

Texas A&M University—Central Texas

Campus Plan



November 2023

Perkins&Will

Acknowledgments

Acknowledgments

We would like to thank the many stakeholder participants, committee members, Texas A&M University-Central Texas (A&M-Central Texas) leadership and other contributors to this planning process for your time, energy, and devotion to the advancement of the institution. Your efforts have helped shape the vision for the future of the campus and will impact future generations of students and redound to the benefit of the region.

Special appreciation is extended to the members of the project planning Core Team and university executive administration for its leadership and direction.

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Project Background

Some 13 years after the founding of its ground-up campus on the southern edge of Killeen, Texas A&M University-Central Texas (A&M-Central Texas) has continued to enhance its stature within the region and cement its importance within the community it serves. While the institution itself predates the campus property it now occupies, its permanent home on 672 acres of former U.S. Army Fort Cavazos property creates substantial opportunity for growth.

The original plan for the campus was created in 2010, envisioning the long term development of a traditional four-year institution, complete with dormitory housing and major athletics stadia. This future vision differs somewhat from the current reality of the university, which serves only upper-level (junior, senior, and graduate) students, and lacks university athletics. Additionally, A&M-Central Texas has continued to focus more deliberately on research and innovation initiatives and the opportunity to collaborate with industry and government in this space. This strategic focus is captured within the Forge @A&M-Central Texas plan and strategy effort (previously referred to as the Research Park) which directly informs this campus plan.

This campus plan builds on the framework developed for the site within the Forge process, but with a more deliberate focus on academic, student life, residential, recreation, and other needs of the campus that will help A&M-Central Texas move towards the vision of a blended knowledge community.

About A&M-Central Texas

History

A&M-Central Texas and the Texas A&M University System

A member of the Texas A&M University System (TAMUS), A&M-Central Texas sits at the edge of the City of Killeen and borders Fort Cavazos along its western edge. The 672 acres upon which the campus sits were acquired by TAMUS from the U.S. Army in 2009; since then three buildings and approximately 300,000 square feet of academic, research, and student life space has been constructed on the site.

As one of the largest university systems in the country, TAMUS offers an extraordinary collection of programmatic assets that provide an opportunity for A&M-Central Texas to draw upon to the advantage of its students and community in Killeen. The system is comprised of eleven university components and eight state agencies. TAMUS also comprises the innovative RELLIS campus, including the Bush Combat Development Complex, which fosters strong research and technology partnerships between academia, industry, and defense.

A&M-Central Texas is unique among state and other A&M System universities in that it is exclusively an upper-level institution, serving third and fourth year undergraduate and graduate students through collaborations with regional community colleges to offer quality continuing education with an emphasis on access and affordability.

The university currently serves more than 2,200 students with an average age of 34 both undergraduate and graduate, roughly 44% of whom are affiliated with the U.S. Army as active-duty service members, veterans, or military dependents. This strong connection to Fort Cavazos is a major driver of enrollment and an asset the university will continue to leverage as it grows.

While serving this unique student body with its many academic and degree offerings, A&M-Central Texas has been expanding its STEM research initiatives with investment in equipment and space to support more researchers in different areas including those aligning with the defense industry areas of interest such as cybersecurity.



Mission

Texas A&M University-Central Texas is a public, upper-level university offering baccalaureate and graduate degrees important to the region and the state. It is committed to high quality, rigorous, and innovative educational programs delivered in a variety of instructional modes to a diverse student population through exceptional teaching, service, and applied scholarship. With an emphasis on community engagement, the university employs emerging technology to enhance student learning and to nurture its partnerships with regional community colleges, the military presence in its region, and the community at large.

Vision

Texas A&M University-Central Texas will achieve national recognition as an upper-level university, offering high quality and affordable undergraduate and graduate educational programs to address regional and statewide needs.

Values

Excellence & Achievement

Strive to continuously improve, innovate, and exceed expectations.

Integrity

Conduct ourselves in an ethical and respectful manner

Diversity

Respect and value both differences and similarities in our students, co-workers, and other stakeholders

Collaboration

Develop and maintain partnerships to serve the needs of our students, faculty, staff, and external stakeholders



Compassion

Care about the feelings of others. When others are suffering, we empathize and offer help

Knowledge

Provide educational experiences to encourage lifelong learning and intellectual curiosity

Initiative

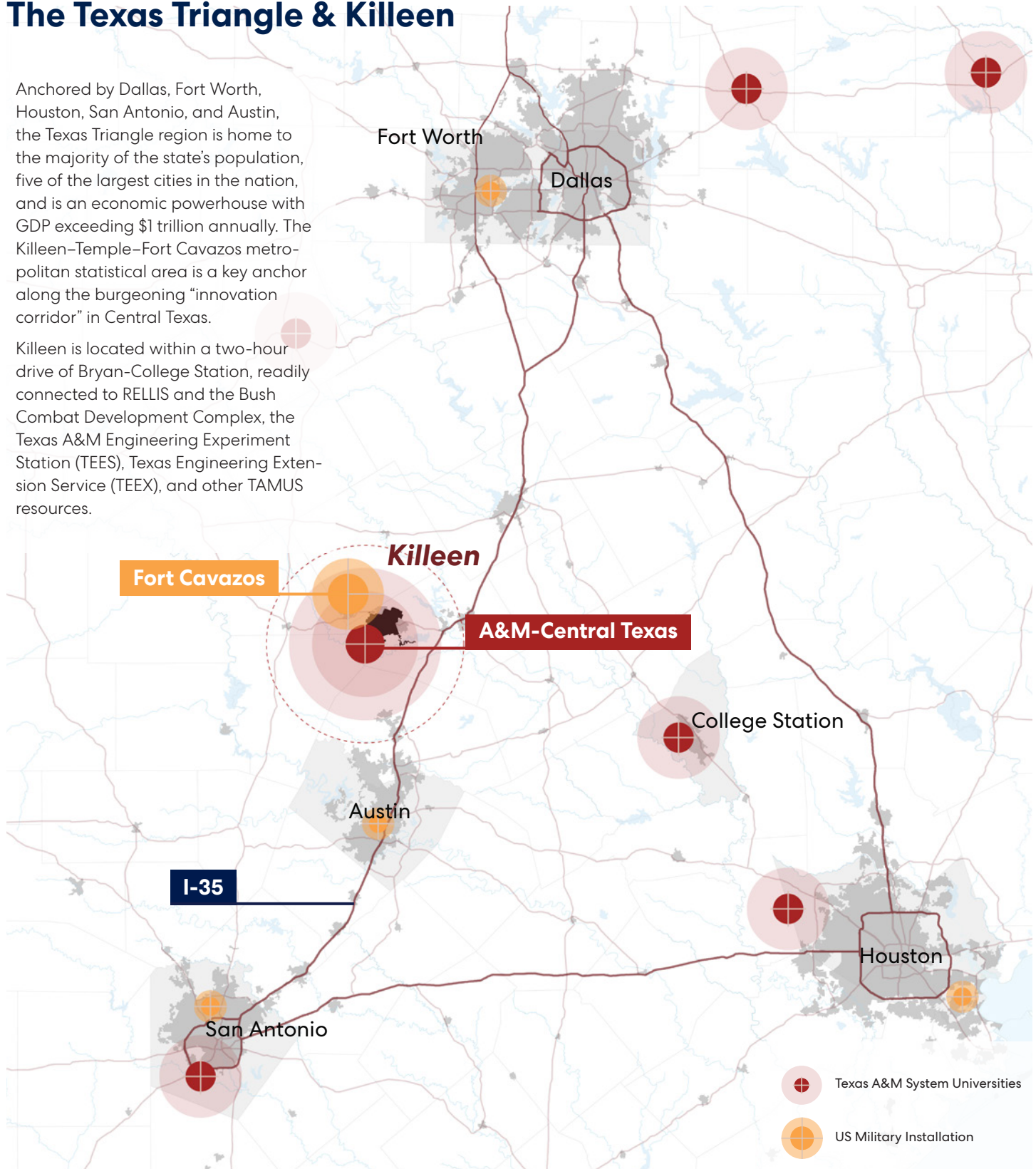
Encourage the involvement and the contribution of each employee. We create a workplace where every employee can share a sense of ownership

Campus Location & Context

The Texas Triangle & Killeen

Anchored by Dallas, Fort Worth, Houston, San Antonio, and Austin, the Texas Triangle region is home to the majority of the state's population, five of the largest cities in the nation, and is an economic powerhouse with GDP exceeding \$1 trillion annually. The Killeen–Temple–Fort Cavazos metro-politan statistical area is a key anchor along the burgeoning “innovation corridor” in Central Texas.

Killeen is located within a two-hour drive of Bryan–College Station, readily connected to RELLIS and the Bush Combat Development Complex, the Texas A&M Engineering Experiment Station (TEES), Texas Engineering Extension Service (TEEX), and other TAMUS resources.



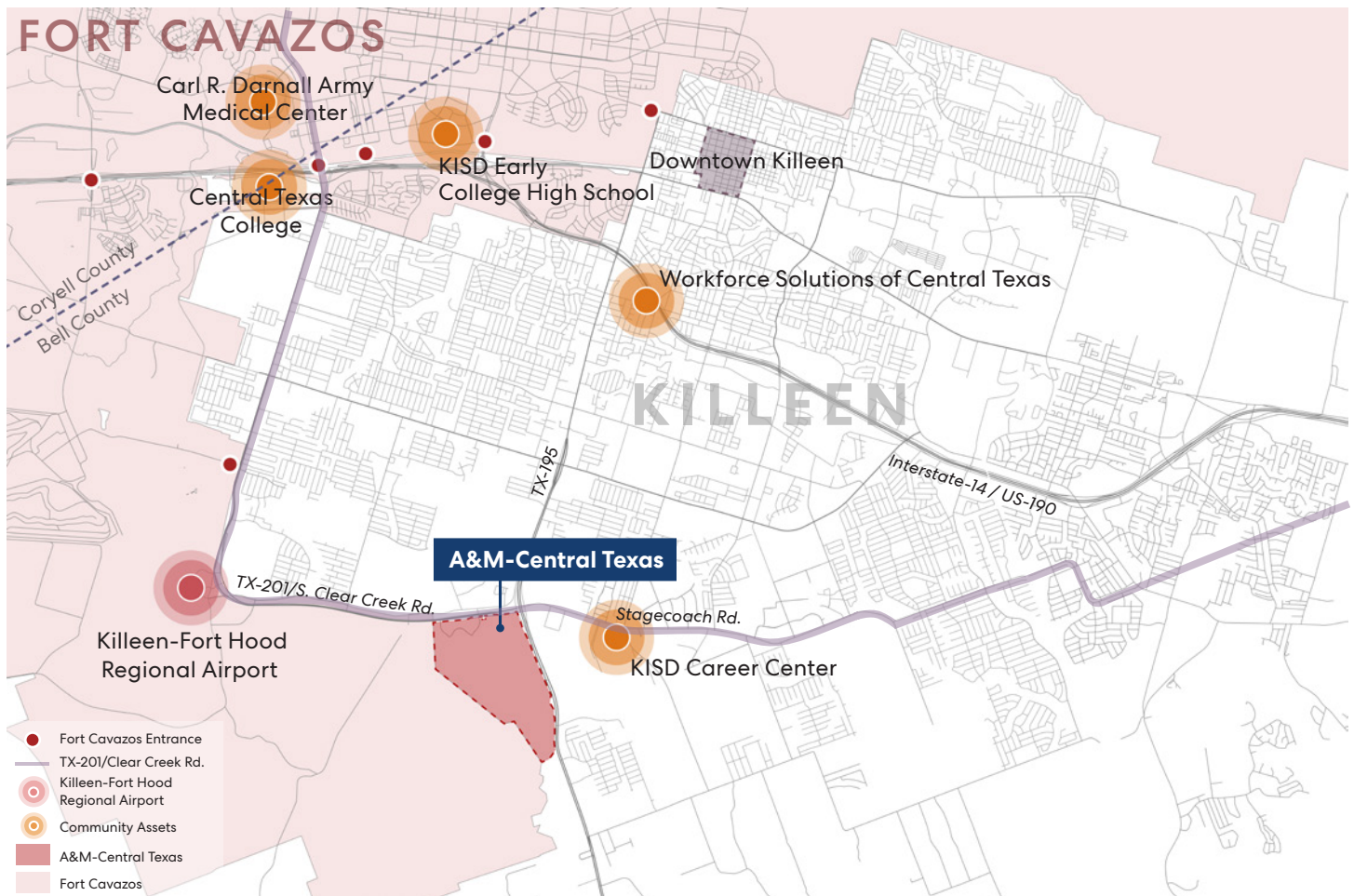
Regional Context

Killeen is located approximately 20-miles west of Interstate 35 at the terminus of Interstate 14. The community is part of the three county Central Texas region, encompassing Bell, Coryell, and Lampasas Counties. The Killeen–Temple–Fort Cavazos metropolitan statistical area (MSA) boasts a population of almost a half million people, according to 2020 census data, and it includes Fort Cavazos (formerly known as Fort Hood), one of the largest U.S. Armed Services active-duty Army Posts.

Sharing its western border with Fort Cavazos, A&M-Central Texas is nestled within a beautiful, hilly 672-acre campus. In addition to Interstate 14, the campus is proximate to significant transportation infrastructure resources. It is located at the intersection of Texas State Highways 195 and 201, an hour's drive to Austin and Waco. The campus is also just over three miles

from the Killeen-Fort Hood Regional Airport (GRK), which offers direct and non-stop service with connecting flights to Dallas/Fort Worth International Airport (DFW).

A&M-Central Texas is part of the fabric of the U.S. Army at Fort Cavazos and its regional community. Soldiers, their family members, and veterans comprise roughly 44% of the university's student population. Intentionally created as an upper-level university, A&M-Central Texas is a strong partner with existing educational partners, such as Central Texas College (CTC). The university and CTC have also extended their partnership to local school districts with partners like Killeen Independent School District (KISD), and its nearby Career Center and its Early College High School. The CTC campus and these KISD resources are all within a 10–15 minute drive time from the campus.

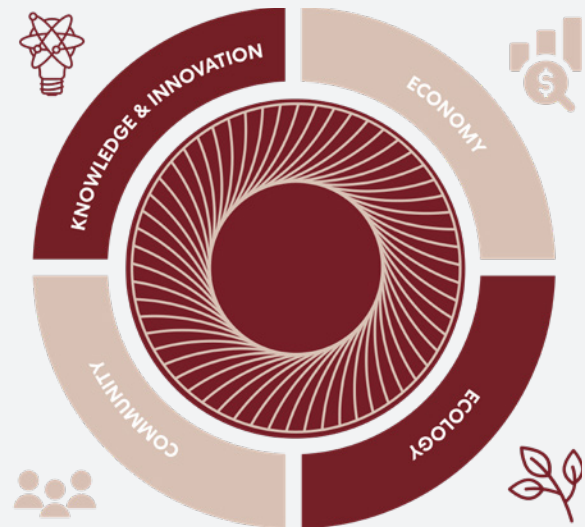


A Blended Knowledge Community

Forge @A&M-Central Texas

As noted in the introduction, the campus planning effort builds on the process and strategy initiated in 2021 with the Forge @A&M-Central Texas research and innovation strategy work. In developing the strategy and plan it became clear to the university that it also needed to update its Campus Plan to accommodate the academic, student life, and other functions that are at the core of the institution.

What became evident during the Forge planning process was that these elements are inextricably linked, with opportunity for research, industry collaboration, and workforce development, and job placement making the entire enterprise of A&M-Central Texas more successful. The challenge and opportunity that framed that effort is summarized briefly here, and more information can be found at the URL in the bottom right corner of this spread.



The Challenge

Given the total size and scale of Fort Cavazos, there are a large number of service members moving through the installation, many of whom exit their service as highly skilled, knowledgeable, disciplined members of the workforce – some with high-level security clearances. Soldiers and their families have often established ties within the community that are difficult to leave upon being discharged from service. And while some are readily employable, others need to further their education or receive additional skills and training.

As this large number – approximately 600 soldiers per month – leave the post, many are unable to find proper employment opportunities within the region and choose to leave the Greater Killeen area. Other soldiers, veterans and their families are seeking career-aligned employment as they aim to continue their post-military education and training.

This highly desirable workforce creates a virtual “brain drain” and presents a missed opportunity for economic development in the Central Texas region.

The Opportunity

Among these vulnerabilities arises opportunities to build on existing strengths of the region to expand into new sectors, grow industry, and diversify the economic base of the community.

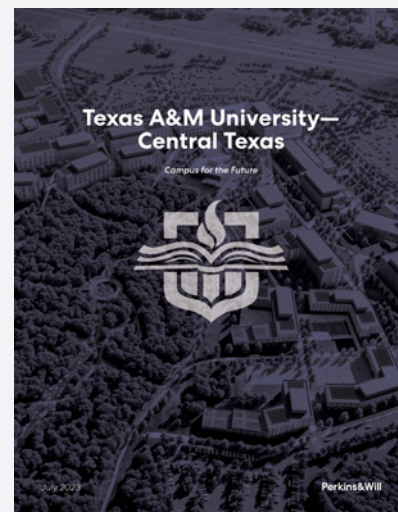
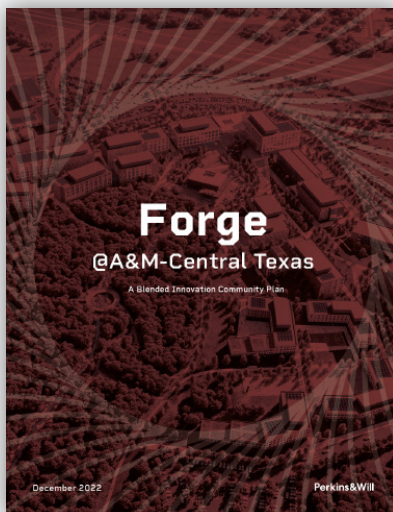
A&M-Central Texas, along with its partners in the Department of Defense, local government, economic development agencies, affiliated educational institutions, workforce development organizations, and private industry can seek to create a coalition of change, build on the booming knowledge economy in the Central Texas region, and develop a more diversified economy.

Capitalizing on a unique opportunity to create a center of innovation within the A&M-Central Texas campus, a new trajectory can be launched – one which will set in motion a vibrant and ever-expanding innovation ecosystem.

This is an opportunity for regional stakeholders in academia, industry, defense, and government to coalesce around this shared vision to develop a knowledge economy and broaden the economic base of the region.

As one of the first keys to building this innovation ecosystem, A&M-Central Texas, along with myriad partners and stakeholders, are collaborating on establishing a blended academic-industry-government knowledge community within the university boundaries. This effort has led to creation of the following plan for the Forge @Texas A&M University-Central Texas.

See more detail in
Forge @A&M-Central Texas →
<https://www.tamuct.edu/research/forge/>



Existing Site Conditions

Natural Environment

The natural landscape of the A&M-Central Texas property is a rich example of regional ecosystems. Located on the continental transition from eastern forests to western grasslands, the overlap of habitat types on the A&M-Central Texas property supports exceptional biodiversity and regional connectivity. The campus landscape reflects a classic natural mosaic over limestone geology, with several distinct community types: live oak groves, grassland, evergreen forest, and scrub shrub. The latter offers nesting habitat for the endangered golden-cheeked warbler (*Dendroica chrysoparia*, second photo, right). At the time of the original campus master plan done in 2010, habitats of two federally protected endangered species were mapped, outlining where development could and could not occur.

The unique rolling topography of the site ranges from a low point of 835 feet, where North Reese Creek drains to the southwest boundary, to 1,075 feet at Bald Knob on the eastern side (top photo, right). Soils on the campus are derived from Lower Cretaceous limestone varying in texture by landform, from higher dry, rocky soils to more alluvial, finer clays in the drainages.

During the Forge @A&M-Central Texas planning process an ecologically based landscape assessment and suitability analysis focused on the most sensitive natural features to guide the most thoughtful approach to future campus development.

Key elements identified in that process included:

- Habitat for sensitive, threatened, and endangered species such as the Golden-cheeked Warbler, whose habitat spans the boundary between A&M-Central Texas and adjacent Fort Cavazos
- Floodplains and riparian buffer, which include their associated creeks and recognizes downstream connections
- Land cover types and connectivity
- Slope
- Soil depth and vulnerability to erosion

Because the landscape retains so much of its native character, this planning effort is a singular opportunity for A&M-Central Texas to reflect best practices for ecological stewardship and to be a living laboratory to study landscape resilience and regeneration.

Reese Creek watershed connections

North Reese Creek flows through A&M-Central Texas. Downstream it converges with Reese Creek, which in turn joins the Lampasas River and ultimately the Brazos River. Protection of headwaters such as Reese and North Reese creeks is essential to maintain water basin resilience.



Bald Knob, a natural landmark on site



Golden-cheeked Warbler, endangered species inhabiting the site



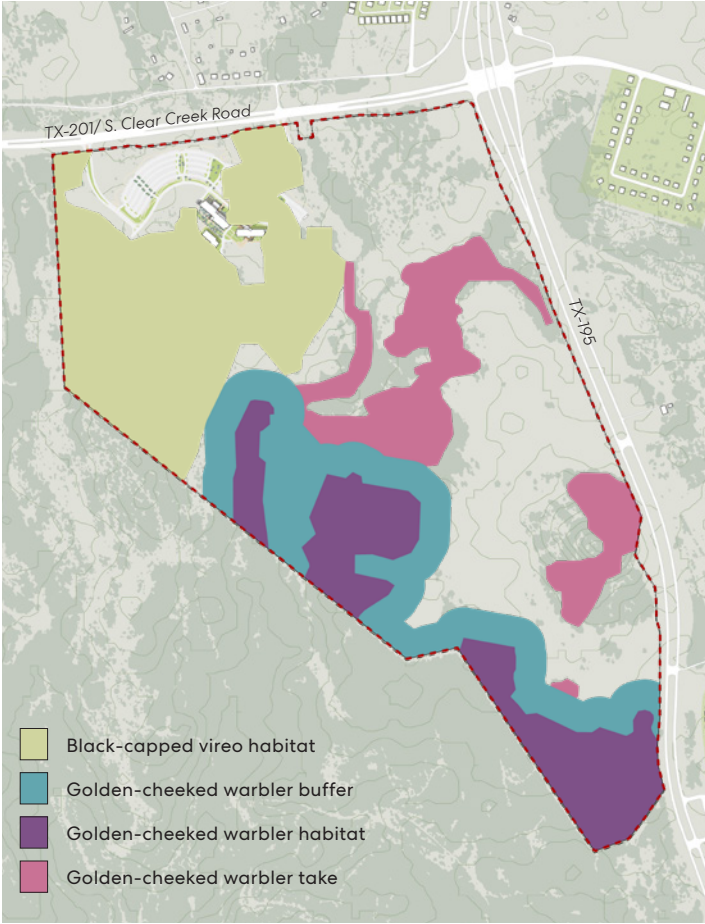
Vegetation on site (shrub, grassland, live oaks, and evergreen forest)



Black-capped vireo

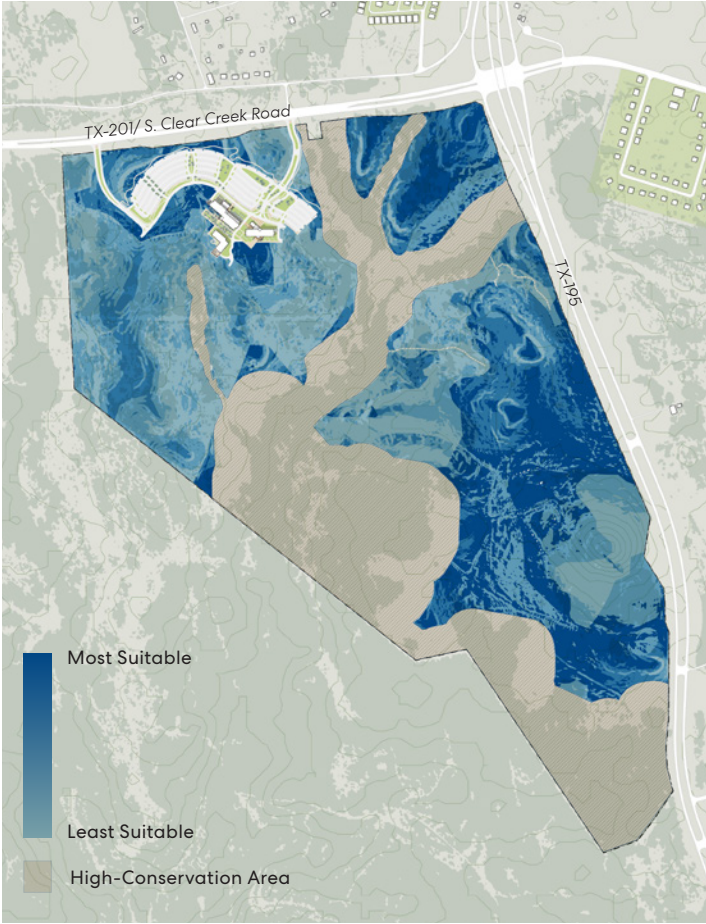


Regional Hydrology



Habitat

Habitat zones for two sensitive bird species known to be present on the site.



Ecological Suitability

Identified high-conservation areas are all GCW habitat, streams, and floodplains (light brown). Other areas were ranked according to likely ecological impacts and need for protection, with the lightest blue areas as the most suitable for conservation and protection and the darkest blue areas most suitable for future development.

Built Environment

Nested within the ecological context described on the previous pages, the built elements of the Texas A&M University–Central Texas campus have developed in just over a decade, establishing a permanent footprint for the A&M System in Central Texas.

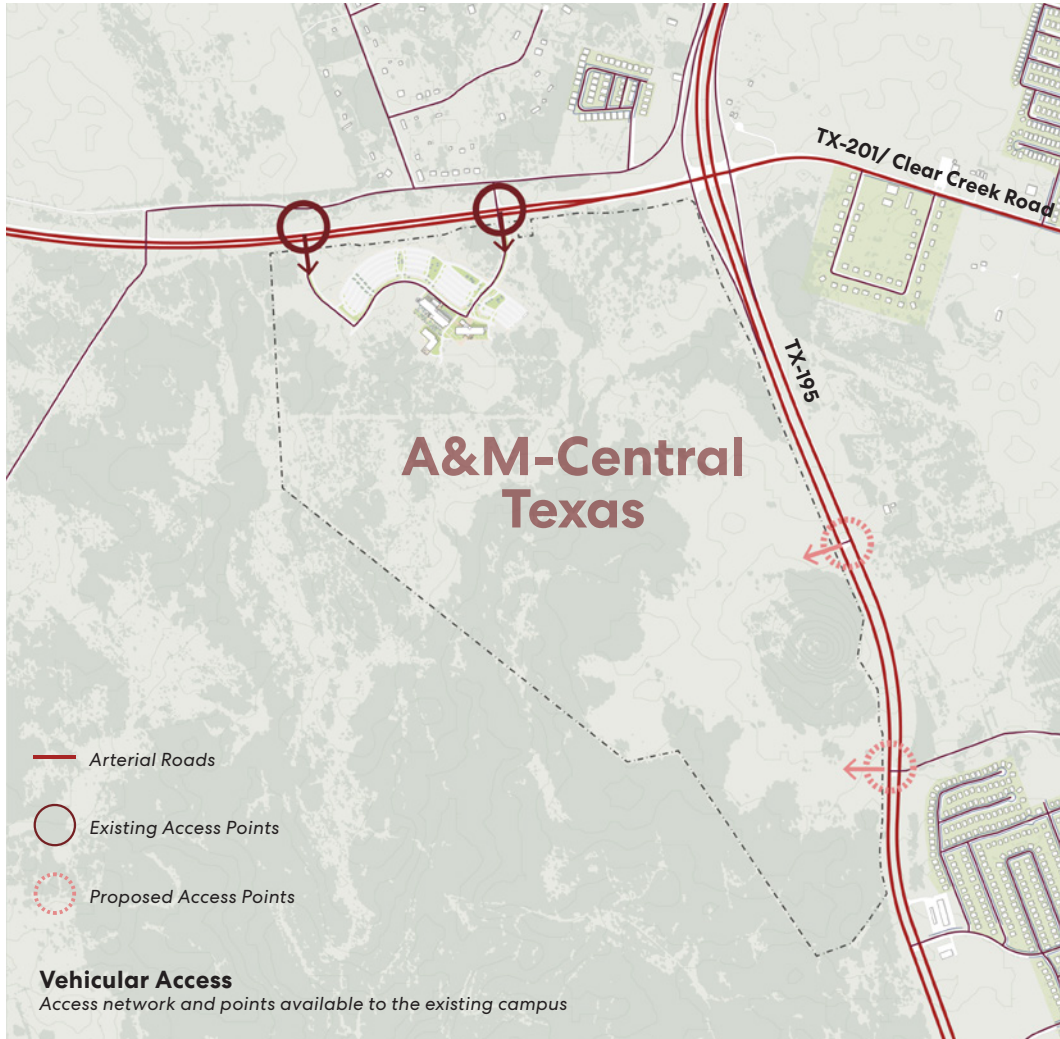
Existing Buildings

The existing buildings on the campus comprise just over 300,000 gross square feet, and have been sited in a cluster hewing closely to the original campus plan from 2010. Built in 2012, 2014, and 2019 respectively, Founders Hall, Warrior Hall, and Heritage Hall perform all of the academic, research, student support, student life, administrative, and support functions of the university. As such, the facilities are “do it all” buildings that can serve all of the needs of the university. As the campus develops, more specialized facilities will emerge to serve the unique functions of the university.

Infrastructure

As the campus was constructed on previously undeveloped land, all of the existing roadways, civil, and MEP infrastructure on the property has been installed to fit the needs of the university. The university is served presently by packaged boiler and chiller units on an individual building level. Currently a central plant facility is under design that will serve the campus through a chilled water network that will eventually replace existing packaged chillers and is expandable to serve future development. More information on utilities infrastructure is provided in the appendix.





Mobility

The regional access to the site is provided by TX-195 highway and TX-201 / Clear Creek Road. There is a signaled access point on TX-201 just off the intersection of the two roads and an additional right in, right out connection further down the road that provides a second access point. Conversely, the location at the edge of town and ease of vehicular access also highlights the difficulty of reaching the campus by other means; with little adjacent development or infrastructure there is limited ability to reach campus on foot or bicycle. Future development and land use may seek to better complement the university and improve connectivity in the area.

External Connections

- Pedestrian network near A&M-Central Texas campus is poor/nonexistent
- No bicycle connections

Internal Network

- Strong network of pedestrian paths with ample shade and landscaping
- Wide paths are suitable for shared bicycle and pedestrian use

Other Services

- Hill County Transit District (HCTD) operates The HOP, a regional public transit system.
- No current fixed-route transit service to, or in vicinity of campus.
- 10 routes with hourly headways in the Killeen, Copperas Cove, and Temple area and one flex-route in Killeen
- In progress with system redesign to shift to an on-demand micro transit system.
- Will start with a zoned system, monitor ridership, add in fixed route service as demand dictates.

Access & Parking

Parking

With driving as the main/only means of access to the site, parking has become an important feature in the planning of the campus. Currently parking utilization is very low at approximately 13-17% on weekdays which leaves a large surplus of parking out of the existing 1,500 spaces available for future development.

Existing Parking Supply and Utilization

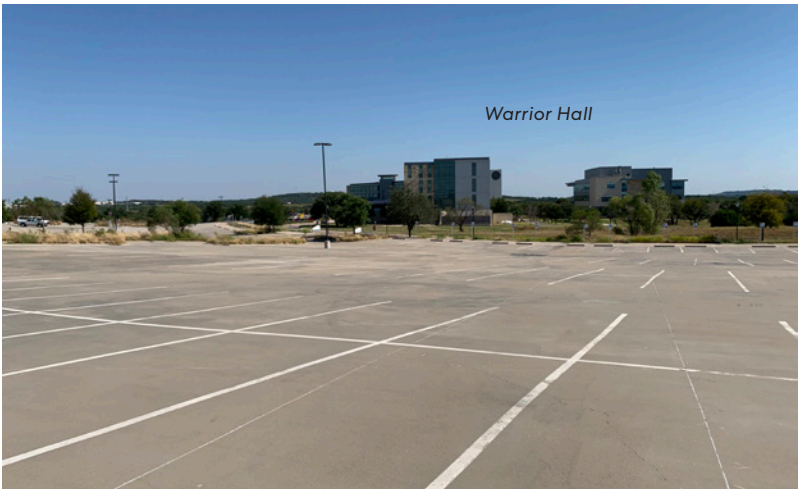
Today, there are over 1,500 parking spaces on campus, spread across five campus lots. Access to 90% of these spaces is managed through a priced parking permit system for students, faculty, and staff. Enrolled students are automatically included and charged for a parking permit at affordable rates. Non-permit spaces are designated as accessible parking, Gold Star Family parking, Purple Heart parking, visitor parking, and parking for university vehicles. A&M-Central Texas is responsible for parking enforcement.

Parking utilization on campus is very low. With peak utilization at approximately 13-17% on weekdays, there are typically more than 1,200 empty spaces available, even when campus is busiest. Lots A and B account for 90-95% of users, while lots C-E are rarely used. These patterns are reflected in the diagrams on the adjacent page.

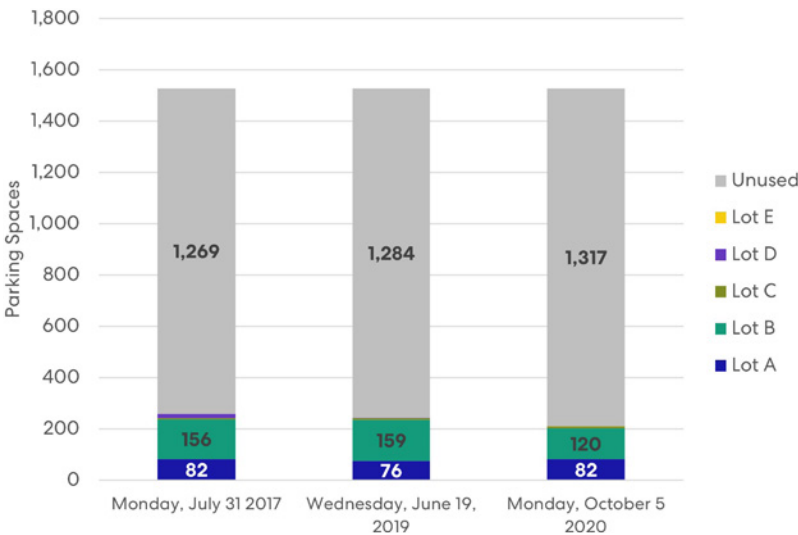
The existing parking supply is an advantage to later development, and can be utilized to support new campus needs for many years into the future.

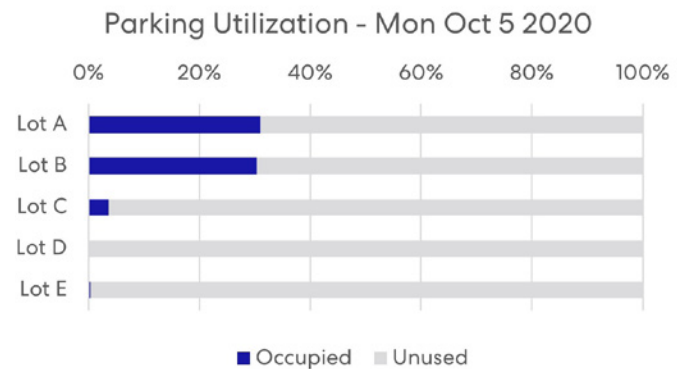
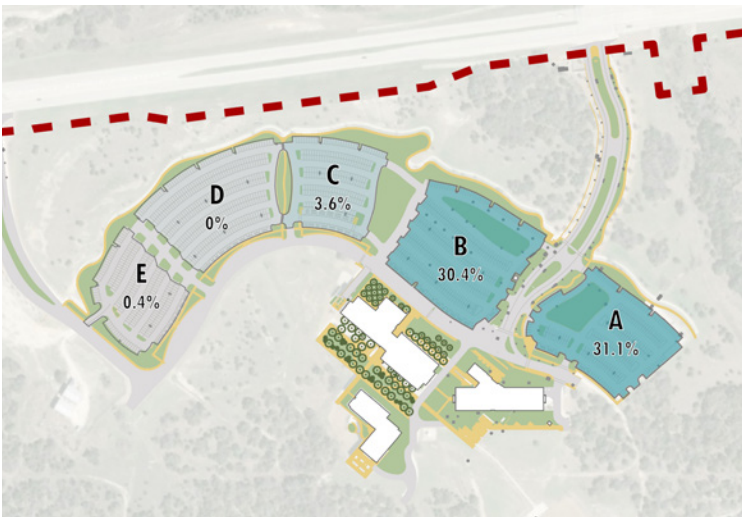
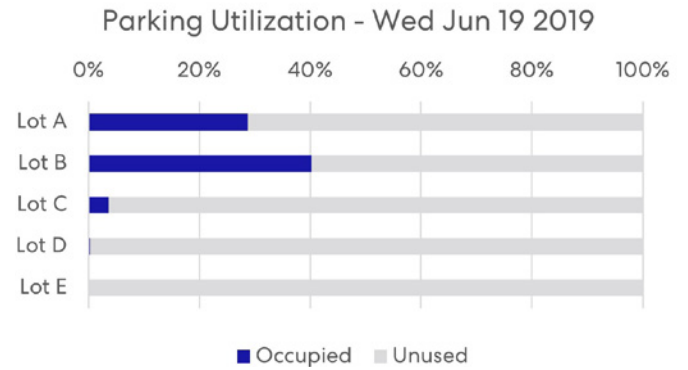
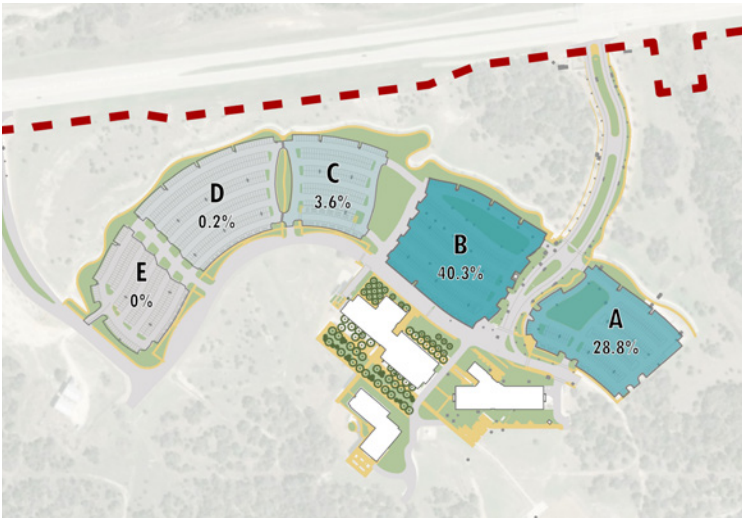
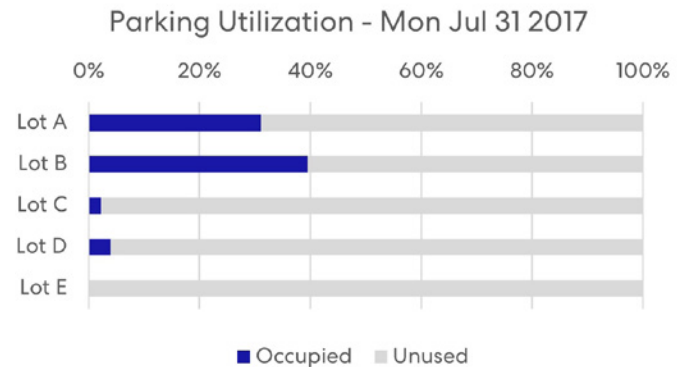
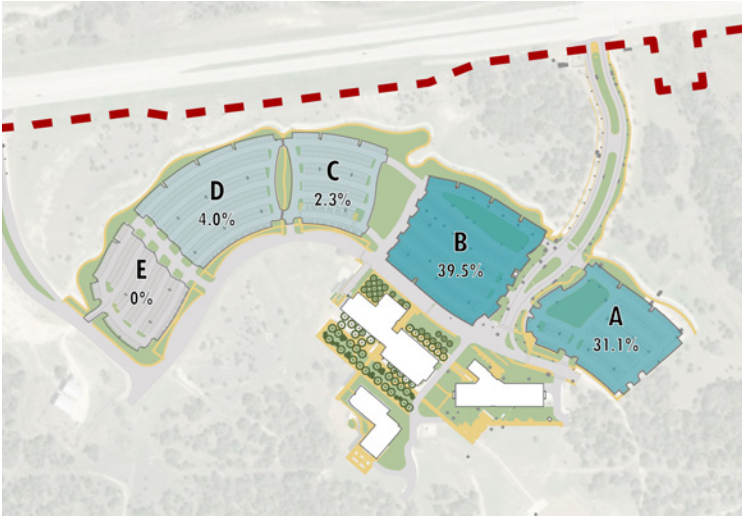


Closer in parking at lots A & B is relatively well-used



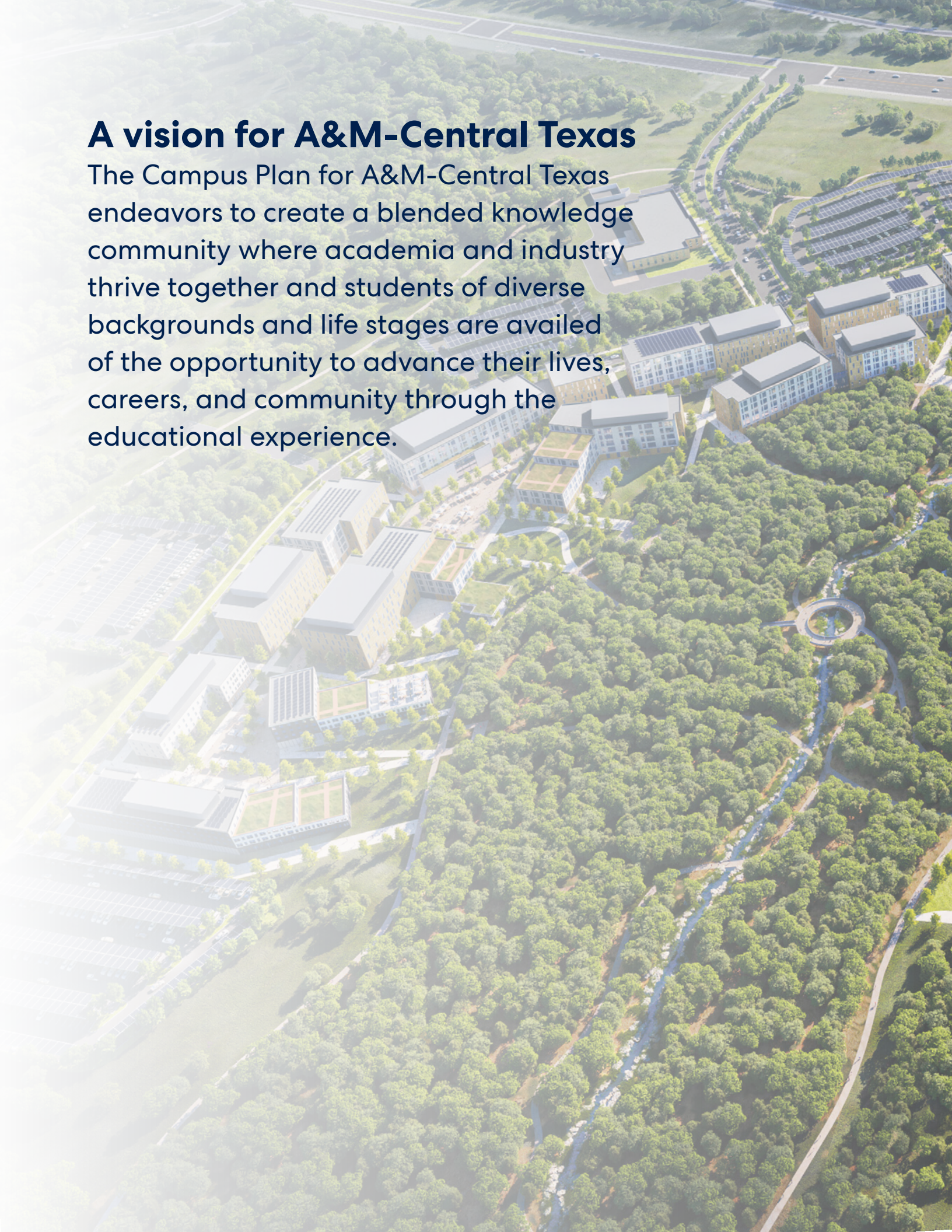
More distant lots are seldom occupied





A vision for A&M-Central Texas

The Campus Plan for A&M-Central Texas endeavors to create a blended knowledge community where academia and industry thrive together and students of diverse backgrounds and life stages are availed of the opportunity to advance their lives, careers, and community through the educational experience.





Process & Engagement

Planning Process



Initiation, Assessment, Vision

The first phase of the process included project kickoff with A&M-Central Texas leadership, and a series of meetings with individual stakeholder and user groups to assess needs, and establish a vision and guiding direction for the campus plan.



Plan Development

Taking information gathered in the assessment and visioning process, the planning team developed space needs and concepts for campus growth, including which elements from existing buildings would remain, grow, or “unpack” to future facilities, as well as new needs, and establish anticipated locations within the campus framework plan. In doing so, several open forums were held both virtually and online to gather ideas and feedback from students, faculty, and staff to inform the space needs and development of the plan.



Plan Refinement & Deliverables

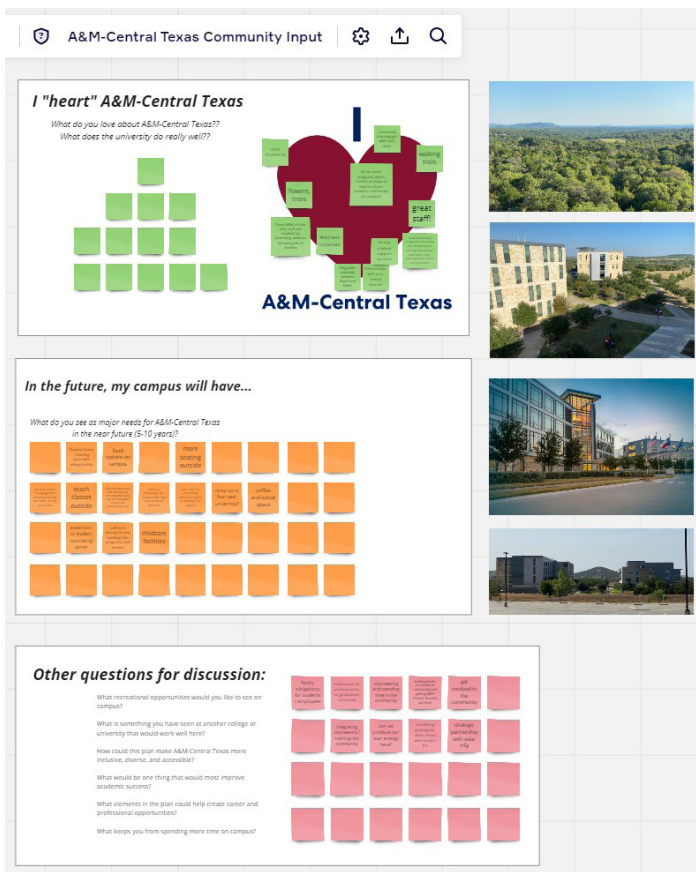
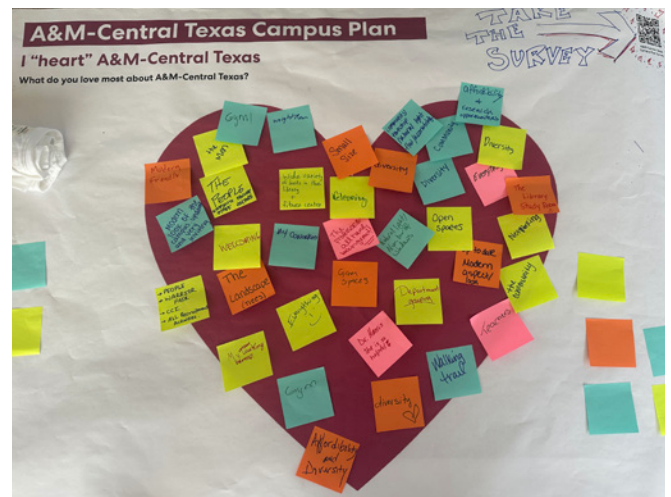
Building from the concepts developed in the previous phase, the planning team honed in on the preferred campus plan represented in this document. Updates were made to plan framework and phasing, including a web-based dashboard capturing program growth and relocation, along a technical appendix to support these elements.



Engagement & Outreach

The planning process included a number of touch points with the A&M-Central Texas community. The planning team attended and presented at Faculty Senate and Staff Council, held virtual open houses, and held an on-campus engagement session during the A&M-Central Texas “Warrior Week” picnic. Despite stiff competition from university groups, barbecue dinner, axe throwing booth, and kickball games, the planning team was able to engage with many members of the university community to learn what they value about the institution and what they would like to see in the future.

Students, faculty, and staff were invited to provide input via an online survey that was open from March through May of 2023. Over 80 respondents responded to this survey, helping shape the space needs described in this plan.



2. Space Needs & Projections

Demographics & Enrollment

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Space Needs

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In developing the space needs that inform the campus plan, it is critical to understand the unique composition of the student body and the intended direction of the institution. In meeting with user groups comprised of faculty, staff, students, deans, and guided by the Executive Cabinet, the planning team was able to gain insight into existing areas of need and plan for future growth.

This section gives an overview and breakdown of existing enrollment, plots future growth trajectory, and identifies needs by college or administrative departments that translate into physical space in the campus plan.

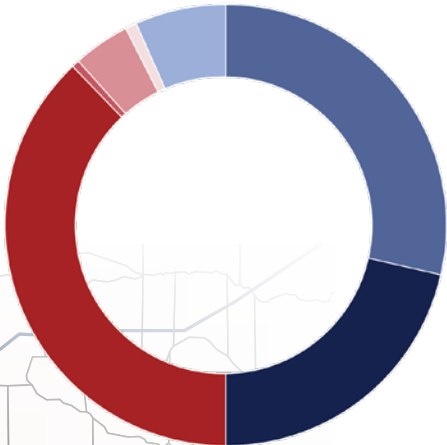
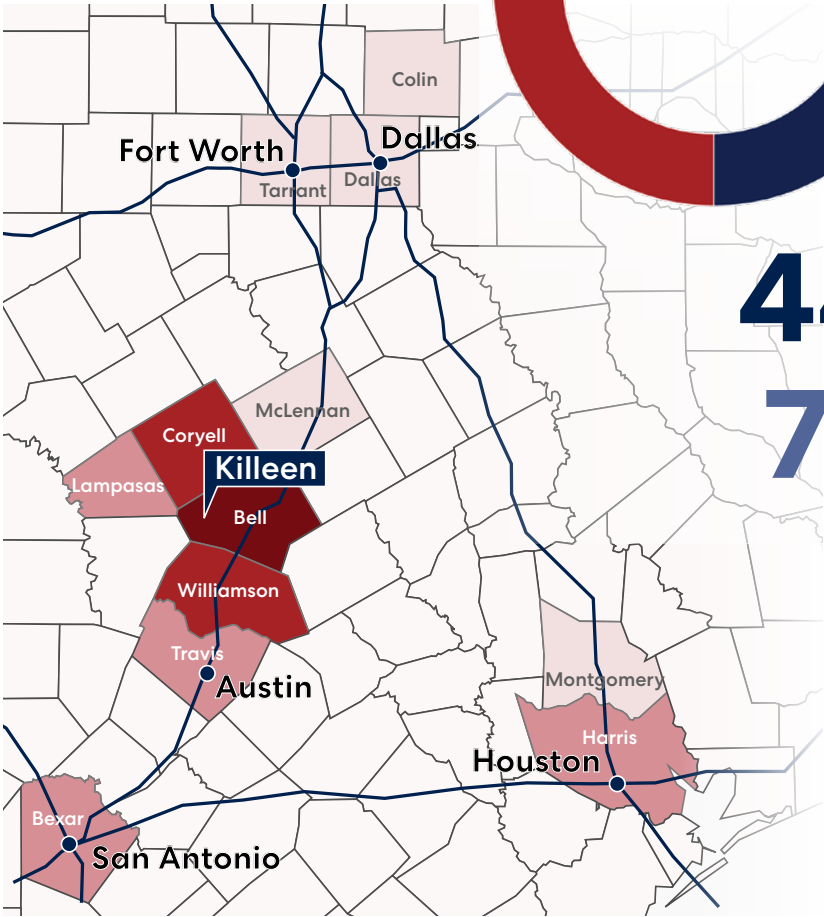
Demographics & Enrollment

A Unique Institution

A&M-Central Texas is a regional university, with 73% of students coming from the immediate area (Bell, Coryell, Williamson, Lampasas, McLennan, Travis). As an upper-level institution, the university has strong ties to Central Texas College, where many students matriculate from to complete a 4-year degree. The university has very strong ties to Fort Cavazos, both in terms of student body composition and its academic programs and research. In 2022 it was estimated that 44% of students had a military affiliation either themselves or through a family member. While military affiliation is strong, the university sees itself as a

home for students of diverse backgrounds, military or otherwise. Demographically, A&M-Central Texas is the one of the most diverse institutions in the state from the perspective of race or ethnicity, with no single category composing a majority and three individual categories comprising greater than 20 percent of the student body. Finally, and perhaps most strikingly, the university is extremely diverse in terms of the age of students it serves, with a median age of 34 (undergraduate and graduate). All of these factors make A&M-Central Texas unique within the A&M System and the State of Texas.

Number of Enrolled Students from Texas Counties



- Native Hawaiian or other Pacific Islander (1.0%)
- Asian (4.0%)
- American Indian or Alaska Native (0.7%)
- White (37.8%)
- Two or more races (6.5%)
- Hispanic/Latino (28.7%)
- Black or African American (21.3%)
- Nonresident aliens (0.1%)

44% military-affiliated students

76% from contiguous counties

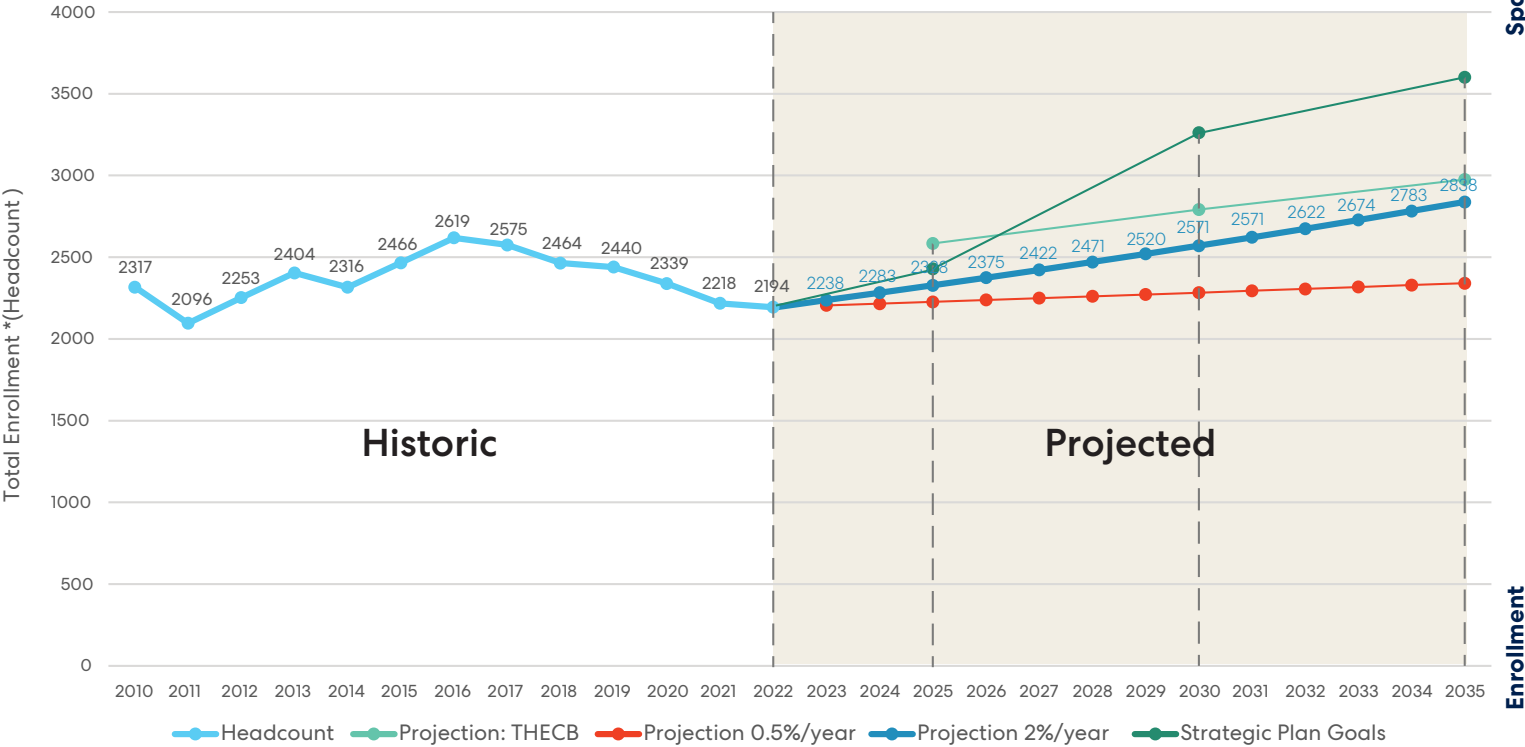
34 median age of student body

- 0-25
- 26-50
- 51-100
- 101-1,000
- >1,000

A&M-Central Texas Enrollment Projections

Looking at historic enrollment trends and strategic growth opportunities, the campus plan developed an enrollment projection out to the year 2035 set at 2% per year. While there has been a decline in enrollment in recent years, also impacted by the COVID-19 pandemic, the plan considered several potential growth trajectories for the institution, including those produced by the Texas Higher Education Coordinating Board, as well as a lower annualized 0.5% growth trajectory.

Continued population growth in Central Texas will create an expanded pool of potential applicants. The university sees a specific opportunity to grow its enrollment from northern Williamson County, one of the fastest growing areas in the state of Texas. The university has also identified a set of strategic opportunities in its enrollment plan around recruitment, student success, academic programs, and marketing that, if achieved, could grow enrollment beyond the 2% annual projection outlined in the chart below.



*Includes both undergraduate and graduate

Space Needs

User groups from each college along with representatives from the university library, student success, student life, and Office of the Provost provided input into their respective space needs. These needs are represented here, and inform the intended composition of new buildings in the near-term campus plan, as well as plans for relocation of existing programs, and backfilling of vacated spaces in existing facilities once new ones are developed.

College of Arts & Sciences

The College of Arts & Sciences houses a wide range of degree programs, and as of Fall 2022 comprised approximately 37% of the university with a headcount of nearly 1100 students enrolled. Beck Family Heritage Hall houses the majority of the College of Arts and Sciences faculty. The Dean's office and the department of Social Work are housed in Warrior Hall.

Users from the college expressed needs for many areas of anticipated growth, as well as some spaces that are lacking for current needs. From a general perspective, users expressed satisfaction with existing classroom space and technology that supports hybrid learning. Desire for a large auditorium space also emerged from these conversations.

The college expressed the need for collaborative spaces that are study-oriented, as well as flexible meeting spaces. Echoing input from across campus, the desire for more food-service and student center type spaces was also expressed.

Science laboratory spaces are viewed as well-equipped but there likely be need for growth (some specific programs mentioned included biology labs, mechanical engineering & electron microscopy, aviation & flight simulator). There is also opportunity to grow programs in Nursing, and Health Sciences, with strong connections to Social Work as well as many others. As the university grows, more specialized spaces will be necessary to support the academic and research functions of the College of Arts and Sciences.



Humber College, Barrett Centre for Technology Innovation

Needs Highlights:

- Office spaces
- Collaborative spaces
- Flexible meeting space
- Science labs
- Aviation program (flight simulation)
- Auditorium / Performing Arts spaces

College of Business Administration

The College of Business Administration (COBA) is presently the largest college on campus with over 1200 students and roughly 41% of the total headcount enrollment as of Fall 2022. The college has recently embarked on implementing its strategic plan toward 2026, beginning a number of new certificate programs, two centers (Cybersecurity and Interdisciplinary Entrepreneurship), as well as a Supply Chain Management program. The majority of the COBA is currently housed in General Robert M. Shoemaker Founders Hall, occupying portions of the second, third, and fourth floors.

Users from the college expressed the need for multipurpose rooms that are equipped with technology to support instruction, including whiteboard / screen interfaces and other videoconferencing tools to support hybrid learning environments.

There is also desire for industry-focused spaces, spaces that can facilitate alumni-student engagement, facilitate career opportunities and post-graduation success. Some of these uses were seen as having a potential relationship with other desired spaces such as graduate student lounge or recreation space that would give students their own space and facilitate meetings with external affiliates. There is general sentiment that flexible and modular spaces would best support these emerging and evolving needs of the college.



Bowling Green State University. College of Business

Needs Highlights:

- Multipurpose rooms
- Large classrooms (auditorium style)
- Center for cybersecurity
- Center for entrepreneurship
- Potential center for supply chain management

College of Education & Human Development

The College of Education & Human Development (CEHD) is currently housed predominantly in Warrior Hall and was comprised of just over 600 students or roughly 21% of the fall 2022 headcount enrollment. As the campus grows, the need for more specific spaces to support the support the college will also expand. This will include additional spaces for curriculum and instruction, with cabinetry, storage space, and furniture to support classroom methods, keeping supplies nearby and facilitating experiences that more closely simulate how current students will be teaching in schools.

The Counseling program is currently limited by its existing space in some regards. The existing clinical space, where students are trained, is nearing capacity for this practicum and will need additional offices and telehealth supportive spaces to see patients in the future. The current location on the second floor of Warrior Hall is also not ideal for this use, as community members must navigate within the academic area of the building. In order to better serve the community, a ground-floor space with a separate entrance is preferred.

The exercise physiology lab, which is currently shared with Student Affairs for fitness space, would eventually hope to be housed in its own space, at such a time when student body growth or on-campus housing makes it impractical to continue this sharing arrangement. Physiology measurement and research laboratory space may also have additional needs in the future, with potential longer-term opportunities to expand into allied health programs such as Occupational and Physical Therapy.



University of Massachusetts-Amherst, College of Education

Needs Highlights:

- Early childhood center
- Space for methods classes
- Simulation classroom
- Kinesiology lab
- Allied health
- Psychology clinic & lab
- On-site childcare
- Counseling center expansion
- Online student support

University Library

The existing University Library occupies space on the first and second floors of Warrior Hall. The first floor space is the more active or loud space, while the second floor is more of a quiet environment. Additionally, the library maintains archival space on the second floor of Heritage Hall, which is an important and growing resource for the university.

In meeting with users from the University Library, they expressed a general satisfaction with the shelving space, but need for a greater quantity and more variety of sizes of meeting and study rooms for large groups down to single users. With the high number of student veterans on campus, the existing space with views to the exterior provides an open visual field which is important to many, and UV light does not create a major issue with the highly digital collection.

The University Library provides a “high-touch” service to students, with important resources such as the reference desk, educational resource center, tech desk. These resources could be expanded in a learning commons type of environment, along with more support for digital media, arts, computer lab, etc.

Several community-oriented opportunities were also raised, including potential to collaborate with Killeen Public Library, with the potential to have students participate in tutoring, educational resources, and activities for elementary-aged children on the campus, as well as event space, or visual and performing arts spaces.

As the campus grows, there is likely to be need for expansion of the library space and integration with study spaces and academic support functions. In fact, as noted by President Niglizzo on several occasions, the current space was not intended to be the permanent home for the University Library. As more material continues to be added to the archives, there is opportunity to combine these spaces into a single facility that supports overall student success and serve as a community hub for the institution.



University of Toronto, Mississauga. Instructional Centre

Needs Highlights:

- Auditorium space
- Meeting spaces
- Solo meeting spaces for online work
- Academic resources & help desk
- Grad student research support
- Exhibit space for shows/galleries
- Digital media
- Hands-on maker space
- Archival space

Student Success & Student Support

In meeting with representatives from Student Success & Student Support, as well as users across the university, there was a clear need for additional and deliberate space to enhance these functions. Leadership presented the planning team with three top goals that they would like to pursue and that the campus plan could support.

1. Increase sense of belonging and student life

Emerging from the pandemic and with an ongoing shift to more online course offerings, the need to make deliberate efforts to increase sense of community and belonging is increasing. Students currently lack dedicated space to be students, or be with each other in a casual setting. Existing spaces such as the “OC” (student organizations) has increased in popularity, but student focused spaces are spread across different buildings and floors, lacking a true center of gravity. The institution continues to have a desire to express its commitment to diversity symbolically and physically, and make all students feel welcome.

2. Student retention and graduation

The university has been working on a strategic enrollment plan, which has strong areas of focus on retention and graduation rates. This strategy is not just on overall retention but seeks to take an equitable focus on sub-populations of the diverse A&M-Central Texas student body. The university provides programs in tutoring, testing, career development and is in the process of developing additional resources for coaching, mentoring, learning assistance. All of these services will require space, whether they are done in-person or virtually. There is strong interest for these programs to be housed in an Academic Assistance “Hub” to provide students with many resources in a single location.

3. Emphasizing student wellness

There are many challenges and opportunities related to physical and mental health for the student body that A&M-Central Texas is interested incorporating into future plans for the campus.

The university currently operates a counseling center to serve the student body, which is of increasing importance as anxiety and other issues permeate more students, and serving a high number of veterans who may deal with issues such as PTSD. The existing counseling center, across from the Warrior Center for Student Success, is not ideal for students seeking these



Missouri State University Student Success Center

types of services to maintain a sense of privacy. As the student body grows, the need for these resources will grow along with it. Current counseling staff also take advantage of the natural setting to provide walking therapy, and have expressed interest in outdoor space that could better support this service.

A&M-Central Texas currently lacks healthcare space on campus. In the future the university would like to incorporate more health services, health education, (diabetes, weight management, nutrition), and as student housing is added some kind of health center will be necessary.

Needs Highlights:

- Gathering & social spaces
- Student learning & success center
- New Academic Success building
- Wellness services
- Testing center
- Academic support programs
- Career development

Student Life & Housing

The university has undertaken several studies on student housing on campus and is actively exploring the potential for apartment-style units. Due to the great diversity in student demographics in terms of age, family status, etc., any housing would need to be built with a variety of unit types to meet the needs of the student body. This would also initiate a big change toward an “around-the-clock” campus, and come with additional needs and expectations in terms of dining, fitness, recreation, and more in a live-work-play environment.

Currently fitness needs are supported in the joint relationship with the human performance lab in Heritage Hall, where exercise equipment and a fitness room are available for use. Campus Recreation provides opportunities to get outside and participate in activities including hikes to bald knob, ropes course, and use of the rugby / soccer field, and a disc golf course. From user group meetings to community input sessions, many individuals expressed the desire for additional recreation offerings including covered basketball courts, swimming pool, sand volleyball and more.

Improved hiking trails and access was a common desire expressed, augmenting the existing walking path and group hikes already being held. The natural assets of the campus, including designated endangered species habitat, create a unique opportunity for recreation, observation, research, and other activities, but must be managed in a way that protects the land and meets with requirements of the protection of the resources and species present on the property.



Student Residence Hall, Roger Williams University

Needs Highlights:

- Student housing (250 beds)
- Dining facilities
- Outdoor recreation and trails
- Athletics fields and courts

3. Campus Plan

Design Framework

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Campus Plan

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Phasing

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The design and layout of the plan take many cues from the ecologically informed approach, and try to leverage existing facilities and infrastructure to create a center of gravity at the heart of campus. Building on the Forge plan, which emphasized research, industry, and collaborative spaces, the Campus Plan acknowledges these but focuses on new uses for academics, student life, housing, recreation and more.

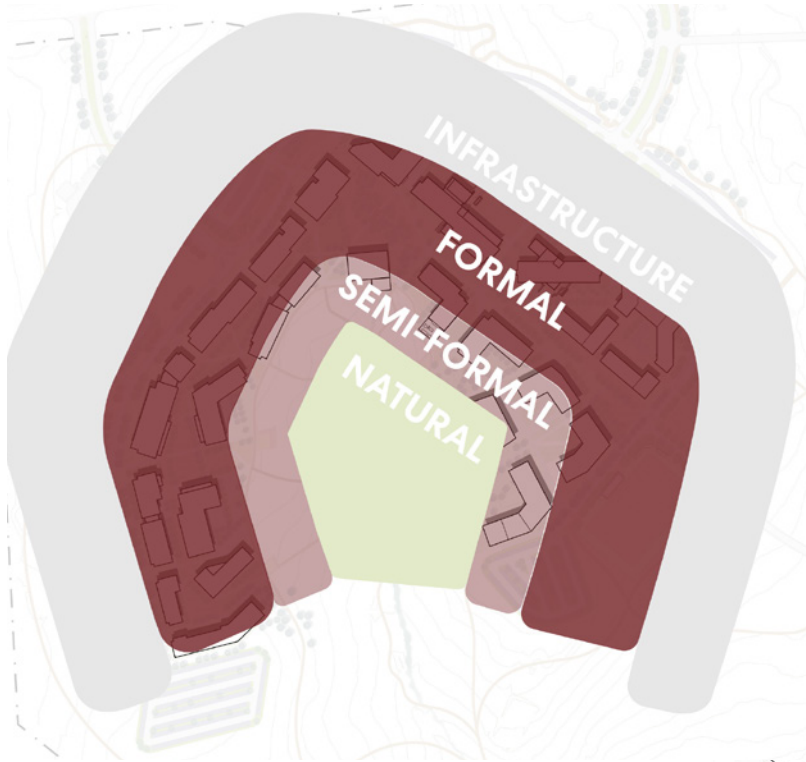
While the framework for this plan remains consistent with the principles that guided the original layout, some new uses have emerged and other uses have been relocated within that framework. This section will describe the design framework for campus at an overview level, as it is presented at length in the Forge document, and update the near, mid, and long-term phasing of the plan.

Design Framework

The concept plan looks to create a gradient of spaces moving from a natural preserve area at the heart of the full buildout of the campus, to semi-formal spaces, and formal built-environment, all serviced by a ring of infrastructure which will be centered on the continuation of the existing vehicular road at the edge of the existing buildings. This approach will create a walkable campus core that allows for people interacting in a variety of public spaces.

This campus plan supports the Texas A&M University-Central Texas campus as well as Forge @A&M-Central Texas uses with a hybrid approach to housing university and research park functions within the facilities on campus. The epicenter of this convergence will be the main heart of the future campus, the collaboration quad.

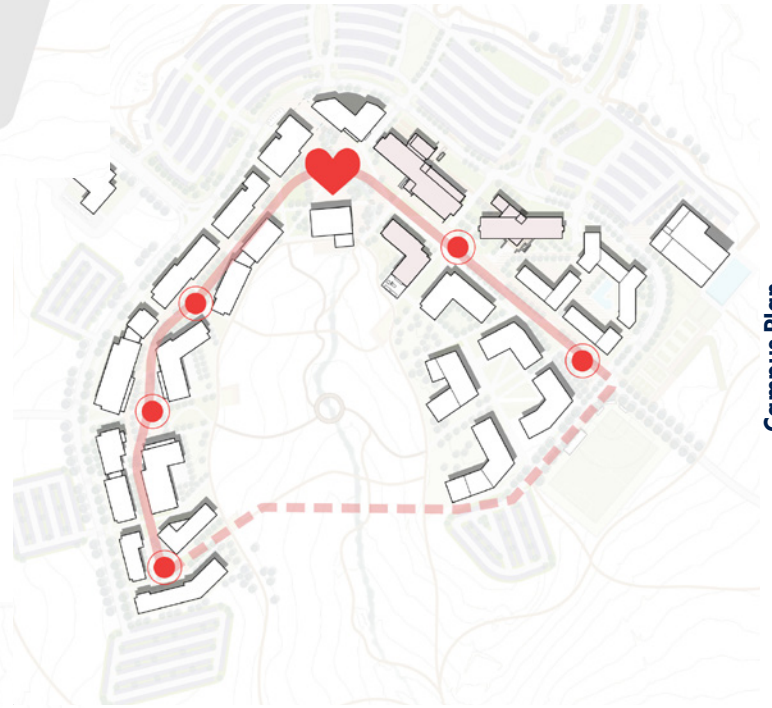
The foundational element in this concept plan is the pedestrian mall flanked by development on both sides of this corridor, enveloping the natural preserve area at the center. Along this pedestrian mall, various forms of open space allow for student life functions and the blending of academics and industry individuals together in a single campus. This combination of university and innovation campus increases the activity on the site and creates “bumpability” within the campus - purposeful design of spaces and places to support ‘accidental’ interactions. Mixing uses horizontally across the site and vertically throughout buildings allows for a range of co-location of various users that reinforces the concept of A&M-Central Texas and the Forge as a single blended knowledge community that multiplies the opportunity for all.



Establishing a gradient of space types



Creating a connected network of open spaces with the "Collaboration Quad" at the heart of the campus



Creating a truly blended knowledge community where programs are nested together



Campus Plan

The plan for the A&M-Central Texas is a physical representation of the goals, objectives, guiding principles, and design framework described in this document. The plan is organized to build off existing development and infrastructure, while capitalizing on the natural amenities of the unique site location. Development is situated on a local ridge which keeps topographic change within the campus to a minimum, while preserving areas of natural value for habitat and water quality as identified in the site analysis.

A green finger of preserved open space divides the campus into east and west branches and is punctuated by trails that connect the two sides. Buildings flank either side of a pedestrian spine in the shape of a wishbone, coalescing at a vibrant open plaza or “collaboration quad” at the northernmost apex of the spine. Moving outward in either direction from this main public space, you encounter a series of smaller public spaces, each with its own character and uses.

In keeping with the “blended knowledge community” approach, buildings are not designated as solely academic, research, housing, or student life but may encompass multiple uses or tenants as development progresses and university and industry needs emerge. Flexibility is key to the plan, and the need to adapt to future needs is paramount to the success of the campus as a place and an economic driver for the region.





A&M-Central Texas

The plan for A&M-Central Texas envisions a future campus nearing two million square feet, strategically concentrated within a 184-acre area of the larger 672-acre campus, making effective use of both existing and planned site infrastructure to maximize site potential. The design embraces and interacts with the distinct natural features and ecosystems that define the Texas Hill Country region, safeguarding and enriching vital wildlife habitats.

The plan prioritizes the creation of spaces that foster a sense of place and employs design strategies that weave open spaces throughout the campus, purposefully designed to serve as activity hubs for a mix of uses and needs. These spaces are carefully intertwined throughout the site, promoting opportunities for serendipitous interactions, and encouraging collaboration. Traditional campus functions seamlessly merge with research and industry across the site and within the structures themselves, facilitating cross-disciplinary exchanges.





Open Spaces & Connections

A Connected Environment

The trails and access approach across the campus property preserves and protects natural areas, honoring habitat and sensitive topography while responding to the landscape vernacular. The concept plan is organized around a series of open spaces, interconnected along an interior pedestrian spine that traverses the campus in the form of a wishbone. The two prongs of this wishbone converge at the northern-most vertex of the campus, the first branching directly southeast on the established axis toward Bald Knob, presenting a more formal and traditional campus axis that lends structure to the space and buildings that front it. The second, newly proposed branch, curves its way along the local ridge toward the southwest, following a more sinewy path where the frontages of buildings step in and out from the pedestrian spine, allowing a series of discoveries as the space constricts and opens along its length.

The organization of the plan in this manner allows for a variety of open space types to be strung along this wishbone-shaped pedestrian spine, each space corresponding to and supporting the functions of the buildings that frame it, whether intended for events, informal gathering, collaboration, learning, relaxation, or recreation.

This central pedestrian spine is complemented by a network of trails that first mirror its curve along the interior of the site, skirting the edge of the green spine at the rear of the inner ring of buildings, creating a natural connection between the divergent segments of the campus.

This design for a connected campus supports the congregation of academics, researchers, industry professionals, students, locals, and other visitors who gather during different activities within the main quads, pedestrian corridors, courtyards, and indoor gathering spaces. This connective network goes beyond the built environment to respond to the natural hydrology, sensitive habitat areas, and the natural environment unique to this region of Central Texas.



1 Collaboration Quad

Building courtyards are programmed to respond to the surrounding buildings and their uses.



2 Building Courtyard

Building courtyards are programmed to respond to the surrounding buildings and their uses.



3 Natural Open Space

Building courtyards are programmed to respond to the surrounding buildings and their uses.



Open Space Hierarchy

A variety of open space typologies are shaped along the central pedestrian mall and trail network.





Phasing

Existing Campus

The existing campus consists of five facilities. Two of these are small storage buildings, leaving three multipurpose academic buildings - Founders Hall, Warrior Hall, and Heritage Hall. As a young and growing campus, each of the three main buildings must serve a wide range of functions; while some spaces are purpose built for specific functions, such as labs and archive spaces, none of the buildings was designed to be highly specialized as you might see on a more mature campus. Flexible classroom and office space characterizes the existing facilities, which is a strength for the university as it can adapt these spaces to new needs as they develop.

As the campus grows, flexibility will still be valuable, but more specialized spaces will become necessary as existing programs develop and new offerings emerge.

The phasing plans and facility descriptions (both existing and planned) offered in the following pages attempt to show the near term opportunity for growth. The near term plan, in particular, presents some amount of detail around which departments and program areas may move to new buildings, grow in place, or backfill available space in existing buildings once existing programs have relocated.

The mid- and long-term plans make less of an attempt to forecast specific uses in future buildings, but rather provide a framework for future growth that could accommodate any number of academic, research, industry, student life, residential or other functions that will only become clear as campus development progresses.

KEY	EXISTING BUILDING	TYPE*	FOOTPRINT	FLOORS	GSF	NOTES
F	Founders Hall	Academic	28,800	4	103,384	Completed 2012
W	Warrior Hall	Academic	42,300	4	135,227	Completed 2014
H	Heritage Hall	Academic	20,400	3	63,628	Completed 2019
S1	Storage Building 1	Support	3,322	1	3,322	Completed 2015
S2	Storage Building 2	Support	2,400	1	2,400	Completed 2017
Existing Subtotal					307,961	



Near-Term Plan

The near-term plan shows opportunity for five additional facilities, including one that is already funded and currently in design at the time of writing. This CORE Facility contains Central Plant to serve the campus as it grows, as well as University Police and emergency response.

Each of the additional four facilities within the near-term plan has a different purpose and likely different source of funding that could move it forward sooner than later. A short summary of each of these facilities is provided here, while more detailed building program and intent are described in more detail in the following section.

From a student life perspective, the university has expressed the need for a Student Success building (4) that would house an expanded library, academic support services, health & wellness functions, etc. Funding for this building would likely come from legislative appropriation and other sources.

As identified in the Forge @A&M Central Texas planning effort, two buildings at the Collaboration Quad are intended to support research, industry partnership, and collaboration. The Gateway Building (2) is intended as a multi-tenant research and innovation facility, where private industry partners and A&M-Central Texas researchers and students can collaborate and advance common initiatives. Across the quad “Forge Hall”

(3) is envisioned as a commons for the university where academics, researchers, industry partners and visitors can meet, participate in events, and exchange ideas. These buildings are likely to be funded with a mix of public and private dollars.

Finally, the first residential facility on campus (5) is intended to be located to the east of Founders Hall. This building would contain a mix of unit types supporting the diverse student body of A&M-Central Texas, many of whom do not fit a typical undergraduate profile. This building is also likely to be a public-private partnership, and the university has already been exploring the market feasibility for a residential project on the campus.

Beyond new building elements, the near-term plan builds out a number of open-space elements, including the Collaboration Quad, pedestrian spine, outdoor recreation fields, and trails network. Campus open spaces may be partly phased to align with building construction projects, or budget considerations may dictate that only portion of a project (such as the recreation fields) is undertaken initially or needs dictate.

There is also opportunity in the near-term to retrofit existing parking facilities with solar photovoltaic panels, generating renewable energy for the campus and providing much needed shade to the open expanses of pavement. This could also be phased lot by lot as funding allows.

KEY	NEW CONSTRUCTION	TYPE*	FOOTPRINT	FLOORS	GSF (EST.)	NOTES
1	CORE Facility	Support	33,000	1	33,000	Central plant, police, and emergency facility, currently in design
2	Gateway Building 1	Academic/ Research	24,000	5	110,000	
3	Forge Hall	Multi-propose	15,000	2	20,000	
4	Student Success Building	Academic	25,400	4	100,000	
5	Residential 1	Housing	28,300	3/4	106,500	Approx 250 Beds Assumed
Near-Term Subtotal					369,500	
Total					369,500	



Mid-Term Plan

In the mid-term plan, the extent of the northwest-southeast oriented pedestrian spine is completed and flanked by new buildings along its length. While each of the buildings in the mid term plan have uses indicated, the specific intent of any program elements is less certain than in the near-term plan.

A second Gateway Building frames out the remaining portion of the Collaboration Quad, providing additional space for university and industry research while two new academic buildings support continued growth of the campus. Two additional residential buildings complete a small complex and enclose a courtyard, lending the housing a bit more of a private space at the center.

The building with the most definition in the mid-term plan is a new recreation center in the northeast corner of the campus. This facility would provide indoor space for recreation, including indoor courts, multipurpose activity space, fitness center, and outdoor aquatics. The university has indicated that there is potential for this facility to be completed in partnership with the City of Killeen or another entity, and may provide access to both university affiliates and community members as a result. Additional outdoor recreation space that may not have been completed in the near-term plan may come online as a part of this project as well.

KEY	NEW CONSTRUCTION	TYPE*	FOOTPRINT	FLOORS	GSF (EST.)	NOTES
6	Gateway Building 2	Academic/ Research	20,000	4	80,000	
7	Academic Building 1	Academic	24,000	5	81,600	
8	Academic Building 2	Academic	15,000	2	69,000	
9	Residential 2	Residential	25,400	4	60,500	
10	Residential 3	Residential	28,300	3/4	46,500	
11	Recreation Center	Recreation / Student Life	50,000	1/2	54,000	
Mid-Term Subtotal					391,600	
Total					761,100	



Long-Term Plan

The long-term vision finishes out the entire framework of the campus, extending a second pedestrian spine to the southwest. The buildings in this long-term vision are largely agnostic to use, as specific functions of these buildings cannot be foreseen at this time, and are simply indicated as Academic / Research / Industry uses. The exception to this approach is where housing has been indicated at the southwest terminus of the pedestrian spine.

Additional parking supply has also been added and distributed across four lots along the exterior of the campus loop road (Leadership Place) to serve the campus. While there is no development indicated in the plan beyond what is shown in the immediate developed area, future roadway connections are also indicated to the west (Fort Cavazos property), northeast, and southeast (A&M-Central Texas property),

KEY	NEW CONSTRUCTION	TYPE*	FOOTPRINT	FLOORS	GSF (EST.)	NOTES
12	Academic Building	Academic/Research/Industry	27,300	3	81,900	
13	Academic Building	Academic/Research/Industry	31,800	3	95,400	
14	Academic Building	Academic/Research/Industry	51,000	4	204,000	
15	Academic Building	Academic/Research/Industry	27,400	4	109,600	
16	Academic Building	Academic/Research/Industry	23,800	4	95,200	
17	Academic Building	Academic/Research/Industry	26,000	3	78,000	
18	Academic Building	Academic/Research/Industry	33,400	4	133,600	
19	Academic Building	Academic/Research/Industry	29,100	4	116,400	
20	Academic Building	Academic/Research/Industry	25,700	4	102,800	
21	Residential 4	Residential	16,500	3	49,500	
22	Residential 5	Residential	11,500	4	46,000	
23	Residential 6	Residential	23,700	4	94,800	
Long-term Subtotal					1,207,200	
Total					1,968,300	



4. Facilities Programming

Existing Buildings

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Proposed Buildings

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With an eye to the space needs identified in chapter two, this Facilities Programming chapter essentially breaks down three things; 1) The existing buildings on campus and how their space is used; 2) what existing spaces should relocate, grow in place, or find a home in a new future building; 3) and how future needs will be accommodated in proposed facilities in the near- and mid-term. Each existing and proposed building is presented in turn, and a high-level summary of these three elements is given within this document. A digital dashboard that can be accessed through the links provided in these pages gives a finer level of detail into these proposed concepts.

Facilities Programming

Functional Concentrations

With a strong framework in place, the planning process was able to focus on a finer grain of detail on the intended uses for near and mid-term buildings and how existing facilities can evolve with the campus as programs develop, grow, and occupy new spaces on the campus.

Taking existing data provided by the university, the planning team developed an integrated dashboard that allows A&M-Central Texas to visualize existing spaces in 3D model space with data attributes attached, such as department or square footage for existing facilities, highlight specific spaces that would be planned to relocate to new facilities in the future, and see spaces vacated that will be available for backfill in the future.

The diagram at right shows intended functional concentrations of most, but not all, of the buildings within the mid-term plan at a high-level, while the pages that follow describe present and future intended space uses for each of the existing three multi-purpose academic buildings, as well as future potential uses for a number of new facilities.

A Note on Data

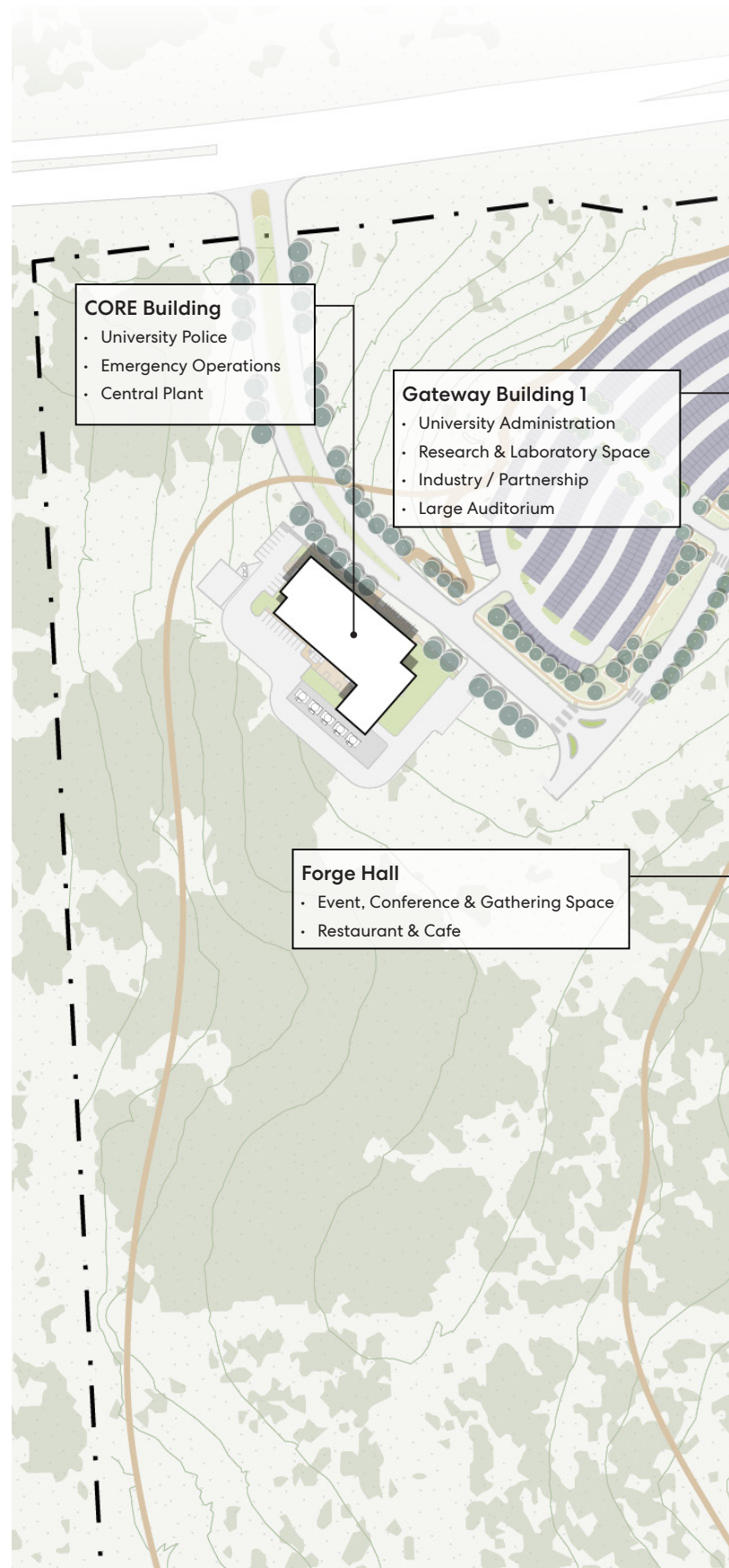
Using the dataset provided by the university, the diagrams and charts break down space in the existing facilities by division, or who is responsible for this space. When it is an individual college this is often straightforward, but there are many layers of departments below this. For instance, Enrollment Management is generally responsible for much of the classroom space, and Finance & Administration is responsible for many of the support elements.

All of this data can be broken down at a finer level of detail, and is provided in a digital online dashboard accessible on links provided within this document.

This is not a detailed building programming effort, but rather a general guide that captures the general intent of the plan. Detailed programming and assessment will need to be undertaken when any individual building project comes forward, of course.

When backfilling vacated spaces, the general approach has been to provide expansion space for remaining colleges and divisions present in the building, but certainly some of this cannot be known until it comes time to begin this process with the specific users intended to occupy them.

For the space needs of future buildings we have generally increased the size of many, but not all existing space uses, and combined these with future space needs.



Proposed Functional Concentrations

(Mid-term Plan)



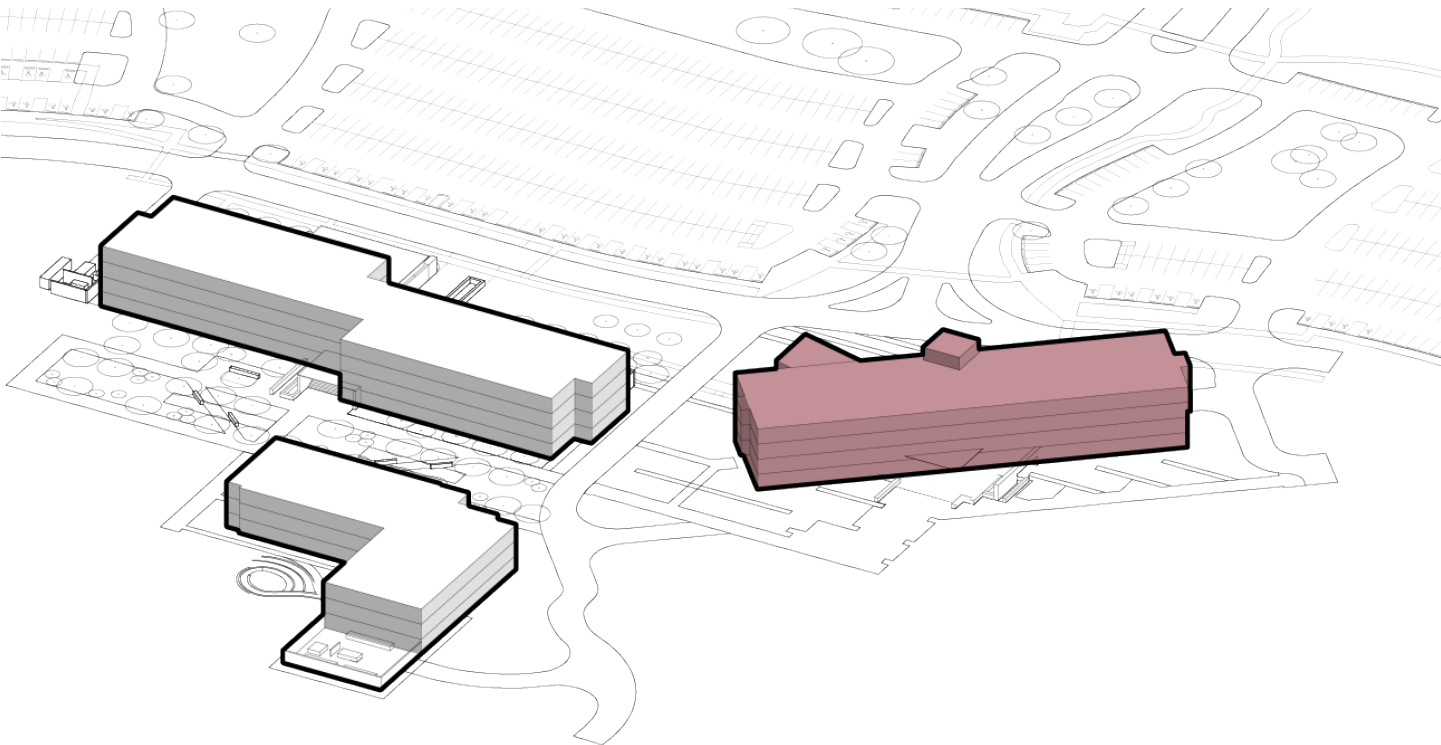
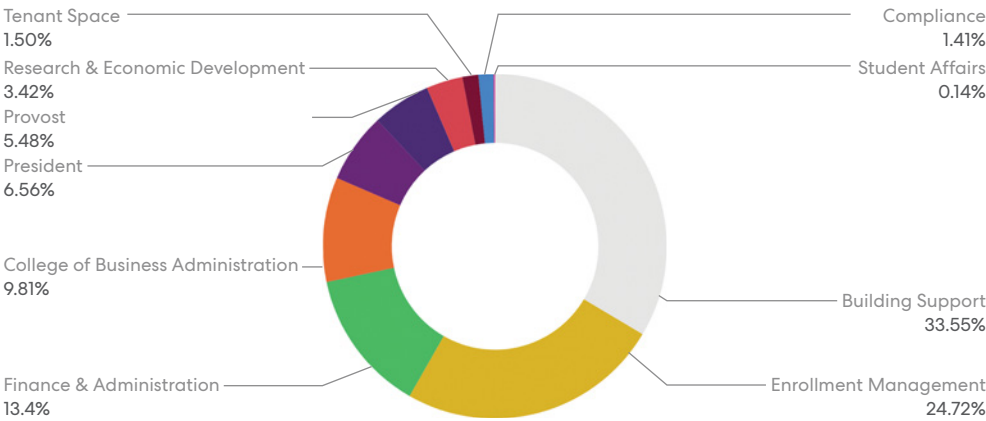
Founders Hall

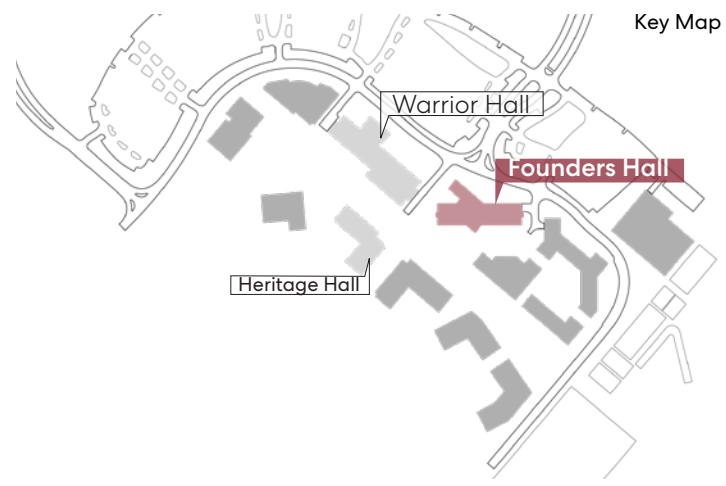
1. Existing Building

Founders Hall, fittingly to its name, was the first building built on campus. The building houses a large portion of the administrative departments, including offices of the President, Provost, Graduate School, Enrollment Management, Institutional Research, Research, Economic Development and Innovation, Registrar, and Compliance. The College of Business occupies substantial space, along with Cybersecurity Big Data and Networking Labs, general classroom space, and a large lecture hall.

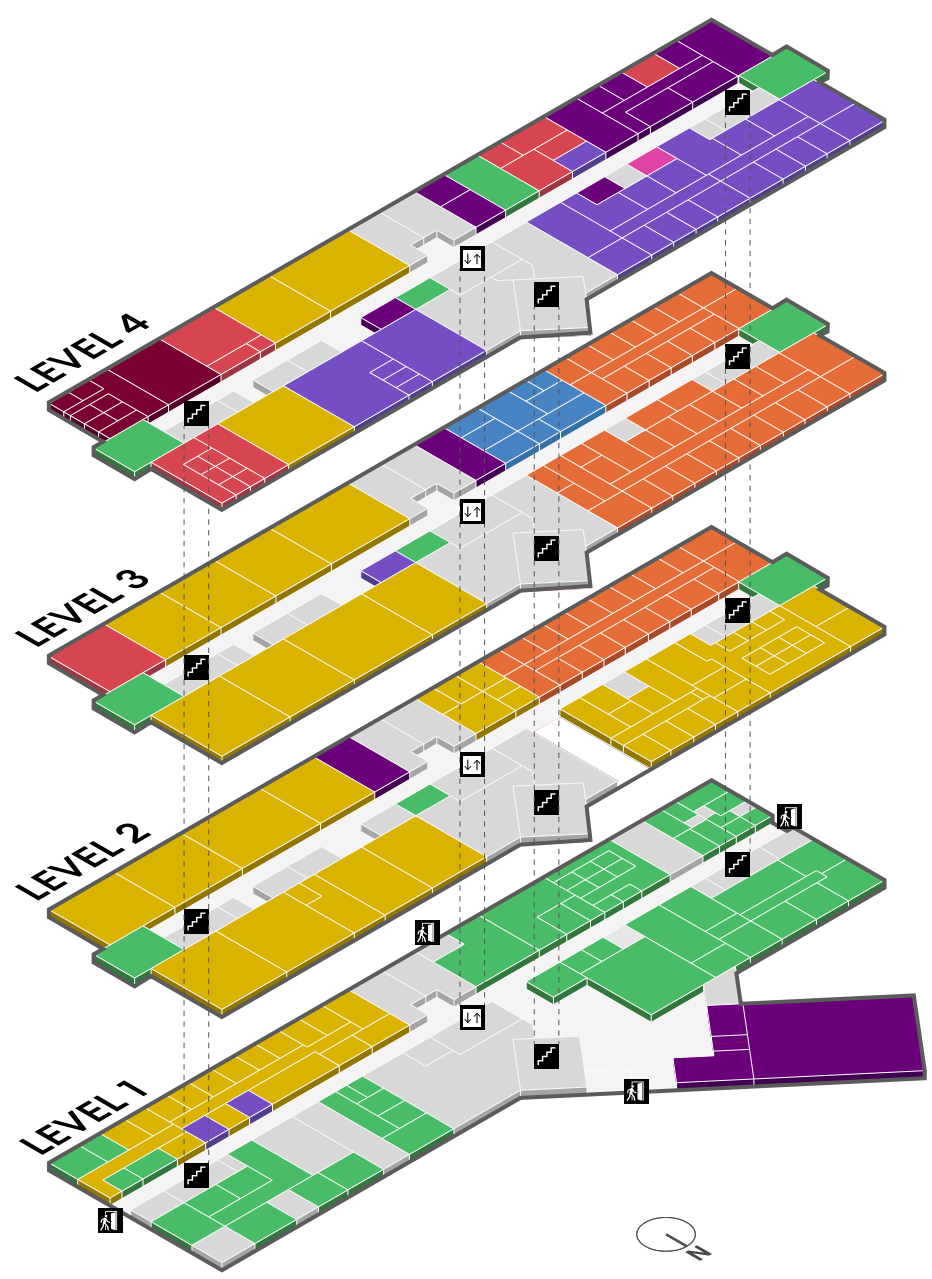


Built Year:	2012
GSF:	103,384
NASF:	64,679





Currently the private company – Centex Technologies – occupies space in the building, the first partnership space on the Campus. Other uses including University Police, IT, Tech Desk, Bookstore. Business Services, Media Production and Veterans Center round out the occupancy.



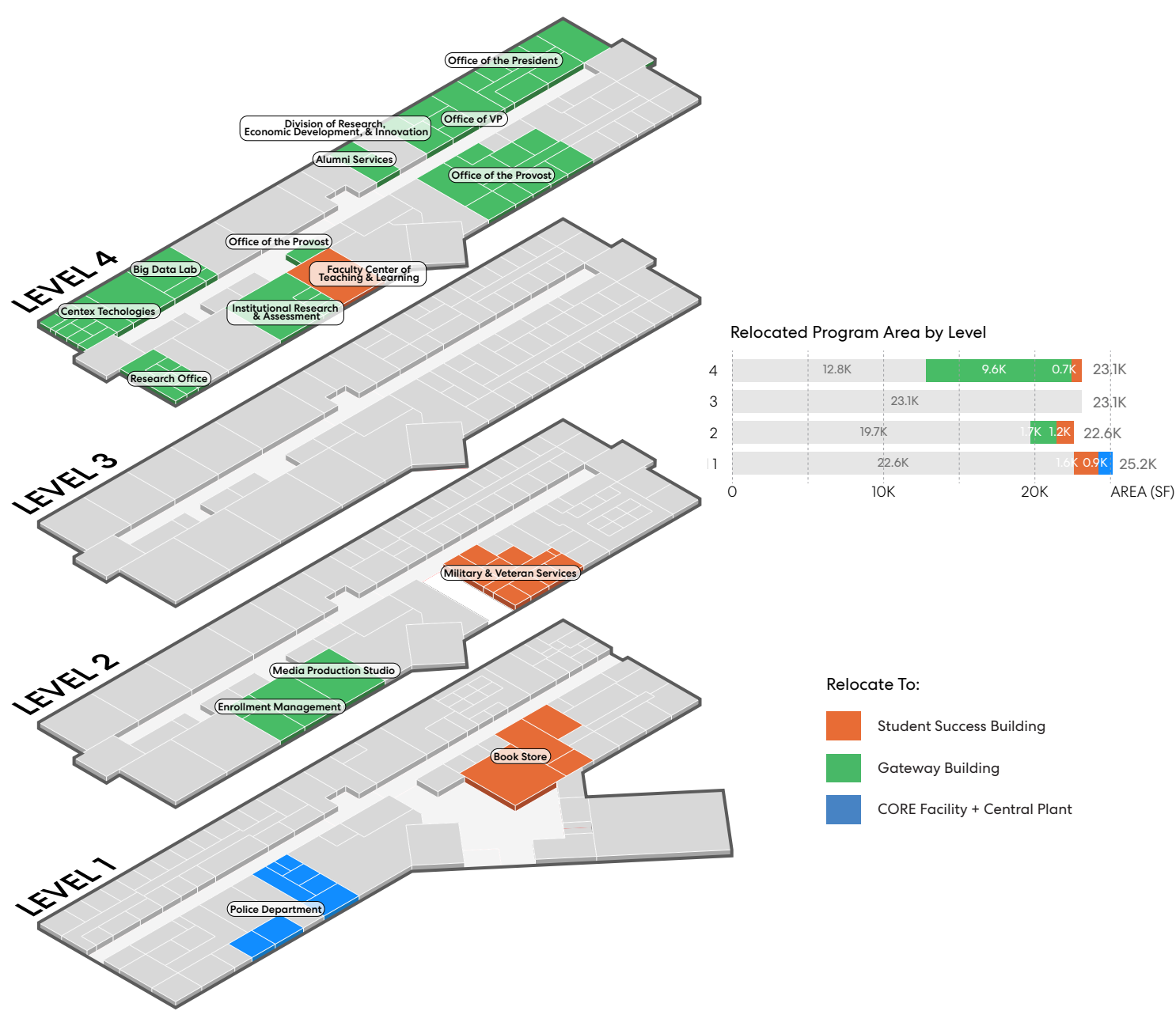
- Entrance
- Staircase
- Elevator
- Student Affairs
- Compliance
- Research, Economic Development and Innovation
- Provost
- President
- College of Business Administration
- Finance & Administration
- Enrollment Management
- Tenant Space
- Building Support

Founders Hall

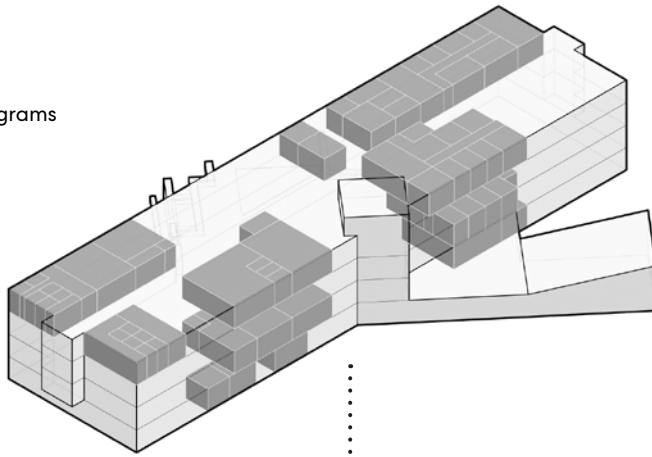
2. Unpacking & Relocating

A number of uses in the existing building were identified for potential unpacking and relocation in future facilities. The University Police Department is finding a new home in the CORE Facility currently in design, while the Book Store, Military & Veterans Services fit well in the planned Student Success building, while the Book Store, Military & Veterans Services fit well in the planned Student Success building. Existing spaces for the Office of Research, Economic Development and Innovation, along with laboratory space (Big

Data, Cybersecurity, and Networking Labs), and partnership industry space for Centex Technologies would fit well within the Gateway 1 Building, planned as a public-private research hub. Administrative suites for the President, Provost, VP for Research would also relocate to Gateway 1, along with Enrollment Management, Institutional Research, and Alumni Services.

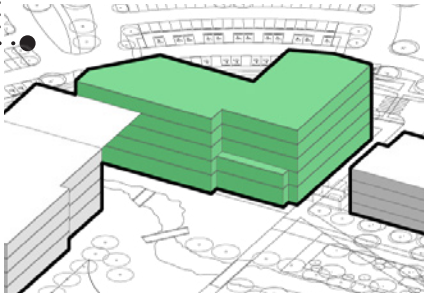


Unpacked Programs



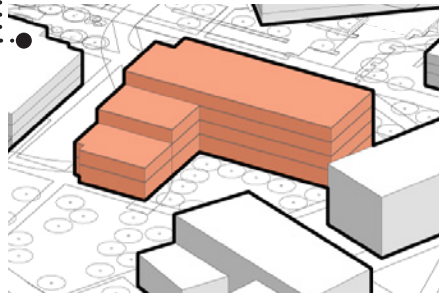
Enrollment Management (2,200sf)
 Finance & Administration (1,400sf)
 President (2,700sf)
 Provost/Academic & Student Affairs (2,560sf)
 Research & Economic Development (2,510sf)

Gateway Building (Portion 1)



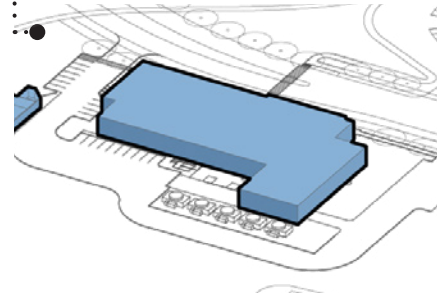
Enrollment Management (1,210sf)
 Finance & Administration (1,620sf)
 Provost/Academic & Student Affairs (720sf)

Student Success Building

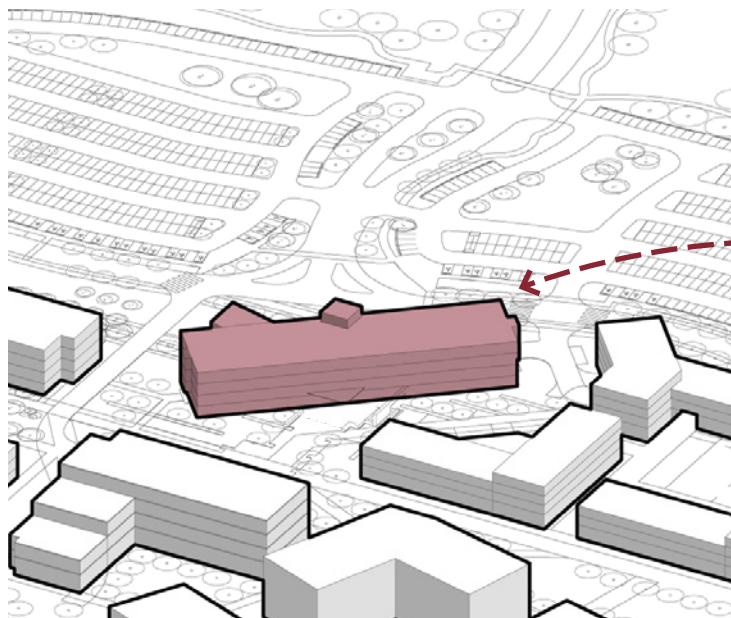


Finance & Administration (911sf)

Central Plant



3. Refilling



With the spaces available after unpacking, it is anticipated that the College of Business Administration will grow in place within Founders Hall, while the remainder of vacated space will be allocated to new needs to be determined at this time (unassigned).

Unassigned
 Programs from
 New Needs
 12000sf

College of Business
 Administration: 50%
 Growth from New Needs
 5000sf

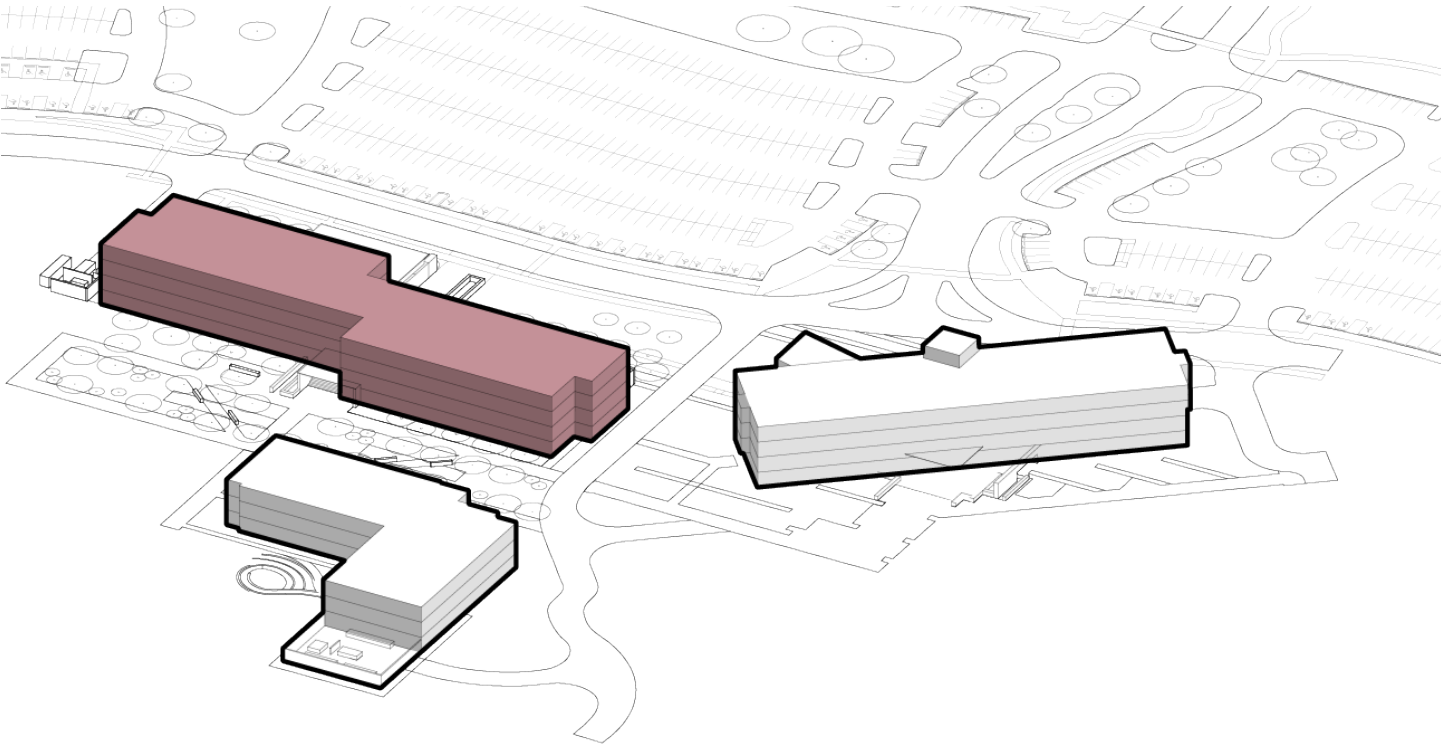
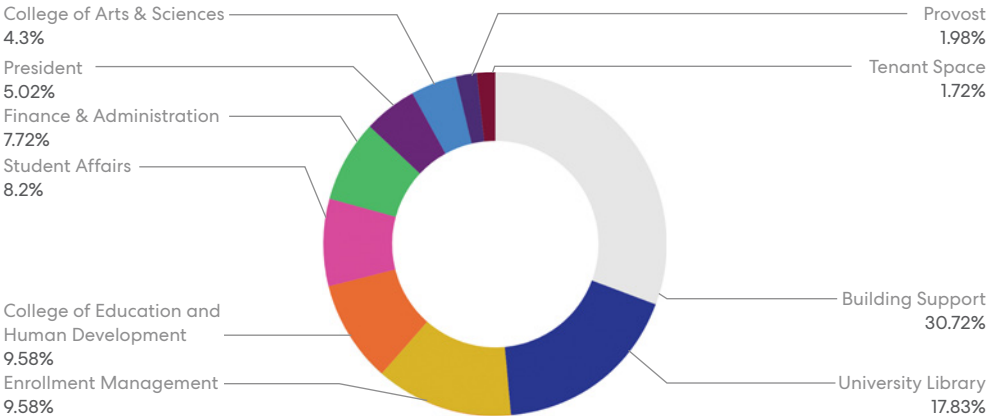
Warrior Hall

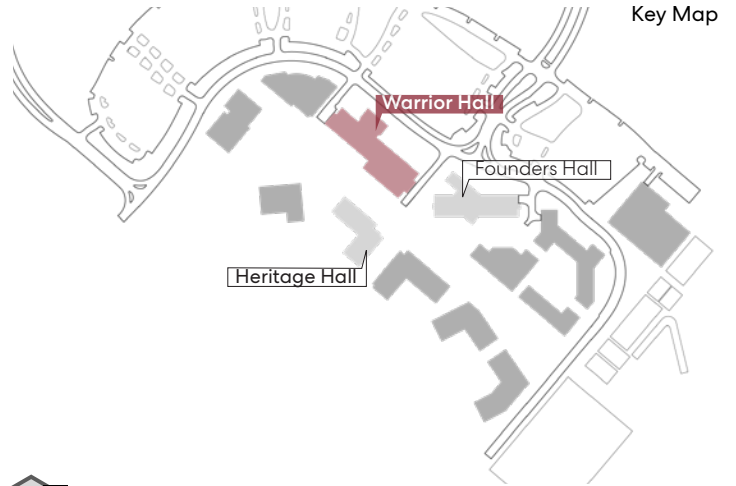
1. Existing Building

Warrior Hall was completed in 2014, shortly after Founders Hall. The largest use in the building is the University Library, occupying portions of the first and second floors. The College of Education and Human Development is housed on the third floor, and operates the Community Counseling Center on the second floor. College of Arts & Sciences Department of Social Work maintains space on the fourth floor. Several student services functions occupy space in Warrior Hall, including Student Wellness and

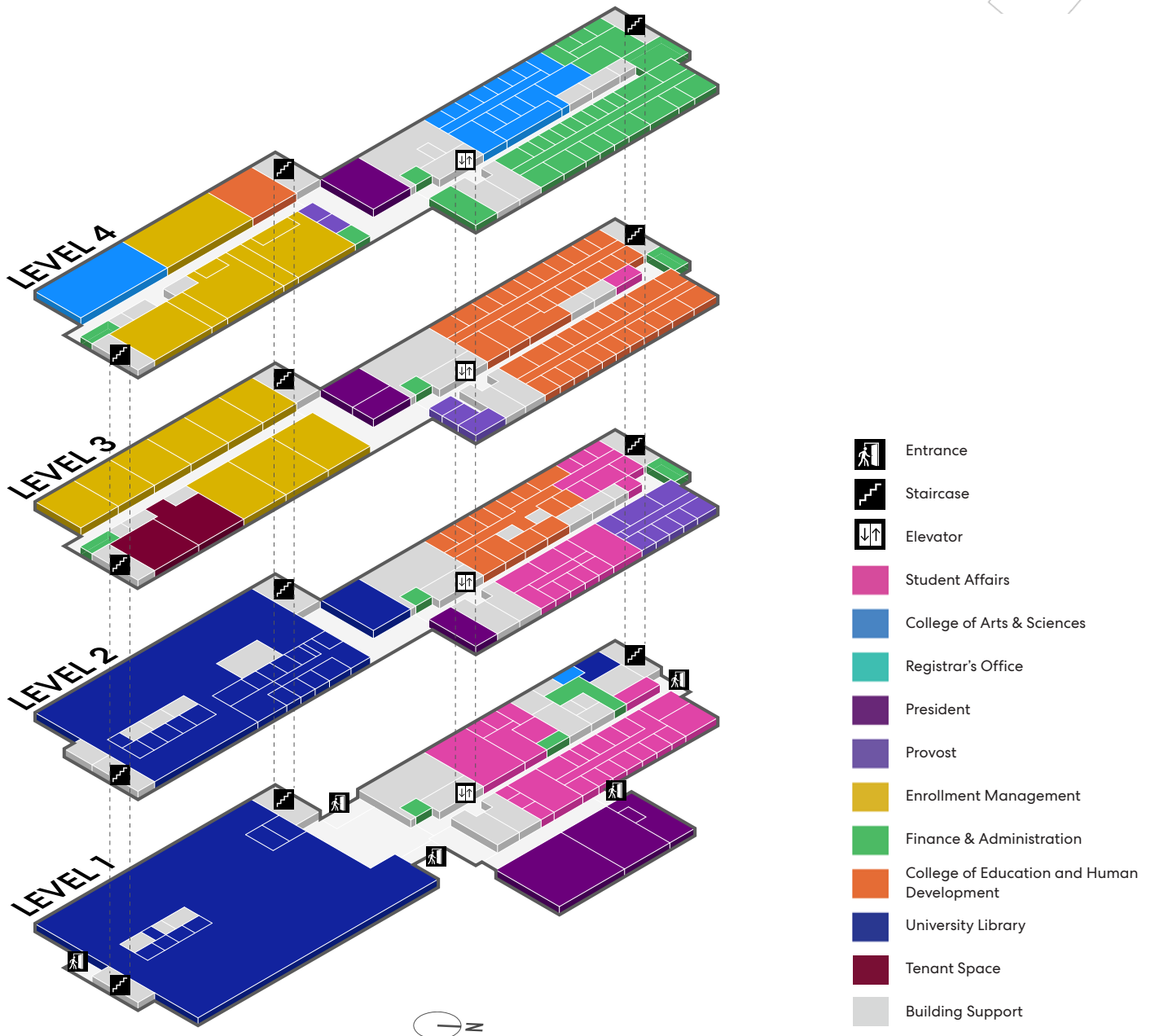


Built Year:	2014
GSF:	135,227
NASF:	91,888





Counseling, Student Success, Equity & Inclusion, Career & Professional Development, Campus Cupboard, and others. From an administrative perspective, the VP for Finance and Administration offices are housed here, along with Human Resources and Student Affairs. The first floor also offers the Bill Yowell Conference Center for larger gatherings.

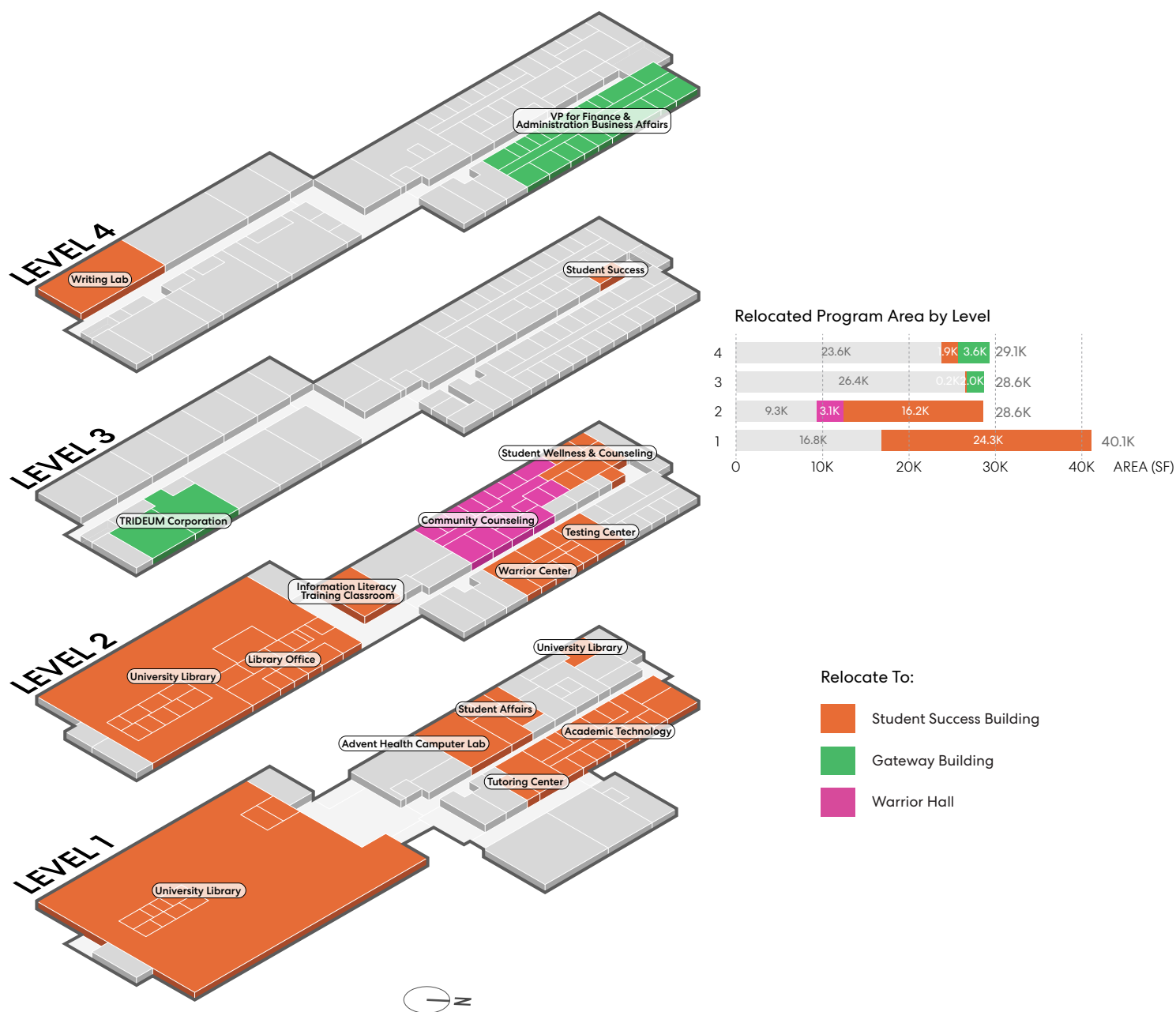


Warrior Hall

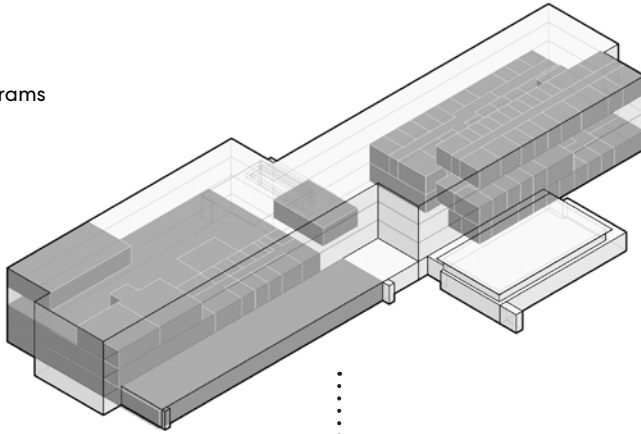
2. Unpacking & Relocating

A large amount of space has been identified for unpacking from Warrior Hall, a good deal of which is represented by the University Library. This, along with many spaces aligned with Student Success are intended to be relocated in a “Student Success Building.” These include computer lab, testing center, student wellness & counseling, writing lab, and naturally, the Warrior Center for Student Success, among others. The VP for Finance

and Administration is intended to join the other Administrative suites in the new Gateway Building 1, along with Trideum Corporation. Finally, the Community Counseling Center is intended to relocate and expand within a more accessible space on the first floor of the building, but maintaining its existing program adjacencies within Warrior Hall.



Unpacked Programs



Finance & Administration (5,610sf)

Building Support (1,520sf)

Building Support (146sf)

College of Arts & Sciences (1,890sf)

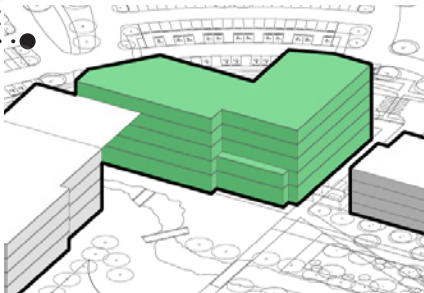
College of Education (2,954sf)

Provost/Academic & Student Affairs (5,500sf)

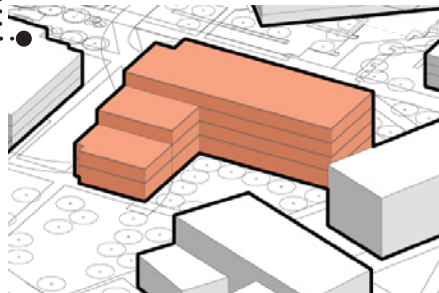
Student Affairs (3,940sf)

University Library (29,640sf)

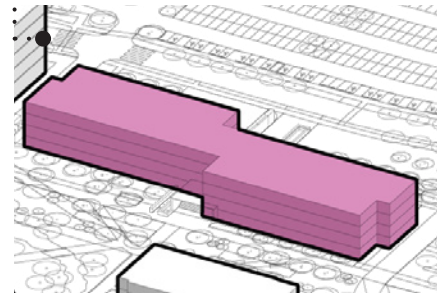
Gateway Building 1



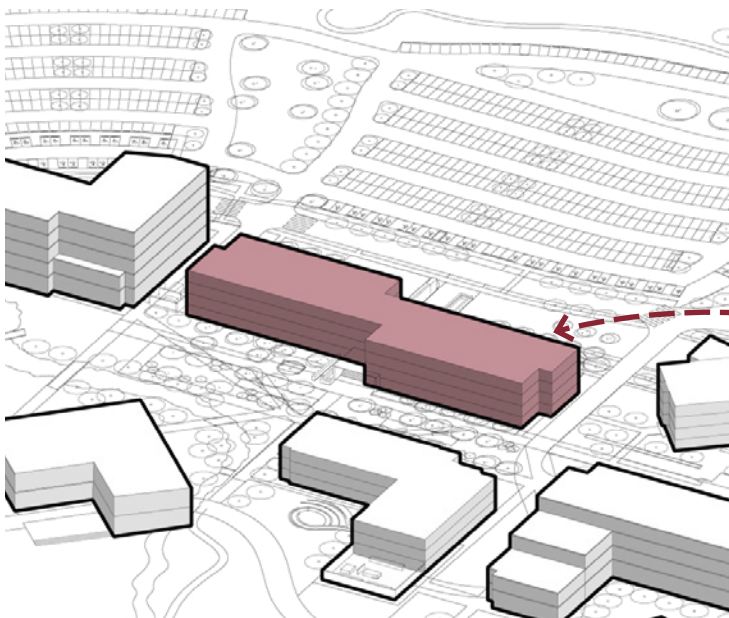
Student Success Building



Warrior Hall



3.Refilling



With the large amount of space vacated, particularly on the first and second floors, it is anticipated that both the College of Arts & Sciences and College of Education and Human Development will grow in place. There will also be new ground floor space for Community Counseling Center and other unassigned uses to be determined.

Community Counseling Center to first floor
3,100sf

Offices of College of Arts & Sciences from Heritage Hall
5,000sf

Unassigned from New Needs
10,000sf

College of Education: 50% Growth from New Needs
7,000sf

Community Counseling Center: 50% Growth from New Needs
1,500sf

College of Arts & Sciences: 50% Growth from New Needs
5,000sf

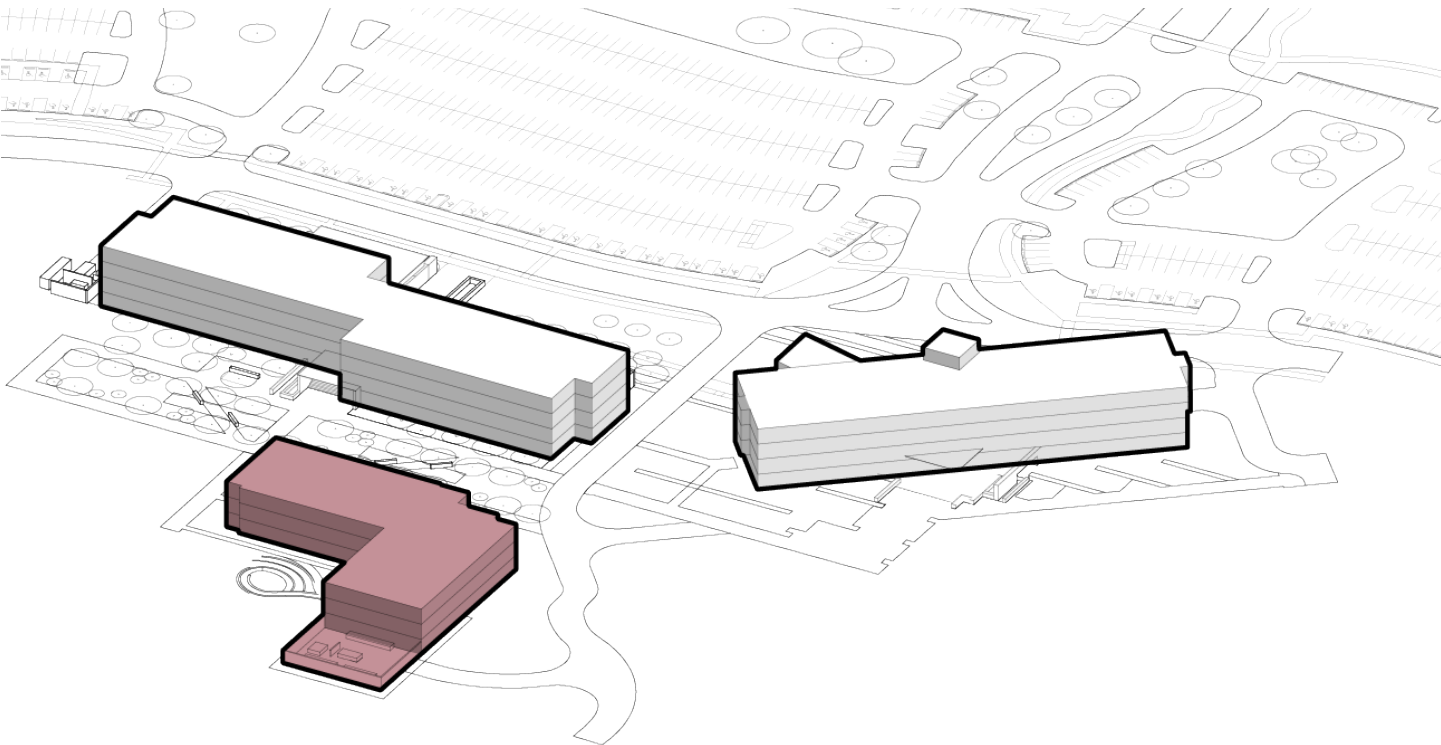
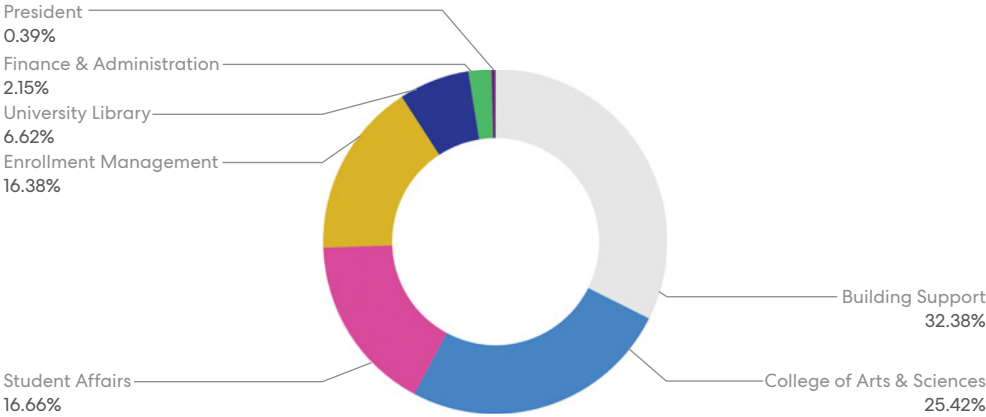
Heritage Hall

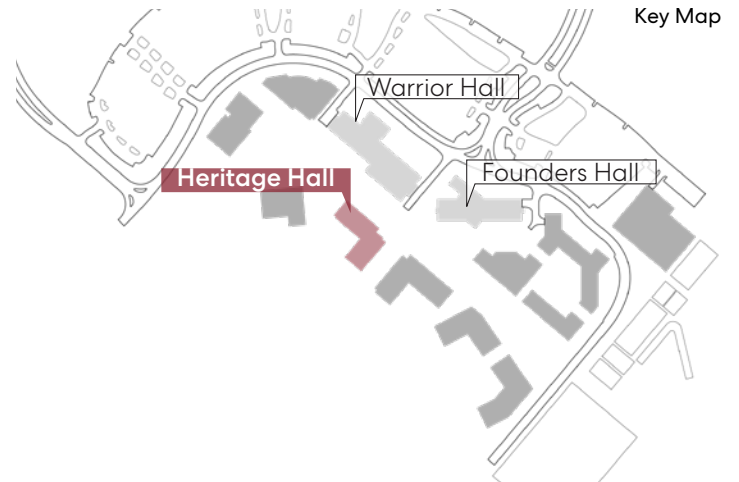
1. Existing Building

Heritage Hall, completed in 2019 is the most recent building on campus. A large portion of the facility is occupied by the College of Arts & Sciences, including Humanities & Social Sciences, Mathematics, and Nursing, with several biology and chemistry teaching and research laboratories on the third floor. A large portion of the first floor is occupied by the Human Performance

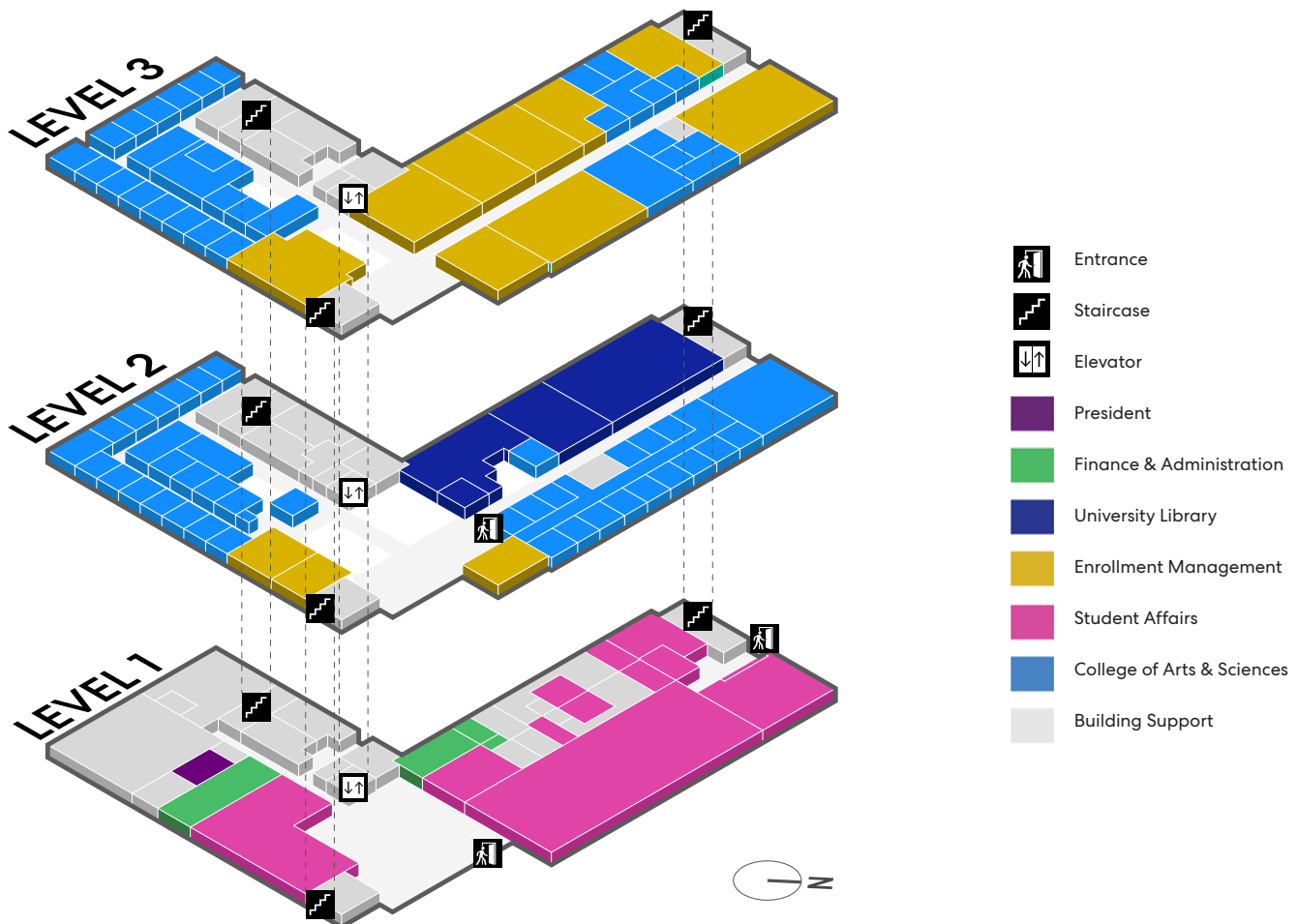


Built Year:	2019
GSF:	63,628
NASF:	35,585





Lab and associated fitness space locker rooms which are shared by Student Affairs and available for use by university affiliates. The University Library maintains specialized space for Archives on the second floor. Other current space uses within Heritage Hall include the Student Organization Central (the "OC"), ROTC, Maker Space, Computer Classroom and Active Learning Center.

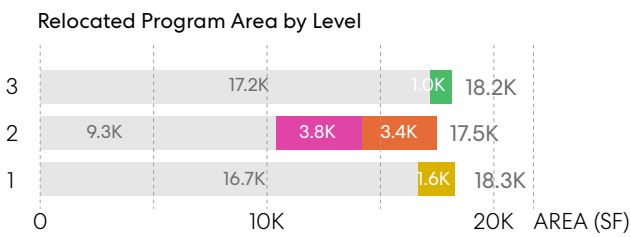
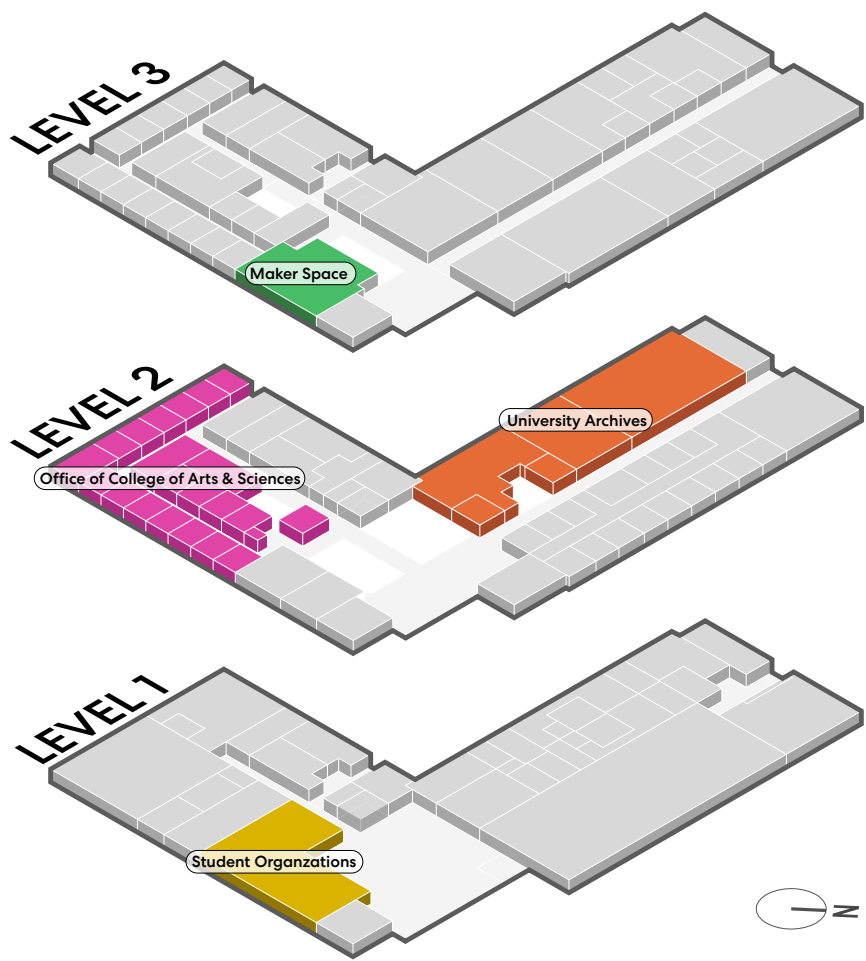


Heritage Hall

2. Unpacking & Relocating

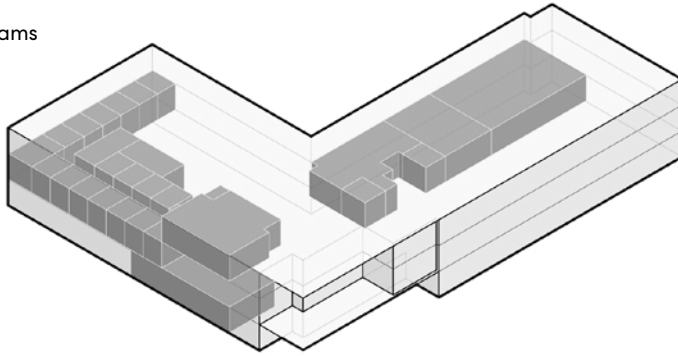
Overall, only a small number of programs have been identified for unpacking from Heritage Hall and for relocation in other buildings. University Archives are intended find a new home with the University Library in the new Student Success building, while Student Organizations are intended to be an active use in Forge

Hall. Some of the offices of the College of Arts & Sciences are candidates to relocate to Warrior Hall with other complementary departments within the college, while the maker space is intended to find a more visible and collaborative location within the future Gateway Building.



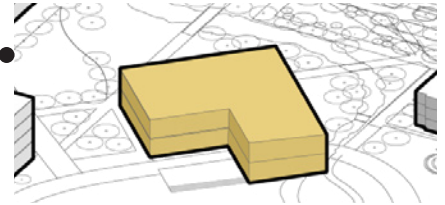
- Relocate To:
- Student Success Building
 - Gateway Building
 - Warrior Hall
 - Forge Hall

Unpacked Programs



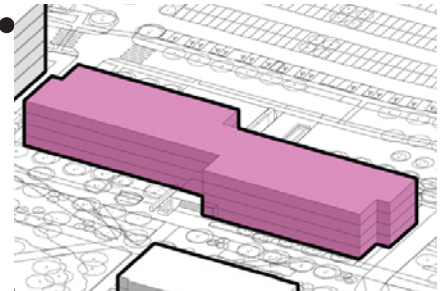
Student Affairs (1,580sf)

Forge Hall



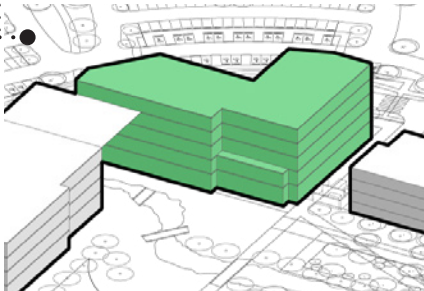
College of Arts & Sciences (3,420sf)

Warrior Hall



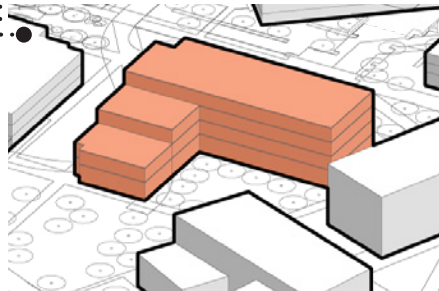
Enrollment Management (989sf)

Gateway Building (Portion 1)

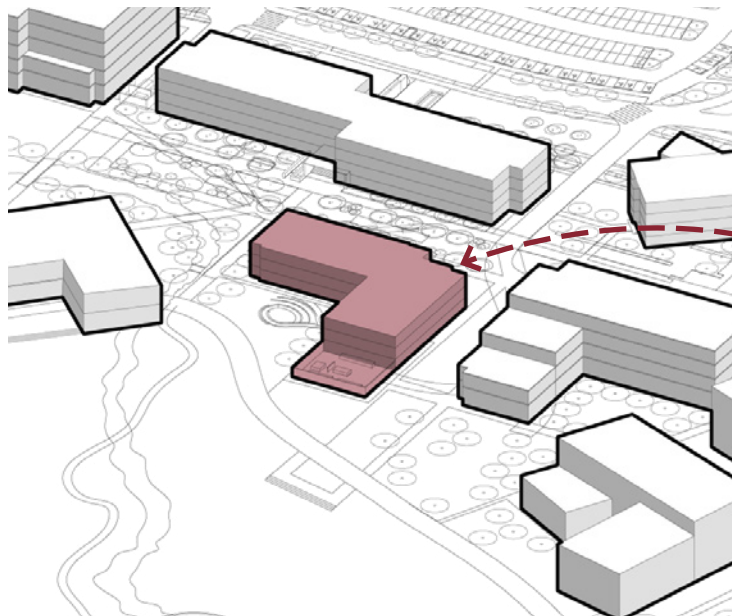


University Archives (3,311sf)

Student Success Building



3.Refilling



Spaces vacated within Heritage Hall are intended to be backfilled with additional space needs for the College of Arts & Sciences as well as unassigned new needs yet to be determined.

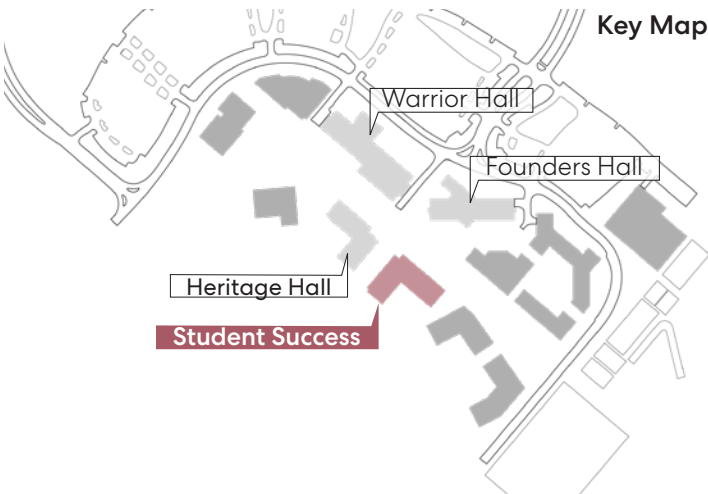
College of Arts & Sciences: 50% Growth from New Needs
7,200sf

Unassigned from New Needs
5,800sf

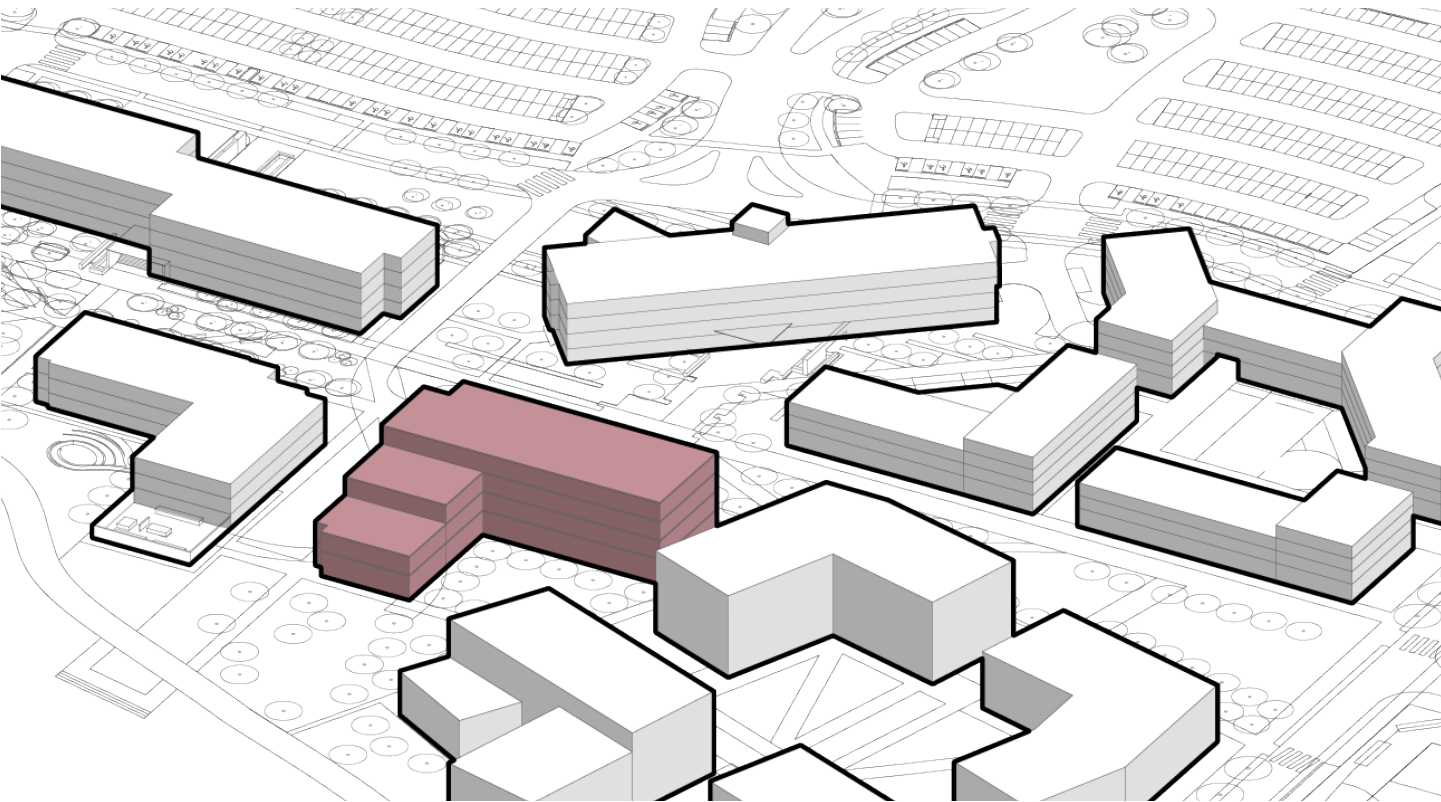
Student Success Building

The university has identified the Student Success building as the next major priority for the institution. This facility is intended to combine, grow, and create new space for a number of important program elements all with a central goal of advancing student success with a holistic approach that combines academic success, health and wellbeing, support services, and activities within a single facility. Presently, many of these uses are spread across several facilities, or are occupying space that does not adequately serve the needs of the individual program. This building would likely be the next legislative funding request made by A&M-Central Texas.

The largest single space use within this building will be a relocated and expanded University Library and Archives, along with a number of complementary program areas including Tutoring and Writing Center and associated technology and learning support programs. Student support spaces will include relocated and expanded Student Counseling and Wellness Center, Veterans Services, and offices of Student Affairs and Student Success. A conceptual program diagram is provided on the adjacent page outlining rough areas and adjacencies.

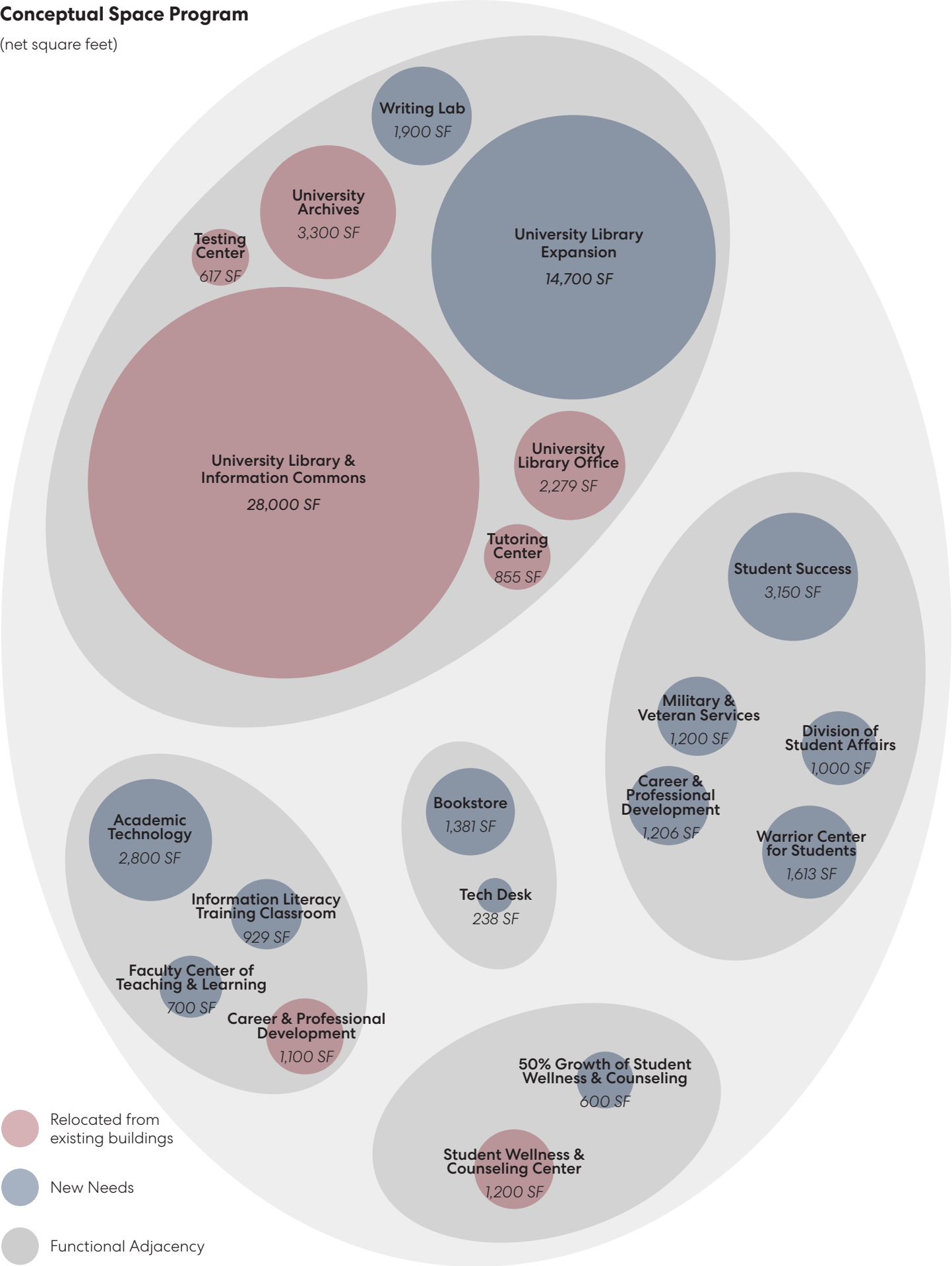


Phase:	Near-Term
GSF (est.):	100,000
NASF (est.):	65,000



Conceptual Space Program

(net square feet)

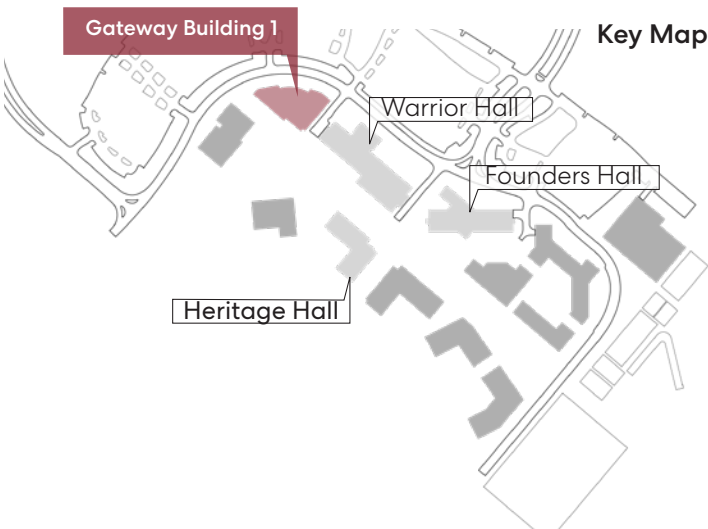


Gateway Building 1

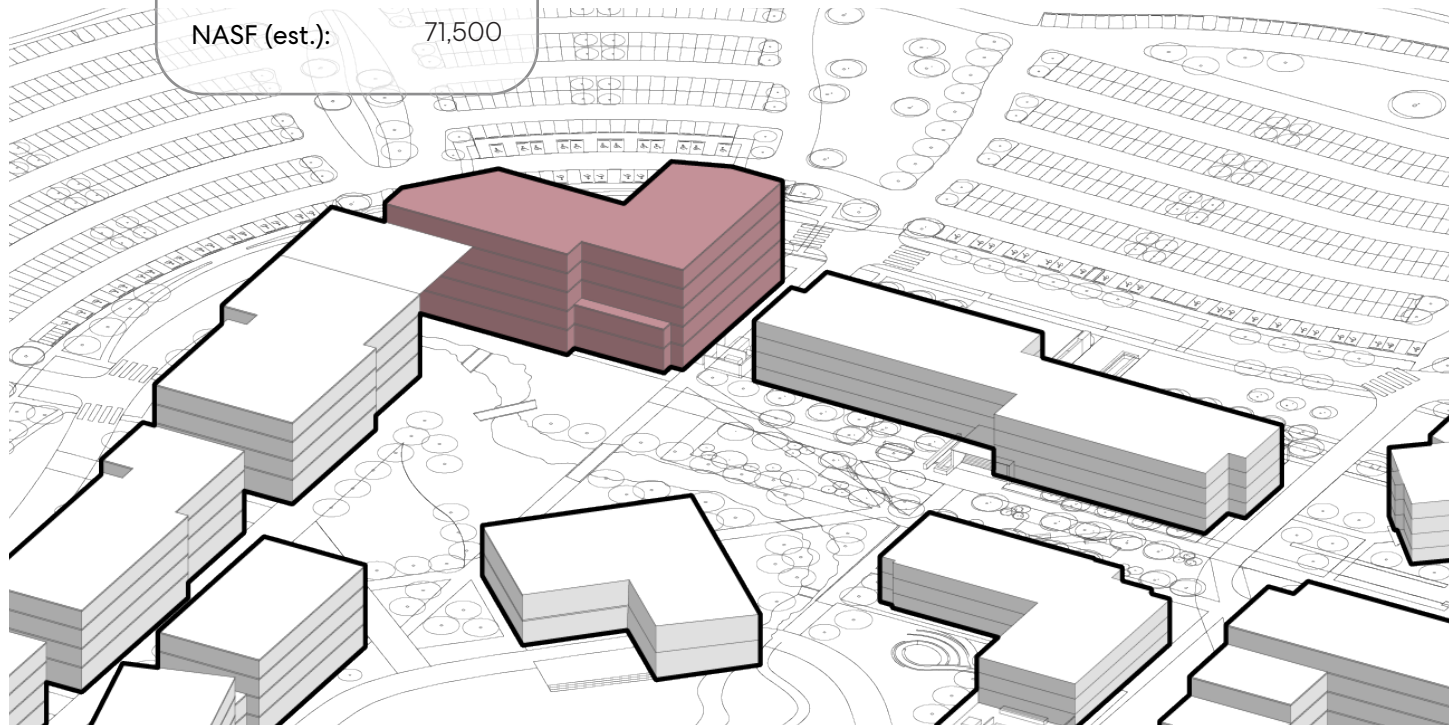
The first of the Gateway buildings will house a hybrid of academic and industry related uses to support the University needs and the extended Forge @A&M-Central Texas users.

The proposed hybrid facility should include a mix of flex, dry lab, and office spaces intended to capture untapped market opportunities, attracting industry partners and supporting university research needs. This hybrid facility absorbs and expands upon the requirements for the previously proposed Research and Testing Annex, along with potential relocation and expansion of existing research uses and industry partners who occupy other spaces on campus. In addition to the research environments, the university has identified the need for a large auditorium of approximately 500 seats, and has the opportunity to relocate administrative suites for executive level offices to this building to free up space in other academic buildings.

Conceptually speaking, the first floor of this partnership building may include 20' ceiling heights to accommodate flex space for machinery and equipment related to prototyping, testing, and evaluation. Flexible space could include options for small offices, co-working spaces, and shared meeting and conferencing spaces that operate on short-term agreements and are subsidized by public funding.

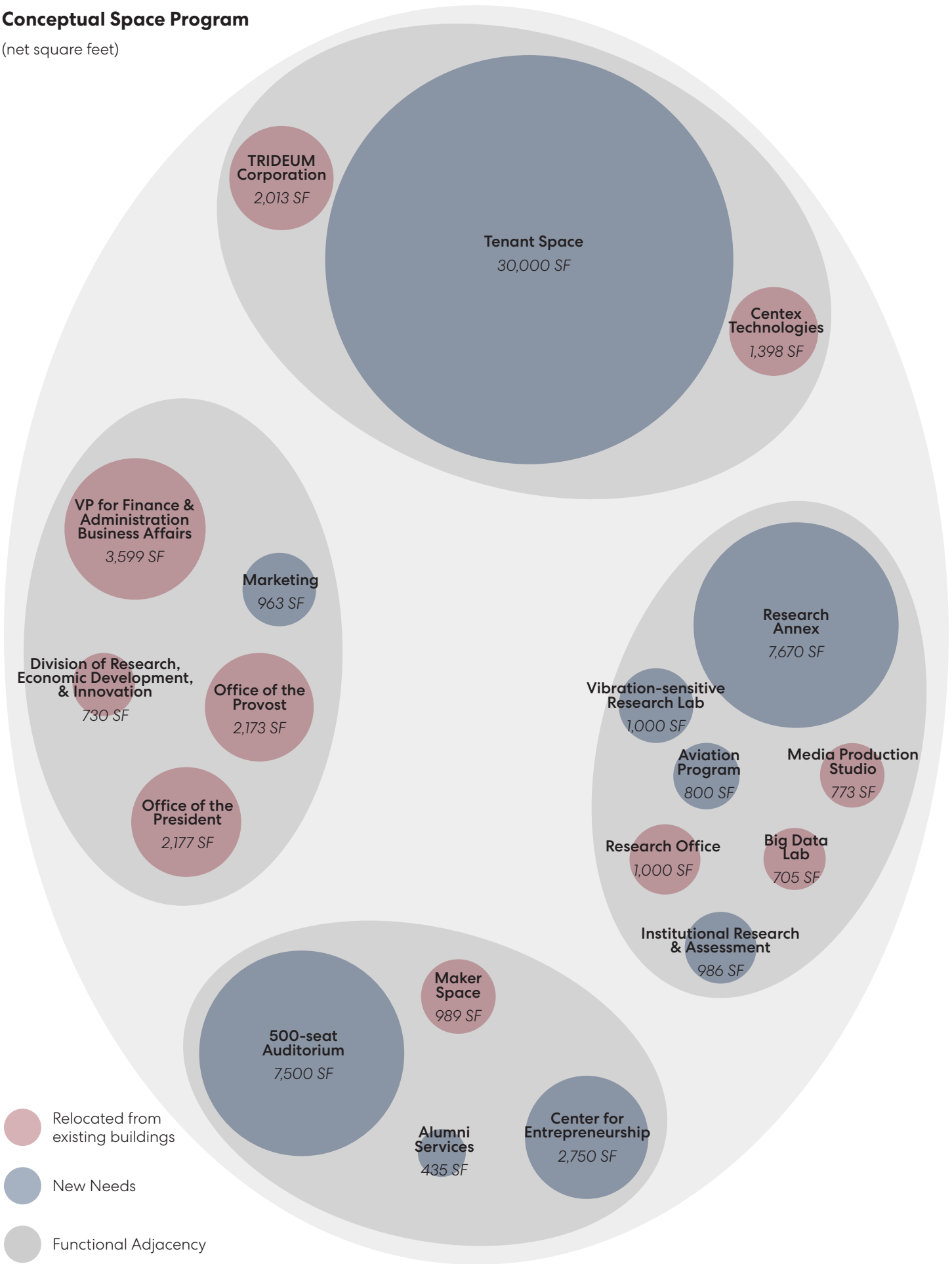


Phase:	Near-Term
GSF (est.):	110,000
NASF (est.):	71,500



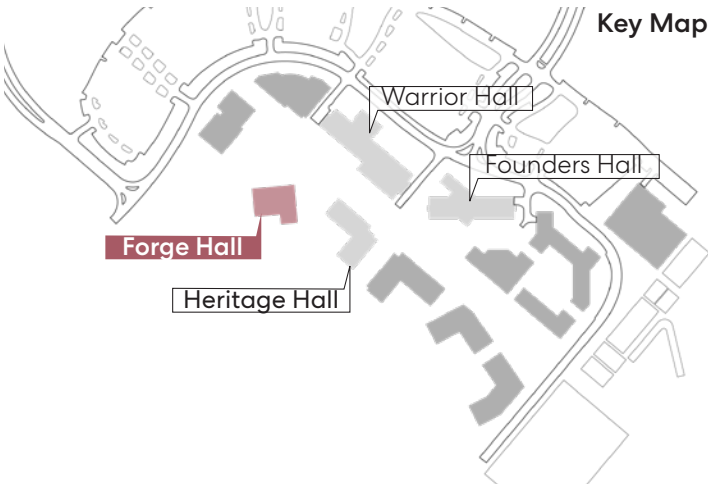
Conceptual Space Program

(net square feet)

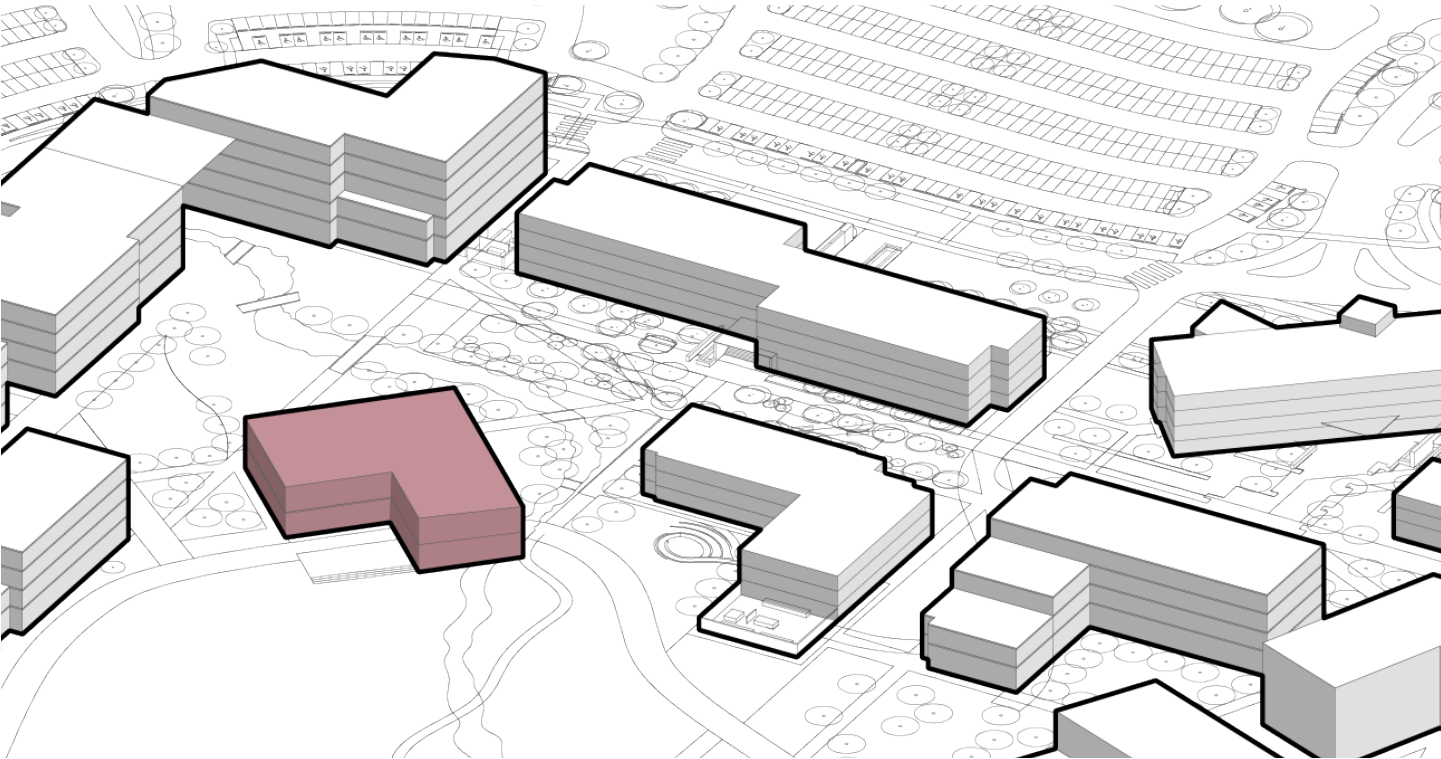


Forge Hall

Forge Hall is a building that represents the collaborative nature of the work carried on from the Forge @A&M-Central Texas innovation-driven planning effort. It is designed to be an open community asset, accessible by all that represents the blended community and contains space to facilitate events, assembly, and serendipitous interactions around food or a cup of coffee. As represented on the conceptual program on the adjacent page, this would include cafeteria, large flexible assembly spaces, flexible meeting rooms or pods, student organization space, and more.



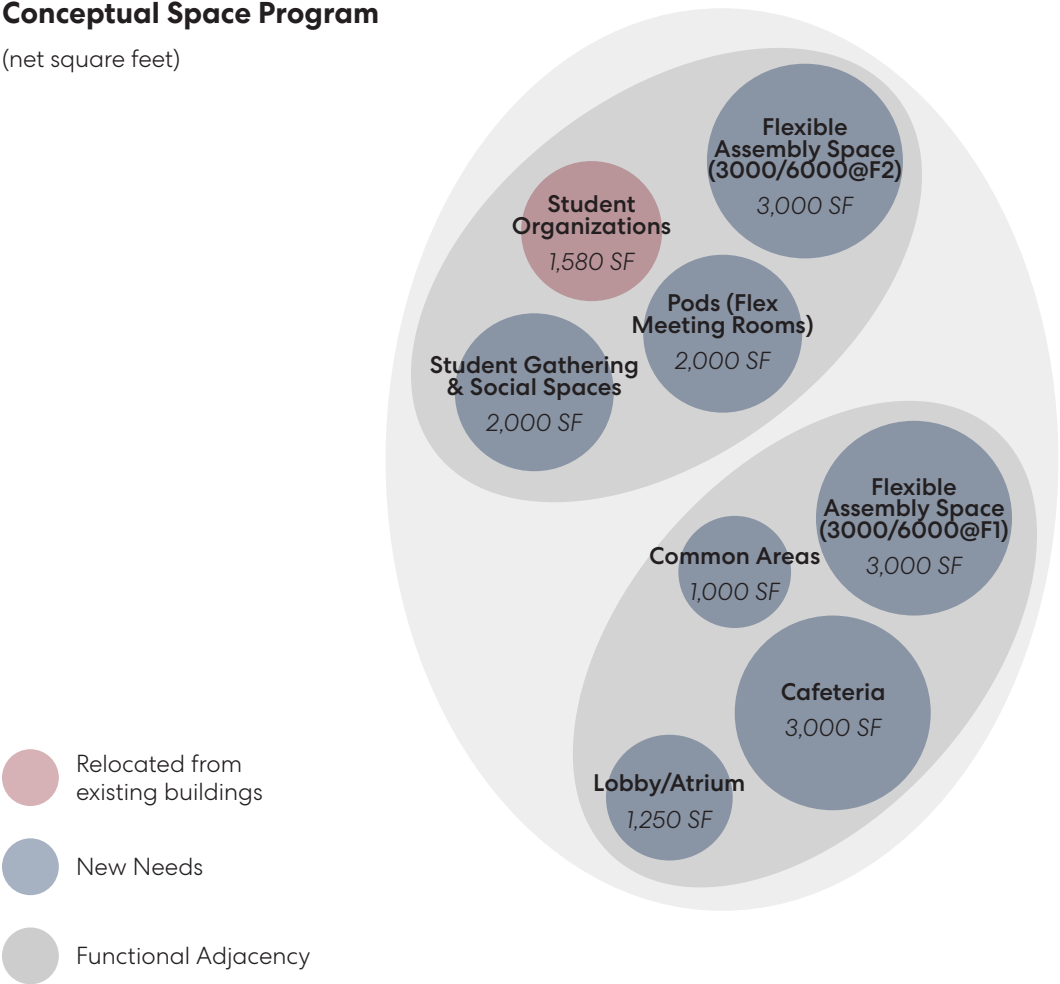
Phase:	Near-Term
GSF (est.):	20,000
NASF (est.):	13,000





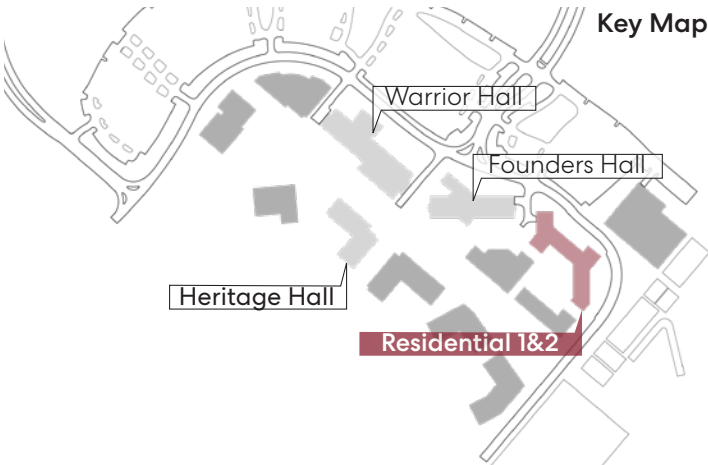
Conceptual Space Program

(net square feet)

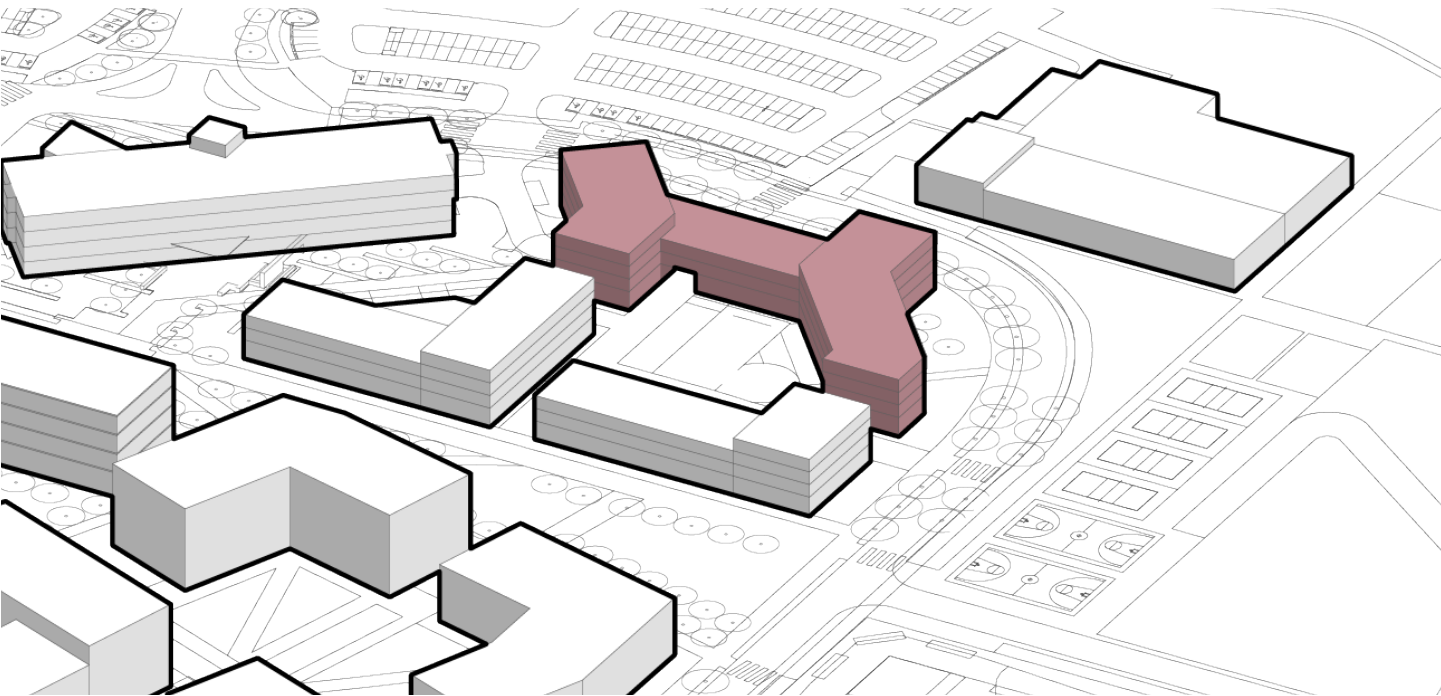


Residential Buildings

The university has been exploring the potential for residential development on campus in recent years, and several market studies have confirmed demand for around 150 beds. With the unique demographic makeup of the student body at A&M-Central Texas, with many members skewing older or coming with prior life experience, it will be important to provide an appropriate mix of unit types that support a diversity of life stages and preferences. A potential mix of unit types as well as support spaces such as day care space, housing office, living-learning classroom, is provided in the conceptual programs on the adjacent page.

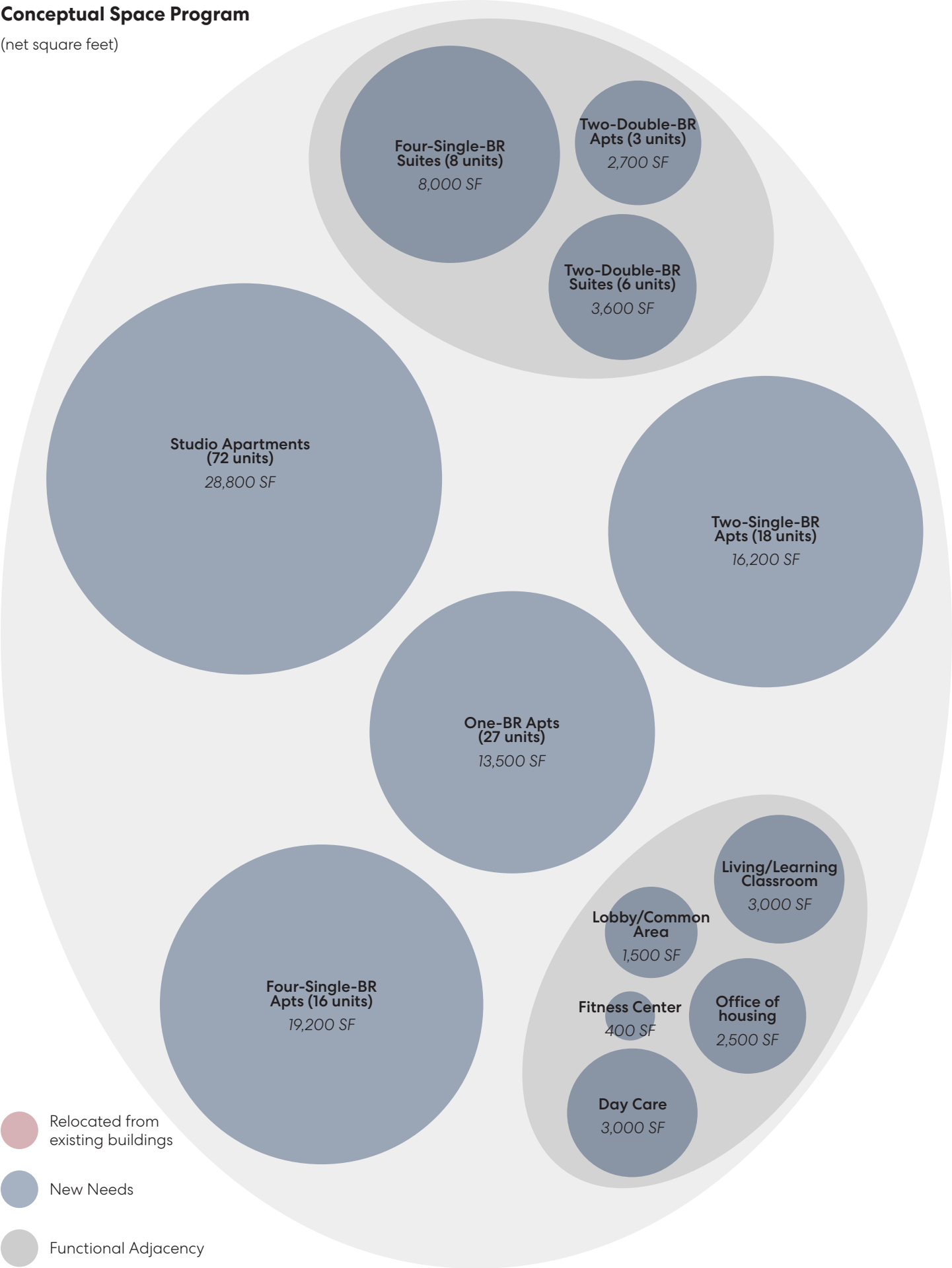


Phase:	Near-Term
GSF (est.):	106,500
NASF (est.):	74,550



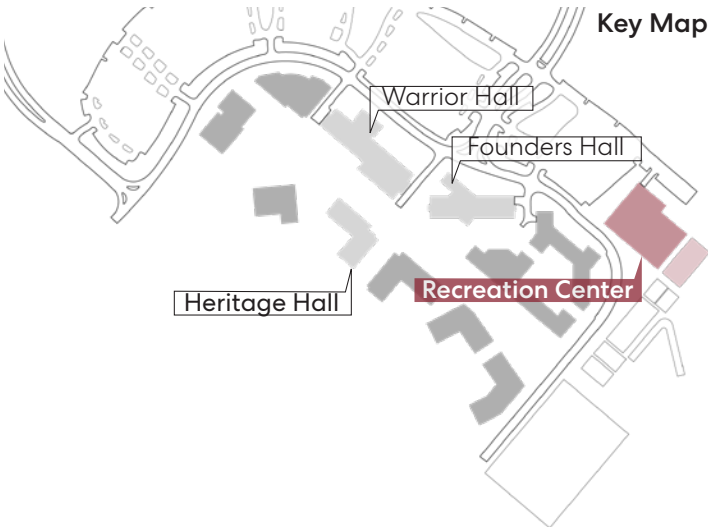
Conceptual Space Program

(net square feet)

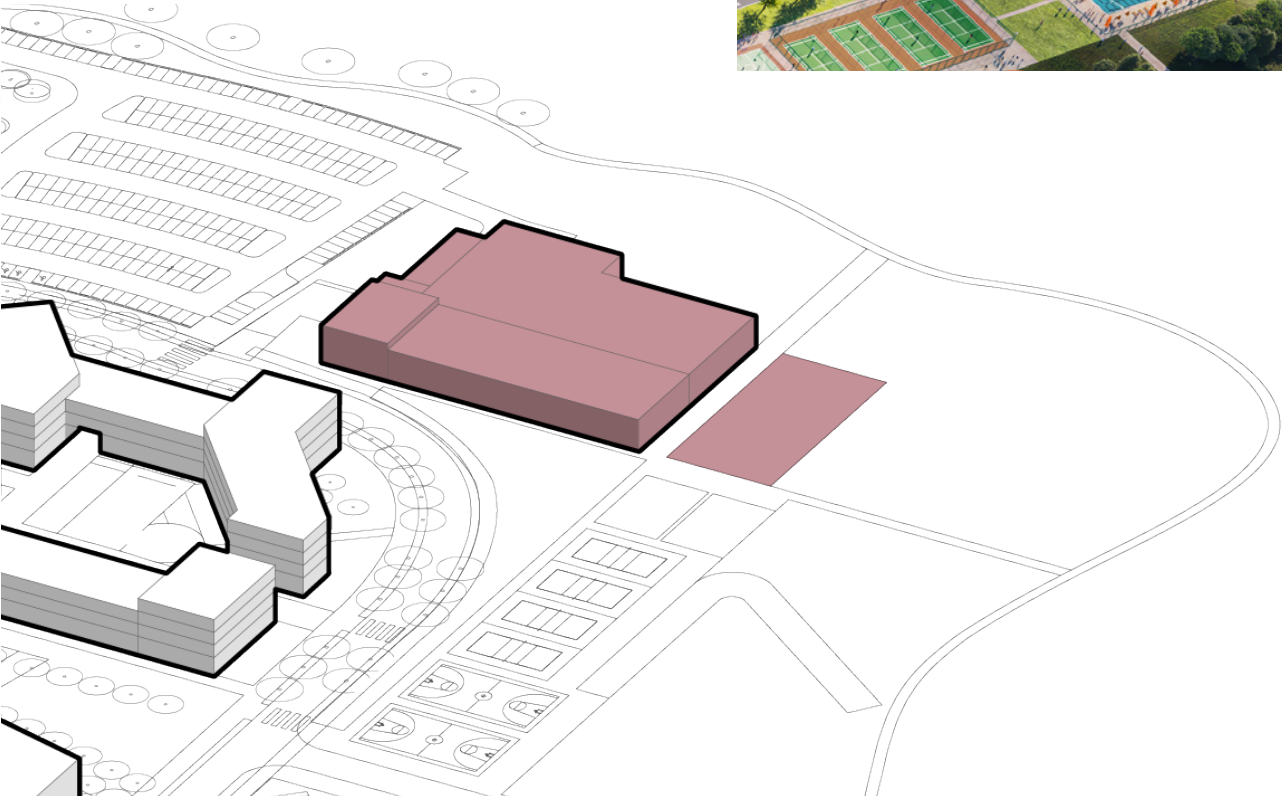


Recreation Center

As the university adds a meaningful level of residential development will also lead to new needs in terms of student life and recreation. The facility envisioned within this plan is similar in program and scale to a community recreation center, and in fact, there is potential to explore partnership with the City of Killeen to create a joint use facility that could be available to community members as well as university affiliates. The indoor areas envisioned would include multipurpose indoor courts, fitness area with weights and machines, group fitness rooms, locker rooms and other support areas. The Recreation Center is also envisioned to include an outdoor swimming pool.

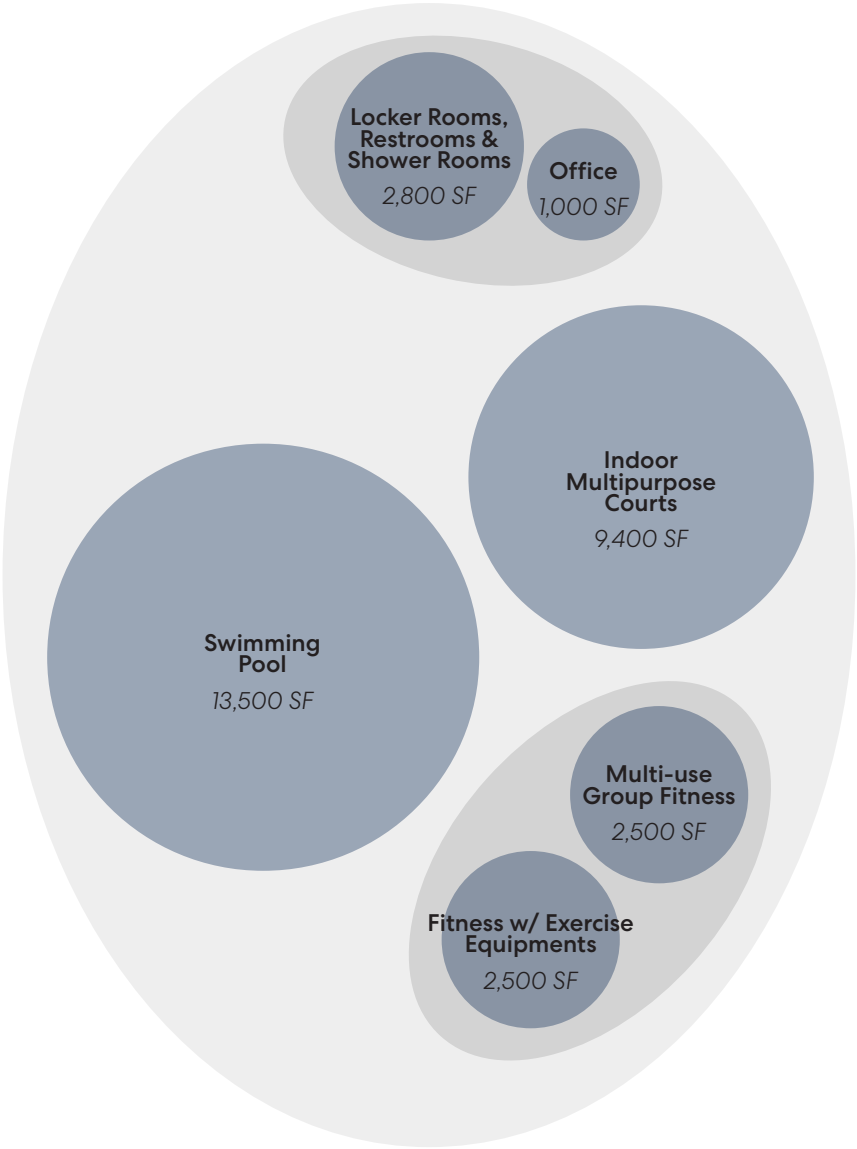


Phase:	Mid-Term
GSF (est.):	54,000
NASF (est.):	40,500



Conceptual Space Program

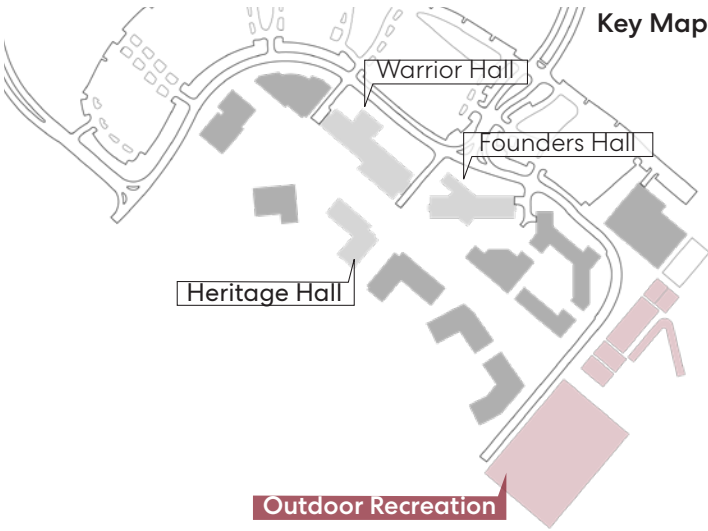
(net square feet)



- Relocated from existing buildings
- New Needs
- Functional Adjacency

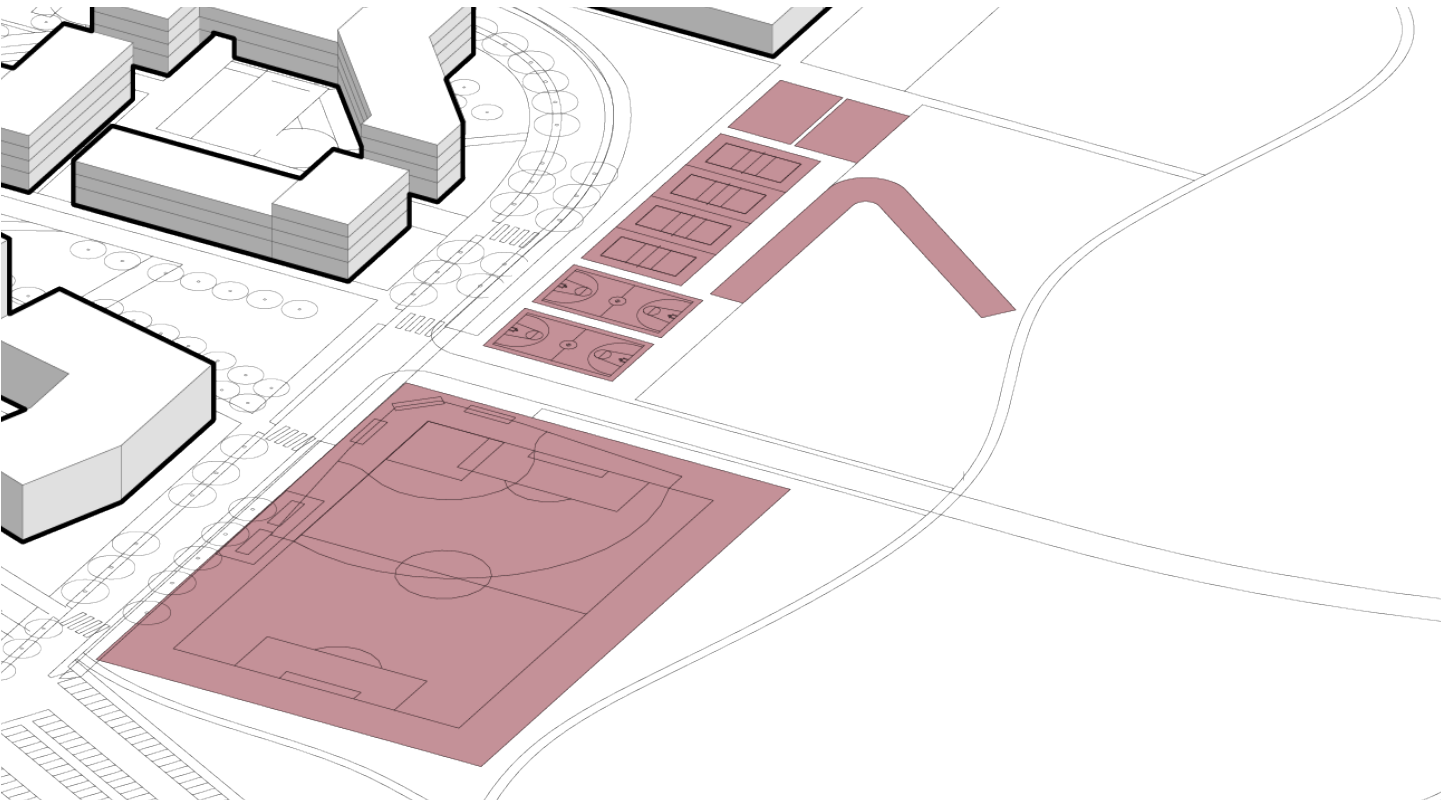
Outdoor Recreation Spaces

The campus plan allocates additional outdoor recreation space to the southeast end of the developed area. The plan shows one large multipurpose field that could be striped for several different sports, as well as a number of hard surface courts for basketball, tennis, or other uses; the specific quantity and type of courts may evolve and change as the campus develops. Finally, the existing ropes course on campus will need to be relocated and potentially expanded, and has been allocated space within this recreation complex as well.



Phase: Near / Mid-Term

Square Feet: 60,000





Minto Recreation Complex



Facilities - Outdoor Sport Courts

5. Appendices

Mechanical

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Electrical

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Plumbing

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Exhibits

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Mechanical

Overview

The Texas A&M University—Central Texas campus is planned to have a chilled water distribution network. A water-cooled central cooling plant will be located in the central plant/police station building. The existing central plant is designed for an initial capacity of 500 tons. The central plant is set up for an initial building footprint for 2,500 tons of cooling capacity with 1,500 being firm capacity. Firm cooling capacity is defined as the central plant capacity when the largest piece of equipment is down due to maintenance. The intent is for future chillers to be 1,000 tons each. The central plant portion of the building is designed to expand to the East side of the site. The additional building square footage would allow for a total thermal plant of 5,500 tons of total cooling capacity and 4,500 tons of firm capacity. The current planned expansion is approximately 3,000 square feet. The proposed plan for the campus housing is to utilize point of use cooling systems. Comfort heating for the campus is planned to be provided locally at each building. There are no plans for natural gas service to the campus.

The three existing campus buildings are equipped with air cooled chillers. The campus intent is to add chilled water capacity to the central plant in lieu of replacing the existing air-cooled chillers. Hence, the chilled water campus demand including the police station is 1,290 tons. The table below summarizes the existing campus chilled water demand including the police/central plant building. The chilled water plant capacity would need to be increased by adding more chillers at the central plant.

The recommended additional central plant equipment to support the existing campus would be two 1,000-ton chillers and one 500-ton chiller along with their associated cooling towers. This would provide the campus with 2,500 tons of total capacity and 1,500 tons for firm capacity.

Existing Buildings				
KEY	NAME	TYPE	GSF (EST.) Modeled	Cooling Tons Required
	Founders Hall	Academic	103,000	315
	Warrior Hall	Academic	135,000	375
	Heritage Hall	Academic	64,000	450
Total			302,000	1,140
Police Station/CUP				150
2025 Chilled Water Demand				1,290

Near-Term Plan

The near plan consists of four new buildings. The estimated cooling demand for the near-term is 840 tons. At the completion of the near-term projects, the campus demand will be 2,130 tons. The current central footprint will not facilitate the firm full service of the near-term plan. To serve more than one of the near-future buildings, the central plant footprint will need to be expanded to its planned additional 3,000 square feet. The table below indicates the near-term buildings, their estimated loads, and cooling demand. One additional 1,000-ton chiller and cooling tower shall be added at this time to bring the central plant to 3,500 total tons and 2,500 firm tons.

The first phase of thermal distribution piping will route 24" chilled water pipes out of the central plant. The piping will then be routed to serve the existing buildings. Provision in the form of tees are being provided for the near-term of campus development. Refer to the attached figure showing the planned chilled water pipe routing.



Near-Term Plan				
KEY	NAME	TYPE	GSF (EST.) Modeled	Cooling Tons Required
1	Gateway Building 1	Academic/Research	110,000	440
2	Forge Hall	Multi-propose	20,000	67
3	Student Success	Academic	100,000	333
4	Residential 1	Housing	106,500	-
Total			336,500	840
Near Term Campus Cooling Demand				2,130

Mid-Term Plan

The next phase of development is called mid-term. This phase of development will include six additional buildings. Two of those buildings are planned to be residential and would not be connected to the central thermal loop. One of the buildings would be the recreation center and remaining three would be academic and academic/research buildings. The cooling demand for this phase of construction is 1,038 tons. The total campus demand would increase to 3,168 tons. The expanded central plant footprint would be able to accommodate this growth. The cooling capacity from the previous phase would be able one building from this development phase. Additional cooling capacity would need to be added to the central plant to support the development of this campus growth. An additional 1,000-ton chiller and cooling tower would be added. At the end of this phase of development, the chilled water plant would consist of four 1,000-ton chillers and one 500-ton chiller along with their associated cooling towers. The campus capacity would be 4,500 total tons and 3,500 firm capacity tons.

As part of this phase of development, the chilled water distribution piping needs to be expanded. The mid-term chilled water image shows the chilled water being expanded to the southeast to support the new buildings.



Mid-Term Plan				
KEY	NAME	TYPE	GSF (EST.) Modeled	Cooling Tons Required
5	Gateway Building 2	Academic/Research	80,000	320
6	Academic Building 1	Academic	81,600	272
7	Academic Building 2	Academic	69,000	230
8	Residential 2	Housing	60,500	-
9	Residential 3	Housing	46,500	-
10	Rec Center	Recreation	54,000	216
Total			391,600	1,038
Mid-Term Plan Campus Cooling Demand				3,168

Long-Term Plan

The next stage of development is the long-term plan. The plan consists of nine academic/industry/research buildings and three residential buildings. The chilled water demand for this phase of development is 4,068 tons of cooling. The campus demand would increase to 7,236 tons. The central plant has a final firm capacity of 4,500 tons. The central plant could accommodate up to three buildings for this phase of development. An additional 1,000-ton chiller and cooling tower would be needed to support those buildings. A central plant would need to be planned to fully serve this phase of development. The future central plant is estimated to be 13,000 square feet.

The chilled water piping shall be routed to the south and southwest to support this phase of the campus development. The long-term development plan image indicates the proposed pipe routing. The new central plant is proposed to be at this end of the campus. The two chilled water plants shall be connected to support the campus' thermal needs.



Long-Term Plan				
KEY	NAME	TYPE	GSF (EST.) Modeled	Cooling Tons Required
11	Academic Building	Academic/Research/Industry	81,900	328
12	Academic Building	Academic/Research/Industry	95,400	382
13	Academic Building	Academic/Research/Industry	204,000	816
14	Academic Building	Academic/Research/Industry	109,600	438
15	Academic Building	Academic/Research/Industry	95,200	381
16	Academic Building	Academic/Research/Industry	78,000	312
17	Academic Building	Academic/Research/Industry	133,600	534
18	Academic Building	Academic/Research/Industry	116,400	466
19	Academic Building	Academic/Research/Industry	102,800	411
20	Residential	Housing	49,500	-
21	Residential	Housing	46,000	-
22	Residential	Housing	94,800	-
Total			1,207,200	4,068
Long-Term Plan Campus Cooling Demand				7,236

Electrical

Electrical Distribution – Primary Service

The Texas A&M University – Central Texas campus has an existing 25kV underground distribution system that serves the three existing buildings: Founders' Hall, Warrior Hall, and Heritage Hall. This system will be extended as needed for each future building as it is erected. The 25kV duct banks will be concrete encased with a power manhole located not more than 400 feet apart for straight pulls. This distance will be reduced as 90-degree bends are introduced. Distance shall not exceed the cable pulling tension calculations. At each building or group of buildings, a 25kV switch will be provided. Each switch leg will serve step down transformers (typically 25kV-480Y/277V) at each future building.

Under the current CORE project, new 25kV switchgear will be located in the Central Plant/Police Station building and will receive normal power through the existing Oncor service, with space available for a second future Oncor service. This switchgear will serve the current buildings, with spaces to add future campus feeders, as well as the ability to create a loop distribution system once the master plan is fully executed. This gear is sized to serve the future planned capacity of the campus.

Currently, campus sits at approximately 302,000 (we show 295,000) square feet, and approximately 1600kVA load. For the near-term buildout there are an additional 336,500 square feet of proposed academic building space. This results in an estimated 1.9MVA of total load. The mid-term buildout is estimated at an additional 728,100 square feet of academic buildings with an estimated campus load of 3.1MVA. The long-term load is estimated at an additional 1,935,300 square feet of academic buildings space and one central plant with an estimated total campus load of 6.7MVA.

The current campus feeder will have up to 14MVA of capacity. The campus will be set up such that one feeder can support the entire campus. With the addition of future feeders and the creation of a loop system, each feeder would ideally be half loaded to diversify the system.

Emergency Service

The Central Plant will initially have a 2000kW diesel generator, capable of back feeding the campus during a normal power outage with the surplus capacity after supplying backup power to the plant loads. The plant has capacity to add 3 more 2000kW generators, provide 6000kW of backup power with N+1 redundancy to the plant and campus. Preliminary calculations indicate that approximately 5000kW will be available for campus loads after loads at the fully built out

Central Plant are prioritized. Space is provided next to the initial generator for the others to be added.

While the campus is backed up by the Central Plant generators, life safety backup is still required at each building in the event that the building itself loses power separately from campus. Lighting inverters or battery-operated light fixtures will need to be implemented to provide egress lighting per code.

Fire Alarm System

New fire alarm systems should be designed around the UNT standard fire alarm system. Fire alarm systems shall include the required battery backup per code, due to the Central Plant being the primary backup power for the campus, but not each building.

Energy Management

The main electrical meter at each building will be capable of communicating the building electrical information to a campus network.

Renewable Energy

Campus currently has a large quantity of surface parking area, and with space to grow outside of that, the parking area will remain for the life of this master plan. With that, there is an opportunity for the installation of a photovoltaic system above the parking area. Many universities have pursued this addition of renewable energy, in the interest of providing additional on campus generation, potential savings in energy costs, and the visual appearance of innovation and environmental cognizance. Additionally, with education programs on campus pertaining to photovoltaic systems, this opportunity could double as an educational tool for students and faculty to interact with.

Challenges of this initiative would be the retrofit of an existing parking lot. The addition of structured canopies and the routing of conduit through an existing parking lot (whether overhead or underground) bring in complications such as interruption of parking service, long runs of conduit that may need to be buried under existing parking areas, and some reduction of parking space quantities. Consultation of professionals with extensive experience in this type of system is recommended.

Plumbing Considerations

The Central Plant is designed to expand to the East side of the building. The plumbing utilities in the Central Plant will be extended to support the additional central mechanical systems. The fire sprinkler system will be extended to support the expanded plant. There are no central plumbing systems from the Central Plant extended to support the buildings on campus. The campus does not plan to utilize a water reclamation system for re-use. Each new building will connect to the site domestic/fire water utility, sanitary sewer and storm sewer systems. Domestic water heaters will be electric type located in each building. Domestic water pumps will be provided on an as-needed basis dependent on the height and usage of water in the building.

Domestic water, sanitary sewer and storm sewer utilities for the expansion of the campus are explained in the site utility Master Plan by the Civil Engineer.

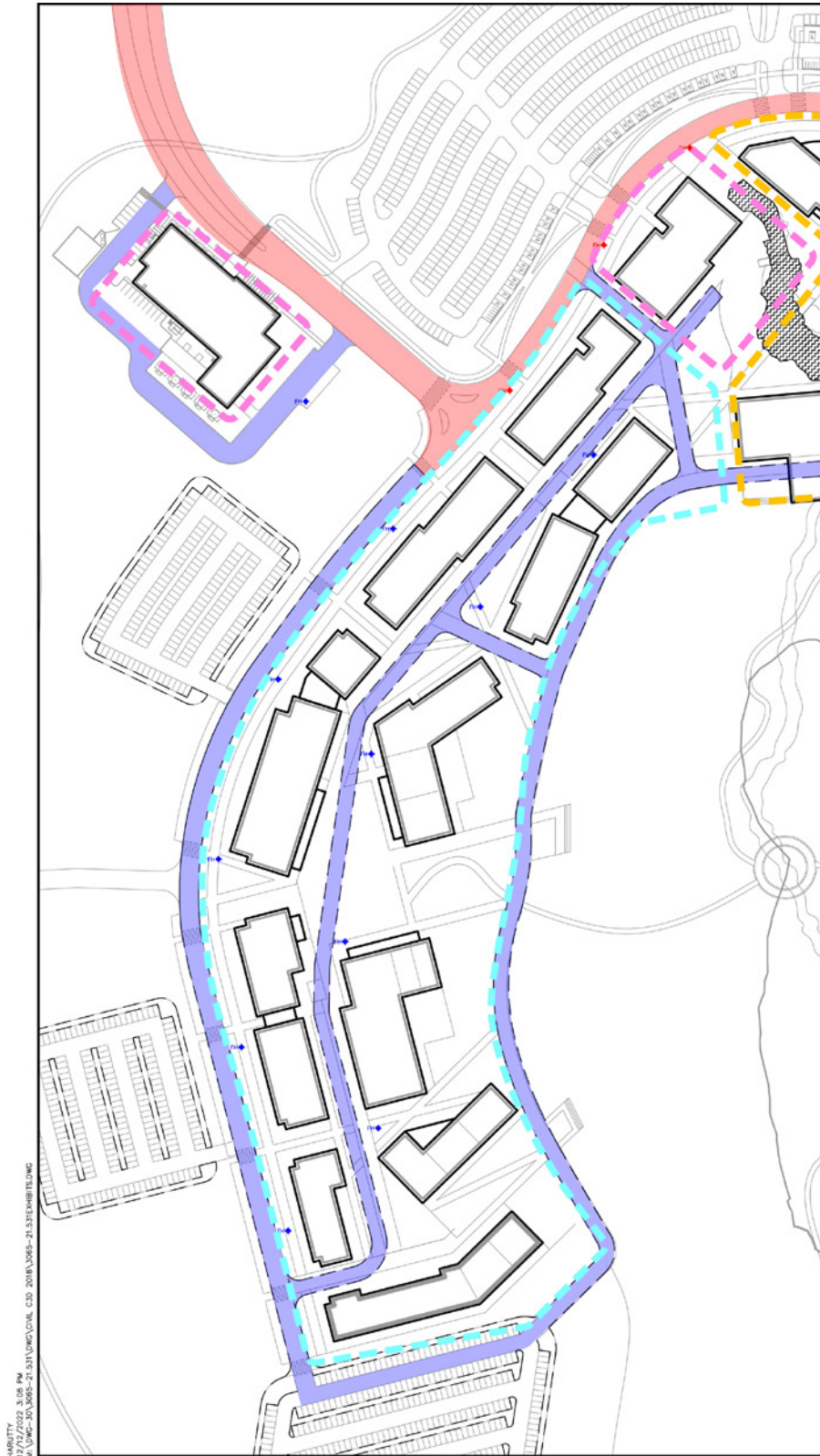
Natural Gas

As noted in the previous planning and programming efforts for new buildings on the campus, natural gas service continues to not be feasible. The closest natural gas service is approximately 2 miles away from the campus. Natural gas is not recommended for the campus at this time.



Campus aerial view rendering demonstrating the potential for surface parking covering by solar photovoltaic structures.

Exhibit 1: Fire Lane Coverage



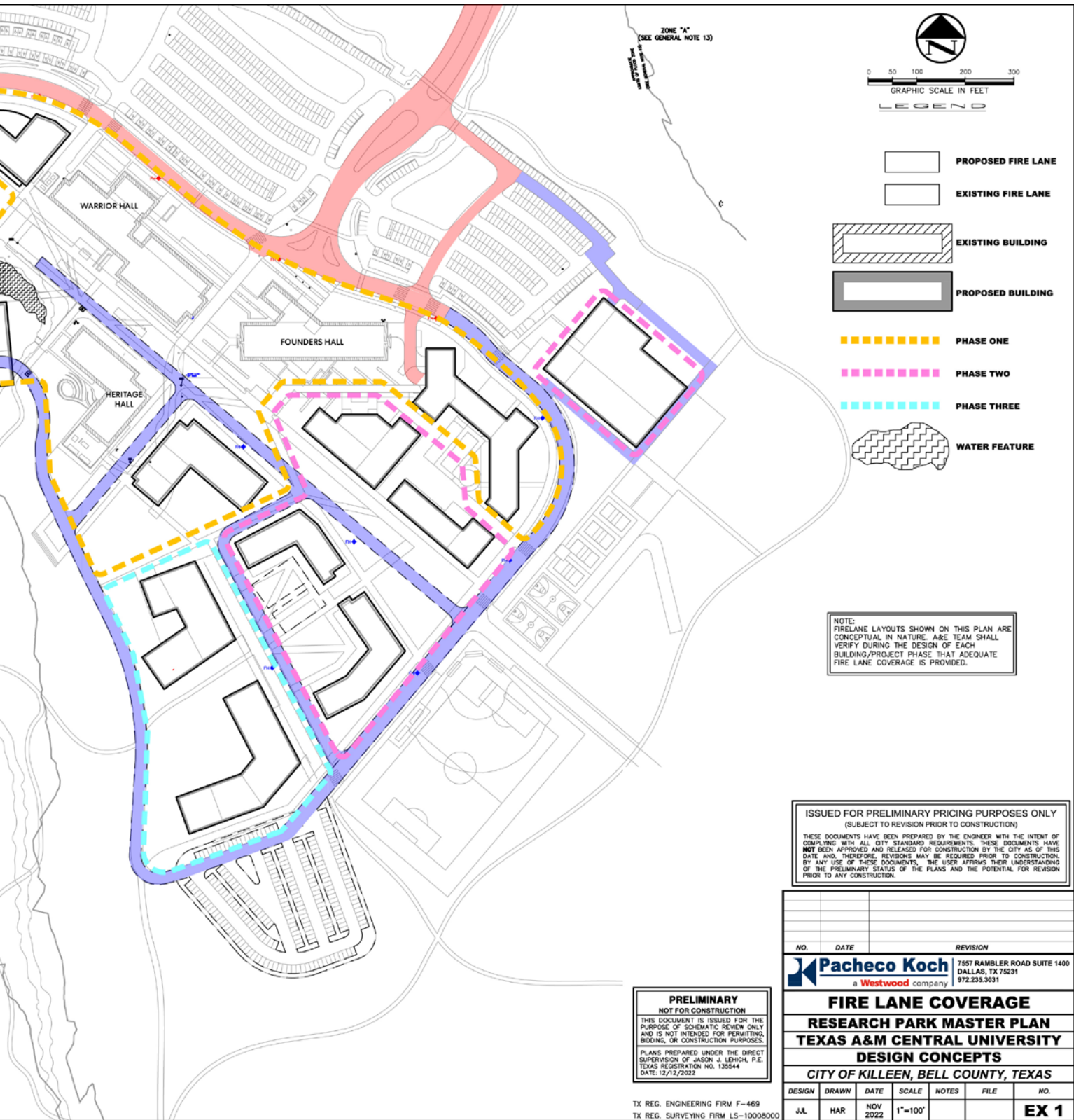
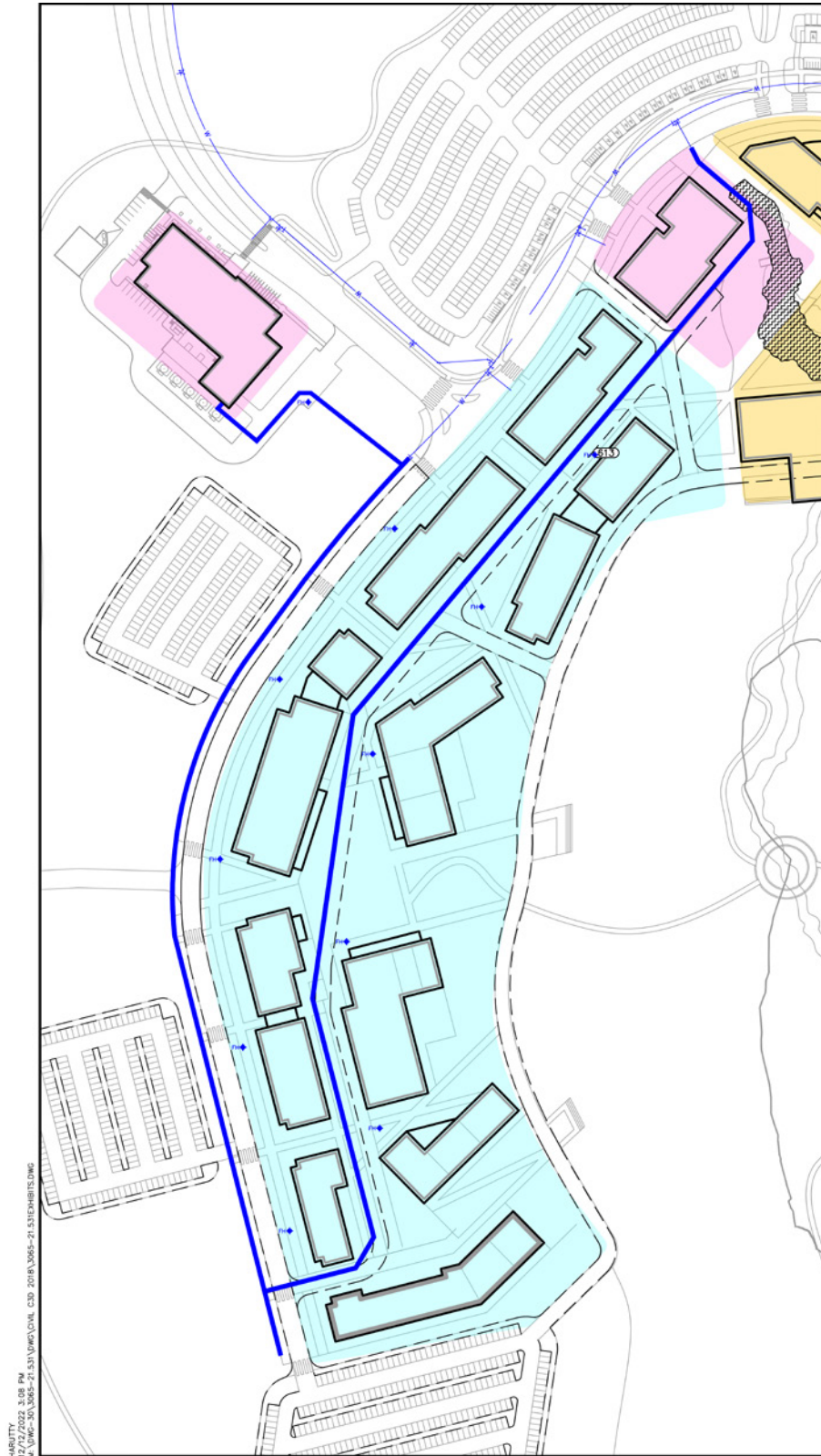


Exhibit 2: Water Line



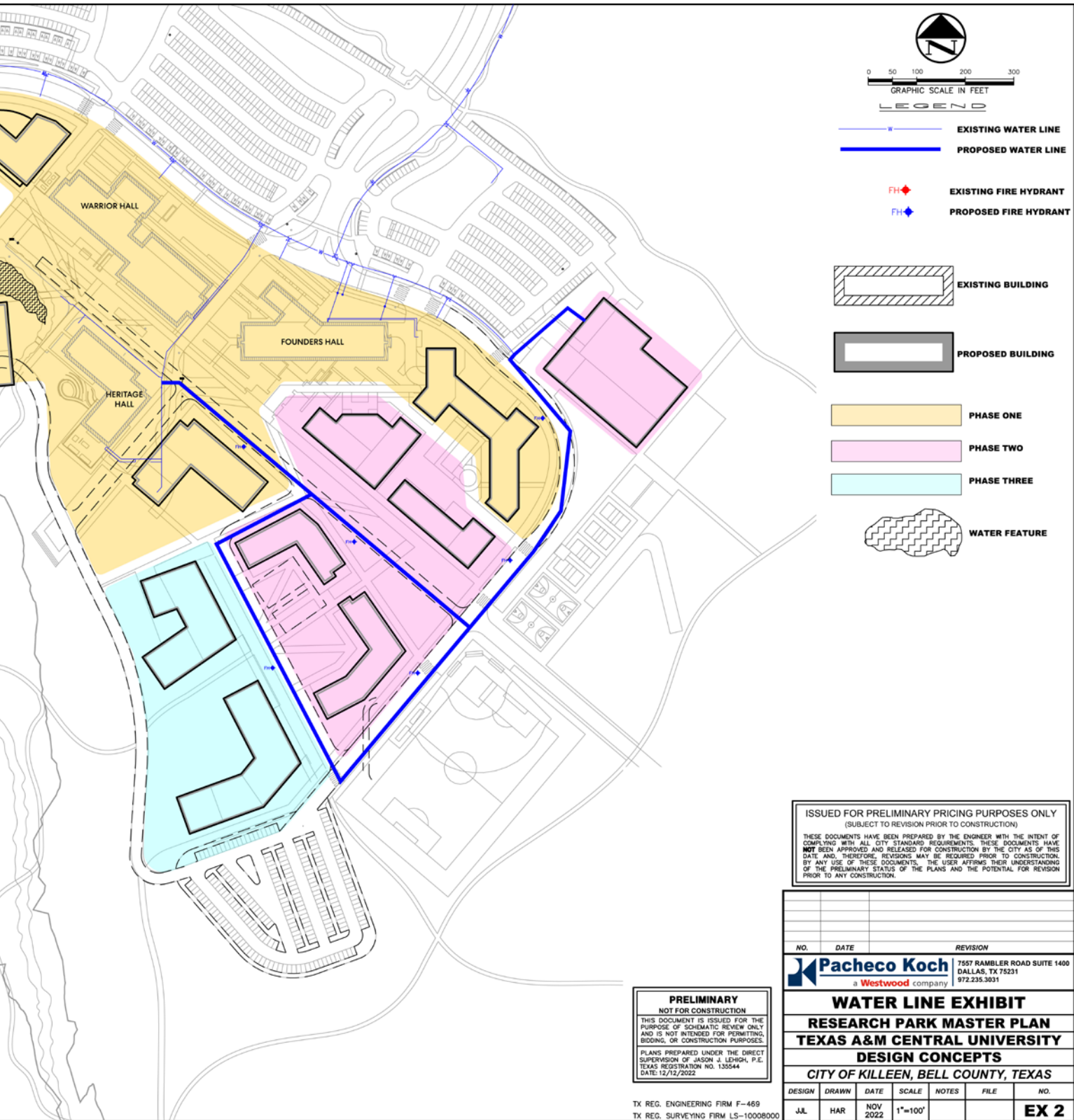
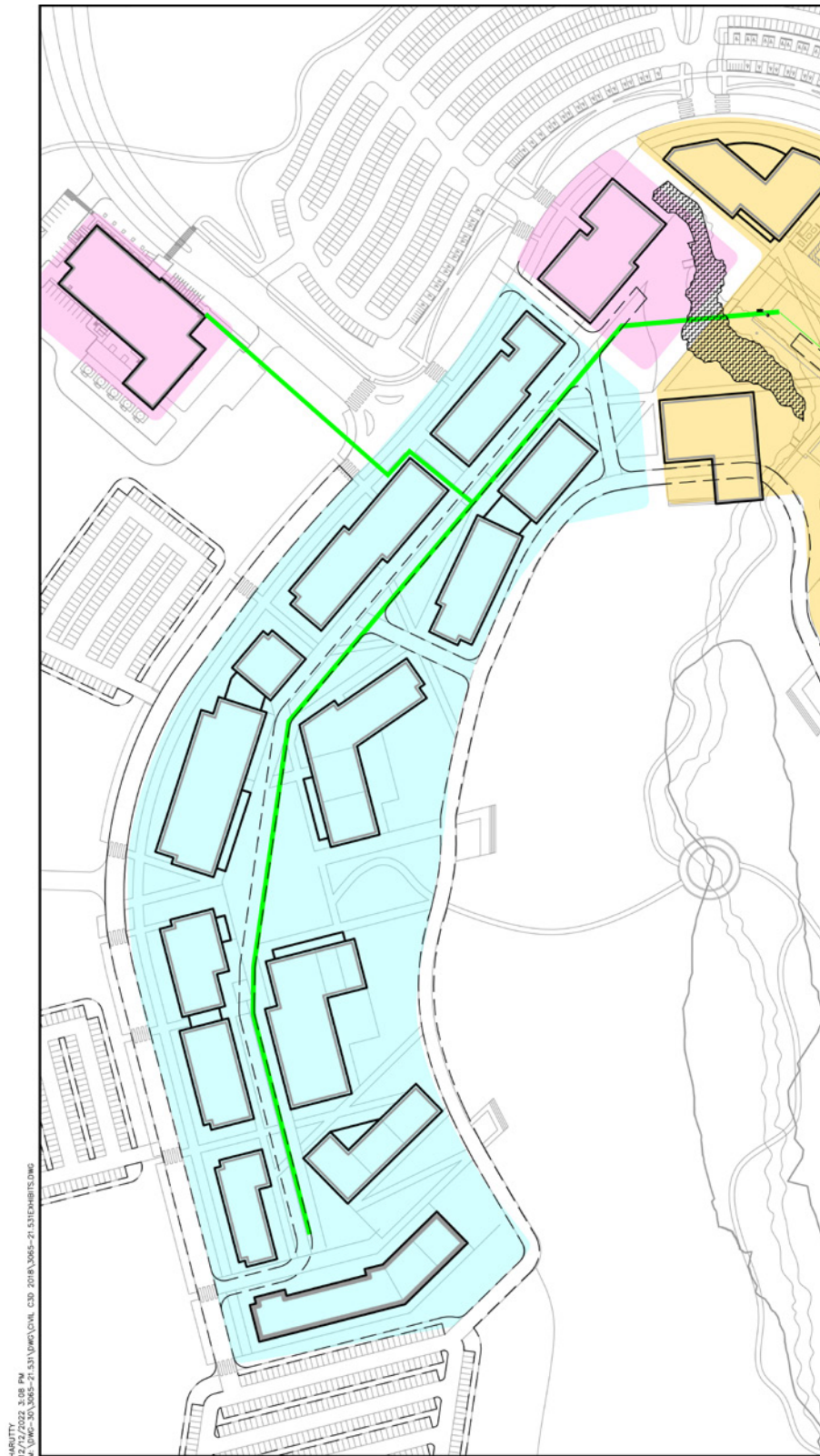


Exhibit 3: Sanitary Sewer



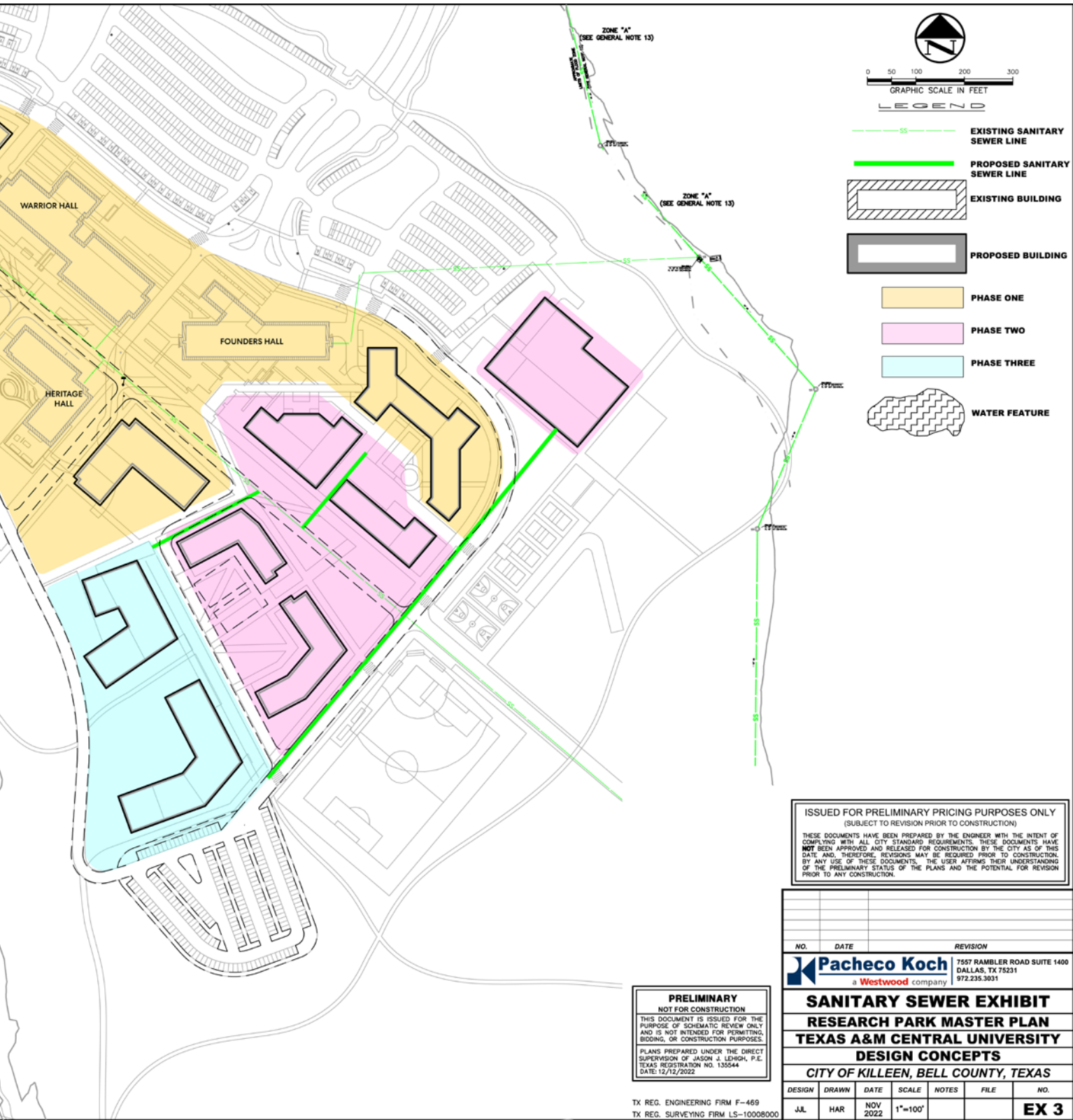
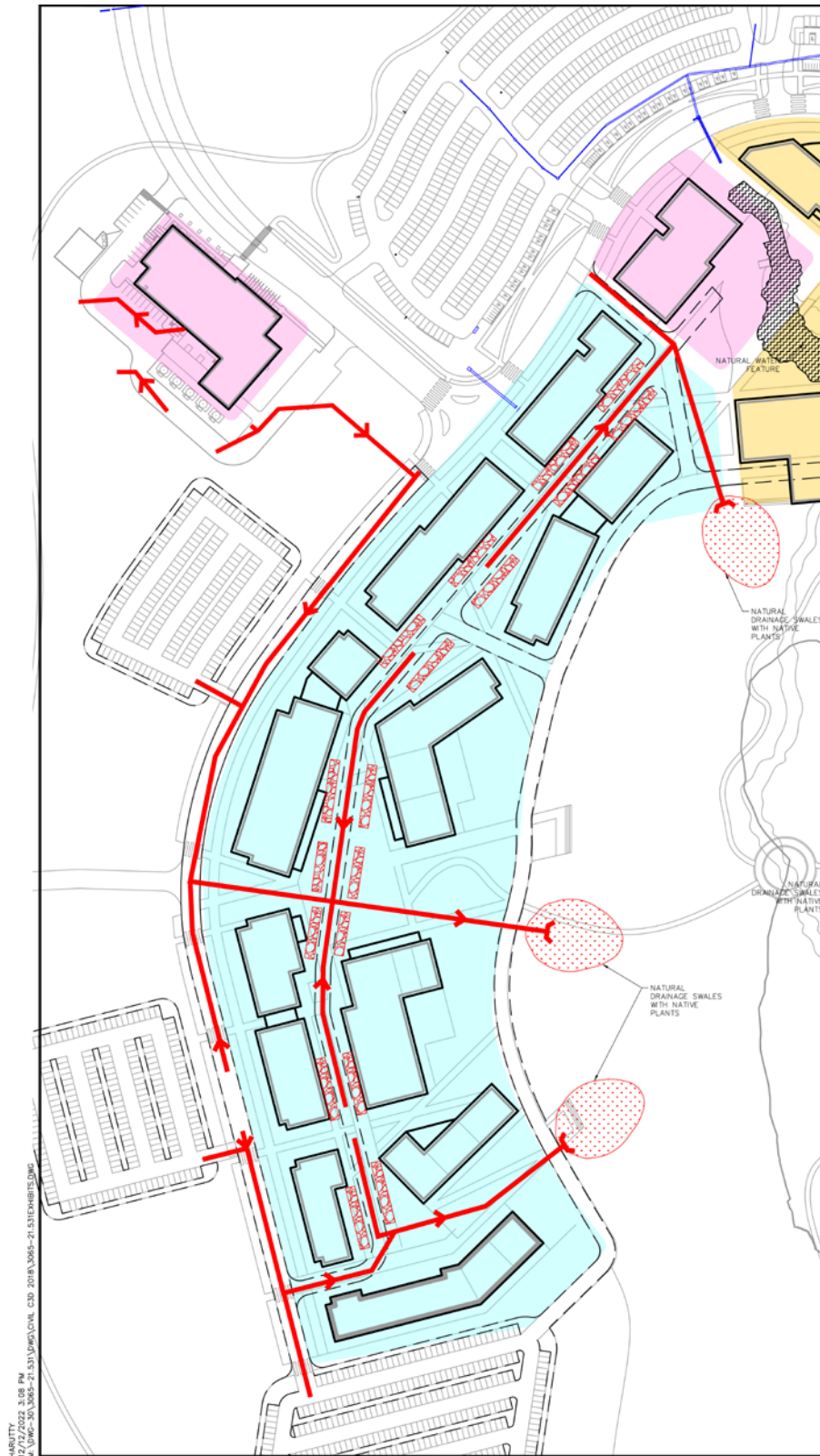


Exhibit 4: Storm Sewer



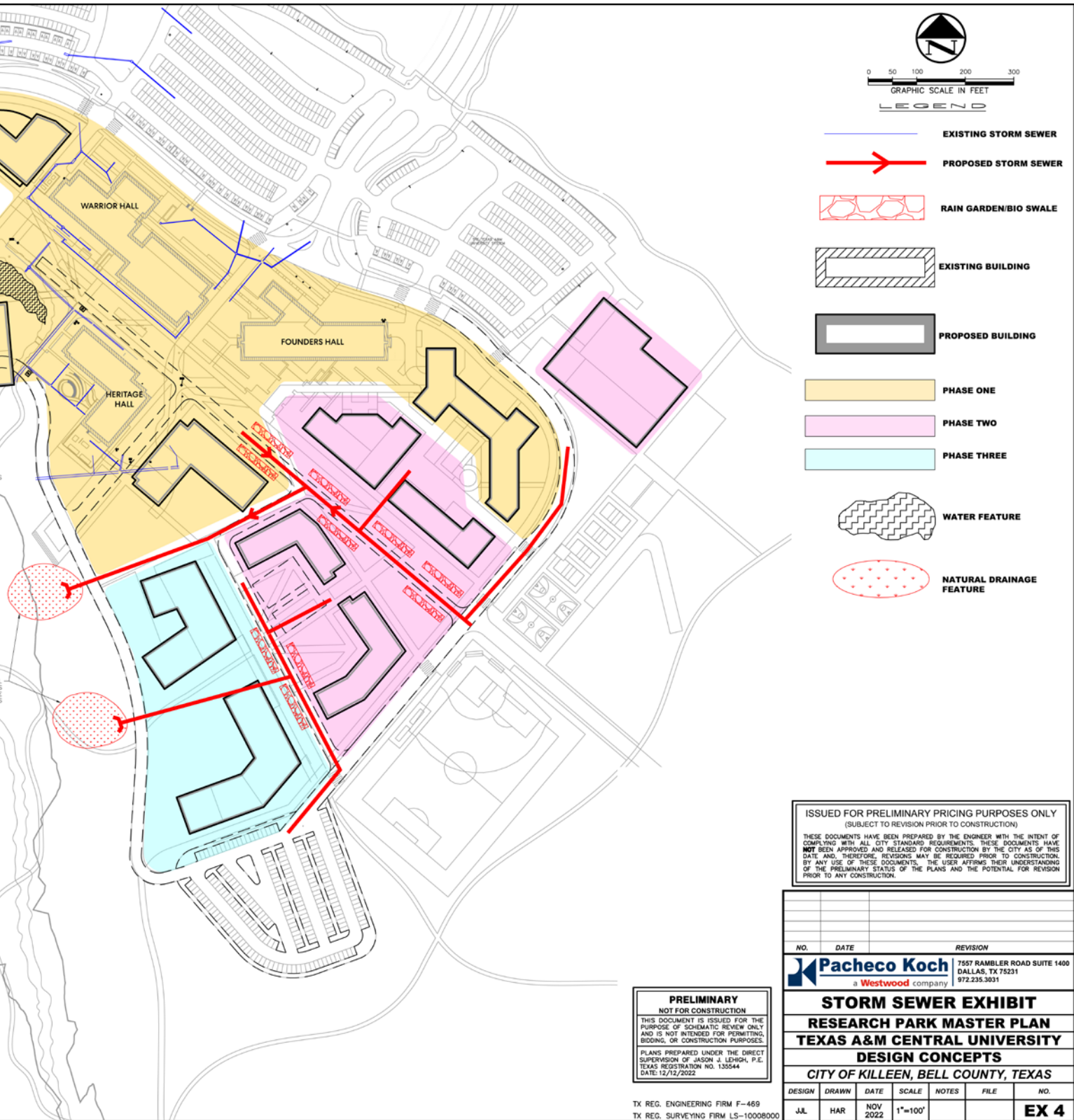
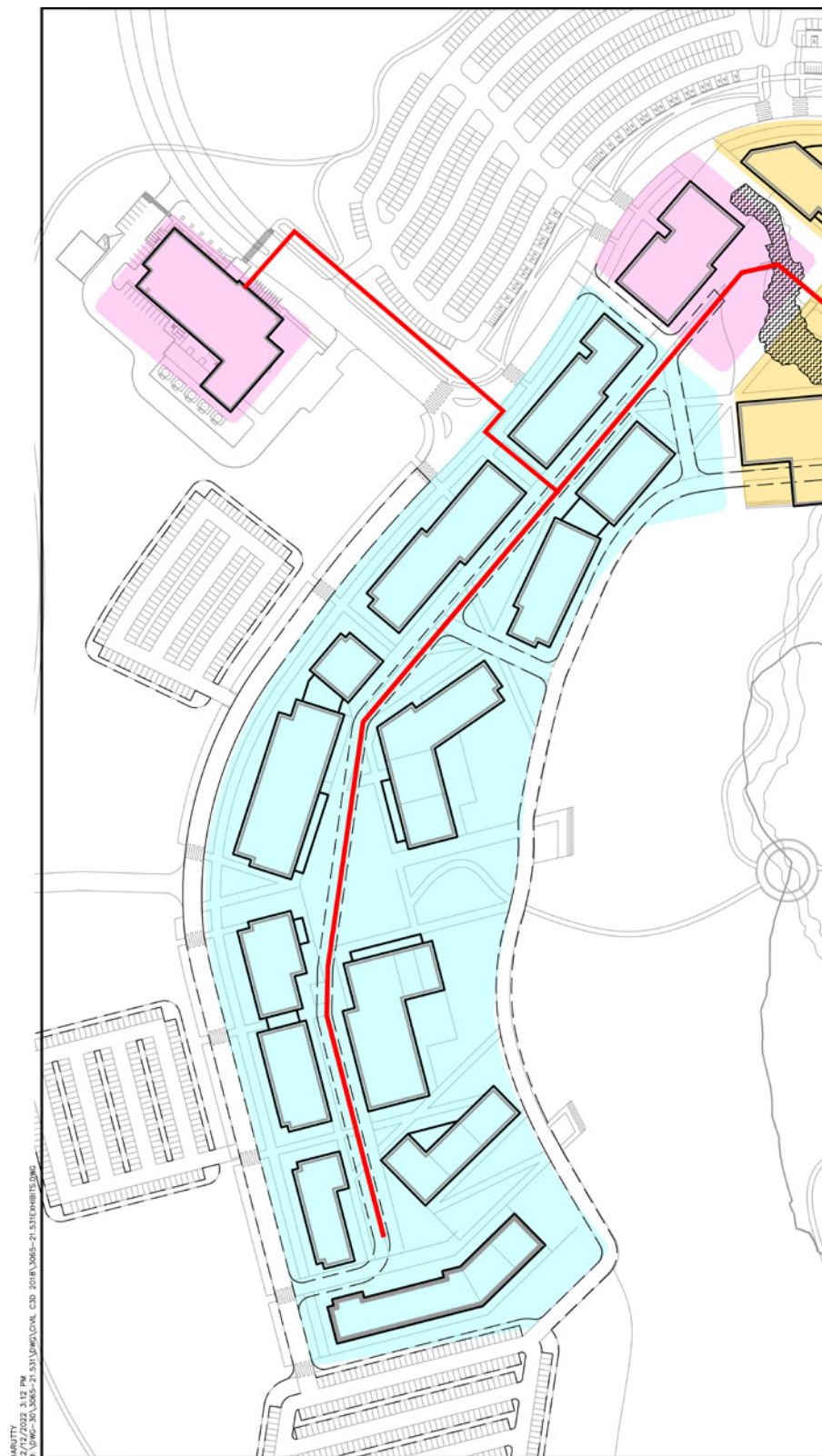


Exhibit 5: Data Duct Bank



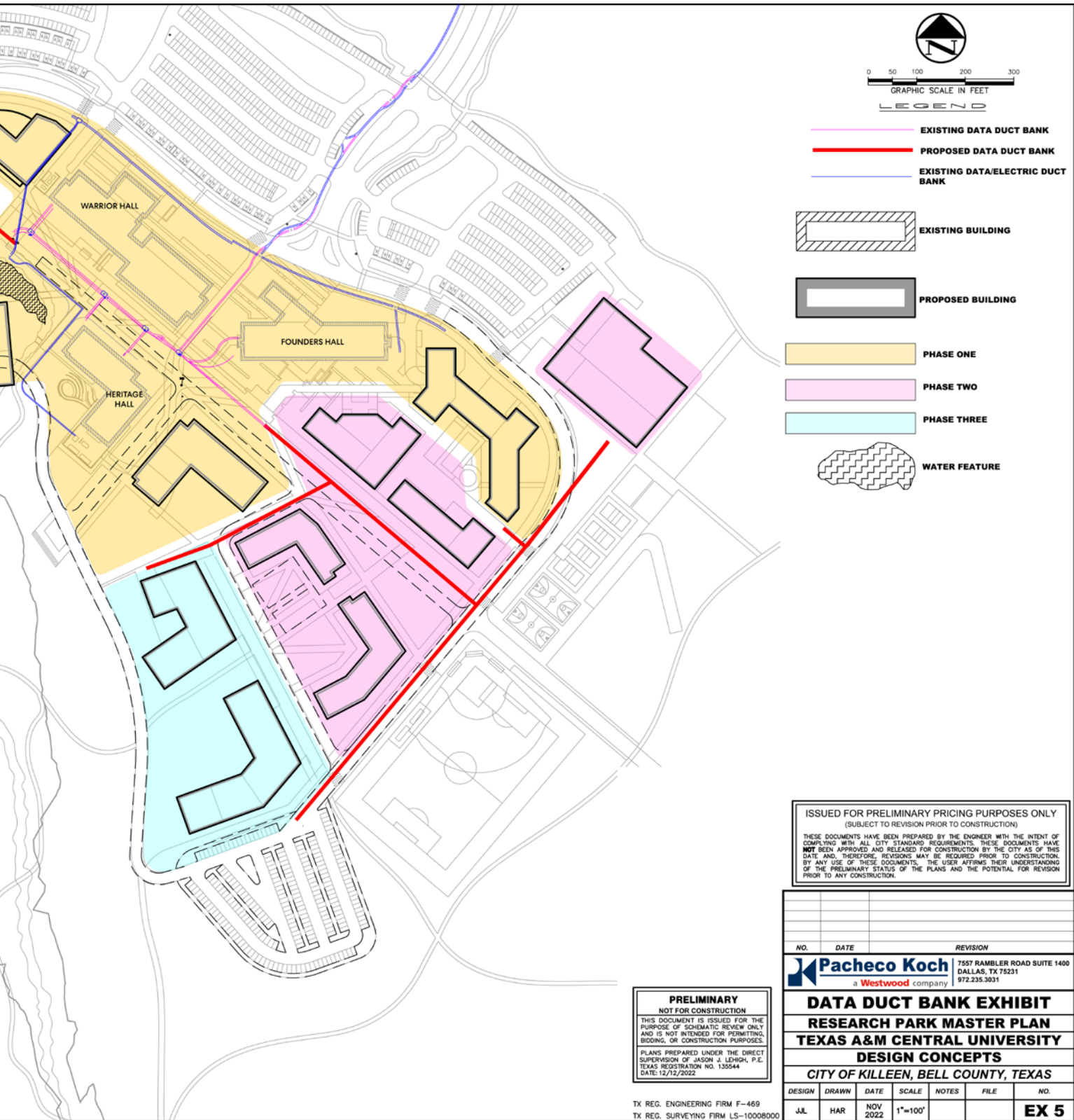


Exhibit 6: Electric Duct Bank

