

2

**METHODS AND
ANALYSIS**

2 METHODS AND ANALYSIS

UC Riverside recognizes the importance of the physical campus in achieving the goals articulated in its strategic plan, *UCR 2020: The Path to Preeminence*. The development proposed in the Master Plan Study is the physical embodiment of the strategic plan. To be successful in developing the future campus to achieve its strategic goals, the University needs to understand clearly the foundation upon which these efforts will be built – the campus as it exists today. This chapter outlines the methods and results of the Planning Team’s investigation into the existing campus, its many components and their relationship to each other and to the surrounding natural and built environment.

Glossary of Terms

Belltower - a landmark element at the center of Carillon Mall

Box Springs Mountains - the dominant range of mountains to the east and south of the UC Riverside campus

Carillon Mall - the primary open space in the heart of the campus

Core Campus - the region within East Campus that contains nearly all of the academic buildings, as well as most of the University’s older buildings

East Campus - the portion of campus east of the Interstate 215 / SR-60 freeway

Legacy Buildings and Landscapes - prominent cultural elements/ buildings and open spaces on campus

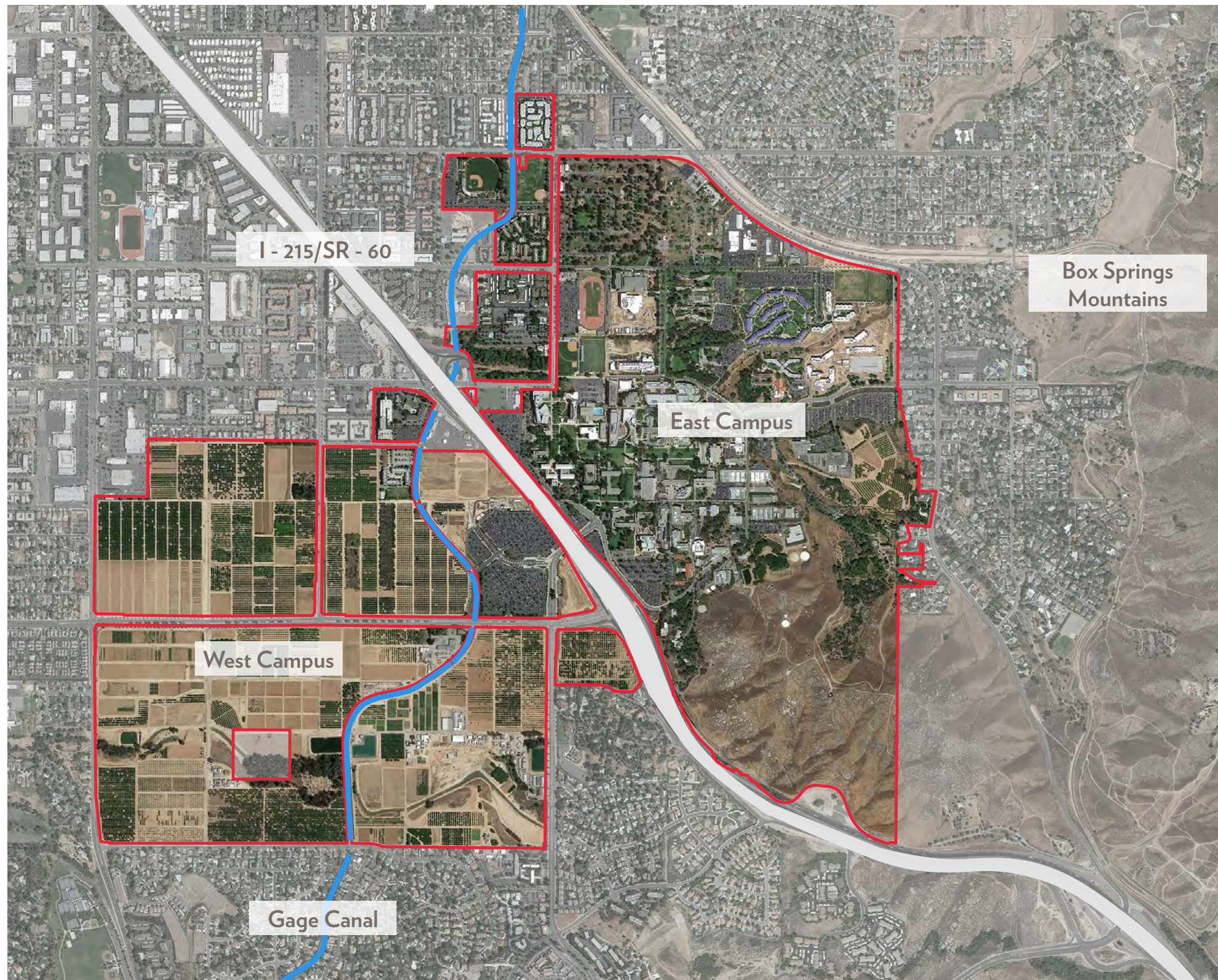
West Campus - the portion of campus west of the I-215/SR-60 freeway, currently utilized primarily for agricultural research

STRATEGIC INQUIRIES

The primary goal of the Master Plan Study is to accommodate development as enrollment grows, but simply growing is not enough. Growth must be thoughtful and organized for the result to be successful. In addition to “how much growth?” the University asks itself the following questions, which this chapter seeks to answer:

- What features of the campus make UC Riverside memorable?
- How is the campus accessed and what are the conditions at its edges?
- How can a large demand for new space be accommodated on East Campus, which many perceive as already being built-out?
- Which buildings and open spaces most contribute to the University’s desired setting, and how can they inform the aesthetics of future development on campus?
- What opportunities exist to reduce campus energy demand and resource consumption even as UC Riverside experiences significant growth?
- What impediments exist to connectivity within the campus and to the surrounding neighborhoods?
- What opportunities are there for the creation of new open spaces and other venues for interaction and engagement across campus?

Figure 2.1 CAMPUS CONTEXT



LEGEND — UC Riverside Property Line — Gage Canal



2.1 Background

PHYSICAL CONTEXT

The UC Riverside campus is located three miles east of downtown Riverside at the base of the Box Springs Mountains, and within the County of Riverside. UC Riverside is the only public research university located within Inland Southern California. The 1,127-acre campus is bisected by the Interstate 215 / SR-60 freeway. The two resulting areas of campus are described below:

East Campus

East Campus comprises 604 acres and contains the vast majority of the University's built space. Nearly all of the academic, research and support facilities are located within the zone outlined by Campus Drive, including most of the campus's original buildings. The northern half of East Campus is devoted to student housing and recreation. The Belltower marks the heart of campus at the center of the Carillon Mall. The terrain steepens just to the south and east of campus and as a result, these areas are largely unbuilt.

West Campus

The majority of the 523-acre West Campus land area is currently in use as agricultural teaching and research fields, mostly citrus groves managed by the College of Natural and Agricultural Sciences (CNAS) Agricultural Operations.

Several facilities, besides the teaching and research fields, currently occupy the West Campus. These include Parking Lot 30, University Extension (UNEX), Highlander Hall (due to be demolished as seismically unstable), the two-story Human Resources Building (also due to be demolished owing to fire damage) and International Village, a housing complex intended for visiting international students.

A City of Riverside electrical substation occupies the northern edge of Parking Lot 30. A Caltrans service yard occupies a 4.1-acre triangular parcel directly west of the freeway at the eastern terminus of Everton Place. The Gage Canal traverses the site north to south.

HISTORICAL CONTEXT

The original University of California Citrus Experiment Station (CES) was founded just west of the downtown area of Riverside at the foot of Mt. Rubidoux in 1907. In 1917, the University of California acquired 370 acres from the City of Riverside and the CES moved to a location at the foot of the Box Springs Mountains, just east of the Gage Canal. Down the hill to the west, the Barn and other assorted small buildings associated with the maintenance and operation of the station were constructed, and are still in use today.

The University of California, Riverside, had its official beginning in 1948, when a committee of the State Legislature recommended that a small liberal arts college be established in proximity to the Citrus Experiment Station. A grouping of core buildings was completed by 1954: the Library, Webber Hall, the Physical Sciences Building, the Physical Education Building, and the Social Sciences Building (known now as Tomas Rivera Library, Webber Hall, Geology, Athletics and Dance, and Watkins Hall, respectively). The first five buildings were centered on a wide central open space – today's Carillon Mall – that now is anchored by Hinderaker Hall on the west end and Webber Hall on the east. Classes began in February of 1954 with a faculty of 65 and a student body of 127, and a planned capacity of 1,500 students.

In 1959, Riverside was declared a general campus by the Regents. The University's Graduate Division was established in 1960. Since then, the University's growth has mirrored the growth of Southern California. Once a small university in a small town, it is now the premier research and educational institution in Inland Southern California.

February 14, 1907

The Riverside Citrus Experiment Station, the forbearer of the University, opens for business.

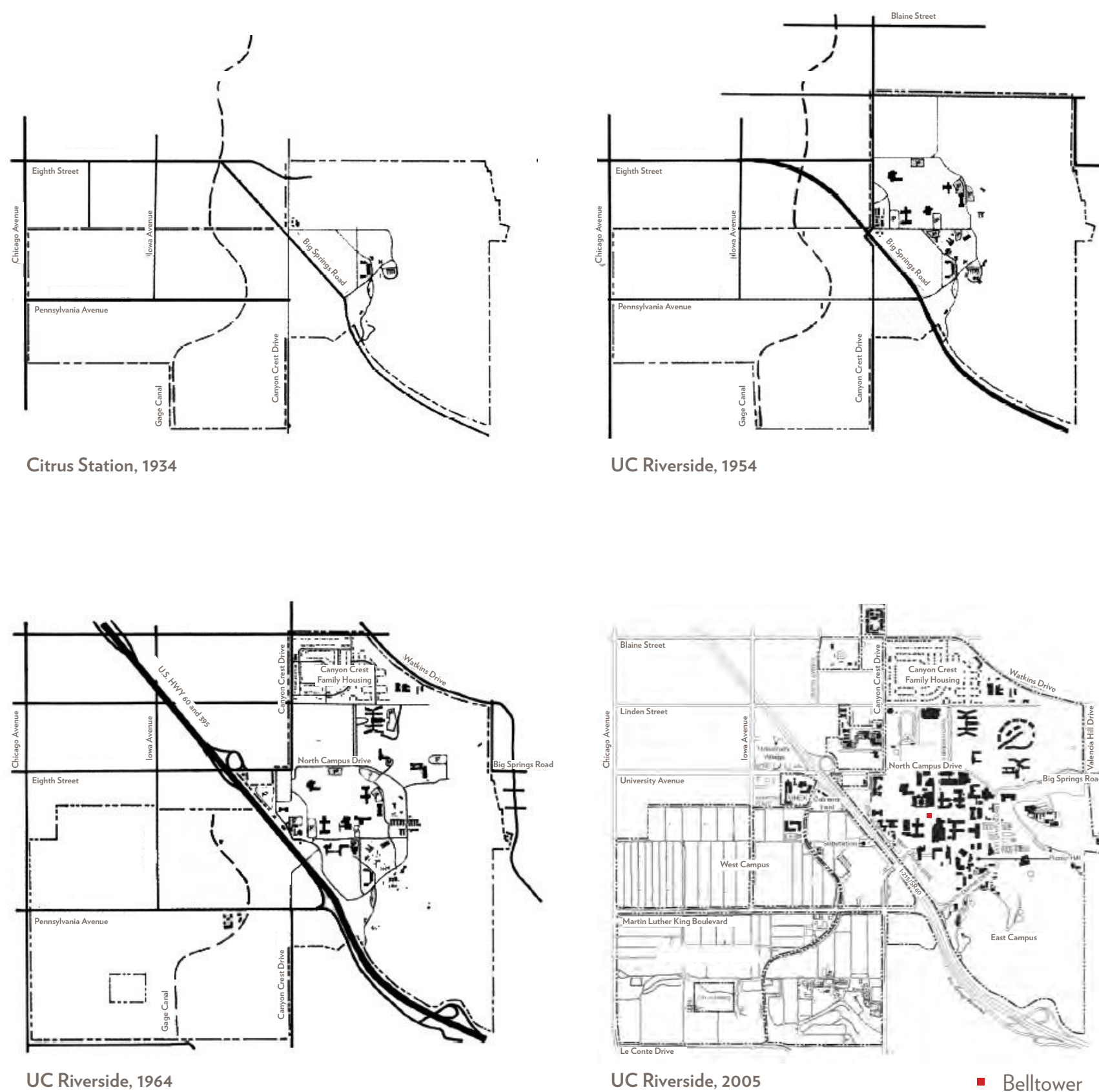
April 21, 1948

Governor Earl Warren signs legislation authorizing the University of California to open campuses in Riverside and Davis, earmarking \$2 million for initial planning and design costs.

July 30, 1952

UC Riverside holds ground-breaking ceremonies. Construction begins immediately on Webber Hall, Geology, Physical Education, Watkins Hall and Life Sciences.

Figure 2.2 HISTORICAL DEVELOPMENT OF THE UC RIVERSIDE CAMPUS





Belltower Dedication, 1966

December 7, 1953

The first library building is completed and opens on December 24 stocked with 33,000 volumes.

February 15, 1954

127 students and 65 faculty members arrive for their first day of classes. The next day, Charles Young is elected student body president. He later becomes chancellor of UCLA.

June 20, 1954

The first 20 students graduate from the University.

October 19, 1954

UC Riverside is officially dedicated.

August 1955

The big "C" on Box Springs Mountain is made with cement and equipment donated by the E.L. Yeager Construction Co. Surveying work is done by students. At 132 feet long, it is the largest concrete block letter on record.

1955

"Highlanders" is adopted as the campus mascot following a vote of the student body. The Scottish theme is embraced for several campus groups and buildings.

April 18, 1959

UC Regents vote to make UC Riverside a "general" campus, complete with graduate instruction and professional schools.

1960

The College of Agriculture is founded, successfully combining the work done at the Agricultural Experiment Station with undergraduate and graduate teaching.

October 2, 1966

The Belltower is dedicated.

The University offers a Bachelor of Science degree for the first time to students majoring in chemistry, geology or physics.

April 1998

Students approve a plan for the University's athletics teams to join NCAA Division I. In March 2000, UC Riverside is accepted into the Big West Conference.

April 15, 2005

The UC Riverside Palm Desert Center opens.

November 2006

The University's plans for a medical school are accepted.

September 2012

The School of Public Policy is announced, with its first class of students expected in 2015.

August 2013

The first inaugural class of 50 students is welcomed into UC Riverside's School of Medicine.

2.2

Integrated Approach

The Planning Team assessed opportunities, challenges and constraints on campus utilizing a range of methodologies. Workshops with key stakeholders, first-hand observation of the physical campus, and reviews of previous planning studies all provided valuable information.

The planning process, beginning in December 2014 and completed in May 2016, was organized into four major tasks (see Fig. 2.3.) In the Understanding phase, the Planning Team gathered information from a variety of sources to develop an understanding of the campus and its needs. The primary method of representing this information is through plan-based diagrams, which are found throughout this document. The analysis of the campus is divided into distinct systems or components, but because these systems are so interconnected, their analyses naturally overlap.

In the Integrating phase, the Planning Team tested development scenarios looking at a range of densities and program distributions. In later workshops, attendees responded to these scenarios. Through several working sessions, the planning scenarios evolved and were eventually merged into a single planning framework that reflected consensus on key aspects of the future campus. The opportunities and recommendations in the Master Plan Study take the information gained through these sessions into consideration and address concerns to the greatest extent possible. The resulting plan represents not just the will of University leadership, but a shared vision of many who hold a stake in the institution's continued success.

The Physical Master Plan Study is a campus document. While it has been facilitated by the consultant team who have contributed their expertise in helping the campus articulate its vision, the University has been actively engaged in guiding the Study's development. This engagement makes the Study a reflection of the University's aspirations and needs.

Figure 2.3 PLANNING PROCESS



CAMPUS AND COMMUNITY ENGAGEMENT

The planning process was deliberate in seeking the participation of students, faculty, staff, administrators, community members, elected officials, and City of Riverside representatives. This broad engagement started with the establishment of a diverse Steering Committee with representation from these many stakeholders. The Steering Committee met approximately every two months for a year, providing critical insights on the existing campus and future aspirations, developing consensus on foundational values, beliefs and principles to guide the Master Plan Study, and responding to observations and recommendations arising out of the work of the Planning Team.

The Design Review Board (DRB) advises the University on major planning initiatives, and facilities siting, design and landscaping for major projects. DRB involvement promotes consistency with the campus LRDP and UC Riverside's planning principles as specified in the Campus Physical Design Framework, Campus Design Guidelines and Landscape Guidelines. The DRB is headed by the Campus Architect and is comprised of four outside architects and landscape architects who act as peer reviewers, and of faculty representatives from within the University. In a campus walk with the Planning Team, the DRB both added to and confirmed the findings of the campus analysis. At the next stage, the DRB affirmed key planning themes and principles, and finally, confirmed the specific planning directions and priorities proposed in the Master Plan Study.

UC Riverside's commitment to incorporating diverse perspectives was also reinforced by the formation of multi-disciplinary working groups bringing special focus to the following key areas:

- Campus Logistics and Safety
- City and Community
- Student Life
- Sustainable Infrastructure
- Sustainable Practices
- Technology

Further stakeholder input was solicited through a variety of workshops, meetings, and outreach activities over the course of the planning process. For example, the Planning Team engaged with approximately 450 individuals in workshop settings, including faculty, staff, students, alumni, and community members. Additional targeted outreach to

students included a series of emails, postcards, and on-campus tabling in spring of 2015, and presentations to representatives of over 150 student organizations in both spring of 2015 and winter of 2016. During the same time periods informational presentations and progress updates also were provided at public meetings of the Associated Students of UC Riverside and the Graduate Students Association.

This method of information-gathering by engaging directly with the campus community has several benefits. Primarily, those who use the campus every day are able to provide insights with a level of detail and nuance that otherwise might not be captured by the Planning Team in the relatively brief timespan of the study. Public inclusion also helps to engender a widespread sense of ownership over the final recommendations. Lastly, it ensures that the process remains open and inclusive. Below are some of the most significant workshops from the planning process.

Workshop 1: February 24, 2015

February workshops were structured to offer participants a chance to voice their opinions on a wide variety of issues including design, open space, building functionality, circulation, way-finding, safety, and sustainability. At the on-campus workshop in the morning, roughly 150 faculty, staff, students, alumni and facilitators gathered to analyze and discuss what is working – and what can be improved – about the current physical campus. The participants identified these areas on a large map of the campus through the use of colored dots: green dots represented successes and red dots, challenges. A second workshop was held in the evening at which over 50 facilitators and members of the outside community discussed the same overall questions. Participants discussed numerous areas of concern and suggested future opportunities to enhance the campus experience.



Workshop #1 planning activity (red dot-green dot exercise visible in background)

Workshop 2: April 27, 2015

In the April workshops, participants were given the opportunity to develop preferred planning scenarios. The Planning Team provided a range of planning scenarios to which the workshop attendees, working in groups, responded. Each group was given a “tool kit” of various types and characteristics of open space, such as outdoor performance space, courtyards, drought tolerant landscapes, and pedestrian pathways. In addition to providing commentary on the proposed program distribution, they used the open space tool kit to annotate each land planning scenario with their vision of ideal locations for each open space type. The planning scenarios evolved and eventually were merged into a single planning framework that reflected a consensus on the preferred aspects of the future campus.

Among the most frequently-mentioned concerns were the following:

- Connectivity across campus and to the surrounding neighborhood is lacking.
- The campus lacks a sense of arrival. The threshold to campus needs to be more clearly identified.
- Campus is difficult to navigate, and often lacks a “sense of place.”
- Visibility between different campus landmarks can be improved.
- Destinations are separated by large distances.
- More interactive and multi-purpose spaces are needed to integrate isolated programs.
- More informal gathering spaces are needed, including food venues.
- Comfort and performance of outdoor space can be improved.
- The campus needs to be more pedestrian and bicycle-friendly.
- Pedestrian, vehicular, service, bicycle, and other forms of circulation overlap.
- Lighting can be improved.
- There is little activity on evenings or weekends.

UC Riverside Executive Workshop: May 26, 2015

As a means of encouraging greater input from senior academic and executive leadership across campus, the Chancellor hosted a meeting at which members of the Project Management Team briefed campus executives and facilitated a group exercise similar to the activities undertaken in Workshop 2, starting with a narrower range of scenarios that had been built with the benefit of responses from prior workshop participants.

Project Management Team (PMT)/ Working Group Charrette: June 24, 2015

This session focused on confirming several key pieces of information: the University's program needs, the selected opportunity sites and the drivers for program distribution. The Project Management Team gathered together with the chairpersons of the Working Groups and reviewed the results of the stakeholder engagement process and the Planning Team's technical analysis (detailed in subsequent sections.) Together, they worked with the evolving planning scenarios, precedent images, and a rough scale model of the campus, to build a tangible image of the future campus. The Planning Team presented a range of potential development sites for both buildings and landscape, and discussed the potential each represented to accommodate growth and address campus shortcomings that the workshop participants had identified. These initial sites were chosen on the basis of building energy performance, historical significance, age, density and flexibility. The group reached consensus on which potential sites merited further evaluation.

PREVIOUS STUDIES AND DATA

While some of the ideas in the Master Plan Study represent completely fresh thinking about campus growth, many others are logical extensions of previously articulated goals and strategies. The intent is that the University continues on a rational course, correcting where necessary and carrying past investments forward in an organized fashion. To this end, the Planning Team consulted the work of their predecessors through a wide range of documents.

The most recent overall planning documents are the 2005 Long Range Development Plan, the 2008 Campus Aggregate Master Planning Study, the 2007 Campus Design Guidelines, and the 2009/2010 Physical Design Framework. In the decision to concentrate new growth on

East Campus, the Master Plan Study departs significantly from these previous studies. Many of the previous ideas remain valid nonetheless – particularly for the development of open space and landscape within the Core Campus – and have been incorporated into the new planning framework. Other specific planning efforts which are ongoing, like the site planning and design of new buildings, have also been carried forward into the current plan. The recommendations of the Master Plan Study will form the basis for updates to the LRDP so that it reflects updated planning.

Quantitative surveys were valuable tools in the analysis of the existing campus. These included, but were not limited to studies on building inventory, housing, parking utilization, and enrollment.

OBSERVATION AND DOCUMENTATION

The Planning Team conducted “walk-throughs” of the campus to observe and experience open spaces and buildings first-hand. These visits occurred over a period of several months and included University planning staff, consultants, and DRB members. The goal of these observations was to assess utilization of space both interior and exterior, and to form hypotheses as to why some are better used than others.

Generally, the team observed a low utilization of campus open space, with pockets of high activity. These pockets were generally associated with comfortable microclimates and active adjacent programs, like dining and retail. In buildings, the team assessed the adaptability of various building floor plans; whether or not their footprints lend themselves to contemporary methods of working and teaching. Around the campus perimeter, the Planning Team mapped the experience of the campus edges through driving tours, recorded on video.



Workshop #1 planning activity



Design Review Board members participating in the “red-dot green-dot” exercise

Figure 2.4 ENVIRONMENTAL FRAMEWORK



- LEGEND**
- Solar Path–Summer Solstice
 - Solar Path–Winter Solstice
 - Carillon Mall & Library Mall
 - UC Riverside Property Line
 - Hillside & Arroyos
 - ➔ Prevailing Winds

2.3 Existing Campus Conditions

REGIONAL LANDSCAPE AND CLIMATE

UC Riverside’s landscape and climate are key to its sense of place, being defining features of its location in Inland Southern California. Many of the buildings on campus, older ones in particular, demonstrate climate responsive design strategies. Large overhangs, loggia, shaded courtyards and deep brise-soleils all help provide protection against the sun. Long, freestanding outdoor arcades make walking more comfortable.

These architectural responses to the Riverside climate contribute significantly to the campus’s sense of place.

The Box Springs Mountains, east of and adjacent to the UC Riverside campus, are the dominant geographical feature of the immediate region. To the north and more distant, the San Gabriel and San Bernardino Mountains are visible on the horizon. The Box Springs Arroyo cuts through the southernmost portion along a meandering alignment generally extending from east to west south of Martin Luther King Boulevard.

Riverside’s climate is semi-arid. Temperatures vary widely, with lows occasionally below freezing, and highs in summer often well over 100 degrees Fahrenheit. Average temperatures in the summer months of July and August can be in the 90s. Pleasantly warm conditions typify the area in the spring and fall. Humidity is generally low. Winters are mild and relatively wet, with average daily highs near 70. Prevailing winds are from the northwest, becoming more westerly in the summer. “Santa Ana” winds blow from the northeast, bringing hot, dry conditions in the fall and winter.

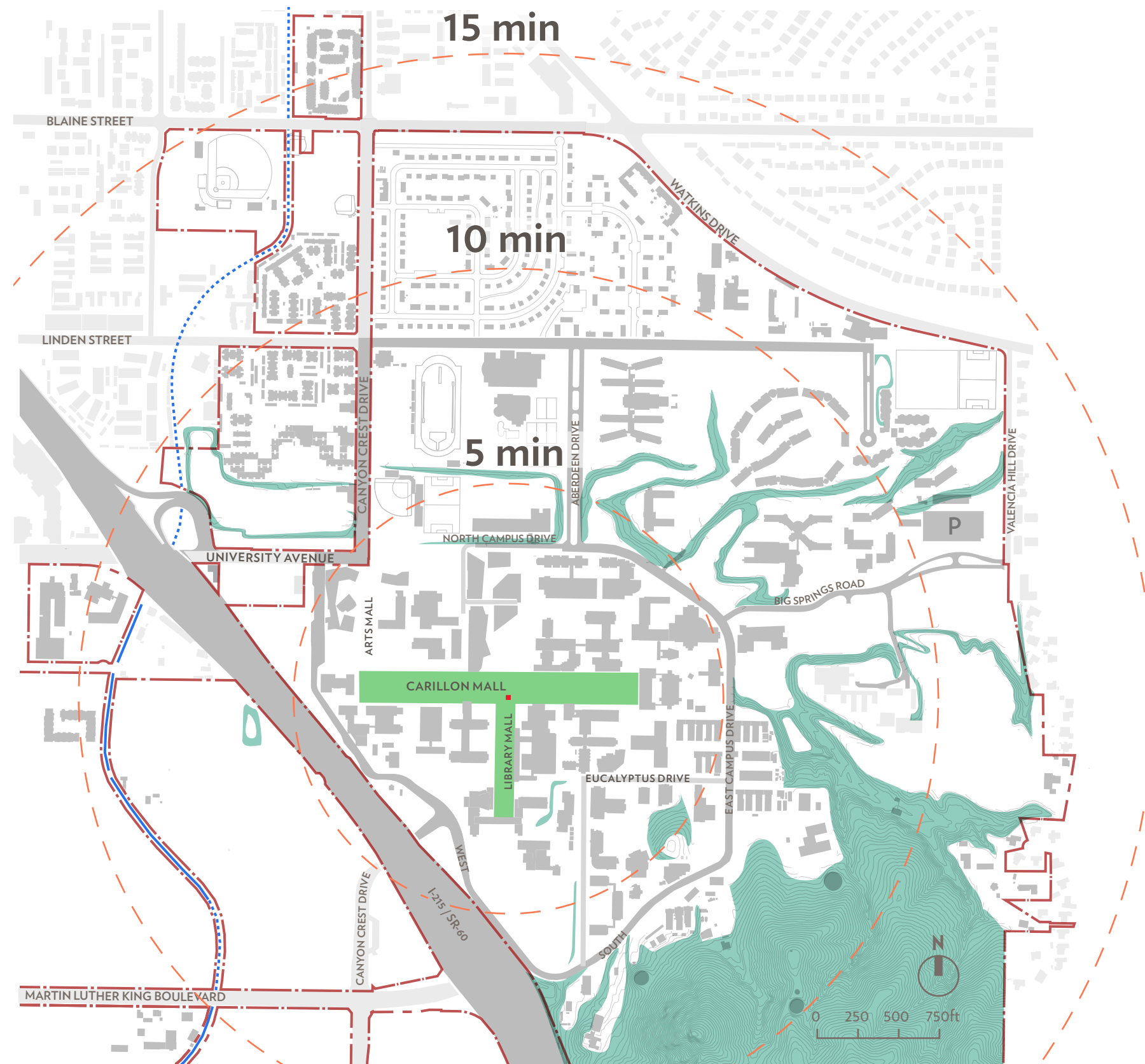
TOPOGRAPHY

The topography of the campus ranges from comparatively level areas to steep hills with massive rock outcroppings. West Campus is relatively flat. East Campus presents a greater variety of landforms. The developed central portions of East Campus appear to be level, though there is actually a 60-foot difference in elevation from east to west. The southeast portion of the campus, comprising approximately 120 acres, exhibits the greatest variety in topography, ranging from limited flat plateau areas to very steep hills with large rock outcroppings, loose boulders, and deep ravines.

While on a map the distances across campus appear manageable, the topography presents several challenges for connectivity.

Walking between buildings can become tiring, particularly on hot summer days. Many paths are also technically inaccessible (as defined by the Americans with Disabilities Act.) Steep grade transitions separate the Student Recreation Center and Student Housing in the northeast from the Core Campus.

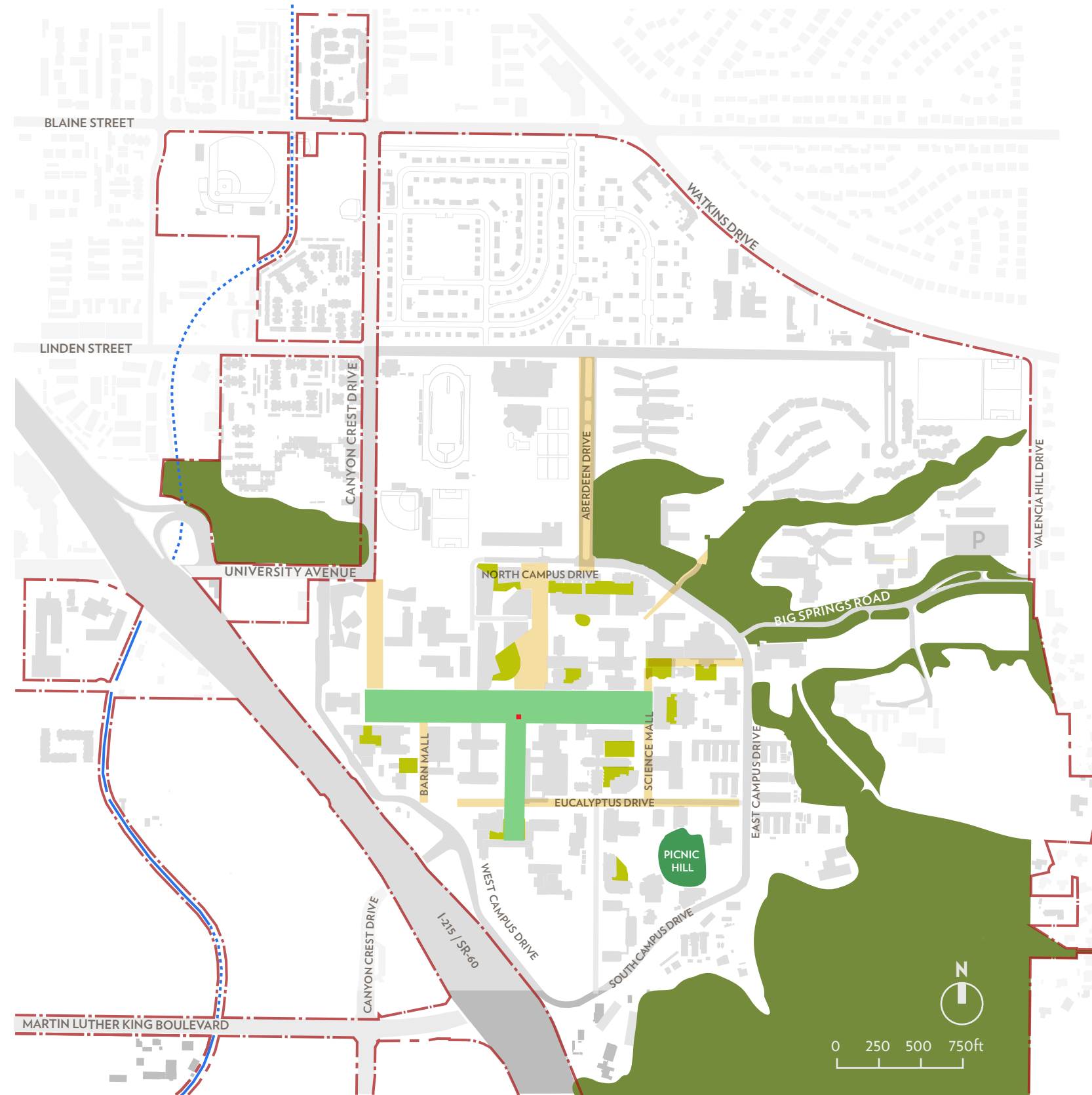
Figure 2.5 WALKING DISTANCE



LEGEND

- - - Walking Radii from Belltower
- UC Riverside Property Line
- Carillon Mall & Library Mall
- Steep Grade Transitions

Figure 2.6 EXISTING CAMPUS OPEN SPACE FRAMEWORK



- LEGEND**
- UC Riverside Property Line
 - Gage Canal
 - Carillon Mall & Library Mall
 - Pedestrian Mall
 - Courtyard/Plazas
 - Hillside & Arroyos

OPEN SPACE

Open space is composed of paths and places. Paths move people from place to place, and at edges connect to the surrounding landscape and neighborhood. Places encourage people to stay and gather. These outdoor rooms serve many of the same programmatic functions as buildings – academic, social and environmental. The best of these places are memorable, and form lasting impressions on those who experience the University. Richness in a campus open space network comes from a mix of open space types – formal and informal. Informal spaces, like Picnic Hill, tend to be related to nature, along hillsides and streams. Formal spaces like the Carillon Mall make clear connections between buildings and districts.

Buildings shape path and place, and vice-versa, thus a thoughtful configuration of buildings is critical to the development of a successful open space network. On the UC Riverside campus, buildings which frame open spaces tend to be opaque and inactive at the ground floor. In many cases, buildings block views to the surrounding landscape and to internal landmarks. Buildings which are only one or two stories high lack the physical presence to effectively define open space.

Chapter 4 focuses specifically on campus open space, studying climate-adaptive landscaping, pedestrian connectivity, and relationships to buildings, among other specific topics.

PROGRAMMATIC REGIONS

Within a campus, defining distinct sub-regions provides a framework for organizing future development. Programs that benefit from each other can then be co-located in close physical proximity. On the UC Riverside campus, the Planning Team defined these regions roughly at first, based on existing programmatic concentrations, then refined those definitions based on physical boundaries. Within these boundaries, flexibility exists to plan each region in more detail.

West Campus is a single region defined primarily by its use for land-based agricultural research and support functions. East Campus comprises two regions. “Core Campus” contains nearly all of the academic buildings, as well as most of the University’s older buildings; the “North District” extends north to Blaine Street and Watkins Drive. This region contains student housing and recreational facilities, and has the greatest potential for interface with the surrounding neighborhoods. Land area in the North District is severely underutilized.

The Planning Team observed that while Core Campus is lively mid-day, in the evening, activity shifts to the residential areas. While initial planning scenarios examined the possibility of intermixing residential and academic uses, input from campus constituents pointed out the tradeoffs of this option. Though it may have increased activity in the Core Campus in the later hours, the resulting sparsity of academic buildings would have exacerbated existing issues of distance and topography.

Within Core Campus, academic programs often operate in isolation. This is especially the case with science and research, which lacks a connection to other academic functions.

Figure 2.7 EXISTING PROGRAM DISTRIBUTION

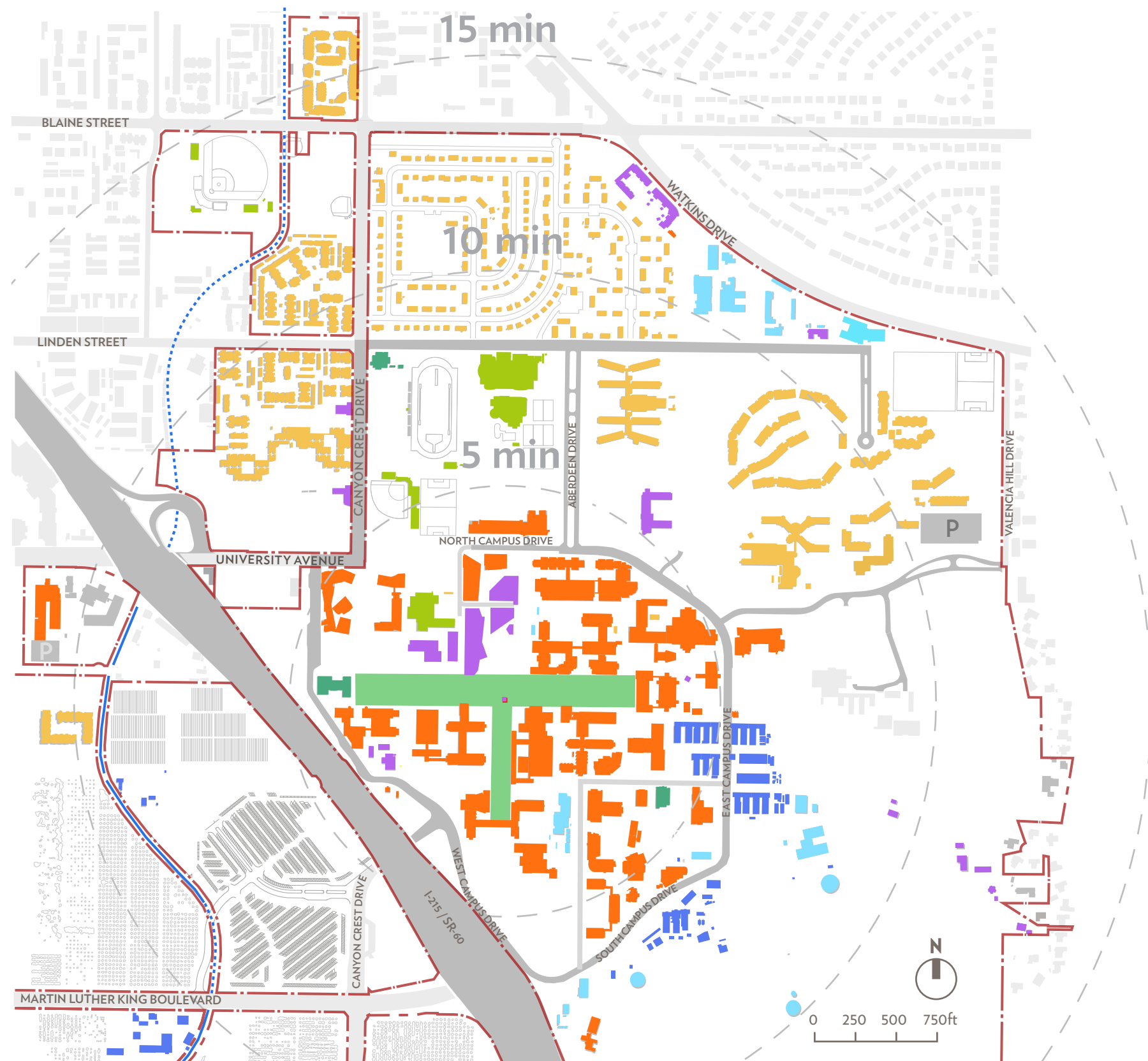
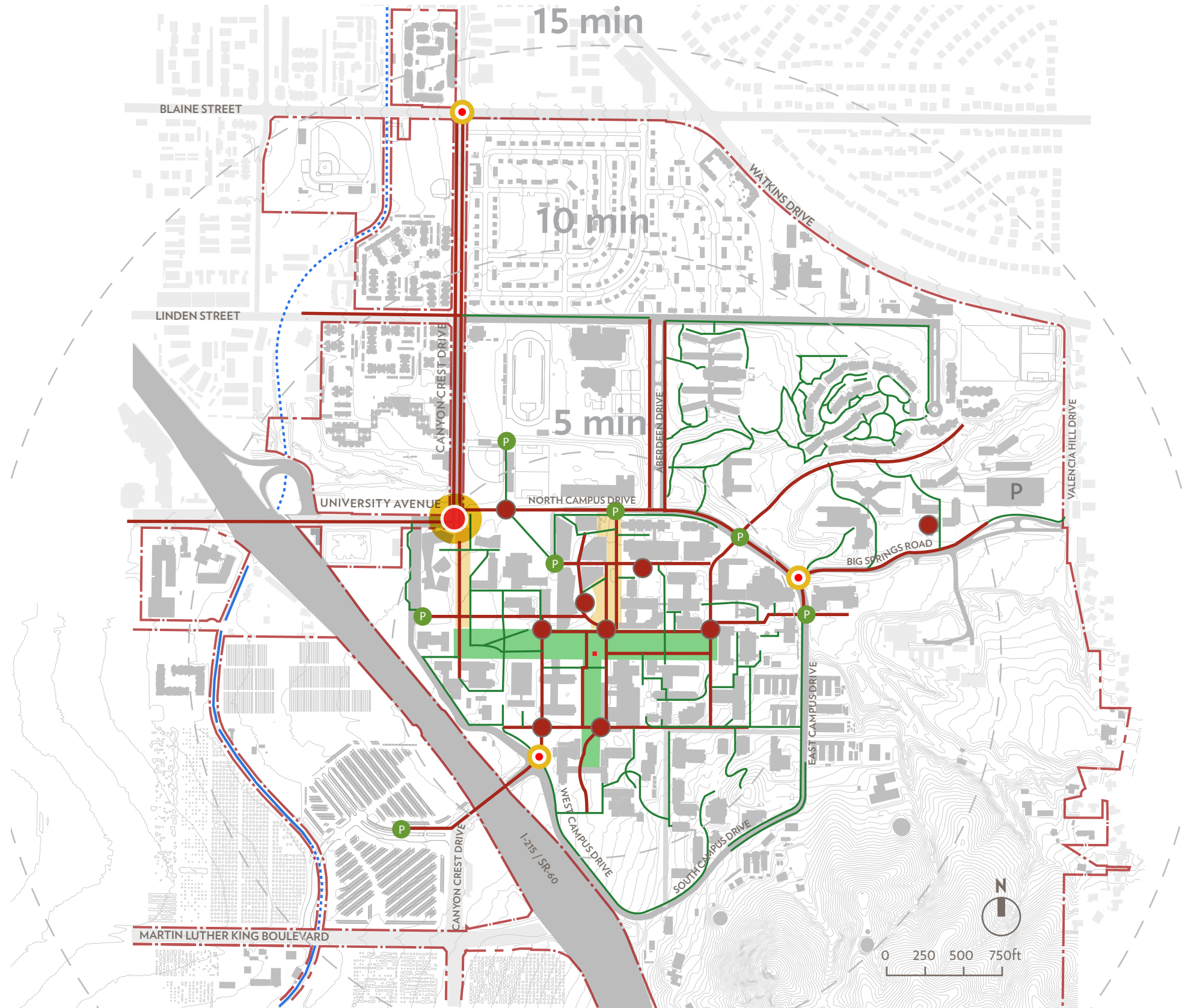


Figure 2.8 EXISTING PEDESTRIAN CIRCULATION PATTERNS



- LEGEND**
- Primary Campus Gateways
 - Secondary Campus Entry
 - Carillon Mall & Library Mall
 - Pedestrian Mall
 - - - Gage Canal
 - - - UC Riverside Property Line
 - Pedestrian Nodes
 - Primary Pedestrian Entry
 - - - Primary Pedestrian Route
 - - - Secondary Pedestrian Route

CIRCULATION AND EDGE CONDITIONS

UC Riverside lacks a clear identity at its edges. University Avenue is a primary connector between the city and the campus, but lacks any identity before passing under the freeway moving from west to east. The intersection of Canyon Crest Drive and West Campus Drive, a primary campus entrance from the south, announces its arrival at the campus edge with a 2,000-car parking lot. North Campus Drive is similarly lacking in identity, and East Campus Drive has the feel of a “back door” to the campus. The boundaries of the North District are unclear, as it bleeds into the surrounding neighborhood.

Another detriment to campus identity is the location of parking, the majority of which is on surface lots distributed around the campus perimeter. Although this approach minimizes conflicts with pedestrians and cyclists on the campus interior – it undermines institutional identity as parked cars become the face of the institution. The edge of campus therefore becomes indistinguishable from adjacent non-University property. Navigating from parking lots to the active spaces on campus is also difficult, partially owing to the fact that the campus is not intuitively laid out in many instances. The lack of visibility to key landmarks on the campus interior is a contributing factor.

The University aspires to be a resource and destination to its surrounding community but is limited in its success, given the constraints of its physical setting. This is a key finding from the workshop process: community members desire to take advantage of cultural events on campus, but are unsure how to access them. Specific observations and recommendations for improving the legibility of the campus network of roadways, service routes, bicycle paths and pedestrian ways are covered in Chapter 5.

HEIGHT, DENSITY AND DISTANCE

The UC Riverside campus is relatively low in density. This is a function of two measurements: building height and site area coverage. Building heights range from one to five stories. Older buildings and those towards the campus periphery tend to be shorter, while those newer and nearer to the center of campus tend to be taller. This relatively low height range, combined with the buildings' spacing yields a Core Campus floor-area-ratio of 0.65. In workshops, many participants expressed the assumption that East Campus is fully built-out, given that there are few remaining open building sites.

On closer investigation, it was determined that significant capacity for growth exists through the replacement of low-density, older and/or under-performing buildings.

While density – or lack thereof – in itself is neither good nor bad, it can affect quality of life on campus. The physical distance between related uses makes pedestrian travel less comfortable and cross-disciplinary interaction therefore difficult. Programmatic synergy – the sharing of spaces between buildings – is less viable. Larger networks of roads and utilities are required to serve these widely-spaced structures.

What is the appropriate height and density for UC Riverside? If buildings are too low, they underutilize precious land area, and lack the ability to shape recognizable open spaces. If too high, the campus may begin to feel out of scale with its surroundings. Taller buildings have also been found to hamper interaction and productivity. After modeling a range of density scenarios, the Planning Team recommends that new development occur in the typical height range of four to five stories.

Figure 2.9 BUILDING HEIGHTS

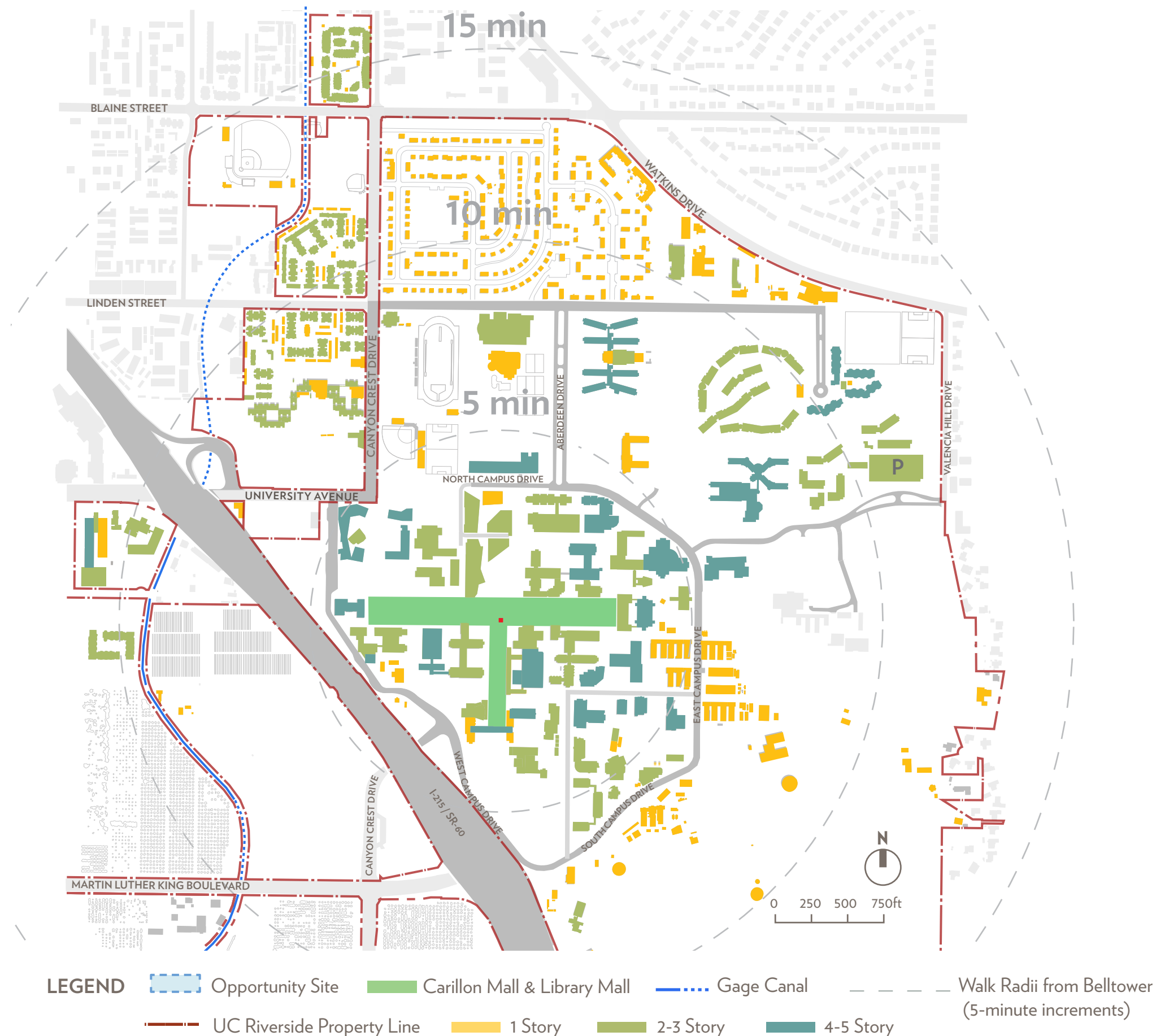
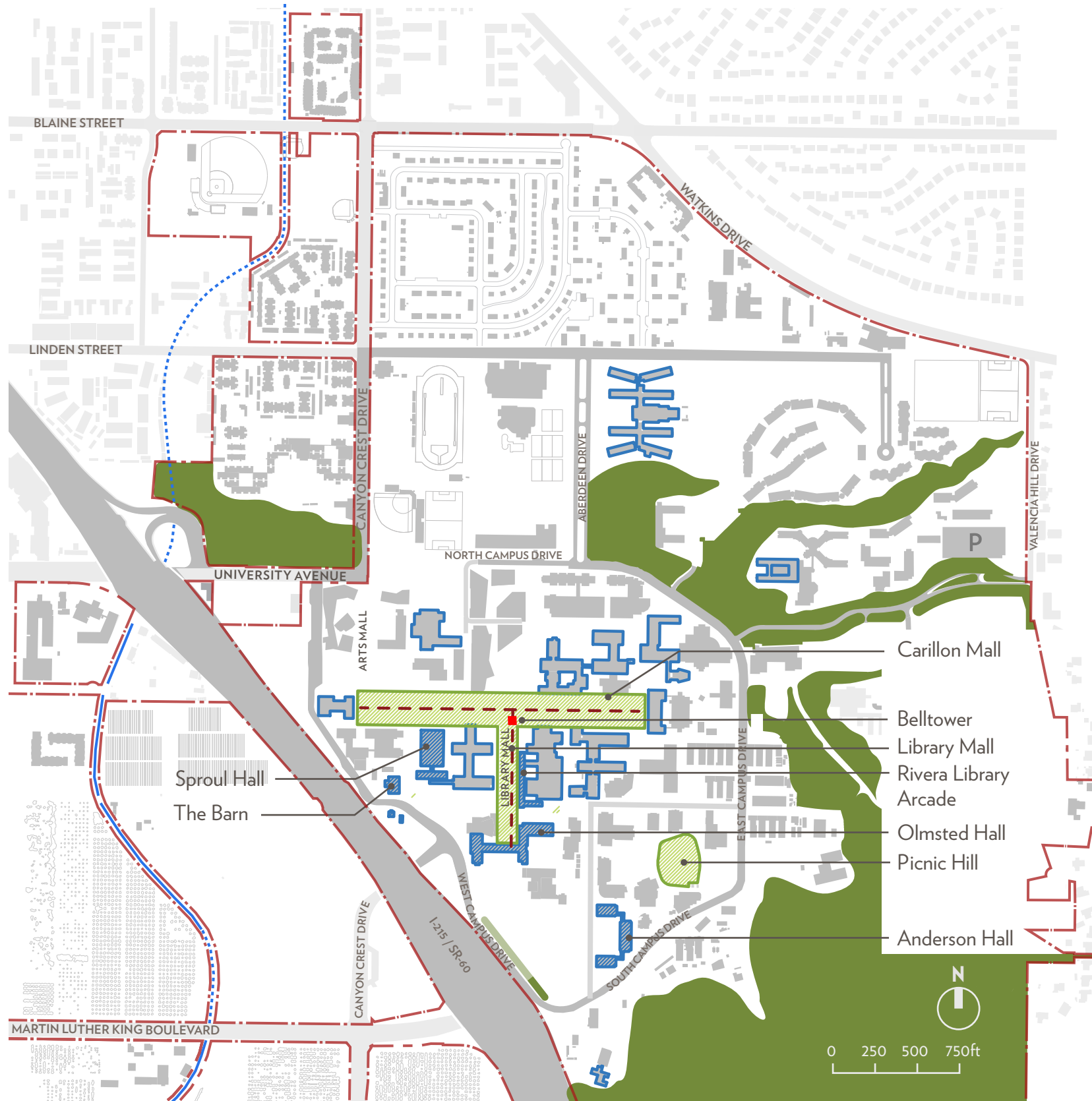


Figure 2.10 PROMINENT CAMPUS BUILDINGS AND OPEN SPACES



- LEGEND**
- Existing Buildings
 - Legacy Buildings
 - Legacy Open Space
 - Buildings with Notable Architects or Architecture
 - UC Riverside Property Line
 - Major Axis
 - Gage Canal
 - Hillside & Arroyos

CAMPUS LEGACY

Legacy buildings and landscapes are the campus’s most important cultural artifacts. They represent the values, care and craft of the University at particular moments in its history. They embody particularly successful expressions of the life and aspirations of the campus and its community at the time of their construction, connecting the past and present.

Memorable campuses value and preserve their most successful buildings and landscapes, as these places create an important sense of continuity, respecting the University’s past even as it moves into the future.

No campus should be frozen in amber. At its essence, the University is a place of creativity and innovation as well as a repository of history and culture. Prominent existing buildings should be respected but not static; they should continue to contribute to the vibrant and evolving life of the campus by being available to house new uses. Not all existing buildings can be, or should be, preserved. While some make important contributions the University’s cultural identity (particularly those in the mid-century modern style), the significance of others is overshadowed by their inefficiency and their dilution of strong open space.

Significance is a subjective measure and often defined in different ways. In this study, significance was evaluated by the following criteria:

- Age
- Significance to the campus
- Architectural character
- Responsiveness to climate
- Contributions to adjacent open space

The Planning Team identified Anderson Hall, the Belltower, the Rivera Library arcade, Olmsted Hall, Sproul Hall, and the Barn as worthy of incorporation into the new planning framework as prominent legacy buildings that contribute to the campus's sense of place. Significant open spaces include those from the campus's beginnings – the Carillon Mall, Library Mall, and Eucalyptus Walk – as well as those that have gained cultural value over time, specifically Picnic Hill. The selection of these buildings and spaces as significant is a recommendation of the Planning Team, and is neither final nor prescriptive. In the future, a detailed campuswide assessment of historic resources should be undertaken as part of the LRDP EIR cultural resources evaluation.



Sproul Hall



Anderson Hall



The Barn



Olmsted Hall



Rivera Library



Belltower

ENERGY EFFICIENCY

Measures of existing buildings' energy efficiency heavily influenced the planning process. For the University to achieve its goal of carbon neutrality in operations, it is critical that inefficient buildings be improved or replaced. The Planning Team completed an ASHRAE Level 1 assessment of 14 existing buildings, representing a range of uses and ages. Given the Riverside climate, campus buildings may never achieve levels of efficiency as would be possible in milder regions, however, much room for improvement was found. The results of this basic energy analysis were evaluated against established baselines for comparable building types, and the results depicted graphically on a plan of the campus.

This "heat map" (see Fig 6.5) was a key tool which the Planning Team used to formulate initial recommendations for removal of certain buildings. It identifies the energy usage of each building using a ten-step scale from "excellent" to "very poor." Existing buildings were then categorized more broadly into two basic groups: those that could achieve good performance with minor adjustments and upgrades, and those that required extensive renovation. Buildings in the latter category which are also inflexible and make poor use of their site, among other criteria, became prime redevelopment opportunities.

Chapter 6 provides more detail on this topic, including the "heat map." It also includes a detailed look at existing utilities and infrastructure.

The ASHRAE Level 1 audit is the basic starting point for building energy optimization. It involves brief interviews with operating personnel, a review of the facility's utility bills and other operating data, and an abbreviated walk-through of the building.

KEY FINDINGS

- The surrounding landscape provides a dramatic backdrop for the campus.
- The mid-century modern architectural legacy is a strong contributor to the campus's sense of place.
- Views to the Box Springs Mountains are often partially or completely blocked.
- Topography, distance and lack of shading limit pedestrian movement.
- Research activities are separated from academic and support programs.
- There is little activity on campus on the weekends and evenings.
- Entry points to the campus lack a clear University identity.
- Wayfinding from the campus perimeter is not intuitive.
- A vast majority of the buildings in the Core Campus are over fifty years old.
- At a floor area ratio of only 0.65, the Core Campus is at a relatively low density.
- Demand for on-campus housing exceeds the University's current ability to accommodate it.
- Many buildings, particularly the older ones, are energy-inefficient.

