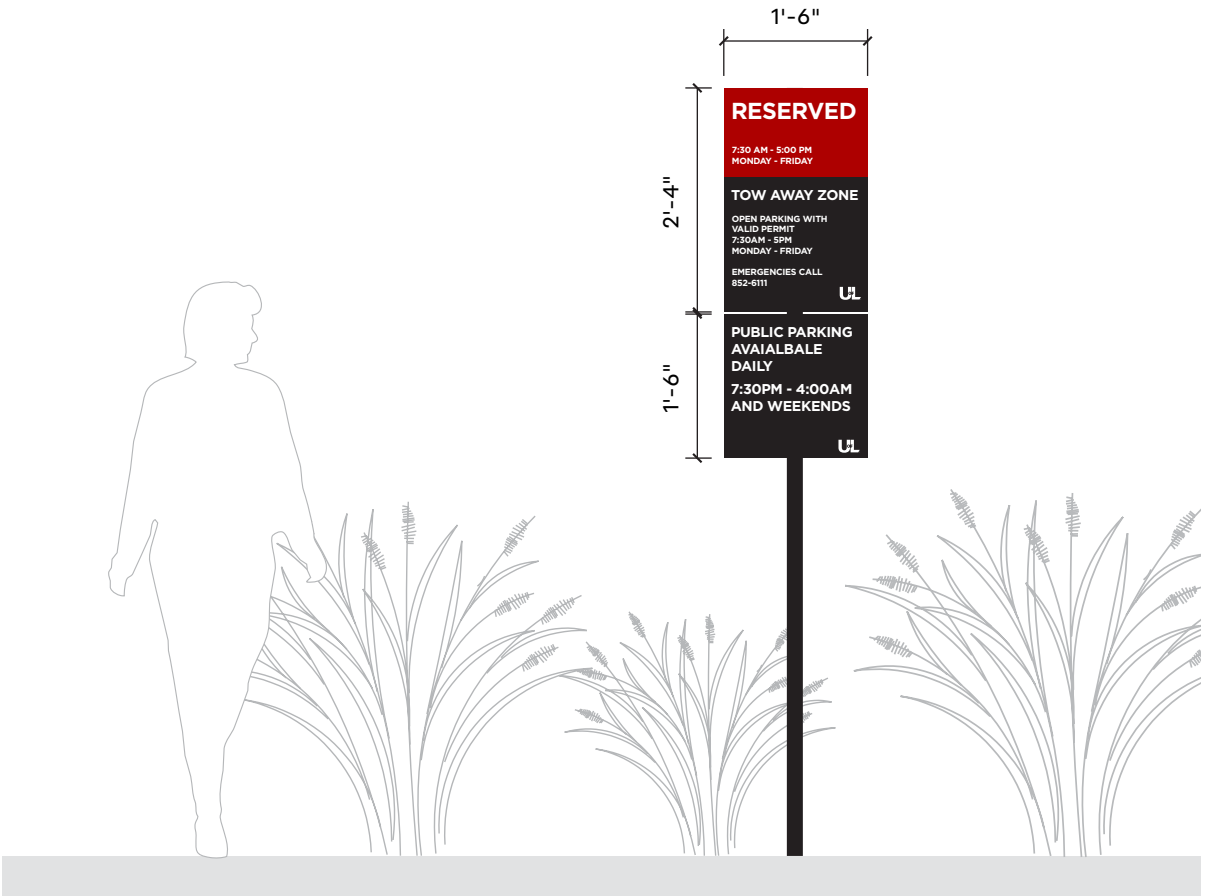
Primary text: 2" tall
Secondary text: 1 3/8" tall
Alternate text: 3/4" tall

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.

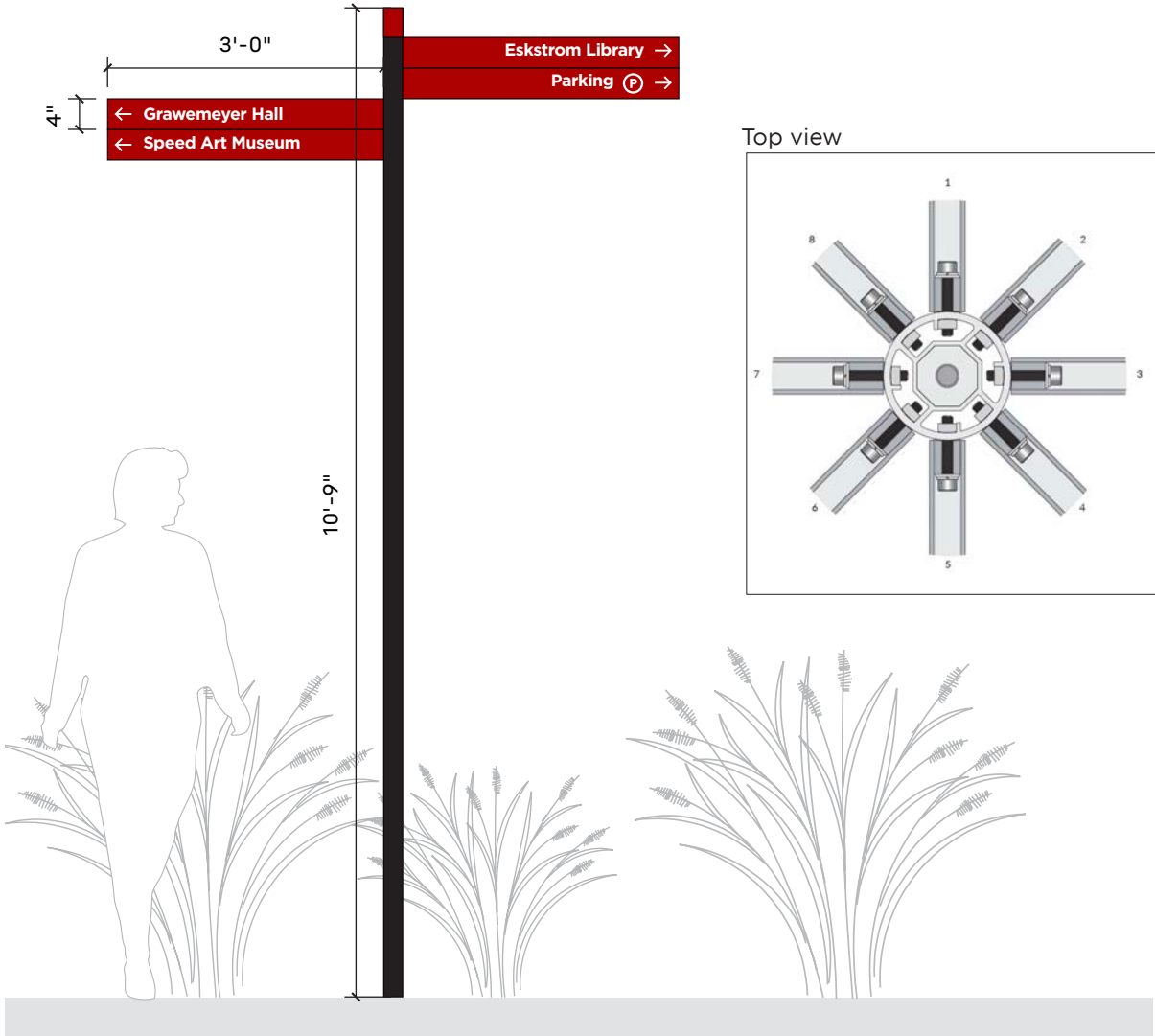
Destination text: 1 1/2" tall

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.

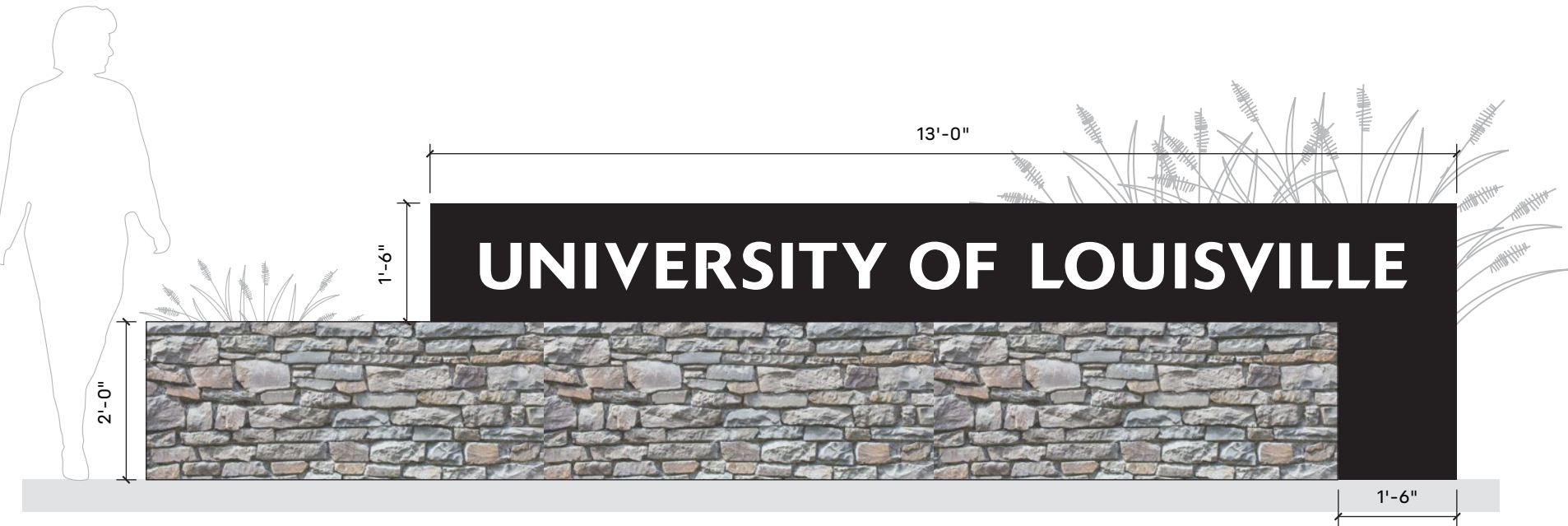
Construction

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 175 and 177.



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 171 for extrusion proportions.

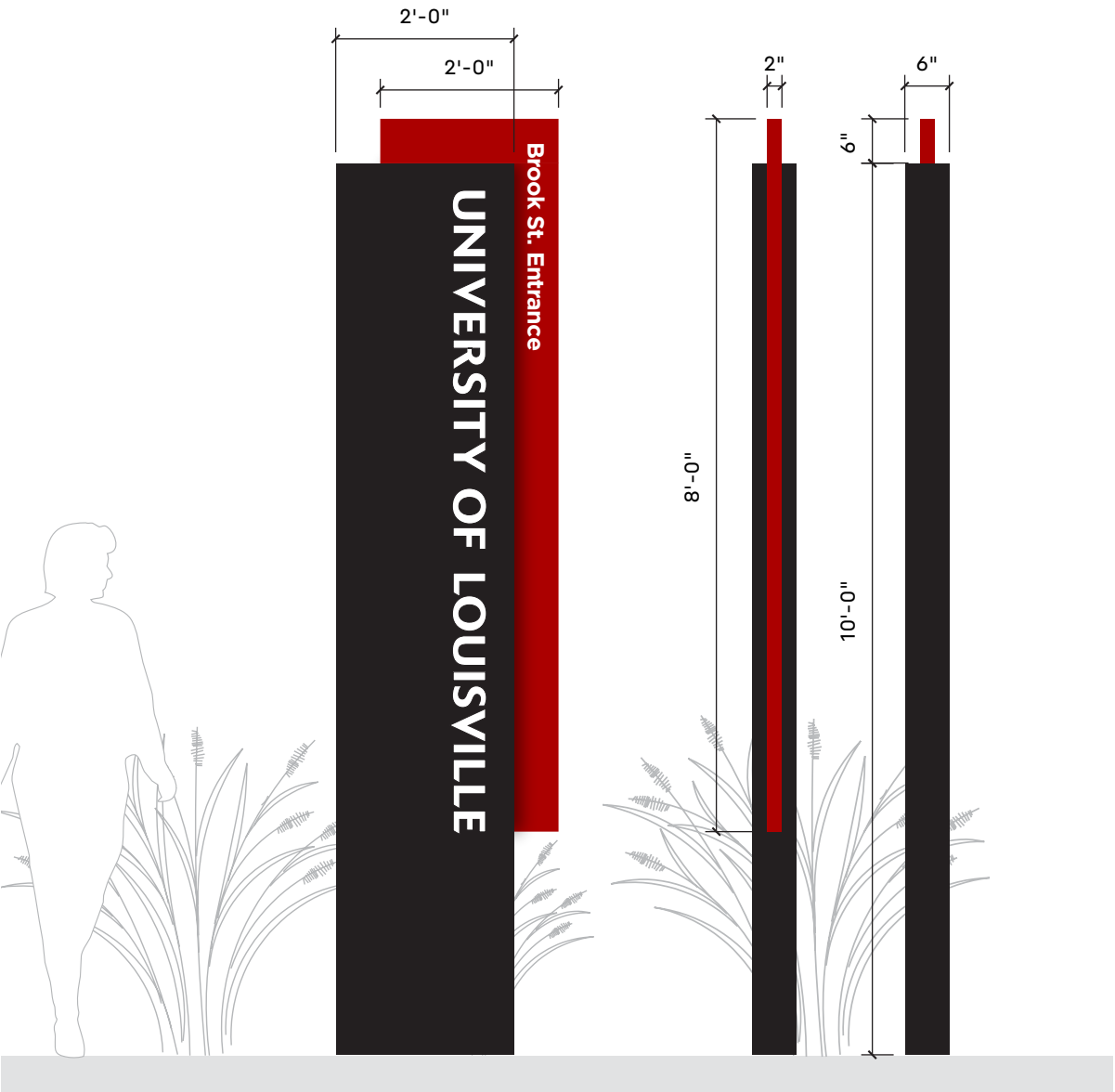
University logo: 4 3/8" tall

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 175 and 177.



**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**

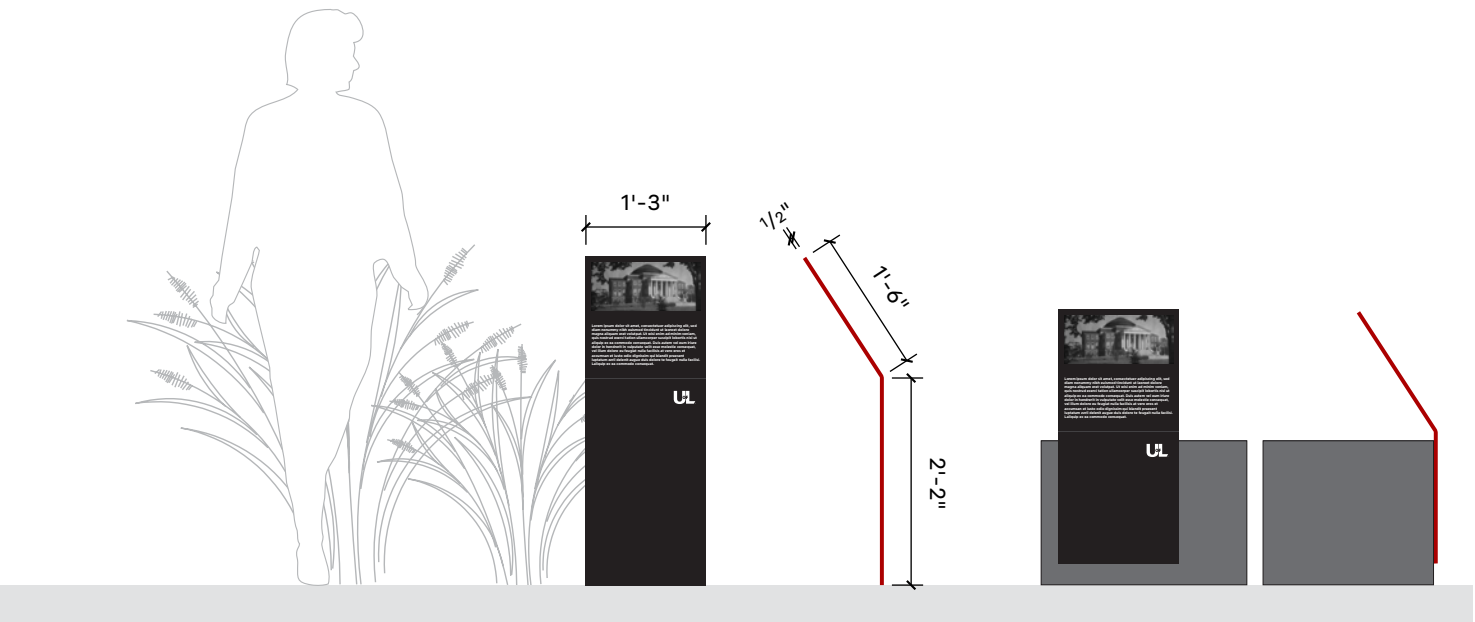
Interpretive signs are intended to inform and educate at any major corridors throughout the site when necessary. They call attention to specific campus features that enhance the University of Louisville campus.

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.





CONCLUSION

LANDSCAPE PLAN COMPLIANCE

The Landscape Plan establishes guidelines for the design of the University of Louisville landscape with the aim of ensuring high quality and consistency in the design of the campus environment.

All new construction and renovation projects must adhere to the Landscape Plan or demonstrate how they can enhance it.

APPROVAL AUTHORITY

The Campus Master Plan Committee (CMPC) is responsible for reviewing all campus projects that affect the exterior environment to ensure they align with the Landscape Plan’s guidelines.

COMPLIANCE

All campus projects that impact the exterior environment fall under CMPC’s review. This includes projects managed by the Office of Facilities Management and auxiliary units authorized to propose and execute small projects on the main campus. CMPC’s review also extends to ad hoc projects proposed by individuals, departments, or colleges that would alter existing building exteriors, introduce new structures, or modify any UofL property between or around buildings.

LANDSCAPE ARCHITECT SELECTION

For campus projects deemed significant in scope, size, location, or impact on the campus environment, they must be reviewed by CMPC and designed by a team that includes a registered landscape architect. The group responsible for selecting qualified landscape architects for each project should include at least one CMPC member. A primary consideration for selecting landscape architects for campus projects should be their demonstrated ability to produce high-quality landscape architectural designs while adhering to Landscape Plan guidelines.

The university may explore alternative approaches for landscape projects. In cases where landscape architects would typically be part of a larger architect and engineer-led consultant team, the university may choose to select the landscape architect separately for more direct control over retained professionals’ quality. Additionally, the university may opt for greater control over the landscape architectural design process by contracting the landscape architect directly to the university, rather than as a sub-consultant through a prime architect or engineer. Projects may also be structured to separate the site work budget from the overall engineering or architecture budget to protect it from disproportional cuts that could significantly impact overall campus quality.

PROCESS

Projects should be presented to the Campus Master Plan Committee as early as possible in the concept stage. For larger projects involving landscape architects, presentations should occur at the end of the Schematic Design and Design Development phases. Additional meetings may be requested by the Committee if substantial changes are made during the later phases of the project.

