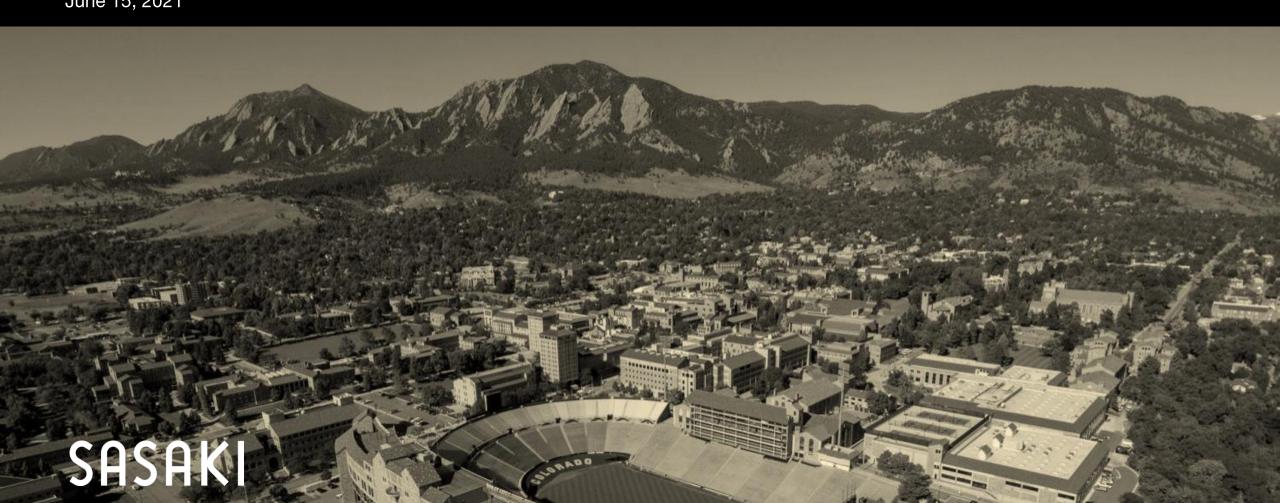
University of Colorado Boulder

DRB Meeting
June 15, 2021



Agenda

Context Slides (will not be presented)

- Outreach
- Context Studies
- Space Use and Analysis Summary

For Presentation:

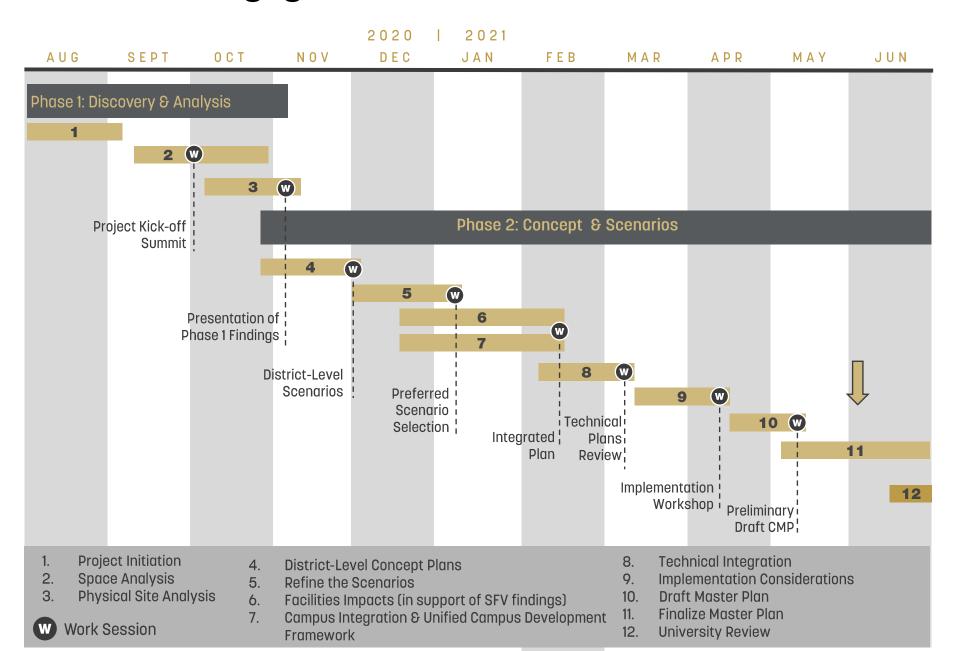
- Design Principles
- The Campus System
- Campus Frameworks:
 - Main Campus
 - North Boulder Creek
 - East Campus
 - Williams Village
- Sustainability
- Implementation

Feedback From DRB

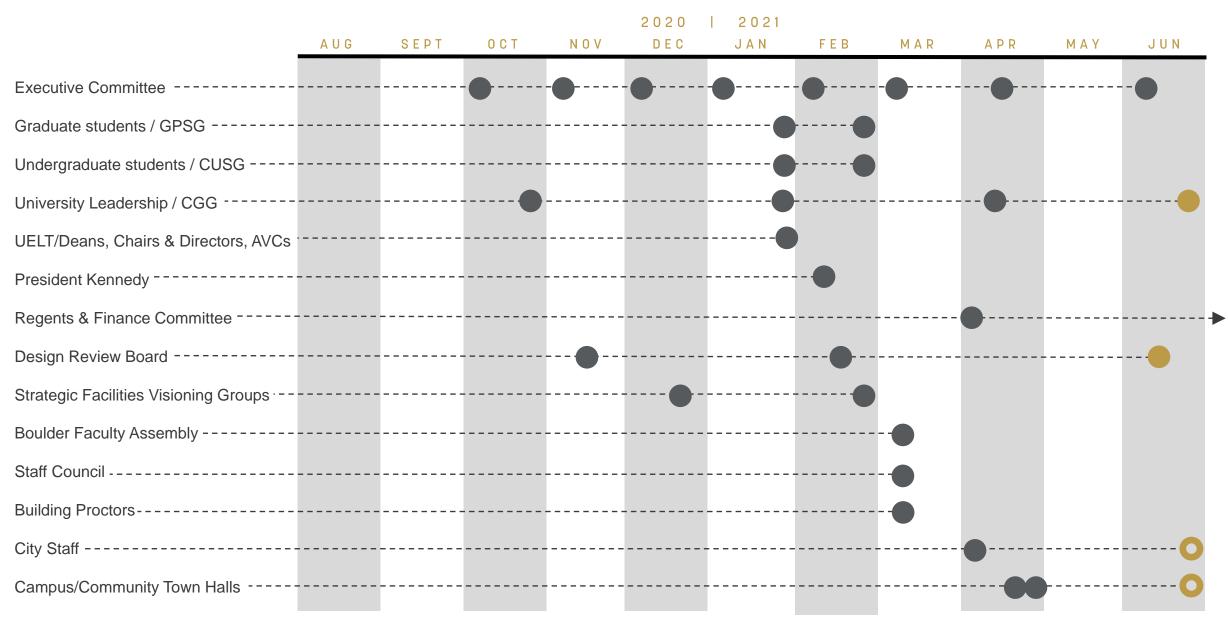
- Coordinate with City of Boulder planning initiatives (slides 28, 47-48)
- Detail anticipated project prioritization and phasing in the CMP (slides 185-197)
- Consider creating continuity among the three campus planning areas for the creekfront and riparian habitat areas (Design Guidelines 175-184; Planting Zones 92, 125, 150; Open Space Network 61, 131, 162)
- Extend and enhance bike circulation to connect all campuses (slides 31, 47, 62)
- Consider incorporating a primary entrance or gateway to the main campus off of Broadway (slides 35, 45, 58)
- East Campus should emphasize research use and respond to riparian areas of the property (slides118, 122, 124, 127, 170)
- Consider the balance between showing building zones vs building footprints (Design Guidelines 175-184)
- Mixing East Campus uses seems difficult to achieve; consider extent to which East Campus is a dedicated "research park" and how it might operate as a technical research center accordingly (slides 104-112)
- Williams Village should include both pedestrian and bicycle mobility diagrams (slides 161, 162)
- Consider what will make Williams Village a desirable place to live (slides 48, 153-158, 163-166)

Outreach

Project Schedule & Engagements



Outreach



Feedback From Campus Visionaries

What elements of the concept plan most excite you?

Proximity of athletics space to academic and other support space will create community for student athletes + supporters

Shared and expanded student service spaces on all campuses

A mix of uses on each campus

Landscaped pedestrian connection between Main and East campus

Housing relocated to NBC and East Campus, opening up opportunity for more academic spaces on Main Campus

Open spaces, more windows, and use of the creek

Concept of neighborhoods to elevate the comprehensive experience at WillVill and East campus.

What elements does the plan still need to address? What needs to be prioritized?

Create a welcoming and dedicated space for alumni and the community

A "Creative Design Hub" to collect Art, Music, Theatre, ENVD etc. into one location.

Add vibrancy to Norlin Quad through building architecture and student services

Think about connection possibilities between WillVill and Main campus

More access and visibility to cultural assets on campus

Create more outdoor space for dining, classrooms, research

Flexible spaces and framework that can adjust as needs change

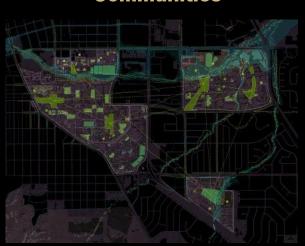
High priority for new buildings with academic space at WillVill to engage first-years in RAPs

Design Principles

Design Principles



1. Engage Surrounding Communities



5. Integrate Diverse Open Spaces



2. Diversify Campus Neighborhoods



6. Respect Campus Character & Structure



3. Respect & Reinforce Natural Systems



7. Create a Network of Student Life Spaces

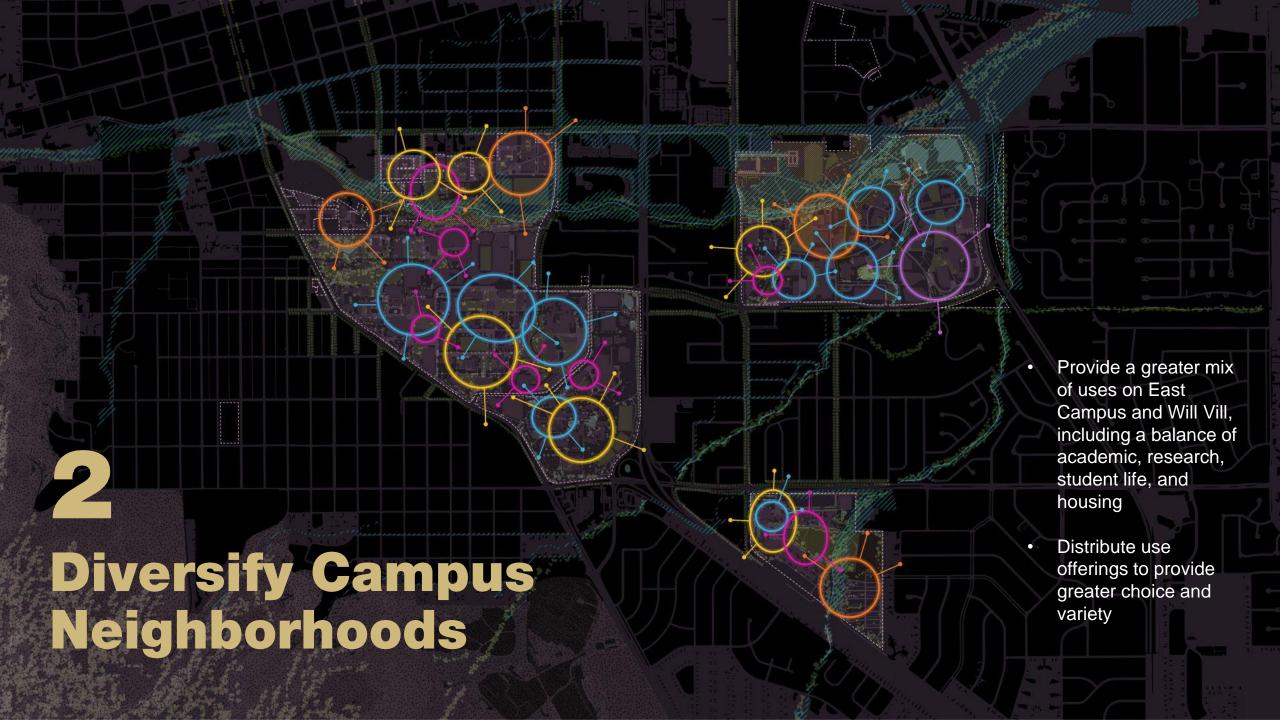


4. Create Strong Public Realm Connections



8. Enhance Campus Access & Wayfinding

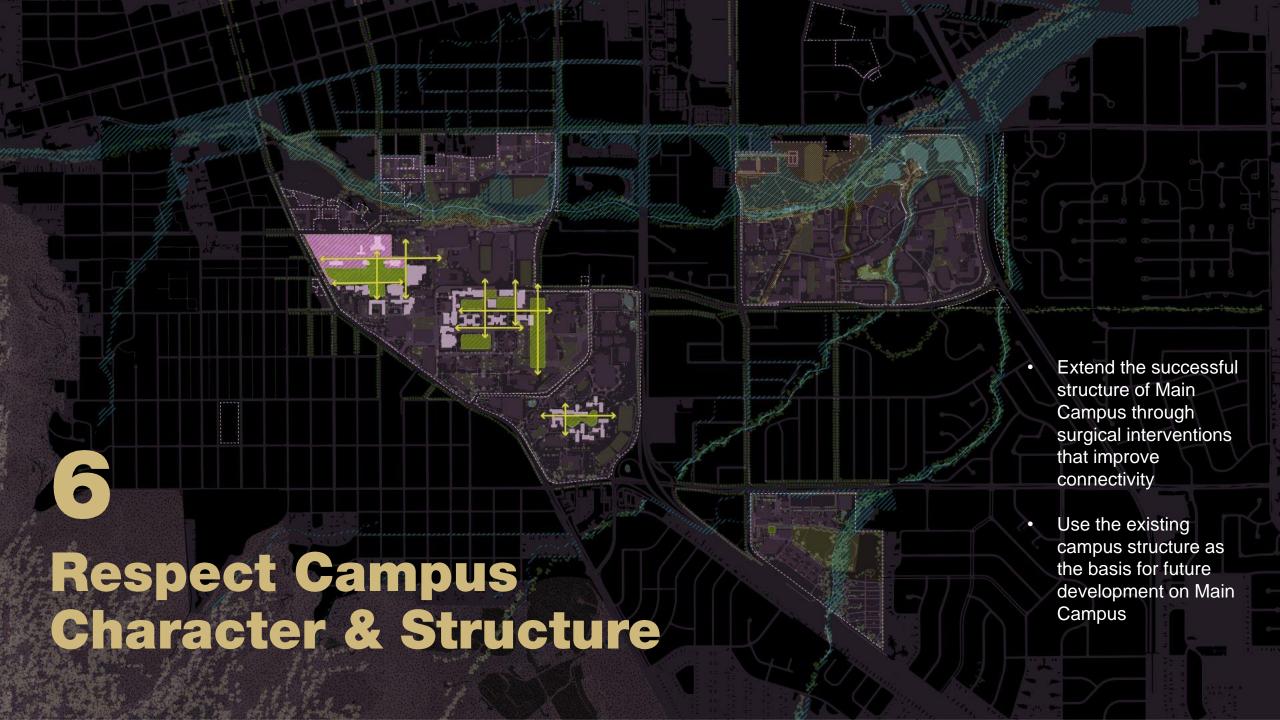


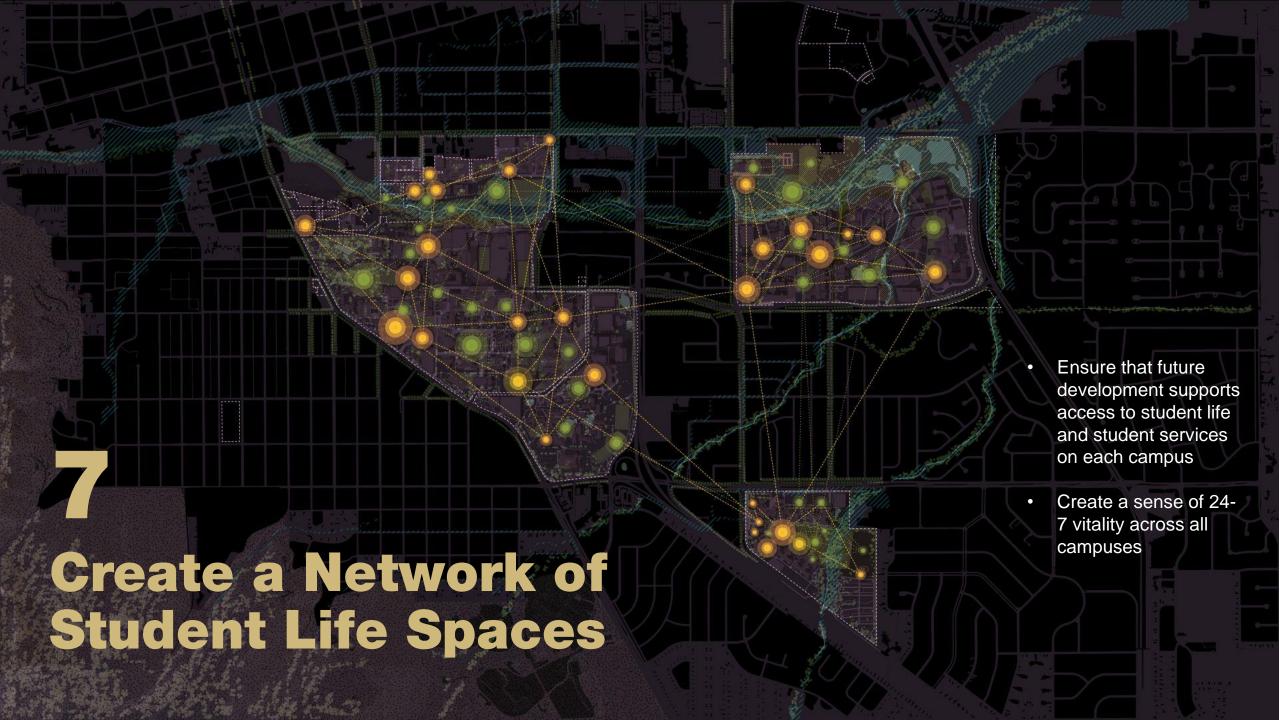


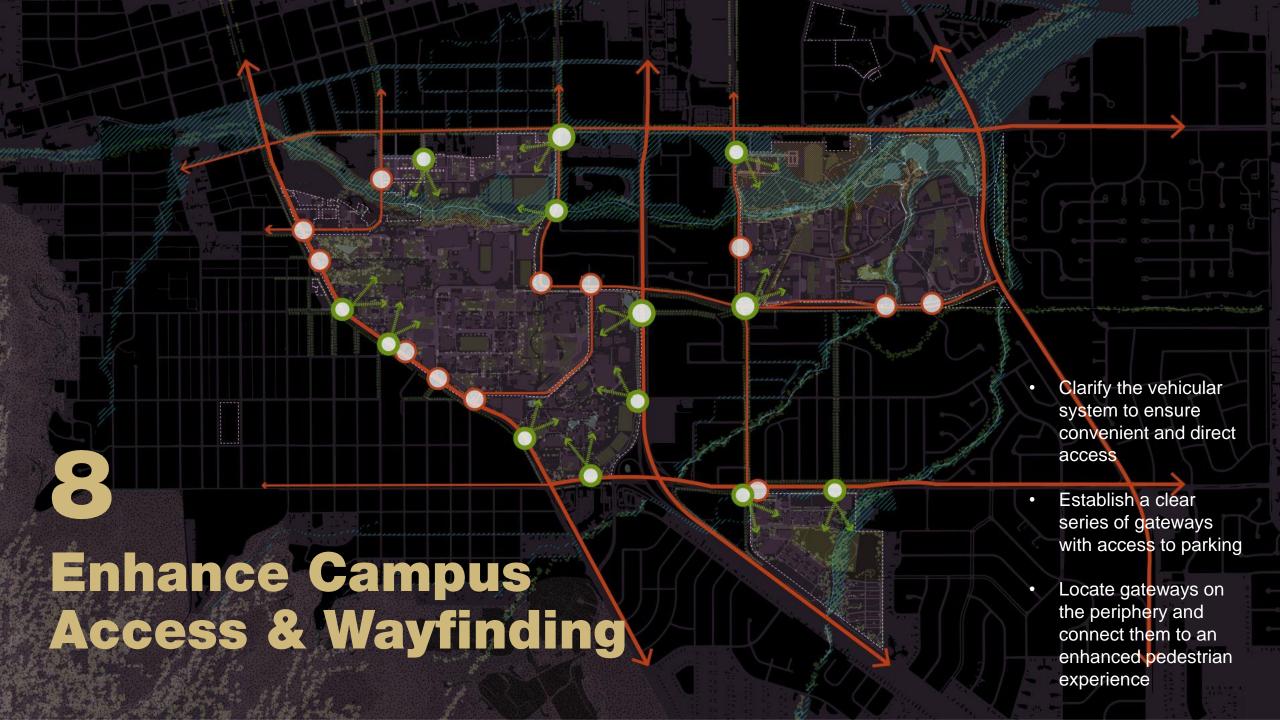




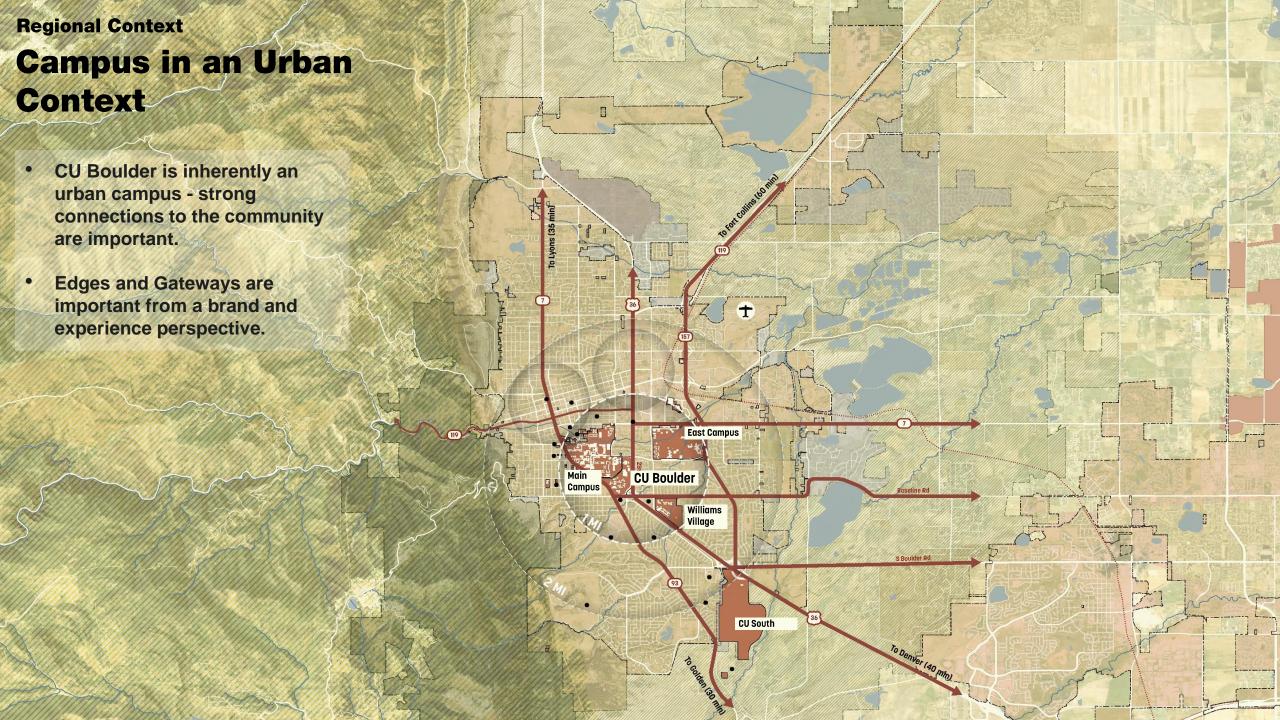


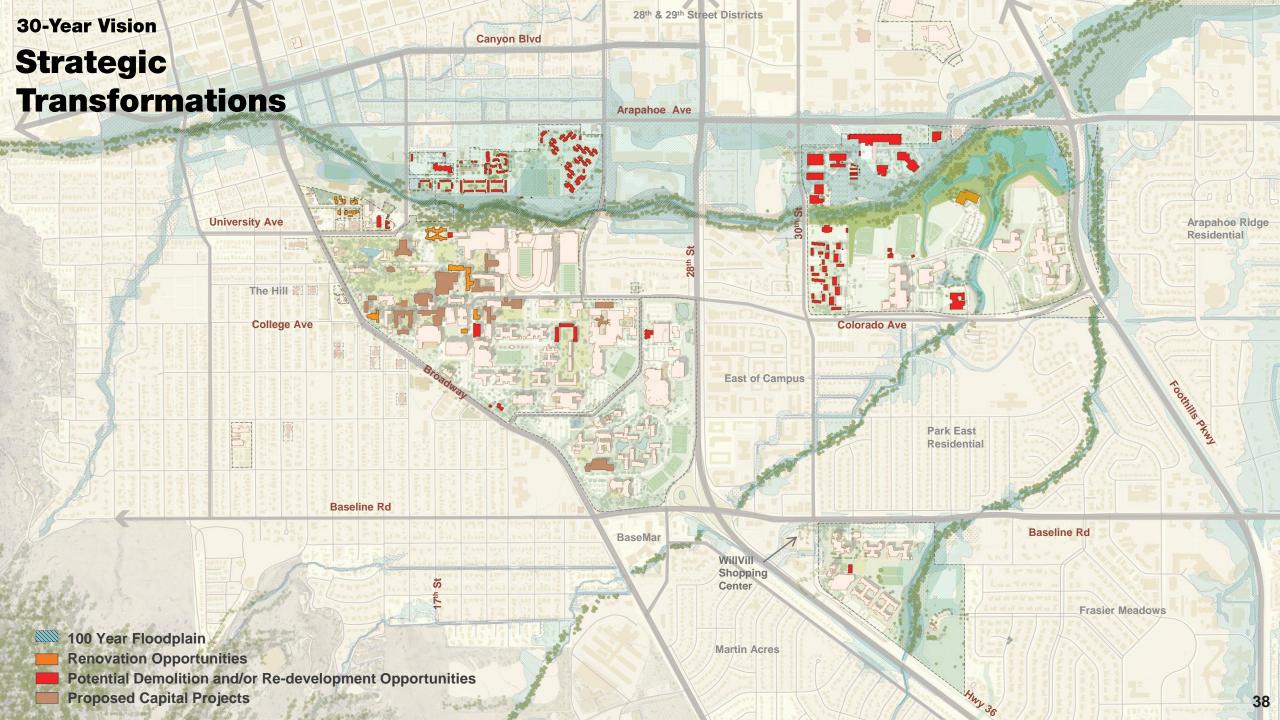


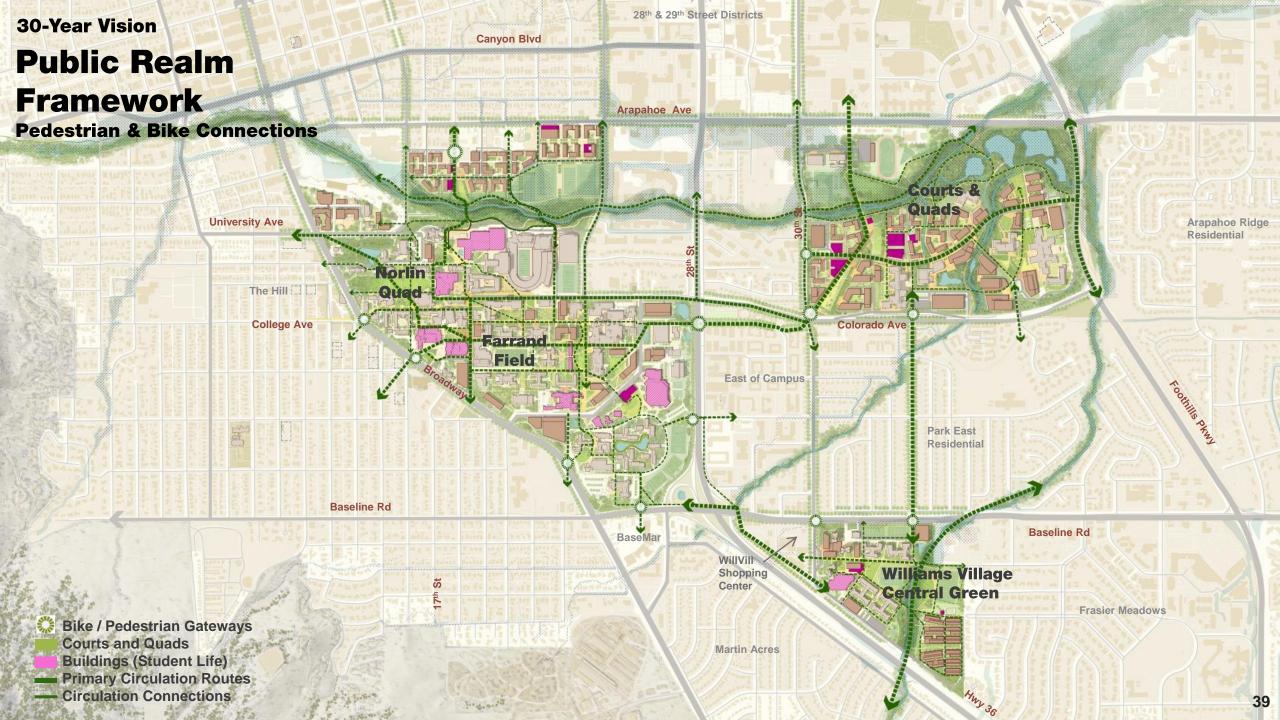




The Campus System



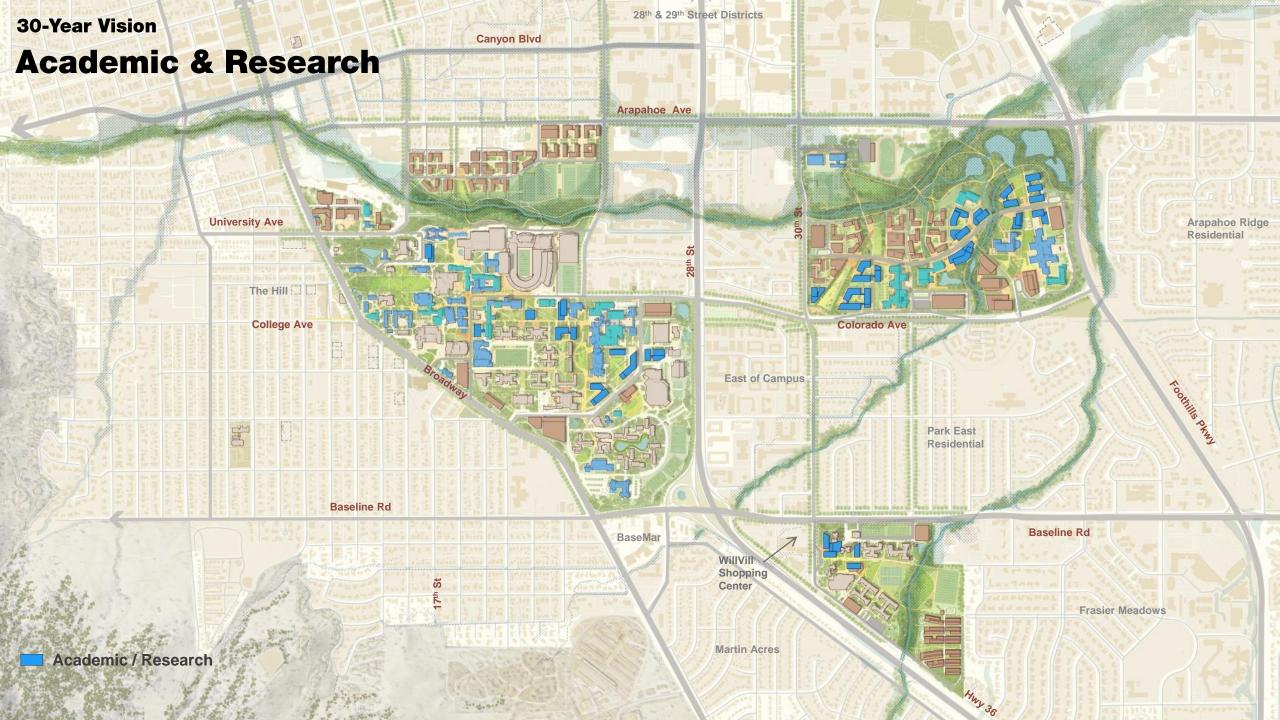


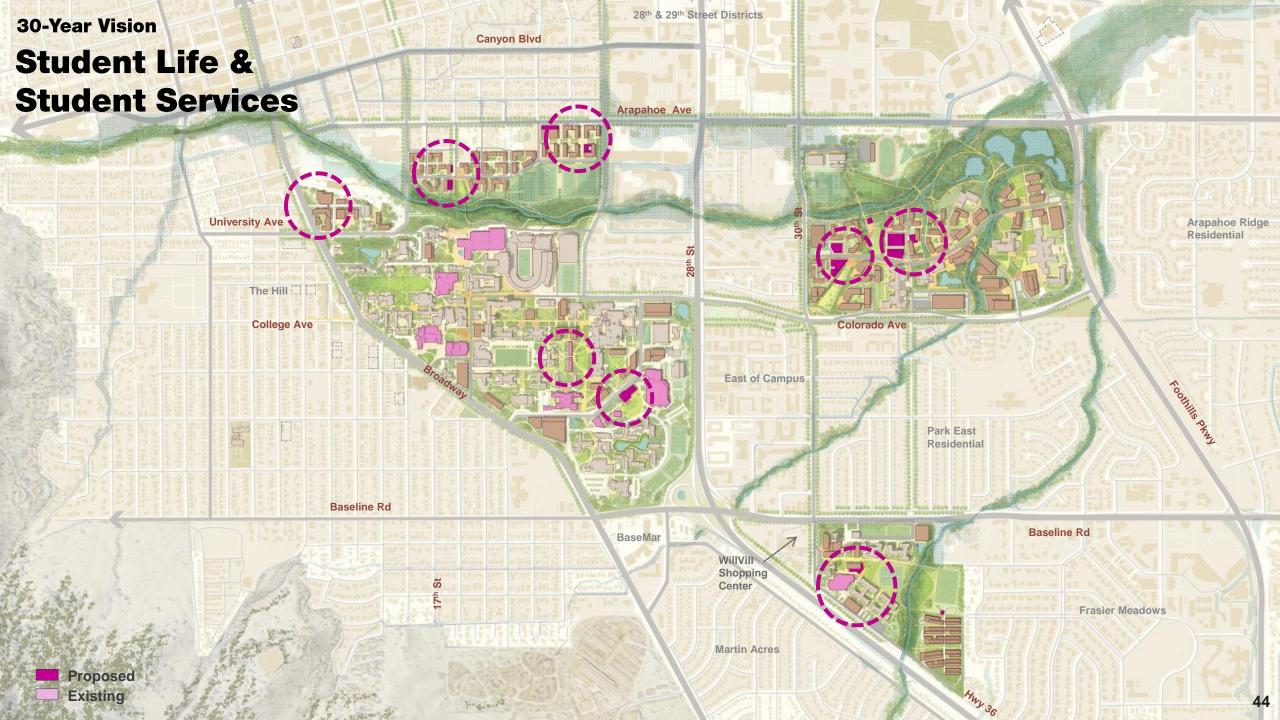


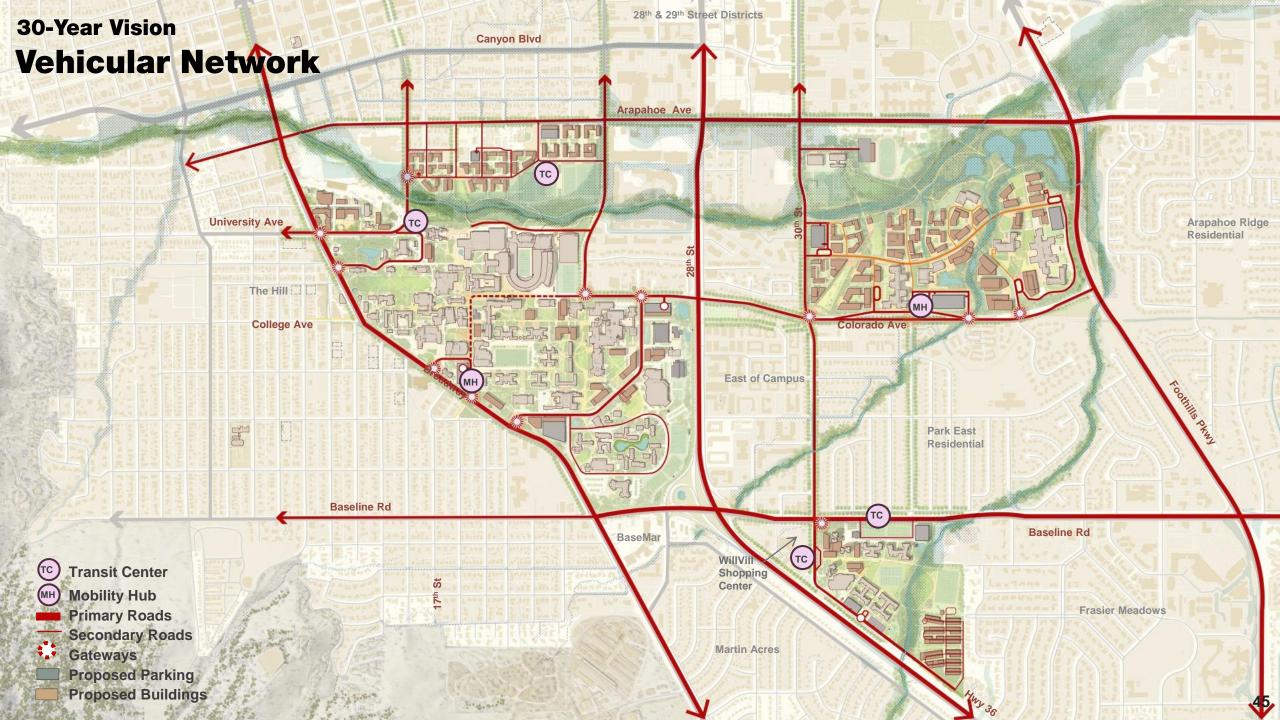




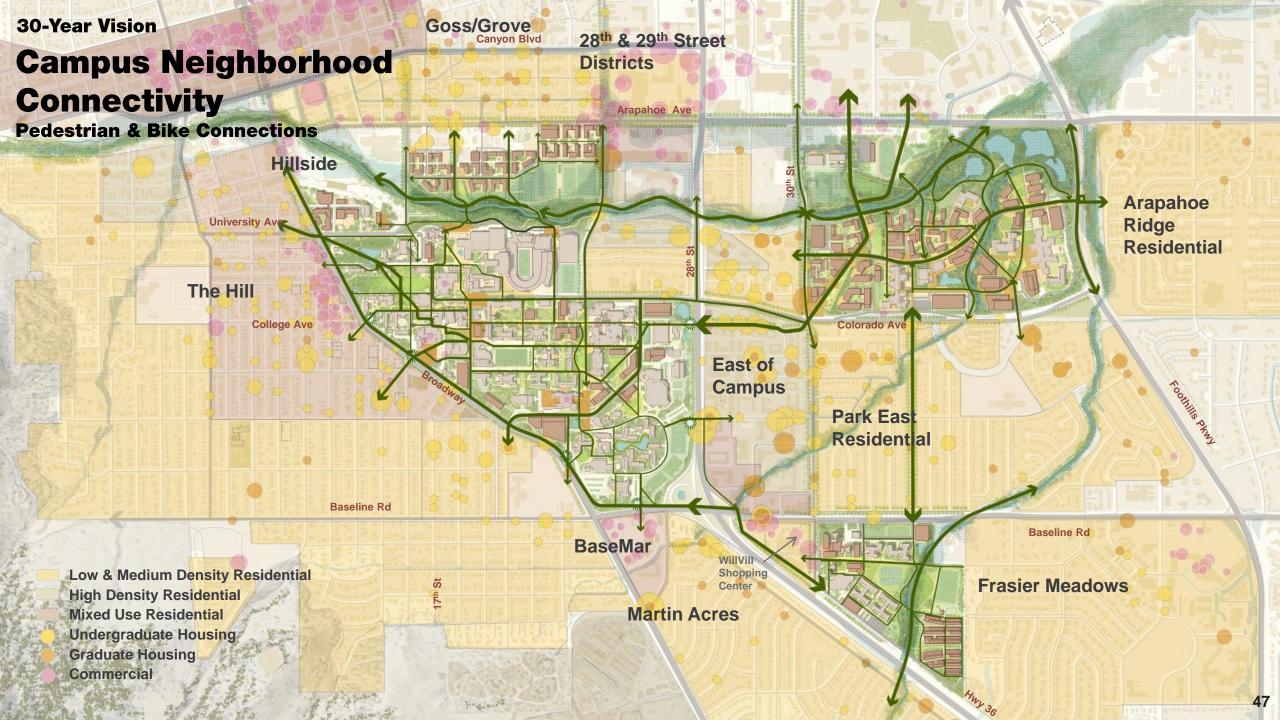


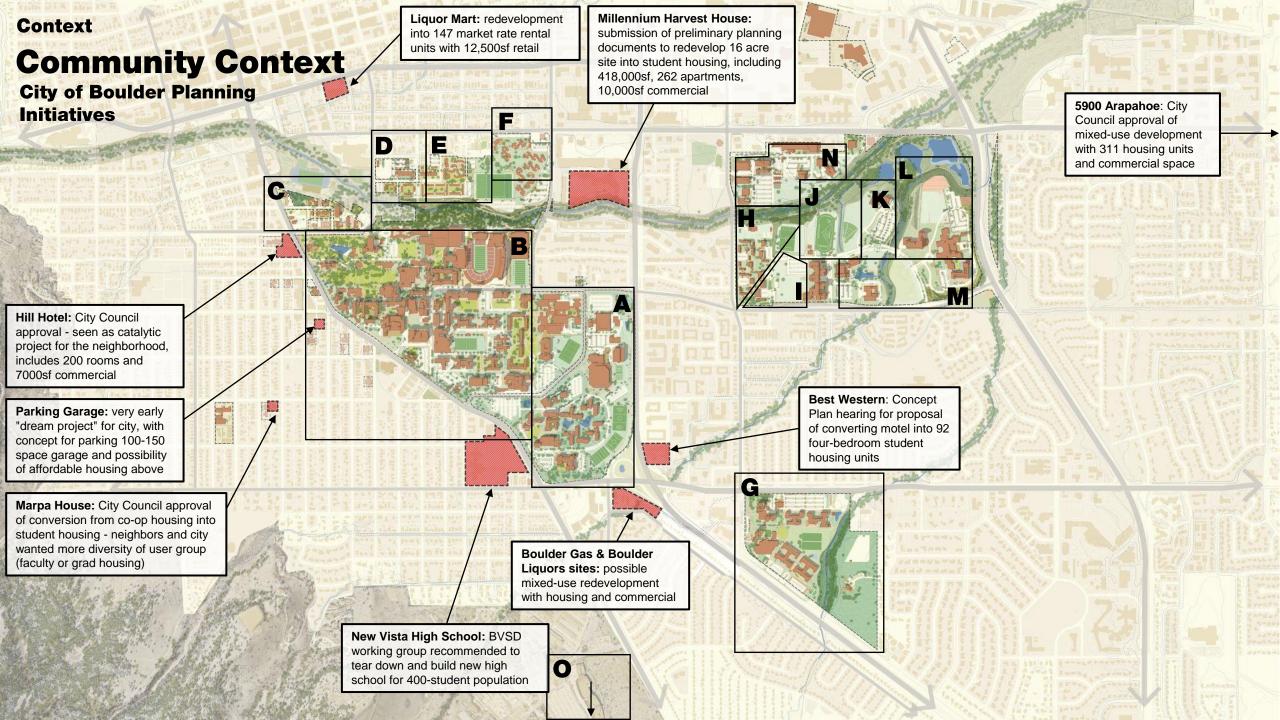








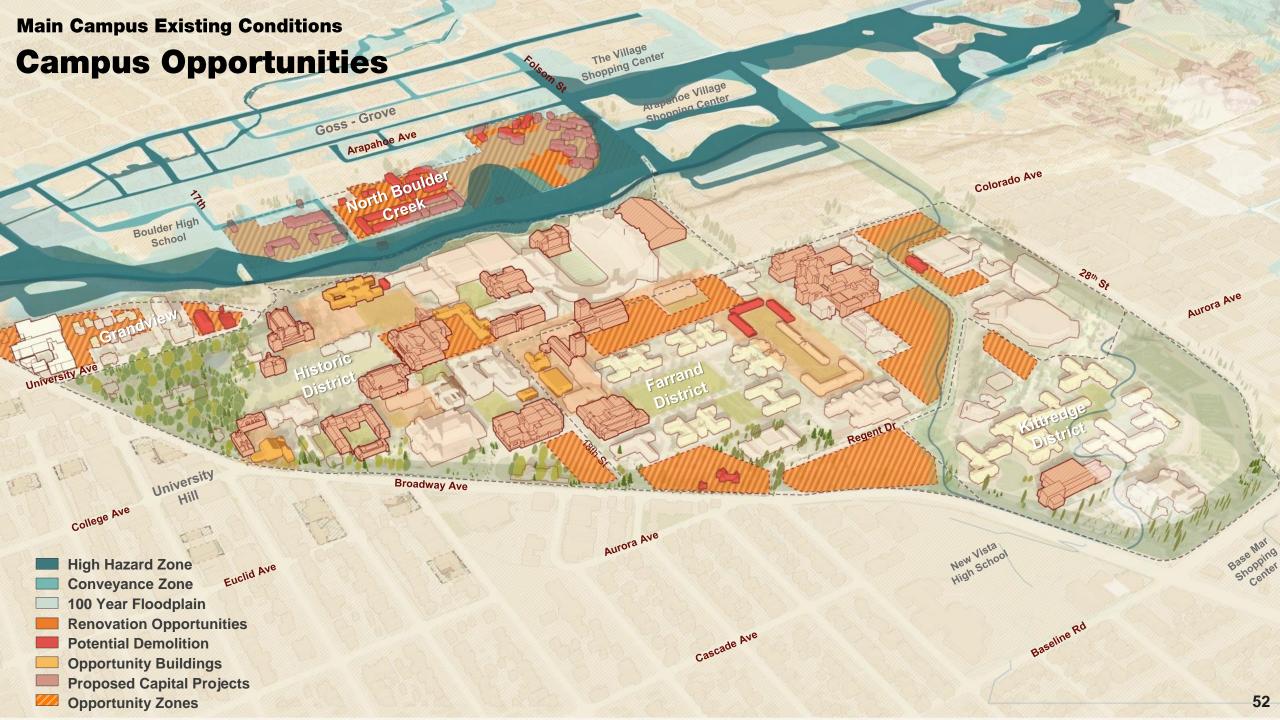




6 Campus Frameworks

Main Campus

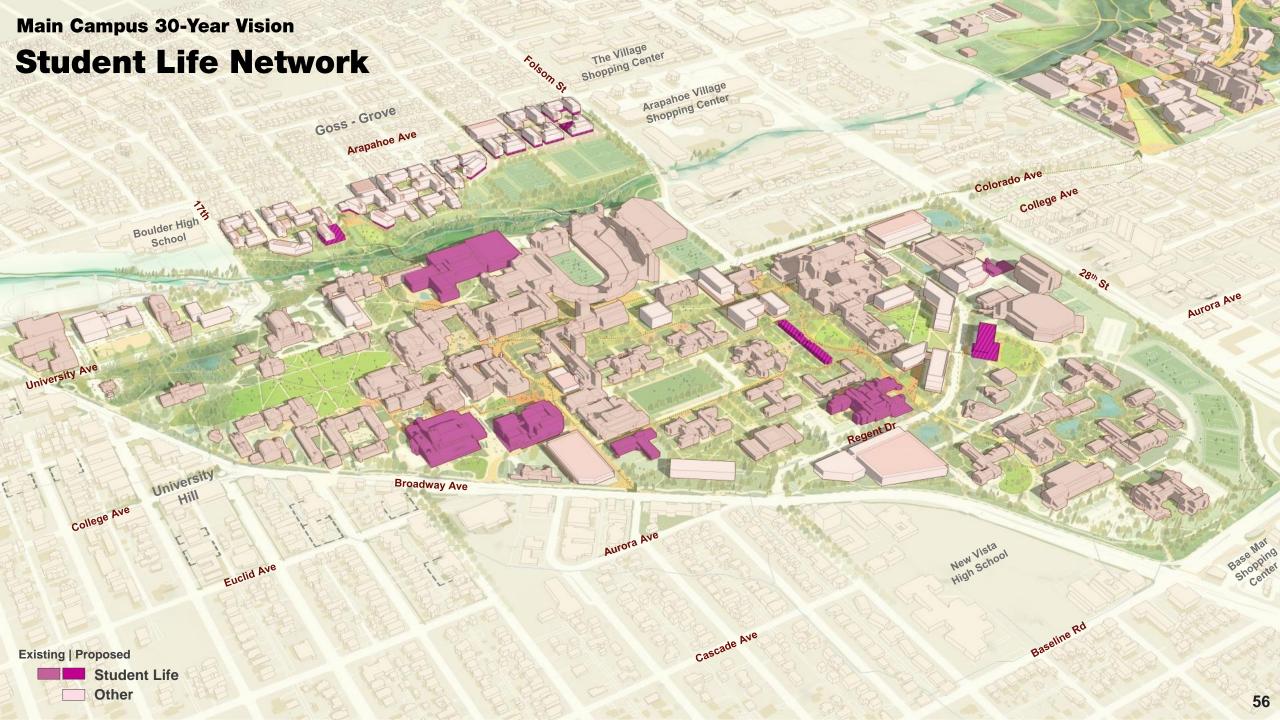








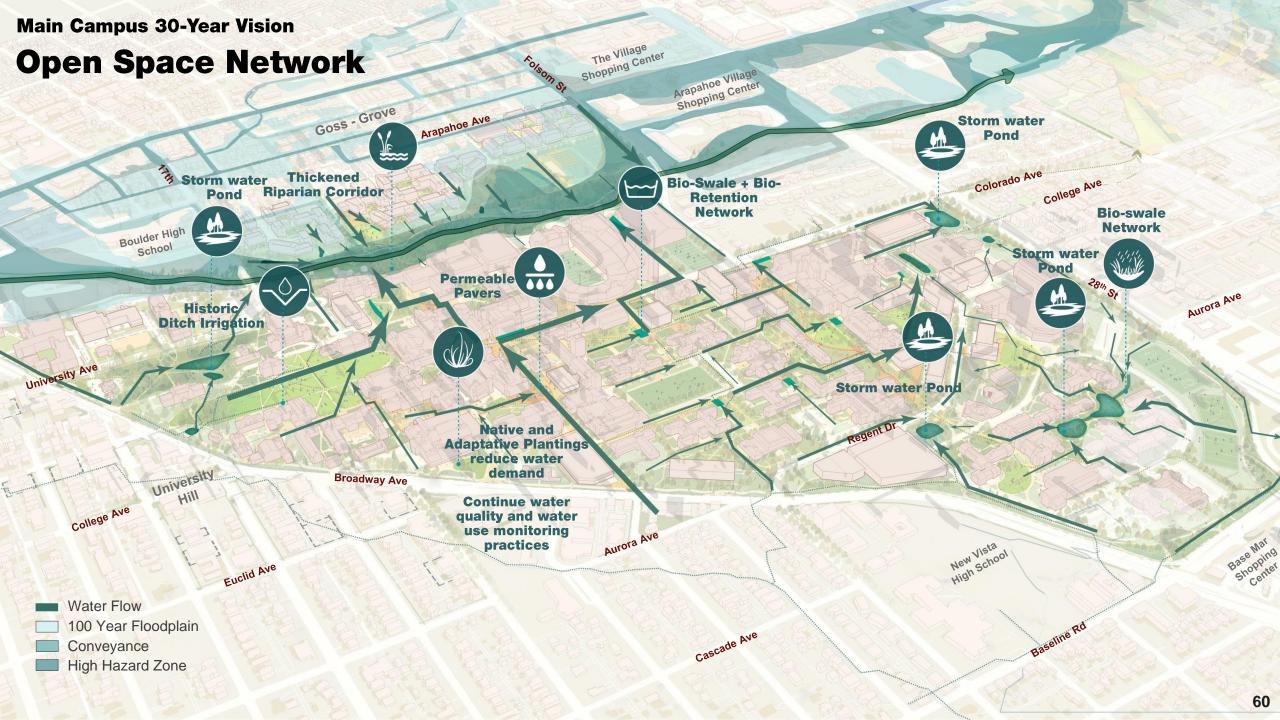


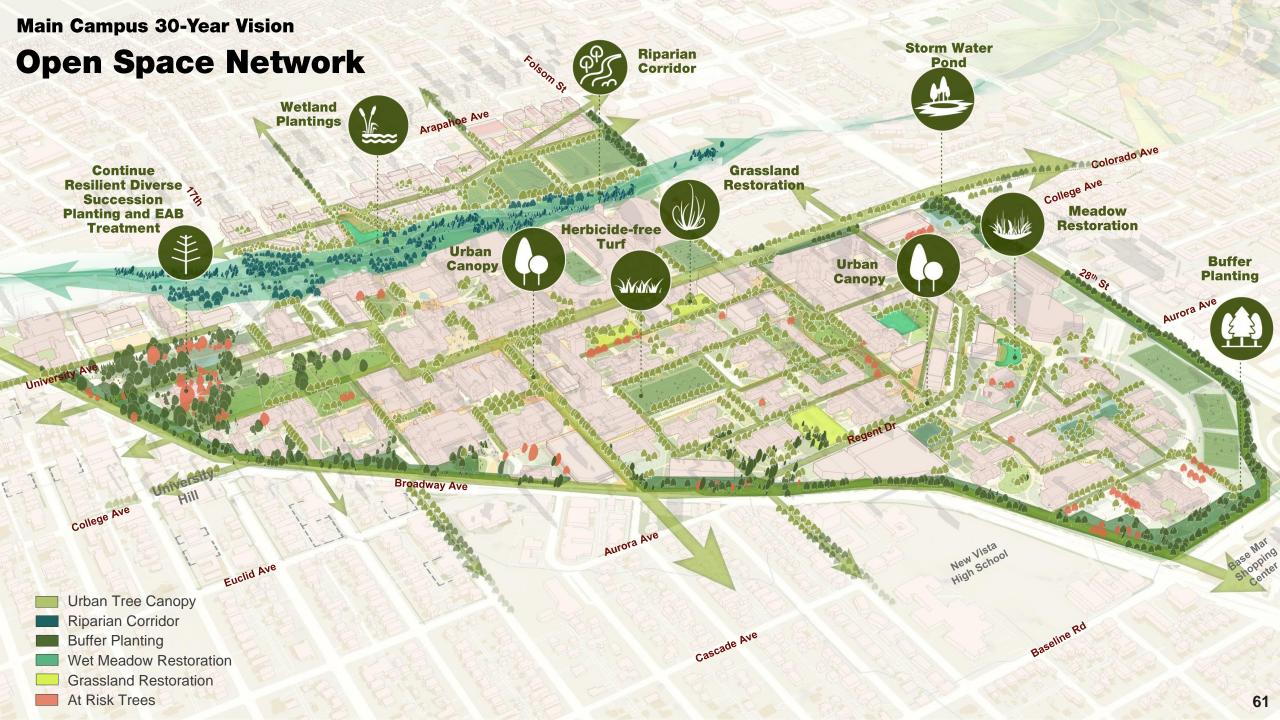


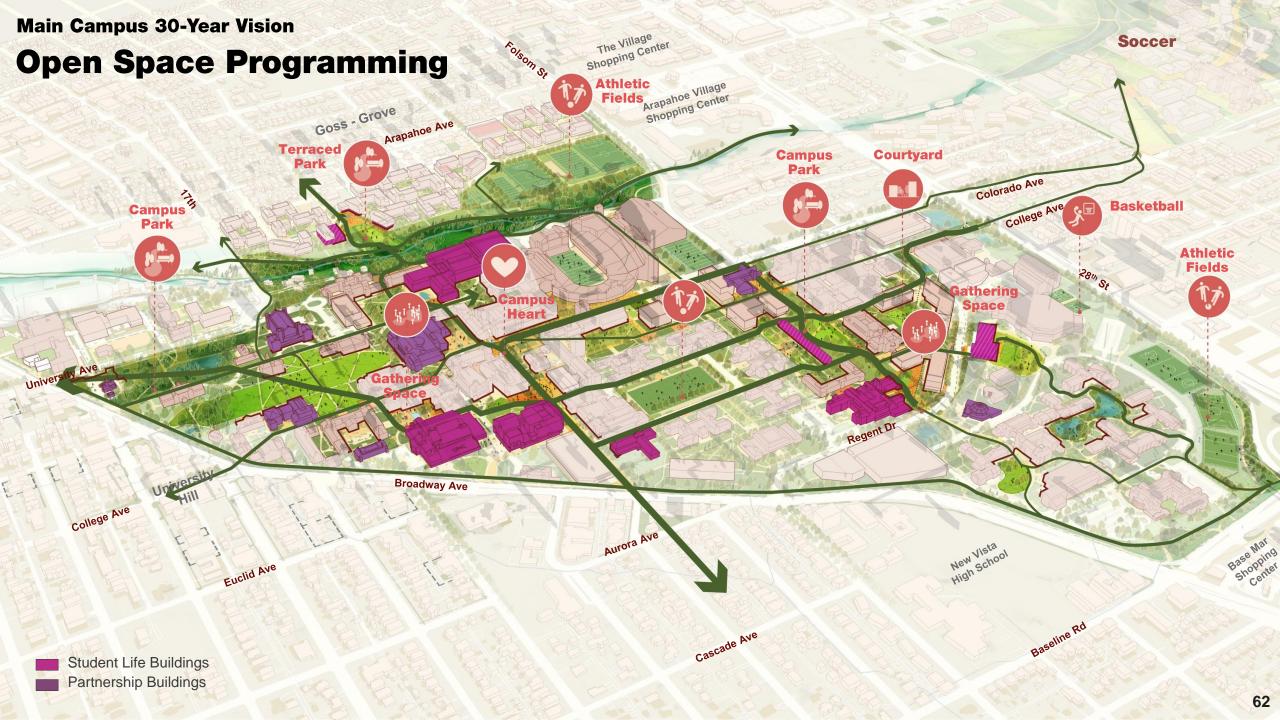






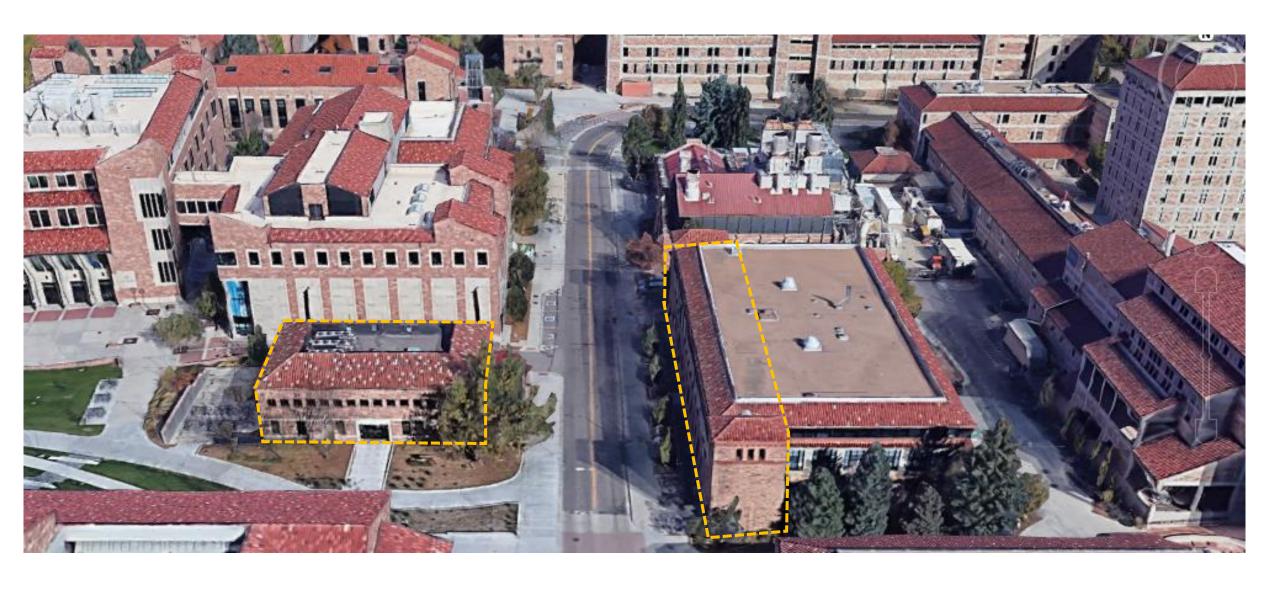






Main Campus Existing Conditions

The Walk

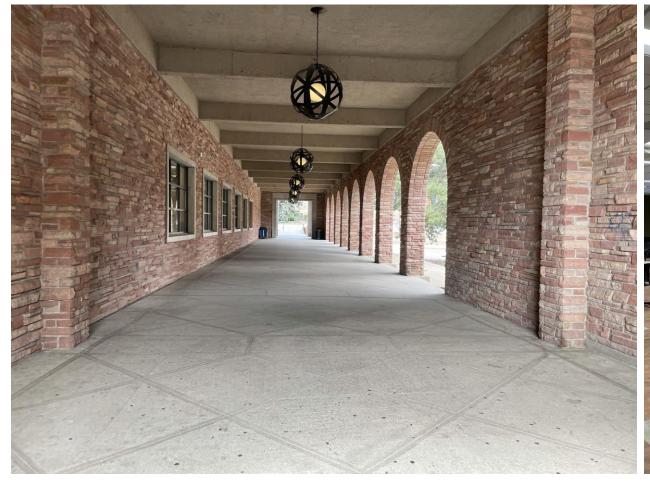


Main Campus 30-Year Vision Pedestrian Promenade **The Walk Picnic Tables** Muenzinger , & & st & & s **Roser ATLAS Power Plant** Plaza Gathering Space JILA Outdoor Dining New **Academic** Stormwater Management 18th Street



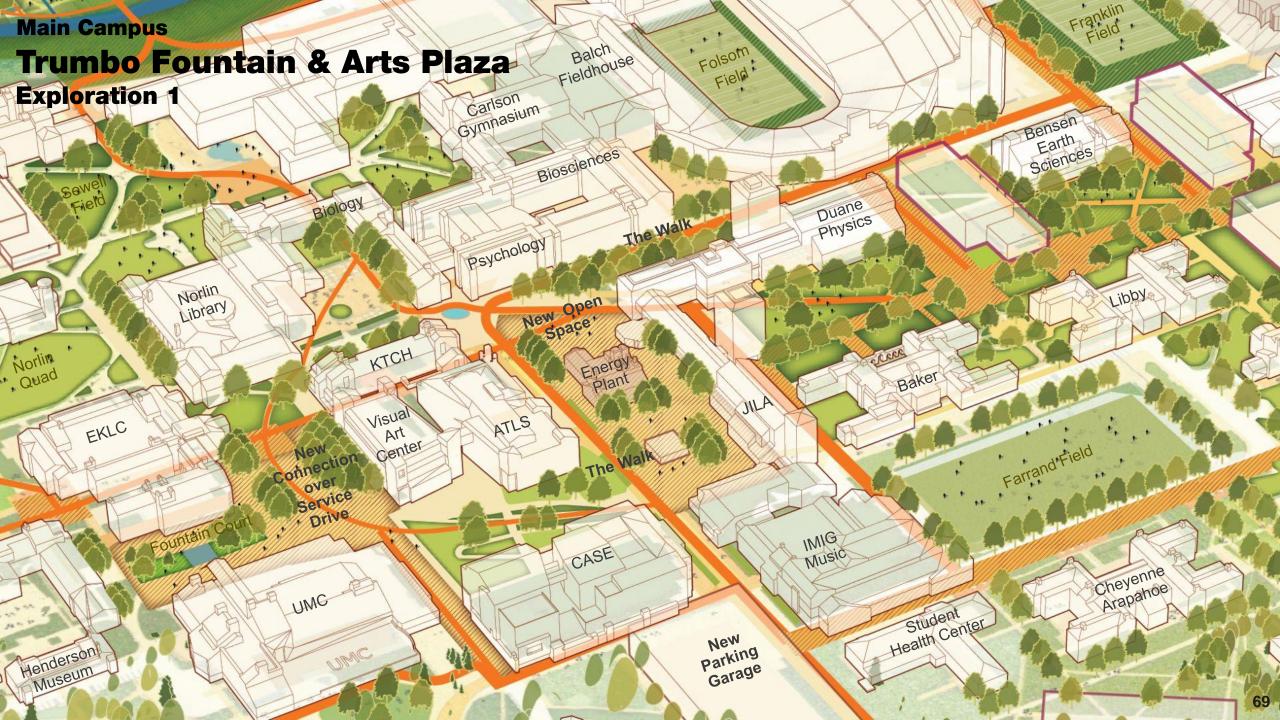


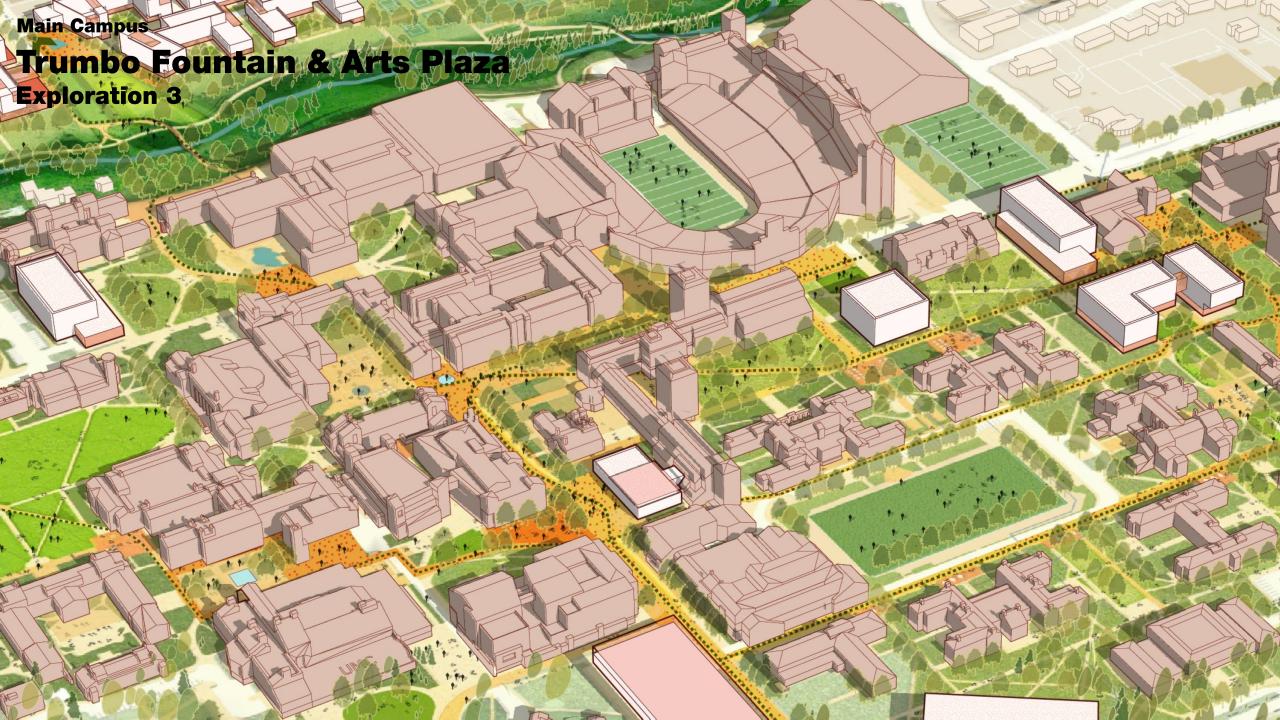
Trumbo Fountain & Arts Plaza

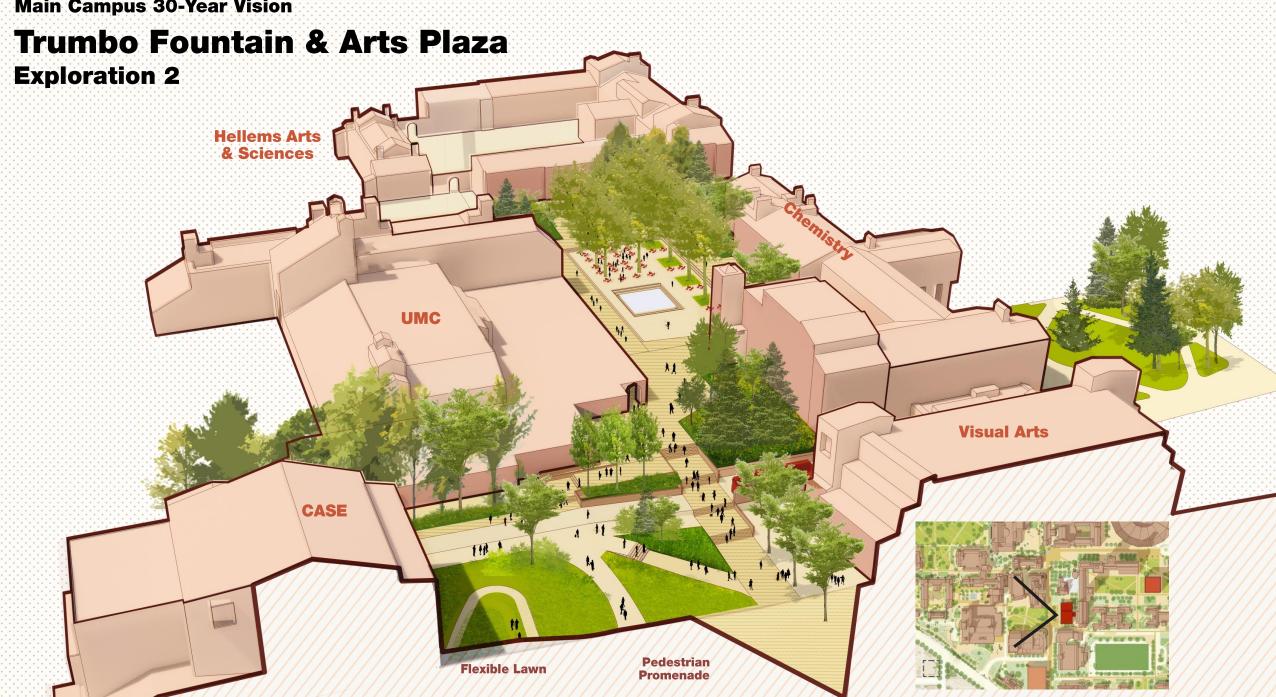


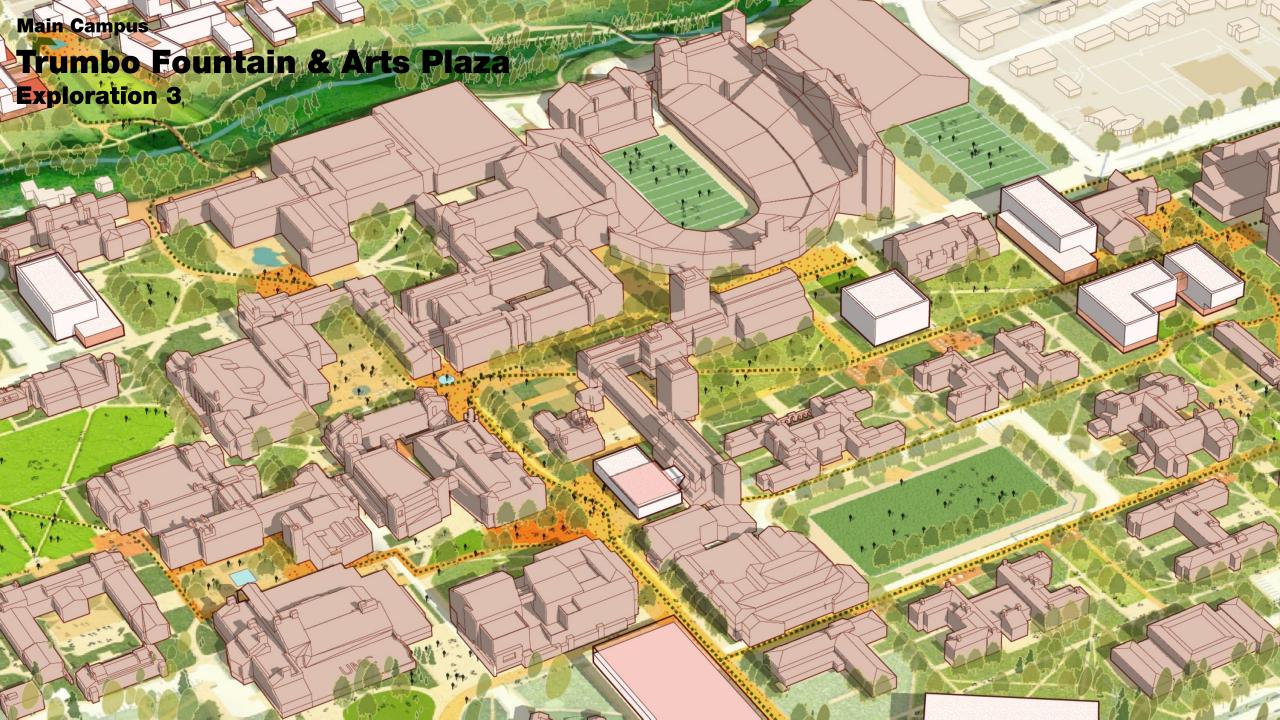


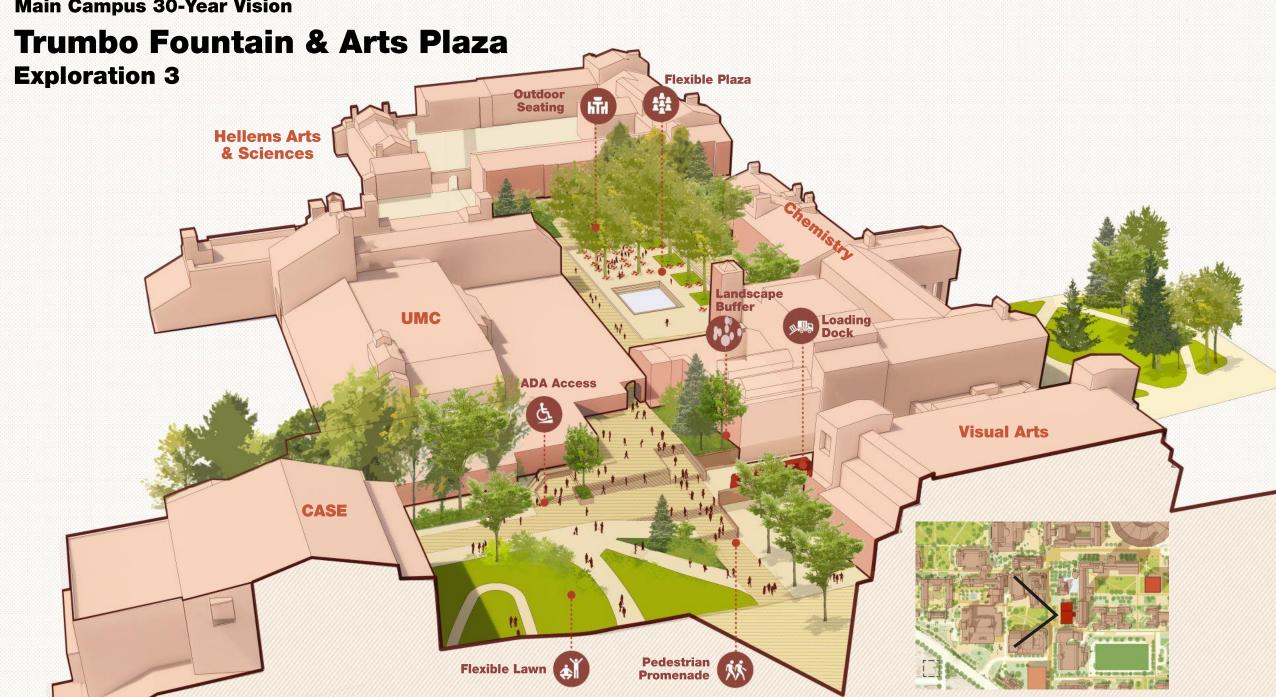






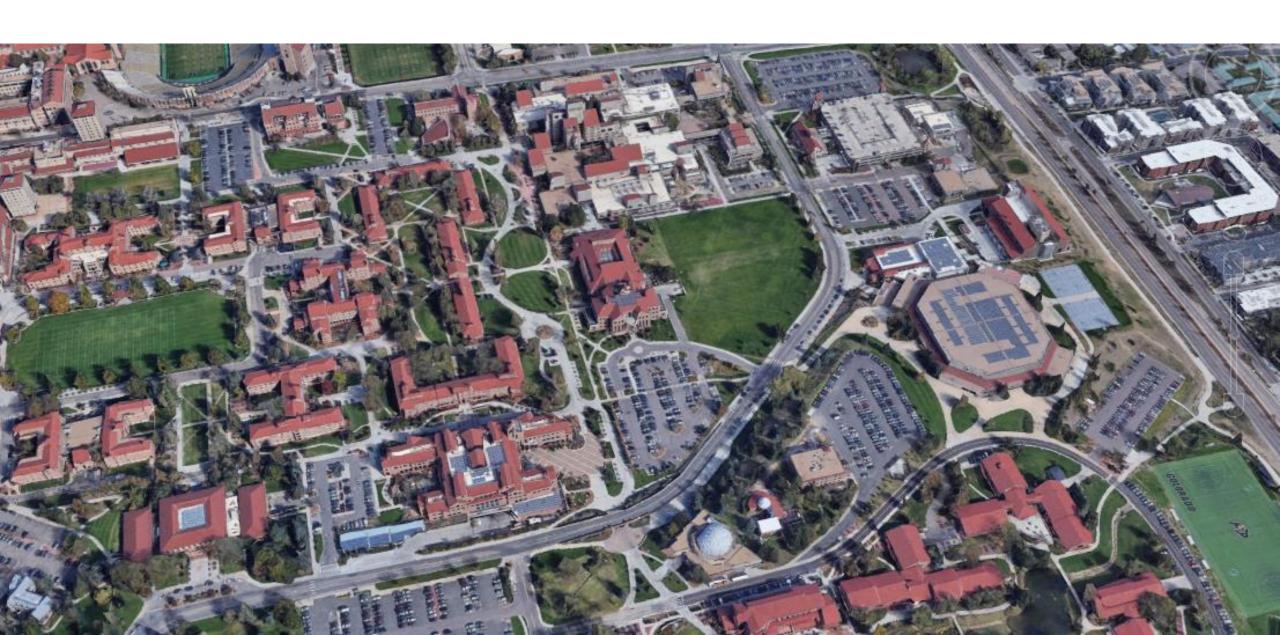


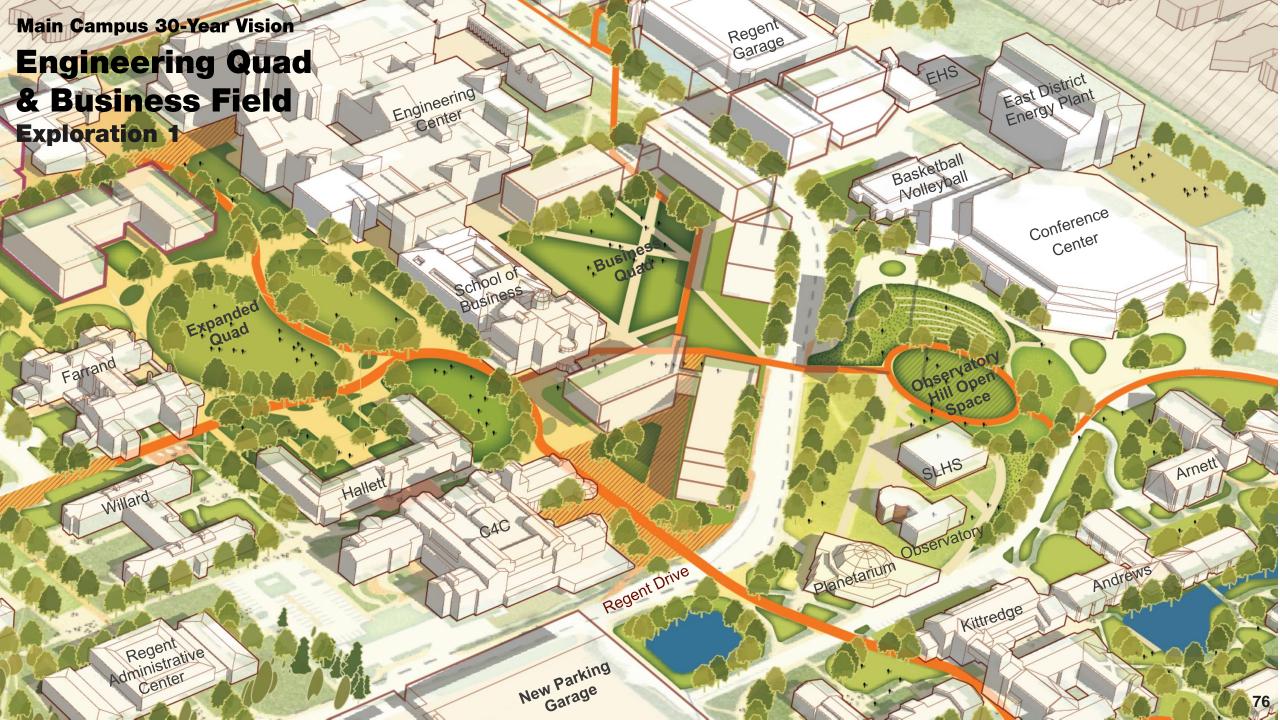


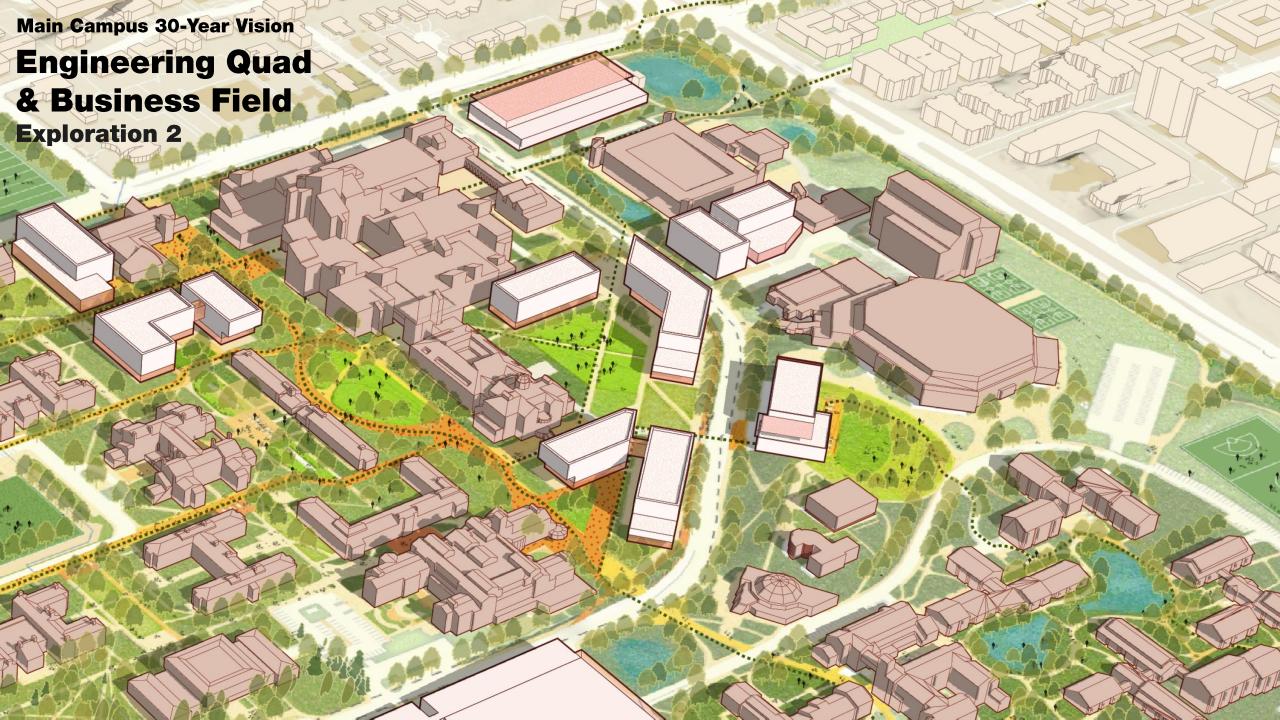




Engineering Quad & Business Field



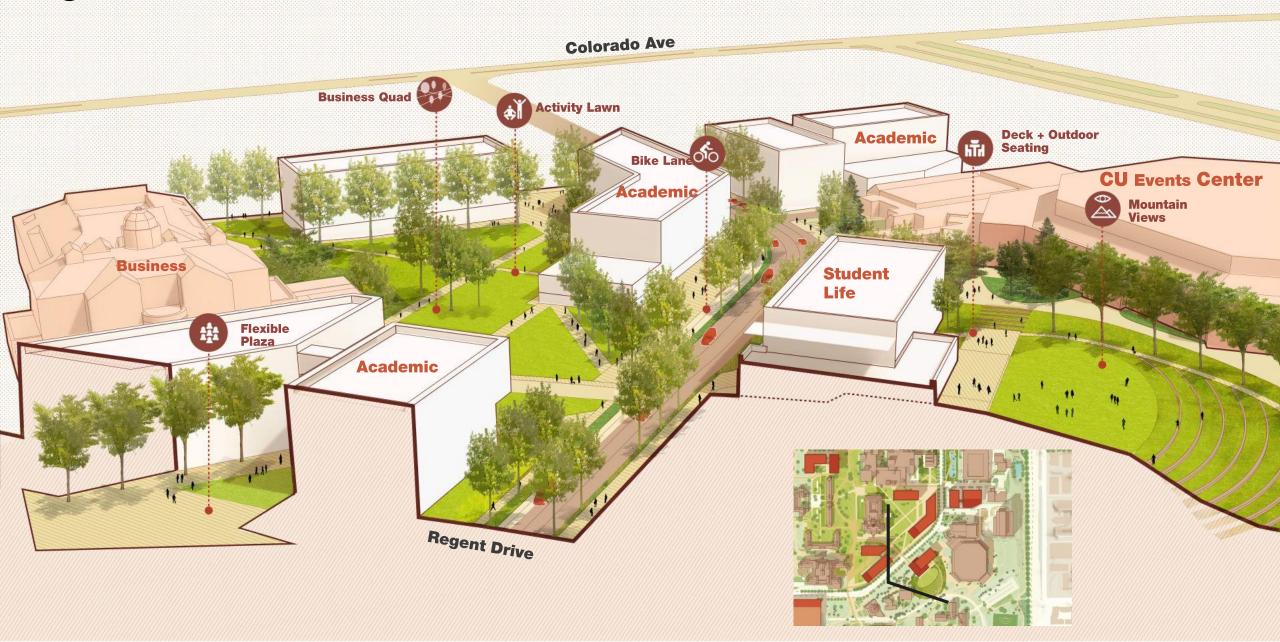






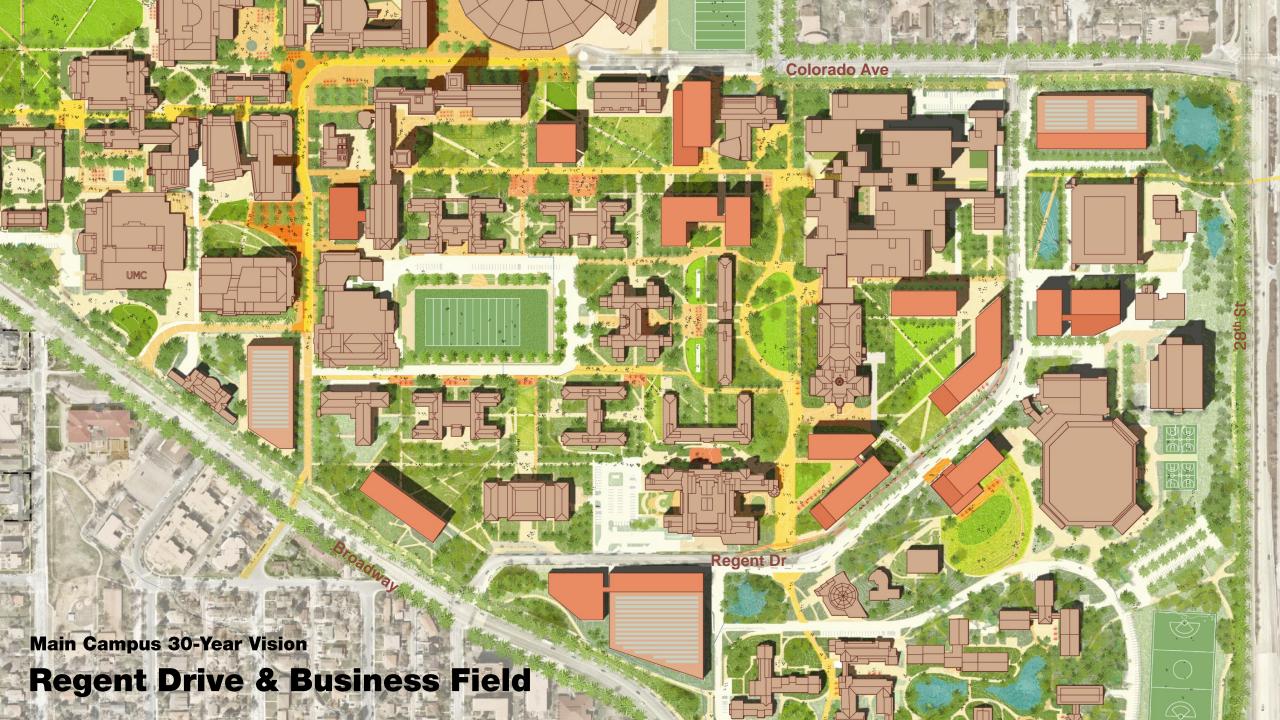


Regent Drive & Business Field

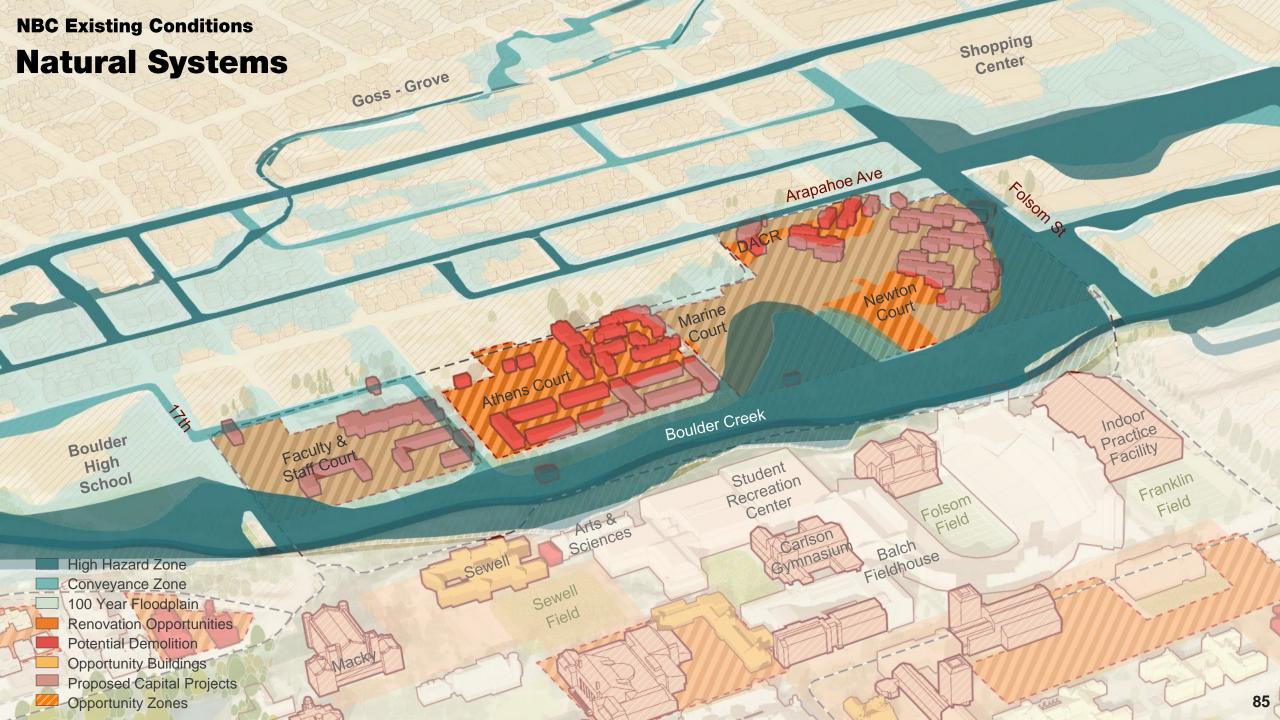








North Boulder Creek













NBC 30-Year Vision

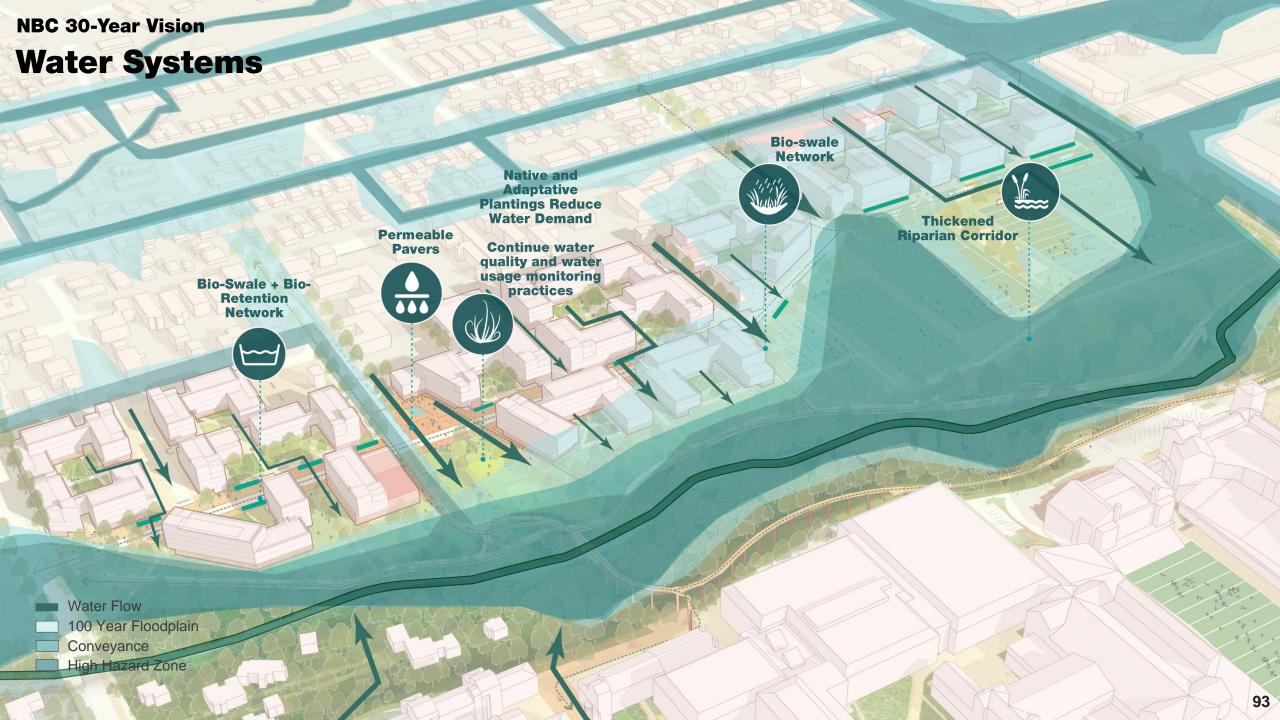
Student Housing Precedents





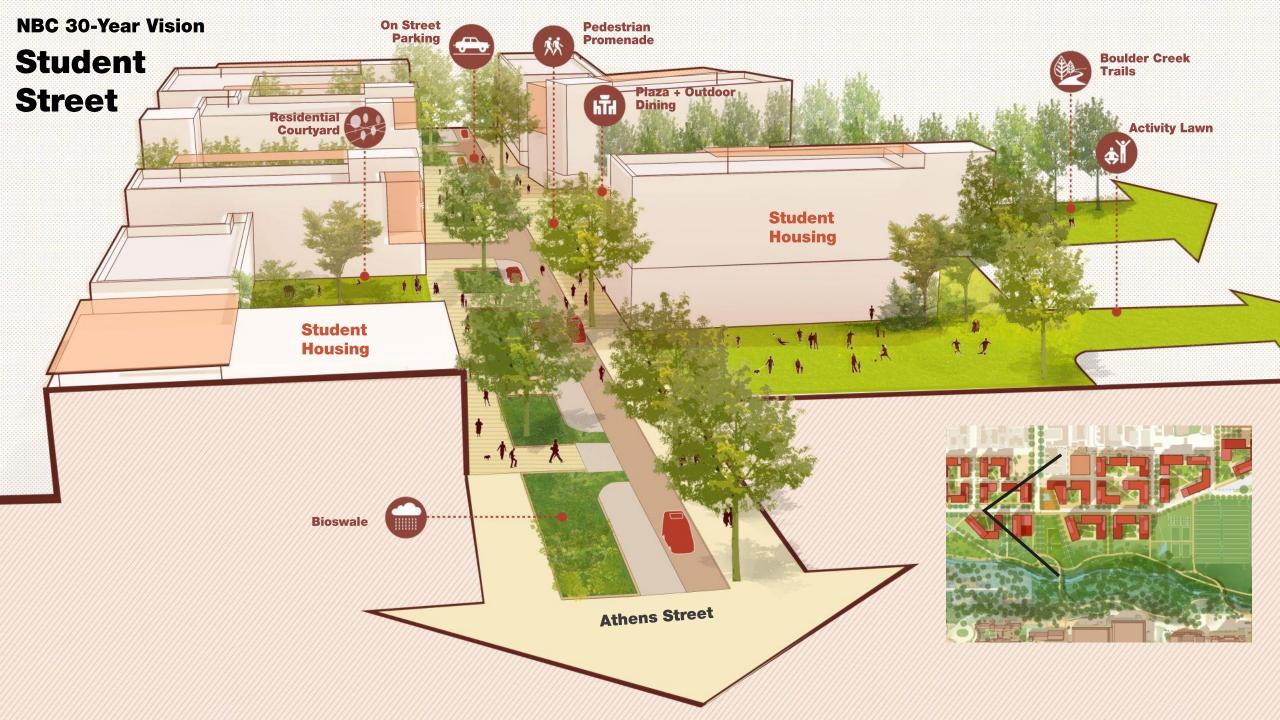






















East Campus

Research & Innovation District Precedents

What is a Research & Innovation District?

Research & Innovation districts leverage

density,
physical proximity,
shared amenities

as part of their unique commitment to create, and grow, collaborative innovation communities.



Relationships
between people,
firms and place
that facilitate idea
generation,
knowledge sharing,
and accelerate
commercialization

Resource

Gateway

What Makes a 21st Century Research District Successful?

Health &

Wellness

SPACES FOR INTERACTION

Provide <u>a platform for convergence</u> and a variety of activities across different sectors and disciplines.

PEOPLE & PROXIMITY

Build and maintain <u>a critical mass</u> of innovators, entrepreneurs, researchers, all <u>in close proximity to each other</u>.

PLACE-MAKING

Create and foster an ecosystem as well as a place.

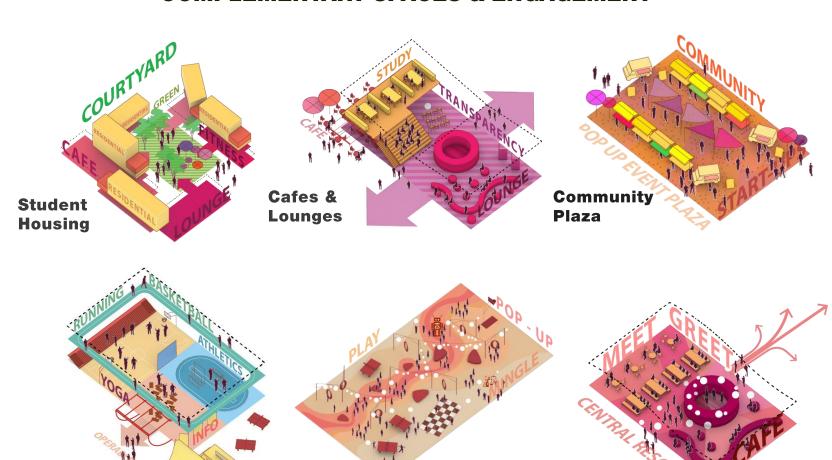
PUBLIC PROGRAMMING

<u>Public programming</u>, in-person and virtually, is key to a <u>vibrant</u>, connected community.

COMPETITIVE NICHE

Define a clear competitive advantage, economic, research, or technological niche.

COMPLEMENTARY SPACES & ENGAGEMENT



Pop-Up

Spaces

What Makes a 21st Century Research District Successful?

SPACES FOR INTERACTION

Provide <u>a platform for convergence</u> and a variety of activities across different sectors and disciplines.

PEOPLE & PROXIMITY

Build and maintain <u>a critical mass</u> of innovators, entrepreneurs, researchers, all <u>in close proximity to each other</u>.

PLACE-MAKING

Create and foster an ecosystem as well as a place.

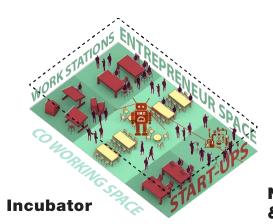
PUBLIC PROGRAMMING

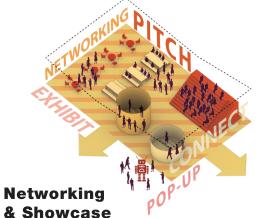
<u>Public programming</u>, in-person and virtually, is key to a <u>vibrant</u>, <u>connected community</u>.

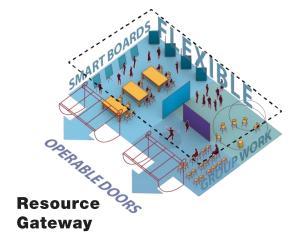
COMPETITIVE NICHE

Define a clear competitive advantage, economic, research, or technological <u>niche</u>.

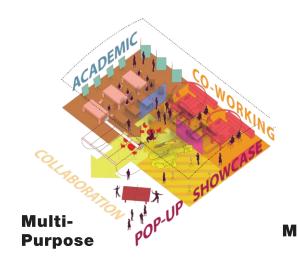
ENTREPRENEURSHIP & EXPERIENTIAL LEARNING

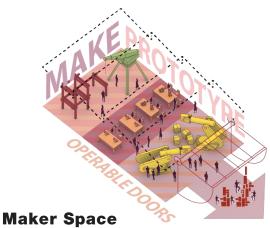




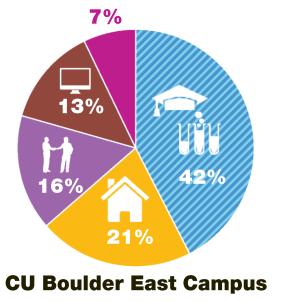




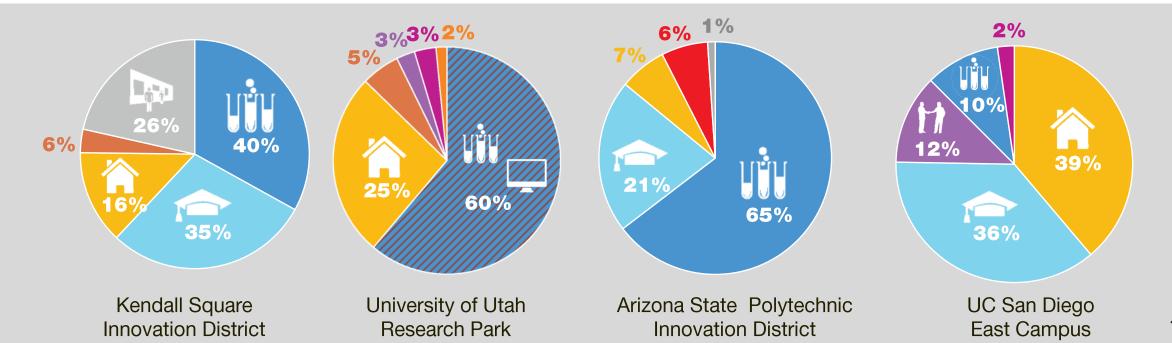




21st Century Research Districts





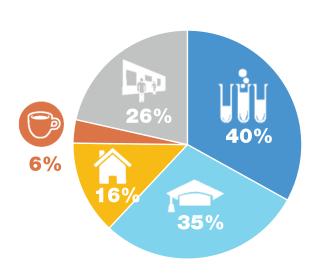


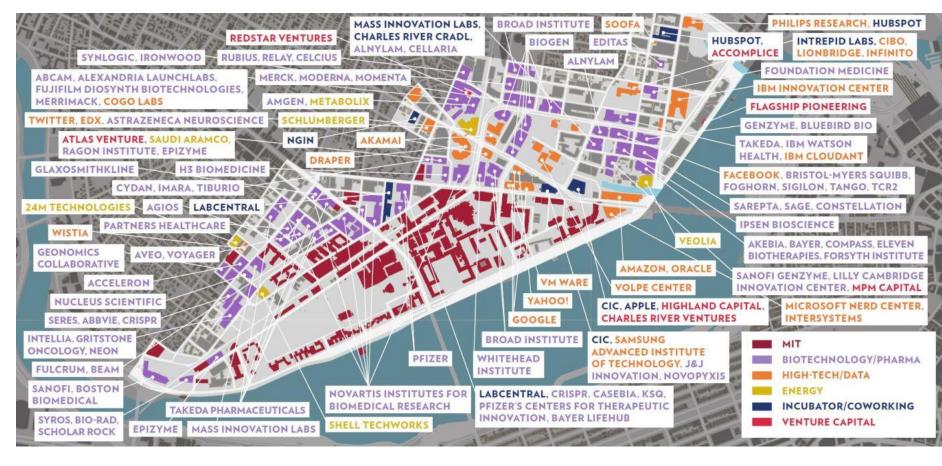
Kendall Square Innovation District

Location: Cambridge, MA

Established: 1963

Size of Site: 420 Acres Industry: Tech/Biotech















Kendall Square has the highest density of innovation companies of global innovation cluster, and also offers the most robust and balanced mix of sectors, talent, and companies within this concentration

University of Utah Research Park

Location: Salt Lake City, Utah

Established: 1968

Recent Plans: 2018 50-year Vision Plan,

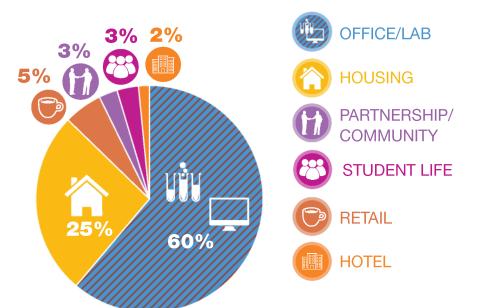
2020 Strategic Implementation

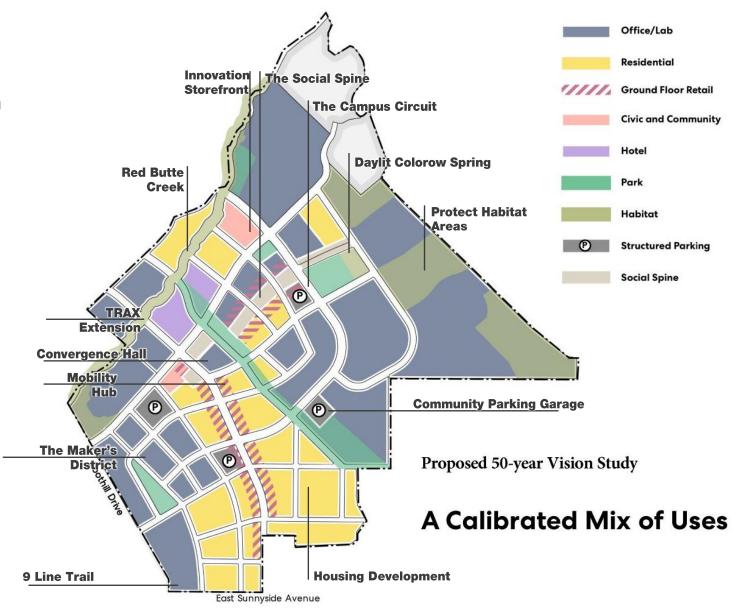
Plan

Size of Site: 320 Acres

Industry: Life Sciences (aka Bionic Valley) "The most exciting change would be the potential incorporation of live-work, mixed-use communities that create the opportunity for 24/7, 365-days-a-year occupancy."

- Executive Director, Jonathon Bates, Real Estate
Administration





Arizona State University Polytechnic Innovation District

Location: Mesa, Arizona

Established: 1996

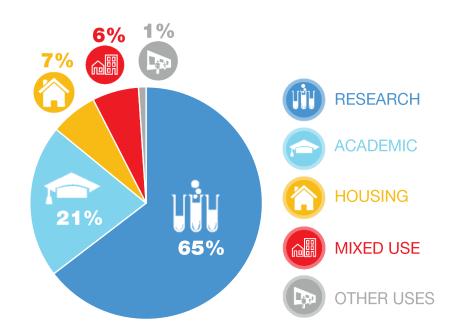
Recent Plans: 2017 Innovation District Master Plan

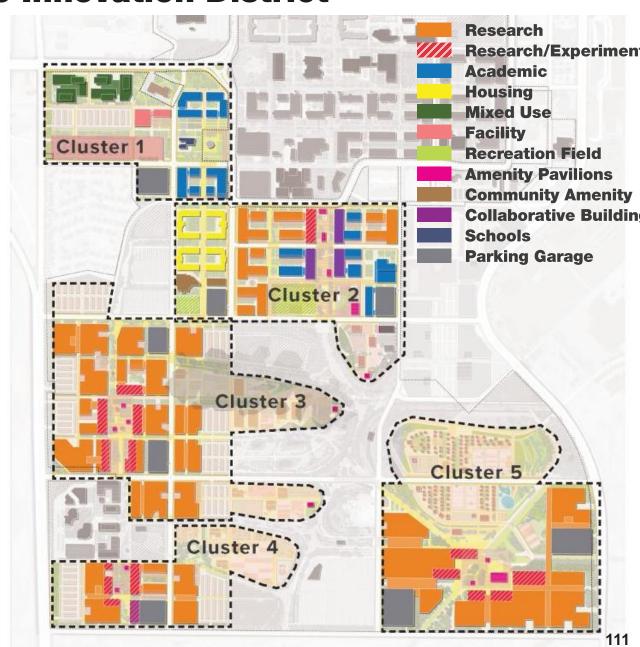
Size of Site: 350 Acres

Industry: Water, Energy, Food

"In addition to research and academic uses, the plan introduces substantial housing for students and professionals, a range of community and social amenities, recreation spaces, and a central desert park."

- 2017 Innovation District Master Plan





UC San Diego - East Campus

Location: La Jolla, CA

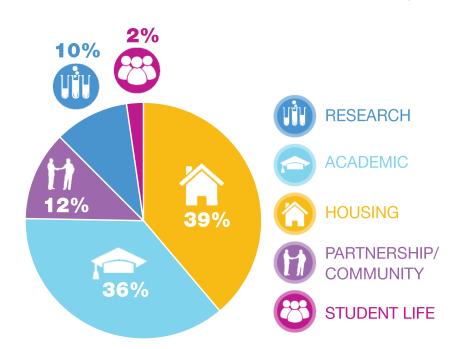
Established: 1963 (UCSD); 2002 (Science Research Park) Size of Site: 266 Acres (East Campus); 30 Acres (Science

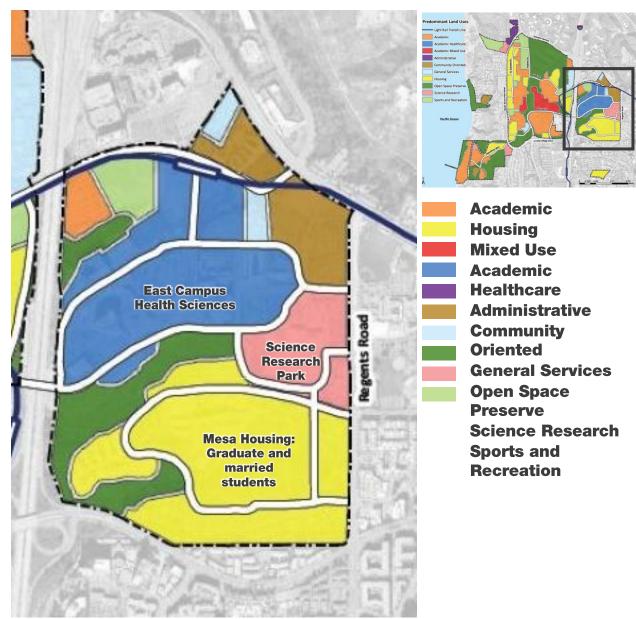
Research Park)

Industry: Biotech, Bioscience

"The SRP will also create an intellectual resource for the interaction among industrial and academic research activities, enhance retention of outstanding researchers, and enhance private support for UCSD's graduate and undergraduate fellowships, training, research, and collaboration."

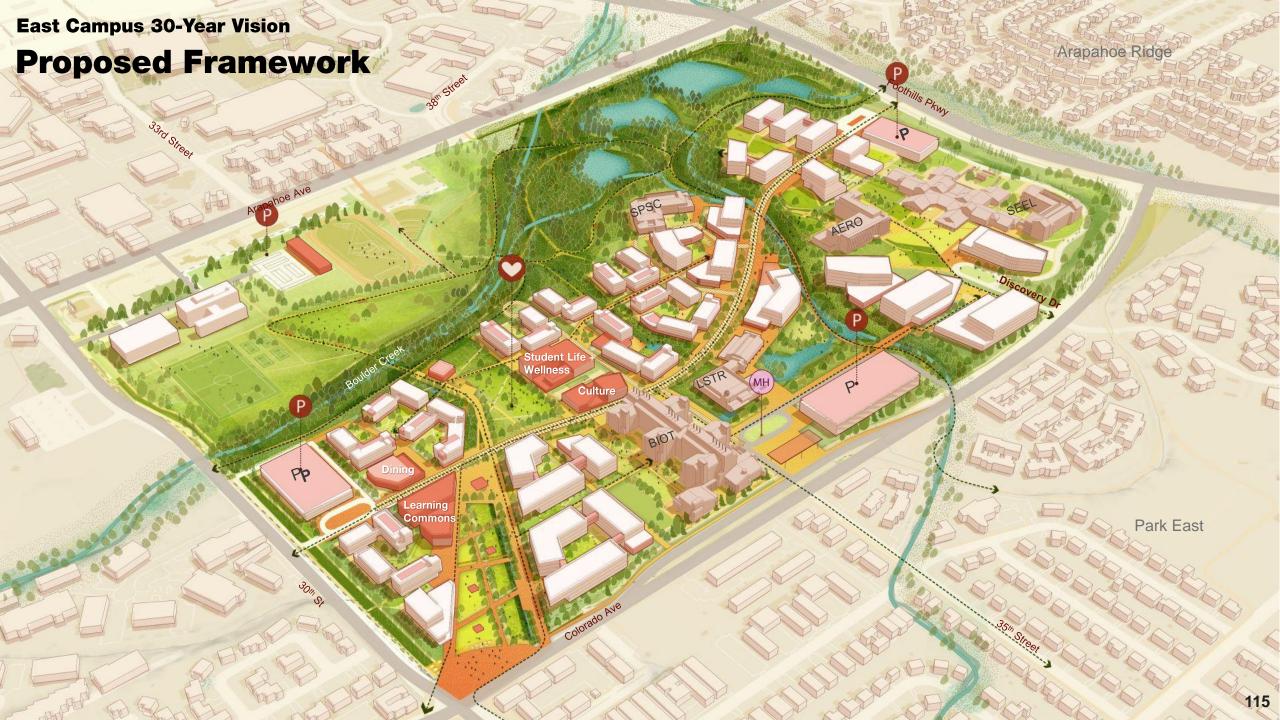
- 2002 Science Research Park Development Concept Plan





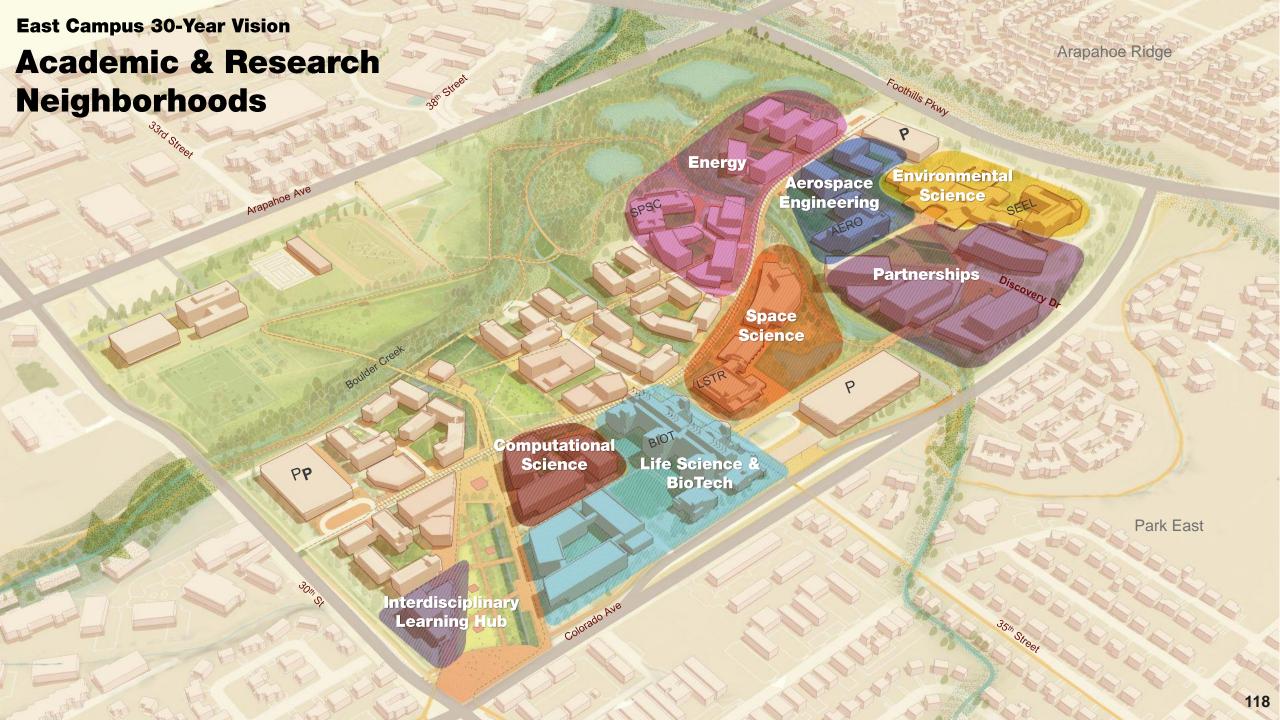
East Campus Plan



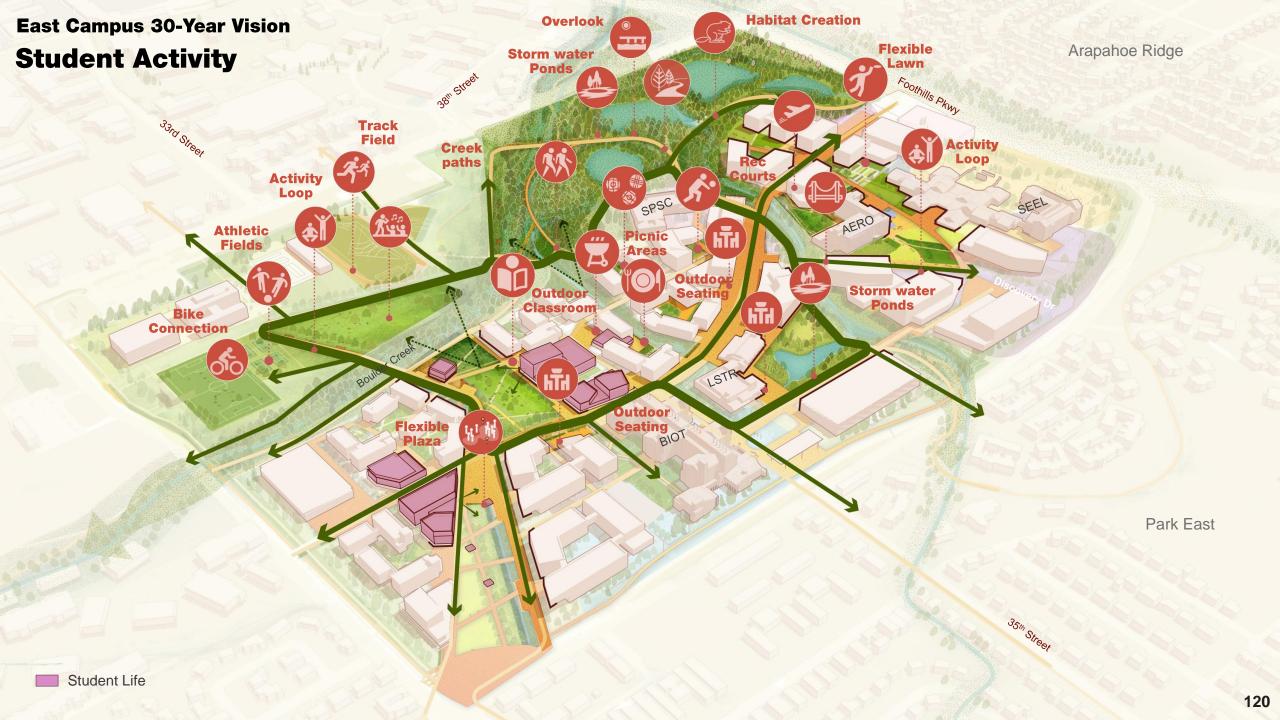










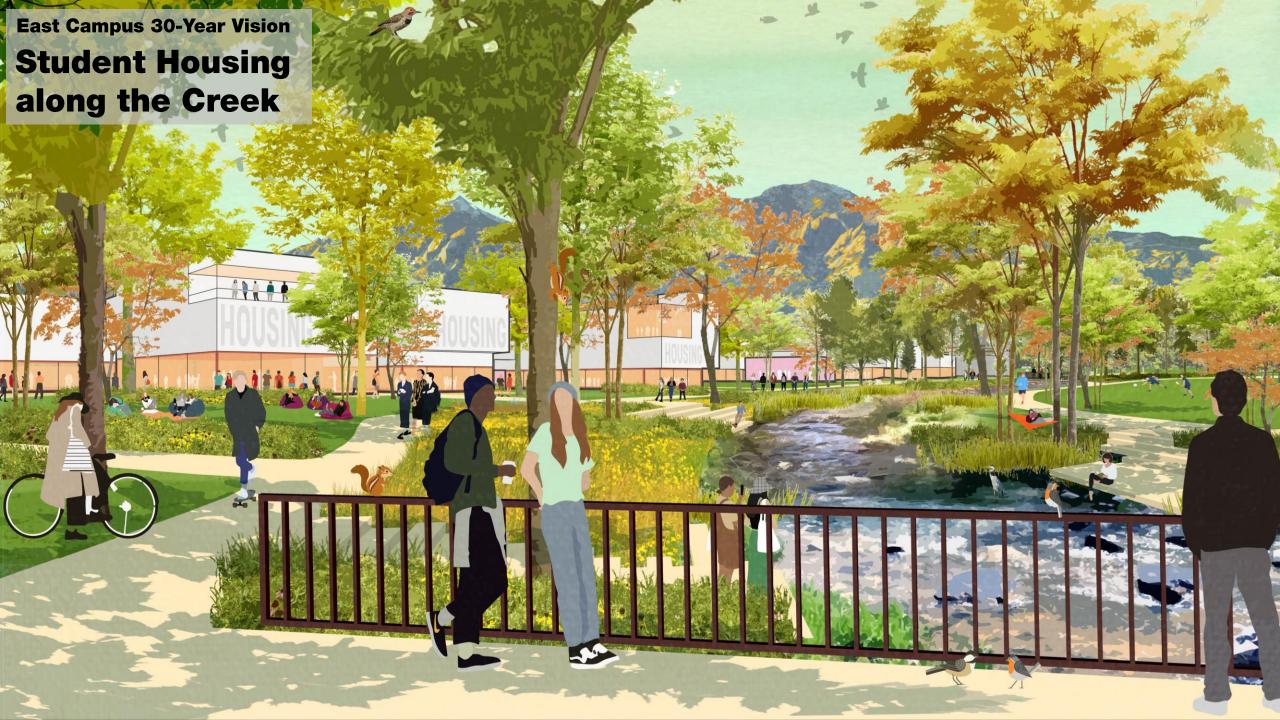




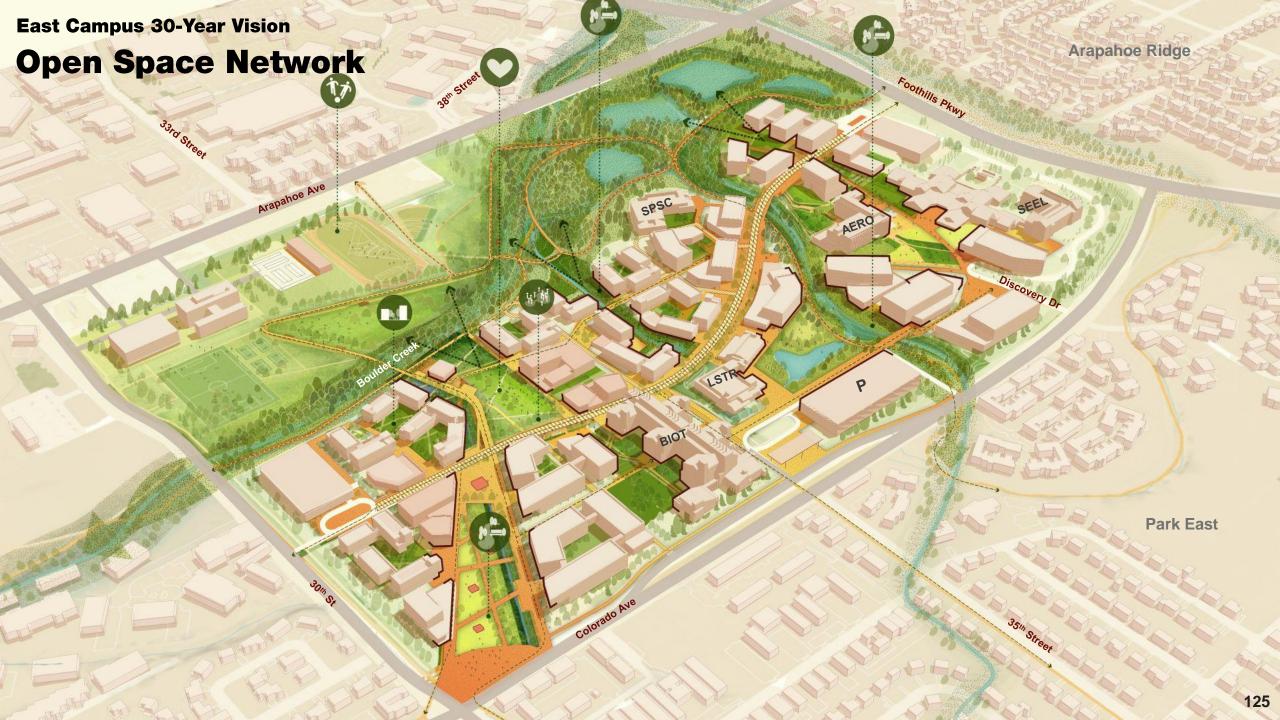
Student Housing Precedents











East Campus 30-Year Vision

Scale Comparisons



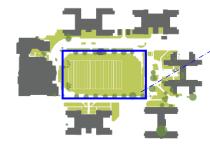
Baker Hall & Libby Hall



Dalton Trumbo Fountain



Farrand Field



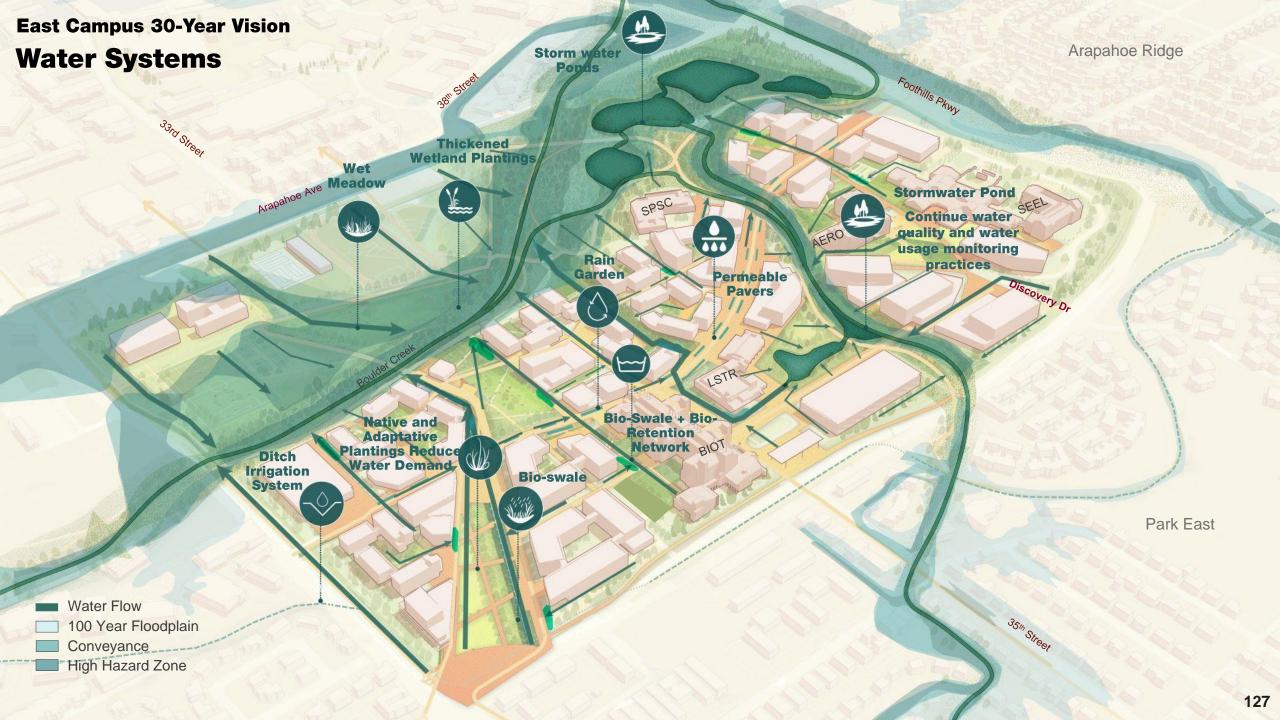


Mary Rippon Theater

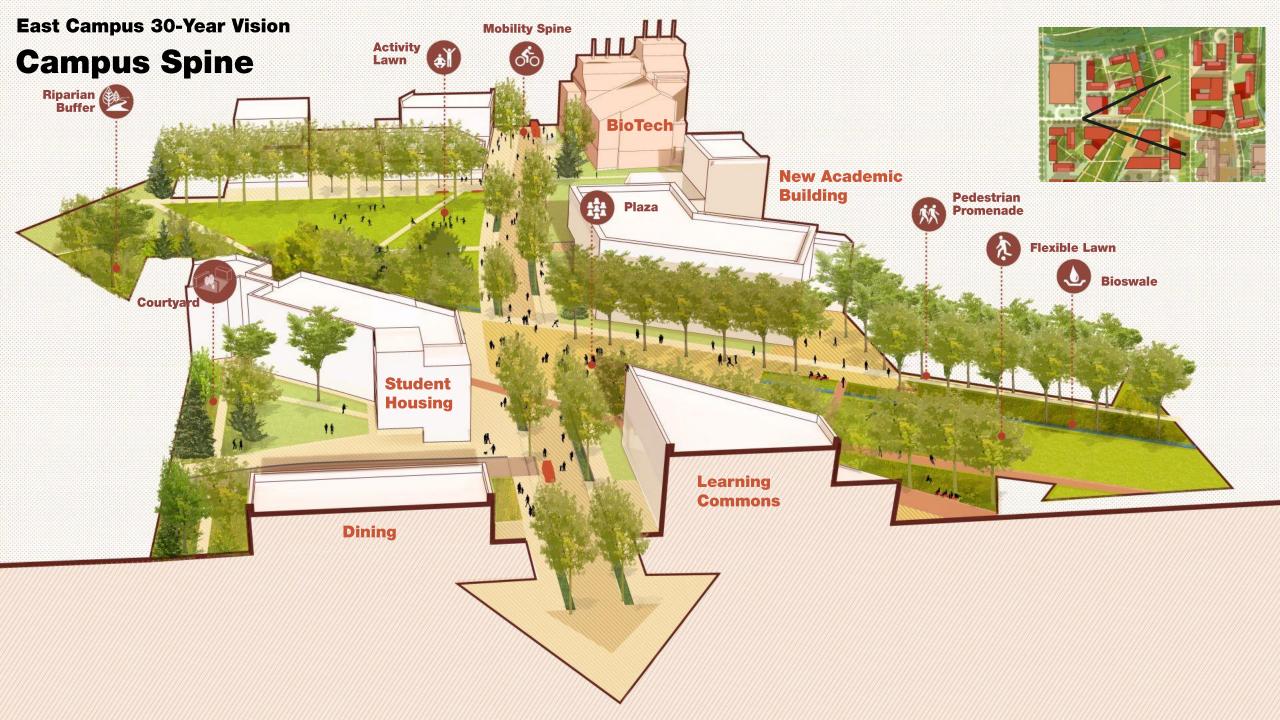


Sewall Field



























East Campus 30-Year Vision

30th & Colorado Gateway

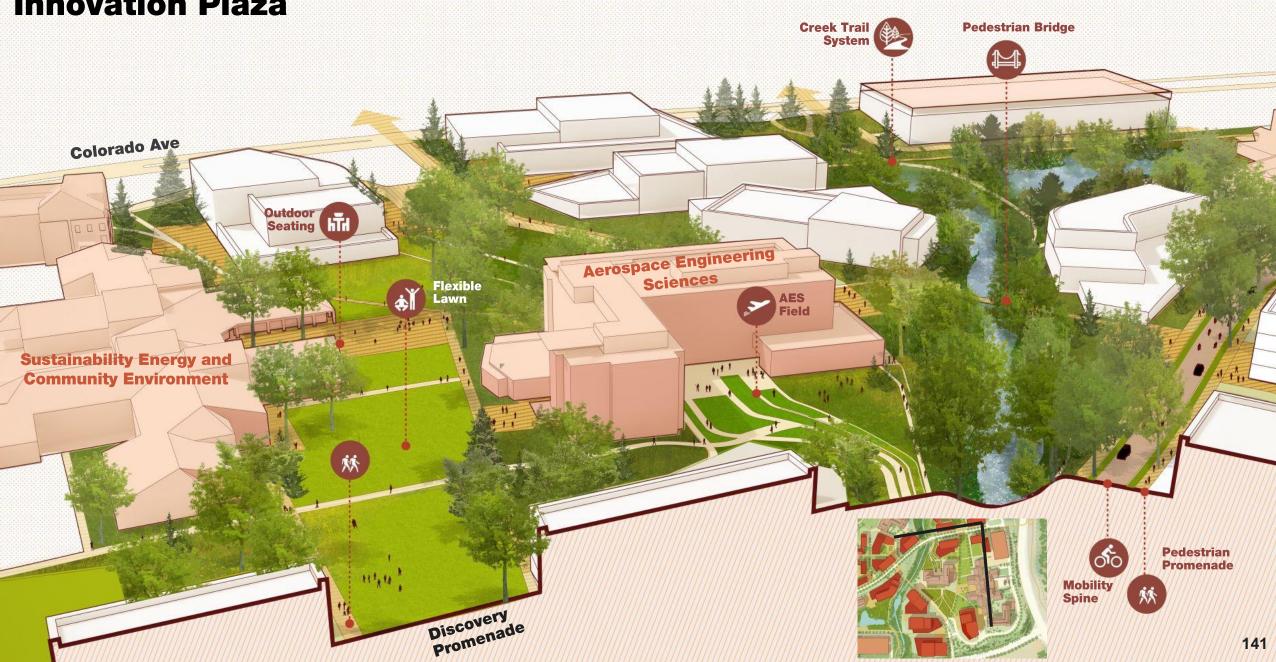








Innovation Plaza





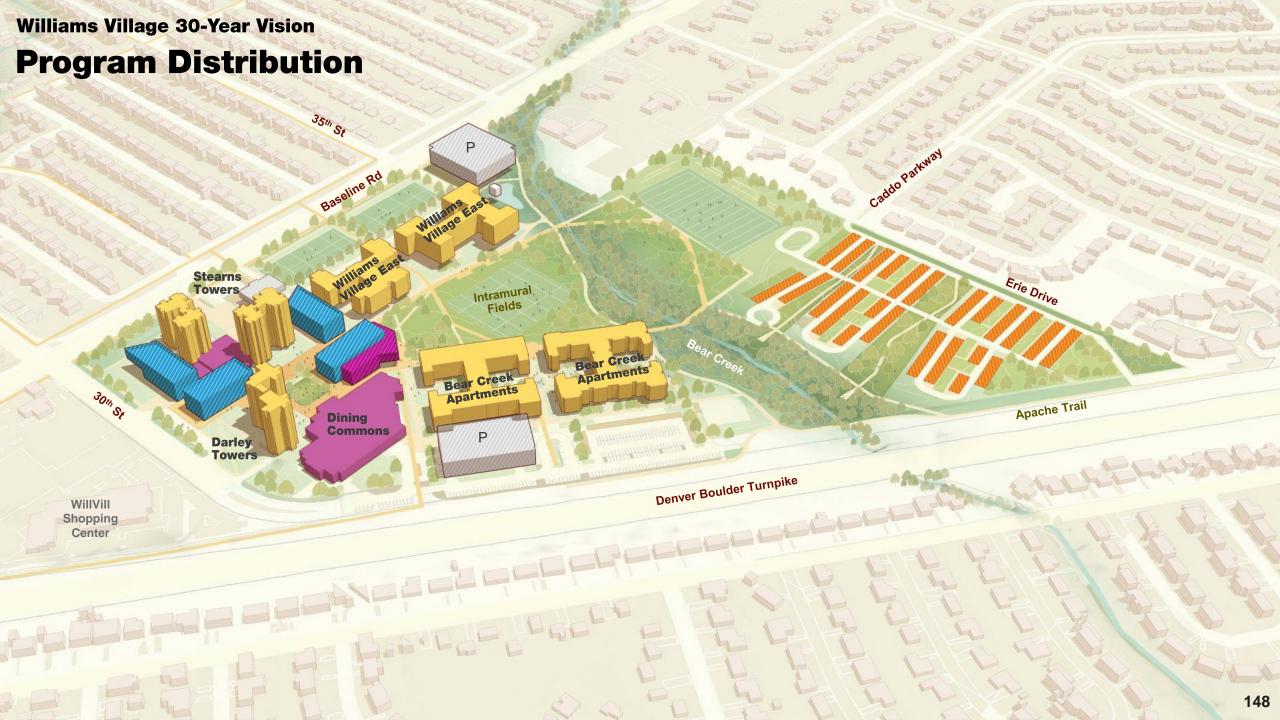




Williams Village

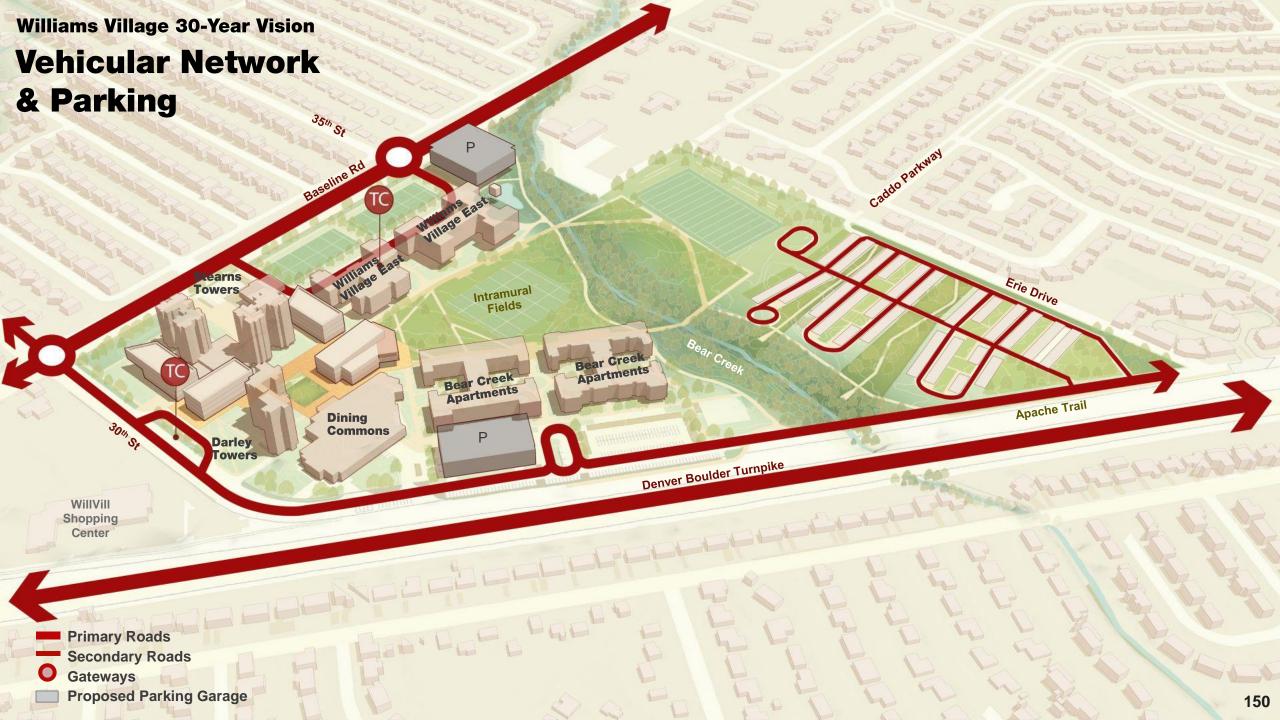








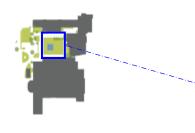
Student Life





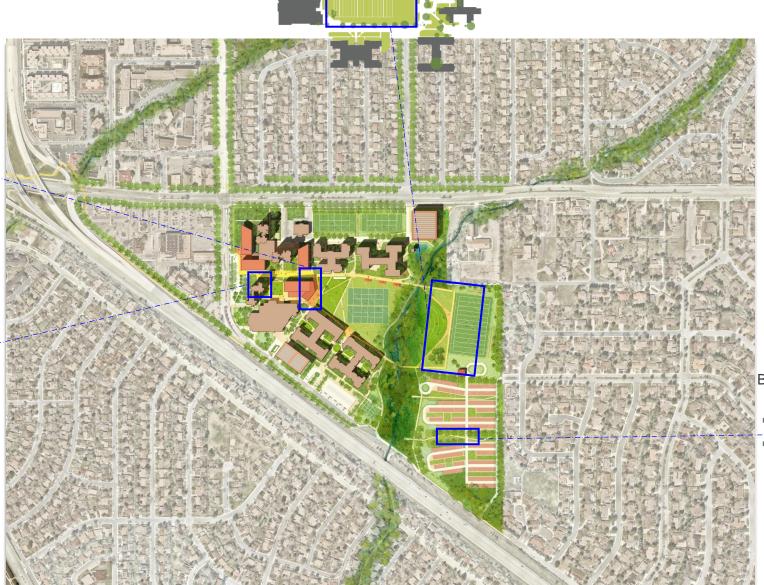
Scale Comparisons





Mary Rippon Theater





Baker Hall & Libby Hall





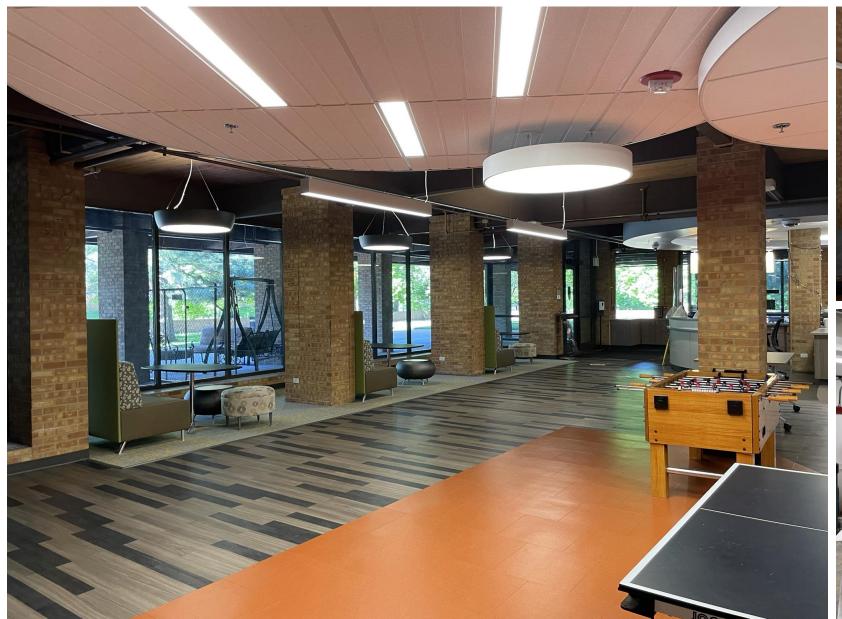






Williams Village Existing Conditions

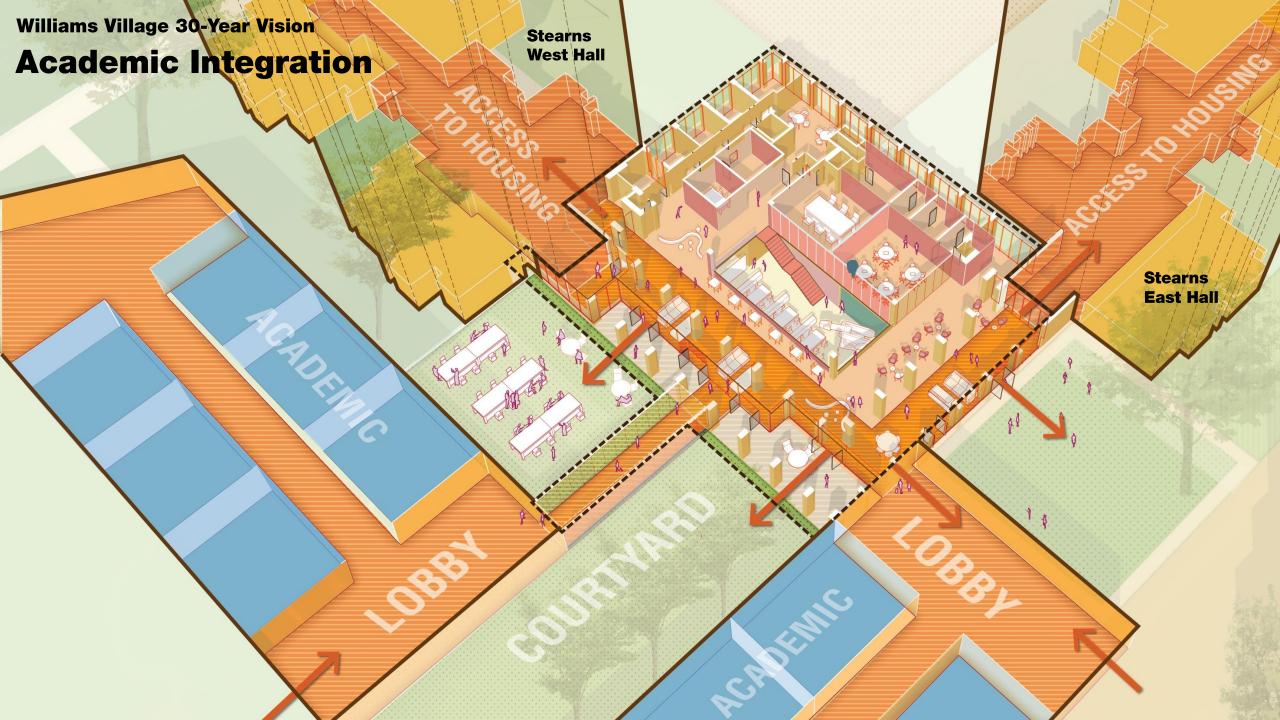
Stearns Towers Today





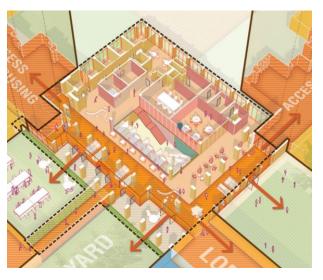






Williams Village 30-Year Vision

Academic Integration - Northwestern U









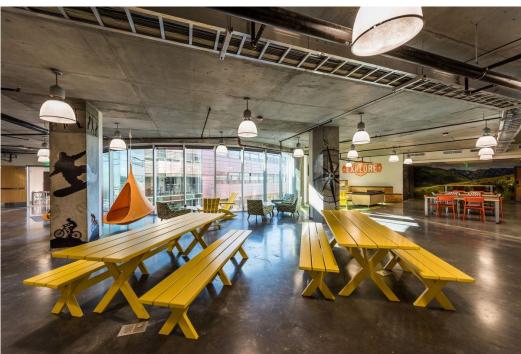
Williams Village 30-Year Vision

Academic Integration - Lassonde







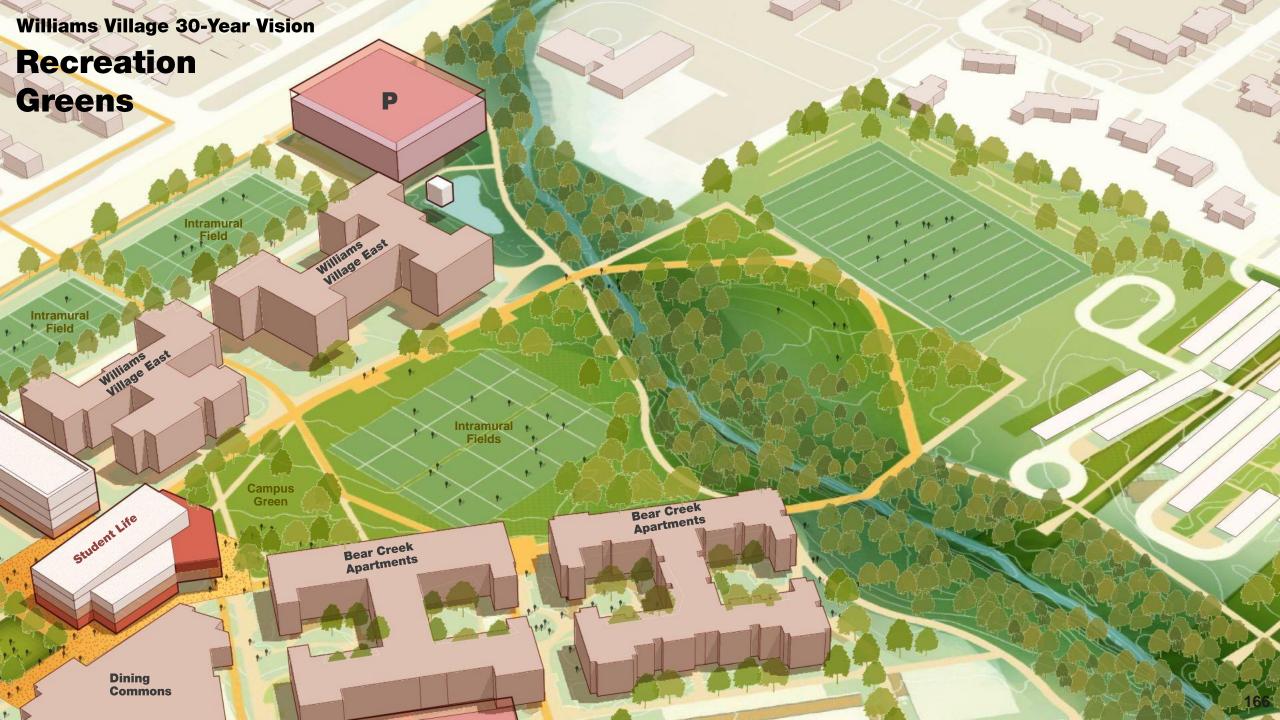








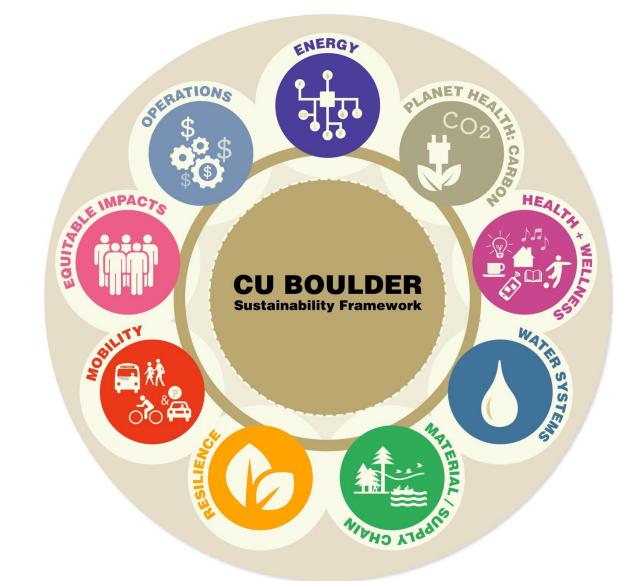




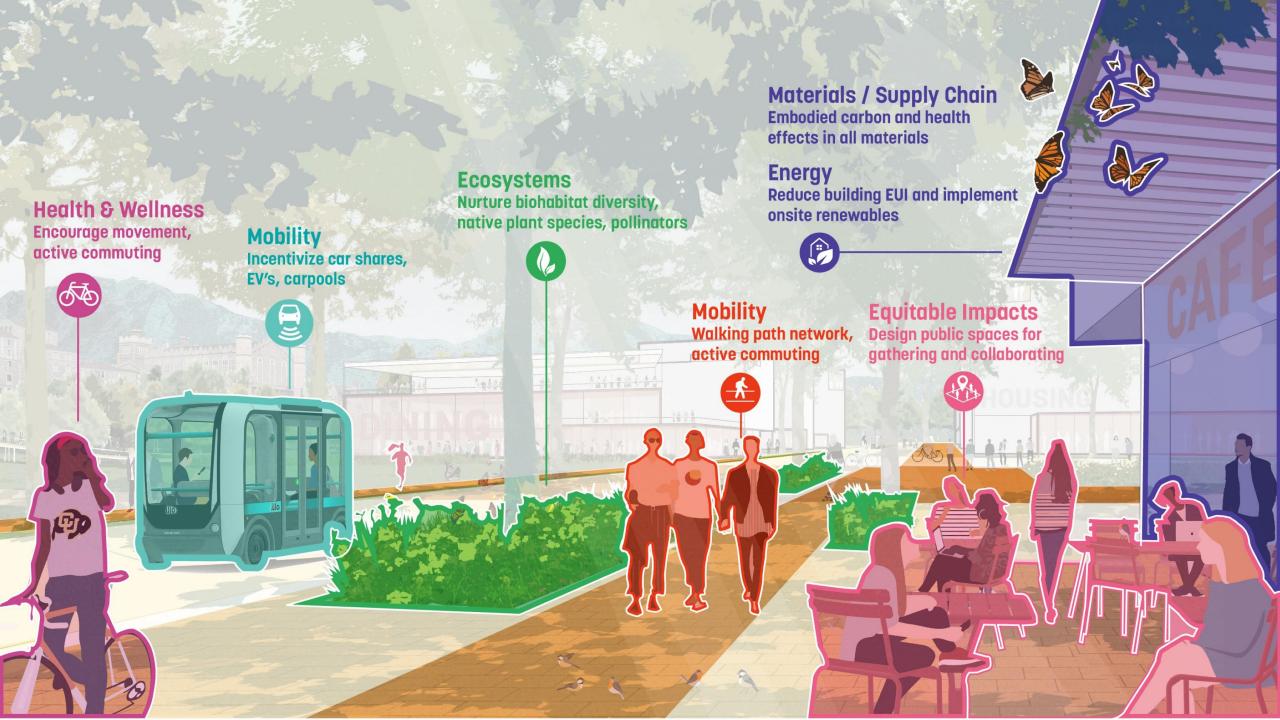


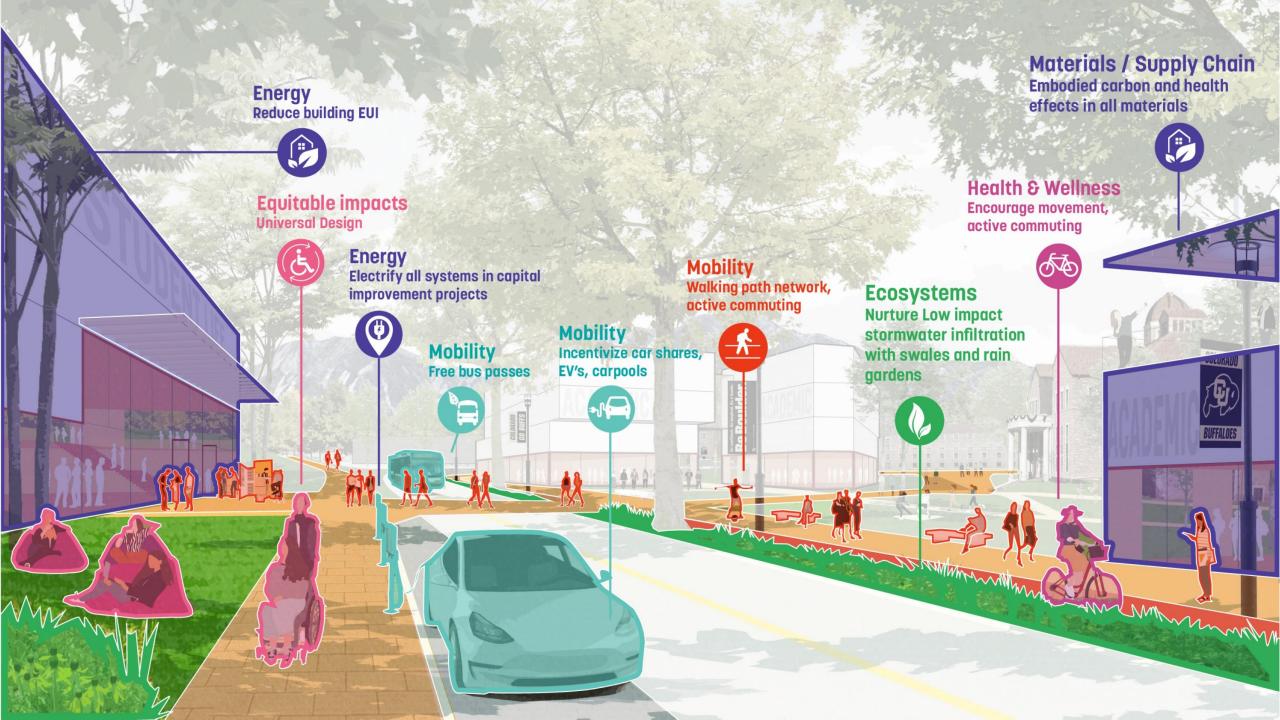
Sustainability

Sustainability Framework





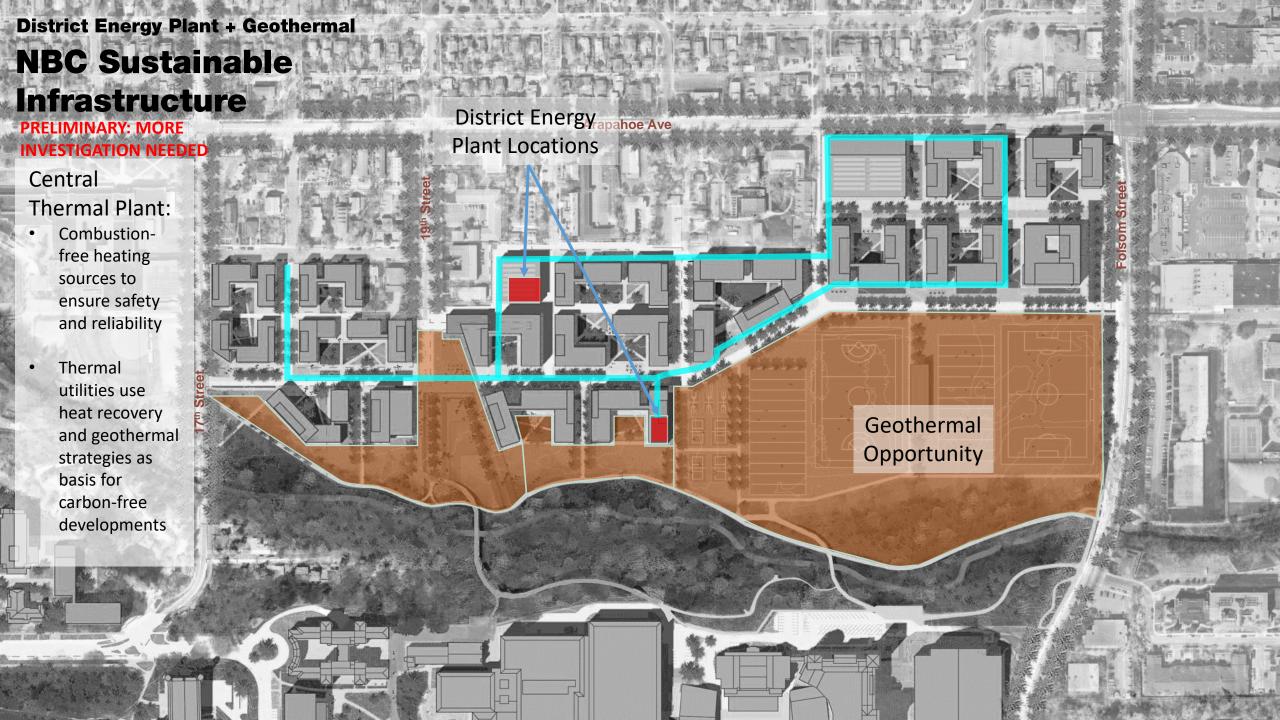


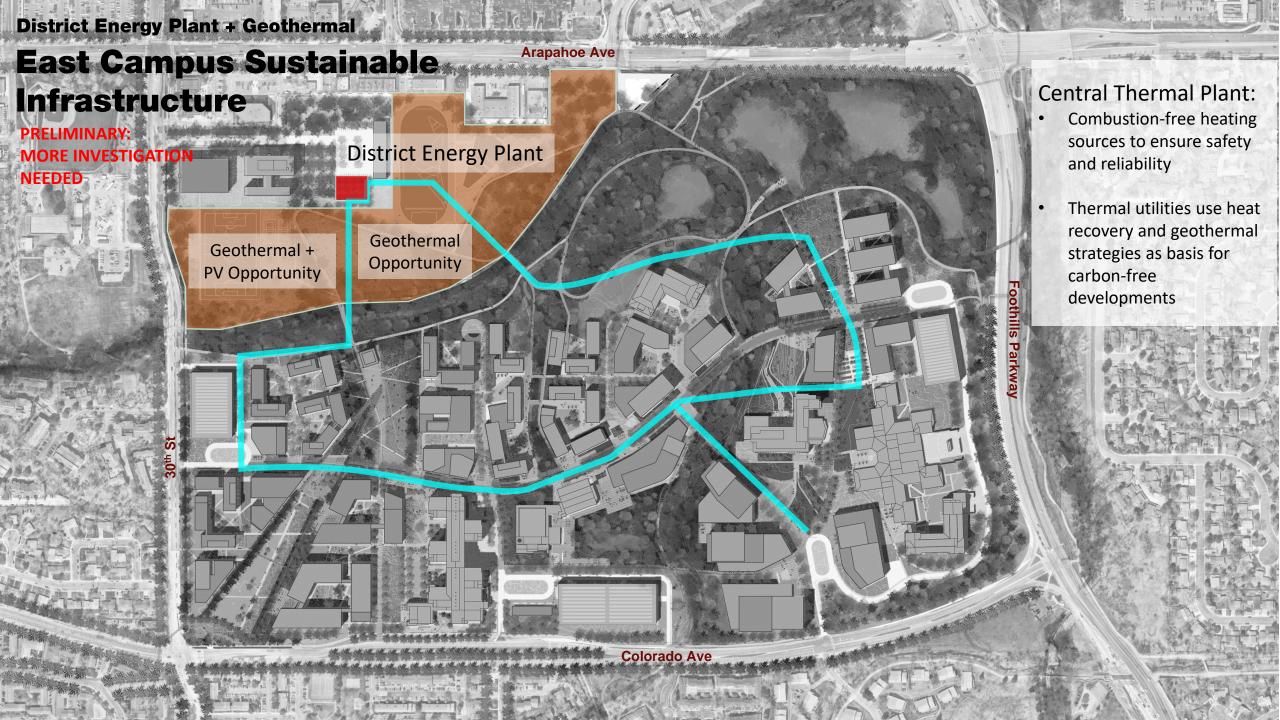


Utility Infrastructure Considerations

Refine and Advance Building Performance

- Remove natural gas combustion from existing buildings
- No new natural gas combustion
- Energy Master Plan EUI targets or better
 - Balance building heating and cooling loads
 - Reduce heat loss improved envelope design
- Keep heat in buildings air side heat recovery
- Low temperature hot water distribution
- Rooftop PV
- Consideration of geothermal technologies





Implementation

Guidelines Reference – UW Seattle



Maximum Building Heights



Guidelines Reference UW Seattle

DEVELOPMENT STANDARDS

← Mid-block Corridor

O View Corridor

200' Shoreline District Overlay

DESIGN GUIDANCE

Gateway

Active Edge

Significant Open Space

Forested Edge

Priority Pedestrian Connector

←…=…= Shared Street

Streetscape Improvements

Service Access

Potential Parking Access



Guidelines Reference UW Seattle

*The potential number of new parking spaces for South Campus. Specific parking spaces per development site have not been identified, since the proposed parking is designed as a contiguous podium.

**Please reference Appendix for specific names of buildings and year constructed associated with demolished area

*** Growth Allowance refers to Net New Gross Square Feet column

Table 11. South Campus Development Sites Spreadsheet

SITE ID	SITE NAME	TOTAL ENVELOPE GROSS SQUARE FEET	TOTAL MAXIMUM GROSS SQUARE FEET	PERCENT OF ENVELOPE	DEMO GROSS SQUARE FEET**	NET NEW GROSS SQUARE FEET***	APPROX# OF FLOORS	MAXIMUM BLDG HT LIMIT	CONDITIONED DOWN BUILDING HEIGHTS	EXISTING PARKING SPACES	ACADEMIC USES
S38	SCSII B	370,000	160,000	43%		160,000	7	200			A/MU
S39	SCSII C / Hitchcock Hall Site	280,000	270,000	96%	116,416	153,584	17	200			A/MU
S40	SCSII D / J Wing	580,000	425,000	73%	170,719	254,281	11	200			A/MU/T
S41	SCSII E / I Wing and G Wing	685,000	280,000	41%	215,620	64,380	7	200			A/MU
S42	SCSII F / T Wing	500,000	340,000	68%	493, 496	-153, 496	17	240			A/MU
S43	SCSII G / A Wing and C Wing	375,000	320,000	85%	101,489	218,511	17	240			A/MU
544	SCSII H	385,000	310,000	81%		310,000	17	240			A/MU
S45	SCSII I / F Wing	340,000	165,000	49%	122,767	42,233	3	200			A/MU
S46	SCSII J / D Wing	275,000	245,000	89%	183,975	61,025	14	200			A/MU
S47	SCSII K / B Wing	525,000	345,000	66%	117,619	227,381	14	200			A/MU
S48	SCSII L / RR Wing, BB Wing, SW Wing	520,000	415,000	80%	454,692	-39,692	3	200			A/MU
S 4 9	SCSII M / Ocean Teaching / S5, S6 Parking Lot	100,000	100,000	100%	51,552	48,448	8	105		7	A/MU
S50	SCSII N / S1 Parking Garage	385,000	260,000	68%		260,000	6	105		805	A/MU
S51	SCSII O / Harris Hydraulics Lab / South Campus Center / S7, S12 Parking Lot	30,000	20,000	67%	92,785	-72,785	2	37	30	6	A/MU
S52	SCSII P	490,000	320,000	65%		320,000	6	105			A/MU
S53	SCSII Q / Portage Bay Building / Oceanography Bldg, Dock, and Shed / S8 Parking Lot	35,000	25,000	71%	128,712	-103,712	2	37	30	24	A/MU
S5 4	SCSII R / CHDD Clinic and School / S9 Parking Lot	440,000	350,000	80%	115,943	234,057	7	105		4	A/MU
S55	SCSII S / CHDD South Building	35,000	25,000	71%	12,378	12,622	2	37	30		A/MU
S56	SCSII T / NN Wing	385,000	280,000	73%	122,217	157,783	15	240			A/MU
S57	SCSII U / EA Wing and EB Wing	430,000	360,000	84%	275,885	84,115	16	240			A/MU
	TOTAL - SOUTH	7,165,000	5,015,000	72%	2,776,265	2,208,735				846	

Academic General Uses: A - Academic; H - Housing; MU - Mixed Use; T - Transportation; OS - Open Space; IP - Industry Partnership/Manufacturing; ACC - Academic Conference Center "Maximum Building Height Limit" refers to the height limit allowed under the MIO zoning height.

Guidelines Reference UW Seattle

Development needs to be

Promote variation and modulation in façades with second upper level setbacks on Pacific Street

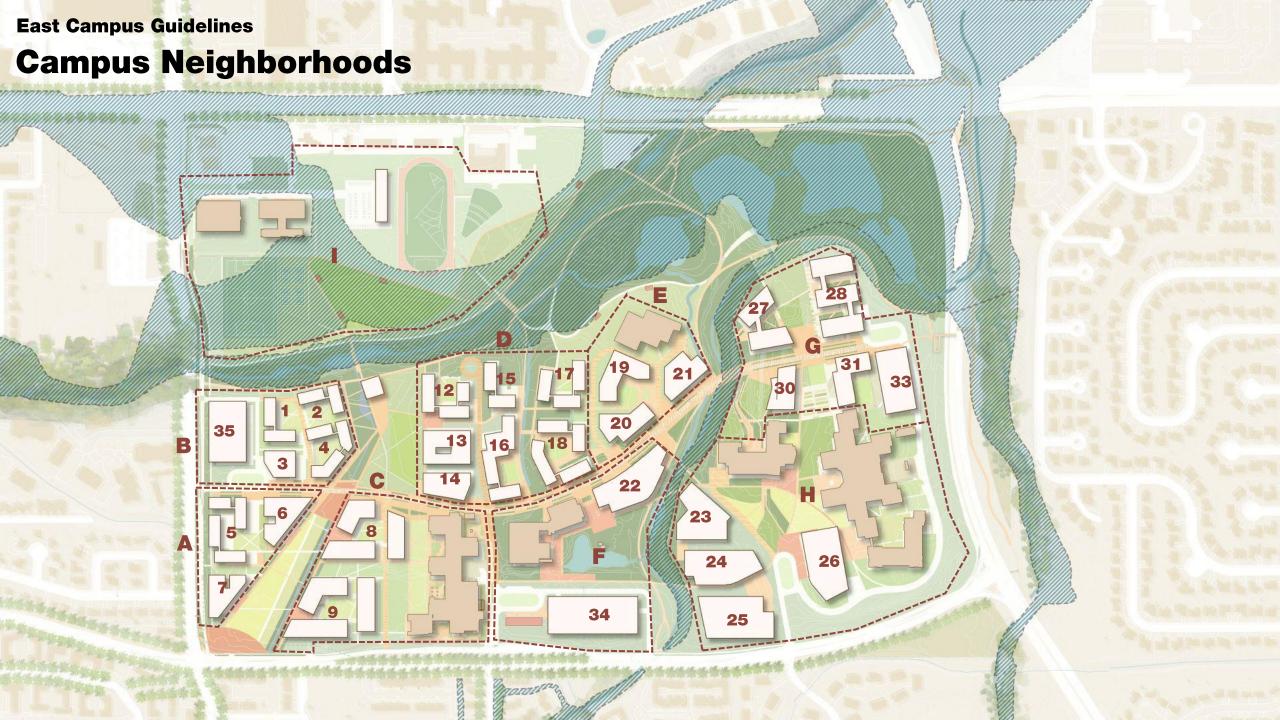
DEVELOPMENT ZONE L

200' Shoreline District Overlay

Figure 168. Graphics are for Illustrative Purposes Only

sensitive to the daylighting Develop Columbia Road as an important connector within needs of the sundial and Life the pedestrian realm, as well as a route for service and Sciences greenhouses access. Buildings may frame its "walls" and step back to allow light on the street. Building entries may be located to help activate the street-level public realm and integrate Balance increased density Create porosity and internal and external routes across campus with an enhanced public transparency at ground level realm and view corridors along NE Pacific Street and 240 FEET **240 FEET** pedestrian connections **240 FEET** 200 FEET 200 FEET SA8 200 FEET 200 FEET 105 FEET 105 FEET 105 FEET 30 FEET 30 FEET Respect 30' building height limit within the 200' Shoreline District Overlay Legend Existing UW Building Step back buildings to minimize Potential Building Enhance universal access shadows, maximize natural light to between Central and **Building Envelope** individual buildings, and views of water Reinforce connections South Campus to West Campus Significant Open Space Create an accessible open space/ South **Existing Uses Relocated**

Campus Green along the waterfront to serve as a public realm amenity



East Campus Guidelines Cluster C

Building 8

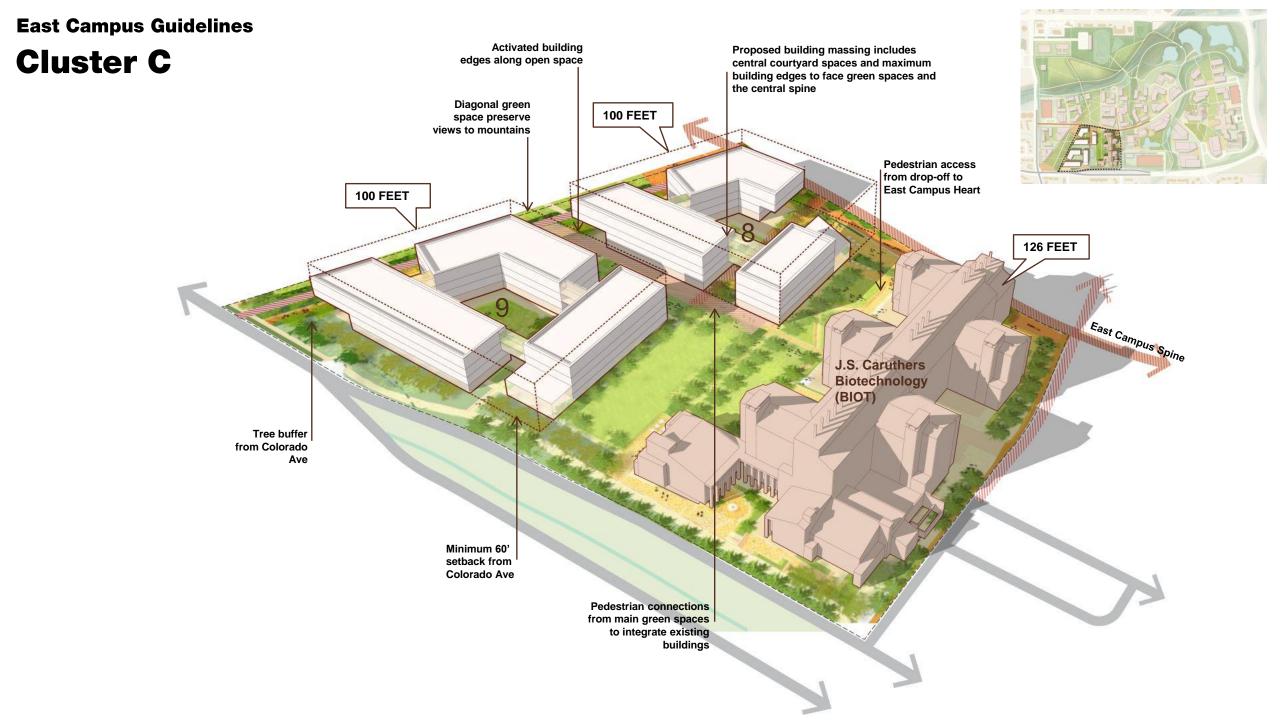
GSF= 259,255 SQF ASF= 168,516 SQF Building use Research

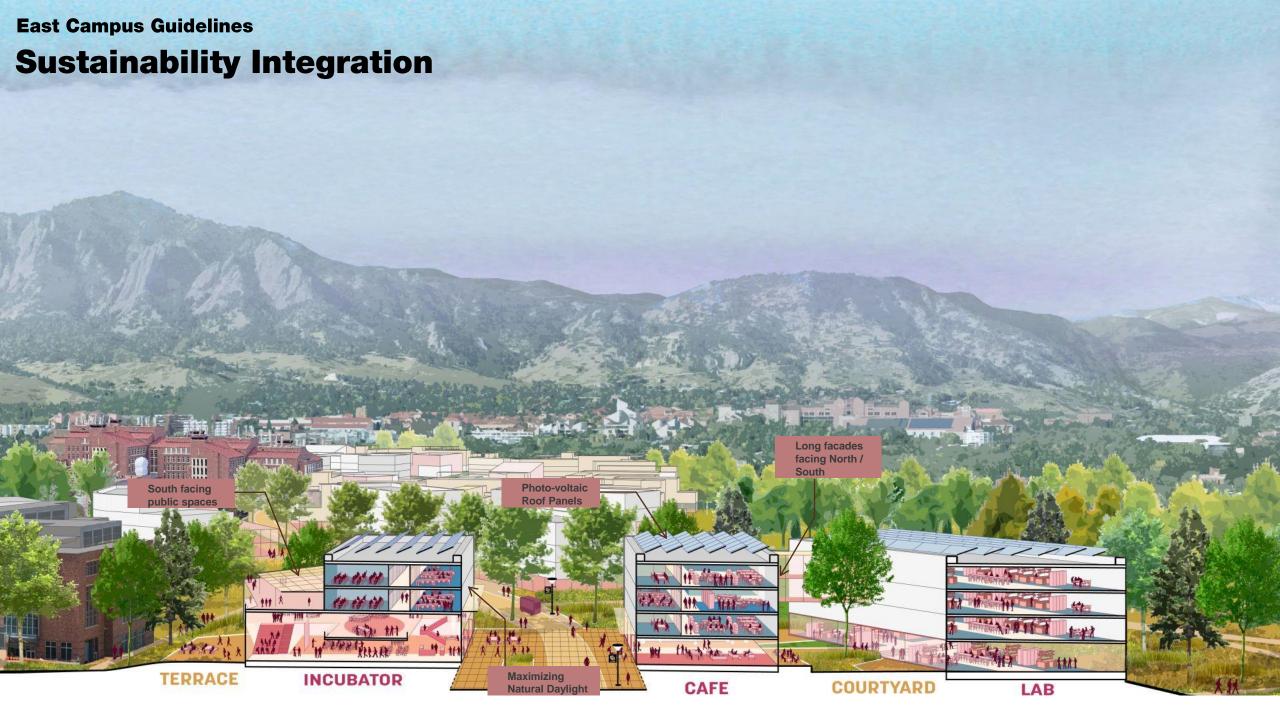
Building 9

GSF= 269,950 SQF ASF= 175,468 SQF Building use Research









Cluster D

Building 12

GSF= 121,200 SQF ASF= 78,780 SQF Building use Housing

Building 13

GSF= 57,400 SQF ASF= 56,810 SQF Building use Housing

Building 14

GSF = 68,500 SQF ASF= 44,525 SQF Building use Campus Life

Building 15

GSF = 74,700 SQF ASF= 48,555 SQF Building use Housing

Building 16

GSF = 149,400 SQF ASF= 99,710 SQF

Building use Housing Campus Life

Building 17

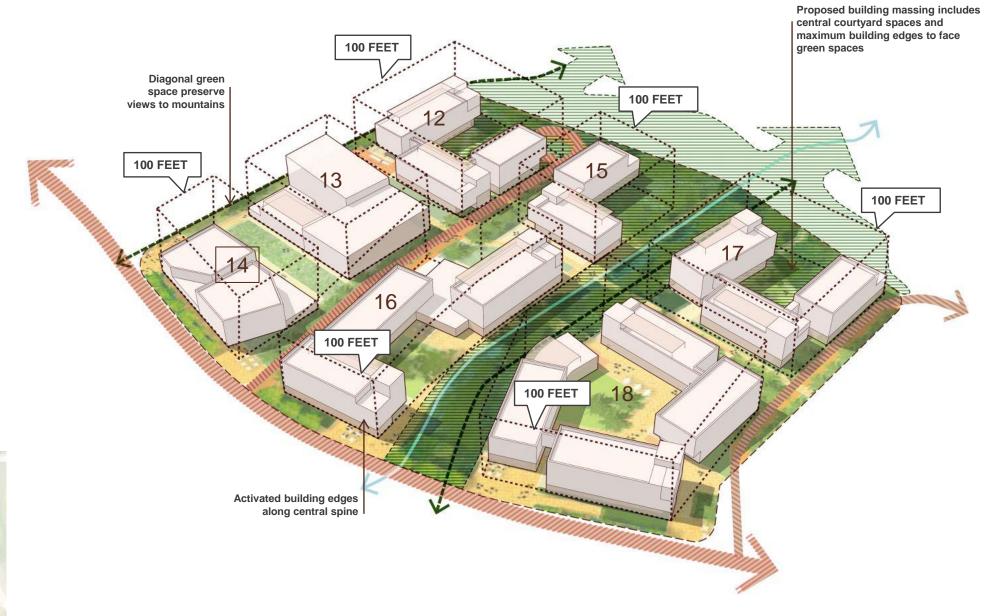
GSF = 123,215 SQF ASF= 80,090 SQF Building use Housing

Building 18

GSF = 179,195 SQF ASF= 116,477 SQF Building use Housing

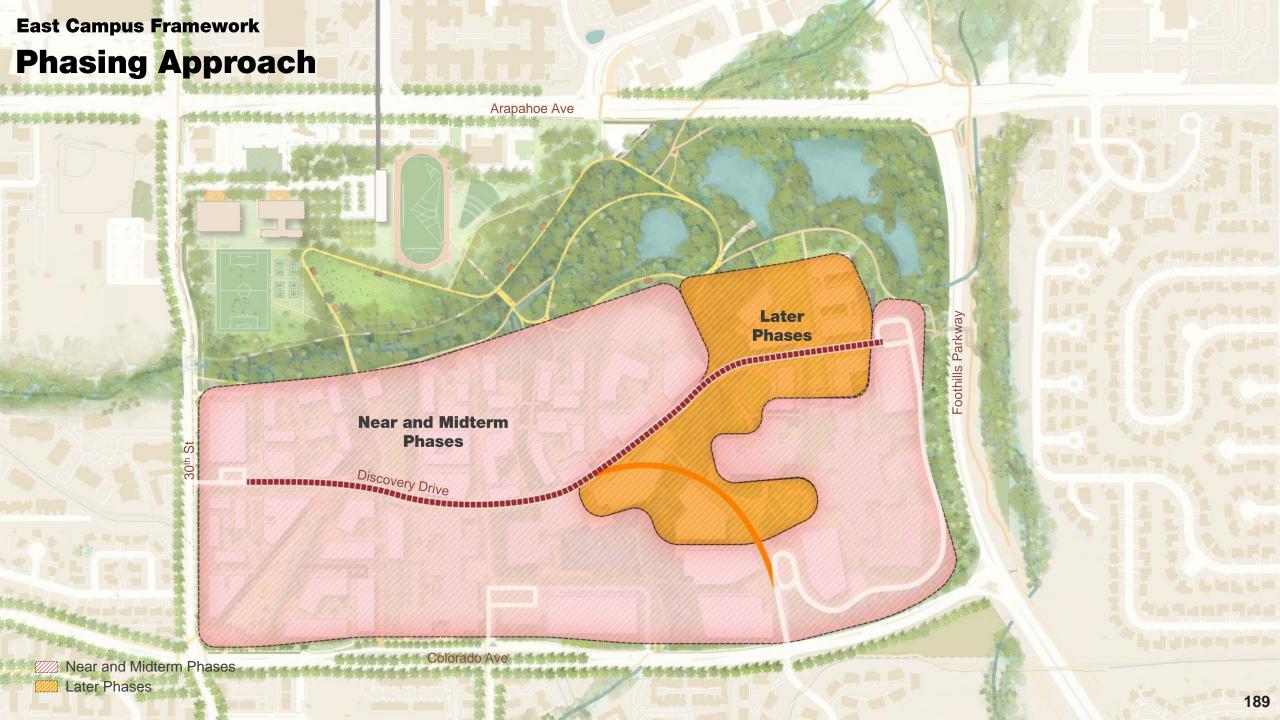


Cluster D





Phasing Strategy



10-year Plan of Potential Projects

10-year Capital Project List

- A. Fleming Education Phase II
- B. Old Main / Macky / Hale structural
- C. Muenzinger Renov/Abatement
- D. Ekeley Teaching Labs
- E. Chemistry
- F. Carlson renovation
- G. Norlin/Museum Critical Collections
- H. ECOT renovation
- I. TMP mobility hub & parking

State & Federal funding requests for Capital Construction/Renewal

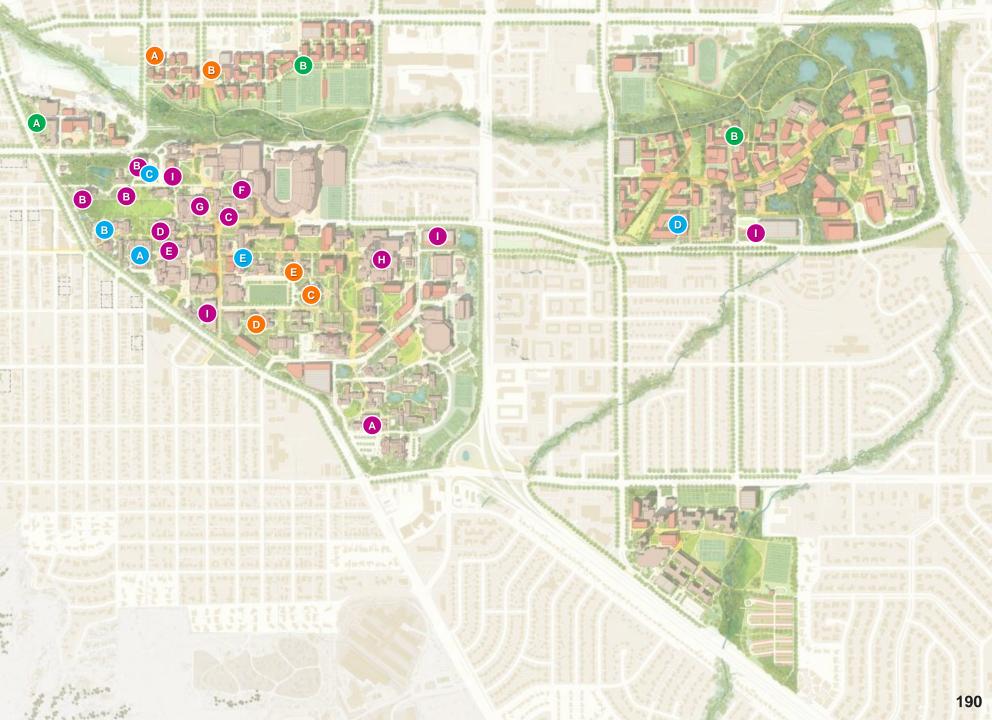
- A. Hellems renovation
- B. Guggenheim renovation
- C. Macky renovation
- D. East Campus class/lab building
- E. JILA addition & renovation

Initial plan for Housing projects

- A. NBC new building
- B. NBC new building
- C. Farrand renovation
- D. Cheyenne-Arapaho renovation
- E. Libby renovation

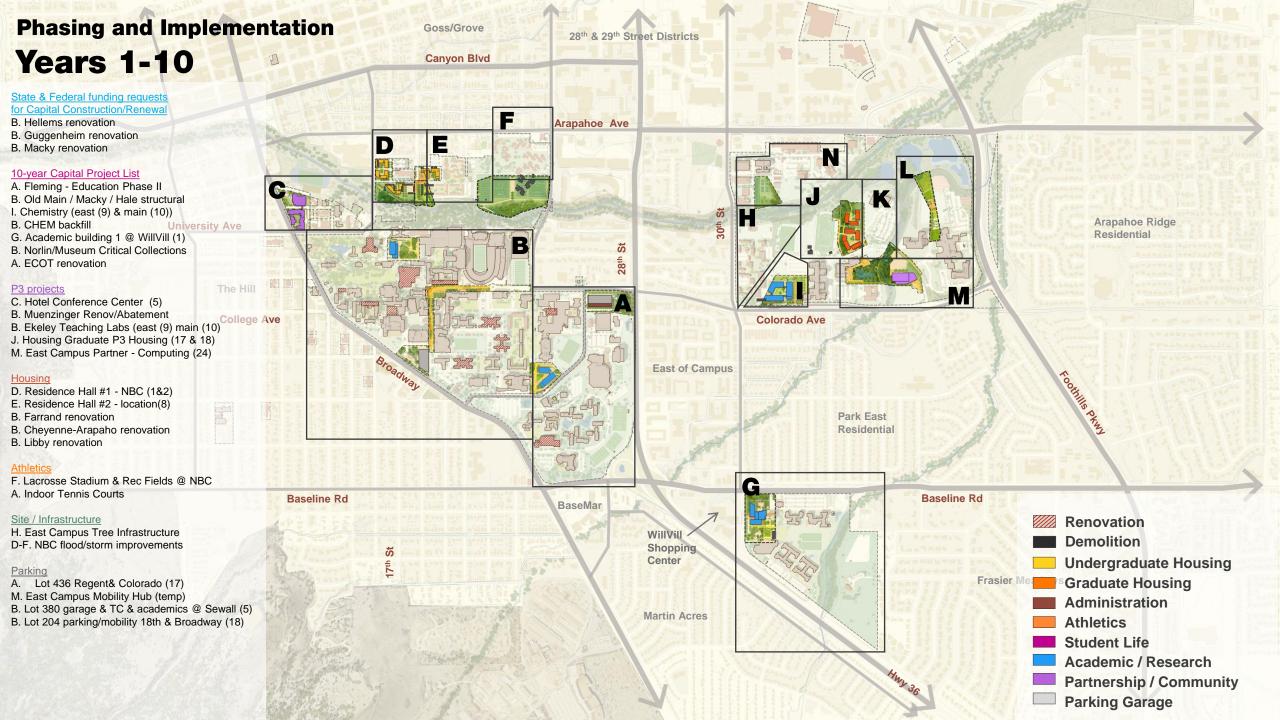
P3 projects

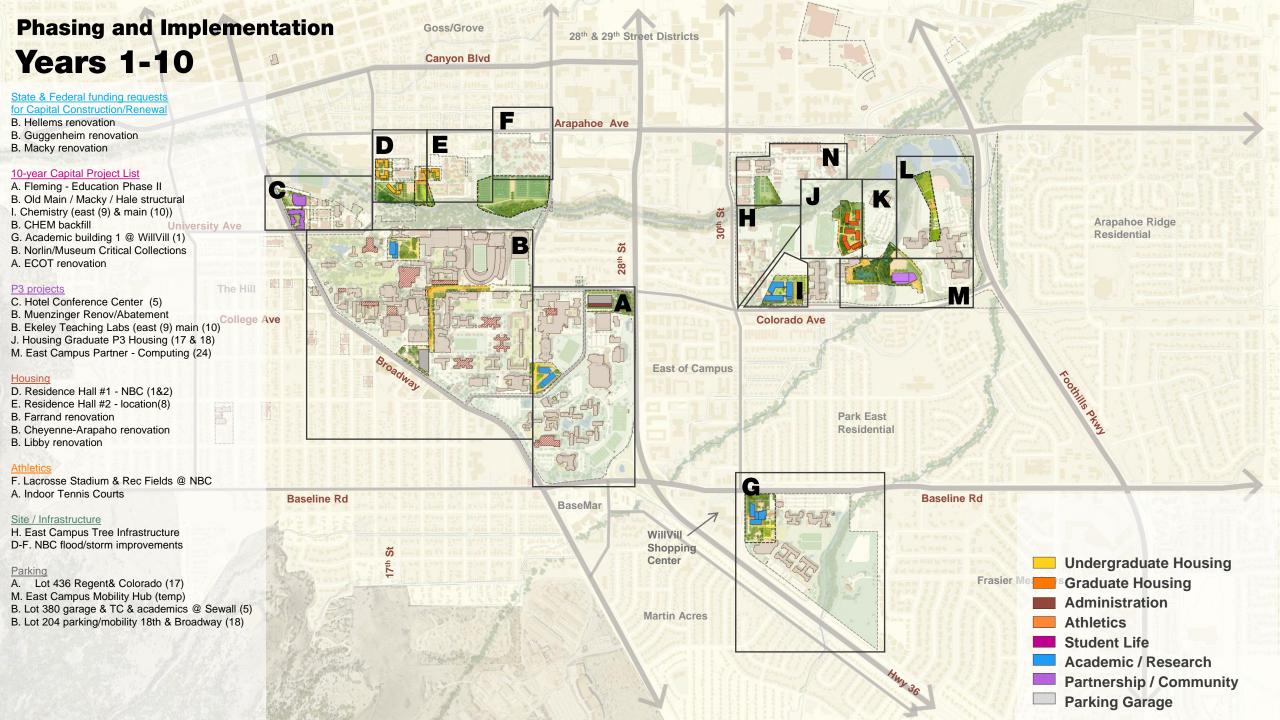
- A. Hotel Conference Center
- B. Graduate/Faculty/Staff Housing











Phasing and Implementation Goss/Grove 28th & 29th Street Districts **Years 11-20** Canyon Blvd State & Federal funding requests for Capital Construction/Renewal B. Economics renovation Arapahoe Ave B. Henderson renovation E N 10-year Capital Project List D. Student life building @ NBC (7) A. Academic/Research @ Business Field (10) B. Carlson G. Student life building @ WillVill (3) Arapahoe Ridge G. Academic building @ WillVill (2) niversity Ave Residential I. Academic/Research building at East (8) B A. Student life building @ Events knoll (19) H. Student life building @ East (6) H. Student life building @ East (3) H. Academic/Research building at East (7) The Hill A. Academic/Research @ Business Parking (9) College Ave Colorado Ave M. East Campus Partnership (25) G. Family Housing @ WillVill M. East Campus Partnership (26) **East of Campus** E. Housing at NBC - replace Fac Staff Court (5&7) B. Sewall Renovation **Park East** E. Housing at NBC - replace Athens Court (9&14) Residential B. Willard Renovation E. Housing at NBC - east of Marine Court (15,16,17,19) parking/green) B. Hallett Renovation H. Housing at East Campus - @ Smiley (ENGR quad **Baseline Rd Baseline Rd** BaseMar replace) (5) H. Housing at East Campus - @ Smiley (1,2,4) Renovation F. Housing at NBC - replace Newton Court (21&24) WillVill Demolition F. Housing at NBC - replace Newton Court Shopping (20,22,23,25)Center **Undergraduate Housing** Frasier **Graduate Housing** N. Soccer Stadium & Field Administration Martin Acres Site / Infrastructure **Athletics** G. Rugby @ WillVill E. NBC Garage 1 (27) Student Life B. The Walk: 18th & Colorado civic improve G. WillVill garage 1 (5) G. Diagonal Greenspace M. East Campus garage 1 & shift Mobility Hub (34) Academic / Research G. EC Campus Heart G. WillVill garage 2 (4) Partnership / Community G. Rec Courts & TC @ Will Vill F. NBC Garage 2 & TC (26) B. INFO-to-Trumbo civic improvements **Parking Garage** G. EC Innovation Plaza

Phasing and Implementation Goss/Grove 28th & 29th Street Districts **Years 11-20** Canyon Blvd State & Federal funding requests for Capital Construction/Renewal B. Economics renovation Arapahoe Ave B. Henderson renovation E D N 10-year Capital Project List D. Student life building @ NBC (7) A. Academic/Research @ Business Field (10) B. Carlson G. Student life building @ WillVill (3) Arapahoe Ridge G. Academic building @ WillVill (2) niversity Ave Residential I. Academic/Research building at East (8) B A. Student life building @ Events knoll (19) H. Student life building @ East (6) H. Student life building @ East (3) H. Academic/Research building at East (7) The Hill A. Academic/Research @ Business Parking (9) College Ave Colorado Ave M. East Campus Partnership (25) G. Family Housing @ WillVill M. East Campus Partnership (26) **East of Campus** E. Housing at NBC - replace Fac Staff Court (5&7) B. Sewall Renovation **Park East** E. Housing at NBC - replace Athens Court (9&14) Residential B. Willard Renovation E. Housing at NBC - east of Marine Court (15,16,17,19) parking/green) B. Hallett Renovation H. Housing at East Campus - @ Smiley (ENGR quad **Baseline Rd Baseline Rd** BaseMar replace) (5) H. Housing at East Campus - @ Smiley (1,2,4) F. Housing at NBC - replace Newton Court (21&24) WillVill F. Housing at NBC - replace Newton Court Shopping (20,22,23,25)Center **Undergraduate Housing** Frasier **Graduate Housing** N. Soccer Stadium & Field Administration Martin Acres Site / Infrastructure **Athletics** G. Rugby @ WillVill E. NBC Garage 1 (27) Student Life B. The Walk: 18th & Colorado civic improve G. WillVill garage 1 (5) G. Diagonal Greenspace M. East Campus garage 1 & shift Mobility Hub (34) Academic / Research G. EC Campus Heart G. WillVill garage 2 (4) Partnership / Community G. Rec Courts & TC @ Will Vill F. NBC Garage 2 & TC (26) B. INFO-to-Trumbo civic improvements **Parking Garage** G. EC Innovation Plaza



