

LANDSCAPE MASTER PLAN

Fall 2024

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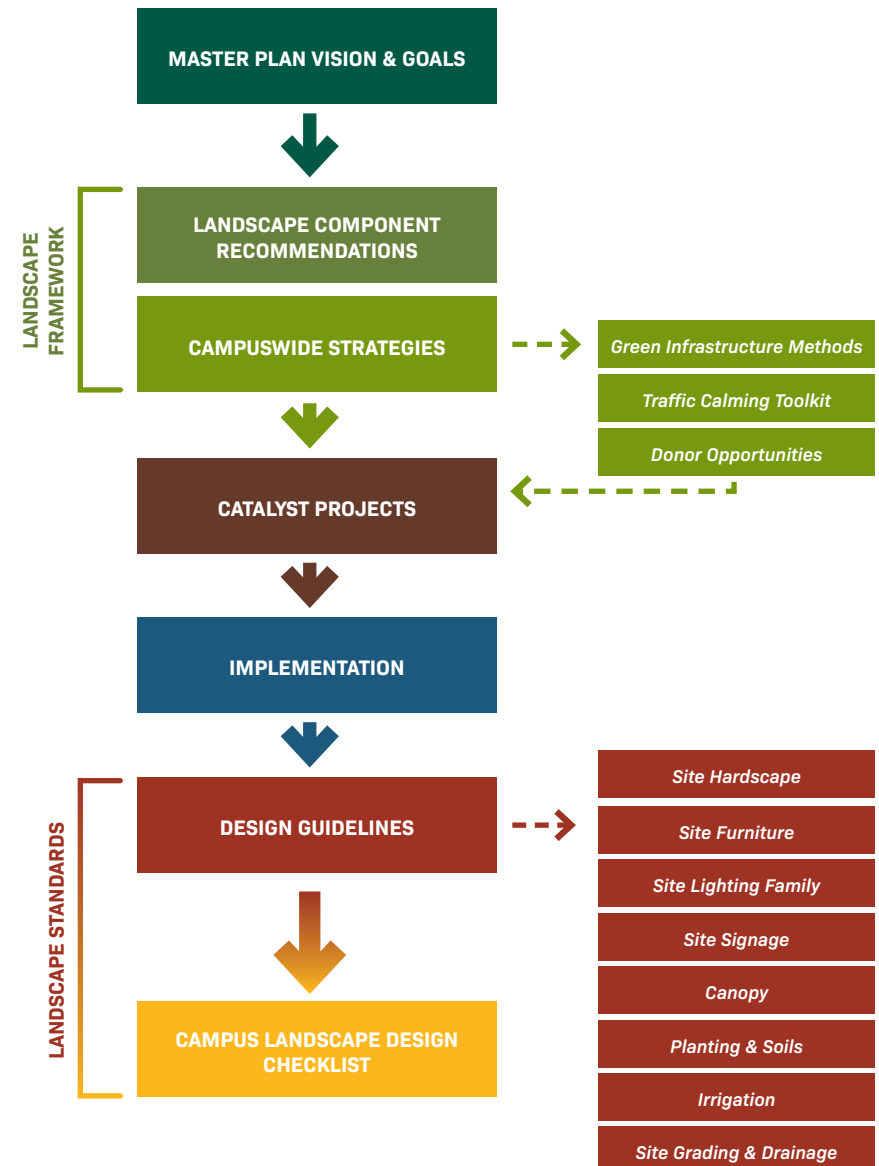
EXECUTIVE SUMMARY

PURPOSE

The Landscape Master Plan for Baylor University is designed to unify and guide the development of the campus landscape, ensuring that individual components are cohesively integrated over time. This master plan serves as a critical tool for university staff, administrators, and external consultants involved in the campus's landscape design and aligns with Baylor's broader strategic documents such as the 2014 Five-Year Goals, the Illuminate Strategic Plan, and new Baylor in Deeds Strategic Plan.

This plan broadens traditional landscape design considerations to include ecological sustainability, water conservation, and long-term maintenance. Given the growth of the campus community, there is an increasing need for improvements in circulation, sustainable landscape management, and outdoor gathering spaces. The plan adopts a functional approach to campus ecology, emphasizing the importance of ecosystem services such as climate regulation, water management, erosion control, and habitat preservation. The project also provides a comprehensive tree and landscape inventory that informs the design framework.

This document outlines a holistic framework for landscape organization and treatment, offering design concepts for enhancing existing areas and guidelines for key landscape components, including plant and hardscape materials, gathering spaces, site amenities, lighting, and drainage infrastructure (see page 136), as well as focused areas of interest, which were identified as Campus Zones (see page 58), including zones such as activate, circulation, campus core, edge, pedestrian conversion, and general standards that address the appearance of campus and aims to standardize landscape design elements.



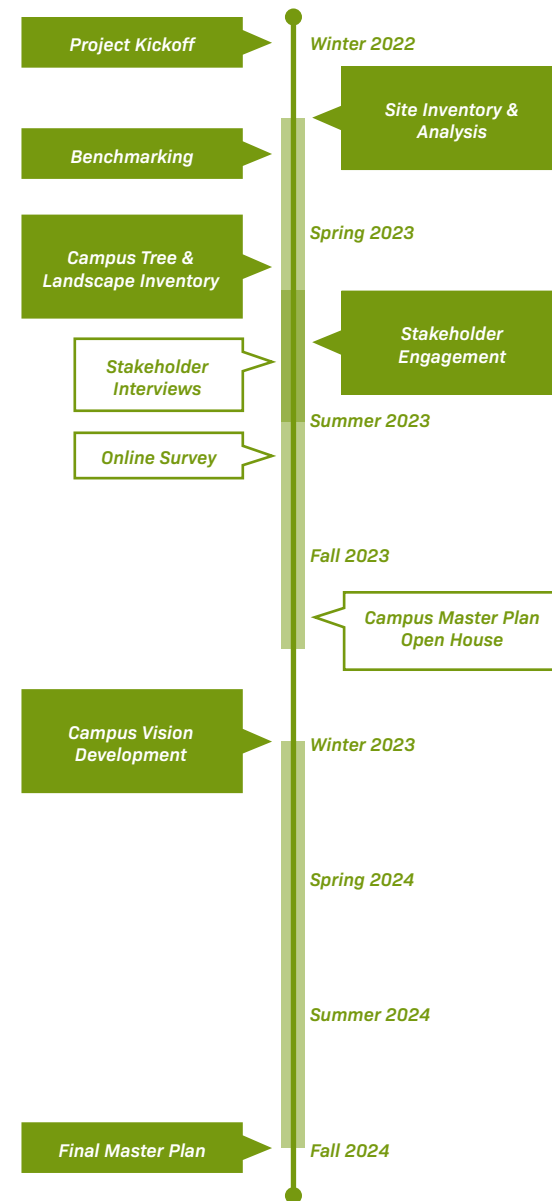
PROCESS

In Winter 2022, the process began with data gathering and site evaluation, which included a thorough inventory and analysis of the campus's facilities, use zones, pedestrian areas, and existing site amenities. Vegetative data was meticulously collected by Baylor GIS technicians, Dunaway consultants, and Southern Botanical arborists, who also conducted a risk assessment of the campus's trees. This information was compiled into the plan, which includes recommendations for high-risk trees and budget allocations for maintaining the campus's valuable urban forest.

To ensure broad stakeholder engagement, the project team conducted focus group sessions and stakeholder interviews and hosted an online survey to gather input from various campus constituents. The collected feedback, inventory data, and benchmarking goals were synthesized into a comprehensive analysis of the campus landscape, which identified key issues and opportunities.

A Stakeholder Vision Workshop and Campus Open House were then held to align participants around a unified vision for Baylor's outdoor spaces. These sessions informed the development of goals that guide the master plan, leading to the creation of a vision plan that identifies opportunities for enhancing entry hierarchies, wayfinding, donor recognition, green infrastructure projects, and catalyst projects. Design guidelines and master specifications were also developed during this phase to maintain consistency in the campus's design language and overall experience. These documents were refined in collaboration with the Facilities Management Department and incorporated into the final report.

The final phase of the process involved prioritizing implementation items, resulting in short, medium, and long-term action strategies with corresponding timelines. Detailed recommendations for the campus landscape were formulated, accompanied by a preliminary opinion of probable costs. These recommendations form the core of the Baylor Landscape Master Plan, which was shaped through collaborative discussions, critiques, and refinements over several meetings.



PROPOSED PLAN OUTCOMES

The Baylor Landscape Master Plan is centered around defining and enhancing the “Baylor Brand,” aiming to create a campus environment that is both aesthetically pleasing and functionally resilient while serving as a model for sustainable landscape management. This vision is anchored in high-level goals that prioritize cohesive campus evolution, building on prior planning and extensive stakeholder outreach. It outlines a detailed approach to the design and development of campus landscape improvements, focusing on the overall look and feel of the space, the types of plants and materials used, and the integration of these elements into the broader campus context.

ENHANCED CAMPUS IDENTITY AND UNITY

One of the primary outcomes of the Landscape Master Plan is to strengthen Baylor’s campus identity by creating a unified landscape that reflects the university’s values and heritage. Through the careful selection of plant materials, site furnishings, and architectural elements, the plan seeks to create a consistent design language that ties together various campus areas. This unified approach not only enhances the visual appeal of the campus but also reinforces Baylor’s brand, making it instantly recognizable and memorable to students, faculty, staff, visitors, and prospective donors.

SUSTAINABLE STEWARDSHIP

An additional supplement to the plan is the integration of green infrastructure methods into campus design and maintenance. By prioritizing ecosystem services such as reducing water consumption and runoff, while promoting the campus urban forest, ensures that the campus landscape contributes positively to the environment. The incorporation of elements such as rain gardens, bioswales, and permeable pavement, will help manage storm water, reduce runoff, and enhance biodiversity. The established guidelines recommend native and adaptive plantings for central Texas and efficient irrigation practices that aid in reducing water usage and promoting a healthier, more resilient landscape.

IMPROVED CIRCULATION AND GATHERING SPACES

The plan addresses the need for improved circulation and outdoor gathering spaces, recognizing that these elements are crucial to the overall campus experience. Proposed enhancements to pedestrian pathways, entry points, and wayfinding systems will improve navigation and connectivity across campus, making it easier for students, faculty, staff, and visitors to move between different areas. The creation and revitalization of gathering spaces, such as plazas and seating areas, will provide opportunities for social interaction, collaboration, and relaxation, enriching the campus community’s daily life.

LONG-TERM MAINTENANCE AND STEWARDSHIP

The Landscape Master Plan also places a strong emphasis on the long-term maintenance and stewardship of the campus landscape. The establishment of a comprehensive maintenance strategy, supported by the Campus Beautification Fund and donor contributions, will enable the university to preserve its green spaces, monuments, and site amenities, maintaining the campus’s appeal and functionality over time.

CATALYST FOR FUTURE DEVELOPMENT

Finally, the Landscape Master Plan serves as a catalyst for future development, guiding the university’s landscape enhancements in alignment with broader strategic goals. The plan identifies key catalyst projects and partnership opportunities that will drive the campus’s transformation, setting the stage for new infrastructure, donor recognition opportunities, and collaborative initiatives. By prioritizing these projects and establishing clear action plans, Baylor University is well-positioned to achieve its vision for a vibrant and welcoming campus environment.

HOW TO USE THIS DOCUMENT

The Baylor Landscape Master Plan provides a detailed road map for immediate landscape improvements while also establishing a unified and resilient vision for the future. The proposed outcomes are designed to ensure the campus evolves in a cohesive manner, addressing current needs while anticipating future growth and challenges. Through this plan, Baylor University will create a campus that continues to serve its community with distinction, reflecting the university's values and aspirations for generations to come.

1. Review Landscape Component Recommendations, Campuswide Strategies and Catalyst Project Concepts if applicable.

These chapters are inspirational rather than prescriptive and serve to convey the Goals of the Campus Landscape Master Plan.

2. Identify applicable Landscape Component Recommendations.

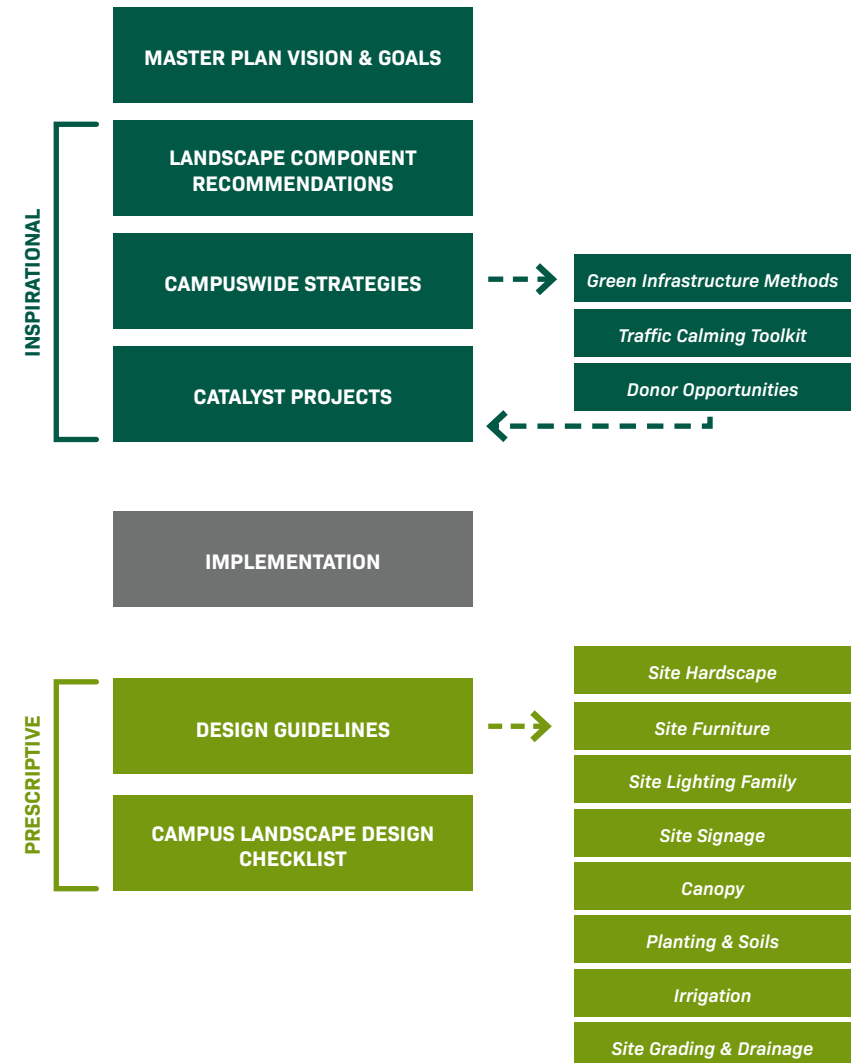
Follow guidelines within Analysis of Landscape Components for site issues to implement and to avoid.

3. Reference the Design Guidelines.

Standard materials and amenities are listed within the Design Guidelines that are prescriptive and pre-approved by Baylor Facilities Management & Office of Advancement. Deviations from the Design Guidelines must have approval from Baylor Staff.

4. Submit Campus Landscape Design Checklist.

Fill and submit the Landscape Design Checklist for approval by Baylor Facilities Management & Office of Advancement when pursuing any design construction effort. This form can be found on page 134 of this document and in the appendix.



SECTION I

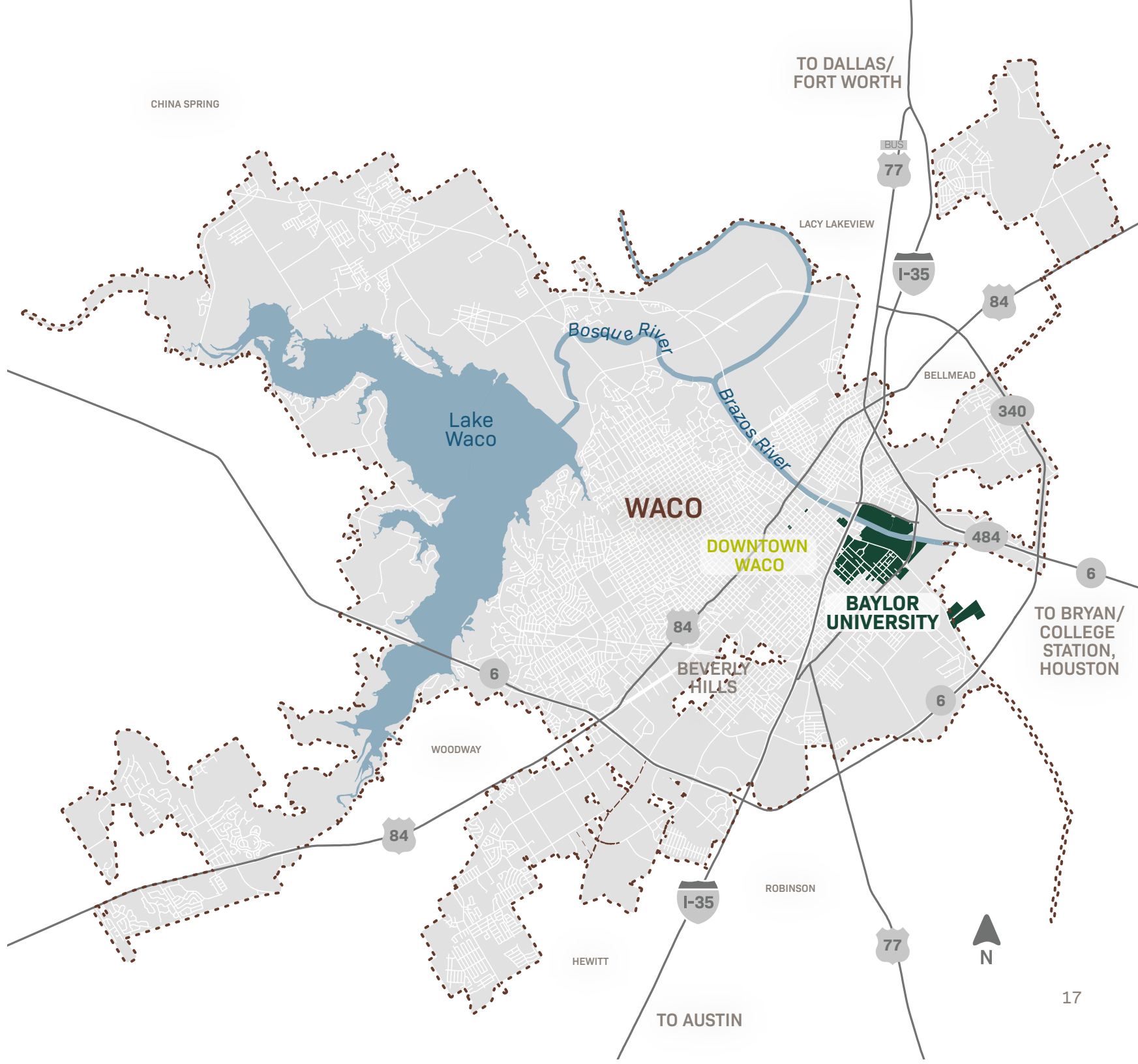
CAMPUS CONTEXT

BACKGROUND

As the home of Baylor University, Waco is centrally located in Texas, about 100 miles from both the DFW Metroplex and Austin. In the last decade, the City of Waco has seen a boom in tourism and a reinvestment in its Downtown and riverfront. This revitalization has benefited Baylor, due to its proximity to Waco's main attractions and its partnerships with the City.

The next decade should see further improvements as the Brazos Riverwalk is enhanced with the completion of the Foster Pavilion and surrounding Riverfront mixed-use development. Projects like these, along with McLane Stadium and the restoration of the historic Waco Suspension Bridge, have encouraged the City to continue embracing its river-facing orientation.

Given its location within Waco, Baylor is in a position to benefit from Waco's growth and redevelopment, while the City benefits from Baylor's investment in the community. The partnership between Baylor and the City is crucial for both institutions' futures and should be prioritized as the university plans for the next decade and beyond.



CHINA SPRING

TO DALLAS/
FORT WORTH

BUS
77

I-35

84

LACY LAKEVIEW

BELLMead

340

484

6

TO BRYAN/
COLLEGE
STATION,
HOUSTON

WACO

DOWNTOWN
WACO

BAYLOR
UNIVERSITY

BEVERLY
HILLS

6

WOODWAY

84

I-35

ROBINSON

77



HEWITT

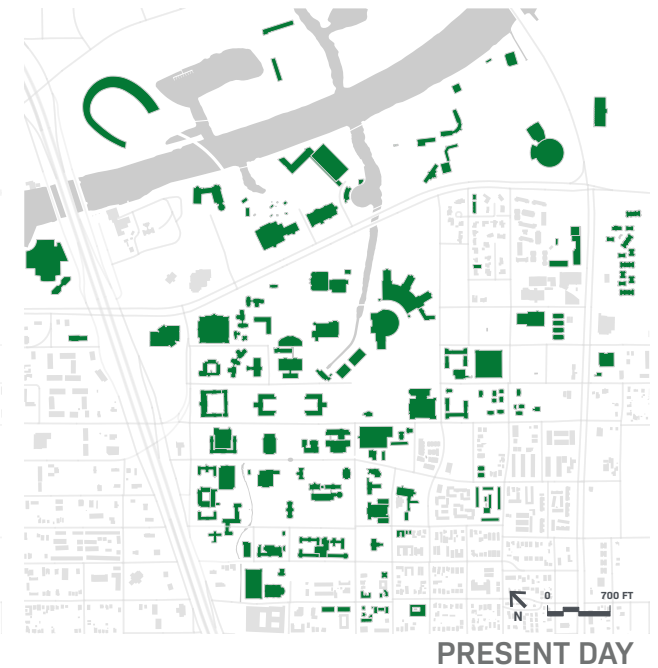
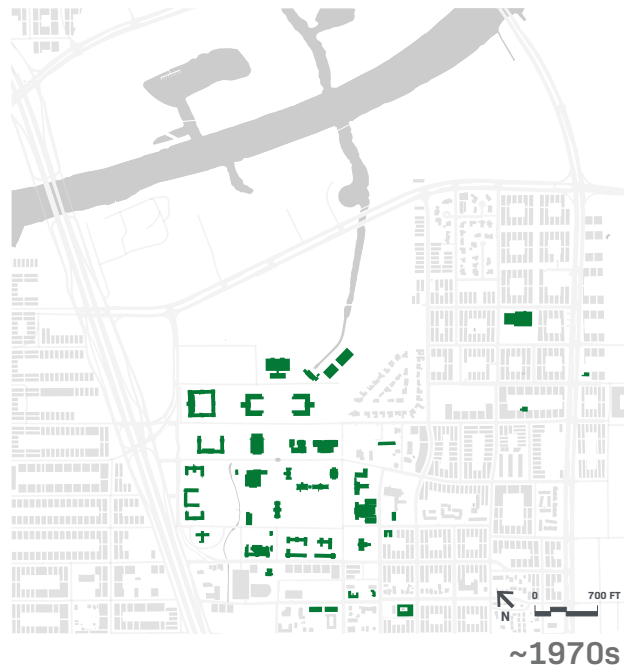
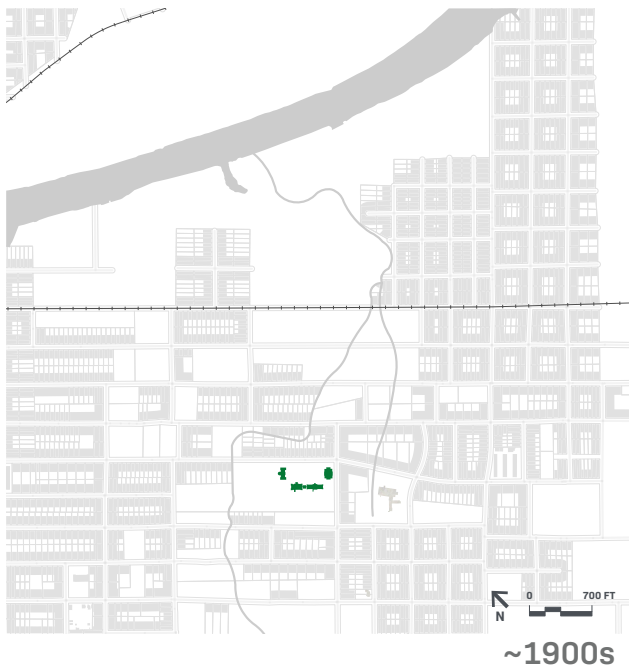
TO AUSTIN

CAMPUS OVER TIME

Baylor is the oldest continually operating university in Texas. The University was chartered in 1845 after the Texas Baptist Education Society petitioned the Congress of the Republic of Texas to charter a Baptist university. It moved to Waco in 1886 due to financial challenges and the desire for a more centralized location. It has since grown into a vibrant private Christian university and a nationally ranked liberal arts institution.

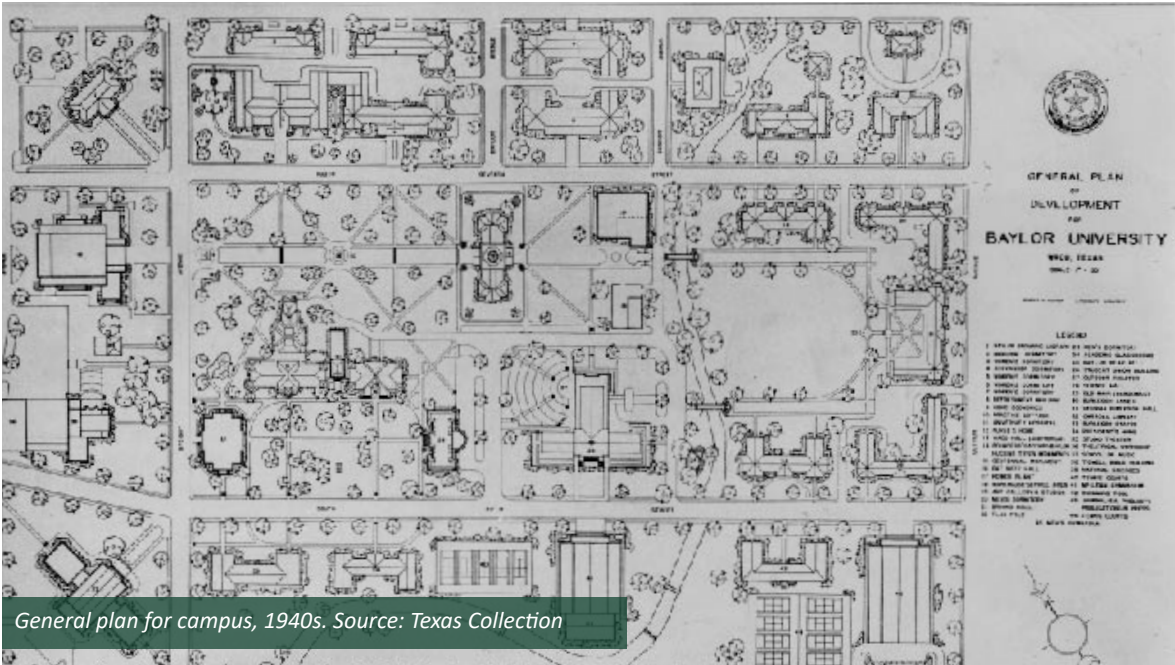
Upon relocating to Waco, Baylor University established its campus on a 15-acre site donated by Waco's prominent citizen, W.W. Trice. The early years saw modest development, with simple buildings and a focus on providing education in a primarily rural setting. The campus planning was influenced by the need for academic and residential spaces that reflected the educational ideals of the time.

CAMPUS FOOTPRINT GROWTH





Professors walking in front of Pat Neff Hall, 1980s.
Source: Texas Collection



General plan for campus, 1940s. Source: Texas Collection



Aerial view of campus, 1960. Source: Texas Collection

HISTORICAL TIMELINE

Baylor University moved its campus from Independence to Waco in 1886, merging with the existing Waco University. The four original buildings on campus were Old Main (1886), Georgia Burleson Hall (1888), Carroll Library (1903), and Carroll Science (1903). These buildings encircled and defined the gathering space now known as The Quad.

1880



Georgia Burleson Hall, 1880/90s
Source: Texas Collection

1900

From early on, the reputation of Baylor's exceptional campus landscape was established and acknowledged across the region. An article from a 1906 issue of *The Baylor Lariat* describes it well:

Visitors to Baylor often remark upon the beauty of the grounds. The smooth grass under the leafy trees, the violets and other flowers along the walks, the heavy green and gold and red of the callas and lilacs and oleanders banked against the buildings – these are a pleasing sight throughout the spring and summer. In the fall the "mums" add a fine touch of color...

The campus experienced notable growth in the 1920s to accommodate a nearly 50% increase in student enrollment. This boost in numbers was partly due to people returning from World War I and seeking higher education. To serve the larger student population, the original Brooks Hall opened in 1921 as the first men's dormitory. (Previously, on-campus housing was only provided for female students.)

1920

By the 1920s, there was pressure to relocate Baylor to Dallas, to join the newly established medical school. In response, the citizens of Waco banded together and raised the funds to build Waco Hall (1930), an auditorium representing the strong ties between the city and the university. The 1930s also saw the completion of Pat Neff Hall (1939), named in honor of the university president who led Baylor through difficult times.



Waco Hall in background, 1931
Source: Texas Collection

1940

The latter half of the 20th century saw significant campus growth. Many of the current residence halls were originally built in the 1950s and 60s. In these decades, the campus expanded north toward present-day University Drive, while its western edge was firmly established by the new interstate highway.



Proposed campus model, 1962
Source: Texas Collection

1980

1960

Completed in 1972, Waco's section of Interstate 35 cut off Baylor's campus from the core of the community and greatly restricted accessibility to Downtown Waco and surrounding neighborhoods.



Aerial photo of Interstate 35 next to Baylor's campus, 1976
Source: Texas Collection

Toward the beginning of the 2000s, Baylor leadership released the *Baylor 2012* vision that defined goals for the next decade and beyond. One of the imperatives was to "create a truly residential campus" by increasing on-campus living and focusing on how the physical design of the campus fosters the social environment. On the academic side, the development of facilities such as the Baylor Law School (2001) and the Baylor Sciences Building (2004) strengthened the university's campus image and offerings.

2000

McLane Stadium was completed in 2014, cementing Baylor's presence on the north side of the Brazos River. This decade also saw growth east along Bagby Avenue, with East Village (2013) and the Foster Campus for Business and Innovation (2015).



Source: Baylor University

The Hurd Welcome Center (2023, pictured above) and the Foster Pavilion (2024) were completed in prime spots next to the interstate, increasing Baylor's campus visibility from the highway, to the community and visitors alike.

2020

Illuminate Forward (2022), sought to further Baylor as a preeminent Christian research university. The plan's key commitments included improving the residential experience by renovating residence halls and completing athletics capital projects for its basketball and football programs.

Baylor in Deeds (2024), the newest strategic plan, outlines the campus's growth for the next six years and mission to develop faith based leaders of character to solve the world's greatest challenges.

Sources: WacoHistory.org, HESA Baylor History Project, *Baylor 2012*, *Illuminate Forward*, *Strategic Plan: Baylor in Deeds*

CAMPUS TODAY

Today, Baylor's campus covers approximately 1,000 acres and boasts over 3,400 trees. There are approximately 5,300 beds on campus across 18 residence halls. While some off-campus housing options are within walking or biking distance, public transportation is limited. Many students, faculty, and staff commute to campus via car, utilizing the 9,500 parking spaces spread across campus.

Broadly, the campus boundaries are formed by S. Martin Luther King Jr. Blvd to the north, Bagby and Daughtrey Avenues to the east, 8th and 9th Streets to the south, and Interstate 35 to the west.

A handful of facilities are located west of the interstate in or near Downtown Waco, including Clifton Robinson Tower, the new Foster Pavilion, and Diana R. Garland School of Social Work. Connectivity between these buildings and the main campus is generally limited, due to the interstate. However, recent improvements have been made to sidewalks and signalization in conjunction with the I-35 reconstruction project. Additionally, improvements continue to be made to connect attractions along the Brazos Riverwalk - from Cameron Park to the Waco Suspension Bridge to Baylor's campus.

LEGEND

ALEX / MEMRL	Alexander / Memorial Residence Halls	EVERLE	East Village Earle Hall
ALLEN / DAWSON	Allen / Dawson Residence Halls	EVTEAL	East Village Teal Hall
BALLPK	Baylor Ballpark	FOSTER	Foster Campus for Business
BEC	Baylor Energy Complex	MMSCI	Marrs McLean Science
BSB	Baylor Sciences Building	MCCRARY	McCrary Music Building
BDSC	Bill Daniel Student Center	MORRSN	Morrison Hall
BRCOLL	Brooks College	NV	North Village
BURL / OMAIN	Burleson Hall / Old Main	PENLND	Penland Hall
CRLSCI	Carroll Science	RUSSL	Russell North / South Residence Halls
CASHION / HANKAC	Cashion / Hankamer Academic Buildings	SDRICH	Sid Richardson Building
RT	Clifton Robinson Tower	TRUETT	Truett Seminary
COLLNS	Collins Residence Hall	LAW	Umpfrey Law Center
DRAPER	Draper Academic Building	WACOH	Waco Hall
		(P)	Parking Garage



PEACH ST

S MARTIN LUTHER KING JR BLVD

MCLANE STADIUM

CLYDE HART TRACK & FIELD STADIUM

BALLPK

FERRELL CENTER

FOSTER PAVILION

MAYBORN MUSEUM COMPLEX

HOOPER SCHAEFER FINE ARTS

HURD WELCOME CENTER

(P)

MCLANE STUDENT LIFE CENTER

(P)

MOODY MEMORIAL LIBRARY

(P)

I-35

S 2ND ST

S 3RD ST

S 4TH ST

S 5TH ST

S 6TH ST

S 7TH ST

S 8TH ST

S 9TH ST

S 3RD ST

RUSSL

IMMSCI

SDRICH

FOSTER

EVERLE

WILLIAMS BEAR HABITAT

BRCOLL

BURL/OMAIN DRAPER

PAT NEFF HALL

WACOHL

M/DANIEL ESP

COLLNS

ALEX/MEMRL

ALLEN/DAWSON

ARMSTRONG BROWNING LIBRARY

(P)

S 9TH ST

JAMES AVE

BAGBY AVE

DAUGHERTY AVE

S 9TH ST

N

CONCURRENT PLANNING EFFORTS

The Baylor Board of Regents began development of the next strategic vision for the following five years. This plan would continue efforts of the “Baylor 2012” 10 year vision, which was approved in 2001. “Baylor 2012” included twelve imperatives to propel the University as a top-tier institution.

2010



Baylor 2012 Logo
Source: Baylor 2012 Strategic Vision

2012

On May 11th, 2012 the new strategic vision, “Pro Futuris” was adopted to provide a guideline for the future development of the University. This plan provided general guidance, without specific actions, under five aspirational statements:

1. Transformational Education
2. Compelling Scholarship
3. Informed Engagement
4. Committed Constituents
5. Judicious Stewardship

2014



Pro Futuris Logo
Source: Pro Futuris

A continuation of “Pro Futuris” was approved by the Baylor Board of Regents in May of 2014. These five year goals established measurable objectives for the five aspirational statements of “Pro Futuris”.

2016



Illuminate Strategic Plan Logo
Source: Baylor University

“Illuminate” was adopted in 2018 as the new strategy for academic and facility growth on campus. Four pillars guided growth within this document:

1. Christian Environment
2. Transformational Education
3. Research and Scholarship
4. Arts and Athletics

The public launch of “Give Light” campaign in 2018 provides a general timeline for projected campus improvements and operations advancements.

2021

The Commission on Historic Campus Representations publishes a Final Report that acknowledges Baylor's full history and provides recommendations for current historic representations and campus environments. Accepted by the Board of Regents in February 2021.

The "Illuminate" Progress Report is published and serves as the final update on the "Illuminate" Strategic Plan.

"Illuminate Forward" continues the momentum of foundational pillars from "Illuminate"; approved by the Board of Regents in November of 2021. Campus improvements related to residence halls, the Honors College, and athletic facilities are key elements propelled by this plan.

2022

Phase 1 for conceptual planning updates to Founders Mall, Speight Avenue, and the Quadrangle begin by under the Campus Experience Project initiative.

2023

In April of 2023, the Strategic Planning Group was formed to develop the next University Strategic Plan following "Illuminate". Planning efforts were underway during the development of the Campus Landscape Master Plan.



Photo of Memorial to Enslaved Persons Ceremonial Groundbreaking
Source: Baylor University Public Relations

2024

New University Strategic Plan released: "Baylor in Deeds" in Fall of 2024.



Aerial render of Founders Mall Conceptual Planning
Source: Baylor Proud Publication

Sources: Baylor 2012, Pro Futuris, Five Year Goals (2017), Give Light Campaign, Illuminate Report, Illuminate Forward, Commission on Historic Campus Representations Final Report, Strategic Plan: Baylor in Deeds

CAMPUS INVENTORY

SUMMARY

This chapter presents the campus landscape inventory and findings from site and benchmarking tours. The project team met with Baylor representatives to initiate a campus tour in the fall of 2022. Information was recorded through a variety of analysis methods including site photography, field analysis and inventory, and GIS data analysis.

CAMPUS TOURS

Throughout Fall 2022 and Spring 2023, the project team toured Baylor's campus along with Facilities Management staff. These tours highlighted the campus's existing challenges and successes and allowed the project team to document the various assets found on campus.

BENCHMARKING TOUR

During the site analysis and inventory phase, the project team participated in two benchmarking tours with staff from Baylor to develop a baseline comparison for campus planning and improvements. Universities visited included Texas Christian University and Southern Methodist University.

MAPPING ANALYSIS

Baylor has an extensive Geographic Information System (GIS) database of its campus and assets. The project team used GIS, along with aerial analysis, to map surfaces, buildings, paths, and roads on campus. These data and maps were used to evaluate existing campus conditions and provide insights into possible improvements, in light of other observations and feedback.

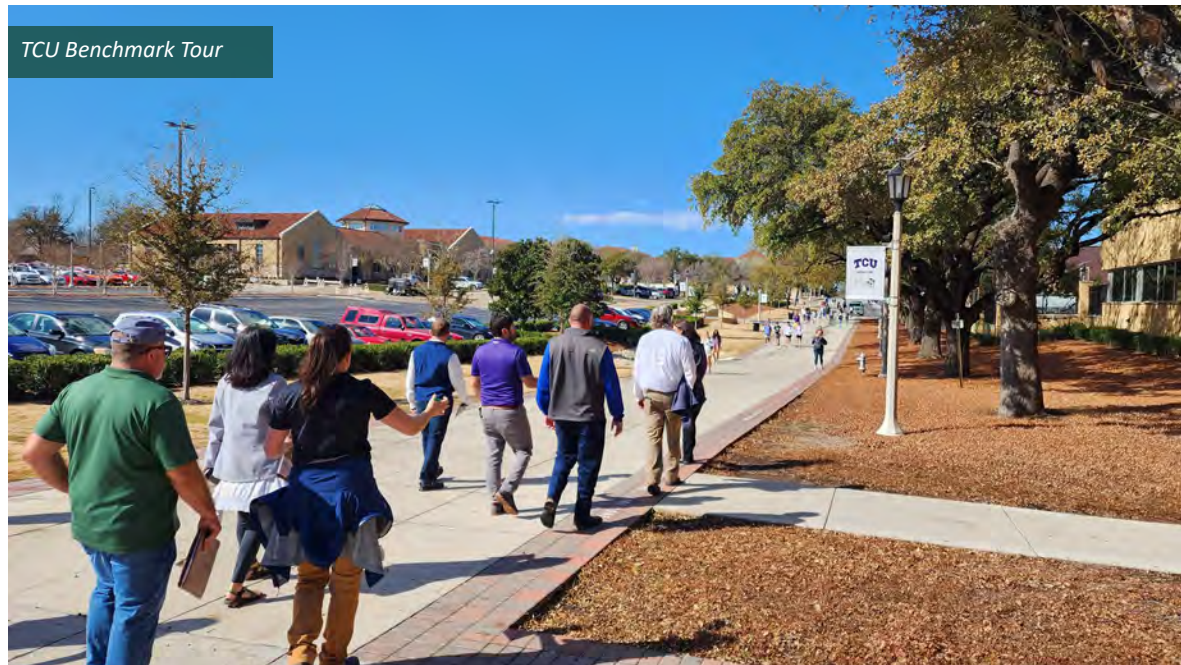
SMU Benchmark Tour



Campus Walking Tours



TCU Benchmark Tour



CAMPUS OBSERVATIONS BY TYPOLOGY



CAMPUS LANDFORM

The topography of the campus is relatively flat with minor undulations. The Brazos River flows through the northeastern part of campus and separates the football and track stadiums from the core of campus. Waco Creek flows from the Brazos through the center of campus. Prominent buildings such as the Baylor Sciences Building, McLane Student Center, and Bill & Eva Williams Bear Habitat are adjacent to Waco Creek. The creek is diverted below ground between the McLane Student Life Center and Bear Habitat where it daylights into a Riverwalk zone.

VEHICULAR ROADS & PARKING

Baylor is situated between three major roadways: Interstate 35 on the west, South MLK Jr. Boulevard to the north, and Business Highway 77 or LaSalle Avenue to the east. South University Parks Drive bisects academic buildings from the athletic facilities on the north of campus. Students regularly cross this six-lane highway with minimal traffic control measures. Campus roads are not clearly delineated from City of Waco roads, which detracts from the sense of arrival. Pedestrian safety measures are needed on highly trafficked roads such as 3rd Street, 5th Street, and Speight Avenue.

PEDESTRIAN PATHS & PLAZAS

Sidewalks on campus are not continuous. In multiple areas, drainage, moss, decomposed granite, and weeds create slip hazards on pedestrian walks. Standing water is found in hardscape and planting beds, and drain inlets are clogged with silt. Many desire paths cut through landscape beds and turf on campus.



CAMPUS FACILITIES

Primary landmarks on campus include the Baylor Sciences Building, McLane Student Life Center, Hurd Welcome Center, Fountain Mall, and Founders Mall. Original architecture styles on campus historically varied from Richardsonian Romanesque to Neo-Georgian. In the most recent decades, campus architecture has presented itself in a more contemporary nature and attempts to acknowledge Baylor's historical architecture with the use of materials like brick and limestone.

PLANTINGS

A detailed evaluation of the campus landscape was recorded during Southern Botanical's tree inventory process. Memorial trees were recorded with a note to distinguish these within the landscape. Landscaping materials, such as turf, mulch, and decomposed granite, are in need of refreshment and standardization. Landscape beds lack routine management and regular irrigation audits.

CAMPUS MAINTENANCE

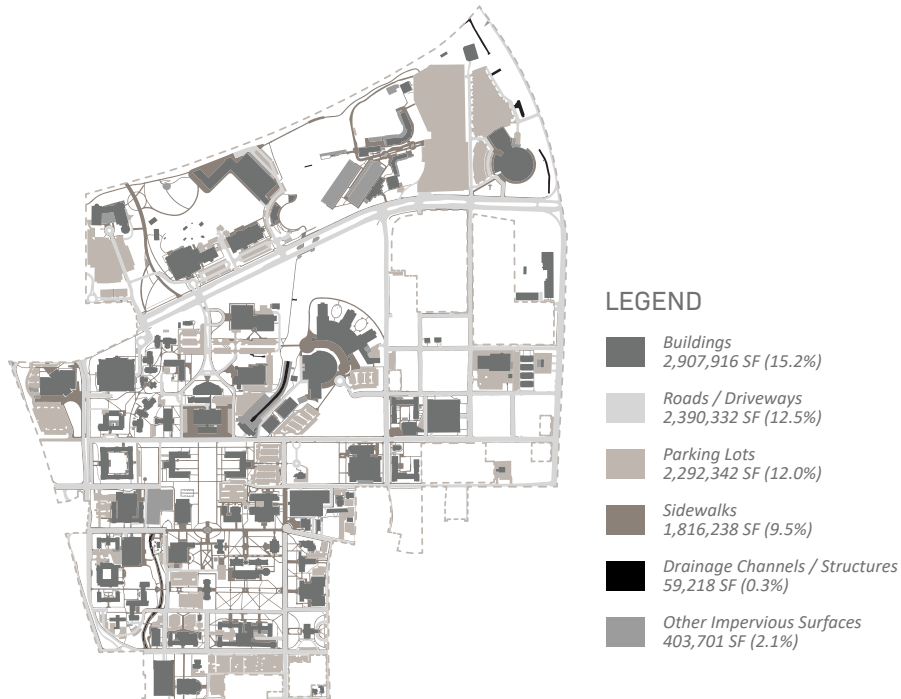
Drainageways and infiltration areas were clogged with runoff pollution and sedimentation. Proper irrigation will reduce the amount of runoff flowing into storm drains. Details for shrub planting, removal, tree staking, and tree pruning are needed for additional maintenance standardization over campus. Tree limbs obstruct pedestrian paths at hazardous heights and multiple areas throughout the landscape had tire mark damage from cart traffic.

CAMPUS LANDFORM

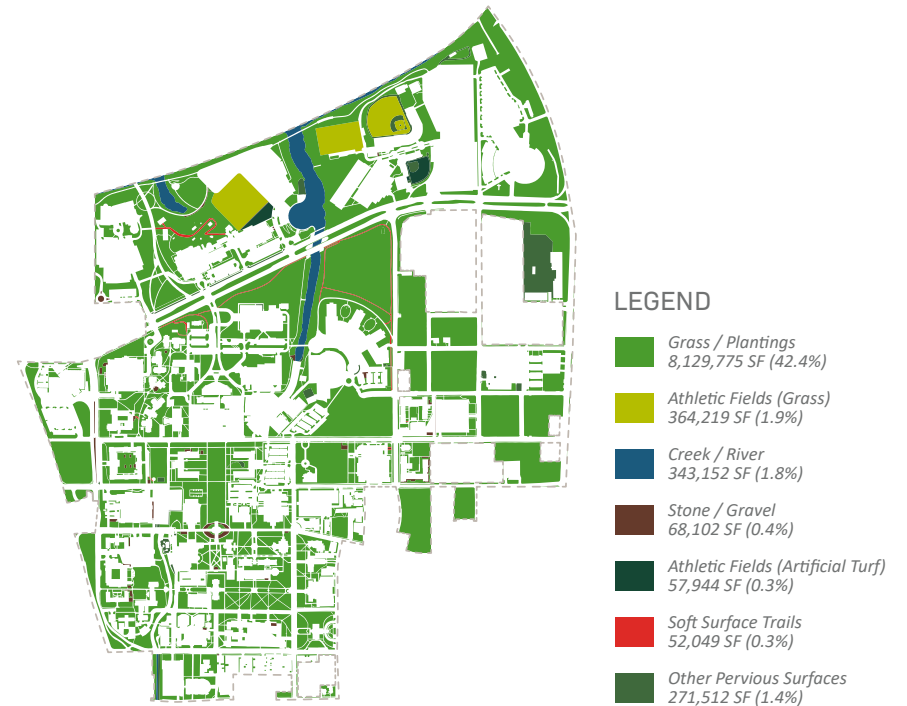
Using CAD/GIS data and aerial imagery, surfaces within the defined project area were classified and then grouped into impervious and pervious types. This study shows that more than half of the campus is covered by impervious surfaces (buildings, roads, parking lots, etc.) that may contribute to increased storm water runoff and/or urban heat island effect.

The remaining areas of campus are classified as pervious surfaces (grass, plantings, creeks, porous stone/gravel, etc.) and are typically able to absorb rainwater and have a cooling effect across campus.

IMPERVIOUS SURFACES



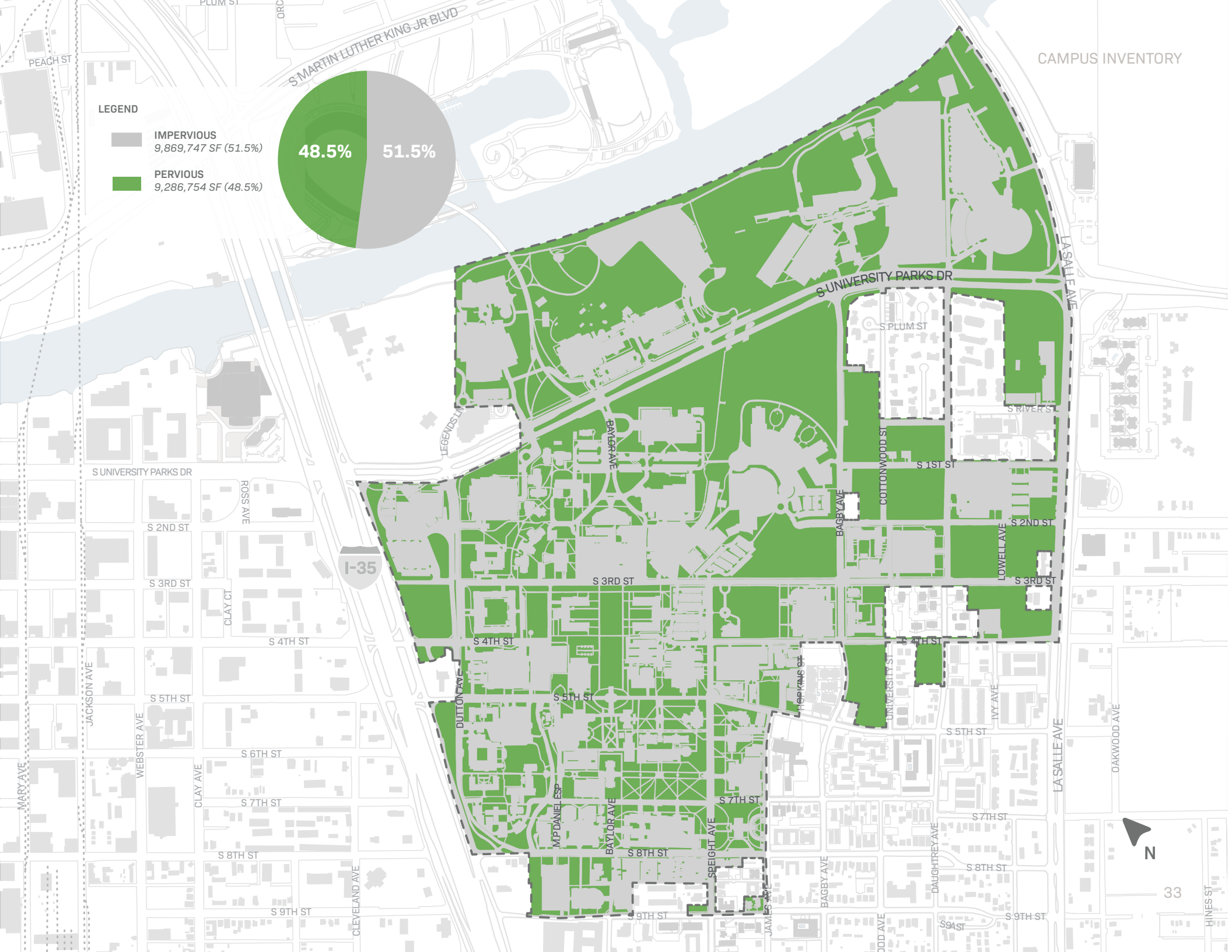
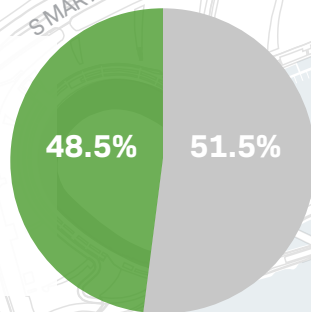
PERVIOUS SURFACES



(Surface percentages are of total project area - 19,156,501 SF)

LEGEND

- IMPERVIOUS
9,869,747 SF (51.5%)
- PERVIOUS
9,286,754 SF (48.5%)



N

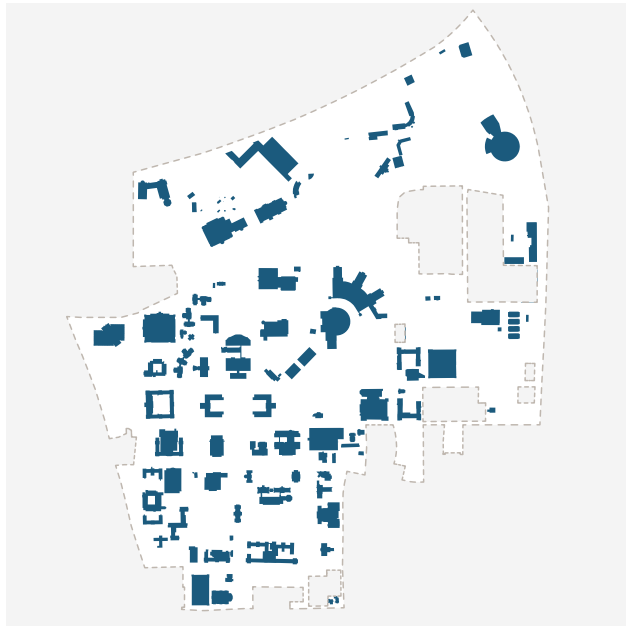
CAMPUS BUILDINGS, ROADS, & PEDESTRIAN PATHS

Another method for analyzing existing conditions involves figure-ground diagrams, which highlight the extent of certain surface areas: buildings, vehicle paths and parking, and pedestrian paths and plazas.

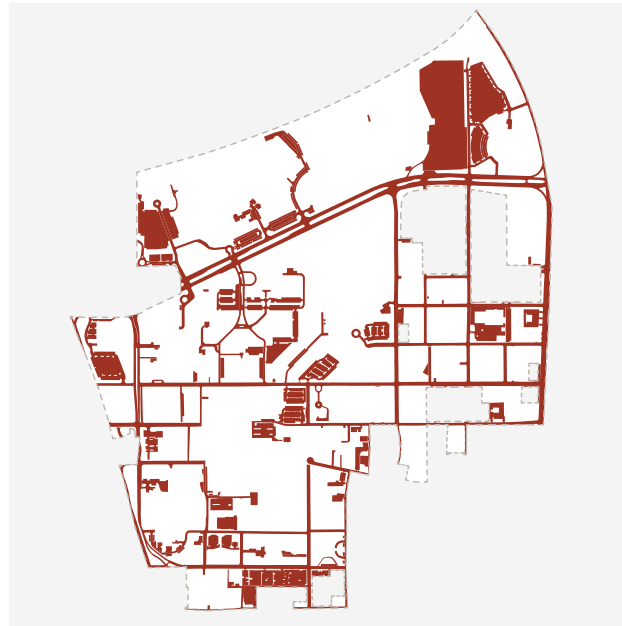
The **BUILDINGS DIAGRAM** shows the distribution of destinations across campus. Facilities are concentrated in the historic center of campus and are more spread out in the newer parts of campus. While greater distance between buildings may offer more area for outdoor spaces, it can erode the density and ease of access that foster a walkable, residential campus. This fact is also true when it comes to prioritizing vehicle paths and parking over pedestrian paths and plazas, which leads to a less walkable and residential campus environment.

As seen in the **VEHICLE PATHS & PARKING** and **PEDESTRIAN PATHS & PLAZAS**, space devoted to vehicles increases in the newer parts of campus (generally north of S. 3rd Street, where buildings are more spread out), while the core of campus has more pedestrian-oriented spaces. This distribution contributes to connectivity challenges seen around campus and reported by many in the community survey. For instance, University Parks Drive serves as a major barrier for the overall campus, with few safe crossings and a generally uncomfortable pedestrian experience. Additionally, the concentration of parking lots between Fountain Mall and the Baylor Sciences Building leads to conflicts between cars and students on foot or bikes.

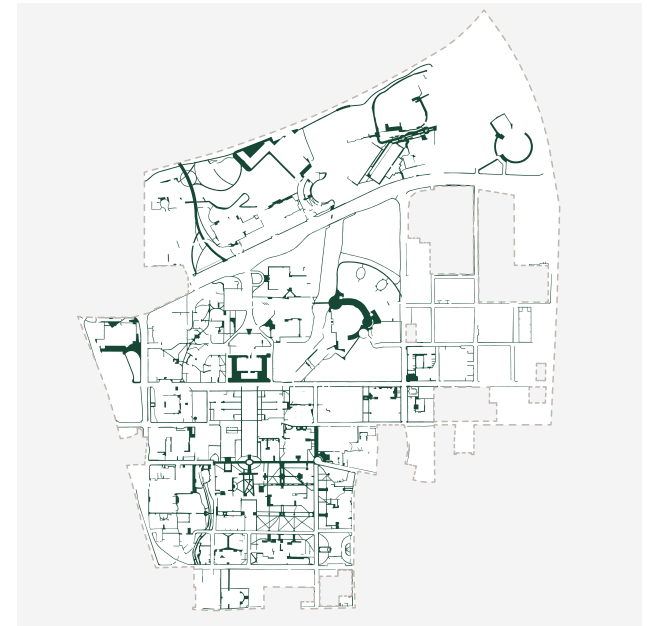
Vehicles are permitted in most parts of campus, though the area dedicated for them is unevenly distributed. A notable outlier is the portion of S. 5th Street (from M P Daniel Esplanade to Speight Avenue) that was converted to a pedestrian plaza in 2015. Additionally, stretches of Speight Avenue and S. 3rd Street are typically blocked off to vehicles (except for maintenance and tours carts), though the roadways remain. Plans are in progress to convert this part of Speight Avenue into a permanent pedestrian plaza. Potentially, the portion of S. 3rd Street between Moody Library and Fountain Mall could also be permanently converted – an idea that was raised many times during stakeholder engagement.



BUILDINGS



**VEHICLE PATHS &
PARKING**



**PEDESTRIAN PATHS
& PLAZAS**

Vehicle Paths & Parking
24% of campus



Buildings
15% of campus



Pedestrian Paths & Plazas
10% of campus



CAMPUS MONUMENTATION INVENTORY

Various types of signs provide direction and branding throughout campus. These signs serve multiple functions, such as welcoming students and visitors to campus, providing directions to significant destinations, and marking paths like the Bear Trail. Signage and monumentation play key roles in how campus users perceive campus — whether it be in terms of aesthetics, navigation, or defining boundaries and paths.

This page illustrates the types and locations of key signs found on campus, including the column monument signs and historical markers. The overall sign inventory reveals an inconsistent application across campus and on its edges.



Building / Site Monument Sign



Directional Signs



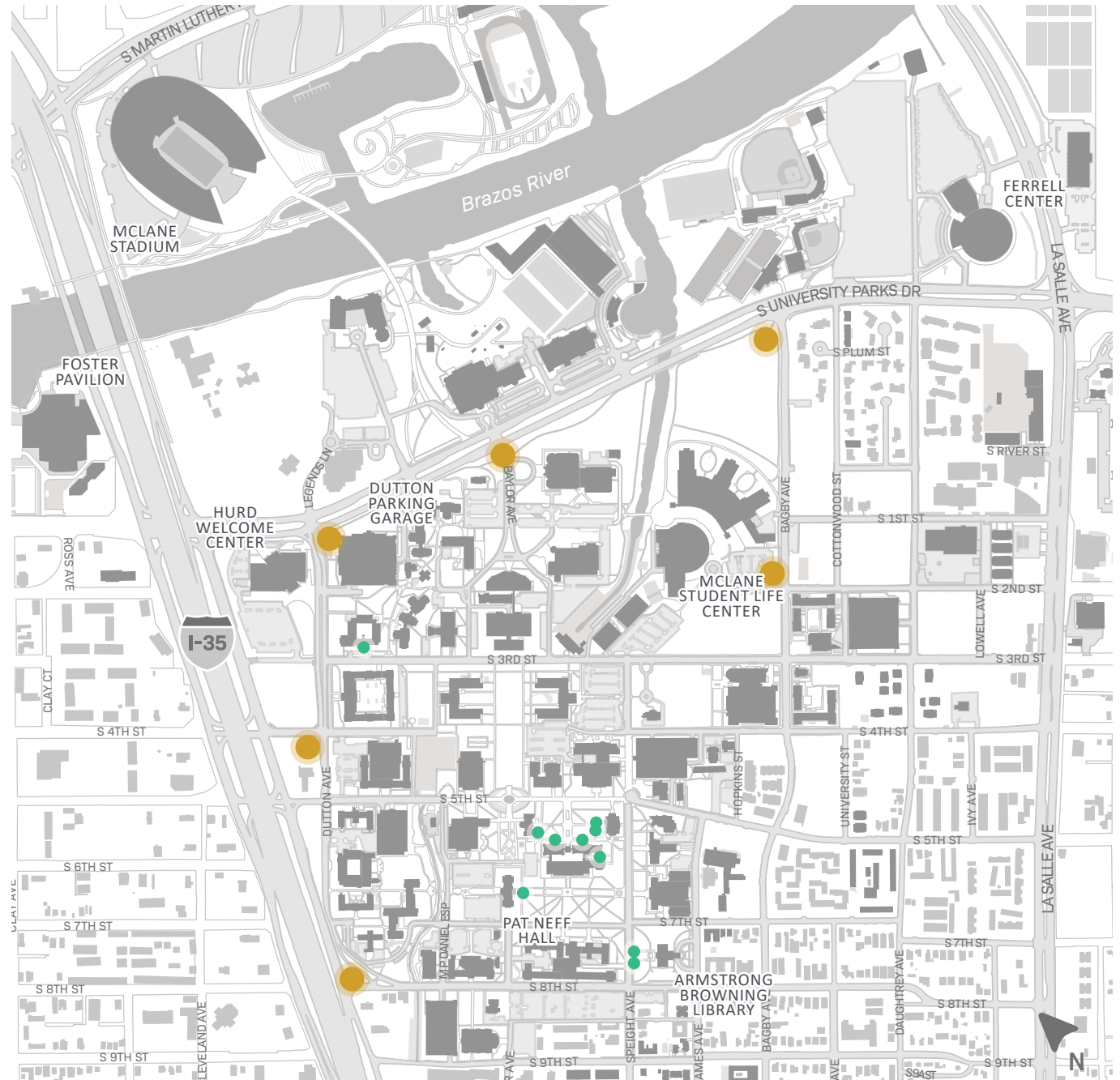
Column Monument Sign



Bear Trail Markers



Historic Marker



- LEGEND
- COLUMN MONUMENT SIGN
 - HISTORIC MARKER

Data collected through aerial imagery and other online sources.

CAMPUS DONOR ELEMENTS & SITE FURNISHINGS

Site furnishings allow students, faculty, staff, and visitors to comfortably and safely enjoy the campus. Furnishings include over 350 benches, bike racks, litter receptacles, tables and chairs, and bollards.

Additionally, over 700 memorial lampposts can be found throughout the campus, providing lighting at night while also honoring those who have served our country. The first lampposts were dedicated in 1946, immediately after World War II. Since then, other plaques have been added to memorialize people who served in the military, government, or other notable public service roles.



Metal Bench



Swinging Bench



Bollards



Memorial Lamppost Plaque

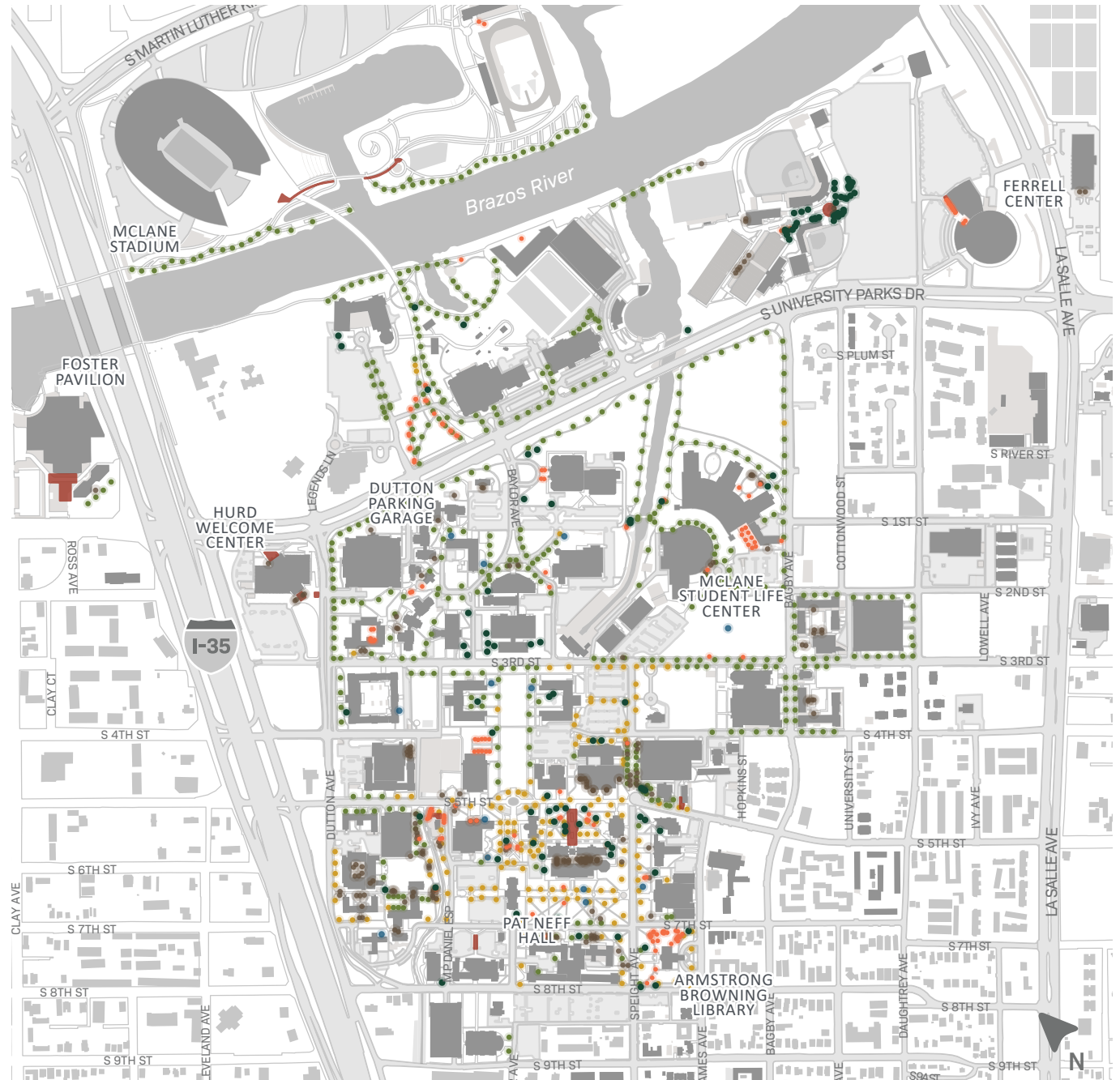


Memorial Lamppost

LEGEND

-  BENCH
-  SWING
-  MEMORIAL BENCH
-  MEMORIAL SWING
-  MEMORIAL TREE
-  MEMORIAL LAMPPOSTS WITH PLAQUE (184)
-  MEMORIAL LAMPPOSTS WITHOUT PLAQUE (530)
-  DONOR BRICK PLAZAS

Data collected from Baylor's GIS records.



COMPREHENSIVE TREE INVENTORY

Waco is located within the Blackland Prairie ecoregion of Texas. Soils in this region are very fertile and support numerous prairie grass tree species. Baylor University encompasses 1,000 acres with significant existing tree canopy, supported by previous memorial tree plantings. Southern Botanical was consulted to perform an extensive tree and landscape study. The goals of this study were to:

- Document current conditions of general landscape areas
- Provide Best Maintenance Practices
- Work with Baylor Staff and Dunaway GIS to create an inventory of trees on campus, including their location and photo.

The campus tree canopy is important for not only shade, but also mitigating microclimate temperatures. Trees are part of the green infrastructure that help regulate storm water runoff quality and flow. Additionally, trees greatly improve the campus landscape aesthetically. An inventory of trees would help manage, maintain, and record their health and status for memorial dedication.

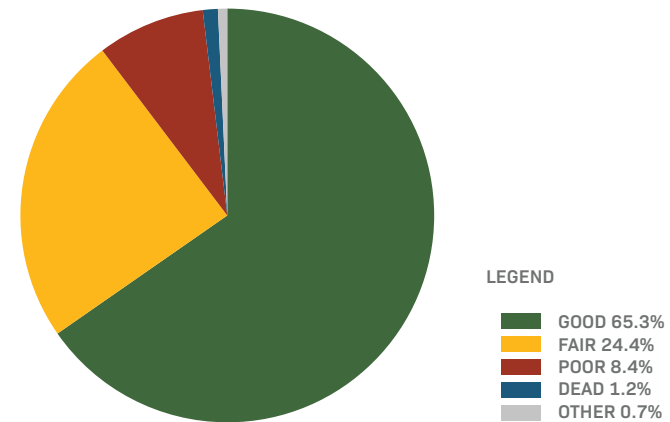
In early 2023, the team completed a full inventory and assessment of all 3,336 trees within the project boundary using TreePlotter software. Each tree was assigned an ID in the database. This ID was also attached to the tree with a small metal tag.

The data recorded included location, photo, species, condition, crown spread, height range estimate, and arborist observations or notes. This data was then mapped both in TreePlotter and in Baylor staff's existing online tree map to be used for ongoing tree maintenance and other landscape considerations.

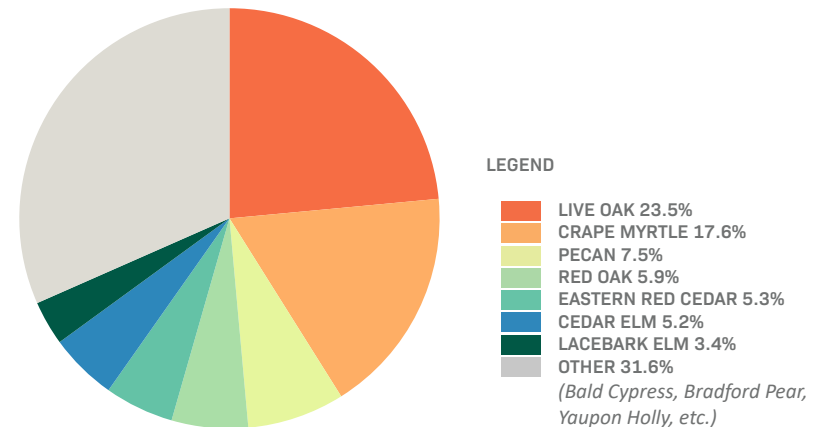
Key Findings:

- Number of Trees: 3,336
- More than 81,490 SF Canopy Cover (62.6 Acres)
- Most Common Species: Live Oak (23.5%) & Crape Myrtle (17.57%)
- 1,281 Trees are between 6"-12" diameter at breast height (DBH)
- 2,171 are in good condition

Condition of Trees Inventoried



Species of Trees Inventoried

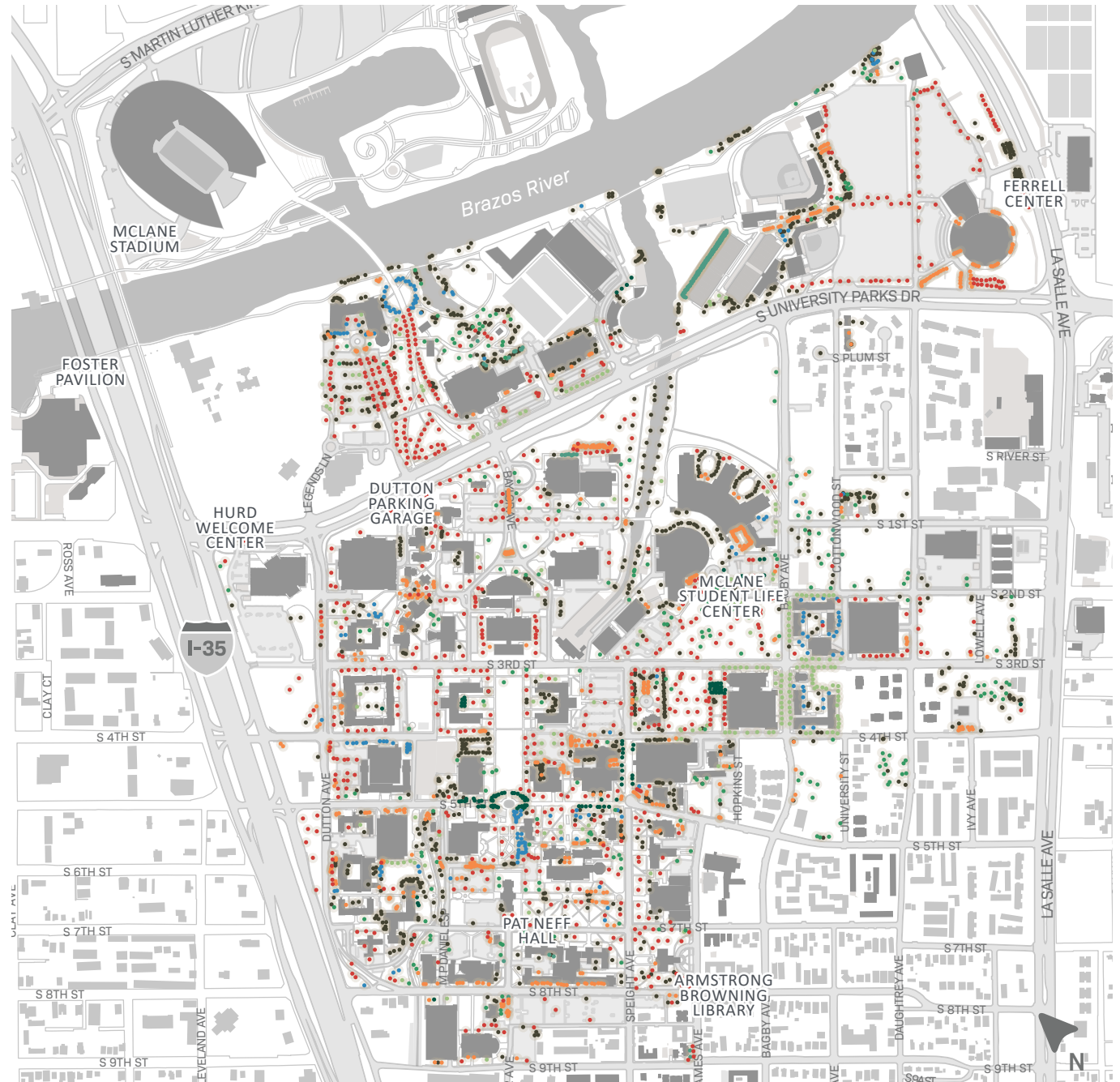


LEGEND

TREE BY SPECIES

- LIVE OAK
- CRAPE MYRTLE
- PECAN
- RED OAK
- EASTERN RED CEDAR
- CEDAR ELM
- LACEBARK ELM
- OTHER

Data collected by Southern Botanical.



IMPORTANCE OF CAMPUS URBAN FOREST

Trees on a college campus play a vital role in enhancing the overall environment and creating a healthier and more inviting space for students, faculty, and visitors. They provide shade and help cool the immediate area, which is particularly important in urban areas where buildings and pavement can trap heat, leading to the “urban heat island” effect. By moderating temperatures, trees create comfortable outdoor spaces where students can relax, study, and socialize, fostering a sense of community and wellbeing. In addition, trees improve air quality by absorbing pollutants and releasing oxygen, contributing to an overall healthier campus environment.

Beyond their environmental benefits, trees contribute to the aesthetic and psychological appeal of a college campus. A healthy canopy comprised of a variety of species creates a natural, peaceful atmosphere that can help reduce stress and promote mental well-being. Exposure to nature improves concentration, enhances cognitive function, and increases overall happiness—critical factors for academic and professional success. The presence of trees can also make a campus more visually appealing, attracting prospective students and faculty, and boosting the institution’s image.

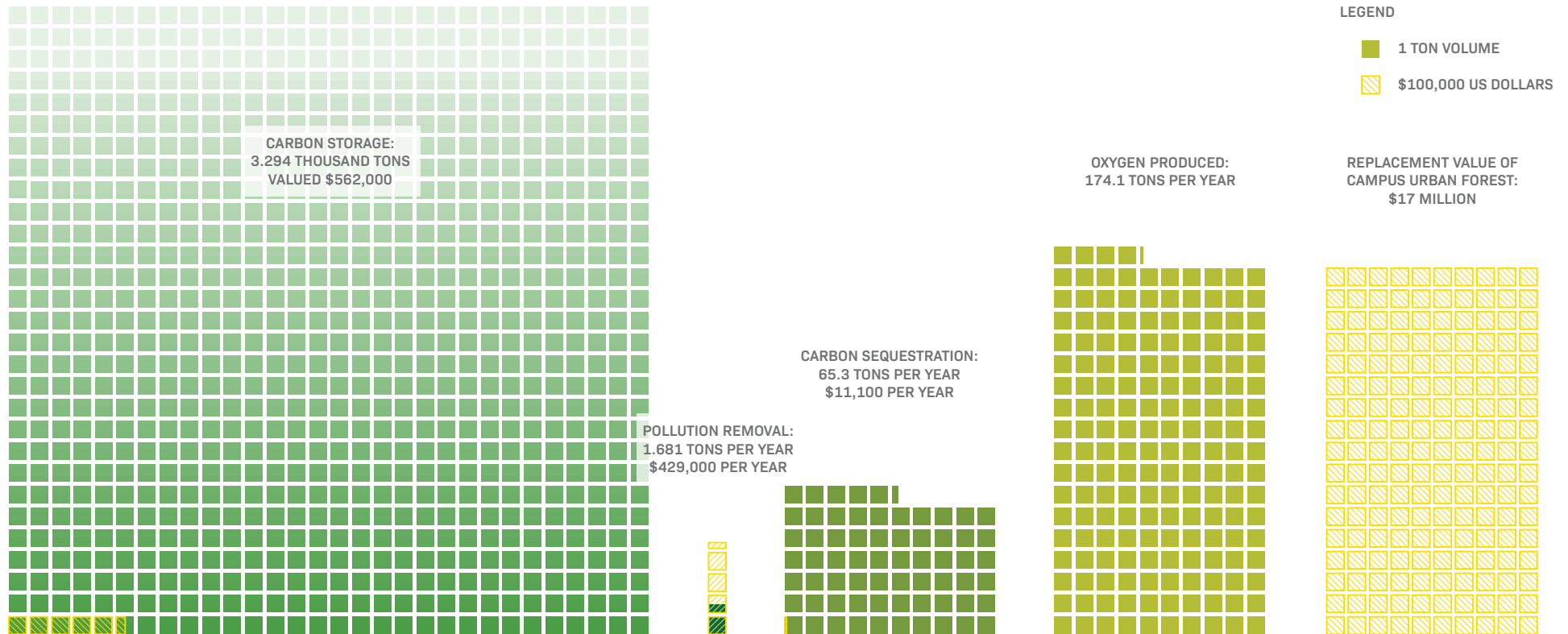
By understanding the structure, function, and value of Baylor University’s urban forest, facility services and other departmental teams can make informed management decisions that enhance the health and safety of the campus’s trees and landscape. Promoting effective management practices allows stakeholders to communicate that trees are not just a natural resource, but a valuable capital investment and asset to the larger community. With careful planning and informed decision-making, the campus trees will be able to grow and flourish, minimizing the risk of future problems or conflicts.

Transitioning from a reactive management approach to a proactive strategy will ensure a healthier and safer campus environment. This shift will not only improve the vitality of the campus’s urban forest but also lead to reduced maintenance and management costs over time. A proactive approach demonstrates a commitment to sustainability and responsible stewardship, benefiting both the Baylor University community and the broader environment.

Key Findings:

- Baylor’s urban forest, not unlike most large university campuses, lacks diversity in species type. A long-standing urban forestry best practice states that “An urban forest population should include no more than 10% of any one species, 20% of any one genus, or 30% of any family” (PlanItGeo). The 10-20-30 rule is a way to safeguard against catastrophic losses from future pest and disease threats. If a deadly new tree threat arises, losses are limited and the majority of urban tree canopy is preserved. This protects against a drastic loss of ecosystem services. While the recommendation of this planning effort is not adjusting the current tree diversity by removing trees, future plantings should include different species and take this into consideration.
- It is estimated that the Baylor Urban Forest today provides approximately 3.2 thousand tons of carbon storage. This is a significant passive impact provided by the campus landscape. Efforts should be taken to align with the campus sustainability plans and evaluate how to safeguard this resource.
- At an estimated replacement cost of \$17 million, it is apparent that as campus evolves, and additional projects are implemented, trees should be protected and prioritized. Additional efforts should be made to safe-guard this campus asset of mature trees through a proactive maintenance and management plan.

KEY ECOSYSTEM SERVICE FINDINGS:



I-TREE ECO MODEL AND FIELD MEASUREMENTS METHODOLOGY:

i-Tree is a peer reviewed, state of the art tree evaluation tool which was created through the U.S. Forest Service and Davey Resource Group. I-tree Eco was used to determine the value of the trees ecosystem benefits that it provides to the Baylor University campus.

- **Pollution Removal:** Pollution removal accounts for common air pollutants such as ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, particulate matter less than 2.5 microns, and particulate matter less than 10 microns and greater than 2.5 microns.
- **Carbon Storage and Sequestration:** Carbon storage is the amount of carbon tied up in the below-ground and above ground structures of a tree or other woody vegetation.
- **Oxygen production:** The amount of oxygen produced annually is a function of estimated carbon sequestration and estimated annual tree growth.
- **Replacement Value:** Replacement value of a tree is based on the cost of replacing a tree with a similar tree of the same size and species. Monetary values are taken from valuation procedures of the Council of Tree and Landscape Appraisers based tree species, trunk diameter, condition, and location information.

The i-Tree Eco model is limited and all calculated values are based on the available tree data that is, by its nature, limited to the data collected and current models.

Data analyzed by Texas Tree Foundation.

CAMPUS LANDSCAPE EVALUATION

At 1,000 acres, Baylor's campus is more than three times the size of Texas Christian University's campus and more than four times the size of Southern Methodist University's campus (300 acres and 234 acres respectively). Despite this difference, the reported maintained landscape acreage is similar across campuses, as is the tree inventory count.

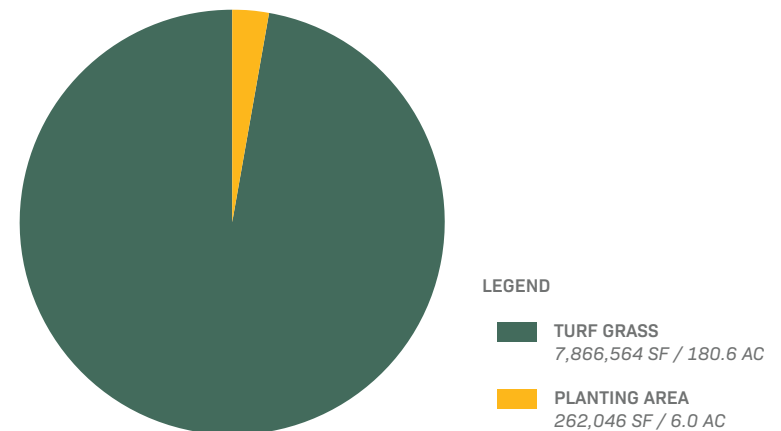
The project team documented planting beds and general conditions of turf areas on campus. General observations from their report (available in the Appendix) included insights on maintenance and standard materials used. Some of these observations included:

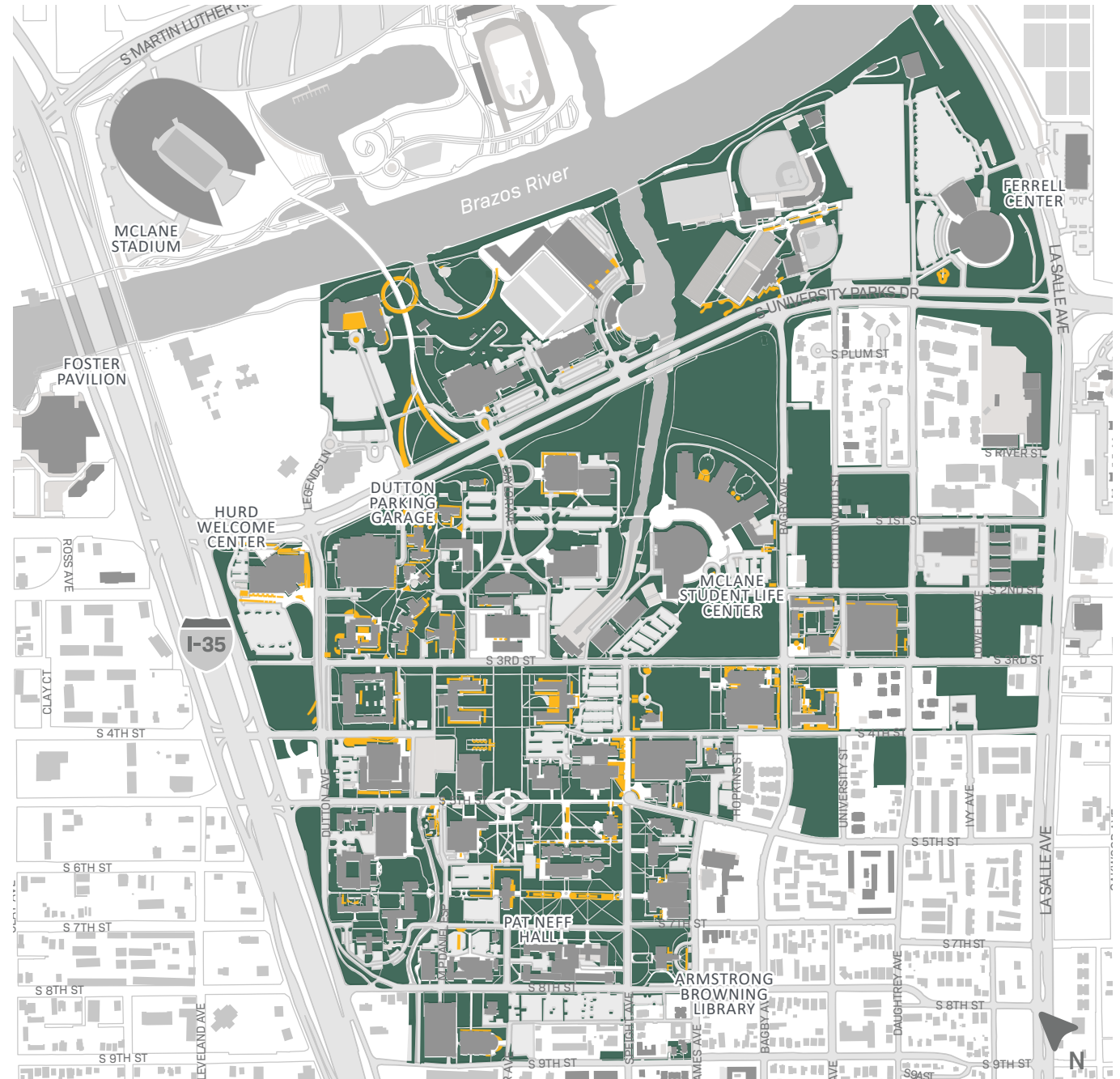
- Inconsistent maintenance for turf care and landscape beds
- Inconsistent maintenance for tree care and pruning
- Inconsistent approach to storm water runoff and drains
- Conflicting circulation for cart and pedestrian paths and negative impacts on adjacent plantings
- Inconsistent design and installation for new construction plantings

Enhanced landscape areas exist around select monument signage and significant buildings on campus. Strategic additions and care of these beds could enhance the arrival experience to campus and aesthetic appearance.

The map at right illustrates the areas of general landscape that campus maintenance crews might be responsible for, excluding sports fields and artificial turf cover.

Total SF of Landscape Area





CAMPUS IRRIGATION EVALUATION AND CURRENT WATER DEMAND

Existing irrigation on campus was assessed by comparing data for pervious ground cover areas, landscape areas, and Baylor's records of existing irrigation equipment to estimate the approximate surface area assumed to be irrigated regularly.

This data was then used to estimate the water demand for landscape areas using the EPA's WaterSense Water Budget Tool and LEED's Outdoor Water Use Reduction Calculator. A summary of the estimated current Water Demand is shown in the table below.

LANDSCAPE TYPE	IRRIGATION TYPE	LANDSCAPE WATER REQUIREMENT (LWR)
TURFGRASS	NO IRRIGATION	0 GAL
TURFGRASS	ROTOR	32,381,677 GAL
PLANTING AREA	FIXED SPRAY	1,010,153 GAL
	TOTAL:	33,391,831 GAL

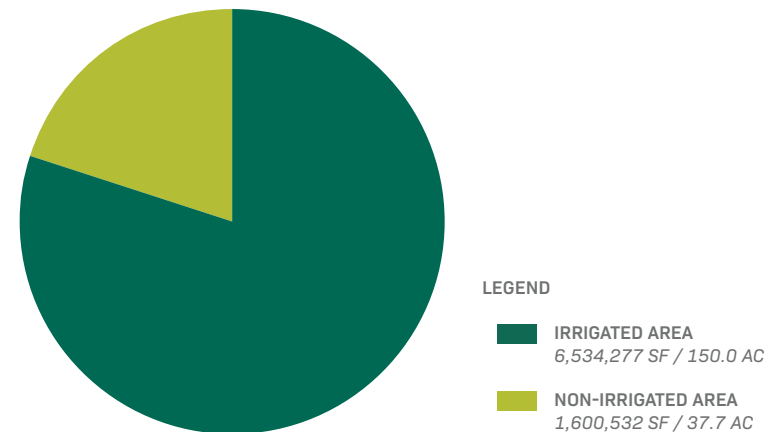
Observations from the project team's irrigation evaluation, available in the Appendix, include:

- Inconsistent irrigation equipment type
- Inconsistent approach for documenting and utilizing as-built records and existing zones
- Inconsistent design and installation for new construction irrigation

TCU and SMU had more comprehensive records of existing irrigation equipment, reporting over 1,000 irrigation zones each. This contrasts with the estimated 287 zones analyzed in this study. In order to maintain a pristine landscape, the following action items are recommended:

- Conduct comprehensive irrigation equipment inventory
- Utilize standardized irrigation equipment across campus in the future
- Organize irrigation zones with visual maps and controllers
- Provide routine maintenance checks to ensure equipment functions as intended

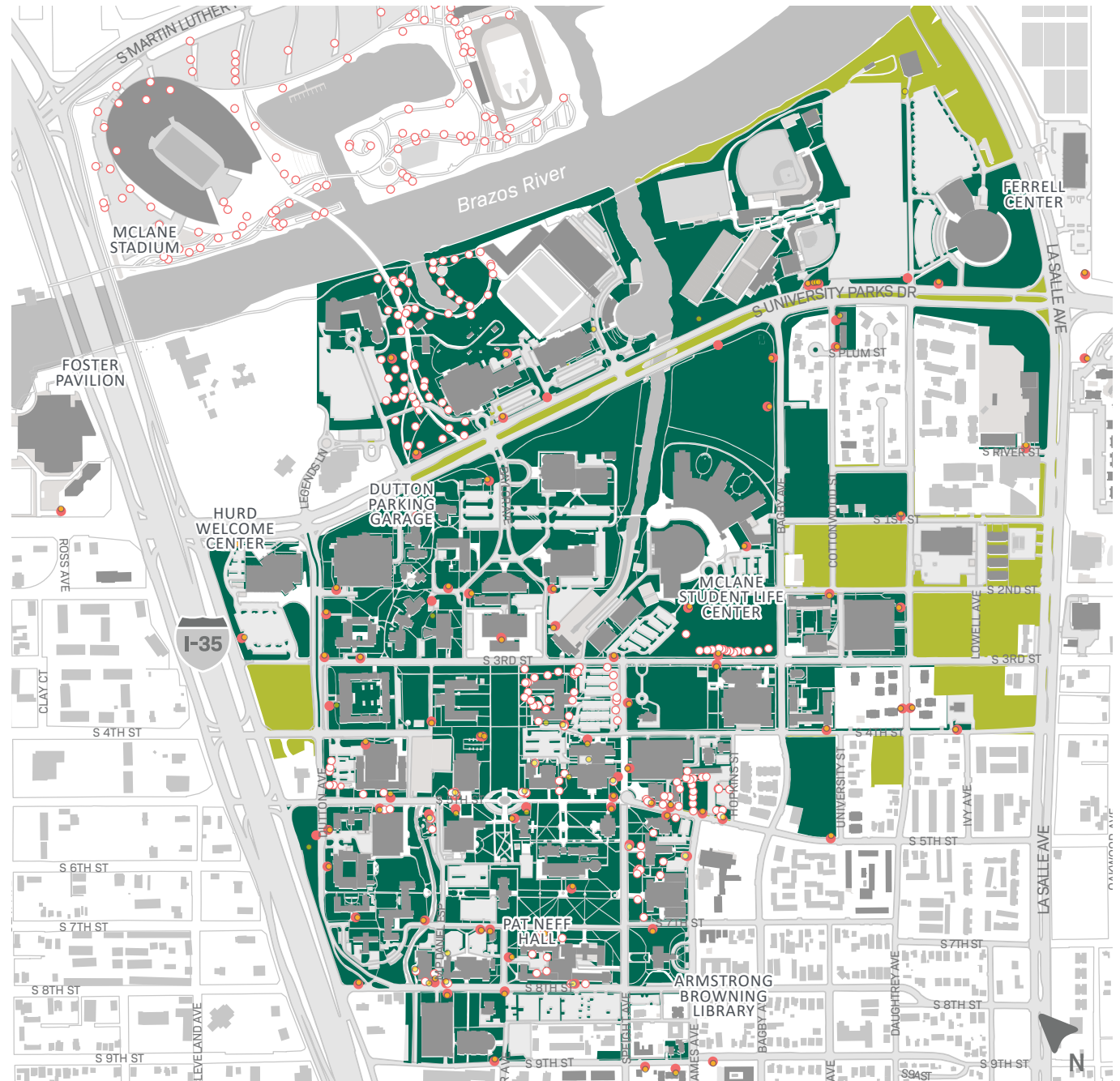
Total SF of Irrigated Area



LEGEND

- IRRIGATED AREA
- NON-IRRIGATED AREA
- IRRIGATION METERS
- IRRIGATION ZONE (POINTS)
- IRRIGATION BACKFLOW

Data conveyed through pervious surface data, then compared to Baylor's records of irrigation equipment.



CAMPUS WASTE STUDY

Campus users produce a variety of waste that must be properly managed to maintain a safe and clean environment. Litter receptacles are located throughout the campus along walking paths, in gathering spaces, and near building entrances. Additionally, there are many dumpster and recycling drop-off locations throughout the campus, as can be seen on the map to the right.

Dumpster pad sites across the campus are inconsistently screened with a variety of design approaches and materials.

Baylor strives to promote recycling and other waste conservation efforts as part of its “common, Christian commitment to care for God’s creation” (Baylor Sustainability Department). For example:

- Recycling drop-off bins are provided in the trash rooms of all residence halls
- Composting services are offered for food waste generated at Penland Dining Hall, in a partnership with Moonshot Composting Service that began in 2023



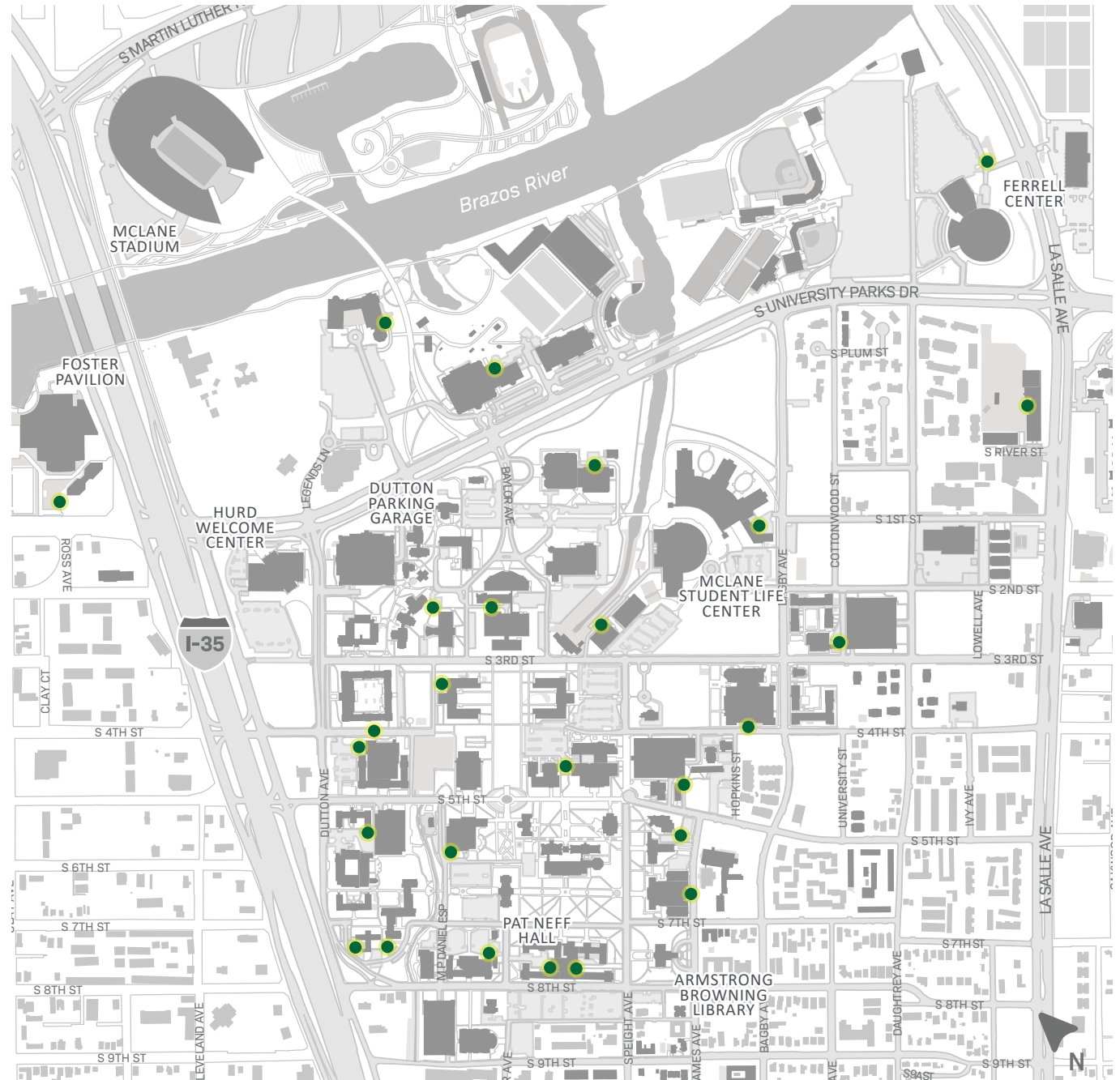
Litter Receptacle



Litter in Waco Creek



Recycling / Dumpsters Pad Site



LEGEND

 DUMPSTERS / RECYCLING

Data collected through aerial imagery and observations on campus.

CAMPUS BENCHMARKING STUDY

During the site analysis and inventory phase, the project team attended two benchmarking tours with staff from Baylor to develop a baseline comparison for campus planning and improvements. The universities visited included Texas Christian University and Southern Methodist University.

These universities were selected due to size, funding, and comparable facilities. Although these universities have smaller acreage, Baylor's maintained landscape acreage is similar in size. Funding for landscape and grounds maintenance was similar between TCU and SMU; data reported about \$30 million for operational and facility maintenance at these universities. TCU specifically allocated \$1 million for landscaping maintenance on and off campus in 2012 (TCU 360).

Baylor currently maintains campus grounds with external crews, while TCU employs a greater number of internal maintenance crews. SMU has contracted grounds maintenance out to Southern Botanical since 2017 (Southern Botanical, 2022).

Information sources indicated both TCU and SMU have over 1,000 irrigation zones to support landscape beds on campus. They each use different manufacturer's controllers: Toro and Maxicom/Rainbird, respectively.



TCU Benchmarking Tour



SMU Benchmarking Tour

CAMPUS BENCHMARKING COMPARISON

	CAMPUS SIZE	MAINTAINED LANDSCAPE	MAINTENANCE APPROACH	TREE COUNT	IRRIGATION ZONES
BAYLOR UNIVERSITY <i>Waco, Texas</i>	1,000 ACRES (2024)	350 ACRES (2012)	EXTERNAL ARBORIST EXTERNAL GROUNDS MAINTENANCE	3,336 TREES	EST. +287 (GIS)
TEXAS CHRISTIAN UNIVERSITY <i>Fort Worth, Texas</i>	300 ACRES (2024)	210 ACRES (2012)	EXTERNAL ARBORIST INTERNAL GROUNDS MAINTENANCE	+3,200 TREES	EST. + 1,000
SOUTHERN METHODIST UNIVERSITY <i>University Park, Texas</i>	234 ACRES (2024)	APPROXIMATELY 200 ACRES (2024)	EXTERNAL ARBORIST EXTERNAL GROUNDS MAINTENANCE	2,236 TREES	+ 1,500

CAMPUS ENGAGEMENT

SUMMARY

In collaboration with Baylor staff, feedback was collected through the following engagement strategies:

STAKEHOLDER FOCUS GROUPS AND INDIVIDUAL INTERVIEWS

From April 17-18, 2023, Baylor Facilities Management and the project team hosted a series of focus groups and individual interviews. These sessions involved 26 stakeholders representing 18 campus departments and organizations. The focus groups included open discussions as well as mapping and goal ideation activities. The individual interviews allowed for more targeted feedback from each participant's perspective. More details and notes can be found in the Appendix: "Engagement Feedback Results".

CAMPUS USER MAP SURVEY

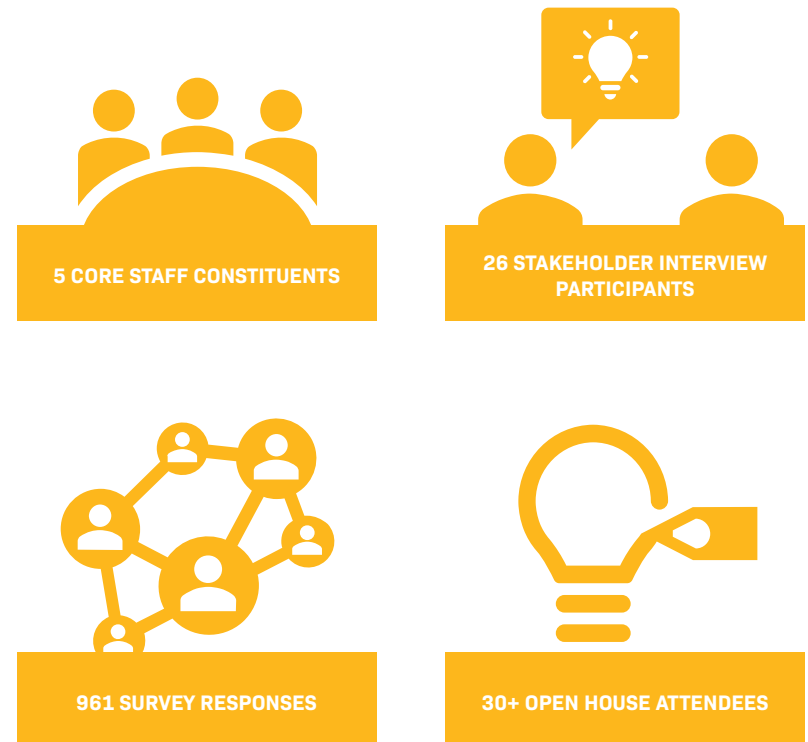
An online map survey was created to generate feedback on specific landscape components from all types of campus users. Respondents were asked to place a point on an aerial map and provide three types of responses: "Things I love", "I have an idea", and "Drives me crazy".

The survey was open from April 17, 2023, through June 5, 2023, and was shared with participants of the focus groups, along with QR code yard signs around campus. The map survey was also shared in "Baylor News Digest", an email newsletter that reaches over 20,000 students, faculty, alumni, and other interested parties.

In total, the map survey received nearly 1,000 responses. The project team created a series of Power BI dashboards to analyze these responses and "hotspots" of feedback. A summary of the responses and comments can be found in the Appendix: "Engagement Feedback Results".

PUBLIC OPEN HOUSE

On October 17, 2023, the project team and Baylor Facilities Management staff hosted an open house at the Hurd Welcome Center to present progress on the plan and to gather feedback about how the vision and goals of the plan should be achieved. Over 30 people attended during the two-hour, come-and-go open house.





Public Open House



Yard signs for campus user map survey



Stakeholder focus groups

CAMPUS USER SURVEY - LANDSCAPE COMPONENTS

The graphs on the next page illustrate the location distribution of feedback received during the engagement phase. The comments are concentrated in the “Campus Core”, spaces adjacent to Founders Mall and Fountain Mall. A synthesis of inventory and comments received are found on pages 66-80 in the Analysis of Landscape Components.

PLANTINGS

Comments within the Plantings Category included feedback and observations on plantings, grass, trees, and general landscape amenities. The general theme was the desire for well-maintained landscapes that received adequate maintenance and attention.

HARDSCAPE & FURNISHINGS

Hardscape & Furnishings included feedback on site furniture, pavers, walls, fountains, public art, and amenities or other site elements. Improving outdoor spaces for pedestrian comfort was the general consensus for most input received.

GATHERING SPACES

Much of the feedback within gathering spaces mentioned upkeep and maintenance of the existing gathering areas. Conversion of 3rd Street into a pedestrian mall was frequently mentioned. Activation, entry, plazas, and programmed spaces were common observations.

PEDESTRIAN CIRCULATION

Feedback addressed pedestrian routes, ramps and accessibility, path quality, and wayfinding. Pedestrian safety was the primary concern, with multiple mentions of incomplete walks, unsafe crossings, and conflicting circulation patterns with vehicular traffic.

VEHICULAR CONSIDERATIONS

Common concerns regarding vehicular traffic and use included a lack of bike lanes and unsafe conditions for pedestrians. Feedback covered circulation for cars, bikes, and golf carts on campus, as well as, parking for each of these.

SAFETY

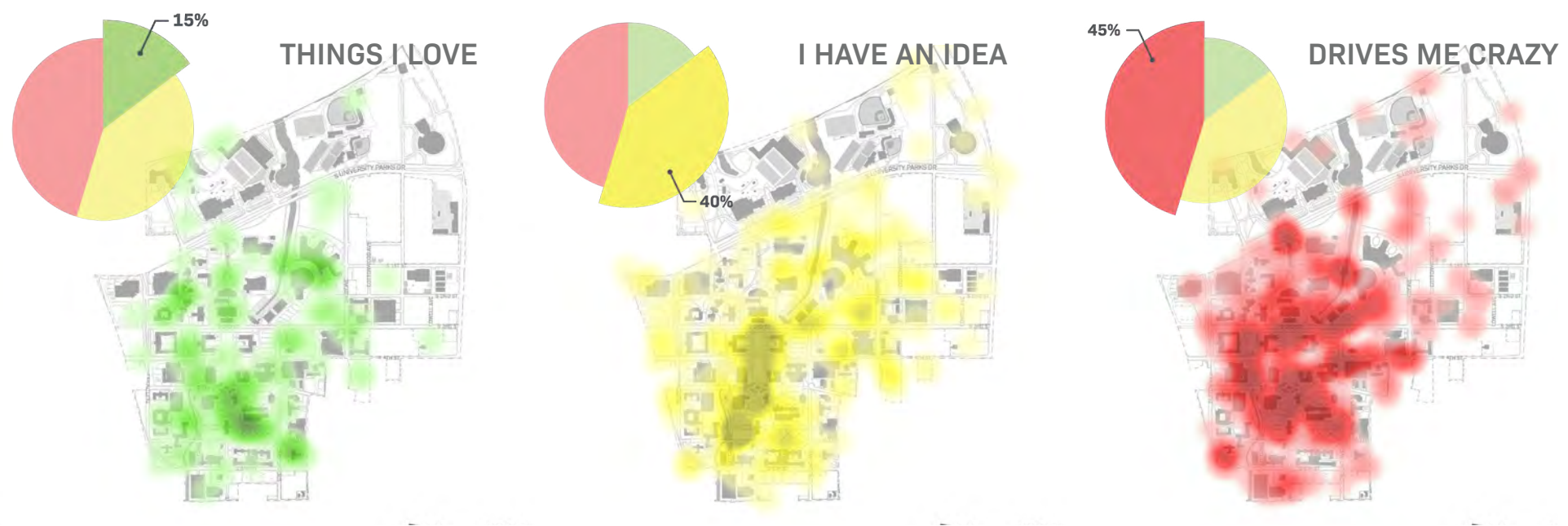
Feedback regarding safety focused on lighting and traffic. The general theme was a need for more lighting, especially along the southern edges of campus.

DRAINAGE

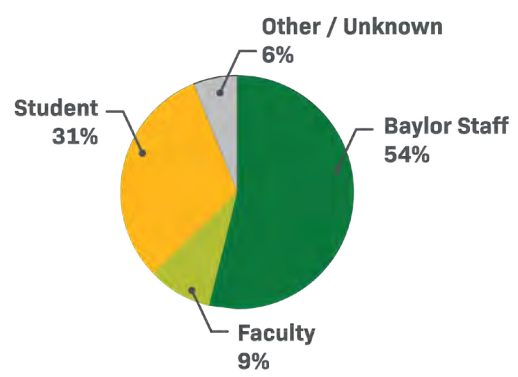
This category included feedback and observations on Waco Creek, drainage in open spaces, and drainage in streets or pathways. Many comments suggested improving the water quality and appearance of Waco Creek, enhancing runoff management in hardscape areas, and using drainage infrastructure as functional amenities in the landscape.

OTHER

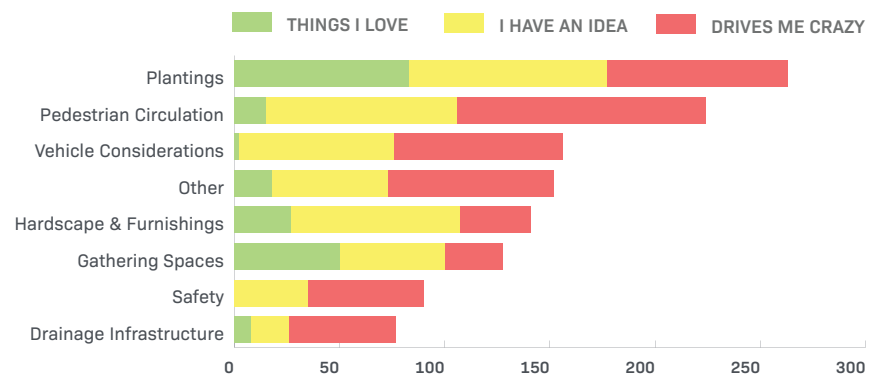
This category included feedback and observations that did not fit into other components: Monumentation, Sense of Arrival, Sustainability, Waste Collection, and Wildlife. Comments were primarily concerned with campus appearance and arrival, as well as wildlife on campus and general overall maintenance.



Distribution of comments received through the online survey.



Breakdown of responses received by campus user type.



Number and type of responses received for each component category.

OPEN HOUSE - CAMPUS ZONES

Throughout the engagement process, focused areas of interest were identified leading to the development of the following campus zones of opportunity. In addition to the feedback gathered about the overall campus, specific feedback related to these zones and other opportunities was collected at the campus open house. This feedback contributed to the development of recommendations and options presented in the catalyst projects proposed in this master plan.

ACTIVATE

These zones were distinguished by the need to increase pedestrian traffic and activity. Comments for these zones included suggestions for enhanced seating and gathering areas with shade, programming elements, and lighting.

CIRCULATION

These zones were defined by the lack of pedestrian and cyclist safety along University Parks Drive and other discontinuous circulation paths. Suggestions included wider pedestrian walks, lower speed limits, enhanced crosswalks, and traffic signals. Other comments advocated prioritizing parking garages over expansive parking lots.

CAMPUS “CORE”

As seen in the Campus Footprint Growth illustration on page 18, the original campus centered on the Quadrangle and its surrounding buildings. However, as campus has expanded to the north and west, this historic area no longer serves as the center of campus, both geographically and by perception. When asked to consider the present-day “core”, participants in the planning process identified Fountain Mall, Moody Library, and the surrounding area. Within this zone, stakeholders expressed a desire for improved gathering spaces with maintained lawn areas and additional seating. Comments also emphasized the need for improved hardscape elements of the roads and enhanced pedestrian walks.

EDGE

These zones were identified as the prominent areas for campus arrival improvements. Comments suggested architectural and hardscape elements to enhance the campus identity. Signage standards and pedestrian crossings at University Parks Drive and LaSalle Avenue were also noted.

POTENTIAL PEDESTRIAN CONVERSION

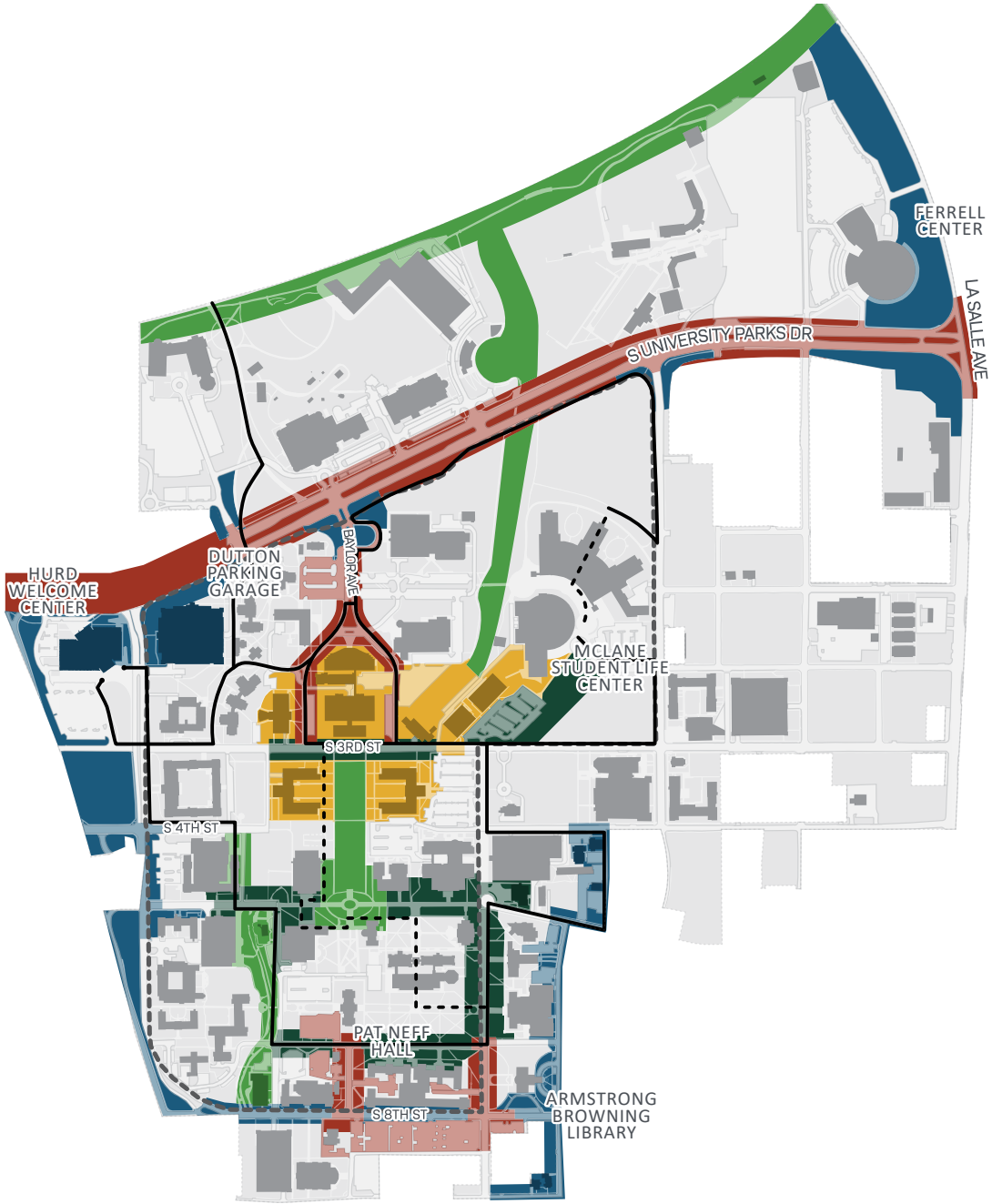
These zones were defined as potential areas to be converted from vehicular use to pedestrian-only. Feedback received at the open house also addressed areas outside of these designated zones. Many comments focused on campus accessibility issues, such as non-accessible walks, lack of lighting, and dangerous pedestrian crosswalks. There was strong support for converting vehicular streets to pedestrian-only access.

GENERAL STANDARDS/GUIDELINES

General comments highlighted the need for increased activation and seating for pedestrian use, as well as improvements to the landscape and ongoing maintenance. Comments also addressed the general appearance of campus, emphasizing the use of standard furniture and landscape design elements.

LEGEND

- ACTIVATE
- CIRCULATION
- CAMPUS "CORE"
- EDGE
- POTENTIAL PEDESTRIAN CONVERSION
- GENERAL STANDARDS / GUIDELINES
- CURRENT TOUR ROUTE



MASTER PLAN VISION & GOALS

MASTER PLAN VISION & GOALS

High-level goals establish priorities for the Campus Landscape Master Plan (CLMP) based on campus evolution, prior planning, and the stakeholder outreach process. The details for implementing these goals resonate throughout the Landscape Component Recommendations and the Catalyst Projects section of this plan.

THE VISION:



IMPLEMENT THE “BAYLOR BRAND” WITHIN
OUTDOOR SPACES BY PROVIDING STRATEGIES
AND STANDARDS FOR A COHESIVE CAMPUS.

THE “BAYLOR BRAND” IN OUTDOOR SPACES:



A CHRISTIAN COMMITMENT TO STEWARDSHIP OF THE LEGACY
ASSETS ON CAMPUS, INCLUDING SIGNATURE OAK TREES, RED
BRICK ARCHITECTURE, AND ATTRACTIVE, FLEXIBLE SPACES
WHICH FACILITATE COMMUNITY WITHIN THE UNIVERSITY.



THE GOALS:

1. Apply an ethic to the landscape and visual appearance of campus similar to that of the “**Baylor Brand**” in education, athletics, and student life.
2. Improve spaces on campus that facilitate **community-building** among students and faculty.
3. **Develop standards** for continuity of design and maintenance across campus outdoor spaces.
4. Consolidate **donor recognition** within the campus landscape.
5. **Connect** campus facilities with logical, equitable, and appealing routes for pedestrians, cyclists, and vehicles.
6. Identify key locations for new or enhanced signage, which improves the **sense of arrival** to campus.
7. Explore ways to address **safety** concerns on campus.
8. Invest in preserving and enhancing the **campus tree canopy**.
9. **Strategies for investing** in priority areas on campus through development of catalyst projects.
10. Introduce **sustainable** and **maintainable** campuswide strategies for renovations and new projects on campus.

SECTION II

ANALYSIS OF LANDSCAPE COMPONENTS

PLANT MATERIAL

Although Baylor possesses an above average urban tree canopy, the planting beneath it does not convey the stature of the university or the “Baylor Brand”. Much of the plant material is struggling due to lack of maintenance and irrigation. Establishing standards for plant material selection, providing a maintenance manual, and organizing an irrigation schedule will greatly enhance the appearance of the campus.

ISSUES

- A lack of detailed management in planting beds has led to weed infestations, mulch escaping bed borders, and the accumulation of leaf trimmings.
- Dead and dying plant material can be seen in many locations.
- Heavy pedestrian and cart use has led to compaction and damage to beds at most buildings.
- General irrigation, runoff, and erosion issues have left bare turf areas and standing water.
- Turf scalping and damage to utility boxes have occurred due to mowing.
- A lack of tree specifications for installation and maintenance has led to low hanging tree limbs and hazardous tree stakes.

OBJECTIVES

- Highlight existing Memorial Tree Plaques on campus or redefine and remove plaques to reduce maintenance.
- Establish installation and maintenance standards through specifications and design guidelines.
- Provide native and naturalized plant material that is hardy to this region.
- Re-evaluate campus irrigation systems and suggest a scalable operation that is easy to maintain.



Allees of trees with hardy groundcover, such as Asian Jasmine, are easy to maintain and are attractive adjacent to pedestrian walks.



Monument signage should be given higher priority for routine maintenance and irrigation. Planting schedules with evergreen groundcover and small areas of seasonal color should be a standard for monument signage on campus.



The mature canopy provides distinct character to the campus and is a critical component to the “Baylor Brand” visitors experience. The extensive tree inventory records facilitate more efficient maintenance and the location of memorial trees.



The balanced design approach between turf, evergreen shrubs, and seasonal plantings, in conjunction with adequate maintenance given at McLane Student Life Center should be replicated at other prominent locations on campus.



Compaction and bare turf must be avoided. Aeration, irrigation, and additional maintenance or overseeding may be needed to establish turf in these areas. Cart traffic should avoid turf and landscape areas.



Drip tubing should always be covered by mulch. A maintenance manual is needed for routine care of landscape beds.

HARDSCAPE & FURNISHINGS

Existing exterior site furnishings are already in place on campus; however, standards for other site materials would help to convey a consistent brand across campus. Better quality seating is needed in Fountain Mall, near the SUB, and in Vara Martin Daniel Plaza. Site screening would improve the appearance of campus by concealing unsightly utilities. More amenities with permanent electrical access were also desired in the online survey.

ISSUES

- Standing water on pavement creates uneven and damaged walkways.
- Pedestrian and cart traffic track debris on pavement.
- Building entry seating, appearance, and wayfinding could be improved for appearance and accessibility.
- Comments to decrease the number of bike racks and improve their location or connectivity were also received.
- Retaining walls are needed to screen unsightly utilities and direct runoff away from pedestrian circulation.
- The Baylor Swing Bench requires increased maintenance and undue stress on mature oak trees. Retiring these as alternative dedications is recommended.

OBJECTIVES

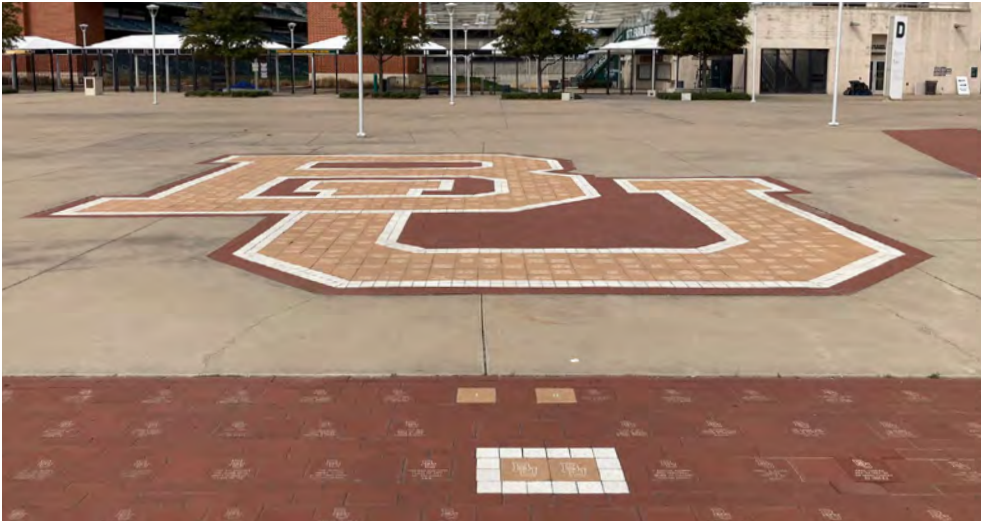
- Provide additional guidance for standard materials and their required maintenance.
- Recommend strategies for the renovation or addition of gathering spaces through guidelines, donor contribution approaches, and catalyst enlargements.



Benches and other site amenities should be placed on concrete pads adjacent to the primary pedestrian path. Reference page 149 for correct installation of benches.



Additional maintenance funds and support to routinely manage beds and grounds is necessary. Alternative designs, as listed in the design guidelines in this document, can be used across campus, today.



Baylor's memorial bricks are popular with stakeholders and the University. Any future installations should be consistent with existing pavers on campus and in existing donor paver areas.



Thoughtful selection and layering of paving, drainage, and planting with finishes that compliment the adjacent architecture.



Poor drainage leaves standing water on pavers and hardscape, damaging the sub-surface and causing uneven terrain.



Temporary bollards are not ideal; permanent bollards provide a more appealing and safer solution for pedestrian and cyclists.

GATHERING SPACES

Input from the online survey included suggestions to convert 3rd Street into a pedestrian plaza near Moody Library, improve existing outdoor spaces, and maintain existing recreation and athletic fields. Overall, the general consensus is that Baylor has an abundance of open gathering spaces, but these areas require greater upkeep and renovation.

ISSUES

- The general appearance of gathering spaces is lackluster; healthy plantings and routine mulch maintenance are needed. Renovating many existing plaza spaces would refresh the campus's appearance.
- Movable furniture is desirable but appears haphazard when spread out.
- Additional lighting and permanent electrical outlets would increase visibility and perceived safety in these spaces.

OBJECTIVES

- Garner additional support for renovation, management, and construction of new gathering spaces through standard guidelines and suggested donor contribution opportunities.
- Provide a conceptual plan for the conversion of 3rd Street into a pedestrian plaza.
- Further study may be required to analyze recreation areas in context of the overall campus master plan.



Moveable furnishings provide flexibility for users with a variety of needs and group sizes. Careful thought should be given to appropriate furnishing selection and location.



Multi-sport fields and recreation facilities are very popular with students on campus. Careful thought should be given to location, adjacency uses, screening, and lighting.



Plazas should provide multiple seating options and shade.



Water features cool plaza microclimates and add interest to the landscape. Careful thought should be given before new fountains are proposed, as these features can be extremely expensive and maintenance intensive.



Landscaping beds in plaza spaces would enhance the character of campus with regular management and hardy material. Landscape adjacent to commemorative plazas, in particular, should feature pristine plant materials.



Aeration and additional irrigation considerations are needed for any highly trafficked turf gathering spaces. Additional paved paths may be considered.

PEDESTRIAN CIRCULATION

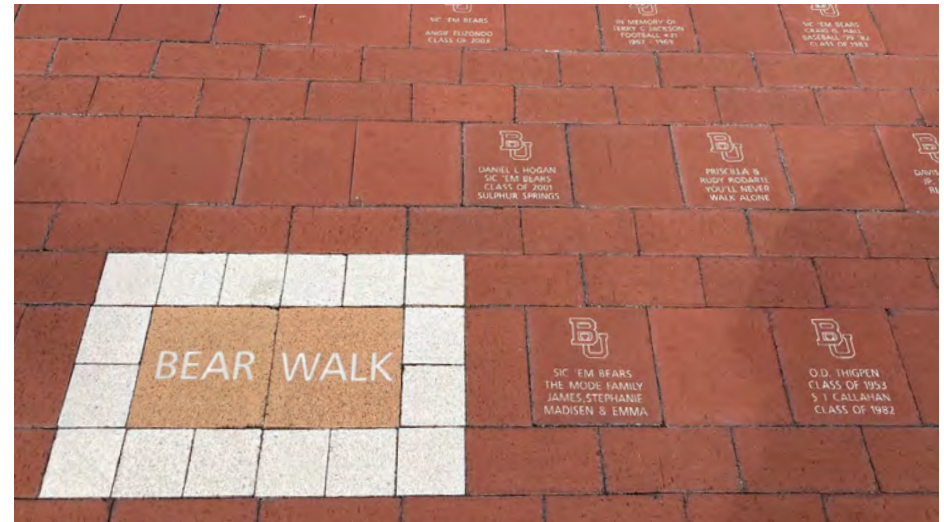
Input and inventory regarding pedestrian circulation were primarily concerned with crosswalks, path quality, ramps and accessibility, and overall circulation routes. Pedestrian circulation on campus is discontinuous and frequently conflicts with vehicular traffic. Bike lanes should also be considered during complete street improvements to provide safe travel for pedestrians, cyclists, and drivers.

ISSUES

- Carts conflict with pedestrian and cyclist traffic and also damage landscape areas. Many users commented that sidewalks were too narrow to support cyclists, pedestrians, and carts.
- The lack of crosswalks presents dangerous situations for pedestrians crossing busy roads like University Parks Drive, 4th Street, 3rd Street, and Speight Avenue.
- Flooding and standing water create hazardous conditions on pavement.
- Pedestrian circulation within the core of campus is divided by vehicular traffic.
- Accessibility at building entrances is hindered by the absence of ramps, eroded soils from runoff, and standing water.
- General upkeep of soft surface trails and waste management would improve the pedestrian experience on campus.

OBJECTIVES

- Provide conceptual recommendations for a sky bridge over University Parks Drive to improve pedestrian safety.
- Standardize pedestrian crosswalks on campus within design guidelines.
- Suggest areas for renovated pavement or where new paved pathways should be added through the Catalyst Projects and Campuswide Strategies.



Memorial pavers and the “Bear Walk” are attractive elements within a pedestrian path. Special and routine care is needed to maintain these pavers.



Too many conflicts exist between pedestrian circulation and vehicular traffic on campus. Enhanced pedestrian crossings, or a sky bridge at University Parks Drive, would provide safer transitions across roadways.



- ✓ 5th Street Promenade is a popular pedestrian plaza that could be replicated at 3rd Street, 7th Street, or Speight Avenue.



- ✗ The “Bear Trail” could be enhanced with pavement and streetscape improvements along University Parks Drive due to its high-profile location.



- ✗ Better routes for accessible entrances to buildings should be studied across campus.



- ✗ Existing sidewalk widths are too narrow to accommodate the demand from pedestrians, cyclists, and cart users. Cart traffic should be separated from pedestrian travel where possible.

VEHICULAR CONSIDERATIONS

General concerns regarding vehicular traffic pertain to the lack of defined road patterns and golf cart paths. Roads should be clearly marked as accessible to vehicles, and permanent bollards should be installed in areas that are to be converted for pedestrian use only. Pedestrian crossings are also a primary concern at points of conflict. Planned bike routes, construction, and complete street improvements are also strongly recommended to improve the safety and efficiency of cyclist traffic.

ISSUES

- Pedestrian crossings are insufficient for the large number of students and staff crossing vehicular roadways.
- There is a lack of dedicated bike lanes within university streets and in the travel lanes to and from campus.
- General maintenance and upkeep of pavement, curbs, and striping are needed to clearly demarcate travel lanes, fire lanes, and parking.
- Confusion when driving on campus is caused by one-way travel lanes, dead-end streets, pedestrian conflict, and congestion at drop-off areas.

OBJECTIVES

- Provide initial recommendations for wayfinding and travel organization in Campuswide Strategies. An additional traffic study could be conducted in the future to further define necessary travel lanes and circulation.
- Establish standards for pedestrian crossings.
- Identify areas where vehicular lanes should be converted to pedestrian-only traffic and where bike lanes should be designated.



Vehicular and pedestrian directional signage should be aesthetically similar to the rest of the wayfinding family on campus. Signage should be located at major intersections and before parking lots. Signage should not be placed in the way of pedestrian traffic.



Pedestrian walkways and bike lanes should be buffered from vehicular traffic whenever possible.



Thematic vehicular directional signage is a great way to convey the University's brand and announce your arrival to campus.



Parking lots require routine washing, maintenance, and re-striping. Baylor may consider replacing pavement where more than 50% of the surface has been crack sealed.



Regulations or dedicated cart paths are needed to minimize damage to landscape and hardscape materials. Motorized vehicles should rarely share traffic lanes with pedestrians.

SAFETY

Primary concerns from community stakeholders regarding safety on campus include the need for more lighting along the Riverwalk trail and in the less developed southeastern edges of campus for pedestrian safety. A more careful approach to pedestrian crossings and safety around vehicular roadways should also be a top priority to improve pedestrian and cyclist well-being.

ISSUES

- Lack of traffic calming measures on main thoroughfares that pedestrians regularly cross.
- Points of conflict between pedestrians and vehicles at intersections without traffic lights or crossings.
- Temporary bollards do not deter vehicular traffic as effectively as permanent measures.
- Ensuring emergency poles are in working order across campus.
- Broken pavement or curbs and the lack of buffers allow vehicles to encroach on pedestrian walkways.
- Students, faculty, and staff cut through parking lots between classes.

OBJECTIVES

- Clearly delineate traffic flow with striping, traffic calming measures, and additional wayfinding signs.
- An exhaustive study may be needed to determine the best traffic circulation system and the feasibility of permanent road conversions.
- Develop a strategy to increase support for lighting through the Donor Opportunities Campuswide Strategy.



Baylor's memorial lampposts convey the character of the university while also providing additional visibility.



Many users currently cross University Parks Drive outside designated crosswalks. A partnership with the City of Waco, Waco Metropolitan Planning Organization, and TXDOT would be beneficial for planning a sky bridge to safely convey pedestrians across this six-lane roadway.



Large, busy intersections can be especially dangerous for pedestrians crossing many lanes of traffic. This intersection lacks protected crosswalks from both sides of Bagby Avenue. Enhanced pedestrian crosswalks and raised intersections can further reduce the risk to pedestrians crossing the street.



Depositing pedestrians directly into the street is not recommended. Trailhead-type nodes, site amenities, or buffer walls and planting can help protect pedestrians on pathways adjacent to roads.

DRAINAGE INFRASTRUCTURE

Currently, drainage and runoff are causing significant damage to hardscape and landscape elements on campus. Standing water and flooding continually erode pavement and create sunken areas that cause accessibility issues. Erosion of steep slopes is also occurring, depositing silt and debris onto walkways. Pollution in Waco Creek was also a common concern among stakeholders, along with the general appearance of the Riverwalk.

ISSUES

- Pollution and litter are being deposited in Waco Creek and other drainage ways.
- Landscape drains are clogged with silt and other debris, causing standing water and flooding issues.
- Improper drainage is directing water flow across walkways in some areas.
- Steep slopes are eroding during rain events, depositing silt in hardscape areas.

OBJECTIVES

- There are opportunities within this component for green storm water management systems that could provide aesthetically appealing and flood mitigating solutions for campus.
- Standard guidelines and specifications would help define proper grading techniques and runoff requirements for campus.
- Routine maintenance of drain systems would ensure they remain free of debris and reduce standing water issues.
- Increasing the number of drains, their locations, and storm water system capacities may also be recommended for areas with increased runoff on campus.
- Regrading, planting, or utilizing retaining walls at steep slopes would aid in reducing erosion and siltation deposits on campus.



Downspout disconnections are effective ways to reduce the quantity of storm water runoff being channeled and directed away from the source. Downspout disconnections can help supplement irrigation for planting beds or even direct water into rain gardens where it can be filtered and drained. In the event that a downspout is not tied directly into the storm system, the water can be daylighted, as shown in this photo. When this occurs, the hardscape material below the downspouts, such as large cobble or concrete, should direct the water away from the building into adjacent planting areas in a manner that does not cause erosion.



- ❌ Channelized creek flow with minimal slope is creating unsightly standing water issues that also cause foul smells.



- ❌ Drains must be cleaned of debris on a routine basis. Some drains and storm pipes may even need to be upsized for increased flows.



- ❌ Soils on steep slopes may need vegetative stabilization to mitigate erosion from runoff or regrading with retaining walls.



- ❌ Steel edging around drains is not recommended due to soil settling, the level of detail needed for fine grading, and the overall unattractive appearance.

ADDITIONAL COMPONENTS

Campus arrival was identified as an element to consider for improving during inventory. Stakeholder feedback confirmed that the campus edges lack a “sense of arrival” and could better reflect Baylor’s mission to uplift the Waco community. This additional “catch-all” component also provided a way to record site-specific comments related to congestion, waste, and signage.

ISSUES

- Pollution in the creek adjacent to BSB.
- Pollution and odors in the creek near the Bear Habitat.
- Monument signage at 8th Street and the Hwy 35 frontage road needs attention.
- The energy plant is noisy and unsightly in the middle of campus.
- Cats are inhabiting some areas on campus and could potentially become a nuisance in certain locations — comments were mixed regarding support for or opposition to the cat population.
- Unsightly dumpsters and odors outside Russell and Penland Residence Halls.
- Photography prop litter near prominent campus locations such as Fountain Mall, the Quad, etc.
- Many comments mentioned mowing turf areas less to reduce cuttings, allergens, and the amount of water needed for irrigation.

OBJECTIVES

- Suggest monument signage and standards to improve campus edges and the “sense of arrival”.
- Propose pollution mitigation and green storm water system methods to reduce the amount of trash in water bodies.
- Recommend site-specific improvements in the Catalyst Focus Areas.
- Consolidate waste collection areas by use of compactors.
- Coordinate with waste management service providers to minimize traffic conflicts with garbage trucks across campus.



Vegetative channels are effective for filtering and catching storm water runoff. Additional riparian plantings would provide aesthetically appealing solutions for edge stabilization here as well.



Dumpsters at the residence halls were a common concern among feedback received. Screening walls and plantings, along with proper drainage, can reduce the standing water and odors in these areas.



8th Street and Dutton Avenue/Hwy 35 Frontage Road is the primary northbound gateway into campus. A prominent gateway entrance is needed to convey the “Baylor Brand” and “sense of arrival” with architectural features, site amenities, and enhanced landscaping.



The Riverwalk section of Waco Creek could benefit from green storm water management to improve the flow and quality of runoff, while also creating a more comfortable environment for visitors.



Pollution at BSB — trash mitigation will need to become routine maintenance for campus staff. Additional programs and events can help to supplement trash pickup with volunteer groups.



Many comments provided feedback on the Energy Complex and the noise associated with it. Some also mentioned that there is often an odor in this area. Improved storm water management systems could help diminish smells from standing water here.

CAMPUSWIDE STRATEGIES

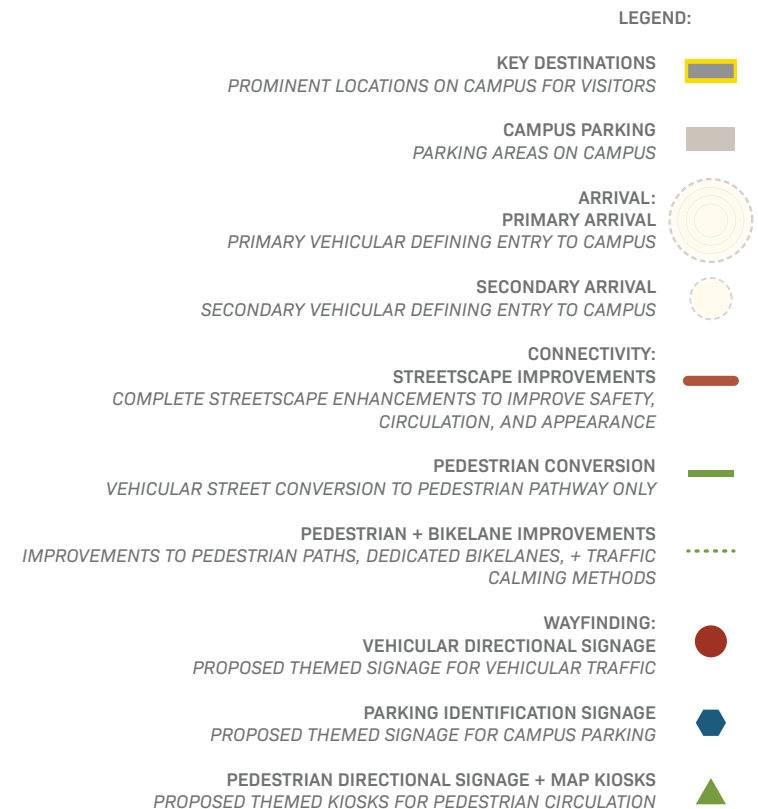
CAMPUS ARRIVAL, CONNECTIVITY, & WAYFINDING

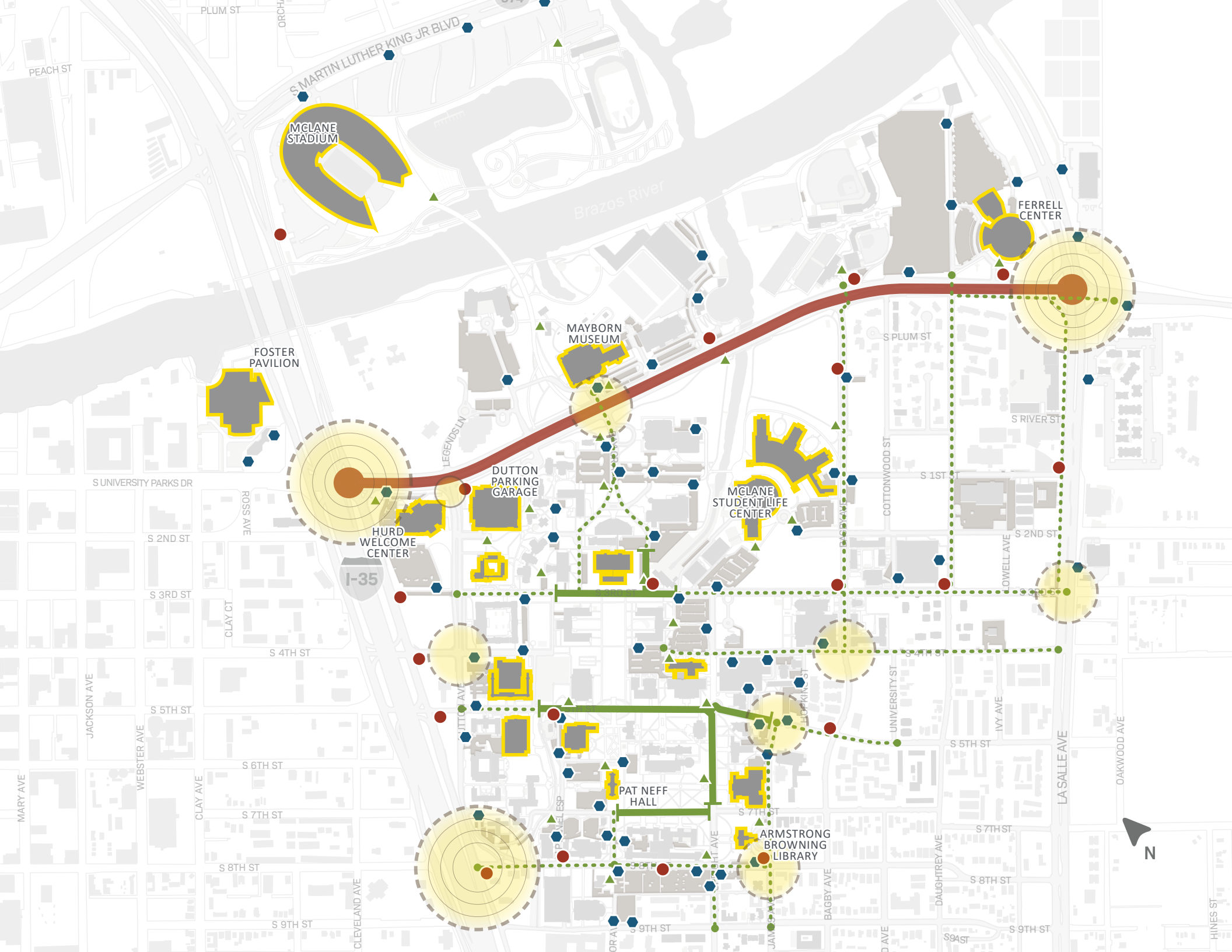
Campus arrival is facilitated by entrance hierarchy, monumentation, and additional thematic elements. These features are designed to guide visitors seamlessly onto the campus, creating a sense of progression and anticipation. This hierarchy may include primary gateways that are prominently designed, often featuring iconic architectural elements and manicured landscaping that serve as focal points. Secondary gateways are strategically placed to direct various modes of circulation and facilitate smooth traffic flow. However, the architectural aesthetic remains consistent to help designate the arrival to and identity of the campus.

Connectivity to and throughout the campus is important for the safety of all user types: pedestrian, cyclist, and vehicular. Unclear traffic patterns and sudden road endings create confusion and hazardous, informal pedestrian crossings. A traffic feasibility study would help in providing suggestions for pedestrian conversion projects and bike lane infrastructure. The suggestions shown at right were determined by stakeholder feedback and are intended to initiate complete street enhancements, not directly guide improvements.

Wayfinding is an additional architectural feature that signifies arrival and the character of the campus. It also clearly defines pedestrian and cyclist routes, directing flow through designated pedestrian crossings and reducing the establishment of 'desire paths'. Wayfinding signage should be located in numerous locations, including divides in circulation, building entries, and other important destinations.

Each element above should represent an architecturally thematic design family that strongly conveys the "Baylor Brand".





GREEN INFRASTRUCTURE METHODS

The following list of methods have been developed as potential applications for increased sustainability and resiliency on campus. Traditional gray infrastructure systems, such as gutters, pipes, and tunnels, channelize and increase the volume of storm water downstream. Green infrastructure increases the capacity of local storm water systems by collecting and infiltrating water closer to the source of runoff. These methods also provide additional urban wildlife habitat and societal benefits.

Additional guidelines, methods, and best management practices can be found in SITES or LEED documentation. SITES provides a rating system for outdoor spaces and landscapes that guide, evaluate, and certifies the sustainability and resilience of constructed designs:

“By protecting, restoring and generating ecosystem services, the Sustainable SITES Initiative promotes climate regulation, protects air and water quality, controls flooding, improves resilience, mitigates risks from potential hazards, enhances biodiversity, conserves resources, and reduces waste. SITES provides additional benefits for human health and well-being, community development, and local economic stimulation.”

Additional tools that are typically implemented within the following systems include rainwater harvesting, rain gardens, bioswales, permeable pavement, and native or xeriscaped planting. It is also important to consider irrigation methods within these systems; most do not require irrigation as they are periodically inundated with water. Drip and quick coupler valves can supplement water demand during dry periods, but the purpose of these systems are to be stewards of water management and the landscape.

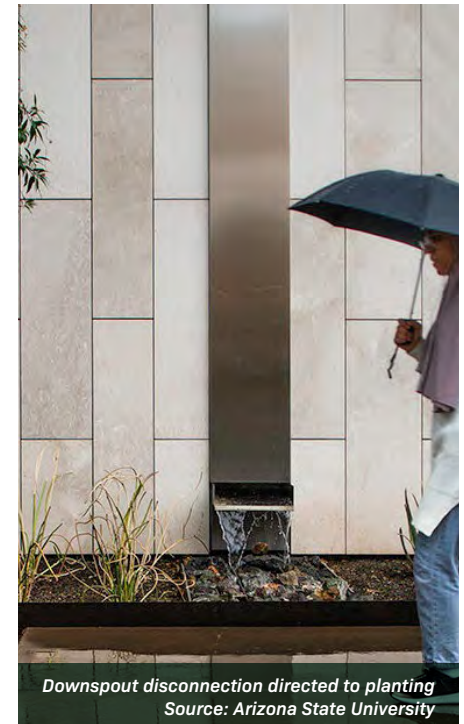
These methods are intended to provide potential design programming for future development on campus. The Catalyst Projects reference these methods where applicable, but resiliency and sustainability can be applied across multiple facets of the campus landscape. Additionally, the Campus Beautification Fund (pg 99) could provide support for implementing these infrastructure methods.

GREEN STORM WATER SYSTEMS

Green storm water systems is primarily concerned with the collection, conveyance, and infiltration of rainwater. This method may include green roofs, disconnected downspouts, rain harvesting cisterns, permeable paving, rain gardens, and/or bioswales from the Green Infrastructure Toolkit. This method would be appropriate for accompanying new architecture, streetscape improvements, and pedestrian plazas.



Rainwater Harvesting Cistern
Source: The National Tank Outlet



Downspout disconnection directed to planting
Source: Arizona State University

RIPARIAN MANAGEMENT

Proper vegetation, maintenance, and management of the Baylor Creek system will increase storm water quality, resiliency, infiltration, and urban wildlife habitat. Restoring native plantings to channelized parts of Baylor Creek also provides increased aesthetic appeal and further generates ecosystem services of the natural resource.



GREEN ROOFS + WALLS

Green roofs and walls immediately slow and reduce runoff at the source. They also lower microclimate temperatures in and around the buildings on which they are placed. These methods are also utilized by urban wildlife for food and habitat.



GREEN STREETS + PARKING

This method is a combination of multiple green infrastructure tools that together reduce storm water runoff, lower surface temperatures, and increase user comfort. Green streets can be implemented in any future infrastructure projects, while green parking would require additional design considerations due to the site context.



TRAFFIC CALMING TOOLKIT

The Institute of Transportation Engineers (ITE) define traffic calming as:

“... the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users.”

One of the key elements of traffic calming measures is to increase the safety of users, especially for pedestrians and cyclists, through decreasing traffic volume and reducing the speed through street crossings. An additional benefit of traffic calming methods is the ability to enhance the streetscape experience for pedestrians and residents of the community.

Primary objectives of traffic calming, as defined by the South Central Regional Council of Governments, include:

- Slowing vehicular travel speeds
- Reduce the frequency and severity of collisions
- Reduce the need for police enforcement
- Reduce cut-through motor vehicle travel patterns
- Increase safety for non-motorized street users
- Increase access for all modes
- Enhance the street environment

Speed can be controlled through a number of measures that vary in development intensity including:

- Speed Humps
- Raised Crosswalks
- Raised Intersections
- Rumble strips
- Textured & Colored Pavement
- On-Street Parking
- Traffic Circles
- Narrowed Lanes
- Neckdowns, Bulb Outs, Curb Extensions, Chicane
- Traffic Island or Medians
- Landscaping
- Gateways
- Pavement Markings
- Signage
- Edge Treatments (Barrier Curbs)
- Reduced Corner Radii

GREENWICH AVENUE CASE STUDY

This project implemented curb bumpouts, or chicanes, that narrow the roadway at the intersection to reduce traffic speeds. Pavers and colored pavement in the raised intersection increases the visibility of pedestrians, while also contributing to slowing traffic speeds. On street parking contributes to pedestrian safety by providing an additional buffer between travel lanes and sidewalks. Improved site lighting aids in increasing pedestrian safety and visibility in the intersection, also.

Storm water methods were also improved by increasing pervious cover and lining existing infrastructure to extend their lifespans.



Greenwich Ave & Elm St Intersection
Source: City of Greenwich Connecticut

LANDSCAPE MEDIANS & ROAD EDGES

Landsaped road edges or medians reduce traffic speed by narrowing lanes physically and visually. They also provide a safe space for pedestrians crossing larger roadways.

These methods also provide enhanced arrival identity and opportunities for gateway monumentation. Special consideration should be given when implementing medians to reduce conflicts with bicyclist travel.



RAISED PEDESTRIAN INTERSECTIONS & CROSSWALKS

Raised pedestrian crossings slow traffic through the change of grade and increase the visibility of pedestrians. Raised crossings typically match the elevation of connecting sidewalks and utilize street print and pavers to increase the visibility.



BUMPOUTS & CHICANES

Physically reducing the size of roadways can be done through multiple methods of curb bumpouts, or chicanes. These can be part of planned improvements with the installation of barrier curbs, or after as a disconnected bumpout.

A less costly method of chicanes includes separation with physical traffic cones and visually with specialty street print. Bumpouts also include additional signage to bring attention to pedestrian crossings.



DONOR OPPORTUNITIES

Generous donors have contributed to the campus landscape in various forms, including planting trees, installing benches, memorializing events or individuals associated with the university, or establishing an endowment for the design, installation, and maintenance of campus grounds. These gifts have served as catalysts for new projects and may play a role in fully realizing this plan's vision for the outdoor spaces across campus.

The campus landscape offers many opportunities for donor contribution and recognition. Throughout the planning process of this master plan, it was consistently noted that an organized donor program is necessary to ensure that planned improvements are implemented systematically. This plan proposes that new donor elements be located within a catalyst area proposed herein. Existing trees, benches, and lampposts may be eligible at staff discretion. Close coordination with the Office of Advancement and the Department of Facilities Management will be key when implementing donor gifts. These guidelines are intended to guide the implementation of donations, not to limit potential donor contributions.

Donor elements should be sited using the general criteria on the following pages. Specific donor contributions may deviate from these guidelines on a case-by-case basis after gaining approval through the *Baylor Landscape Design Checklist* and installation should prioritize the Catalyst Project Areas.

Baylor may also consider initiating a Campus Beautification Campaign. This initiative may provide various opportunities for donated elements and associated maintenance. Establishing a fund for enhanced maintenance will significantly enhance the overall campus landscape and support existing staff responsibilities.

All donor items should align with planned improvements of the Department of Facilities Management. Items shall be located and installed at the discretion of Facilities Management Staff.

Pricing Strategy for Donor Elements: *Donations should support purchase of the dedication item, installation, and maintenance of the item for its stated lifespan described herein. Damage to dedication items are repaired by Baylor staff at the discretion of Baylor Facilities Management & Office of Advancement Representatives.*

LEGEND:

FOCUS AREA 
AREA STUDIED FOR
DONOR OPPORTUNITIES

CATALYST PROJECT AREAS 
PROPOSED CATALYST AREAS (SEE PG. 101);
SUGGESTED AREAS FOR DONOR RECOGNITION

KEY DESTINATIONS 
PROMINENT LOCATIONS ON CAMPUS FOR VISITORS

CURRENT TOUR ROUTE 
CURRENT PROSPECTIVE STUDENT AND
VISITOR TOUR ROUTE

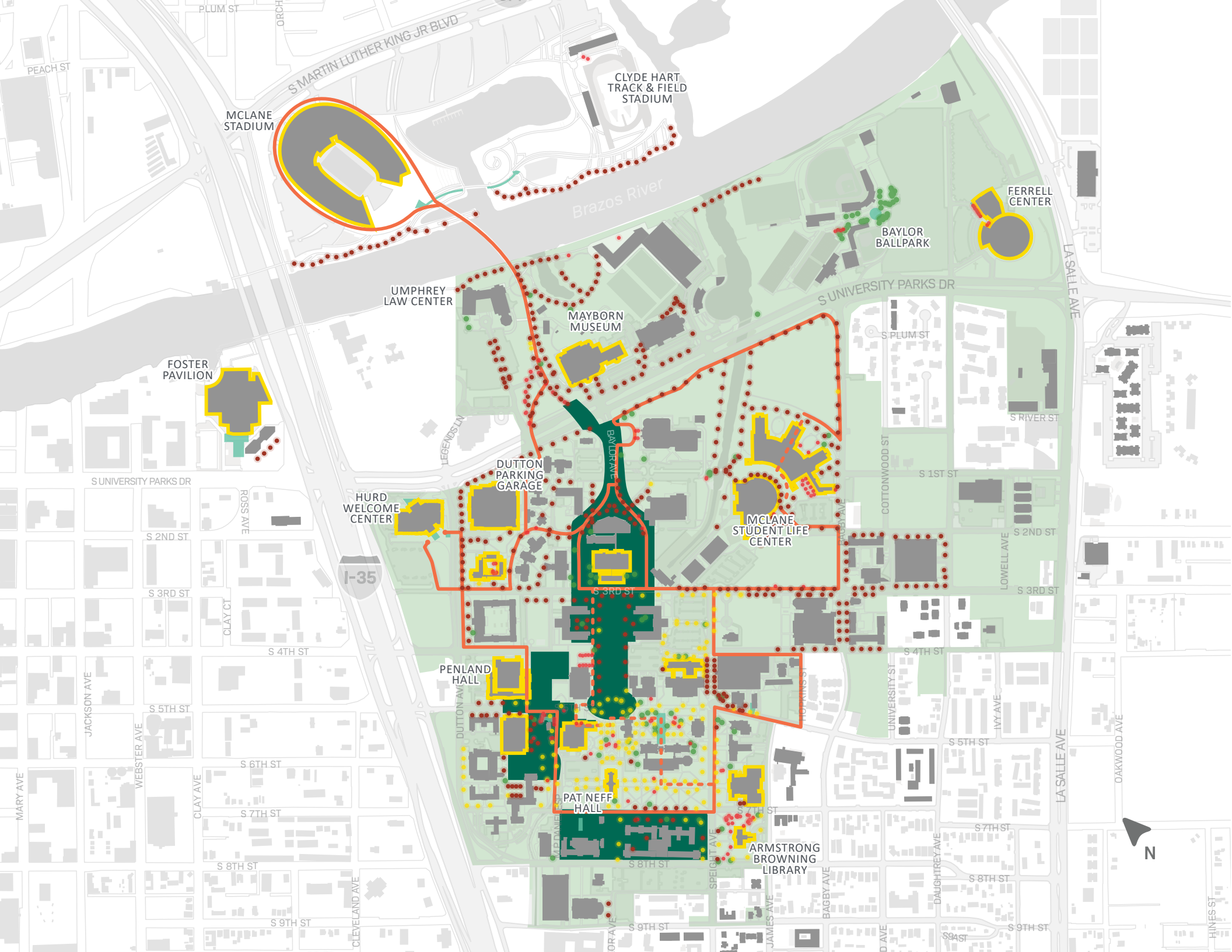
BRICK PAVER PLAZAS 
EXISTING DONOR BRICK PAVER LOCATIONS

LEGACY BENCHES 
EXISTING DONOR BENCHES

MEMORIAL TREES 
EXISTING MEMORIAL TREES WITH DEDICATIONS

MEMORIAL LAMPPOST 
EXISTING MEMORIAL LAMPPOSTS WITH DEDICATIONS

MEMORIAL LAMPPOST 
EXISTING MEMORIAL LAMPPOSTS WITHOUT
A DEDICATION



MCLANE
STADIUM

CLYDE HART
TRACK & FIELD
STADIUM

FERRELL
CENTER

BAYLOR
BALLPARK

UMPHREY
LAW CENTER

MAYBORN
MUSEUM

FOSTER
PAVILION

HURD
WELCOME
CENTER

DUTTON
PARKING
GARAGE

MCLANE
STUDENT LIFE
CENTER

PENLAND
HALL

PAT NEFF
HALL

ARMSTRONG
BROWNING
LIBRARY

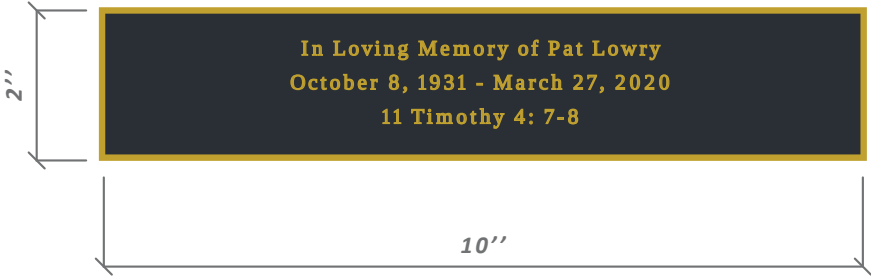
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HARDSCAPE & FURNISHINGS

Dedication plaques are currently used with donor benches and memorial lampposts and could also be utilized for other site furnishings, such as those suggested below.

Dedication plaques should generally be 10” in width and 2” in height. The standard typeface is Georgia, with a maximum of 3 lines of text and 30 characters per line.

Pricing Strategy for Donor Elements: *Donations should support purchase of the dedication item, installation, and maintenance of the item for its stated lifespan described herein. Damage to dedication items are repaired by Baylor staff at the discretion of Baylor Facilities Management & Office of Advancement Representatives.*

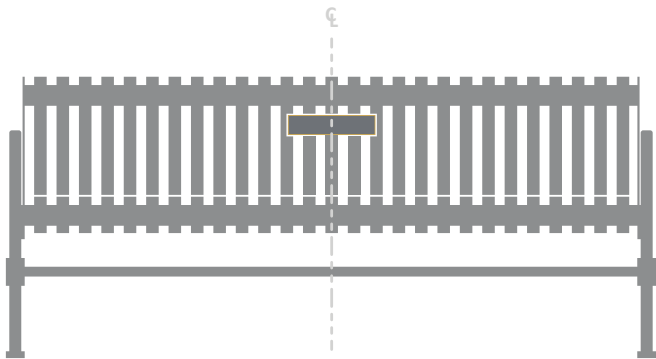


TYPE	LOCATION	INSTALLATION	MAINTENANCE PERIOD	RECOMMENDED COST
DONOR BENCH DUMOR 119-60 OR 120-60	EDGES OF PATHS, PLAZAS, BUILDING ENTRIES	SURFACE MOUNTED	10 YEARS	\$10,000**
PAVERS	PROMINENT PATHS & PLAZAS, LOWER CART TRAFFIC	PER MANUF. SPECIFICATION	10 YEARS	VARIES**
MEMORIAL LAMPPOSTS	STRATEGIC STREETSCAPES	PER MANUF. SPECIFICATION	30 YEARS	\$25,000**
*WATER FEATURES + FOUNTAINS	NEW CAMPUS DEVELOPMENT + PROJECTS	PER DRAWINGS & DETAILS	10 YEARS	+\$100,000**
*SEAT WALLS	NEW CAMPUS DEVELOPMENT + PROJECTS	PER DRAWINGS & DETAILS	10 YEARS	+\$25,000**

**Custom furnishing types that will require detailed design.*
***Cost projections are based on the Pricing Strategy for Donor Elements established on page 90.*
Costs at time of donorship may vary depending on market conditions and Baylor Staff discretion.
Costs are based on 2024 market conditions and do not reflect future inflation.

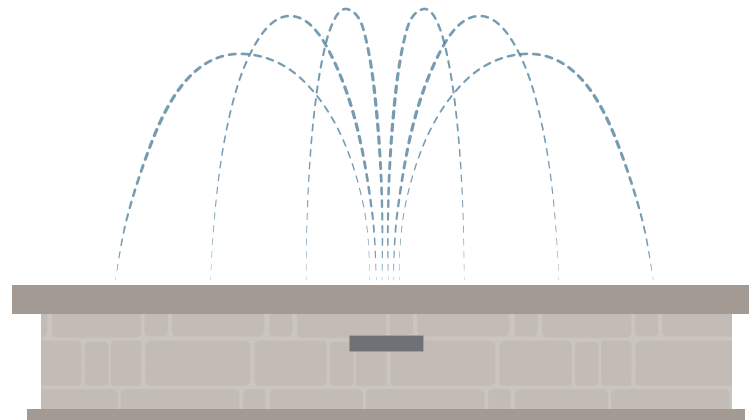
DONOR BENCH

The DuMor 119-60 or 120-60 are the standard bench for campus and bench memorials. Dedication plaques should be mounted on the back of the bench. Benches should be surface mounted and located along the edges of pedestrian paths, within seating areas, or at the entrances of significant buildings.



SITE FEATURES

These elements may require additional details or drawings for installation due to their custom nature. Elements like water features and seat walls could also be included within a “Designated Gathering Space” donor opportunity development.

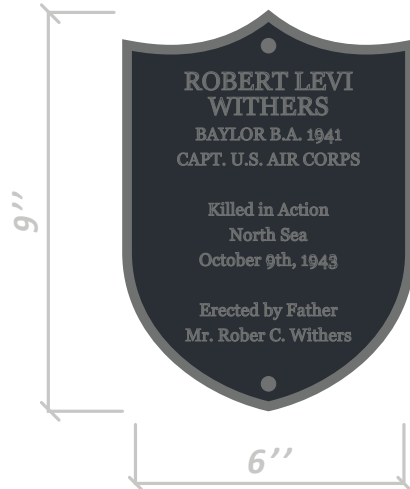


MEMORIAL LAMPPOST

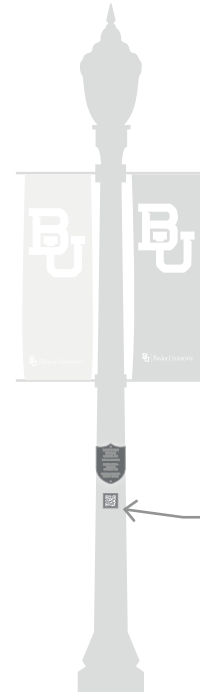
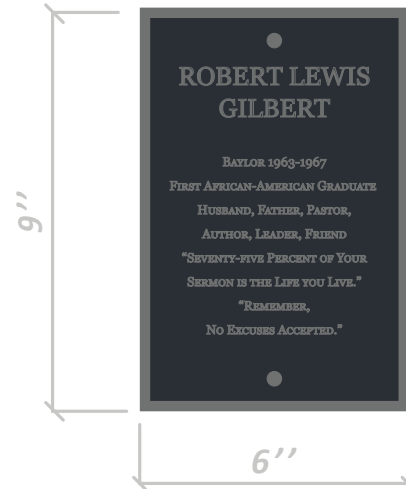
Memorial lampposts are a defining feature that unifies Baylor's campus landscape. There are two dedication types for significant Baylor figures: Type A, which is for Baylor alumni who have been killed in action, and Type B, which is for other prominent alumni.

Both dedications are 9" x 6"; however, Type A is shield-shaped, while Type B is rectangular. These dedications differ from other furnishing and landscape dedications in that they have aluminum finishes instead of bronze.

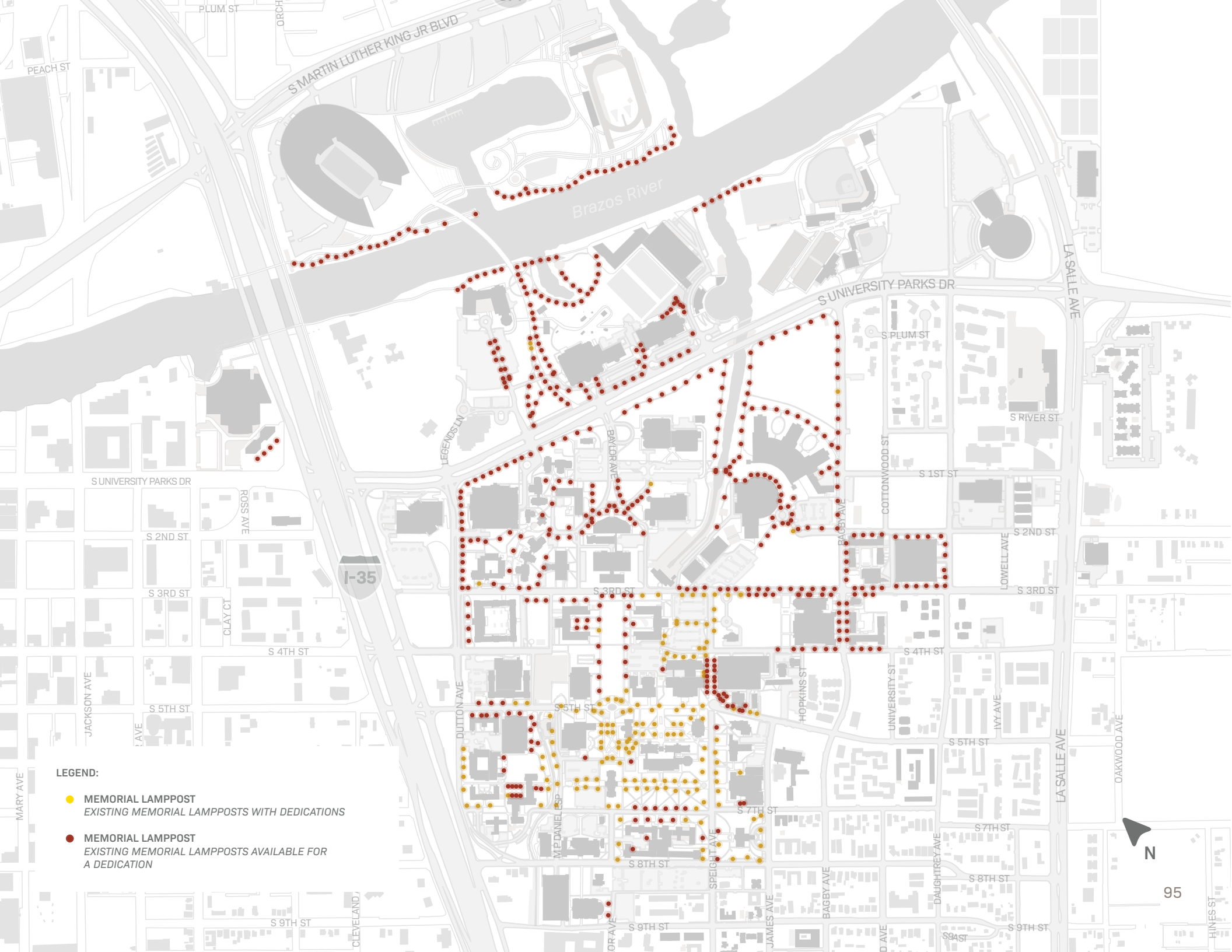
TYPE A.



TYPE B.



Note: At the time of this publication, Baylor is considering establishing an online archive of memorialized individuals. A QR code to link memorial plaques to their online article may be placed on a 4" X 4" black coated plaque with silver edging to match the memorial plaque. Interested donor may work with Baylor to assess their options with this program.



LEGEND:

- **MEMORIAL LAMPPOST**
EXISTING MEMORIAL LAMPPOSTS WITH DEDICATIONS
- **MEMORIAL LAMPPOST**
EXISTING MEMORIAL LAMPPOSTS AVAILABLE FOR
A DEDICATION



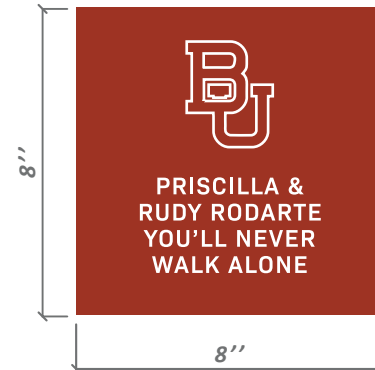
DONOR PAVERS

Baylor's historical use of memorial bricks may require more maintenance than other dedication types, but remain a prominent source of fundraising for the University and recognition for alumni. Bricks may continue to be used, but special consideration for brick durability, location, traffic, and weathering should be taken into account. Bricks should be located in pedestrian plazas, outside vehicular or cart traffic, and installed per manufacturer recommendations. There are multiple types of dedication pavers used across campus. Any additional installations should be located in an existing donor paver plaza and match the existing paver type and engraving method, unless approved by Baylor Facilities Management.

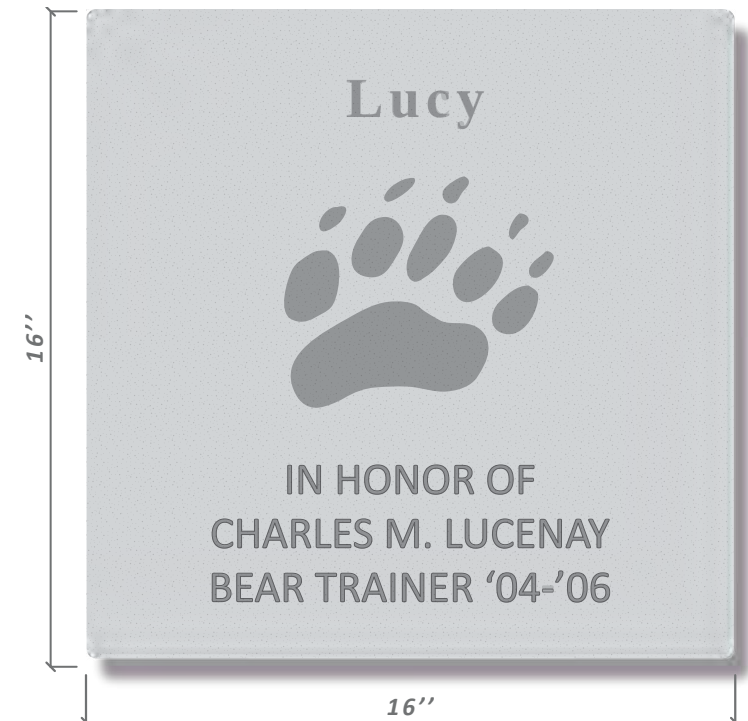
DONOR PAVER



BEAR WALK PAVER



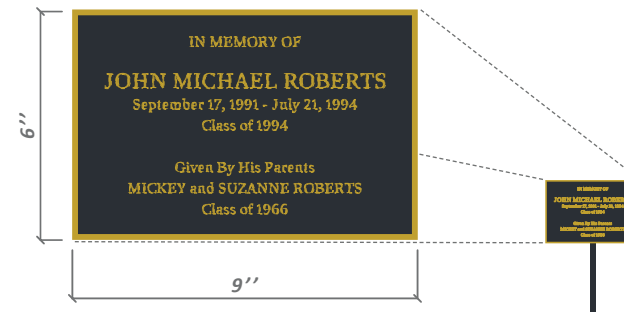
BEAR HABITAT PAVER



CAMPUS FORESTATION

Donors have contributed to the living landscape components of campus for decades. For the health and success of Baylor's urban forest, it is crucial that this program be managed and coordinated with Advancement and Grounds Maintenance. Elements such as tree location, tree species, tree size and plaque placement should be implemented consistently across campus to unify the program.

When approved, tree dedication plaques should be displayed by a 24" metal T-post located near the tree, at the discretion of the facilities department. Dedications should be visible through any groundcover or shrubs, facing the adjacent pedestrian path, and should be regularly checked for maintenance and care.



TYPE	PLACEMENT	INSTALLATION	MAINTENANCE PERIOD	COST
CAMPUS FORESTATION FUND (NO DEDICATION PLAQUE)	THESE FUNDS MAY BE USED FOR THE INSTALLATION OR MAINTENANCE OF TREES ACROSS CAMPUS.	PER BAYLOR TREE SPECIFICATION FACILITIES MANAGEMENT DISCRETION.	VARIES	\$50*+
MEMORIAL TREE GROVE (GROVE OF TREES INCLUDES ONE DEDICATION PLAQUE)	BAYLOR WILL PROVIDE A LIST OF PREDETERMINED AND AVAILABLE LOCATIONS FOR MEMORIAL TREES (INCLUDING EXISTING TREES ON CAMPUS), WHICH COORDINATES WITH PROPOSED CAMPUS PROJECTS AND PLANS. APPROVAL FROM BAYLOR FACILITIES MANAGEMENT REQUIRED FOR LOCATION AND SPECIES.	PER BAYLOR TREE SPECIFICATION.	10 YEARS	\$10,000*
MEMORIAL TREE (DEDICATION PLAQUE)	BAYLOR WILL PROVIDE A LIST OF PREDETERMINED AND AVAILABLE LOCATIONS FOR MEMORIAL TREES (INCLUDING EXISTING TREES ON CAMPUS), WHICH COORDINATES WITH PROPOSED CAMPUS PROJECTS AND PLANS. APPROVAL FROM BAYLOR FACILITIES MANAGEMENT REQUIRED FOR LOCATION, SPECIES, AND DESIGN.	PER BAYLOR TREE SPECIFICATION AND CUSTOM DESIGN FOR THE AREA.	10 YEARS	\$5,000*

*Cost projections are based on the Pricing Strategy for Donor Elements established on page 90. Costs at time of donorship may vary depending on market conditions and Baylor Staff discretion. Costs are based on 2024 market conditions and do not reflect future inflation.

Notes:

- Gifts support purchase, installation, and stated life of the memorial plaque. Due to trees being living organisms, gifts support purchase, installation, and maintenance for the stated period. The condition of the trees may vary based on genetics, location of installation, and acts of God.
- Proposed Memorial Trees must conform to the Baylor Master Tree List and be approved by Baylor Facilities Management.
- In order to be approved, tree locations should not conflict with utilities, obstruct architectural features, or be placed where future development is planned.

DESIGNATED GATHERING SPACES

Donors, or a group of donors, may contribute towards the dedication of gathering and seating areas on campus. Both existing and proposed areas may be eligible for support, at the discretion of the University.

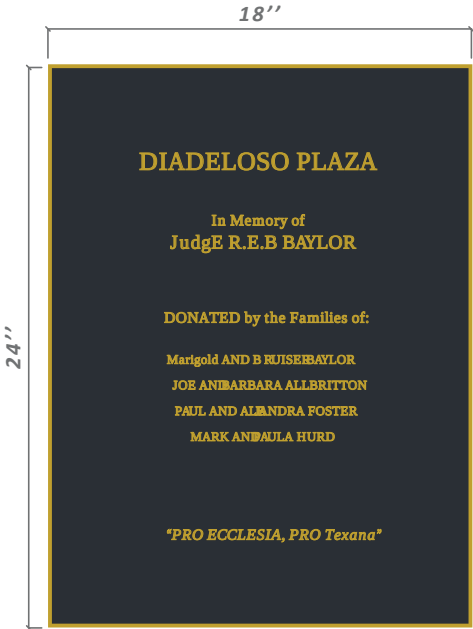
These spaces may include elements such as plazas, seat walls, water features, pavers, site furnishings, open lawn areas, and plantings.

Donors will be recognized in the space with a plaque, as shown to the right, to be located on monuments, buildings, or hardscape elements at the discretion of the University and in coordination within the design of the proposed space. If recognizing multiple donors, the parties will be listed in order of contribution value and then alphabetical order for equal values.

Pricing Strategy for Donor Elements: *Donations should support purchase of the dedication item, installation, and maintenance of the item for its stated lifespan described herein. Damage to dedication items are repaired by Baylor staff at the discretion of Baylor Facilities Management & Office of Advancement Representatives.*

TYPE	PLACEMENT	SIZE	COST
SILVER LEVEL (SMALL SPACE)	SMALL SPACES ARE ADJACENT TO BUILDINGS, EXTERIOR ROOMS, OR ALONG PATHWAYS.	UP TO 5,000 SF	UP TO \$1,000,000*
GOLD LEVEL (MEDIUM SPACE)	MEDIUM SPACES ACT AS CONNECTIONS BETWEEN BUILDINGS OR EXTERIOR SPACES ON CAMPUS.	5,000 SF - 10,000 SF	\$1,000,000-\$5,000,000*
PLATINUM LEVEL (LARGE SPACE)	LARGE SPACES ACT AS DESTINATIONS AND FIT WITHIN THE CAMPUS VISION.	MORE THAN 10,000 SF	MORE THAN \$5,000,000*

**Cost projections are based on the Pricing Strategy for Donor Elements established on page 90. Costs at time of donorship may vary depending on market conditions and Baylor Staff discretion. Costs are based on 2024 market conditions and do not reflect future inflation.*



CAMPUS BEAUTIFICATION FUND

The landscape experience is a major influence on a visitor's perception of campus. Donors can play a critical role in the maintenance and care of existing or proposed exterior features across campus. Elements which may be supported by this fund include:

- Memorial maintenance, preservation, and restoration
- Installation and maintenance of site furnishings across campus
- Exterior improvements supporting events like Homecoming or Graduation
- Seasonal plantings
- General grounds maintenance

Donors may choose to make a one-time gift or a repeating gift at determined intervals. This fund could also provide avenues for separate campaigns as new development and master planning occurs on campus, helping to gather support for improving and maintaining the campus appearance.



Source: Chris Hansen, Baylor Photography

CATALYST PROJECTS

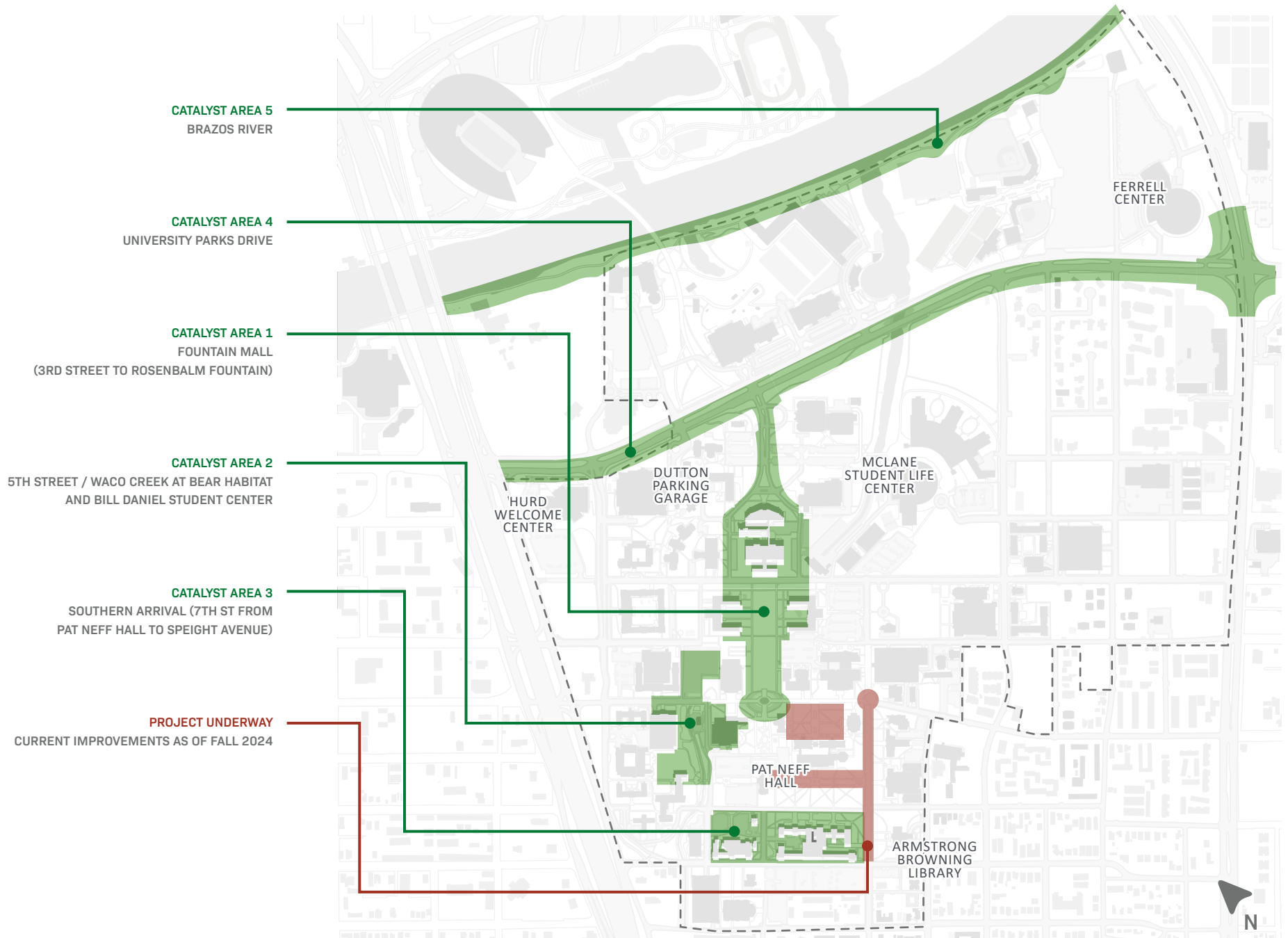
OVERVIEW

The Landscape Master Plan serves as a catalyst for future development, guiding the university's landscape enhancements in alignment with broader strategic goals. The plan identifies key catalyst projects and partnership opportunities that will drive the campus's transformation, setting the stage for new infrastructure, donor recognition opportunities, and collaborative initiatives.

Feedback from engaged stakeholders, students, faculty and staff was compiled to identify five key areas to further explore “the big ideas” on campus. The following Catalyst Areas were studied for opportunities for improvements to accomplish the vision of the Baylor Campus Landscape Master Plan.

These recommendations and concepts are intended to foster the discussions and alignment with additional Baylor campus planning discussions as they relate to future buildings, roadway enhancements, utility projects and other large scale capital improvements.

CATALYST AREA	CAMPUS ARRIVAL, CONNECTIVITY, & WAYFINDING 	GREEN INFRASTRUCTURE 	TRAFFIC CALMING 	DONOR OPPORTUNITIES 
CATALYST AREA 1: FOUNTAIN MALL (3RD STREET TO ROSENBALM FOUNTAIN)	Evaluate consistent & appropriate wayfinding applications around the mall, new plazas, and for student organization signs.	Evaluate design approach to storm water when implementing new plans.	Evaluate portions of 3rd St for conversion to pedestrian only.	Evaluate donor opportunities in expanded plazas.
CATALYST AREA 2: 5TH STREET / WACO CREEK AT BEAR HABITAT AND BILL DANIEL STUDENT CENTER	Evaluate consistent & appropriate wayfinding applications.	Evaluate design approach to storm water and opportunities presented within Waco Creek Corridor.	Evaluate expanded pedestrian promenade on 5th St.	Evaluate donor opportunities in expanded plazas and with site furnishings.
CATALYST AREA 3: SOUTHERN ARRIVAL (7TH ST FROM PAT NEFF HALL TO SPEIGHT AVENUE)	Evaluate consistent & appropriate wayfinding applications. Evaluate Southern Arrival Entry and potential enhancements.	Evaluate design approach to storm water within streetscapes and right-of-ways.	Evaluate circulation on Speight and potential conversion areas. Evaluate conversion of 7th St to pedestrian only.	Evaluate donor opportunities in expanded plazas and with site furnishings.
CATALYST AREA 4: UNIVERSITY PARKS DRIVE	Evaluate campus arrival and hierarchy of signage. Implement grand gateways to promote campus identity.	Evaluate design approach to storm water within roadways and away from pedestrian circulation routes.	Evaluate safety and enhancements to pedestrian crossings, consider full traffic calming toolkit.	Evaluate donor opportunities for pedestrian bridge or underpass connections.
CATALYST AREA 5: BRAZOS RIVER	Evaluate consistent & appropriate wayfinding applications.	Evaluate river health and prioritize stewardship of this ecological resource.	Consider multi-modal circulation, trail connections to greater Waco community, and boat tailgating.	Evaluate donor opportunities in expanded plazas and boardwalk.



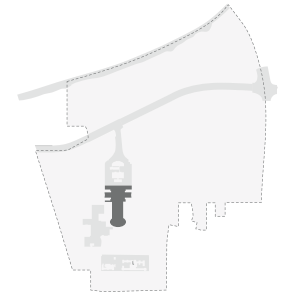
CATALYST AREA 1

FOUNTAIN MALL (3RD STREET TO ROSENBALM FOUNTAIN)

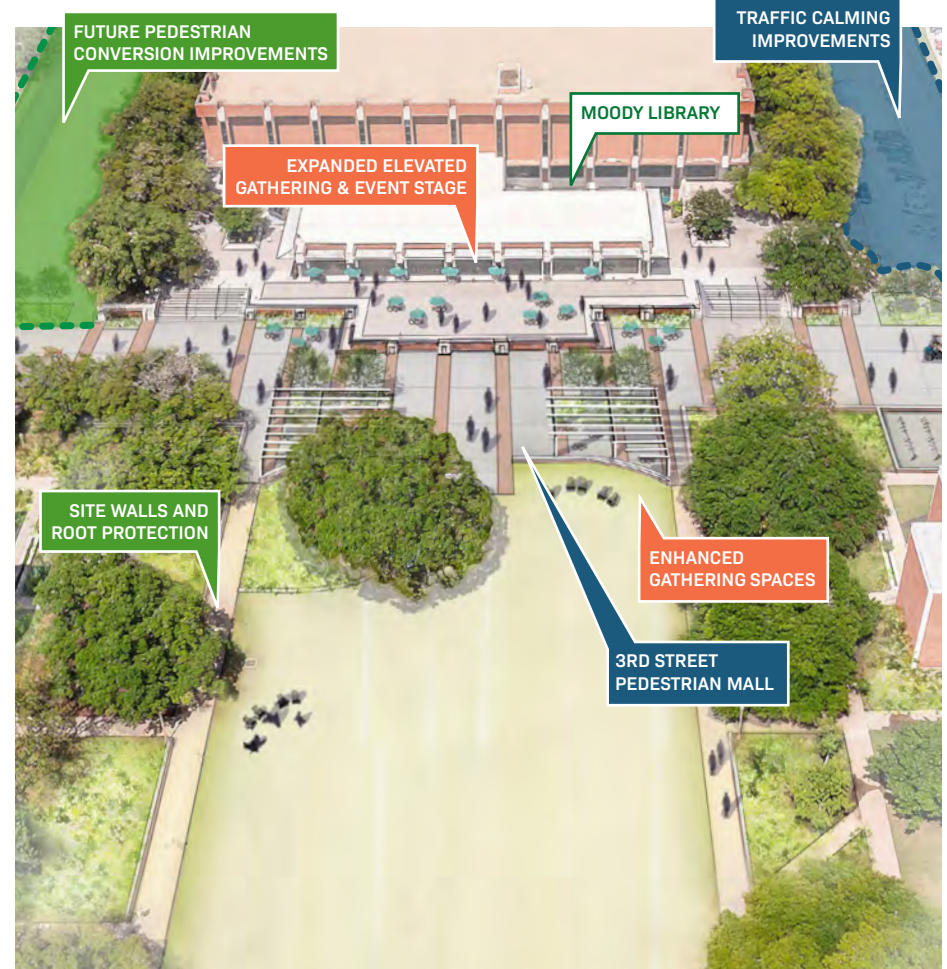
Fountain Mall serves as a hub for activity including large scale gatherings, event space, smaller intimate courtyards, building entrances, and memorials, as well as the prominent pedestrian circulation corridor through the heart of campus. The large open lawn panels are book-ended to the north by 3rd Street and the Library, to the south by the Rosenbalm Fountain Plaza and the 5th Street pedestrian corridor. Adjacent areas to the east and west include the Panhellenic Memorial Garden, small entry courtyards for Sid Richardson and McLane Science buildings and entry space to the Mars McLane Gym. Fountain Mall also shares adjacency with the large parking area between Sid Richardson Science and Morrison Hall.

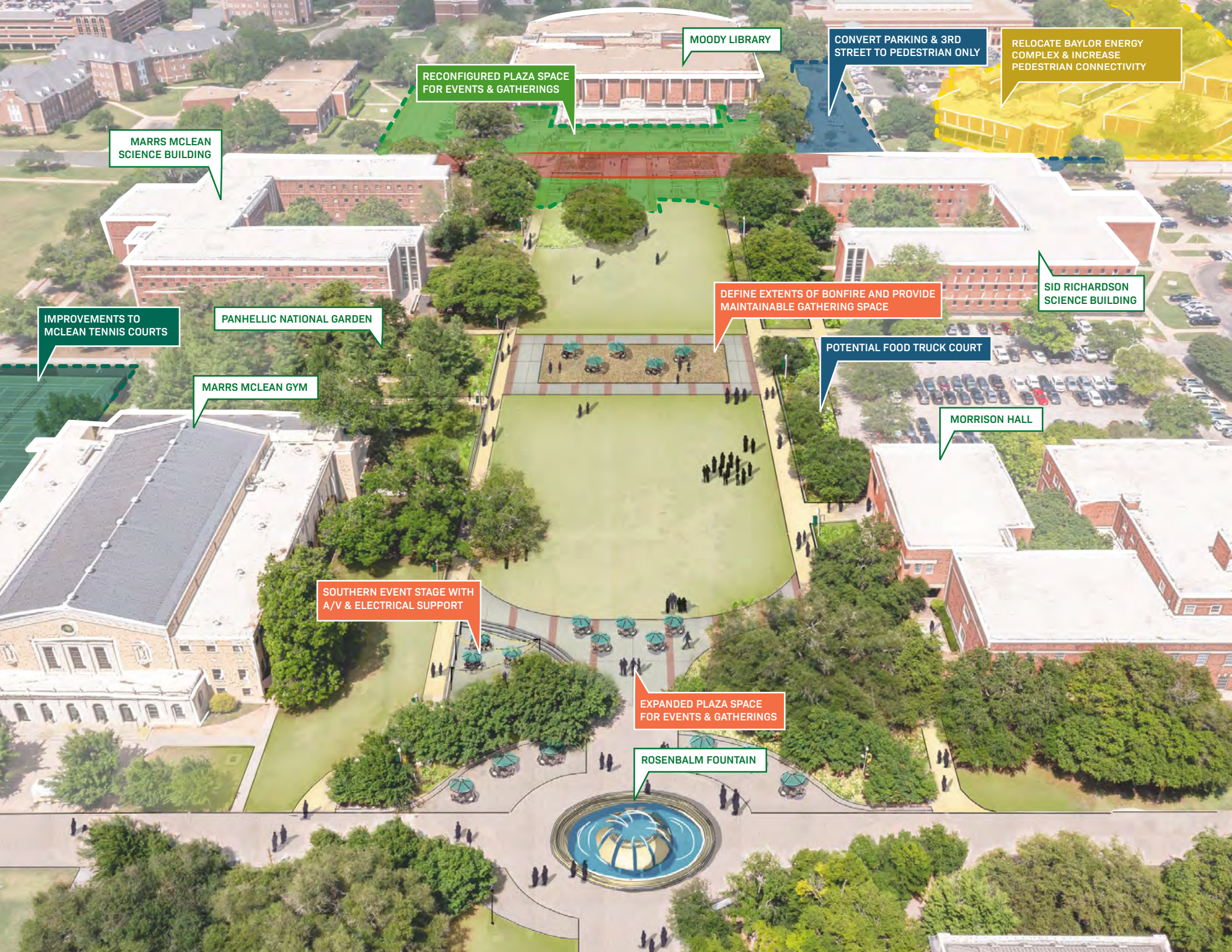


KEY MAP:



3RD STREET AT MOODY LIBRARY:





MOODY LIBRARY

CONVERT PARKING & 3RD STREET TO PEDESTRIAN ONLY

RELOCATE BAYLOR ENERGY COMPLEX & INCREASE PEDESTRIAN CONNECTIVITY

RECONFIGURED PLAZA SPACE FOR EVENTS & GATHERINGS

MARRS MCLEAN SCIENCE BUILDING

IMPROVEMENTS TO MCLEAN TENNIS COURTS

PANHELIC NATIONAL GARDEN

MARRS MCLEAN GYM

DEFINE EXTENTS OF BONFIRE AND PROVIDE MAINTAINABLE GATHERING SPACE

SID RICHARDSON SCIENCE BUILDING

POTENTIAL FOOD TRUCK COURT

MORRISON HALL

SOUTHERN EVENT STAGE WITH A/V & ELECTRICAL SUPPORT

EXPANDED PLAZA SPACE FOR EVENTS & GATHERINGS

ROSENBALM FOUNTAIN

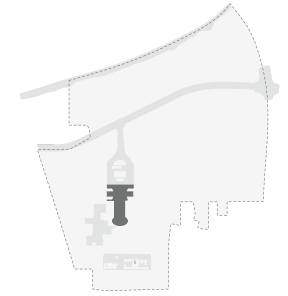
CATALYST AREA 1

FOUNTAIN MALL (3RD STREET TO ROSENBALM FOUNTAIN)

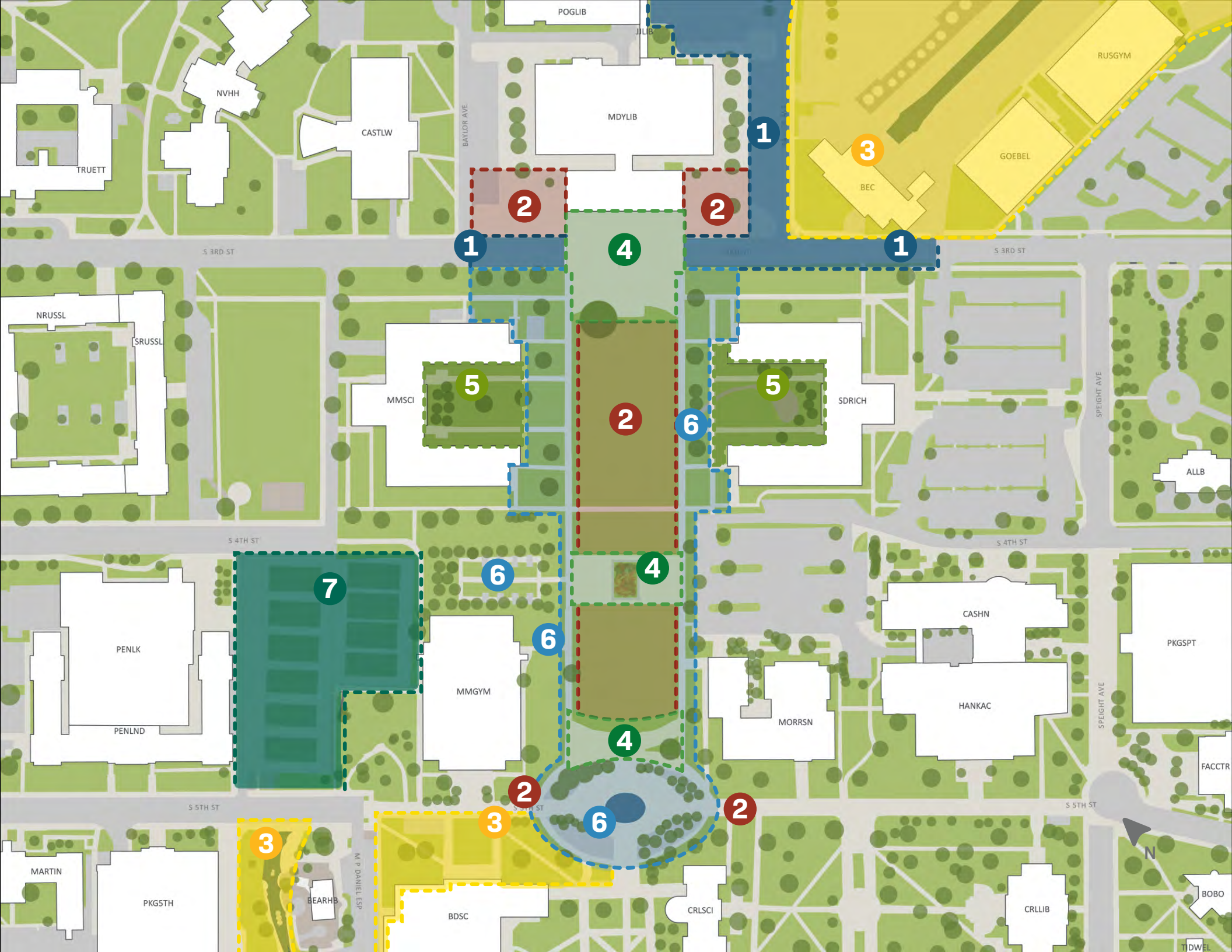
Throughout the input process of this master plan, feedback was concentrated in and around the Fountain Mall area. The area is revered as a special place on campus; however, it lacks the physical improvements and quality spaces that have the potential to provide an exceptional heart of campus.

- 1** Conversion of 3rd Street to pedestrian only at Fountain Mall.
 Enhance pedestrian plazas around the Library and connect to Fountain Mall with 3rd Street pedestrian conversion.
 Announce pedestrian areas with campus standard traffic calming strategies to include bollards, pavement materials, and grade separation.
- 2** Enhance and expand pedestrian circulation into and within Fountain Mall.
 Add pathways to connect through north lawn panel to reduce stress on turf.
 Create stronger connection to adjacent destinations such as the Bear Habitat, BSB, Penland Hall, and others.
 Reconfigure existing spaces at north and south end of the Mall to provide stages and/or flexible gathering plazas.
- 3** Relocate Baylor Energy Complex per future master plan.
 Embrace Waco Creek as an amenity to campus
 Connect BSB to Fountain Mall and additional corridors.
 Identify historically significant areas of “south” fountain mall to restore.

KEY MAP:



- 4** Create multi-functional gathering space for special events including bonfire, speeches, concerts, and other gatherings.
 Expand Rosenbalm Fountain Plaza spaces to accommodate programmed functions
- 5** Enhance courtyard spaces at Sid Richardson and McLane Science buildings.
 Explore opportunities for small gathering spaces and individual outdoor study spaces.
 Engage with science curriculum to implement supportive learning objectives the landscape has to offer.
- 6** Implement a standard of maintenance and design at Fountain Mall and Panhellenic National Garden that reflects excellence and the “Baylor Brand” within the campus landscape.
 Define edges of Fountain Mall with consistent methods, such as low retaining walls, paving materials, and landscape beds.
- 7** Enhance circulation around McLean Tennis Courts and renovate surfaces and gathering spaces.
 Convert a percentage of tennis courts to pickleball.



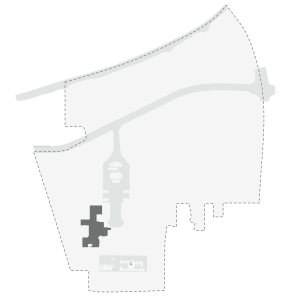
CATALYST AREA 2

5TH STREET / WACO CREEK AT BEAR HABITAT AND BILL DANIEL STUDENT CENTER

The Bill & Eva Williams Bear Habitat is one of the most well-known destinations for students and visitors to the Baylor campus and ranks high among the popular tourist destinations for the city of Waco itself. With convenient access from I-35, many visitors to campus may only drop in for a few minutes to glimpse the American black bears. With the bears' importance to the Baylor community, providing the best conditions for their campus home is a must. Enhancements to the site and surrounding area will improve the pedestrian experience for students and visitors alike.

The Campus Master Plan process explored many opportunities to enhance this part of campus.

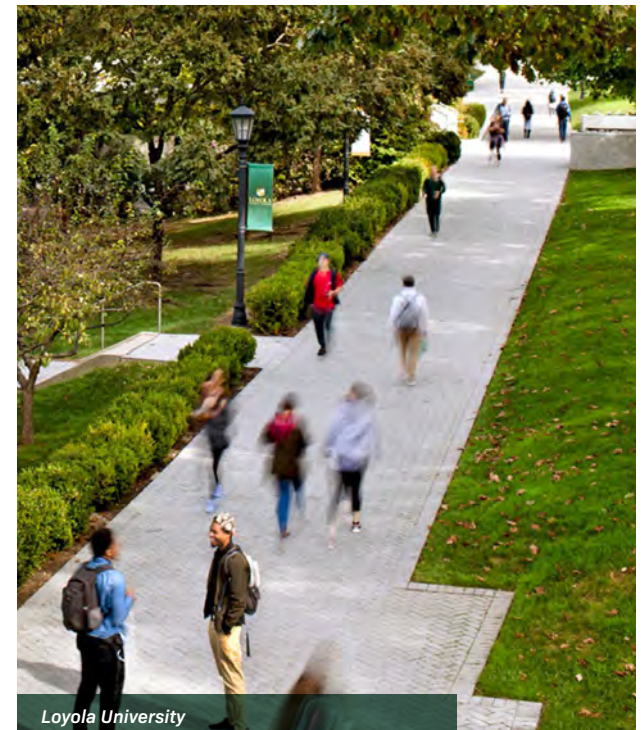
KEY MAP:



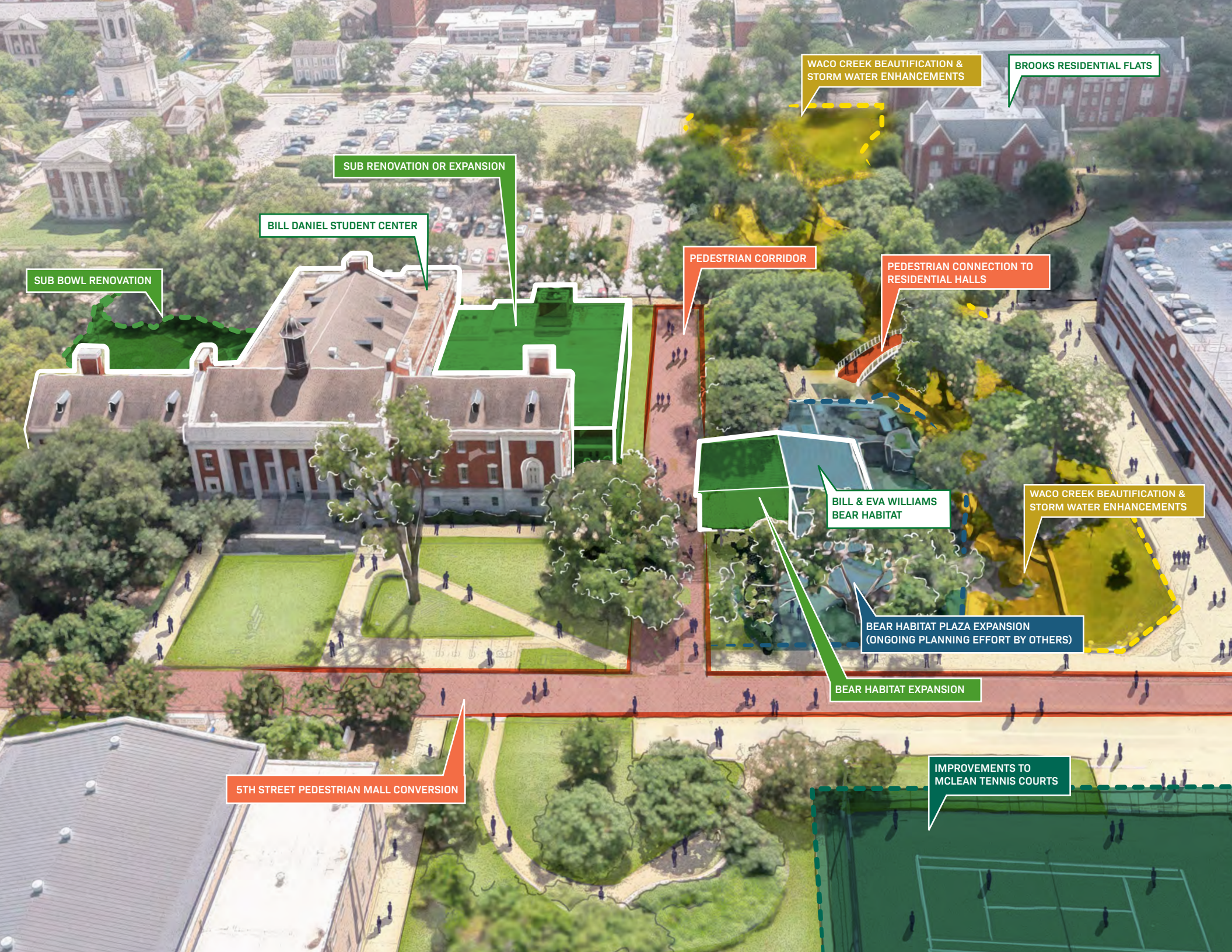
Southern Methodist University



Texas Christian University



Loyola University



WACO CREEK BEAUTIFICATION & STORM WATER ENHANCEMENTS

BROOKS RESIDENTIAL FLATS

SUB RENOVATION OR EXPANSION

BILL DANIEL STUDENT CENTER

SUB BOWL RENOVATION

PEDESTRIAN CORRIDOR

PEDESTRIAN CONNECTION TO RESIDENTIAL HALLS

BILL & EVA WILLIAMS BEAR HABITAT

WACO CREEK BEAUTIFICATION & STORM WATER ENHANCEMENTS

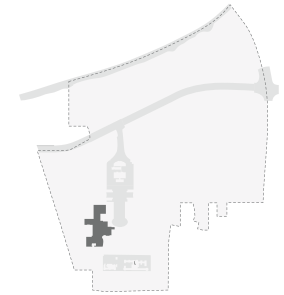
BEAR HABITAT PLAZA EXPANSION (ONGOING PLANNING EFFORT BY OTHERS)

BEAR HABITAT EXPANSION

5TH STREET PEDESTRIAN MALL CONVERSION

IMPROVEMENTS TO MCLEAN TENNIS COURTS

KEY MAP:



CATALYST AREA 2

5TH STREET / WACO CREEK AT BEAR HABITAT AND BILL DANIEL STUDENT CENTER

By converting the vehicular access and parking around the Bear Habitat into a pedestrian only corridor, it increases pedestrian safety and allows for greater expanses of activation and gathering spaces.

1

Extend 5th Street pedestrian area across the bridge to the 5th Street parking garage.

Enhance the wide pedestrian walkway between Waco Creek and the parking facility to connect into 5th Street Promenade.

Restore historic balustrade on bridge.

Reconstruct road surface to pedestrian pavement with no curb and gutter.

2

Extend pedestrian only zone south between the Bear Habitat and the SUB.

Connect the two facilities with pedestrian plazas, walkways, and gathering spaces.

3

Renovate/expand SUB with outward facing connections to new pedestrian corridors.

Re-develop Sub Bowl and adjacent plaza spaces for gathering and performances.

4

Enhance Waco Creek to become a functional amenity to campus.

Explore green infrastructure and nature-based solutions to accommodate for an aesthetically pleasing functional conveyance of water.

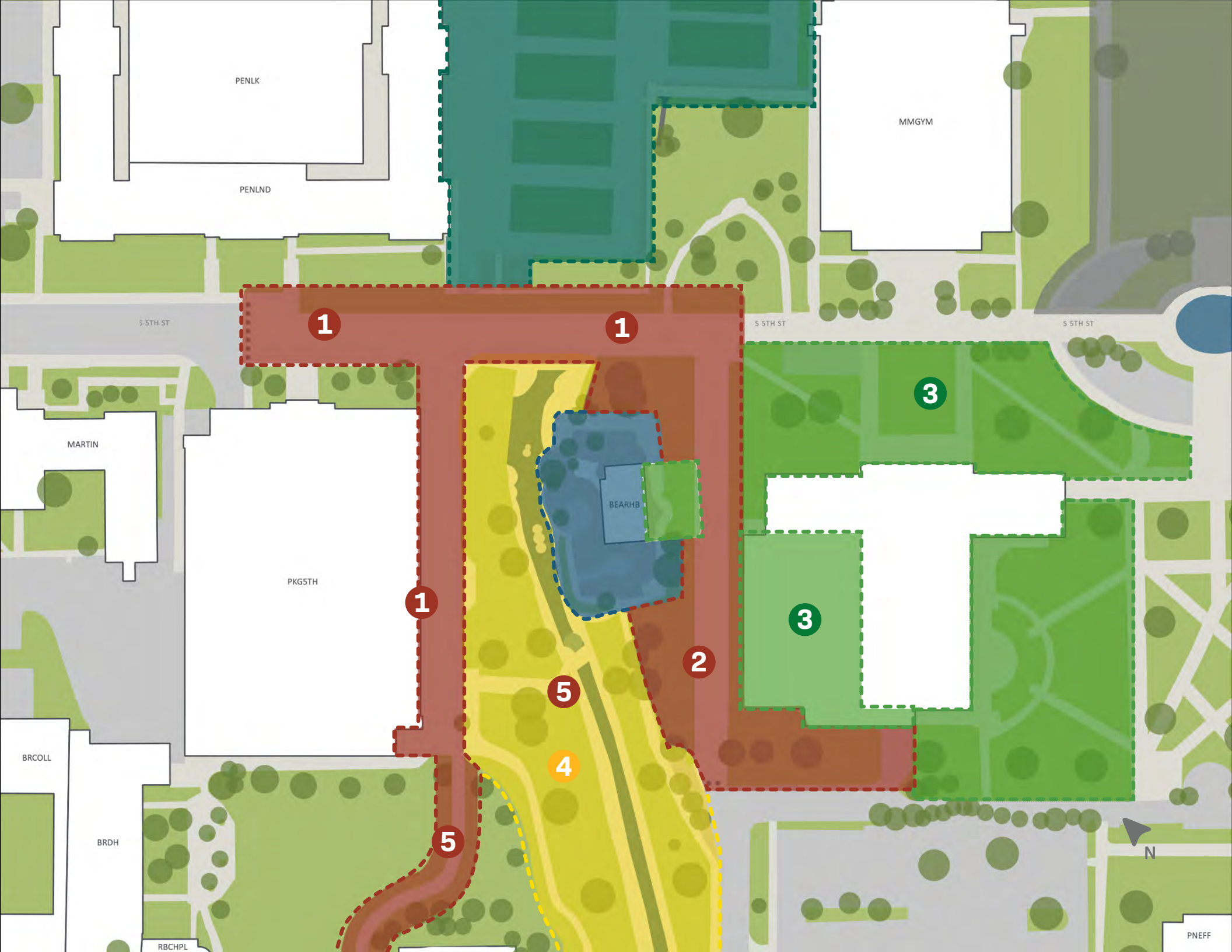
Explore areas to celebrate and create overlooks, boardwalks, and bridges to promote observation of nature on campus.

5

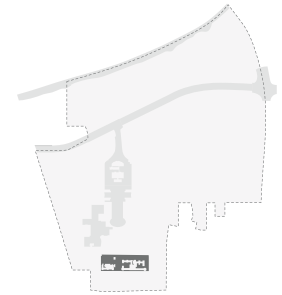
Improve connections across Waco Creek to Residence Halls.

Install new pedestrian bridge to connect renovated pedestrian spaces in between Bear Habitat and SUB.

Improve pedestrian pathways through Minglewood Bowl and provide direct connections.



KEY MAP:

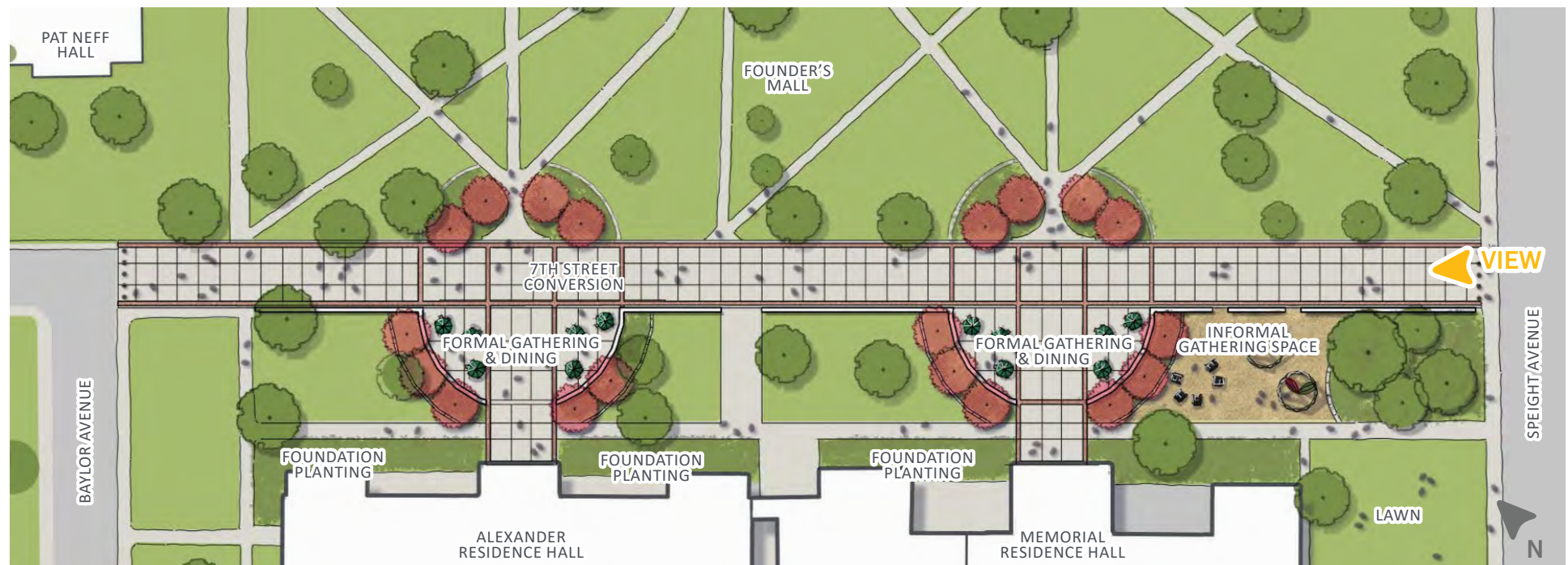


CATALYST AREA 3

SOUTHERN ARRIVAL (7TH ST FROM PAT NEFF HALL TO SPEIGHT AVE)

The transformation of 7th Street into a vibrant pedestrian promenade reimagines the space as a lively, shared communal hub outside the Baylor Residential Colleges. Formal and informal gathering spaces are defined by utilizing site walls while the promenade directs foot traffic with a welcoming aesthetic. Concrete plazas provide ample gathering spots, where users can relax, socialize, and engage in outdoor activities. These plazas are not only functional but also serve as focal points for community events, enhancing the sense of belonging among residents. Site standard bollards protect pedestrians where the 7th St conversion begins and continues the design vernacular of Baylor's landscape.

7TH ST CONVERSION PLAN ENLARGEMENT:



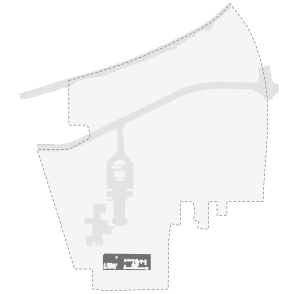


CATALYST AREA 3

SOUTHERN ARRIVAL (7TH ST FROM PAT NEFF HALL TO SPEIGHT AVE)

The section of 7th street between Baylor Ave and Speight has been identified as a potential pedestrian street conversion. This space would strengthen the connection to Founders Mall and the residential areas to the south as well as though the planned pedestrian conversion of Speight.

KEY MAP:



1 Partner with City of Waco on defining gaps in sidewalk network that connect off-campus housing neighborhoods to the Southern Arrival.

2 Enhance MP Daniel Esplanade to a multi-use pedestrian corridor using Campuswide Strategies Toolkit.

Areas will still require vehicular traffic for service access and Pat Neff.

Enhanced sidewalks, streetscape, and bridges.

Connection and enhancements to Waco Creek.

Pedestrian scaled gathering areas and continuous protected pedestrian circulation from 8th Street parking area.

3 Enhance Arrival Gateway at 8th Street and I-35 Frontage Road.

Engage Waco Creek as an amenity to campus

4 Founders Mall and Speight Avenue Improvements by Others.

5 Streetscape enhancements to Baylor Avenue, Speight Avenue, and James Avenue. Consider Living Street shared spaces example.

Announce arrival and accentuate views to Pat Neff building.

Develop photo spots that frame view of gold top.

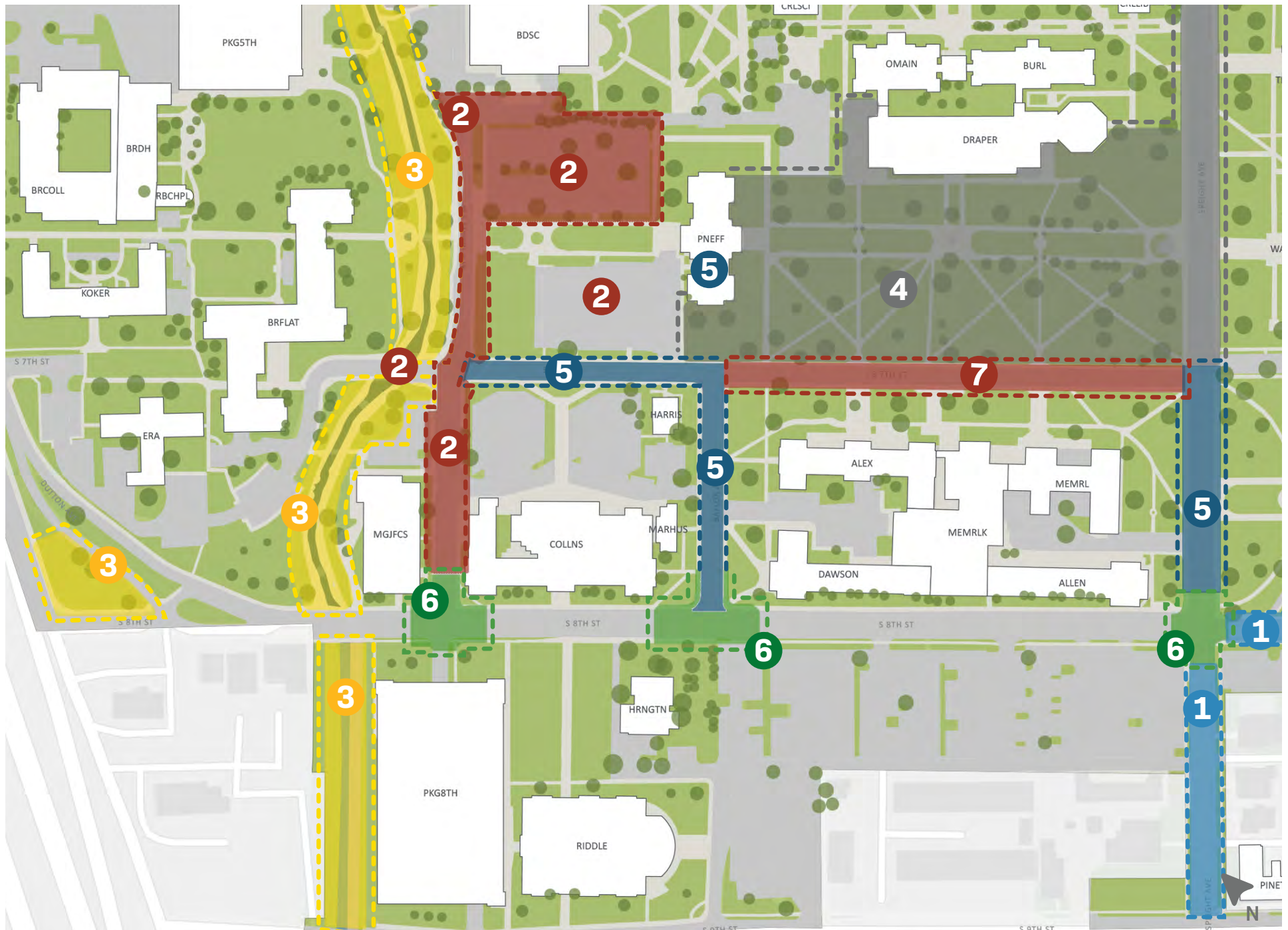
Add pedestrian bump outs where they can define on-street parking and reduce pedestrian crossing distances.

6 Improvements to sidewalk corridor on Bagby from 8th to 5th St. (Not shown on map.)

Develop consistent barrier free pedestrian paths and enhanced crosswalks.

7 Convert section of 7th St. between Baylor Ave and Speight to a pedestrian area.

Options could include the Woonerf Concept as well, accommodating light vehicular traffic. Instead of a car-centric design, the space would be promoted for pedestrian interaction.



CATALYST AREA 3

SOUTHERN ARRIVAL (7TH ST FROM PAT NEFF HALL TO SPEIGHT AVE)

The arrival experience from the southern edge of campus welcomes many visitors and students to campus each day. Increased growth and re-development south of 8th Street has provided many residential options for students to live off-campus. Most of these students arrive by foot, filtering into campus along the vehicular routes of Baylor Ave, Speight, and Bagby. In addition to the 8th Street parking garage, the Southern Arrival is a prominent first impression of the Baylor campus.

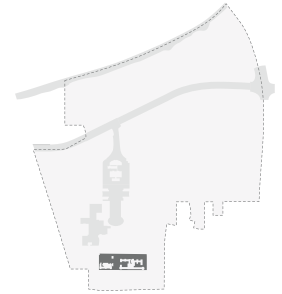
Most of the entry points lack well defined pedestrian corridors and are mostly defined by on-street parking and roadways. Many opportunities exist to enhance the Southern Arrival to campus by promoting a much stronger edge to campus.

Improved pedestrian safety and circulation can be promoted through numerous design elements presented in Campuswide Strategies. The concepts to the left utilize curb bumpouts to slow traffic, delineate parallel parking, provide planting areas for street trees, and to decrease crossing distances for pedestrians in the roadway. A consistent application of these methods will start to create a uniform edge to campus when adjacent to residential areas.

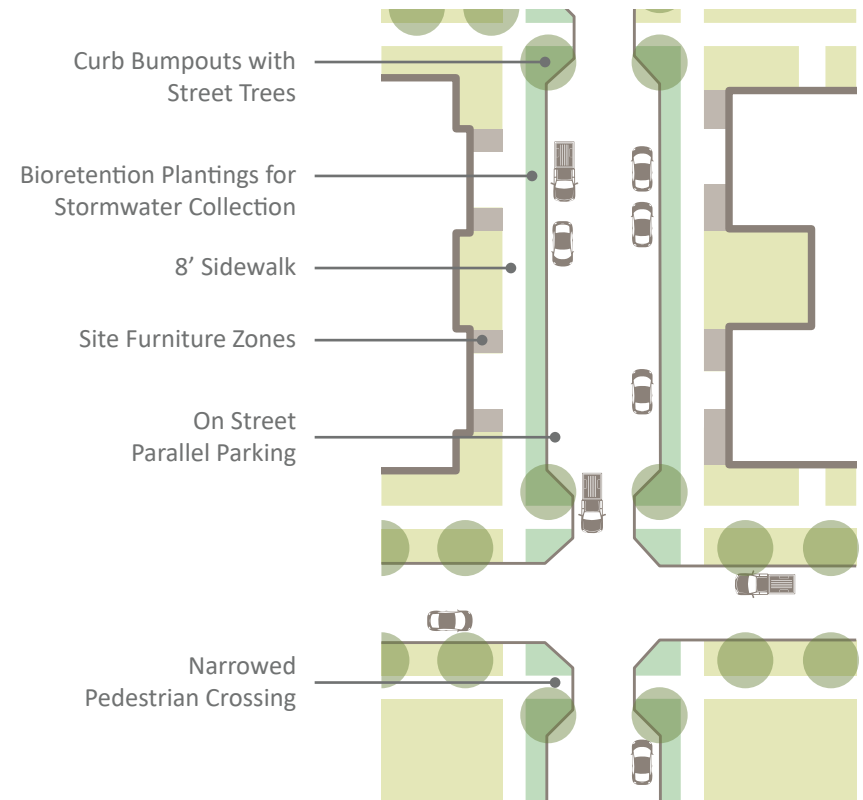
The following roadways on the southern edge of campus could benefit from a standard streetscape approach:

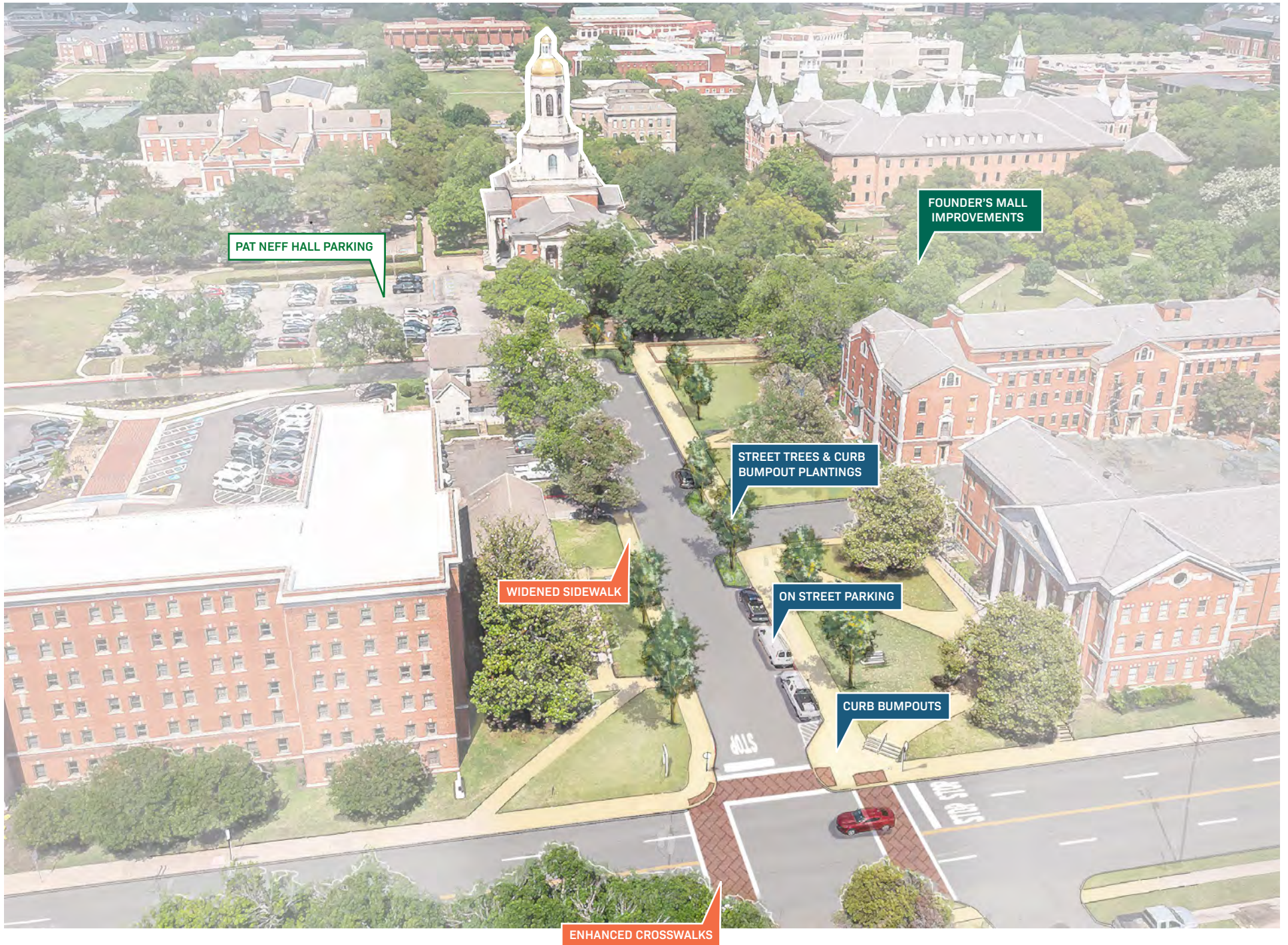
- Baylor Avenue
- Speight Avenue
- M.P. Esplanade
- 8th Street

KEY MAP:



LIVING STREET CONCEPT: POTENTIAL APPLICATION





CATALYST AREA 4

UNIVERSITY PARKS DRIVE

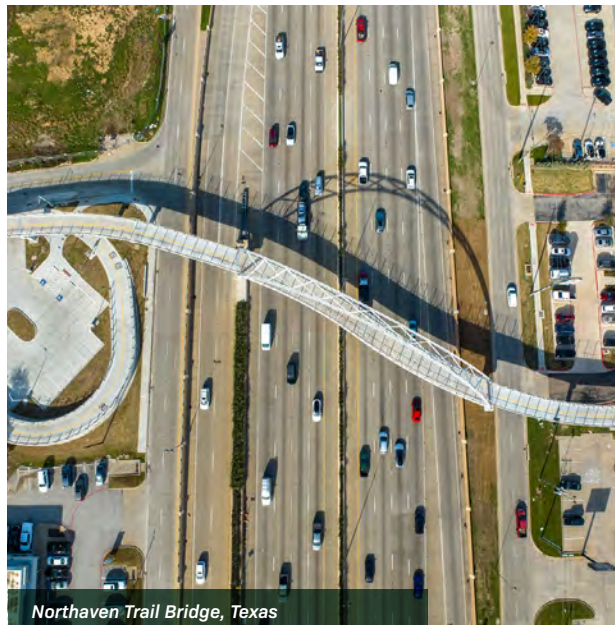
Approximately one mile of the major thoroughfare University Parks Drive cuts through the northern section of the Baylor campus, connecting I-35 to LaSalle Avenue. This six-lane divided road creates a portion of land, primarily used for museums, athletic facilities, and commuter parking between the Brazos River and the rest of main campus. Major entrances into campus occurs from University Parks Drive and adjacent pedestrian facilities such as the Bear Trail and the Waco Creek underpass.

Design of all improvements shown in this Catalyst Area — including improved pedestrian crossings, underground crossing, and aerial bridge — would require individual design and coordination with City staff and project engineers.

KEY MAP:



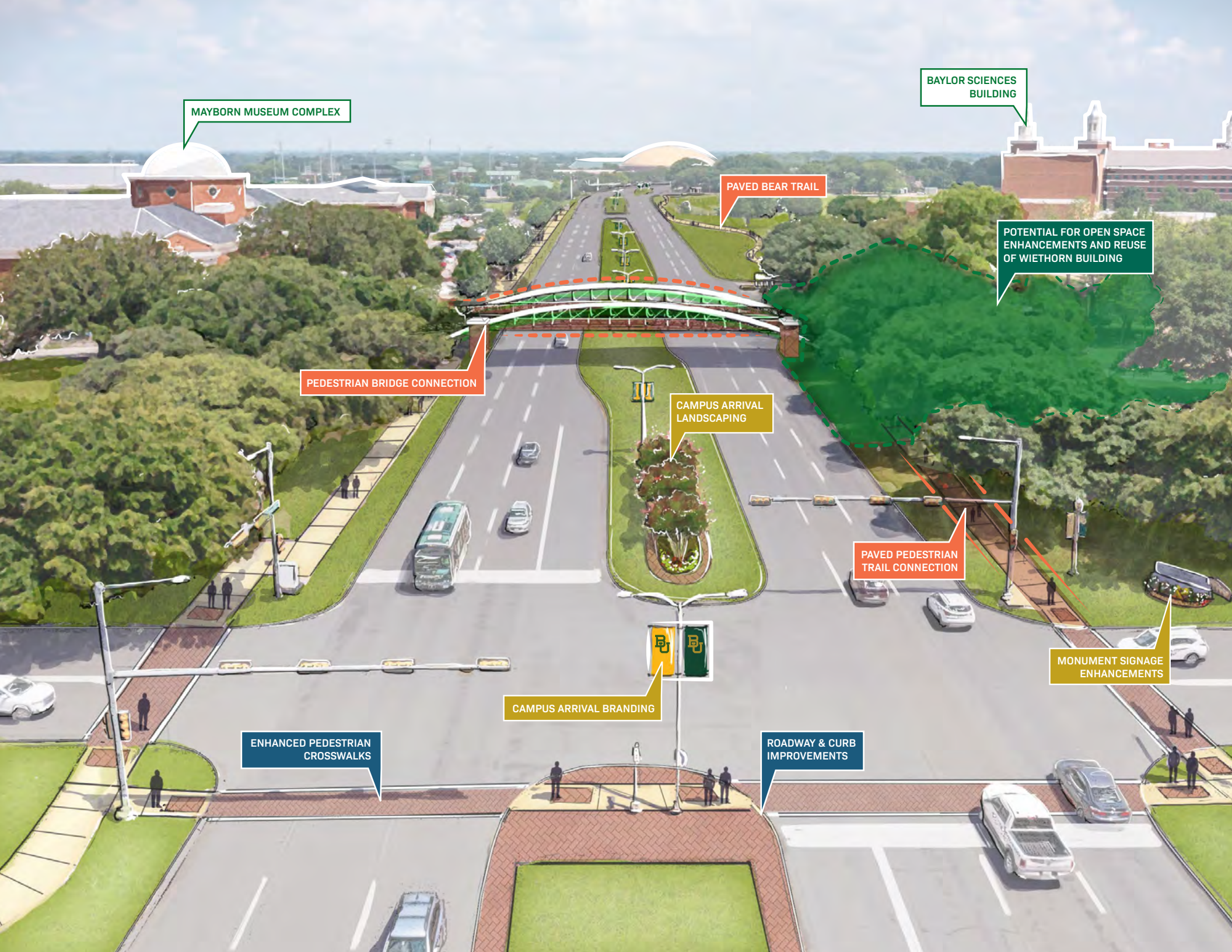
Disney Springs, Buena Vista



Northaven Trail Bridge, Texas



Raymond Avenue, New York



MAYBORN MUSEUM COMPLEX

BAYLOR SCIENCES BUILDING

PAVED BEAR TRAIL

POTENTIAL FOR OPEN SPACE ENHANCEMENTS AND REUSE OF WIETHORN BUILDING

PEDESTRIAN BRIDGE CONNECTION

CAMPUS ARRIVAL LANDSCAPING

PAVED PEDESTRIAN TRAIL CONNECTION

MONUMENT SIGNAGE ENHANCEMENTS

CAMPUS ARRIVAL BRANDING

ENHANCED PEDESTRIAN CROSSWALKS

ROADWAY & CURB IMPROVEMENTS

CATALYST AREA 4

UNIVERSITY PARKS DRIVE

In regard to University Parks Drive, stakeholder feedback was consistent in comments highlighting a lack of definition in curbs, landscaping, pedestrian friendly crossings, and traffic calming measures. Coordination with the City of Waco, Waco Metropolitan Planning Organization (MPO), and TXDOT will be essential in re-defining University Parks Drive into a corridor that can support multiple modes of transportation as well as allow for the “Baylor Brand” to be expressed throughout the corridor.

KEY MAP:



- 1** Partner with City of Waco and TXDOT on a plan for a re-invented University Parks Corridor through Baylor campus.
- 2** Connect the corridor to adjacent City of Waco priority corridors, including Downtown and redevelopment around Foster Pavilion.
- 3** Continue the pedestrian promenade from McLane Stadium to main campus connecting all the way to Fountain Mall.

Explore feasibility for a pedestrian overpass.

Enhance at-grade crossings at all major intersections.
- 4** Improve pedestrian underpass and adjacent corridors to Waco Creek.

Access to the underpass is difficult and not accessible – create accessible pathways to the underpass.

Promote a safe, lighted atmosphere underneath the bridge.
- 5** Improve pedestrian crosswalks and implement traffic calming methods to reduce conflicts between cyclists, pedestrians, and vehicles.
- 6** Enhance gathering space with improved arrival elements. Future Site Plan for Wiethorn re-use or enhancement.
- 7** Enhance arrival signage and landscaping at LaSalle Intersection.

Improve pedestrian crossings and implement traffic calming measures.
- 8** Explore pedestrian connections, such as pedestrian overpass or underpass, across LaSalle Avenue to connect to recreational fields and student housing.

CATALYST AREA 4

UNIVERSITY PARKS DRIVE

This zone emphasizes proposed elements from the “Edge” character zone. Campus identity, arrival, and pedestrian safety are core program elements for the edge and circulation corridors.

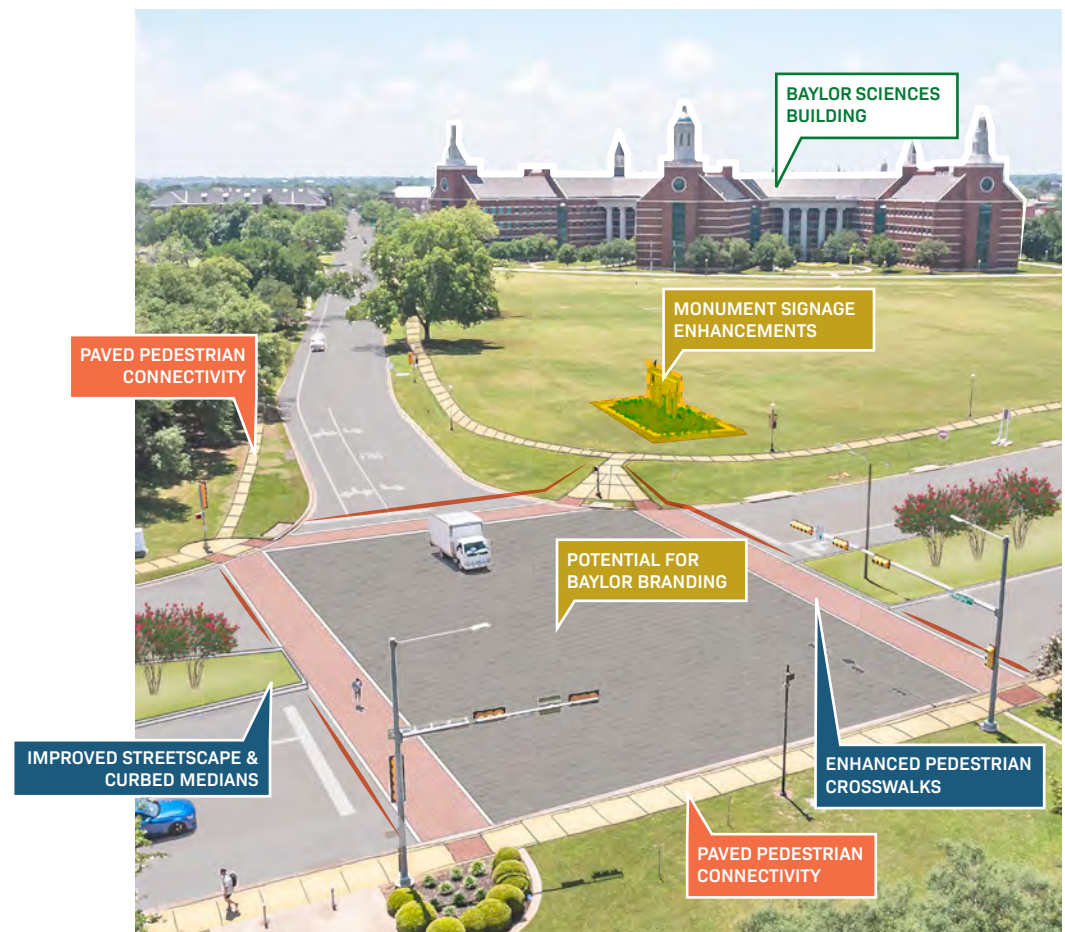
Recommendations:

- Traffic Calming and Complete Street Improvements.
 - Slow Speed Limits
 - Increase Tree Canopy and Plantings
 - Barrier Curb Installation
 - Paved Pedestrian Crosswalks
 - Continued pedestrian sidewalks and accessible ramps
- Campus Primary Arrival Signage
 - Campus Map Kiosks
 - Key Destination and Parking Wayfinding
- Pedestrian Connection Underpass to Recreation Fields

KEY MAP:



BAGBY AVENUE INTERSECTION:





PEDESTRIAN CONNECTION
TO BRAZOS RIVERWALK

PEDESTRIAN CONNECTION
ACROSS LASALLE

TRAFFIC CALMING &
STREETSCAPE IMPROVEMENTS

PEDESTRIAN IMPROVEMENTS

ARRIVAL MONUMENT

PAVED SIDEWALKS

IMPROVED CROSSWALKS

CATALYST AREA 5

BRAZOS RIVER

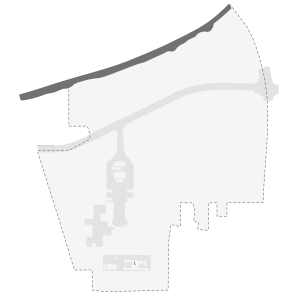
A truly unique natural feature for a university campus, the Brazos River, crosses through the northern section of campus. Historically the river acted as the northern edge of campus. In 2017, with the completion of McLane Stadium, a pedestrian bridge was added to connect the southern main campus to the new event spaces and stadium.

The area along the riverbank contains some pedestrian pathways; however, it lacks general amenities and enhanced connections into campus, the athletic areas south of the river, as well as defined routes west to the new Foster Pavilion and east to the recreation sports fields.

Recommendations:

- Partner with City of Waco and Brazos River Authority on a plan for the riverfront between I-35 and LaSalle. This plan should support the vision of this master plan and define areas that can support and enhance the “Baylor Brand”.
- Provide enhanced, lighted, wide pedestrian connections to Foster Pavilion and further to Downtown Waco along the riverfront.
- Provide connections to the east to the recreation fields and tennis center.
- Explore opportunities to enhance areas adjacent to soccer and baseball facilities for spectators, events, and gameday experiences.
- Engage the riverfront with rest areas and gathering spaces.
- Restore shoreline erosion and mitigate for invasive species along the riverfront.

KEY MAP:



Columbus Riverwalk, Columbus Georgia



Aggie Park, Texas A&M University



Lady Bird Lake Boardwalk, Austin Texas



DOWNTOWN WACO

FOSTER PAVILION

MCLANE STADIUM

FUDGE FOOTBALL
DEVELOPMENT CENTER

SPORTS AREA
REDEVELOPMENT ZONE

SHEILA & WALTER
UMPHREY BRIDGE

CONNECTION TO MAIN CAMPUS

PEDESTRIAN RIVERWALK

ENHANCED GATHERING SPACE

RIPARIAN PLANT MANAGEMENT

ENHANCED ROW BOAT LAUNCH

PEDESTRIAN CONNECTION
REC-SPORTS FIELDS

SECTION III

IMPLEMENTATION PLAN

CAMPUSWIDE STRATEGY RECOMMENDATIONS

Throughout the planning process, stakeholders clearly voiced two main priorities: first, that deferred landscape maintenance across campus should be prioritized, and second, that investment in the campus landscape should be more evenly distributed. They recognized that achieving these goals might necessitate changes in funding methods, a substantial increase in investment, and adjustments in landscape management and maintenance practices. Although this master plan primarily emphasizes catalyst projects aligned with broader framework objectives, the initial task is to establish a phased plan to address deferred maintenance and enhance existing landscape assets.

CAMPUSWIDE STRATEGY LEGEND:

-  CAMPUS ARRIVAL, CONNECTIVITY, & WAYFINDING
-  GREEN INFRASTRUCTURE
-  TRAFFIC CALMING
-  DONOR OPPORTUNITIES

RECOMMENDATION		STRATEGY	
PLANT MATERIAL	IDENTIFY AREAS TO REDUCE MAINTENANCE AND IRRIGATION THROUGH IMPLEMENTING THE PLANTING BED AND NATIVE AREA METHOD DISCUSSED IN DESIGN GUIDELINES AND CATALYST PROJECTS		
	WORK WITH CAMPUS SERVICE PROVIDERS TO IDENTIFY SIGNIFICANT AREAS TO APPLY SPECIAL MAINTENANCE RESOURCES: FOUNTAIN MALL PAT NEFF HURD WELCOME CENTER BEAR HABITAT		
	IMPLEMENT NEW PROJECTS USING PREFERRED PLANTING LIST		
	PERFORM A CAMPUS WIDE AUDIT ON IRRIGATION OPERATIONS AND WORK WITH CAMPUS SERVICE PROVIDERS TO UPDATE IRRIGATION SYSTEMS DURING ROUTINE MAINTENANCE.		
HARDSCAPE & FURNISHINGS	UTILIZE NEW DESIGN AND MAINTENANCE PROJECTS TO INTRODUCE NEW BAYLOR STANDARDS FOR HARDSCAPE INSTALLATIONS.		  
	WORK WITH CAMPUS LEADERSHIP TO PLAN FOR AND IMPLEMENT CATALYST PROJECTS THROUGH ONGOING CAMPUS PLANNING INITIATIVES.		  
GATHERING SPACES	EXPLORE WAYS TO ENGAGE ALUMNI IN CATALYST PROJECT PARTICIPATION		
	IMPLEMENT PRIORITY ITEMS IDENTIFIED WITHIN THE CATALYST PROJECTS SUCH AS FOUNTAIN MALL 3RD STREET CONVERSION 7TH STREET CONVERSION BEAR HABITAT ENHANCEMENTS		  

RECOMMENDATION		STRATEGY
PEDESTRIAN & VEHICULAR CIRCULATION	ENGAGE WITH TXDOT, WACO MPO, AND CITY OF WACO ON RENOVATIONS TO UNIVERSITY PARKS DRIVE	  
	IMPLEMENT NEW PROJECTS USING CROSSWALK STANDARDS IN DESIGN GUIDELINES	 
	PROVIDE CONSISTENT CIRCULATION PATHS FOR PEDESTRIANS THROUGHOUT CAMPUS	 
	IMPLEMENT NEW PROJECTS USING PATHWAY STANDARDS IN DESIGN GUIDELINES	 
	IMPLEMENT NEW PROJECTS USING CROSSWALK STANDARDS IN DESIGN GUIDELINES	 
	IMPLEMENT PRIORITY ITEMS IDENTIFIED WITHIN THE CATALYST PROJECTS SUCH AS: 3RD STREET CONVERSION 7TH STREET CONVERSION BEAR HABITAT ENHANCEMENTS	   
SAFETY & WAYFINDING	REIMAGINE CAMPUSWIDE SIGNAGE STRATEGY WITH DEVELOPMENT OF DETAILED WAYFINDING PLAN	
	COORDINATE LIGHTING STANDARDS WITH NEW PROJECTS AND AREAS IN NEED OF RENOVATIONS	  
DRAINAGE INFRASTRUCTURE	IMPLEMENT NEW PROJECTS USING GREEN INFRASTRUCTURE TOOL KIT OPPORTUNITIES	 
	IMPLEMENT NEW PROJECTS USING GRADING AND DRAINAGE STANDARDS IN DESIGN GUIDELINES	 
	WORK WITH CAMPUS SERVICE PROVIDERS TO ENSURE SYSTEMS REMAIN FREE OF DEBRIS DURING ROUTINE MAINTENANCE.	
	APPROACH REDESIGN OF AREAS WITH PROBLEMATIC EROSION/ DRAINAGE ISSUES WITH A BIG PICTURE PERSPECTIVE	 
	EMBRACE DRAINAGE AS AN OPPORTUNITY TO CAMPUS AND FOCUS EFFORTS ON REHABILITATION	 

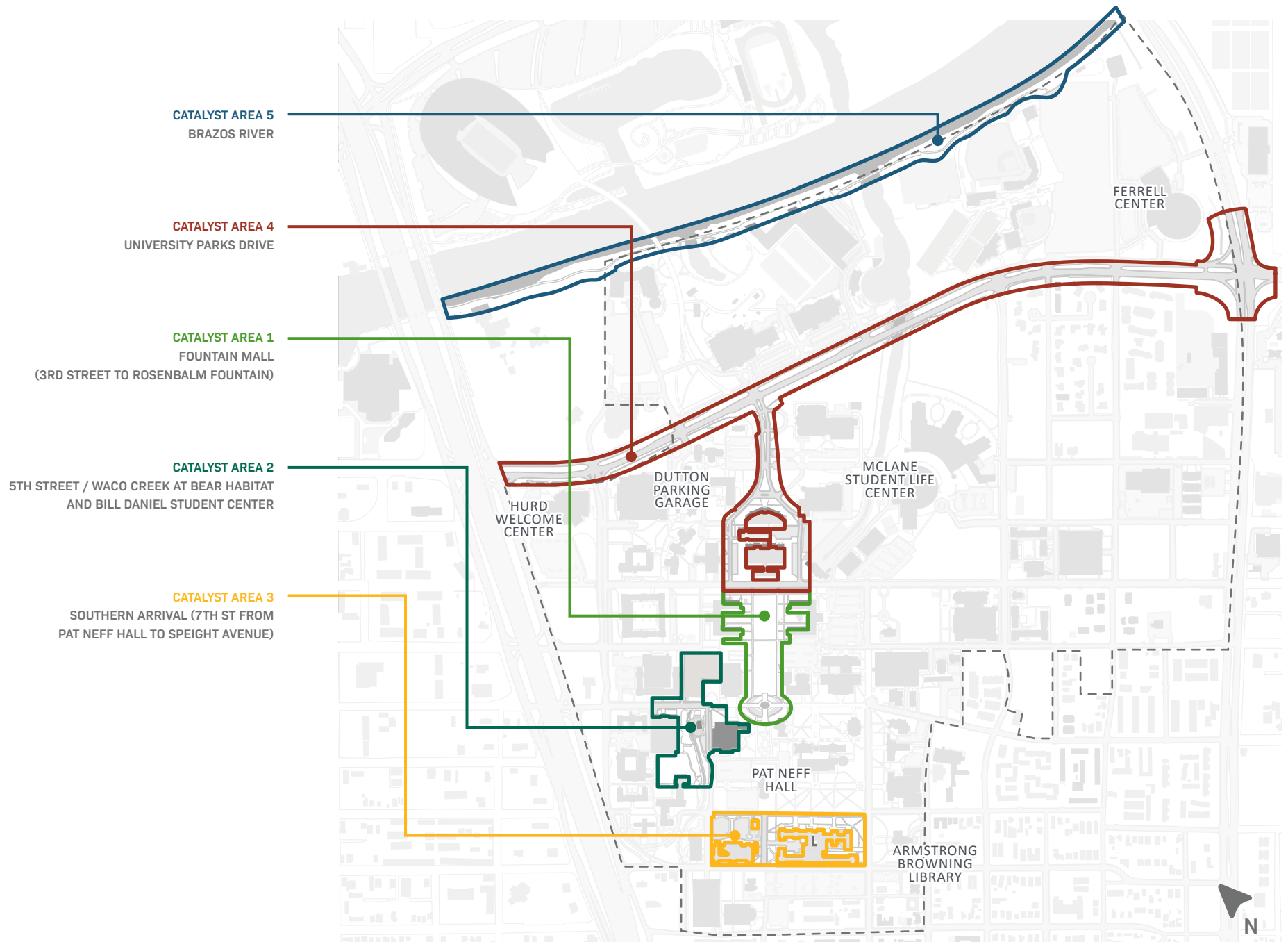
CATALYST PROJECT IMPLEMENTATION

While some catalyst projects are scheduled for implementation in the first 1-2 years, a comprehensive campus landscape will require applying these goals and standards beyond the scope of catalyst projects, throughout each area of campus.

The following action items are a result of collaborative ideation throughout the planning process. The implementation plan is organized around plan goals and identifying specific short, medium, and long-term implementation actions and strategies. The implementation items will need to be flexible enough to respond to certain strategic initiatives that might present themselves.

**POTENTIAL MAGNITUDE
OF COST**
 \$: 0.25-2 MILLION
 \$\$: 2-5 MILLION
 \$\$\$: 5-10 MILLION
 \$\$\$+: 10 MILLION+

	COST EST.*	SHORT TERM (2-5 YEARS)	MID TERM (5-10 YEARS)	LONG TERM (10+ YEARS)
CATALYST AREA 1				
LANDSCAPE AND GENERAL MAINTENANCE IMPROVEMENTS	\$			
CONVERTING 3RD STREET TO PEDESTRIAN PROMENADE	\$\$			
ENHANCING PEDESTRIAN PLAZAS AT MOODY LIBRARY	\$\$			
FOUNTAIN MALL ENHANCEMENTS	\$\$\$			
RELOCATION OF BAYLOR ENERGY COMPLEX	\$\$\$+			
COURTYARD ENHANCEMENTS TO SID RICHARDSON & MCLANE SCIENCE BUILDINGS	\$			
CATALYST AREA 2				
EXTEND 5TH STREET PROMENADE TO PARKING GARAGE	\$			
PATH AND LANDSCAPE ENHANCEMENTS AROUND PARKING GARAGE	\$			
CONVERT M. P. ESPLANADE TO PEDESTRIAN ONLY TRAFFIC	\$\$			
RENOVATE/EXPAND STUDENT UNION BUILDING	\$\$\$+			
SUB BOWL & GATHERING SPACE ENHANCEMENTS	\$			
RESTORE SOUTH FOUNTAIN MALL	\$\$			
ENHANCEMENTS TO WACO CREEK	\$\$			
INSTALL BRIDGE & CONNECT RESIDENCE HALLS TO BEAR HABITAT	\$\$			
CATALYST AREA 3				
IMPROVEMENTS TO NEIGHBORHOOD WALK & BIKE INFRASTRUCTURE	\$			
ENHANCEMENTS TO WACO CREEK	\$\$			
CONVERT 7TH STREET TO PEDESTRIAN PROMENADE	\$\$\$			
STREETSCAPE IMPROVEMENTS TO BAYLOR AVENUE & 7TH STREET	\$			
INTERSECTION & TRAFFIC CALMING IMPROVEMENTS ALONG 8TH STREET	\$			
IMPROVEMENTS TO SPEIGHT AVENUE & 8TH STREET	\$			
INSTALL PRIMARY ARRIVAL MONUMENTATION AT 8TH STREET & I-35	\$			
CATALYST AREA 4				
PARTNER WITH TXDOT TO REINVENT UNIVERSITY PARKS DRIVE CORRIDOR	\$\$\$			
PEDESTRIAN CROSSING IMPROVEMENTS	\$			
PEDESTRIAN BRIDGE INSTALLATION	\$\$			
PEDESTRIAN UNDERPASS IMPROVEMENTS AT WACO CREEK	\$			
PLAN FOR PEDESTRIAN CONNECTION TO RECREATION FIELDS	\$			
LASALLE ARRIVAL, INTERSECTION, & LANDSCAPE IMPROVEMENTS	\$			
CATALYST AREA 5				
PARTNERSHIP PLAN FOR RIVERFRONT PLAN	\$			
PROVIDE CONNECTIONS TO FOSTER PAVILION & DOWNTOWN WACO	\$			
PROVIDE CONNECTIONS TO THE RECREATION FIELDS & TENNIS CENTER	\$			
ENHANCE AREAS AROUND SPORTS FIELDS & FACILITIES	\$\$			
ENGAGE THE RIVERFRONT WITH REST AREAS & GATHERING SPACES	\$			
RESTORE SHORELINE EROSION & MITIGATE FOR INVASIVE SPECIES	\$\$			



DESIGN GUIDELINES

LANDSCAPE DESIGN CHECKLIST

The objectives, guidelines, and standards set forth within this Master Plan are enforceable with the implementation of a design review checklist. This checklist must be submitted for any proposed renovation or development of exterior spaces on campus and be approved by the Department of Facilities Management prior to beginning construction.

LANDSCAPE DESIGN CHECKLIST

OBJECTIVE: IF YOUR PROJECT INCLUDES SCOPE FOR DESIGN, STAGING/CONSTRUCTION ACTIVITIES OR OPERATIONS WITHIN AN EXTERIOR SPACE - PLEASE REVIEW AND COMPLETE THE FOLLOWING QUESTIONS. A PDF FILLABLE FORM OF THE DESIGN CHECKLIST CAN BE FOUND IN THE APPENDIX.

1. Has a design review meeting been scheduled with Baylor Facilities Management for the schematic design phase? For the construction documents phase?

8. How does the project incorporate the Landscape Design Guidelines for Signage? (i.e. identification, scale, location, branding, etc.)

2. How does the proposed project align with the goals of the Baylor Campus Landscape Master Plan (p. 61).

9. How does the project incorporate the Landscape Design Guidelines for Tree Canopy? (i.e. protection, installation methods, preservation etc.)

3. Does the project fall within a designated Catalyst Zone and how does it consider the recommendations? (Fountain Mall, 5th Street/ Waco Creek, Southern Arrival, University Parks Dr, Brazos River)

10. How does the project incorporate the Landscape Design Guidelines for Plantings? (i.e. approved plant list, landscape methods, installation)

4. How does the project integrate Campuswide Strategies? (Campus Arrival & Wayfinding, Green Infrastructure, Traffic Calming Toolkit, Donor Opportunities)

11. How does the project incorporate the Landscape Design Guidelines for Irrigation? If in Construction, what products are being specified? (spray coverage, low water emittance, layout, installation methods, etc.)

5. How does the project align with the Landscape Design Guidelines for Hardscape? (i.e. materials, dimensions, construction methods, etc.)

12. How does the project incorporate the Landscape Design Guidelines for Grading and Drainage? (i.e. best practices, material selections, installation methods, etc.)

6. How does the project incorporate the Landscape Design Guidelines for Site Furniture? (i.e. location, layout, type, variety, etc.)

13. How does the project identify opportunities for Donor participation, level recognition, or funding?

7. How does the project incorporate the Landscape Design Guidelines for Lighting? (i.e. location, type, architectural family, etc.)

14. Are there any other considerations that should be discussed?

SUMMARY

The following design guidelines were developed as a collective effort from site observations, stakeholder interviews, Baylor staff recommendations, benchmarking trips to similar campuses, and professional landscape architecture recommendations. The six categories to the right reflect common themes represented across campus.

PURPOSE

By utilizing consistent materials, forms, and installation methods across exterior spaces, a cohesive “sense of place” is created which informs guests they have arrived to campus and embraces the “Baylor Brand” as a destination.

A greater level of consistency across campus materials, off-the-shelf components and installation methods also aids in standardizing efficient approaches to maintenance and repairs.

The following pages should be used to guide design and improvements in exterior spaces on campus from new development to the renovation of existing spaces. Where exceptions to these guidelines are requested, a meeting should be set with Baylor staff to clarify the standard approach, variation requested, and reason for this request. A completed “Baylor Landscape Design Checklist” should be completed and submitted to Baylor Facilities Management prior to the design review meeting.



Existing Baylor Standard

1. *HARDSCAPE*: Best practices, forms, and materials for hardscape surfaces and components.

2. *FURNITURE*: A collection of standard components and typical applications.

3. *LIGHTING*: Recommendations for lighting hierarchy and typical locations.

4. *SIGNAGE*: Recommendations for signage hierarchy and typical locations.

5. *CANOPY*: Best practices for preserving the existing urban forest and new tree installation.

6. *PLANTINGS & SOILS*: Best practices for planting beds, lawns, and native areas.

7. *IRRIGATION*: Standard components and installation methods.

8. *GRADING & DRAINAGE*: Best practices for slopes and approach to storm water.

HARDSCAPE

INTRODUCTION

The following guidelines are standards for campus corridors, vertical elements, and ground plane materials which make up the campus hardscape.

The following directives are intended to provide guidance for most applications on campus. Standards may be altered through approval by Baylor Facilities Management.

IN THIS SECTION:

Site Walls

Stairs

Ramps

Handrails

Dumpsters & Screening

Plazas

Promenades

Walkways

Paths

Bear Trail

Crosswalks

Intersections

Concrete

Paver Installation

Edge Control

Pavers

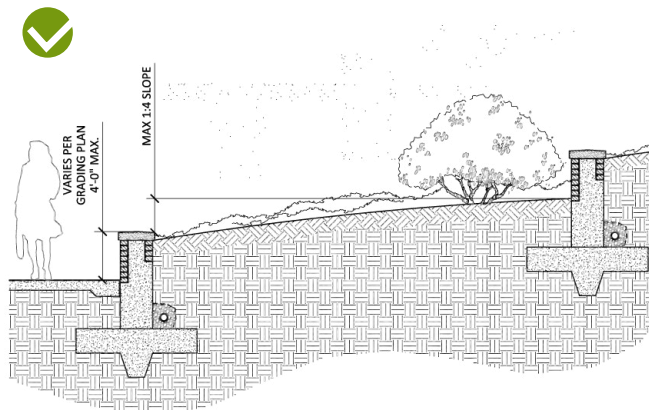
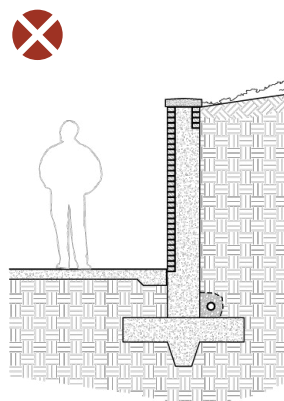
Aggregates

SITE WALLS

Material: Brick or limestone veneer with cast stone cap that corresponds with adjacent architecture. Tolerance for concrete material will be considered in low-visibility, back-of-house locations, and/or when matching existing conditions.

Install: Walls must have a drainage system with weep holes. Skate stops or brackets should be considered adjacent to paved plazas or walks.

Design Rationale: Site walls may be utilized across campus for screening, retaining, or as a barrier seat wall (see Bike Racks). Walls should be architecturally similar in materials and proportions. Consider ways to reduce the height of retaining walls through slopes or tiered levels. Segmented block walls are not approved methods.



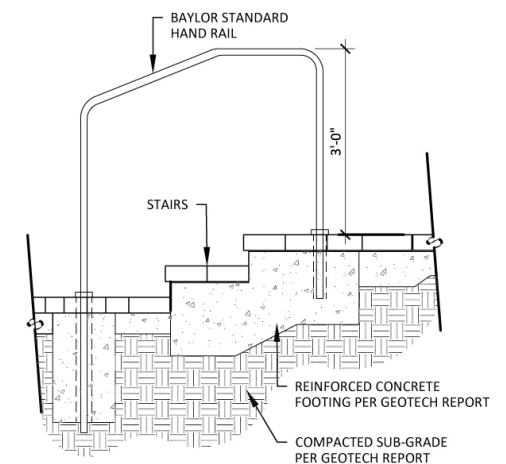
STAIRS

Material: Concrete or limestone recommended. Other materials require approval.

Tread Depth: 14"

Rise Height: 5"

Design Rationale: Stairs should be architecturally similar to adjacent buildings or hardscape elements. If stairs are wider than 6', jointing should be considered.



RAMPS

Material: Concrete or limestone recommended.

Other materials require approval.

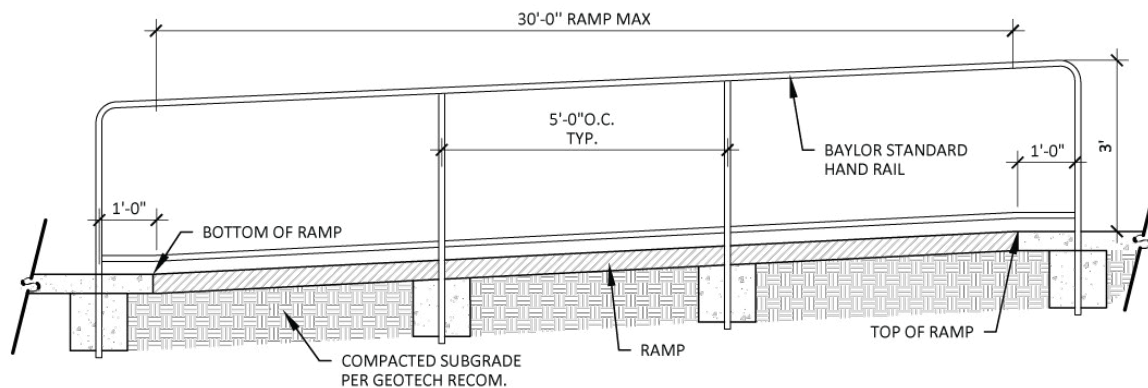
Finish: Heavy to medium broom finish

Slope: 8% Maximum

Dimensions: Match Sidewalk Width, 5 FT Minimum

Finish: Non-slip Concrete or Approved

Design Rationale: Ramps should be architecturally similar to adjacent buildings or hardscape elements. Ramps should meet all ADA standards for accessibility.



HANDRAILS

Material: Steel

Finish: "Baylor Bronze" (tnemec paint or powder coat)

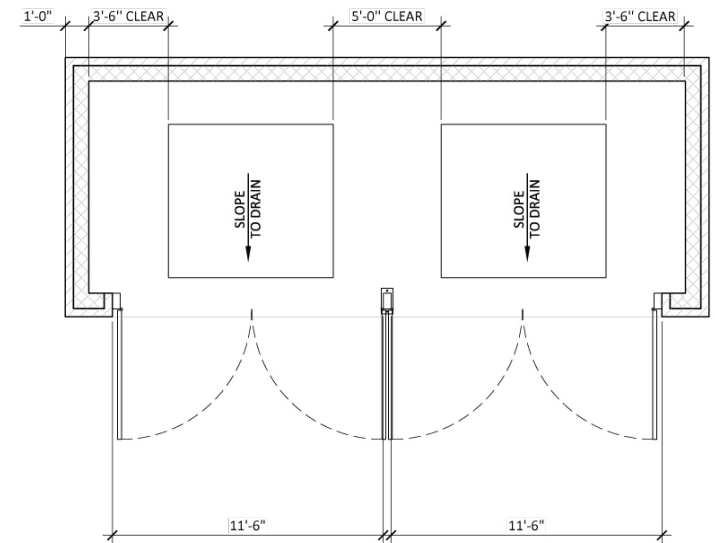
Height: 34"-36"

Design Rationale: Handrail design shall comply with ADA standards and should be architecturally similar throughout campus. Handrail shall extend minimum 12" beyond top and bottom of ramps and stairs. Handrails shall be contiguous railing with a welded cap at end of hand rails. Joints shall be ground smooth.

DUMPSTERS AND SCREENING

Finish: Brick with Cast Stone Cap

Design Rationale: Minimum wall height should be the height of the dumpster and should provide minimum clearances for compactor removal and service. Trash compactors should be considered at every residence and dining hall.



PLAZAS

Materials: Concrete, Pavers

Users: Pedestrians (consider fire access)

Design Rationale: Plazas connect adjacent buildings and pathways across campus. Plazas should typically feature shade, seating, and a distinct surface change from adjoining walkways. These can serve as the exterior living spaces on campus and should be flexible in design to meet a variety of user needs. Pavers can be more dominant in these areas.



BUILDING ENTRIES

Width: Varies

Radii: Varies

Materials: Concrete, Pavers

Users: High Pedestrian Traffic

Design Rationale: All primary, and in some instances secondary, entrances to campus buildings should utilize pavers to compliment the entrance sequence to the building. The exterior areas are the first impressions of the programs at Baylor - materials used in these areas should be architecturally similar and connected visually to all Baylor facilities. The entrances should share a design dialogue with the rest of campus.

PROMENADES

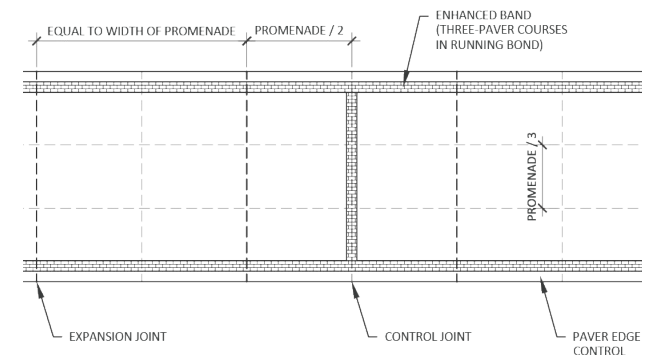
Width: 20' + (consider fire access)

Radii: 15' + (consider fire access)

Materials: Concrete, Pavers

Users: High Pedestrian Traffic, Cyclists, Golf carts, Skateboards, Delivery Robots, occasional vehicles

Design Rationale: Promenades serve as connectors for key buildings and open spaces across campus and are designed to accommodate large numbers of pedestrians during events, as well as day to day traffic. These materials and site elements must be durable and flexible in design to meet a variety of user needs. Paver accent bands may be applied in promenades with low anticipated vehicular traffic. Width of band and pattern to be approved by Baylor Facilities Management at time of design.



WALKWAYS

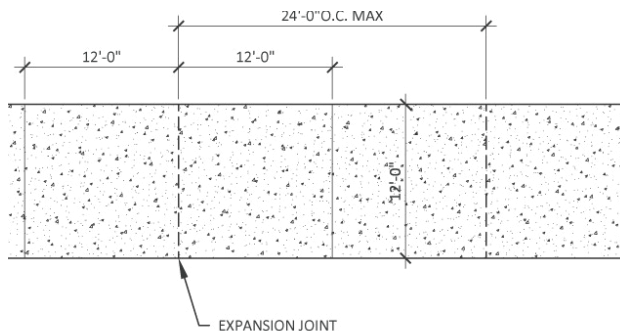
Width: 8' - 20'

Radii: 3' - 15'

Materials: Concrete

Users: Medium Pedestrian Traffic, Cyclists, Golf carts, Skateboards, Delivery Robots

Design Rationale: Walkways are the secondary level of connectors across campus which link buildings, quads, courtyards, and occur along roadways. Walkways where golf cart traffic is expected should be a minimum width of 14'. Joint spacing should match the width of the walk, i.e. a 12' walk would have 12' joints on center.



PATHS

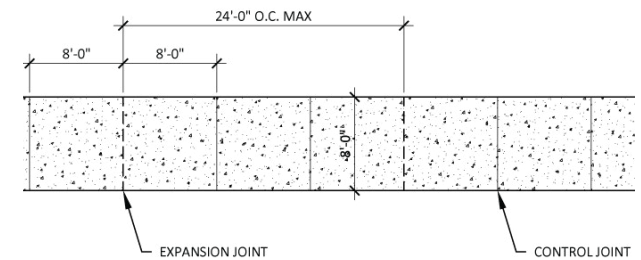
Width: 6' - 8'

Radii: 3' - 8'

Materials: Concrete

Users: Low Pedestrian Traffic, Skateboards, Delivery Robots

Design Rationale: Minor pedestrian connectors that typically connect between walkways and promenades. Should not be used in high traffic areas. The addition of new paths should be evaluated by Facilities Management in relation to pedestrian desire lines and site specific context.



BEAR TRAIL

Width: 8' - Concrete

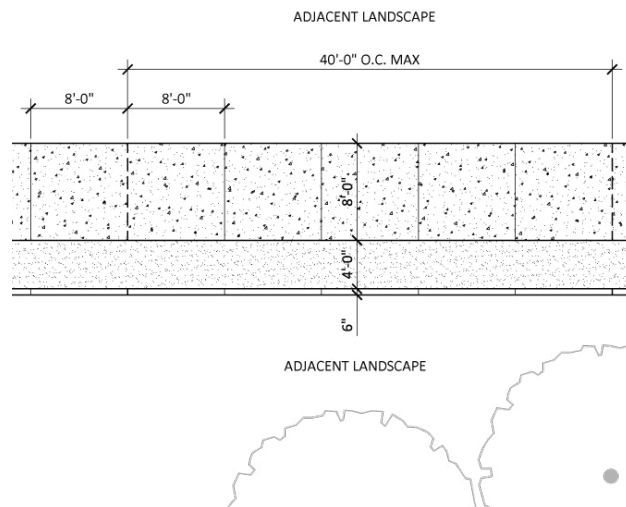
4' - Decomposed Granite Shoulder

Radii: 3' - 15'

Materials: Concrete and Decomposed Granite

Users: Pedestrians, Cyclists, Runners, Golf carts (concrete path only)

Design Rationale: Field trail application should include a 4' decomposed granite shoulder. Urban trail application should have a 6' - 12' concrete trail based on location.



CROSSWALKS

Width: Sidewalk Width Minimum

Material: Concrete, Stamped Concrete (Paver Pattern), Pavers

Color: Natural tones, should contrast against travel lanes

Pattern: Double soldier course border, herringbone field

Design Rationale: Crosswalks delineate anticipated pedestrian travel within vehicular corridors.

TACTILE WARNING STRIP

Width: Sidewalk Width Minimum

Manufacturer: Keystone Pavers

Material: Cityscape ADA, Detectable Warning Paver

Color: Coordinate with crosswalk tone

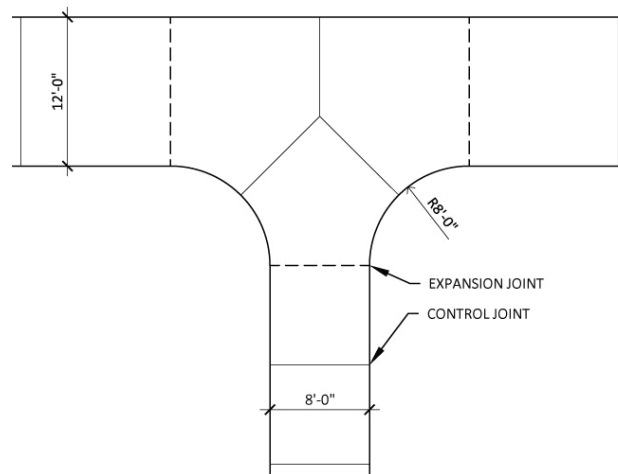
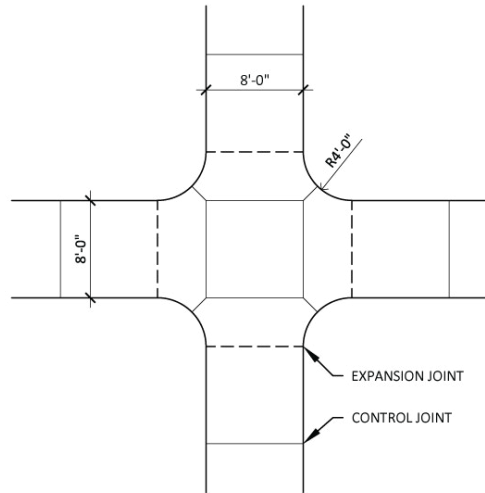
Install: Meet ADA requirements

Design Rationale: Typical application across campus to be modular detectable warning pavers. Special project consideration may include other materials such as cast iron detectable warning plates with approval from Baylor Facilities Management.



INTERSECTIONS

Radii: Defer to radii of largest walk size intersecting
Design Rationale: Radii should be provided at the intersections of all sidewalks on campus to avoid damage to adjacent landscape.



CONCRETE

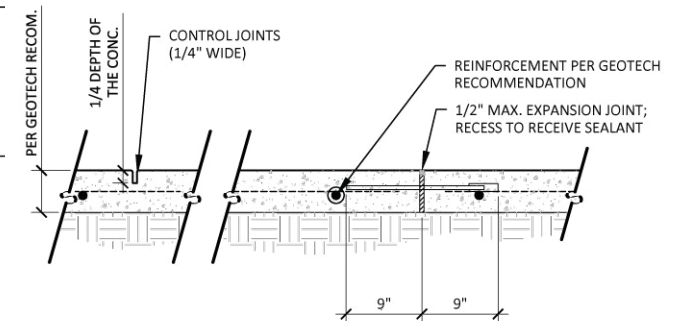
Finishes:

- Medium Broom
- Decorative Scoring/Jointing (per approval)
- Stamped Patterns (per approval)

Design Rationale: Concrete is the most durable and requires the least maintenance of any pedestrian surface on campus. Concrete should be used as the primary material for pedestrian surfaces. Thickness, PSI, and reinforcement can vary and should meet recommendations provided in a geo-technical investigation.

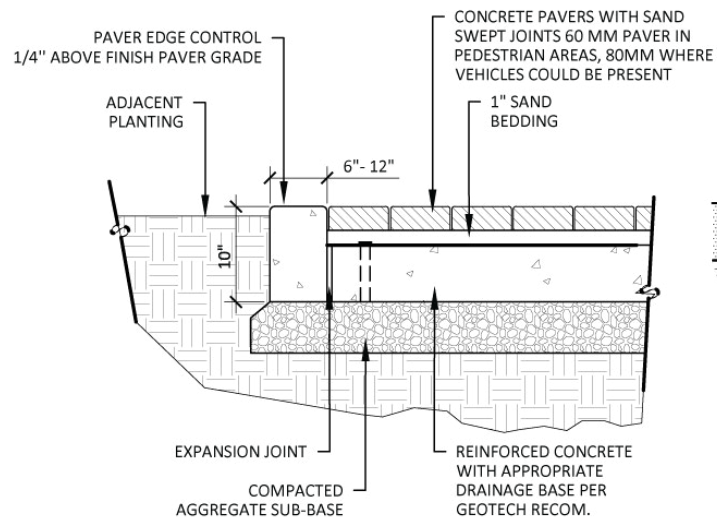
Control Joints: Sawed joints only (no trowel joints)

Expansion Joints: Installed width should meet ADA compliance



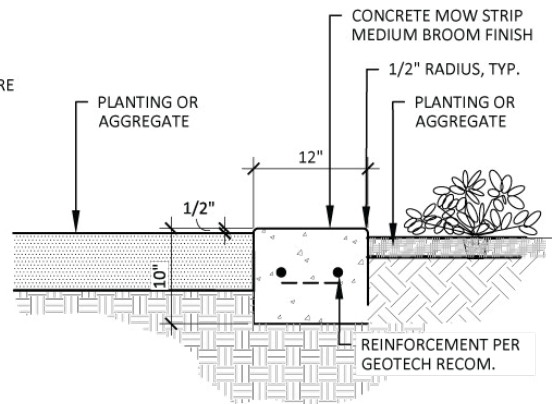
PAVER INSTALLATION

Install: Pavers should be set in a sand setting bed over concrete base. The 'Edge Control' detail should be applied for all paver installations to separate pavers from adjacent conditions.



EDGE CONTROL

Concrete Mow Strip
Material: Concrete, medium broom finish
Width: 6" or 12"
Depth: 10"
Design Rationale: A concrete mow strip should be installed to separate any soft surface material from adjacent soft surface materials. Edge control should restrain all paver types, aggregate surface applications, and separate landscape types wherever possible.



BRICK PAVER

Manufacturer: Endicott
Material: Clay Brick Paver
Size: Typical 4" X 8"
Color: Reds
Pattern: Varies per design
Install: Brick pavers are intended for historic and significant spaces.
Design Rationale: Preferred paver type to be used within pedestrian areas, such as building entries, historic areas, and other significant campus destinations.



CONCRETE PAVER

Manufacturer: Keystone Hardscapes

Material: Concrete Unit Paver

Finish: Standard, Platinum, Shot-blast

Size: Typical 4" X 8", other sizes may be considered in select applications with staff approval

Color: Red face mix (River, Tyler or Rustic per Department of Facilities Management Approval)

Pattern: Varies per design

Design Rationale: Secondary paver type to be used in areas approved by Facilities Management.



DONOR PAVER

Manufacturer: Varies

Material: Varies

Size: Typical 4" X 8" or 8" X 8"

Color: Warm grays, reds, tans

Pattern: Varies per design

Design Rationale: Located within existing donor paver plazas. New locations should be considered with Baylor Facilities Management approval only. Preference given to adding pavers within existing donor plazas. Avoid locations within vehicular and cart circulation paths.



PERMEABLE PAVER

Manufacturer: Keystone Hardscapes

Material: Concrete Unit Permeable Paver

Finish: Standard, Platinum, Shot-blast

Size: Typical 4" X 8", other sizes may be considered in select applications with staff approval

Color: Warm grays, reds, tans

Pattern: Varies per design

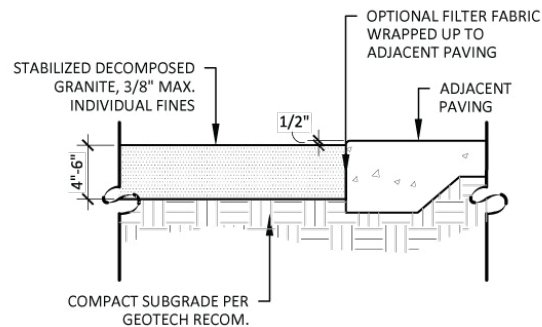
Install: Paver and subsurface conditions per manufacturer's recommendations.

Design Rationale: Application of pavers to be used in appropriate areas approved by Facilities Management that contribute to Baylor's sustainability initiatives.



AGGREGATE DETAIL

Install: Aggregates can be installed in select appropriate applications. All aggregates should be separated from sub grade by filter fabric. Aggregates should not be located adjacent to other aggregates, i.e. decomposed granite should not be located next to river rock.



DECOMPOSED GRANITE

Material: Weathered Granite (Red/Brown)

Depth: 6" for pedestrian surfaces (install, stabilize, compact in 2" lifts), 4" - planting mulch

Design Rationale: Decomposed granite is not preferred but allowed for selected applications. Limited use across campus is recommended.

Install: Landscape mulch, soft surface shoulder along Bear Trail, select applications with Baylor Facilities Management approval. Subsurface drainage required at every installation. All areas should be held in place by edge control. Material should not be installed in areas with a slope greater than 3.0%. Stabilizer to be patented, non-toxic, organic powder which binds decomposed granite.



BLACK STAR GRAVEL

Material: Crushed Basalt

Depth: 4" - 6"

Design Rationale: Primary rock mulch to be used when bedded area is susceptible to stormwater washout and mulch is not preferred. Requires Baylor Facilities Management approval. All areas should be held in place by edge control. Preferred in highly visible areas.



RIVER ROCK

Material: Texas Native Cobble or Round River Rock

Depth: 4" - 6"

Design Rationale: Secondary rock mulch, to be used when bedded area is susceptible to stormwater washout and mulch is not preferred. Requires Baylor Facilities Management approval. All areas should be held in place by edge control.



FURNITURE

INTRODUCTION

The following pages include a collection of standard site furniture and site components, as well as typical applications and guidelines for installation.

IMPLEMENTATION

The site elements listed in this section are generally off-the-shelf components, to be specified in plans and sourced from a manufacturer. These guidelines detail models, manufacturers, finishes, installation methods and guidelines for locations and context.

IN THIS SECTION:

Benches

Outdoor Tables & Chairs

Lawn Chairs

Planters

Bollards

Bike Racks

Litter and Recycling Receptacles

Outdoor Electrical Connections

★ BACKED BENCH

Manufacturer: DuMor

Model: 119-60: 6' Cast Steel Bench, Steel Seat

Finish: Bronze

Install: Surface mounted per manufacturer's specifications. Provide accessible landings on each side of bench, ref. 'Bench Context' Exhibit.



BENCH CONTEXT

Located Guide: across all campus, in ways that do not obstruct access at pedestrian walkways, plazas, building entrances, and bus stops.

Accessible Landings shall have:

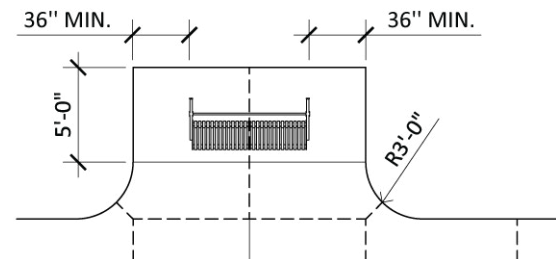
2% or less cross slope

36" X 36" minimum dimensions

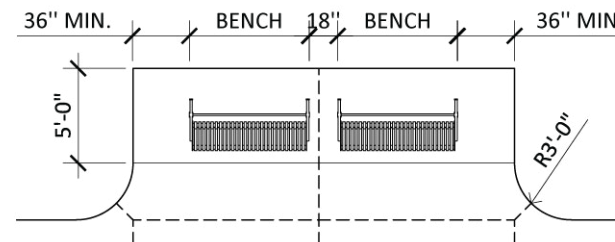
Finish: Standard Concrete

Install: Surface Mount

Single Bench Landing:



Double Bench Landing:



★ VERONA

Manufacturer: Landscape Forms

Model: Verona Chair

Finish: Powdercoated Metal Bronze

Install: Free Standing

Area shall have minimum 24" of clear pavement on all sides.

Area shall have 2% maximum cross slope.

Location: Verona is the preferred chair for all exterior spaces on campus. The Catena Table (umbrella hole optional) is paired with the Verona Chair.



★ CATENA

Manufacturer: Landscape Forms

Model: Catena Table & Chair, umbrella hole optional

Finish: Powdercoated Metal Bronze

Install: Free Standing

Area shall have minimum 24" of clear pavement on all sides.

Area shall have 2% maximum cross slope.

Location: Catena Chair and Table is preferred in outdoor Dining and Patio areas. All site furnishings and their proposed locations must be reviewed by Facilities Management before installation.



★ WELLSPRING

Manufacturer: Landscape Forms

Model: Wellspring Table & Chair

Finish: Standard Teak

Install: Free Standing

Area shall have minimum 24" of clear pavement on all sides.

Area shall have 2% maximum cross slope.

Re-sealed per manufacturer's specifications.

Location: Wellspring should be located under overhead structures to protect from weather. Wellspring tables are preferred in small, intimate or interior courtyards and plazas.



UMBRELLA

Manufacturer: Landscape Forms

Model: Stretch

Finish: Powdercoated Metal (Metallic) Silver or Bronze
Match furniture finish if installed jointly.

Optional Finish: Powdercoated Metal Forest Green

Install: Umbrellas shall have minimum 24" of clearance from other structures or umbrellas on all sides.
Area shall have 2% maximum cross slope.



★ LAWN CHAIRS

Manufacturer: Landscape Forms

Model: Americana Single Lounge Chair, tablet arm and bag hanger optional.

Color: H.D.P.E. Charcoal Grey

Install: Free Standing, minimum groupings of five chairs.

Location: Flexible gathering spaces and lawns.



★ PLANTERS

Manufacturer: Tournesol

Model: Wilshire Planters Round Collections, or equal

Install: Free Standing

Design Rationale: Finishes and colors may vary, Baylor Facilities Management & Office of Advancement approval is required before installation. Modular Container Irrigation System available if plumbing is not possible. See CWM Modular Container Irrigation System by Tournesol Siteworks.



BOLLARD

Manufacturer: Maglin Site Furniture

Model: 500 Series

Finish: Powdercoated Bronze

Install: Embedded, or removable (surface mounted) per manufacturer's specifications and recommendations.

Location: Spacing shall be appropriate for the space, but generally be between 4' - 8'.



LIGHTED PATH BOLLARD

Manufacturer: ERCO

Model: Castor Bollard luminaires

Finish: Powdercoated Bronze

Install: Surface mounted or embedded per manufacturer's specifications and recommendations.

Spacing shall be appropriate for the space, but generally be between 4' - 8'.



TRADITIONAL/ORNAMENTAL BOLLARD

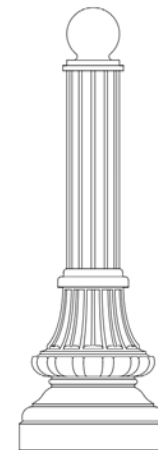
Manufacturer: Holophane

Model: WDBOL CA - BTN Wadsworth Bollard
with ball top for non-lighted bollard

Finish: Bronze

Install: Surface mounted or embedded per manufacturer's specifications and recommendations.

Spacing shall be appropriate for the space, but generally be between 4' - 8'.



★ BIKE RACKS

Manufacturer: DuMor

Model: 125-60, or Approved Length

Finish: Powdercoated Bronze

Install: Surface mounted per manufacturer's specifications and recommendations for adjacent clearances.
Area shall have 2% maximum cross slope.

BIKE RACK CONTEXT

Design Rationale: Bike racks should preferably serve multiple buildings rather than singular racks near building entrances.

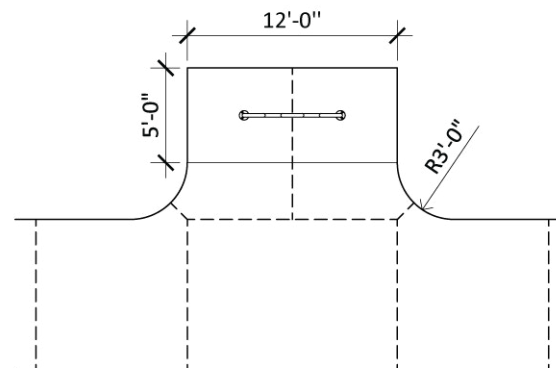
Location: Bike racks should preferably have access points from two directions and be located adjacent to plazas, promenades, or walkways.

Slope: 2% Max

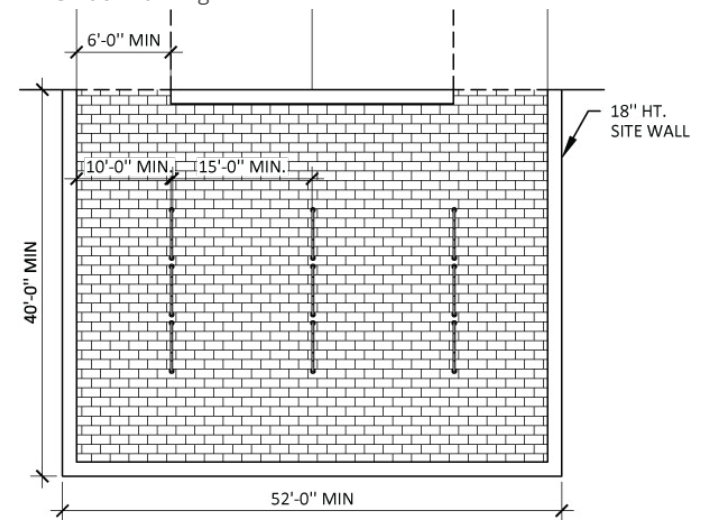
Finish: Standard Concrete or Pavers



Single Bike Rack:



Bike Rack Parking:



★ LITTER RECEPTACLE

Manufacturer: DuMor

Model: 287-32SH, with S0 Lid

Finish: Bronze

Mount: Surface mounted per manufacturer's specifications and recommendations for adjacent clearances.

Install: Litter and recycling bins to be provided in pairs.



RECYCLING RECEPTACLE

Manufacturer: DuMor

Model: 287-32SH, with RC2 Lid "Mixed Recycling"

Finish: Bronze

Mount: Surface mounted per manufacturer's specifications and recommendations for adjacent clearances.

Install: Litter and recycling bins to be provided in pairs. After market, additional 1" white vinyl lettering defining acceptable materials shall be installed on lid. Verbiage shall be approved by Facilities Management - Director of Sustainability.



RC2
Labeling on Band:
MIXED RECYCLING

★ ATHLETICS RECEPTACLE

Manufacturer: Witt Industries

Model: Standard Series Waste & Recycling Bin
55 gallon, plastic flat-top lid with
single round opening & liner.

Finish: Stainless Steel

Mount: Surface mounted per manufacturer's specifications and recommendations for adjacent clearances.

Location: Around all athletic facilities and fields.



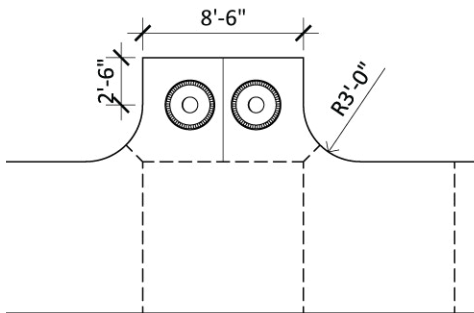
RECEPTACLE CONTEXT

Design Rationale: Receptacles should preferably serve multiple buildings rather than singular receptacles near building entrances.

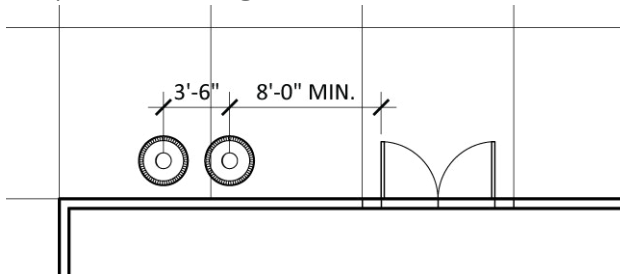
Location: Receptacles should be located on bump outs when adjacent to promenades or walkways. In plazas, receptacles should be located in corners or out of the way of pedestrian traffic. Receptacles should be at least 6' from doorways, benches or seating areas.

Material: Concrete or Pavers, 2% maximum cross slope

Receptacle Landing:



Receptacles at Building:



OUTDOOR ELECTRICAL OUTLET

Location: In discreet locations, at edge of pavement in planting beds adjacent to pavement.

Manufacturer: Pedoc Power Solutions

Model: 4x4 Flush Style, Hinged Cover, 1- and 2- Gang, Surface Mount

Finish: Bronze or Brushed Stainless Steel

Height: 12"

Install: Surface mounted or direct buried per manufacturer's specifications and recommendations for adjacent clearances.



OUTDOOR CHARGING STATIONS

Location: In discreet locations, at edge of pavement in planting beds adjacent to pavement. Installations should generally be within 10' of proposed site furnishing locations.

Manufacturer: Landscape Forms

Model: Outdoor Power Line

Finish: Powdercoated Metallic Bronze or Silver

Height: Varies

Install: Surface mounted or embedded per manufacturer's specifications and recommendations for adjacent clearances.



LIGHTING

INTRODUCTION

Lighting fixtures serve two main purposes on campus: to provide light, visibility and safety to guests, as well as to create ambiance and an inviting environment which people associate with being on campus. Similar fixtures, output, locations, and installation methods can create consistency and comfort for guests across campus.

IMPLEMENTATION

A site lighting family consists of multiple features which are architecturally similar and complimentary of the adjacent architecture. Each fixture has a different role to play and multiple types can be layered with each other to create a thoughtful and comfortable space.

The memorial lamppost is an existing landmark that represents the classic architectural style of original campus, as well as how the Baylor Community honors significant alumni. This is an excellent example of how a site component can further the “Baylor Brand” on campus.

Additional applications of illumination on campus include street, parking lot, and area site lighting which should be coordinated with the following landscape lighting family in any future campus lighting master plan.

FIXTURE	APPLICATION
BOLLARD & PATH LIGHT	ADJACENT TO PATHWAYS, PROMENADES, WALKWAYS
AREA SITE LIGHTING MEMORIAL LAMPPOST	ADJACENT TO PROMENADES, STREETS, PARKING
UPLIGHTS	FACING ARCHITECTURE, LANDSCAPE, SIGNAGE CONSIDER RECESSED FIXTURES TO MINIMIZE CONFLICT WITH LANDSCAPE MAINTENANCE
WALL PACK (WALL WASH, FOCUSED BEAM)	ADHERED TO STEPS, RAMPS, ARCHITECTURE

★ MEMORIAL LAMPPOST

Custom Baylor Memorial Lamppost
Install: In alignment with the installation methods and spacing of existing lampposts on campus.
Per manufacturer’s specifications and recommendations.
May be provided with a dedication plaque as a donorship item.
Additional information for Memorial Lampposts and their application can be found on pg. 94.



LIGHTED PATH BOLLARD

Manufacturer: ERCO

Model: Castor Bollard luminaires

Finish: Powdercoated Bronze

Install: Surface mounted or embedded
per manufacturer's specifications
and recommendations.
Spacing shall be appropriate for the space,
but generally be between 4' - 8'.



UPLIGHT

Manufacturer: Ecosense

Model: Rise F080 Single

Finish: Metal Bronze

Color Temperature:

Install: Surface mounted per manufacturer's
specifications and recommendations.
Recessed per Department of Facilities
Management Recommendation.



WALL PACK

Manufacturer: Lithonia Lighting

Model: WDGE 2 LED

Finish: Metal Bronze

Color Temperature:

Install: Surface mounted or embedded
per manufacturer's specifications
and recommendations.



SIGNAGE

INTRODUCTION

Architecturally designed and maintained site signage is one of the primary identifiers for campus edges and arrival. Multiple signage elements occur within a Site Signage Family to provide identification and wayfinding information.

The following recommendations are conceptual suggestions for improvements to the Site Signage Family on campus. An additional Signage and Wayfinding Master Plan would provide extensive recommendations for signage placement, fabrication, and installation.

Coordination between Baylor Facilities Management, Office of Advancement, and Marketing is recommended for a future signage master plan that responds to the identity of campus.

A survey and field assessment of conditions are necessary before planning and placement of site signage on campus.

PRIMARY ARRIVAL & GATEWAYS

Dimensions: 10'-14' W X 6'-12' HT (Approximately)

Material: Cast Stone, Red Brick, or Approved Material for Campus Monumentation

Design Rationale: Implemented at Primary Arrivals to campus ("Campuswide Strategies"). These are the architecturally strongest member of the Site Signage Family and influence the remaining sign types. Enhanced plantings should be installed at all primary gateways, and maintenance should routinely inspect for weeds, plant health, and other unsightly items.

SECONDARY ARRIVAL & GATEWAYS

Dimensions: 8' W X 5' HT (Approximately)

Material: Cast Stone, Red Brick, or Approved Material for Campus Monumentation

Design Rationale: Implemented at secondary arrivals and contain elements from Primary Arrival & Gateways but at a smaller scale. Enhanced plantings should be installed at all secondary gateways, and maintenance should routinely inspect for weeds, plant health, and other unsightly items.



BUILDING IDENTIFICATION

Dimensions: 4' W X 3' HT (Approximately)

Material: Cast Stone, Red Brick, or Approved Material for Campus Monumentation

Design Rationale: Provided on all campus buildings according to the existing architectural standards provided by Facilities Management. Enhanced plantings should be installed at all building monumentation, and maintenance should routinely inspect for weeds, plant health, and other unsightly items.

PEDESTRIAN & VEHICULAR DIRECTIONAL SIGNAGE

Dimensions: Varies

Material: Cast Stone, Red Brick, Steel, Stainless Steel, or Approved Material for Campus Monumentation

Pedestrian Kiosks:

Implemented along promenades and primary pedestrian paths. Provide wayfinding at intersections of primary paths and at key building destinations.

Vehicular Signage:

Implemented at strategic intersections and adjacent to primary roadways for vehicular wayfinding.

Parking Identification:

Implemented at each primary entry to campus parking lots and garages.

CAMPUS PROMENADE COLUMN

Dimensions: 3' W X 8' HT (Approximately)

Material: Red Brick with Cast Stone Cap, cast stone water table, inset relief on column.

Design Rationale: Installation of these features should be used sparingly and to delineate the entrance to a pedestrian promenade or signature space on campus.



CANOPY

INTRODUCTION

The following text provides reference for operational tree protection and preservation measures on campus.

Generally all traffic and construction activities shall not impede the drip line of an existing tree. It is recommended to keep all construction activities outside a 10' buffer around the existing tree canopy. The critical root zone (CRZ) is determined by the drip line of the tree to the ground. Any work to be conducted within 10' of the CRZ shall require approval from Baylor Facilities Management.

Any work to be conducted within this 30' Zone, or drip line, required approval from Facilities Staff before starting.

TREE PRESERVATION & MITIGATION

All efforts to preserve existing trees on campus should be prioritized for any new construction. New plans should recommend protection or relocation of any trees 20" Caliper or greater.

Memorial Trees, Trees with Historical Significance, and Heritage Trees (20" Caliper) shall not be removed on campus without written approval from Baylor Facilities Management & Office of Advancement. If removal is necessary, trees shall be replaced on a 3" DBH to 1" Caliper ratio.

TREE PROTECTION DURING CONSTRUCTION

When excavating or performing any construction activities near existing trees on campus, proper tree protection is required for the health and safety of the tree, as well as construction workers.

Tree protection includes, but is not limited to:

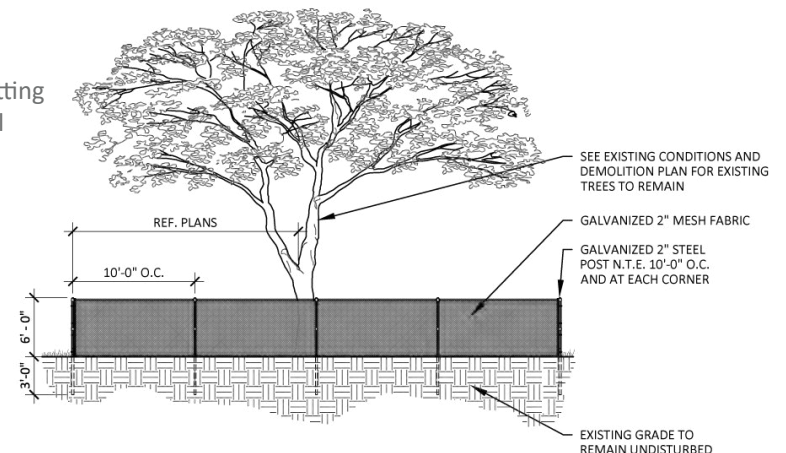
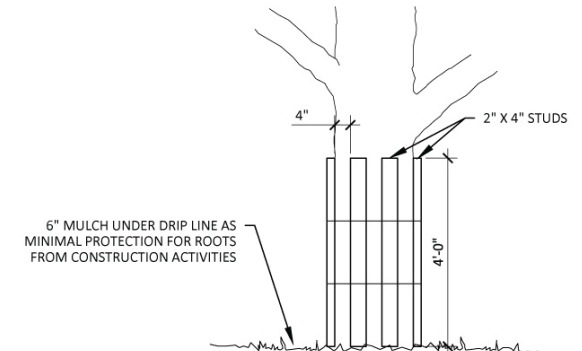
Fencing: Galvanized steel and chain link installed at the drip line of any tree near a construction activity. The Tree Drip Line should be closed off from any pedestrian or vehicular traffic. Fencing must remain in place until excavation or construction is complete and equipment is removed from the site. If root pruning is required, a consult from a certified arborist is required before pruning any roots. Trees should be considered for removal if unable to comply with arborist's advice.

Trunk Protection: 2" X 4"s must be provided after Facilities' approval of method.

Mulch & Matting: If construction equipment is required to be within the Tree drip line, a minimum of 6" of mulch and construction matting is required to prevent compaction. Mulch shall be removed after construction is complete.

Notes: In special circumstances, an arborist may be consulted after construction to provide decompaction, trenching, and fertilization recommendations.

Trees shall be monitored for 24 months after construction is completed to mitigate any negative impacts from construction.

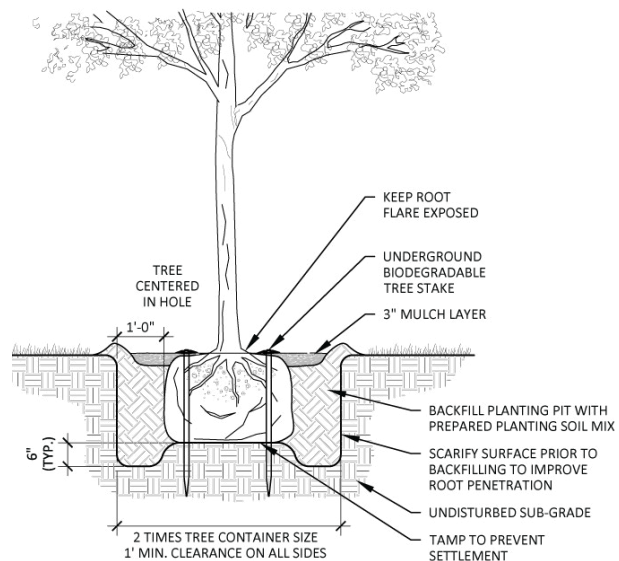


TREE INSTALLATION

Location: 5' minimum offset from adjacent pavement or underground utility
10' offset from adjacent buildings

Install:

1. Tree to be planted in soil without high clay or sand content.
2. Any tree pruning at the time of installation shall be coordinated with Baylor Facilities Management Designated Representative.
3. Install in ground staking system per manufacturer's instructions. Minimum 3 per tree.
4. Products should not damage trees in any way during or after installation.



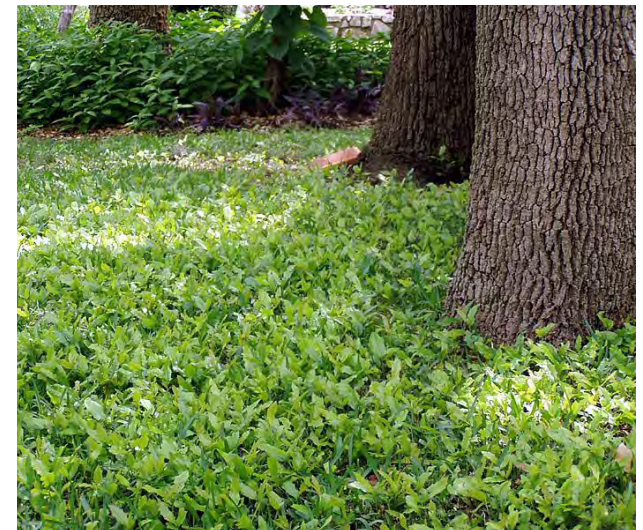
TREE DRIPLINE PROTECTION

Dimensions: Outer Edge of Critical Root Zone

Finish: Mulch, Plantings, Chains, Seat Walls

Design Rationale: All efforts should be taken to remove traffic from the critical root zone of any significant trees on campus to prevent compaction. Any new seat walls should match the architectural context for materials and forms. Approved materials within the CRZ are mulch or groundcover.

Methods: Includes installations of walls, railings, floating boardwalks, and stake and chain fencing above the CRZ.



PLANTINGS

INTRODUCTION

Standard planting materials and installation methods are important for maintaining the visual unity of campus. Established guidelines also provide an extra control for Staff when determining maintenance requirements and scheduling.

IMPLEMENTATION

The following guidelines are to be implemented in all landscape and turf spaces on campus.

Plant spacing shall be determined by species and accommodate mature height and spread at 100% of full maturity. All plant material shall meet the American Standards for Nursery Stock (ANSI). Spacing shall be triangular or as shown on plans, or as approved by Baylor Facilities Management.

Plants used for screening purposes should have reduced spacing at 60% of full maturity size, and have an increased plant size at time of installation.

It is recommended to provide 80% plant coverage at full plant maturity within a project boundary across landscape beds. This provides spaces between plants and reduces cost of maintenance and water use.

All landscape edging shall be concrete 'Edge Control' (found on pg. 144), or substitutions approved by Baylor Facilities Management. Turf shall be planted at the same grade as the edge control. Finished grade of the planting bed shall be a minimum of 1" below the top of the concrete edge control to prevent mulch and soil migration.

All plants should be sourced as close as possible to the Baylor University Waco site and exhibit a high quality growth habit that is normal for the species. Plant material shall be vigorous, healthy, and free from insects, weeds, and disease or injury. Should any conflict arise as to the quality of plant material, Baylor Facilities Staff decisions are final.

IN THIS SECTION:

Baylor Approved Plant List

Best Practices

Landscape Methods

Planting Bed Edge Control

Mulch Cover

Shrub & Groundcover Install

Sod Install

BAYLOR APPROVED PLANT LIST

The Campus Plant List provides a comprehensive library of approved and recommended plant material for campus. Deviations from the approved list need additional approval from Baylor Facilities Management. Planned materials should be considered based on their adaptability for Waco's Hardiness Zone and desired design intent.

The Campus Plant List provides approved plant material for Large Canopy Trees, Medium and Small Trees, Ornamental Grasses and Perennials, Shrubs, Palms, Vines, Yucca and Cacti, as well as Turf.

Planting selection, of pre-approved and special requested species, for new construction must be reviewed for appropriate use, spacing, and microclimate before installation.

The Master Specifications provide additional direction for plant installation and maintenance on campus.

COMMON NAME	SCIENTIFIC NAME	TYPE
Allee Elm	<i>Ulmus parvifolia</i> 'Emer II'	Large Tree
Mexican Sycamore	<i>Plantanus mexicana</i>	Large Tree
Burr Oak	<i>Quercus macrocarpa</i>	Large Tree
Chinkapin Oak	<i>Quercus muehlenbergii</i>	Large Tree
Monterrey Oak	<i>Quercus polymorpha</i>	Large Tree
Shumard Oak	<i>Quercus shumardii</i>	Large Tree
Live Oak	<i>Quercus virginiana</i>	Large Tree
Highrise Live Oak	<i>Quercus virginiana</i> 'Highrise'	Large Tree
Bald Cypress	<i>Taxodium distichum</i>	Large Tree
Cedar Elm	<i>Ulmus crassifolia</i>	Large Tree
Lacebark Elm	<i>Ulmus parvifolia</i>	Large Tree
Bosque Elm	<i>Ulmus parvifolia</i> 'Bosque'	Large Tree
Escarpment Live Oak	<i>Quercus fusiformis</i>	Large Tree
Eastern Black Cedar	<i>Thuja occidentalis</i> 'Nigra'	Large Tree
Deodar Cedar	<i>Cedrus deodara</i>	Large Tree
River Birch	<i>Betula nigra</i> 'BNMTF' (Dura Heat)	Large Tree
Thornless Honeylocust	<i>Gleditsia triacanthos</i> var. <i>inermis</i> 'Shademaster'	Large Tree
Arizona Blue Cypress	<i>Hesperocyparis arizonica</i> 'Blue Ice'	Large Tree
Skyrocket Juniper	<i>Juniperus scopulorum</i> 'Skyrocket'	Medium Tree
Eastern Red Cedar (female only)	<i>Juniperus virginiana</i>	Medium Tree
Goldenball Leadtree	<i>Leucaena retusa</i>	Medium Tree
Magnolia 'Claudia Wannamaker'	<i>Magnolia grandiflora</i> 'Claudia Wannamaker'	Medium Tree
Magnolia 'Little Gem'	<i>Magnolia grandiflora</i> 'Little Gem'	Medium Tree
Magnolia 'Teddy Bear'	<i>Magnolia grandiflora</i> 'Southern Charm'	Medium Tree
Chinese Pistache	<i>Pistachia chinensis</i>	Medium Tree
Bigtooth Maple	<i>Acer grandidentatum</i>	Medium Tree
Western Soapberry	<i>Sapindus saponaria</i> var. <i>drummondii</i>	Medium Tree
Texas Madrone	<i>Arbutus xalapensis</i>	Medium Tree

BAYLOR APPROVED PLANT LIST, CONTINUED

COMMON NAME	SCIENTIFIC NAME	TYPE
Maple, Shantung or Autumn Blaze	<i>Acer truncatum</i>	Small Tree
Redbud (Oklahoma)	<i>Cercis canadensis</i> var. <i>Texensis</i>	Small Tree
Desert Willow	<i>Chilopsis linearis</i> 'Bubba'	Small Tree
Possumhaw holly	<i>Ilex decidua</i>	Small Tree
Tree Yaupon Holly	<i>Ilex vomitoria</i>	Small Tree
Crapemyrtle	<i>Lagerstroemia indica</i>	Small Tree
Tea Olive	<i>Osmanthus x fortunei</i> 'Fruitlandii'	Small Tree
Texas Mountian Laurel	<i>Sophora secundiflora</i> 'Silver Sierra'	Small Tree
Texas Mountian Laurel	<i>Sophora secundiflora</i>	Small Tree
Vitex	<i>Vitex agnus-castus</i>	Small Tree
Mimosa Tree	<i>Albizia julibrissin</i> 'Summer Chocolate'	Small Tree
Bloodgood Japanese Maple	<i>Acer palmatum</i> 'Bloodgood'	Small Tree
Rusty Blackhaw	<i>Viburnum rufidulum</i>	Small Tree

COMMON NAME	SCIENTIFIC NAME	TYPE
Blonde Ambition Blue Grama	<i>Bouteloua gracilis</i> 'Blonde Ambition'	Ornamental Grasses
Berkeley Sedge	<i>Carex divulsa</i>	Ornamental Grasses
Carex	<i>Carex oshimensis</i>	Ornamental Grasses
Inland Sea Oats	<i>Chasmanthium latifolium</i>	Ornamental Grasses
Liriope	<i>Liriope muscari</i>	Ornamental Grasses
Maiden Grass	<i>Miscanthus sinensis</i>	Ornamental Grasses
Miscanthus	<i>Miscanthus sinensis</i>	Ornamental Grasses
Muhly Grass	<i>Muhlenbergia capillaris</i>	Ornamental Grasses
Switch Grass	<i>Panicum virgatum</i>	Ornamental Grasses
Little Blue Stem	<i>Schizachyrium scoparium</i>	Ornamental Grasses
Abelia sp.	<i>Abelia x grandiflora</i>	Shrubs
Aucuba	<i>Aucuba japonica</i> 'Variegata'	Shrubs
Butterfly Bush	<i>Buddleia</i> spp.	Shrubs
American Beautyberry	<i>Callicarpa americana</i>	Shrubs
Cotoneaster	<i>Cotoneaster horizontalis</i>	Shrubs
Rose of Sharon	<i>Hibiscus syriacus</i>	Shrubs
Oakleaf Hydrangea	<i>Hydrangea quercifolia</i>	Shrubs
Dwarf Burford Holly	<i>Ilex cornuta</i> 'Burfordi nana'	Shrubs
Carissa Holly	<i>Ilex cornuta</i> 'Carissa'	Shrubs
Dwarf Yaupon Holly	<i>Ilex vomitoria</i>	Shrubs
Nelly R. Steven Holly	<i>Ilex x 'Nelly R. Stevens'</i>	Shrubs
Sunshine Ligustrum	<i>Ligustrum sinense</i> 'Sunshine'	Shrubs
Loropetalum	<i>Loropetalum chinensis</i>	Shrubs
Nandina	<i>Nandina domestica</i>	Shrubs
Pittosporum	<i>Pittosporum tobira</i>	Shrubs
Podocarpus	<i>Podocarpus macrophyllus</i>	Shrubs
Drift Rose	<i>Rosa hybrida</i>	Shrubs
Firecracker Plant	<i>Russelia equisetum</i>	Shrubs
Spiraea	<i>Spiraea x bumalda</i> 'Anthony Waterer'	Shrubs
Texas Sage	<i>Leucophyllum frutescens</i>	Shrubs
Roses (Rosette resistant variety)	<i>Rosa rubiginosa</i>	Shrubs

COMMON NAME	SCIENTIFIC NAME	TYPE
Milk Weed (Native species only)	<i>Asclepias syriaca</i> (Only)	Perennials
Mist Flower	<i>Conoclinium coelestinum</i>	Perennials
Coreopsis	<i>Coreopsis verticillata</i>	Perennials
Crinum Lily	<i>Crinum augustum</i>	Perennials
Holly Fern	<i>Cyrtomium falcatum</i>	Perennials
Wood Fern	<i>Dryopteris</i>	Perennials
Purple Coneflower	<i>Echinacea purpurea</i>	Perennials
Guara	<i>Gaura lindheimerii</i> "Whirling Butterflies"	Perennials
Daylily	<i>Hemerocallis</i> spp.	Perennials
Louisiana Iris	<i>Iris giganteaerulea</i>	Perennials
Lantana	<i>Lantana</i> spp.	Perennials
Turks Cap	<i>Malvausca arboreus</i> var. <i>drummondii</i>	Perennials
Blackfoot Daisy	<i>Melampodium leucanthum</i>	Perennials
Russian Sage	<i>Perovskia atriplicifolia</i>	Perennials
Phlox	<i>Phlox paniculata</i>	Perennials
Black-eyed Susan	<i>Rudbeckia fulgida</i>	Perennials
Salvia/Sage	<i>Salvia</i> spp.	Perennials
Yellow Bells	<i>Tecoma stans</i> 'Gold Star'	Perennials
Spiderwort	<i>Tradescantia x andersoniana</i>	Perennials
Pincusion Flower	<i>Scabiosa columbiana</i>	Perennials
Engelman Daisy	<i>Engelmannia pinnatifida</i>	Perennials
Stonecrop	<i>Sedum spectabile</i>	Perennials
Bouncing Bet	<i>Saponaria officinalis</i>	Perennials
Rock Rose	<i>Pavonia lasiopetala</i>	Perennials
Rose Champion	<i>Lychnis coronaria</i>	Perennials
Yerba Mansa	<i>Anemopsis californica</i>	Perennials
Maximillian Sunflower	<i>Helianthus maximiliani</i>	Perennials

COMMON NAME	SCIENTIFIC NAME	TYPE
Dwarf Palmetto	<i>Sabal minor</i>	Palm
Red Yucca (Compact varieties only)	<i>Hesperaloe parviflora</i>	Yuccas/Cacti
Color Guard Yucca	<i>Yucca filamentosa</i>	Yuccas/Cacti
Soft Leaf Yucca	<i>Yucca gloriosa</i> var. <i>tristis</i>	Yuccas/Cacti
Pale-leaf Yucca	<i>Yucca pallida</i>	Yuccas/Cacti
Agave	<i>Agave</i> spp.	Yuccas/Cacti
Cross Vine	<i>Bignonia capreolata</i>	Vines
Climbing Fig	<i>Ficus pumila</i>	Vines
Carolina Jessamine	<i>Gelsemium sempervirens</i>	Vines
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	Vines
Boston Ivy	<i>Parthenocissus tricuspidata</i>	Vines
Wisteria	<i>Wisteria frutescens</i>	Vines
Dwarf Plumbago	<i>Ceratostigma plumbaginoides</i>	Groundcover
Purple Wintercreeper	<i>Euonymus fortunei</i> 'Colorata'	Groundcover
English Ivy	<i>Hedera helix</i>	Groundcover
Frog Fruit	<i>Phyla nodiflora</i>	Groundcover
Rosemary	<i>Rosmarinus officinalis</i>	Groundcover
Asian Jasmine	<i>Trachelospermum asiaticum</i>	Groundcover
Annuals	<i>Varies</i>	Groundcover
Buffalo Grass	<i>Bouteloua dactyloides</i>	Turf
Bermuda	<i>Cynodon dactylon</i>	Turf
St. Augustine	<i>Stenotaphrum secundatum</i>	Turf
Zoysia	<i>Zoysia</i> spp.	Turf

LAWN BEST PRACTICES

WATERING

Proper watering increases the speed of recovery for high use lawn areas, increases ride-through of hostile weather patterns, minimizes patchiness, and provides sustainable, thicker grasses on campus.

Avoid supplying water with harsh elements and high salt content. Infrequent and deep metered watering promotes deep roots. Design watering systems to maximize manufacturer operating pressures, use head-to-head coverage, and zone plant material by water use. Optimize the watering window to reduce evaporation, ensure balanced head pressure within zones, and utilize moisture sensors and weather stations to avoid under and over watering.

FERTILIZATION

As determined by Baylor Facilities Management, and depending on conditions, high traffic areas can be fertilized during the growing seasons to turf grasses to increase recovery time and maintain turf health.

AERIFICATION

Aerification improves the aerobic health of turfgrass by relieving compaction from pedestrians and equipment that renders the surface impermeable. Fertilizer, oxygen, and water are no longer able to enter the soil when this occurs. The best method to mitigate compaction is with “core aerification”, where a plug is physically pulled from the soil.

High trafficked fields should be aerified frequently during growing seasons, while common areas may be aerated less frequently. If core aerification is performed, the plugs need to be dragged in so that loose soil may fill the core holes.

MOWING

Generally, bermuda turf should be mowed between 1/2” to 1 1/2”, removing no more than 1/3 of the total leaf blade per mowing day. Changing mowing direction prevents the grass from growing in one direction. Mowing should occur weekly at minimum during peak growing season. Selecting optimal turf species is critical to reduce impact on operating budgets. The benefits of a good mowing program include quicker responses to vertical and lateral growth, quicker divot recovery, and a denser turf mat. Note: mowing at recommended heights may cause scalping if the surface is not level. Repairs to the surface and ensuring fine grading is necessary to prevent scalping.

PESTS & INSECTS

An integrated pest management program should be developed by a licensed professional pesticide applicator. Weed suppression reduces competition, water consumption, and provides quicker recovery times during the growing season. Frequent inspections for pests are necessary to limit any negative impacts.

MAINTENANCE SCHEDULES & REPAIRS

Weekly inspections are critical during the growing season to mitigate any issues that may be present. Inspections also ensure all non-negotiable standards are being met.

Formal and scheduled inspections of turf and landscape areas are important to mitigate damage that may worsen if left unaddressed. Repairs may include sodding worn patches, removing pests and weeds, irrigation system checks, ensuring positive drainage, and checking utilities for potential hazards.

Proper maintenance planning and budgets can reduce reactive responses to landscape conditions and reduce repair time. This includes proactive maintenance, inspections, repairs, contractor scheduling, and irrigation scheduling - these changes create a ‘maintaining quality’ mentality, rather than ‘break-fix’.

THREE METHODS FOR THE CAMPUS LANDSCAPE:

LAWN METHOD

Design Rationale: Lawns are appropriate in natural gathering and expansive open areas. Proper drainage and maintenance is required often to ensure lawns remain functioning as intended and visually appealing. Lawns require the most water of the three landscape methods, and should be mowed regularly to maintain appropriate turf height.



ENHANCED LANDSCAPE METHOD

Design Rationale: Planting Beds require monthly maintenance, but lower water requirements than lawns. Planting beds to be located around prominent architectural features such as foundation of buildings, monument signs, gateways, and sculptures. Planting beds should be comprised of a minimum of 50% evergreen groundcover with perennial additions. Evergreen groundcovers are a primary solution for planting beds due to their low maintenance and low water requirements. Seasonal color should be used sparingly and only in important, highly visible areas.



NATIVE AREA METHOD

Design Rationale: Native Areas require less maintenance and irrigation than lawn and planting bed methods. Native Areas are appropriate for larger, contiguous open spaces. Native grasses and wildflowers require periodic mowing and minimal irrigation, while also providing habitat for migratory wildlife species.



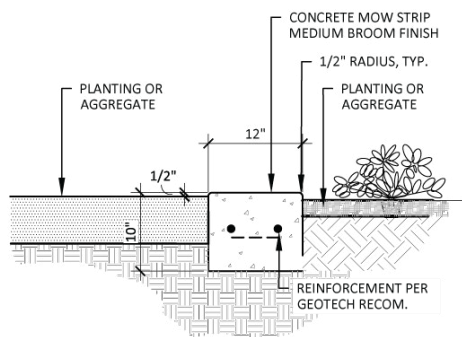
EDGE CONTROL

Material: Concrete, medium broom finish

Width: 6" or 12"

Depth: 4"

Design Rationale: Edge control separates landscape and turf, and restrains any aggregate surface application. Edge control allows for more efficient maintenance at landscape transitions. Edge control should restrain all paver types, aggregate surface applications, and separate landscape types wherever possible.



ORGANIC MULCH

Finish: Texas Hardwood Mulch (Brown)

Depth: 3"

At tree rings in turf areas, a mulch ring 3" deep with cut beveled edge 3-4" deep to discourage mulch from migrating onto the turf.

Note: Mulch can be provided from on-site tree shredding or through purchase from a supplier. It should be free of large leaves and sticks, harmful substances, and detrimental amounts of soil or other foreign matter that promotes early compaction, matting, or deterioration of the mulch.



ROCK MULCH

Finish: Black Star Gravel, River Rock, or Approved Equal

Depth: 4"

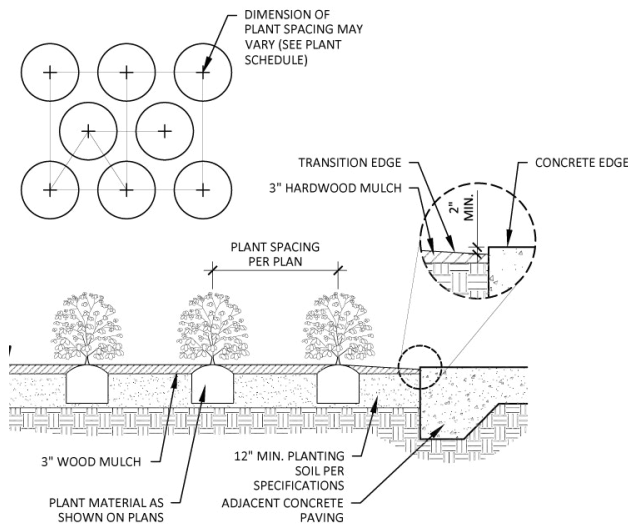
Design Rationale: Gravel is a lower-maintenance option for mulch and areas where pervious paving may reduce surface runoff. Periodic replenishing is necessary for rock migration. All areas with gravel surfacing should be held in place by 'Aggregate Edge Control'.



SHRUB & GROUNDCOVER INSTALL

Install:

1. Remove existing soil to 12" depth, roto till bottom 2" of existing soil to prepare soil after excavation of bed-tamp to prevent settlement.
2. Use triangular spacing unless otherwise specified.
3. For existing planting beds, full removal of 12" depth may not be necessary. Approval is required from Department of Facilities Management.

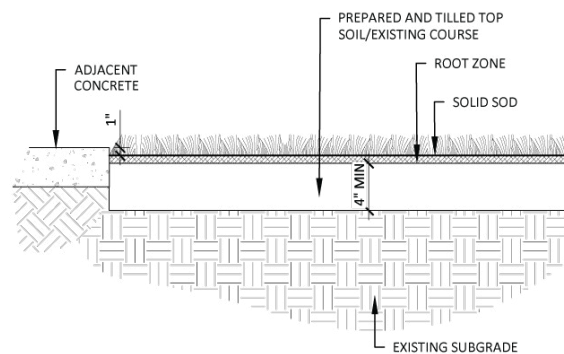


SOD INSTALL

Install:

1. Lay sod same day as delivery.
2. Remove weeds, trash, and any rocks or clumps of soil larger than 1" in soil.
3. Excavate existing soil to allow for installation of quality top soil at a minimum depth of 4" in all areas to receive sod.
4. Till 2" of quality top soil to a depth of 4" in all areas to receive sod.
5. Fine grade tilled and prepped soil per grading plans to minimize drainage issues.
6. Water soil until lightly moistened before laying sod.

7. Lay sod along sidewalk edge and work outward, ensuring all pieces are rolled in same direction.
8. Lay sod in a staggered bond pattern, ensuring edges are butted up tightly against each other leaving no gaps at seams.
9. Water solid sod area, keeping area moist until fully established.
10. After two weeks, replace any dead or declining areas of sod.



IRRIGATION

APPLICATION

All landscaped beds require appropriate irrigation to maintain the health of plant material. Great lawns and turf areas require head to head spray coverage in order to adequately irrigate the turf and avoid dry spots. Landscape plantings should be zoned according to water needs when possible. Irrigation zones should compliment design.

Future implementation of rain gardens or bioswales will reduce campus irrigation requirements. Further information to reduce water consumption can be found in Waco's LID Guidance Manual.

IMPLEMENTATION

Existing irrigation may require an initial audit to determine which zones are fully functional and where repairs need to be made.

Irrigation systems shall be regularly inspected to remediate any areas that appear to underperforming. Inspect for flooding, ponding, dry areas, or broken equipment and adjust water schedules or make repairs as needed to ensure the health of plant materials.

Where possible, irrigation zones should be organized and managed by a central controller which could be operated through a desktop, smart device, or handheld controller.

All turf and lawn areas should have head to head irrigation coverage for optimal watering and healthy, thriving plant material.

The preferred irrigation method for landscape beds is drip equipment. Drip tubing should be installed subsurface according to manufacturer's specifications and covered by a minimum of three inches of soil or mulch at all times.

Ensure all valve boxes and spray equipment are installed 1/4" above finish grade and aligned with each other and the adjacent edge.

Ensure all valve boxes include brick support and pea gravel filled to four inches. Valve boxes in grass areas should have green lids and valve boxes in planting/mulch or rock areas should have brown lids.

Valve boxes should be installed a minimum of three feet apart for ease of maintenance.

When installing equipment within existing tree root zones, hand trench or use an air spade (or equivalent) to avoid root damage. Stake lines and receive approval from Baylor Representative prior to installation.

Minimum distance between mainline and lateral line fittings (except for reduced bushings) to be 18".

Install all wire splices in 10" round Valve Boxes.

Connect rotary heads to lateral pipe with swing joints per detail.

Lateral piping shall have a minimum of 12" cover. Mainline and piping under paving shall have a minimum of 18" cover.

Where necessary, use City of Waco thrust block sizing and installation specifications.

IN THIS SECTION:

Controller

Double Check Valve

Wye Strainer

Remote Control Valve

Flow Meter/Sensor

Trenching

Quick Coupling Valve

Gate Valve

Spray Coverage

Spray Head

Tree Bubbler Placement

Tree Bubbler

Drip Installation

Drip Remote Control Valve

Drip Indicator

Drip Start Connection

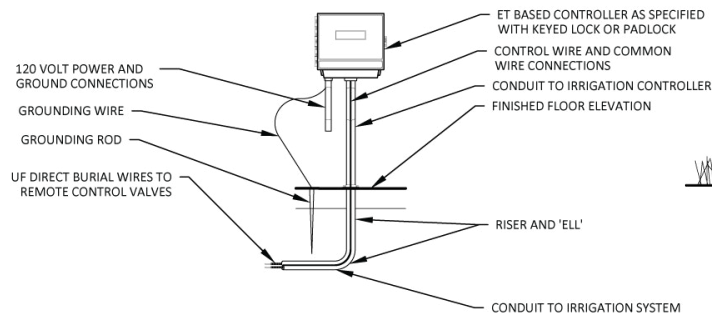
CONTROLLER

Manufacturer: Toro

Model: DXi series, Cellular capable, 120 AC, Outdoor Model. Wall or pedestal mount per plan.

Install: Controllers should be installed on the exterior of architectural features where possible according to the manufacturer's specifications and recommendations.

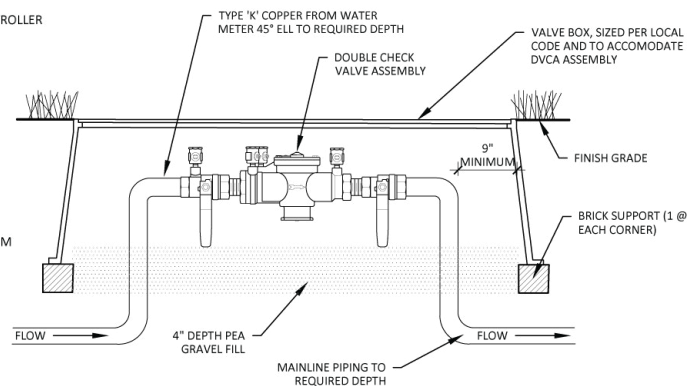
1. Electrical power to be supplied by others.
2. Contractor to coordinate power with MEP.
3. All wiring to be installed per local codes.
4. Controller to be mounted approximately 5'-0" above finished floor elevation.



DOUBLE CHECK VALVE

Install:

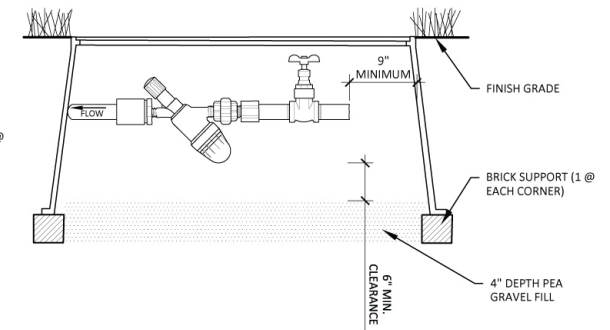
1. Install locally available double check valve as approved by Baylor's licensed irrigator.
2. Install in extra large valve box.



WYE STRAINER

Install:

1. Install a wye strainer with every meter installation.



REMOTE CONTROL VALVE/MASTER VALVE

Manufacturer: Rainbird

Model: PEB or PESB (depending on water source)

1. Install a master valve with every meter installation.
2. Install remote control valves in 12" X 17" Valve Boxes per detail.
3. Install a ball valve with every remote control valve.
4. Lid set 1/4" above finish grade.
5. Valve boxes should be aligned with each other and with adjacent edges.
6. Valves to have flow control and DC latching solenoids.

FLOW METER/SENSOR

Manufacturer: Toro

Model: TFS Series sized according to system design.

Location: 1 per system, following each master valve.

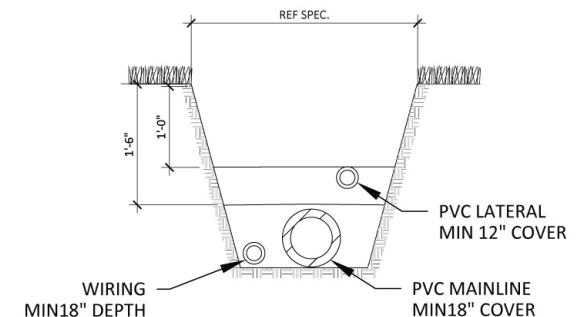
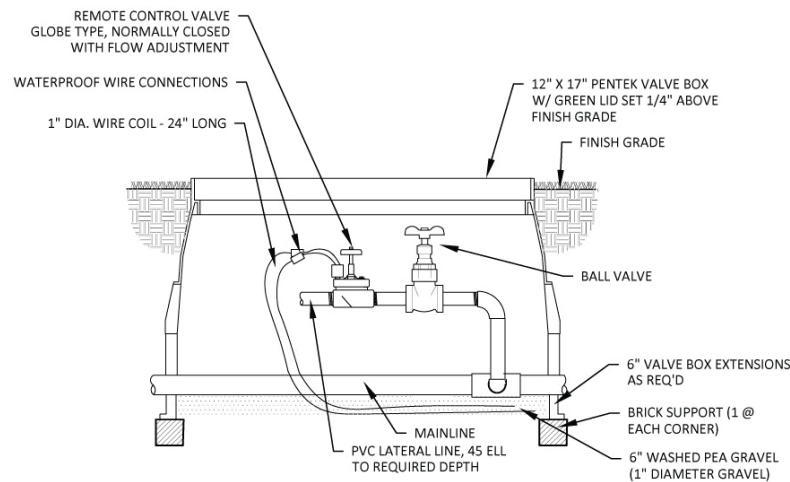
Install:

1. Install a flow sensor with every meter installation.
2. Wrap all fittings with 3 millimeter plastic prior to installation of thrust block.
3. Install 1/2" X 48" Schedule 40 stake at each thrust block. Stake to extend minimum of 24" into undisturbed soil. Top of stake to be maximum of 6" above top of thrust block. Pour concrete thrust block around stake and against disturbed soil.

TRENCHING

Install:

1. Trenches shall be wide enough to allow a minimum of 4" between parallel pipelines and/or wiring.
2. Rocks shall be removed to a depth of 6" minimum below trench depth, backfilled with fully tampered soil.
3. Bed area excavation as follows:
Groundcover/Perennial Beds: 8" Depth
Shrub Beds: 15" Depth
Lawn Areas: 4" Depth
4. Tape and bundle wiring at 10'-0" intervals. Snake pipe and wire in trench.



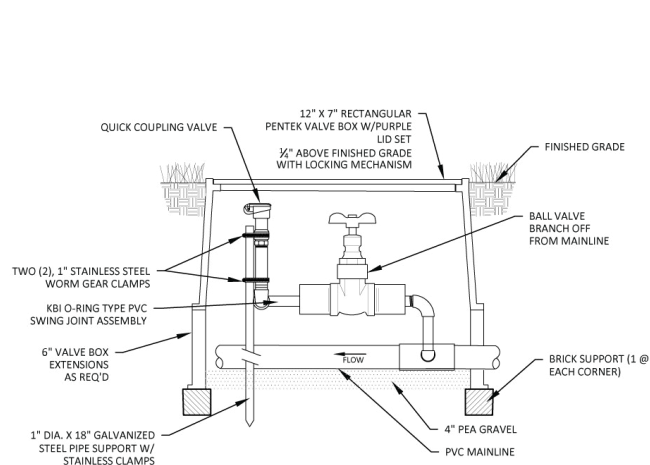
QUICK COUPLING VALVE

Manufacturer: Rainbird

Model: Brass with purple top

Install:

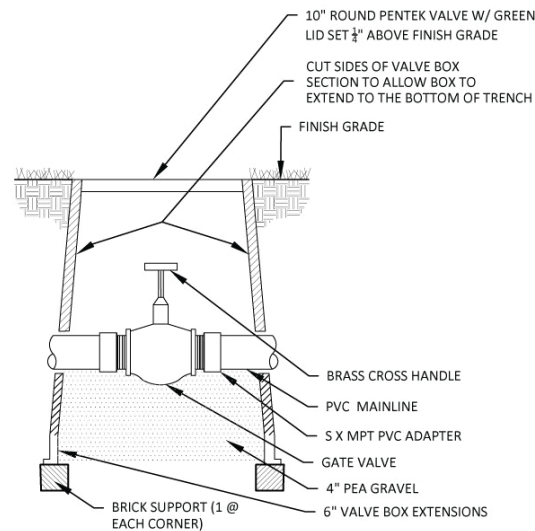
1. Install a ball valve with every quick coupler.
2. Install quick couplers at 50' on center intervals, where possible.
3. Install quick coupling valves in 12" X 17" Valve Box per detail. Connect quick coupling valves to mainline pipe with swing joints per detail. Quick Coupler to be installed so that top equipment is 2" below the top of the valve box
4. All valve boxes should have a purple lid.



GATE VALVE

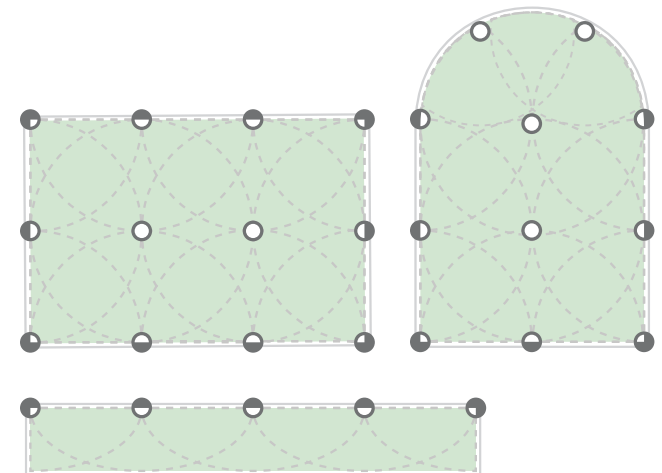
Install:

1. Install locally available gate valve as approved by Baylor's licensed irrigator.
2. Lid set 1/4" above finish grade.



SPRAY COVERAGE

Design Rationale: Sprays, rotaries and rotors should be installed using a head-to-head, coverage pattern. In areas of irregular shapes, modifications to spacing will allow for adequate head-to-head coverage.



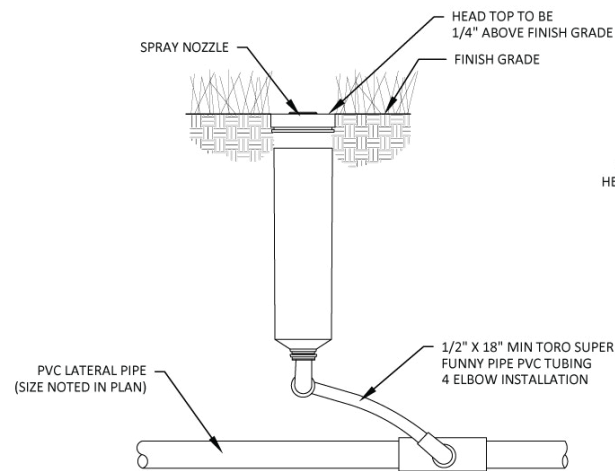
SPRAY HEAD

Manufacturer: Hunter

Model: MP Rotator Series

Install:

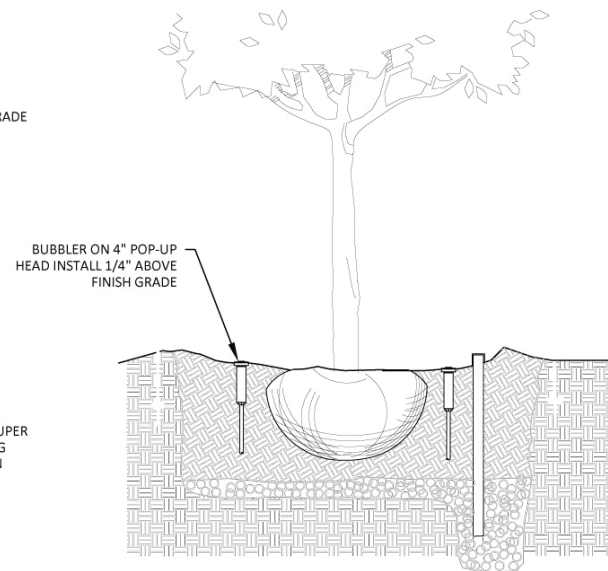
1. Connect lawn sprays, rotaries and rotors pop-ups to lateral piping with 1/2" Funny Pipe and 1/2" Schedule 40 PVC Fittings as required, per detail. Use Funny pipe threaded barbed fittings on connections per specifications.
2. Install 1/4" above finish grade.



TREE BUBBLER PLACEMENT

Install:

1. Two bubblers in pop up boddies for all large and medium trees.
2. One bubbler in pop up boddies for all small trees.
3. Install 1/4" above finish grade.



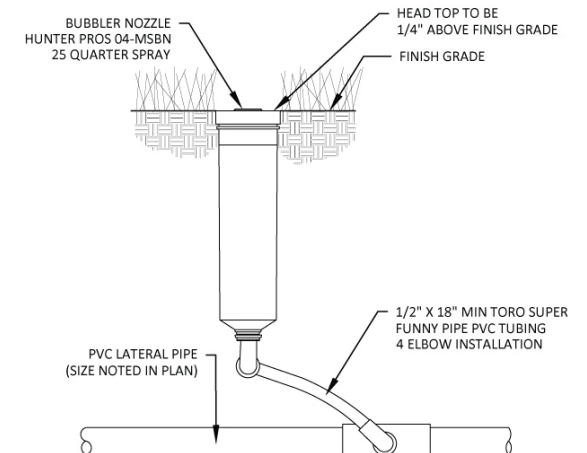
TREE BUBBLER

Manufacturer: Hunter

Model: Pros 04-MSBN, 25 Quarter Spray

Install:

1. 1/4" above finish grade.
2. Ensure mounded mulch is clear for pop up bubblers.



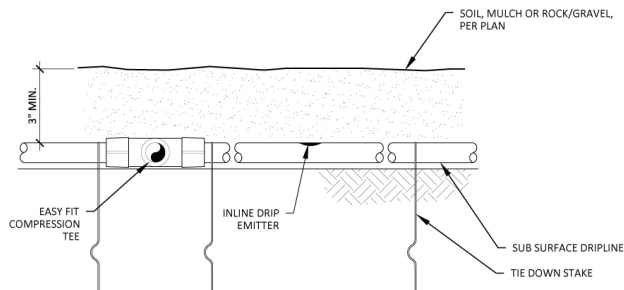
DRIP INSTALLATION

Manufacturer: Netafim

Model: HDL-04-12-CV

Install:

1. .04 GPH, 12" on center emitters and 12" line spacing. Drip should include a check valve and tubing should be dark brown in color. Dripline Laterals to be spaced according to the application, with emitters offset in a triangular coverage pattern.
2. Drip should include a check valve.
3. Install a minimum of three inches of subsurface cover with soil or mulch where applicable.
4. Place tie down stakes every three feet in sand, four feet in loam, and five feet in clay.



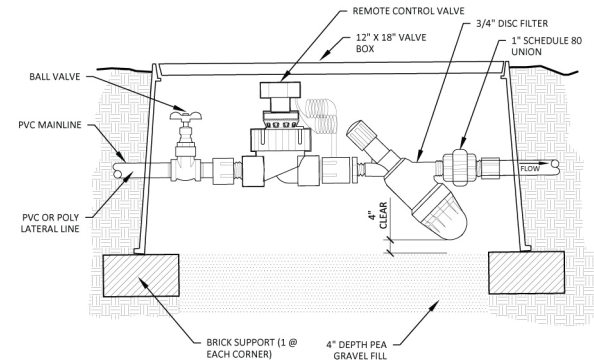
DRIP REMOTE CONTROL VALVE

Manufacturer: Rainbird

Model: X CZ

Install:

1. Install valves with flow control
2. Install drip control valves in 12" X 17" valve boxes per detail.
3. Install a ball valve with every drip control valve.



DRIP INDICATOR

Manufacturer: Rainbird

Model: OPERIND

Install:

1. Install one indicator for each drip valve.
2. Indicator should be installed at the farthest point in the line from the drip control valve.

DRIP START CONNECTION

Manufacturer: Rainbird

Model: As approved by the Department of Facilities Management and Baylor's licensed irrigator.

GRADING & DRAINAGE

INTRODUCTION

As the campus landscape continues to grow, organization and implementation of utility infrastructure will be important to define as it related to the design vernacular and appearance of campus.

IMPLEMENTATION

Utility infrastructure should be screened or underground where possible to minimize the disturbance to landscape views.

Additional electrical infrastructure may be implemented in designated tailgating, event, and plaza spaces.

Management and maintenance of campus waste is important to define for efficient collection and minimized visual disruption.

Appropriate storm water management and drainage is important to maintain campuswide for safety, maintenance of hardscape, and for the lifespan of campus landscapes.

Proper drainage is required across campus but should be finely grading for pedestrian walks and around buildings. Landscape drains and fine grading ensure that standing water isn't collected on impervious surfaces. Landscape drains should be installed in all impervious surfaces that do not implement sheet flow (great lawns).

Green infrastructure methods may also be utilized to collect storm water and direct flow away from hardscape areas. These may be applied within impervious or landscape areas. Reference 'Campuswide Strategies: Green Infrastructure Methods' for additional information.

IN THIS SECTION:

Drains in Landscape

Drains in Hardscape

Subsurface Drainage

Pavement Slopes

Planting Slopes

Lawn Slopes

DRAINS IN LANDSCAPE

Design Rationale: Consider atrium drain covers when located in planting beds. In lawn and turf areas, install a flat grate. Drain openings should be limited to 1" maximum width in pedestrian or high visibility areas. Drains in landscape should be bordered by stone or turf.



DRAINS IN HARDSCAPE

Design Rationale: Trench drains, slot drains, and round or square inlets should be used in paved areas to catch runoff. Materials and grate patterns should coordinate with adjacent architectural finishes. All drains set in pavement should be set flush with hardscape materials and comply with ADA requirements. Drain openings should be limited to 1/4" maximum width in pedestrian pavement.



SUBSURFACE DRAINAGE

Design Rationale: Subsurface drainage should be installed at artificial turf, decomposed granite, behind retaining walls, within rain gardens, bioswales and other infiltration areas. At building downspouts, it is recommended to drain runoff into a subsurface stormwater system.



PAVEMENT SLOPES

Minimum: 1.25%

Maximum: 8.0% for accessible ramps

Design Rationale: Generally, designing pavement at gradual slopes to minimize the use of ramps and stairs is ideal and supports Universal Design Principles. Site and seat walls should be used to transition grades. Fine grading should promote positive runoff towards landscape drains. Drain elevations should account for pervious surface applications or turf adjacent to the drain.



PLANTING SLOPES

Minimum: 2.0%

Maximum: 25.0%

Design Rationale: All planting areas shall be graded to a smooth, uniform slope with loose texture. Remove ridges and fill depressions to meet finish grades. Maintain and provide positive drainage away from all building structures. Drainage should not be impeded with obstructions. Unless otherwise specified, final grade of non-pavement surfaces shall be set at 1" below adjacent hardscape, curb, or headers.



LAWN SLOPES

Minimum: 1.0%

Maximum: 4.0% for pedestrian lawns

25.0% for non pedestrian turf areas

Design Rationale: Great lawns are a staple of campus and require positive drainage to avoid standing water. Landscape drain elevations should be located at low points, preferably on corners or sides of lawns, to catch runoff. Final elevations of drains should account for adjacent turf height.



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