

February 16, 2017

# Clemson University

FRAMEWORK PLAN

# Project Schedule

[illegible]



# Agenda

## WORKSHOP 3

- ◆ Analysis Updates
- ◆ Guiding Principles
- ◆ Concept Alternatives





*Lincoln House*

# ANALYSIS UPDATES

Postcard by Jonathan Balcombe (Class of 2015). Creative Commons License

*Jonathan Balcombe*



# On-Campus Population

SUMMARY

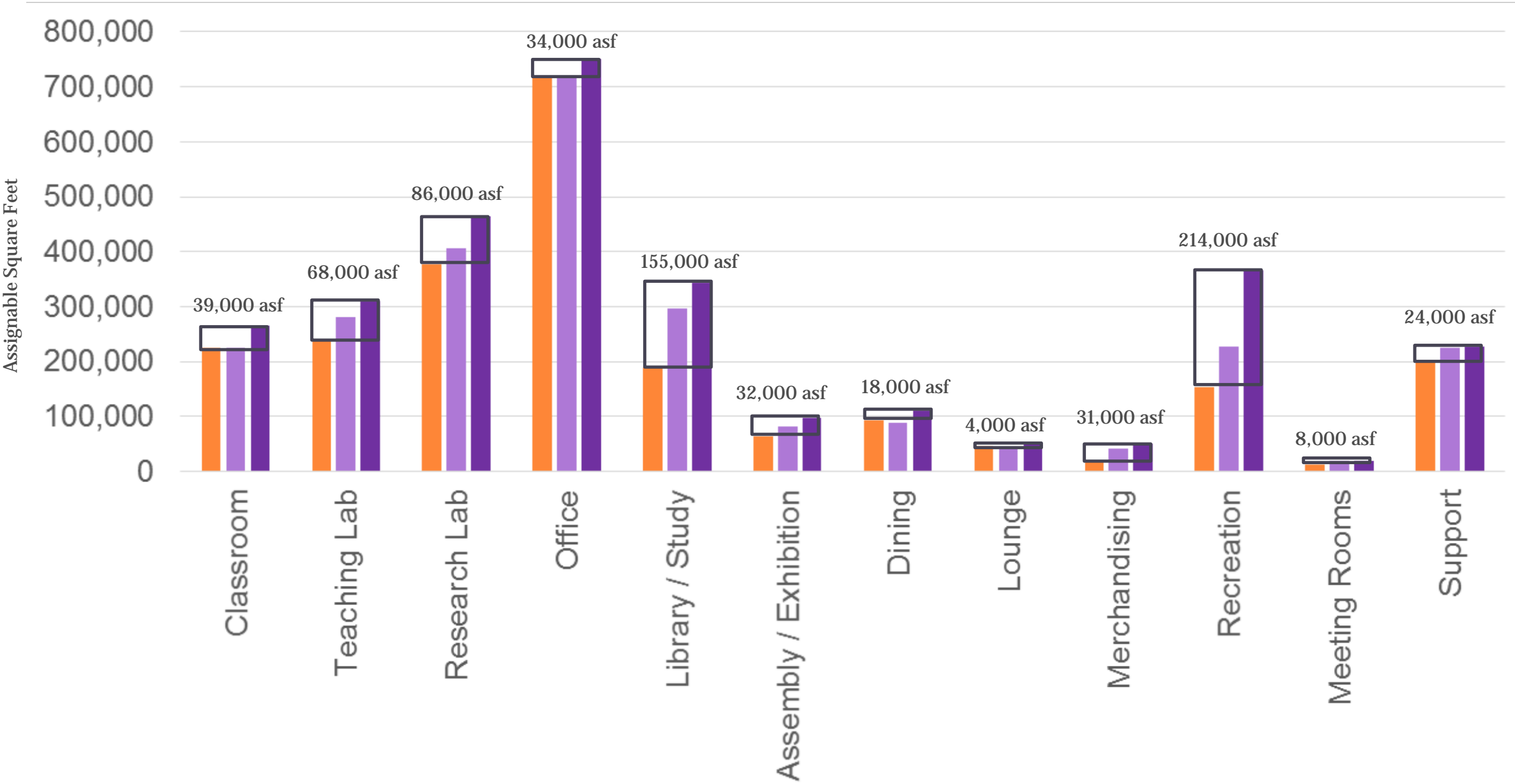
CURRENT POPULATION (2015/2016*)	FUTURE POPULATION (2026)
<b>18,600</b> Undergraduate students	<b>22,300</b> (21,658 FTE) Undergraduate students
<b>2,546</b> Graduate students	<b>4,000</b> (4,000 FTE) Graduate students
<b>1,546</b> Faculty	<b>1,853</b> (1,780 FTE) Faculty
<b>4,110</b> Staff	<b>4,929</b> (4,443 FTE) Staff

\*2016 data for students; 2015 data for faculty and staff

# Space Needs Summary

GENERATES FUTURE SPACE DEFICIT OF 713,500 ASF / 1,100,000 GSF\*

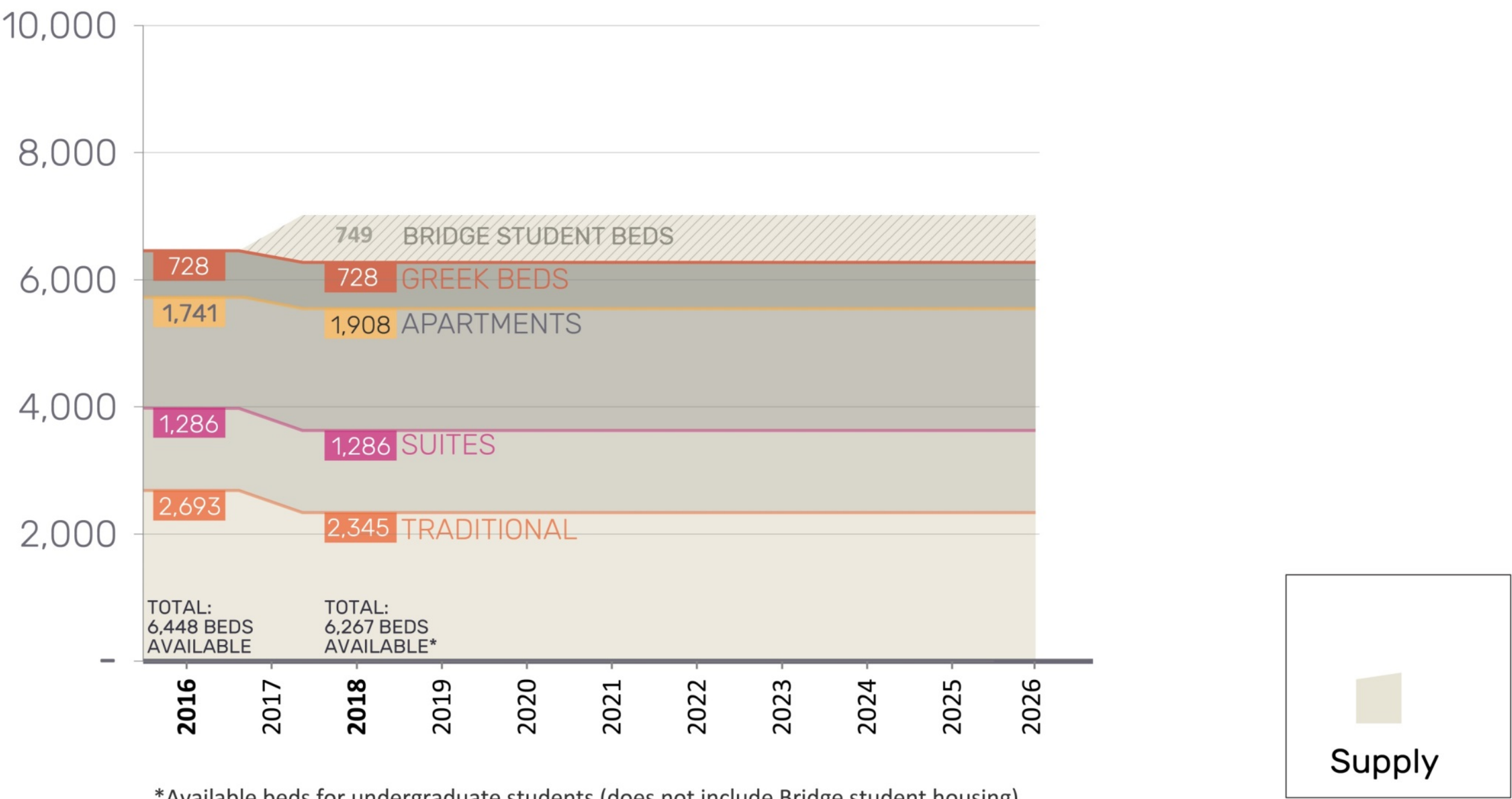
- Existing Space
- Current Need
- Future Need



\*Excludes housing

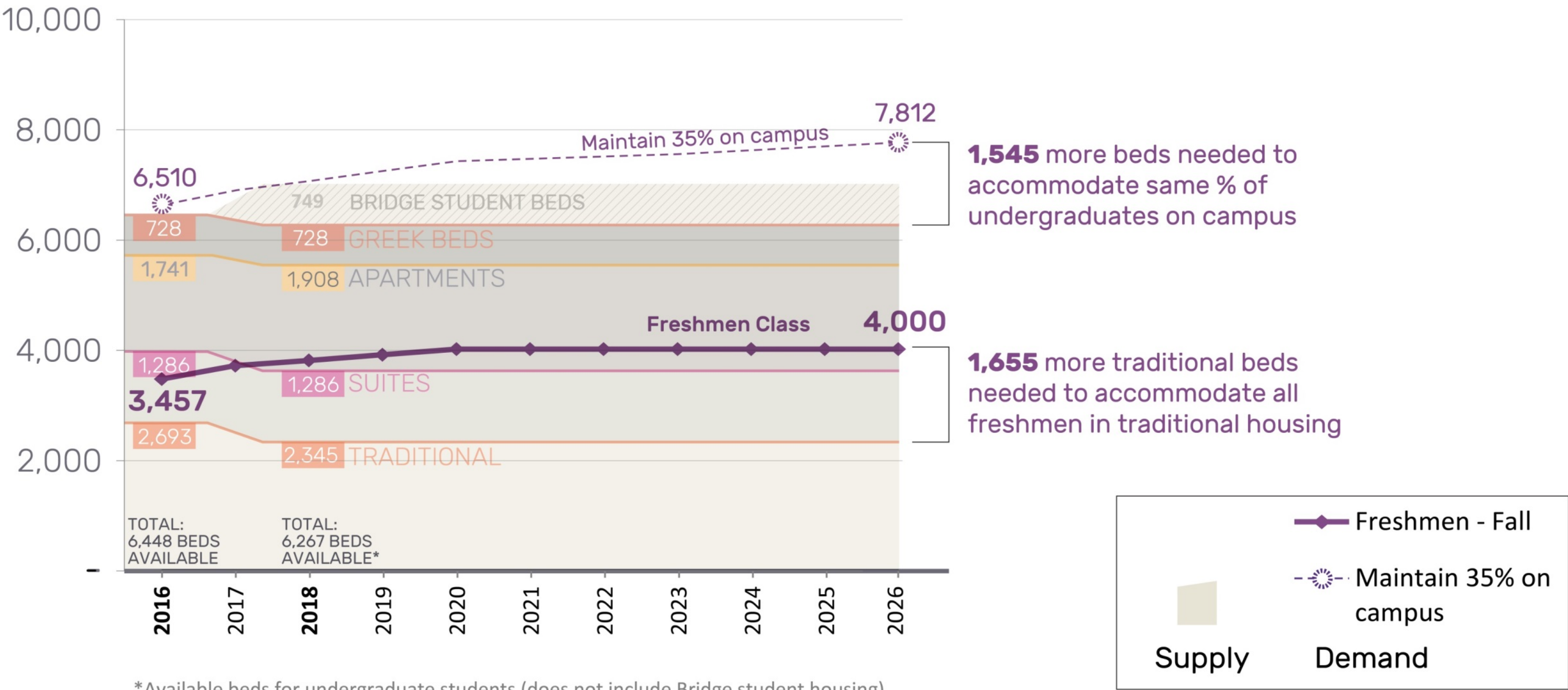
# Housing

PLANNED CHANGES WILL SHIFT DISTRIBUTION OF HOUSING OPTIONS



# Housing

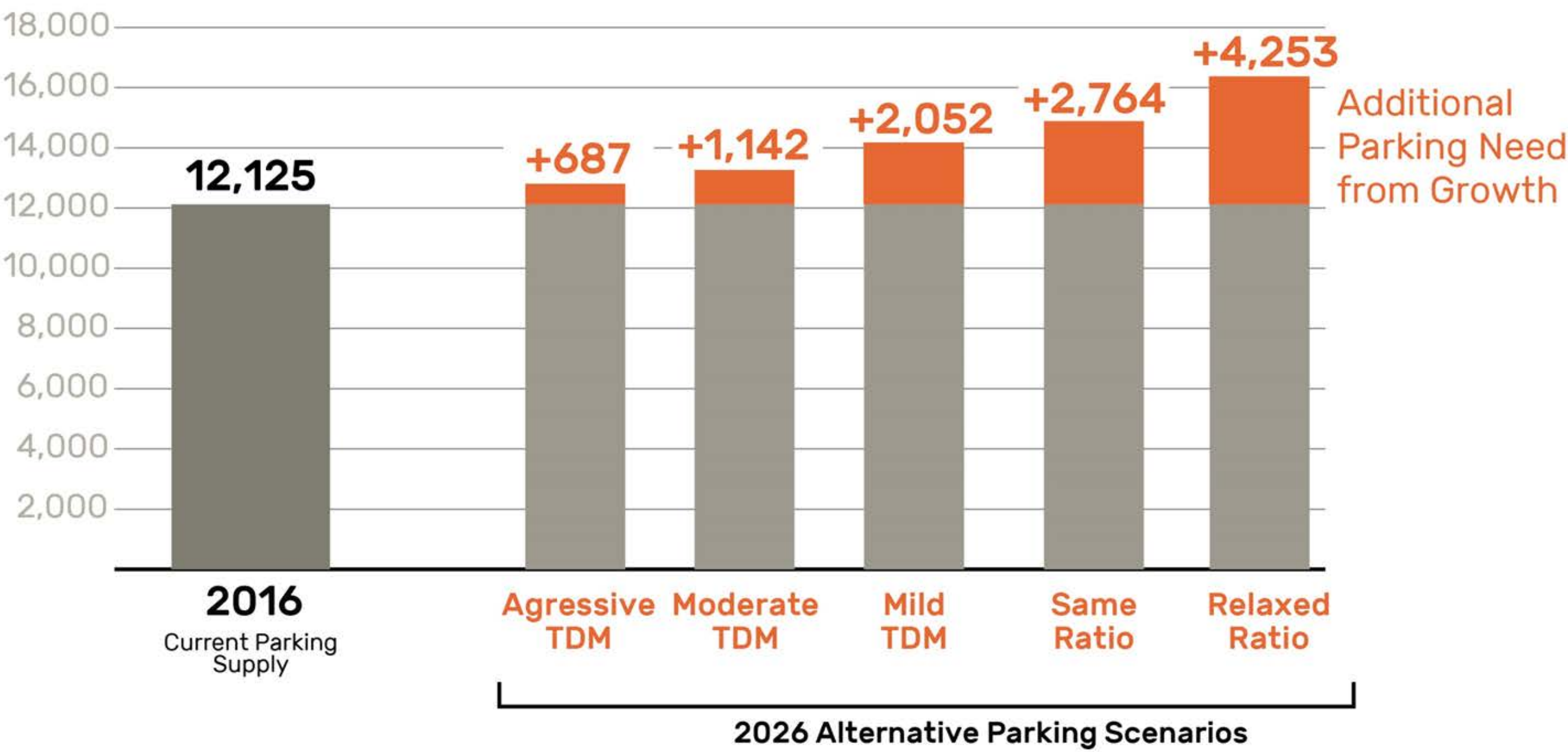
FRESHMEN CLASS AND GROWTH EXCEEDS AVAILABLE TRADITIONAL BEDS



\*Available beds for undergraduate students (does not include Bridge student housing)

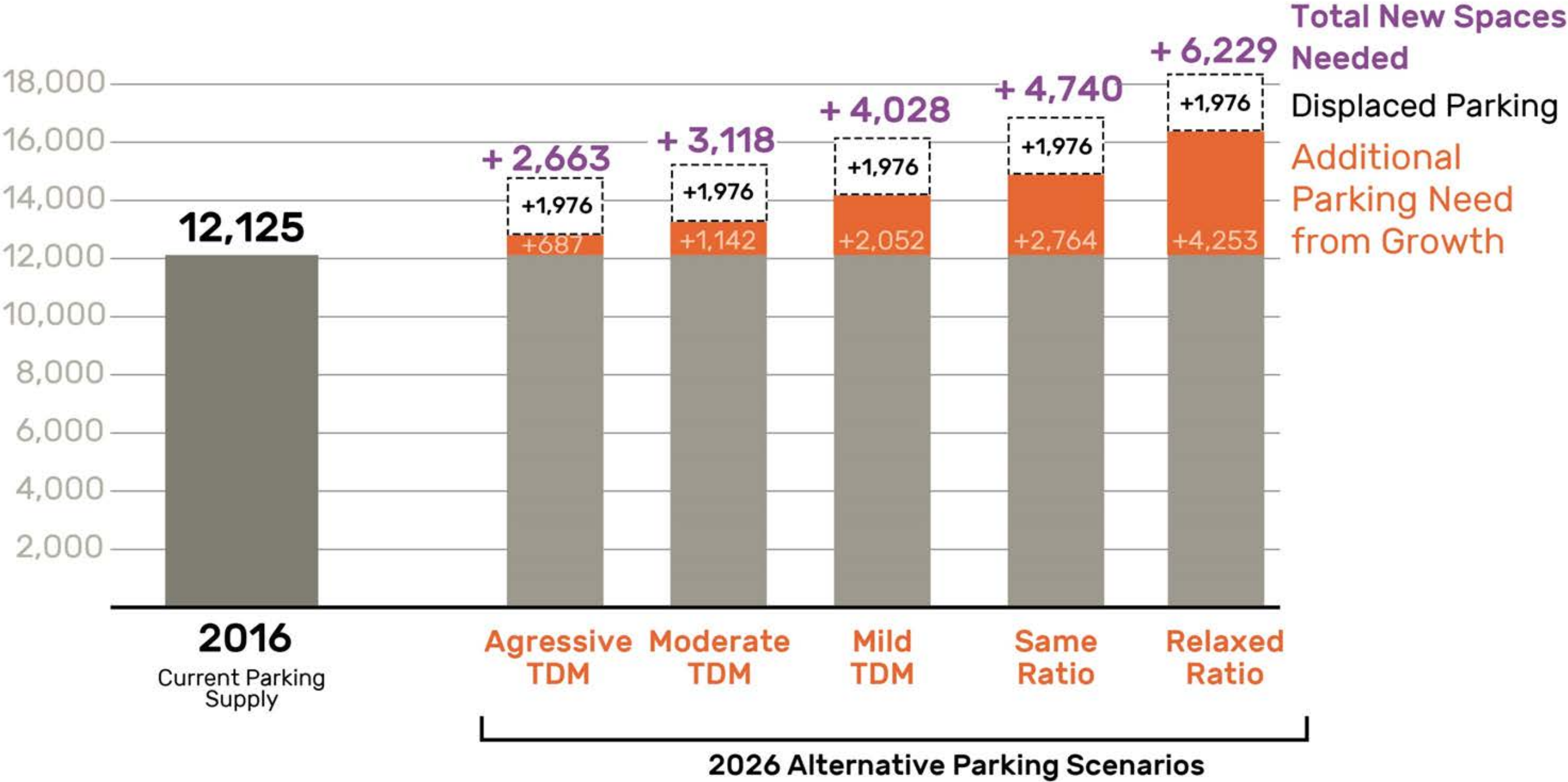
# Parking Need

SPECTRUM OF NEED



# Parking Need

SPECTRUM OF NEED

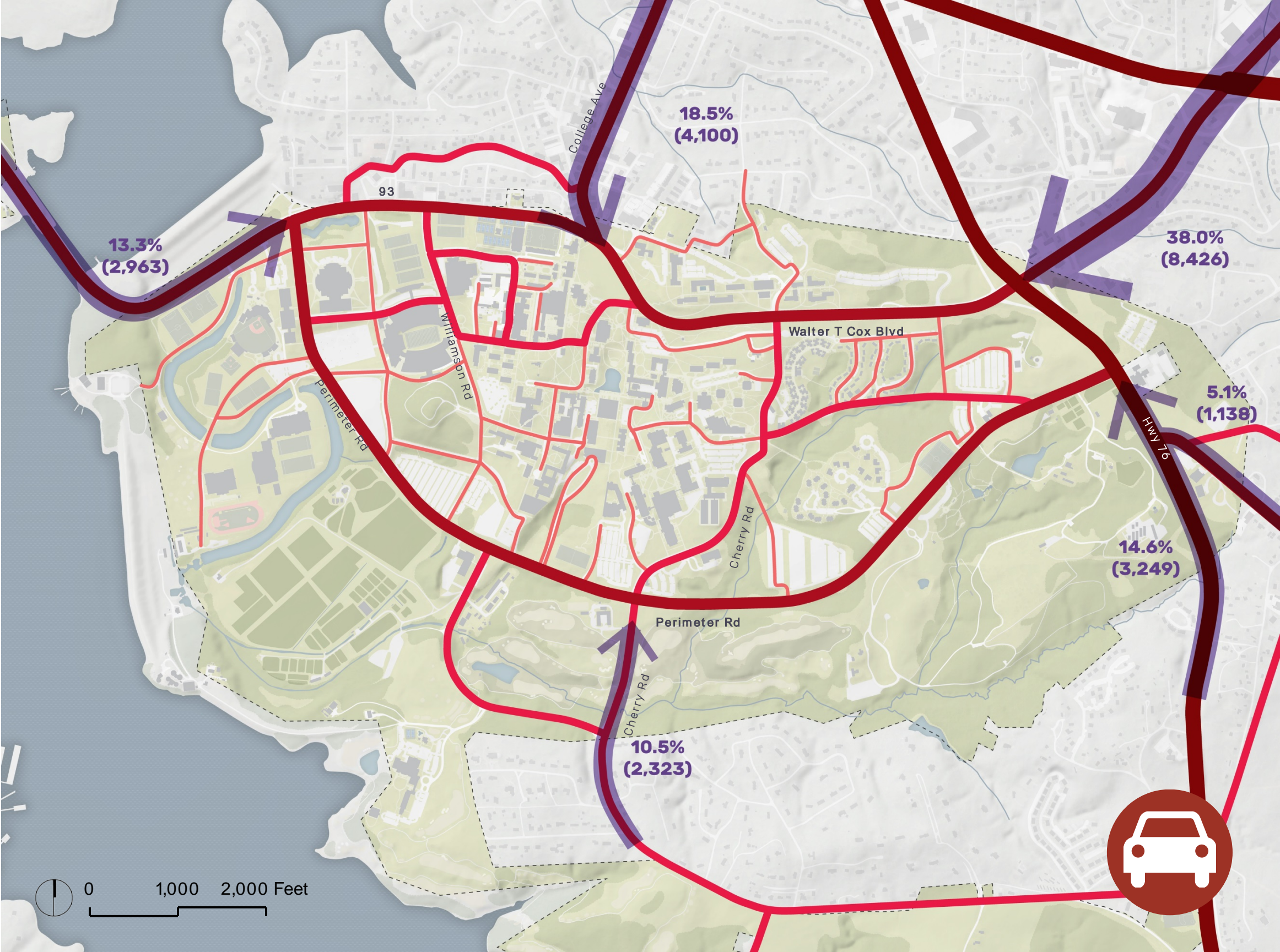




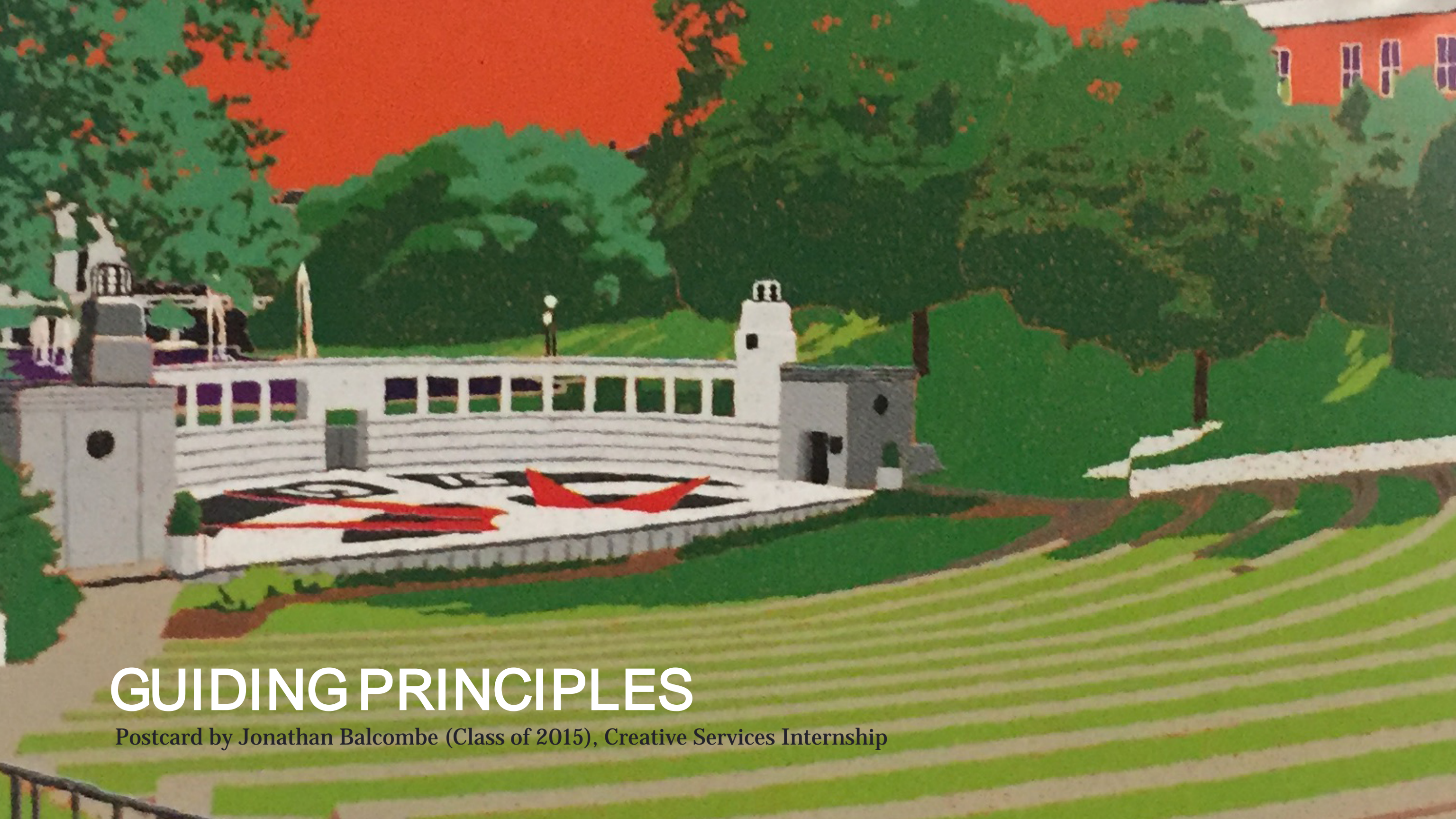
# Mobility

VEHICULAR  
CIRCULATION +  
POTENTIAL SURFACE  
PARKING

- ➔ Vehicular Flow Path
- #% Percentage of Vehicular Making Movement
- (#) Number of Vehicular Making Movement







# GUIDING PRINCIPLES

Postcard by Jonathan Balcombe (Class of 2015), Creative Services Internship



# Vision

REVISED

## Plan the Clemson Campus to ....

- *Promote engaged learning and research—a “high seminary of learning” [mission]*
- *Cultivate a special sense of community and encourage interaction [people]*
- *Inspire great memories, delight, healthy living, innovation and ideas [place]*

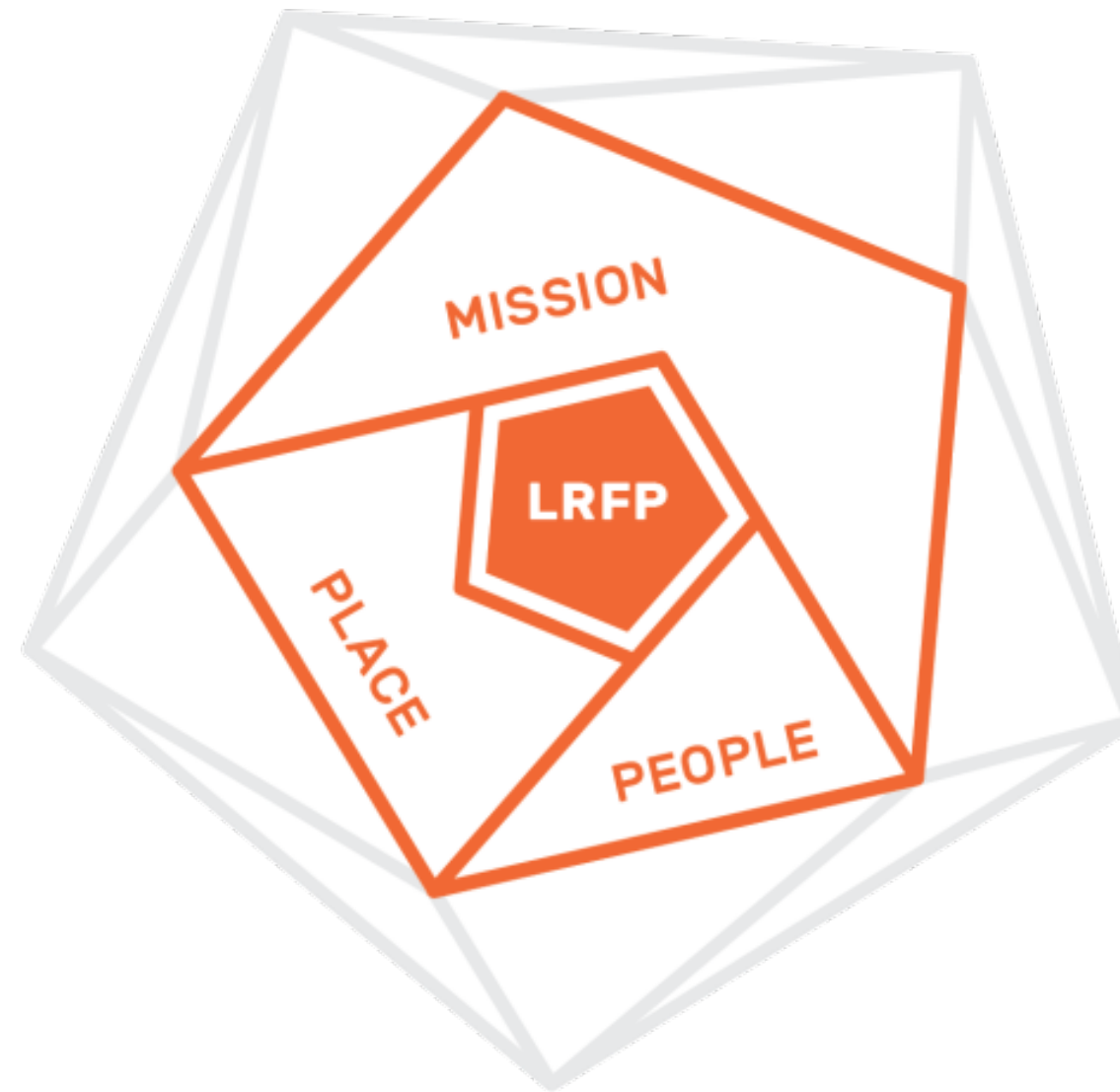
# Key Principles for Achieving the Vision

REVISED



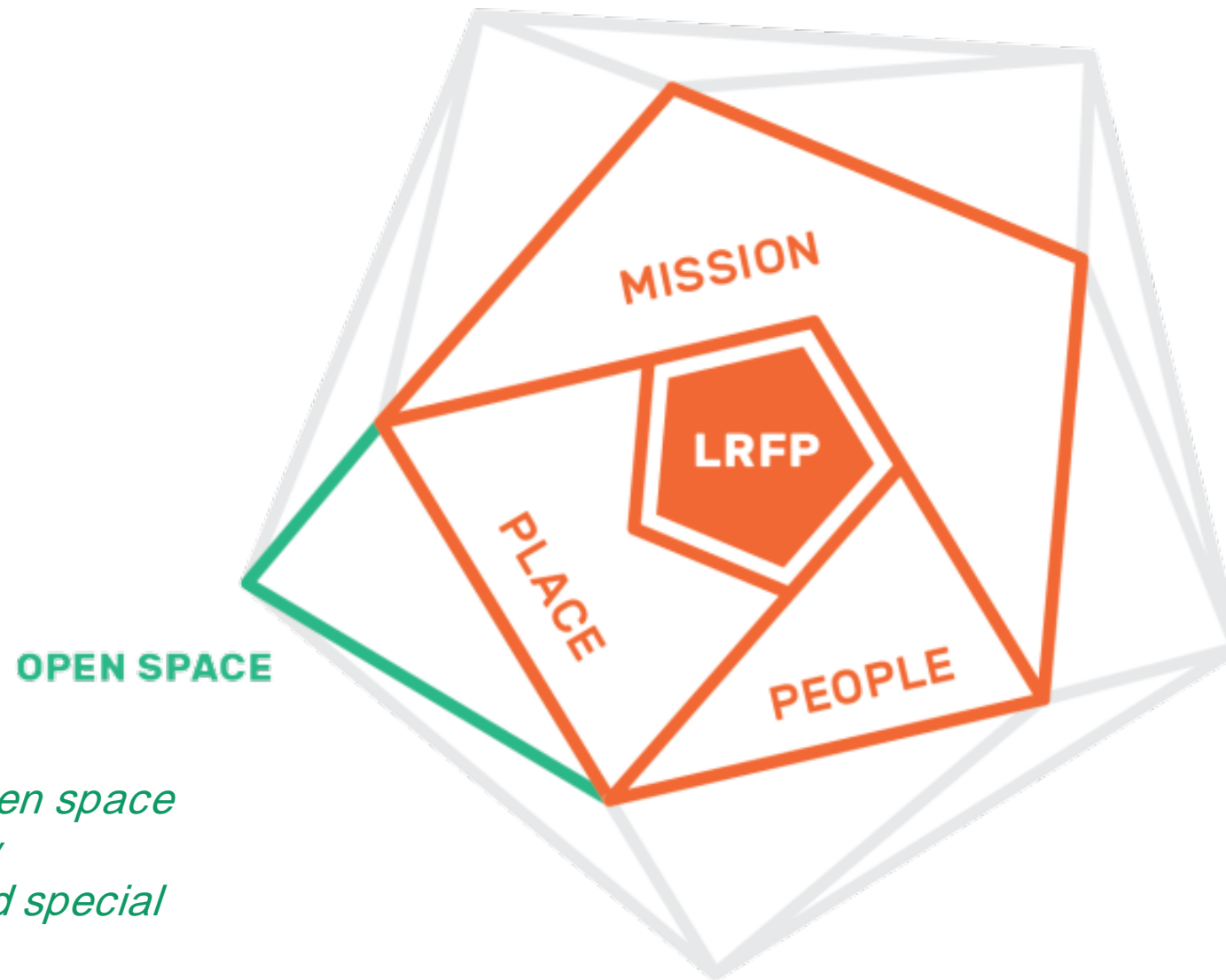
# Key Principles for Achieving the Vision

REVISED



# Key Principles for Achieving the Vision

REVISED

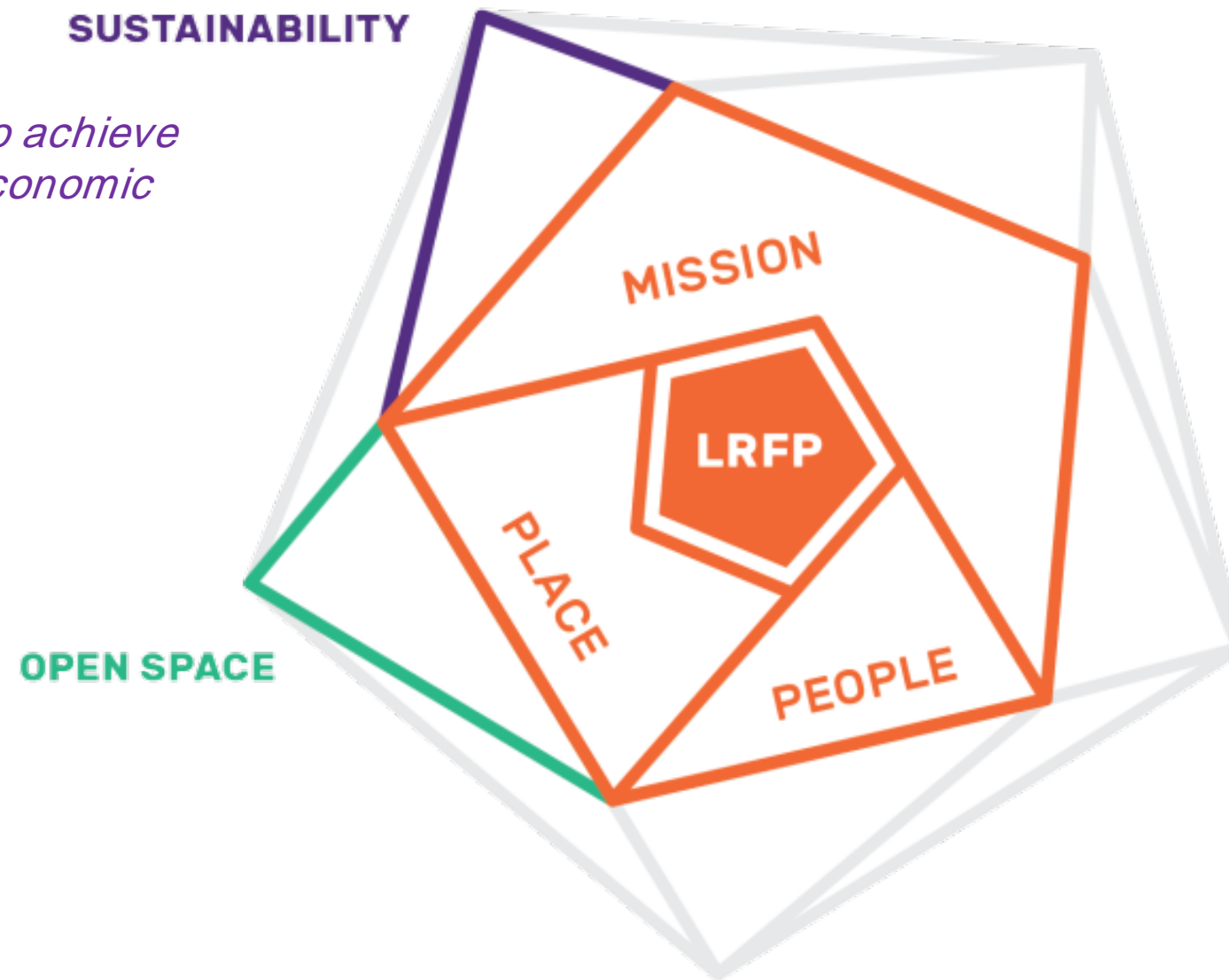


*Respect and extend the established open space framework of the campus; identify new opportunities for campus traditions and special spaces*

# Key Principles for Achieving the Vision

REVISED

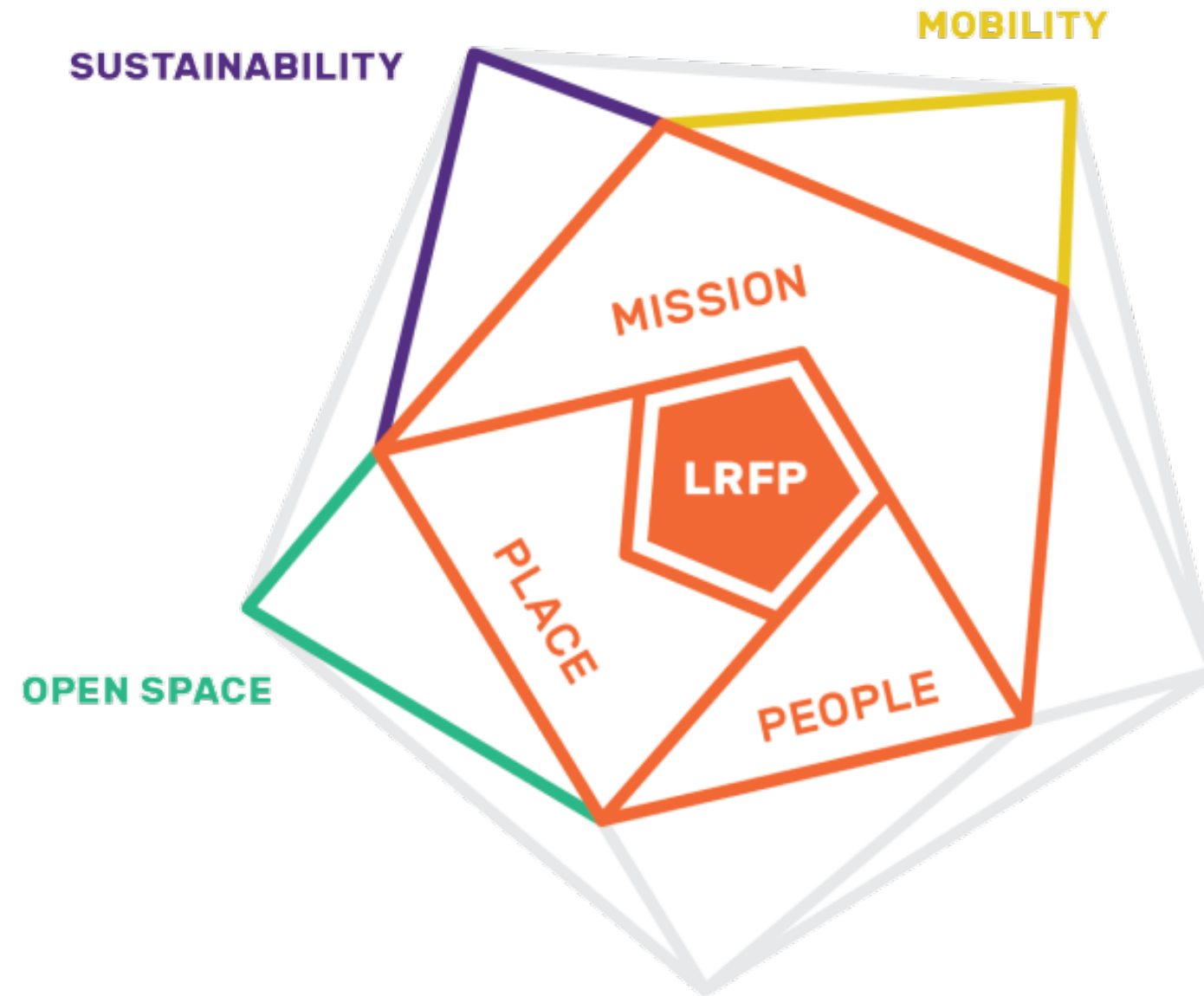
*Promote integrated planning in order to achieve Clemson's social, environmental and economic objectives for the campus*



# Key Principles for Achieving the Vision

REVISED

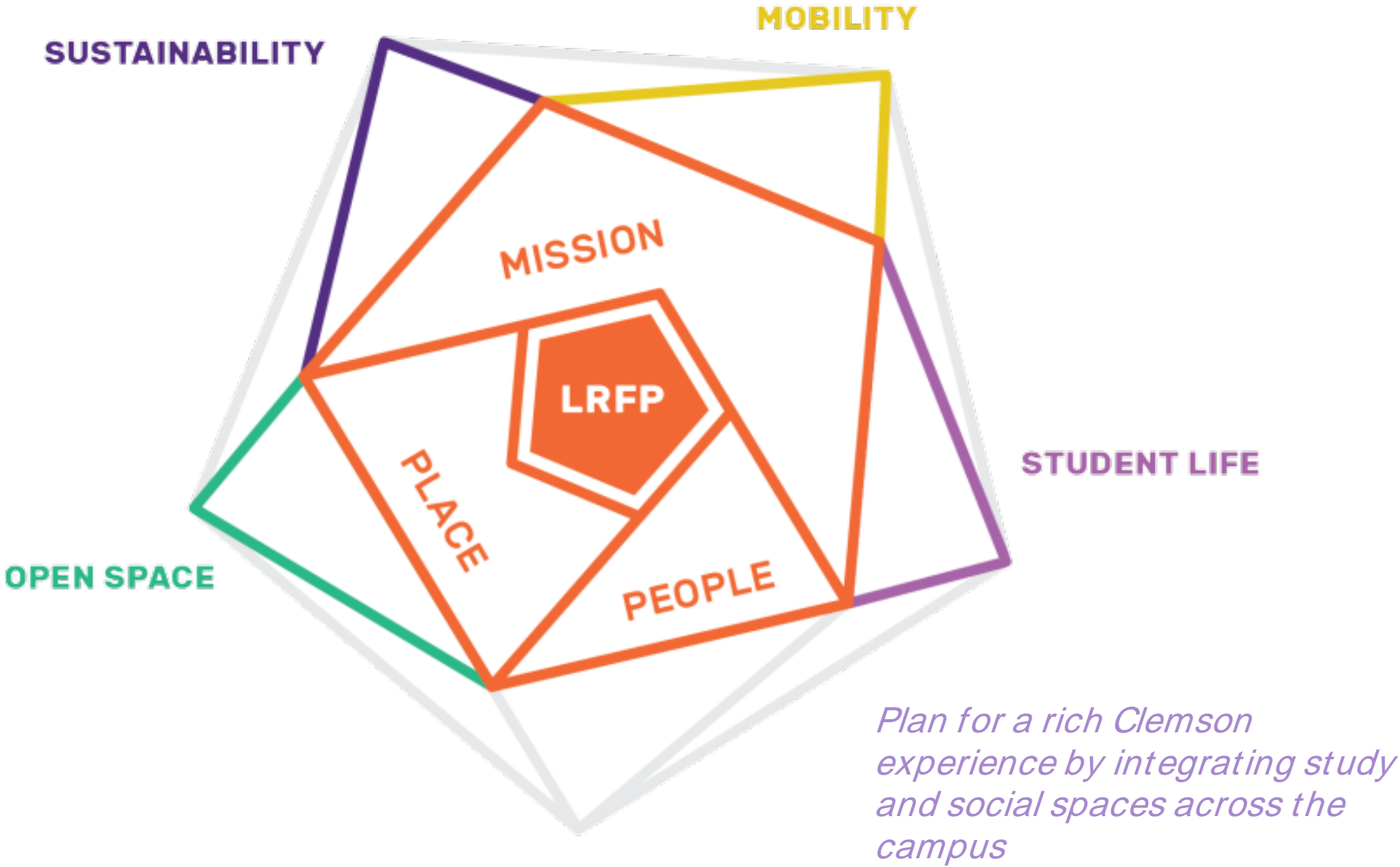
*Plan for a greater variety of ways to get around  
the campus and the community*





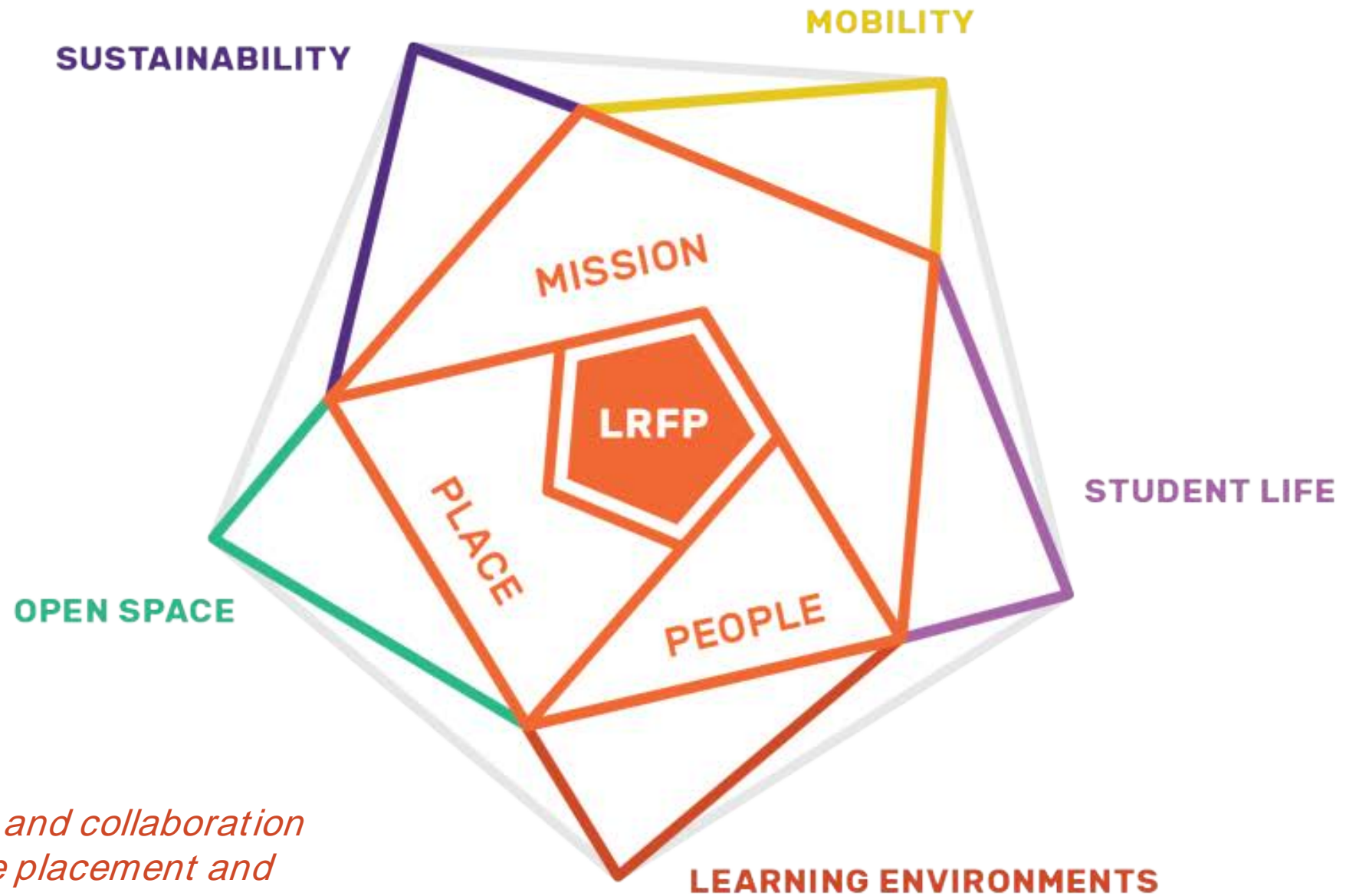
# Key Principles for Achieving the Vision

REVISED



# Key Principles for Achieving the Vision

REVISED



*Promote engagement and collaboration through the deliberate placement and design of learning environments at the heart of the campus*





# CONCEPT ALTERNATIVES

Postcard by Jonathan Balcombe (Class of 2015), Creative Services Internship



# Introducing a Framework Plan

- ♦ Systems-based approach to planning
- ♦ Decision-making tool
- ♦ Defines an overarching structure for development
- ♦ Allows for flexibility in future development
- ♦ Envelope versus architectural detail
- ♦ Each development site responds to the various systems

# Frameworks

LAYERED APPROACH TO EXAMINE THE CONCEPTS

- ♦ Development Framework
- ♦ Public Realm Framework
- ♦ Circulation and Parking Framework
- ♦ Building and Land Use Framework
- ♦ Sustainability Framework



# Existing Campus

OVERALL





# Proposed Concept 1

INCREMENTAL IMPROVEMENTS





# Proposed Concept 2

INTENSIVE INVESTMENT



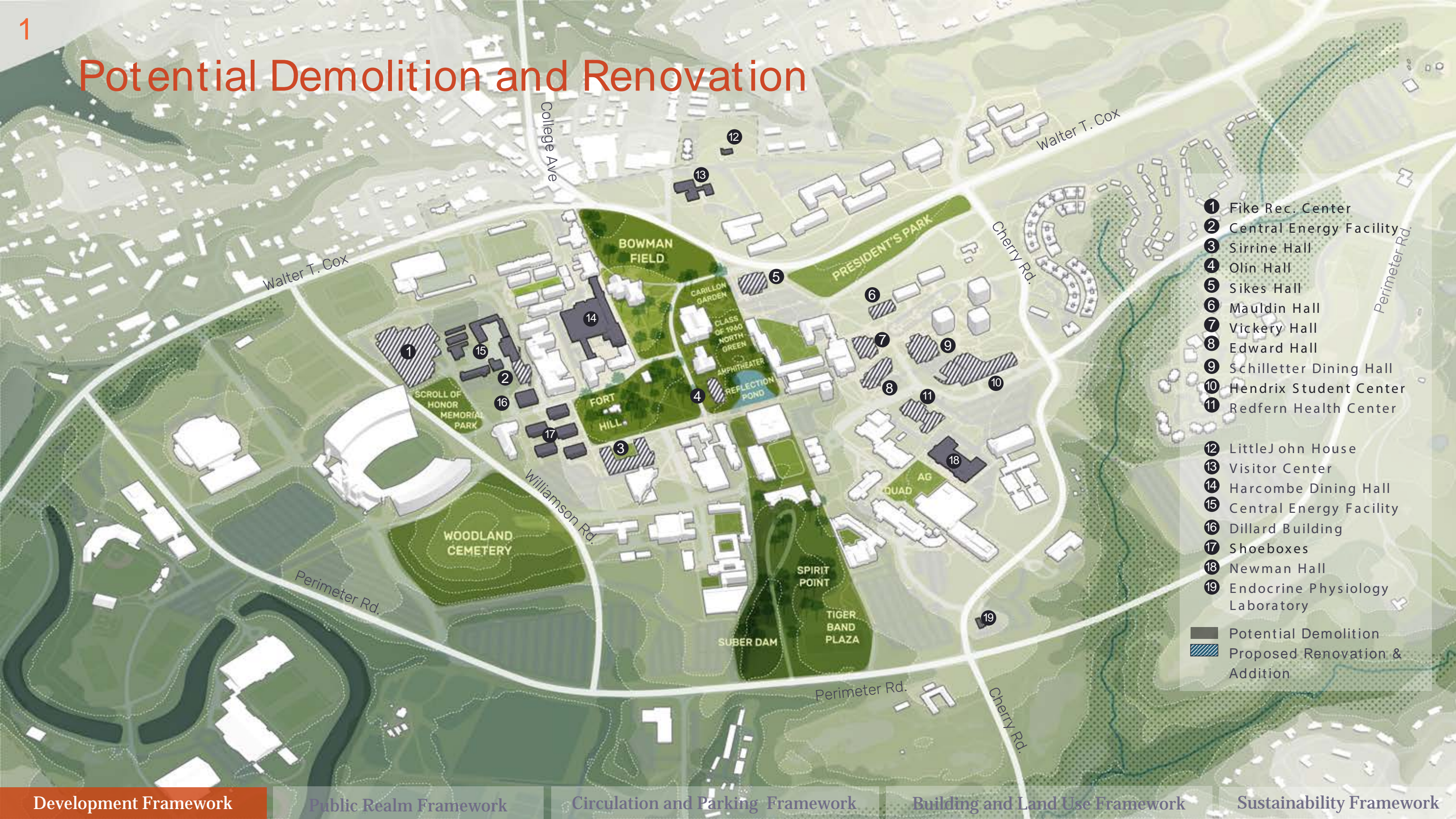


# Main Campus Concepts

# Concept 1 – Incremental Improvements



# Potential Demolition and Renovation





# Potential Development Sites





# Proposed Development

## DEVELOPMENT SITES & CAPACITY

**GSF Provided: 1.5 million gsf**

**Displaced GSF: 400,000 gsf**

**Net New GSF: 1.1 million gsf**

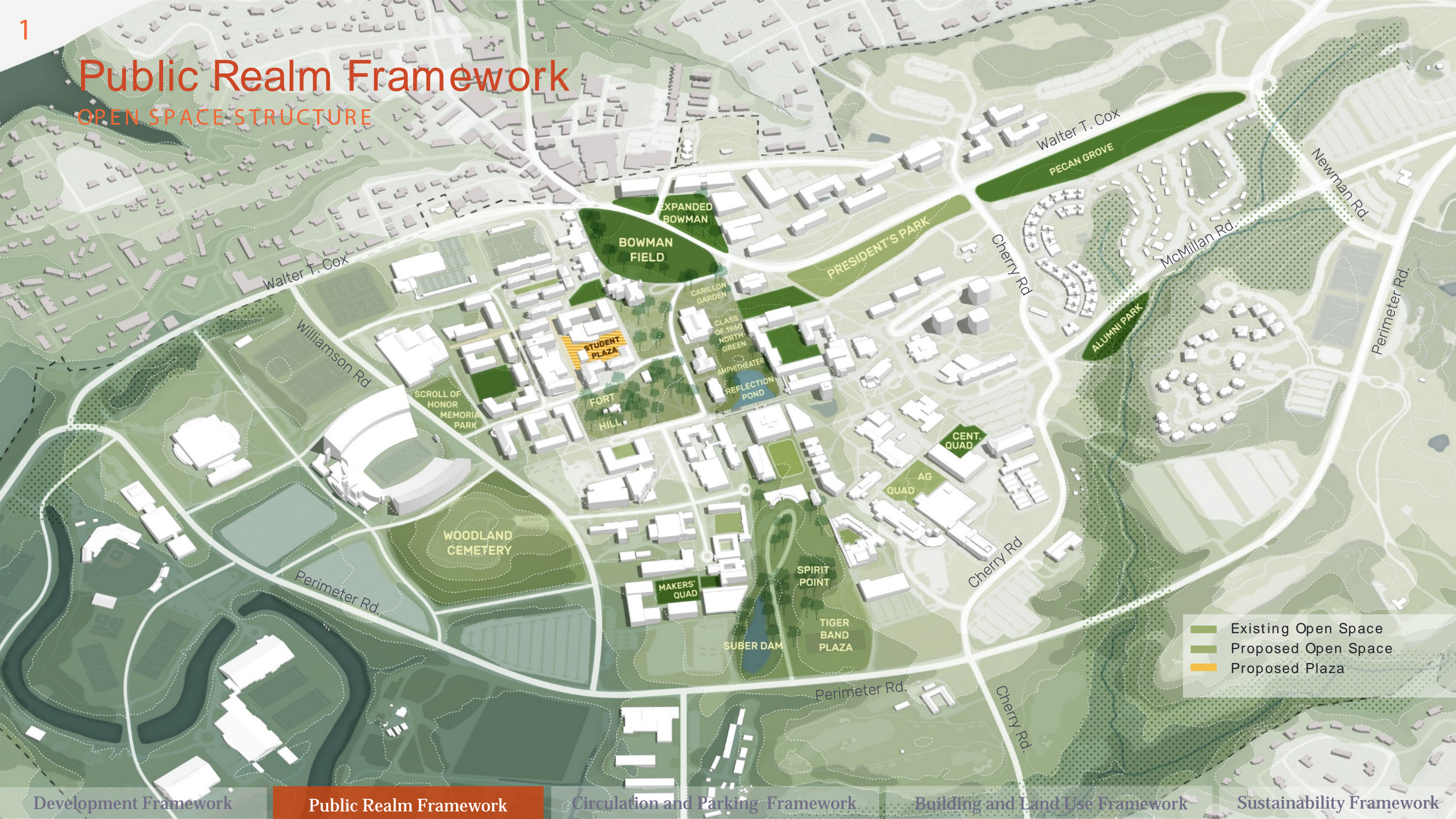
**GSF Need: 1.1 million gsf**





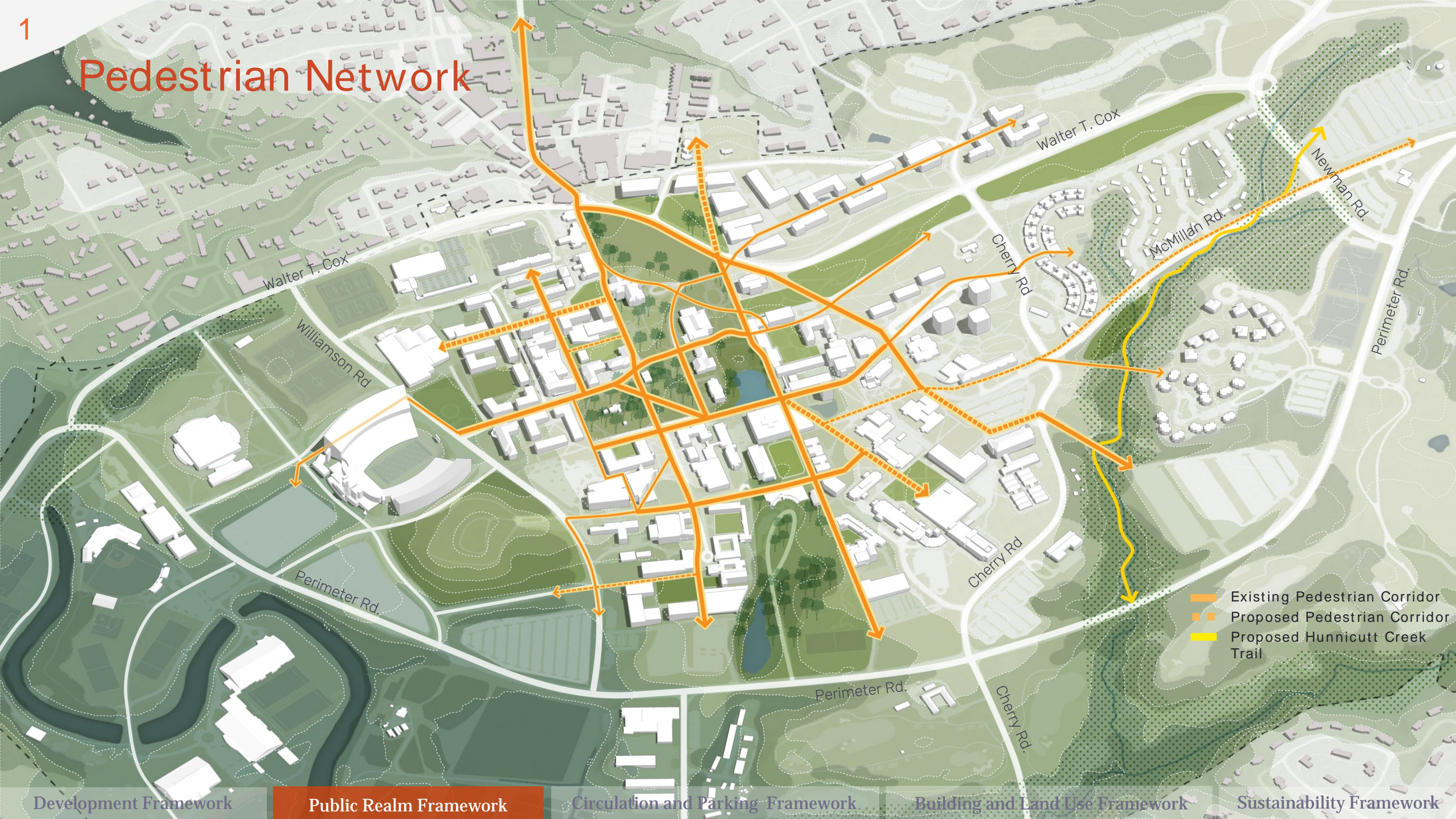
# Public Realm Framework

## OPEN SPACE STRUCTURE





# Pedestrian Network

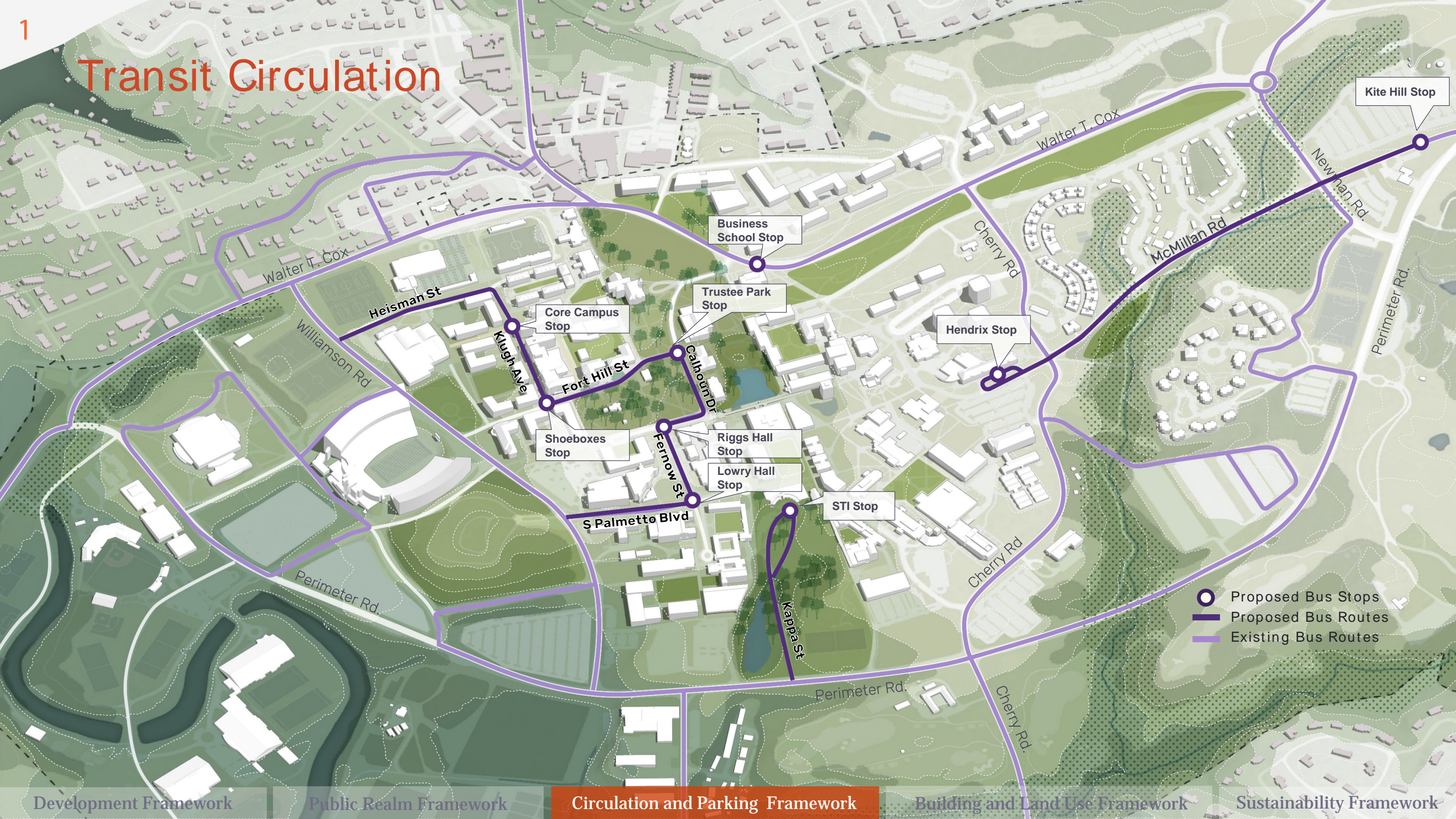






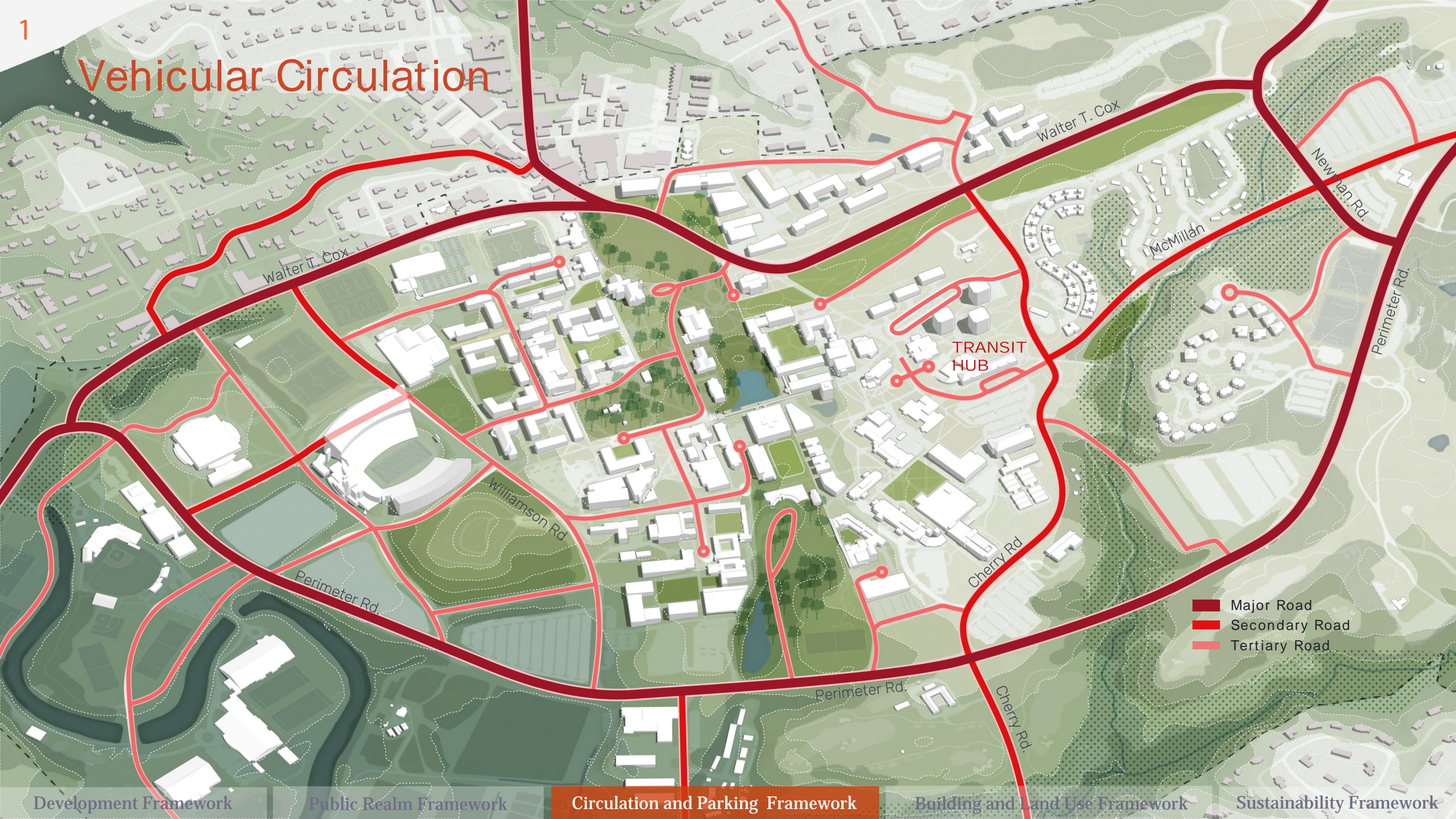


# Transit Circulation





# Vehicular Circulation





# Potential Parking

**Net New Parking Need: +687 to +4,253 spaces**

**Spaces Displaced: 1,309**

**Total Need: 1,996 to 5,562**

**New Parking Provided**

- 2,495 surface
- 1,661 structured
- 4,156 total

**+221**

**+165**

**+525**

- Major Road
- Secondary Road
- Tertiary Road
- Structured Parking



# Potential Parking

**Net New Parking Need: +687 to +4,253 spaces**

**Spaces Displaced: 1,309**

**Total Need: 1,996 to 5,562**

**New Parking Provided**

- 3,295 surface
- 1,661 structured
- 4,956 total

**+221**

**+525**

**+800**

**+165**

- Major Road
- Secondary Road
- Tertiary Road
- Structured Parking
- Potential Surface Parking

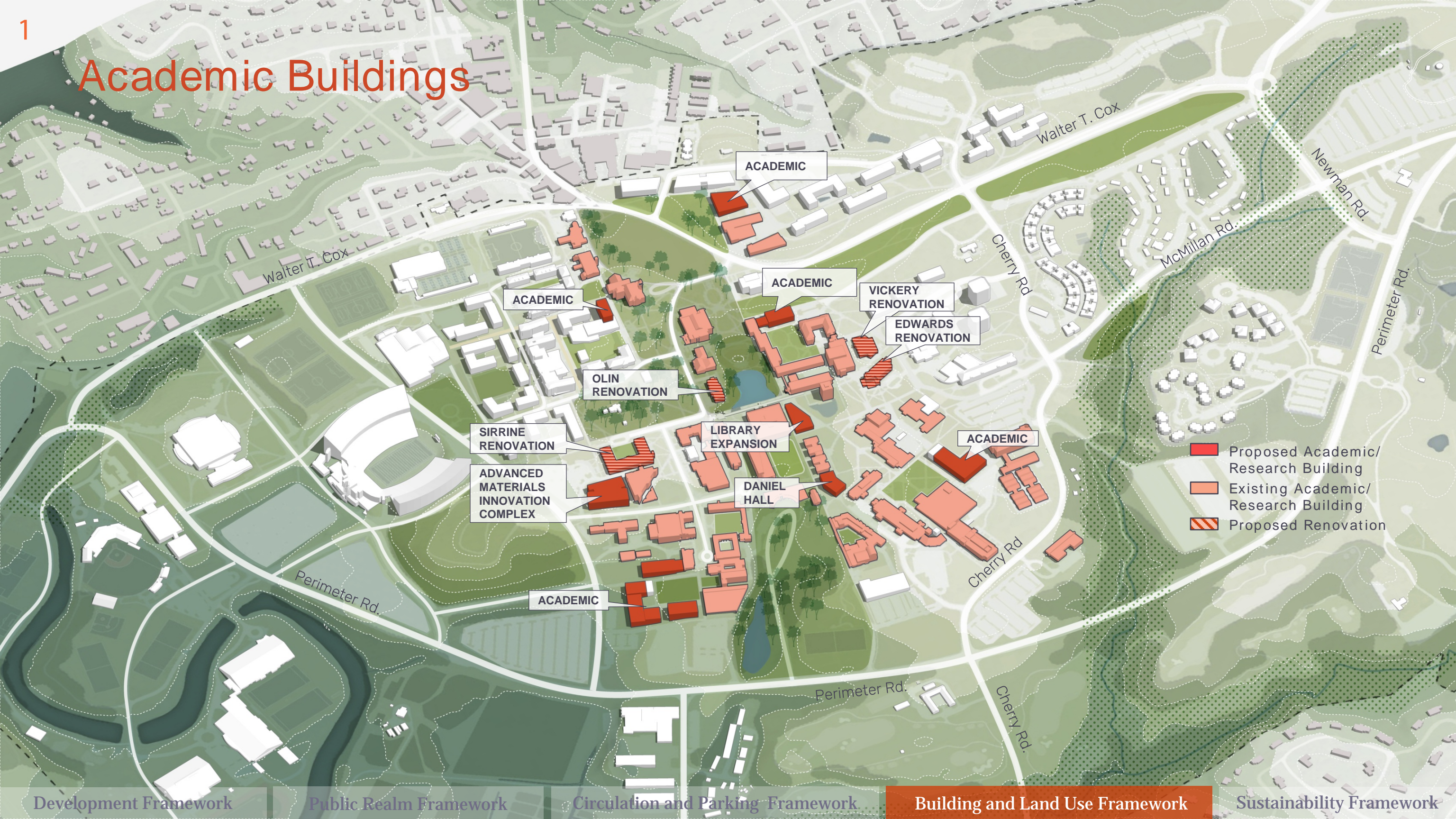


# Overall Building Use



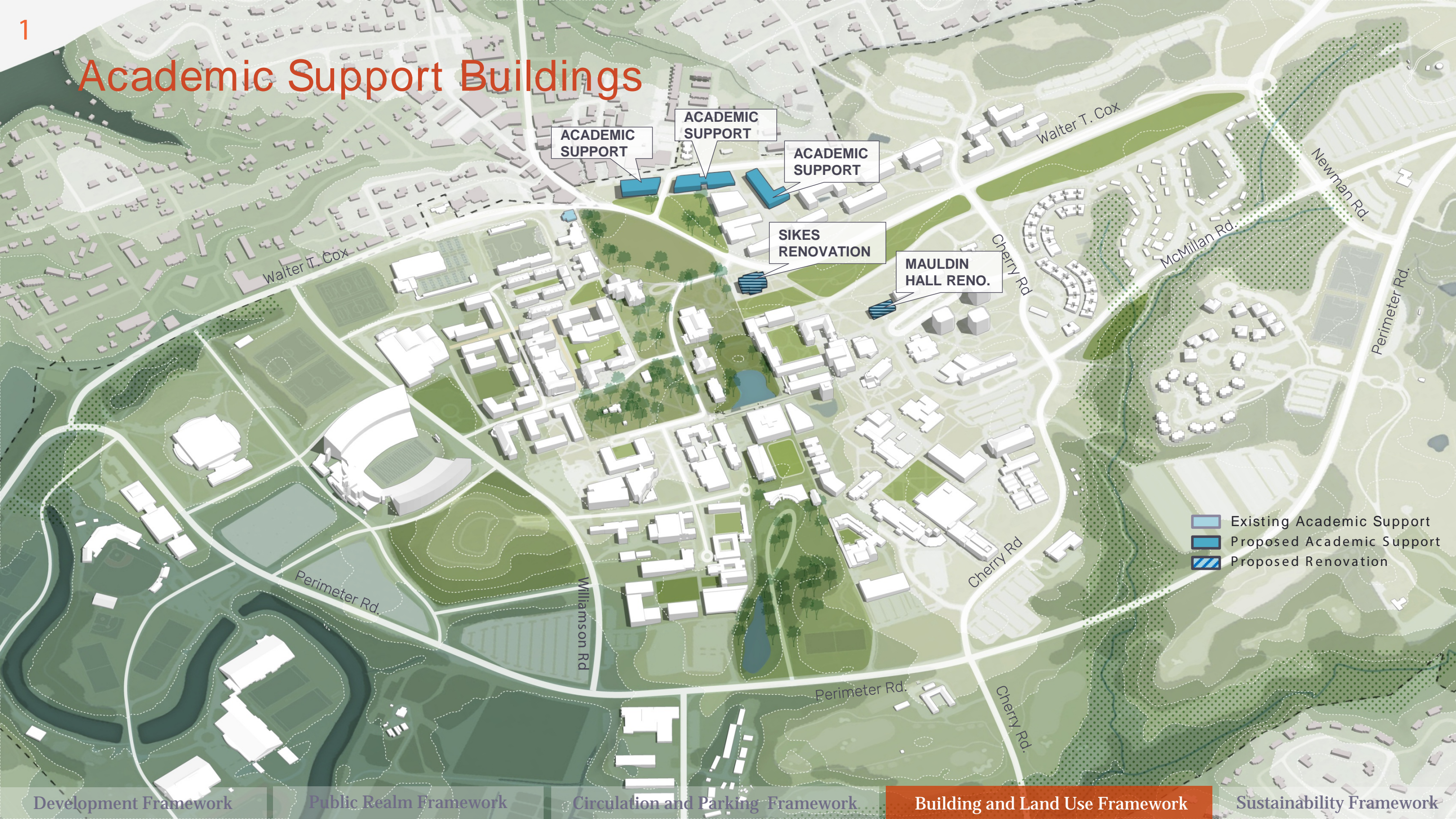


# Academic Buildings





# Academic Support Buildings





# Student Life





# Student Housing

**Total New Beds: 2,247**

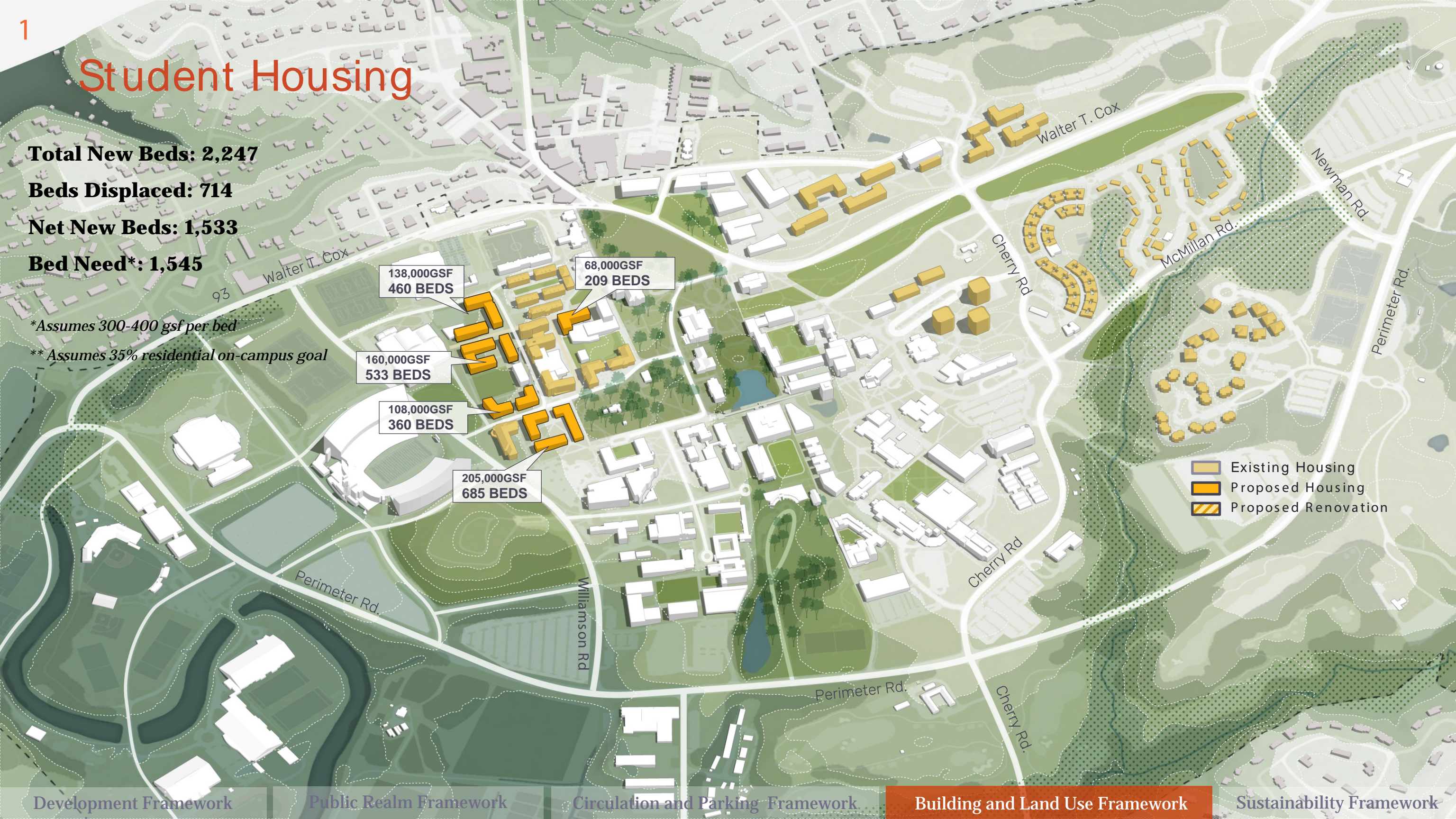
**Beds Displaced: 714**

**Net New Beds: 1,533**

**Bed Need\*: 1,545**

*\*Assumes 300-400 gsf per bed*

*\*\* Assumes 35% residential on-campus goal*





Concept 1 – Incremental Improvements

**Design Concepts – Bowman Field & Walter T. Cox**



# Bowman Field & Walter T. Cox



Development Framework

Public Realm Framework

Circulation and Parking Framework

Building and Land Use Framework

Sustainability Framework



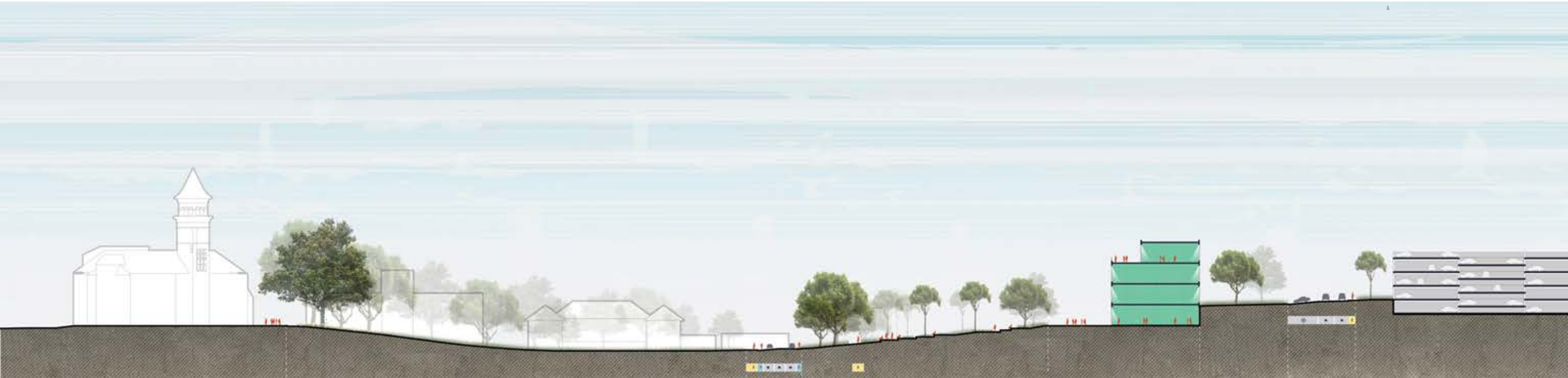
# Example: Pedestrian Crossing at Walter T. Cox





# Public Realm Framework

EXPANDED BOWMAN





# Public Realm Framework

WALTER T. COX / BOWMAN FIELD





# WALTER T. COX STREET SECTIONS





# Walter T. Cox Existing Street Section

NEAR PRESIDENT'S PARK





# Walter T. Cox Proposed Street Section

NEAR PRESIDENT'S PARK





# Walter T. Cox Existing Street Section

NEAR BOWMAN FIELD

- Major conflict between pedestrian crossing and car traffic
- No bike lane





# Walter T. Cox Proposed Street Section

NEAR BOWMAN FIELD





# Walter T. Cox Existing Street Section

NEAR RIGGS FIELD



VARIES	VARIES	6'	6'	10'	10'	10'	10'	VARIES	VARIES
VARIES	VARIES	6'	6'	40'				VARIES	VARIES



# Walter T. Cox Proposed Street Section

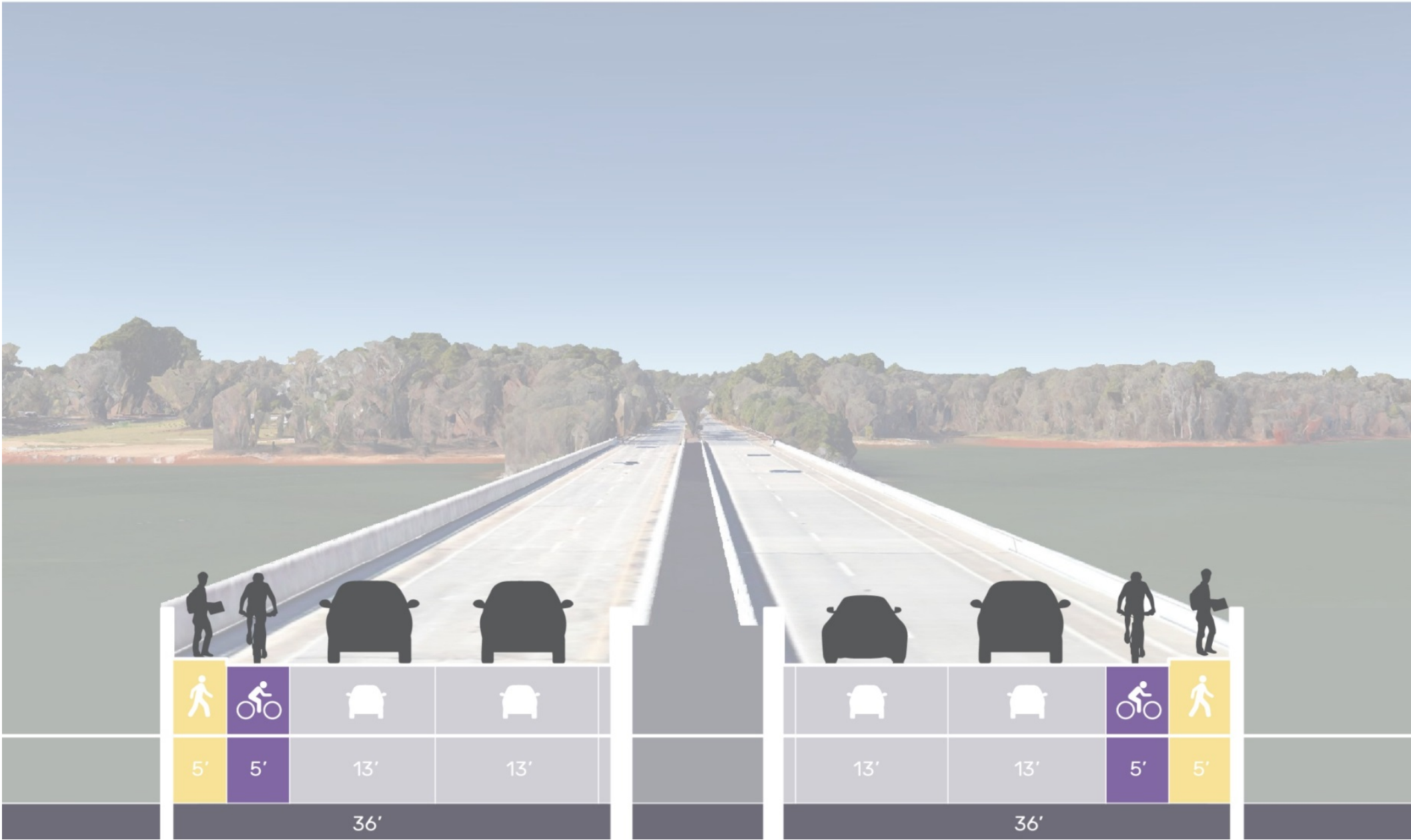
NEAR RIGGS FIELD





# 93 Existing Street Section

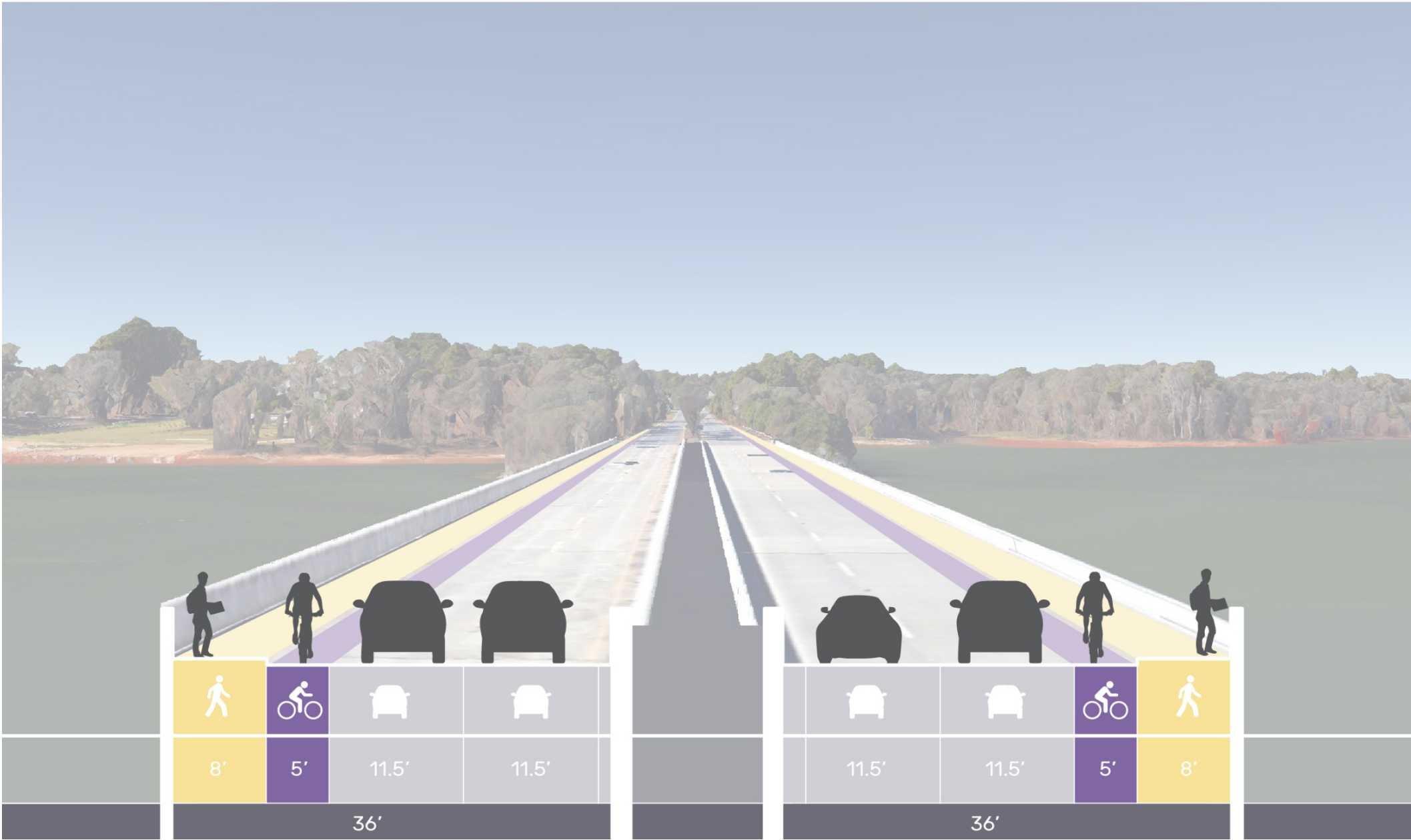
ON BRIDGE TO RAVENEL





# 93 Proposed Street Section

ON BRIDGE TO RAVENEL





Concept 1 – Incremental Improvements

**Design Concepts – North/ South Academic Corridor**



# Proposed Development

DEVELOPMENT SITES & CAPACITY



ACADEMIC  
SUPPORT

BUSINESS

MARTIN

LIBRARY EXP

ACADEMIC

BROOKS EXP



# Academic Corridor

NORTH SOUTH SPINE

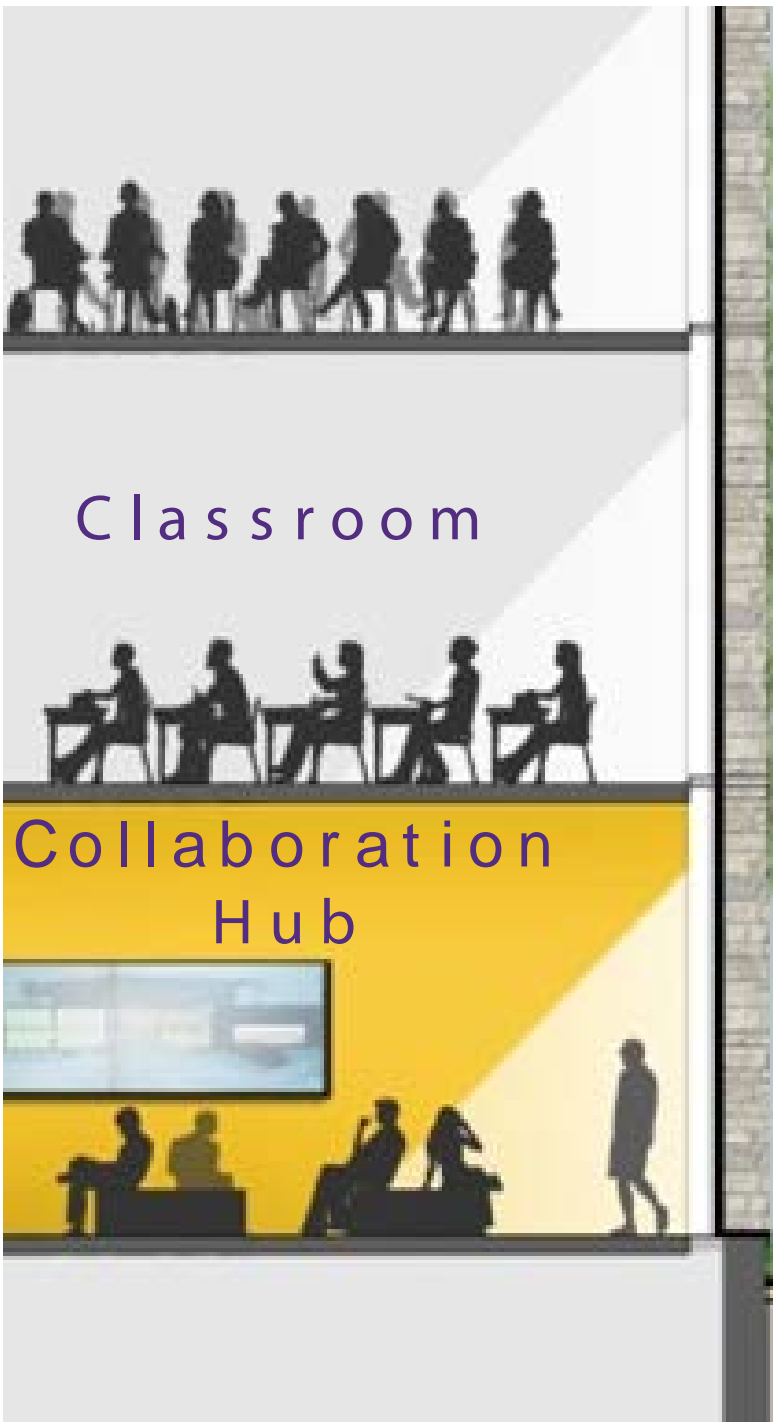




# Transparency at Martin



Existing  
Condition



North – South Spine



# Student Life

## PROPOSED NEW STUDENT COMMONS



COMMONS

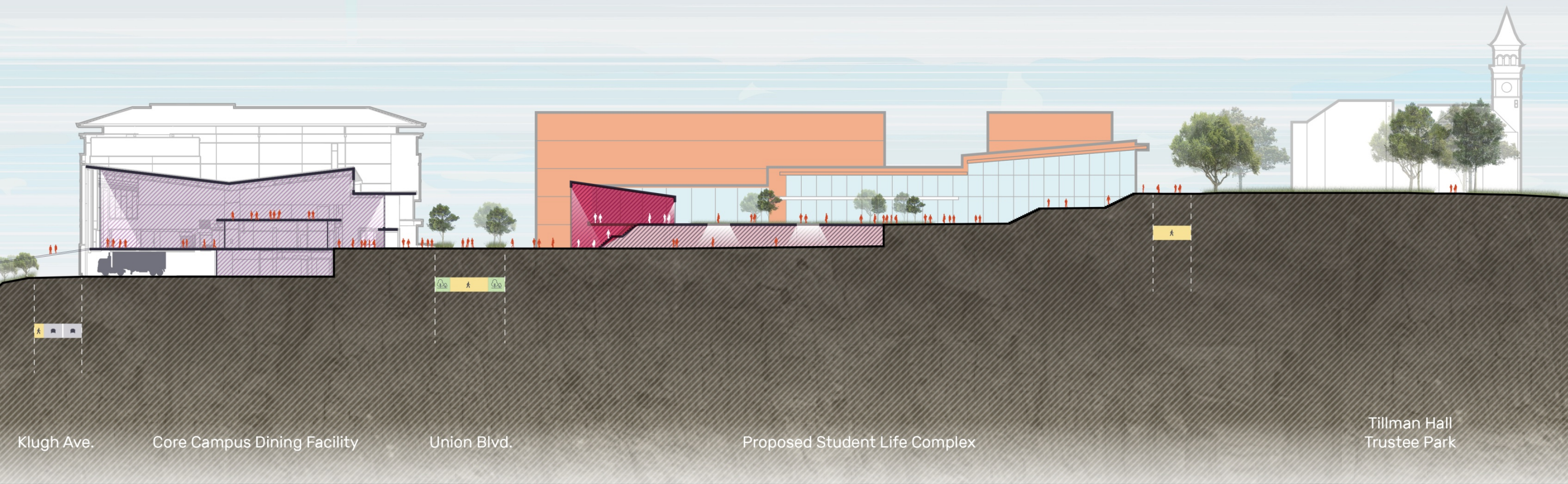
FIKE

- Proposed Academic/Research Building
- Existing Academic/Research Building
- Academic/Research Building Renovation
- Proposed Student Life
- Existing Student Life
- Student Life Renovation
- Proposed Housing
- Existing Housing
- Proposed Admin
- Existing Admin
- Admin Renovation
- Proposed Recreation
- Existing Recreation
- Existing Athletics



# Student Life

PROPOSED NEW STUDENT COMMONS





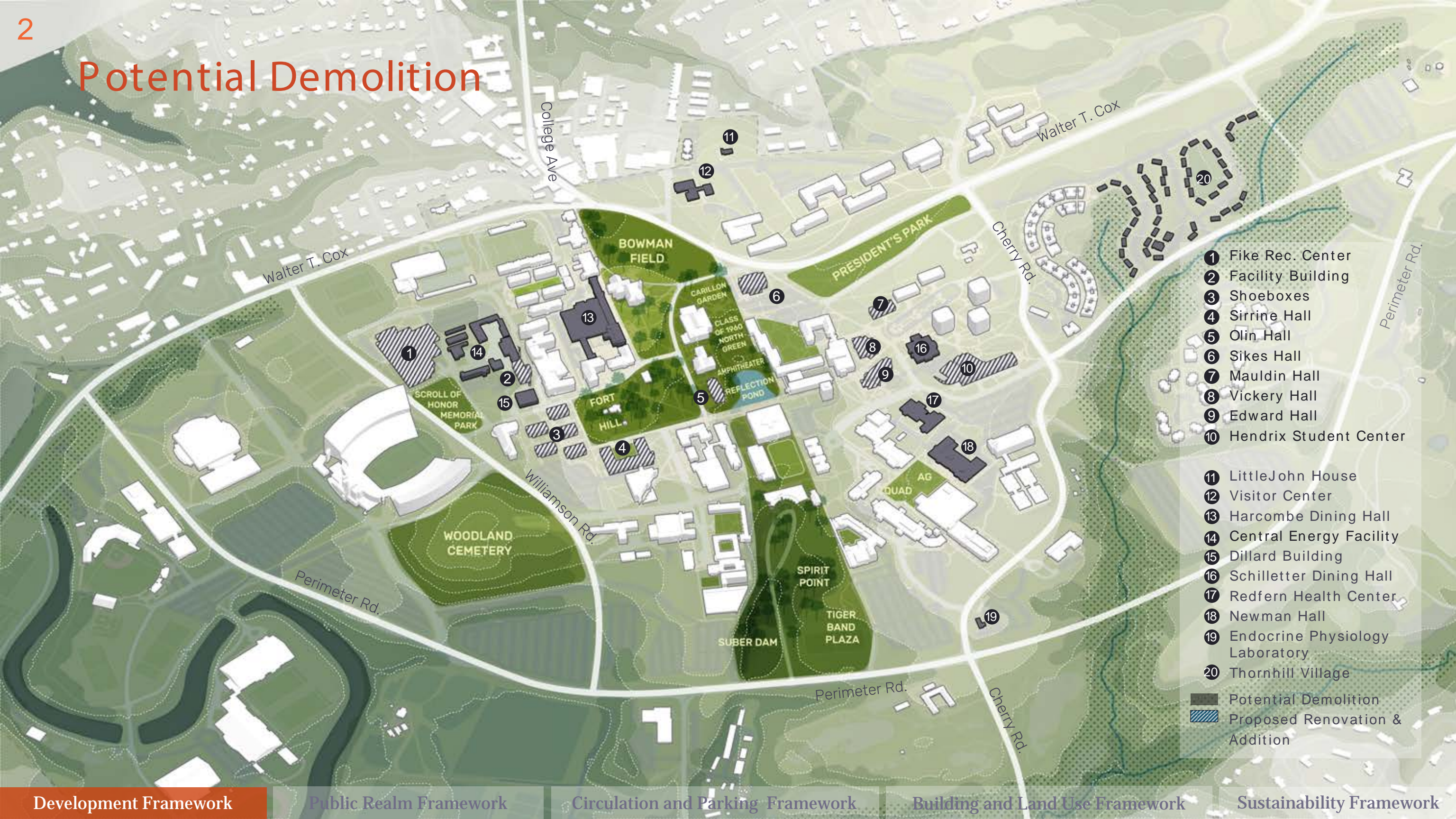
Questions / Comments on Option 1 ?



## Concept 2 – Intensive Investments



# Potential Demolition





# Potential Development Sites

OPTION 2





# Proposed Development

## DEVELOPMENT SITES & CAPACITY

**GSF Provided: 1.9 million gsf**

**Displaced GSF: 450,000 gsf**

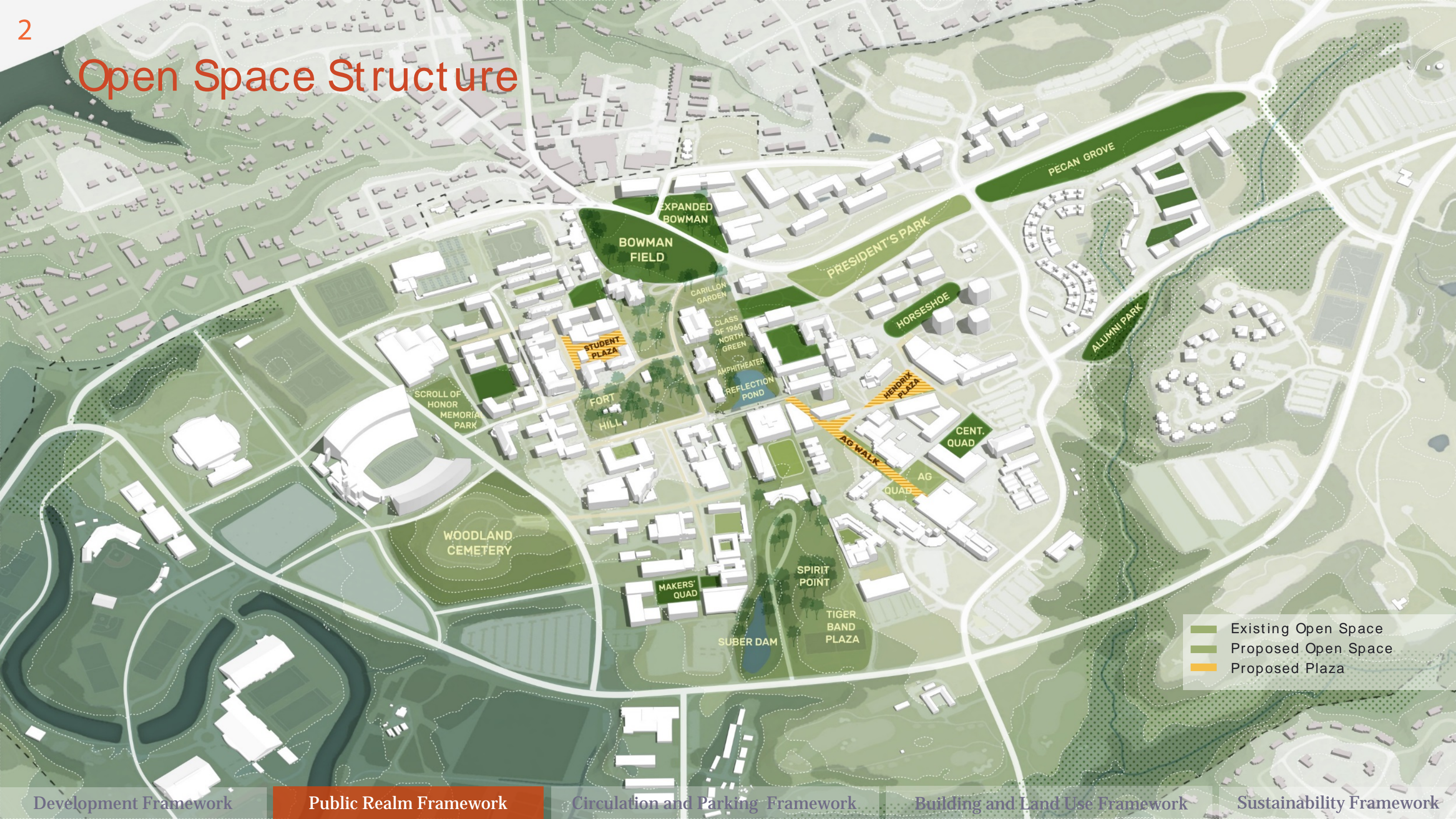
**Net New GSF: 1.45 million gsf**

**GSF Need: 1.1 million gsf**



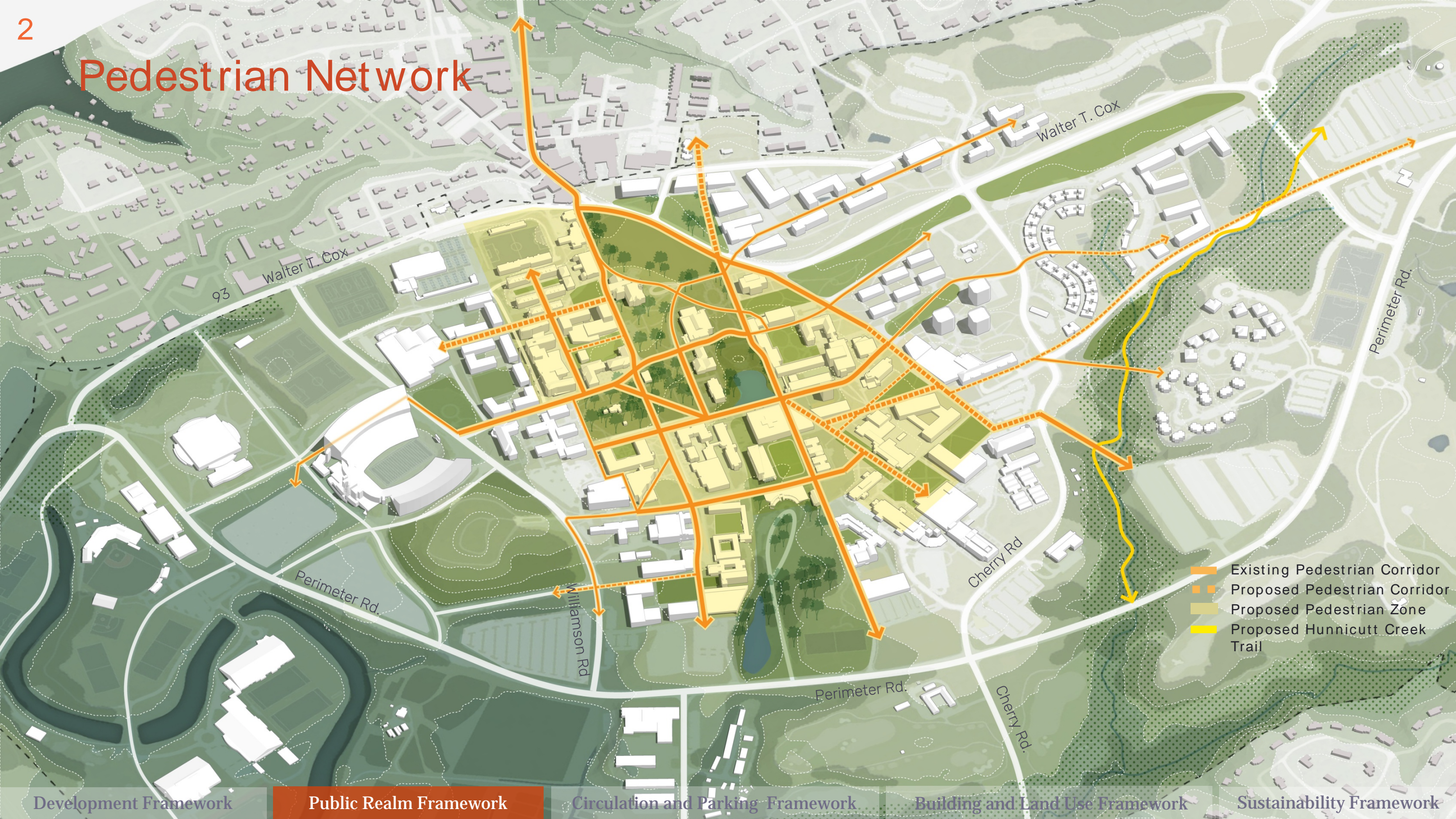


# Open Space Structure





# Pedestrian Network



- Existing Pedestrian Corridor
- Proposed Pedestrian Corridor
- Proposed Pedestrian Zone
- Proposed Hunnicutt Creek Trail

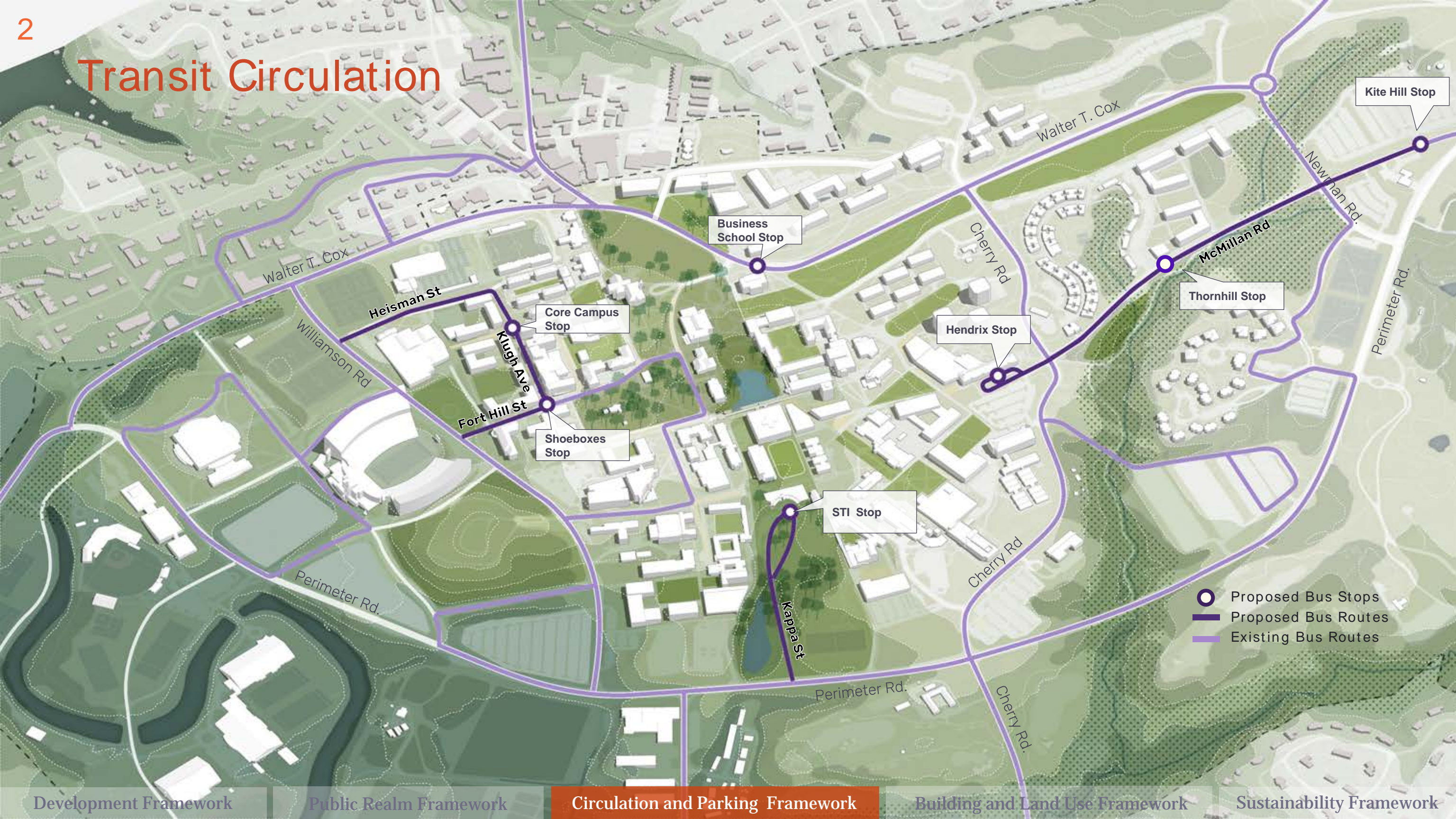


# Bike Circulation



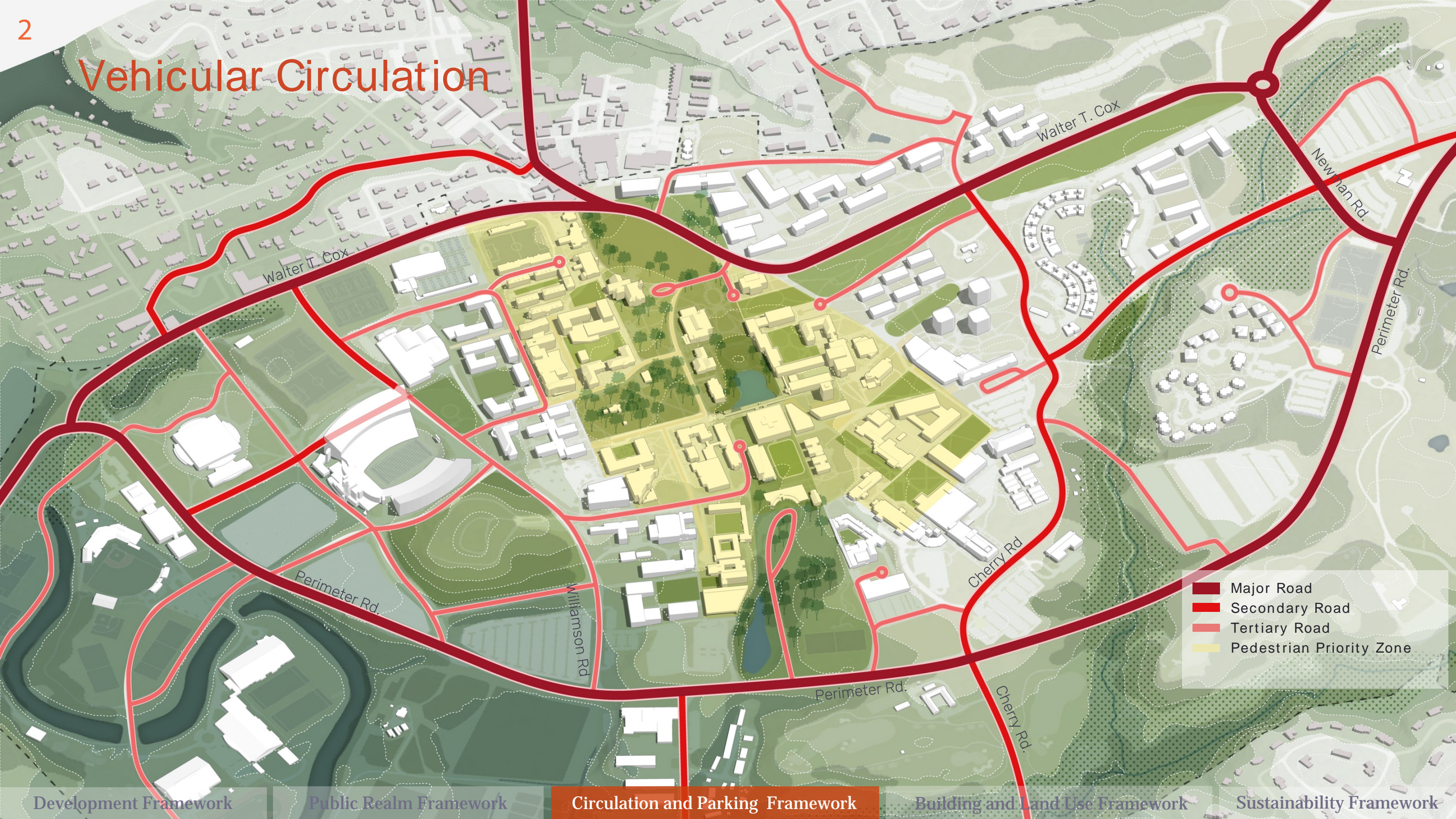


# Transit Circulation





# Vehicular Circulation





# Potential Parking

**Net New Parking Need: +687 to +4,253 spaces**

**Spaces Displaced: 1,976**

**Total Need: 2,663 to 6,229**

**New Parking Provided**

- **2,495 surface**
- **2,215 structured**
- **4,710 total**

**+221**

**+165**

**+525**

- Major Road
- Secondary Road
- Tertiary Road
- Structured Parking



# Potential Parking

**Net New Parking Need: +687 to +4,253 spaces**

**Spaces Displaced: 1,976**

**Total Need: 2,663 to 6,229**

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- 3,295 surface
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- 5,510 total

**+221**

**+800**

**+165**

**+525**

- Major Road
- Secondary Road
- Tertiary Road
- Structured Parking
- Potential Surface Parking



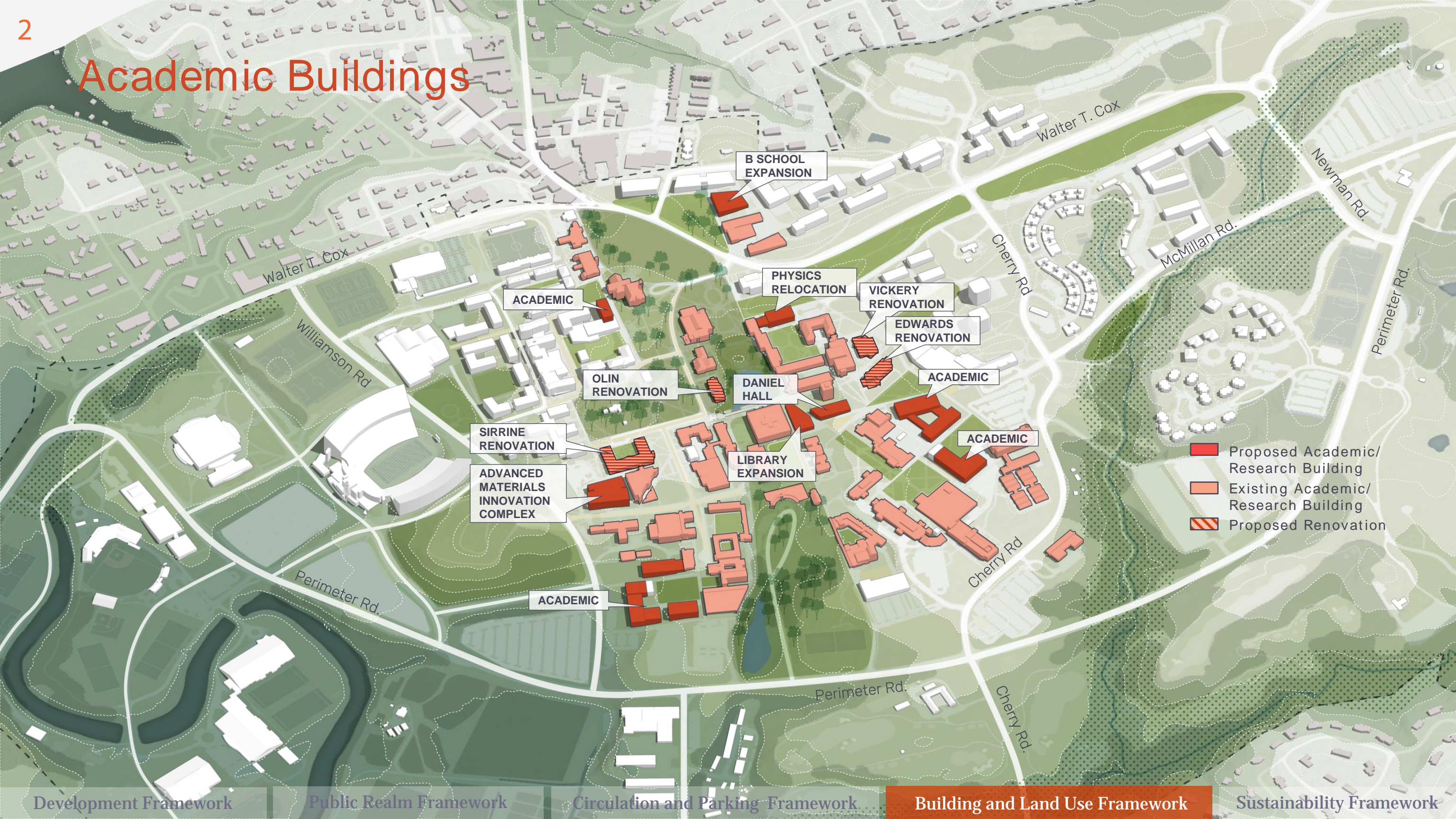
# Building Use



- Proposed Academic/Research Building
- Existing Academic/Research Building
- Academic/Research Building Renovation
- Proposed Student Life
- Existing Student Life
- Student Life Renovation
- Proposed Housing
- Existing Housing
- Housing Renovation
- Proposed Admin
- Existing Admin
- Admin Renovation
- Proposed Recreation
- Existing Recreation
- Proposed Athletics
- Existing Athletics

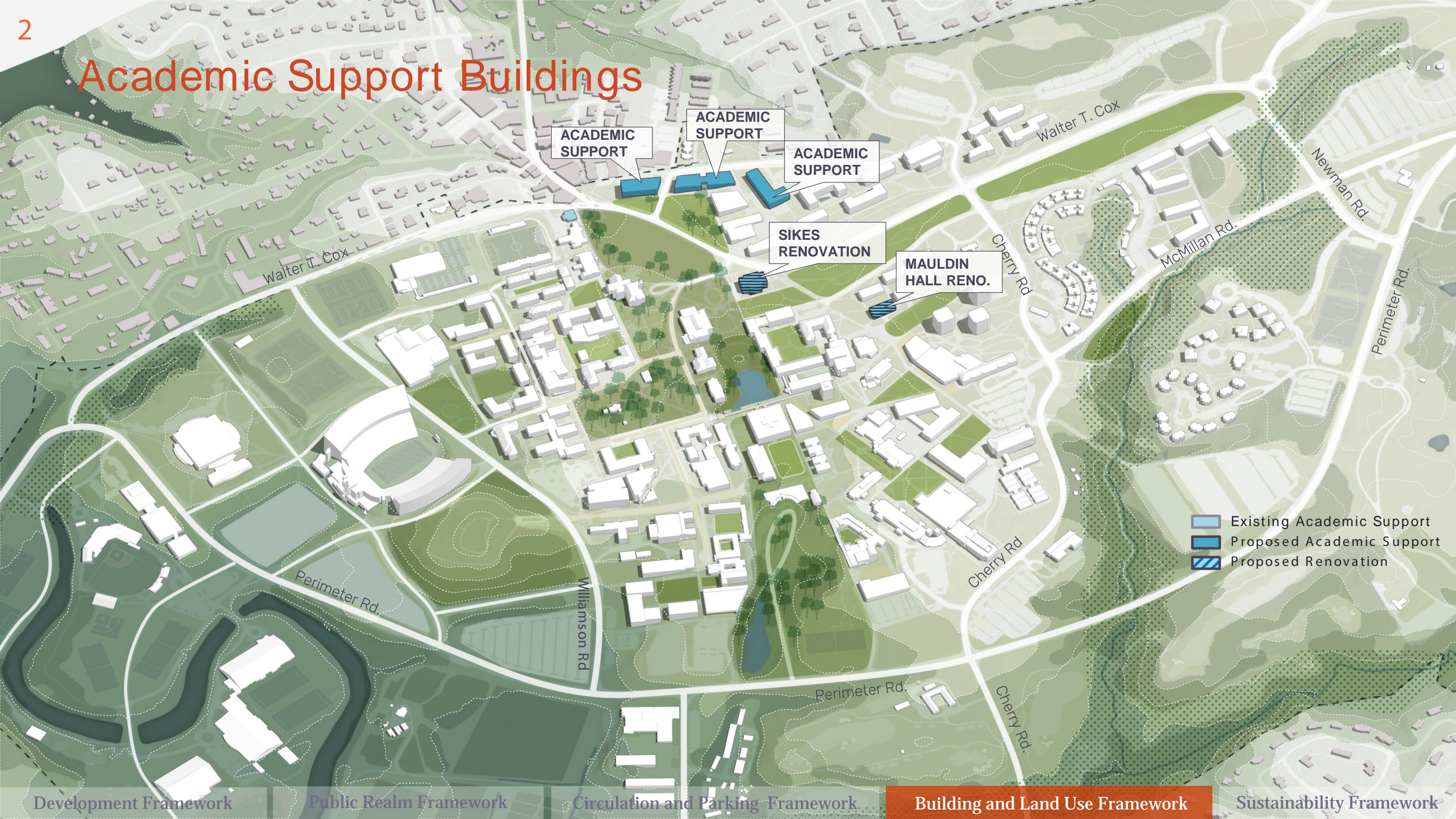


# Academic Buildings





# Academic Support Buildings





# Student Life





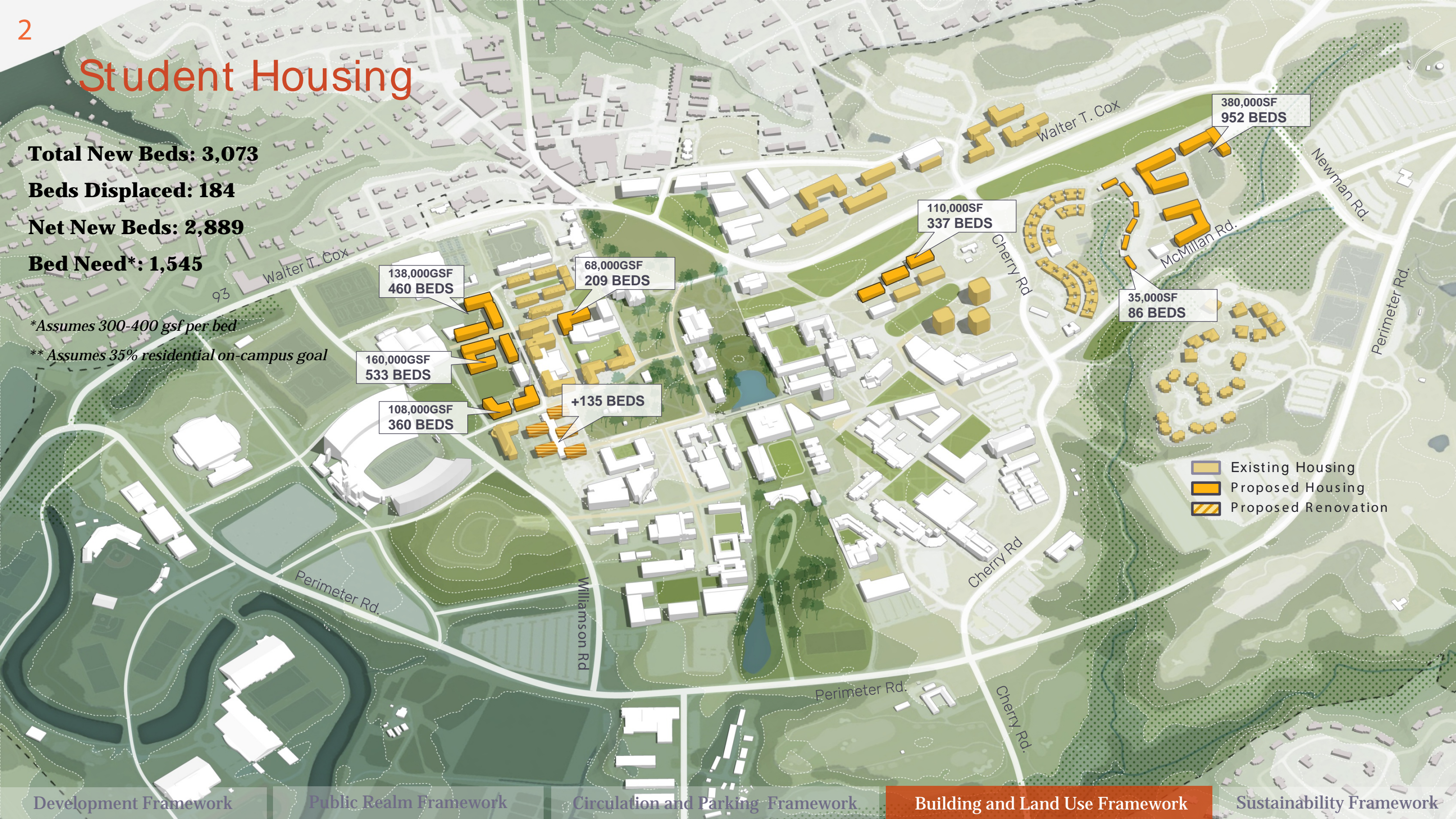
**Beds Displaced: 184**

## Net New Beds: 2,889

**Bed Need\*: 1,545**

*\*Assumes 300-400 gsf per bed*

**\*\* Assumes 35% residential on-campus goal**



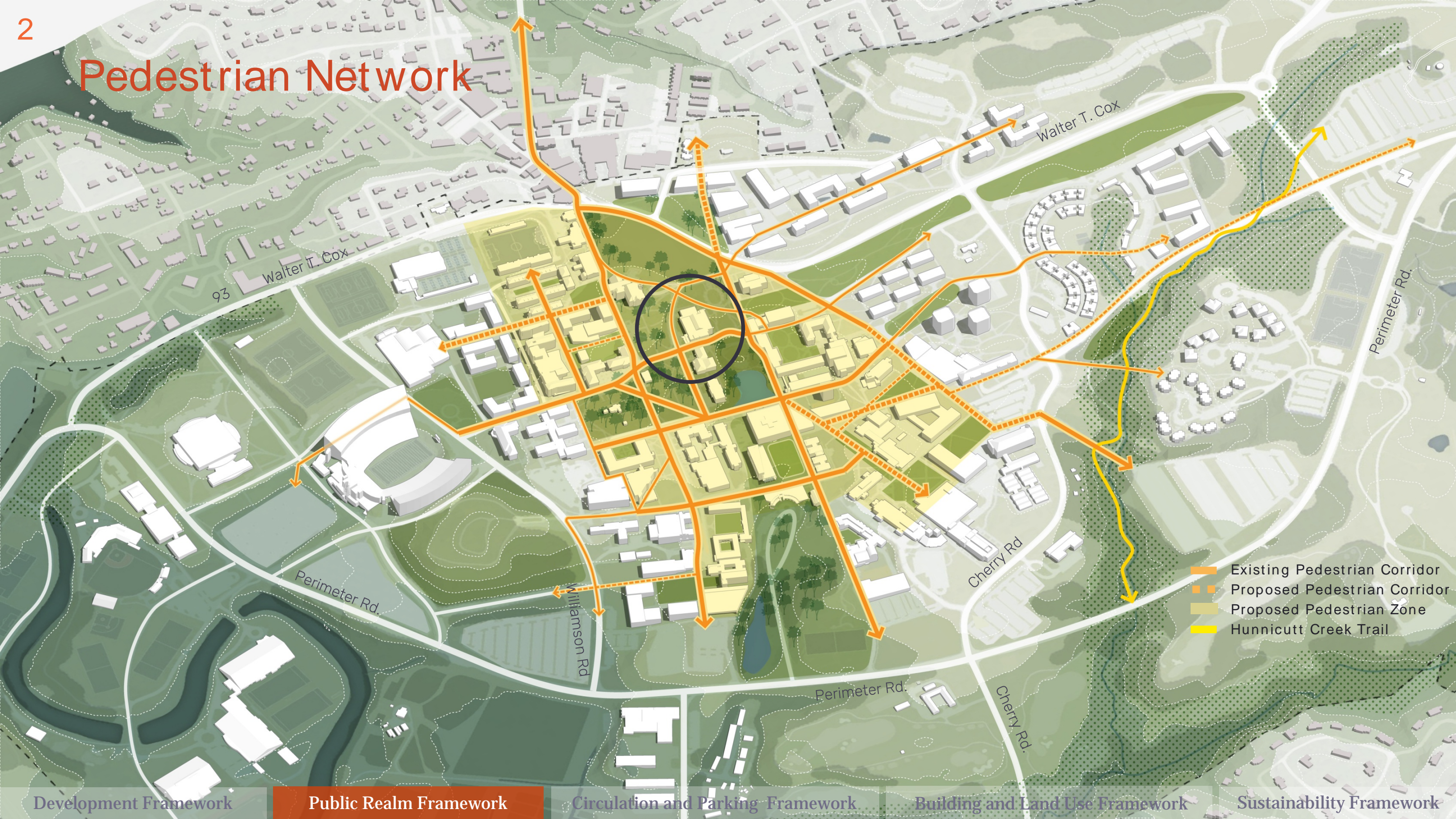


Concept 2 – Intensive Investments

**Design Concepts**



# Pedestrian Network





# Pedestrian Network

EXISTING CALHOUN STREET SECTION AT BRACKETT HALL





# Pedestrian Network

PROPOSED CALHOUN PEDESTRIAN STREET SECTION AT BRACKETT HALL





# Pedestrianized Streets





# Pedestrianized Streets





# Pedestrian / Bike Paths





# Bike Corrals





# Academic Buildings

LIBRARY ADDITION IDEA





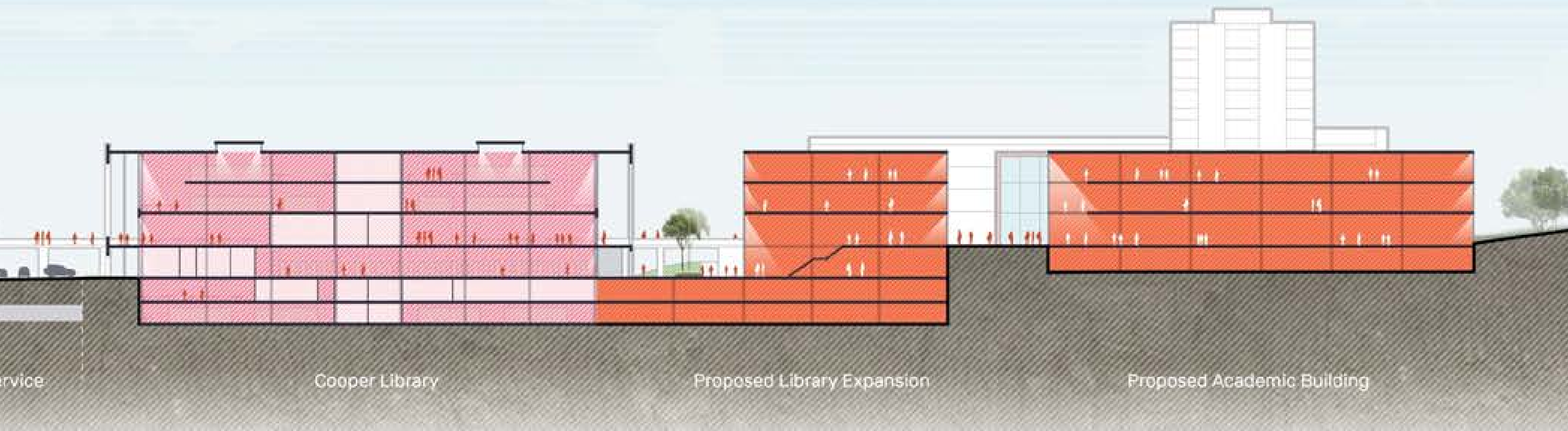
# Library – Academic Corridor





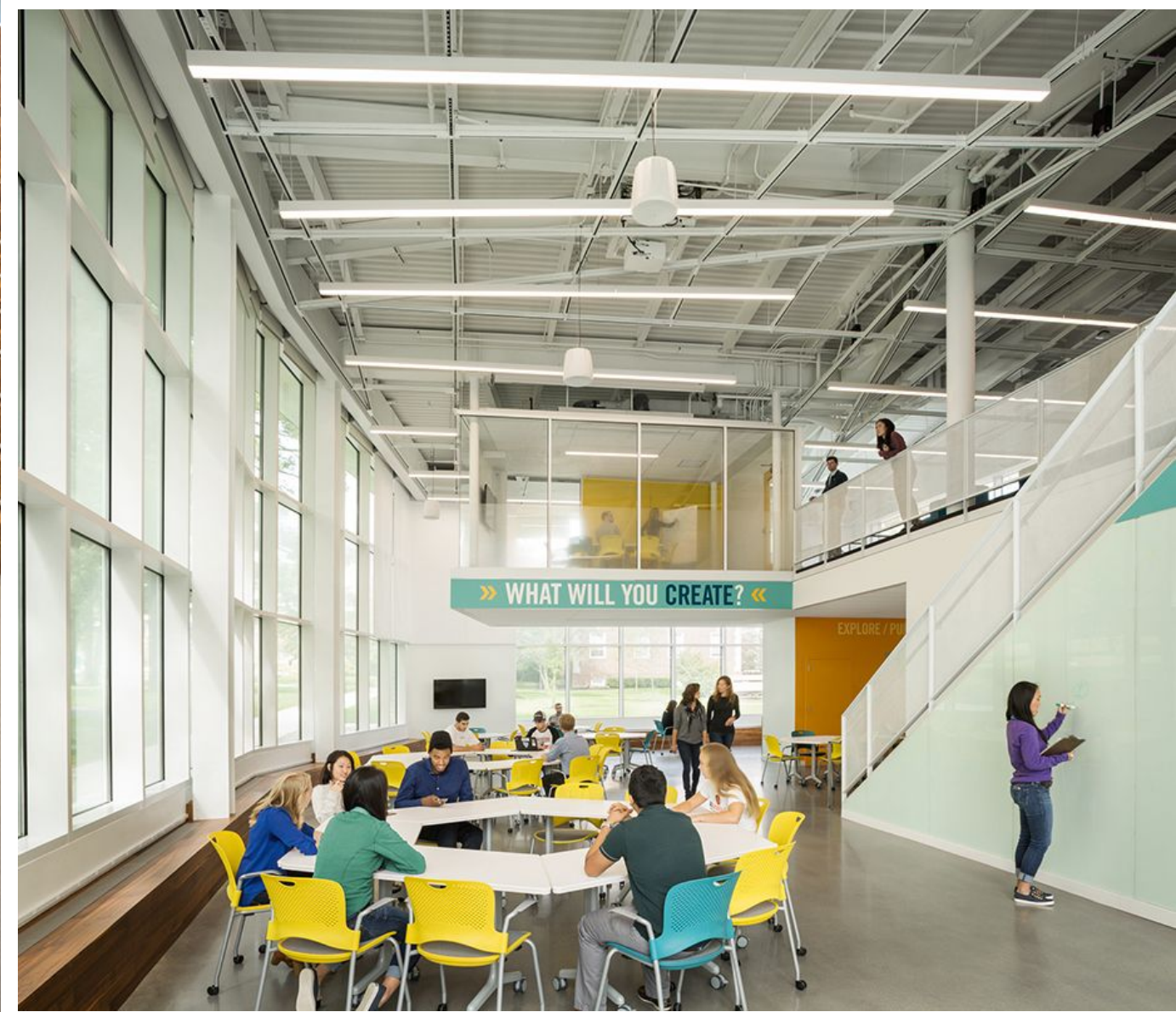
# Academic Buildings

LIBRARY ADDITION IDEA



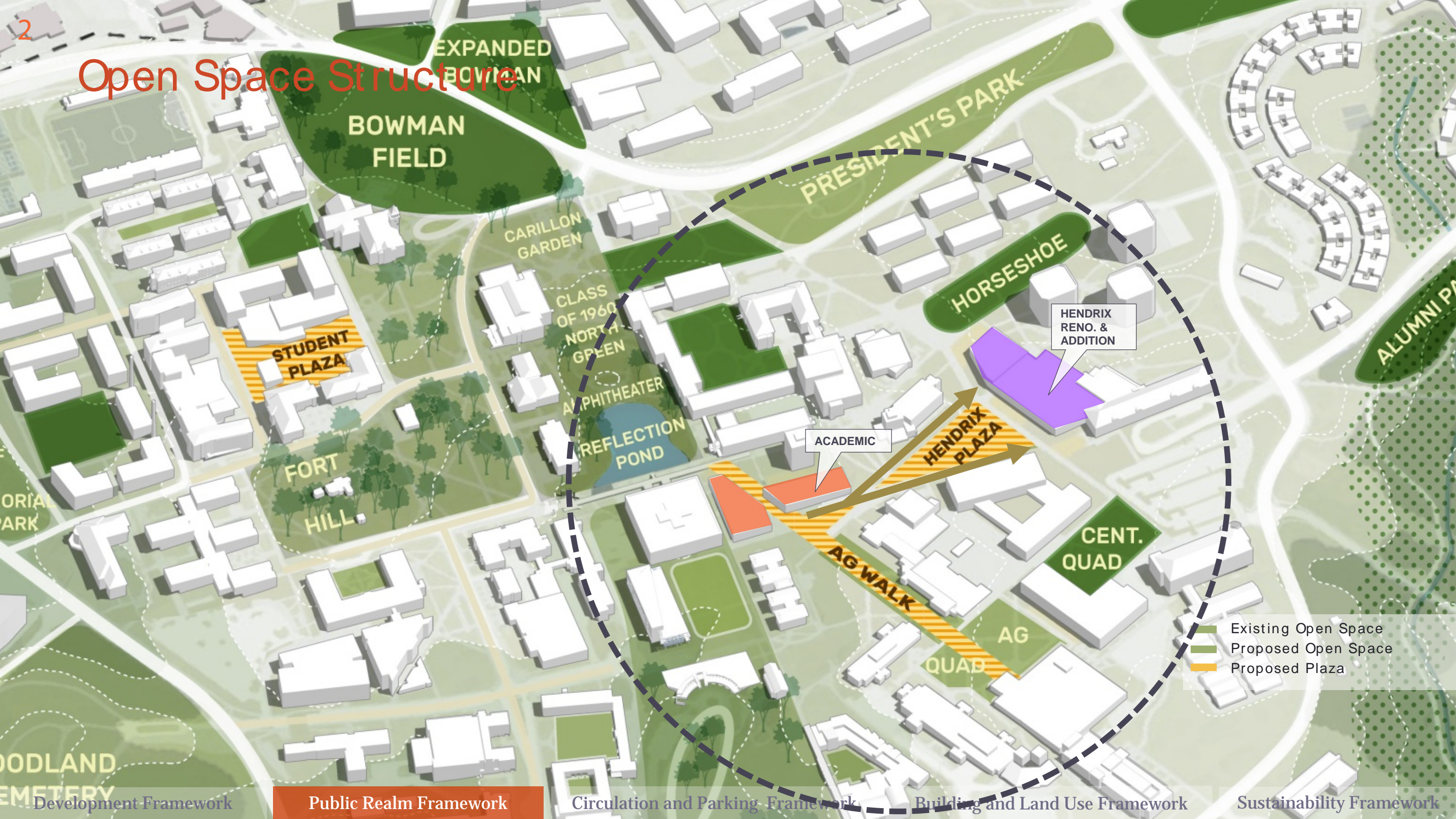


# Collaboration Space





# Open Space Structure

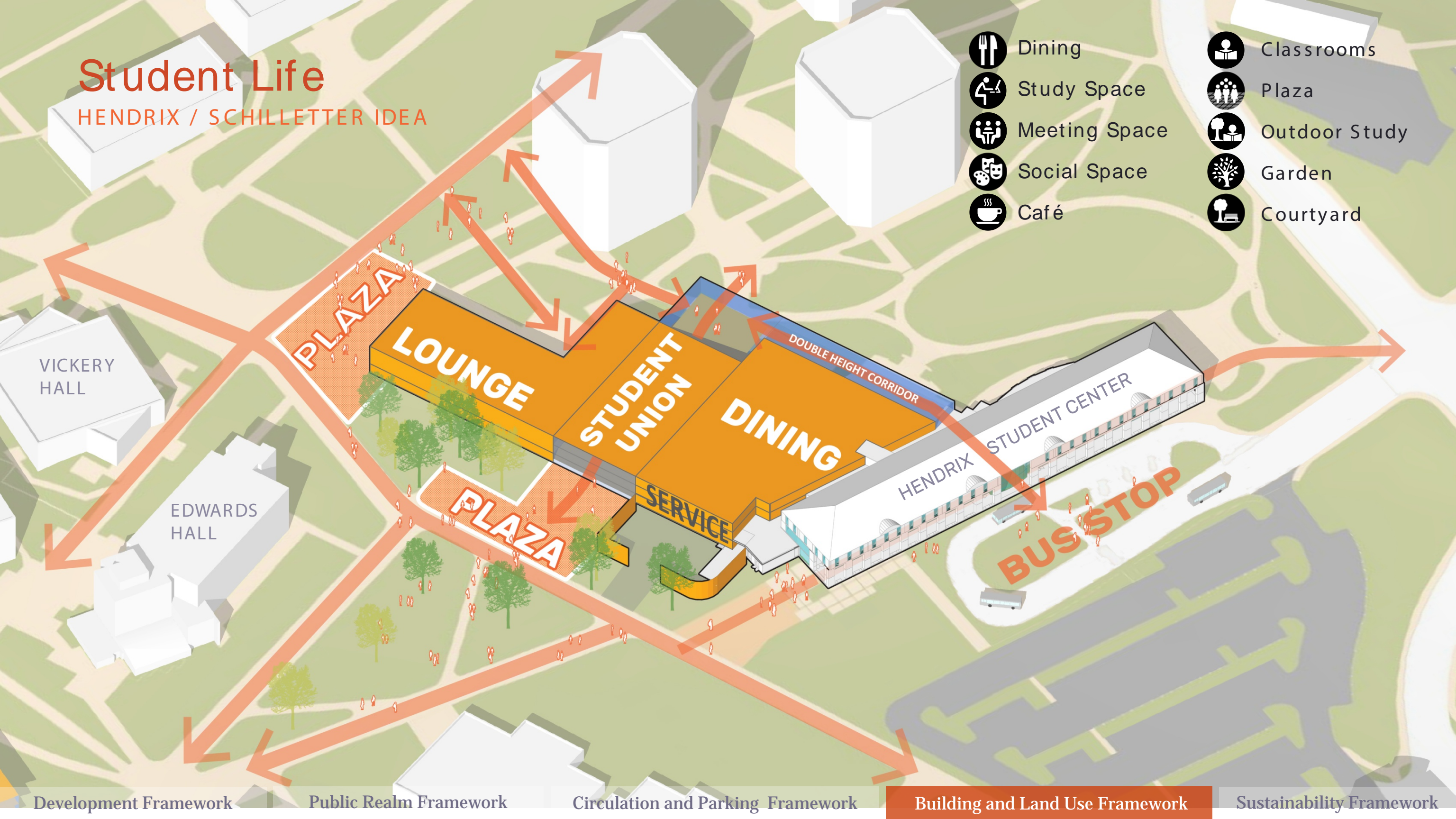




# Student Life

HENDRIX / SCHILLETTER IDEA

-  Dining
-  Study Space
-  Meeting Space
-  Social Space
-  Café
-  Classrooms
-  Plaza
-  Outdoor Study
-  Garden
-  Courtyard





# Student Life





Questions / Comments on Option 2 ?



# Ravenel Campus Concepts



# Ravenel Criteria for Siting

- ◆ Associated with industrial uses, engineering, or land intensive requirements
- ◆ Supporting services and uses
- ◆ Warehouse and demonstration
- ◆ Potentially hazardous research activities
- ◆ Future institutes or partnerships



# Existing Condition





# Proposed Program





# Future Development





# Ravenel - Capacity





Questions / Comments on Ravenel ?



# Proposed Concept 1

INCREMENTAL IMPROVEMENTS





# Proposed Concept 2

INTENSIVE INVESTMENT





# Rotating Breakout Tables

- ◆ Learning Environments
- ◆ Student Life (Recreation, Student Commons, Dining, and Student Housing)
- ◆ Open Space
- ◆ Mobility