



 THE UNIVERSITY OF TENNESSEE
CHATTANOOGA

UTC CAMPUS MASTER PLAN

 DLRGROUP

MARCH 6, 2023
SBC PROJECT NO. 540/005-01-2019

CONSULTANT TEAM

DLR Group, Campus Planning

Franklin Architects, Local Architect

Comprehensive Facilities Planning, Inc., Space Needs Assessment

Wachalski Advisory, Student Life

Barge Design, Landscape Architect

March Adams, Mechanical Engineering

Connico, Cost Estimator

Smith Gee Studio, Community Consultant

TABLE OF CONTENTS



EXECUTIVE SUMMARY

A Message from the Chancellor	1
Introduction	3
Planning Context	4
Planning Process	5
Planning Alignment	6
Goals & Objectives	7
Master Plan Components	8
Enrollment Projections	10
Space Needs Assessment	11
Planning Themes and Framework	16
Future Campus Vision	17
Facility Recommendations	18
Open Space Recommendations	20
Circulation Recommendations	24
Planning Boundary and Land Acquisition	26
Phasing and Implementation	28
Acknowledgments	34

1 - HISTORY AND OVERVIEW

Campus Heritage	41
Community Context	42
Distinctive Attributes	43
Strategic and Academic Planning	44
Prior Planning Context	47

2 - STRATEGIC SPACE NEEDS & OPPORTUNITIES

Assumptions and Enrollment Projections	51
Current Space Utilization	54
Projected Space Needs	55
Development Opportunity Areas	58

3 - PLANNING ASSUMPTIONS & ASSESSMENT

Regional Context and Presence	62
Planning Boundary and Land Acquisition	64
Facility Condition and Suitability	66
Facility Uses	68
Open Space	74
Circulation and Parking	76
Utilities Infrastructure	88

4 - MASTER PLAN VISION

Planning Principles	96
Facility Use Recommendations	99
Campus Open Space and Public Realm Recommendations	103
Campus Circulation Recommendations	105
Supporting Utility Infrastructure Improvements	112
Sustainability Objectives	114
Safety and Security	116

5 - IMPLEMENTATION FRAMEWORK

Introduction	121
Short-Term Priorities	122
Mid-Term Planning to Meet Growth	124
Long-Term Opportunities	126

6 - APPENDIX

Space Analysis Report	
Engagement Report	

An aerial photograph of the Chattanooga University campus. The image shows a large, circular arena on the left, several multi-story brick buildings with blue roofs in the center, and a tennis court with a blue roof on the right. The campus is surrounded by greenery and parking lots. The text "We are" is written in a white, italicized font, and "CHATTANOOGA'S UNIVERSITY" is written in large, bold, white and yellow letters across the center of the image.

We are

**CHATTANOOGA'S
UNIVERSITY**



OUR JOURNEY TO EXCELLENCE

The University of Tennessee at Chattanooga, located in the heart of a city nationally recognized for its entrepreneurial culture and outdoor recreational activities, offers 47 baccalaureate degrees with 98 program concentrations; 19 certificate programs; 22 master's programs with 43 program concentrations; an education specialist program with three program concentrations; and six doctoral degrees with nine program concentrations.

UTC and the city have connected to build partnerships that enrich student learning and growth while meeting workforce development needs. UTC has been recognized with the Community Engagement Classification by the Carnegie Foundation for the Advancement of Teaching, a national designation exemplifying the extraordinary alliances faculty, staff and students continue to foster within the community and beyond.

The University continues to evolve and adapt to the changing needs of businesses and students. New programs include the Bachelor of Applied Leadership, a fully online bachelor's degree program for students with previous college, military or work experience who want to complete their undergraduate degrees; the Bachelor of Applied Science in Mechatronics, which enables students to work hands-on with robots and prepare for opportunities in this rapidly expanding field; and the Bachelor of Applied Science in Information Technology in Cybersecurity, which will prepare students to assess the security needs of computer and network systems and recommend safeguard solutions. The programs are aligned with the needs of our community and state for educated professionals in these areas.

Students at UTC participate in innovative, diverse learning experiences inside and outside the classroom. These experiences include, internships in the region, capstone projects that have a lasting impact, life-changing study abroad programs, and cutting-edge research both on and off campus. Student life is vibrant, engaging and supplemented by a seemingly infinite number of off-campus adventures in the greater Chattanooga community.

DR. STEVEN R. ANGLE, UTC CHANCELLOR

THE UNIVERSITY OF TENNESSEE AT CHATTANOOGA VISION PLAN (10+ YEARS)



LEGEND

- UTC PROPERTY LINE
- PLANNED CONSTRUCTION
- FUTURE RENOVATION
- UTC BUILDINGS
- NON-UTC BUILDINGS
- ADJACENT PLANNING INITIATIVE

INTRODUCTION

The UTC Campus Master Plan Update is an ambitious, yet realistic, shared vision that will guide the physical development of UTC over the next decade and beyond.

This Plan furthers the University's long-standing mission and documents the vision for the physical campus environment. It outlines decisions regarding the prioritization of needs, including the analysis and assessment that ground recommendations for the physical campus environment, which address land use, open space, infrastructure, and circulation.

The purpose of the Campus Master Plan Update is to:

- Craft a vision for the future that aligns with the strategic direction of the University.
- Create a guide for physical development over time.
- Establish a basis for informed decision-making going forward.
- Strengthen relationships across the campus and within the community.
- Provide a road map and tools for implementation.

Planning is an ongoing process, and a flexible framework must be in place that can respond to current and future needs. While the goals, principles, and values of the Master Plan may remain consistent over time, the physical implementation of these may need to evolve to meet any unanticipated changes. The Campus Master Plan Update is developed with the intent to be adaptable to the changing needs of the institution.

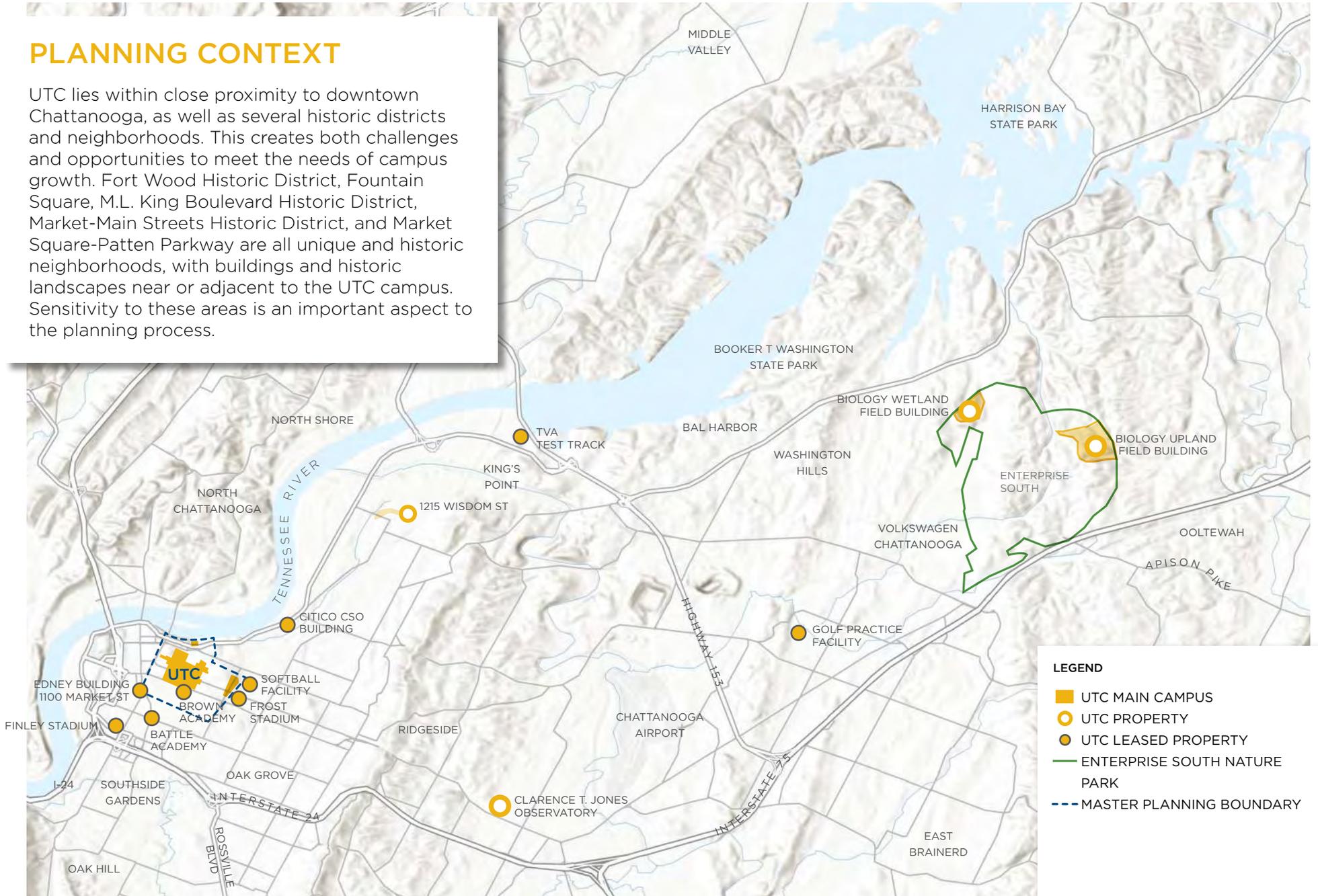
ALIGNMENT WITH THE CITY OF CHATTANOOGA

RELEVANT GOALS OF THE CITY OF CHATTANOOGA'S ONE CHATTANOOGA PLAN THAT SUPPORT THE UTC CAMPUS MASTER PLAN UPDATE:

- **Build a universal path to early learning**
- expanding access to early learning programs for all families
- **Ensure affordable housing choices for all Chattanoogaans** - including the expansion of supportive housing resources available to end chronic homelessness
- **Improve local infrastructure + public transit** - composing long-term maintenance plans and investing in sustainable and resilient infrastructure
- **Build a competitive regional economy**
- growing household incomes for all Chattanoogaans
- **Close the gaps in public health**
- addressing racial + economic disparities in public health outcomes
- **Provide responsive and effective local government** - increasing opportunities for residents to engage with local government

PLANNING CONTEXT

UTC lies within close proximity to downtown Chattanooga, as well as several historic districts and neighborhoods. This creates both challenges and opportunities to meet the needs of campus growth. Fort Wood Historic District, Fountain Square, M.L. King Boulevard Historic District, Market-Main Streets Historic District, and Market Square-Patten Parkway are all unique and historic neighborhoods, with buildings and historic landscapes near or adjacent to the UTC campus. Sensitivity to these areas is an important aspect to the planning process.



LEGEND

- UTC MAIN CAMPUS
- UTC PROPERTY
- UTC LEASED PROPERTY
- ENTERPRISE SOUTH NATURE PARK
- MASTER PLANNING BOUNDARY

REGIONAL CONTEXT & PRESENCE



CAMPUS PLANNING PROCESS

A successful plan is only built with critical input from students, faculty, staff, administrators, and community members. Through an extensive engagement strategy, the planning team met with the campus and community throughout the planning process.

Workshops were held for input from the Campus Master Plan Update committees, campus community, and the regional community.

The primary goal of the workshops was to receive input, feedback, and direction to drive the planning process. Stakeholders included students, staff, faculty, administrators, partner organizations, and neighbors.



PLANNING ALIGNMENT

The Campus Master Plan Update is the physical manifestation of the UTC Strategic Plan and the academic mission of the University.

Following the UTC Strategic Plan for 2021-2025, the Master Plan Update aligns with the objectives, strategies and tactics outlined in the Strategic Plan.



Teaching and Learning: UTC will transform the lives of our students and the futures of our region by increasing access to a distinctive model of education, grounded in the liberal arts and tied closely to workforce opportunities.



Diversity and Inclusion: UTC will respond to the needs of students and our region by modeling inclusive excellence through diverse representation and aligned benchmark indicators.



Research and Innovation: UTC will impact our community and enhance the educational experience of our students by sustaining the scholarly, creative and entrepreneurial activity of our faculty and students.



Stewardship and Resources: UTC will ensure the sustainability of our institution and the vitality of our students, faculty, staff and community by excelling in resource development and stewardship.

UTC STRATEGIC PLAN

VISION

We engage students, inspire change and enrich community

MISSION

The University of Tennessee at Chattanooga is a driving force for achieving excellence by actively engaging students, faculty and staff, embracing diversity and inclusion, inspiring positive change and enriching and sustaining our community

VALUES

- We believe that students are the reason our institution exists.
- We affirm the essential function of a liberal arts education.
- We commit to transformational engagement with our community.
- We nurture a culture of creativity, scholarship and innovation.
- We embrace diversity and inclusion.
- We pursue excellence in all that we do.
- We live with integrity and civility.

CAMPUS MASTER PLAN UPDATE **GOALS AND OBJECTIVES**

Achieving the vision set forth in the Strategic Plan will require changes to the physical campus.

The UTC Campus Master Plan Update serves as a blueprint for rational building expansions and site improvements that preserve and renew existing facilities and reinforce the positive aspects of the campus. The following goals of the Campus Master Plan Update guided the development of the plan:

01

Provide equity in amenities and experience throughout the campus including dining, recreation, study and gathering

02

Increase the number of beds on campus to align with enrollment projections and demand

03

Complete north-south pedestrian connections to anchor and connect major student and academic programs

04

Incorporate flexible and interdisciplinary space into new buildings and major renovations for both instruction and research

05

Address future space needs within UTC's existing campus property with a focus on flexibility, optimization, infill and density

MASTER PLAN COMPONENTS



ENROLLMENT

Projections with a timeline of five to 10 years, supported by demographics and history for consideration in the development of the annual capital budget.



FACILITIES CONDITION

High-level conditions and areas for further evaluation, including recommended actions to maintain and upgrade facilities programs.



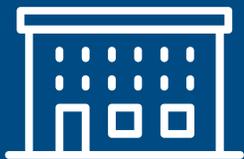
LAND ACQUISITION

Full inventory of land by ownership and priority land acquisitions or disposal.



INFRASTRUCTURE

General condition and age of existing infrastructure systems, including comparison between current demand and current capacity with future demand.



HOUSING & DINING

Replacement and reconfiguration of existing housing and dining facilities, student centers and related student service facilities.



SECURITY

Consideration for site security, campus access and access to buildings, recreation / athletic fields and related public areas.



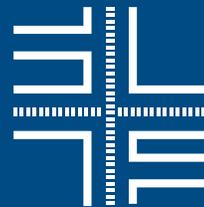
ONGOING CAPITAL IMPROVEMENT PLANS

Near term five year plan including capital outlay, capital maintenance, and major disclosed projects.



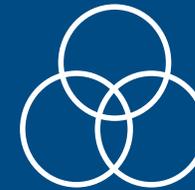
SPACE NEEDS

E&G space inventory and analysis based on THEC Space Guidelines, plus alternative analysis based on national standards and best practices to determine future space needs.



SITE CONSIDERATIONS

Site plans analyzing existing relationships between campus systems and features, including parking. Proposed improvements to address deficiencies.



DESIGN GUIDELINES

Major campus design objectives articulate and address approaches to implementing outcomes through architecture, landscape design, and historic preservation.



STUDENT SERVICES

Considerations for one-stop-shops to support student needs and related items of student interest, including housing, dining and recreation.



ATHLETICS & RECREATION

Improvements to existing athletic, intramural and recreational facilities, as well as facilities for student wellbeing.



IMPLEMENTATION & COST

Prioritization of all recommended projects per near/mid/long term phasing to support the development of the annual capital budget.

MASTER PLAN GUIDELINES AND COMPONENTS

The Tennessee Higher Education Commission (THEC) coordinates and supports the efforts of higher education institutions throughout the State of Tennessee. THEC has established guidelines for master planning at the institution level. The guidelines outline each of the components that are required within the plan. Overall, Master Plans should address physical needs in the context of student retention and success, as well as statewide higher education goals and policies.

THEC Guidelines include Space Needs, Enrollment, Facilities Conditions, Site Considerations, Design Guidelines, Land Acquisition, Infrastructure, Student Services, Housing and Dining, Security, Athletics and Recreation, Implementation, and Capital Planning.

This Master Plan is consistent with UTC's current Strategic and Academic Plans, linking the master plan's identified goals in implementable physical form. In addition, the THEC Guidelines provide organization for the variety of important quantitative and qualitative data collected throughout the analysis, engagement, and concept development portions of the master planning process.

UTC leadership and the planning team integrated the guidelines and components throughout the master planning process. This report details each component according to THEC requirements.



ENROLLMENT PROJECTIONS

This Master Plan Update projects an increase in institution-wide on-ground full-time equivalent (FTE) student enrollment of 28.5% between Fall 2021 and Fall 2031, which reflects an approximate average annual increase of 2.8%, or approximately 283 FTE/year. This growth is expected to be driven by increased enrollment in existing programs, especially those in the College of Engineering and Computer Science. These projections are in alignment with the previous (2012) Master Plan, which projected enrollment growth from 9,849 FTE students in Fall 2011 to an intermediate target of 11,194 and a long-term target of 12,916.

FALL SEMESTER FTE ENROLLMENT BY COLLEGE (ON-GROUND)

COLLEGE	2021 (Existing)	2031 (Projected)	Percent Difference
College of Arts & Sciences	3,692	4,406	19%
College of Engineering & Computer Science	1,375	2,270	65%
College of Health, Education & Professional Studies	2,861	3,405	20%
Rollins College of Business	2,005	2,654	32%
No college	0	25	n/a
Total	9,932	12,760	28.5%

Reference: Table 3, Page 10

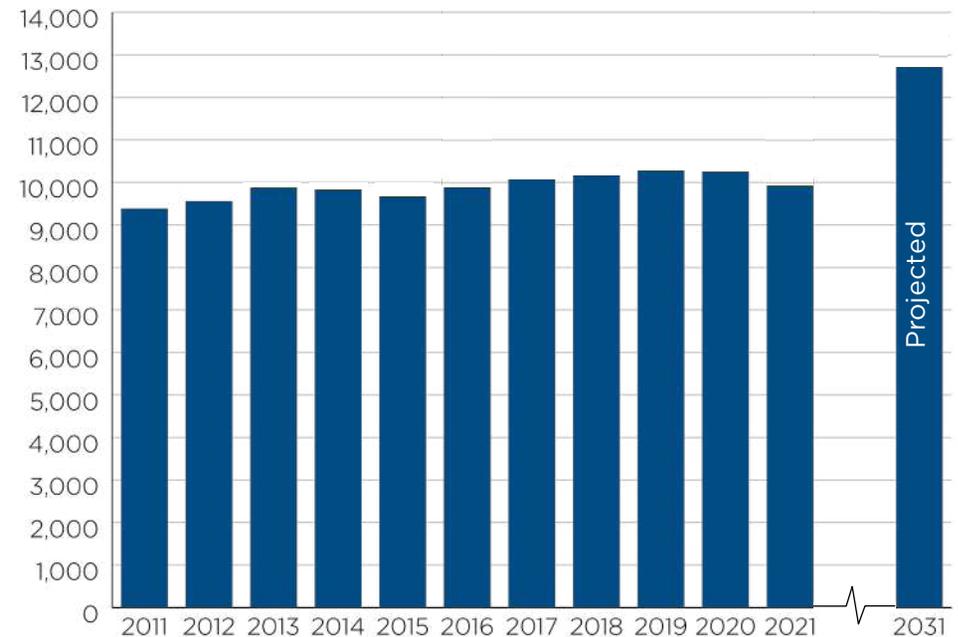
PROPOSED NEW ACADEMIC PROGRAMS

- Business-Related Online Program
- Cybersecurity
- Health-Related Program Expansion
- Integrated Master Program
- Integrated Studies Realignment
- Master's Degree in Management
- Social Sciences Online Program
- STEM Online Program
- Undisclosed Community Partner Future Program

Enrollment projections were developed based on the past decade of enrollment and proposed new academic programs. Projections were developed for each department and combined to create the overall total by college and institution wide. For departments that experienced growth during the past decade, a linear trend was used to project forward. For those departments with a decrease in enrollment, a logarithmic trend line was used to moderate the decline. Enrollment projections previously developed through the Provost's office were also incorporated into the Master Plan projections.

The chart below shows institution-wide historic and projected enrollment. Fall 2021 FTE enrollment was 9,932 students and Fall 2031 on-ground projected enrollment is 12,760 FTE students.

FALL SEMESTER FTE ENROLLMENT (ON-GROUND)

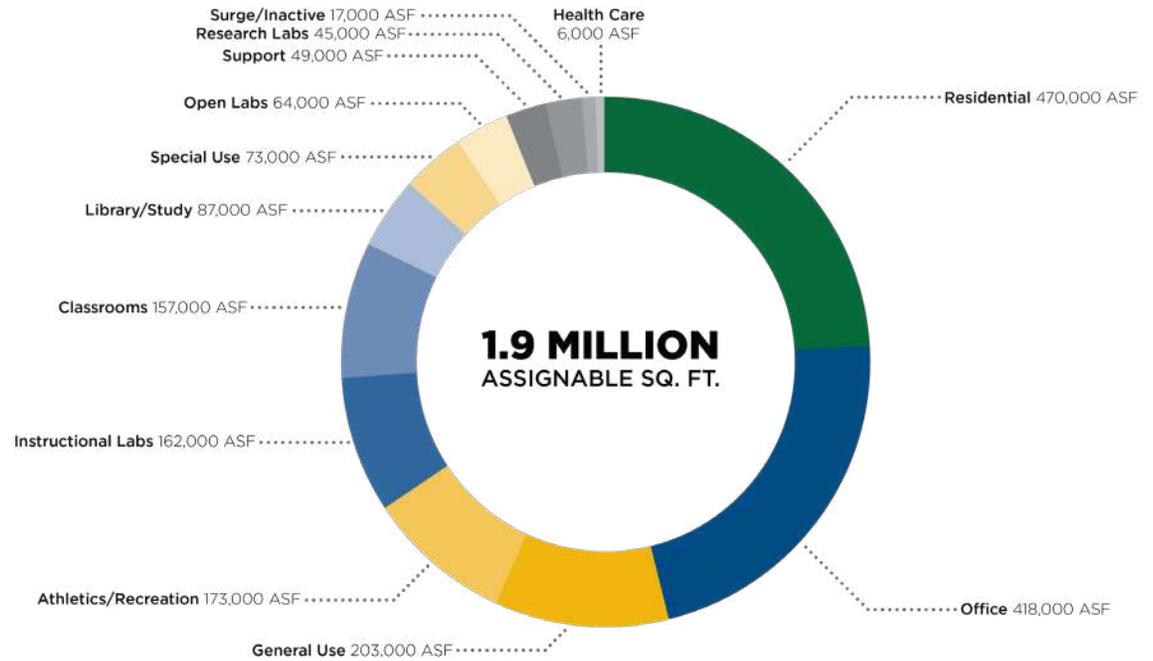


SPACE NEEDS ASSESSMENT

EXISTING SPACE

A comprehensive inventory of existing University space was collected and validated as part of the assessment process, including a verification of room use, seating capacity, and departmental assignment.

	Assignable Sq. Ft. (ASF)	ASF per FTE Student
Classrooms	157,090	15.8
Instructional Labs	162,247	16.3
Open Labs	63,552	6.4
Research Labs	45,017	4.5
Offices	418,034	42.1
Library	86,614	8.7
Special Use	73,248	17.4
Athletic/Recreation	172,573	7.4
General Use	203,132	20.5
Campus Support	48,836	4.9
Health Care	5,784	0.6
Residential	469,670	47.3
Surge/Inactive	16,941	1.7
Total	1,922,738	194



Reference: Table 6, Page 17

Projected Space Needs - E&G Spaces

The table below shows the amount of existing space in each category, as well as the amount of space needed in each category according to the THEC Space Guidelines, both today and with future growth. Deficits (shown in red) indicate a need for additional space. Future (2031) needs assume that the following improvements have been constructed:

- Hunter Hall system upgrades
- McKenzie Arena Addition
- Health Sciences Building
- Innovation & Advanced Manufacturing Application Center (I-AMAC)
- 540 McCallie Avenue Building upgrades
- University Center Renovation

There is a need for additional teaching lab, research, and physical education space both today and in the future. These needs are addressed in the recommended plan. The amount of projected classroom and office space is greater than the current need, indicating that there may be potential to repurpose some of these spaces. Detailed space needs are shown in the appendix.

Space Category	Equiv FICM	Existing E & G Assignable Square Feet (ASF)	THEC Space Needs Model				Alternative Space Needs Model	
			Current ASF Need		Projected ASF Need		Projected ASF Need	
			THEC Model	Difference from Existing	THEC Model (1)	Difference from Existing	Alternative Model (1)	Difference from Existing
I -Classrooms	1xx	157,090	75,626	81,464	126,704	30,386	142,159	14,931
II-Lab/Studio	210, 215	162,247	246,917	(84,670)	318,569	(156,322)	202,415	(40,168)
III-Open Lab	220, 225	63,552	49,660	13,892	69,286	(5,734)	66,477	(2,925)
IV-Research	250, 255	45,017	59,537	(14,520)	63,258	(18,241)	184,886	(139,869)
V-Office (2)	3xx	378,696	241,291	137,405	286,645	92,051	364,953	13,743
VI-Library	4xx	86,614	83,014	3,600	96,876	(10,262)	104,827	(18,213)
Vii-Physical Education	520, 523, 525	75,905	177,252	(101,347)	208,085	(132,180)	135,175	(59,270)
Totals		969,121	933,297	35,824	1,169,423	(200,302)	1,200,892	(231,771)

(1) Includes 152,605 ASF from programmed space for the Fletcher Hall Addition, Health Sciences Building, I-AMAC and University Ctr. future projects.

(2) Existing office inventory excludes 39,338 ASF assigned to auxiliary operating units.

Reference: Table 7, Page 19

Projected Space Needs - Alternative Space Model

This table summarizes current and future space needs based on an alternative space needs model used by the planning team, which produces a different perspective from the THEC Space Guidelines, particularly with regard to teaching lab, research lab, and physical education space. In addition to the THEC space planning guidelines, the alternative model blends various planning methodologies including adaptation of innovative space planning approaches developed at other universities, application of accepted conventional space formulas and guidelines that have been tested and formulas and criteria developed by the consultants for space types not addressed by conventional approaches.

The alternative model also estimates the need for additional types of space (shown in gray). Planning assumptions provide the direction for student enrollment, personnel changes, and potential new programs. Interviews with the Deans and Vice Chancellors were conducted to review results, verify data, discuss space use, and provide program related data used to refine the modeling process.

(1) Existing comparative space data includes upgrade projects for Hunter Hall and 540 McCallie Building; University Ctr. Renovation; the McKenzie Arena Addition; and the new the Health Sciences Building and Innovation & Advanced Manufacturing Application Ctr. Does not include 32,680 ASF classified as unusable space.

(2) Projected space needs include 221,967 ASF of programmed space for the Fletcher Hall Addition, Health Sciences Building, I-AMAC, University Center Renovation and 540 McCallie upgrade capital projects.

(3) Future residential space needs include the demolition of Boling Apartments, construction of the New Residence Hall and the provision of an additional 505 beds to meet future demand.

(A total of 890 beds to meet the future needs).

Space Type		Existing ASF	Current		Projected	
			Calculated ASF Need	Difference from Existing	Calculated ASF Need	Difference from Existing
100	Classrooms	157,090	87,575	69,515	142,159	14,931
210	Teaching Labs	162,247	159,456	2,791	202,415	(40,168)
220	Open Labs	63,552	57,610	5,942	66,477	(2,925)
250	Research Labs	45,017	144,672	(99,655)	184,886	(139,869)
300	Offices	418,034	313,185	104,849	364,953	53,081
400	Library Space	86,614	94,178	(7,564)	104,827	(18,213)
500	Special Use Facilities	73,248	96,125	(22,877)	116,195	(42,947)
520	Athletics Space	78,826	78,826	0	78,826	0
520	Student Recreation Space	93,656	93,656	0	135,175	(41,519)
600	Other General Use Space	150	0	150	150	0
610	Assembly Facilities	50,076	43,071	7,005	45,874	4,202
620	Exhibition Space	10,306	8,769	1,537	10,170	136
630	Food Facilities	59,452	59,452	0	75,698	(16,246)
650	Lounge Space	18,030	22,473	(4,443)	22,254	(4,224)
660	Merchandising Space	20,656	12,665	7,991	16,169	4,487
670	Recreation	5,164	5,164	0	9,664	(4,500)
680	Meeting Rooms	39,298	35,238	4,060	57,476	(18,178)
700	Support Facilities	48,836	84,935	(36,099)	112,347	(63,511)
800	Health Care Facilities	5,784	7,358	(1,574)	9,315	(3,531)
900	Residential Space	469,670	469,670	0	751,451	(281,781)
	Unused	16,941	0	16,941	0	16,941
Totals - By Space Type		1,922,647	1,874,078	48,569	2,506,481	(583,834)
Total Surpluses						93,778
Total Deficits						(677,612)
Gross Square Feet (Deficit)						(1,129,353)

Reference: Table 17, Page 27

Space Needs by College - Alternative Space Model

This table presents current and future calculated space needs compared to existing space by major division and subdivision or college, based on the planning team's alternative space model.

For purposes of this plan, a separate space grouping called Campus-wide Space was identified to include spaces that are considered to be shared resources and are characterized by a broader availability to faculty, students, staff, or the public (classrooms, general assembly, exhibition, merchandising, and campus support facilities).

Projected needs show a net deficit of 583,834 ASF, or 29.9% more than existing. In the future projections, the College of Arts and Sciences and Engineering, and the College of Computer Science will have the largest space shortages. Among administrative units, the greatest future space shortage will be in the Enrollment Management and Student Affairs Divisions, due to an expansion of student housing to address planned enrollment growth.

Division/Subdivision or College	Existing Space -ASF	Current		Projected	
		Calculated ASF Need	Difference From Existing	Calculated ASF Need	Difference From Existing
Chancellor	14,606	10,506	4,100	10,506	4,100
Provost and Senior Vice Chancellor for Academic Affairs					
Academic Affairs	25,365	27,264	(1,899)	28,387	(3,022)
College of Arts and Sciences	266,196	289,902	(23,706)	347,443	(81,247)
College of Engineering and Computer Science	93,079	128,927	(35,848)	176,006	(82,927)
College of Health, Education and Professional Studies	109,437	130,163	(20,726)	156,066	(46,629)
Gary W. Rollins College of Business	37,808	48,383	(10,575)	82,940	(45,132)
UTC Library	111,671	113,316	(1,645)	125,668	(13,997)
Provost and Senior Vice Chancellor for Academic Affairs Totals	643,556	737,954	(94,398)	916,509	(272,953)
Vice Chancellor and Director of Athletics	81,770	80,989	781	80,989	781
Vice Chancellor for Communications and Marketing	11,031	10,289	742	10,289	742
Vice Chancellor for Development and Alumni Affairs	11,276	3,129	8,147	3,129	8,147
Vice Chancellor for Diversity and Engagement	1,416	1,445	(29)	1,445	(29)
Vice Chancellor for Enrollment Management and Student Affairs					
Chief Health Affairs Officer	12,319	12,239	80	14,496	(2,177)
Dean of Students	30,725	23,818	6,907	31,137	(412)
Enrollment	15,355	12,991	2,364	14,187	1,168
Enrollment Management and Student Affairs	5,422	6,256	(834)	7,199	(1,777)
Student Affairs	634,842	631,708	3,134	969,860	(335,018)
Student Success	14,941	12,945	1,996	14,015	926
Vice Chancellor for Enrollment Mgmt. and Student Affairs Totals	713,604	699,957	13,647	1,050,893	(337,289)
Vice Chancellor for Finance and Administration					
Auxiliary Services	32,243	30,002	2,241	42,687	(10,444)
Business Services	52,227	50,178	2,049	50,701	1,526
Emergency Services	6,923	4,555	2,368	4,555	2,368
Finance and Administration	4,280	2,418	1,862	2,418	1,862
Human Resources	2,616	2,486	130	2,486	130
Operations	18,378	6,134	12,244	6,134	12,244
Vice Chancellor for Finance and Administration Totals	116,667	95,773	20,894	108,982	7,685
Vice Chancellor for Information Technology	17,658	10,144	7,514	10,144	7,514
Vice Chancellor for Research & Dean of Graduate School	24,256	21,382	2,874	21,382	2,874
Campus-wide Space (1)	286,898	202,599	84,299	292,304	(5,406)
Totals - By Division	1,922,738	1,874,169	48,569	2,506,572	(583,834)

(1) This divisional category includes campus-wide shared space: Classrooms, General Assembly, Exhibition Merchandising & Campus Support.

Reference: Table 15, Page 25

STUDENT LIFE ASSESSMENT

As part of the Master Planning process, a planning and needs assessment was conducted for student life facilities that included four focus areas: student housing, dining, student centers, and student recreation and wellness facilities. The process included the review of existing facilities and operations, strategic visioning with the University's key stakeholders, student focus groups, needs assessment / programming, and facility concept development.

The following specific space needs were identified related to student life based on demand assessments and conversations with the University.

Student Housing

- Approximately 890 additional beds needed by 2031

Campus Dining

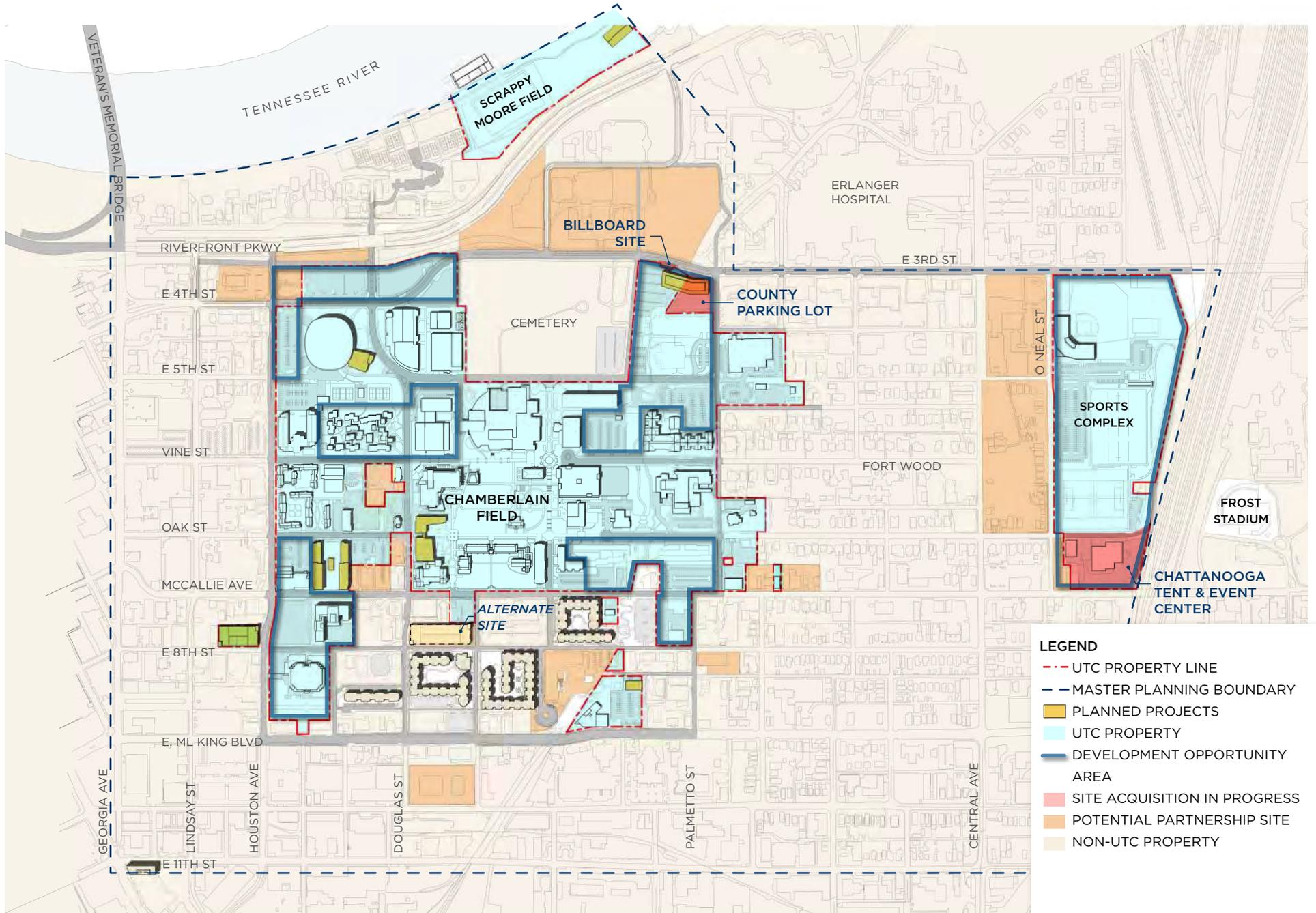
- Crossroads to be replaced with a new 450-seat community dining hall
- Additional 200 seats needed by 2031

University Center

- Major space deficits in student lounges, study areas, and meetings rooms
- Additional 16,500 asf needed, including E-gaming

Campus Recreation

- Additional 74,000 asf needed



DEVELOPMENT OPPORTUNITY AREAS

SPACE BLOCKS

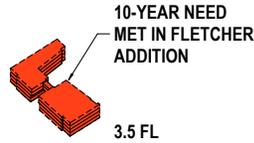
The following represents a total space need for 10-year projected enrollment, staffing and external research expenditures by division or College. Space blocks do not reflect proposed building massing. An assumption for a number of stories is shown based on typical floor plate widths for the proposed use.

The total student housing need includes the replacement of Boling Apartments and Lockmiller I & II.

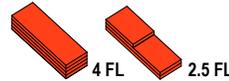
Total parking needs represent the full replacement of approximately 1,565 existing surface parking spaces on proposed development sites.

Additional assumptions include the following:

- A building grossing factor of 70% for Athletic and Recreation facilities
- A building grossing factor of 60% for all other facilities
- Assumption of 450 gross square feet per bed for student housing
- Assumption of 39 net square feet per seat for campus dining



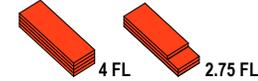
ROLLINS COLLEGE OF BUSINESS
75,220 GSF



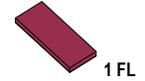
COLLEGE OF ARTS & SCIENCES
137,078 GSF



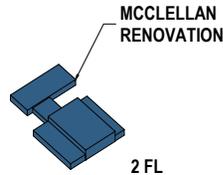
COLLEGE OF HEALTH, EDUCATION & PROFESSIONAL STUDIES
3,548 GSF



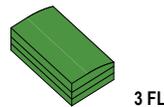
COLLEGE OF ENGINEERING & COMPUTER SCIENCE
138,212 GSF



STUDY SPACE
23,328 GSF



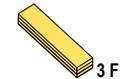
ATHLETICS
84,671 GSF



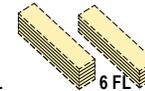
RECREATION
105,714 GSF



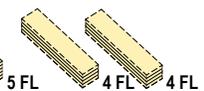
STUDENT AFFAIRS WORKSPACE
12,817 GSF



STUDENT HOUSING
109 BEDS
49,050 GSF



BOLING REPLACEMENT
403 BEDS
181,350



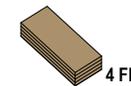
LOCKMILLER REPLACEMENT
292 BEDS
131,400 GSF



GENERAL USE/ STUDENT LIFE
33,555 GSF



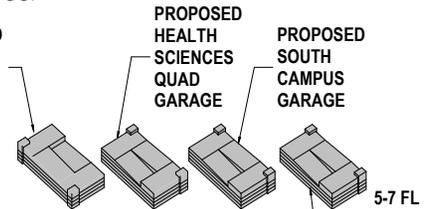
FOOD/ DINING
450 SEATS
34,250 GSF
(INCLUDES CROSSROADS REPLACEMENT)



CAMPUS & FACILITIES SUPPORT
105,070 GSF



CENTRAL UTILITY PLANT



POTENTIAL REPLACEMENT PARKING DEMAND
APPROX. 1,600 SPACES
(1,565 SPACES REMOVED IN DEVELOPMENT AREAS)

OPTIONAL GARAGE DEVELOPMENT AT ENGEL STADIUM



		GSF
1	Health Sciences Building Phase I	92,192
2	McKenzie Arena Addition (under construction)	57,000
3	Phase I Innovation and Advanced Manufacturing Application Center (I&AMAC) Lab	5,300
4	University Center Renovation	226,372
5	540 McCallie Renovation	173,979

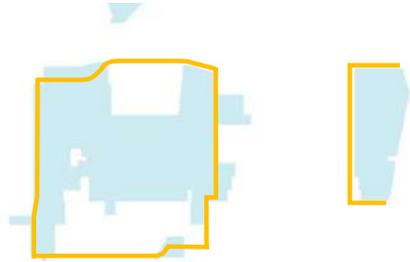
Limited to major facility upgrades or renovations and new construction only, excludes O&M projects including outlay and disclosed projects.

LEGEND

- UTC PROPERTY LINE
- PLANNED PROJECTS
- PROJECT RENOVATION
- PLANNED DEMO
- NON-UTC PROPERTY

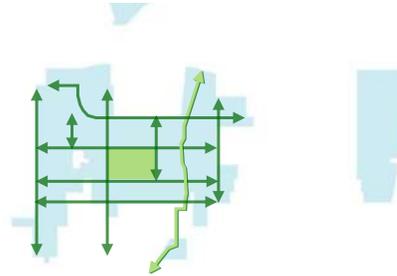
MAJOR FUNDED CAPITAL IMPROVEMENT PROJECTS

PLANNING THEMES AND FRAMEWORK



DEFINE A CAMPUS BOUNDARY

Establish a strong UTC identity along Houston, Third, Palmetto, and ML King. Minimize disruption to Fort Wood Historic District.



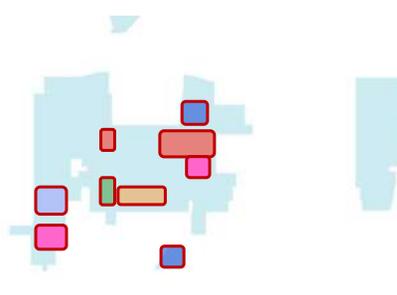
EXPAND QUALITIES OF THE CAMPUS CORE

Enhance physical and visual connections to Chamberlain Field. Partner with the City and community to improve the planting, security, and multi-modal character of Houston, Douglas, the Greenway, Palmetto, McCallie, Oak, Vine and Alumni so they represent the campus brand.



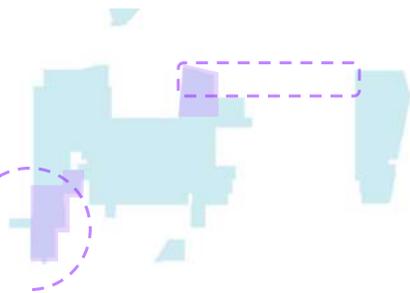
UPGRADE FACILITY CONDITIONS

Renovate older facilities to meet post-pandemic expectations and program targets. Re-purpose under-performing facilities. Replace where there is no ROI for renewal.



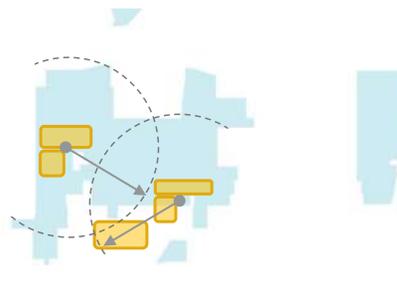
SHOWCASE ACADEMIC CENTERS

Locate new facilities and renovate existing facilities within a 5-minute walk to optimize program adjacencies and sense of “home base.” Promote collaboration between centers.



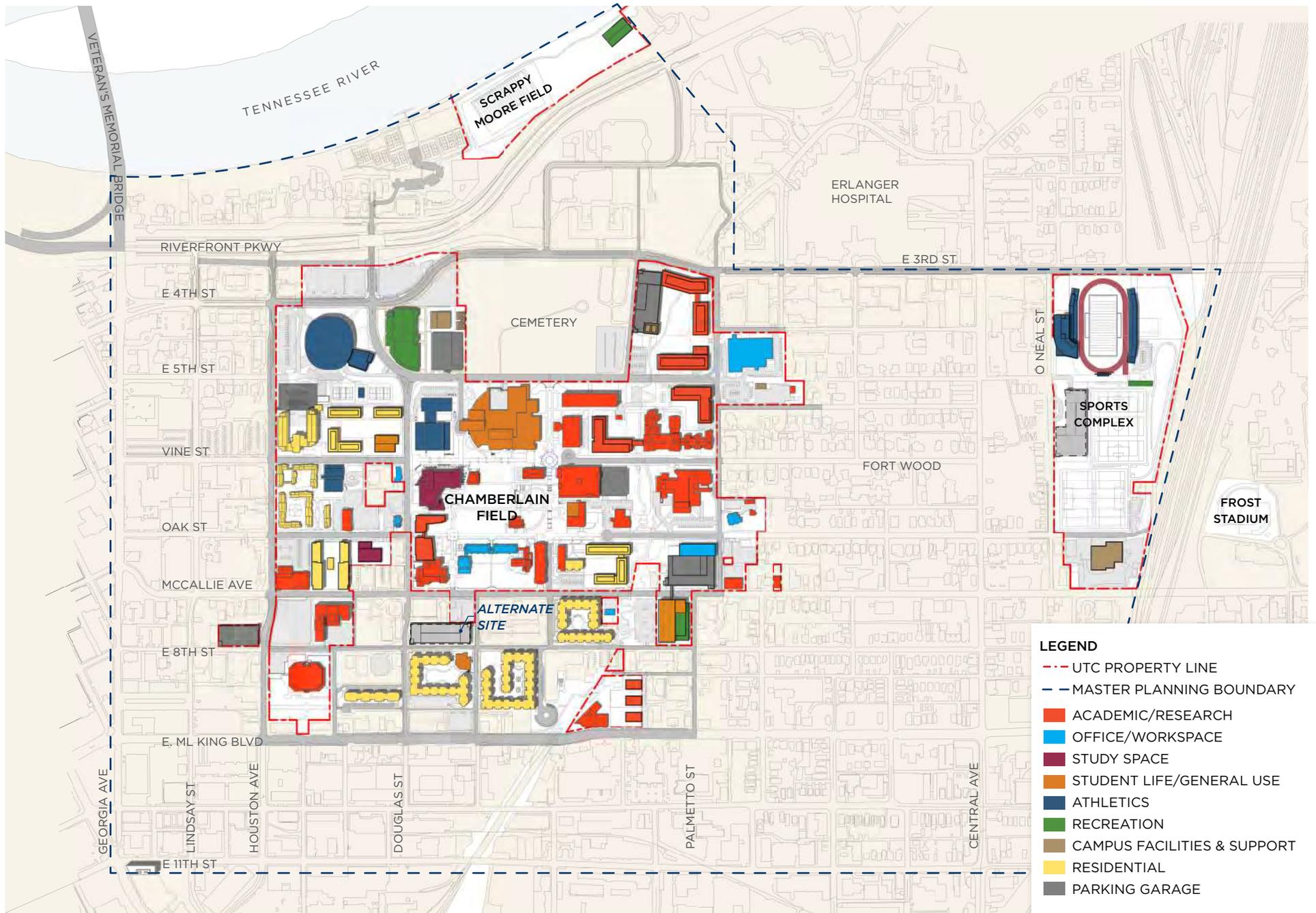
INTEGRATE SPACE & FLEXIBILITY FOR PARTNERS

Leverage southwest parcels, the new Health Science District, and existing available space to invite partners to campus (Include pilot projects Downtown, at Enterprise South, in State Buildings, and in Fletcher Hall Addition.)



ENHANCE RESIDENTIAL HUBS

Provide access to amenities within a 5-minute walk. Enhance pedestrian comfort, safety, and wayfinding.



LAND AND BUILDING USE STRATEGIES

FACILITY USE RECOMMENDATIONS

ACADEMIC & RESEARCH FACILITIES

The academic core of campus is primarily located to the east of Chamberlain Field, roughly bounded by Mocs Alumni Drive, Campus Drive, Palmetto Street and Oak Street. This core area includes the majority of academic functions for engineering, the sciences, and the humanities. Academic facilities continue along the Oak Street pedestrian spine along the south edge of Chamberlain Field, extending to the southwest corner of campus, where the nursing, media, and design programs are centered. Due to the predominance of surface parking lots and strategic acquisition of formerly state-owned office buildings, the southwest corner of campus remains the most flexible area for development opportunities, but is also the farthest in distance from other academic programs and is separated from the academic core by non-UTC owned properties.

Building off prior design and planning studies, this Master Plan includes the development of a new Health Sciences Complex as a priority project, providing adjacencies to existing science and engineering programs as well as Erlanger Hospital and Children's Hospital. An interdisciplinary Arts and Sciences facility is proposed in the heart of the academic core, to the north of Lupton Hall and with the option of bridging over the University Greenway to connect to the EMCS building, while a future

Interdisciplinary Research Building to the north of EMCS would establish a much-needed campus corner and edge. Together with the Health Sciences Quad, these two development zones in the northeast of campus propose the highest concentration of new construction for future academic programs in this Master Plan.

Fletcher Hall, home to the Rollins College of Business, creates a strong campus anchor at the corner of McCallie Avenue and Douglas Street, since the other properties at that intersection are not owned by UTC. A new campus gateway should be established here, with an addition to the north side of Fletcher Hall that bridges over the Oak Street pedestrian corridor toward the UTC Library.

A series of phased, single-story modular lab buildings, referred to in the plan as the Innovation and Advanced Manufacturing Application Center Labs, are proposed adjacent to the existing Multi-Disciplinary Research Building and Energy Labs just north of ML King Boulevard, with the first phase currently in design.

FACILITY USE RECOMMENDATIONS (CONT'D)

ATHLETICS AND RECREATION

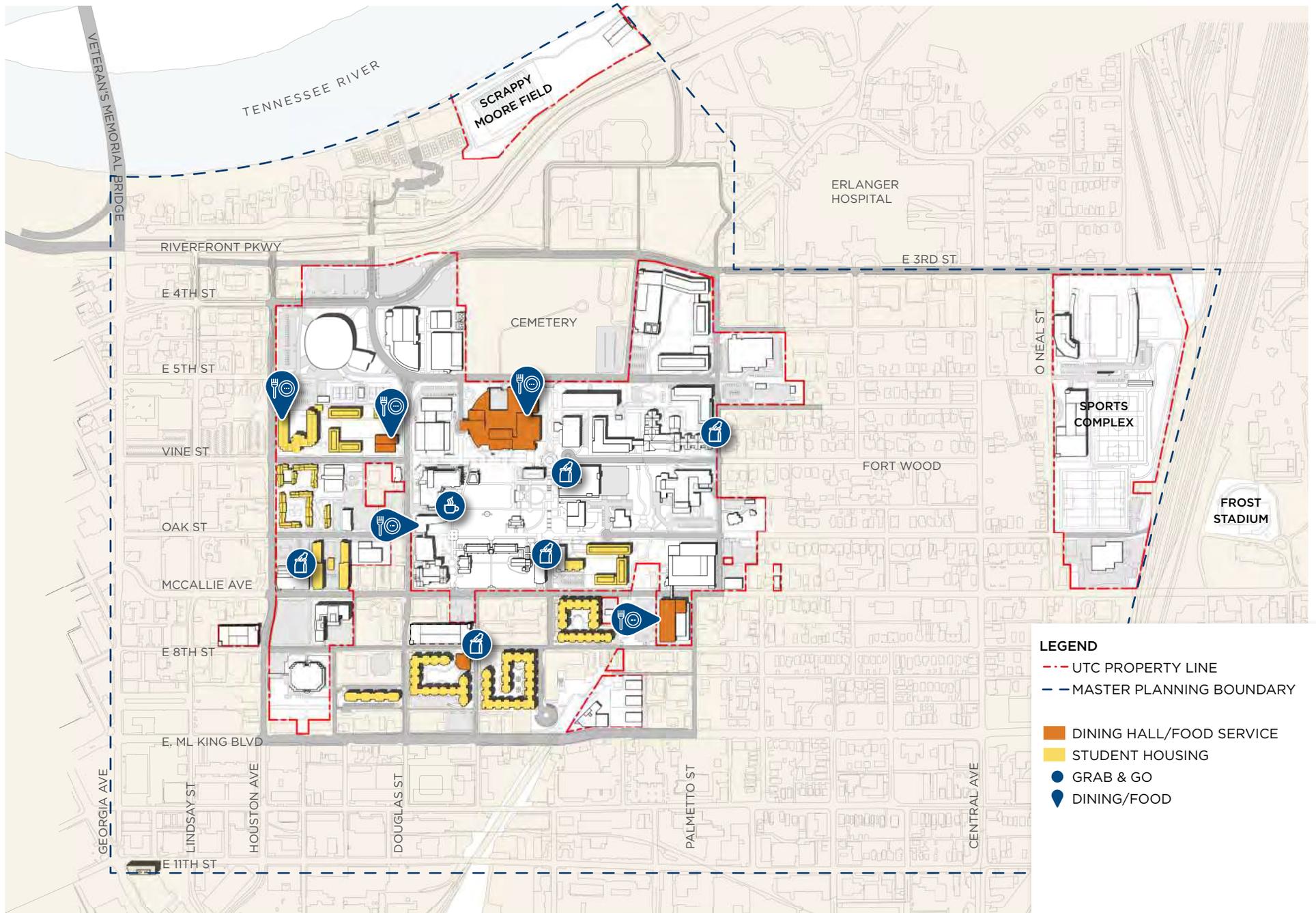
The following strategic initiatives were identified as they relate to the future of the athletics and recreational programs.

- The Aquatic and Recreation Center (ARC) is a strategic asset for the University but needs programmatic enhancements, including more indoor recreation space.
- Maclellan Gymnasium is in very poor condition and will require a comprehensive renovation including the natatorium and gymnasium.
- Some improvements are needed to the outdoor recreation fields.
- A historically appropriate renovation of the Engel Stadium should include a facade renovation and a potential multi-purpose soccer/football field and track with 10,000 seats to bring the football program back onto campus.
- Proximity to the riverfront presents an opportunity with respect to outdoor recreational opportunities, including a new Rowing Center.

UNIVERSITY CENTER

The UC renovation proposal has been submitted to the State for approval, but would not include more student-oriented space since it focuses primarily on building infrastructure and additional administrative office space. Based on an analysis of the UC offerings, this Master Plan recommends that the following elements be added: lounges / study spaces (6,500 sq. ft.), meeting rooms with storage (5,500 sq. ft.), and an e-gaming suite (3,500 sq. ft.). These spaces could be implemented as an addition to the UC or in combination with other student life centers such as the proposed dining hall.





HOUSING AND DINING LOCATIONS



SCALE: 1 IN. = 800 FT.



STUDENT HOUSING

The following strategic objectives were developed with respect to student housing:

- Housing is a strategic asset that aids in student recruitment and retention. More beds will be needed in the future to support enrollment growth.
- The first-year live-on requirement will remain in place.
- While various residential life programs, such as Residential Colleges, are being implemented, a second-year residency requirement is unlikely at this point and should not be factored in the demand calculations.
- Single-occupancy bedrooms are a very important feature of the University's residential life and will likely be replicated in the future.

Housing demand was calculated by applying historical capture rates by class to enrollment projections. Based on this approach, **UTC will need an additional 890 net new beds by 2031.** The following strategies have been identified to achieve this:

- If Boling Apartments (403 beds) are replaced with the new contemplated project (788 beds), 385 net new beds will be added and, therefore, only 505 more beds will be needed by 2031.
- Across three new buildings, a new housing complex on the current Boling Apartments site will add 505 beds. A new dining facility will also be constructed within this precinct.
- The Lockmiller Apartments will be demolished and replaced with new, higher density housing and amenities. This replacement is planned to be 1:1, at 292 replacement beds.

In addition, the off-campus market should be monitored for future growth, as it already offers purpose-built housing targeting students.

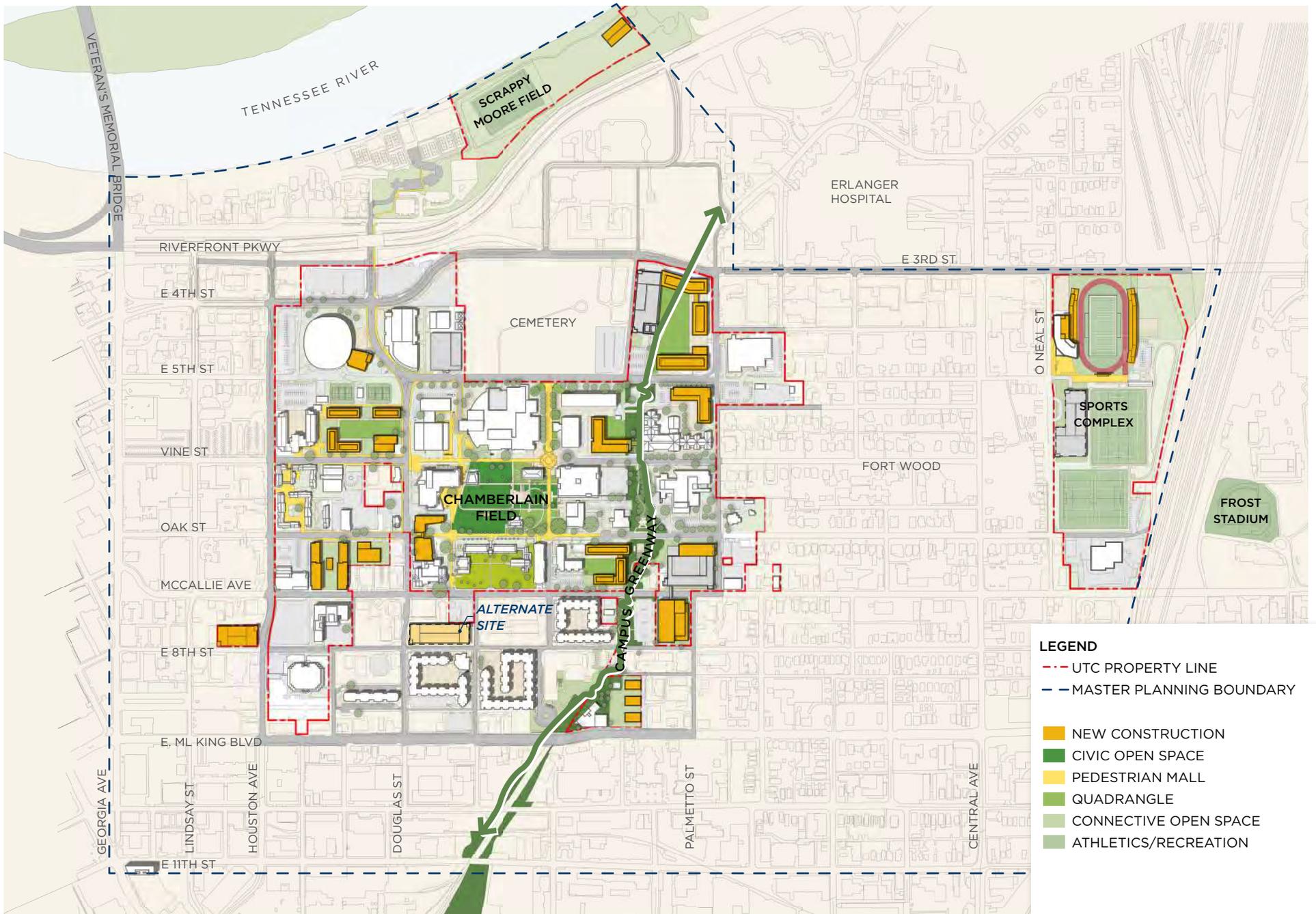
DINING

A quantitative dining analysis was conducted based on meal swipes and credits card transactions at all dining venues during peak periods of the Fall 2021 semester. The transaction volume data was translated into demand for seating, and the peak demanded capacity was later reconciled with the existing supply. The demand was adjusted upward based upon the following factors:

- Anticipated return to pre-COVID meal plan sales (8%).
- Anticipated growth in meal plan sales due to a more desirable meal plan structure (10%).
- Projected enrollment growth by Fall 2031 (30%). Based on this quantitative analysis, UTC will need approximately 1,100 seats to satisfy peak demand.

The following locations should be considered to address demand:

- Current supply of 300 seats at the University Center (about 50% of UC seating capacity - estimated dedicated dining capacity).
- Current supply of 100 seats at West Campus (combination of Einstein's and Dippers capacities).
- Current Starbucks in Lupton Library (50 seats).
- A new community-style dining hall to replace Crossroads. This facility should be located along McCallie Avenue and have a seating capacity of 450, a catering kitchen, and additional student life spaces. This facility is paired with new Recreation program to serve residents on the southern portions of the campus.
- An expansion of dining at the current Boling Apartments site will add an additional 200 seats to accommodate enrollment growth and serve residents within the new housing complex.



GATHERING SPACES, LEARNING LANDSCAPES, AND NODES



SCALE: 1 IN. = 800 FT.



OPEN SPACE AND PUBLIC REALM RECOMMENDATIONS

Open space knits together the campus and provides a sense of place. The UTC campus contains significant and successful open spaces that contribute to the University's memorable identity, including Chamberlain Field and the University Greenway.

Chamberlain Field will remain the most significant and formal open space on campus, with no planned buildings or structures. The University Greenway that runs through the heart of campus provides a transportation spine as well as a getaway from the City. The campus is also walking distance from the Tennessee River, which offers a greenway and other natural and recreational amenities along the riverfront.

Objectives that will guide improvements to create a positive physical space on campus, enhancing what is already available, include:

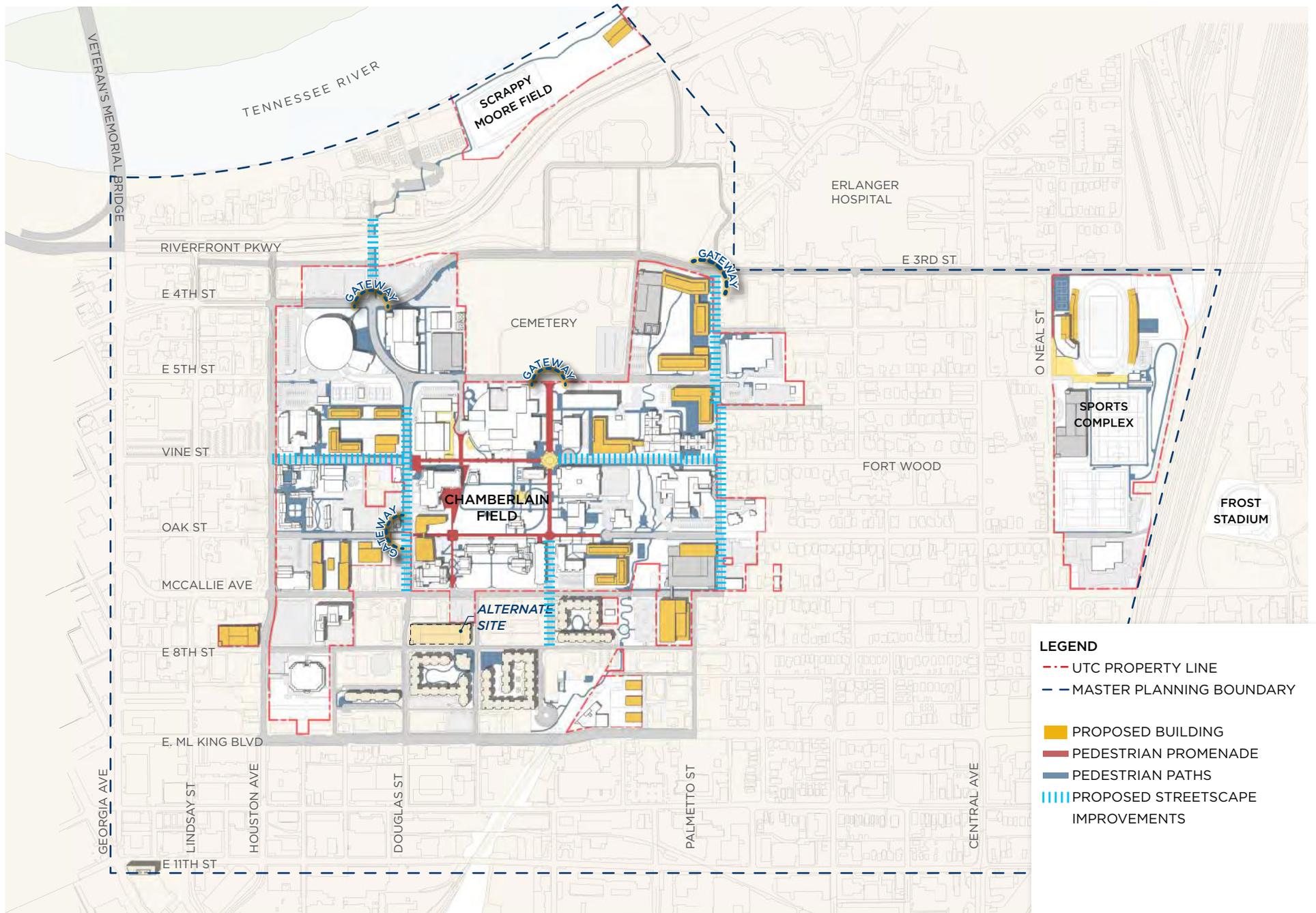
- Continue to promote pedestrian circulation for north-south connections
- Improve streetscapes to allow safer routes throughout campus
- Celebrate UTC culture and diversity
- Create new gathering spaces adjacent to future housing and academic buildings
- Promote accessibility for all

This plan proposes improvements and additional outdoor spaces of varied scale, character, and function to expand an open space framework for enhanced connectivity and activity. These new open spaces should be formed by carefully placing new surrounding buildings.

Health Sciences Quad: The new campus quad provides an anchor for outdoor gatherings, events, and programming within the Health Science district. Formed by three new buildings, the Health Sciences Quad replaces a surface parking lot to create a programmable and active open space to support students, faculty, and staff within the Health Sciences programs.

Housing Quads and Courtyards: Smaller open spaces between housing buildings provide intimate outdoor rooms. Campus courtyards are more garden-like, emphasizing landscape and intimate seating arrangements. The design of campus courtyards should continue to consider the scale of pedestrian promenades relative to primary campus corridors. Seating arrangements should focus on providing variety and shade. Plant selections should maintain continuity with adjacent plantings and consider opportunities to increase habitat and biodiversity.

Pedestrian Corridors and Streetscapes: New pedestrian corridors, purposefully planned to extend from north to south and east to west, stitch together future development with housing, quads, academic facilities, and the waterfront. In addition, along public streetscapes, UTC can partner with the City to enhance the pedestrian quality of streets such as Houston, Douglas, Palmetto, McCallie, and 3rd Street. Together, these pathways form a larger pedestrian circulation network and will contribute to the campus's overall experience.



PEDESTRIAN CIRCULATION, STREETSAPES, AND GATEWAYS



CAMPUS CIRCULATION RECOMMENDATIONS

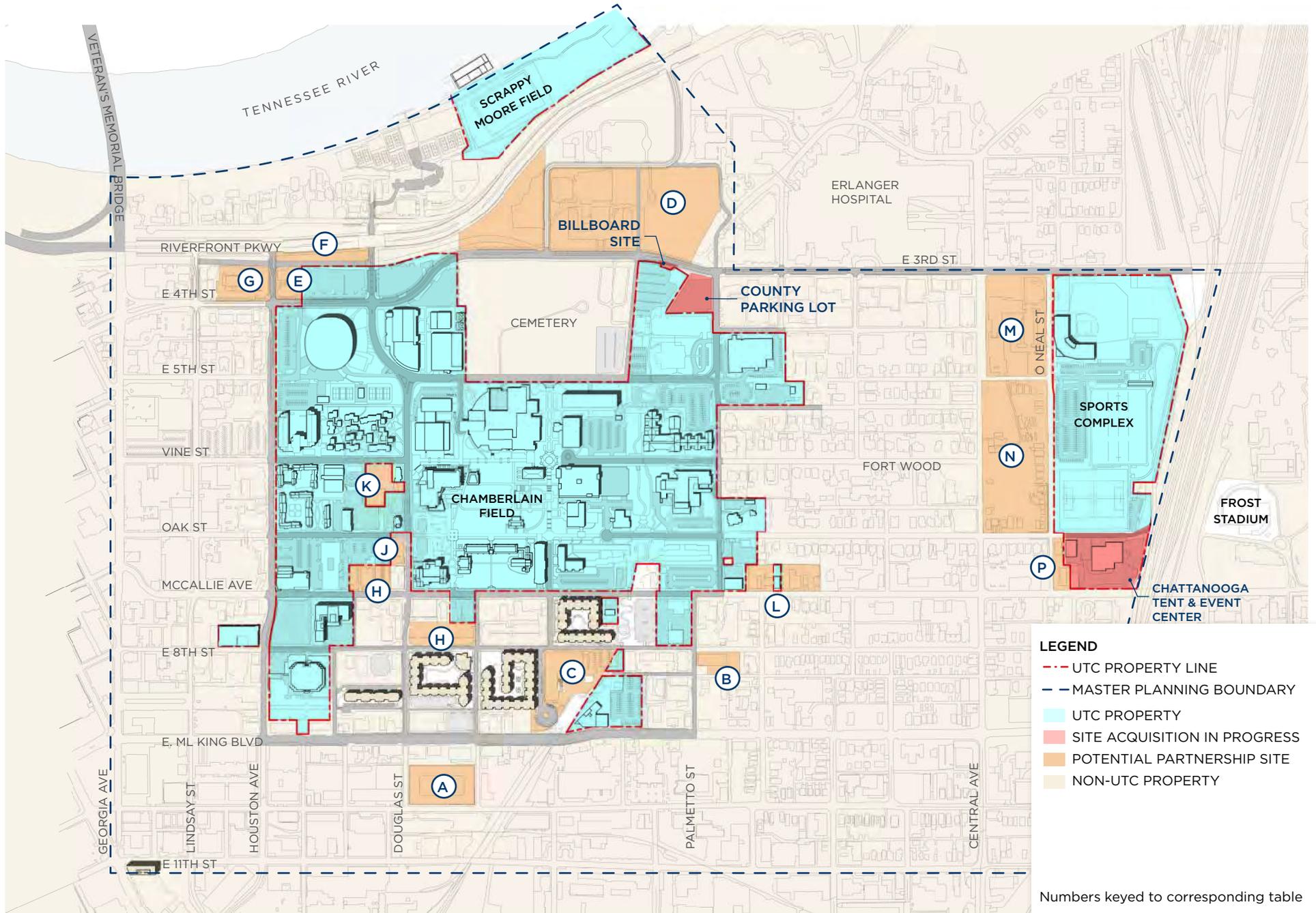
The desire to provide a pedestrian-friendly campus that encourages nonresident students, faculty, and campus employees to park and walk requires planning and placement of facilities that are well connected by safe, welcoming pedestrian facilities. In addition, minimizing conflict points between transportation modes improves the environment for both pedestrians and bicyclists.

The campus setting in downtown Chattanooga on a hill provides some challenges due to the topography that can be addressed with careful planning. Parking is located throughout the campus, encouraging vehicular trips and increasing the number of conflict points.

However, opportunities have been created by the middle area of the campus being closed to vehicular traffic, the greenway provided on the eastern side of the campus, and the Mocs Express shuttle. The current pedestrian, bicycle, and vehicular circulation systems are proposed for enhancements in this Master Plan, which consolidates parking and builds on the existing pedestrian and bicycle network.

With a high number of students enrolled at UTC living off campus, many students drive to campus. They need convenient centralized parking locations that encourage parking and walking but do not necessarily provide parking at every building. This Master Plan assesses parking needs on campus along with the availability of pedestrian facilities, bicycle facilities, and shuttle services. The result is a framework that encourages parking and walking through a safe, connected pedestrian and bicycle network.

UTC has a robust pedestrian network of sidewalks and paths that provide key connections to academic buildings, housing, and other student services. This network should be enhanced to promote safety, comfort, access, and direct connections. UTC should investigate if additional east-west and north-south pedestrian priority connections can be created to expand the existing pedestrian priority zone.



PLANNING BOUNDARY AND LAND ACQUISITION

PLANNING BOUNDARY AND LAND ACQUISITION

The UTC campus is roughly six city blocks east-to-west and five city blocks north-to-south, bounded by Houston Avenue along the west, Palmetto Street to the east, Mocs Alumni Drive (formerly 5th Street) to the north, and McCallie Avenue to the south. Riverfront Parkway, accessible via 3rd and 4th Streets, is a primary point of access to campus. The Parkway creates an edge between UTC and the Tennessee River that limits pedestrian connectivity to the riverfront and Scrappy Moore Field.

Additional campus property includes the UTC Sports Complex, located east of campus past the Fort Wood neighborhood.

Land within the Master Planning Boundary shows additional potential future acquisition or development sites. The boundary also represents an area of influence where the University will continue to understand planning activities by neighbors and identify potential properties to acquire.

Potential partnerships or acquisitions of the following sites would provide opportunities to continue expanding academic programs, enhance campus edges and identity, provide strategic locations for new and replacement parking, and expand academic programs. In addition, due to the highly urban environment of the campus, land acquisition will help enhance campus edges and identity, provide strategic locations for new and replacement parking, and fill in gaps for continuity.

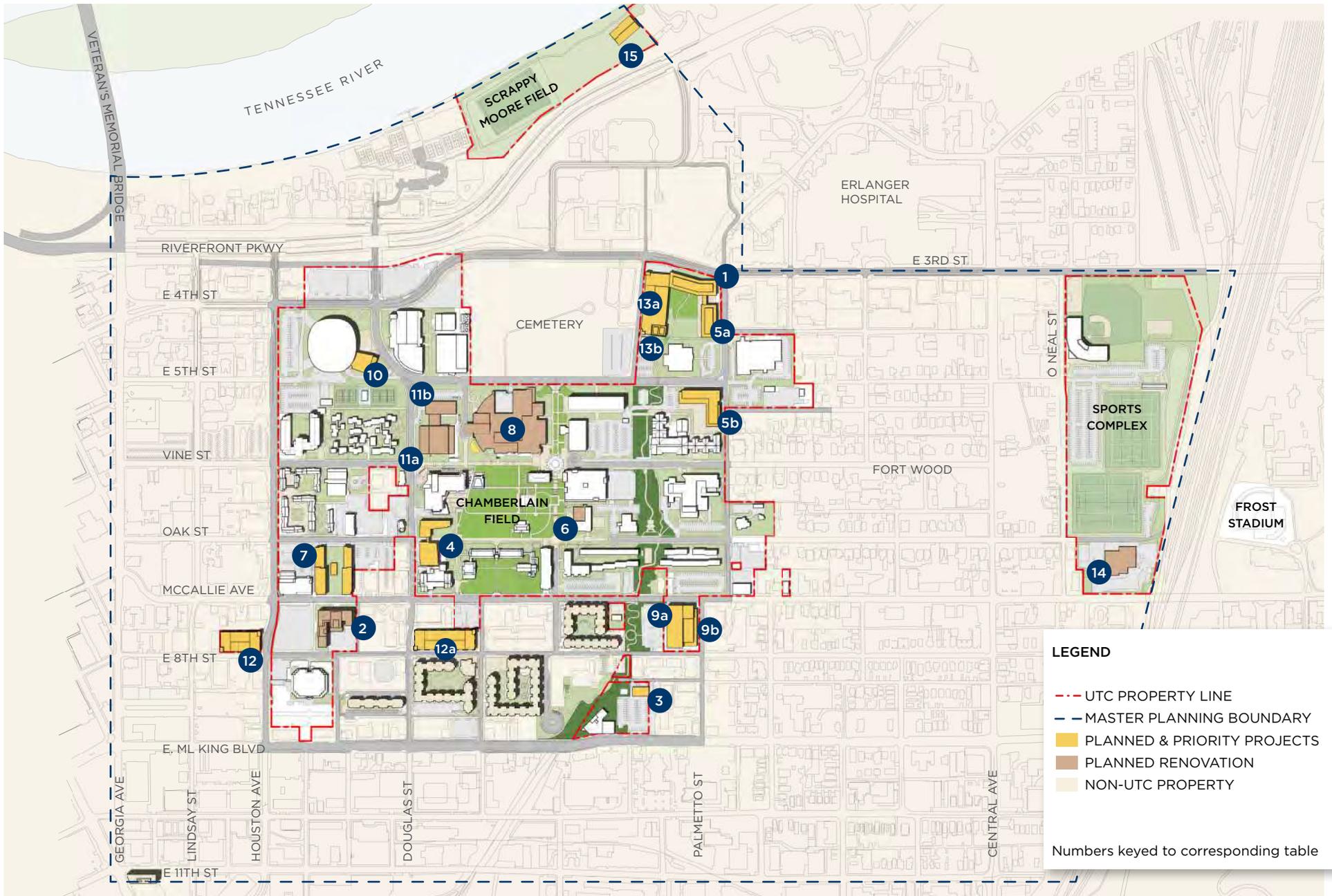
At the time of this report, the University is in the process of three property acquisitions located along the periphery of campus. They include a Hamilton County surface parking lot located at 975 East 3rd Street, a small parcel occupied by a billboard located at 888 E 3rd Street, and the Chattanooga Tent and Event Center located at 1112 Oak Street, which will

provide short-term facilities support needs and long-term opportunities to expand the Sports Complex. The first two site acquisitions have a critical role in accommodating the development of a new UTC Health Sciences Complex near Erlanger Hospital and the Children's Hospital.

The University has also identified the following locations as potential partnership sites or acquisitions:

A	Douglas Heights 930 Douglas St
B	Palmetto Place 910 E 8th St
C	Brown Academy 718 E 8th St
D	Chattanooga School of Arts and Sciences 865 E 3rd St
E	Blood Assurance Inc 705 E 4th St
F	Parcel north of Blood Assurance, available with the removal of E 3rd St by Tennessee Department of Transportation
G	University Towers 651 E 4th St
H	First Presbyterian Church of Chattanooga* 559 McCallie Ave and E 8th St/Douglas St
J	Christ Church Parish Inc Annex* 661 Douglas St
K	Tennessee Baptist Convention 540 Vine St
L	819, 821, 823, 829, 833, 837 McCallie Ave
M	UT Family Medicine, 1100 E 3rd St
N	The 500-600 block bounded by Central Ave, Oak St, E 5th St, and O Neal St
P	1021 and 1100 Oak St

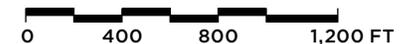
* Acquisition or partnership may include land-swap



THE SHORT-TERM PLAN | PRIORITY & POSITIONING PROJECTS (0-4 YEARS)



SCALE: 1 IN. = 800 FT.

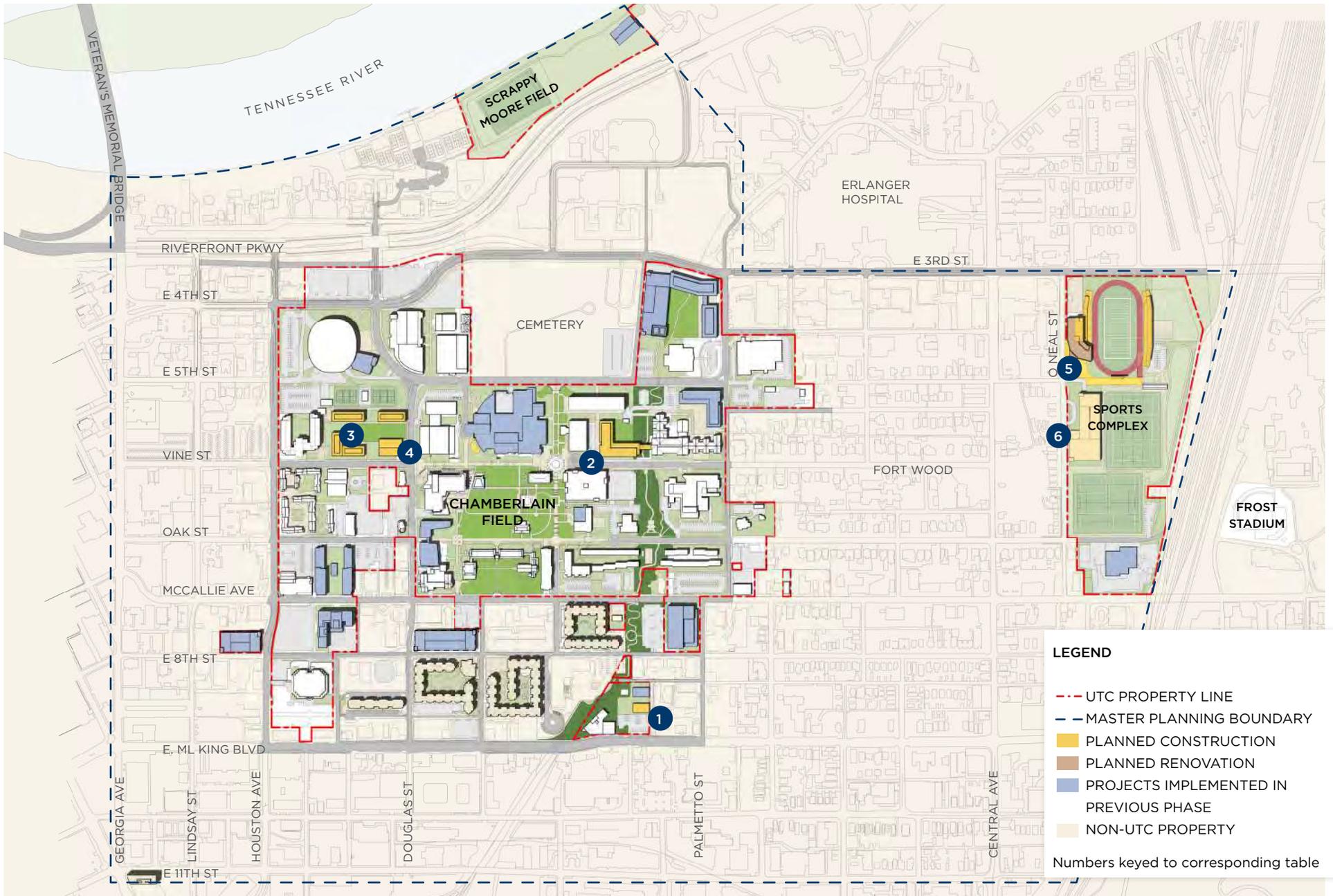


#	PROJECT TYPE	PROJECT RECOMMENDATIONS	Demo. GSF	Renov. GSF	New Const. GSF
ACADEMIC/RESEARCH					
1	Health Sciences Building Phase I	Site acquisition in progress	-	-	92,192
2	540 McCallie Renovation	Some floors currently undergoing renovation	-	173,979 ¹	-
3	Phase I Innovation and Advanced Manufacturing Application Center (I&AMAC)		-	-	5,058
4	Fletcher Hall Addition	Includes renovation of existing Fletcher Hall. Adds 32 parking spaces	-	17,000	81,688
5a	Health Sciences Building II /Multi-Disciplinary Research Building I		-	-	72,000
5b	Multi-Disciplinary Research Building II	Potential connection to existing EMCS Building	-	-	120,000
6	Crossroads Renovation	Academic and Student Programming	-	29,111 ²	-
HOUSING					
7	New Residence Hall	Replaces Boling Apartment Beds (788) Auxiliary/TSSBA	-	-	227,852
STUDENT SERVICES/STUDENT LIFE					
8	University Center Renovation		-	226,372 ¹	-
9a	New Dining Facility	Includes seating for replacement of Crossroads and 5,000 GSF catering kitchen and support facilities.	-	-	47,250 (Dining)
ATHLETICS					
10	McKenzie Arena	Under Construction			37,500
11a	MacLellan Remodel (Gymnasium)	Feasibility study in progress	-	65,478	-
11b	MacLellan Remodel (Natatorium)			11,150 ²	
RECREATION					
9b	Recreation Facility	Incorporated as part of Dining Facility project. Includes additional rec space			81,000 (Rec)
15	Rowing Center	Replacement of existing Rowing Center barges			15,272
GENERAL USE/OTHER					
12 12a	Multi-purpose Parking Garage at 8th/Houston Alternate: 8th/Douglas	600 spaces. Auxiliary/TSSBA	-	-	237,056
13a	Multi-Purpose Parking Structure (Health Sciences) and STEM Outreach	600 spaces, 24,000 GSF Multi-purpose/STEM Outreach	-	-	177,807
14	Expanded Facilities Space (Renovation of 1112 Oak St)	Acquisition of Chattanooga Tent & Event Center in progress	-	25,850	-
OPEN SPACE IMPROVEMENTS					
	Health Sciences Quad Phase 1	Coordinate with Campus Greenway Expansion			52,000
	Divine Nine Park	Located at UC and Vine St, currently under design			
INFRASTRUCTURE					
13b	Utility Plant				

¹ Includes GSF of entire existing building

² Sq. Ft. of space within existing building

The list of projects above identify priorities for long-term capital improvements consistent with the timeline of this plan.



THE MID-TERM PLAN | MEETING GROWTH NEEDS (5-9 YEARS)

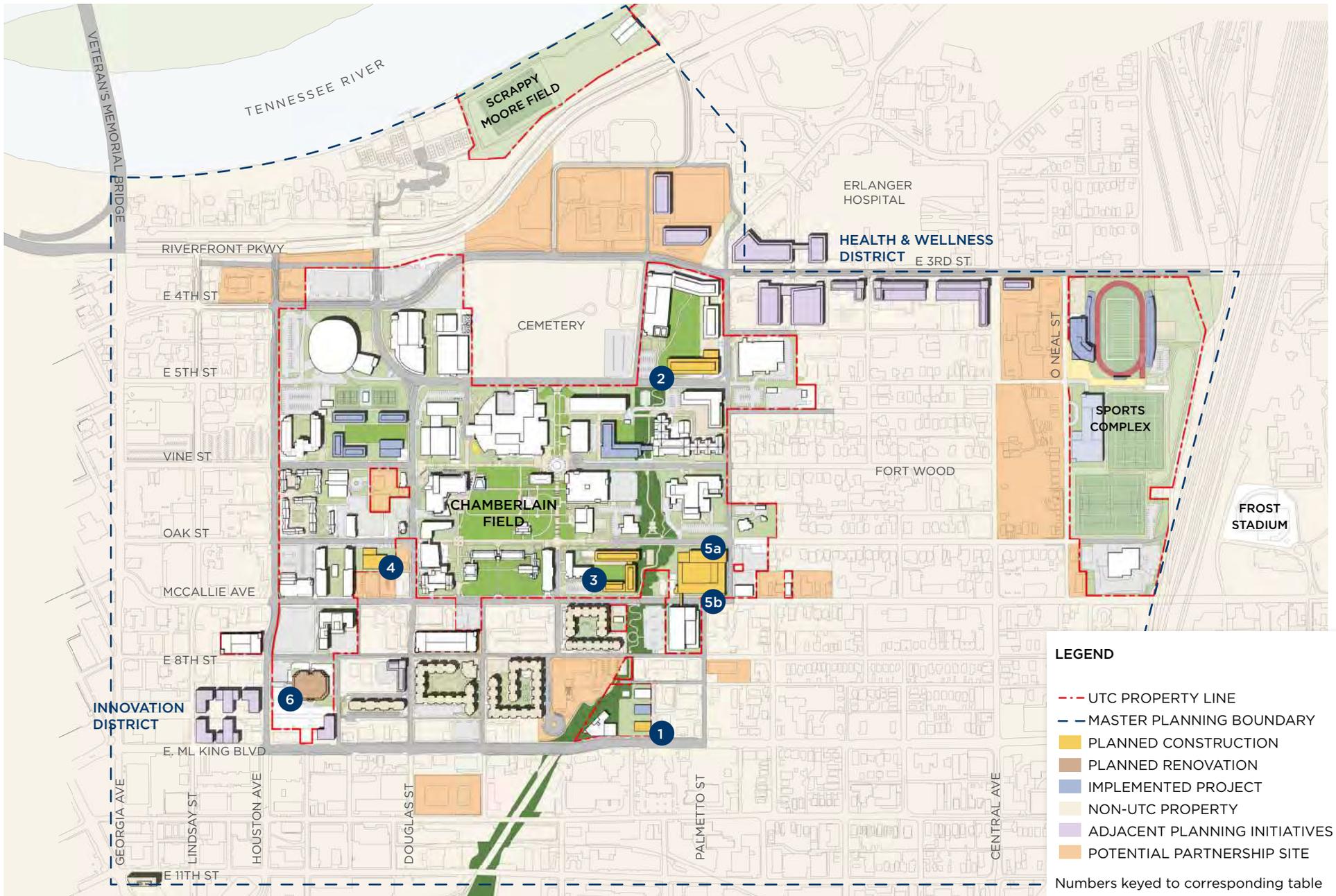


SCALE: 1 IN. = 800 FT.



#	PROJECT TYPE	PROJECT RECOMMENDATIONS	Demo. GSF	Renov. GSF	New Const. GSF
ACADEMIC/RESEARCH					
1	Phase II Innovation and Advanced Manufacturing Application Center (I&AMAC) Lab		-	-	5,300
2	Arts + Sciences Interdisciplinary Center		-	-	122,600
HOUSING					
3	Residence Halls (Boling Site Replacement)	Three buildings, total of 505 Beds.	-	-	230,400
STUDENT SERVICES/STUDENT LIFE					
4	Dining Expansion (Boling Site)	200 seats	-	-	12,000
ATHLETICS					
5	Engel Stadium Multi-purpose Soccer/Football Field and Track Development	Renovation/replacement of historic Engel Stadium. 10,000 seats	-		-
6	Optional Parking Structure at Engel Stadium with multi-purpose community space				296,800
OPEN SPACE IMPROVEMENTS					
	Arts & Sciences Quad				22,000
	Residence Hall Quad (Boling Site)				66,000
	Engel Stadium Plaza				40,000
INFRASTRUCTURE					
	None proposed in this phase				

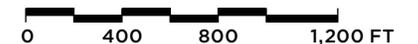
The list of projects above identify priorities for long-term capital improvements consistent with the timeline of this plan.



THE VISION PLAN | ACHIEVING STRATEGIC PLANNING (10+ YEARS)



SCALE: 1 IN. = 800 FT.



#	PROJECT TYPE	PROJECT RECOMMENDATIONS	Demo. GSF	Renov. GSF	New Const. GSF
ACADEMIC/RESEARCH					
1	Phase III Innovation and Advanced Manufacturing Application Center (I&AMAC) Lab		-	-	5,300
2	Health Sciences Building Phase III / Medical School Partnership		-	-	120,500
HOUSING					
3	Lockmiller Replacement Housing + Amenities		-	-	131,400
STUDENT SERVICES/STUDENT LIFE					
4	Expanded Study Space		-	-	27,500
GENERAL USE/OTHER					
5a	Expanded Program Support Space	Academic & Student Affairs	-	-	28,000
5b	Parking Garage on McCallie/Palmetto	800 Spaces	-	-	268,800
ADDITIONAL RENOVATIONS					
6	Mapp Building / Conference Center (renovation/addition)		-	83,242	-
OFF-CAMPUS					
7	Jones Observatory Rehabilitation + Expansion		-	2,709	TBD
8	Enterprise South Center Education/Incubator & Research Facility		-	-	54,000
OPEN SPACE IMPROVEMENTS					
	Residence Hall Quad (Lockmiller Replacement Site)		-	-	
	Fine Arts Center Plaza and Drop-off				
INFRASTRUCTURE					
	None proposed in this phase				

The list of projects above identify priorities for long-term capital improvements consistent with the timeline of this plan.

MASTER PLAN COMMITTEES

EXECUTIVE LEADERSHIP TEAM

- **Dr. Steven Angle, Ph.D.**, Chancellor
- **Vicki Farnsworth**, Chief Information Officer and Interim Vice Chancellor for Finance and Administration
- **Dr. Jerold L. Hale**, Provost and Senior Vice Chancellor for Academic Affairs
- **Dr. Yancy Freeman**, Vice Chancellor for Enrollment Management and Student Affairs
- **Stacy Lightfoot**, Vice Chancellor for Diversity and Engagement
- **Dr. Joanne Romagni**, Vice Chancellor for Research and Dean of the Graduate School
- **Cassie Mathes**, Vice Chancellor of Communications and Marketing
- **David Steele**, Chief of Staff
- **Kim White**, Vice Chancellor for Development and Alumni Affairs
- **Mark Wharton**, Vice Chancellor and Director of Athletics

STEERING COMMITTEE

- **Anthony McClellan**, Executive Director of Facilities Operations
- **Matt Matthews PhD**, Vice Provost and Professor
- **Tom Ellis**, Assistant Vice Chancellor for Operations
- **Abeer Mustafa**, Associate Vice Chancellor for Student Affairs
- **Dean Valerie Rutledge**, Dean, College of Health, Education & Professional Studies
- **Jennifer Boyd PhD**, Senior Associate Head; Guerry Professor
- **Dr. Jay Blackman**, Deputy AD - Internal Operations
- **Chelsie Ewing**, Director of Engineering and Planning Services

UNIVERSITY OF TENNESSEE (UT SYSTEM)

- **Anthony Hopson**, Director, Real Property and Space Administration
- **Austin Oakes**, Assistant Vice President, Office of Capital Projects
- **Adam Foster**, Real Property Specialist

FOCUS GROUPS

- Academic Leaders
- Athletics
- Chancellors Multicultural Advisory Council
- City and County Leadership
- Community Partners
- Deans Council
- Dining and Auxiliary Services
- Enrollment Management
- Faculty Senate
- Information Technology
- Landscape and Open Space
- Parking
- Public Safety
- Residence Life
- Staff
- Student Government
- Student Life Staff
- UTC Foundation
- Utilities and Infrastructure



DLRGROUP

520 Nicollet Mall Suite 200
Minneapolis, MN 55402



The University of Tennessee at Chattanooga
Chattanooga, TN, 37403

utc.edu



HISTORY AND OVERVIEW



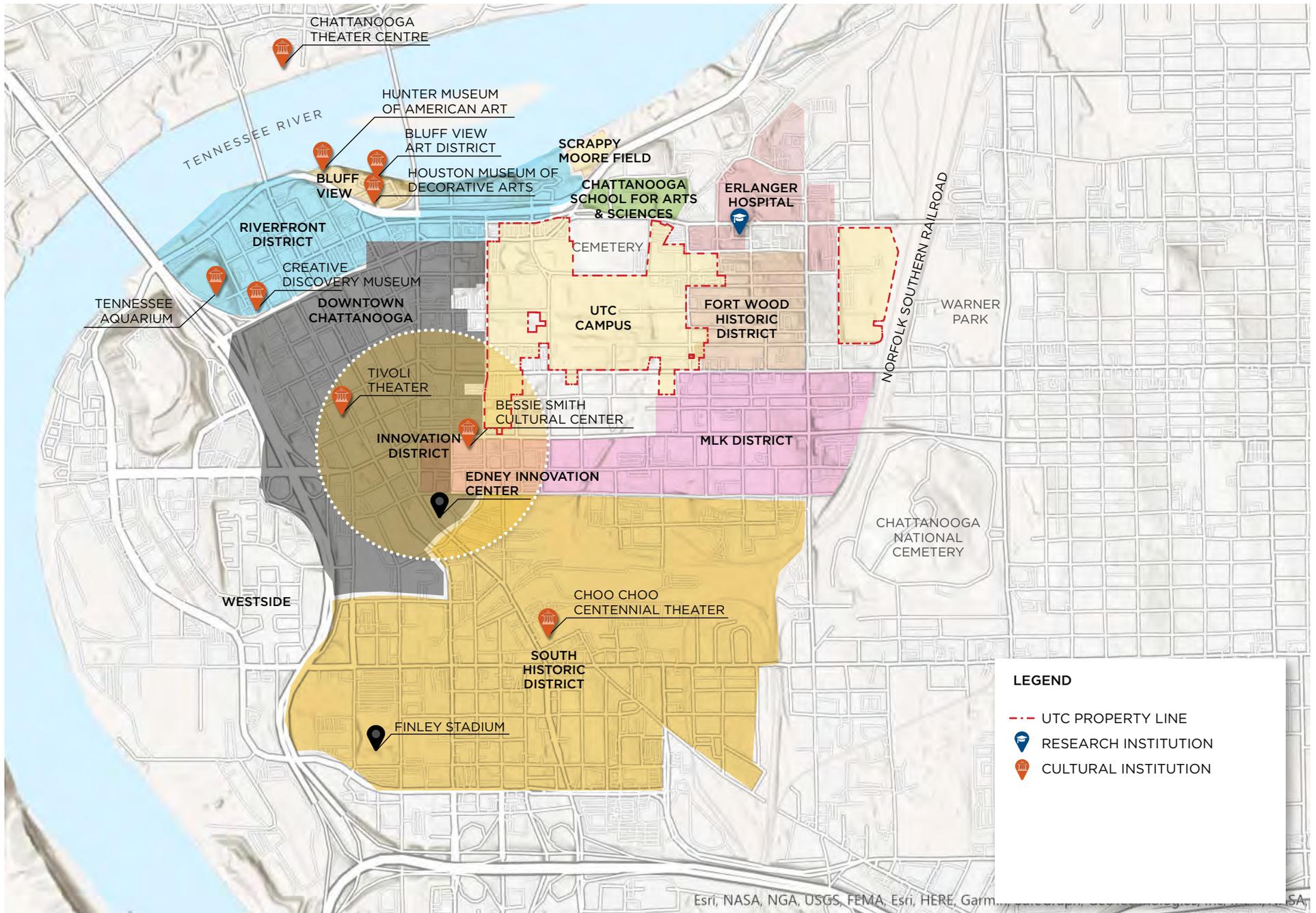
CAMPUS HERITAGE

The University of Tennessee at Chattanooga is one of four universities as part of the University of Tennessee System and has resulted through a series of acquisitions throughout the 20th century. Founded in 1886 by the Methodist Episcopal Church as Chattanooga University, UTC's origins followed the rapid growth of the City of Chattanooga following the Civil War. Various Civil War era historic sites can be found throughout the city, including the Fort Wood neighborhood which sits along the eastern edge of campus at Palmetto Avenue, whose name comes from the Fort which once stood there. The campus' long-established presence in proximity to downtown has resulted in strong town-gown collaborations that continues to this day.

In 1907, the name was changed to the University of Chattanooga. Hamilton County submitted a bill to the state to establish a University of Tennessee campus in Chattanooga, and in 1969 this was approved and the institution merged with historically black Chattanooga City College and became UT Chattanooga, a public university as part of the University of Tennessee System.



Images courtesy University of Tennessee at Chattanooga Special Collections



COMMUNITY CONTEXT



DISTINCTIVE ATTRIBUTES

UTC's campus has a unique history and urban context that have influenced its character and the recommendations of this Campus Master Plan.

Historic buildings. The preservation of several historic buildings on campus provides character and ties students and the broader community to the institution's past while also relating to the urban fabric and the character of historic districts including neighboring Fort Hill.

Urban context. The campus is surrounded by development and urban neighborhoods that provide student and faculty housing, restaurants and bars, and other offerings for both members of the University community and neighbors. Many of these offerings, including Downtown Chattanooga, are a short walk, bike, or bus ride away.

Nearby institutions. The proximity of cultural institutions such as the Bessie Smith Cultural Center and local places of worship preserve the history of the neighborhood but also contribute to campus life. Erlanger Hospital and the emerging health sciences district also have a close relationship with the campus, as does the Chattanooga School of Arts & Sciences.

Connections to nature. The University Greenway that runs through the heart of campus provides a transportation spine as well as a getaway from the city. The campus is also walking distance from the Tennessee River, which offers a greenway and other natural and recreational amenities along the riverfront. Finally, the Confederate Cemetery serves as a large greenspace adjacent to campus



Tennessee Riverpark and Aquarium



Bessie Smith Cultural Center on E. ML King Boulevard



Murals on the AT&T Building, E. ML King Boulevard

STRATEGIC PLANNING

The Campus Master Plan Update is the physical manifestation of the UTC Strategic Plan and the academic mission of the University.

Following the UTC Strategic Plan for 2021-2025, the Master Plan Update aligns with the objectives, strategies and tactics outlined in the Strategic Plan.



Teaching and Learning: UTC will transform the lives of our students and the futures of our region by increasing access to a distinctive model of education, grounded in the liberal arts and tied closely to workforce opportunities.



Diversity and Inclusion: UTC will respond to the needs of students and our region by modeling inclusive excellence through diverse representation and aligned benchmark indicators.



Research and Innovation: UTC will impact our community and enhance the educational experience of our students by sustaining the scholarly, creative and entrepreneurial activity of our faculty and students.



Stewardship and Resources: UTC will ensure the sustainability of our institution and the vitality of our students, faculty, staff and community by excelling in resource development and stewardship.

UTC STRATEGIC PLAN

VISION

We engage students, inspire change and enrich community

MISSION

The University of Tennessee at Chattanooga is a driving force for achieving excellence by actively engaging students, faculty and staff, embracing diversity and inclusion, inspiring positive change and enriching and sustaining our community

VALUES

- We believe that students are the reason our institution exists.
- We affirm the essential function of a liberal arts education.
- We commit to transformational engagement with our community.
- We nurture a culture of creativity, scholarship and innovation.
- We embrace diversity and inclusion.
- We pursue excellence in all that we do.
- We live with integrity and civility.

CAMPUS MASTER PLAN UPDATE **GOALS AND OBJECTIVES**

Achieving the vision set forth in the Strategic Plan will require changes to the physical campus.

The UTC Campus Master Plan Update serves as a blueprint for rational building expansions and site improvements that preserve and renew existing facilities and reinforce the positive aspects of the campus. The following goals of the Campus Master Plan Update guided the development of the plan:

01

Provide equity in amenities and experience throughout the campus including dining, recreation, study and gathering

02

Increase the number of beds on campus to align with enrollment projections and demand

03

Complete north-south pedestrian connections to anchor and connect major student and academic programs

04

Incorporate flexible and interdisciplinary space into new buildings and major renovations for both instruction and research

05

Address future space needs within UTC's existing campus property with a focus on flexibility, optimization, infill and density

ACADEMIC PLANNING

UTC's campus is equipped with high-tech learning and research facilities and served by a faculty of teaching scholars. Through internships, cooperative education assignments, and experiential learning opportunities, UTC students learn in a laboratory as large as the world. On-campus offerings include 97 undergraduate programs, 88 graduate programs and 50 minor programs.

While UTC does not have a formally adopted academic master plan, the following approved or planned undergraduate, graduate, and support programs were identified by the University that will have a positive impact on enrollment recruitment and retention.

College of Arts and Sciences

- Social Sciences Online Program
- STEM Online Program
- College of Engineering and Computer Science
- Undisclosed Community Partner Future Program
- Cybersecurity

College of Health, Education and Professional Studies

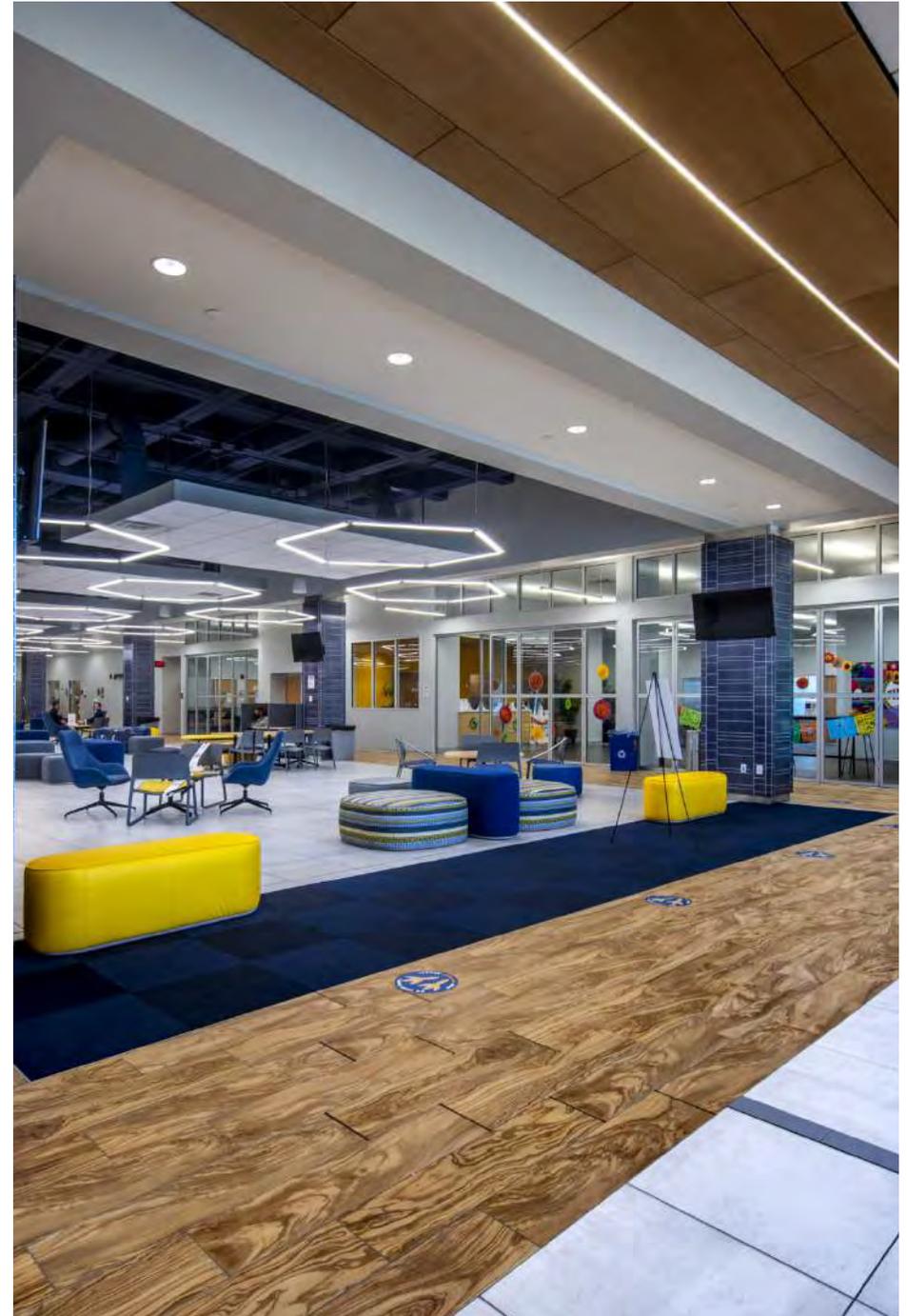
- Integrated Studies Realignment
- Health Related Program Expansion

Gary W. Rollins College of Business

- Business Related Online Program
- Master's Degree in Management

Provost (All Colleges)

- Integrated Master's Program



PREVIOUS MASTER PLAN

The previous UTC Master Plan was finalized in December 2012 and was prepared by a team lead by Perkins+Will. Plan recommendations focused on the following five goals and objectives:

- Strategic Targets and Initiatives
- Land and Building Use
- Open Space
- Circulation and Parking
- Utility Infrastructure and Energy Use

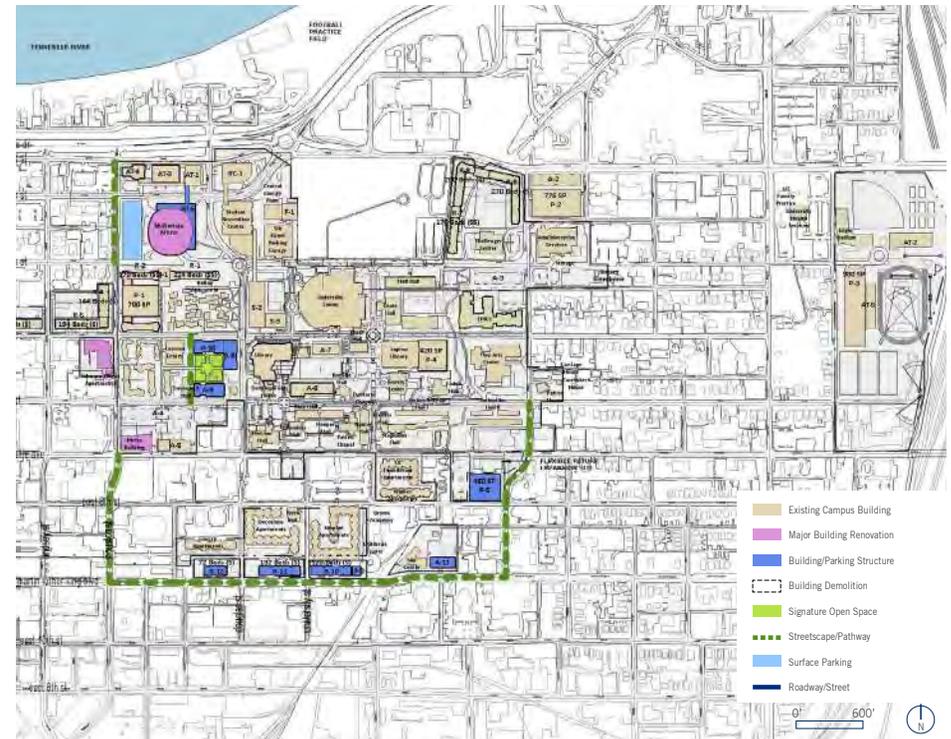
The previous Campus Master Plan identified a need for additional classroom, research labs, and library/study space. These and other programmatic drivers lead to the following major recommendations, which have since been implemented.

- Renovate the Lupton Library and Fine Arts Center
- Construct new Health Sciences buildings
- Construct a new parking garage
- Construct a football practice facility and tennis practice facility
- Improve streetscapes on Vine Street and 5th Street
- Add 1,800 beds near the campus core and provide a wider variety of housing types
- Strengthen north-south and east-west pedestrian corridors
- Acquire key nearby sites
- Infrastructure and utility improvements

The following major recommendations of the previous Campus Master Plan have not yet been implemented.

- Renovate South Campus Apartments as a living/learning community
- Create well-defined campus edges and entrance markers
- Provide accessible pedestrian circulation
- Construct a second new parking garage
- Add a second shuttle route and implement a transportation fee

2012 MASTER PLAN





**STRATEGIC SPACE
NEEDS AND
OPPORTUNITIES**

SPACE ASSESSMENT METHODOLOGY

The methodology to quantify and measure the University's space needs uses a formula-based modeling process that applies the following data: facilities space inventory, personnel, class schedule, credit hours, and library collections.

The space needs in this analysis are based on the THEC Space Planning Guidelines with an alternative modeling process (shown in the Appendix) based on a blending of several planning methodologies including:

- Many of the THEC guideline criteria
- Adaptation of innovative space planning approaches developed at other universities
- Application of accepted conventional space formulas and guidelines that have been tested
- Formulas and criteria developed by the consultants for space types not addressed by conventional approaches

Planning assumptions provide the direction for student enrollment, personnel changes, and potential new programs. Interviews with the Deans and Vice Chancellors were conducted to review results, verify data, discuss space use, and provide program related data used to refine the modeling process.

Key steps in the assessment process included:

- Document and verify the existing space inventory by room type and departmental assignment

- Identify and confirm current space utilization patterns to establish a baseline reference
- Develop 10-year enrollment projections for use in estimating future space needs
- Determine space needs by department based on current and projected enrollments
- Develop space needs calculations based on the THEC Space Planning Guidelines (Revised 2013) and alternate space standards for each academic and administrative department
- Conduct an in-depth study of the utilization alignment of the University's classrooms and teaching labs
- Provide data to assist in developing informed decisions for the management of the University's space resources and as input into the Campus Master Plan

The space need requirements include square foot calculations for each room type and vary according to program requirements within specific disciplines. The calculated need incorporates various factors including the size and amount of equipment used, acceptable utilization factors (i.e., station area, station occupancy ratios, and room utilization rates), number of occupants of each space, etc.

The analysis compares the existing inventory of assignable square feet to the modeled need to identify possible gaps identified as a surplus or deficit of space by room type and assignment. These results may be used to develop future solutions through realignments, re-purposing of existing space, or new construction.

ENROLLMENT PROJECTIONS

This Master Plan Update projects an increase in institution-wide on-ground full-time equivalent (FTE) student enrollment of 28.5% between Fall 2021 and Fall 2031, which reflects an approximate average annual increase of 2.8%, or approximately 283 FTE/year. This growth is expected to be driven by increased enrollment in existing programs, especially those in the College of Engineering and Computer Science. The previous (2012) Master Plan projected enrollment growth from 9,849 FTE students in Fall 2011 to an intermediate target of 11,194 and a long-term target of 12,916.

FALL SEMESTER FTE ENROLLMENT BY COLLEGE (ON-GROUND)

COLLEGE	2021 (Existing)	2031 (Projected)	Percent Difference
College of Arts & Sciences	3,692	4,406	19%
College of Engineering & Computer Science	1,375	2,270	65%
College of Health, Education & Professional Studies	2,861	3,405	20%
Rollins College of Business	2,005	2,654	32%
No college	0	25	n/a
Total	9,932	12,760	28.5%

Reference: Table 3, Page 10

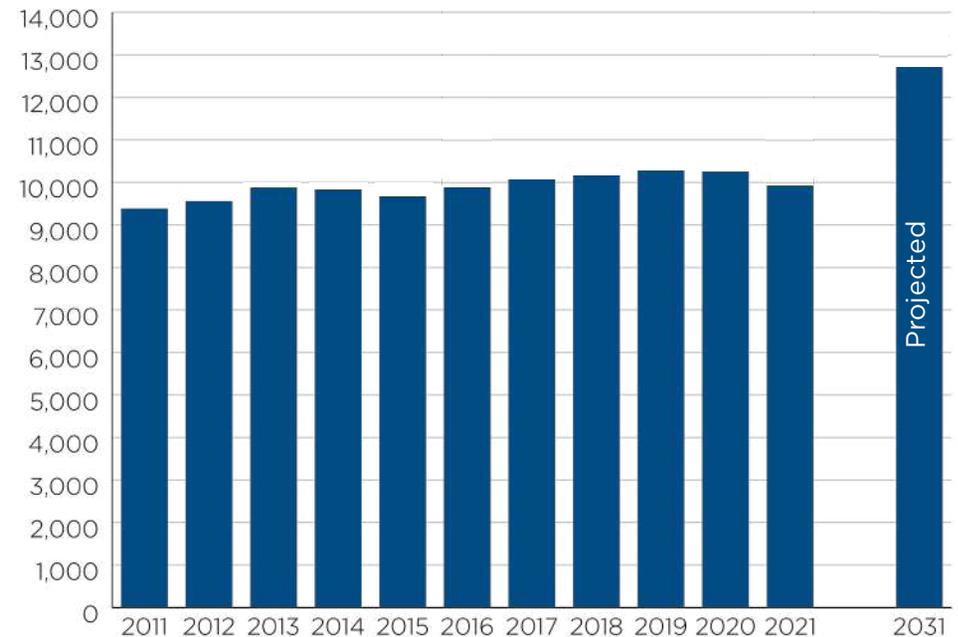
PROPOSED NEW ACADEMIC PROGRAMS

- Business Related Online Program
- Cybersecurity
- Health Related Program Expansion
- Integrated Master Program
- Integrated Studies Realignment
- Master's Degree in Management
- Social Sciences Online Program
- STEM Online Program
- Undisclosed Community Partner Future Program

Enrollment projections were developed based on the past decade of enrollment and proposed new academic programs. Projections were developed for each department and combined to create the overall total by college and institution wide. For departments that experienced growth during the past decade, a linear trend was used to project forward. For those departments with a decrease in enrollment, a logarithmic trend line was used to moderate the decline. Enrollment projections previously developed through the Provost's office were also incorporated into the projections.

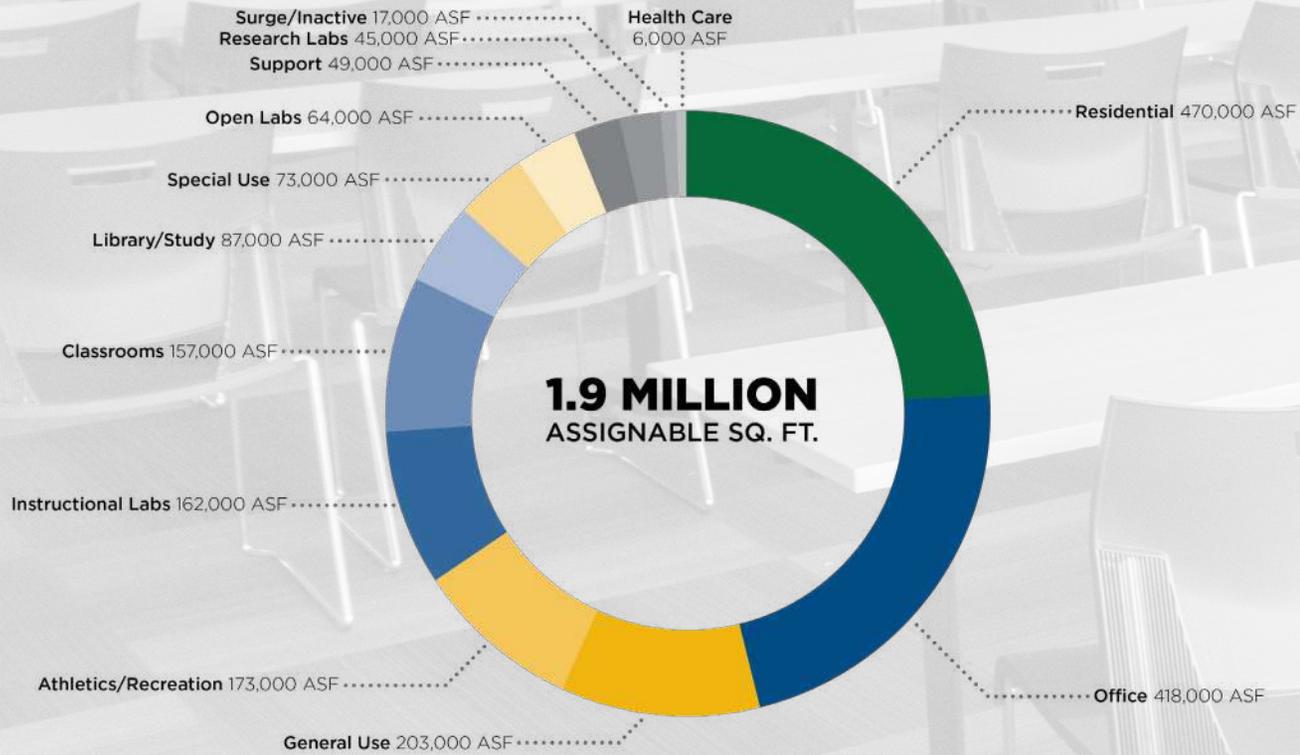
The chart below shows institution-wide historic and projected enrollment. Fall 2021 FTE enrollment was 9,932 students and Fall 2031 on-ground projected enrollment is 12,760 FTE students.

FALL SEMESTER FTE ENROLLMENT (ON-GROUND)



EXISTING SPACE INVENTORY

A comprehensive existing University space inventory of the University was collected and validated as part of the assessment process, including a verification of room use, seating capacity, and departmental assignment.



	Assignable Sq. Ft. (ASF)	ASF per FTE Student
Classrooms	157,090	15.8
Instructional Labs	162,247	16.3
Open Labs	63,552	6.4
Research Labs	45,017	4.5
Offices	418,034	42.1
Library	86,614	8.7
Special Use	73,248	17.4
Athletic/Recreation	172,573	7.4
General Use	203,132	20.5
Campus Support	48,836	4.9
Health Care	5,784	0.6
Residential	469,670	47.3
Surge/Inactive	16,941	1.7
Total	1,922,738	194

SPACE TYPE DESCRIPTIONS

Classrooms

All space used for scheduled, non-laboratory instruction for all academic units. Includes classrooms, seminar rooms, and lecture halls, as well as rooms allocated as classroom service/support.

Instructional Laboratories

Space used primarily for formally or regularly scheduled instruction (including associated mandatory but non-credit-earning laboratories) that requires special purpose equipment or a specific space configuration for student participation, experimentation, observation, or practice in an academic discipline.

Research Laboratories

Laboratories and service space used for non-class and research activities.

Open Laboratories

Laboratories used primarily for individual or group instruction that is informally scheduled, unscheduled, or open.

Office

Office and work areas for academic and administrative personnel, along with office service space, including conference rooms, copy areas, waiting areas, and file or supply storage.

Library/Study

Library stack, processing, and archive spaces, as well as any study spaces, whether or not they are located in the library.

General Use

Space characterized by broader availability to faculty, students, staff, or the public, including general services or support space such as assembly or exhibition space, dining, student lounges, merchandising, general meeting space, and day care facilities.

Special Use

Includes several space categories that are specialized enough in their function to require a unique space code. Areas for media production, non-health clinical activities, demonstration, and animal and plant shelters are included, as well as interview rooms, counseling spaces, and tutoring and testing space.

Support

Centralized space for various systems and campus services that support all institutional programs and activities, including central computer services, maintenance space, general storage, and other central services such as shipping/receiving and printing services.

Health Care

Space to provide medical care to patients, including clinics and infirmaries and associated support spaces.

Residential

Student housing facilities.

Athletics/Recreation

Space used by students, staff, or the public for athletic or physical education. Includes gyms and other indoor sports facilities.

Surge/Inactive

Space available for assignment to a unit or activity, but unassigned at the time of this plan. Includes designated surge space.

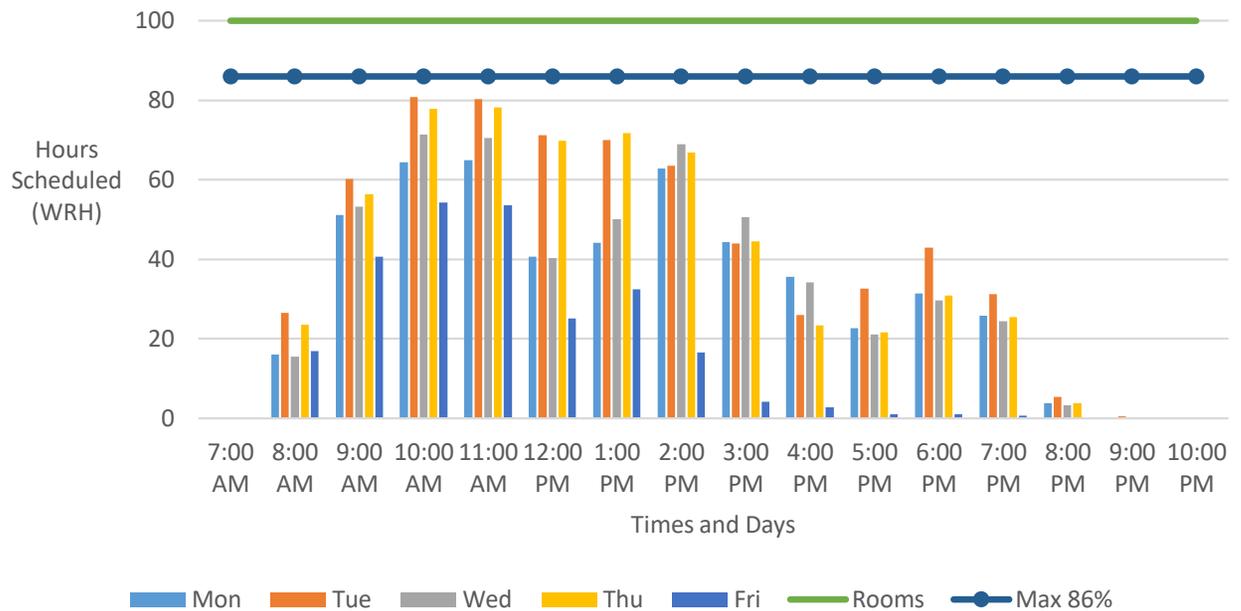
CURRENT SPACE UTILIZATION

An analysis of existing academic space utilization was conducted for this Campus Master Plan using the THEC Space Guidelines. As shown in the chart to the right, there are 100 classrooms on campus, and utilization of those reaches 80% during peak periods, but declines after 2:00 p.m. Monday-Thursday and on Fridays. This indicates that there is availability to schedule additional classes in existing classrooms.

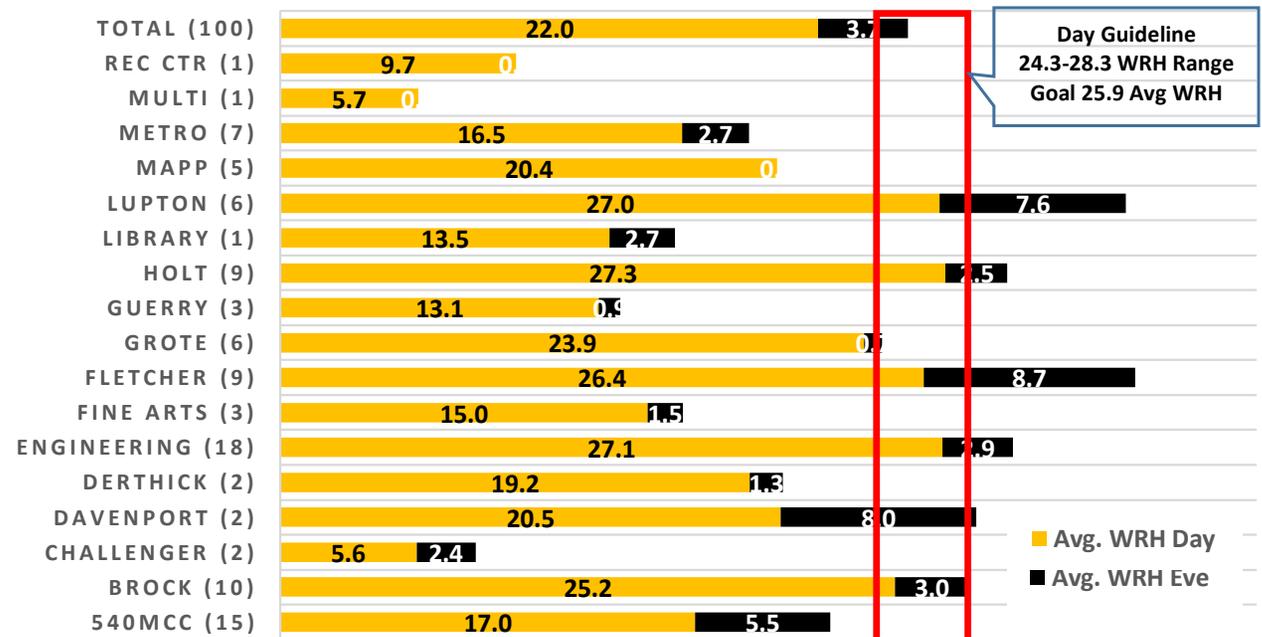
Looking at classroom utilization by building, certain buildings have a lower average classroom utilization. This is likely due to a combination of factors, including classroom location, the condition of the room, and other scheduling factors.

There are 107 teaching labs on campus, and those were scheduled 15.5 daytime hours per week on average during the Fall 2021 semester, with an average of 71% of the stations occupied.

CLASSROOM UTILIZATION BY DAY AND TIME (FALL 2021)



AVERAGE CLASSROOM WEEKLY ROOM HOURS (WRH) BY BUILDING (FALL 2021)



PROJECTED SPACE NEEDS (THEC SPACE GUIDELINES)

The table below shows the amount of existing space in each category, as well as the amount of space needed in each category according to the THEC Space Guidelines, both today and with future growth. Deficits (shown in red) indicate a need for additional space. Future (2031) needs assume that the following improvements have been constructed:

- Hunter Hall system upgrades
- McKenzie Arena Addition
- Health Sciences Building
- Innovation & Advanced Manufacturing Application Center (I-AMAC)

- 540 McCallie Avenue Building upgrades
- University Center Renovation

There is a need for additional teaching lab, research, and physical education space both today and in the future. These needs are addressed in the recommended plan. The amount of existing classroom, open lab, office, and library/study space is greater than the current need, indicating that there may be potential to repurpose some of these spaces, although there is a need for these spaces in the future. Detailed space needs are shown in the appendix.

Space Category	Equiv FICM	Existing E & G Assignable Square Feet (ASF)	THEC Space Needs Model				Alternative Space Needs Model	
			Current ASF Need		Projected ASF Need		Projected ASF Need	
			THEC Model	Difference from Existing	THEC Model (1)	Difference from Existing	Alternative Model (1)	Difference from Existing
I-Classrooms	1xx	157,090	75,626	81,464	126,704	30,386	142,159	14,931
II-Lab/Studio	210, 215	162,247	246,917	(84,670)	318,569	(156,322)	202,415	(40,168)
III-Open Lab	220, 225	63,552	49,660	13,892	69,286	(5,734)	66,477	(2,925)
IV-Research	250, 255	45,017	59,537	(14,520)	63,258	(18,241)	184,886	(139,869)
V-Office (2)	3xx	378,696	241,291	137,405	286,645	92,051	364,953	13,743
VI-Library	4xx	86,614	83,014	3,600	96,876	(10,262)	104,827	(18,213)
Vii-Physical Education	520, 523, 525	75,905	177,252	(101,347)	208,085	(132,180)	135,175	(59,270)
Totals		969,121	933,297	35,824	1,169,423	(200,302)	1,200,892	(231,771)

(1) Includes programmed space for the Fletcher Hall Addition, Health Sciences Building, I-AMAC and University Center future projects.

(2) Existing office inventory excludes 39,338 ASF assigned to auxiliary operating units.

Reference: Table 7, Page 19

PROJECTED SPACE NEEDS (ALTERNATIVE SPACE MODEL)

This table summarizes current and future space needs based on an alternative space needs model used by the planning team, which produces a different perspective from the THEC Space Guidelines, particularly with regard to teaching lab, research lab, and physical education space. In addition to the THEC space planning guidelines, the alternative model blends various planning methodologies including adaptation of innovative space planning approaches developed at other universities, application of accepted conventional space formulas and guidelines that have been tested and formulas and criteria developed by the consultants for space types not addressed by conventional approaches.

The alternative model also estimates the need for additional types of space (shown in gray). Planning assumptions provide the direction for student enrollment, personnel changes, and potential new programs. Interviews with the Deans and Vice Chancellors were conducted to review results, verify data, discuss space use, and provide program related data used to refine the modeling process.

(1) Existing comparative space data includes upgrade projects for Hunter Hall and 540 McCallie Building; University Ctr. Renovation; the McKenzie Arena Addition; and the new the Health Sciences Building and Innovation & Advanced Manufacturing Application Ctr. Does not include 32,680 ASF classified as unusable space.

(2) Projected space needs include programmed space for the Fletcher Hall Addition, Health Sciences Building, I-AMAC, University Center Renovation and 540 McCallie upgrade capital projects.

(3) Future residential space needs include the demolition of Boling Apartments, construction of the New Residence Hall and the provision of an additional 505 beds to meet future demand.

(A total of 890 beds to meet the future needs).

Space Type	Existing ASF	Current		Projected		
		Calculated ASF Need	Difference from Existing	Calculated ASF Need	Difference from Existing	
100	Classrooms	157,090	87,575	69,515	142,159	14,931
210	Teaching Labs	162,247	159,456	2,791	202,415	(40,168)
220	Open Labs	63,552	57,610	5,942	66,477	(2,925)
250	Research Labs	45,017	144,672	(99,655)	184,886	(139,869)
300	Offices	418,034	313,185	104,849	364,953	53,081
400	Library Space	86,614	94,178	(7,564)	104,827	(18,213)
500	Special Use Facilities	73,248	96,125	(22,877)	116,195	(42,947)
520	Athletics Space	78,826	78,826	0	78,826	0
520	Student Recreation Space	93,656	93,656	0	135,175	(41,519)
600	Other General Use Space	150	0	150	150	0
610	Assembly Facilities	50,076	43,071	7,005	45,874	4,202
620	Exhibition Space	10,306	8,769	1,537	10,170	136
630	Food Facilities	59,452	59,452	0	75,698	(16,246)
650	Lounge Space	18,030	22,473	(4,443)	22,254	(4,224)
660	Merchandising Space	20,656	12,665	7,991	16,169	4,487
670	Recreation	5,164	5,164	0	9,664	(4,500)
680	Meeting Rooms	39,298	35,238	4,060	57,476	(18,178)
700	Support Facilities	48,836	84,935	(36,099)	112,347	(63,511)
800	Health Care Facilities	5,784	7,358	(1,574)	9,315	(3,531)
900	Residential Space	469,670	469,670	0	751,451	(281,781)
	Unused	16,941	0	16,941	0	16,941
Totals - By Space Type		1,922,647	1,874,078	48,569	2,506,481	(583,834)
					Total Surpluses	93,778
					Total Deficits	(677,612)
					Gross Square Feet (Deficit)	(1,129,353)

Reference: Table 17, Page 27

NEEDS BY COLLEGE (ALTERNATIVE SPACE MODEL)

This table presents current and future calculated space needs compared to existing space by major division and subdivision or college, based on the planning team's alternative space model.

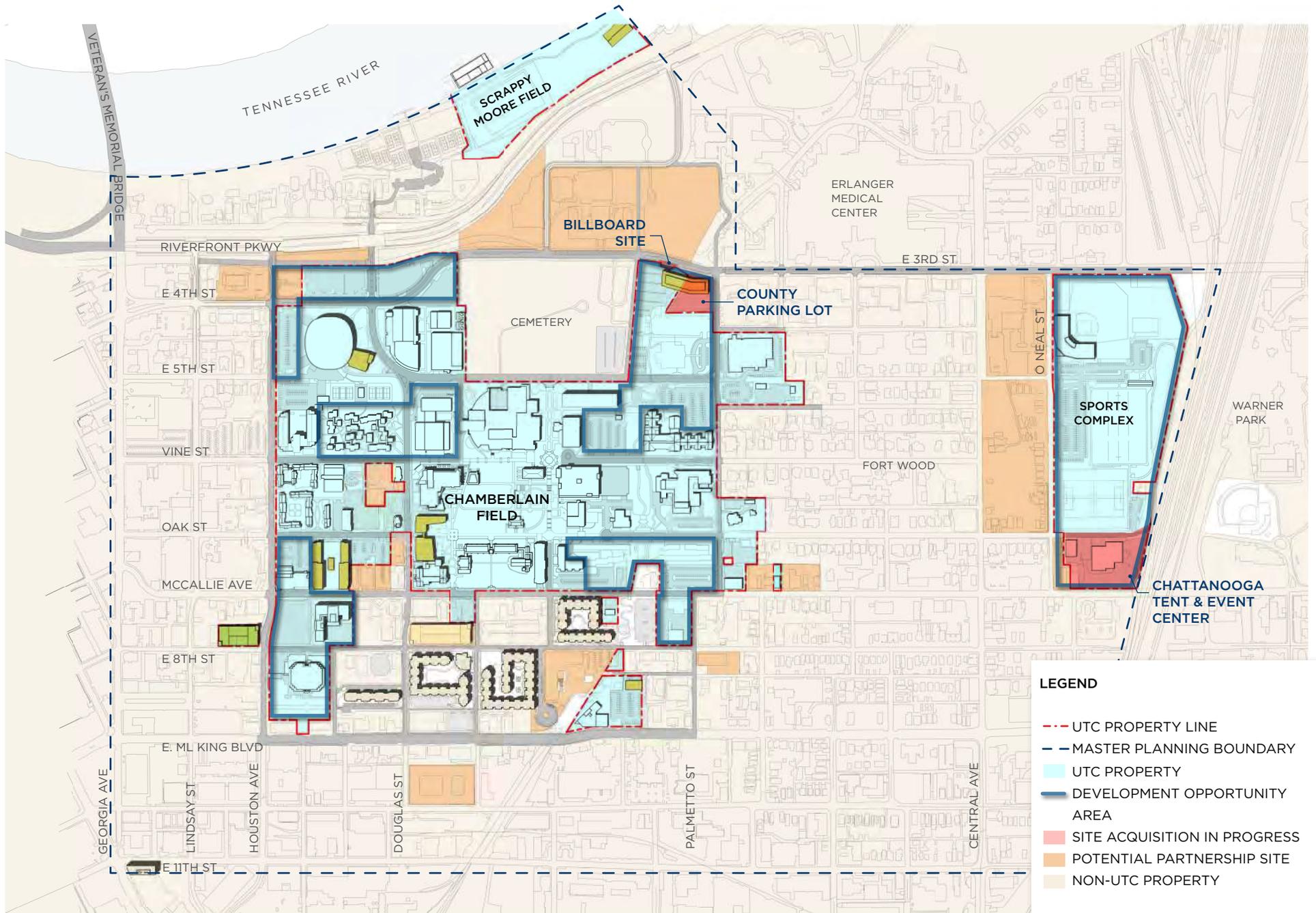
For purposes of this plan, a separate space grouping called Campus-wide Space was identified to include spaces that are considered to be shared resources and are characterized by a broader availability to faculty, students, staff, or the public (classrooms, general assembly, exhibition, merchandising, and campus support facilities).

Projected needs show a net deficit of 583,834 ASF, or 29.9% more than existing. In the future projections, the College of Arts and Sciences and Engineering, and the College of Computer Science will have the largest space shortages. Among administrative units, the greatest future space shortage will be in the Enrollment Management and Student Affairs Divisions, due to an expansion of student housing to address planned enrollment growth.

(1) This divisional category includes campus-wide shared space: Classrooms, General Assembly, Exhibition Merchandising & Campus Support.

Division/Subdivision or College	Existing Space -ASF	Current		Projected	
		Calculated ASF Need	Difference From Existing	Calculated ASF Need	Difference From Existing
Chancellor	14,606	10,506	4,100	10,506	4,100
Provost and Senior Vice Chancellor for Academic Affairs					
Academic Affairs	25,365	27,264	(1,899)	28,387	(3,022)
College of Arts and Sciences	266,196	289,902	(23,706)	347,443	(81,247)
College of Engineering and Computer Science	93,079	128,927	(35,848)	176,006	(82,927)
College of Health, Education and Professional Studies	109,437	130,163	(20,726)	156,066	(46,629)
Gary W. Rollins College of Business	37,808	48,383	(10,575)	82,940	(45,132)
UTC Library	111,671	113,316	(1,645)	125,668	(13,997)
Provost and Senior Vice Chancellor for Academic Affairs Totals	643,556	737,954	(94,398)	916,509	(272,953)
Vice Chancellor and Director of Athletics	81,770	80,989	781	80,989	781
Vice Chancellor for Communications and Marketing	11,031	10,289	742	10,289	742
Vice Chancellor for Development and Alumni Affairs	11,276	3,129	8,147	3,129	8,147
Vice Chancellor for Diversity and Engagement	1,416	1,445	(29)	1,445	(29)
Vice Chancellor for Enrollment Management and Student Affairs					
Chief Health Affairs Officer	12,319	12,239	80	14,496	(2,177)
Dean of Students	30,725	23,818	6,907	31,137	(412)
Enrollment	15,355	12,991	2,364	14,187	1,168
Enrollment Management and Student Affairs	5,422	6,256	(834)	7,199	(1,777)
Student Affairs	634,842	631,708	3,134	969,860	(335,018)
Student Success	14,941	12,945	1,996	14,015	926
Vice Chancellor for Enrollment Mgmt. and Student Affairs Totals	713,604	699,957	13,647	1,050,893	(337,289)
Vice Chancellor for Finance and Administration					
Auxiliary Services	32,243	30,002	2,241	42,687	(10,444)
Business Services	52,227	50,178	2,049	50,701	1,526
Emergency Services	6,923	4,555	2,368	4,555	2,368
Finance and Administration	4,280	2,418	1,862	2,418	1,862
Human Resources	2,616	2,486	130	2,486	130
Operations	18,378	6,134	12,244	6,134	12,244
Vice Chancellor for Finance and Administration Totals	116,667	95,773	20,894	108,982	7,685
Vice Chancellor for Information Technology	17,658	10,144	7,514	10,144	7,514
Vice Chancellor for Research & Dean of Graduate School	24,256	21,382	2,874	21,382	2,874
Campus-wide Space (1)	286,898	202,599	84,299	292,304	(5,406)
Totals - By Division	1,922,738	1,874,169	48,569	2,506,572	(583,834)

Reference: Table 15, Page 25



DEVELOPMENT OPPORTUNITY AREAS

SPACE BLOCKS

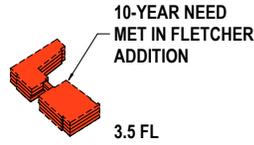
The following represents a total space need for 10-year projected enrollment, staffing and external research expenditures by division or College. Space blocks do not reflect proposed building massing. An assumption for a number of stories is shown based on typical floor plate widths for the proposed use.

The total bed need includes the replacement of Boling Apartments and Lockmiller I & II.

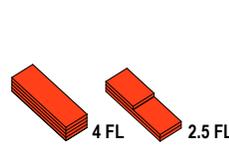
Total parking needs represent the full replacement of approximately 1,565 existing surface parking spaces on proposed development sites.

Additional assumptions include the following:

- A building grossing factor of 70% for Athletic and Recreation facilities
- A building grossing factor of 60% for all other facilities
- Assumption of 450 gross square feet per bed for student housing
- Assumption of 39 net square feet per seat for campus dining



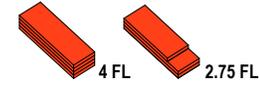
ROLLINS COLLEGE OF BUSINESS
75,220 GSF



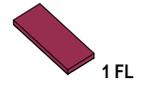
COLLEGE OF ARTS & SCIENCES
137,078 GSF



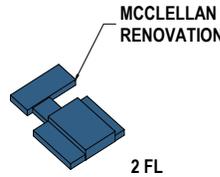
COLLEGE OF HEALTH, EDUCATION & PROFESSIONAL STUDIES
3,548 GSF



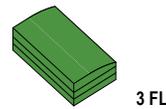
COLLEGE OF ENGINEERING & COMPUTER SCIENCE
138,212 GSF



STUDY SPACE
23,328 GSF



ATHLETICS
84,671 GSF



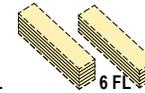
RECREATION
105,714 GSF



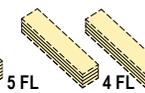
STUDENT AFFAIRS WORKSPACE
12,817 GSF



STUDENT HOUSING
109 BEDS
49,050 GSF



BOLING REPLACEMENT
403 BEDS
181,350



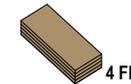
LOCKMILLER REPLACEMENT
292 BEDS
131,400 GSF



GENERAL USE/ STUDENT LIFE
33,555 GSF



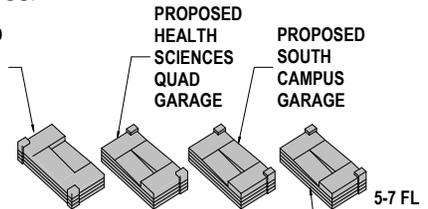
FOOD/ DINING
450 SEATS
34,250 GSF
(INCLUDES CROSSROADS REPLACEMENT)



CAMPUS & FACILITIES SUPPORT
105,070 GSF



CENTRAL UTILITY PLANT

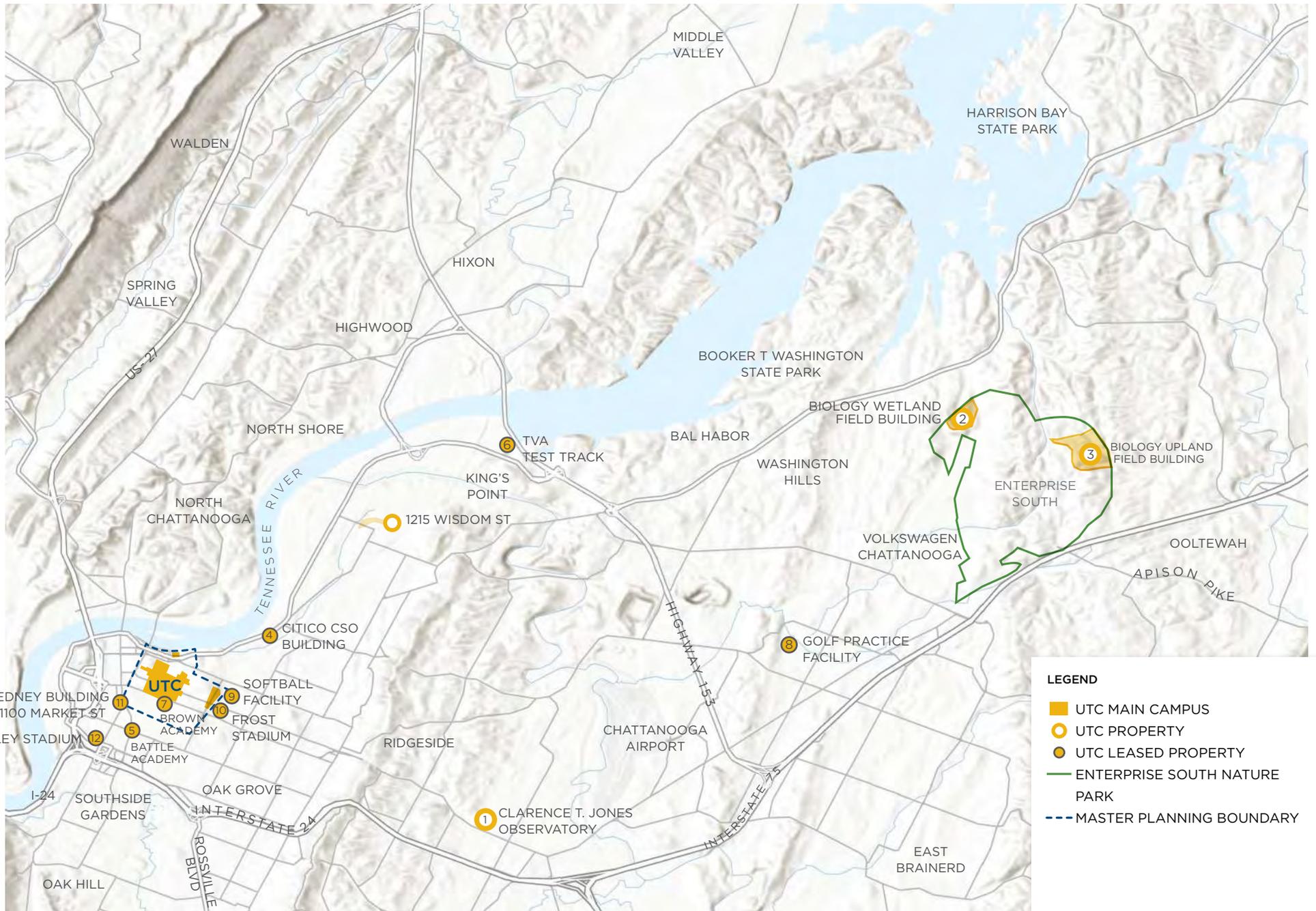


POTENTIAL REPLACEMENT PARKING DEMAND
APPROX. 1,600 SPACES
(1,565 SPACES REMOVED IN DEVELOPMENT AREAS)

OPTIONAL GARAGE DEVELOPMENT AT ENGEL STADIUM



**PLANNING
ASSUMPTIONS
AND ASSESSMENT**



REGIONAL CONTEXT & PRESENCE



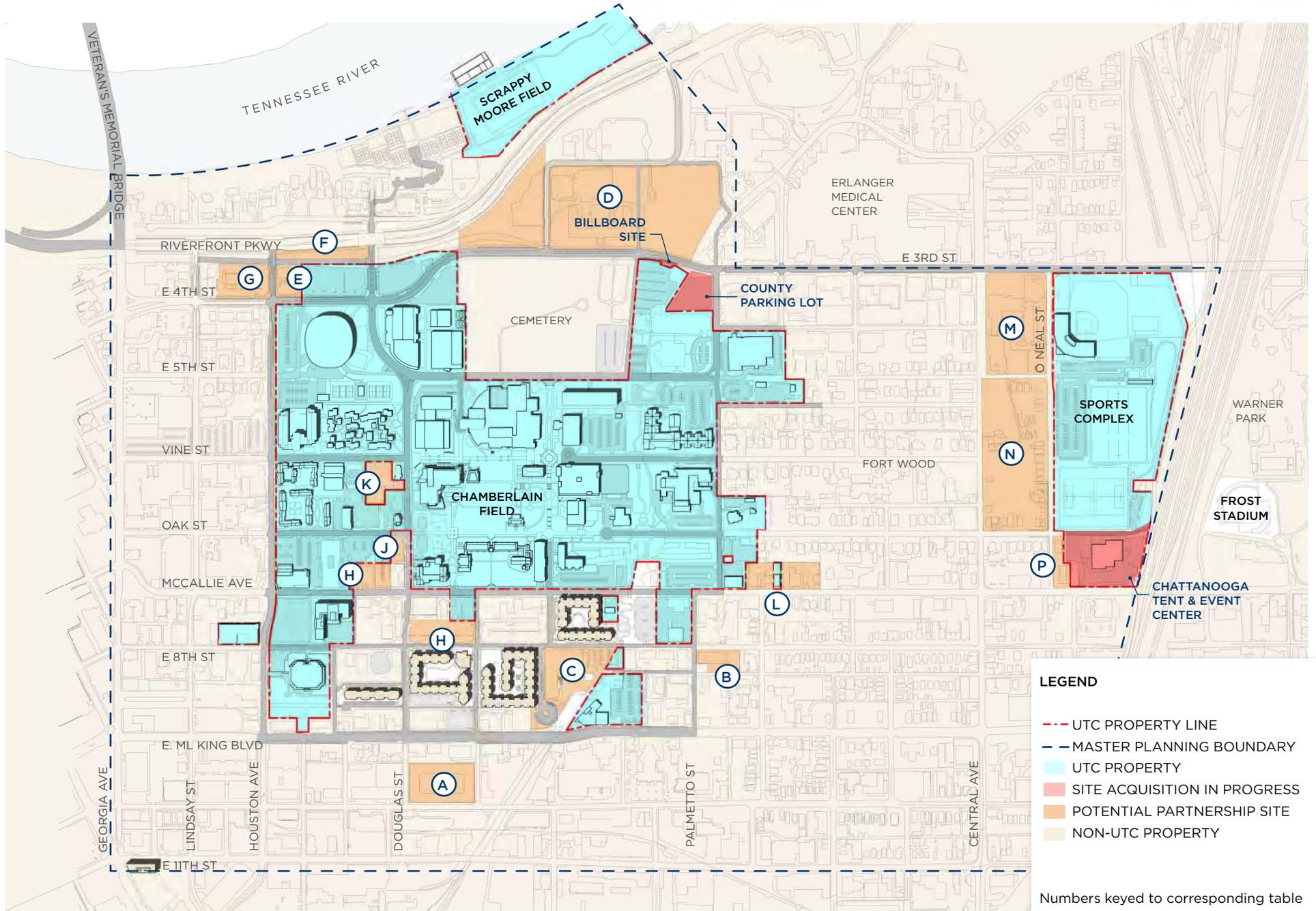
REGIONAL FACILITIES

UTC owns and leases facilities across the Chattanooga metropolitan area. These serve a number of athletic, research, and other functions that support the University and the Main Campus in Downtown Chattanooga.

	NAME	STATUS	PRIMARY USE
1	CLARENCE T. JONES OBSERVATORY	OWNED	OBSERVATORY
2	ENTERPRISE SOUTH BIOLOGY WETLAND FIELD BUILDING	OWNED	FIELD STATION
3	ENTERPRISE SOUTH BIOLOGY UPLAND FIELD BUILDING	OWNED	FIELD STATION
4	CITICO CSO BUILDING	LEASE	BIOLOGY LAB
5	BATTLE ACADEMY	LEASE	CHILDCARE CENTER
6	TVA TEST TRACK	LEASE	ENGINEERING PROJECTS
7	BROWN ACADEMY	LEASE	CHILDCARE CENTER
8	GOLF PRACTICE FACILITY	LEASE	PRACTICE FACILITY
9	WARNER SOFTBALL FIELD & FACILITY	LEASE	PRACTICE FACILITY
10	FROST STADIUM	LEASE	SOFTBALL FIELD
11	EDNEY BUILDING, 2ND FLOOR	LEASE	GRANT PROJECT & RESEARCH
12	FINLEY STADIUM	LEASE	FOOTBALL

In addition, UTC leases the following properties for parking:

#	NAME	STATUS
30	MIZPAH CEMETERY	LEASE, EXPIRES 07/31/25
24	FIRST CHURCH OF CHRIST SCIENTIST	LEASE, EXPIRES 07/31/23
57	FIRST BAPTIST CHURCH	LEASE, NO EXPIRATION
65	CHRIST CHURCH EPISCOPAL	LEASE, EXPIRES 07/31/24
40/52	UNUM LOTS	LEASE, NO EXPIRATION, MONTHLY RENEWAL
26 (PARTIAL)	FIRST PRESBYTERIAN	LEASE, EXPIRES 6/30/2025
47-1, 2, 3, 4	UTC PLACE	LEASE, NO EXPIRATION



PLANNING BOUNDARY AND LAND ACQUISITION

PLANNING BOUNDARY AND LAND ACQUISITION

The UTC campus is roughly six city blocks east-to-west and five city blocks north-to-south, bounded by Houston Avenue along the west, Palmetto Street to the east, Mocs Alumni Drive (formerly 5th Street) to the north, and McCallie Avenue to the south. Riverfront Parkway, accessible via 3rd and 4th Streets, is a primary point of access to campus. The Parkway creates an edge between UTC and the Tennessee River that limits pedestrian connectivity to the riverfront and Scrappy Moore Field.

Additional campus property includes the UTC Sports Complex, located east of campus past the Fort Wood neighborhood.

Land within the Master Planning Boundary shows additional potential future acquisition or development sites. The boundary also represents an area of influence where the University will continue to understand planning activities by neighbors and identify potential properties to acquire.

Potential partnerships or acquisitions of the following sites would provide opportunities to continue expanding academic programs, enhance campus edges and identity, provide strategic locations for new and replacement parking, and expand academic programs. In addition, due to the highly urban environment of the campus, land acquisition will help enhance campus edges and identity, provide strategic locations for new and replacement parking, and fill in gaps for continuity.

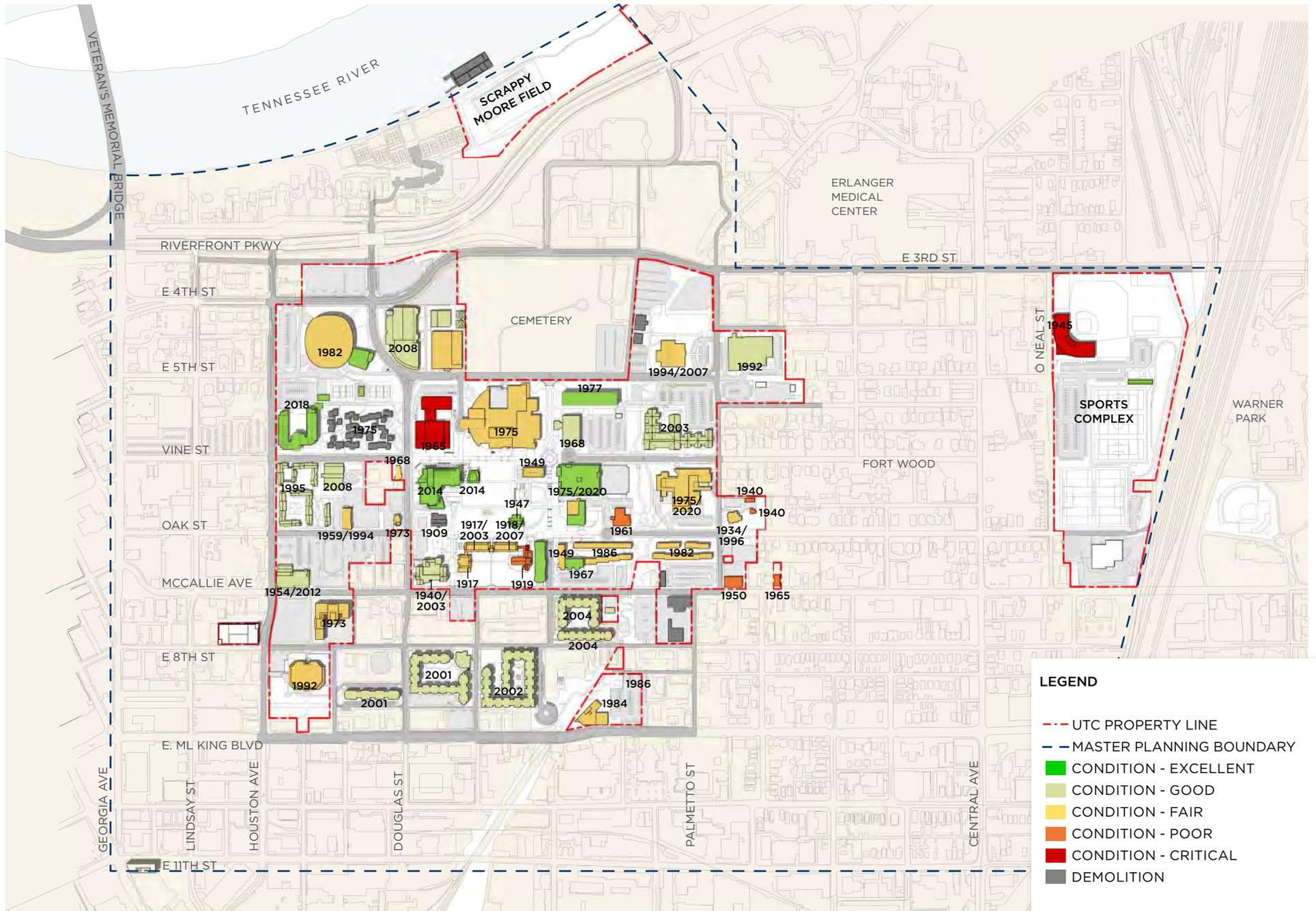
At the time of this report, UTC is in the process of three property acquisitions located along the periphery of campus. They include a Hamilton County surface parking lot located at 975 East 3rd Street, a small parcel occupied by a billboard located at 888 East 3rd Street, and the Chattanooga Tent and Event Center located at 1112 Oak Street, which will

provide short-term facilities support needs and long-term opportunities to expand the Sports Complex. The first two site acquisitions have a critical role in accommodating the development of a new UTC Health Sciences Complex near Erlanger Hospital and the Children's Hospital.

The University has also identified the following locations as potential partnership sites or acquisitions:

A	Douglas Heights 930 Douglas St
B	Palmetto Place 910 E 8th St
C	Brown Academy
D	Chattanooga School of Arts and Sciences 865 E 3rd St
E	Blood Assurance Inc 705 E 4th St
F	Parcel north of Blood Assurance, available with the removal of E 3rd St by Tennessee Department of Transportation
G	University Towers 651 E 4th St
H	First Presbyterian Church of Chattanooga* 545 and 559 McCallie Ave
J	Christ Church Parish Inc Annex* 661 Douglas St
K	Tennessee Baptist Convention - 540 Vine St / 584 Vine St Methodist Student Center - 607 Douglas St
L	819, 821, 823, 829, 833, 837 McCallie Ave
M	UT Family Medicine, 1100 E 3rd St
N	The 500-600 block bounded by Central Ave, Oak St, E 5th St, and O Neal St
P	1021 and 1100 Oak St

* Acquisition or partnership may include land-swap



FACILITIES CONDITION

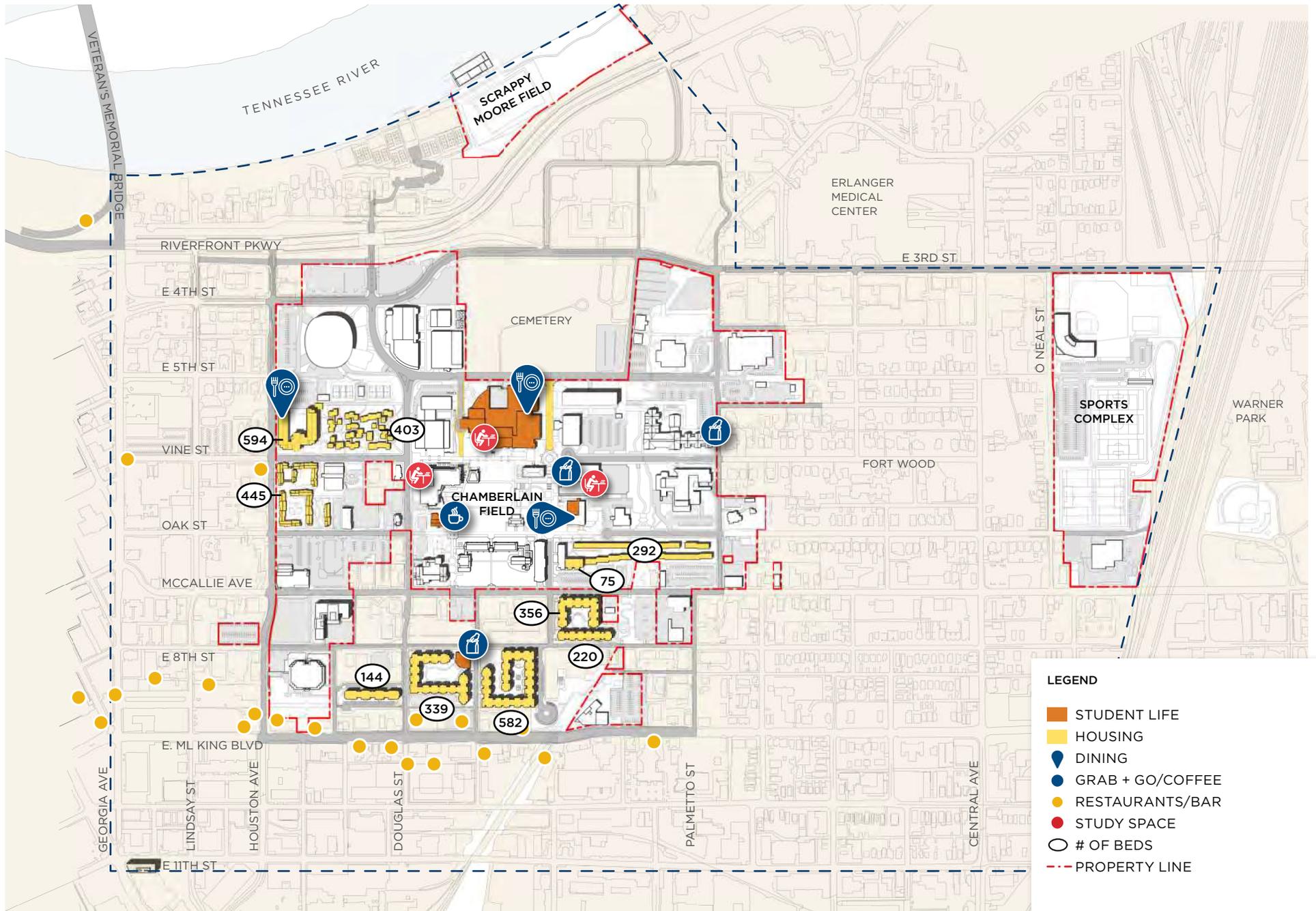
FACILITY CONDITION & SUITABILITY

ID	FCI	FACILITY ID	NAME	BUILT/RENOV.
8202	Good	50820200	Engineering, Math & Computer Science Building (EMCS)	2003
8203	Excellent	50820300	Bretske Hall	1947
8204	Excellent	50820400	Holt Hall	1977
8205	Fair	50820500	Brock Hall	1949
8207	Poor	50820700	Cadek Hall	1975
8209	Critical	50820900	Danforth Chapel	1919
-	Excellent	50821100	Derthick Lecture Hall	2014
8212	Fair	50821200	Davenport Hall	1959/1994
-	Excellent	50821300	New Library at UTC	2014
8214	Fair	50821400	Fine Arts Center	1975/2020
8216	Fair	50821600	Founders Hall	1917
8217	Good	50821700	Acquatic & Recreation Center (ARC)	2008
8218	Excellent	50821800	Guerry Center (Honors College)	1958/2019
8218	Fair	50821800	Guerry Center (Crossroads)	1958
8220	Fair	50822000	Hooper Hall	1918/2007
8223	Excellent	50822300	Lupton Hall	1975/2020
-	Good	50822400	Fletcher Hall	1940/2003
8226	Critical	50822600	MacLellan Gymnasium	1965
-	Good	50822700	Lawson Center	2008
8228	Fair	50822800	Challenger Center	1994/2007
-	Poor	50822900	Clarence T Jones Observatory	1943
8230	Good	50823000	720 McCallie Avenue	1992
8231	Poor	50823100	Patten Chapel	1919
8282	Poor	50823200	825 McCallie Avenue (Music Annex)	1965
8231	Fair	50823300	Patten House	1934/1996
8235	Fair	50823500	Race Hall	1917/2003
8239	Good	50823900	Grote Hall	1968
-	Critical	50824100	Engel Stadium	1945
8243	Fair	50824300	University Center	1975
8252	Good	50825200	Stagmaier Hall	1967
8260	Good	50826000	Administrative Services Building	1992
8268-10	Demo	50826810	Collins Street Office Annex	2008

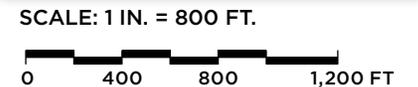
-	Demo	50826820	Collins Street Classroom Annex	2008
827020	Fair	50827100	551 Oak Street Building	1930
-	Demo	50827800-50829500	Boling Apartments (Buildings A-R)	1975
8297	Good	50829700	Metro Building	1954/2012
8299	Poor	50829900	801 McCallie Avenue	1950
8301	Demo	50830100	Development House	1909
-	Poor	50830300	Patten Carriage House	1940
8304	Poor	50830400	Patten Caretaker Dwelling	1940
8320	Fair	50832000	McKenzie Arena	1982
8323	Demo	50832300	Doctors Building	1957
-	Fair	50832500	540 McCallie Ave	1973
8326	Fair	50832600	James R. Mapp Building	1992
8411	Demo	50831100	739 McCallie Building	1950

UT Chattanooga's existing facilities are in a broad range of conditions. A number are in critical or poor condition, indicating that the cost of deferred maintenance exceeds 30% of the replacement value of the building. Some of these facilities are addressed in this plan with proposed improvements, but others are in poor condition due to their age and historic nature.

Older buildings are a challenge on any historic campus, since they contribute significantly to the appeal of campus, but also can be inflexible and challenging to maintain. Most historic buildings on campus are recommended for preservation. A number of historic buildings on campus are also in good or excellent condition due to recent investments. Many of these serve a large number of students or department-specific purposes.



FACILITY USE - STUDENT SERVICES, HOUSING & DINING



EXISTING STUDENT HOUSING

UTC operates on-campus student housing consisting of 3,450 beds located in 10 residential complexes. Currently, the University has the **capacity to house approximately 30% of its student body**. Other characteristics of UTC's residential program include:

- UTC has a **first-year residency requirement**.
- The vast majority of the University's housing stock offers apartment-style units (with full kitchens) with single-occupancy bedrooms. This configuration is atypical for an institution focusing on lower-division housing, but it **helps with student recruitment**, since incoming freshmen generally don't have the option to stay in single-bedrooms at other universities they consider.
- Overall, UTC's housing stock is in good physical condition, with the exception of Boling Apartments and Lockmiller Hall.

STRATEGIC OBJECTIVES

During interaction with University leadership, the following strategic objectives were developed with respect to student housing:

- **Housing is a strategic asset and aids in student recruitment and retention.** More beds will be needed in the future to support enrollment growth.
- The first-year live-on requirement will remain in place.
- While various residential life programs, such as Residential Colleges, are being implemented, **a second-year residency requirement is unlikely at this point** and should not be factored in the demand calculations.
- Single-occupancy bedrooms are a very important feature of residential life and will likely be replicated in the future.

HOUSING DEMAND

Housing demand was calculated by applying historical capture rates by class to enrollment projections. Based on this approach, UTC will need an additional 890 beds by 2031. The off-campus market should be monitored for future growth and potential demand impacts since it already offers purpose-built housing targeting students.



UNIVERSITY CENTER

The University Center (“UC”), is the central hub of campus. This building offers student services, dining, the bookstore, meeting spaces, and student lounges. The building is approximately 220,000 gross square feet.

A significant number of student life program elements are located in Lupton Hall, which serves primarily as an academic facility. These elements include lounges, the Freshens dining venue, Multicultural Center, Center for Women and Gender, Center for Global Education, and Student Activities & Organizations.

Many members of the campus community members also view the **Library as a student life asset** due to programs such as the Starbucks coffee shop and the ITC Library Studio (a workspace for innovative technology and media creation).

The previously proposed UC renovation project focuses primarily on building infrastructure and additional administrative office space rather than providing more student-oriented space.

STRATEGIC ISSUES

During interaction with University leadership, the following strategic issues were developed with respect to the UC:

- **The UC is undergoing an identity crisis** since it currently fills many roles: student center, community center, student services building, and conference center.
- UTC has embraced the model of distributed student life hubs with UC, Lupton Hall, and the Library serving as the primary ones.
- Significant investment will be needed in building infrastructure due to deferred maintenance issues.



The University Center serves multiple functions and is in need of significant renovation

DINING

Freshmen and Sophomores who live on campus are required to purchase a meal plan. For off-campus students, meal plans are optional. In the Fall of 2021, UTC sold 3,564 meal plans, of which 3,155 were residential/mandatory and 409 were non-residential/voluntary. In the Fall of 2022, more voluntary meal plan options will be available to satisfy student demand.

EXISTING DINING OPTIONS

Crossroads

Community-style dining hall (375 approx. seating capacity)

University Center

Retail-style food service with Panda Express, Moe's, Chick-fil-A, Blue & Gold Bistro, and P.O.D. Market (a convenience store)

West Campus

Retail-style food service at West Campus Housing with Einstein's Brothers Bagels, P.O.D. Market, and Dippers

South Campus in Stacy Town Center

Retail-style food service with Subway and P.O.D. Market

Lupton Hall

Freshens

Library

Starbucks

Engineering Math and Computer Science Building

P.O.D. Express

Metropolitan Building

P.O.D. Pantry

Hunter Hall

P.O.D. Pantry

STRATEGIC ISSUES

During interaction with dining providers, the following strategic issues were identified:

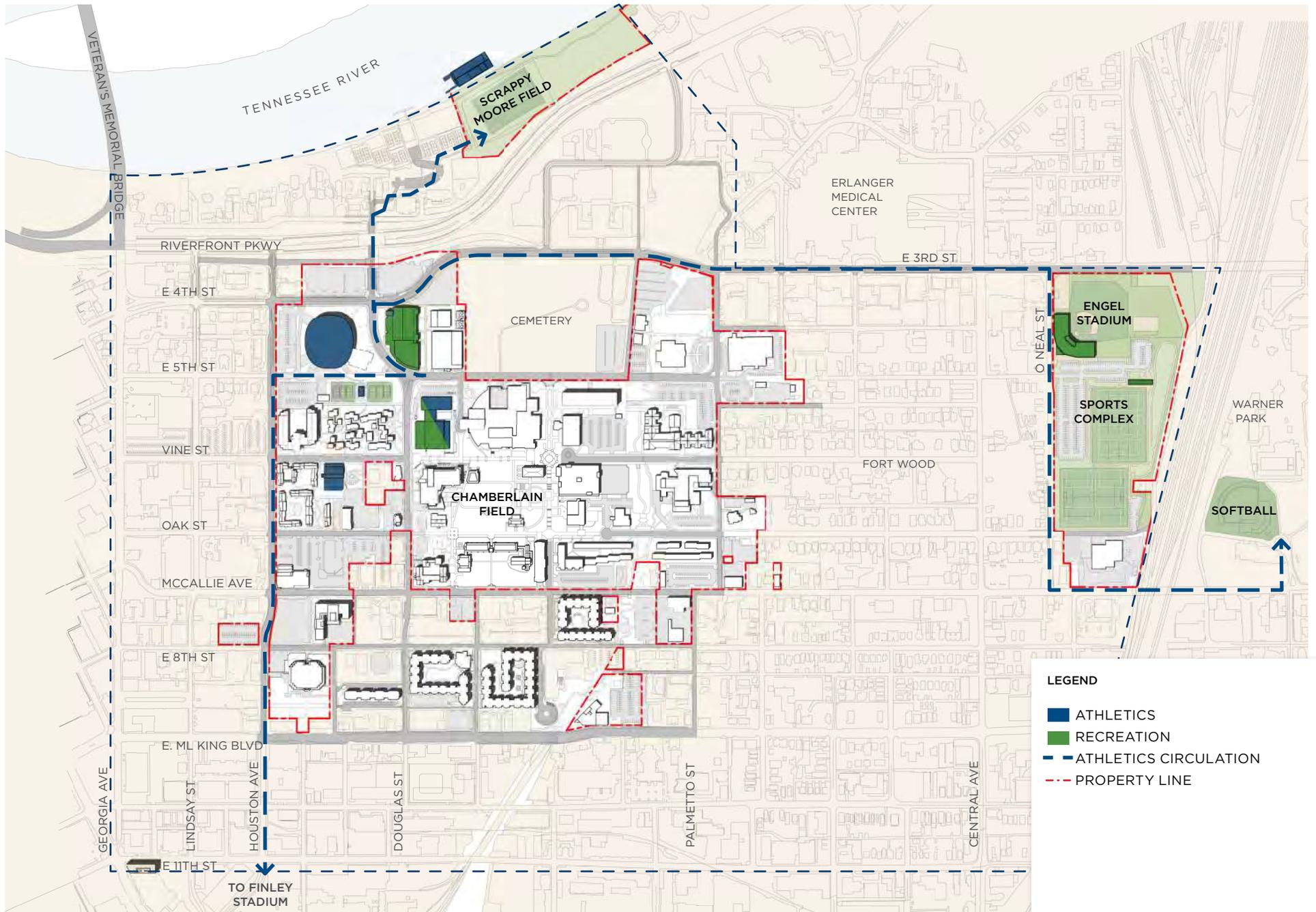
- Students primarily use retail dining venues, with significantly less interest in community-style dining at the Crossroads.
- Crossroads is an aging facility that does not provide for the quality dining experience students desire. Due to low ceiling heights and dated infrastructure, a renovation would not solve all problems.
- The South Campus, given the size of its residential population, is underserved with respect to student services including dining. More options should be offered to address the demand.
- The campus lacks late night dining options. Locations with convenient operating hours should be available to students.

DINING DEMAND

A quantitative dining analysis was conducted based on meal card swipes and credit card transactions at all dining venues during peak periods of the Fall 2021 semester. Transaction volume data was translated into demand for seating, and the peak demand capacity was later reconciled with the existing supply. Demand was adjusted upward based upon the following factors:

- Anticipated return to pre-COVID meal plan sales (8%)
- Anticipated growth in meal plan sales due to a more desirable meal plan structure (10%)
- Projected enrollment growth by Fall 2031 (30%)

Based on this quantitative analysis, **there is a need for approximately 1,100 total seats to satisfy peak demand.**



FACILITY USE - ATHLETICS & RECREATION

ATHLETICS

UTC serves approximately 300 student-athletes across 16 competitive Division I sports.

- McKenzie Arena is the competition venue for many UTC sports programs. An addition is being added to McKenzie Arena for support spaces for the football and basketball programs.
- MacClellan Gymnasium houses support spaces for several athletics programs including wrestling. The facility is in poor condition.
- Currently, UTC Football exists in multiple locations spread throughout campus and downtown, with the practice field located at Scrappy Moore, games located at Finley Stadium, offices in McKenzie Arena.
- The Lawson building is a basketball and strength conditioning facility. The facility lacks identity for basketball programs, and the weight room is undersized.
- Frost Stadium is utilized for softball and is in relatively good condition.
- Engel stadium was built in 1930 and placed on the National Register of Historic Places in 2009, one year after having been acquired by UTC. The stadium sustained damage from a tornado in 2011 and remains in poor condition and is closed to the public. The 2019 Athletics Master Plan includes a study that renovates the stadium to include a 400M track, regulation soccer field, and football practice areas.

RECREATION

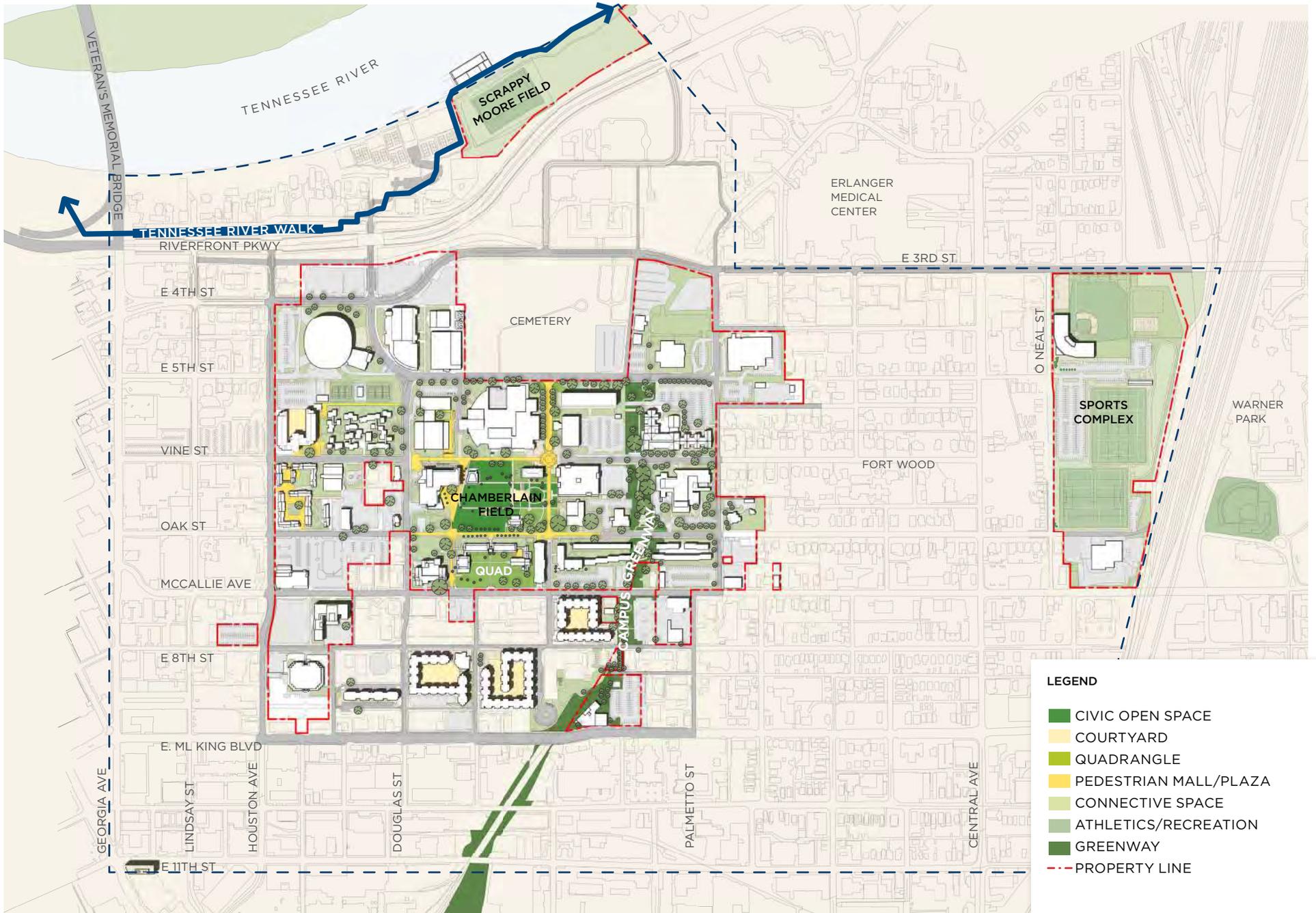
The ARC (Aquatic and Recreation Center, 68,700 net sq. ft.), and Maclellan Gymnasium (33,363 net sq. ft. - excluding pool area) are the key indoor components of UTC's recreation facilities.

The ARC offers weight/fitness space, multipurpose/group exercise rooms, a spin room, basketball/volleyball courts, an indoor jogging track, a climbing wall, an outdoor pursuits/rental center, a natatorium, locker rooms, and administrative offices.

Maclellan Gymnasium provides two additional recreational basketball/volleyball courts as well as a student health center. The indoor lap pool is offline.

During strategic visioning with student life professionals at UTC, the following issues and goals were identified as they relate to the future of the recreational program:

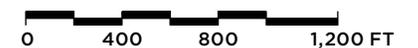
- The ARC is a strategic asset for the University but it needs programmatic enhancements. More indoor recreation space is needed.
- Maclellan Gymnasium is in very poor physical condition and will require either a comprehensive renovation or a full replacement.
- Some improvements are needed to the outdoor fields and the Engel Stadium.
- Proximity to the riverfront presents an opportunity with respect to outdoor recreational opportunities.



CAMPUS OPEN SPACE



SCALE: 1 IN. = 800 FT.



SIGNATURE OPEN SPACES

Open space is critical to the identity of the UTC Campus. The connectivity that the open space provides brings a sense of place to the campus users and facilities. There are several signature open spaces on the campus today:

CHAMBERLAIN FIELD

Chamberlain Field is the site of the former Football Field, and facade elements of the former stadium have been preserved as a pavilion. Located in the heart of campus, Chamberlain Field is UTC's signature open space and should be preserved as space needs continue to grow in the future.

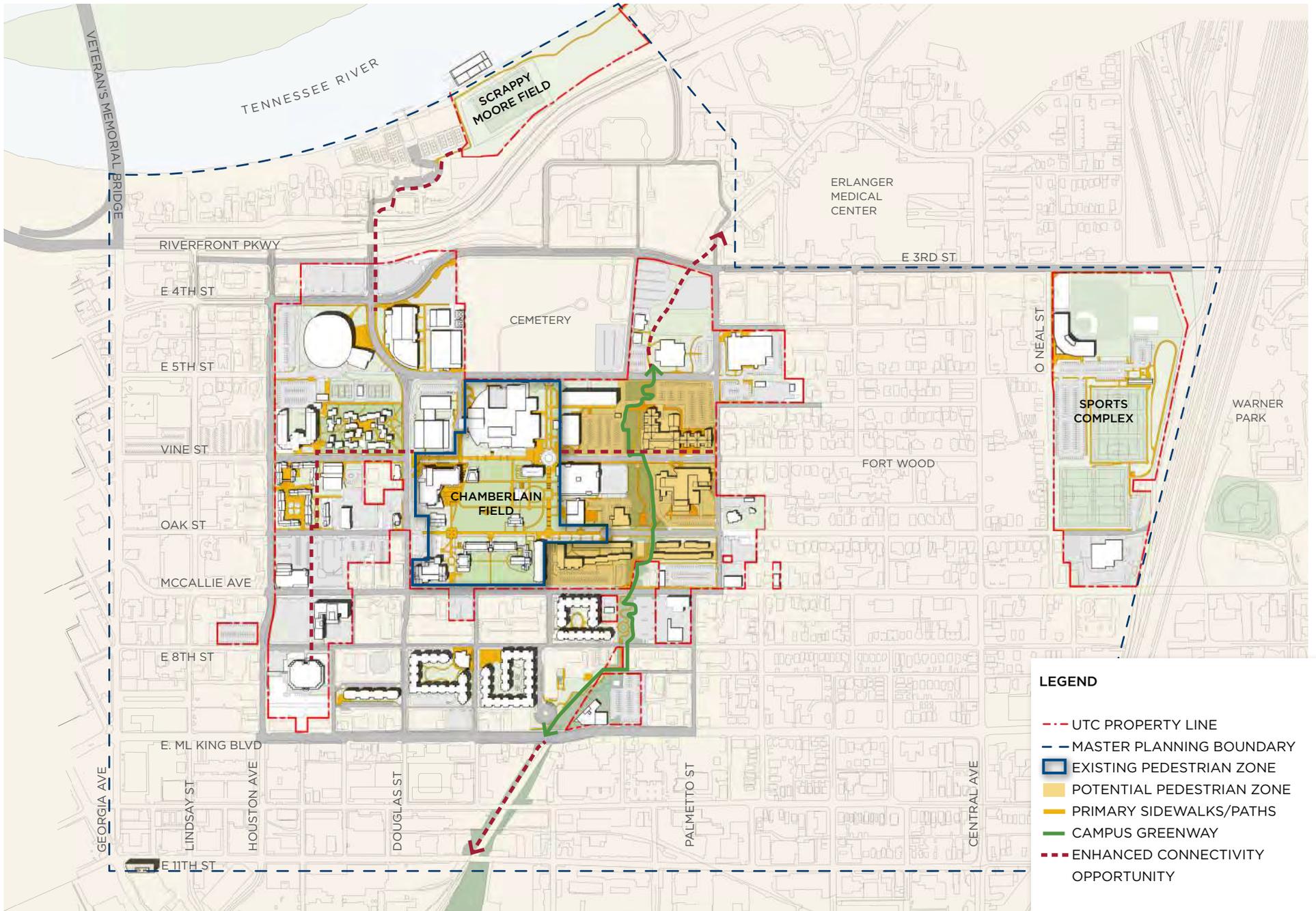
THE CAMPUS GREENWAY

The Campus Greenway is a rails to trails project and a key connector of the campus to the city. Because the former railroad is elevated as an overpass on E ML King Boulevard and transitions to below-grade tunnels that run below Oak and Vine Streets, the grade conditions present complex conditions that have the potential of providing pedestrian access.

A study last updated in 2008 shows potential expansion to the south from E ML King Boulevard, providing access to downtown, and to the north from Mocs Alumni Drive, which would provide access to the Riverwalk.

DIVINE NINE HERITAGE PARK

National Pan-Hellenic Council (NPHC) organizations began to find a new home at UTC during the University's second academic year. This built a campus legacy around diversity and inclusion and what it would ultimately mean about creating a welcoming environment for students. Currently under construction, this park area and plaza is located on the Corner of Vine Street and Terrell Owens Way, adjacent to the University Center. The plaza will include pedestals with plaques commemorating the NPHC Greek-letter fraternities and sororities and cast-in-place concrete benches with stone veneer.



PEDESTRIAN CIRCULATION, SAFETY, AND SECURITY



SCALE: 1 IN. = 800 FT.



PEDESTRIAN CIRCULATION

The desire to provide a pedestrian-friendly campus that encourages nonresident students, faculty, and campus employees to park and walk requires planning and placement of facilities that are well connected by safe, welcoming pedestrian facilities. In addition, minimizing conflict points between transportation modes improves the environment for both pedestrians and bicyclists.

The campus setting in downtown Chattanooga on a hill provides some challenges due to the topography that can be addressed with careful planning. Parking is located throughout the campus, encouraging vehicular trips and increasing the number of conflict points.

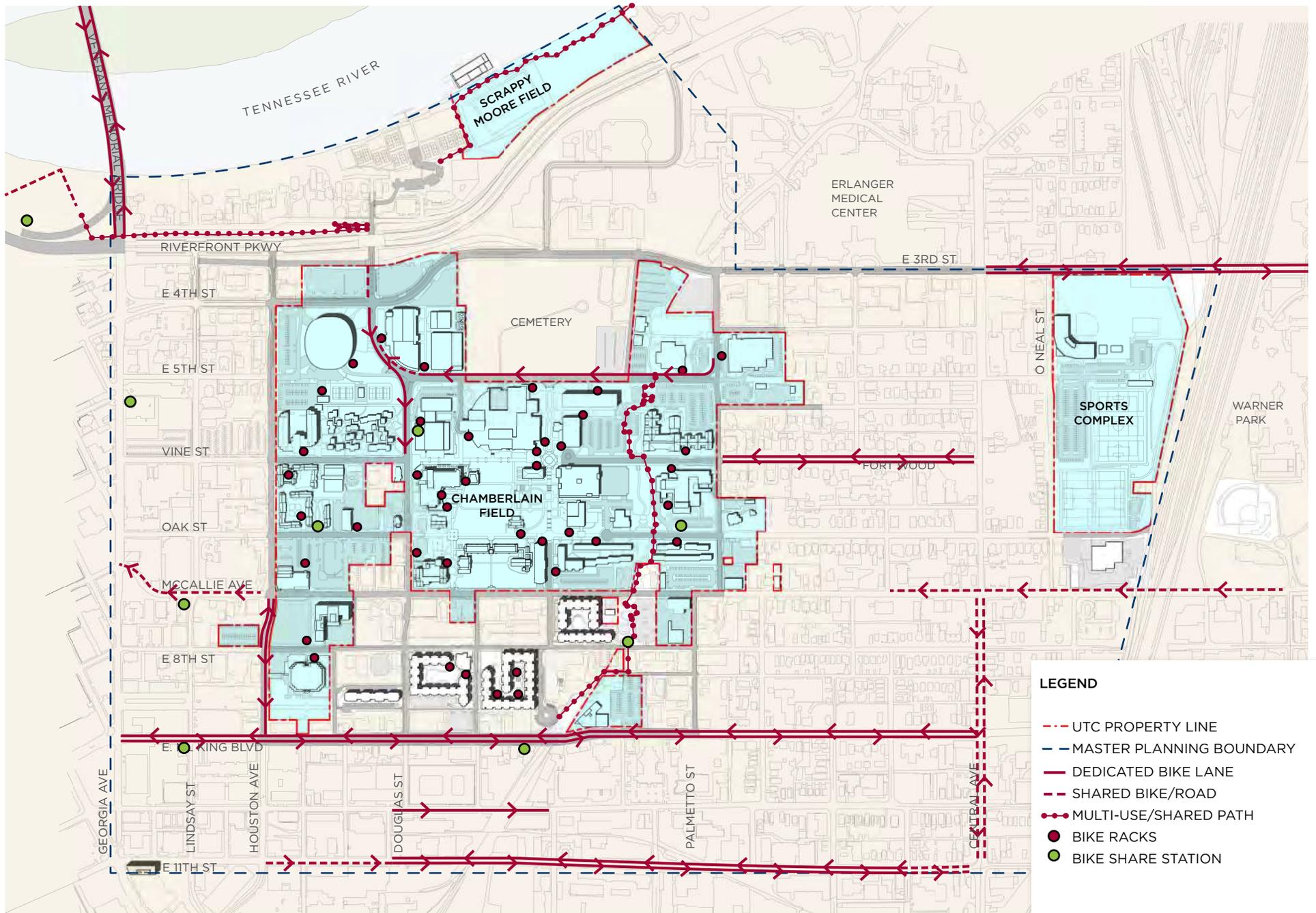
However, opportunities have been created by the middle area of the campus being closed to vehicular traffic, the greenway provided on the eastern side of the campus, and the Mocs Express shuttle. The current pedestrian, bicycle, and vehicular circulation systems are proposed for enhancements in this Master Plan, which consolidates parking and builds on the existing pedestrian and bicycle network.

Pedestrian circulation on campus has been analyzed into the following zones and conditions:

-  Existing Pedestrian Zone
-  Potential Pedestrian Zones Expansion
-  Enhanced Pedestrian Connection Opportunity
-  Primary Pedestrian Sidewalk/Path

Past University master planning visioning exercises have acknowledged and planned for accessible pedestrian circulation as one of many leading objectives to clearly link campus open space with existing greenway and pedestrian corridors. This same level of focus and approach should continue to be an objective in the future.

The center of campus continues to be considered a major pedestrian zone. This centralized area should continue to have a pedestrian focus, but also begin to expand the pedestrian focus and extend it more toward the east and west portions of campus. These pedestrian extensions currently happen via street corridors and sidewalks of varying degrees of hierarchy. The analysis also suggests the lack of connection from the core campus to major recreational and intramural hubs to the east and north towards the river. Support for providing more direct pedestrian connections around the perimeter of the campus should be strengthened.



LEGEND

- - - UTC PROPERTY LINE
- - - MASTER PLANNING BOUNDARY
- DEDICATED BIKE LANE
- - - SHARED BIKE/ROAD
- MULTI-USE/SHARED PATH
- BIKE RACKS
- BIKE SHARE STATION

BICYCLE CIRCULATION



SCALE: 1 IN. = 800 FT.



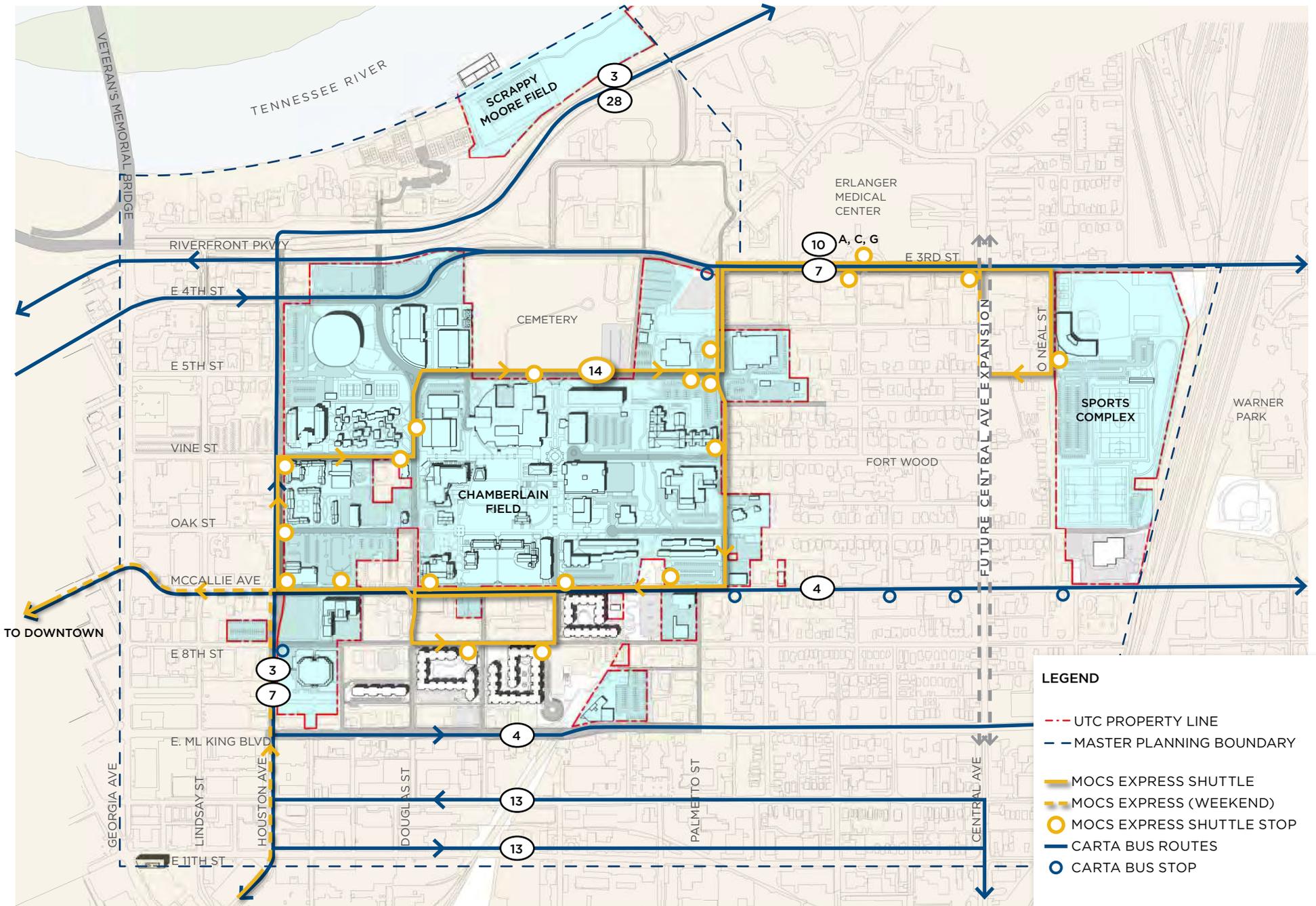
BICYCLE CIRCULATION

Regionally, Chattanooga has an extensive network of bike trails or recreational, multi-use paths. Within Downtown Chattanooga, the existing framework of bicycle circulation around campus is less connective and has opportunity for improvement.

Challenges for bicyclists on campus include the topography and lack of on-street bicycle facilities through campus. The city bike share program has four racks on campus one on 8th Street, two on Oak Street, and one on Douglas Street. There is also one located just south of campus on ML King Boulevard. The Chattanooga Bicycle Transit System, in partnership with PBSC and the Chattanooga Department of Transportation, operates these stations for use through a day pass or membership.

5th Street has bicycle lanes with on-street parking and pedestrian scale lighting with a raised pedestrian crossing connecting the north and south side of the street.

The two north-south bicycle facilities are the greenway and Houston Avenue (which has a bike lane on some blocks between ML King Boulevard), and Vine Street (on the east side of the street). The Bicycle Circulation Site Plan shows the streets noted as bicycle routes that run east west. Several of these streets do not provide designated bicycle facilities and have on-street parking. With an anticipated increase in bicycle use, the need for bicycle storage will continue to be important.



BUS & SHUTTLE SYSTEMS

PUBLIC TRANSPORTATION AND CAMPUS SHUTTLE

UTC's campus is served by city buses and a campus shuttle, both of which are operated by CARTA, the Chattanooga Area Regional Transportation Authority. All buses are ADA accessible and free with an active MOCS Card. The single Mocs Express Shuttle route (also known as CARTA route 14) connects athletic facilities and nearby student housing with all major destinations on the core of campus. It arrives at each stop every six minutes, 7:30 a.m. - 8:30 p.m., Monday through Friday.

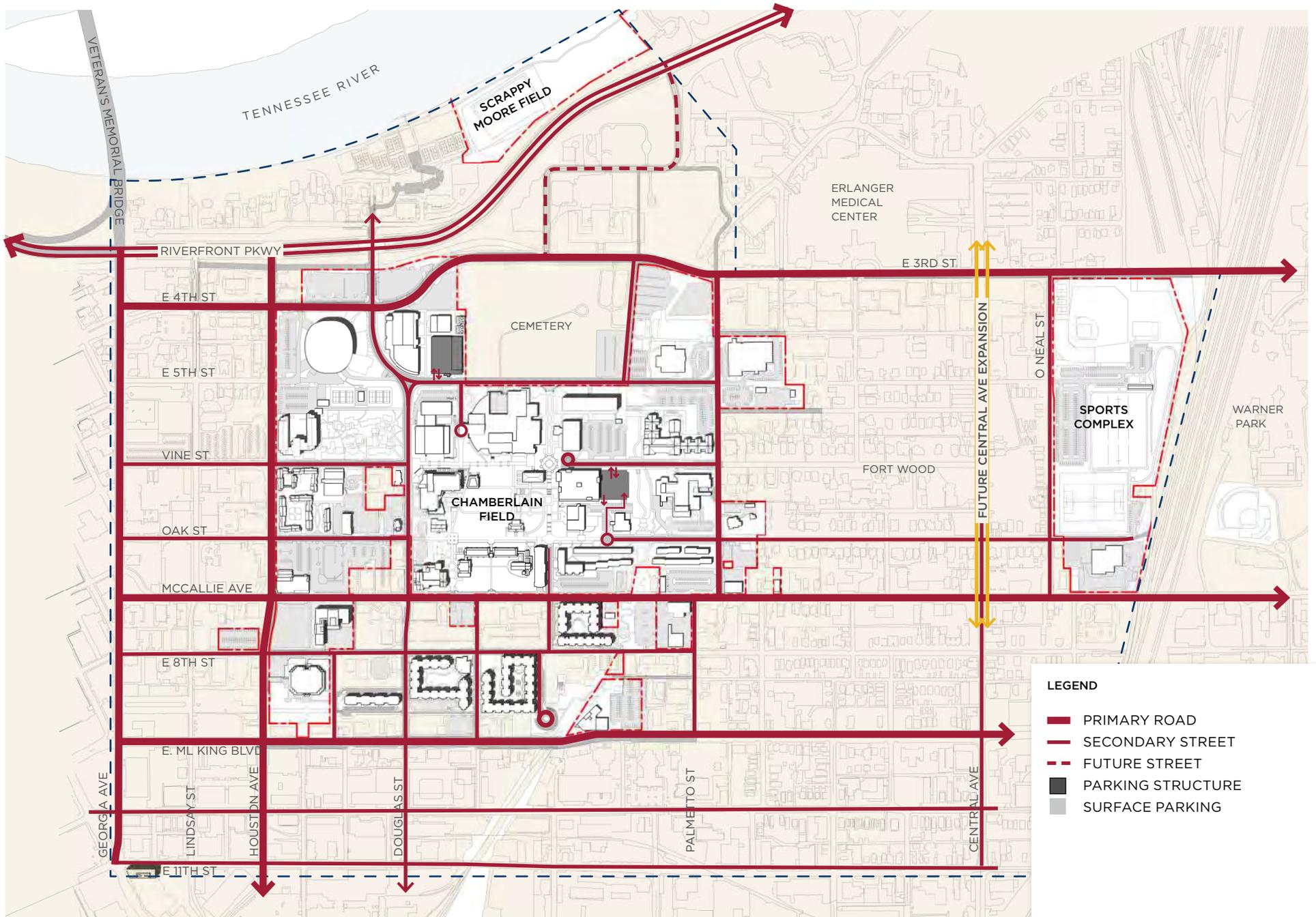
The core of campus is also served by two CARTA city bus routes. Route 3 connects to Downtown and Volkswagen. Route 4 connects to Downtown, Eastgate, and Hamilton Place. And Route 7 connects to Erlanger Medical Center and Sholar Avenue. Routes 10A, 10C, 10G, and 28 also have stops along 4th Street or Riverside Drive near campus.

The stop at the intersection of E MLK Boulevard and Flynn Street is less than a tenth of a mile from the greenway that runs through campus to the Challenger Center on the north side. There are five residential apartment buildings within a quarter of a mile of this stop. Four are located on 8th Street and one is located north of the area on Oak Street.

There are also four shuttle stops less than a quarter of a mile from this area with two on 8th Street and two on McCallie Street providing a connection up the hill to all areas of campus.

The stop at the intersection of Collins Street and 5th Street is on the northern end of the greenway that runs through the eastern side of campus. This stop is located less than a quarter mile from the Administrative Services Building, Engineering School, Fine Arts Center, Lupton Building, Holt Hall, Grote Hall, and University Center.





LEGEND

- PRIMARY ROAD
- - - SECONDARY STREET
- · · FUTURE STREET
- PARKING STRUCTURE
- SURFACE PARKING

VEHICULAR CIRCULATION



SCALE: 1 IN. = 800 FT.

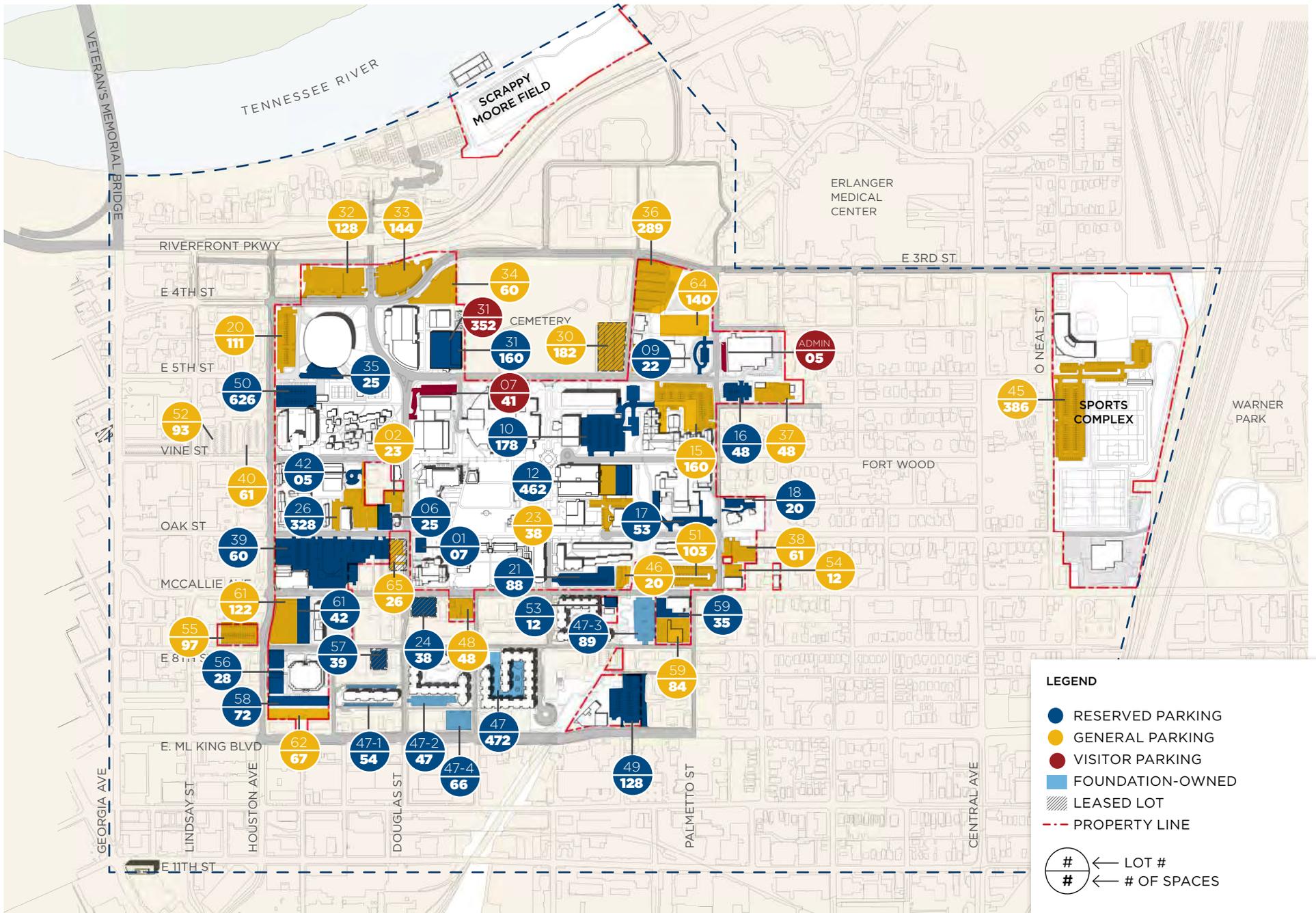


VEHICULAR CIRCULATION

Vehicular circulation on UTC's urban campus can be classified into primary roads and streets, the majority of which are vehicular streets running predominantly in the east-west. The east 3rd Street corridor and McCallie Avenue can both be characterized as primary vehicular roads.

Attention should be given to making improvements to certain key intersections. Strengthening crosswalk connections to be more efficient and safer will also factor into the overall success of current and proposed circulation corridors. As proposed areas for improvements are recognized on campus, improvements to vehicular circulation should go hand in hand with the suggested improvements. The streetscape/sidewalk realm of the vehicular corridors on campus can also be an area of focus by encouraging street tree plantings, interesting paving, and a variety of site furnishings to cater to the pedestrian.

ML King Boulevard is also a designated Smart Corridor and serves as a living laboratory for smart city projects that include improving traffic flow, synchronizing traffic lights, and improving safety. This effort is part of the Chattanooga Smart Community Collaborative, which is conducted through UTC's Center for Urban Informatics and Progress (CUIP) with other local partners.



CAMPUS PARKING

CAMPUS PARKING

With a high number of students enrolled at UTC living off campus, many students drive to campus. They need convenient centralized parking locations that encourage parking and walking but do not necessarily provide parking at every building. This Master Plan assesses parking needs on campus along with the availability of pedestrian facilities, bicycle facilities, and shuttle services. The result is a framework that encourages parking and walking through a safe, connected pedestrian and bicycle network.

Parking on campus is an important part of the pedestrian circulation. With 71% of students living off campus, the location of parking greatly influences pedestrian circulation on campus. Considering the large number of students, faculty, and other campus employees needing parking, demand for parking on campus will remain constant for the near future.

The need for parking, however, does not prevent the college from creating a pedestrian friendly campus. One of the first steps towards promoting pedestrian trips on the UTC campus is to centralize parking locations. An evaluation of parking locations, pedestrian facilities, and location of the buildings and activity centers on campus was performed to plan for future parking locations.

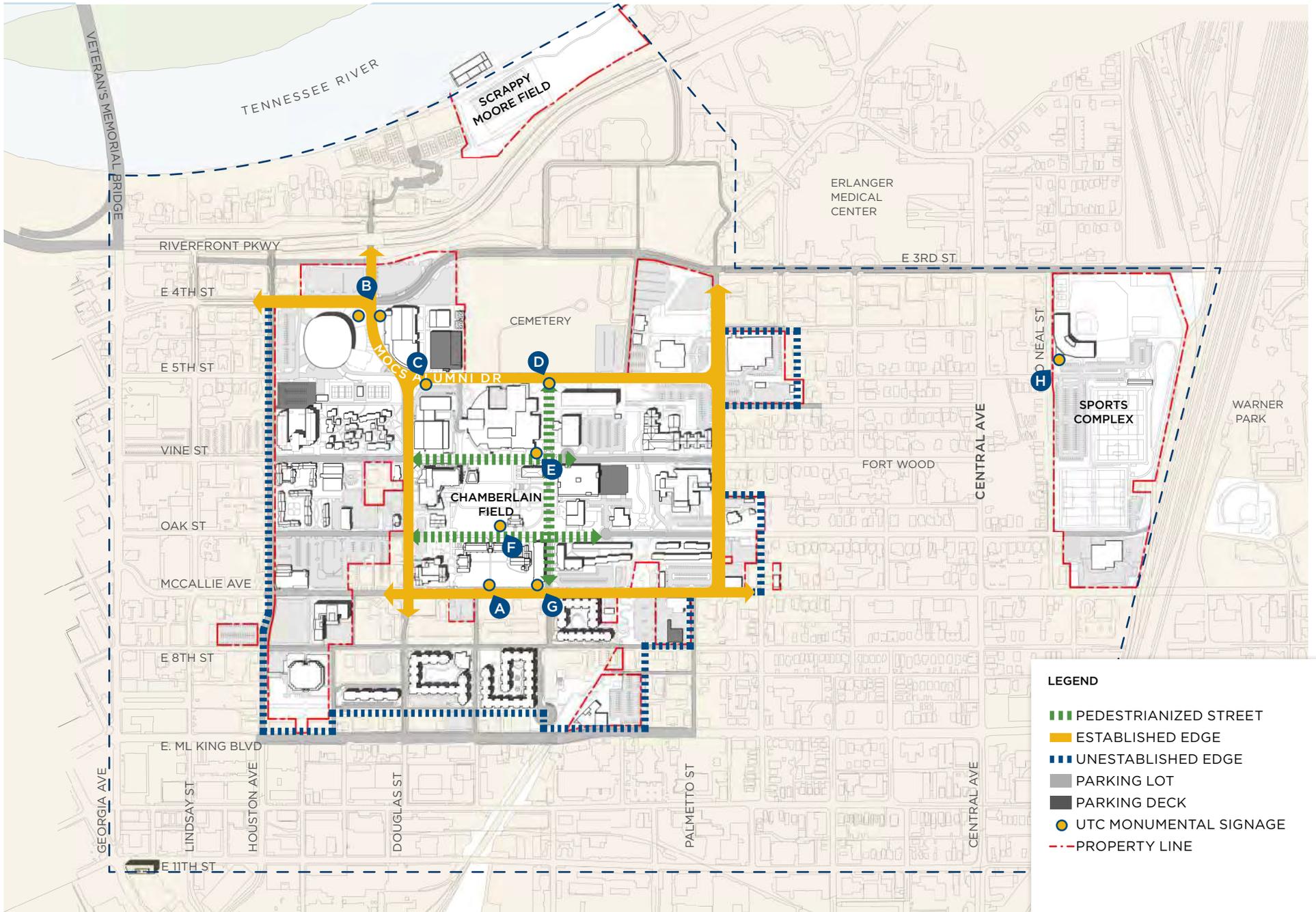
The existing campus parking locations are shown on the Campus Parking site plan with the total number of parking spaces in each location. As shown on the map, the larger parking areas with over 100 spaces are located on the outside edges of campus except for Lot 10 and Lot 12. Lot 10 with 178 parking spaces and Lot 12 with 279 parking spaces are located on the northeast side of the campus.

The campus parking is designated by reserved, general, and visitor. Anyone with a parking pass can utilize the general parking areas. The reserved lots are restricted for vehicles that have purchased parking for that lot and the vehicle may not be parked in other lots. There are options for residents in the South and West campus including Boling and Johnson Obear Apartments to have dedicated reserved parking. The general parking areas can be used by anyone that purchases a general permit.

PARKING INVENTORY SUMMARY

TYPE	SUBTOTAL
RESERVED	3,449
GENERAL	2,569
VISITOR	212
GRAND TOTAL	6,230¹

¹ Total excludes parking spaces leased by UTC.



CAMPUS SENSE OF PLACE AND WAYFINDING



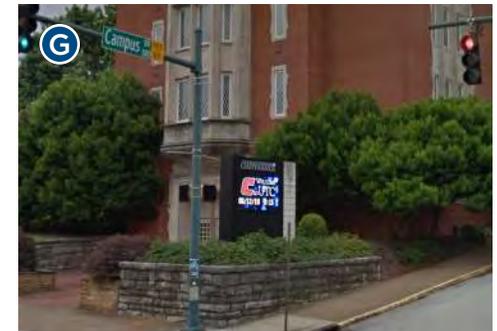
SCALE: 1 IN. = 800 FT.

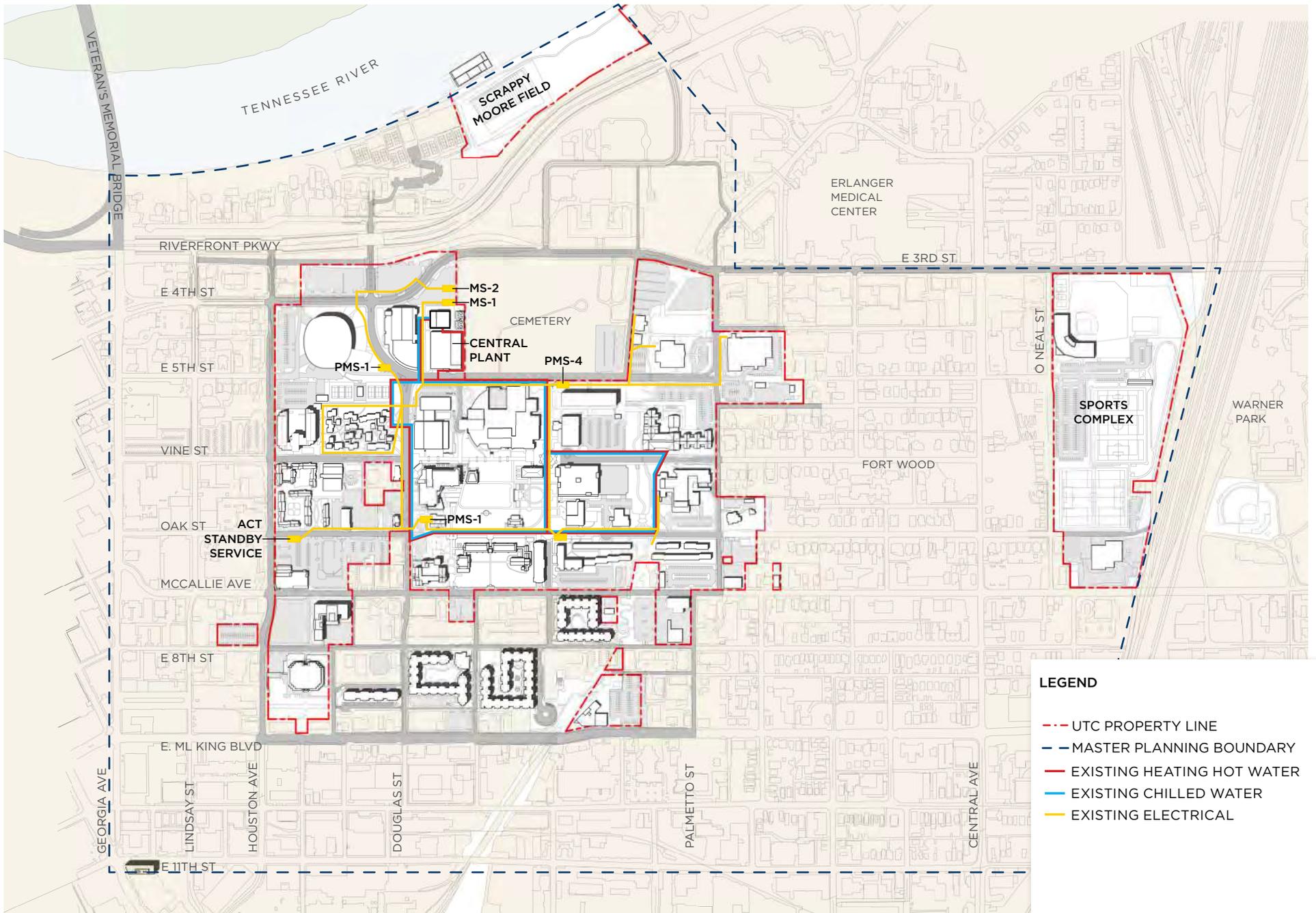


CAMPUS SIGNAGE

Monumental signs flank a primary vehicular entry into campus at the corner of Mocs Alumni Drive and E 4th Street (B). Monumental signage is otherwise limited around the perimeter of campus and tends to be internally located. In general, these brick structures echo the historic architecture of campus and provide a stately presence. Some signs incorporate electronic signage to display information.

Street banners are used to identify the edge of campus and can be found along Houston Street, Palmetto Street and E 4th Street. These help provide a distinct sense of being on campus, which is important for an urban institution without a clear boundary between the campus and the city.





UTILITY INFRASTRUCTURE - MEP SYSTEMS



SCALE: 1 IN. = 800 FT.



UTILITY INFRASTRUCTURE

CENTRAL UTILITY BUILDING

A single central utility building provides chilled water and high temperature hot water to an underground piping system that serves 23 campus buildings and 19 buildings in the Boling apartment complex.

CHILLED WATER SYSTEM

Chilled water is supplied at 40°F and distributed through a network of underground pipes. Piping is a combination of ductile iron pipe and carbon steel pipe which has been insulated and protected with an overwrap. Scattered around the campus are junction boxes for piping connections located in underground vaults which include section isolation valves. The distribution system comprises three main loops that allow for cross connection and balancing throughout the system.

The construction of the underground piping system has been expanded and represents seven different zones installed between 1972 and 2021. The central energy plant has four 1,500 ton chillers. The oldest chiller was installed in 1996, while the other three were installed in 2003, 2005 and 2013. These four chillers are supported by two large cooling towers, replaced in 2013, and arranged so that one tower handles two chillers. The powerhouse does not include crossover piping, so each tower is specifically limited to serve two chillers. This arrangement does not maximize system efficiency.

The cold water discharge from all chillers is combined into a 24-inch supply header. This pipe has the ability to accept all of the water provided by all chillers running simultaneously (6,000 tons/12,000 gallons per minute), but has no spare capacity. Additionally, the powerhouse does not have the physical space to be able to add any more chillers, so this resource is at its maximum capacity.

Piping on campus is large enough in most areas to accommodate additional load beyond what is currently demanded by the connected buildings. The calculated load attached to the existing system is approximately 3,500 tons, comparing nicely with the maximum system capacity of 6,000 tons when all chillers are in operation. So, while the powerhouse has no room for expansion, the distribution system appears to have capacity to absorb several additional buildings, and the piping is sized to be able to flow additional chilled water if introduced in the proper location in the system.

HOT WATER SYSTEM

All buildings that receive chilled water are also served by a matching set of high temperature hot water pipes. Hot water is generated by the central energy plant at 300°F and 200 psig. The high temperature hot water is used to heat a closed hot water recirculation loop within each building. Circulating pumps are located in each building as well as booster pumps that compensate for low pressure where needed.

In the central utility building, three large steam generating boilers were replaced between 2005 and 2013 with four high temperature hot water generators. Each generator has a built-in economizer package on the exhaust flue with a set of circulating pumps to maintain flow through the water heaters. Another set of pumps is responsible for distributing the high temperature hot water throughout the campus. The estimated total peak heating load is 80 MMBTH. The combined total heating capacity is approximately 140 MMBH and so appears to be more than adequate. The distribution piping system is relatively new and appears to have spare capacity to support heating demand.

The existing chilled and hot water piping leaving the central energy plant is currently sized for the full capacity of the plant. There is currently sufficient capacity within the plant for any single chiller or hot water generator to be out of service and still provide adequate cooling or heating capacity to the buildings currently served. In this way, there is a level of redundancy built into the plant.

However, when one hot water generator or chiller is out of service, there would be no capacity for significant growth. When future cooling and heating demand is considered, additional capacity elsewhere in the system will be required. When additional cooling or heating capacity is to be added, site selection will be an important consideration with respect to the available underground infrastructure.

ELECTRICAL DISTRIBUTION NETWORK

North Campus is currently fed from two sources by the Electric Power Board (EPB). The system distribution voltage is 12.47KV and is delta connected on the UTC side. EPB serves these two feeders overhead with pole mounted reclosures as the primary protection from the utility company.

The EPB overhead source located at 3rd Street near the existing chiller plant is the primary power feed for the entire North Campus. There are two additional overhead services that are tapped off the EPB overhead primary service which feed the four existing chillers. These four chillers presently can only be served from the 3rd Street service.

The secondary EPB overhead source is located at the corner of Houston and Oak Streets (S12P16) serves as the standby power source. This standby source is normally open and is only utilized in the event of an extended power outage at the 3rd street service feeder. This service is connected into the campus distribution network at the sectionalizing switchgear PMS#2 located behind the new Library at Vine and Douglas Street. There are two 400A, 12.47KV, 500MCM, (circuits E and F) this service that can act as a secondary feed to the campus but only if the primary feed on 3rd Street is not operational.

The North Campus 12,47KV distribution network is comprised of four underground 400A, 12.47KV loop circuits (circuits A, B, C, and D). These four circuits are distributed in the four quadrants of the North Campus and are interfaced into four main sectionalizing pad mounted switchgears (PMS#1, PMS#2, PMS#3, and PMS #4) located in each

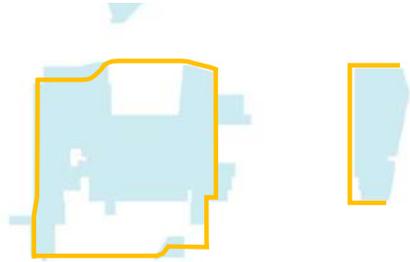
quadrant. These four loop circuits are arranged in a manor to allow for the switching of campus loads from one circuit to another through tie switches in each sectionalizing switchgear. This allows flexibility and maintenance for the North Campus distribution system in the event of a cable failure or major natural disaster. The construction of these four main distribution loops will be complete in fall of 2022.

The electrical distribution for all buildings on South Campus (south of McCallie Avenue) are currently being provided by EPB. Each building is separately metered by EPB and has no connection to the North Campus distribution network. As facilities expand, there are preliminary plans to extend the North Campus distribution network south of McCallie Avenue to serve these facilities in the future.



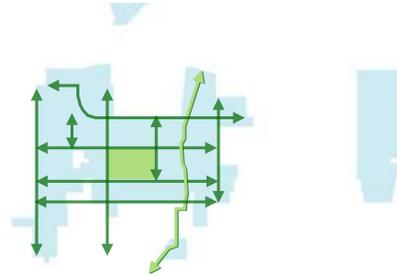
MASTER PLAN VISION

PLANNING THEMES AND FRAMEWORK



DEFINE CAMPUS BOUNDARY

Establish a strong UTC identity along Houston, Third, Palmetto and ML King. Minimize disruption to Fort Wood Historic District.



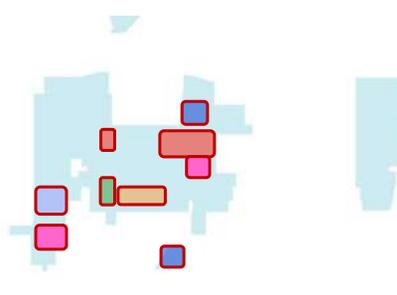
EXPAND QUALITIES OF THE CAMPUS CORE

Enhance physical and visual connections to Chamberlain Field. Partner with the City and Community to improve the planting, security, and multimodal character of Houston, Douglas, the Greenway, Palmetto, McCallie, Oak, Vine and Alumni so they represent the campus brand.



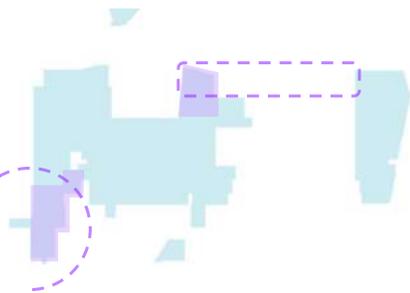
UPGRADE FACILITY CONDITIONS

Renovate older facilities to meet post-pandemic expectations and program targets. Repurpose underperforming facilities. Replace where there is no ROI for renewal.



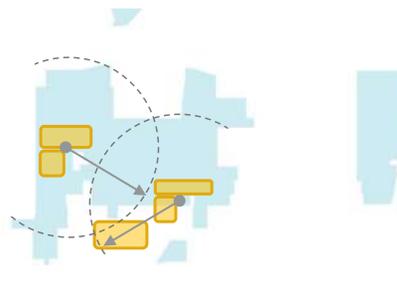
SHOWCASE ACADEMIC CENTERS

Locate new facilities and renovate existing facilities within a 5-minute walk to optimize program adjacencies and sense of “home base.” Promote collaboration between centers.



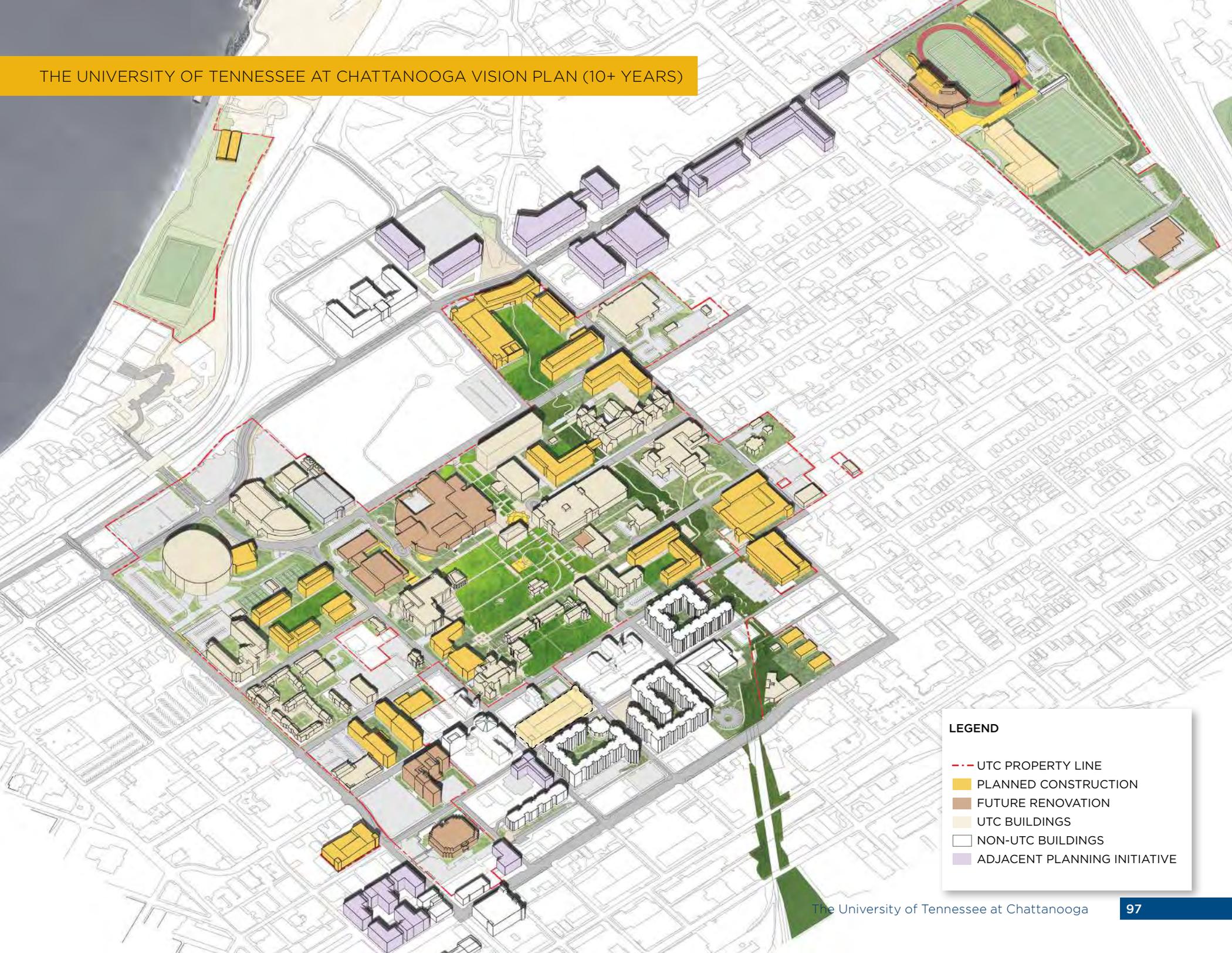
INTEGRATE SPACE & FLEXIBILITY FOR PARTNERS

Leverage southwest parcels, new Health Science District, and existing available built space to invite partners to campus (Include pilot projects Downtown, at Enterprise South, in State Buildings, and Fletcher Hall Addition.)



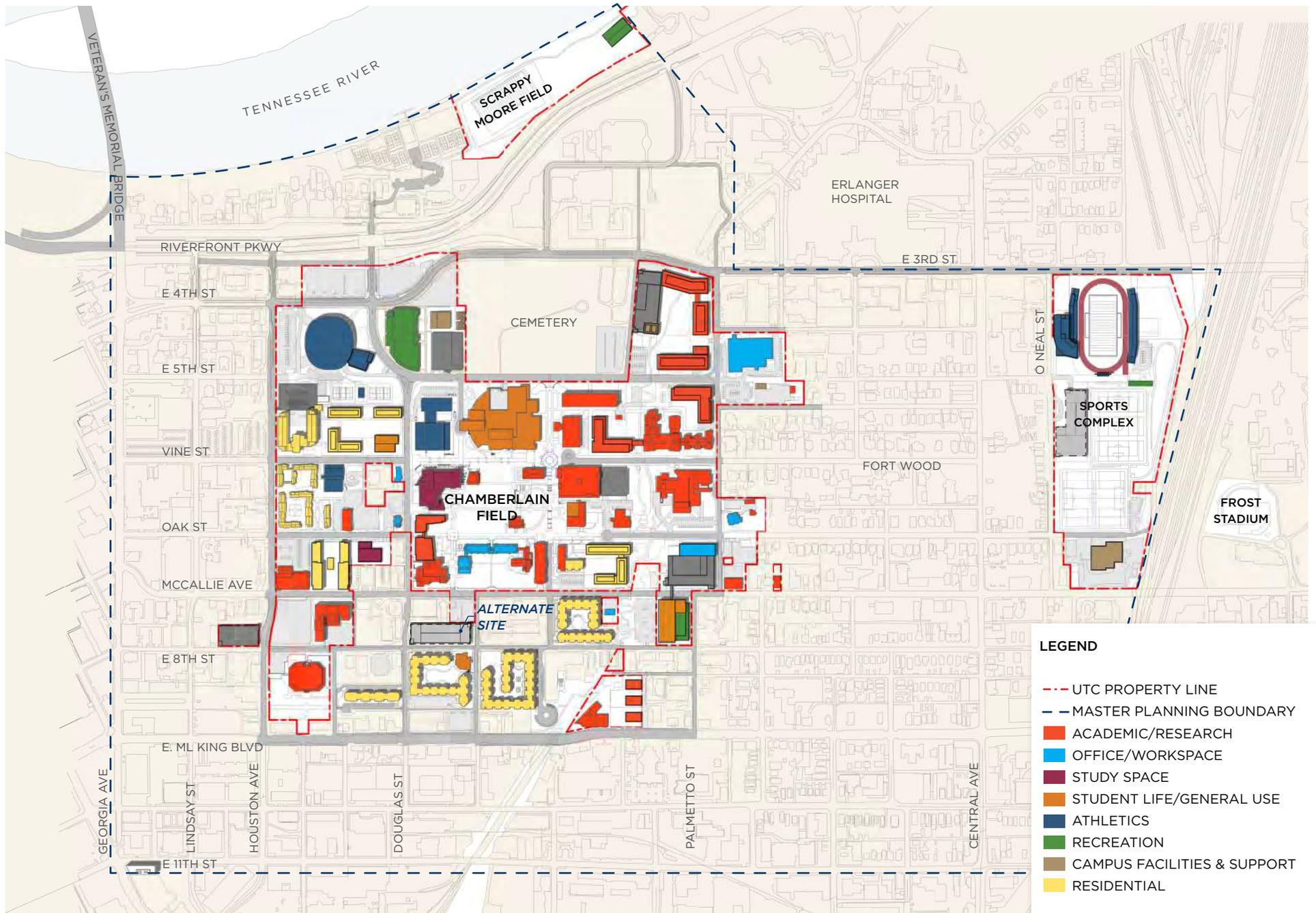
ENHANCE RESIDENTIAL HUBS

Provide access to amenities within a 5-minute walk. Enhance pedestrian comfort, safety, and wayfinding.



LEGEND

- UTC PROPERTY LINE
- PLANNED CONSTRUCTION
- FUTURE RENOVATION
- UTC BUILDINGS
- NON-UTC BUILDINGS
- ADJACENT PLANNING INITIATIVE



LAND AND BUILDING USE STRATEGIES

FACILITY USE RECOMMENDATIONS

ACADEMIC & RESEARCH FACILITIES

The academic core of campus is primarily located to the east of Chamberlain Field, roughly bounded by Mocs Alumni Drive, Campus Drive, Palmetto Street and Oak Street. This core area includes the majority of academic functions for engineering, the sciences, and the humanities. Academic facilities continue along the Oak Street pedestrian spine along the south edge of Chamberlain Field, extending to the southwest corner of campus, where the nursing, media, and design programs are centered. Due to the predominance of surface parking lots and strategic acquisition of formerly state-owned office buildings, the southwest corner of campus remains the most flexible area for development opportunities, but is also the farthest in distance from other academic programs and is separated from the academic core by non-UTC owned properties.

Building off prior design and planning studies, this Master Plan proposes the development of a new Health Sciences Complex as a priority project, providing adjacencies to existing science and engineering programs as well as Erlanger Hospital and Children's Hospital. An interdisciplinary Arts and Sciences facility is proposed in the heart of the academic core, to the north of Lupton Hall and with the option of bridging over the University Greenway to connect to the EMCS building, while a future Interdisciplinary Research Building to the north of EMCS would establish a much-needed campus corner and edge. Together with the Health Sciences Quad, these two development zones in the northeast of campus propose the highest concentration of new construction for future academic programs in this Master Plan.

Fletcher Hall, home to the Rollins College of Business, creates a strong campus anchor at the corner of McCallie Avenue and Douglas Street, since the other properties at that intersection are not owned by UTC. A new campus gateway should be established here, with an addition to the north side of Fletcher Hall that bridges over the Oak Street pedestrian corridor toward the UTC Library.

A series of phased, single-story modular lab buildings, referred to in the plan as the Innovation and Advanced Manufacturing Application Center Labs, are proposed adjacent to the existing Multi-Disciplinary Research Building and Energy Labs just north of ML King Boulevard, with the first phase currently in design.

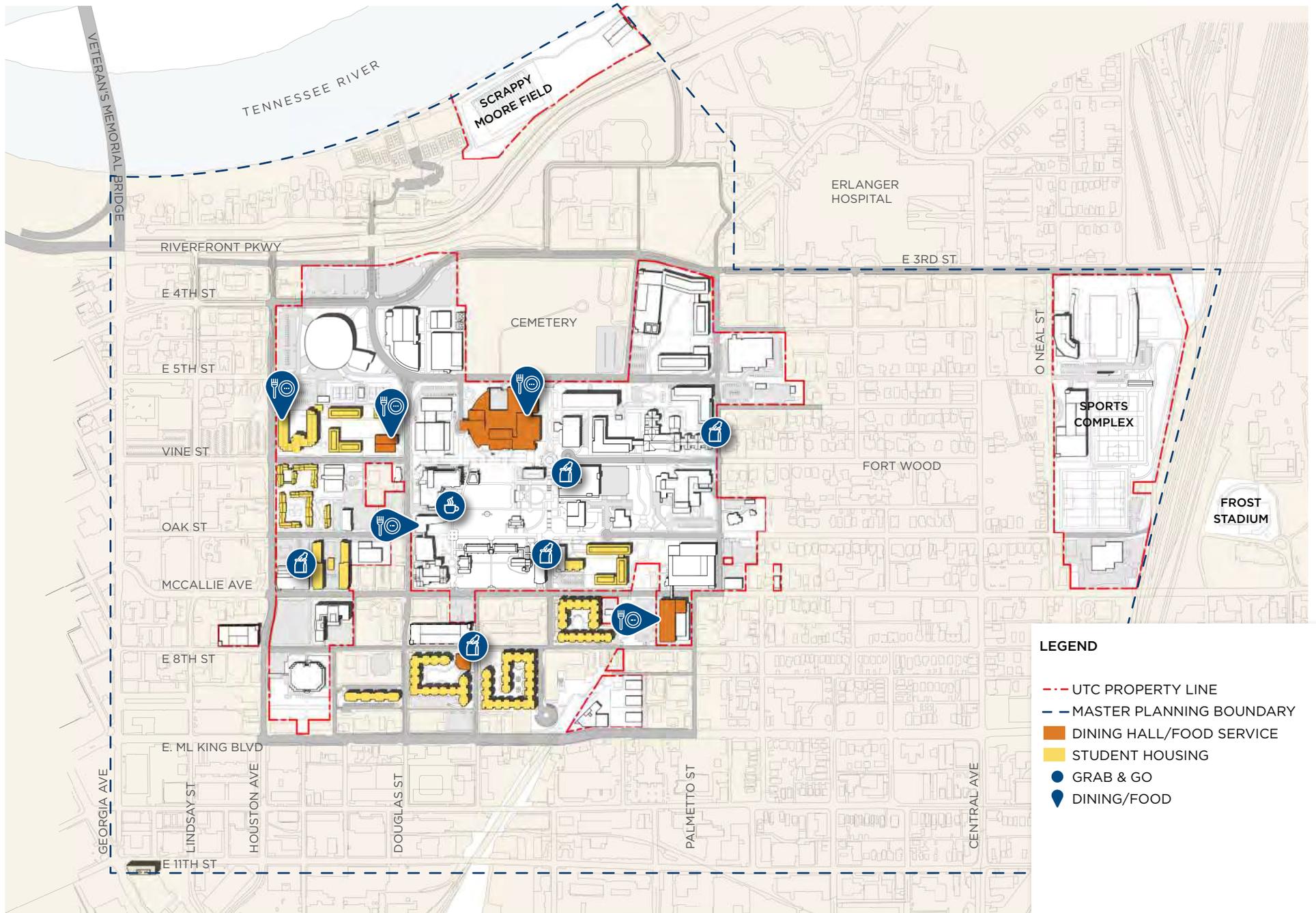
UNIVERSITY CENTER

The UC renovation proposal has been submitted to the State for approval, but would not include more student-oriented space since it focuses primarily on building infrastructure and additional administrative office space. Based on an analysis of the UC offerings, this Master Plan recommends that the following elements be added: lounges / study spaces (6,500 sq. ft.), meeting rooms with storage (5,500 sq. ft.), and an e-gaming suite (3,500 sq. ft.). These spaces could be implemented as an addition to the UC or in combination with other student life centers such as the proposed dining hall.

ATHLETICS AND RECREATION

The following strategic initiatives were identified as they relate to the future of the athletics and recreational programs.

- The Aquatic and Recreation Center (ARC) is a strategic asset for the University but needs programmatic enhancements, including more indoor recreation space.
- Maclellan Gymnasium is in very poor condition and will require a comprehensive renovation including the natatorium and gymnasium.
- Some improvements are needed to the outdoor recreation fields.
- A historically appropriate renovation of the Engel Stadium should include a facade renovation and a potential multi-purpose soccer/football field and track with 10,000 seats to bring the football program back onto campus.
- Proximity to the riverfront presents an opportunity with respect to outdoor recreational opportunities, including a new Rowing Center.
- The addition of approximately 35,000 square feet of recreation space in a new facility shared with dining could include elements such as basketball courts, weight/fitness space, multipurpose rooms, and a new outdoor equipment rental center.



HOUSING AND DINING LOCATIONS



SCALE: 1 IN. = 800 FT.



STUDENT HOUSING

The following strategic objectives were developed with respect to student housing:

- Housing is a strategic asset that aids in student recruitment and retention. More beds will be needed in the future to support enrollment growth.
- The first-year live-on requirement will remain in place.
- While various residential life programs, such as Residential Colleges, are being implemented, a second-year residency requirement is unlikely at this point and should not be factored in the demand calculations.
- Single-occupancy bedrooms are a very important feature of the University's residential life and will likely be replicated in the future.

Housing demand was calculated by applying historical capture rates by class to enrollment projections. Based on this approach, **UTC will need an additional 890 net new beds by 2031.** The following strategies have been identified to achieve this:

- Boling Apartments (403 beds) will be demolished and replaced with a new student housing project along McCallie Avenue to include 788 beds. This will result in 530 net new beds.
- Across three new buildings, a new housing complex on the current Boling Apartments site will add 505 beds. A new dining facility will also be constructed within this precinct.
- The Lockmiller Apartments will be demolished and replaced with new, higher density housing and amenities. This replacement is planned to be 1:1, at 292 replacement beds.

In addition, the off-campus market should be monitored for future growth, as it already offers purpose-built housing targeting students.

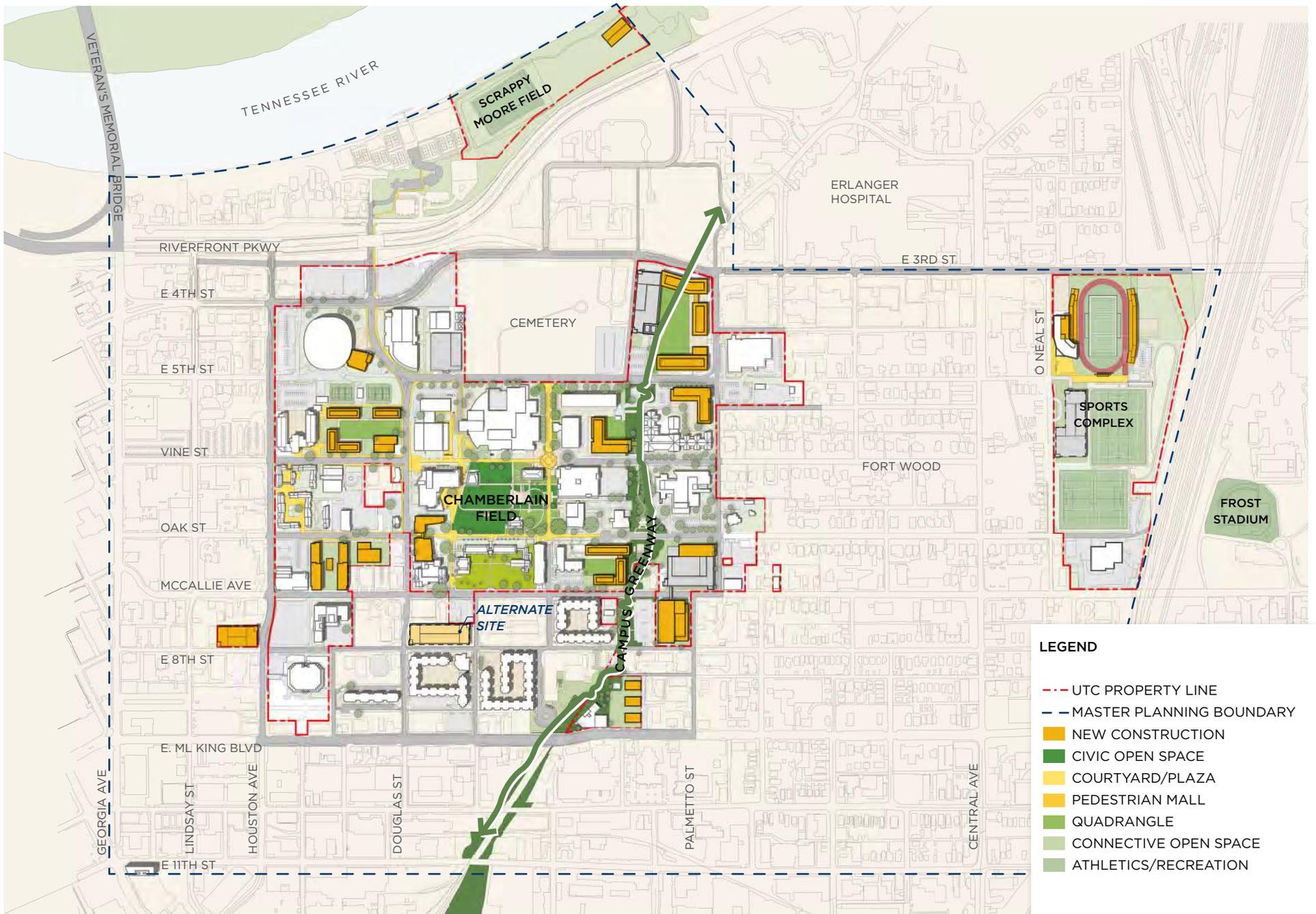
DINING

A quantitative dining analysis was conducted based on meal swipes and credits card transactions at all dining venues during peak periods of the Fall 2021 semester. The transaction volume data was translated into demand for seating, and the peak demanded capacity was later reconciled with the existing supply. The demand was adjusted upward based upon the following factors:

- Anticipated return to pre-COVID meal plan sales (8%).
- Anticipated growth in meal plan sales due to a more desirable meal plan structure (10%).
- Projected enrollment growth by Fall 2031 (30%). Based on this quantitative analysis, UTC will need approximately 1,100 seats to satisfy peak demand.

The following locations should be considered to address demand:

- Current supply of 300 seats at the University Center (about 50% of UC seating capacity – estimated dedicated dining capacity).
- Current supply of 100 seats at West Campus (combination of Einstein's and Dippers capacities).
- Current Starbucks in Lupton Library (50 seats).
- A new community-style dining hall to replace Crossroads. This facility should be located along McCallie Avenue and have a seating capacity of 450, a catering kitchen, and additional student life spaces. This facility is paired with new Recreation program to serve residents on the southern portions of the campus.
- An expansion of dining at the current Boling Apartments site will add an additional 200 seats to accommodate enrollment growth and serve residents within the new housing complex.



GATHERING SPACES, LEARNING LANDSCAPES, AND NODES

CAMPUS OPEN SPACE AND PUBLIC REALM RECOMMENDATIONS

Open space is vital in knitting together the campus and providing a sense of place to campus users. The UTC campus contains significant and successful open spaces that contribute to the University's memorable identity, including Chamberlain Field and the University Greenway.

Chamberlain Field will remain the most significant and formal open space on campus, with no planned buildings or structures. The University Greenway that runs through the heart of campus provides a transportation spine as well as a getaway from the City. The campus is also walking distance from the Tennessee River, which offers a greenway and other natural and recreational amenities along the riverfront.

Objectives that will guide improvements to create a positive physical space on campus, enhancing what is already available, include:

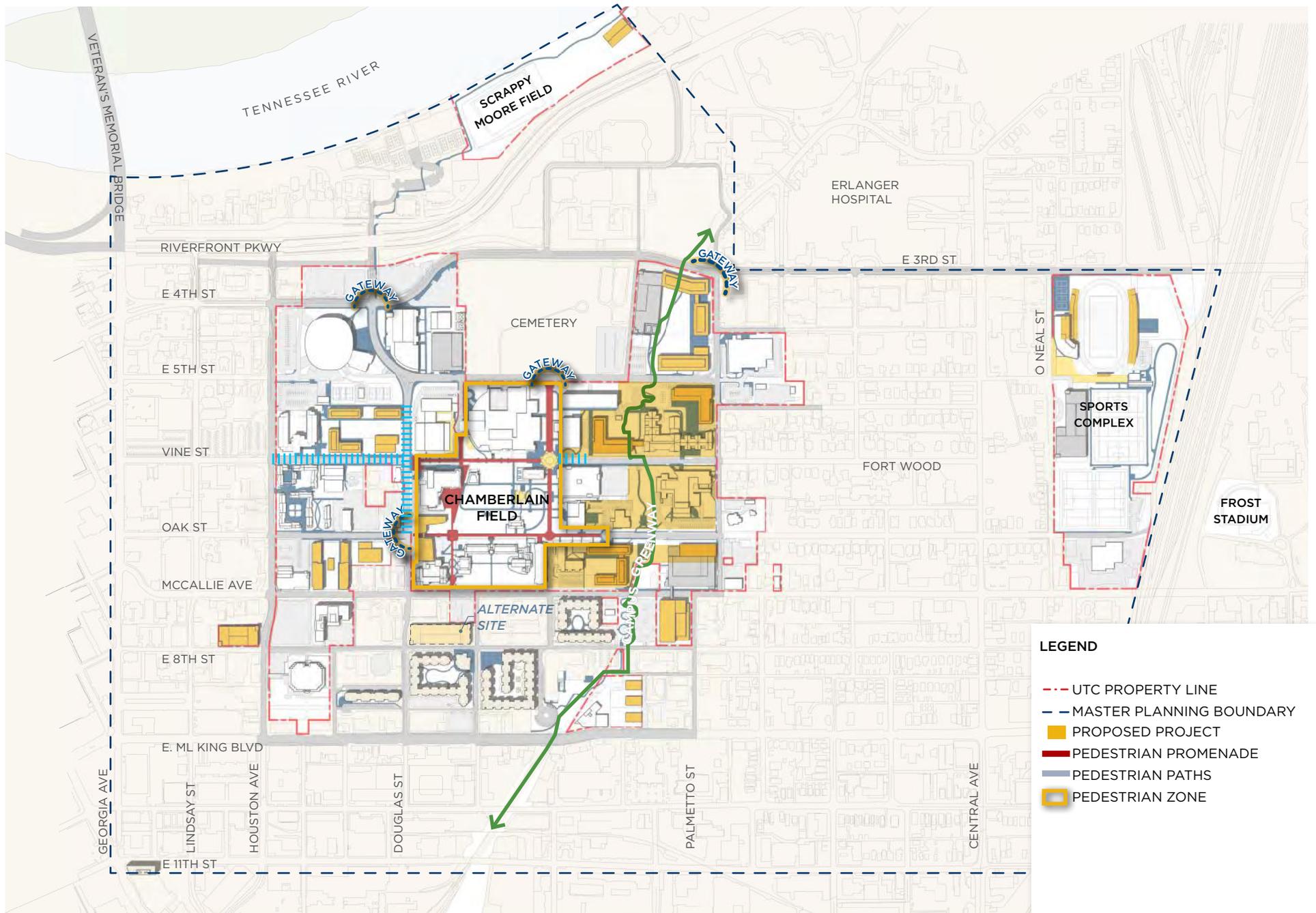
- Continue to promote pedestrian circulation for north-south connections
- Improve streetscapes to allow safer routes throughout campus
- Celebrate UTC culture and diversity
- Create new gathering spaces adjacent to future housing and academic buildings
- Promote accessibility for all

This plan proposes improvements and additional outdoor spaces of varied scale, character, and function to expand an open space framework for enhanced connectivity and activity. These new open spaces should be formed by carefully placing new surrounding buildings.

Health Sciences Quad: The new campus quad provides an outdoor anchor for outdoor gatherings, events, and programming within the Health Science district. Formed by three new buildings, the Health Sciences Quad replaces a surface parking lot to create a programmable and active open space to support students, faculty, and staff within the Health Sciences programs.

Housing Quads and Courtyards: Smaller open spaces between housing buildings provide intimate outdoor rooms. Campus courtyards are more garden-like, emphasizing landscape and intimate seating arrangements. The design of campus courtyards should continue to consider the scale of pedestrian promenades relative to primary campus corridors. Seating arrangements should focus on providing variety and shade. Plant selections should maintain continuity with adjacent plantings and consider opportunities to increase habitat and biodiversity.

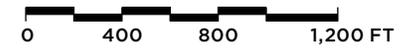
Pedestrian Corridors and Streetscapes: New pedestrian corridors, purposefully planned to extend from north to south and east to west, stitch together future development with housing, quads, academic facilities, and the waterfront. In addition, along public streetscapes, UTC can partner with the City to enhance the pedestrian quality of streets such as Houston, Douglas, Palmetto, McCallie, and 3rd Street. Together, these pathways form a larger pedestrian circulation network and will contribute to the campus's overall experience.



PEDESTRIAN CIRCULATION, STREETSCAPES, AND GATEWAYS



SCALE: 1 IN. = 800 FT.



CAMPUS CIRCULATION RECOMMENDATIONS

The desire to provide a pedestrian-friendly campus that encourages nonresident students, faculty, and campus employees to park and walk requires planning and placement of facilities that are well connected by safe, welcoming pedestrian facilities. In addition, minimizing conflict points between transportation modes improves the environment for both pedestrians and bicyclists.

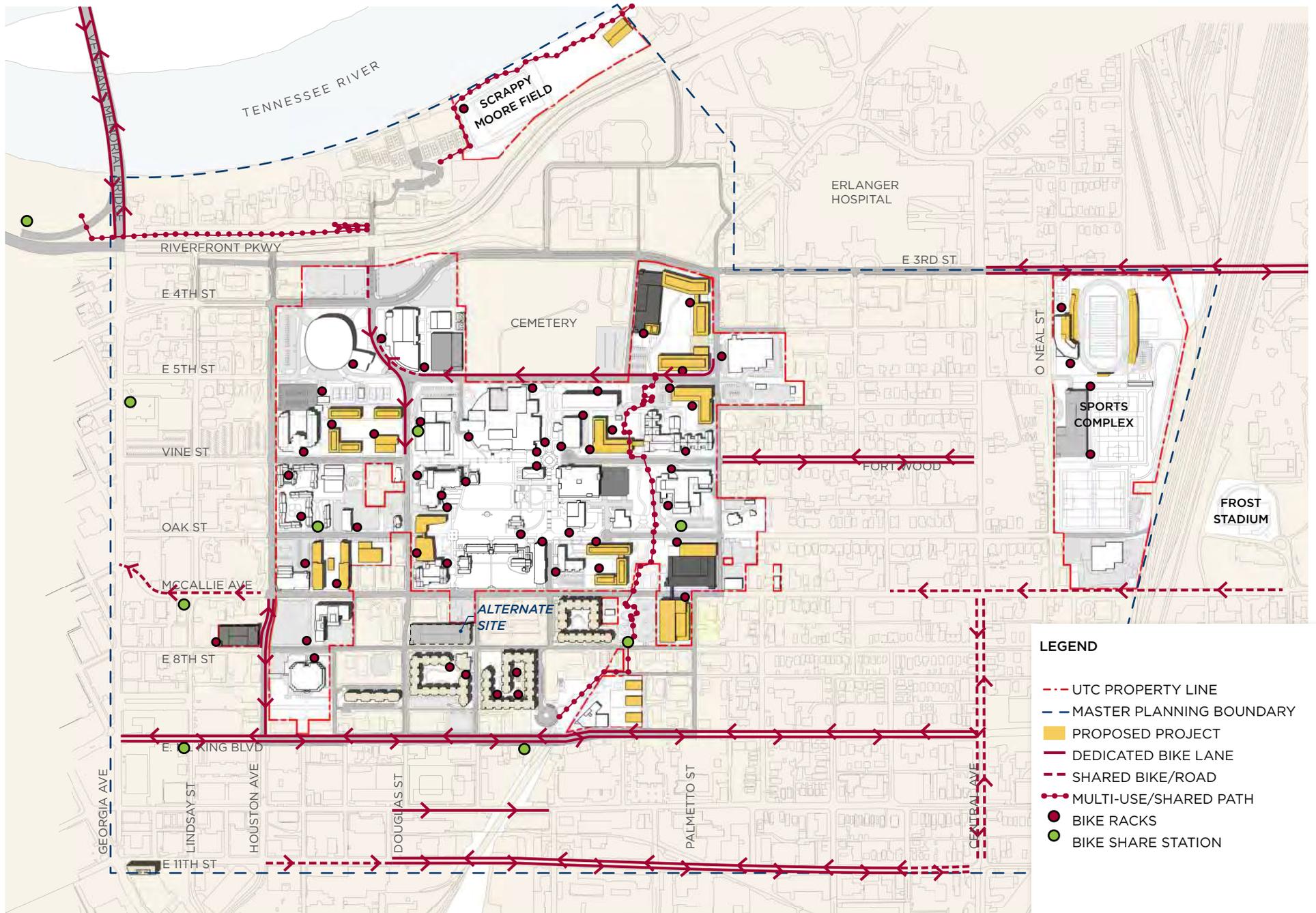
The campus setting in downtown Chattanooga on a hill provides some challenges due to the topography that can be addressed with careful planning. Parking is located throughout the campus, encouraging vehicular trips and increasing the number of conflict points.

However, opportunities have been created by the middle area of the campus being closed to vehicular traffic, the greenway provided on the eastern side of the campus, and the Mocs Express shuttle. The current pedestrian, bicycle, and vehicular circulation systems are proposed for enhancements in this Master Plan, which consolidates parking and builds on the existing pedestrian and bicycle network.

With a high number of students enrolled at UTC living off campus, many students drive to campus. They need convenient centralized parking locations that encourage parking and walking but do not necessarily provide parking at every building. This Master Plan assesses parking needs on campus along with the availability of pedestrian facilities, bicycle facilities, and shuttle services. The result is a framework that encourages parking and walking through a safe, connected pedestrian and bicycle network.

PEDESTRIAN NETWORK

UTC has a robust pedestrian network of sidewalks and paths that provide key connections to academic buildings, housing, and other student services. This network should be enhanced to promote safety, comfort, access, and direct connections. UTC should investigate if additional east-west and north-south pedestrian priority connections can be created to expand the existing pedestrian priority zone.



CAMPUS TRANSIT & BICYCLES



SCALE: 1 IN. = 800 FT.



BICYCLE NETWORK

There are several bike parking locations on campus today, and should remain in the future, with new bike parking added at new academic, housing, dining, and recreation building locations.

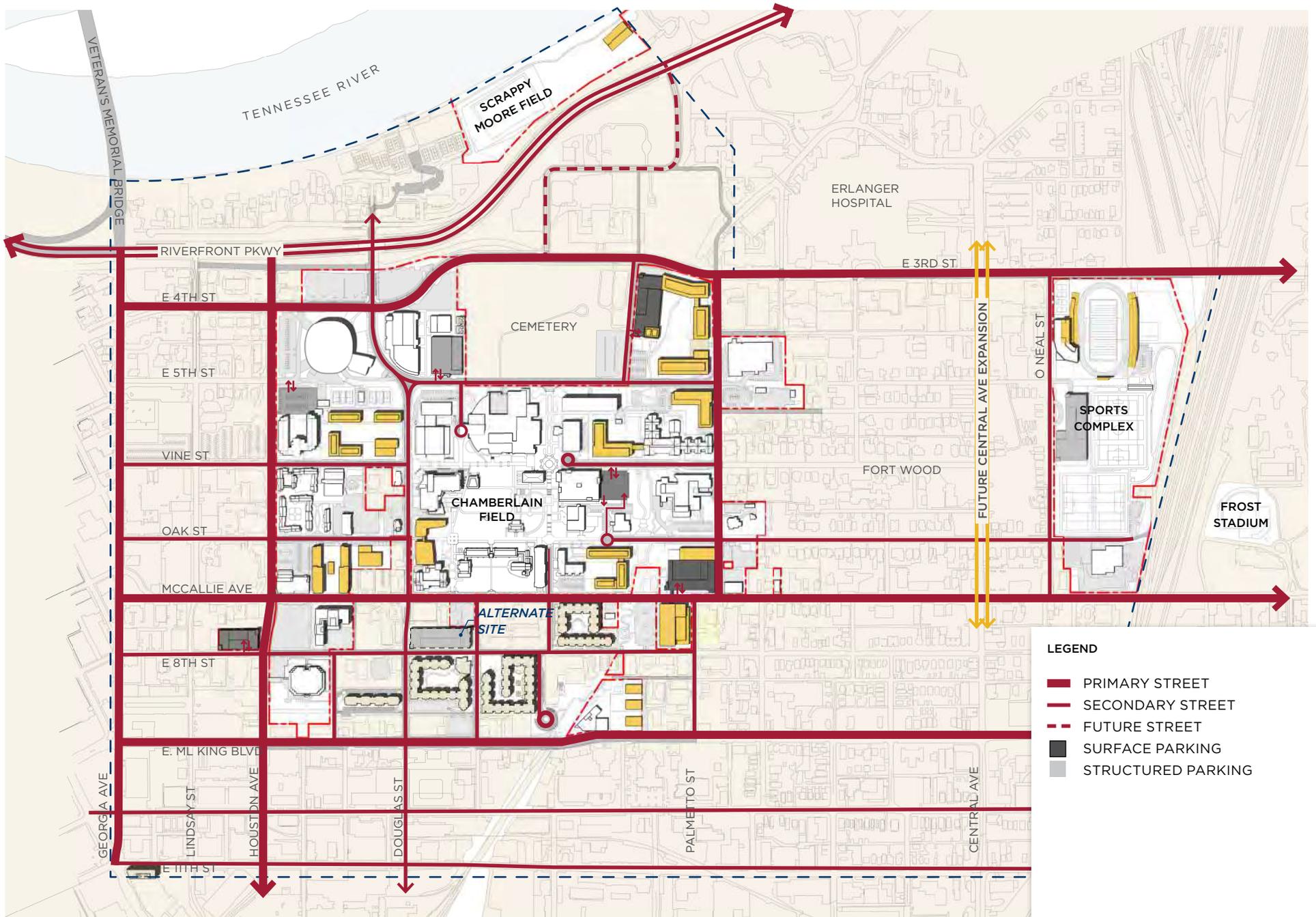
Several roadways do not provide designated bicycle facilities and have on-street parking. The university should coordinate with the City of Chattanooga on possible improvements on these campus roadways to provide safer bicycle connections to the surrounding neighborhoods, downtown, and through campus on the city roads.

While improving existing bicycle facilities continue to be a focus because of enrollment growth, the ability for the University to provide more options and accommodation for bicycle-friendly transportation will need to occur. The expansion of bike paths on campus should not end at the edge of campus but connect into the larger bike path system within the surrounding community. Ideas such as providing a subsidy to students and staff for the use of their bikes as their primary method of commuting to and from school should be encouraged and explored.

The University should coordinate with the City of Chattanooga on possible improvements on streets adjacent to and within campus to provide safer bicycle connections to the surrounding neighborhoods, downtown, and through campus.

TRANSIT NETWORK

There are no changes to the campus transit system planned as part of the Campus Master Plan Update.



VEHICULAR CIRCULATION



SCALE: 1 IN. = 800 FT.



VEHICULAR CIRCULATION

Overall, no changes are proposed to University-owned streets. The University will prioritize pedestrian safety on these streets, as well as providing landscaping, street furniture, adequate lighting, and accessibility. Along public streets that border the campus, UTC can partner with the City to enhance the pedestrian quality of the streets, including Houston, Douglas, Palmetto, McCallie, and 3rd Street. Together, these streets should form a larger pedestrian circulation network that contributes to the campus's overall experience.

The Chattanooga Department of Transportation (CDOT) has engaged UTC and neighboring institutions in concept development for improvements to the 3rd and 4th Street corridors to improve traffic flow and pedestrian safety, and provide streetscape enhancements. The project extends from Lindsay Street to Central Avenue, and includes the removal of a portion of the 3rd Street overpass, redevelopment of Siskin Drive, and new connections to Riverfront Parkway. Additional future CDOT studies near campus include improvements to Central Avenue, which runs parallel to the Fort Wood Historic District and to the west of the UTC Sports Complex.

PARKING UTILIZATION

The projected parking demand on campus is based on several factors including the number of students, faculty, and other employees. Utilization is determined based on actual counts of the number of vehicles in each lot over the course of a typical day. These data are used along with the number of parking spaces to determine if lots are being underutilized.

Parking Type	Campus Quadrant			
	NW	NE	SW	SE
Reserved	83%	72%	79%	83%
General	83%	98%	100%	100%
Accessible	25%	82%	34%	35%

Campus Quadrants are indicated on the following parking plans. Existing data shown is by campus quadrant only and not per lot.

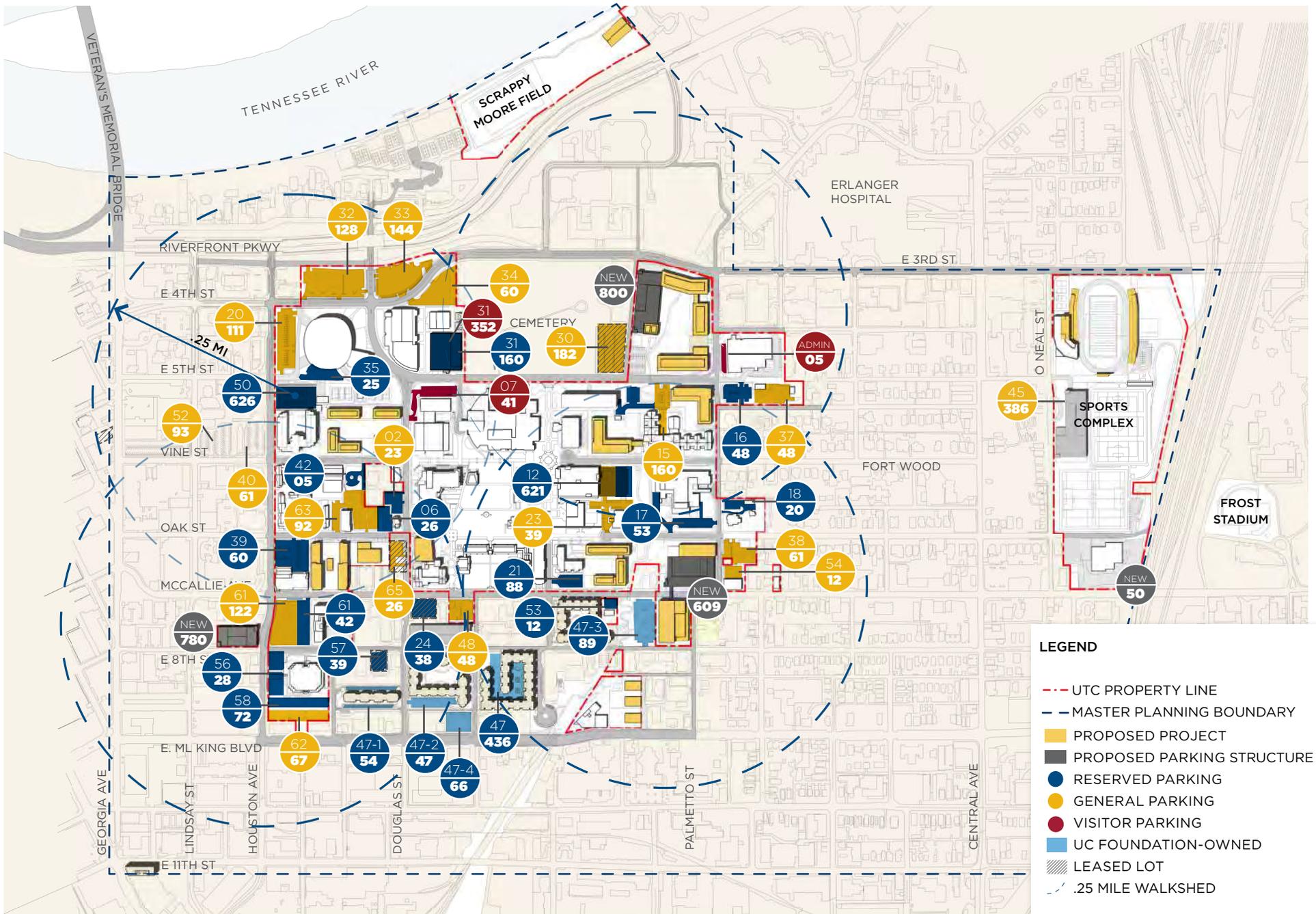
Surface parking lots with high utilization will continue to remain open or stalls will be replaced within a planned parking structure for added capacity. Due to the continued demand for parking with increasing enrollment, it is important for the University to consider incentives and policy changes that will increase use of underutilized surface parking in addition to recommendations made by the Downtown Chattanooga Parking Study to be adopted for future implementation, including the conversion of reserved spaces to open commuter access and increasing parking pricing to match demand and encourage use of alternative parking options off-campus.

PARKING STANDARDS

Parking standards are established in two ways. Cities provide parking requirements in their codes to be applied per parcel. Another way to establish parking needs is to utilize the Institute of Transportation Engineers (ITE), Parking Generation Manual. As UTC evolves and grows, the campus will be providing more student housing, which changes parking needs. Below is the parking calculation for an urban campus such as UTC based on the ITE Parking Manual, 4th ed.

- $P = 0.17x + 327$ = school population (students, faculty, and staff)
- On-Campus Student Headcount (projected): 13,215
- Employee Headcount (projected):
4,340 - 1,452 (student employees) = 2,888
- Total Parking Required:
 $P = 0.17 (13,215 + 2,888) + 327 = 3,065$ spaces

Assumptions for this standard include adjunct faculty and is a conservative standard. Depending on parking policies, additional resident permits, and course schedules, additional parking is considered within this Master Plan.



CAMPUS SURFACE PARKING

LEGEND

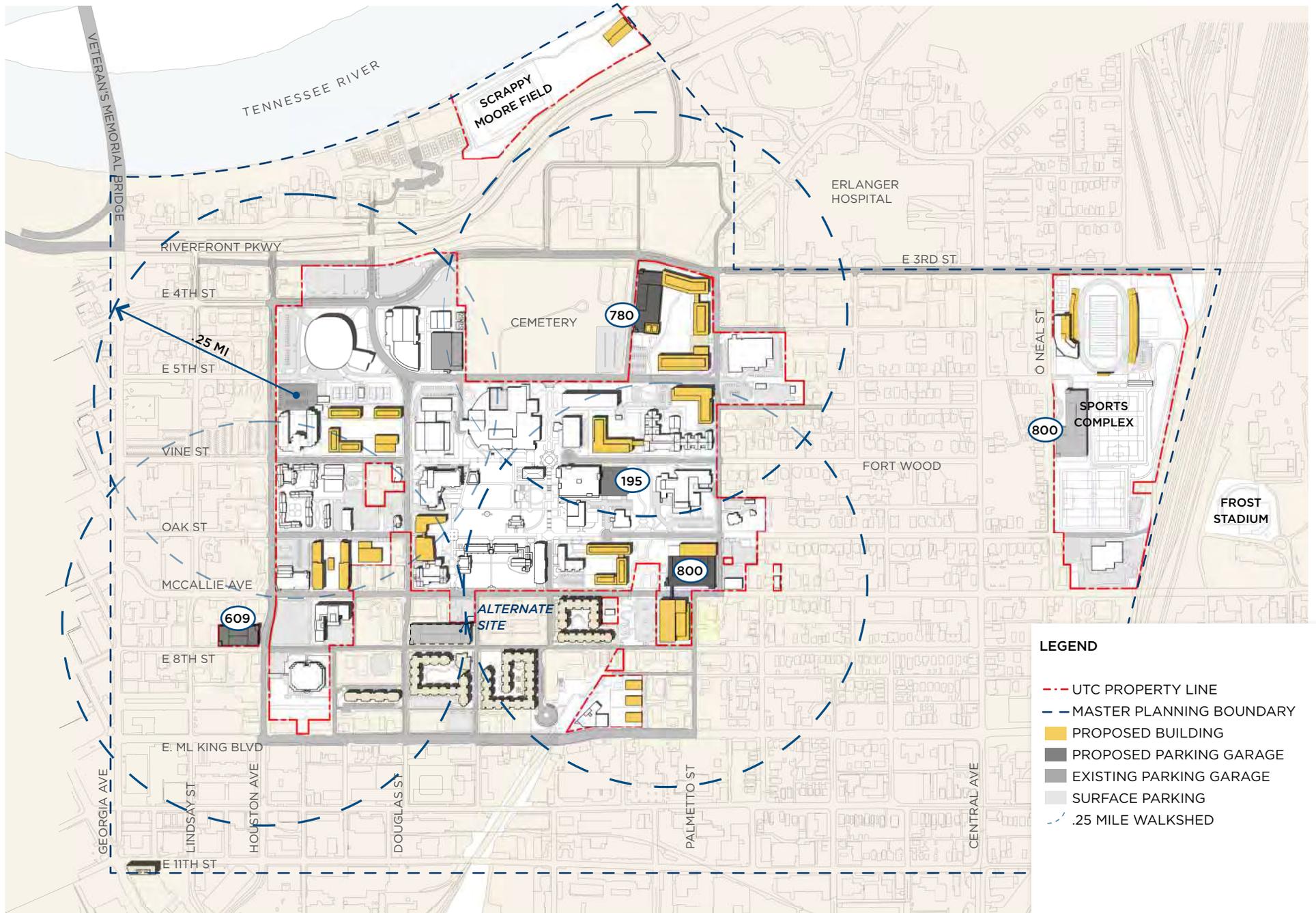
- - - UTC PROPERTY LINE
- - - MASTER PLANNING BOUNDARY
- PROPOSED PROJECT
- PROPOSED PARKING STRUCTURE
- RESERVED PARKING
- GENERAL PARKING
- VISITOR PARKING
- UC FOUNDATION-OWNED
- LEASED LOT
- - - .25 MILE WALKSHED

SCALE: 1 IN. = 800 FT.

0 400 800 1,200 FT

LOT	QUADRANT	SPACES TODAY	SPACES REMOVED	SPACES ADDED	FUTURE TOTAL
ADMIN	NE	5			5
1	SW	7	7		0
2	NW	23			23
6	NE	26			26
7	NE	41			41
9	NE	22	22		0
10	NE	183	183		0
12	NE	426		195	621
15	NE	160	122		38
16	NE	48			48
17	NE	53			53
18	NE	20			20
20	NW	111			111
21	SE	88	52		36
23	NW	39			39
24	SW	38			38
26	NW	231	231		0
30	NE	182			182
31	NE	512			512
32	NW	128			128
33	NW	144			144
34	NW	60			60
35	NW	25			25
36	NE	289	289		0
37	NE	48			48
38	SE	61			61
39	SW	60			60
40	NW	61			61
42	NW	5			5
45	-	386			386
46		22	22		0
47	SE	436			436
47-1	SW	54			54
47-2	SW	47			47
47-3	SE	89			89
47-4	SW	66			66
48	SW	48			48
49	SE	128	128		0
50	NW	626			626
51	SE	103	103		0
52	NW	93			93
53	SE	12			12
54	SE	12			12
55	SW	97	97		0
56	SW	28			28
57	SW	39			39
58	SW	72			72
59	SE	119	119		0
61	SW	164			164
62	SW	67			67
63	NE	92			92
64	SW	140	140		0
65	NE	26			26
NEW PARKING	SW	0		780	780
NEW PARKING	SE	0		609	609
NEW PARKING	NE	0		800	800
NEW PARKING	-	0		50	50
		6,062	1,515	2,434	6,981

**UTC
PARKING
INVENTORY**



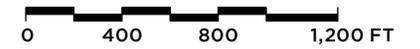
LEGEND

- - - UTC PROPERTY LINE
- - - MASTER PLANNING BOUNDARY
- PROPOSED BUILDING
- PROPOSED PARKING GARAGE
- EXISTING PARKING GARAGE
- SURFACE PARKING
- · - · - .25 MILE WALKSHED

CAMPUS STRUCTURED PARKING



SCALE: 1 IN. = 800 FT.



PROPOSED PARKING STRUCTURES

The best locations for on-campus parking are based on an evaluation of the campus layout, transportation systems, and topography. A primary objective is to limit conflicts between pedestrians and vehicles, and improve circulation for all modes of travel. Since many students live off campus, parking locations throughout campus should be considered to provide safe, friendly access to the buildings from the parking areas and to create a shared parking environment that is served by a well-connected pedestrian system. This type of circulation pattern promotes parking and walking while reducing the number of vehicle trips on campus.

Parking serves as a pedestrian trip generator and therefore should have appropriate, safe pedestrian facilities connecting to pedestrian walkways. Based on the “Normative Standards for Walking” published by Design Concepts Landscape Architects, ten minutes or less is what people are willing to spend walking to a particular destination, and a quarter mile is most commonly used standard for determining walkable access.¹ As car commuters to campus are predominately students, parking structure locations were determined based on a maximum distance of a quarter mile radius.

Four parking structure locations are proposed as shown on the previous page and listed below:

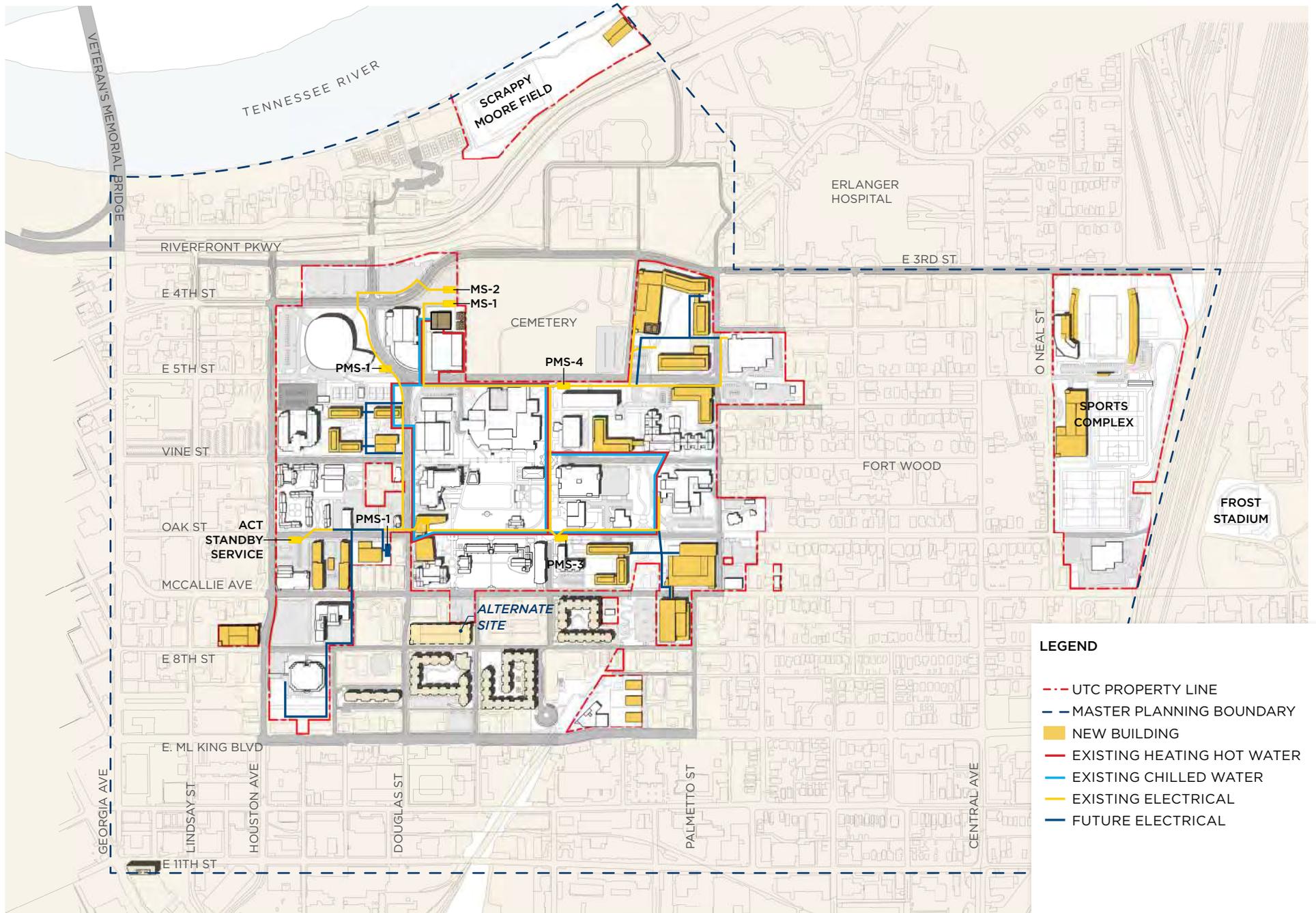
- Intersection of 8th Street and Houston Street to serve new residence hall development
- Health Sciences District
- Intersection of McCallie and Palmetto
- Two additional levels on Lupton Garage
- Optional Development of Sports Complex Stadium Garage

¹<https://www.dcla.net/blog/walkability-standards>

PARKING REPLACEMENT SUMMARY BY PHASE

PROJECT LOCATION	TOTAL SPACES REMOVED	TOTAL SPACES PROPOSED
8TH AND HOUSTON		609
HEALTH SCIENCES QUAD		780
SHORT-TERM SUBTOTAL	- 895	1,389
MID-TERM SUBTOTAL		0
MCCALLIE/PALMETTO (LOCKMILLER SITE)		800
LUPTON GARAGE ADDITION	Included with Health Sciences Quad	195 (Two new levels)
OPTIONAL DEVELOPMENT FOR COMPLEX STADIUM	0	(800) <i>not included in totals</i>
LONG-TERM SUBTOTAL		995
TOTAL		2,384

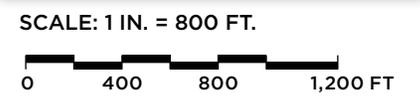
Campus parking quadrant locations are shown on the Parking Inventory Chart, page 111.



LEGEND

- UTC PROPERTY LINE
- MASTER PLANNING BOUNDARY
- NEW BUILDING
- EXISTING HEATING HOT WATER
- EXISTING CHILLED WATER
- EXISTING ELECTRICAL
- FUTURE ELECTRICAL

UTILITY INFRASTRUCTURE - MEP SYSTEMS



INFRASTRUCTURE RECOMMENDATIONS

The proposed expansion of the UTC campus envisions the construction of over 20 new buildings. A rough estimate of the utility load imposed by these new facilities will include approximately 2,000 tons of cooling demand. A large portion of this new load will be centered around the Health Sciences complex across the street from Erlanger's new Children's Hospital.

The existing UTC central energy plant, located at 601 East 5th street, produces chilled water for the entire campus which is distributed through a network of underground piping, from 4 to 24 inches in diameter. The existing system does not have the ability to absorb the additional 2,000 ton load.

It is recommended that a second central utility building be constructed in the vicinity of this new concentrated load. There are three parking lots immediately adjacent to the existing Challenger Center. These are located at the border of the cemetery. This location appears to be ideal because it is immediately adjacent to the corner of the campus that is about to have the highest concentration of new facilities. It is also adjacent to the Engineering Building, Holt Hall, University Center, and Grote Hall. These four structures account for approximately 40% of the existing campus cooling load. A new energy plant located behind the Challenger Center would be well suited

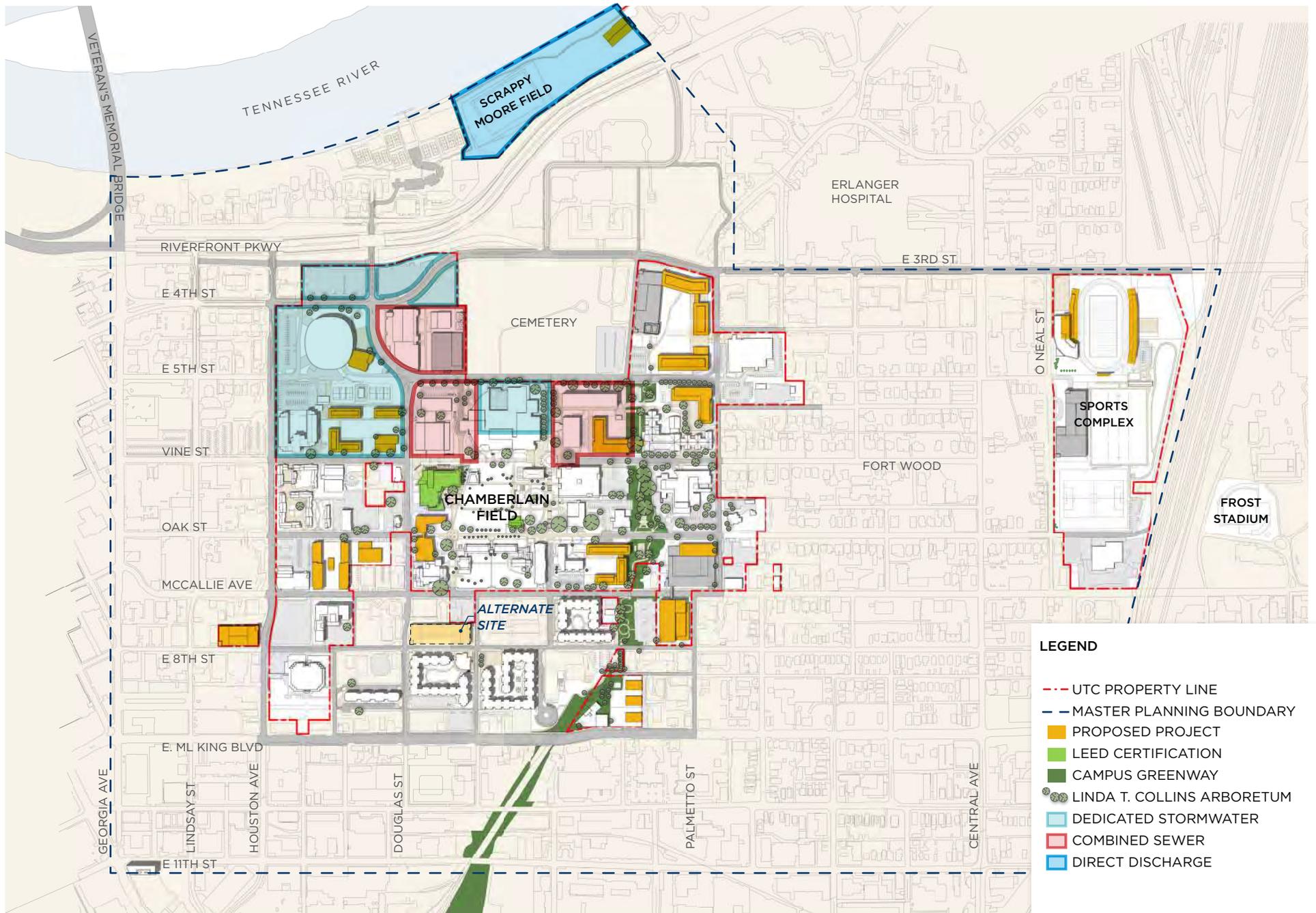
to provide utilities for these four existing buildings, as well as the new structures to be installed directly north of a new energy plant.

This portion of the campus is largely underdeveloped. The installation of underground piping would be focused on a relatively small area and incur only minor disruption to campus activities. The installation of a new chilled water plant in this location also would allow its underground piping to tie into the existing 20-inch diameter chilled water pipes located in front of Holt Hall, only 800 feet away. The close proximity of Holt Hall, Grote Hall, the Engineering Building, and the University Center would allow the chilled water services for these buildings to be provided largely by the new facility. Heat and hot water will be serviced by connections to the existing Plant distribution system.

This proposed plan does well to serve all the buildings north of McCallie Ave. There is a strong desire not to tunnel below McCallie Ave in order to provide utility services to the south side of the campus. The south side, confined between McCallie and Martin Luther King Jr. Boulevards, is mostly comprised of dormitories at the current time. As the campus continues to grow southward, there will be insufficient capacity in the north side utility system to absorb this new neighborhood.

If utility services are desired to be provided to this southern zone, it will be best served by a satellite hot water services system. A potential site for this would be at the back parking lot of the 540 McCallie (State Office) Building. This building has a substantial load provided by its own chilled water system, and the installation of a satellite hot water service structure in this location would provide for easy access to serve the 540 McCallie and Mapp Buildings.

A utility structure located behind the State Office Building would locate cooling towers in an area that is relatively out of view of the public and the surrounding neighbors. The site is also easily accessed and construction activities would not be too disruptive. Similarly, a utility building behind the existing Challenger Center would be largely hidden by the proposed buildings in this area. The combination of these three energy plants would provide a campus wide system with flexibility and redundancy.



CAMPUS SUSTAINABILITY



SCALE: 1 IN. = 800 FT.



SUSTAINABILITY OBJECTIVES

ENERGY USE AND CARBON EMISSIONS

UTC has committed to energy efficiency, reduction of energy use, supporting sustainable design strategies specific to the campus and the local environment, and responsible growth scenarios. As a demonstration of these commitments, over the past decade UTC has improved utility infrastructure to meet campus growth needs in a sustainable way. It is assumed that all new construction and major renovations recommended within this plan are designed to the State of Tennessee's High Performance Building requirements.

Providing alternative modes of transportation and increasing the number of beds on campus will continue to have a significant impact on UTC's sustainability targets.

STORMWATER

In accordance with the City of Chattanooga MS4 (Municipal Separate Storm Sewer System), UTC's Stormwater Management Program is designed to reduce the discharge of pollutants to maximum extent practicable (MEP) to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act, and its compliance is required for all development on major capital projects.

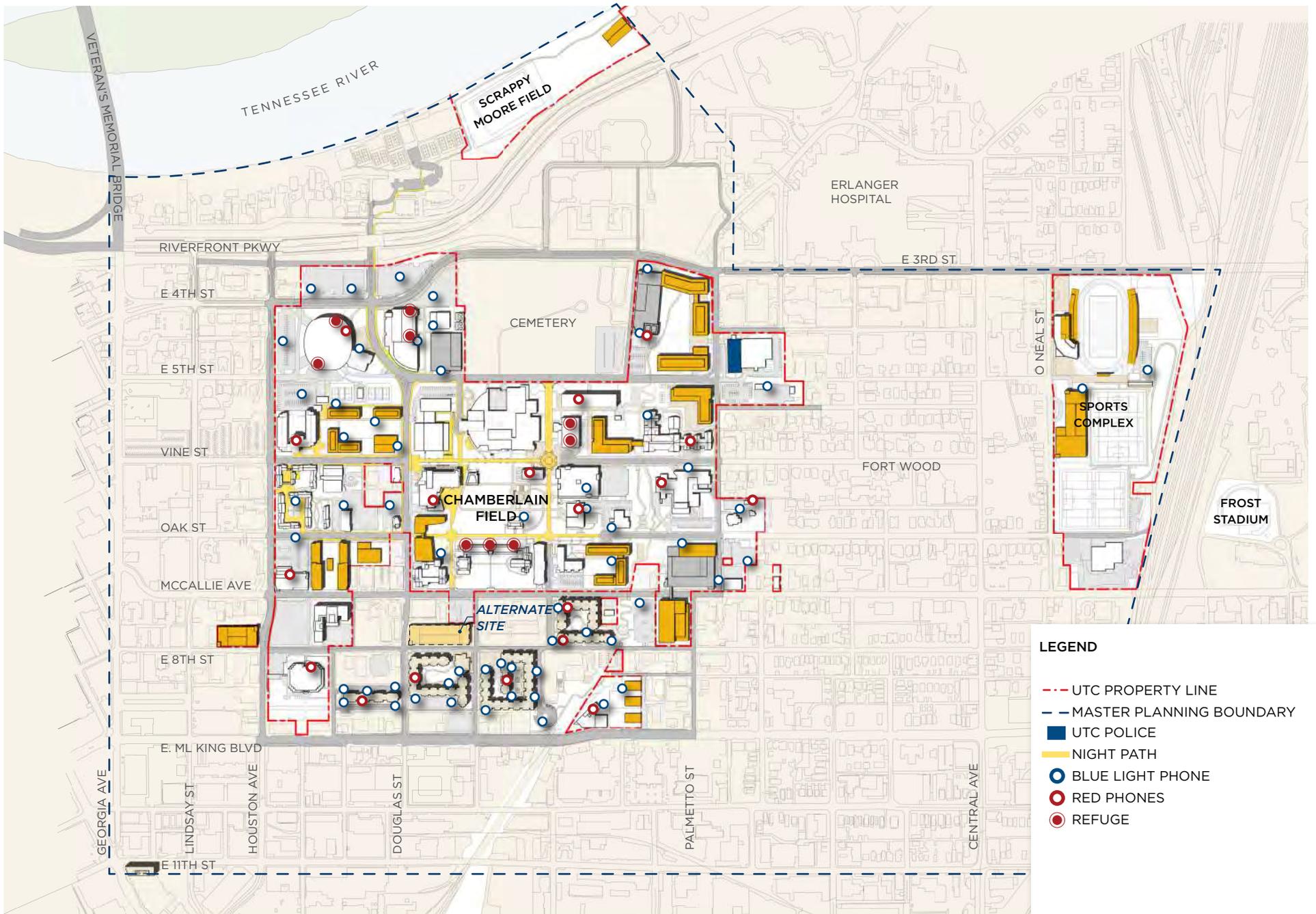
Particular attention for UTC's Stormwater Management Program should be given to future development along Mocs Alumni Drive to limit future impact to the Combined Sewer System (CSS) around Maclellan Gym, the ARC and 5th St Parking Garage.

Strategic partnerships to for future water conservation and stormwater management include:

- Future development projects that include bioswales, rain gardens, tree trenches, as well as rainwater collection systems (cisterns), retention areas and condensate harvesting to be used in gray water systems and landscape irrigation
- Coordinate with the City of Chattanooga and other stakeholders to integrate Stormwater Best Management Practices in neighborhood and downtown projects to expand green infrastructure and conserve water resources.
- Limit and reduce impervious paving, particularly parking lots (where practical) to manage stormwater and decrease the urban heat island effect.

RESEARCH AND SCHOLARSHIP

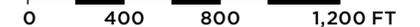
Faculty in departments and programs throughout the University are teaching courses, conducting research, and engaging in partnerships that address environmental challenges. As an institute of higher education, UTC should continue to sponsor and promote community-engaged research and University initiatives that address sustainable development. Campus property can be utilized as a "living laboratory" to study the environment and educate students about their role in a sustainable future.



CAMPUS SAFETY & SECURITY



SCALE: 1 IN. = 800 FT.



SAFETY AND SECURITY

Many campus and community stakeholders reported that it is not always clear or intuitive where the campus begins and ends. This is to be expected for an urban campus, but strengthening the campus perimeter would improve UTC's brand and awareness in the community, as well as having a significant impact on safety. Defining a stronger campus boundary will also help everyone understand better when they are on vs. off campus.

As people move to and through the campus, clear primary pathways are preferred that are well-lit and obvious. The night path encourages campus users to move along a safe, convenient, and intuitive path to create more density of pedestrians and activity, and less isolated or remote circulation. These pathways should be consistently well-lit in the evening, connecting buildings, facilities, and programs used after 8:00 p.m.

UTC conducts a regular safety walk with sponsors for the Student Government Association. This program allows the University to quickly respond to safety issues such as inaccessible sidewalks, trip hazards, and dim lighting. UTC is also considering how environmental design can impact the perception of safety. In the future, Crime Prevention Through Environmental Design (CPTED) principles can be applied to campus improvement projects to provide a safety lens.

As the campus grows over the next decade, it is imperative to consider the impacts of the additional buildings, landscape, and acreage that will need to be brought up to UTC safety standards and require additional personnel to monitor these spaces and places.

5

IMPLEMENTATION FRAMEWORK



LEGEND

- - - UTC PROPERTY LINE
- PLANNED CONSTRUCTION
- FUTURE RENOVATION
- NON-UTC PROPERTY
- ADJACENT PLANNING INITIATIVE

IMPLEMENTATION PLAN

This section explores a growth-oriented phasing scenario for full build-out of the Campus Master Plan. Since it is impossible to predict actual phasing, with funding often unknown and program needs continually evolving, this study is seen as a “test” to ensure the plan is feasible.

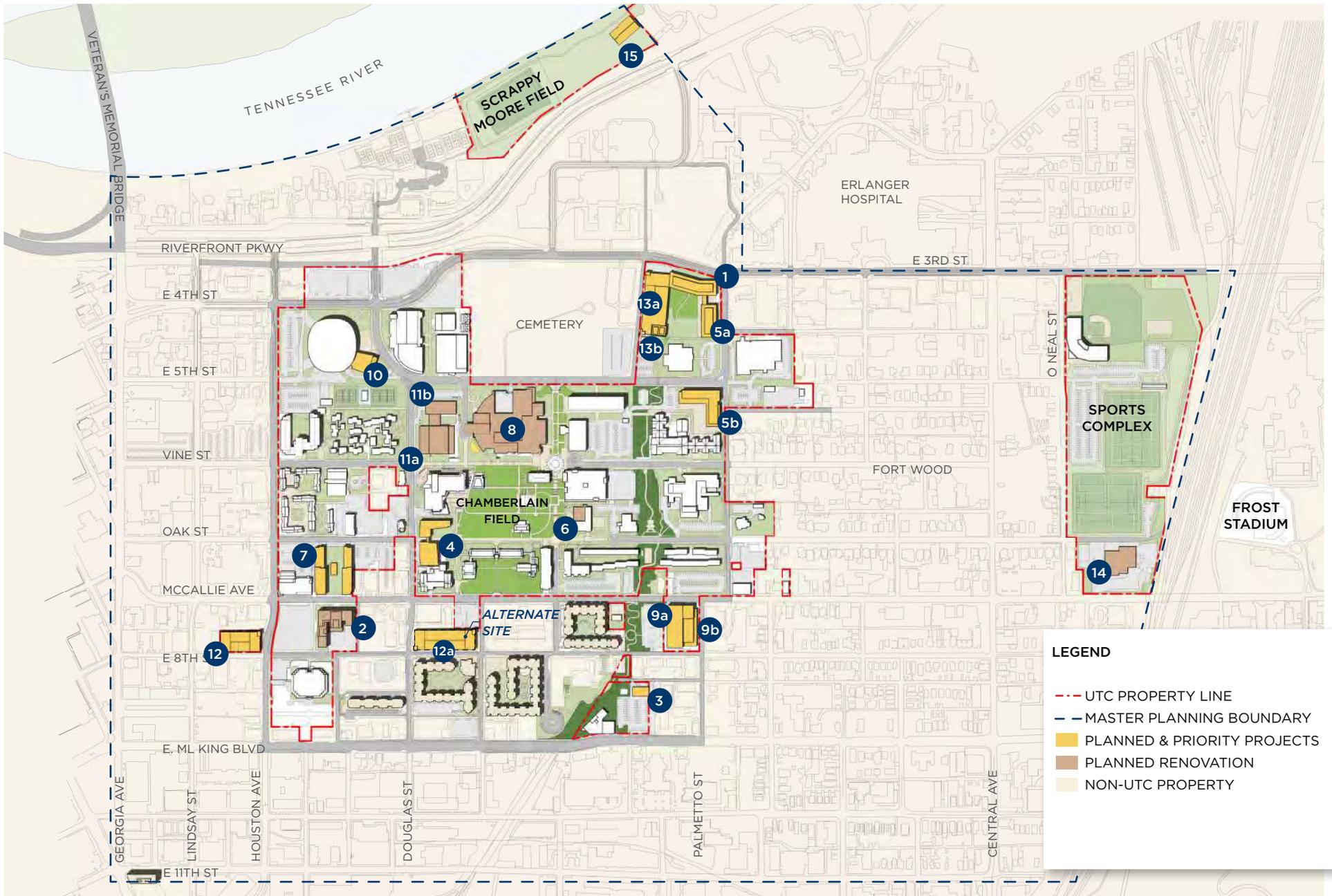
The phasing strategies described in the following would allow for implementation of the long-term vision. Phasing includes programmatic “chess moves” of major functions, along with phased internal open space and infrastructure improvements, including multi-mobility circulation and improvements on campus.

Ultimately, the phased development in this “test” assumes one single move for every unit to a permanent location as phasing occurs. Any future planning efforts should recognize this study as a working tool for selecting sites that can catalyze the planned outcome described in this plan.

The phasing is broken up into three sequential stages: short-term (0-4 years), mid-term (5-9 years) and long-term (10+ years). This provides a basis for developing assumptions around the building, sequencing and enabling of specific moves to achieve the described goal and objectives of the plan. Further study is recommended to determine functional considerations and to verify cost impacts with each significant project.

The Campus Master Plan includes phased development and implementation planning that identifies projects assumed to be completed in the specified time frames as functional needs allow.

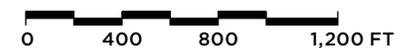
Anticipated development to be considered within the next ten years are outlined in “The Short-Term Plan” and “The Mid-Term Plan.” Anticipated development to be considered beyond ten years is outlined in “The Vision Plan.”



THE SHORT-TERM PLAN | PRIORITY & POSITIONING PROJECTS (0-4 YEARS)



SCALE: 1 IN. = 800 FT.

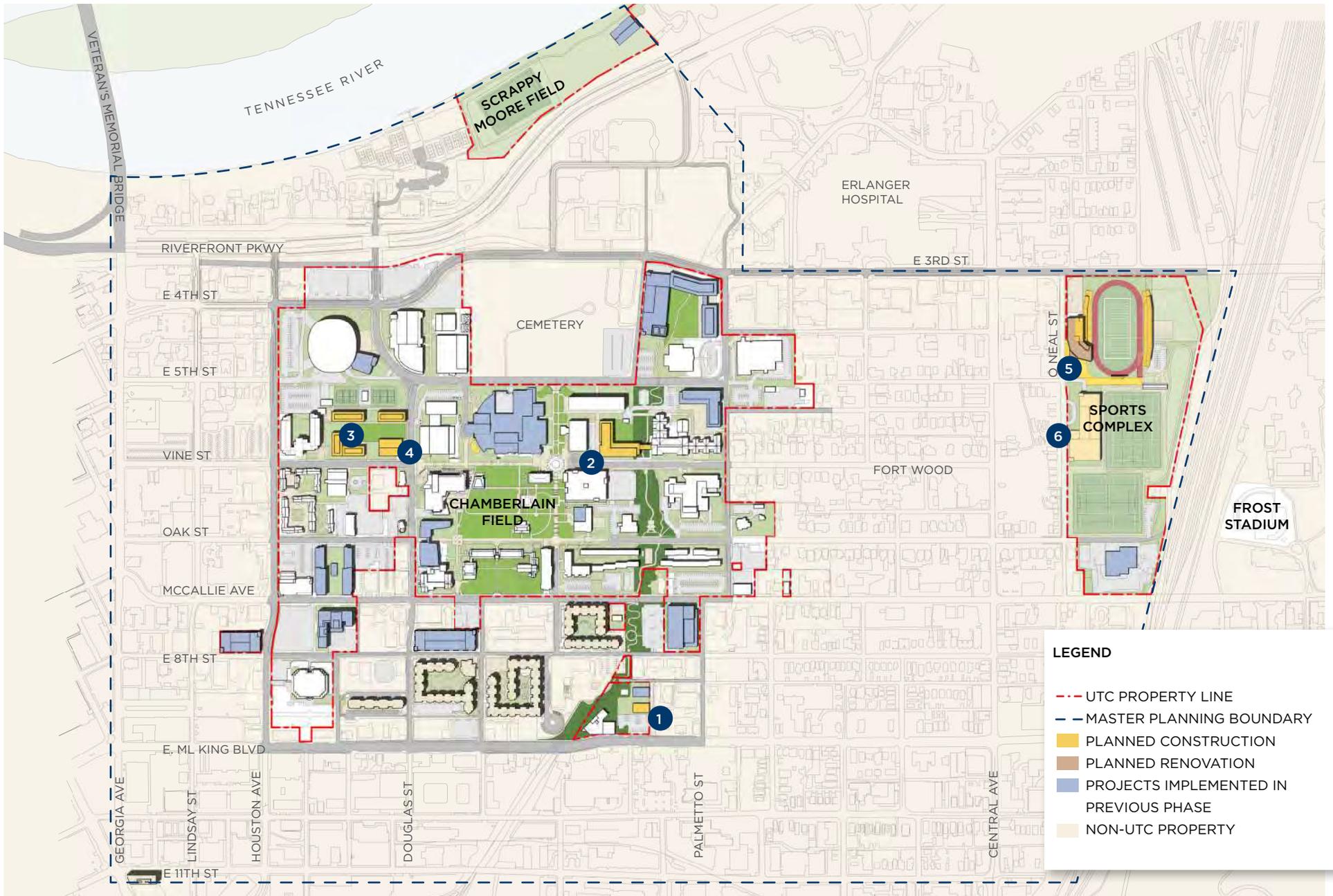


#	PROJECT TYPE	PROJECT RECOMMENDATIONS	Demo. GSF	Renov. GSF	New Const. GSF
ACADEMIC/RESEARCH					
1	Health Sciences Building Phase I	Site acquisition in progress	-	-	92,192
2	540 McCallie Renovation	Some floors currently undergoing renovation	-	173,979 ¹	-
3	Phase I Innovation and Advanced Manufacturing Application Center (I&AMAC)		-	-	5,058
4	Fletcher Hall Addition	Includes renovation of existing Fletcher Hall. Adds 32 parking spaces	-	17,000	81,688
5a	Health Sciences Building II /Multi-Disciplinary Research Building I		-	-	72,000
5b	Multi-Disciplinary Research Building II	Potential connection to existing EMCS Building	-	-	120,000
6	Crossroads Renovation	Academic and Student Programming	-	29,111 ²	-
HOUSING					
7	New Residence Hall	Replaces Boling Apartment Beds (788) Auxiliary/TSSBA	-	-	227,852
STUDENT SERVICES/STUDENT LIFE					
8	University Center Renovation		-	226,372 ¹	-
9a	New Dining Facility	Includes seating for replacement of Crossroads and 5,000 GSF catering kitchen and support facilities.	-	-	47,250 (Dining)
ATHLETICS					
10	McKenzie Arena	Under Construction			37,500
11a	MacLellan Remodel (Gymnasium)	Feasibility study in progress	-	65,478	-
11b	MacLellan Remodel (Natatorium)			11,150 ²	
RECREATION					
9b	Recreation Facility	Incorporated as part of Dining Facility project. Includes additional rec space			81,000 (Rec)
15	Rowing Center	Replacement of existing Rowing Center barges			15,272
GENERAL USE/OTHER					
12 12a	Multi-purpose Parking Garage at 8th/Houston Alternate: 8th/Douglas	600 spaces. Auxiliary/TSSBA	-	-	237,056
13a	Multi-Purpose Parking Structure (Health Sciences) and STEM Outreach	600 spaces, 24,000 GSF Multi-purpose/STEM Outreach	-	-	177,807
14	Expanded Facilities Space (Renovation of 1112 Oak St)	Acquisition of Chattanooga Tent & Event Center in progress	-	25,850	-
OPEN SPACE IMPROVEMENTS					
	Health Sciences Quad Phase 1	Coordinate with Campus Greenway Expansion			52,000
	Divine Nine Park	Located at UC and Vine St, currently under design			
INFRASTRUCTURE					
13b	Utility Plant				

¹ Includes GSF of entire existing building

² Sq. Ft. of space within existing building

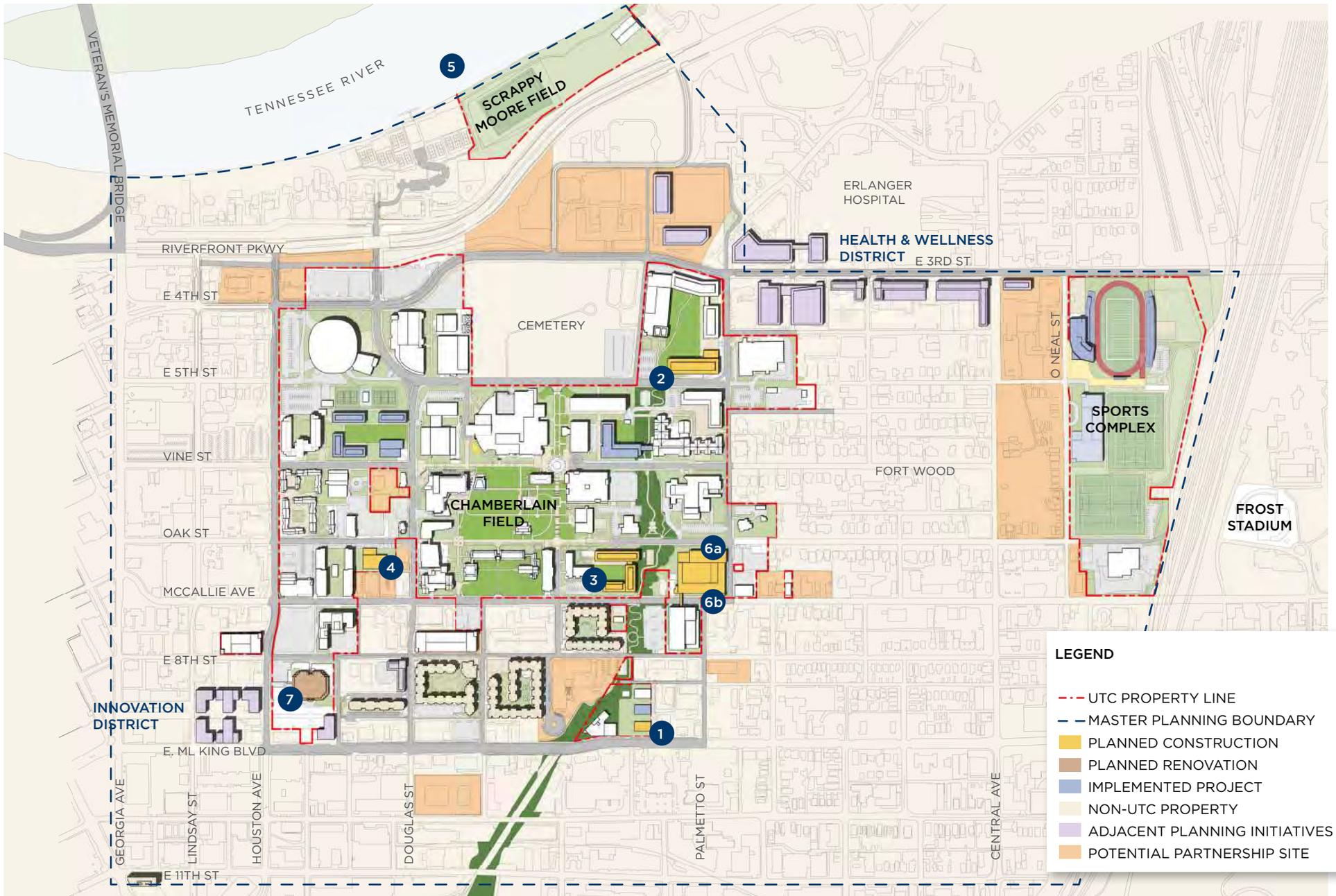
The list of projects above identify priorities for long-term capital improvements consistent with the timeline of this plan.



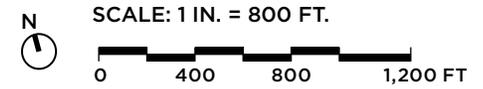
THE MID-TERM PLAN | MEETING GROWTH NEEDS (5-9 YEARS)

#	PROJECT TYPE	PROJECT RECOMMENDATIONS	Demo. GSF	Renov. GSF	New Const. GSF
ACADEMIC/RESEARCH					
1	Phase II Innovation and Advanced Manufacturing Application Center (I&AMAC) Lab		-	-	5,300
2	Arts + Sciences Interdisciplinary Center		-	-	122,600
HOUSING					
3	Residence Halls (Boling Site Replacement)	Three buildings, total of 505 Beds.	-	-	230,400
STUDENT SERVICES/STUDENT LIFE					
4	Dining Expansion (Boling Site)	200 seats	-	-	12,000
ATHLETICS					
5	Engel Stadium Multi-purpose Soccer/Football Field and Track Development	Renovation/replacement of historic Engel Stadium. 10,000 seats	-		-
6	Optional Parking Structure at Engel Stadium with multi-purpose community space				296,800
OPEN SPACE IMPROVEMENTS					
	Arts & Sciences Quad				22,000
	Residence Hall Quad (Boling Site)				66,000
	Engel Stadium Plaza				40,000
INFRASTRUCTURE					
	None proposed in this phase				

The list of projects above identify priorities for long-term capital improvements consistent with the timeline of this plan.



THE VISION PLAN | ACHIEVING STRATEGIC PLANNING (10+ YEARS)



#	PROJECT TYPE	PROJECT RECOMMENDATIONS	Demo. GSF	Renov. GSF	New Const. GSF
ACADEMIC/RESEARCH					
1	Phase III Innovation and Advanced Manufacturing Application Center (I&AMAC) Lab		-	-	5,300
2	Health Sciences Building Phase III / Medical School Partnership		-	-	120,500
HOUSING					
3	Lockmiller Replacement Housing + Amenities		-	-	131,400
STUDENT SERVICES/STUDENT LIFE					
4	Expanded Study Space		-	-	27,500
GENERAL USE/OTHER					
5a	Expanded Program Support Space	Academic & Student Affairs	-	-	28,000
5b	Parking Garage on McCallie/Palmetto	800 Spaces	-	-	268,800
ADDITIONAL RENOVATIONS					
6	Mapp Building / Conference Center (renovation/addition)		-	83,242	-
OFF-CAMPUS					
7	Jones Observatory Rehabilitation + Expansion		-	2,709	TBD
8	Enterprise South Center Education/Incubator & Research Facility		-	-	54,000
OPEN SPACE IMPROVEMENTS					
	Residence Hall Quad (Lockmiller Replacement Site)		-	-	
	Fine Arts Center Plaza and Drop-off				
INFRASTRUCTURE					
	None proposed in this phase				

The list of projects above identify priorities for long-term capital improvements consistent with the timeline of this plan.

