

# University of Colorado Boulder

2021 Campus Master Plan  
DRB Meeting – November 17, 2020



SASAKI



# CMP Executive Committee



**AKIRAH  
BRADLEY**  
Vice Chancellor,  
Student Affairs



**DONALD BRANDES**  
Chairperson, Design  
Review Board



**CHRIS EWING**  
Assistant Vice  
Chancellor, Planning,  
Design and  
Construction



**TERRI FIEZ**  
Vice Chancellor,  
Research and  
Innovation



**CARLA HO-A**  
CFO, Finance and  
Business Strategy



**IDA MAE ISAAC**  
Special Assistant to Vice  
Chancellor & Strategist,  
Infrastructure and Sustainability



**DAVID KANG**  
Vice Chancellor,  
Infrastructure and  
Sustainability



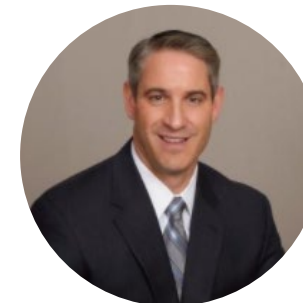
**AMY KIRTLAND**  
Project Lead & Facilities  
Planner, Planning,  
Design and Construction



**JON LESLIE**  
Interim Senior Associate  
Vice Chancellor, Strategic  
Communications



**LARRY LEVINE**  
Associate Vice Chancellor  
for IT & CIO, Office of  
Information Technology



**BRIAN LINDOERFER**  
Assistant Vice  
Chancellor, Facilities  
Management



**RICHELLE REILLY**  
Campus Landscape  
Architect, Planning,  
Design and Construction



**DANIEL GETTE**  
Interim Associate Vice  
Chancellor, Student Affairs



**ANN SCHMIESING**  
Executive Vice Provost,  
Academic Resource  
Management



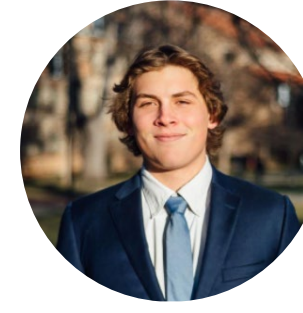
**ROBERT FERRY**  
Chairperson, Boulder  
Faculty Assembly



**SCOTT VANGENDEREN**  
Faculty, Program in  
Environmental Design



**SARAH FAHMY**  
Graduate Student



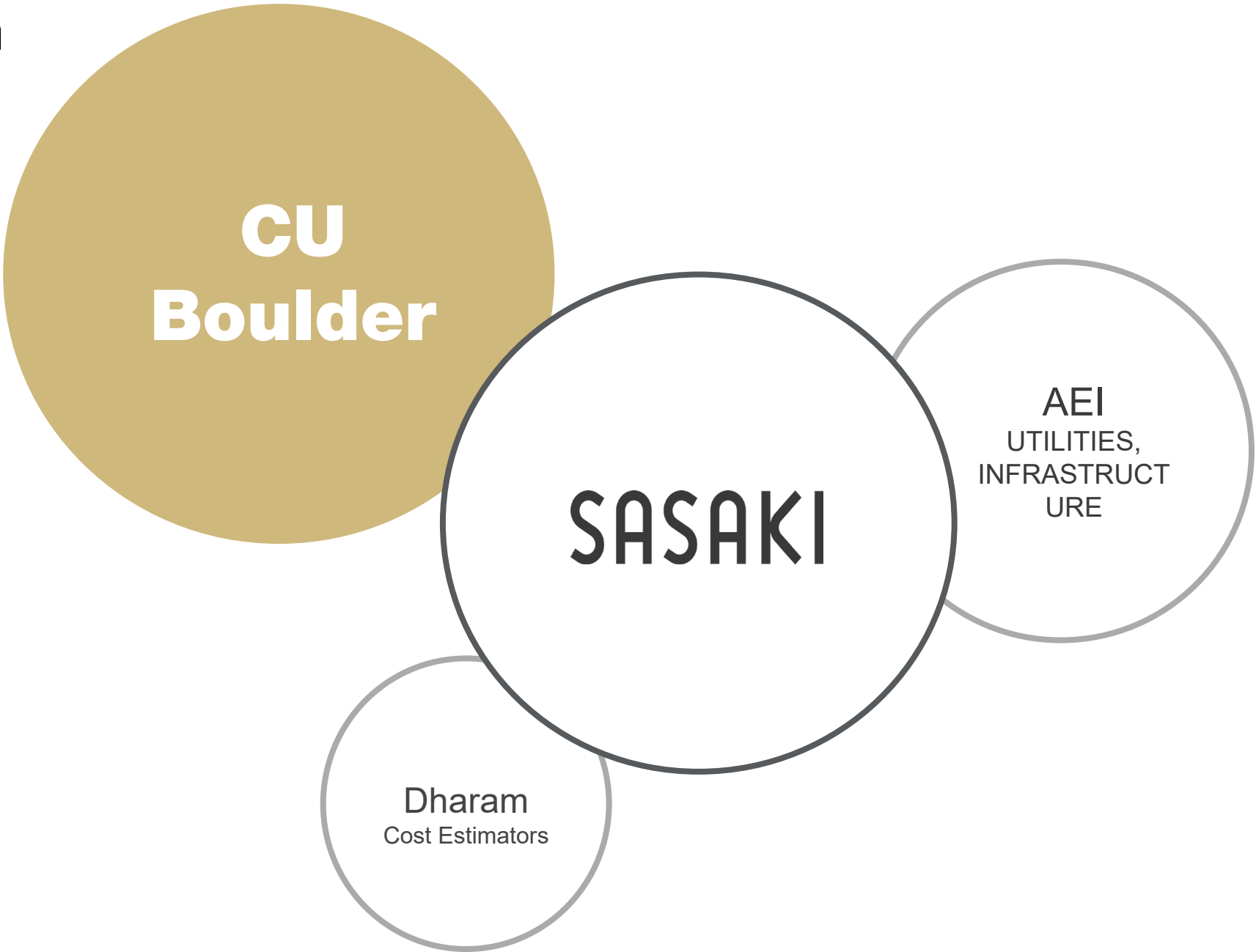
**GEORGE CONWAY**  
Student Body President,  
Undergraduate Student



**REBECCA FELL**  
Interim Executive Director  
Real Estate Services



# Our Team





# Sasaki Core Team for CU Boulder CMP



TYLER PATRICK,  
AICP  
Managing Principal



ROMIL SHETH  
Design Principal



NICOLE FRIEND  
Campus Planner +  
Project Coordinator



CAROLINE  
BRAGA  
Landscape Principal



STEVE LACKER  
Architect



JOSH BROOKS  
Planner, UD, LA  
**DENVER  
OFFICE**



# Sasaki Opens New Denver Office to Expand Western U.S. Reach

**BOSTON  
SHANGHAI  
DENVER**

**BOSTON (Sept. 22, 2020)** – Sasaki, a global interdisciplinary design firm with offices in Boston, Massachusetts, and Shanghai, China, today announced the opening of a dedicated office in Denver, Colorado to better serve clients throughout the Western United States and Canada.



# Award-Winning Campus Projects



SCUP 2020 Honor Award  
Emory University Framework Plan



SCUP 2019 Merit Award  
Virginia Tech Campus Master Plan



SCUP 2018 Honor Award  
Arizona State Mesa Campus Master Plan



SCUP 2017 Merit Award  
Syracuse University Framework Plan



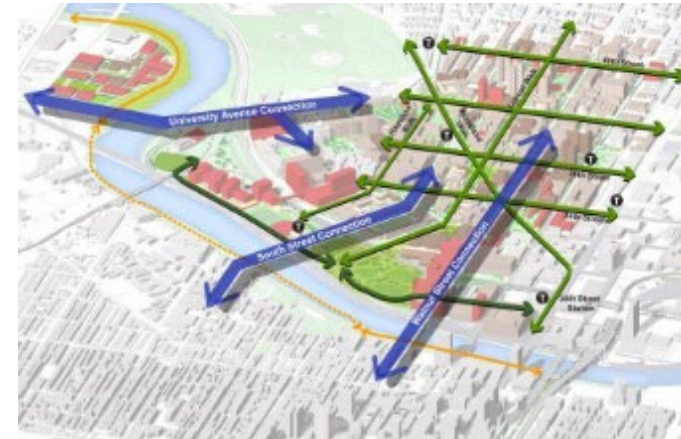
SCUP 2016 Merit Award  
University of Washington Seattle  
Campus Master Plan



SCUP 2015 Merit Award  
University of Texas at Austin Medical  
District Master Plan



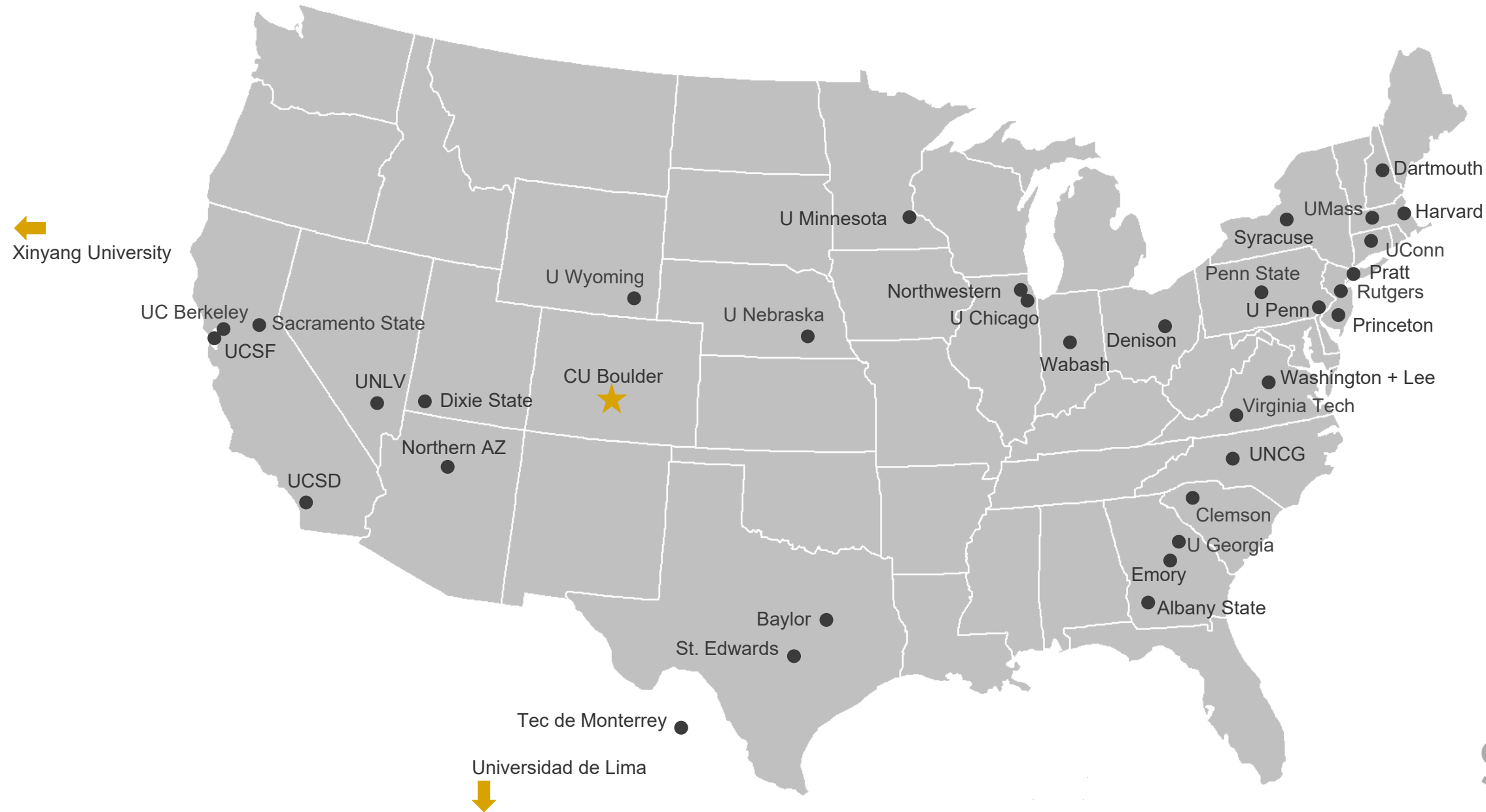
SCUP 2014 Honor Award  
Tec de Monterrey Campus Master Plan



SCUP 2013 Honor Award  
University of Pennsylvania Master Plan



# Sasaki's Current Campus Work



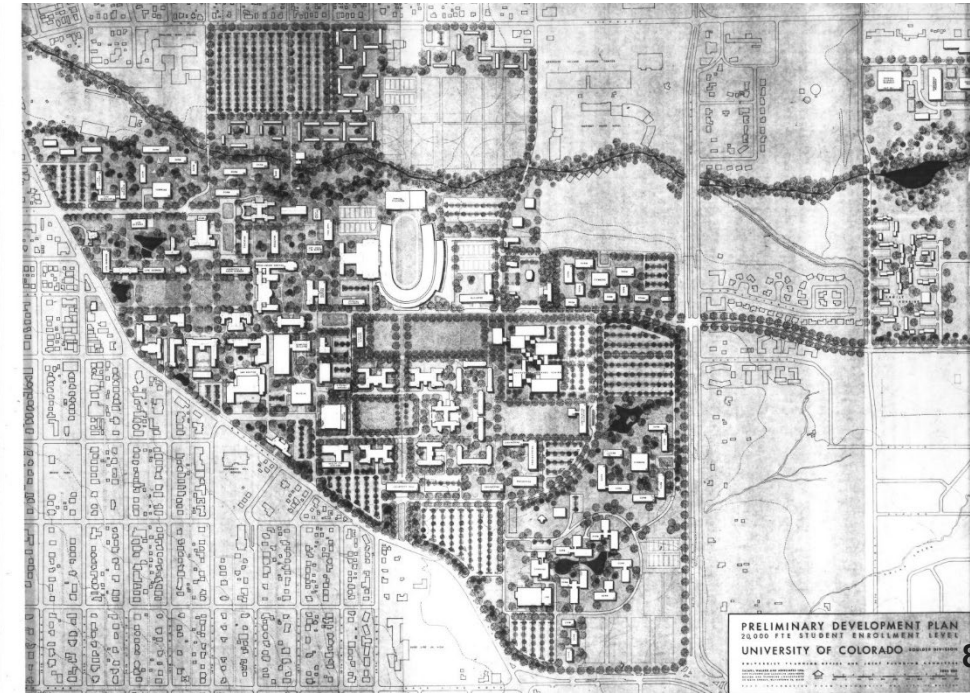
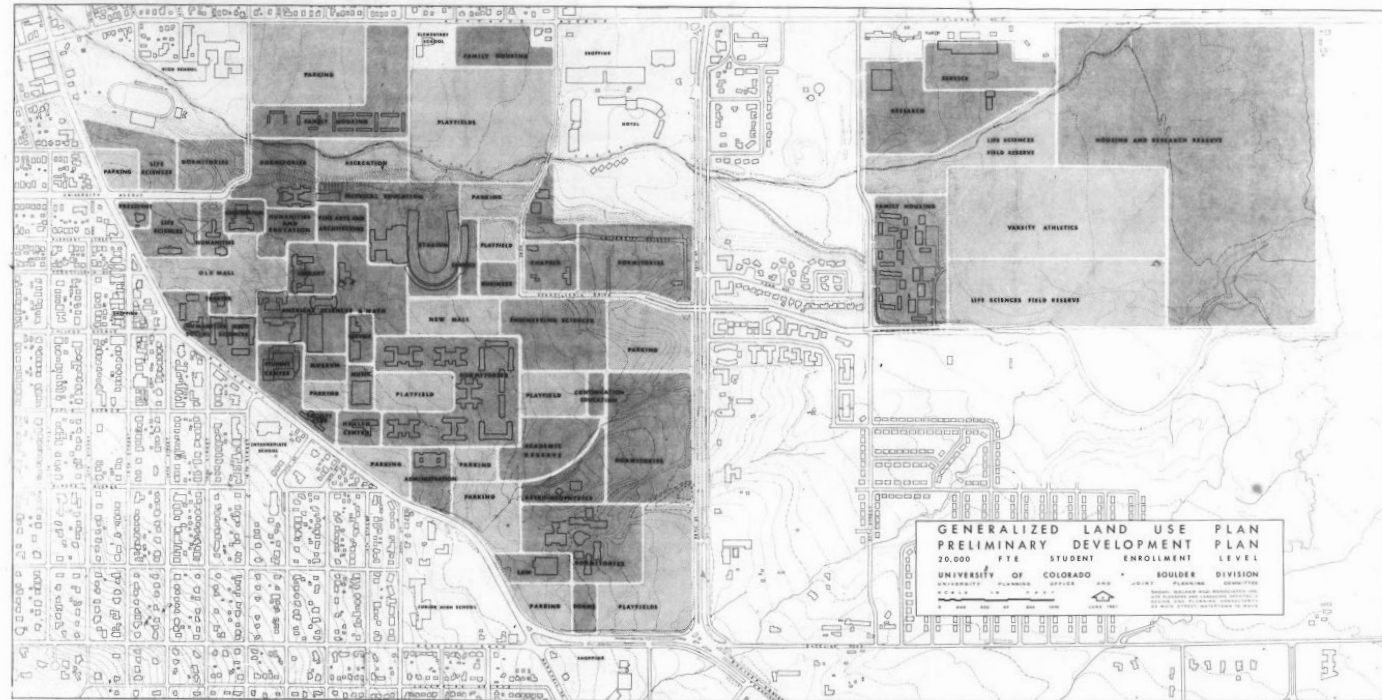
# CU + Sasaki Legacy

“Sasaki Associates developed the campus master plan of 1962, according to John Prosser, [former] chair of the University Design Review Board. The plan was the first implemented on the CU campus since before WWII and it **has continued to be a benchmark for all architectural projects done on the campus**, Prosser said.

While he was working on the campus plan, the design review board was founded and Sasaki was made the head board member, Prosser said. The University of Colorado’s design review board is the second oldest in the country and one of the only boards that looks at the **architectural integrity and continuity** of the university wide system.

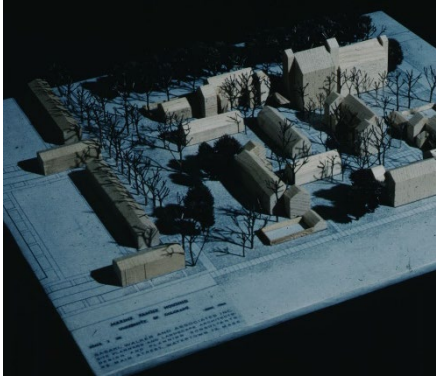
‘Hideo’s point of view was that Colorado was very important to him. When given the opportunity to work on the campus he readily accepted the commission, which quickly garnered widespread recognition and extensive awards,’ Prosser said. ‘His whole life has been connected to Colorado and he consulted with us until his death.’

- Excerpt from CU Boulder Today, Sept 6, 2000





# CU + Sasaki Legacy



a tour through  
our archives...





# Dedicated to Advancing your Mission

Strategic Imperatives for CU Boulder



**Strategic Imperative 1:  
Shape Tomorrow's Leaders**



**Strategic Imperative 2:  
Be the Top University for Innovation**



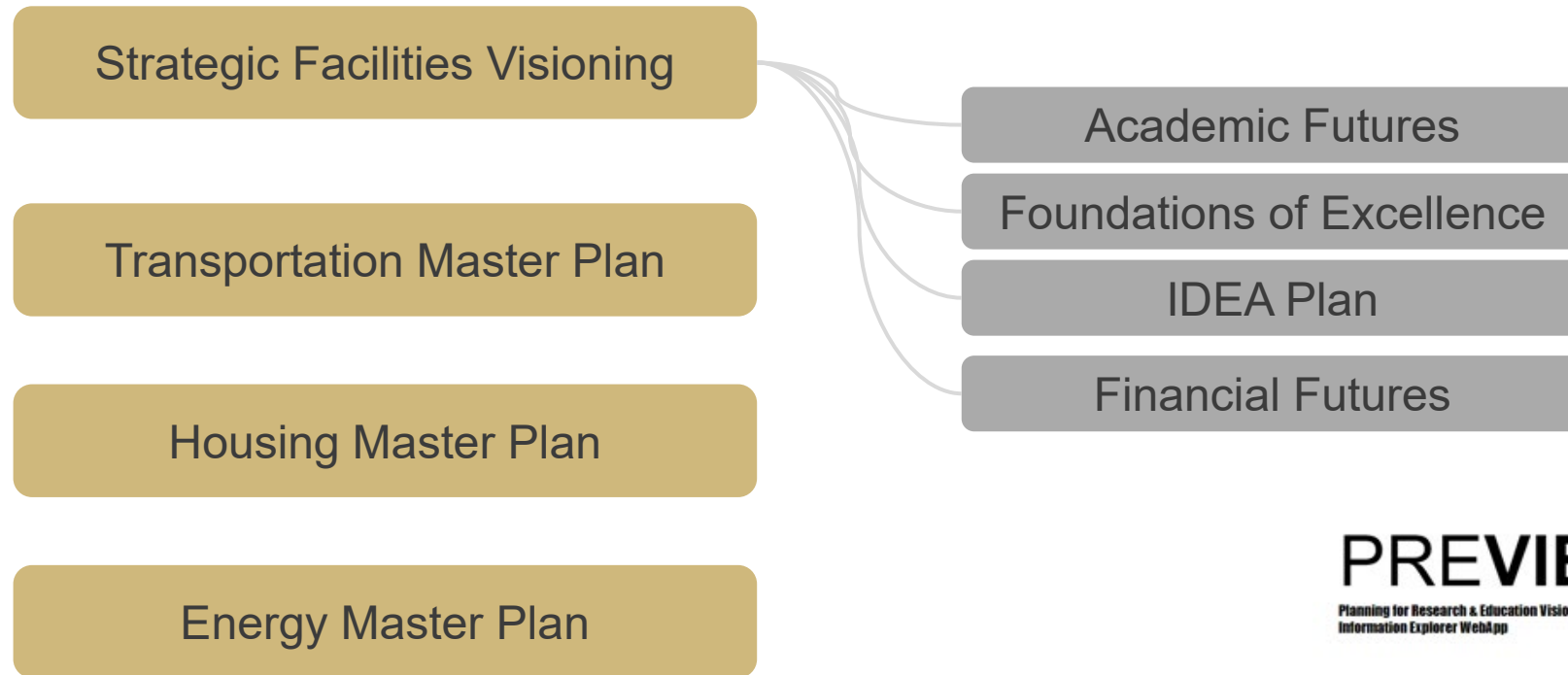
**Strategic Imperative 3:  
Positively Impact Humanity**





# Integration of Previous Studies + Guidance

The CMP is, essentially, Phase 2 of the broader Strategic Facilities Visioning process. The CMP presents an opportunity to build upon and translate previous studies into the physical environment.



## PREVIEW

Planning for Research & Education Visioning  
Information Explorer WebApp

Strategic Facilities Visioning  
UNIVERSITY OF CALIFORNIA BERKELEY



# CMP Project Goals

**Goal #1:** Create a long term facilities development plan that integrates the findings of recent campus initiatives

**Goal #2:** Maintain the existing context of buildings and landscape that define the campus character, and determine outdoor spaces and buildings of merit that shall be preserved.

**Goal #3:** Identify campus areas for opportunity and improvement with a focus toward addressing deferred maintenance and renewal.

**Goal #4:** Reassess and ensure that the physical space at the university is resilient, especially in light of COVID-19, and it is managed, developed, and improved to meet the current and future academic and research priorities.

**Goal #5:** Facilitate a collaborative process with students, faculty, and staff that is mindful of limited resources, focuses on attainable solutions, and manifests physical spaces that emphasize the campus' culture of equity and inclusion.

# **Planning Challenges During COVID-19 + Rethinking the Campus of the Future**

- Online learning and impact on campus life and space
- Financial implications and revenue streams
- Near- and long-term impacts to residential life
- Impact on diversity and inclusion goals
- Student enrollment
- Health, wellness, and community engagement
- Impact on office space
- Research – methods for conducting and new research areas



# How are other campuses thinking about COVID impacts?

“...I think this experiment has shown the value, the tremendous value of our campus for the students. The educational experience is very much rooted in being on campus and talking to the other people, and those social interactions...The campus is essential.”

“We're in the midst of consolidating a bunch of our administrative office space into an office building that is being built by a developer. We're shrinking that amount of space pretty significantly actually, the total amount of space. One of the ways to do it is [smaller workspaces] and then provide lots of little conference rooms. We're now shifting our thinking towards, 'Why do you come to the office?'”

“I think people are going to be choosier about what parts of their class they teach online and what parts they teach on campus because there's some sort of hands-on component or project-based learning that they want to do in person.”

“...there's just been this tremendous renewed interest in outdoor spaces, ameliorating the interstitial. Now everybody[...]understands the importance of building community in our outdoor spaces and what happens between our capital projects...”

"The campus is, in fact, more of a broadcast center, if you will, literally and figuratively. We need the campus to do the work to reach a lot of people, whether they're in California or whether they're throughout the country."

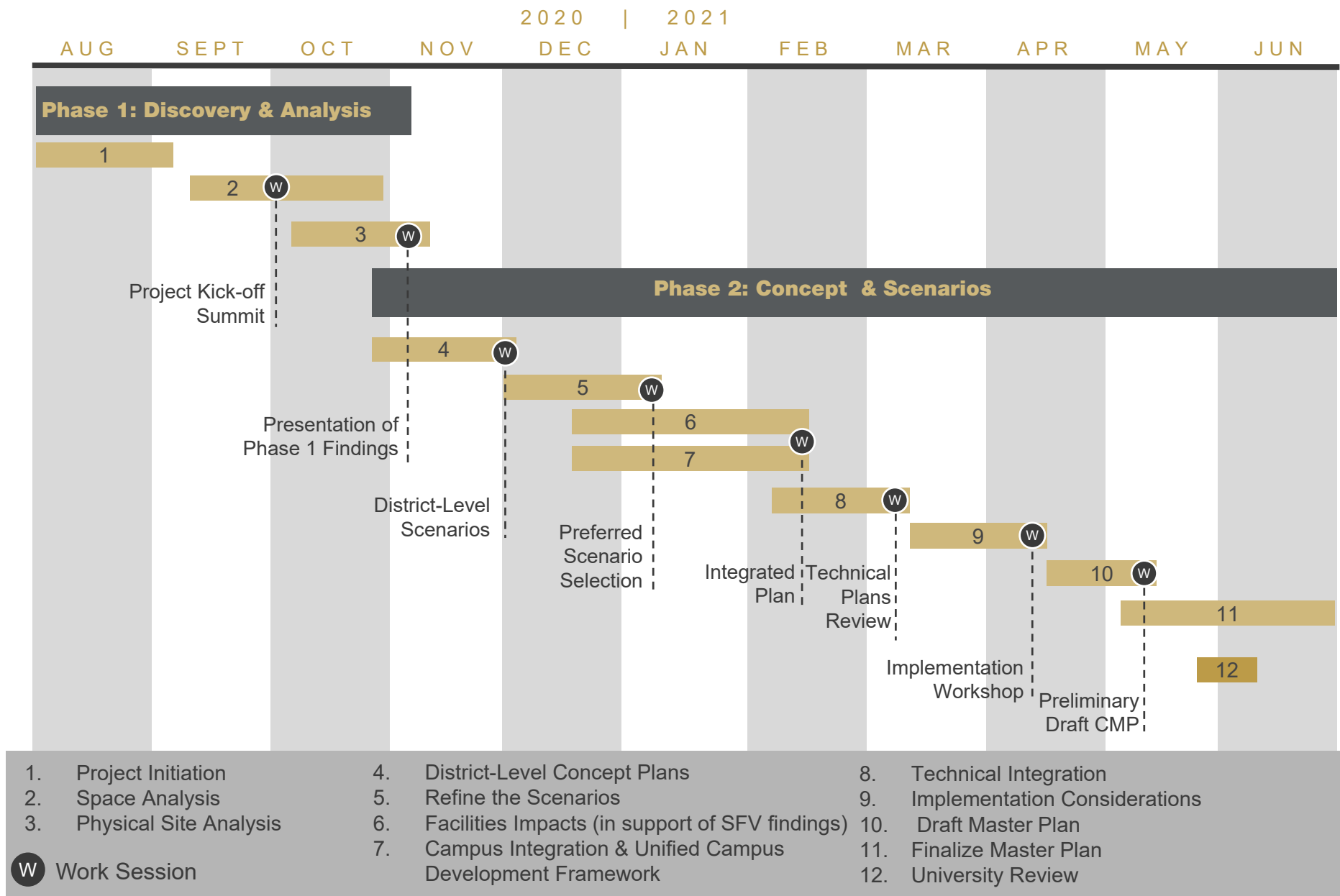
"We've wildly diversified our income streams from tuition, to well out of tuition, but a whole lot of other things. We're building senior housing on campus and doing things with the Air Force, or with Starbucks...If you're limited to the resources that you have to come in through the conventional means, that...would mean that you're talking about...reduced buildings...but if you can think of the university in a different kind of way...more of an enterprise, maybe those resources that came in through very strange means can still be applied to that landscape..."

# **A collaborative process...**





# Project Schedule & Engagements



# Interactive Surveys

## MyCampus Survey

<http://dev.comap.sasaki.com/staging/cu%20boulder>

**Add Your Marker**  
Tell us about your experience.

Tell us why

**Where do you...**

Live Eat Hang Out Recreate Explore Study Work Collaborate Innovate

**What do you consider to be...**

Heart of Campus Welcoming Space Unwelcoming Space Needs Improvement Hard to Reach Conflict Area A Campus Gateway

All done with map >



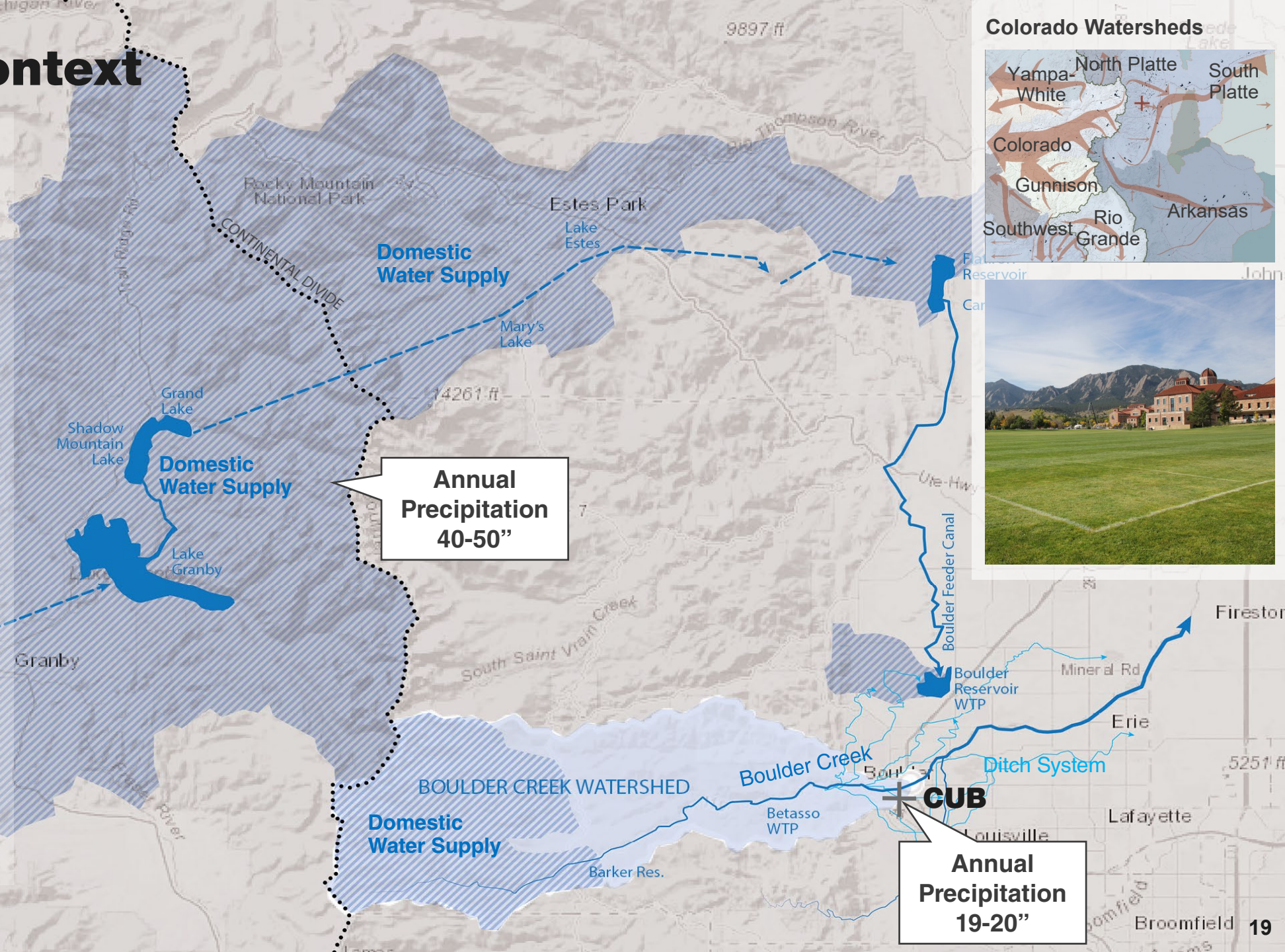
1

# REGIONAL CONTEXT



# Hydrologic Context

- Boulder is subject to many environmental challenges around water supply, but does have several high-quality sources of water both east and west of the Continental Divide, which maintain a reliable supply in response to drought and other events.
- As water scarcity in CO becomes more urgent, CU Boulder must take an active stance in reducing water demand. Campus planning provides an opportunity to reduce demand through building retrofits, sustainable design of new buildings and landscapes, and for the University to serve as a model for the region and beyond





# Regional Vegetation

## Southern Rockies

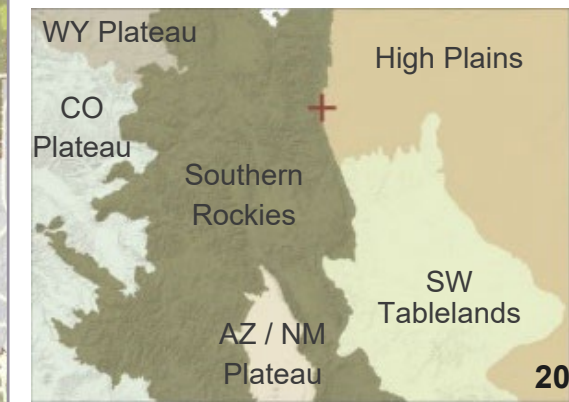
High Plains prairie ascends into the foothills, which are dominated by open Ponderosa Pine woodlands, that then shift to lodgepole pine, spruce, fir, and aspen forests at higher elevations to the west.

Outside of the City's Urban Growth Boundary, the prairie today is a mix of agriculture and rangeland.

Man-made reservoirs located in the plains manage water resources, which drain from the mountains to the west.



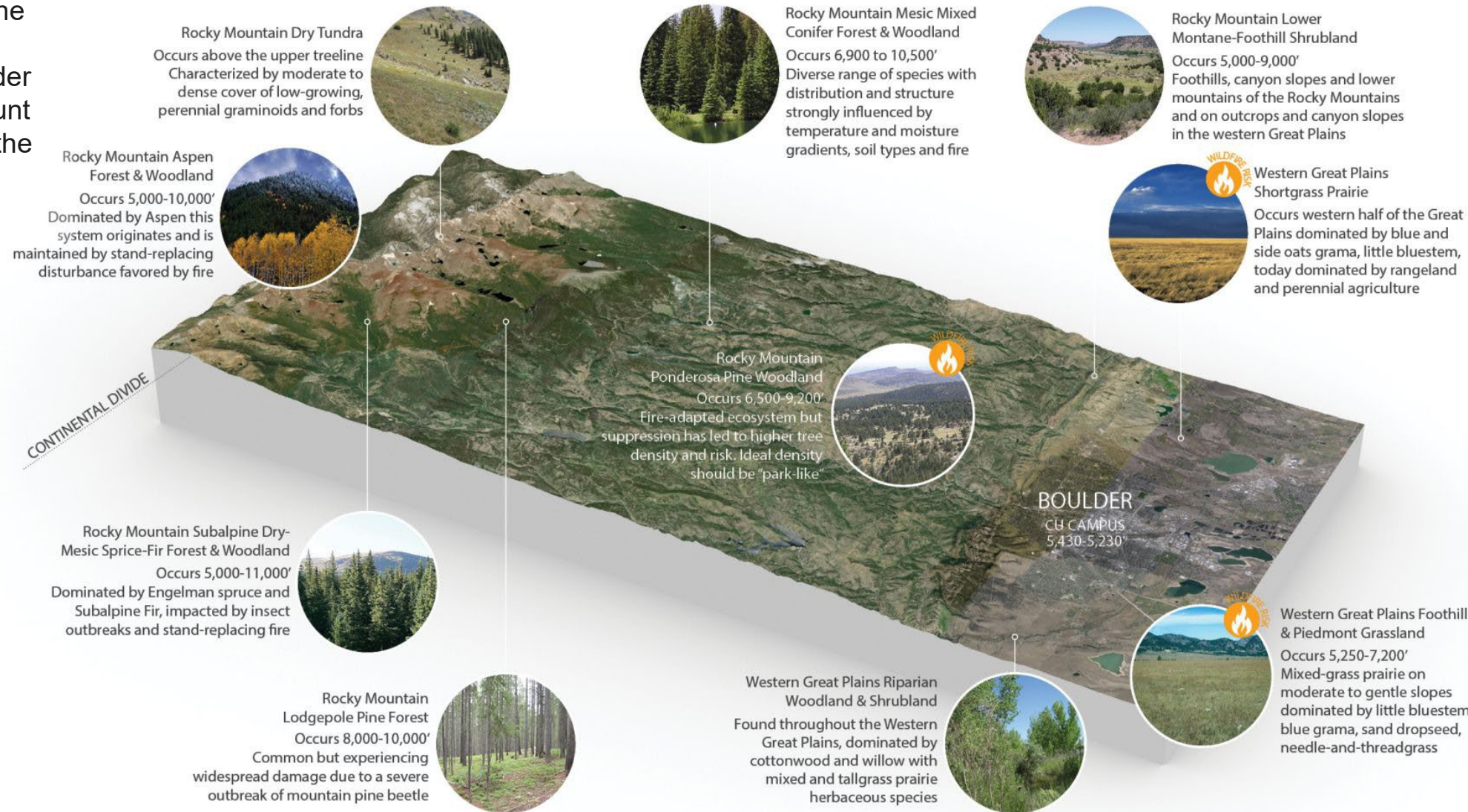
## High Plains





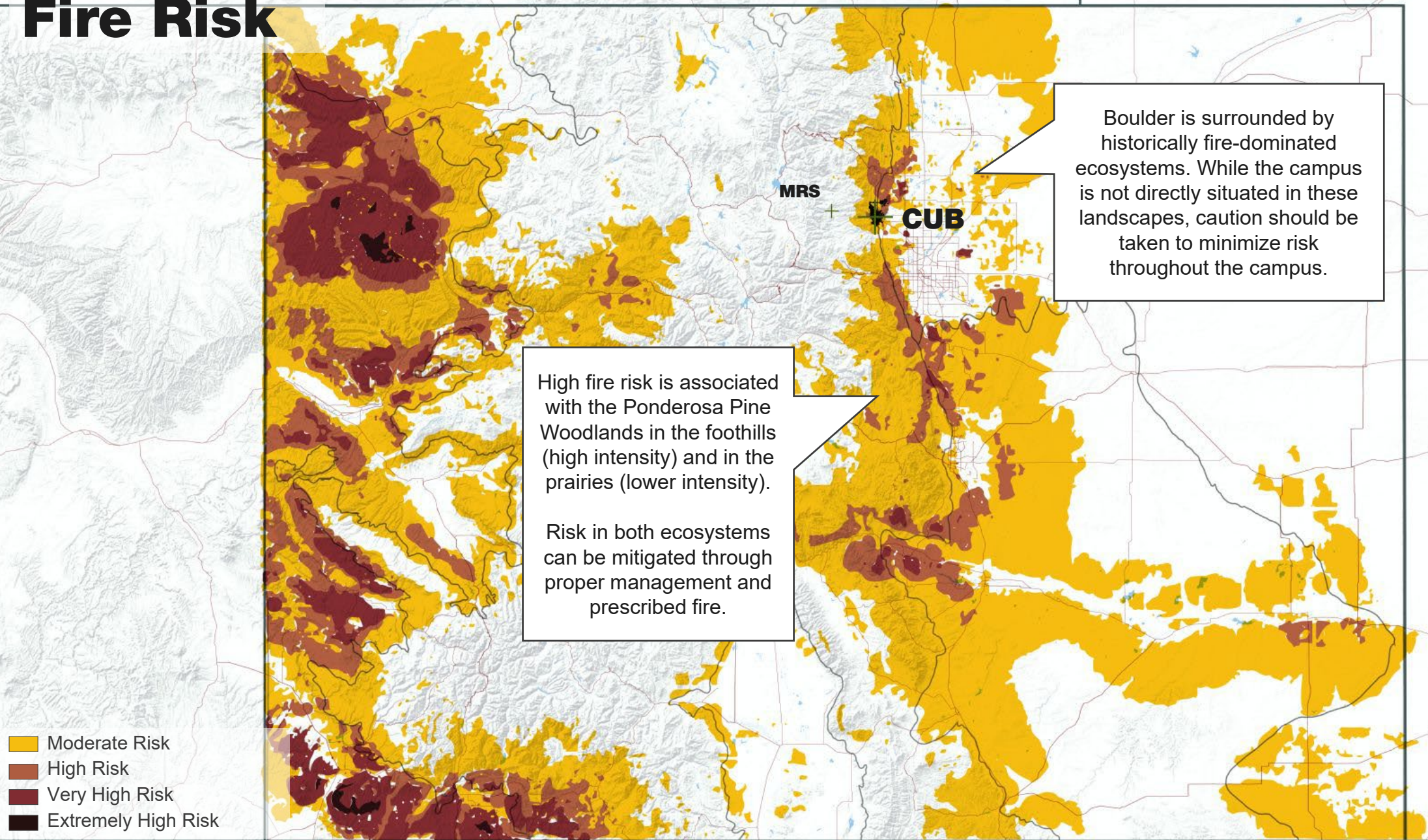
# Ecological Context

- With the dramatic elevation change to the west, and the prairie to the east, the ecological setting of Boulder offers a tremendous amount of planting inspiration for the many microclimates on campus.





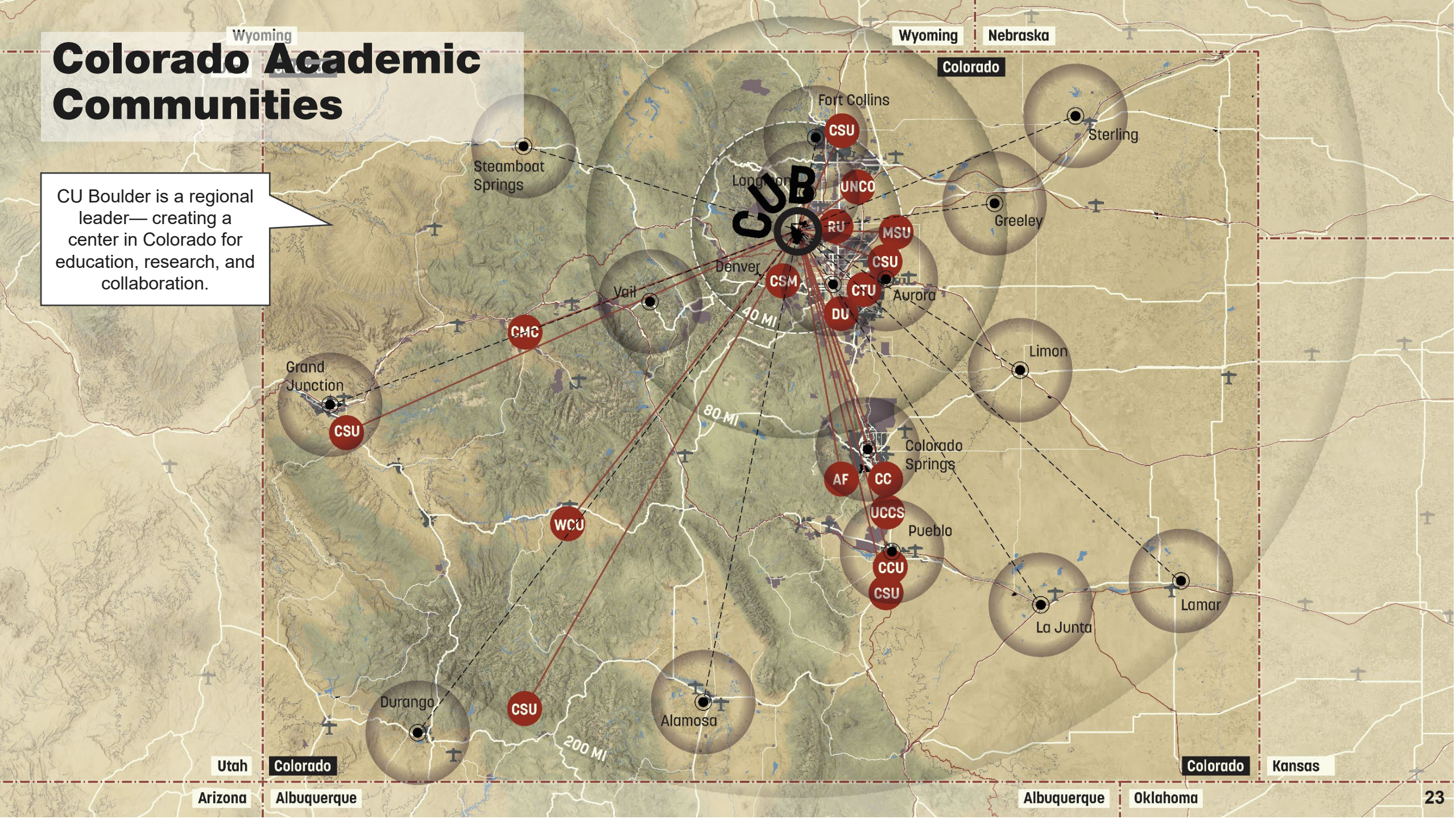
# Fire Risk





# Colorado Academic Communities

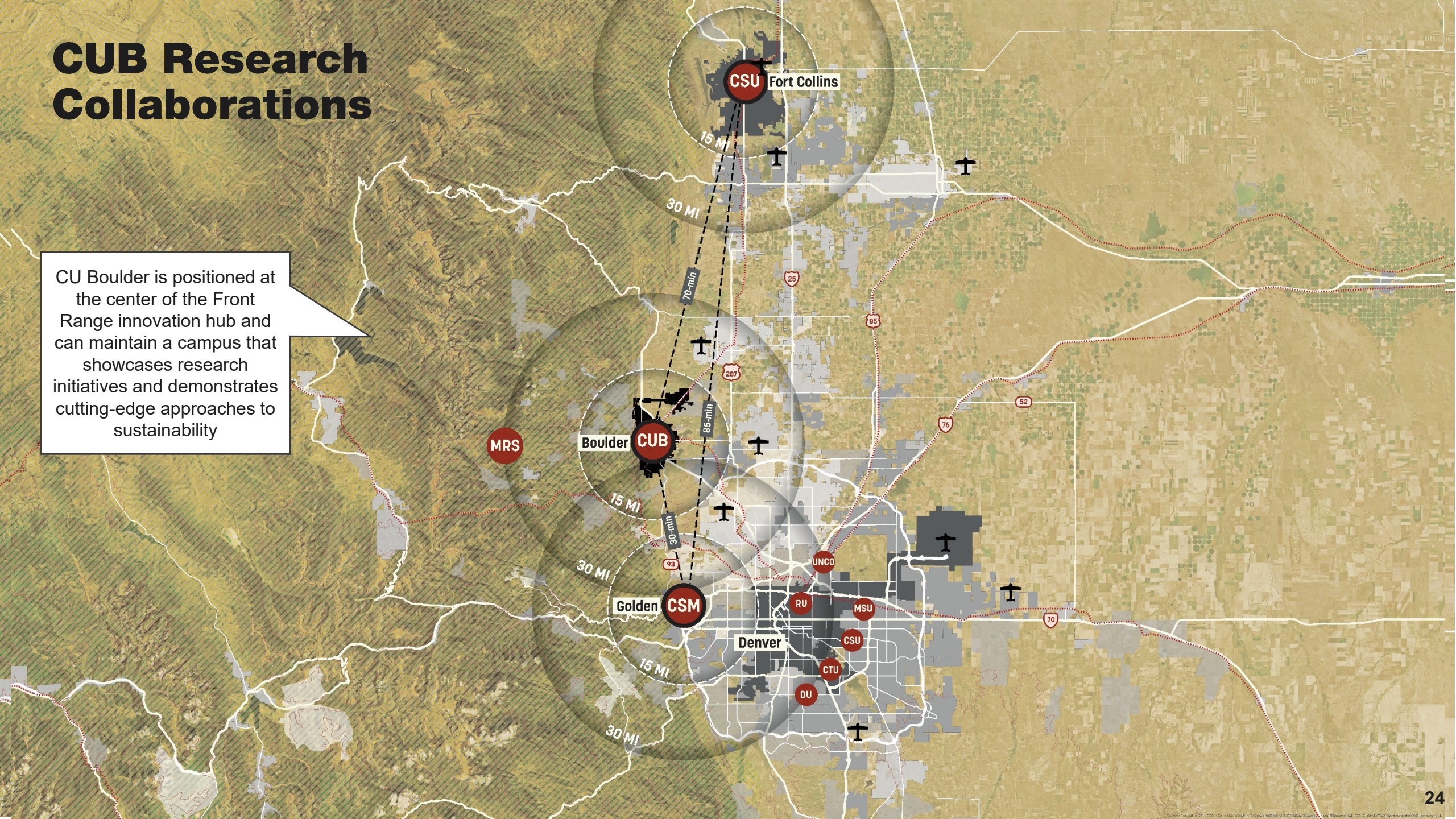
CU Boulder is a regional leader—creating a center in Colorado for education, research, and collaboration.





# CUB Research Collaborations

CU Boulder is positioned at the center of the Front Range innovation hub and can maintain a campus that showcases research initiatives and demonstrates cutting-edge approaches to sustainability





# **2 SPACE & PROGRAM**

# Space Use



# SFV Key Takeaways

- Dedicated spaces to foster **community**
- **Flexibility** that manifests through distributed support services and increased utilization of facilities
- **Research** – neighborhoods, colocation, thematic clusters
- **Integrative facilities** that focus on a mixed use approach to development, connections, community access

*The CMP is, essentially, Phase 2 of the broader Strategic Facilities Visioning process.*

Strategic Facilities Visioning

Academic Futures

Foundations of Excellence

IDEA Plan

Financial Futures

# Summary of Space Related Opportunities

## Thematic Nodes

- Development of **thematic nodes** around learning, research, lab, arts, sports
- New capital projects and infrastructure are jointly developed with academic delivery to create **living, learning laboratory clusters**.
- Academic units create a unique identity around respective **centralized hubs**, providing integrated student, staff and faculty support services

## Research

- Multi-modal space where **learning and research takes place simultaneously**
- **Flexible lab space** for evolving research capabilities
- Nodes of themed core equipment which can be easily accessed by all research teams and disciplines and are available for contract research
- Research space allocated by funding, teaming, and project length

## Partnerships

- Mixed use spaces that **incorporates external entities** into research and learning
- Multi-functional space with **new revenue sources** incorporates commercial, retail hotel and housing space

## Learning

- Removal of lecture space in favor of **smaller learning and study spaces** with standardized technologies that allow for blended, project based, research based, online and distance learning.
- Faculty deliver specialized online distance course content through **digital learning lab spaces**
- Flexible **project space** for faculty, staff, and student activities

## Service and Support

- Service units configured to provide **integrated academic unit support**
- **24/7** accessibility to nodes
- **Officing is flexible** and bookable at point of need

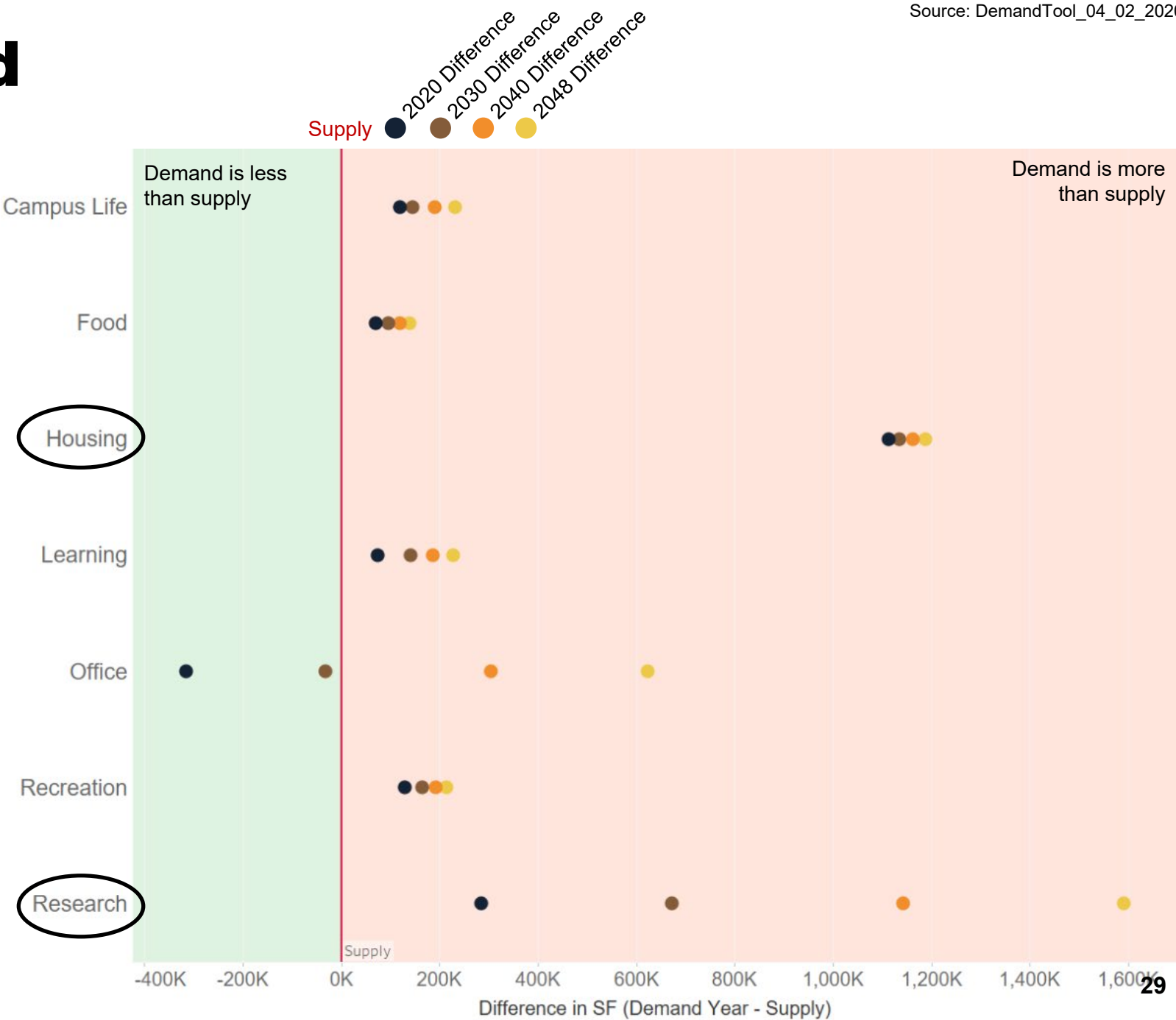


# SFV Space Demand

- Except for Office, all space needs until 2031 exceed current supply (office counts, however, may be an issue)
- Research needs develop incrementally - but significantly - over time.
- Currently, the largest gap in supply and demand in for **housing**, while by 2048 the largest gap will be in **research** space followed by office space.

Space Need by Type

	2020	2030	2040	2048
Campus life	121K	145K	191K	232K
Food	70K	96K	119K	140K
Housing	1.11M	1.14M	1.16M	1.19M
Learning	74K	141K	187K	227K
Office	-315M	-33M	304K	624K
Recreation	130K	166K	192K	215K
Research	286K	672K	1.14M	1.59M



# SFV Mixed-Use Building Templates

- 384 Buildings across all campuses
- Each building template has a space category template associated with it.

## MIXED-USE BUILDING TEMPLATES

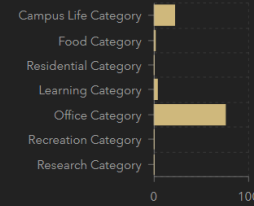
All campus buildings were assigned a mixed-use building template based on their primary function. The following templates promote an understanding of how to best facilitate an enhanced experience for all students, faculty, and staff.

The Cultural Building Template is likely a great fit for your unique needs. This template assumes there is a unique primary function in a building and plans around it. The input is the capacity of the primary function, and the output suggests quantities of spaces to compliment this core function. For example, in a new theater on campus, a planner would input the desired capacity of the theater, and the tool would create an output of additional classrooms, offices, and campus life spaces to round out the building. As always, the output can be manually manipulated.

### ADMINISTRATIVE

Administrative department workplaces and home bases

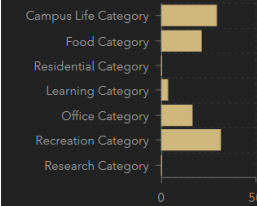
#### SINGLE TEMPLATE



### ATHLETICS

Athletic, student-athlete support and external partnership facilities

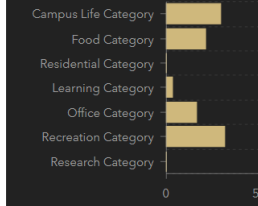
#### SINGLE TEMPLATE



### CAMPUS LIFE

Facilities that focus on dining, support, social, recreation and the overall aspect of being a student in the campus community

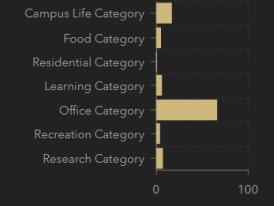
#### SINGLE TEMPLATE



### COMMUNITY

On and off-campus locations which invite the community in for clinics, classes, work-place, health, and other functions

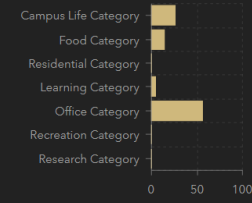
#### SINGLE TEMPLATE



### CULTURAL

Exhibit, event and auditorium spaces that span from performance to conference to community buildings

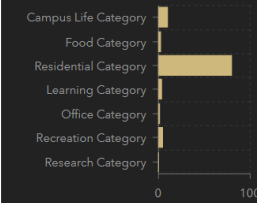
#### SINGLE TEMPLATE



### HOUSING

On-campus housing and dining solutions for students, faculty, and staff

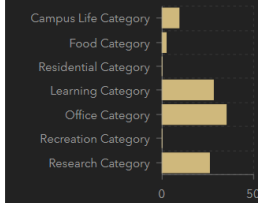
#### SINGLE TEMPLATE



### LEARNING

Shared flexible classrooms, class labs, immersive and practice spaces, study space and workplace environments

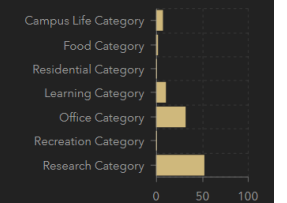
#### SINGLE TEMPLATE



### RESEARCH

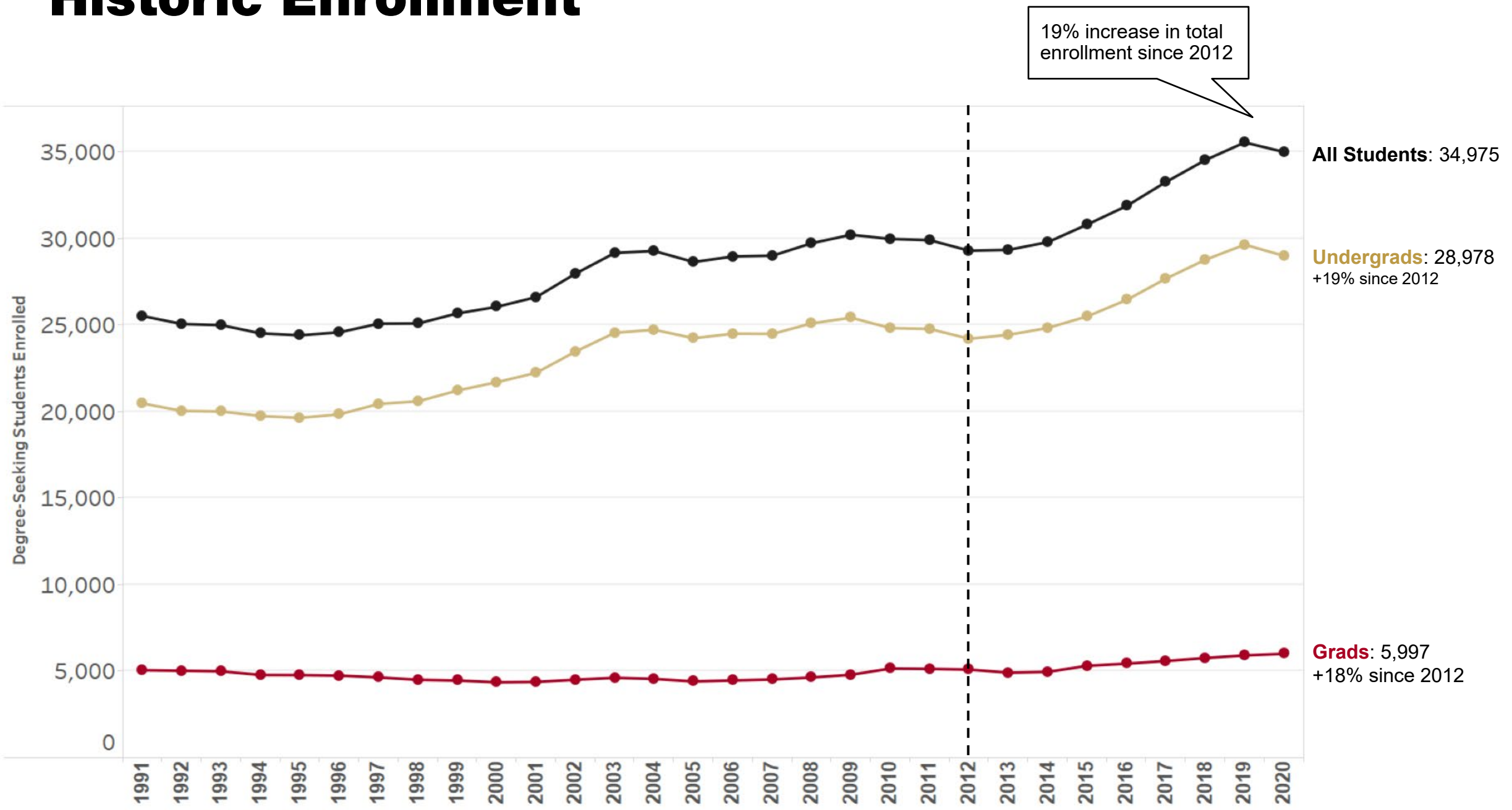
Generic, flexible labs, classrooms and workplaces that enable collaborative research and learning in research

#### SINGLE TEMPLATE

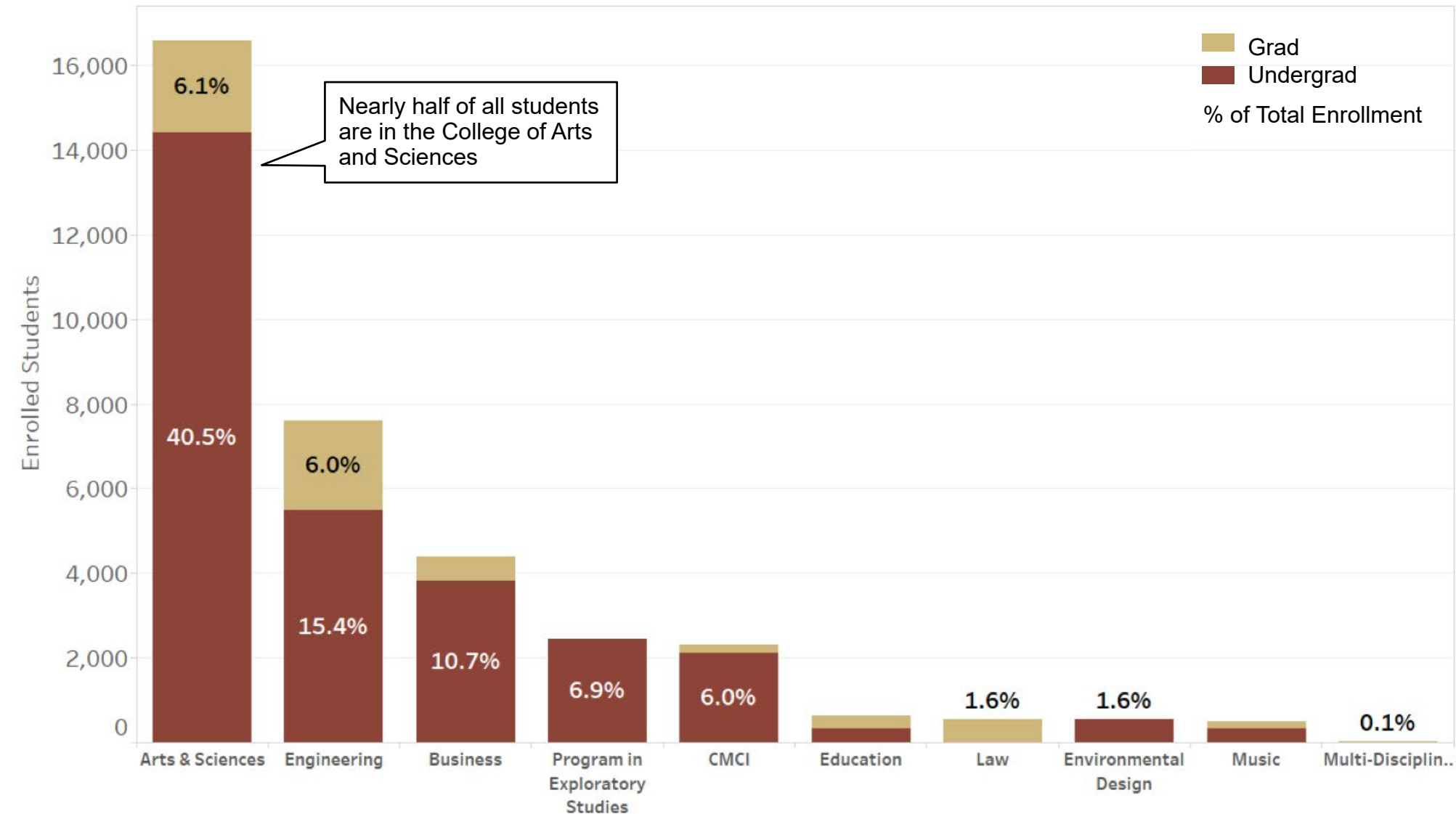




# Historic Enrollment

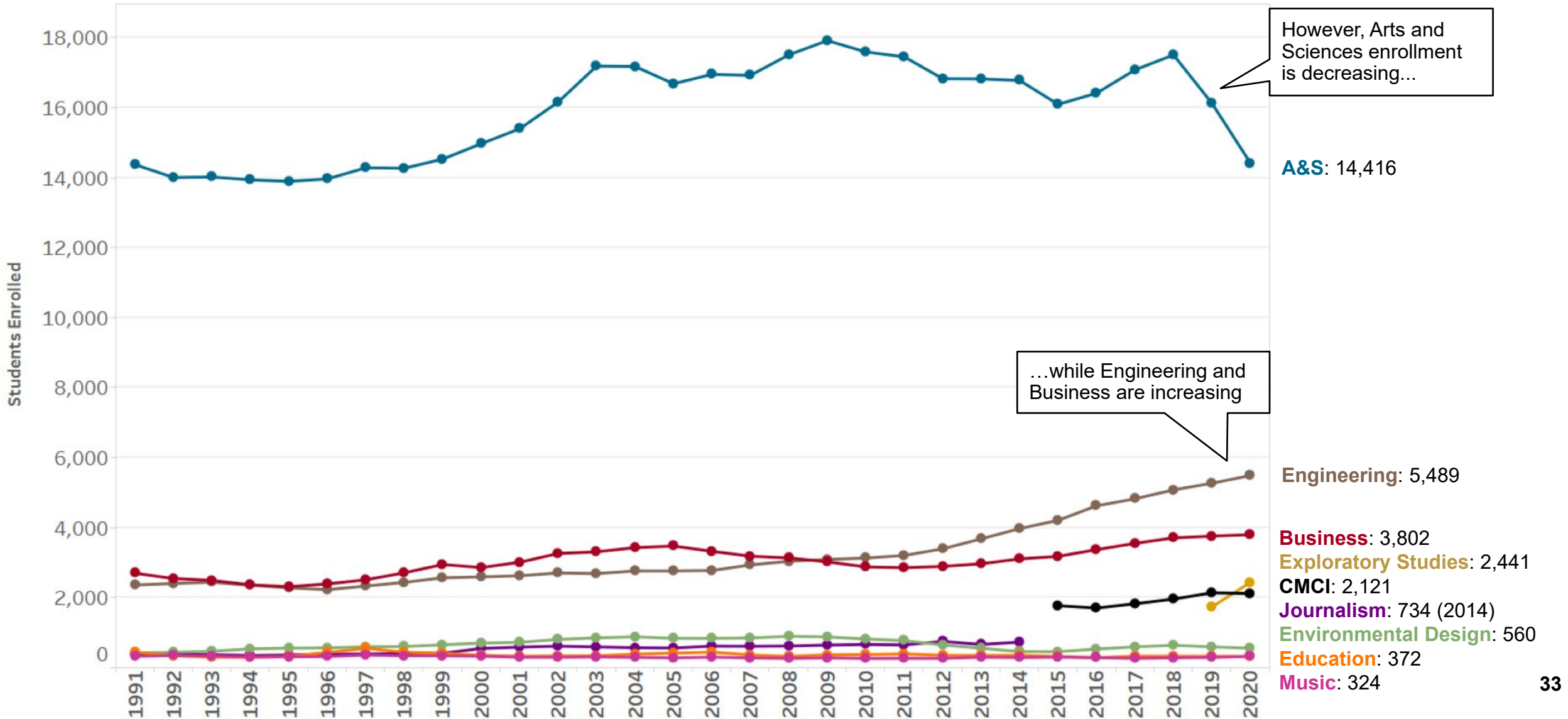


# Enrollment by School

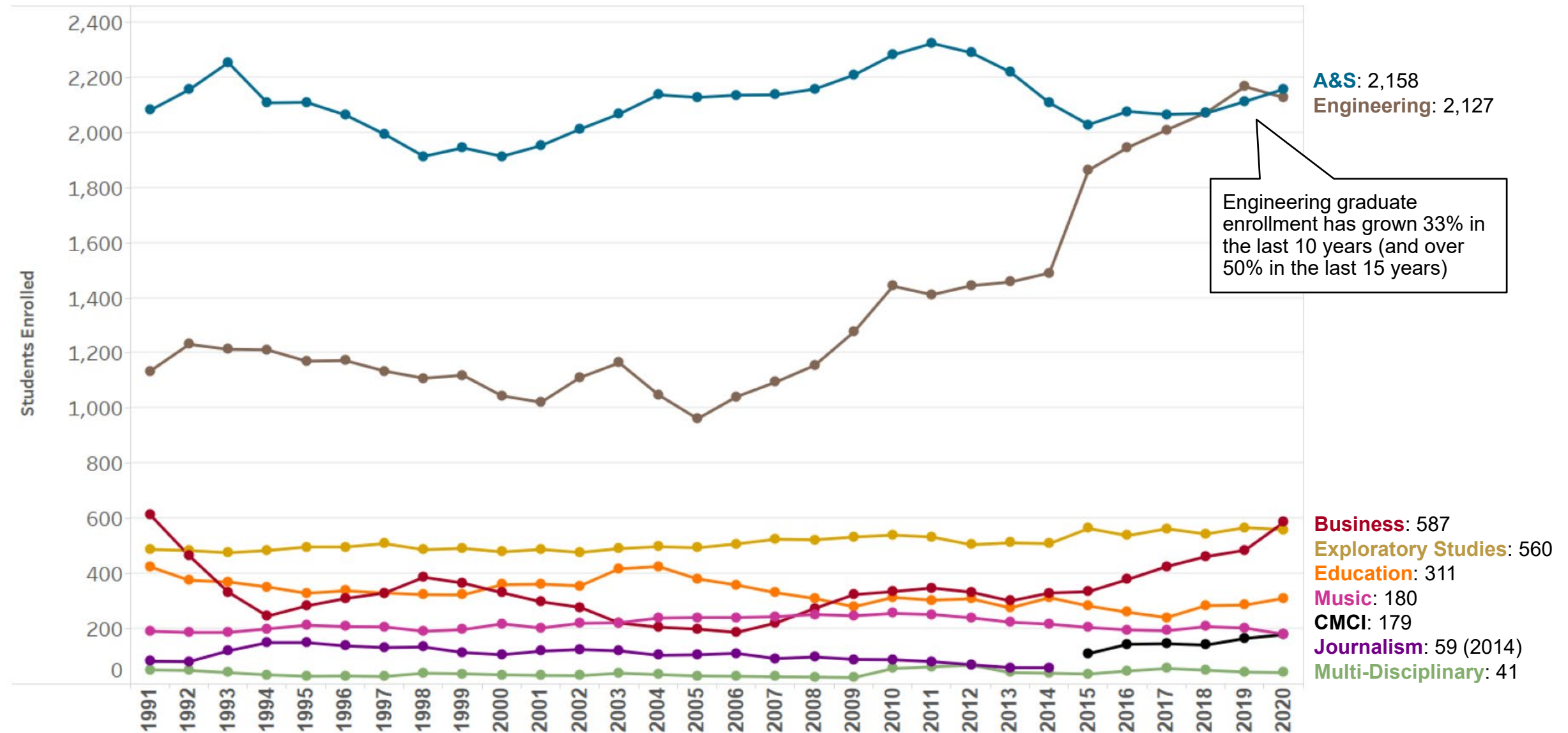




# Enrollment by School - Undergrad



# Enrollment by School - Grad

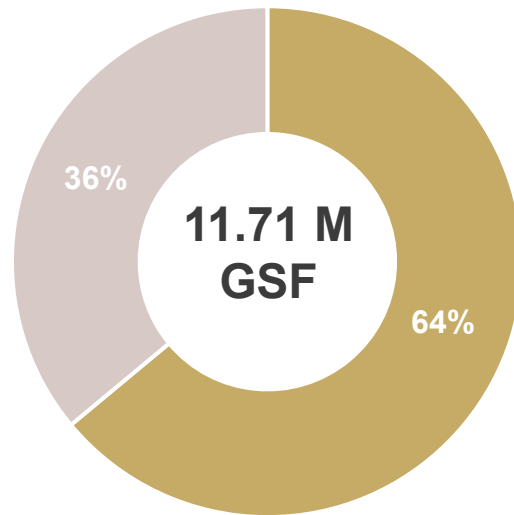




# Existing Space

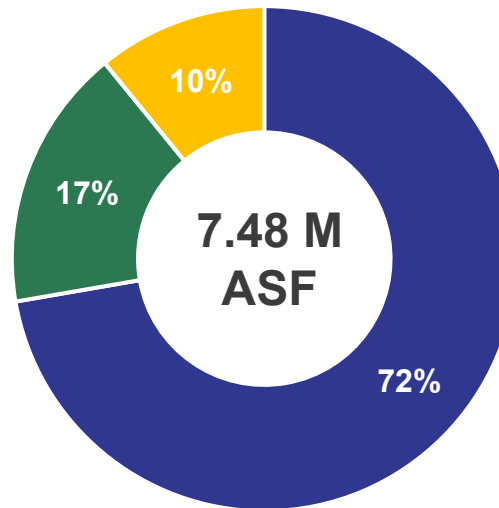
- Office use represents nearly ¼ of all campus space
- Learning and research space comprises less than 20% of all campus space

Net to Gross



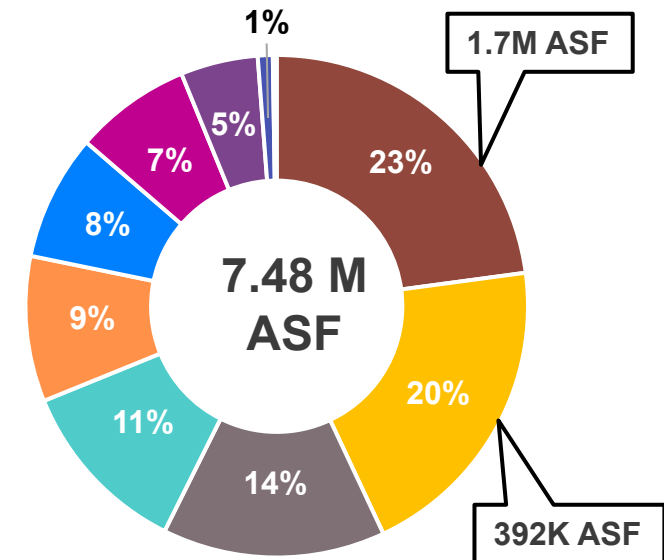
Assignable  
Non-Assignable

Space by Campus



Main Campus  
East Campus  
Williams Village

Space Type

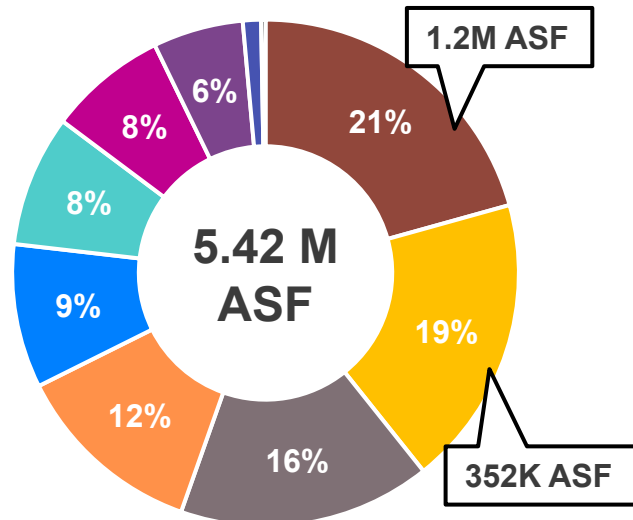


Offices  
Residential  
Support  
Research Labs  
Special Use  
Student Life  
Study Facilities  
Instructional  
Open Labs  
Healthcare

# Space Type By Campus

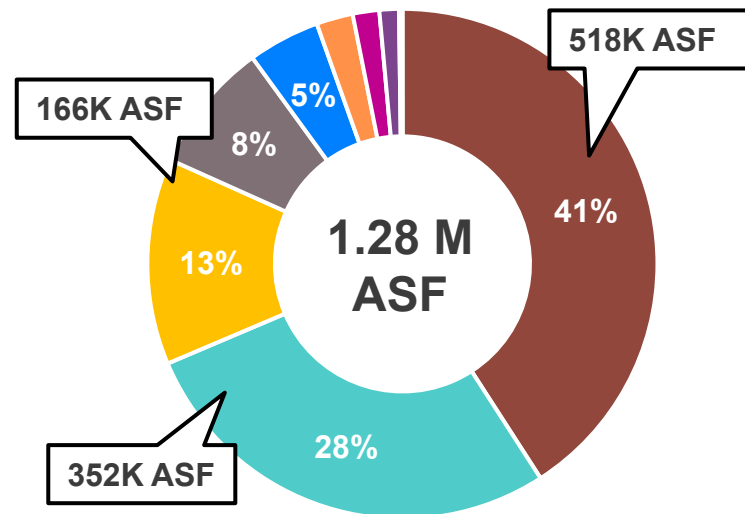
- East Campus and Williams Village lack a diversity of use types

Main Campus



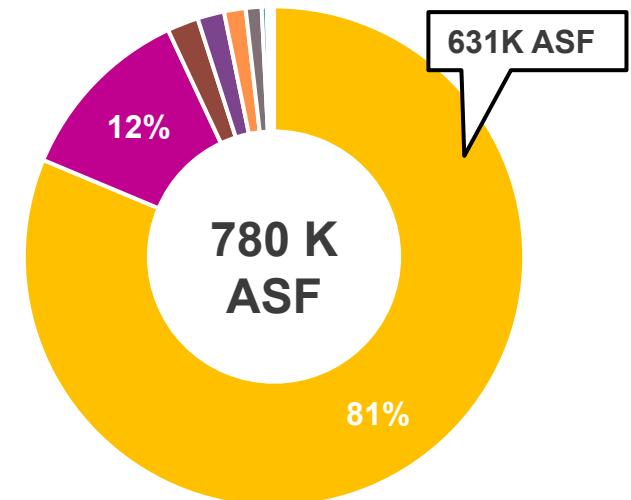
70% of all Office space is on Main Campus

East Campus

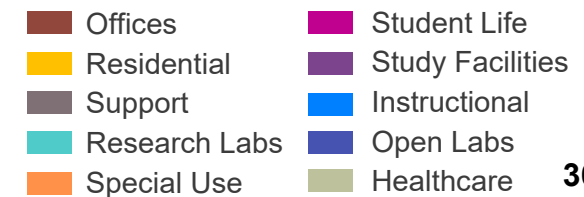


42% of all Research is on East Campus

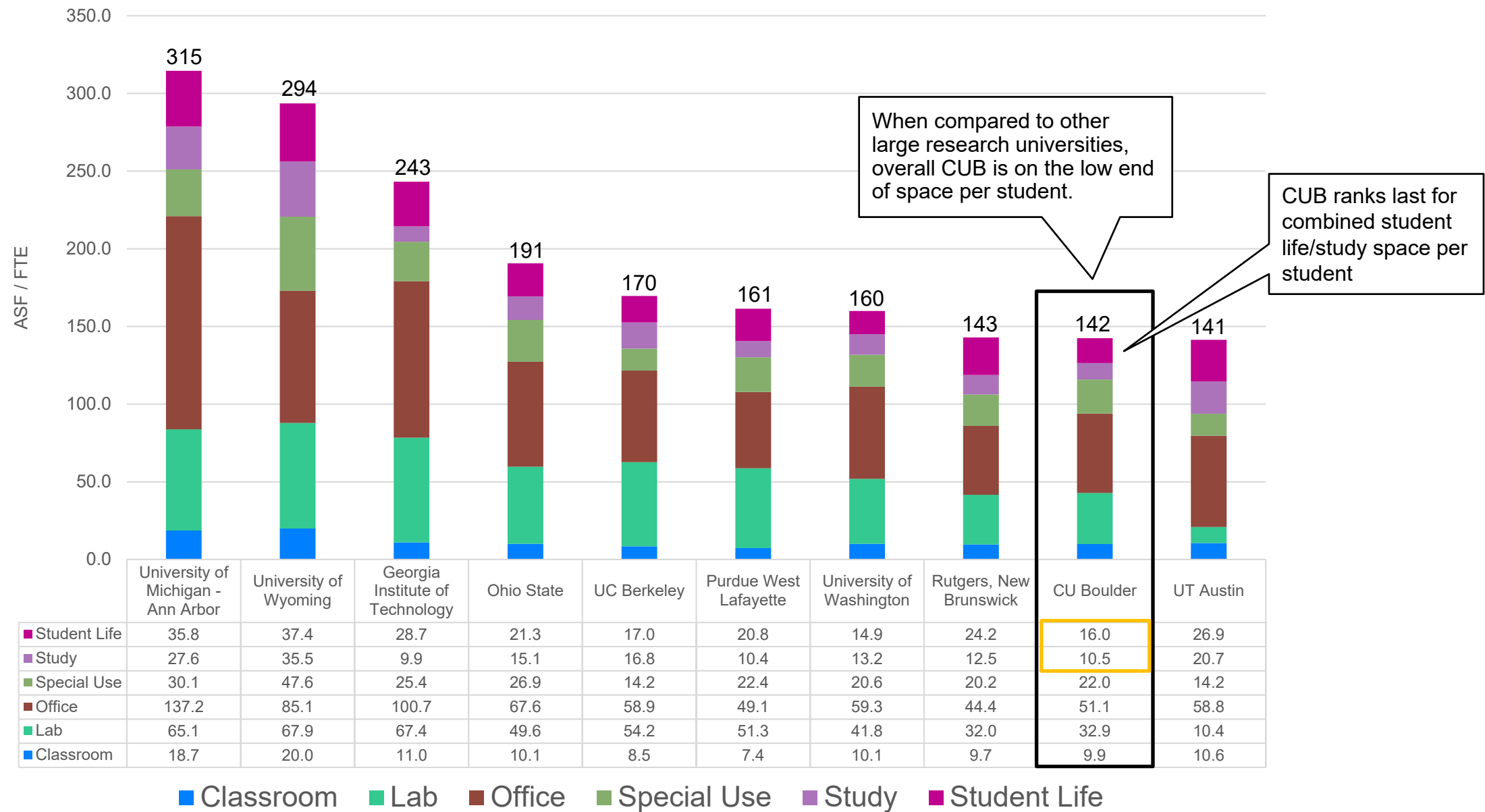
Williams Village



55% of all Residential space is on Williams



# Benchmarking





# Synthesis

- While A+S comprises the largest share of total population, growth areas appear to be Engineering and Business.
- The mixed-use building typology of Main Campus contributes to a dynamic 24-7 environment; consistent with SFV, there are opportunities to do this at East Campus and Williams Village.
- Density of classroom space in the core contributes to exceptionally high demand of UMC and C4C.
- Within buildings, greater integration between Schools/Colleges presents an opportunity to better align with trends in research collaboration and interdisciplinary teaching, as well as to increase utilization.
- Overall office square footage is sufficient, however the count of offices is not. Consider this in light of long-term COVID impacts.

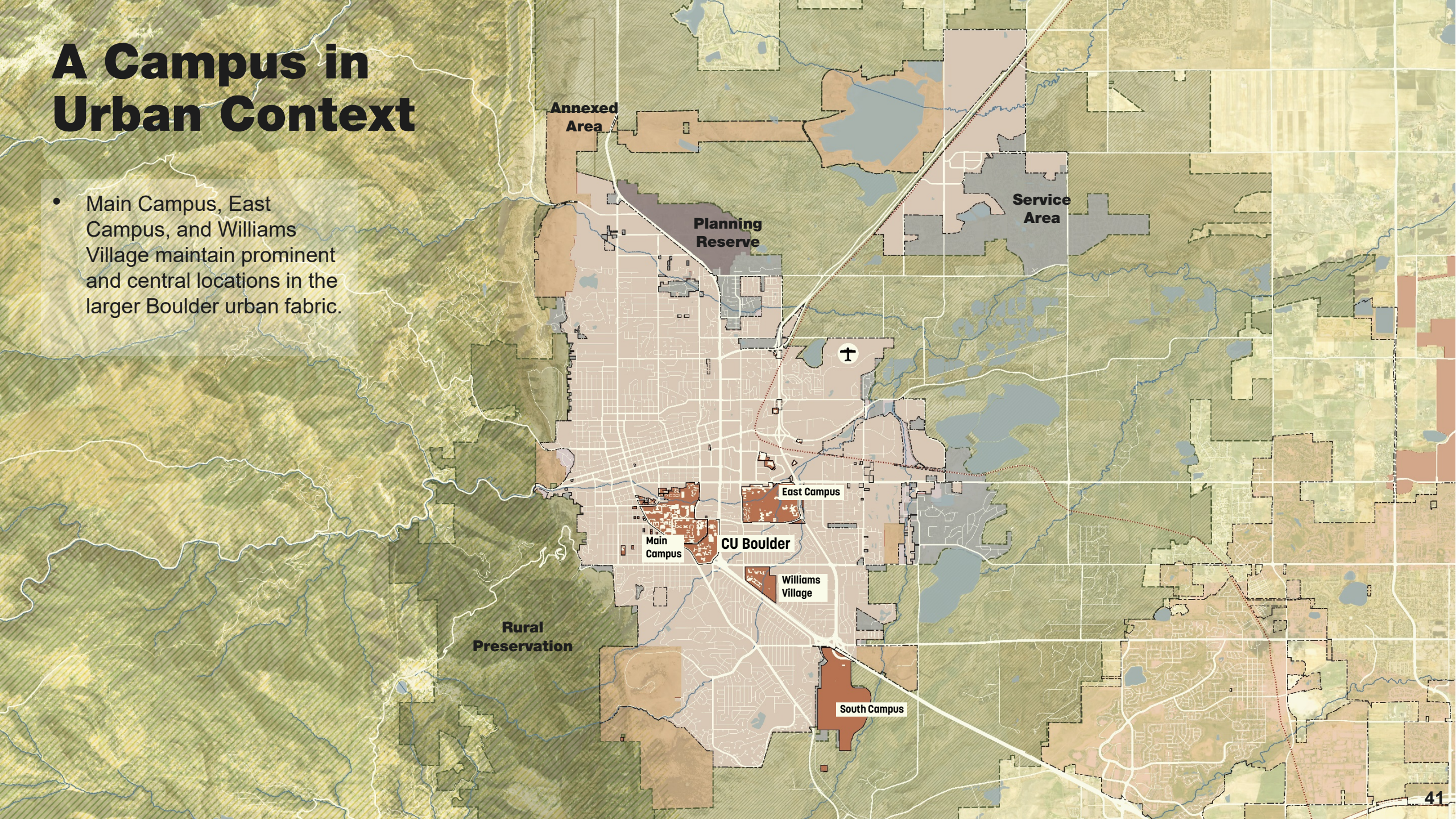
# **3** **CAMPUS CONTEXT**

# Urban Context



# A Campus in Urban Context

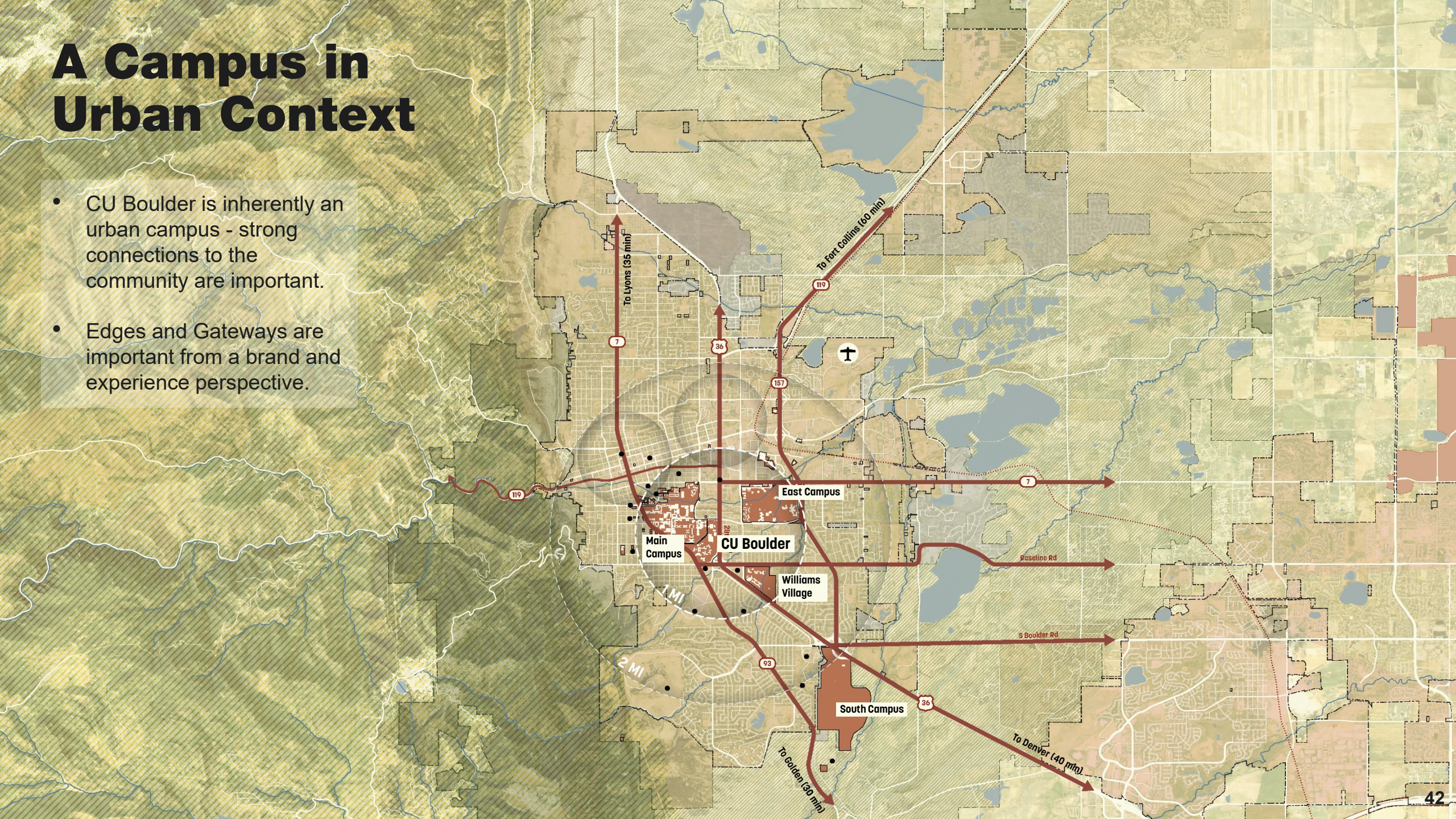
- Main Campus, East Campus, and Williams Village maintain prominent and central locations in the larger Boulder urban fabric.





# A Campus in Urban Context

- CU Boulder is inherently an urban campus - strong connections to the community are important.
- Edges and Gateways are important from a brand and experience perspective.





# Campus Context



Canyon Blvd

Arapahoe Ave

Boulder Creek

**East  
Campus**

University Ave

College Ave

**Main  
Campus**

Colorado Ave

Foothills Pkwy

Baseline Rd

**Williams  
Village**

Hwy 36



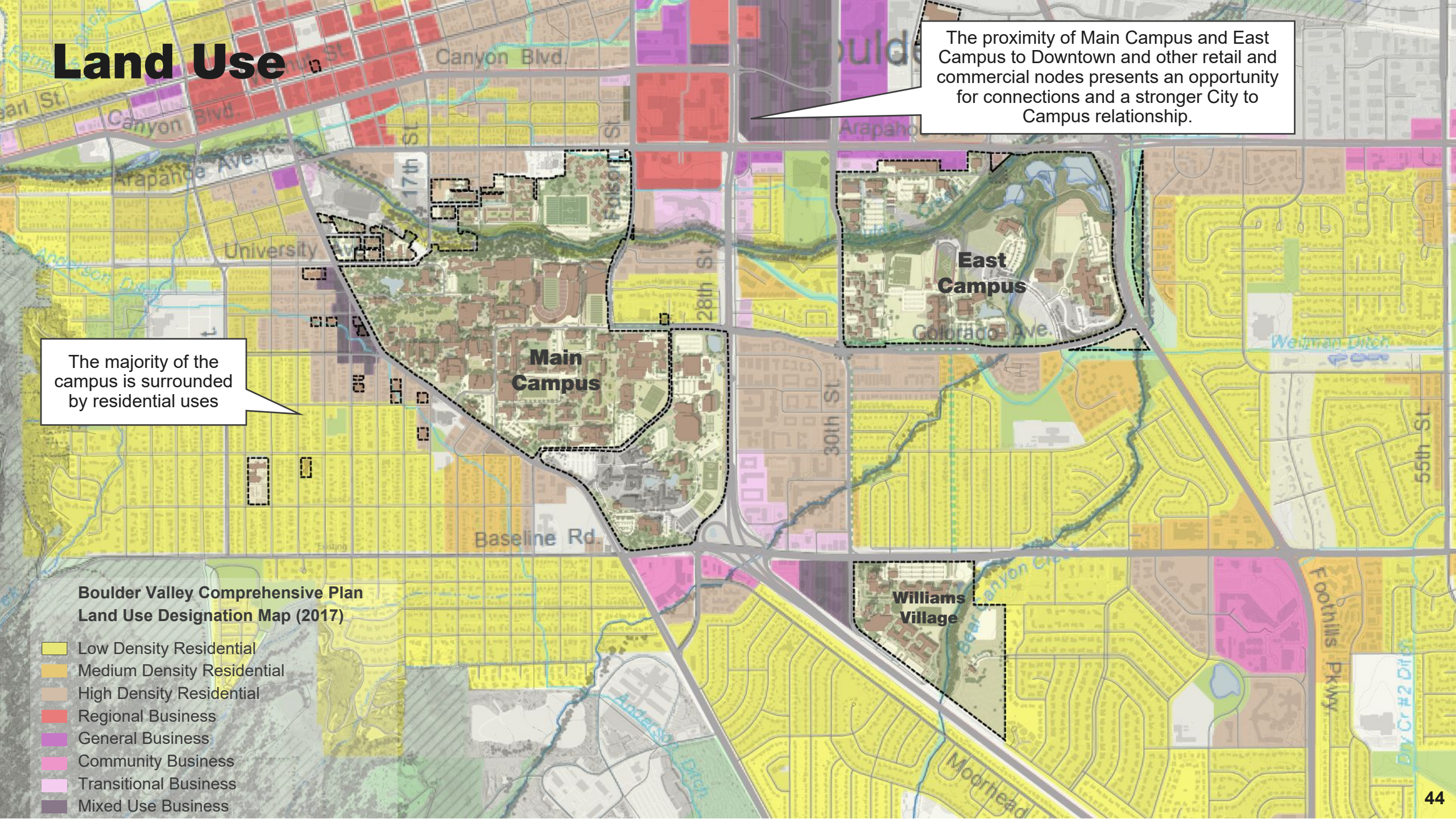
# Land Use

The proximity of Main Campus and East Campus to Downtown and other retail and commercial nodes presents an opportunity for connections and a stronger City to Campus relationship.

The majority of the campus is surrounded by residential uses

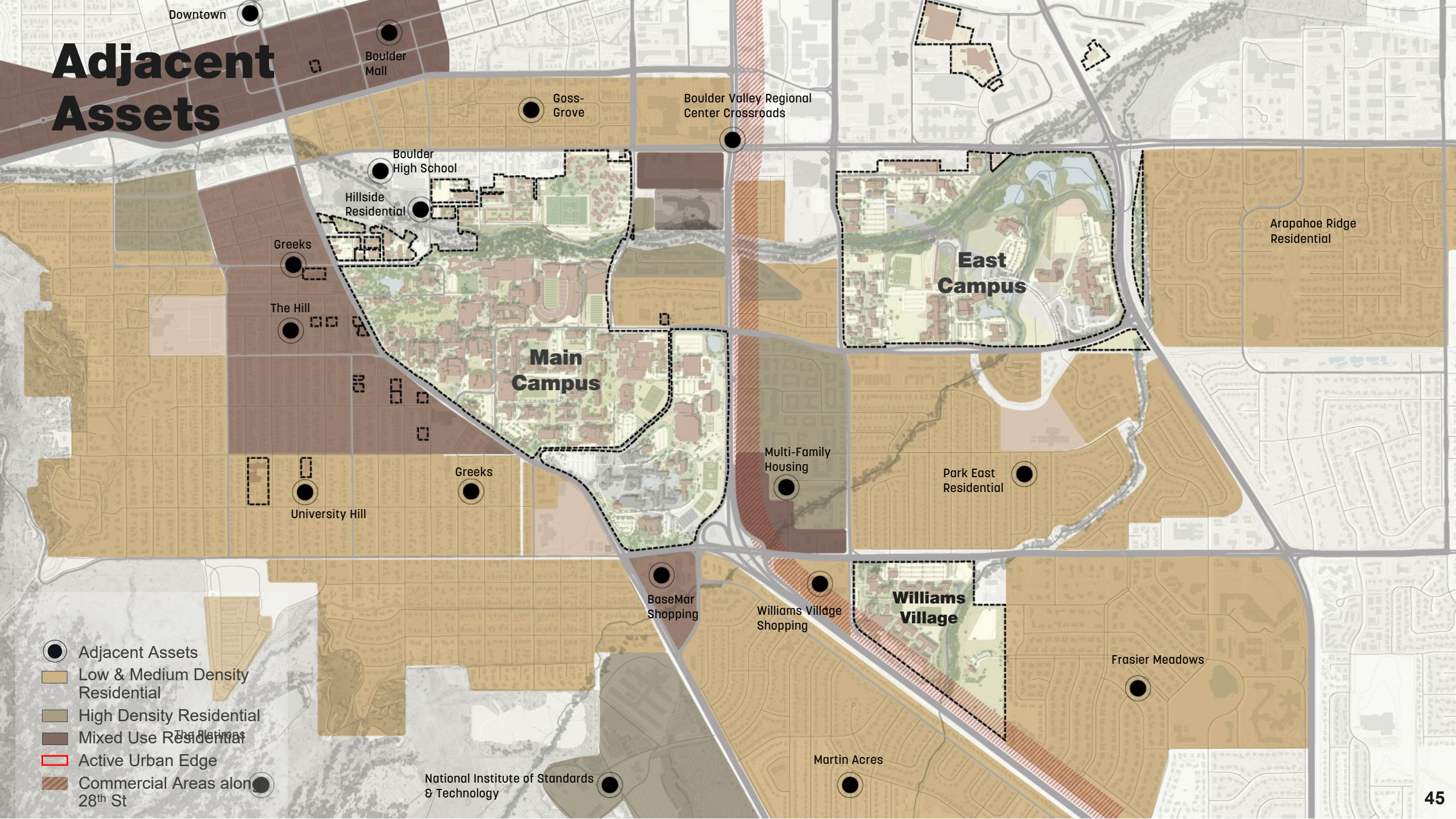
**Boulder Valley Comprehensive Plan  
Land Use Designation Map (2017)**

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Regional Business
- General Business
- Community Business
- Transitional Business
- Mixed Use Business





# Adjacent Assets



- Adjacent Assets
- Low & Medium Density Residential
- High Density Residential
- Mixed Use Residential
- Active Urban Edge
- Commercial Areas along 28<sup>th</sup> St

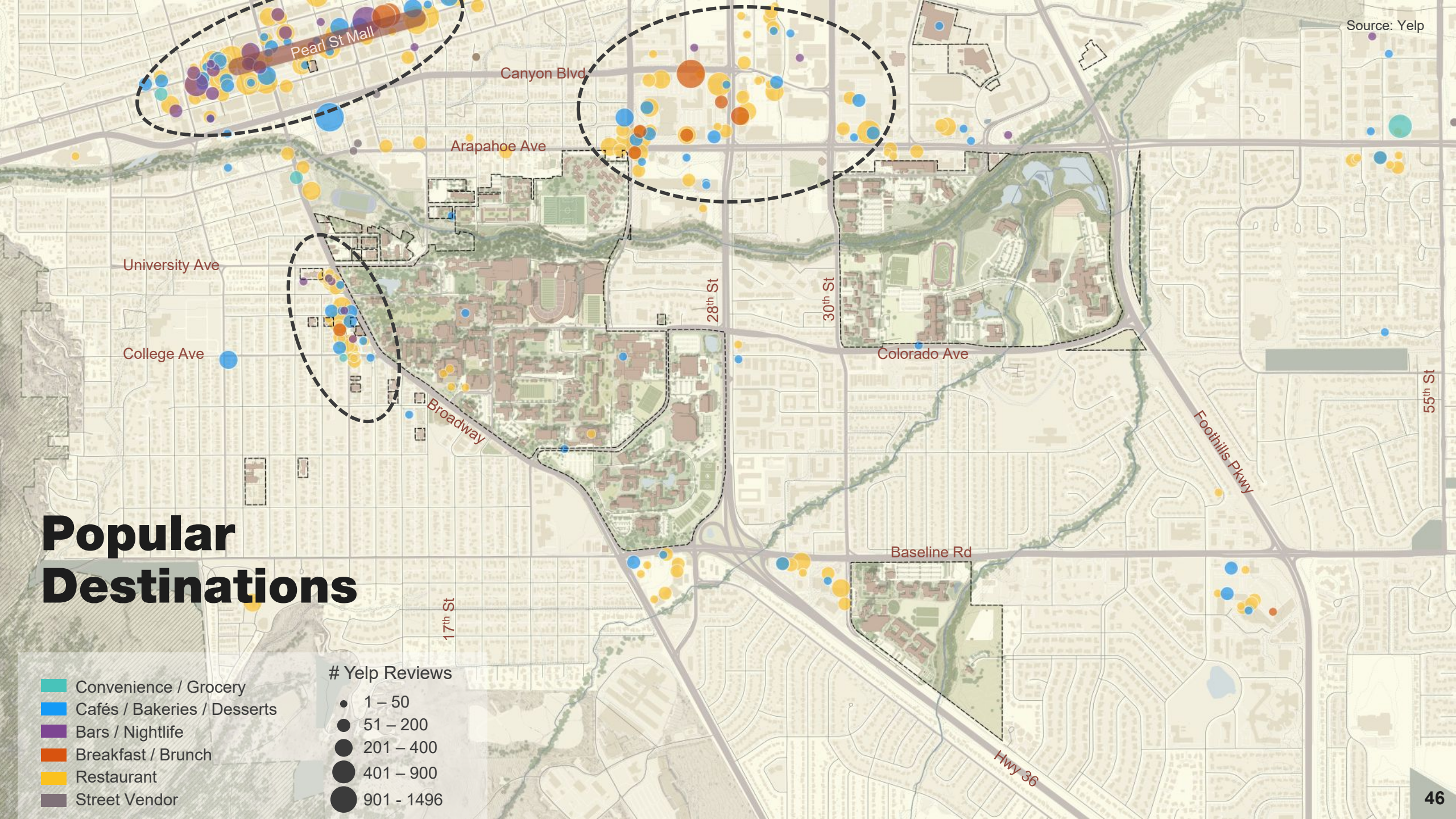


# Popular Destinations

- Convenience / Grocery
- Cafés / Bakeries / Desserts
- Bars / Nightlife
- Breakfast / Brunch
- Restaurant
- Street Vendor

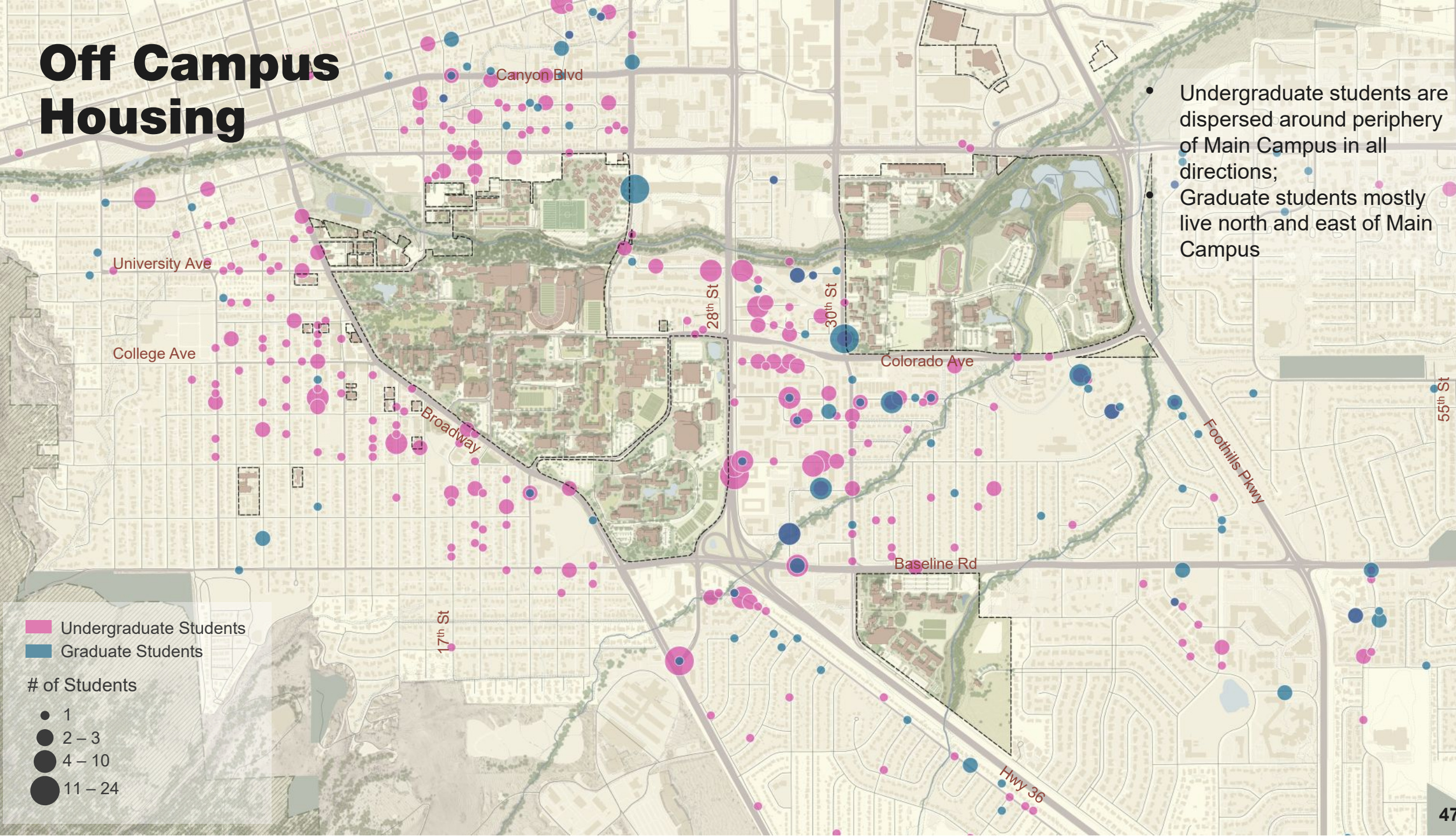
## # Yelp Reviews

- 1 – 50
- 51 – 200
- 201 – 400
- 401 – 900
- 901 – 1496





# Off Campus Housing



- Undergraduate students are dispersed around periphery of Main Campus in all directions;
- Graduate students mostly live north and east of Main Campus

Undergraduate Students

Graduate Students

# of Students

1

2 – 3

4 – 10

11 – 24



# On Campus Housing





# Housing Master Plan

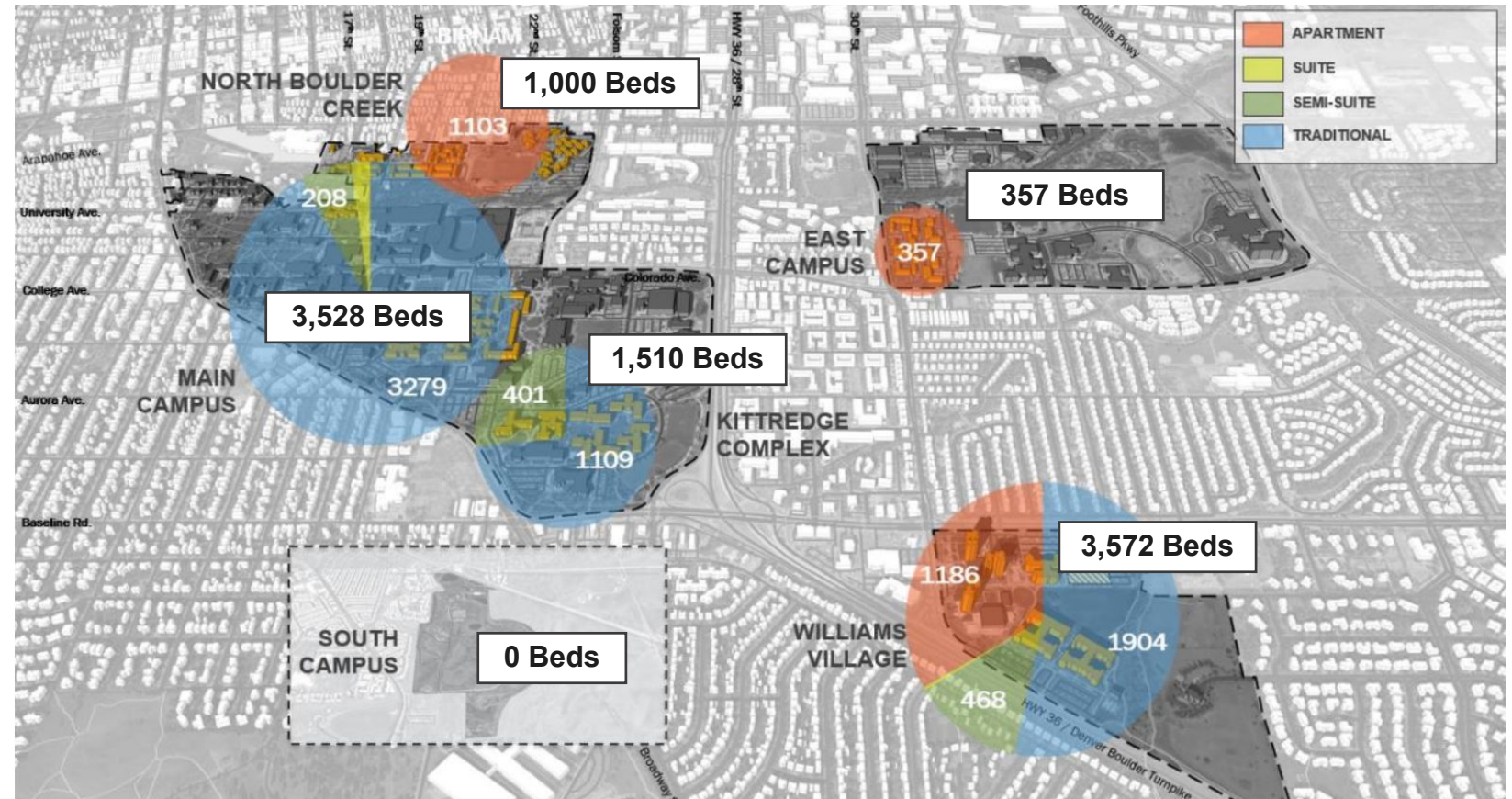
## Issues:

- Increase supply
- Diversification of offerings, unit types
- Modernization of existing portfolio
- Affordability

## Proposed Plan:

- Step One:
  - Build capacity (2 new facilities) North of Boulder Creek and renovate 3 main campus dorms.
- Step Two
  - Scenario A: Strengthen Core Campus Increase capacity in Kittredge and Williams Village + 2,000 beds
  - Scenario B: East Campus Growth Increase capacity on East Campus + 3,200 beds

“Create an inclusive community across cultures and generations”





# Scenarios

## Scenario A



**Scenario A Phasing**

Project	Project Type	Year Open	# of Beds (Existing)	# of Beds (New Construction / Post Renovation)
New Kittredge Res Hall	New Construction	Year 6	-	450
Faculty Court Replacement (Site A4)	New Construction	Year 6	35	400
Athens Court Replacement (Site B1 & B2)	New Construction	Year 7	116	550
Willard Renovation	Extensive Renovation	Year 7	471	447
Will Vill Res Hall	New Construction	Year 8	-	450
Sewall Renovation	Extensive Renovation	Year 9	330	314
Hallett Renovation	Extensive Renovation	Year 10	479	455
Newton Court Replacement	New Construction	Year 10	512	810

## Scenario B



**Scenario B Phasing**

Project	Project Type	Year Open	# of Beds (Existing)	# of Beds (New Construction / Post Renovation)
Engineering Quad Replacement #1	New Construction	Year 6	344	400
East Campus Res Hall #1	New Construction	Year 7	-	450
East Campus Res Hall #2	New Construction	Year 7	-	450
East Campus Apartments	New Construction	Year 8	-	500
Engineering Quad Replacement #2	New Construction	Year 8	231	400
East Campus Res Hall #3	New Construction	Year 9	-	450
Willard Renovation	Extensive Renovation	Year 10	471	447
Faculty Court Replacement (Site A4)	New Construction	Year 10	35	550
Athens Court Replacement (Site B1 & B2)	New Construction	Year 10	116	550
Hallett Renovation	Extensive Renovation	Year 11	479	455
Newton Court Replacement	New Construction	Year 12	512	810

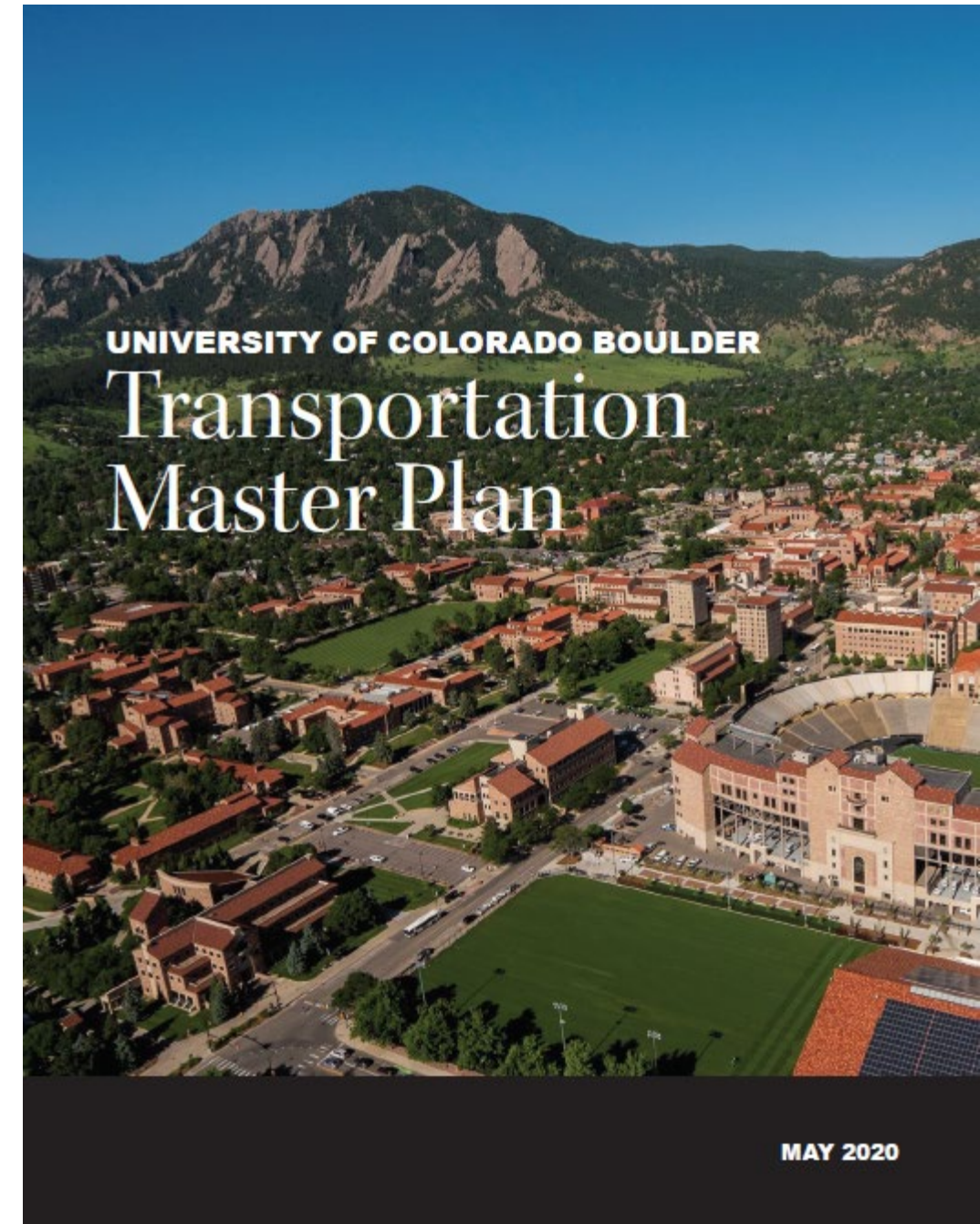
# **Mobility & Connectivity**



# Transportation Master Plan

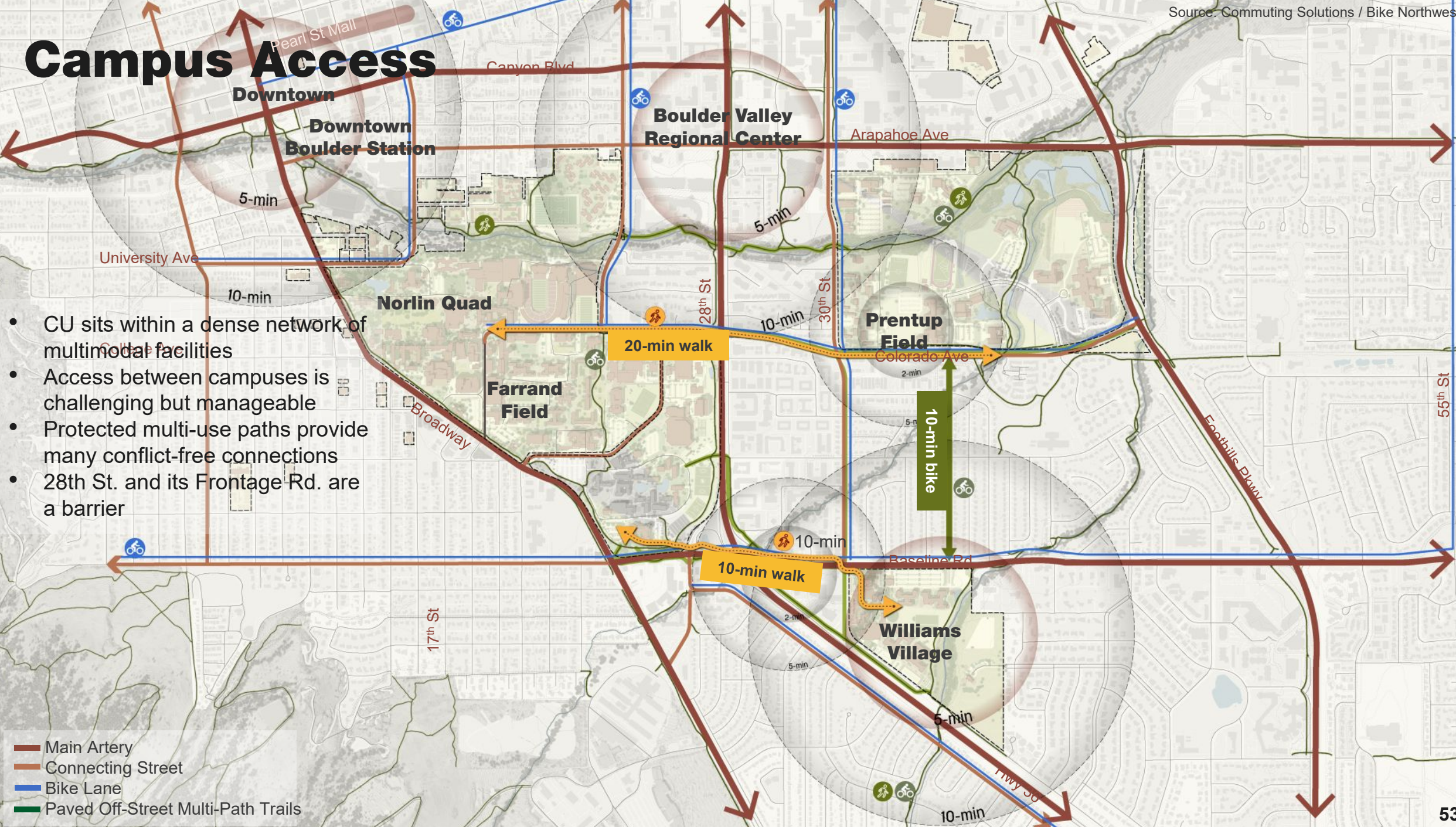
## Key Recommendations

- Mobility Hubs: transfer points and campus gateways
- The Walk: redesign and traffic restriction on 18th St. / Colorado Ave. core campus street
- Speed and Reliability Infrastructure: transit lanes between Main and East Campus
- Focus on Fast & Frequent service
- Parking co-located with Mobility Hubs at campus edges
- New parking supply may not be needed; potential sites identified
- Potential garages at Grandview, 18th/Euclid Hub, and Macky Dr. lot; and on Discovery Dr.
- Formalize pick-up/drop-off locations
- Pleasant St. past Varsity Lake needs further study





# Campus Access

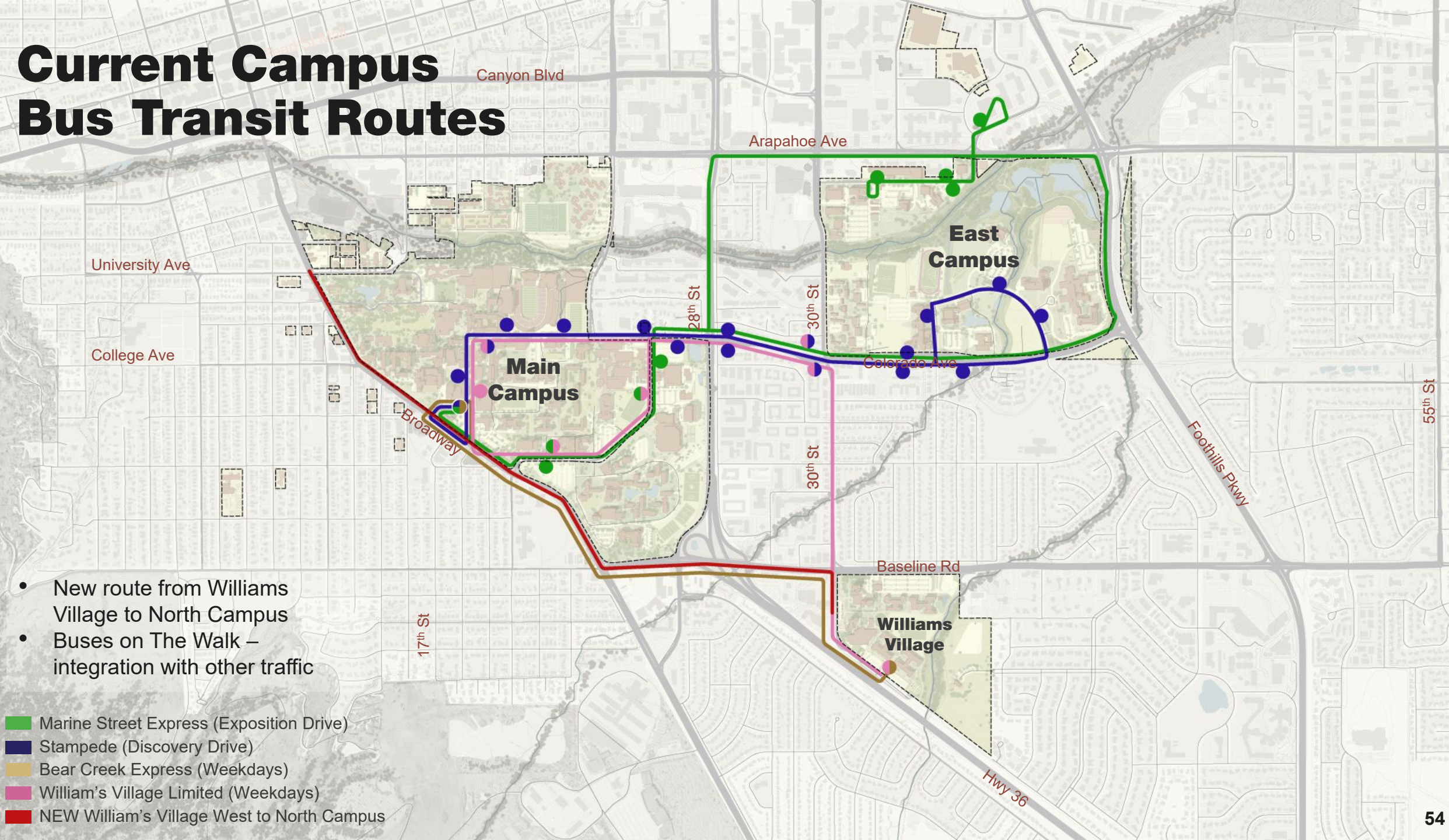


- CU sits within a dense network of multimodal facilities
- Access between campuses is challenging but manageable
- Protected multi-use paths provide many conflict-free connections
- 28th St. and its Frontage Rd. are a barrier

- Main Artery
- Connecting Street
- Bike Lane
- Paved Off-Street Multi-Path Trails



# Current Campus Bus Transit Routes

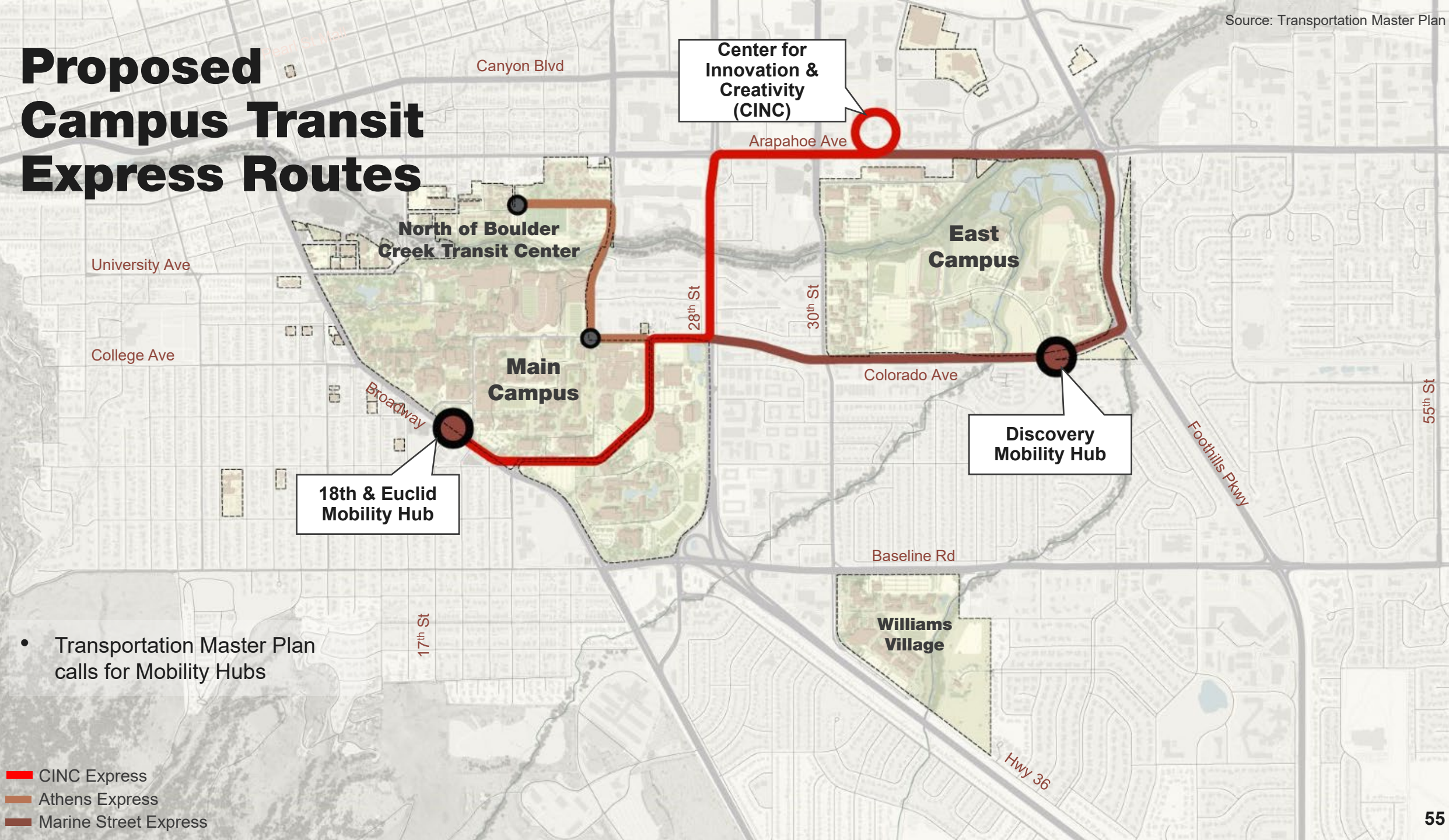


- New route from Williams Village to North Campus
- Buses on The Walk – integration with other traffic

- Marine Street Express (Exposition Drive)
- Stampede (Discovery Drive)
- Bear Creek Express (Weekdays)
- William's Village Limited (Weekdays)
- NEW William's Village West to North Campus



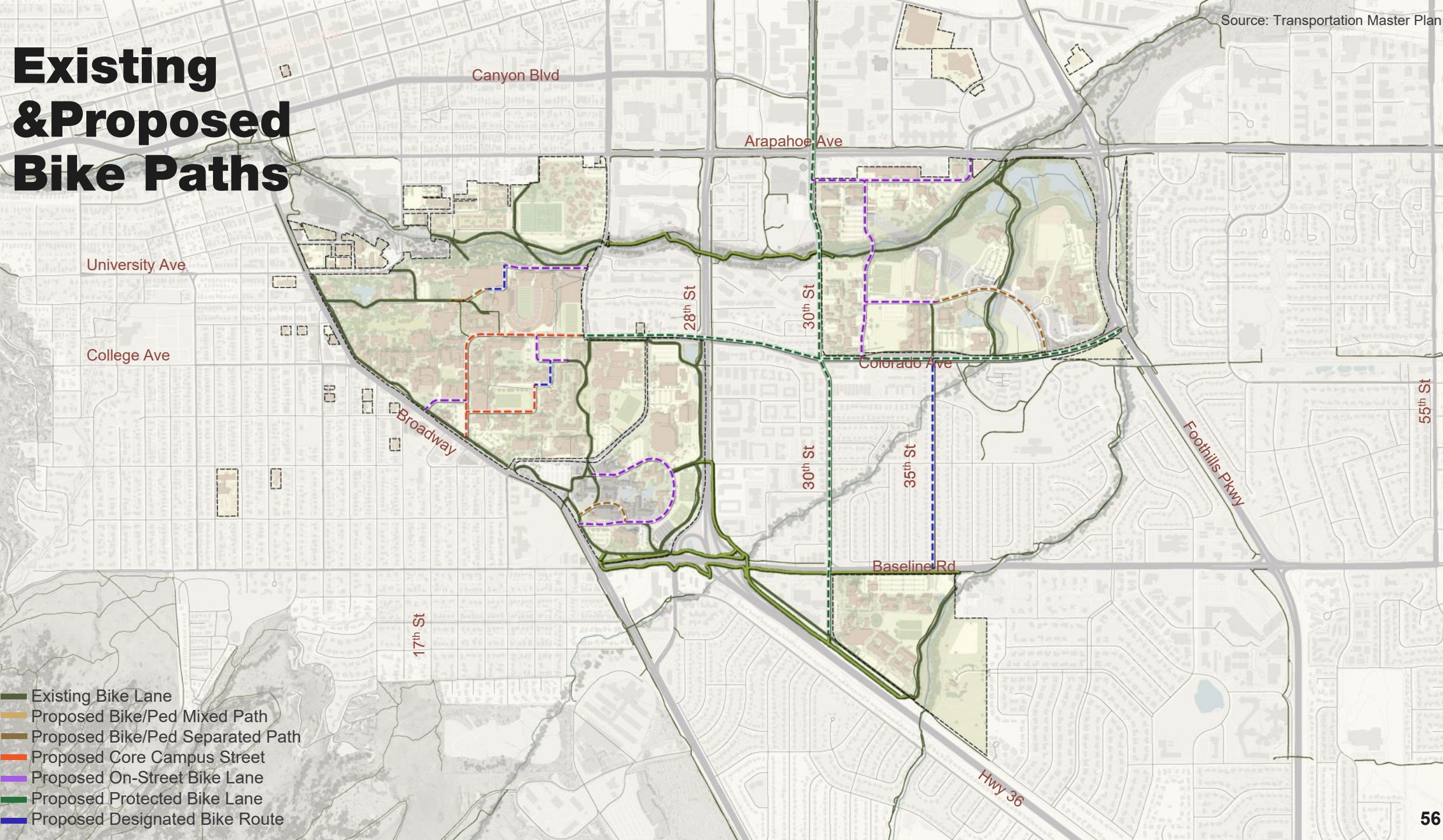
# Proposed Campus Transit Express Routes



• Transportation Master Plan calls for Mobility Hubs

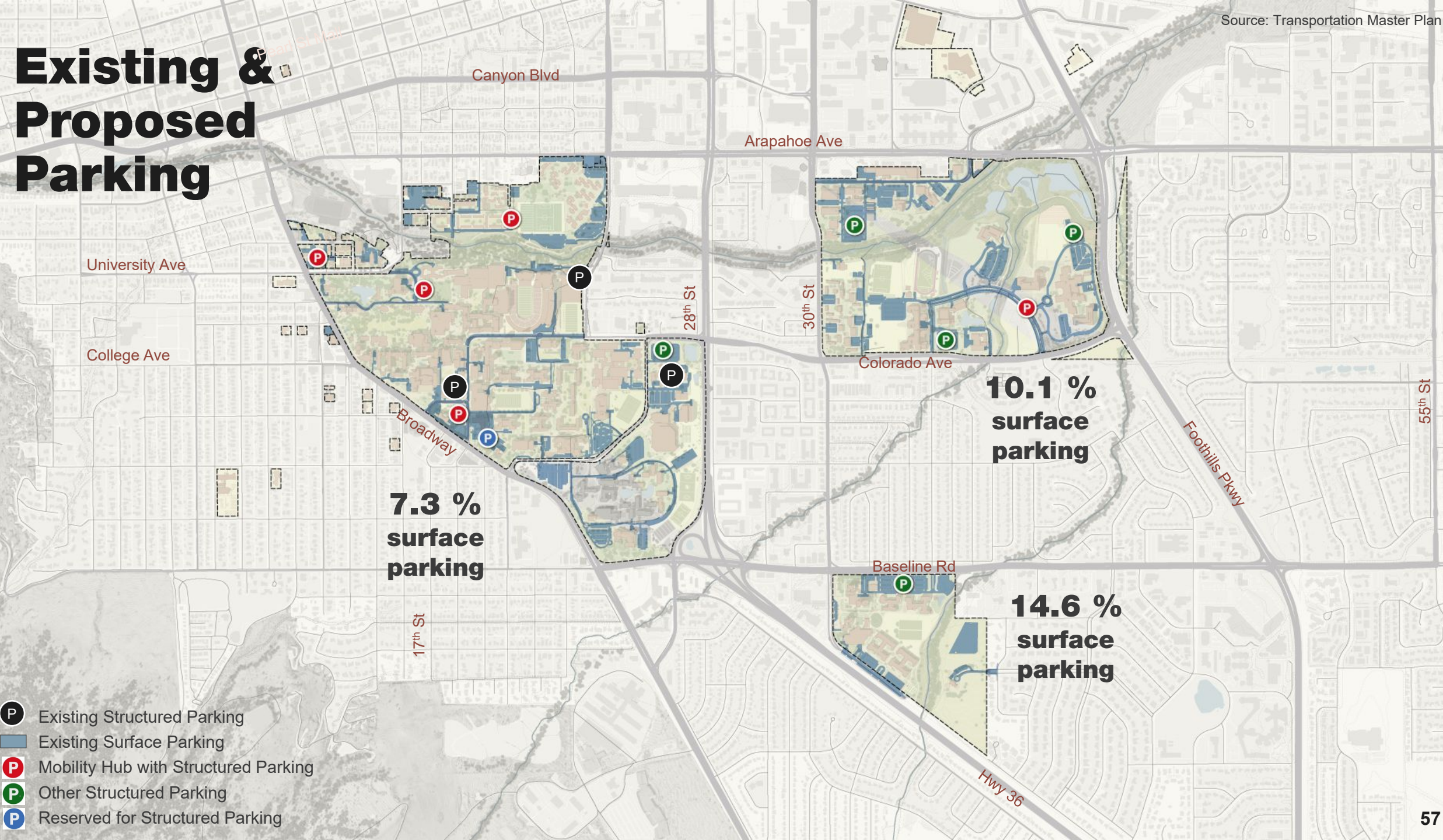


# Existing & Proposed Bike Paths





# Existing & Proposed Parking





# Campus Gateways

**Downtown**

**Longmont**

**East Campus**

**Main Campus**




**Louisville  
Lafayette**

**Williams  
Village**

**To Eldorado  
Springs**

**Denver**

58

-  Vehicular Gateways
-  Pedestrian & Bike Gateways
-  Under Construction

## Vehicular Entries

## Pedestrian and Bike Entries

1. University Ave from Broadway
2. Pleasant St from Broadway
3. Grandview District at 17<sup>th</sup> St
4. Euclid Ave from Broadway
5. 18<sup>th</sup> St from Broadway
6. Regent Dr from Broadway
7. Colorado Ave & Folsom St
8. Colorado Ave & Regent Dr
9. Innovation Dr from Colorado Ave
10. Discovery Dr from Colorado Ave
11. 30<sup>th</sup> St from Baseline Rd
12. William's Village from Baseline Rd

- a. Underpass from College Ave
- b. Euclid Ave from Broadway
- c. Bridge crossing over Boulder Creek
- d. Bridge from Historic District to Athletics Practice Field
- e. Kittredge Loop Dr
- f. Kittredge Fields from Baseline Rd
- g. Kittredge Fields from 28<sup>th</sup> St
- h. Kittredge District from 28<sup>th</sup> St
- i. proposed underpass at 30<sup>th</sup> & Colorado

Canyon Blvd

Arapahoe Ave

University Ave

College Ave

17<sup>th</sup> St

Broadway

28<sup>th</sup> St

30<sup>th</sup> St

Colorado Ave

Foothills Pkwy

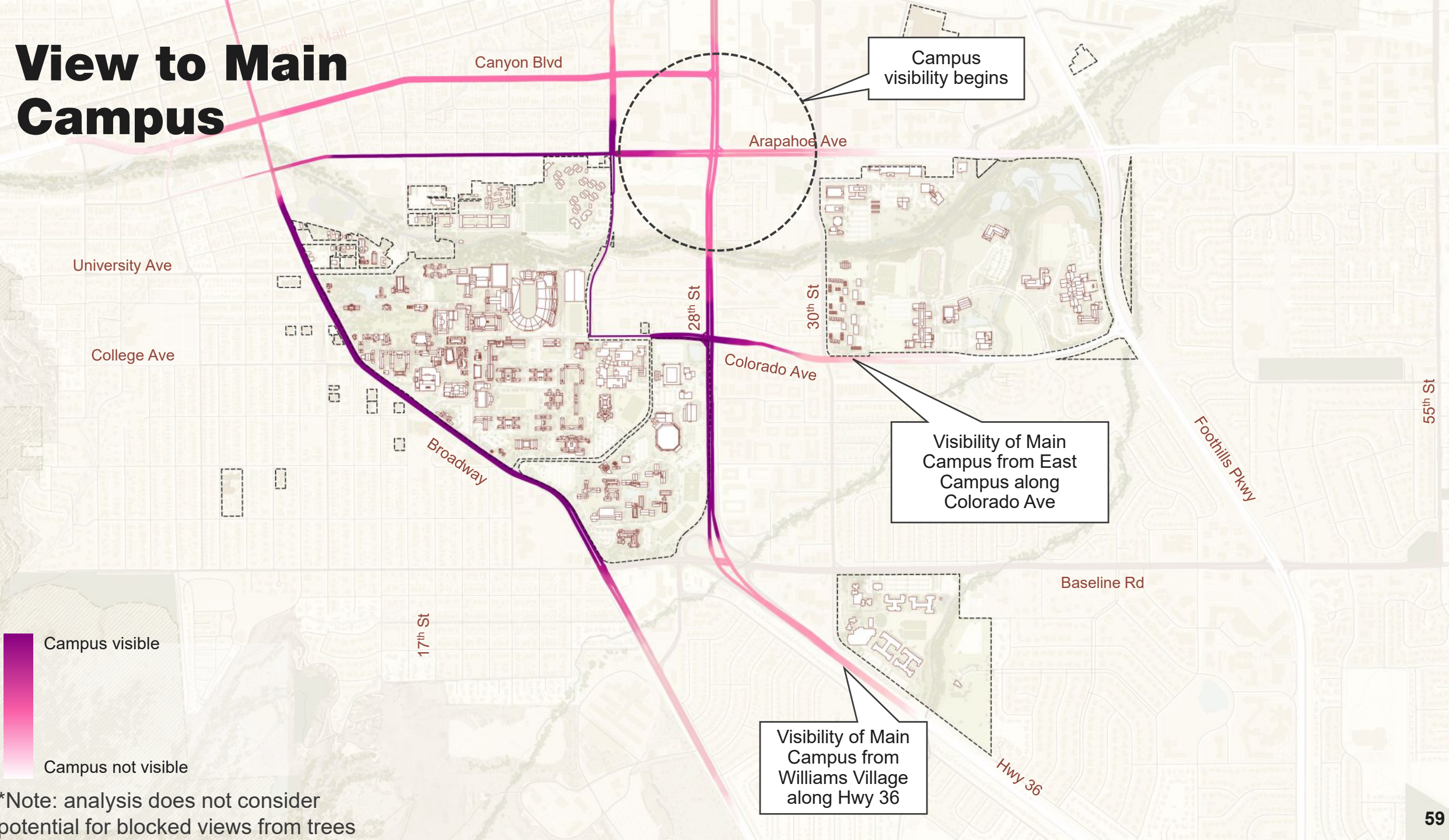
Baseline Rd

Hwy 36

55<sup>th</sup> St



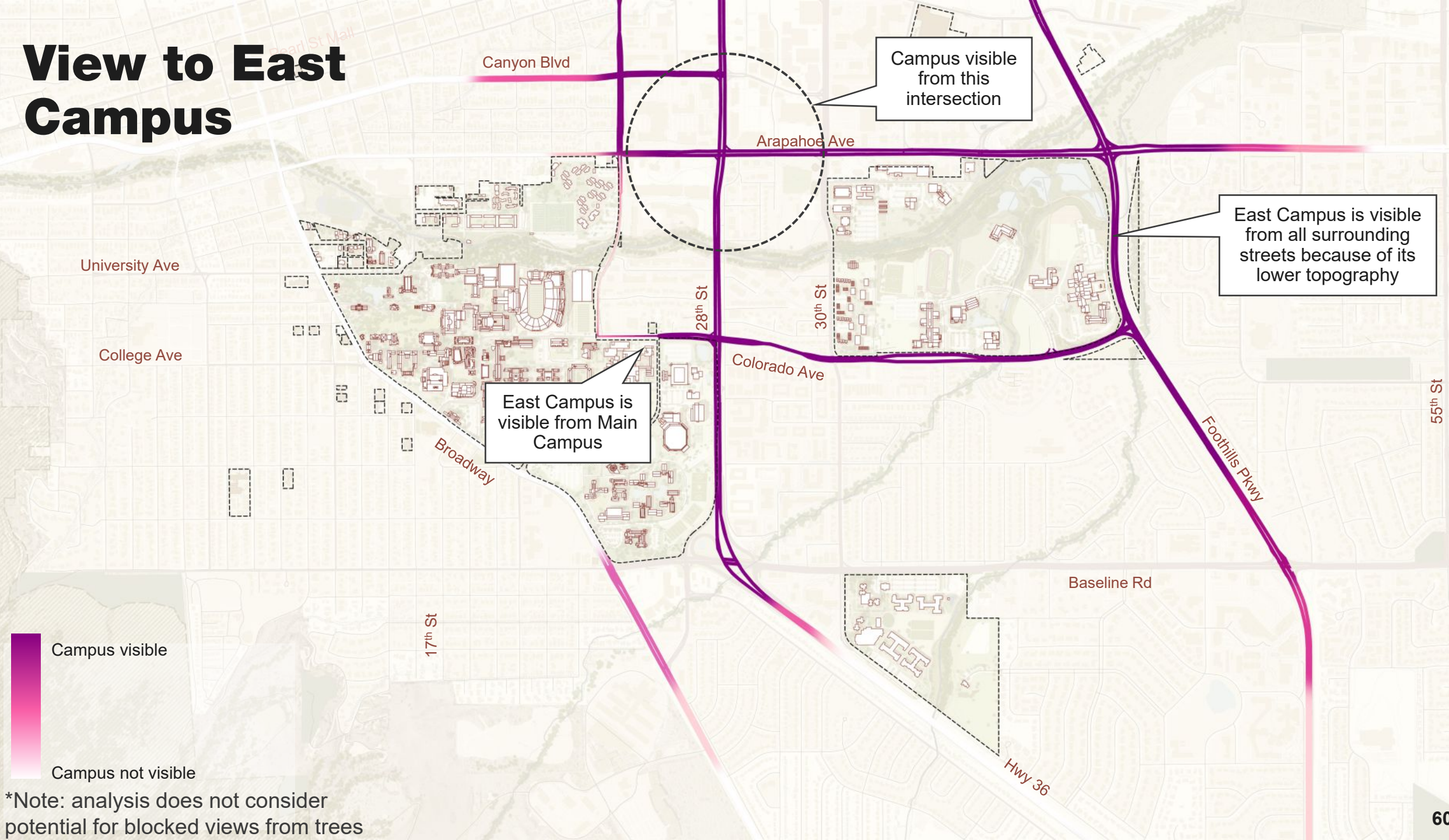
# View to Main Campus



\*Note: analysis does not consider potential for blocked views from trees



# View to East Campus



\*Note: analysis does not consider potential for blocked views from trees



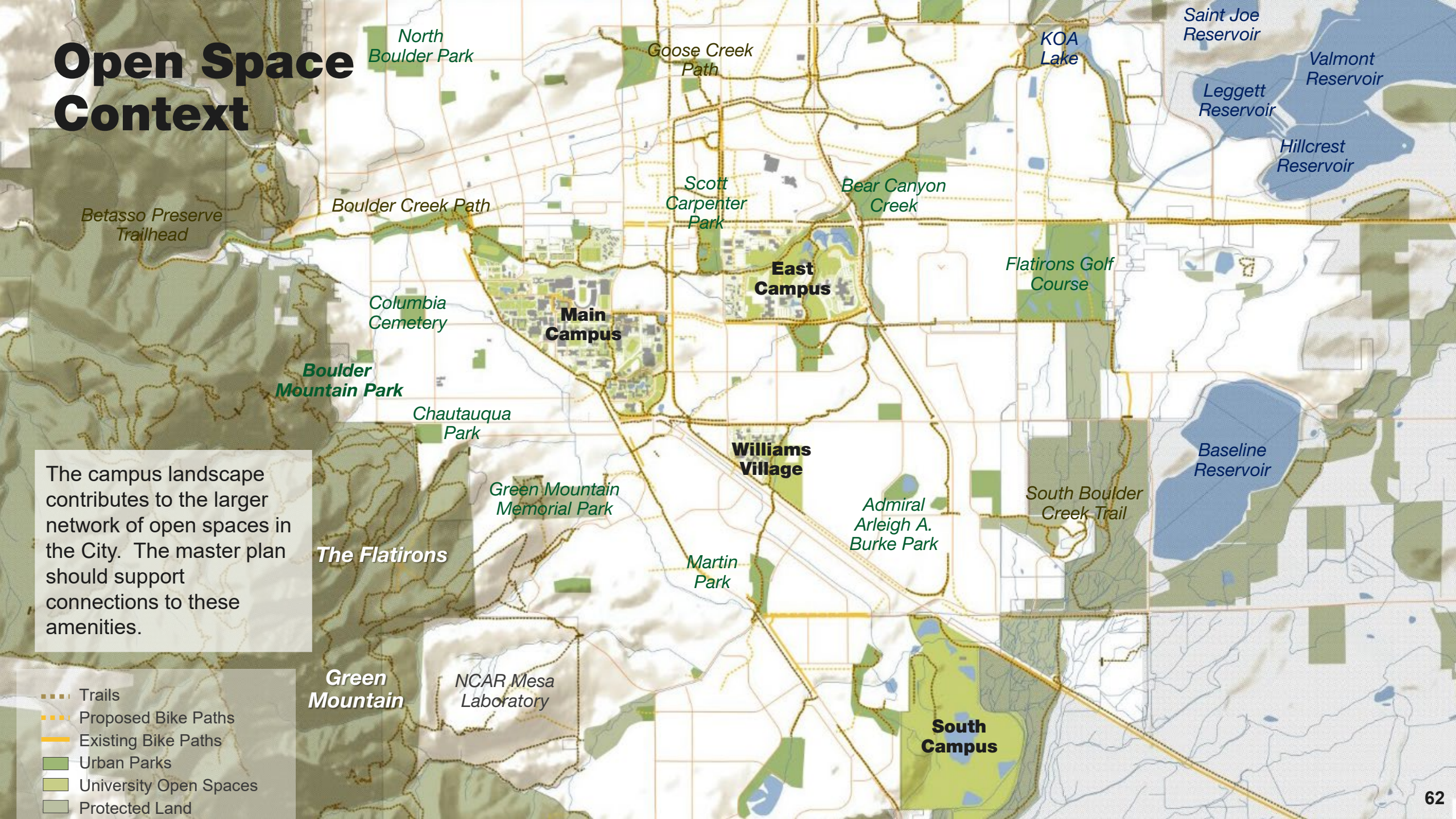
# **Landscape & Open Space**



# Open Space Context

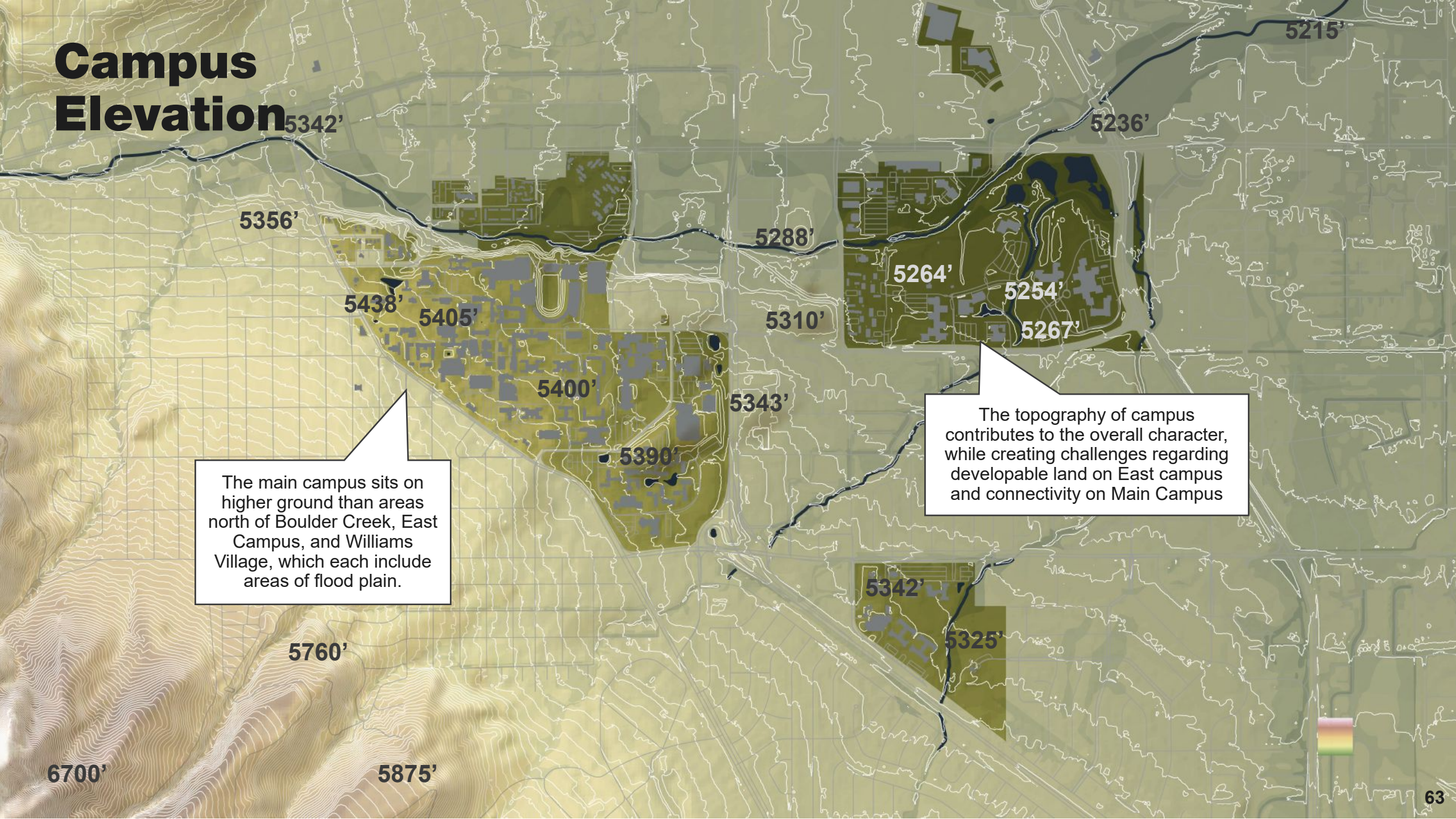
The campus landscape contributes to the larger network of open spaces in the City. The master plan should support connections to these amenities.

- Trails
- Proposed Bike Paths
- Existing Bike Paths
- Urban Parks
- University Open Spaces
- Protected Land





# Campus Elevation



The main campus sits on higher ground than areas north of Boulder Creek, East Campus, and Williams Village, which each include areas of flood plain.

The topography of campus contributes to the overall character, while creating challenges regarding developable land on East campus and connectivity on Main Campus

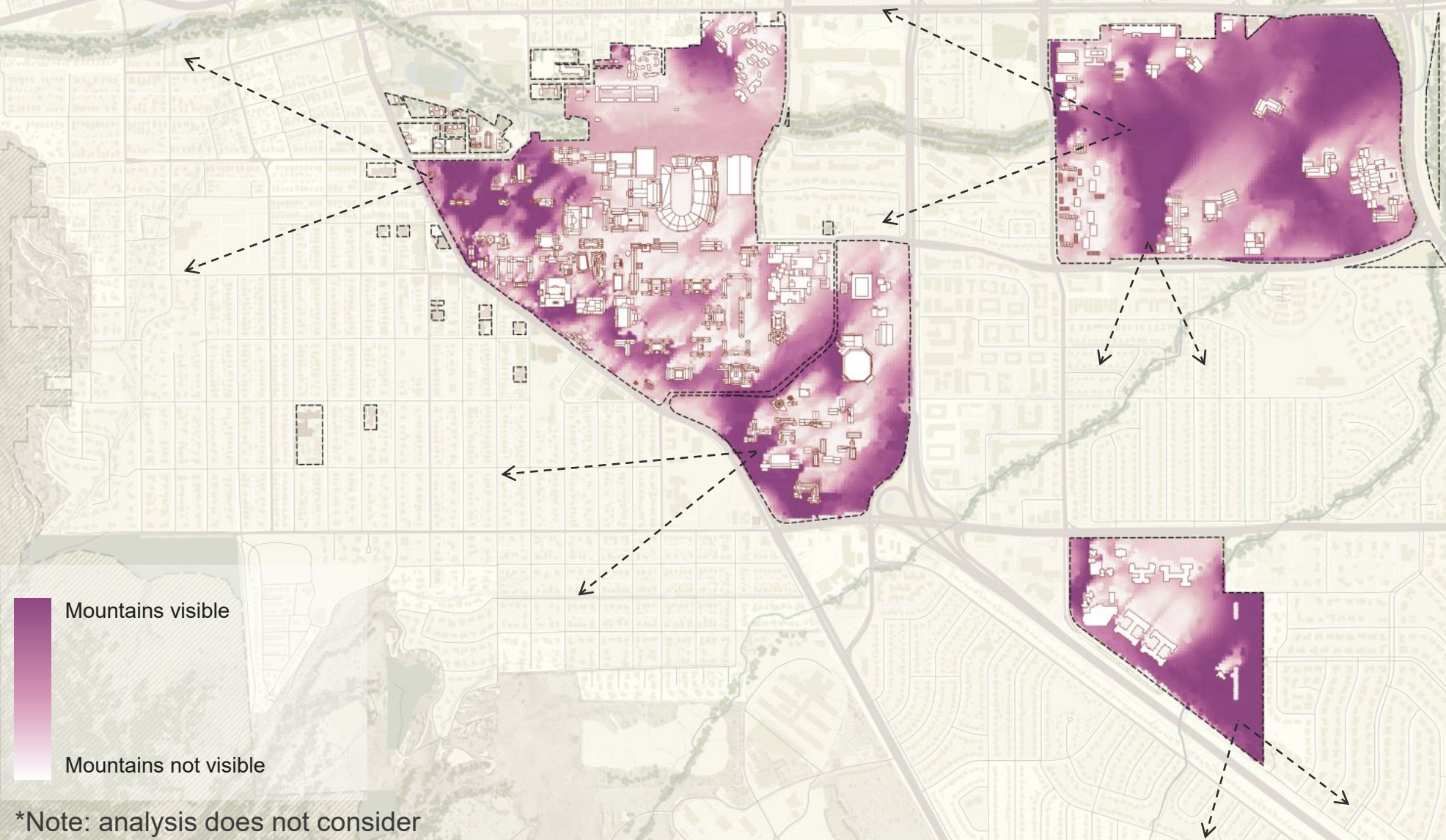








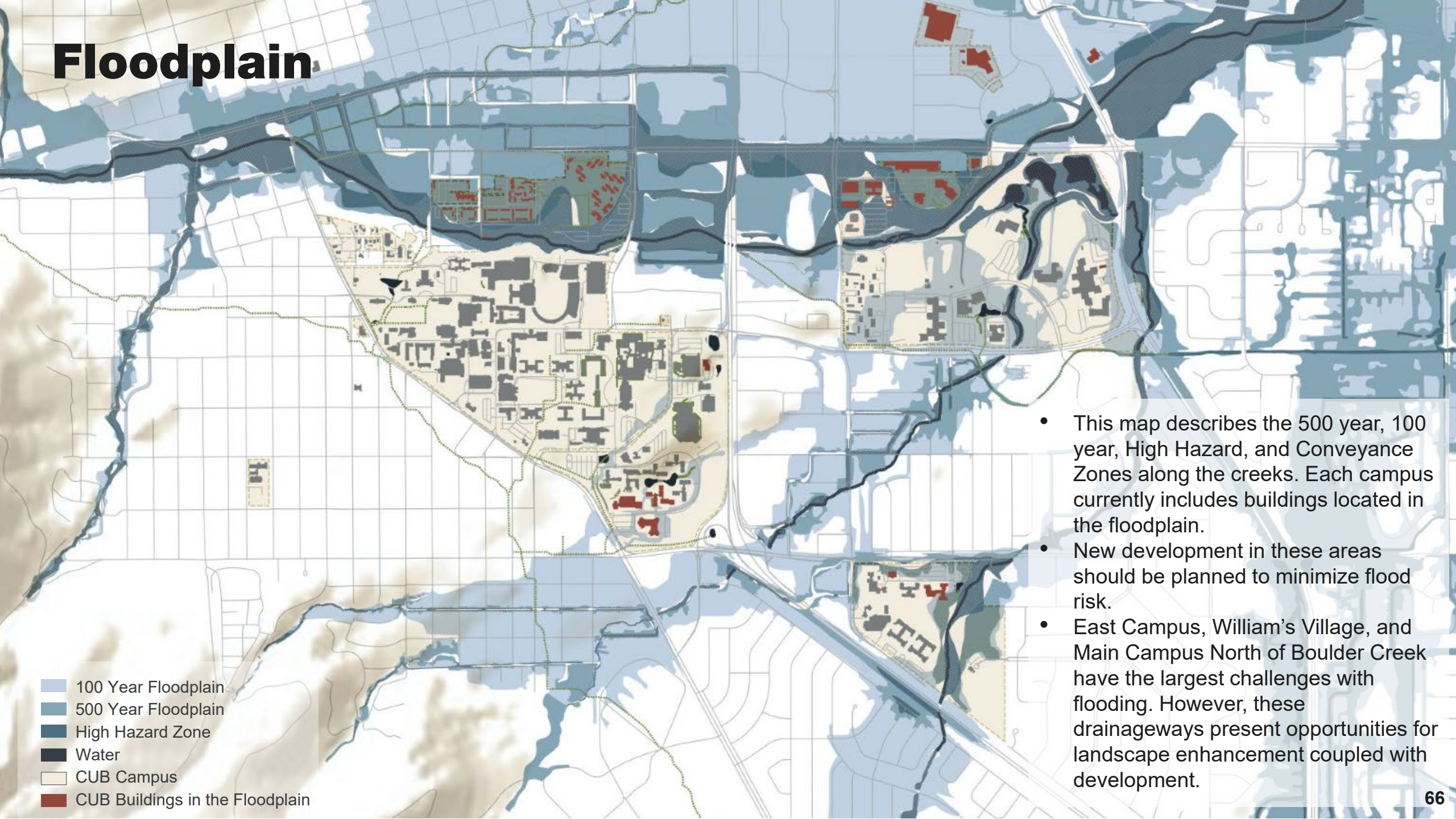
# View of the Mountains from Campus



\*Note: analysis does not consider potential for blocked views from trees



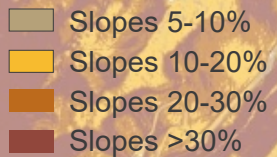
# Floodplain

- 
- The map displays the CUB Campus and surrounding areas, highlighting floodplains and buildings. The campus is shown in light yellow, with buildings in red. Floodplains are indicated by blue shading: light blue for the 100-year floodplain and medium blue for the 500-year floodplain. Darker blue areas represent the High Hazard Zone. Water bodies are shown in black. The map includes a grid of streets and a network of creeks.
- 100 Year Floodplain
  - 500 Year Floodplain
  - High Hazard Zone
  - Water
  - CUB Campus
  - CUB Buildings in the Floodplain

- This map describes the 500 year, 100 year, High Hazard, and Conveyance Zones along the creeks. Each campus currently includes buildings located in the floodplain.
- New development in these areas should be planned to minimize flood risk.
- East Campus, William's Village, and Main Campus North of Boulder Creek have the largest challenges with flooding. However, these drainageways present opportunities for landscape enhancement coupled with development.



# Slope



- Steep slopes create barriers to connectivity along the south edge of Boulder Creek, between Farrand and Kittredge, and along the east edge of main campus.
- The majority of the campus is accessible, but construction cost and access present challenges for infill development in some areas.



# Edge Conditions

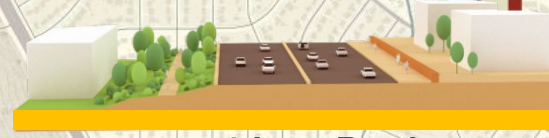
Campus edge conditions vary widely, from smaller residential streets to 6-lane highways. Improving porosity along some edges presents an opportunity for city collaboration.



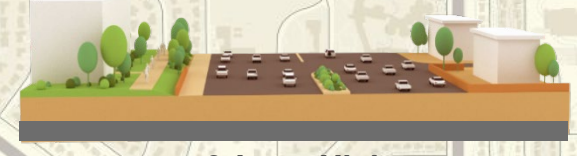
## Creek Landscape



## Small-Scale Residential Street



## 4-Lane Road



## 6-Lane Highway

28<sup>th</sup> Street presents a barrier to neighborhood connectivity



# Campus Links



**Boulder Creek Path**



**Colorado Ave**

**30th Street**

**35th Street**



**Bear Creek Path**

**Baseline Rd**

**Denver Boulder Turnpike**



The logical corridors for connectivity between each campus present a number of challenges for pedestrian and bike connections. Continued enhancements to these corridors in collaboration with the City could increase safety and improve the student experience.



# Named Landscapes

- 
- 1) Andrews Arboretum
  - 2) Christian Recht Fied
  - 3) Prexy Walk
  - 4) Athletics Practice Field
  - 5) Sewall Field
  - 6) Norlin Quad
  - 7) Norlin Library Plaza
  - 8) Folsom Field
  - 9) Franklin Field
  - 10) Mary Rippon Theater
  - 11) Dalton Trumbo Fountain
  - 12) Fine Arts Green
  - 13) Helen Fisher Field
  - 14) Farrand Field
  - 15) Engineering Quad
  - 16) Engebretson's Quad
  - 17) Business Field
  - 18) Kittredge Field
  - 19) Kittredge Lake
  - 20) Williams Village Field
  - 21) Prentup Field
  - 22) CU Track
  - 23) Potts Field

Formal open spaces are distributed throughout the campus, and are key contributors to the campus' structure. The scale of open spaces on the main campus presents models for development that can be explored in Williams Village and East Campus.



# Landscape Typologies

- 
- Interstitial Landscape
  - Courtyard / Garden
  - Quad
  - Campus Park
  - Athletics / Recreation
  - Wooded / Riparian Area
  - Stormwater Management Feature
  - Plaza
  - Building
  - Parking Lot / Road
  - Pedestrian Pathway

The variety and hierarchy of open spaces on the main campus are an important part of that campus' much loved character. Developing more diverse open spaces at Williams Village and East Campus will be key to making these districts desirable places to be.



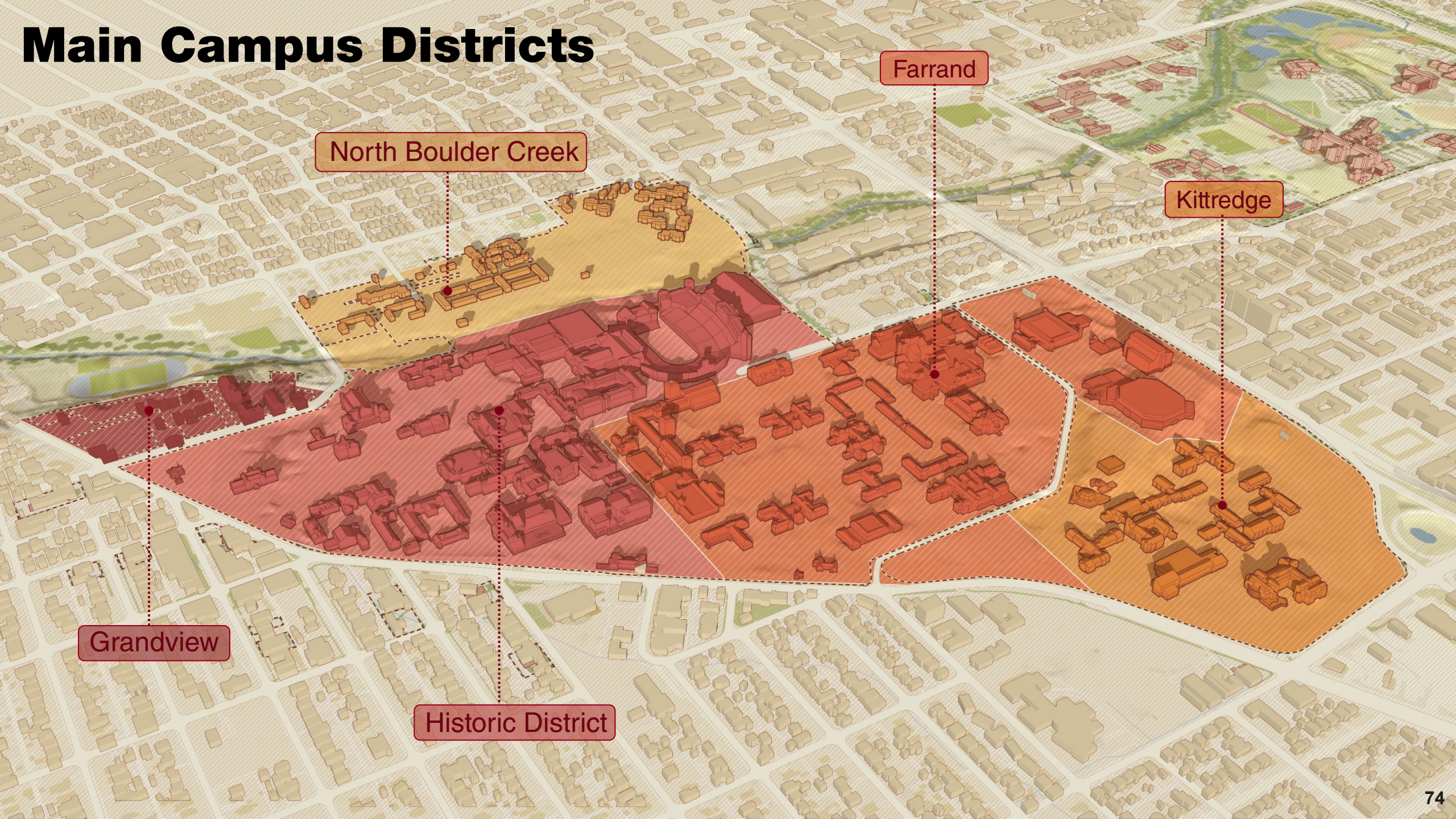
# **4** DISTRICTS



# Main Campus



# Main Campus Districts



North Boulder Creek

Farrand

Kittredge

Grandview

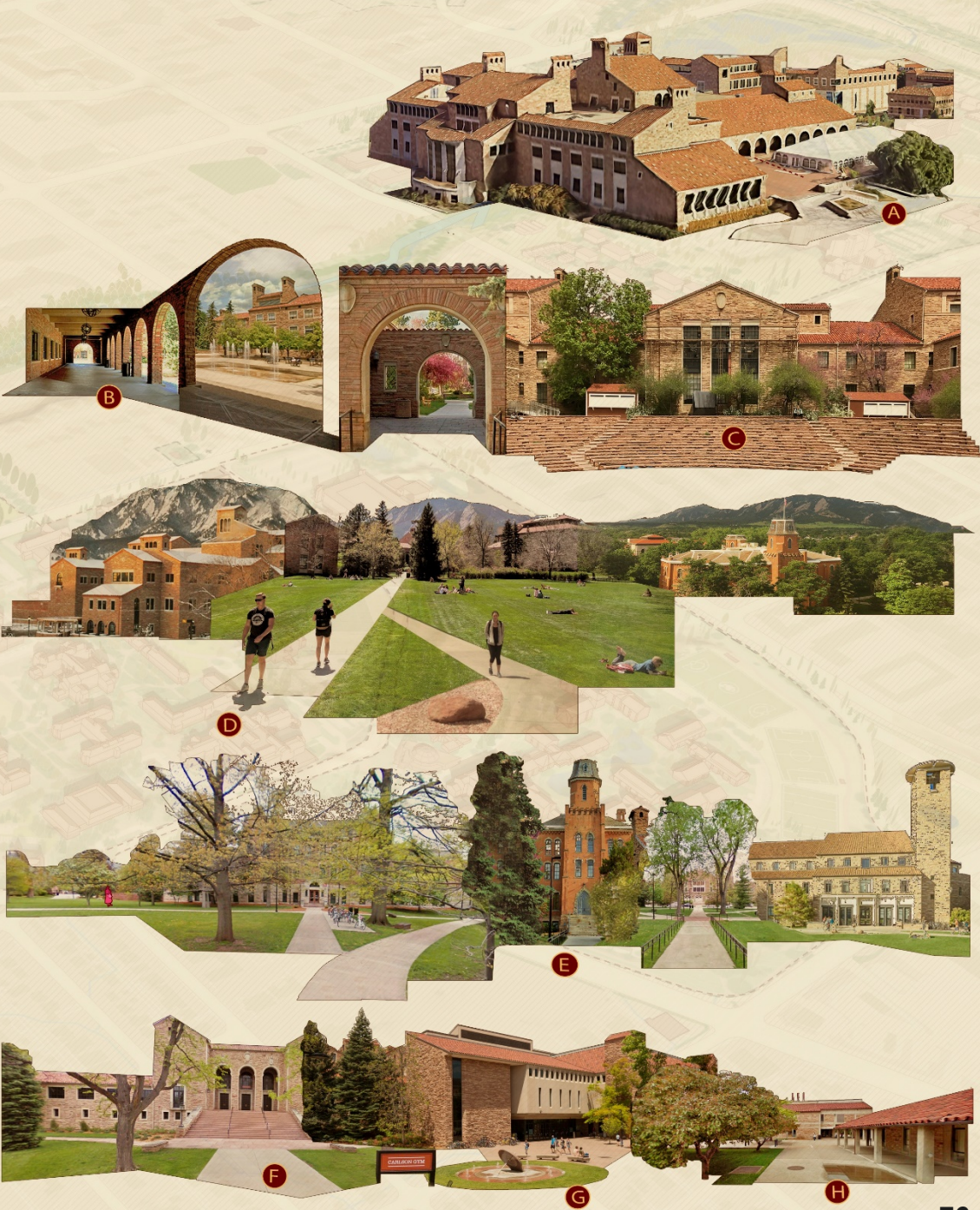
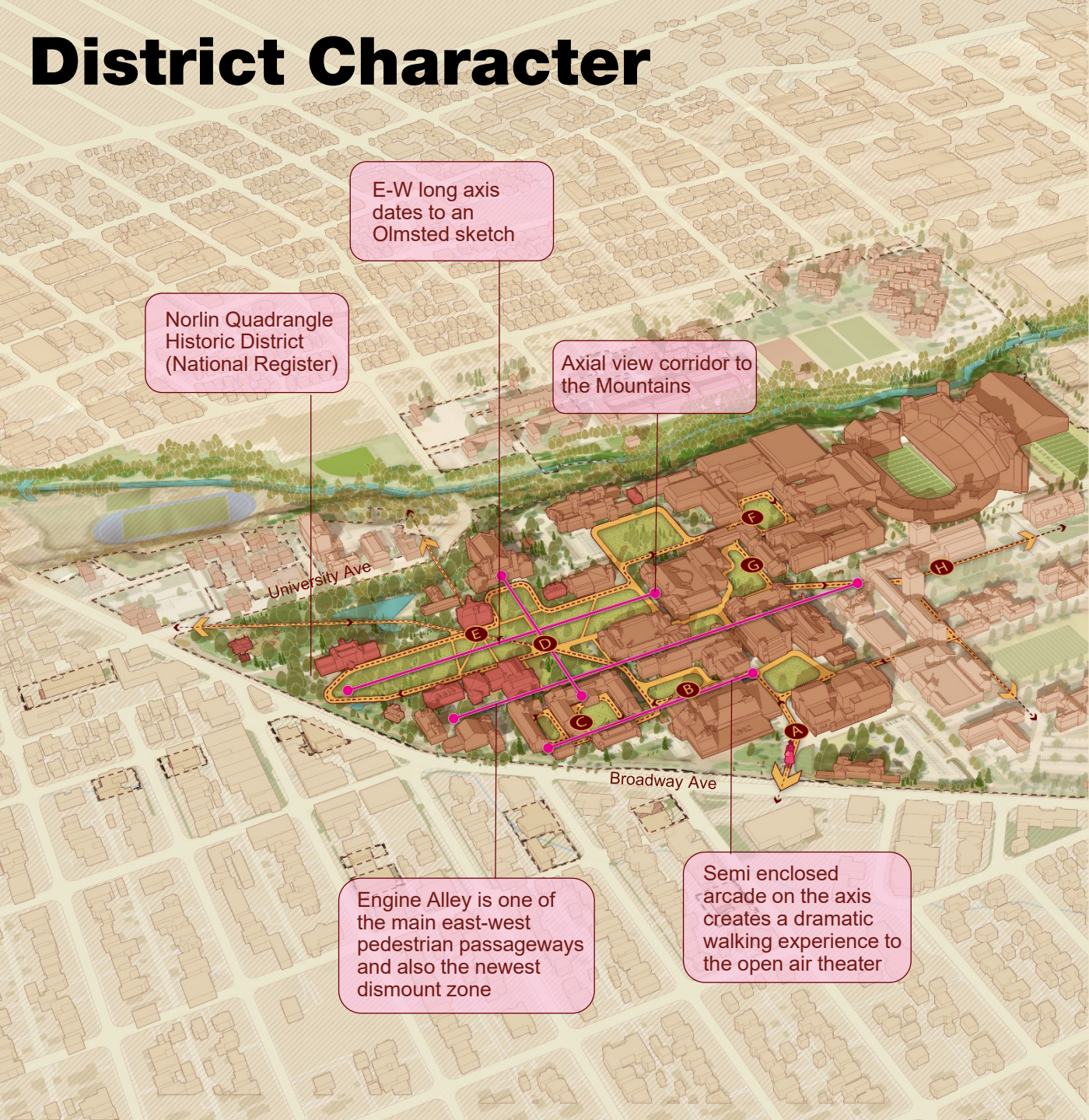
Historic District



# Historic District



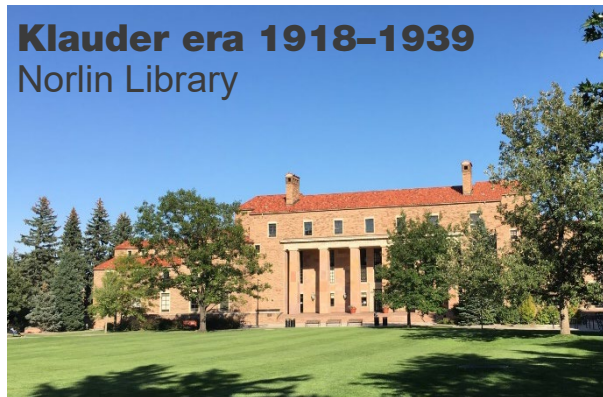
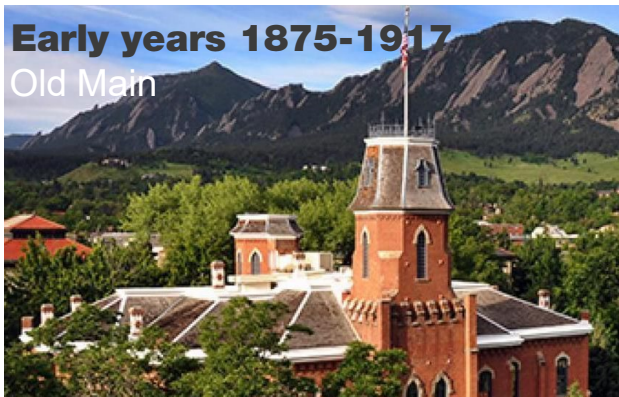
# District Character





# Building Character

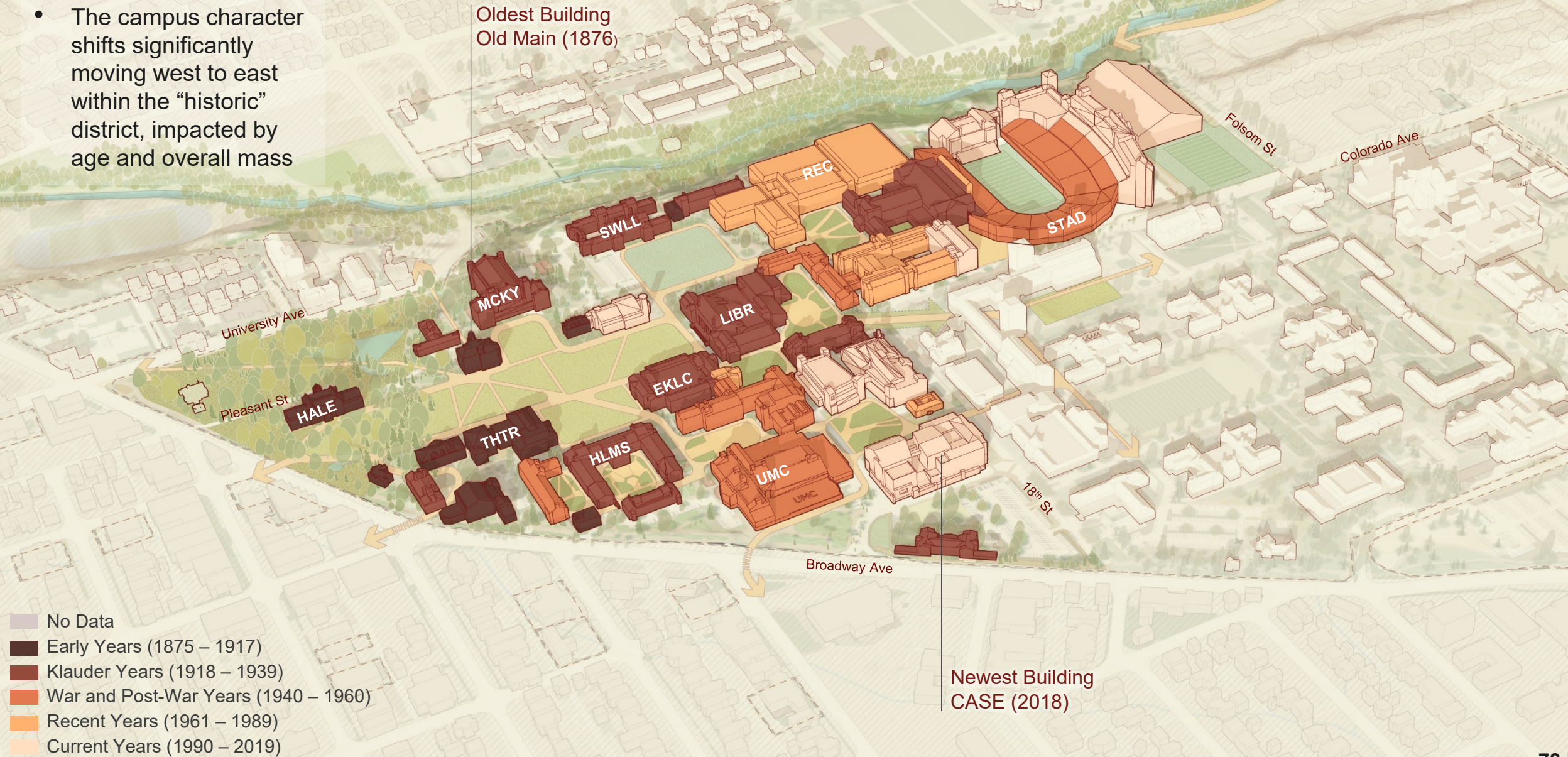
- **Campus Beginnings 1875-1917** – Development begins around Norlin Quad in a range of architectural styles including; Classical, Collegiate Gothic, and Romanesque
- **Klauder Era 1918–1939** – Establishes “Tuscan vernacular” style, featuring textured local sandstone facing, limestone trim, and reddish clay tile roofs composed for picturesque effect against the mountains. Buildings are arranged in clusters along axis and around courtyard spaces – this becomes the signature architectural and open space character of CU Boulder.
- **War & Post War 1940-1960** – Larger programs are accommodated in simpler interpretations of the Tuscan vernacular vocabulary.
- **Modernism to Postmodernism 1961-1989** – Modernist/functionalist interpretation of the Tuscan Vernacular continues through the 60’s, with a shift back to historic elements in the postmodernist period of the 80’s. A focus on renovation allows for renewal of many of the campus’ heritage buildings.
- **1990’s to Today** - Continued interpretation of Tuscan Vernacular acknowledging historic styles and structured relationships to open space. This includes the Rec Center addition, CASE, and the Visual Arts Center, Art Museum, and Roser Atlas Center





# Building Age

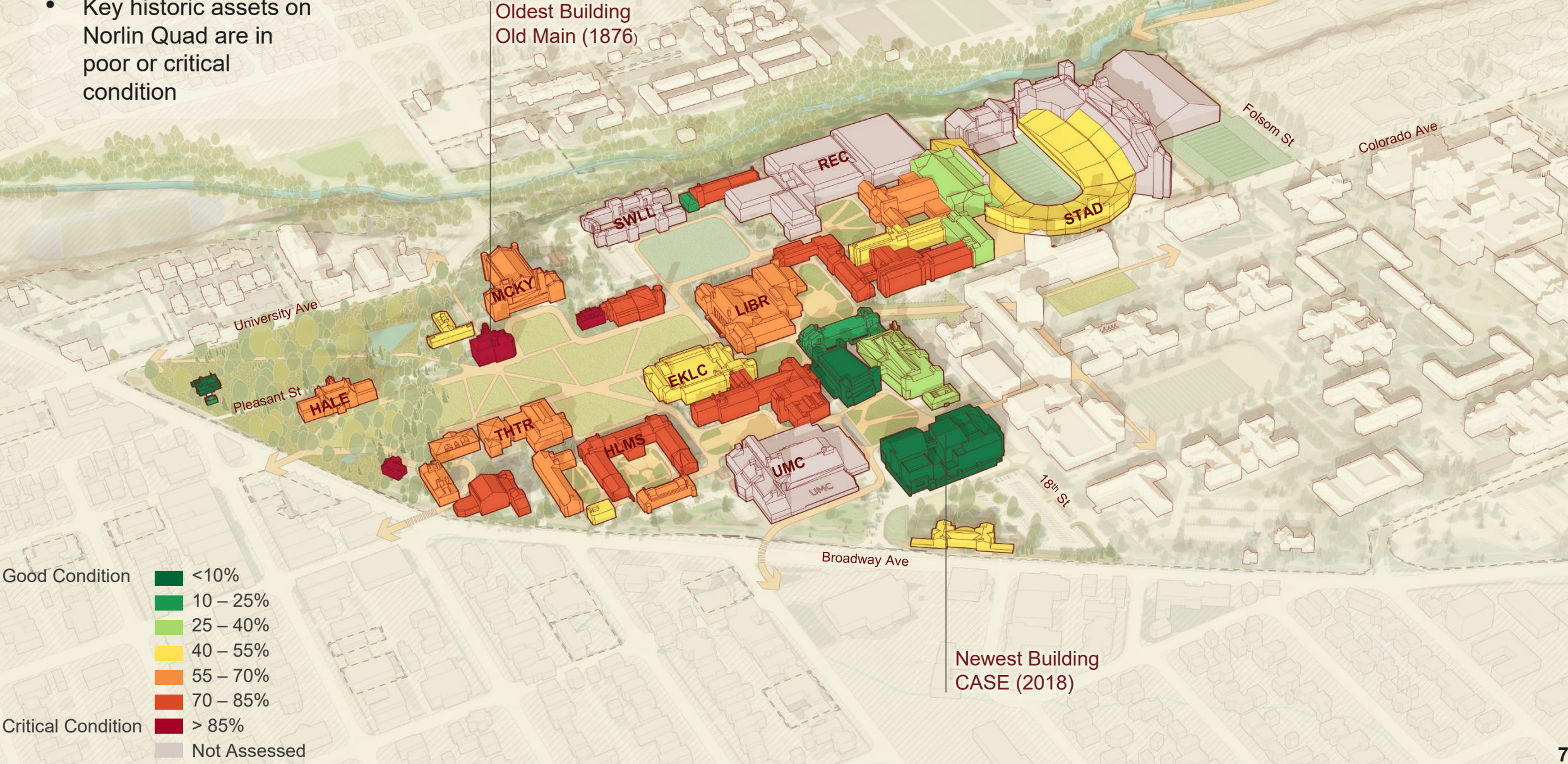
- The campus character shifts significantly moving west to east within the “historic” district, impacted by age and overall mass





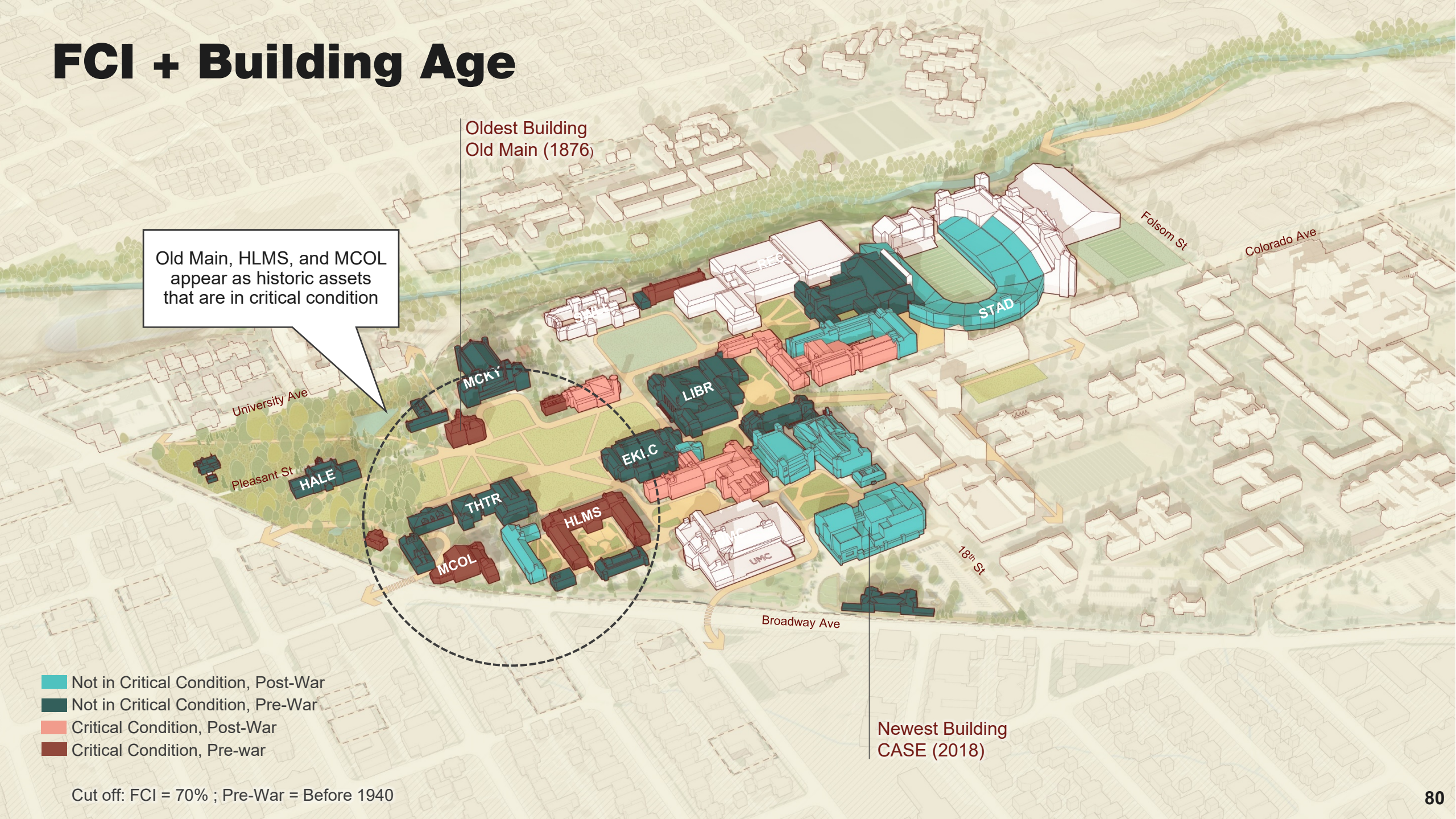
# Facilities Condition Index (FCI)

- Key historic assets on Norlin Quad are in poor or critical condition





# FCI + Building Age





# Building Use

- Mix of uses contributes to a vibrant campus core
- Sewall Hall appears orphaned; only housing that is not part of a “district.”

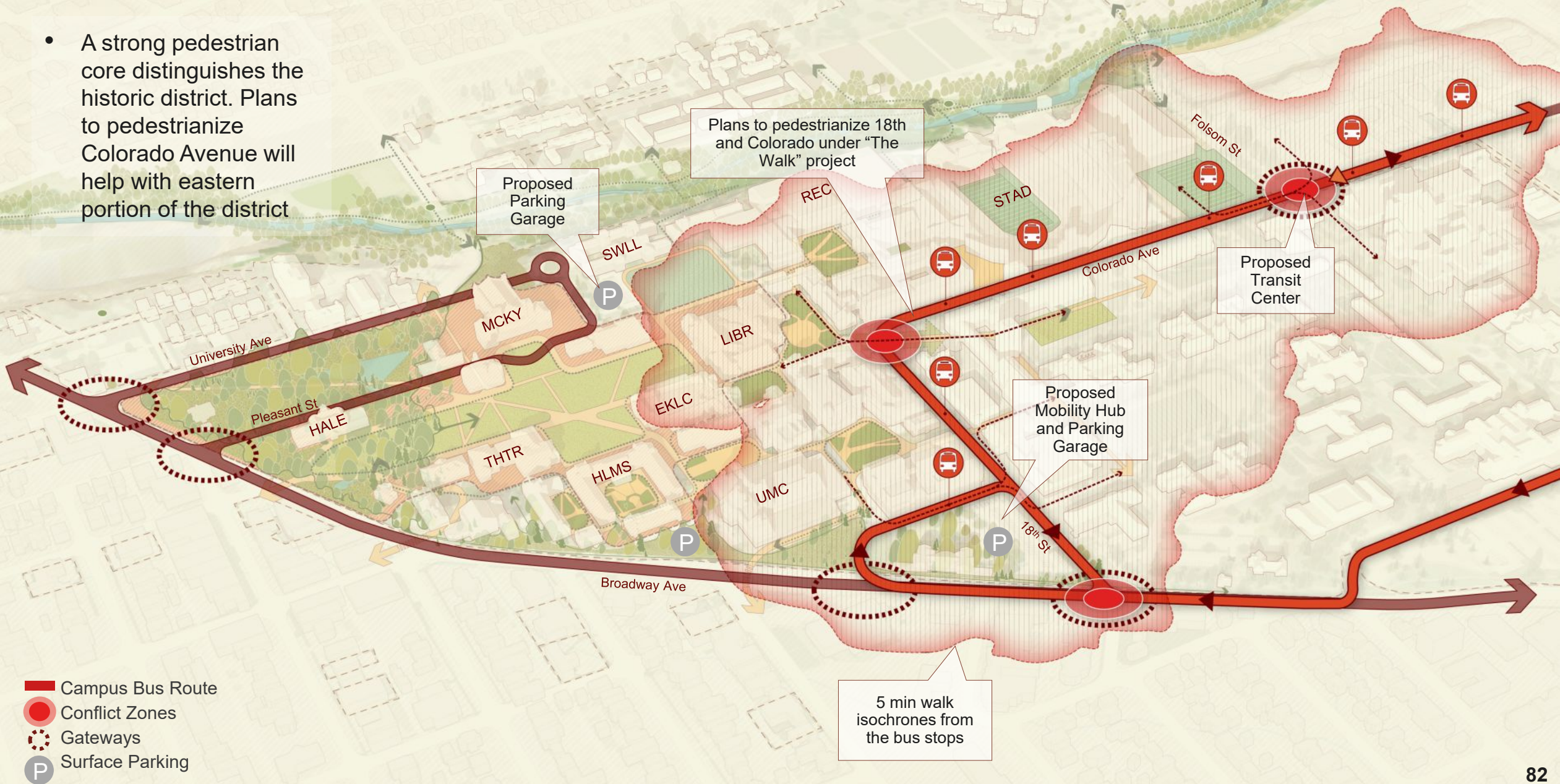


- |           |              |
|-----------|--------------|
| Admin     | Student Life |
| Housing   | Community    |
| Support   | Learning     |
| Research  | Cultural     |
| Athletics | Wellbeing    |



# Vehicular Network

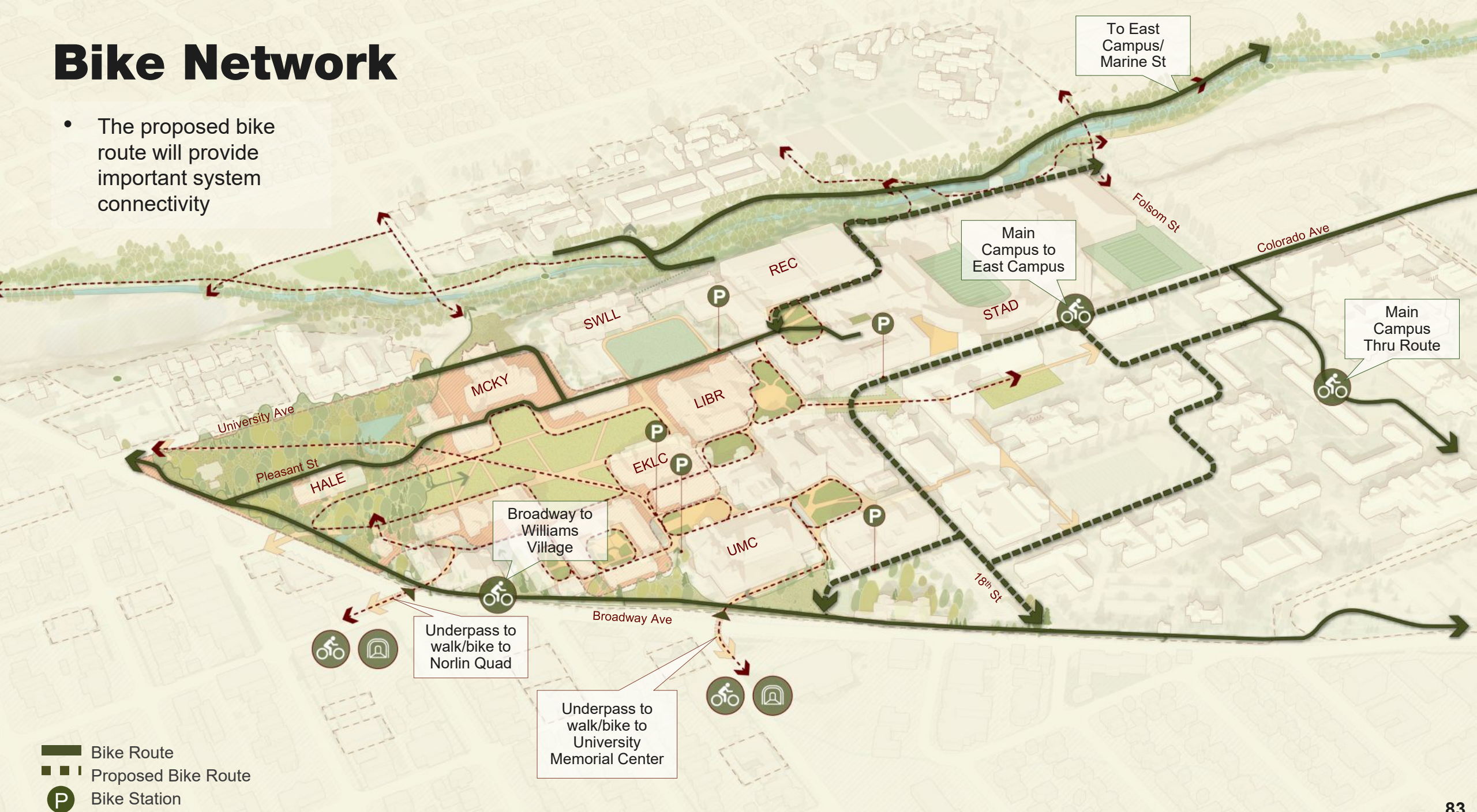
- A strong pedestrian core distinguishes the historic district. Plans to pedestrianize Colorado Avenue will help with eastern portion of the district





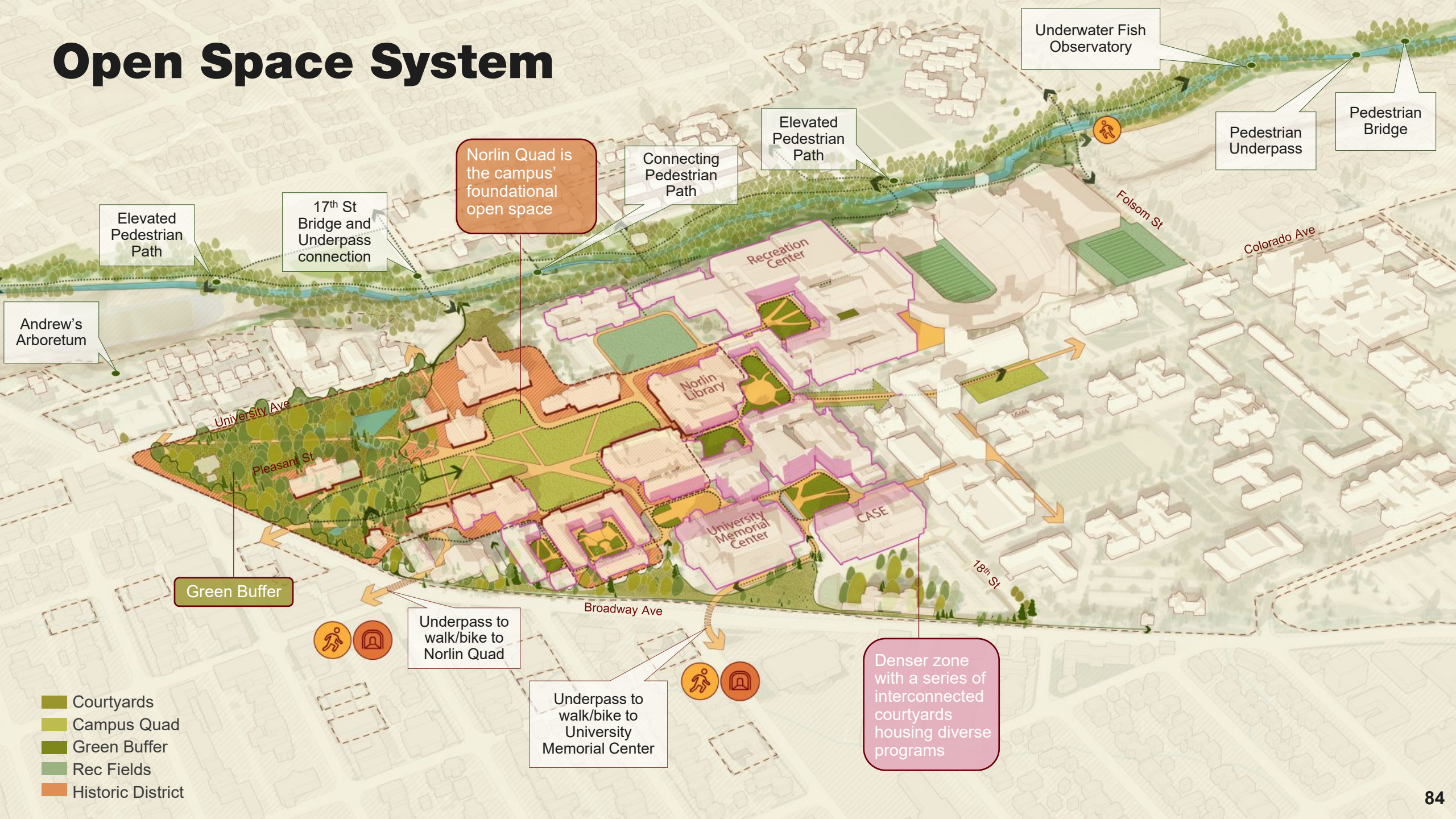
# Bike Network

- The proposed bike route will provide important system connectivity





# Open Space System





# Norlin Quad – Scale Comparison

**NORLIN QUADRANGLE**  
PLAN DIMENSIONS: 1200' X 580'  
AREA: 3.5 ACRES



**THE OHIO STATE OVAL**  
PLAN DIMENSIONS: 1250' X 600'  
AREA: 15+ ACRES



**UVA GREAT LAWN**  
PLAN DIMENSIONS: 950' X 200'  
AREA: 4.35 ACRES





# **Farrand & Kittredge**



# District Character

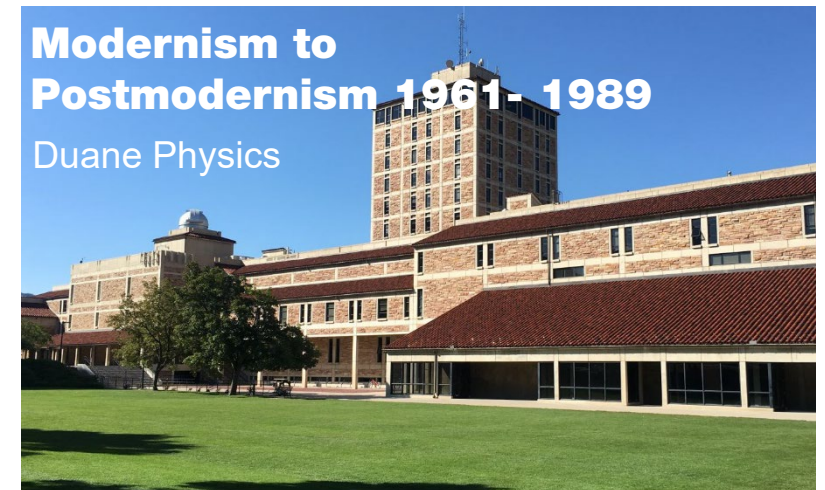
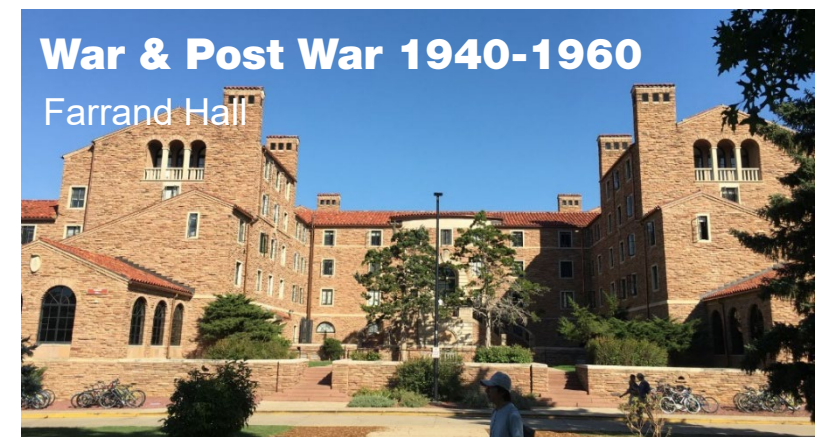




# Building Character (Farrand)



- **Campus Beginnings 1875-1917** – The original “UC Power House” , now the West District Energy Plant is constructed on what will become 18th and Colorado Avenue.
- **Klauder era 1918-1939** – Campus growth continues to the east. Farrand Field Residential District is established with Baker Hall designed in the Tuscan Vernacular style
- **War & Post War 1940-1960** – Farrand Village is completed in the Tuscan Vernacular style with Libby, Farrand, Willard and Cheyenne Arapaho Halls. The Engineering Quad is completed in a low scale, Tuscan Vernacular style.
- **Modernism to Postmodernism 1961-1989** – Modernist/functionalist interpretation of the Tuscan Vernacular continues with the construction of large academic buildings; Duane Physics, and the Engineering Center. The eastern edge begins to fill in with the Coors Center and Koelbel, which is constructed reflecting a shift toward Postmodernism.
- **1990's to Today** - Continued interpretation of Tuscan Vernacular acknowledging historic styles and structured relationships to open space is exemplified with the C4C, Benson Earth Sciences, Mathematics and the addition to Imig Music. The East Utility Plant and the Regent Autopark continue to fill the eastern edge with large, operations programs.

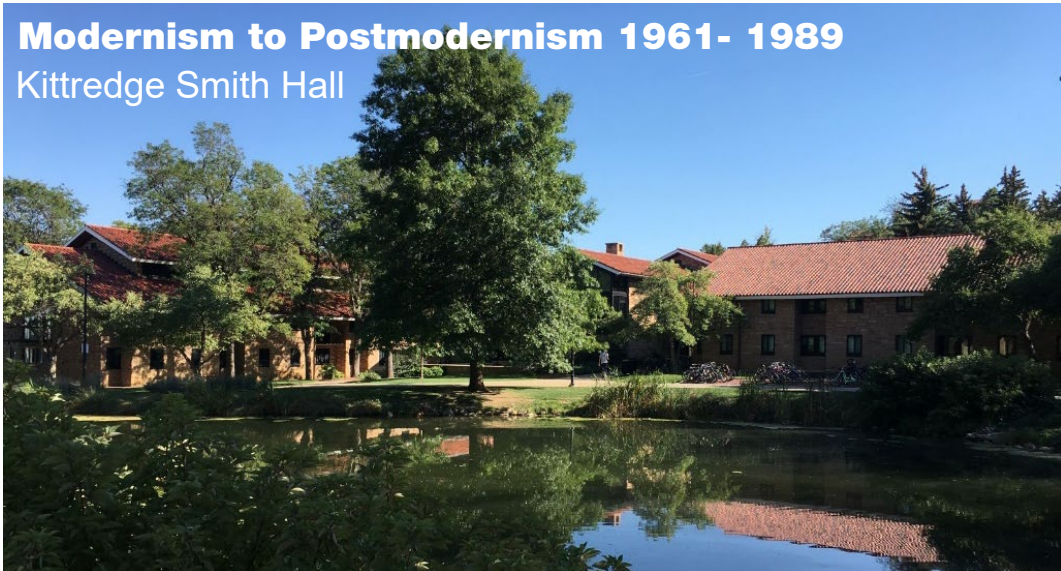




# Building Character (Kittredge)

- **Campus Beginnings 1875-1917** – Sommers Barusch Observatory remains as an element from the early years of campus development
- **War & Post War 1940-1960** – Flemming Hall is built with simpler interpretations of the Tuscan vernacular vocabulary.
- **Modernism to Postmodernism 1961-1989** – Kittredge Complex is constructing inspired by the Tuscan Vernacular but planned as low scale buildings within a naturalized landscape
- **1990's to Today** - Continued interpretation of Tuscan Vernacular acknowledging historic styles and structured relationships to open space as exemplified in the Wolf Law Building.

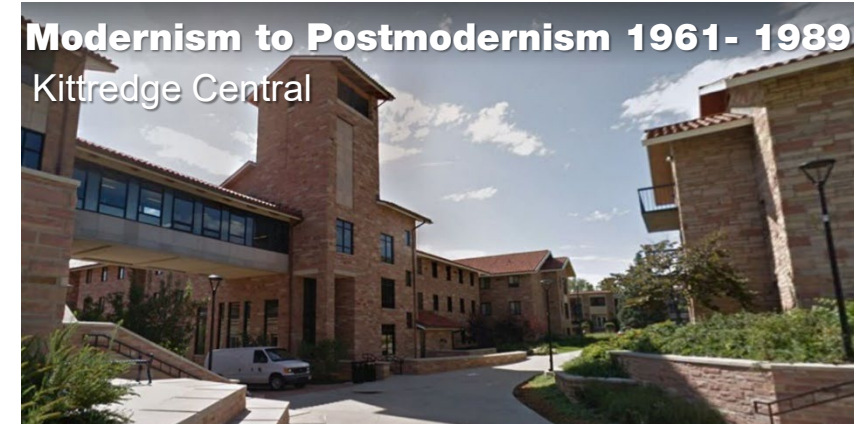
**Modernism to Postmodernism 1961- 1989**  
Kittredge Smith Hall



**War & Post War 1940-1960**  
Fleming Hall



**Modernism to Postmodernism 1961- 1989**  
Kittredge Central

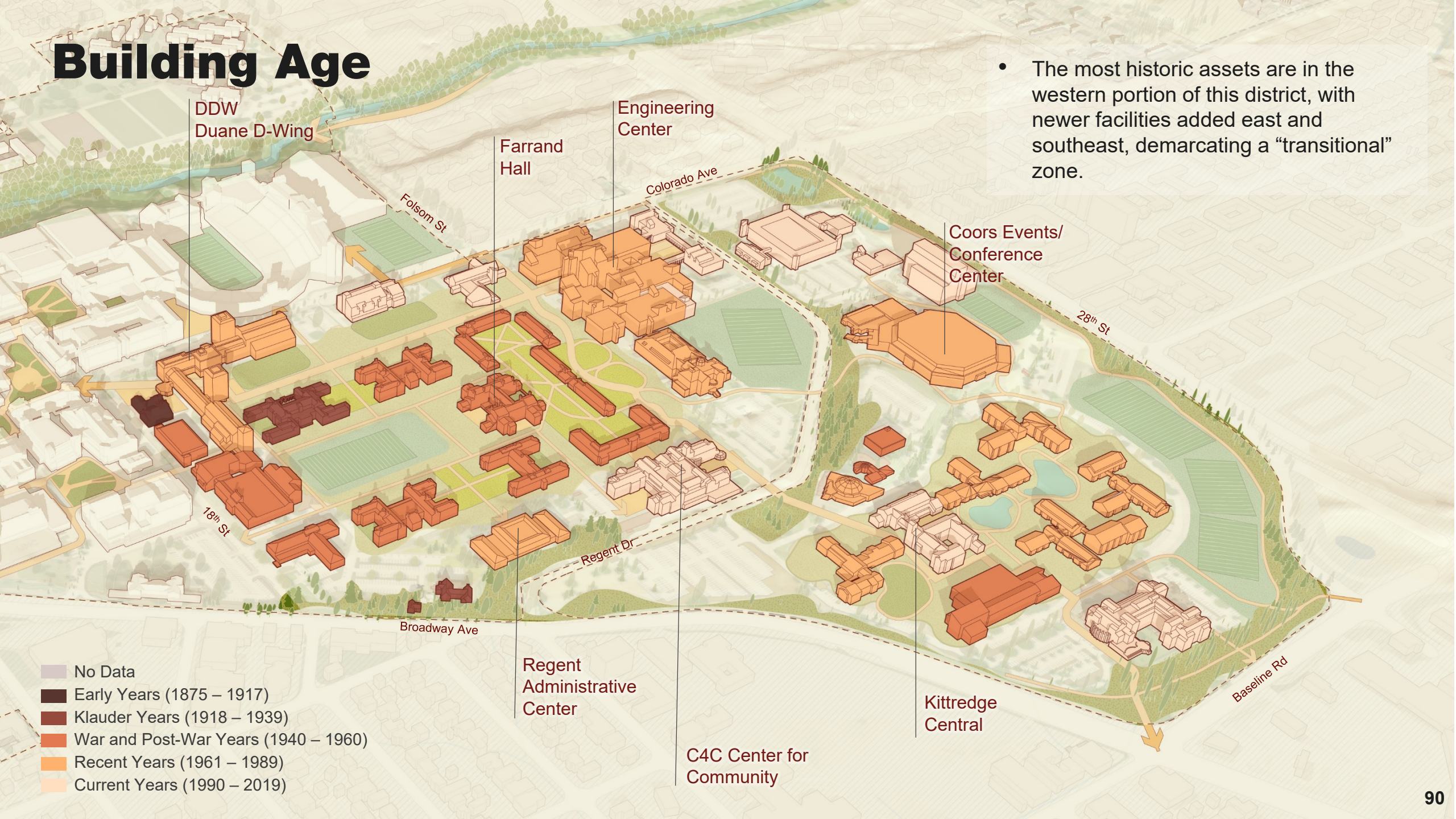


**Current years 1990 - today**  
Wolf Law





# Building Age

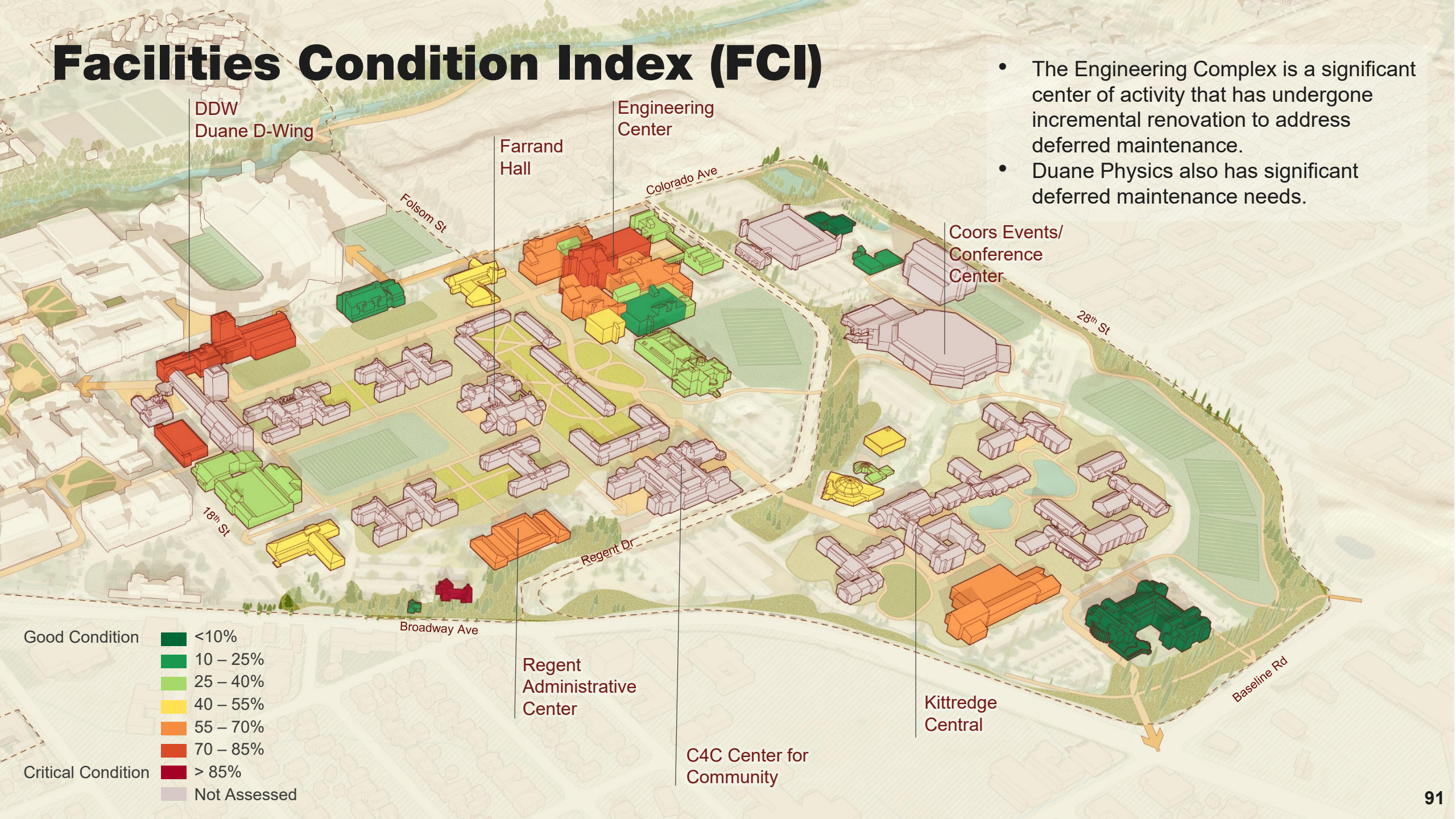


- The most historic assets are in the western portion of this district, with newer facilities added east and southeast, demarcating a “transitional” zone.



# Facilities Condition Index (FCI)

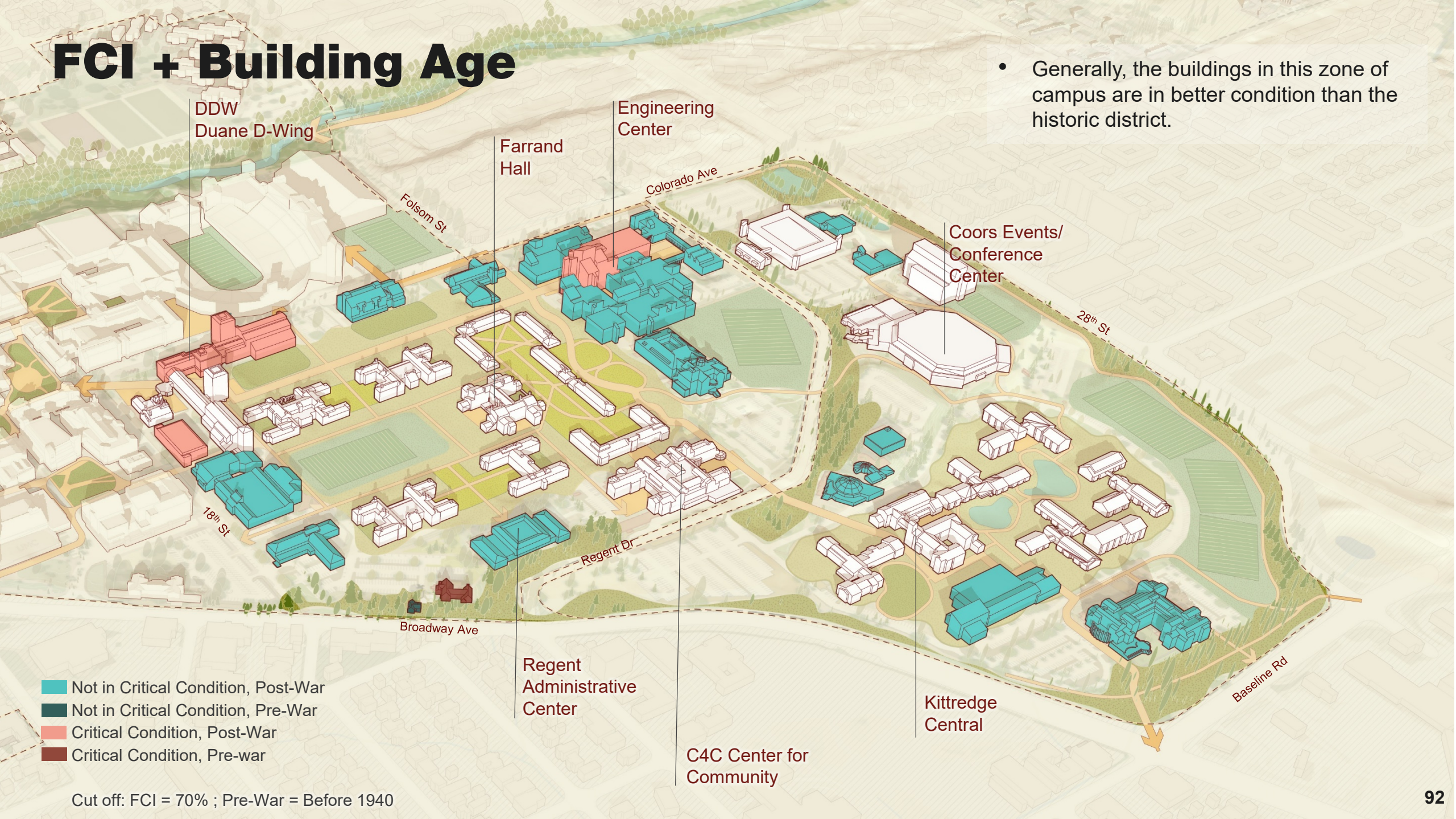
- The Engineering Complex is a significant center of activity that has undergone incremental renovation to address deferred maintenance.
- Duane Physics also has significant deferred maintenance needs.





# FCI + Building Age

- Generally, the buildings in this zone of campus are in better condition than the historic district.



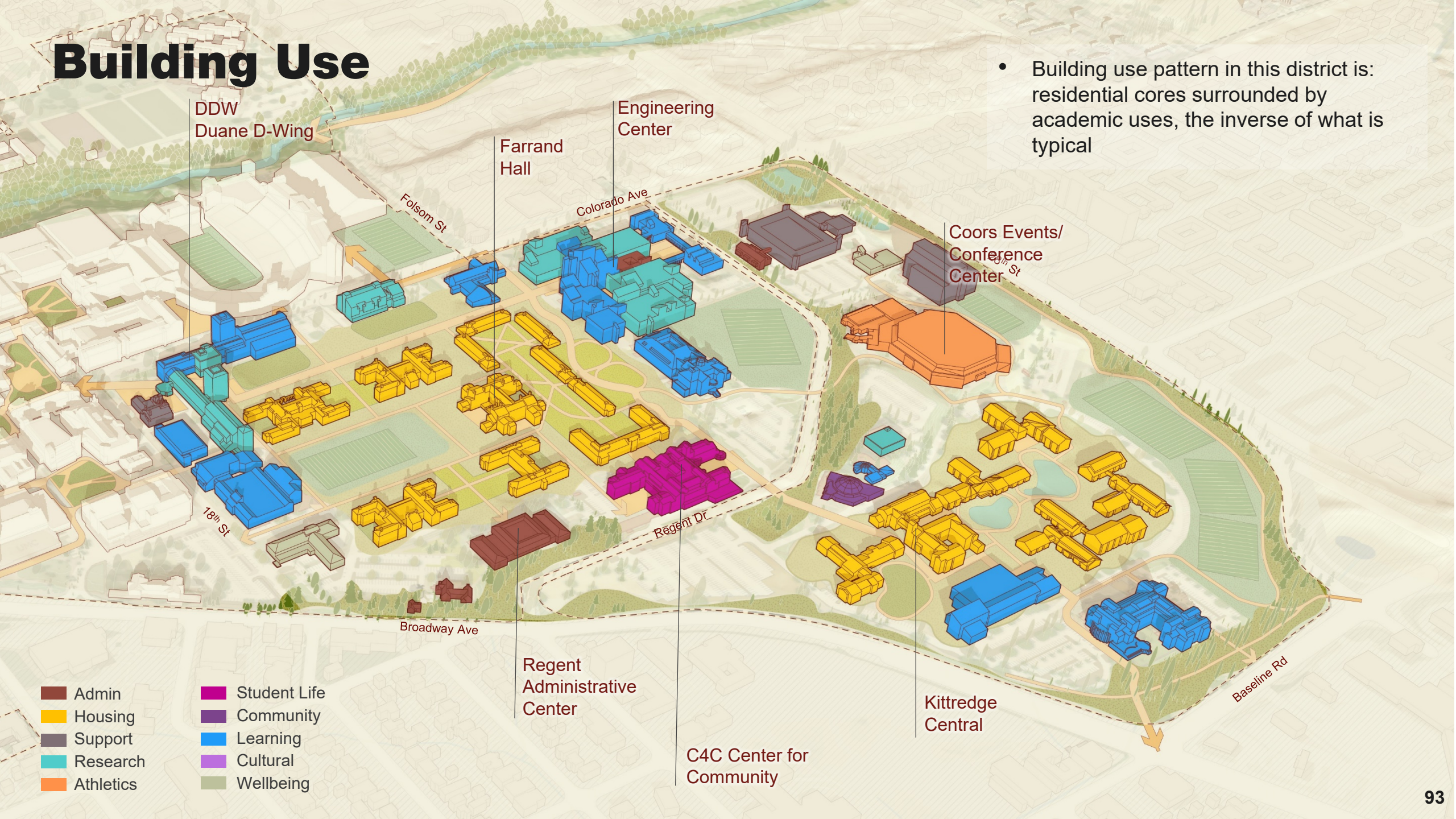
- Not in Critical Condition, Post-War
- Not in Critical Condition, Pre-War
- Critical Condition, Post-War
- Critical Condition, Pre-war

Cut off: FCI = 70% ; Pre-War = Before 1940



# Building Use

- Building use pattern in this district is: residential cores surrounded by academic uses, the inverse of what is typical



DDW  
Duane D-Wing

Farrand  
Hall

Engineering  
Center

Coors Events/  
Conference  
Center

18th St

Broadway Ave

Regent  
Administrative  
Center

C4C Center for  
Community

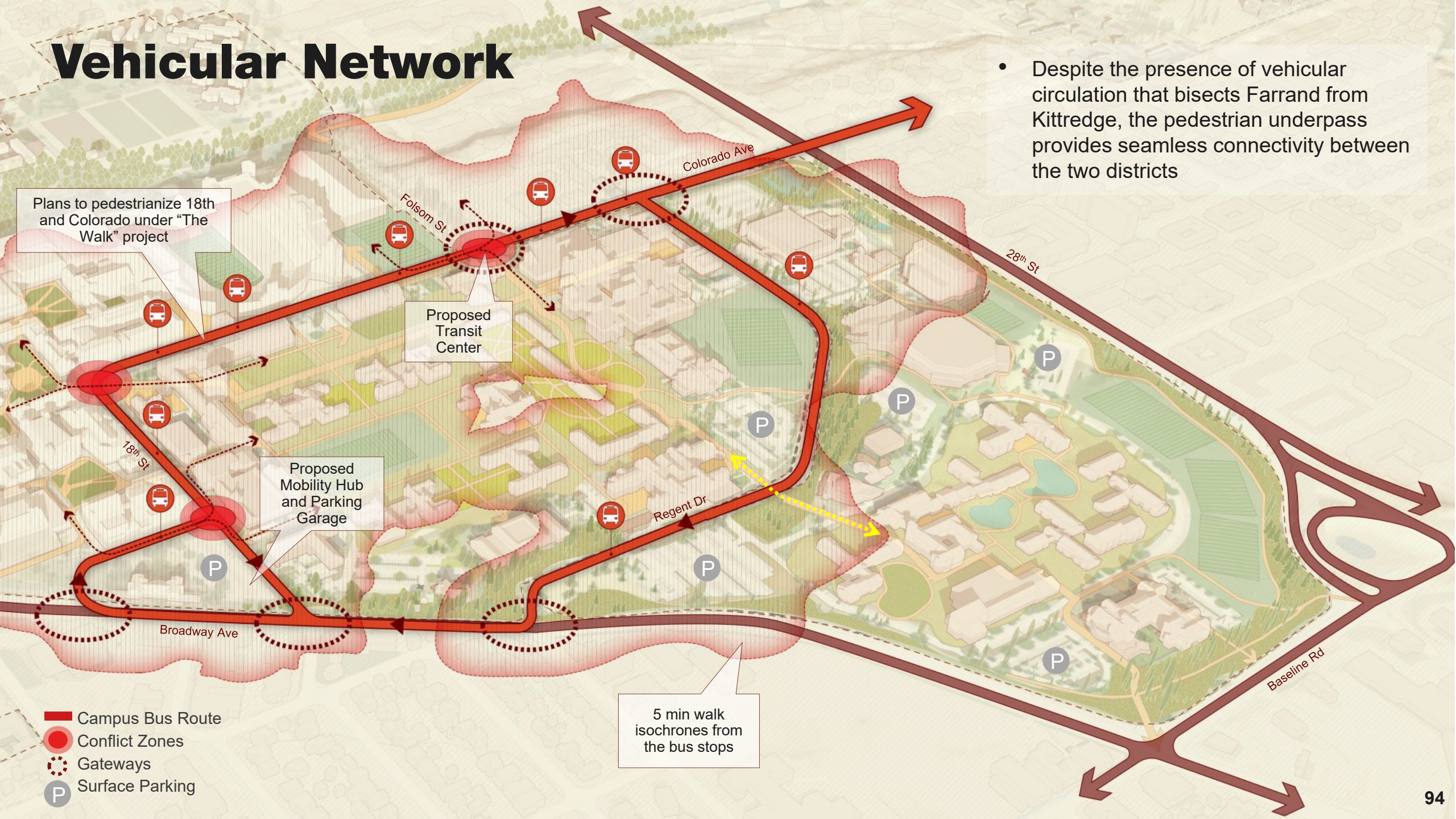
Kittredge  
Central

Baseline Rd

- |           |              |
|-----------|--------------|
| Admin     | Student Life |
| Housing   | Community    |
| Support   | Learning     |
| Research  | Cultural     |
| Athletics | Wellbeing    |



# Vehicular Network



- Despite the presence of vehicular circulation that bisects Farrand from Kittredge, the pedestrian underpass provides seamless connectivity between the two districts

Plans to pedestrianize 18th and Colorado under "The Walk" project

Proposed Transit Center

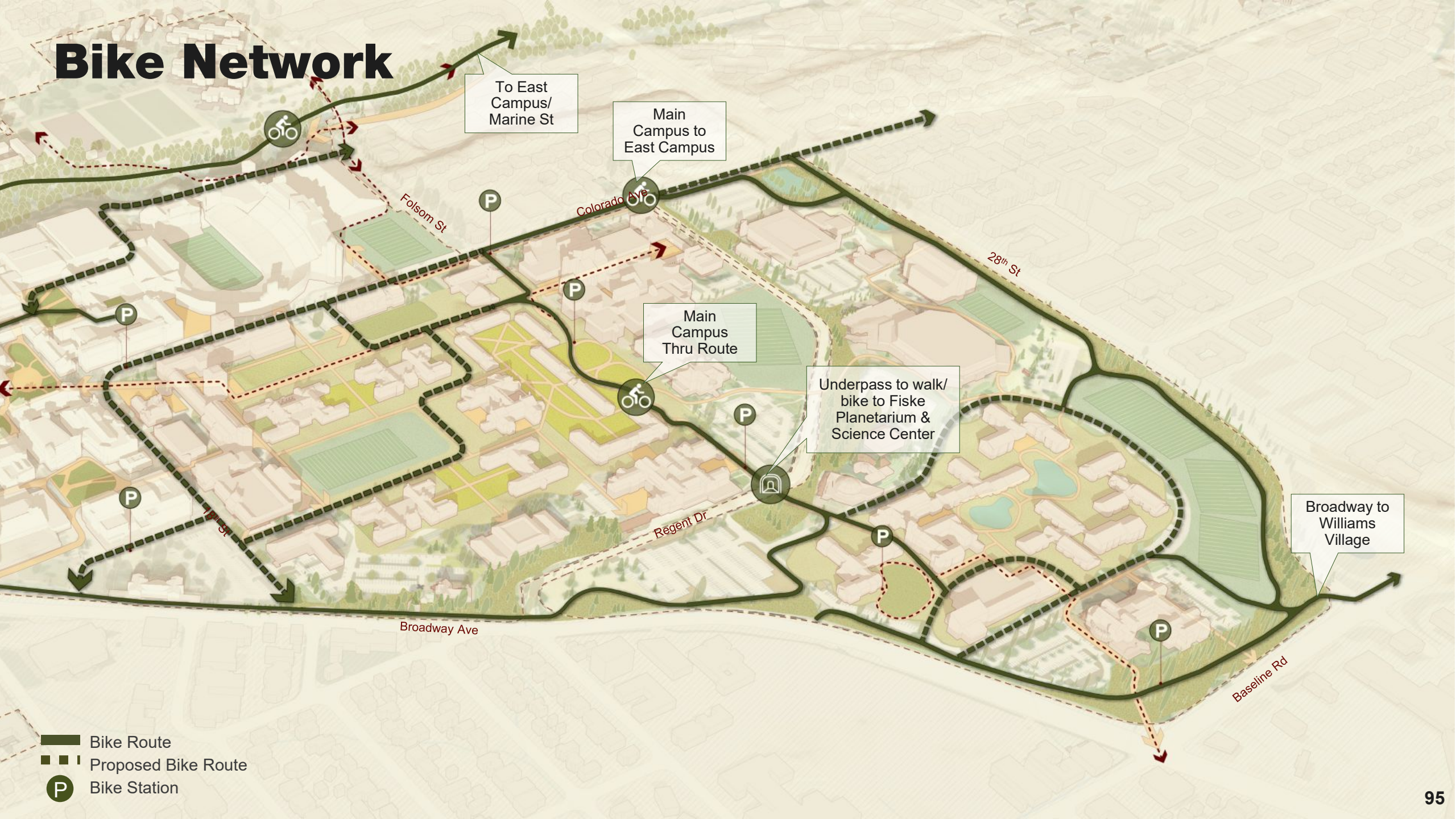
Proposed Mobility Hub and Parking Garage

5 min walk isochrones from the bus stops

- Campus Bus Route
- Conflict Zones
- Gateways
- P Surface Parking

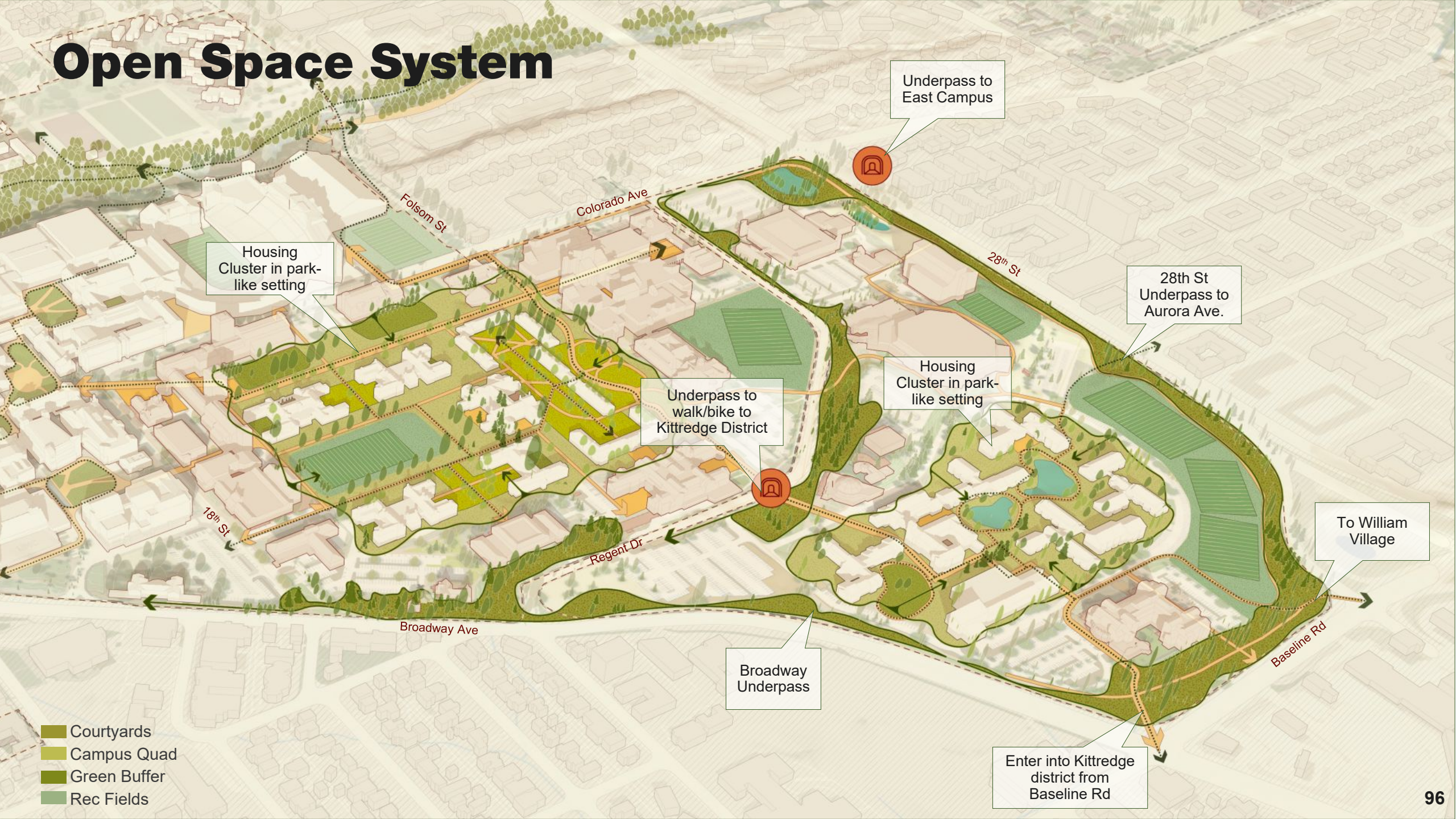


# Bike Network





# Open Space System





# **North of Boulder Creek & Grandview**



# Building Character

## Grandview

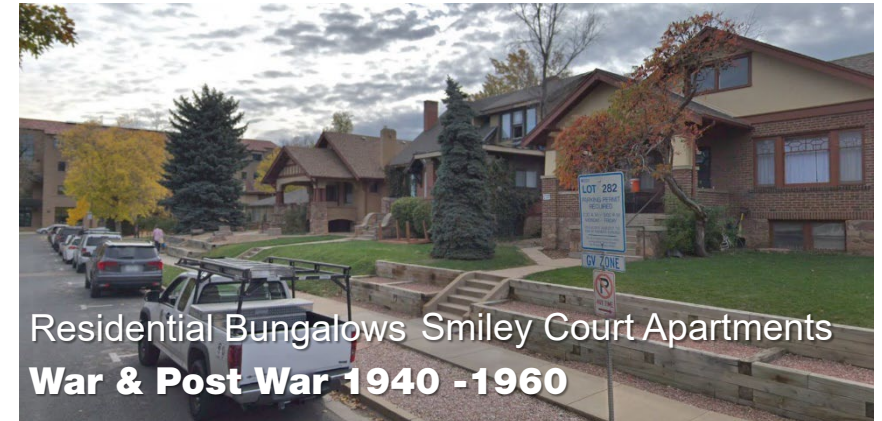
- **Campus Beginnings 1875-1917** – The Armory, now the home of the College of Media, Communication and Information, and the building that now houses Continuing Education were constructed during this period, but not as part of the University.
- **War & Post War 1940-1960** – Residential bungalows were construction during this period and were later acquired by the University.
- **1990's to Today** – The Institute of Behavioral Science was built during this time frame. The four story brick building diverges from the character of recent campus construction.
- The majority of properties in this district are designated City of Boulder District Landmarks or are within a historic district.

**Campus Beginnings 1875-1917**  
Continuing Education



**Campus Beginnings 1875-1917**

Armory, College of Media,  
Communication and Information



Residential Bungalows Smiley Court Apartments  
**War & Post War 1940 -1960**

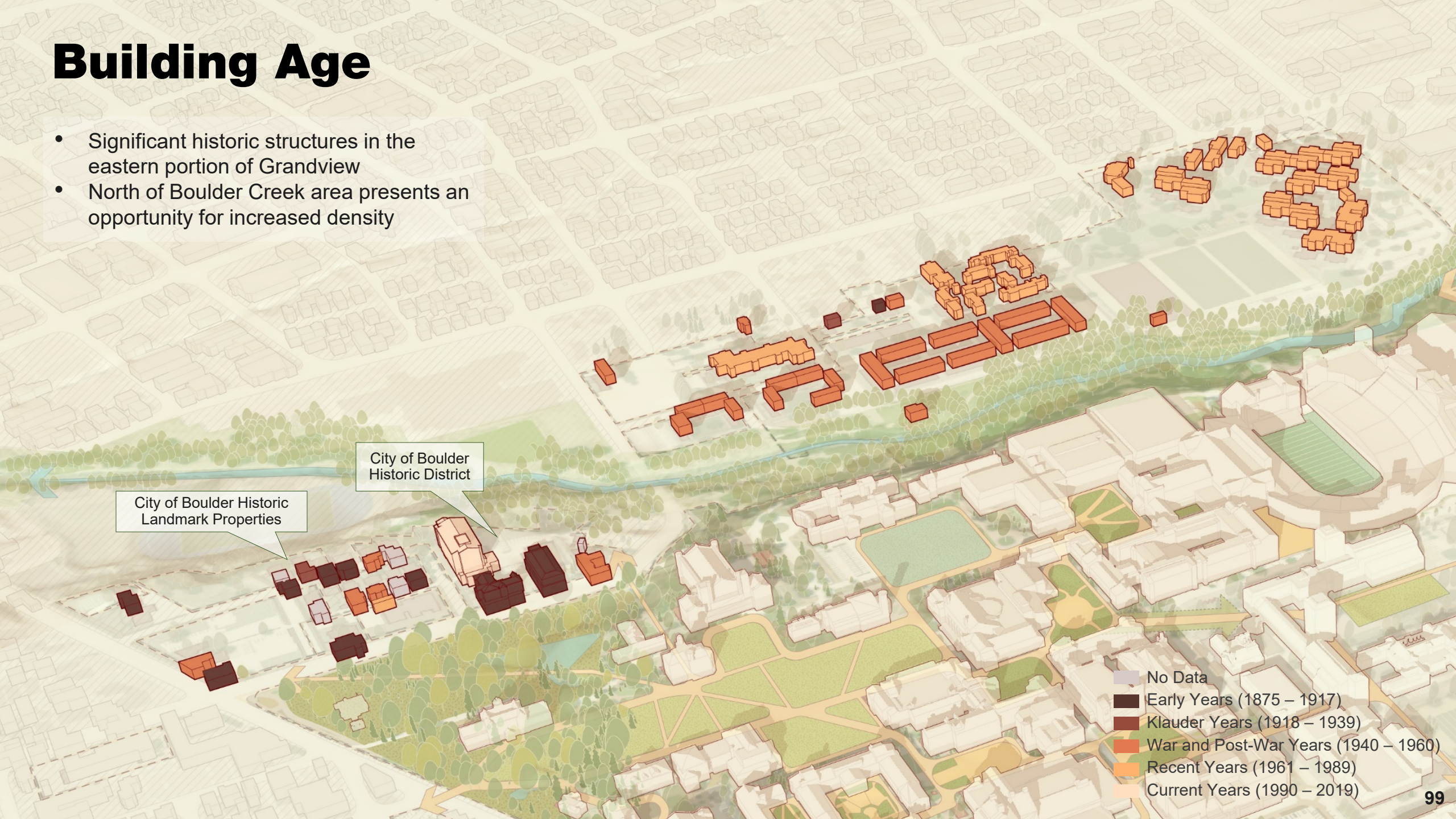


**Current years 1990 - today**  
Institute of Behavioral Science



# Building Age

- Significant historic structures in the eastern portion of Grandview
- North of Boulder Creek area presents an opportunity for increased density

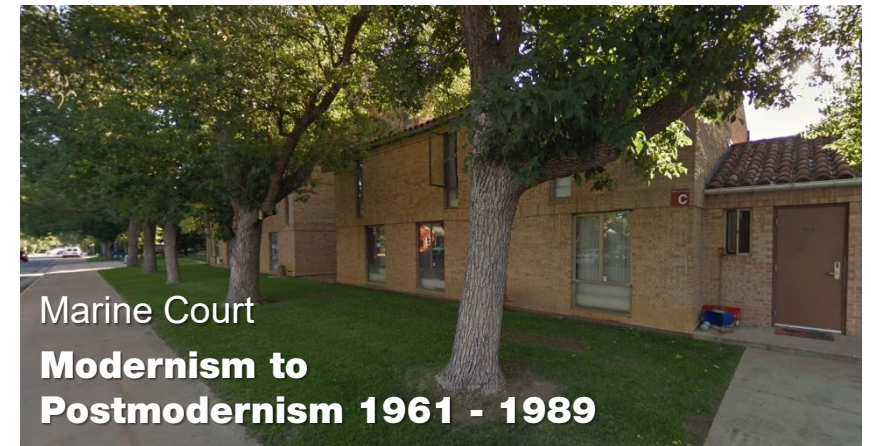




# Building Character

North of Boulder Creek

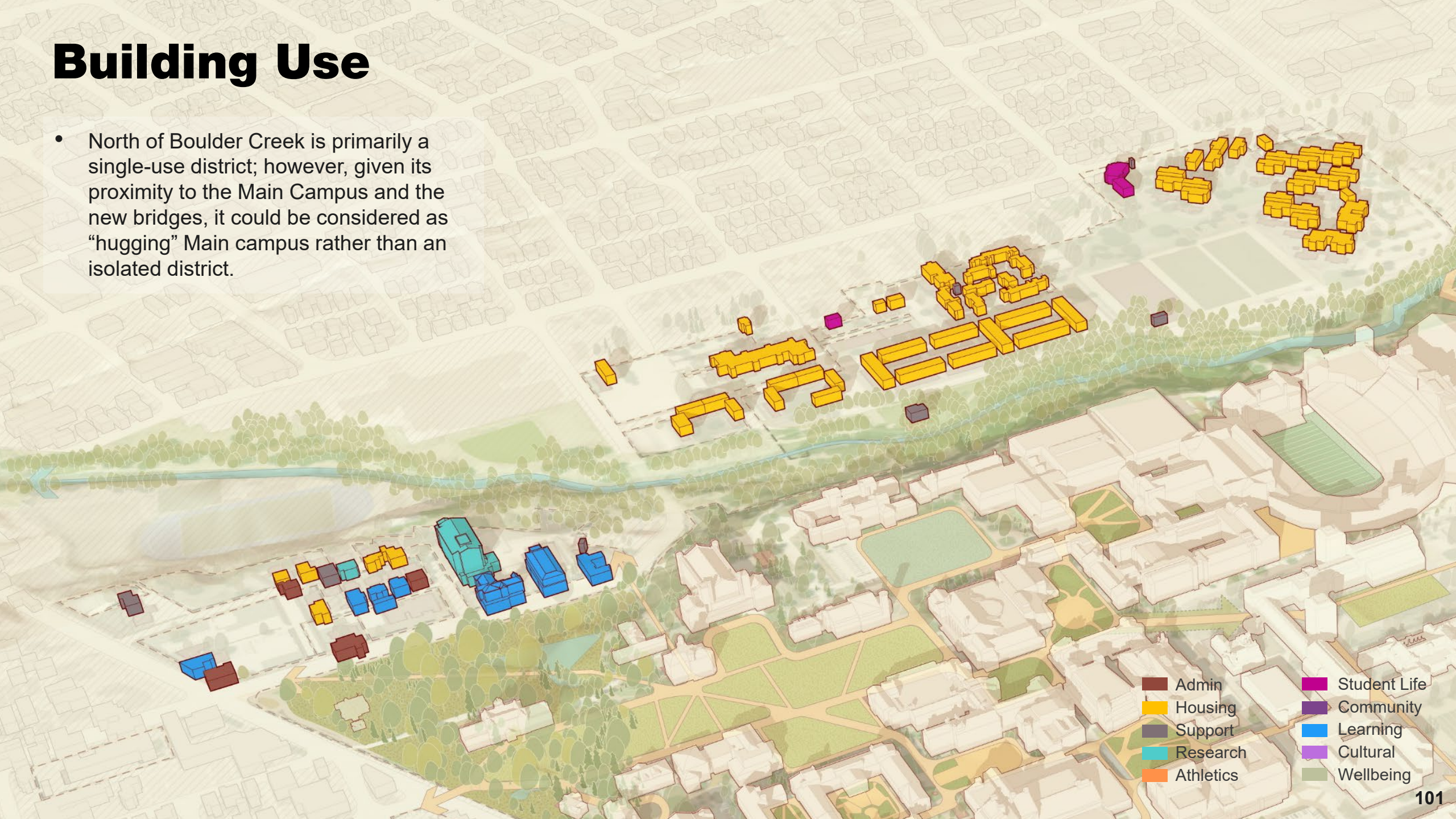
- **War & Post War 1940-1960** – Two to three story garden-style apartments, including Athens Court and Faculty-Staff Court are built in a range of modern styles and materials
- **Modernism to Postmodernism 1961-1989** – Two to three story garden-style apartments, including Marine Court and Newton Court are built in a range of modern styles and materials. Athens North Court a four story apartment building, is constructed
- **1990's to Today** – The athletic bubble is installed at the recreation/athletic fields





# Building Use

- North of Boulder Creek is primarily a single-use district; however, given its proximity to the Main Campus and the new bridges, it could be considered as “hugging” Main campus rather than an isolated district.



Admin	Student Life
Housing	Community
Support	Learning
Research	Cultural
Athletics	Wellbeing



# North of Boulder Creek – Master Plan Goals

## **Sustainability:**

- Socially, economically and environmentally stable

## **Land Stewardship:**

- Responsible utilization of urban land, supportive of natural resources

## **Diversity:**

- Create an inclusive community across cultures and generations

## **Connectivity:**

- Encourage linkages to the campus core and other important nodes in the community. Develop a civic environment that promotes connections to the larger community

## **Character:**

- Develop a consistent expression of the CU brand in this neighborhood that, without imitating, relates to main campus architecture through consistent scale, massing and open space design while being respectful of adjacent properties and other contextual influences

## **Flexibility:**

- Define the maximum program achievable on the site, and allow flexibility to define programs for individual projects more specifically as they are initiated

## **Safety:**

- Improve flood water management, provide for pedestrian safety through defensible space within the neighborhood and at pedestrian/vehicle interface zones

“The vision for the North of Boulder Creek neighborhood is to create a community where students, staff and faculty live, learn, work and recreate together in a sustainable environment.”



# North of Boulder Creek – Site Plan Principles

1. Support multimodal circulation through and around the site.
2. Develop a system of open spaces that supports pedestrian flow, and connects people across the community.
3. Establish zones for different levels of commercial, public and resident activity based on their intensity of use.
4. Feature natural resources adjacent to the site.
5. Develop green infrastructure system that supports stormwater and water quality management.
6. Create a hierarchy of street types that respond to the varied opportunities and requirements for promoting a sense of community, as well as providing for basic service and access.



## KEY

Housing	Trail & Park	Parking & Vehicular Roads	Proposed Floodway	Assumed Primary Residential Entrance
Commercial	Park & Playspace	Service	Proposed High Hazard Zone	Build To Line
Active Corner	Athletics Fields	Future Acquisition Site	Boulder Creek	



# **Main Campus Synthesis**



# Existing Campus



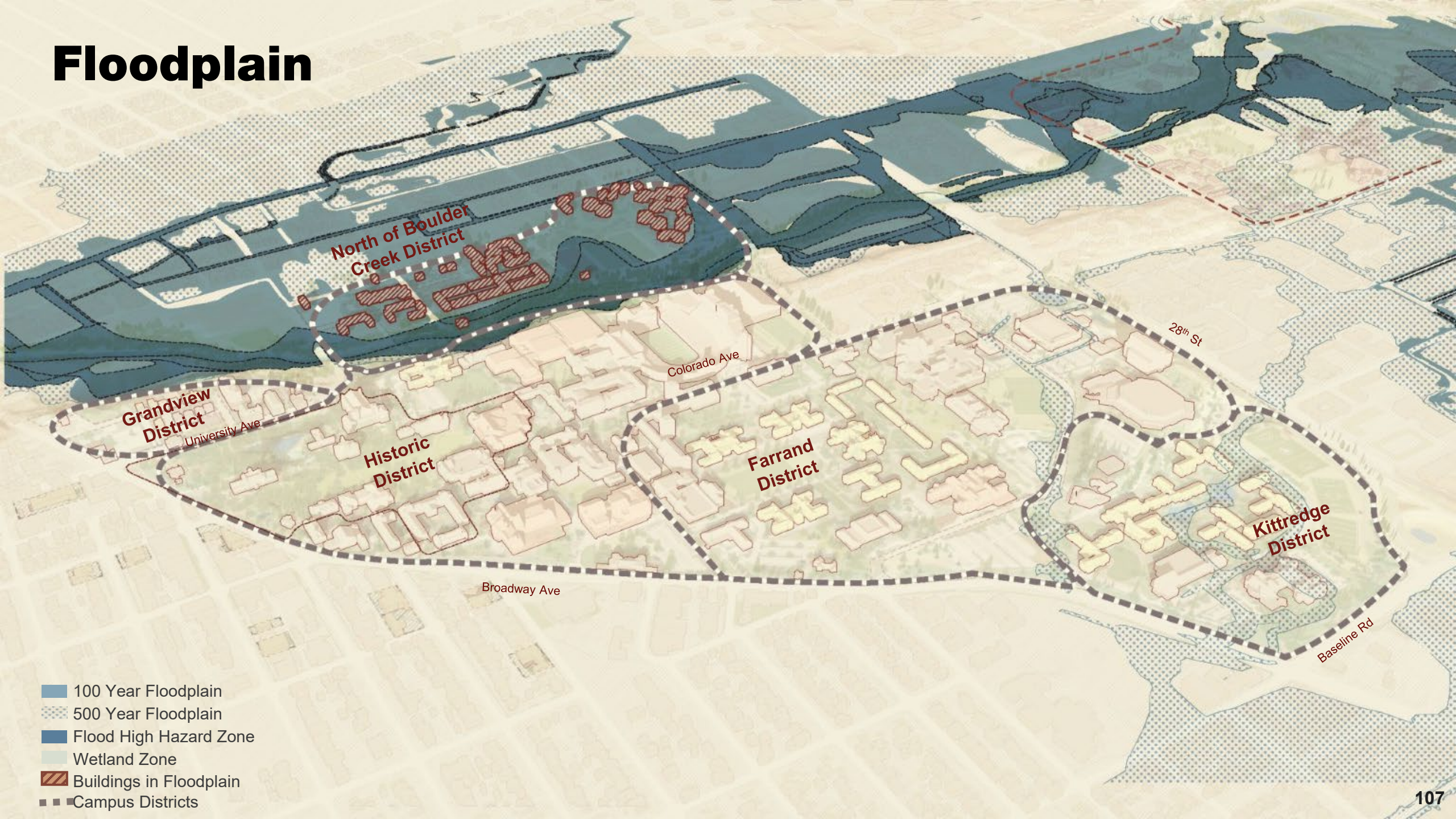


# Districts





# Floodplain



- 100 Year Floodplain
- 500 Year Floodplain
- Flood High Hazard Zone
- Wetland Zone
- Buildings in Floodplain
- ■ Campus Districts

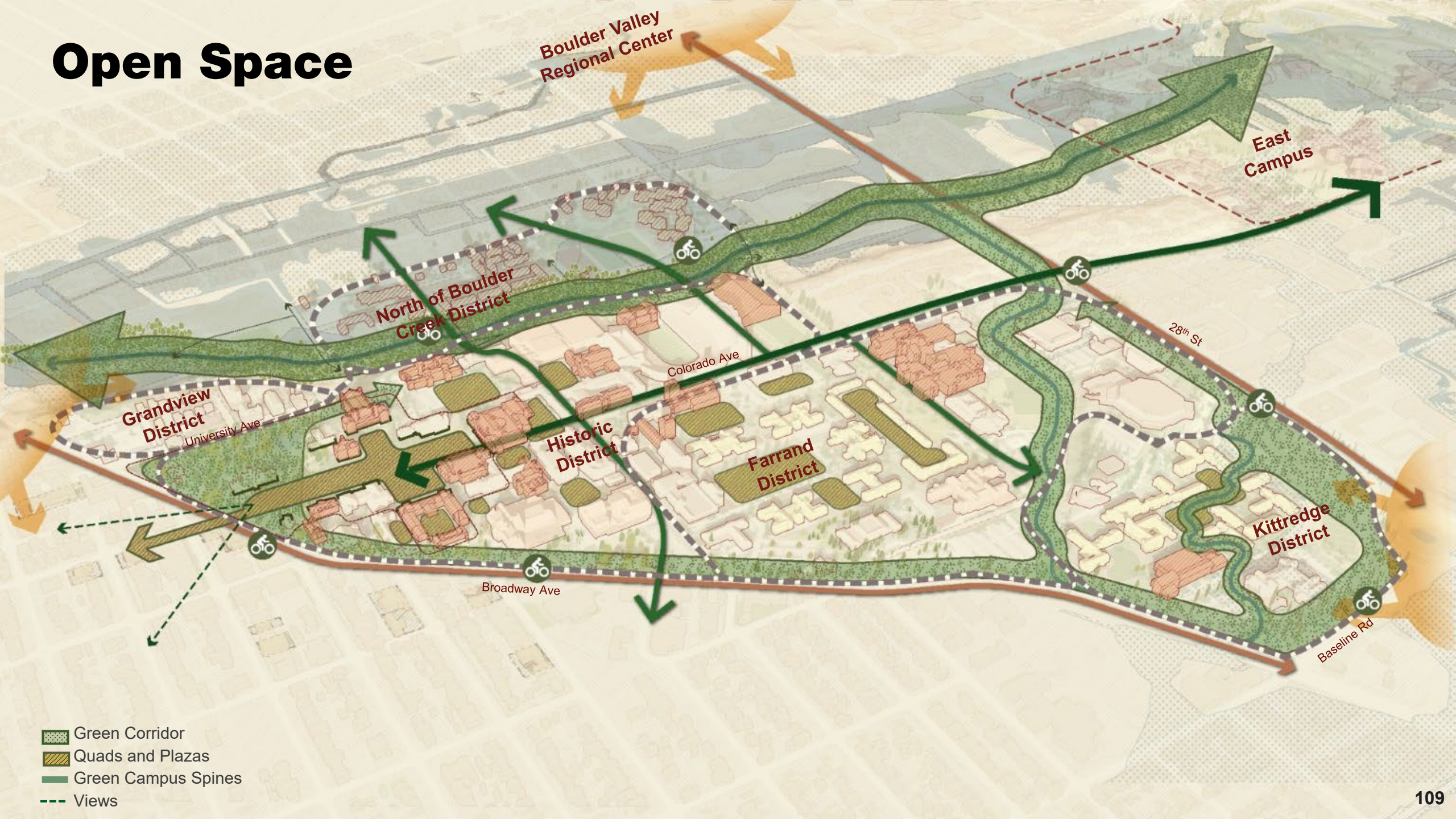


# Capital Projects





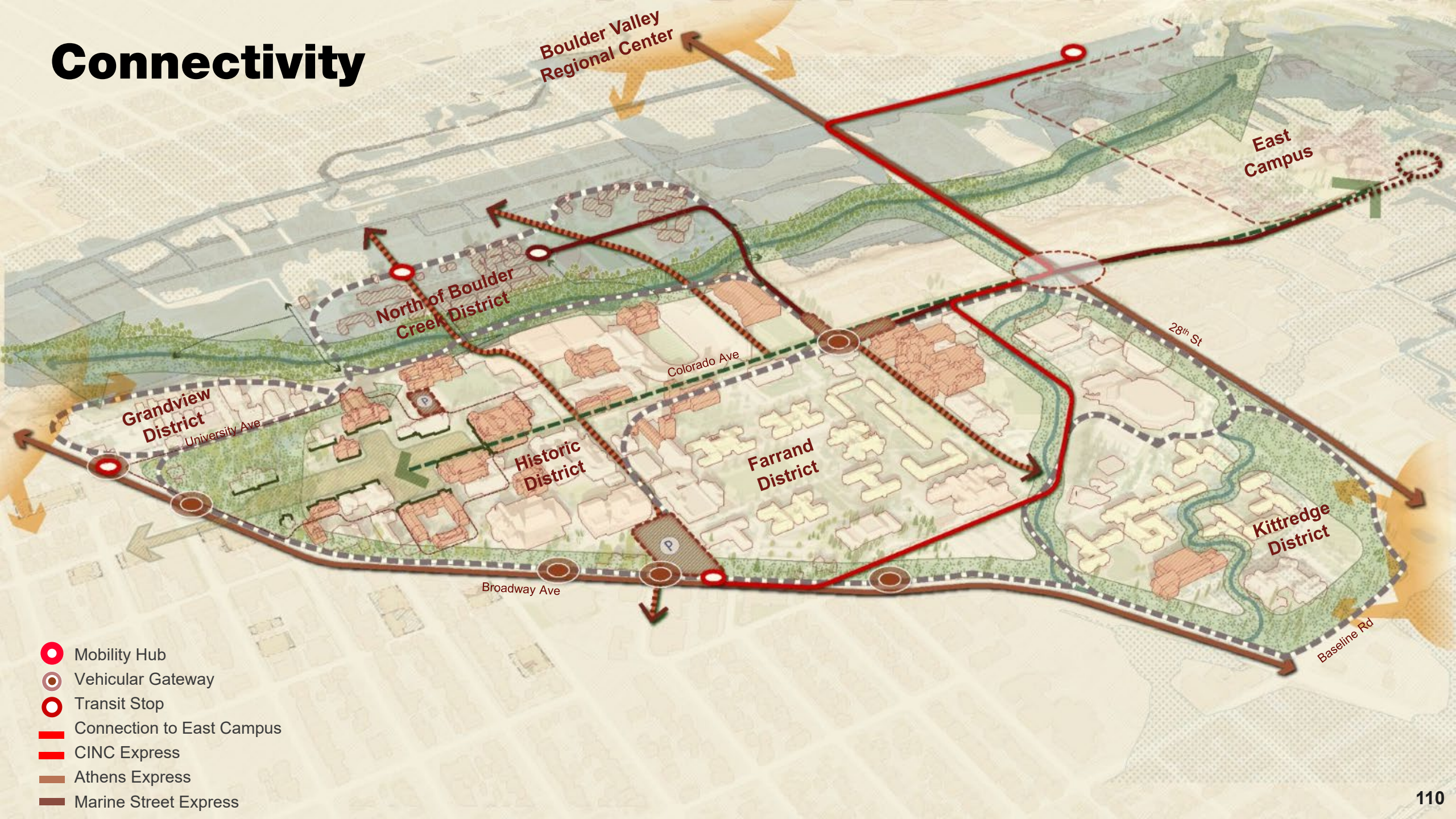
# Open Space



- Green Corridor
- Quads and Plazas
- Green Campus Spines
- Views

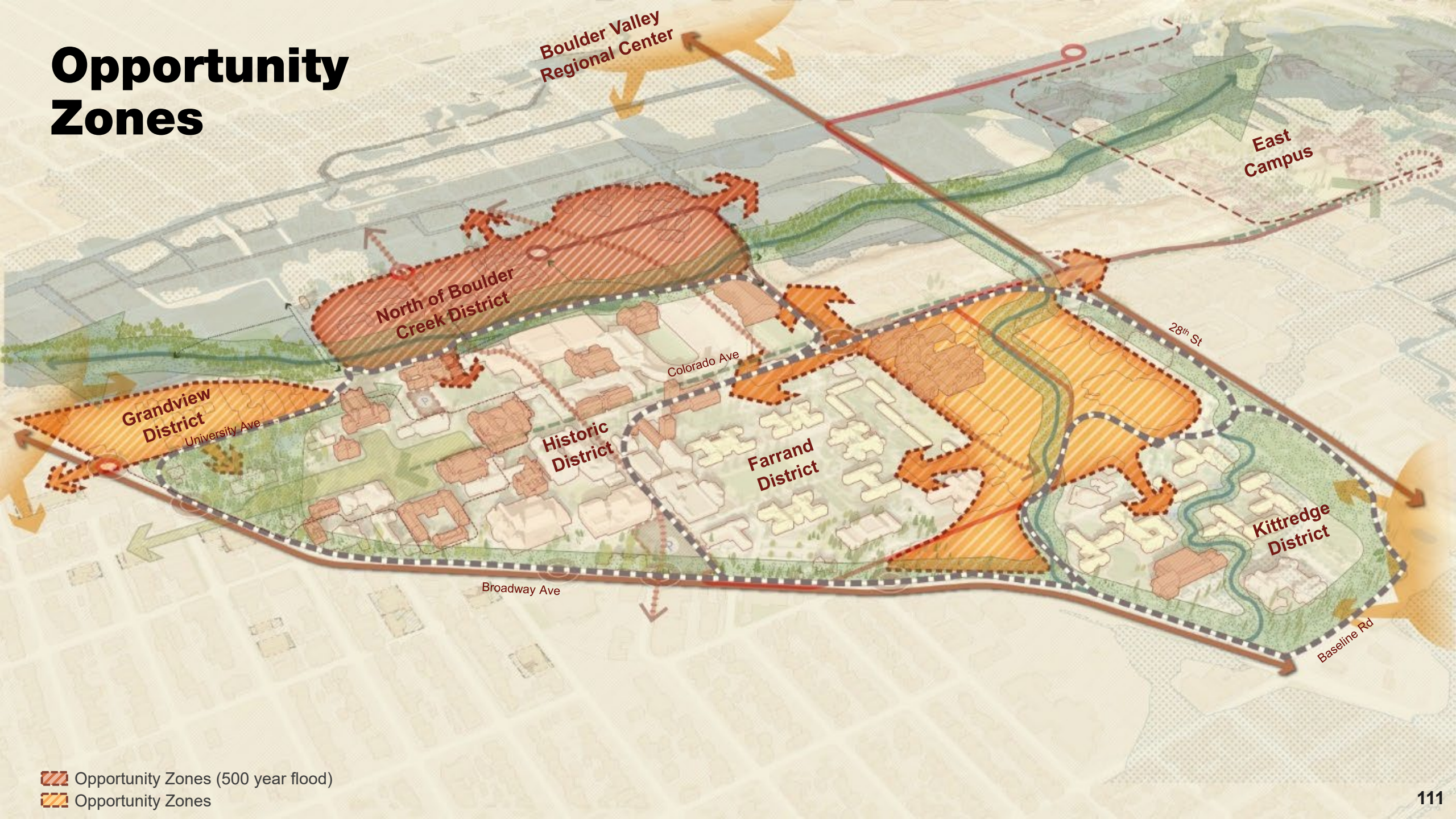


# Connectivity





# Opportunity Zones





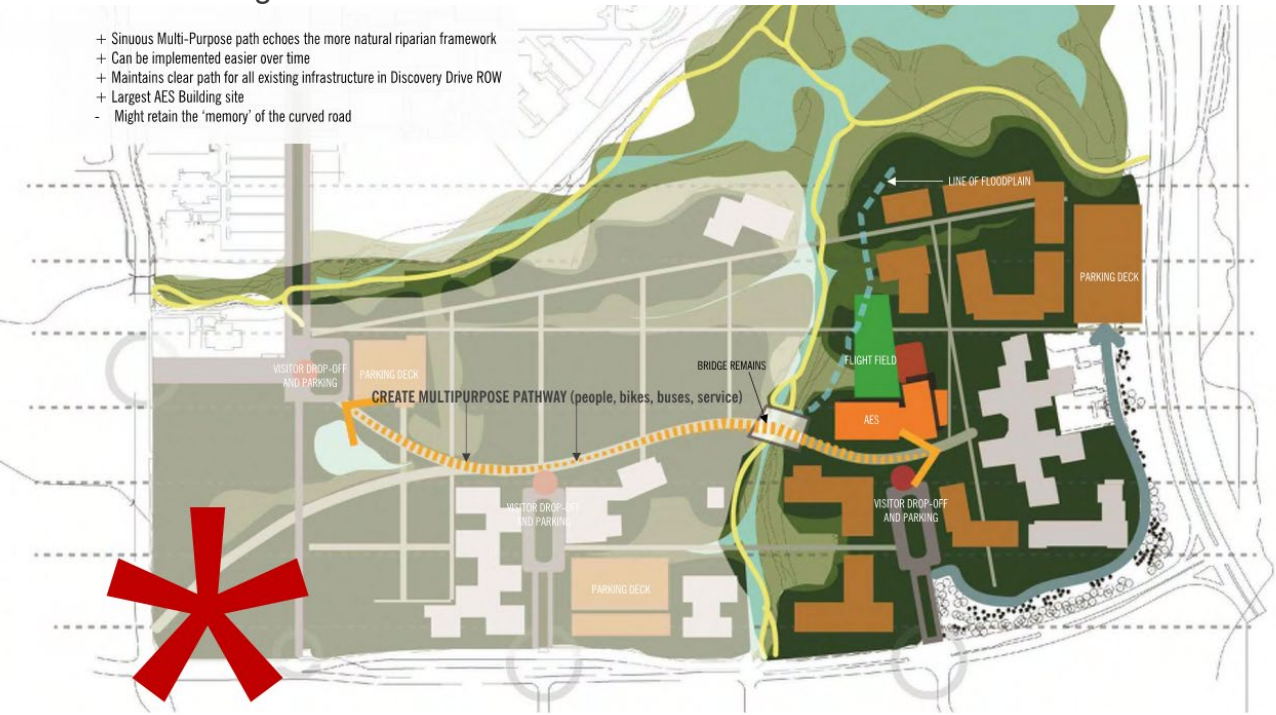
# East Campus



# East Campus Planning

## AES Building Context Plan

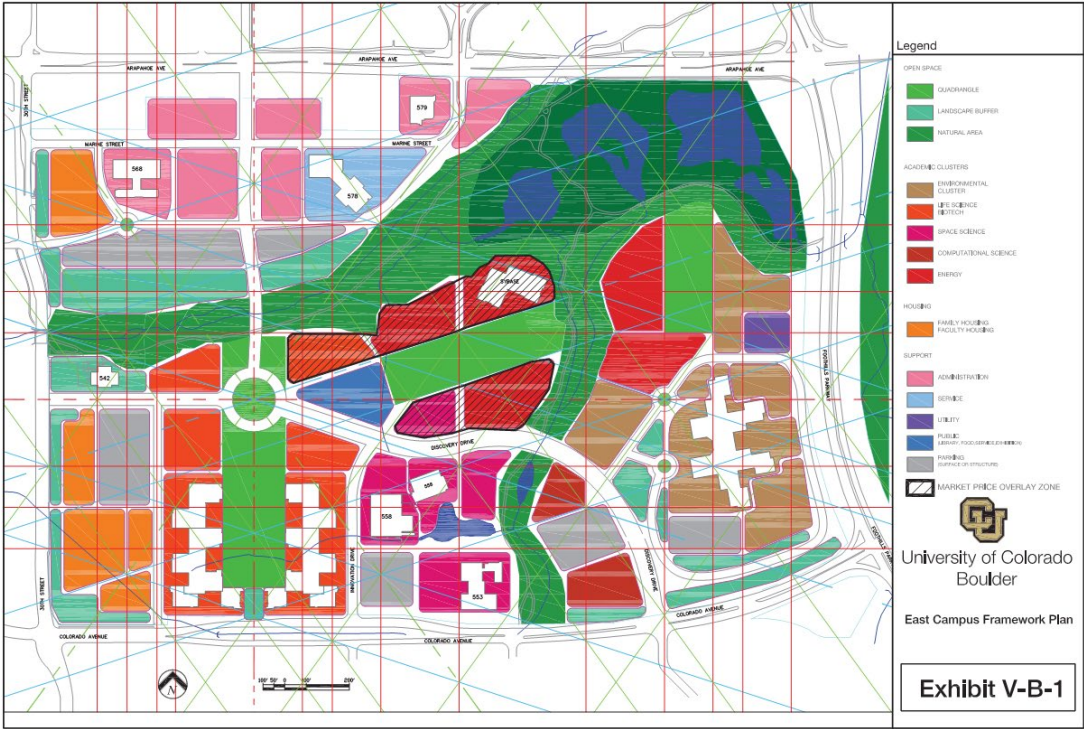
- + Sinuous Multi-Purpose path echoes the more natural riparian framework
- + Can be implemented easier over time
- + Maintains clear path for all existing infrastructure in Discovery Drive ROW
- + Largest AES Building site
- Might retain the 'memory' of the curved road



CURVE

AES Building | University of Colorado Boulder

## 2011 Framework Plan





# East Campus



Administrative & Research Center

Housing & Dining  
Services Facilities  
Operations

Space  
Science

Aerospace  
Engineering  
Sciences

Sustainability,  
Energy and  
Community  
Environment

LITR

RL2

IBG

COMP

SPSC

AERO

SEEL

TRAN

MSSC

SLL

HSMO

B

C

LSTR

BIOT

ARL

Discovery Dr

Foothills Pkwy

Institute for  
behavioral  
Genetics

A

SMCT

THTR

HLM5

LASP Space  
Technology  
Research Center

Astrophysical  
Research Lab

Jennie Smoly  
Cauthers Biotech  
Building

30th St

Colorado Ave



# Campus Character



Prentup Field



Biotechnology



Sustainability  
Energy and  
Environment  
Community



# Building Character

**Current years 1990 - today**

Sustainability, Energy and Environment Community



- **War & Post War 1940-1960** – Property is acquired for East Campus. Early research buildings are constructed north of Boulder Creek in a modernist/functionalist style.
- **Modernism to Postmodernism 1961-1989** – The three story garden-style apartment complex, Smiley Court is built at the corner of 30th Street and Colorado Ave
- **1990's to Today** –

**War & Post War 1940 - 1960**

Administrative & Research Center



**Modernism to Postmodernism**

**1961-1989**

Smiley Court Apartments



**Current years 1990 - today**

Caruthers Biotechnology





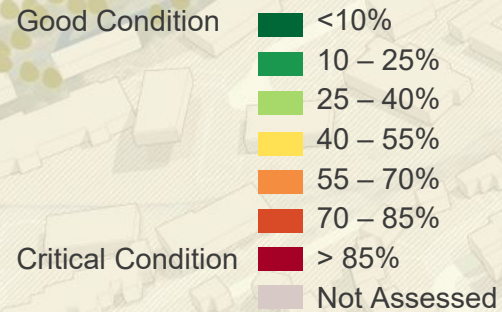
# Building Age





# Facility Condition Index (FCI)

- Consider long-term location of facilities north of the creek, particularly those in poor condition





# Building Use

- District is characterized by series of mostly single-use zones; opportunity for greater integration





# Campus Life

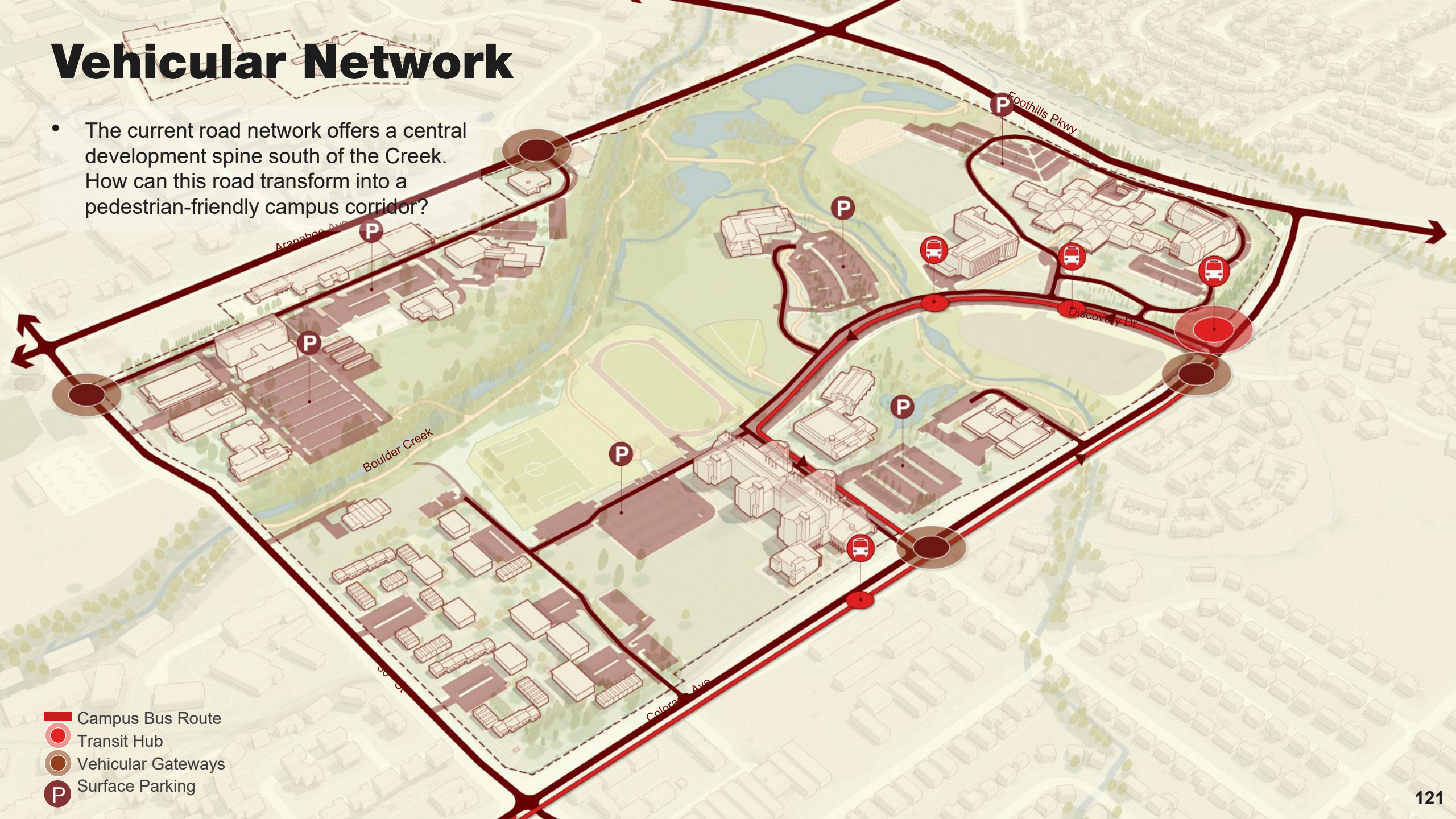
- Generally, there is a lack of campus life amenities on East Campus. Following the SFV typologies, new facilities will increasingly address this.





# Vehicular Network

- The current road network offers a central development spine south of the Creek. How can this road transform into a pedestrian-friendly campus corridor?



- Campus Bus Route
- Transit Hub
- Vehicular Gateways
- Surface Parking



# Bike & Pedestrian Network

- The Creek trails offer potential connections between campuses, that can be complemented by partnering with the City to further enhance Colorado and other urban connections.

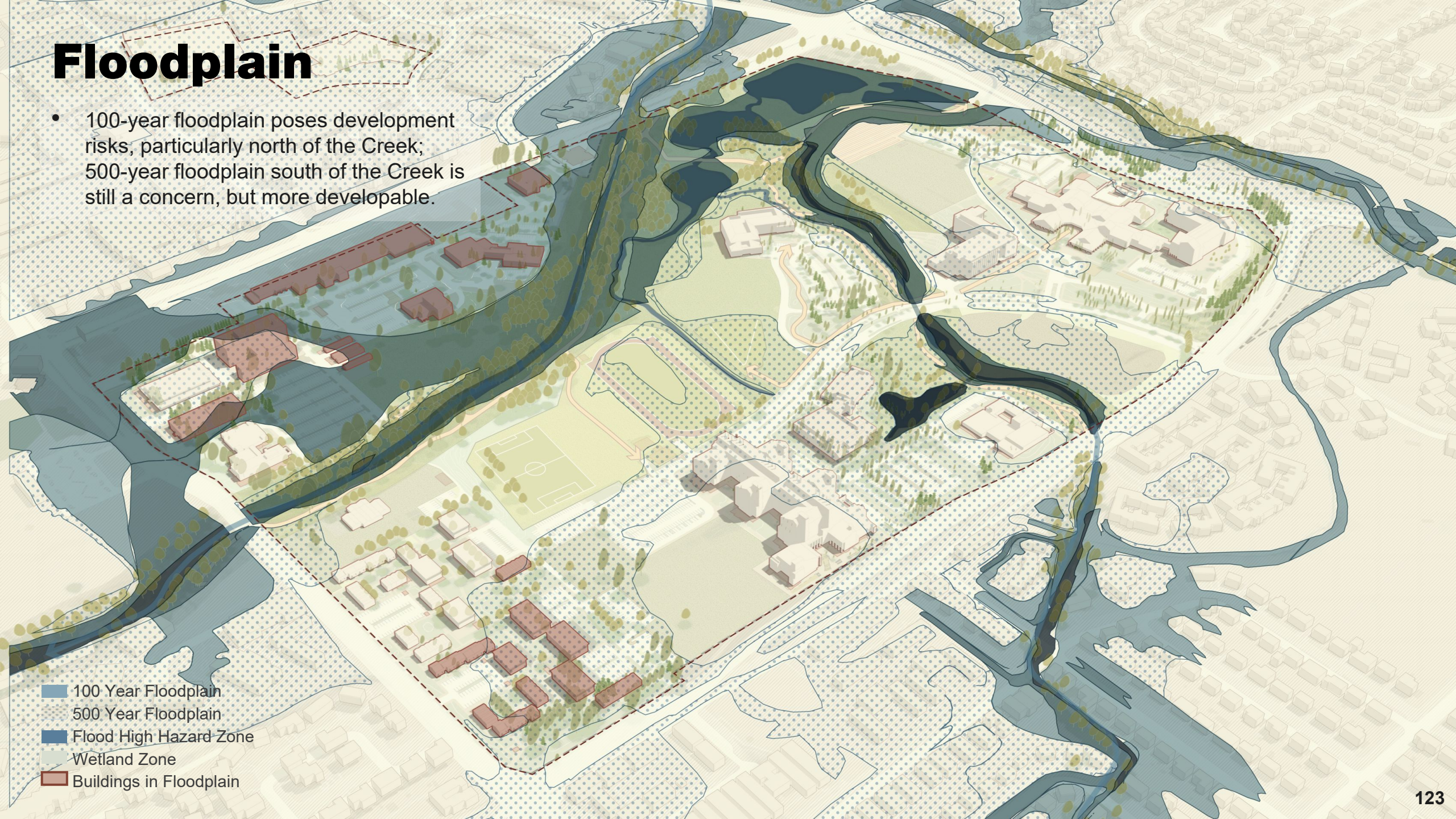


- ↔ Pedestrian connections
- ↔ Proposed Bike Circulation
- ↔ Existing Bike Circulation



# Floodplain

- 100-year floodplain poses development risks, particularly north of the Creek; 500-year floodplain south of the Creek is still a concern, but more developable.



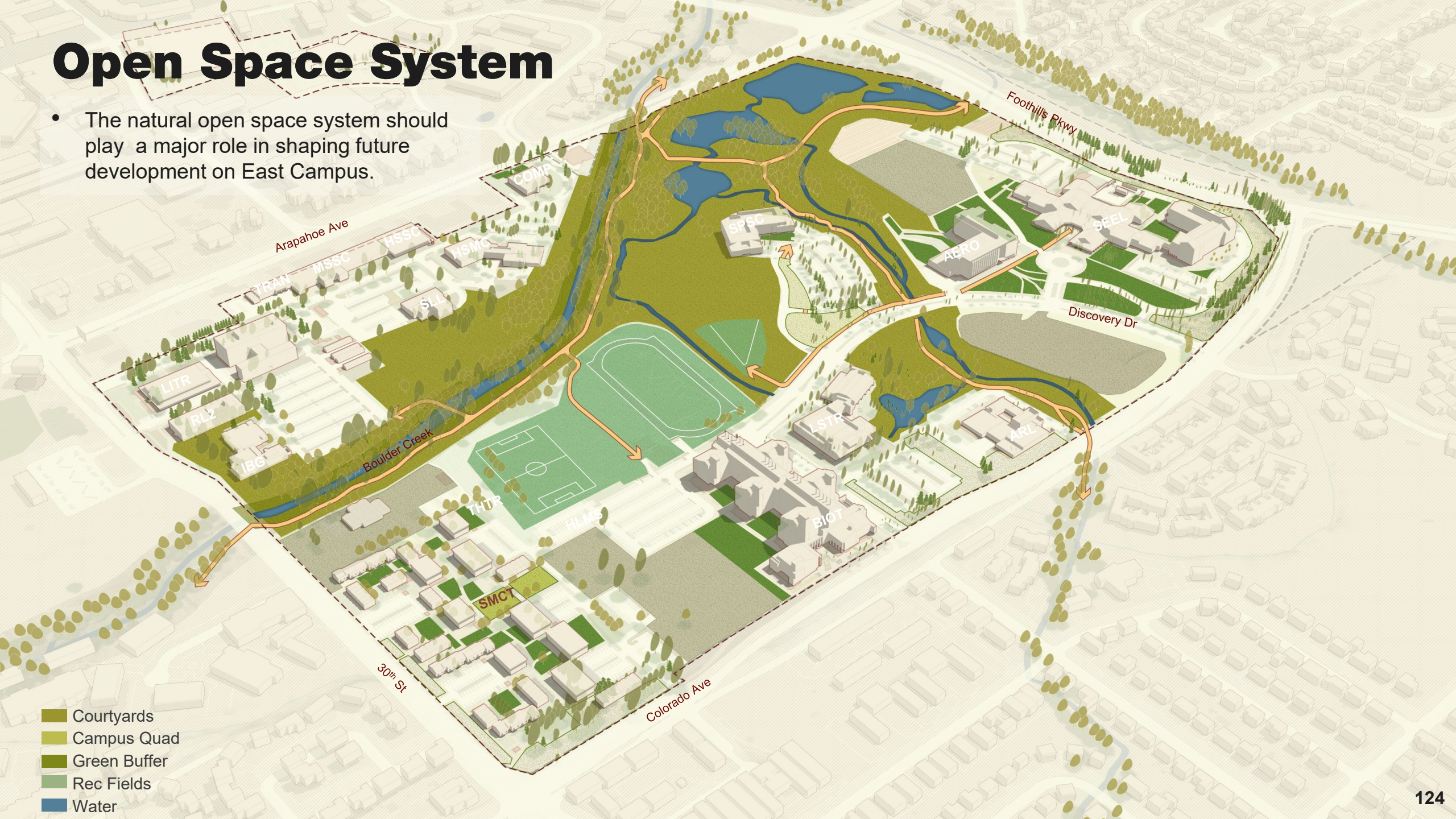
The map shows a creek flowing from the top left towards the bottom right. To the left of the creek is a large area with a light blue dotted pattern, representing the 100-year floodplain. To the right of the creek is a large area with a light yellow dotted pattern, representing the 500-year floodplain. A dark blue area along the creek represents the Flood High Hazard Zone. A light green area represents the Wetland Zone. Red dashed lines outline areas containing buildings. A soccer field is visible in the lower center. The map uses various colors and patterns to distinguish between different flood risk zones and land features.

100 Year Floodplain  
500 Year Floodplain  
Flood High Hazard Zone  
Wetland Zone  
Buildings in Floodplain



# Open Space System

- The natural open space system should play a major role in shaping future development on East Campus.



- Courtyards
- Campus Quad
- Green Buffer
- Rec Fields
- Water



# **East Campus Synthesis**



# Existing Campus





# Floodplain



- 100 Year Floodplain
- 500 Year Floodplain
- Flood High Hazard Zone
- Wetland Zone
- Buildings in Floodplain



# Open Space





# Circulation



- Transit Hub
- Vehicular Entrances
- ➡ Proposed Bike Circulation
- ➡ Existing Bike Circulation
- ➡ Vehicular Circulation
- Green Fingers



# Opportunity Zones



Opportunity Zones (500 year flood)

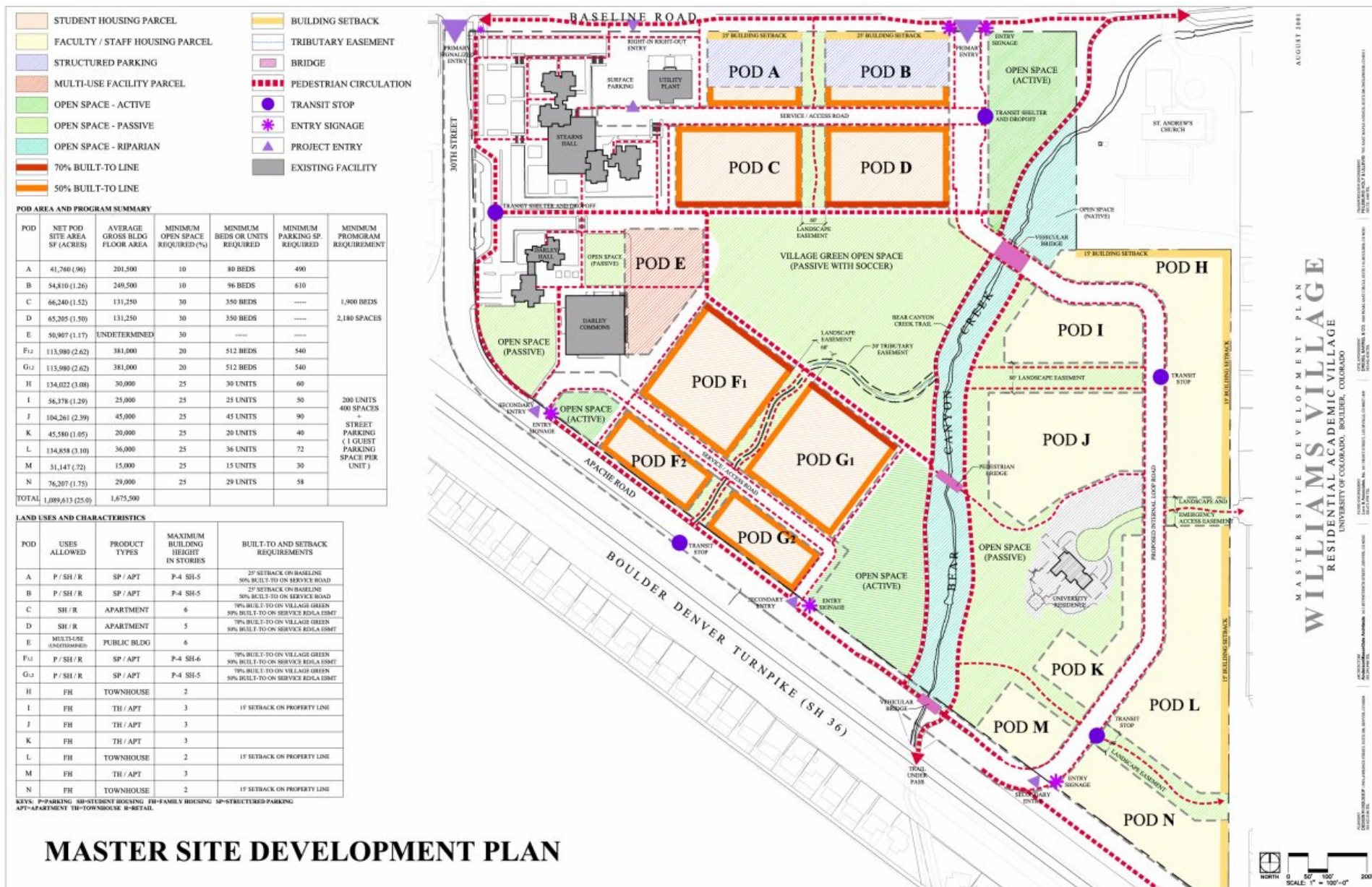
Opportunity Zones



# **Williams Village**



# Williams Village





# Williams Village



Stern  
Towers

William Village  
East

Recreation  
Center

Baseline Rd

WVE

WVN

BCAP

WVC

Bear Creek

30th St

Denver Boulder Turnpike

Williams Village Dining  
& Community Commons

Bear Creek  
Apartments

Chancellor's  
Residence



# Campus Character

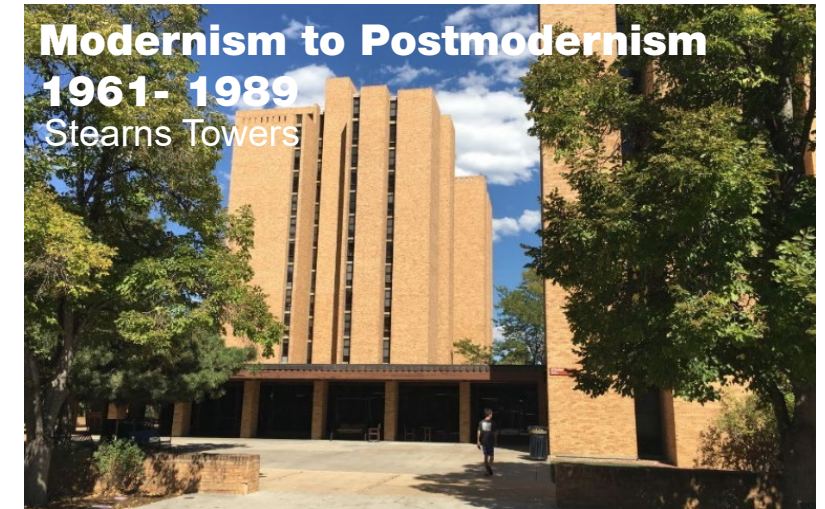




# Building Character



- **War & Post War 1940-1960** – Property is acquired for what will become Williams Village.
- **Modernism to Postmodernism 1961-1989** – Development begins at Williams Village with Stearns and Darley towers representing a formal and material departure from the Tuscan vernacular style.
- **1990's to Today** – Six to seven story residential buildings are built at the perimeter of the Village adjacent to large parking lots. The building designs feature pitched roofs and a brick selection that is consistent with Stearns and Darley. The Williams Village Commons is built with a similar material palette but in a contemporary expression.





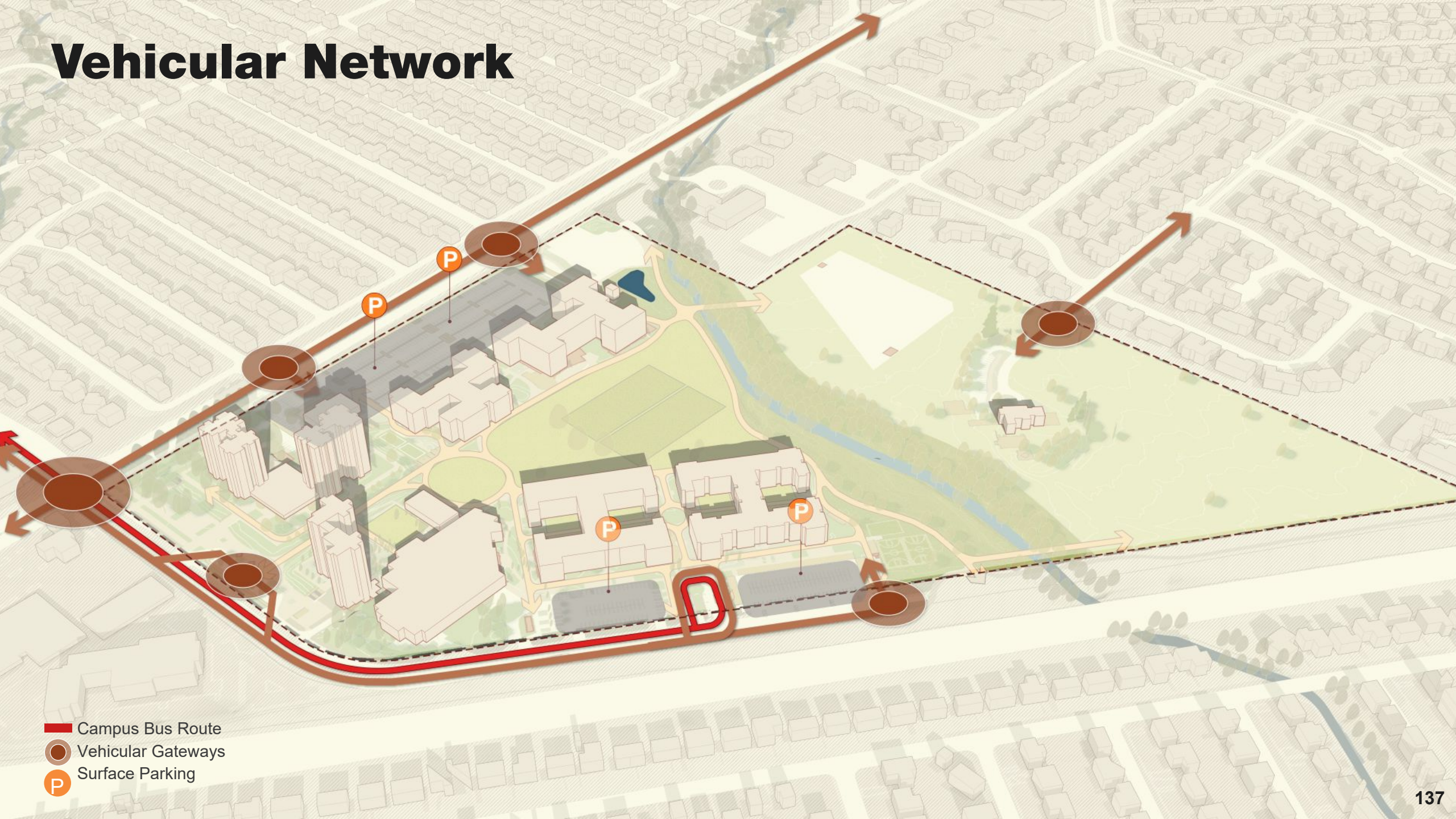
# Building Use




- Williams Village Commons was a necessary investment to add much needed student life amenities to Will Vill; however, lack of other uses means dining facility is under-utilized during the day.





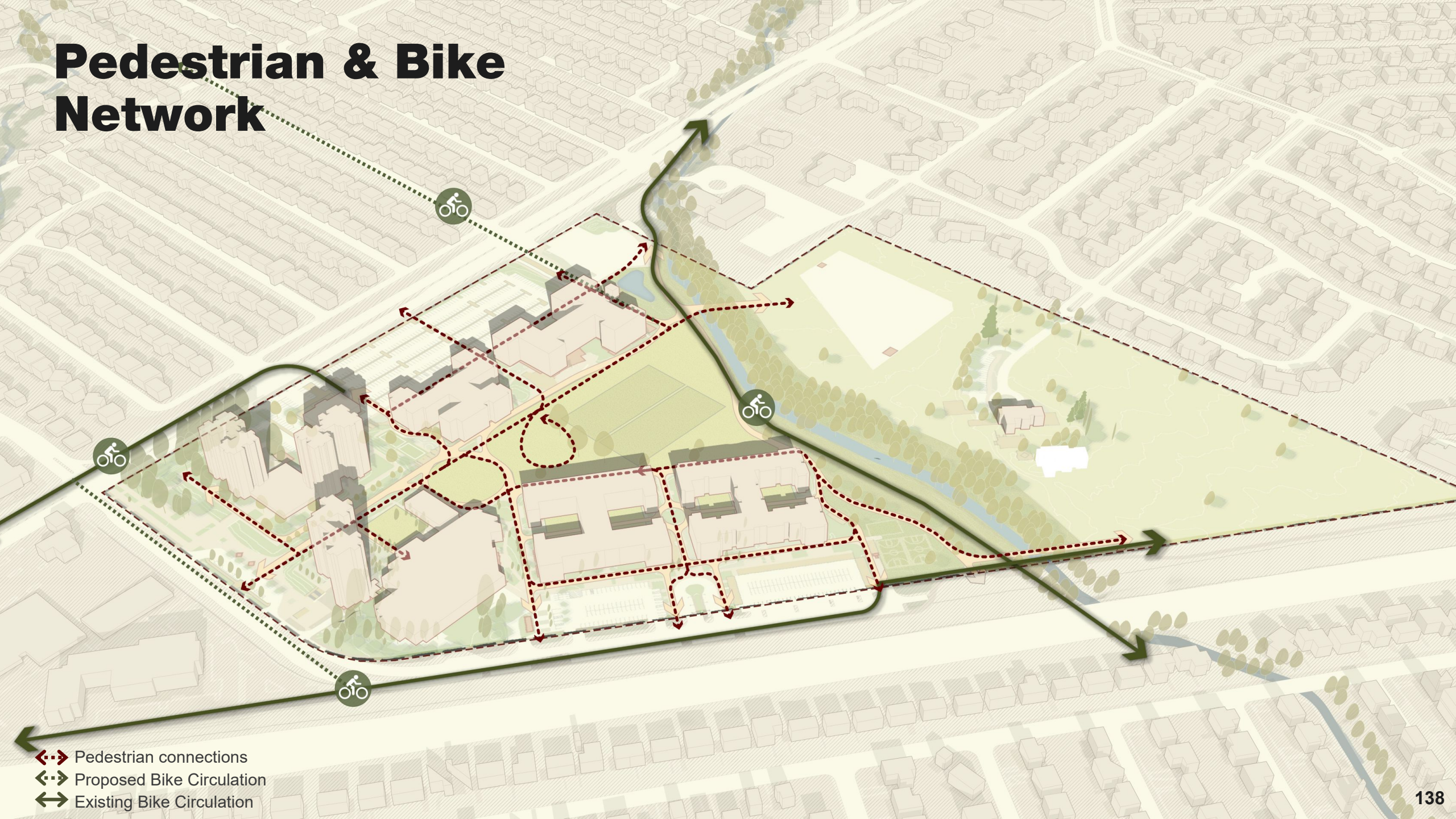
# Vehicular Network



-  Campus Bus Route
-  Vehicular Gateways
-  Surface Parking



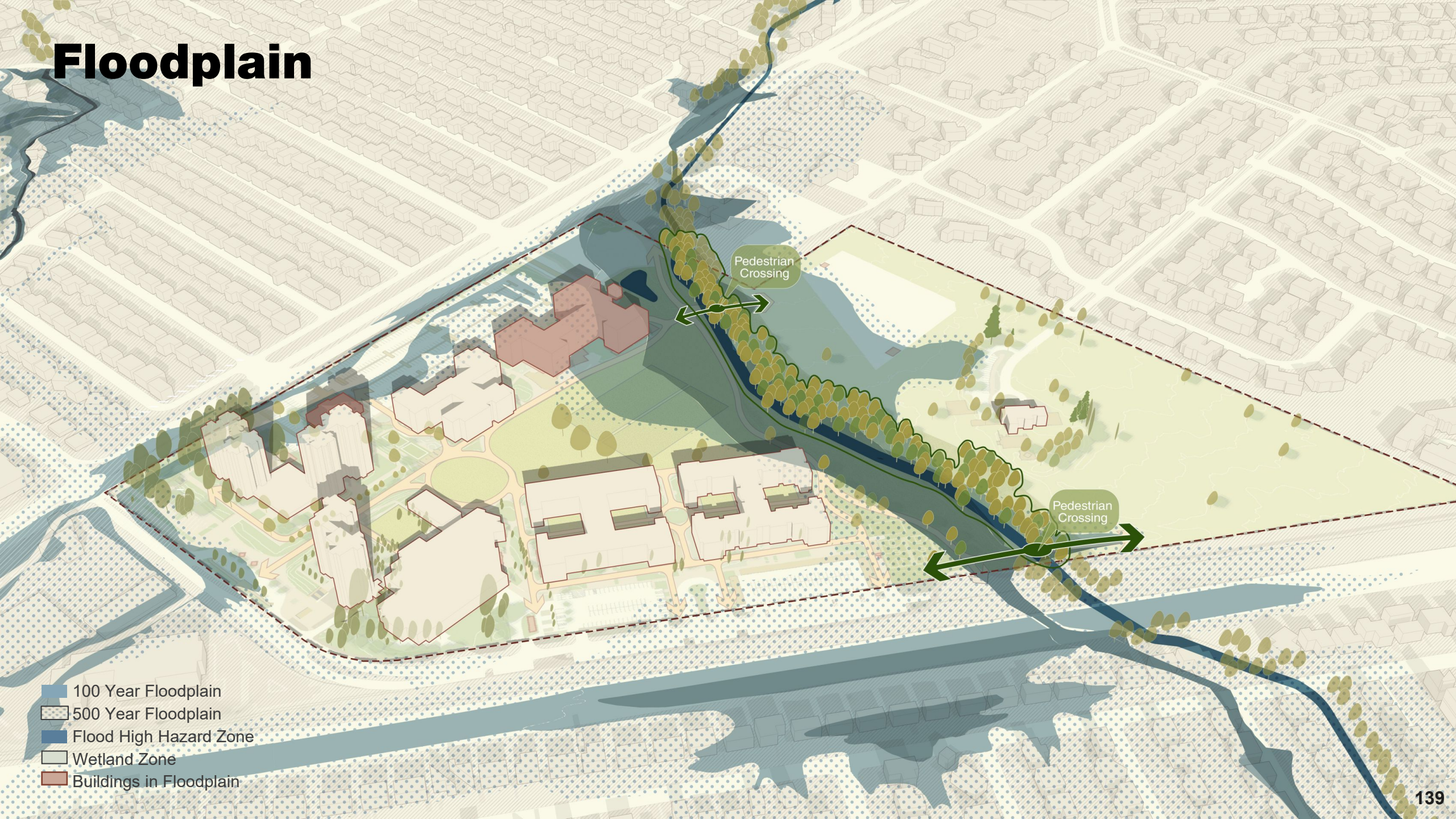
# Pedestrian & Bike Network



- ↔ Pedestrian connections
- ↔ Proposed Bike Circulation
- ↔ Existing Bike Circulation



# Floodplain



- 100 Year Floodplain
- 500 Year Floodplain
- Flood High Hazard Zone
- Wetland Zone
- Buildings in Floodplain



# Open Space System

- Williams Village lacks a collaborative open space “heart.”
- Many of the courtyard spaces are or feel private.





# **William Village Synthesis**



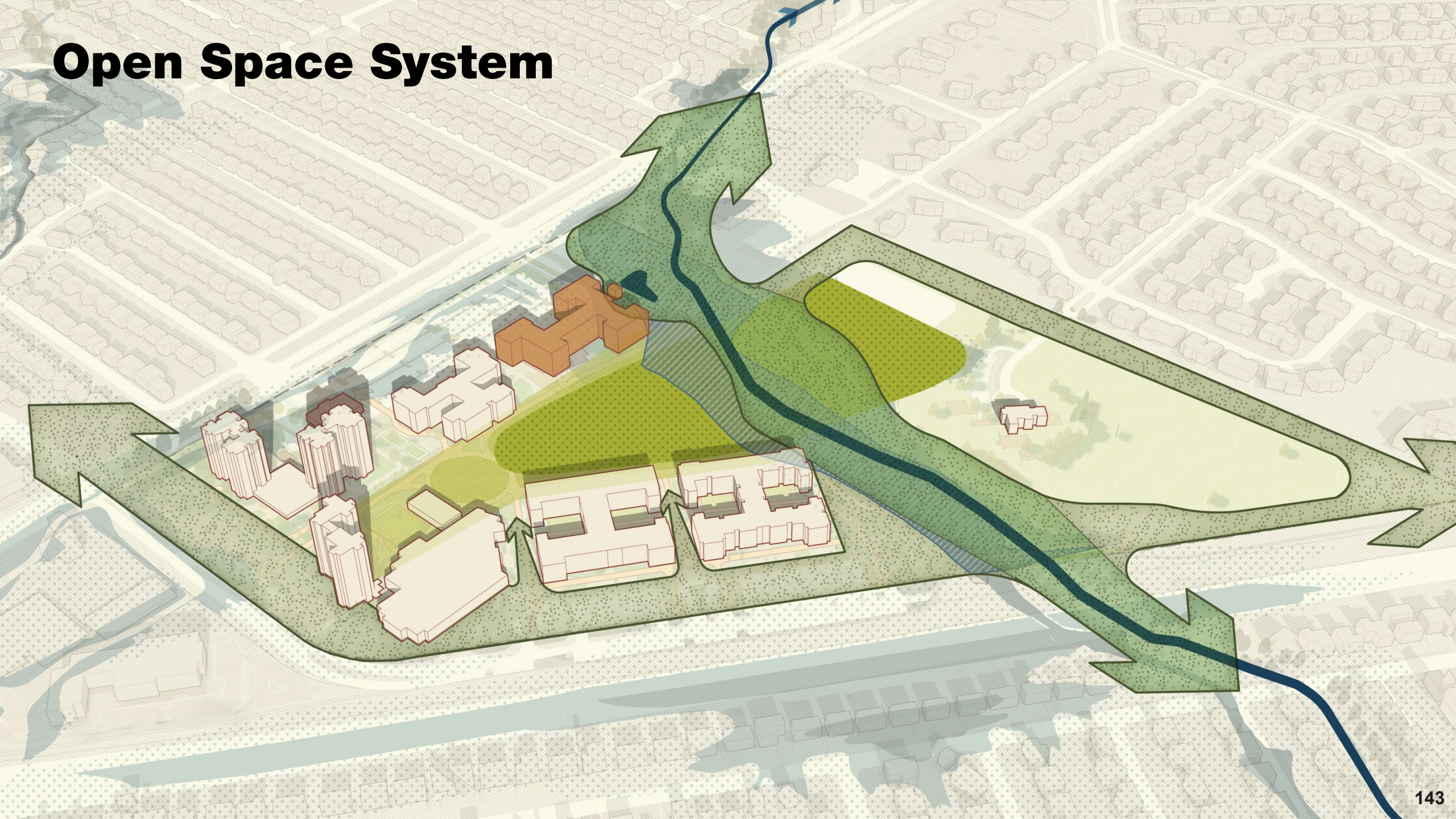
# Floodplain



- 100 Year Floodplain
- 500 Year Floodplain
- Flood High Hazard Zone
- Wetland Zone
- Buildings in Floodplain



# Open Space System



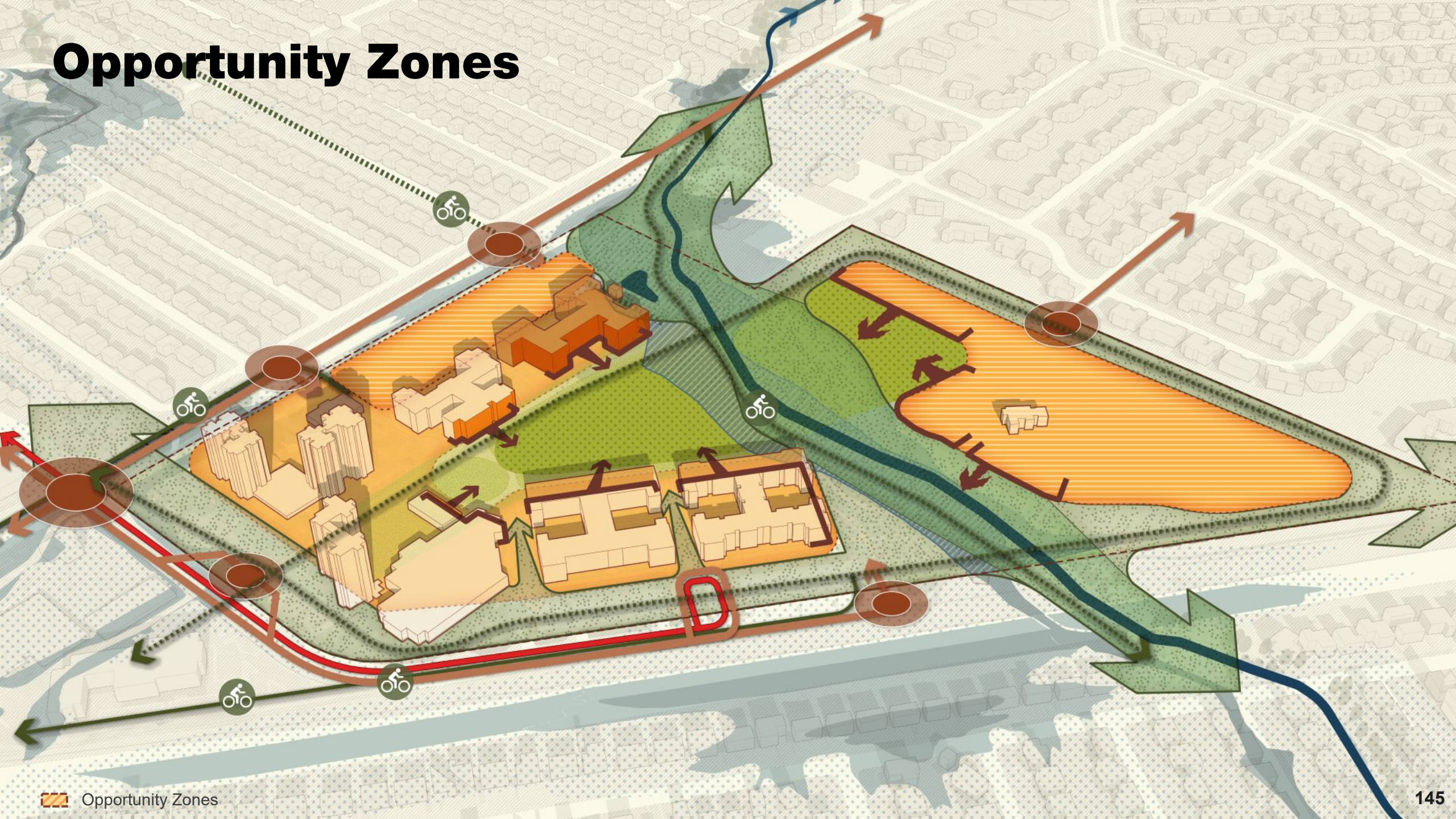


# Circulation





# Opportunity Zones





**5**

**DISCUSSION**





**CMP Opportunities**