



Facilities Master Plan

17 May 2016

Agenda

- Planning Process
- Draft Facilities Master Plan
- Sustainability Workshop Summary
- Draft Recommendations
- Next Steps



Planning Process



Campus Facilities Committee (2015-2016)

Representatives from Constituent Groups

Donna Jones-Dulin – *Chair*

Lester Lyons – *District Representative*

Susan Cheu – *Administrator*

Alex Swanner – *Faculty Member*

Lisa Markus – *Faculty Association*

Diana Martinez – *Classified Member*

Paul Buxton – *Classified Member*

Chi Tran – *Student Representative*

Invited Guests

Pam Grey – *Director, Purchasing Services*

Coleen Lee-Wheat – *Dean, Phys Ed + Athletics*

Moaty Fayek – *Dean, Business & Computer System & Applied Technologies*

Stacey Shears – *Dean, DSP&S*

Patrick Gannon – *Director, Campus Center*

Mary Sullivan – *Director, Health Ed & Wellness*

Joe Cooke – *Grounds Supervisor*

Manny DaSilva – *Manager, Custodial Operations*

Daniel Acosta – *Assistant Chief of Police*

John Walton – *Faculty*

Foothill De Anza CCD 2016 Facilities Master Plan

Document Organization





FOOTHILL-DE ANZA
Community College District

Regional Context

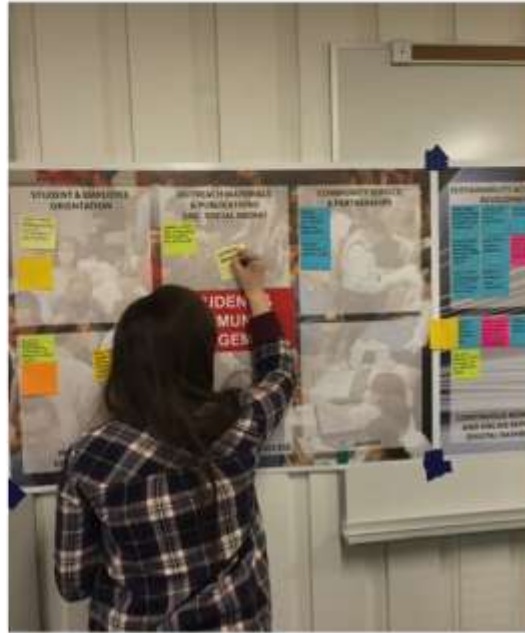


Regional Context



SUSTAINABILITY

Planning for Sustainability



Sustainability Workshop Participants

Name	Affiliation	Department
Jonathan Klanto*	DA	ASFC Student Rep
Claire Wilhelm-Safian*	DA	Environmental Studies
Emily Katsuta*	DA	Environmental Studies
Gabriela Lopez*	DA	Environmental Studies
Kate Matthews*	DA	Environmental Studies
Dara Streit*	DA	Env. Sust. Committee DASB
Mary Rasooli*	DA	Env. Sust. Committee DASB
Ryan Thomas*	DA	Env. Sust. Committee DASB
Stephan Kanga*	DA	Env. Sust. Committee DASB
Chi Tran*	DA	Student Senator
Howard Wen*	DA	Sustainability Alliance
Richa Nanavita*	DA	Sustainability Alliance
John Walton**	DA	Automotive Technology
Anita Kandula	DA	Biological, Health + Env. Sciences
Moaty Fayek	DA	Business/CS/AT Division
Alicia DeToro**	DA	Environmental Studies
Diana Martinez	DA	Environmental Studies
Lester Lyons	DA	Facilities + Maintenance

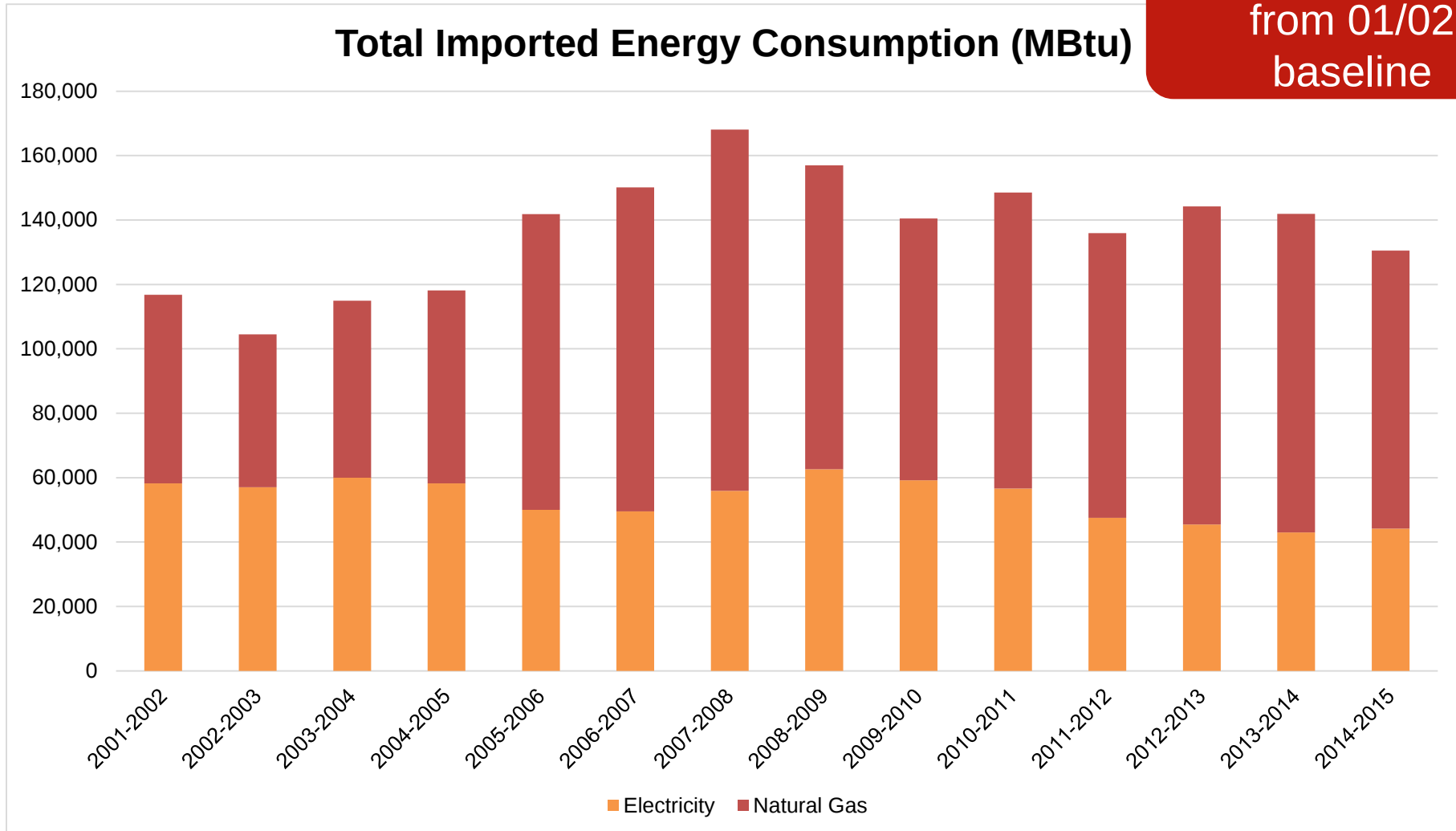
* Student ** Faculty

Name	Affiliation	Department
Joe Cooke	DA	Grounds
Lisa Markus**	DA	Mathematics
Donna Jones Dulin	DA	Operations
Coleen Lee-Wheat	DA	Physical Education + Athletics
Pippa Gibson	DA	VPP
Susan Cheu	DA	VPP
Kevin McElroy	District	Business Services
Joe Moreau	District	ETS
Sharon Luciw	District	ETS
Danny Acosta	District	Police
Pam Grey	District	Purchasing
Steve Kitchen	District	Facilities
Neil Chang	FH	DRC
Brenda Davis Visa	FH	Facilities
Bernata Slater	FH	Finance
Judy Baker	FH	Online Learning
Jennifer Mahato	FH	Plant Services
Jorge Rodriguez	FH	Plant Services

Energy Conservation & Generation:

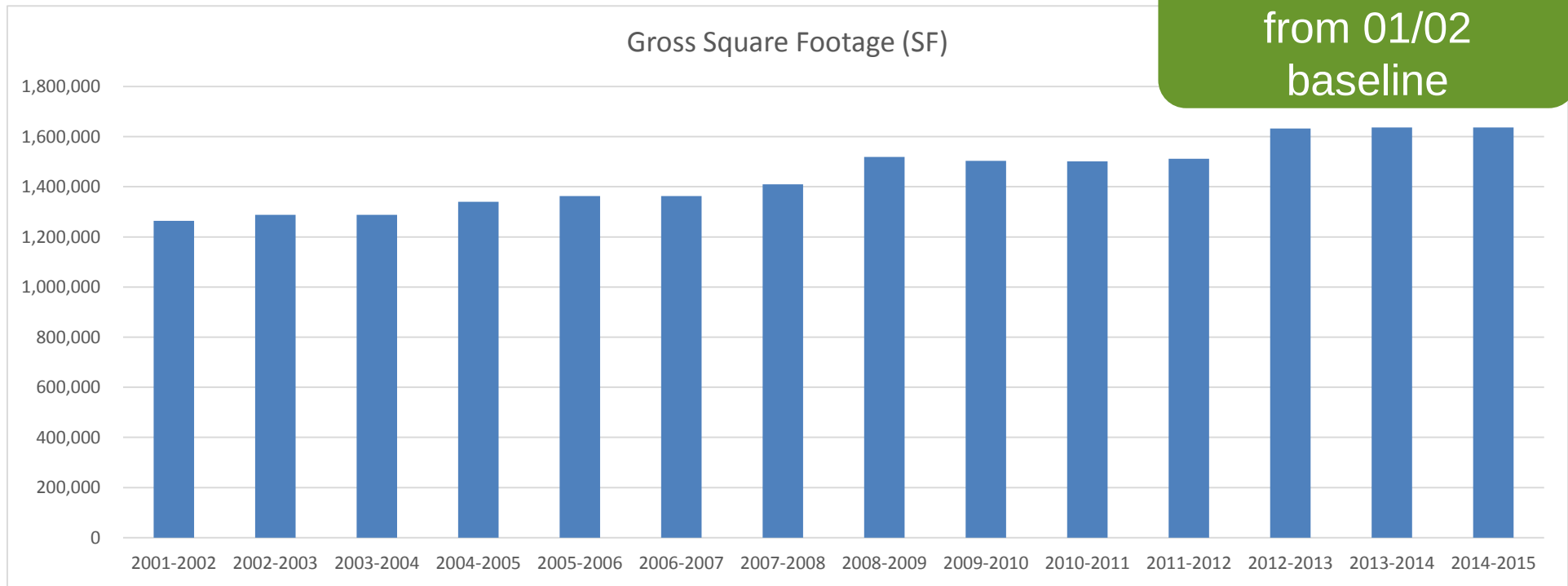
Energy Consumption – FHDA

11.7% increase
from 01/02
baseline



Energy Conservation & Generation:

Growth in GSF – FHDA



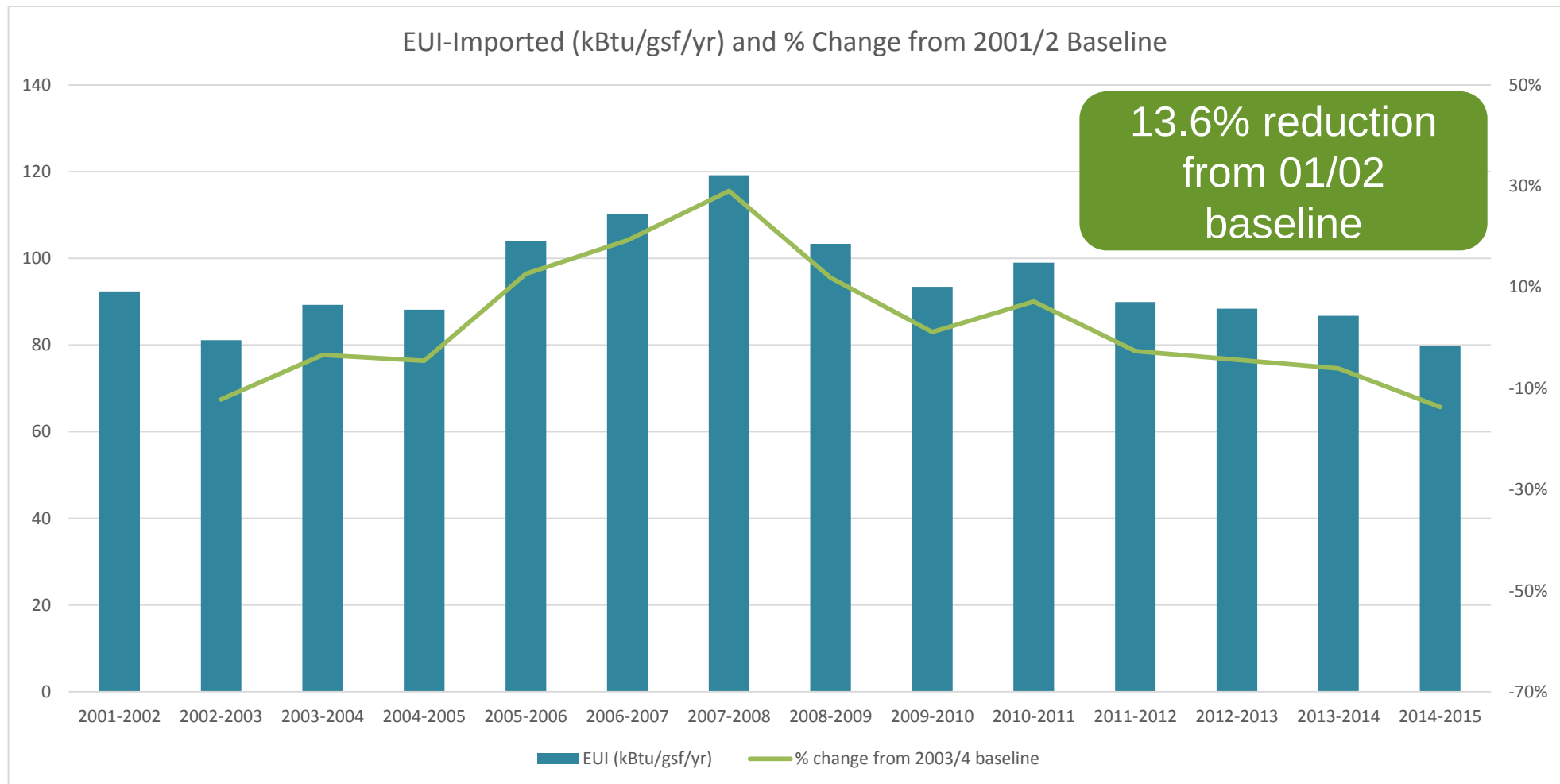
DA – Kirsch Center



FH – Physical Sciences + Engineering Center

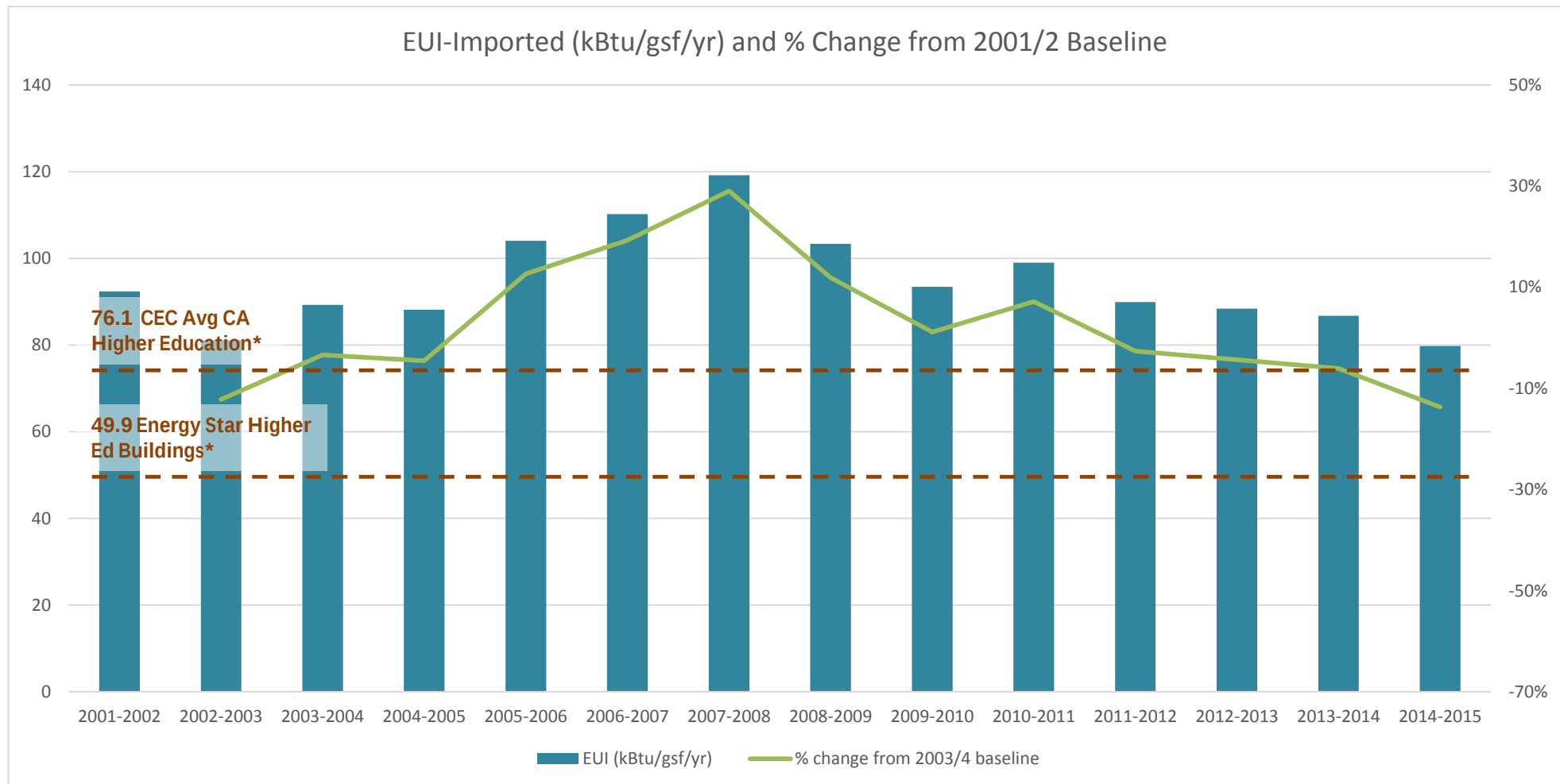
Energy Conservation & Generation:

EUI – FHDA



Energy Conservation & Generation:

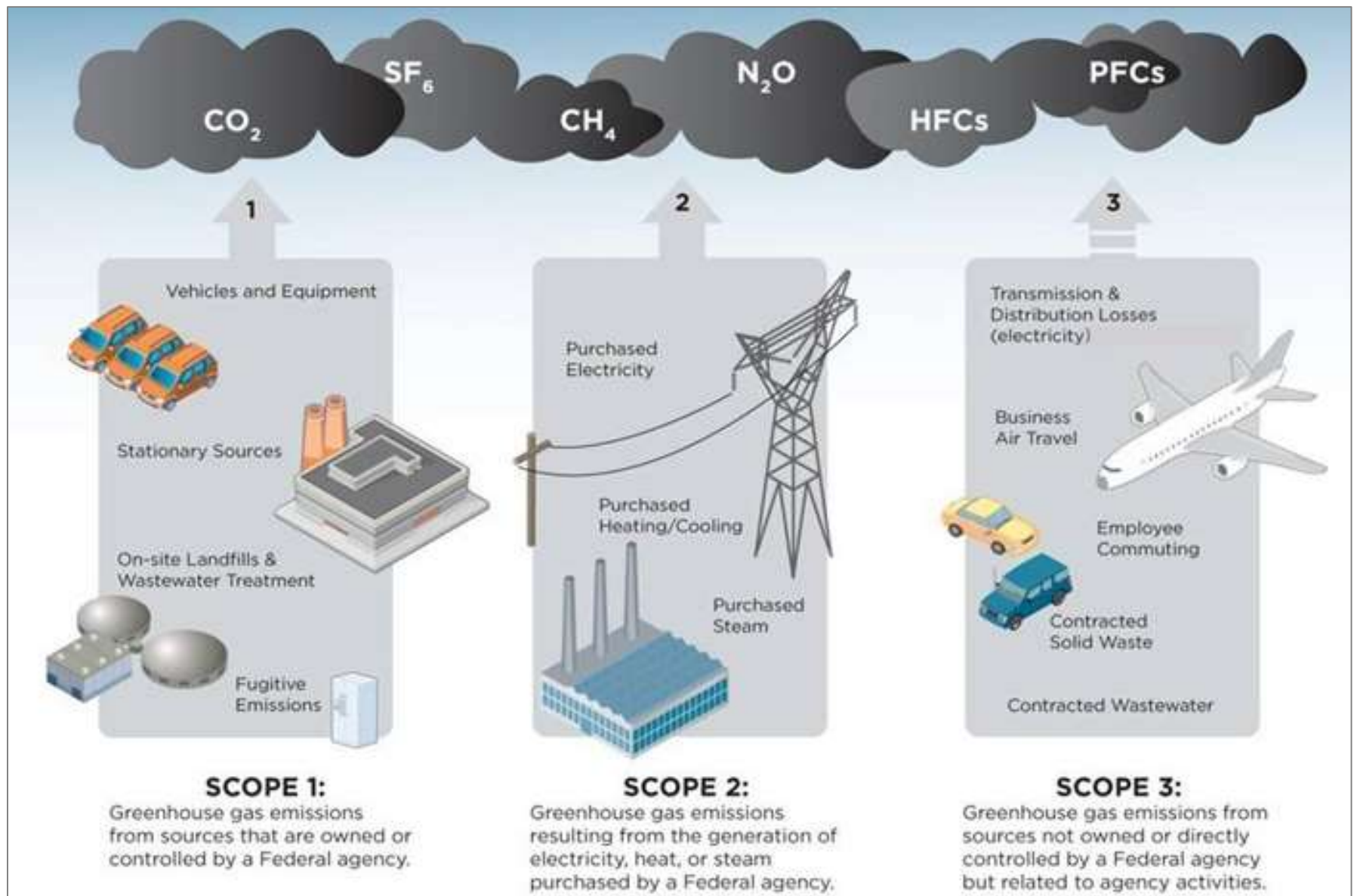
EUI – Benchmarks



*Note –CEC and Energy Star values are for total EUI, not just imported

Carbon & Climate Action:

Typical GHG Sources



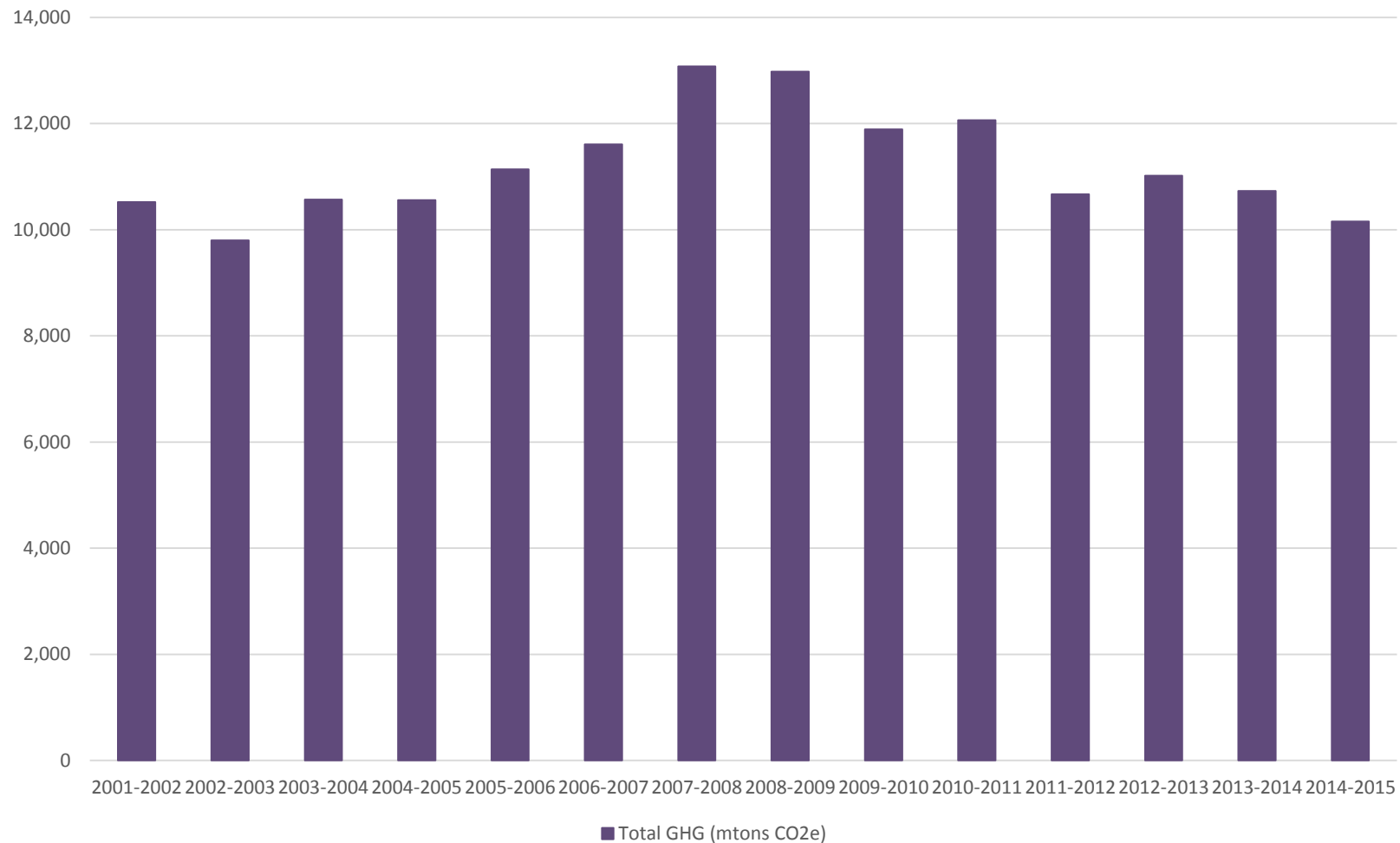
Carbon & Climate Action:

GHG Scope 1&2

Greenhouse gas emissions from sources that are owned or controlled by a Federal agency; or resulting from the generation of electricity, heat, or steam purchased by a Federal agency

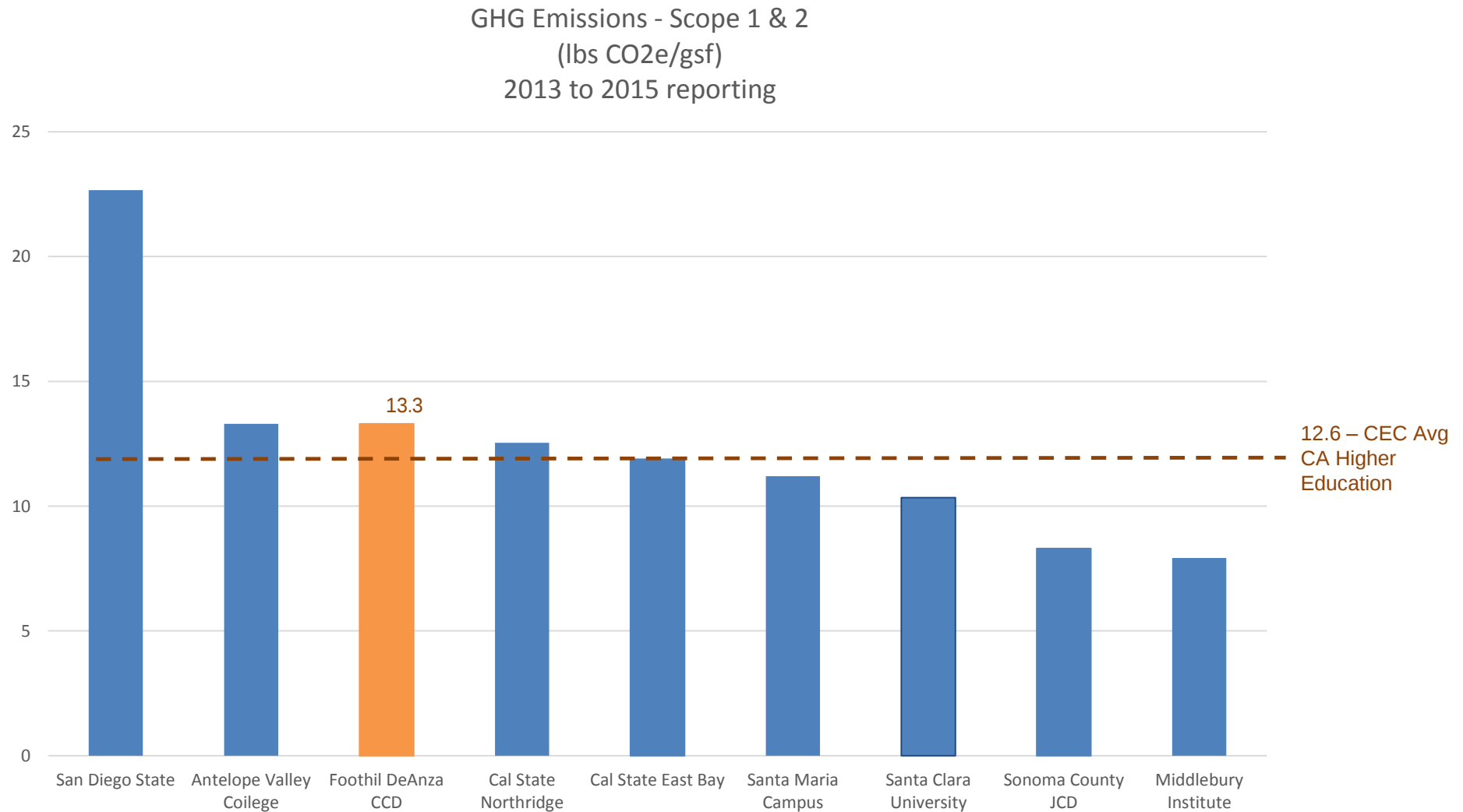
3.5% reduction
from 01/02
baseline

Carbon Footprint - Scope 1 and 2
(mtons CO₂e)



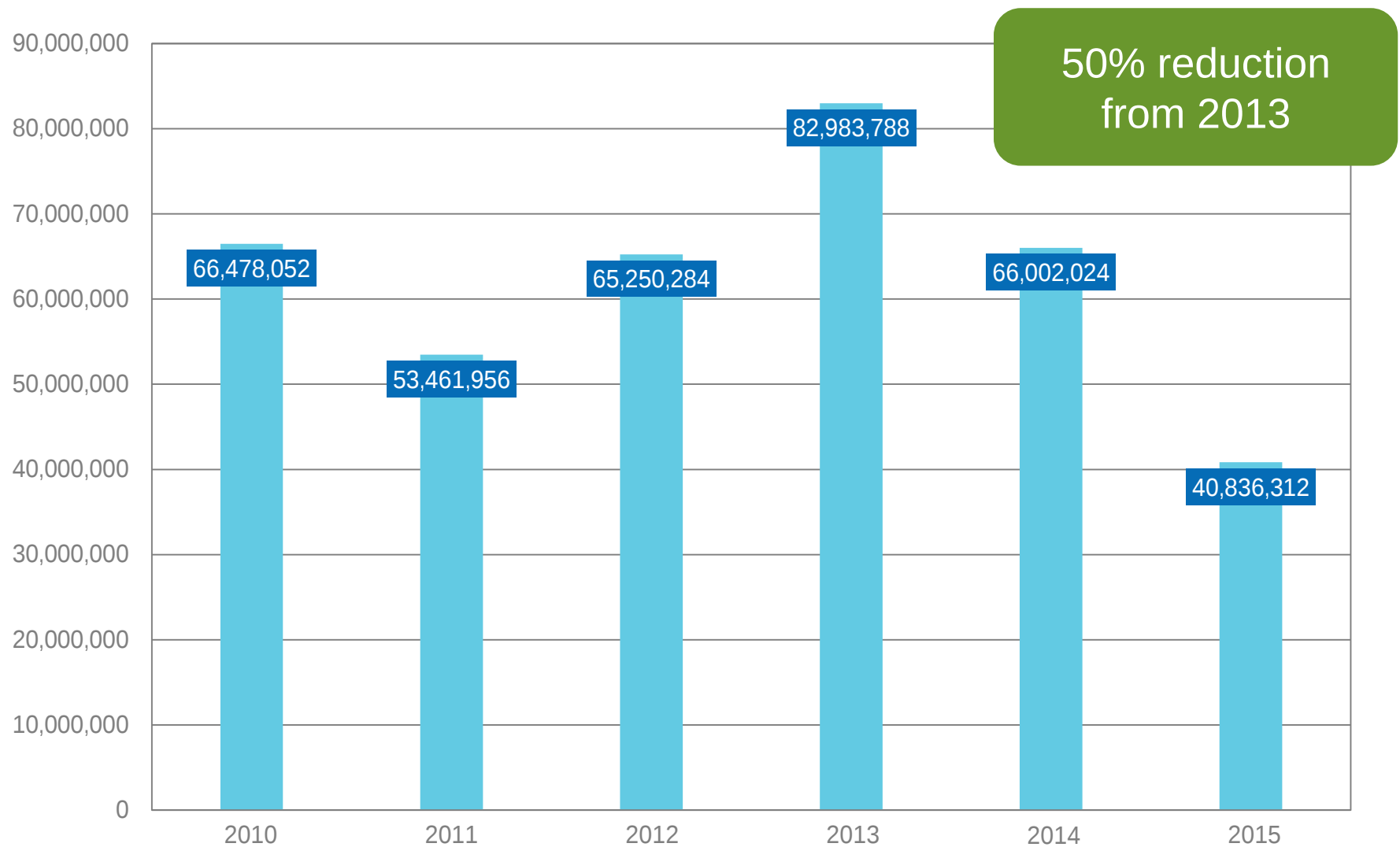
Carbon & Climate Action:

GHG Scope 1&2 – Benchmark Comparisons



Water Use & Reuse:

Water Use – District Wide



Visioning



Foothill-DeAnza Sustainability Workshop

09/08/2016

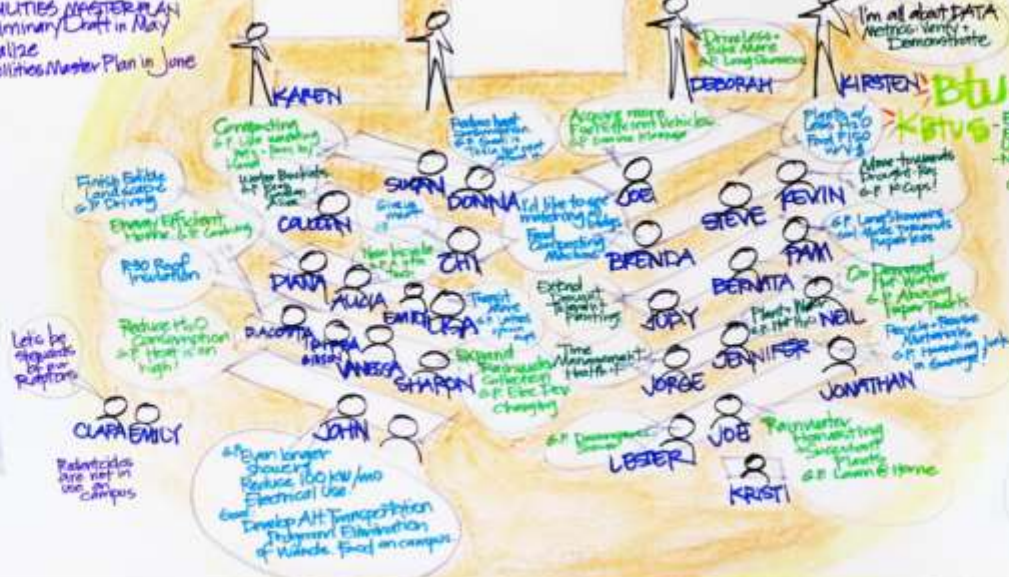
OVERVIEW OF SUSTAINABILITY AT DE-ANZA

- Operations, Landscape, Purchasing
- LEED Buildings
- Photovoltaics - Electric Charging
- Moving Towards ENERGY EFFICIENT LIGHTING
- BIKE RACKS
- ECO FANS PROGRAM
- Waste Reduction 70% Diversion from Landfill
- Computerized Irrigation Controls
- Landscaping: Drought-Tolerant
- Green Biz Certification w/ City of Cupertino

We have a strong commitment & passion for Sustainability.

FACILITIES MASTERPLAN Preliminary Draft in May
Finalize Facilities Master Plan in June

INTRODUCTIONS: Sustainability Goals • Guilty Pleasures!



Themes

GHG - 100% REDUCED

OVERVIEW OF SUSTAINABILITY @ FOOTHILL

- LEED
- Sustainability Report Card
- P.V. Parking

Electrical Consumption offset by Self-Generated PV Electricity

13.6% EUI Reduction

CO2E Reduction 25.4%

Electricity Consumption could be cleaner (would bring down GHG)

DISTRICT SUSTAINABILITY OVERVIEW

20% Reduction in WATER use since 2013

Let's Set Sustainability Goals!

RESOURCE STEWARDSHIP & SOCIAL EQUITY

Setting Sustainability Goals - 10 Themes

Resource Stewardship



Material Procurement & Waste Management



Greenhouse Gases & Climate Action



Site & Habitat



Water & Wastewater



Energy Conservation & Generation

Social Equity



Transportation & Access



Health & Wellness



Education & Culture



Student & Community Engagement

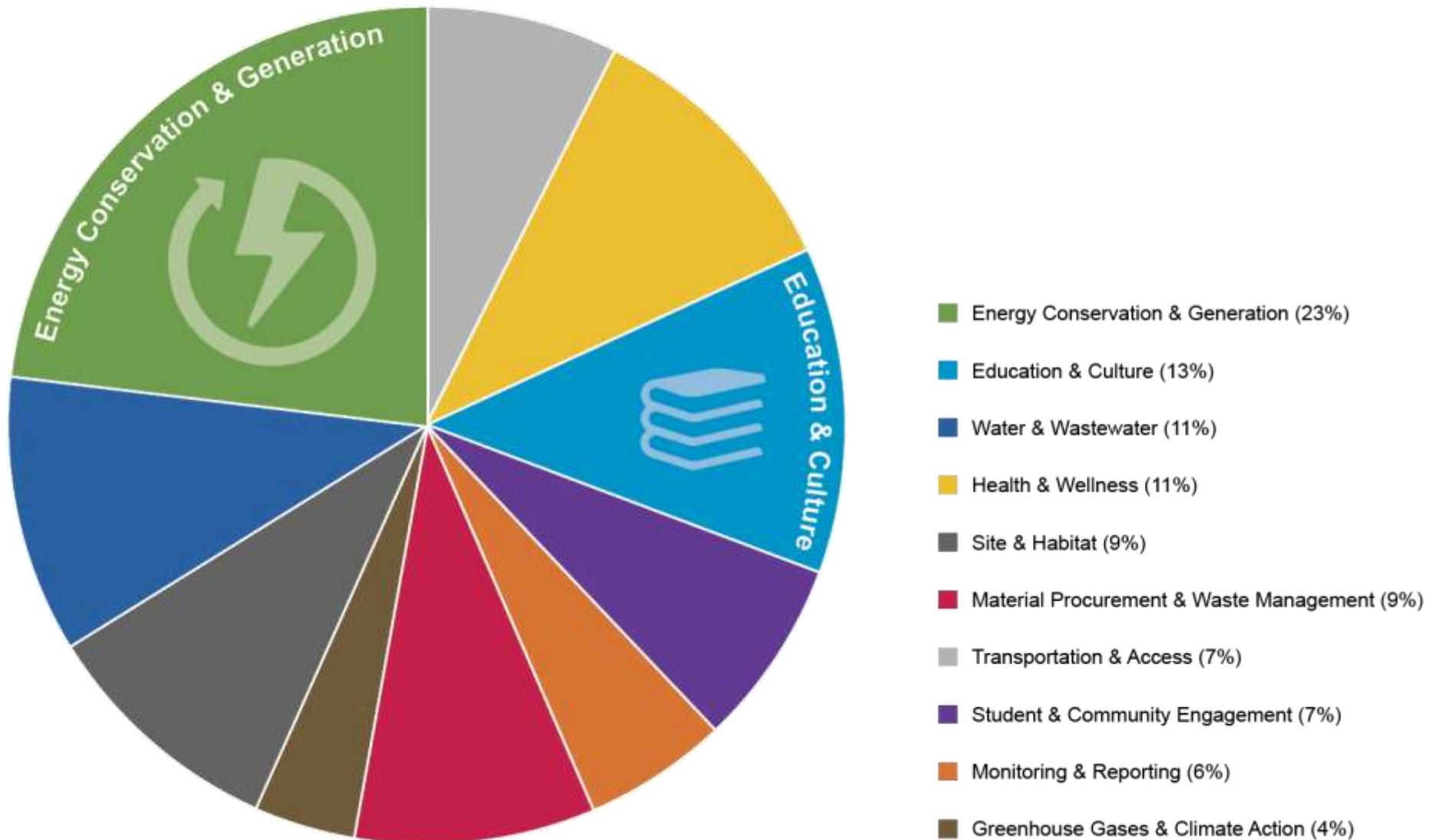


Monitoring & Reporting

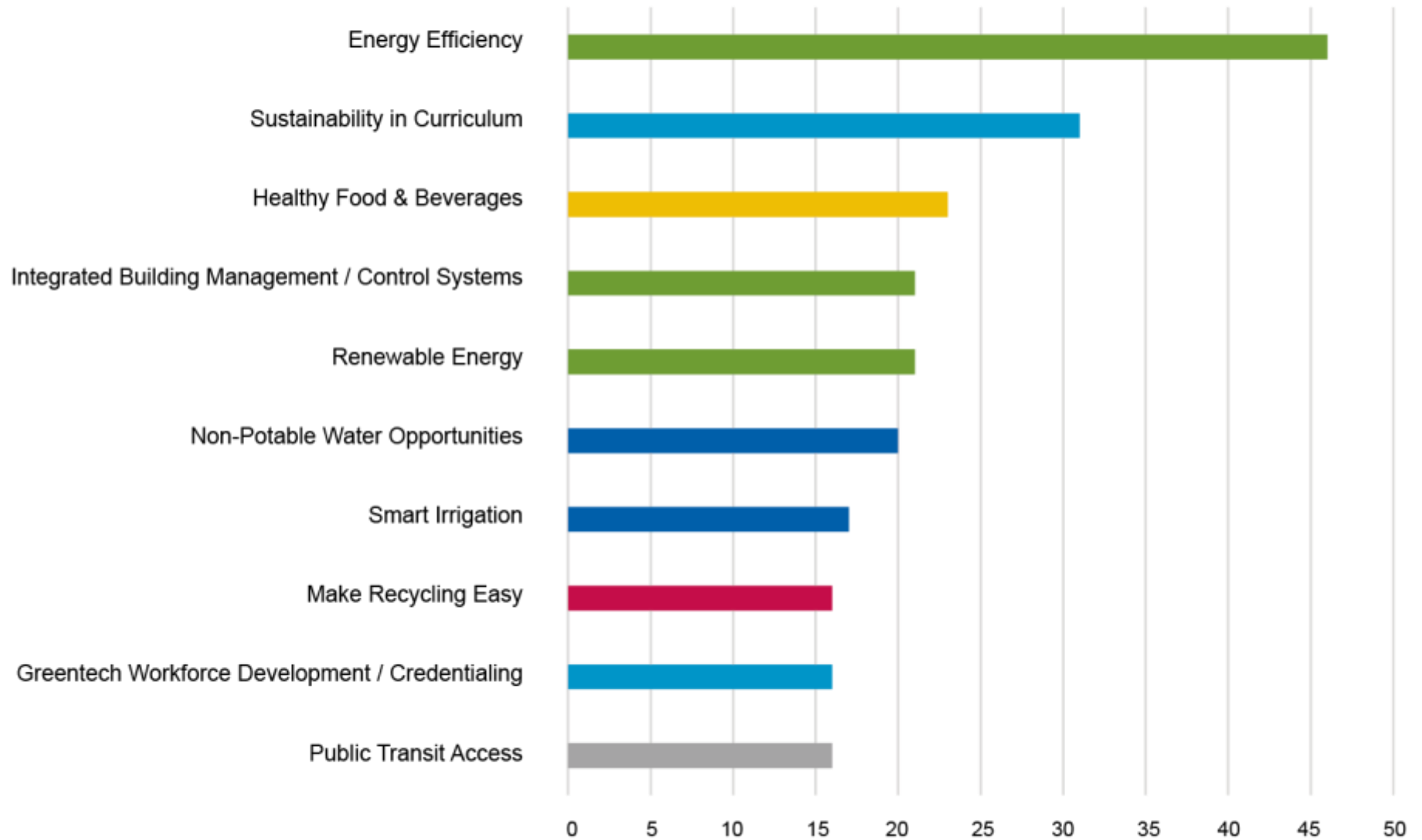
Setting Priorities



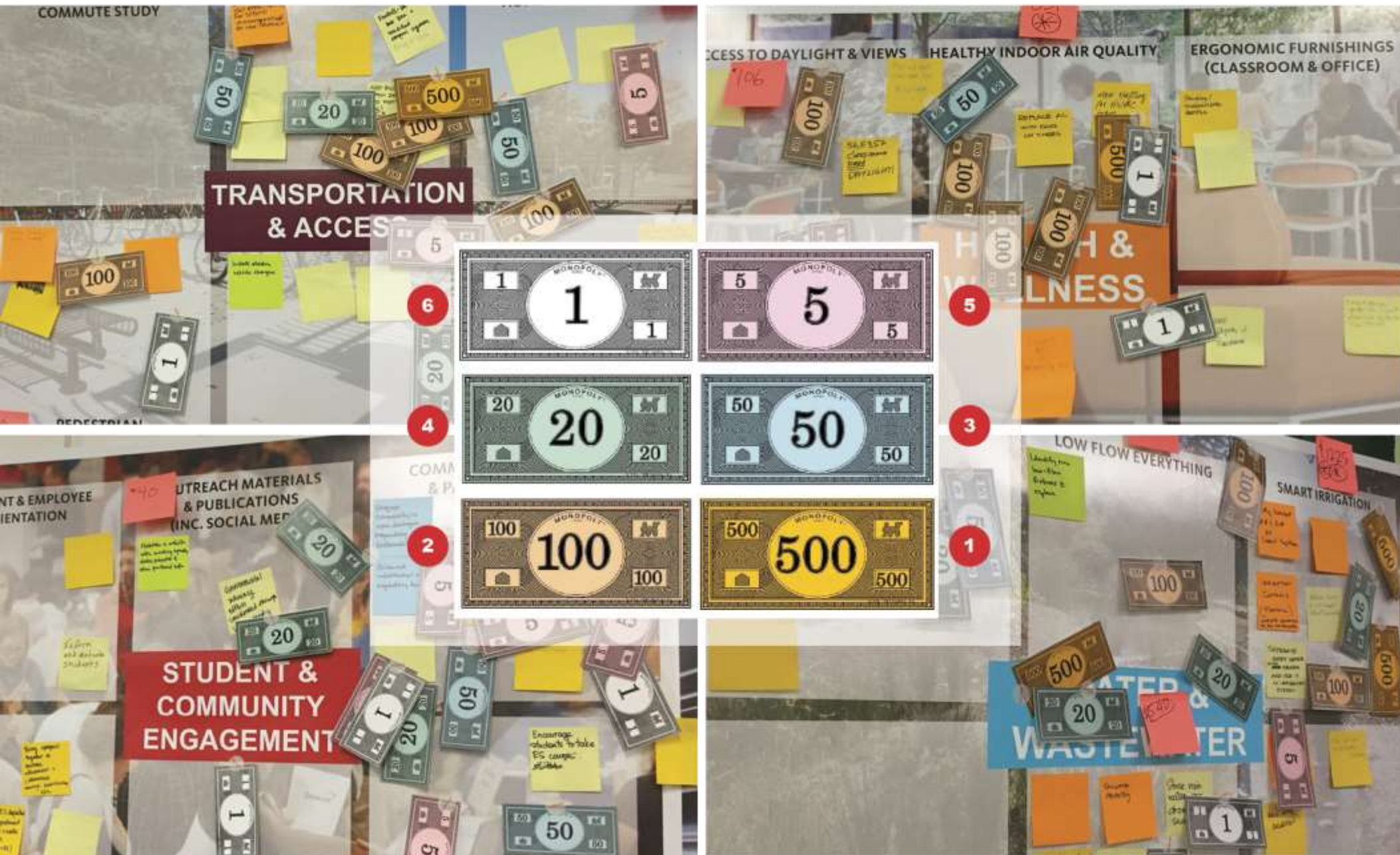
Priorities by Theme



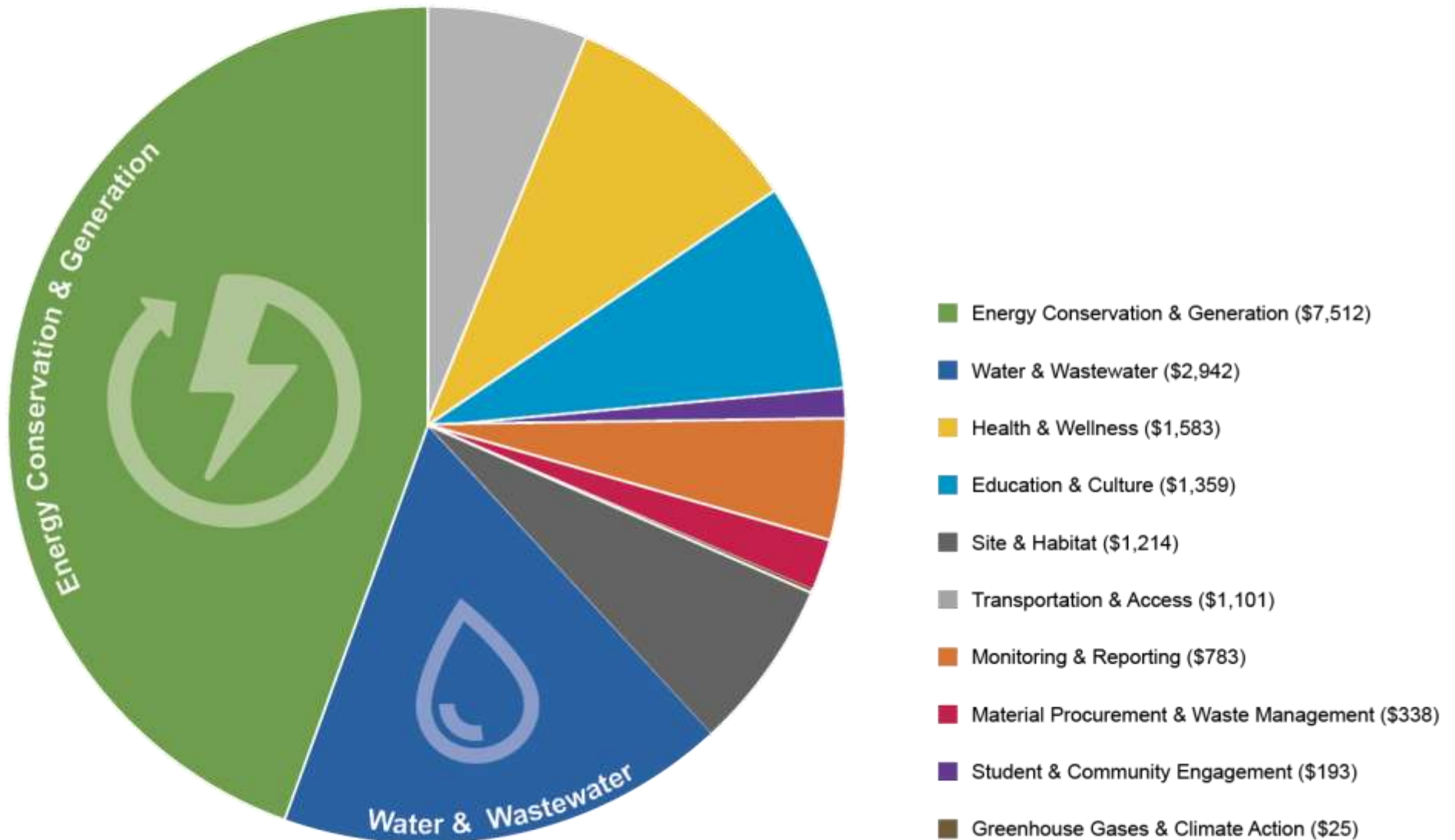
Priorities by Topics (Top 10)



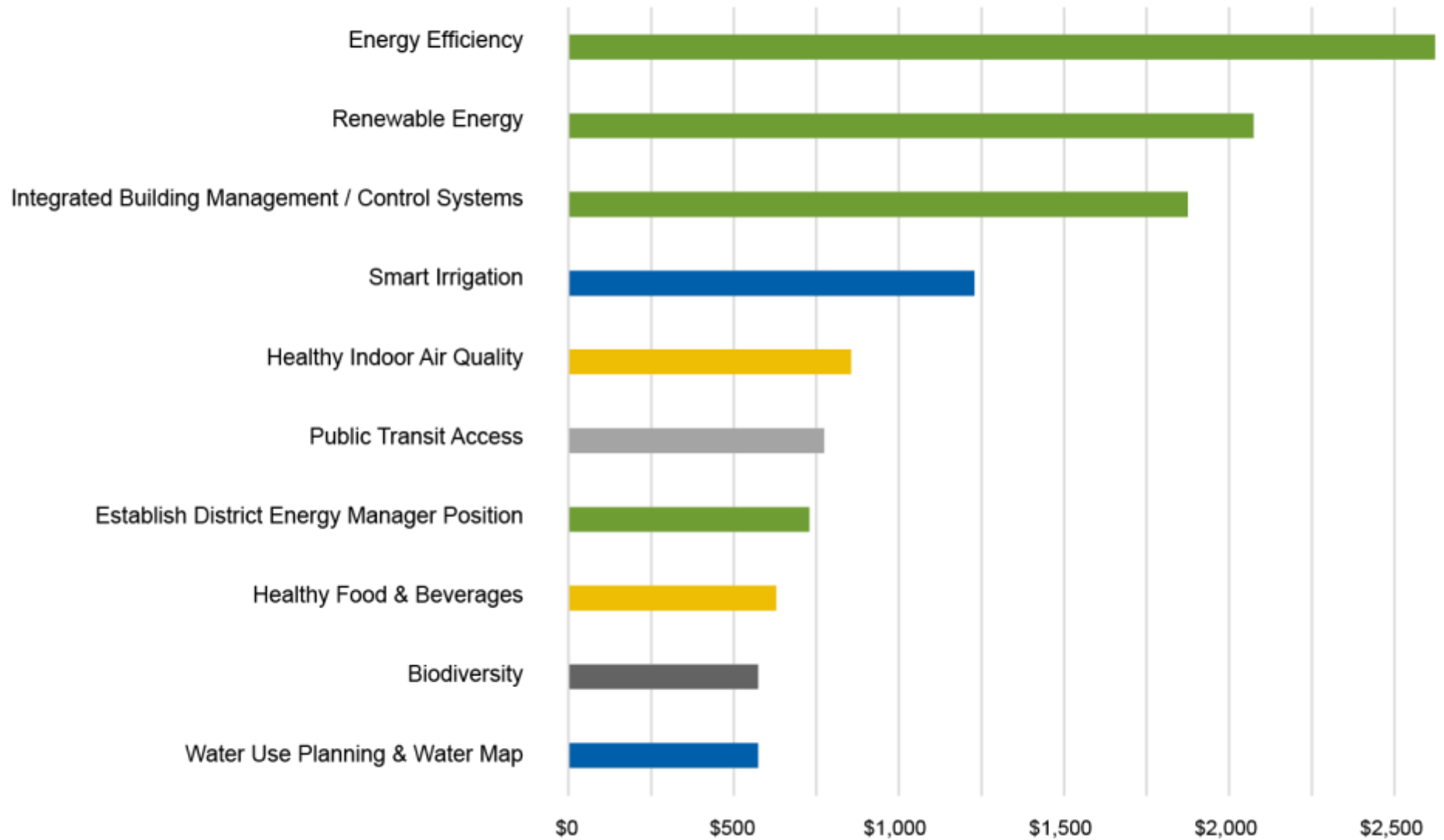
Prioritizing Investments



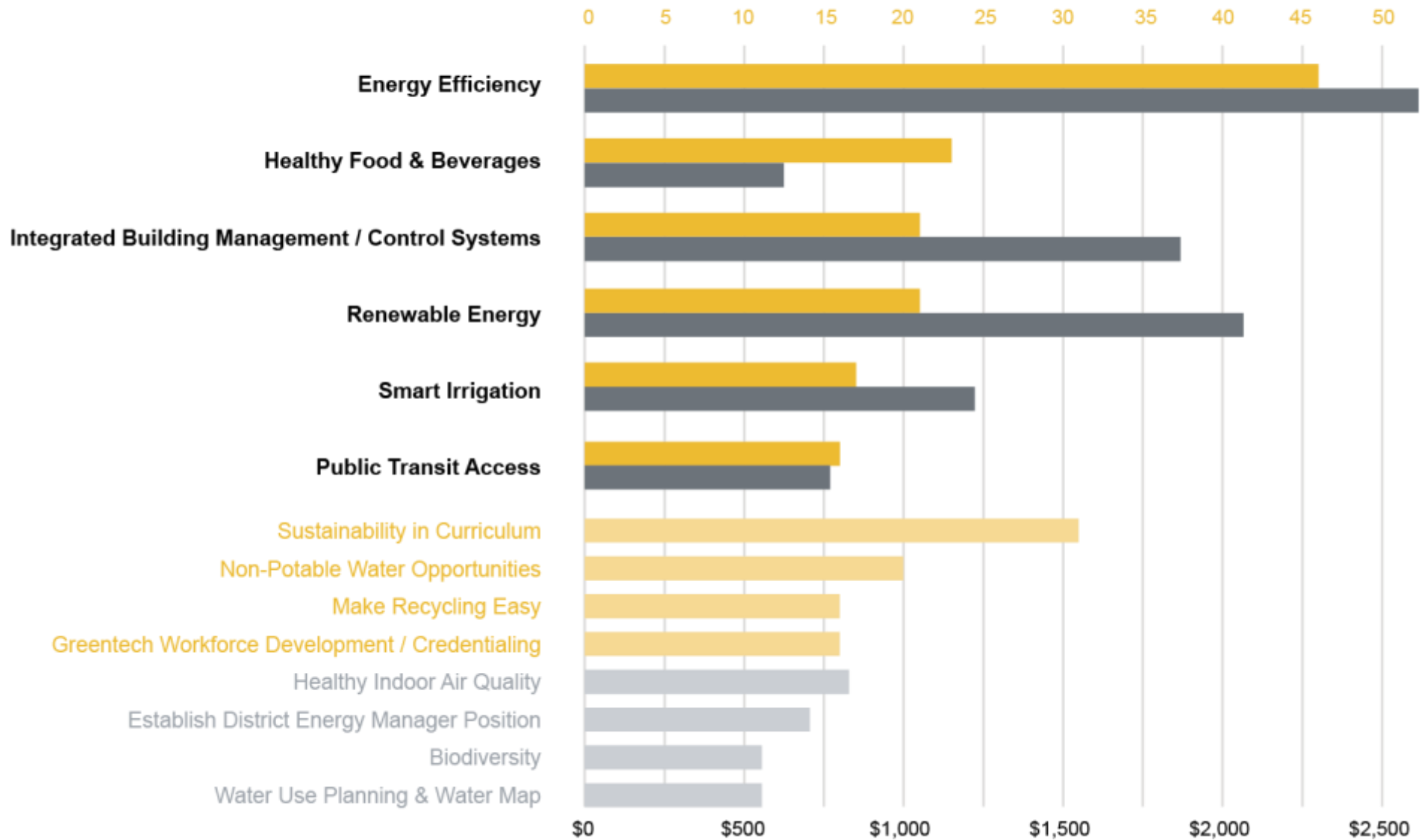
Investments by Theme



Investments by Topics (Top 10)

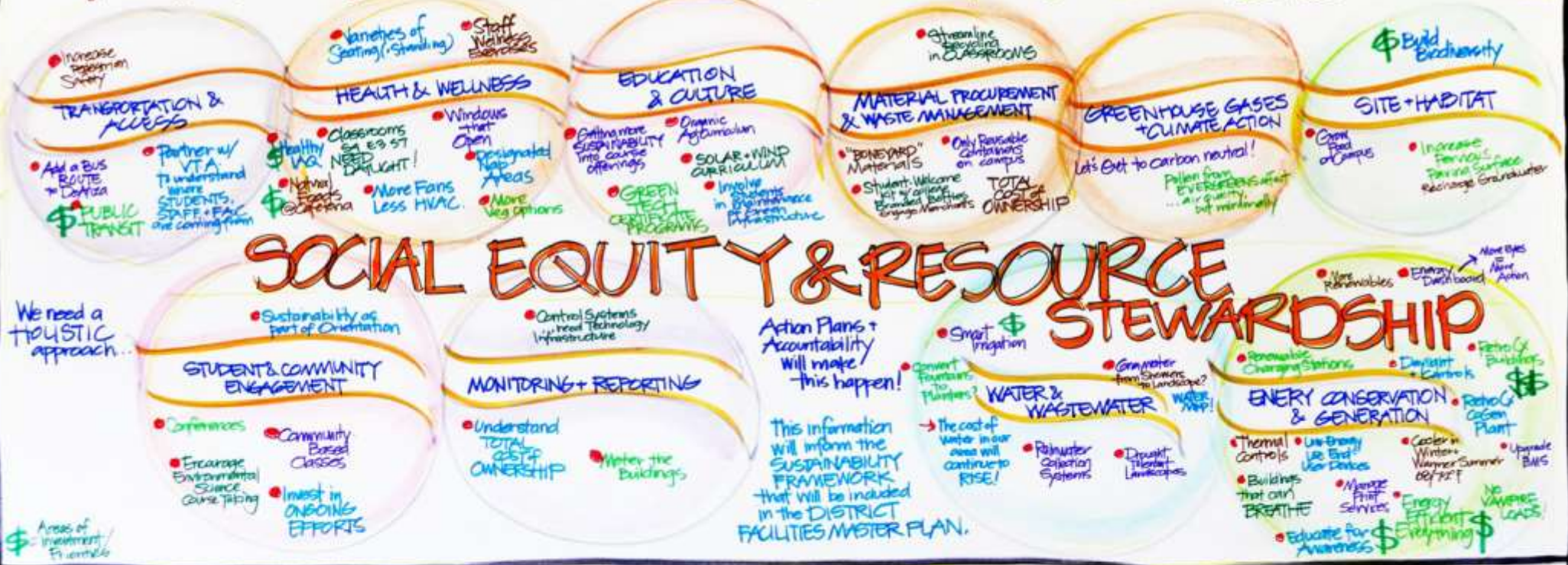


Priorities vs. Investments (Top 10 Topics)



Sustainability Goals

Foothill-DeAnza SUSTAINABILITY GOALS



Sustainability Goals

Six Areas of Focus



Energy

Continue as a leader in energy efficiency, manage energy use at district level



Water

Manage building and site water use to conserve water



Health

Promote a healthy-living culture, and provide a safe and healthy environment



Educate

Nurture environmental stewardship and literacy across the campus, educate and prepare students for the green workforce



Monitor

Set high bars for building performance goals, with consistent monitoring and routine reporting



Recycle

Promote a culture of reduce, reuse and recycle

Sustainability Goals



Energy

Continue as a leader in energy efficiency, manage energy use at district level

Reduce Energy Consumption / Increase Energy Efficiency

- Use efficient appliances, equipment and computers
- Encourage change of behavior in lighting and HVAC use

Increase Self-generated & Clean Energy Capacity

- Incorporate renewable energy at appropriate locations
- Explore new purchase agreements for cleaner energy options

District-wide Energy Management

- Establish new Building Management System for entire district
- Establish District Energy Manager Position
- Establish District-wide guidelines for heating and cooling of facilities



Water

Manage building and site water use to conserve water

Water Use Reduction and Control / Water Use Planning & Water Map

- Optimize building water efficiency

Incorporate Smart Irrigation / Non-Potable Water Opportunities

- Incorporate xeriscape / drought-tolerant plants
- Convert current irrigation system to smart system
- Encourage rainwater harvesting



Health

Promote healthy-living culture, and provide a safe and healthy environment

Provide Healthy Food & Beverages

- Provide natural / organic food at cafeteria

Improve Indoor /Outdoor Air Quality

- Provide access to natural ventilation through operable windows
- Commit to initiate tangible actions to reduce greenhouse gases

Provide Public Transit Access

- Create Foothill-De Anza bus line and/or carpool system

Be Responsible for Environment Health and Biodiversity

- Commit to ecologically responsible landscaping, installation and maintenance

Sustainability Goals (continued)



Educate

Nurture environmental stewardship and literacy across the campus, educate and prepare students for the green workforce

Engage Campus Community in Sustainability Awareness

- Develop themes and messages to encourage and promote sustainability practices across the campus

Promote Sustainability in Curriculum

- Create additional curriculum and program on sustainability and green workforce,
- i.e., environmental education, renewable energy and energy management, and organic agriculture
- Broaden on-site green-collar workforce training program



Monitor

Set high bars for building performance goals, with consistent monitoring and routine reporting

Promote Green Building Construction and Renovation

- Outperform Title 24 Standards for all new buildings
- Target for LEED Certification for all new buildings

Monitor and Report

- Develop methods to monitor consumption activity and routinely report



Recycle

Promote a culture of reduce, reuse and recycle

Hazardous and Solid Waste Reduction and Control / Minimize Waste Generation

- Maximize use of recyclable materials
- Make recycling easy by providing paper recycling receptacles in classrooms

Green Purchasing and Procurement Controls in the College Supply Chain

- Strongly encourage the use of vendors that demonstrate their commitment to sustainability
- Implement managed print service

De Anza College



Table of Contents

INTRODUCTION

- Letter from the President
- Vision, Mission and Values
- Purpose of the Facilities Master Plan
- Planning Process

DE ANZA CAMPUS ANALYSIS

- Campus Context
- Campus Plan
- Campus Development History
- Campus Zoning
- Campus Access
- Vehicular Circulation + Parking
- Pedestrian Access
- Open Space

DE ANZA CAMPUS RECOMMENDATIONS

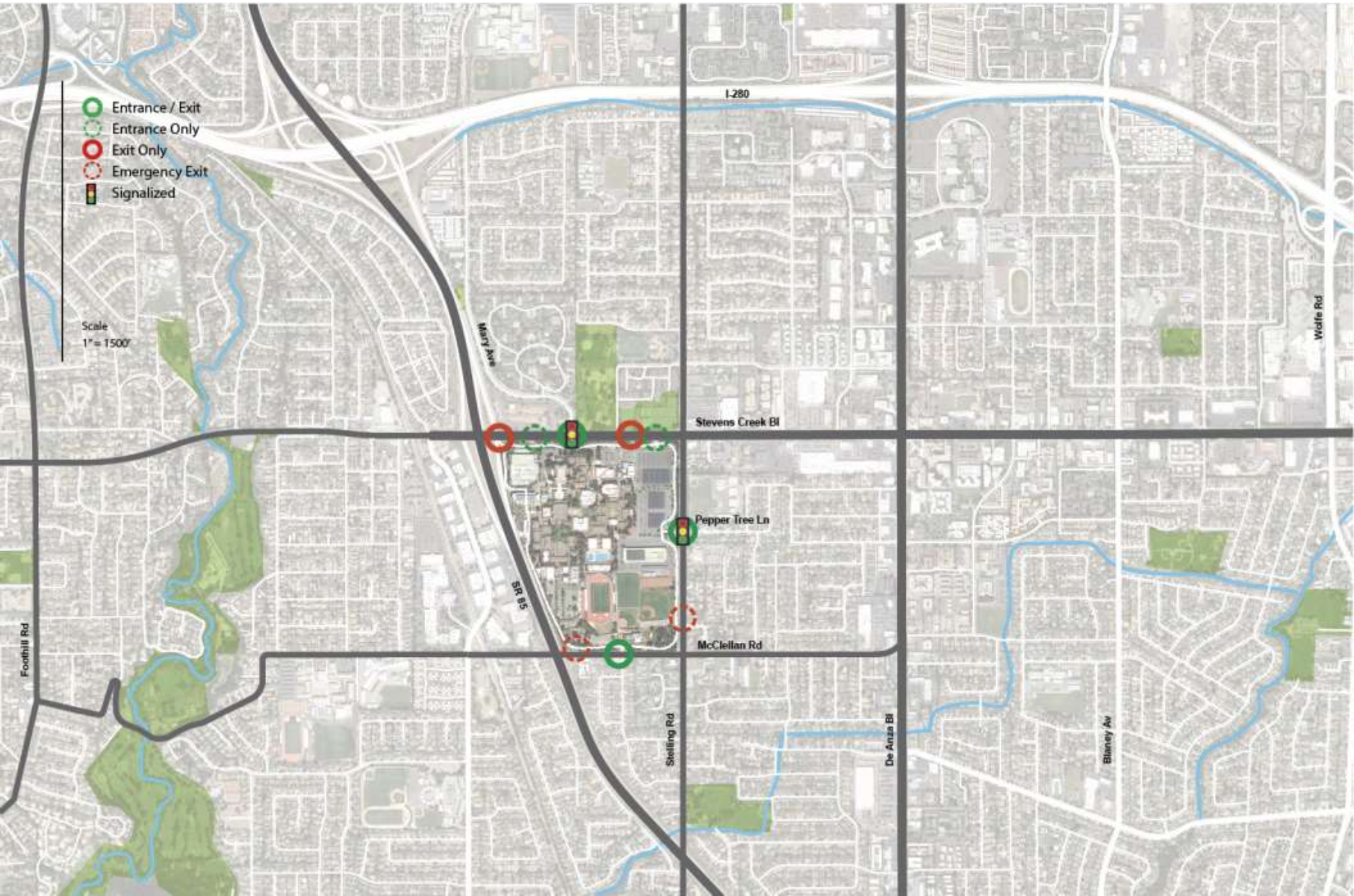
- Facilities Planning Principles
- Summary of Recommendations
- Facilities Projects
- Site Development Projects
- General Recommendations

APPENDIX

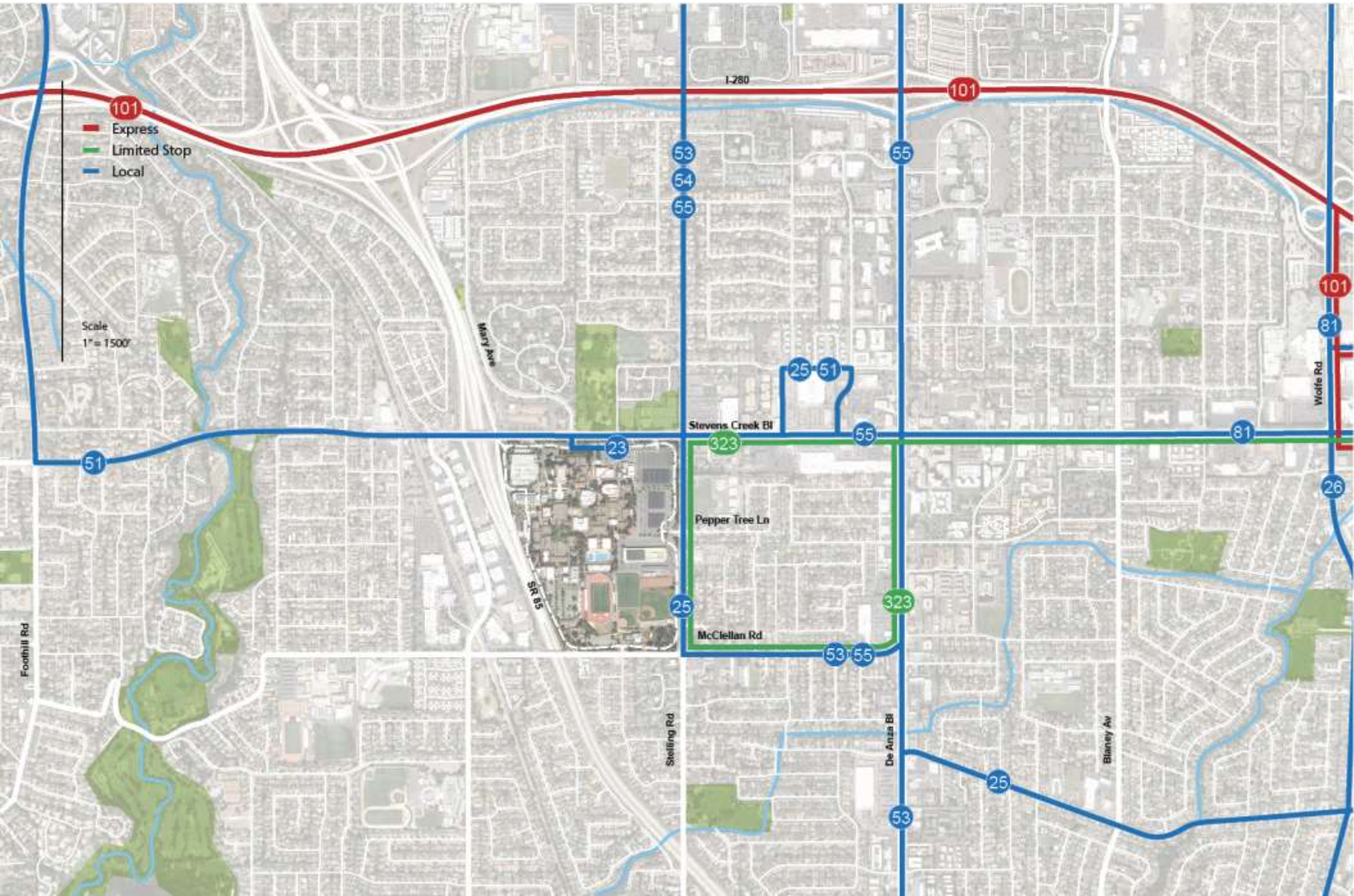
- Planning Data Analysis

EXISTING CONDITIONS

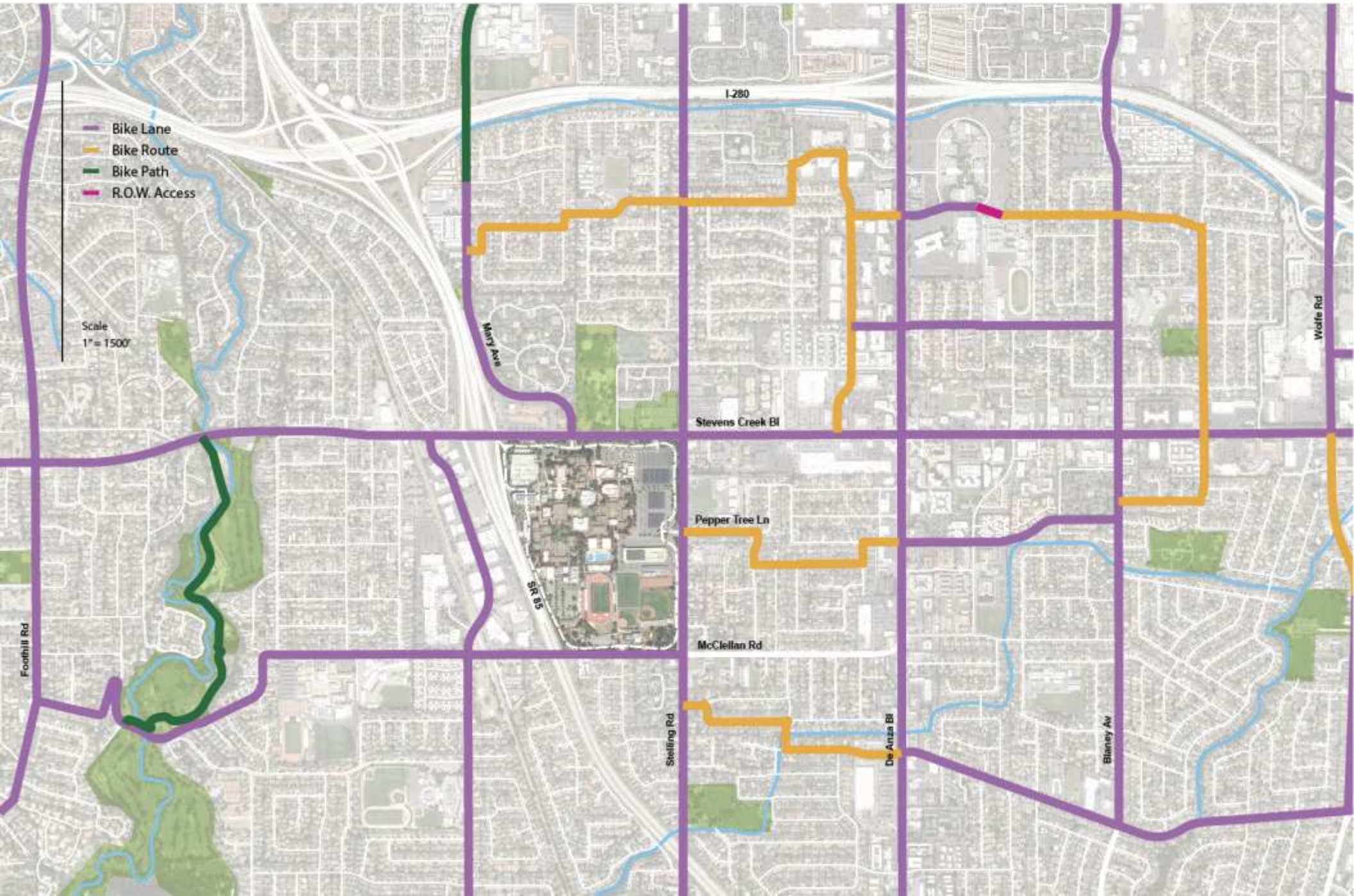
Campus Context - Road Network



Campus Context - Transit Access



Campus Context - Campus Access



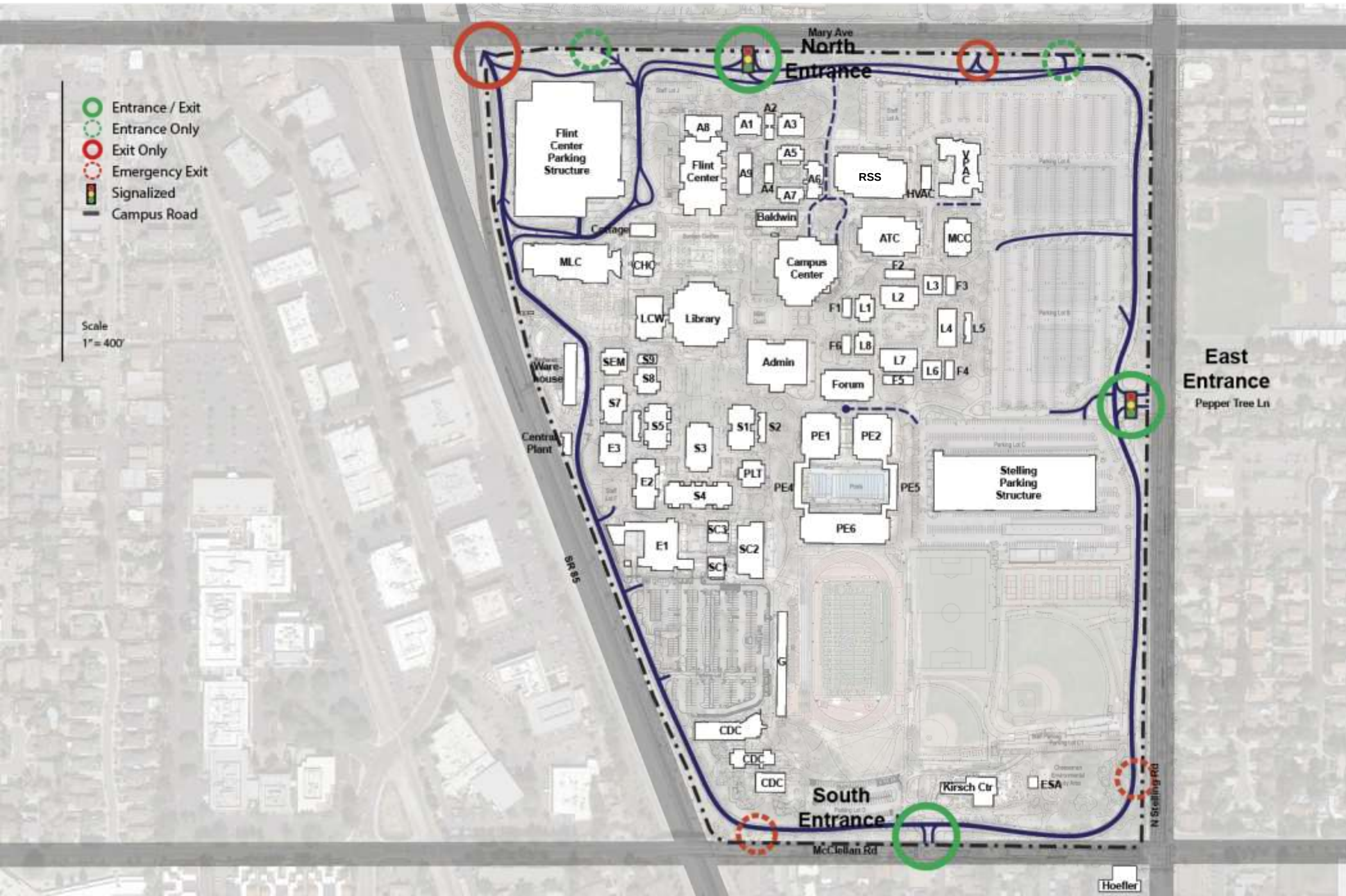
Campus Development History



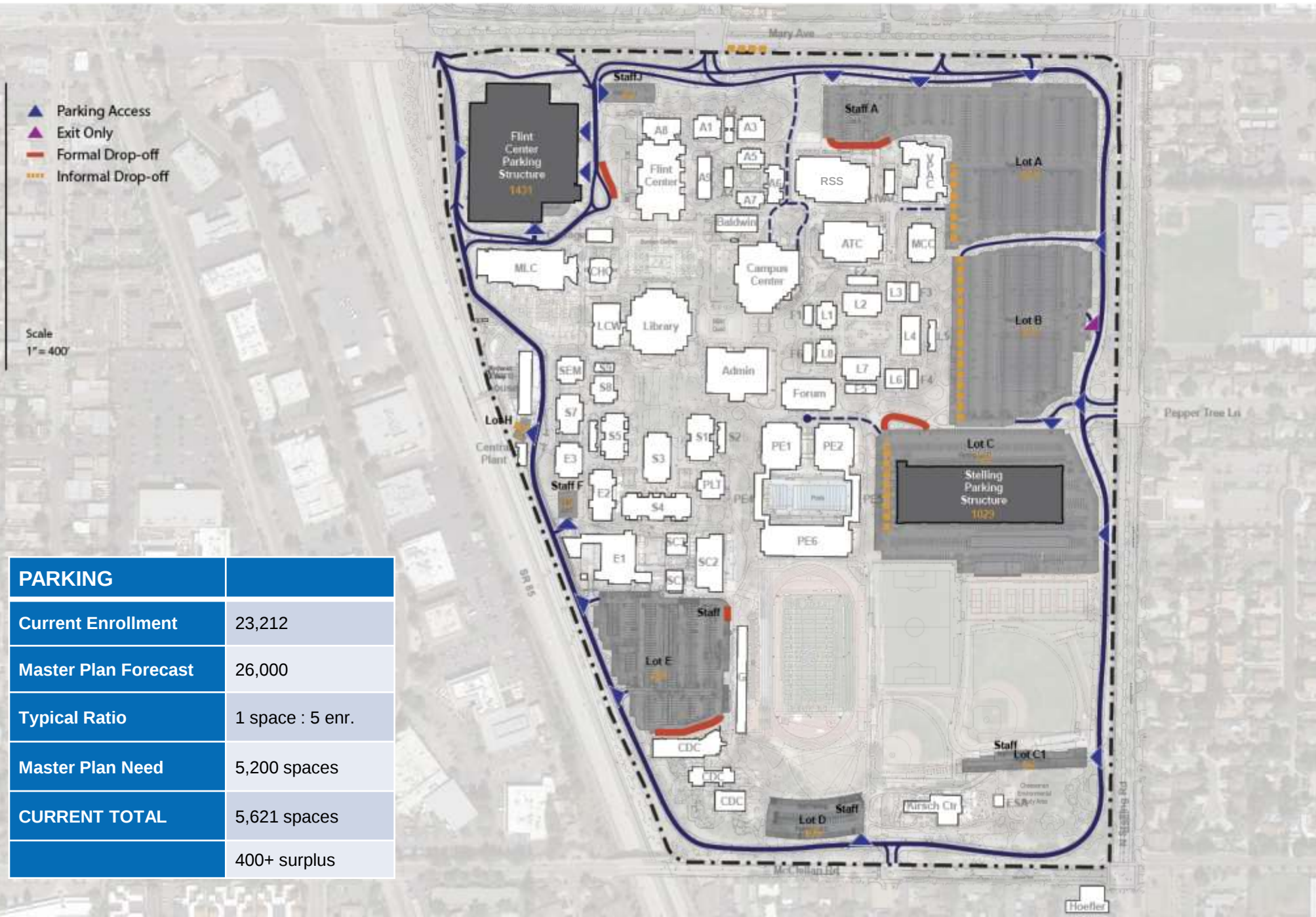
Campus Zoning



Campus Access

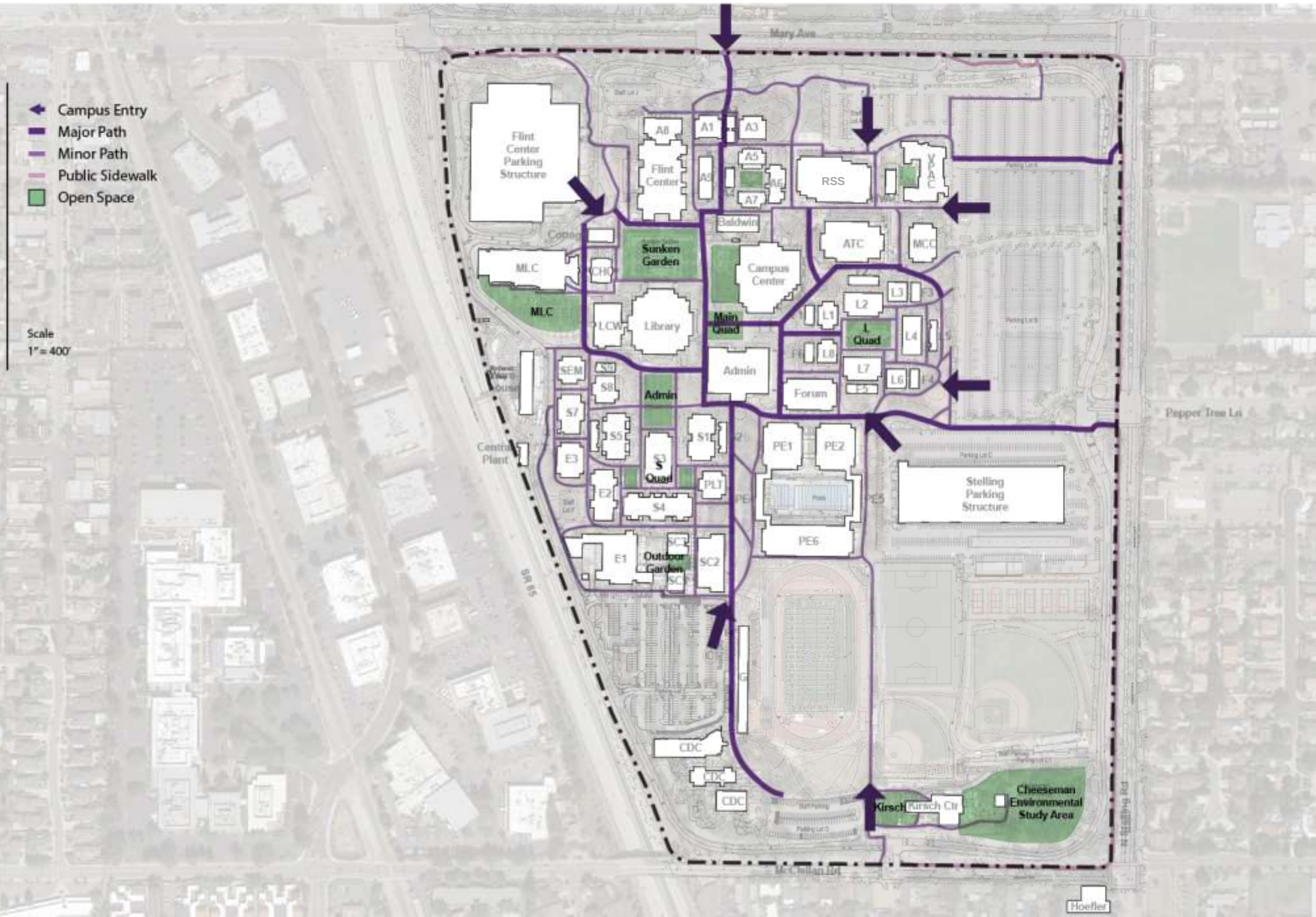


Vehicular Circulation + Parking



PARKING	
Current Enrollment	23,212
Master Plan Forecast	26,000
Typical Ratio	1 space : 5 enr.
Master Plan Need	5,200 spaces
CURRENT TOTAL	5,621 spaces
	400+ surplus

Pedestrian Access



FACILITIES PLANNING PRINCIPLES

Educational Master Plan 2015-2020

Values



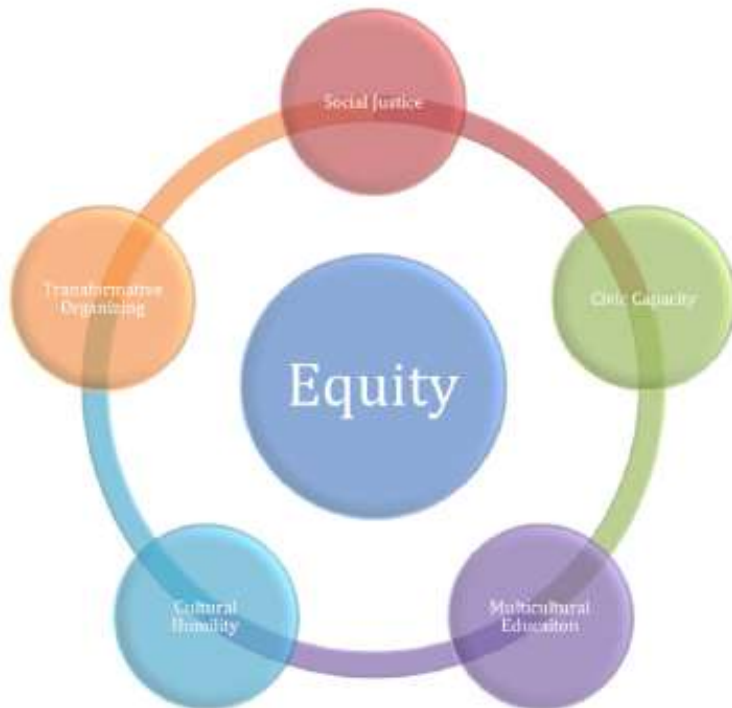
We work to ensure our physical space is welcoming, conducive to learning and environmentally sustainable

We welcome students of all ages and backgrounds and connect with them, in their range of unique circumstances, to help them fulfill their dreams.

We will provide support in six key factors of student success.



Educational Master Plan 2015-2020



Facilities Planning Principles

Support the DeAnza College **EQUITY PLANNING FRAMEWORK:**

- ☐ *Meet the unique needs of each student through the development of a welcoming and supportive environment that embodies a sense of value and connectedness*

Enhance **Student Achievement**

- Consolidate related programs and services to Improve students' **focus** and ability to stay on track
- Develop indoor and outdoor spaces to support **student engagement**
- Develop campus to support **faculty and staff collaboration**
- Develop campus as a welcoming and **nurturing** community

Improve Campus **Connectivity**

- Provide a safe and universally accessible **campus**
- Enhance physical connections (pedestrian, bike, vehicular, transit) within the campus and community
- Improve campus landscape and wayfinding including the addition of voice/audio support
- Incentivize non-vehicular campus commutes

Improve **Efficiency** of Facilities

- Improve facilities to support innovation and equity
- Replace inefficient and underperforming facilities
- Maximize land use with efficient planning
- Improve functional zoning and operational efficiencies
- Develop flexible, multi-purpose facilities to adapt over time

Right-Size Facilities to Address Program Needs

- Align the projected inventory with state guidelines
- Position De Anza College to maximize state and local funding

Improve **Security and Safety**

- Develop and implement district-wide standards for security equipment and protocol
- Provide sufficient lighting for safety throughout campus, including all pathways and parking areas

Promote **Sustainability**

- Develop campus as a living lab to Increase awareness
- Promote physical activity and other health-related programs
- Improve day to day behavior to reduce energy and water consumption and encourage recycling + re-use
- Consider more socially, financially, and environmentally beneficial product use + procurement
- Support improved landscaping, greenery, and xeriscape solutions

PLANNING DATA ANALYSIS

Room Use Categories

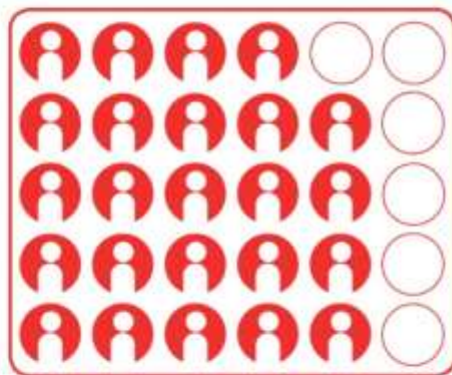
CAPACITY/LOAD CATEGORIES						
						
	LECTURE	LAB	OFFICE	LIBRARY	INSTRUCTIONAL MEDIA	OTHER
Room Use Numbers	100s	200s	300s	400s	530s	520, 540 - 800s
Description	Classrooms Support Spaces	Labs Support Spaces	Offices Support Spaces All offices including administrative and student services	Library Study Tutorial Support Spaces	AV/TV Technology Support Spaces	PE Assembly Food Service Lounge Bookstore Meeting Rooms Data Processing Physical Plant Health Service

Capacity Load Ratios

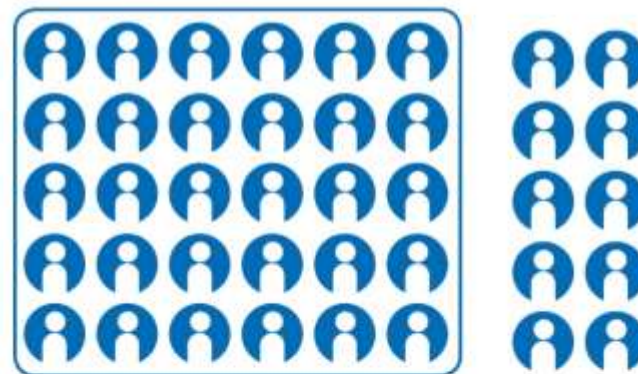
- The capacity/load ratio is the measure of the space utilization efficiency according to Title 5 standards
- Assumed utilization for classrooms is 53 hours per week, utilization for labs varies per discipline
- Capacity/load ratio's are rolled up and measured as an aggregate by room use category for each campus



of seats = # of students
100% capacity / load



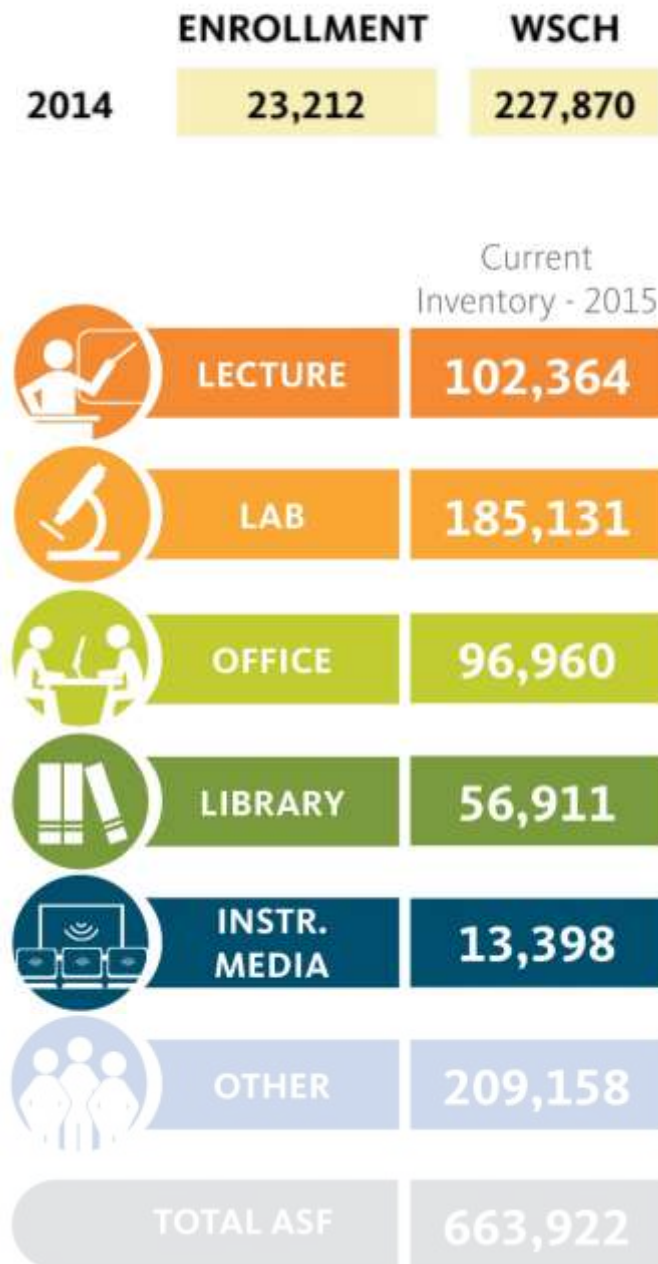
of seats > # of students
over 100% capacity / load



of seats < # of students
under 100% capacity / load

Eligible for
state funding

Master Plan Space Program



Master Plan Space Program

	ENROLLMENT	WSCH		
2014	23,212	227,870		
2025	25,927	254,523		
			Current Inventory - 2015	
	LECTURE	102,364	Master Plan Space Program	Difference
	LAB	185,131	87,297	-15,067
	OFFICE	96,960	91,662	-93,469
	LIBRARY	56,911	67,873	-29,087
	INSTR. MEDIA	13,398	44,086	-12,825
	OTHER	209,158	13,219	-179
	TOTAL ASF	663,922	163,475	-45,683
			467,611	

CALCULATED FROM WSCH
AND STATE SPACE STANDARDS

Conclusions

- Current space inventory indicates no need for additional space through 2025
- Program reviews were reviewed and factored into the analysis
- Needs for new / different space are considered in isolation of maintenance issues

RECOMMENDATIONS

Facilities Recommendations



Facilities Recommendations

Improve **Efficiency** of Facilities

Enhance **Student Achievement**

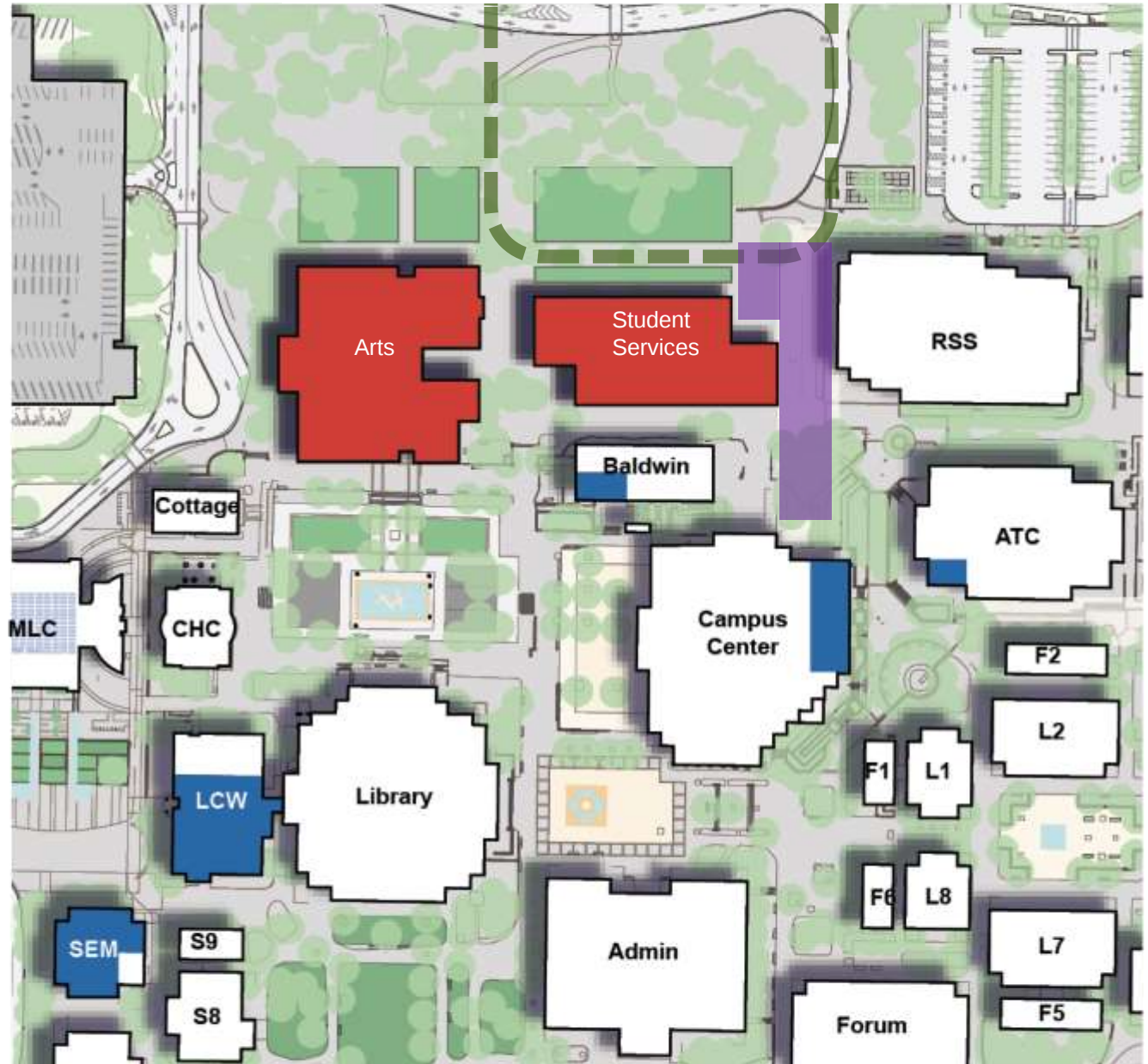
Improve **Campus Connectivity**

Replace inefficient and underperforming facilities

Consolidate related programs and services to Improve students' focus and ability to stay on track

Enhance physical connections within the campus and community, including ensuring identified pathways are ADA accessible

- Replace A Quad Buildings with new Arts Complex
- Construct Student Services Annex to centralize services at front of campus
- Relocate student services from first floor of LCW to new Student Services facility. Repurpose first floor of LCW to support instructional program needs
- Repurpose vacated spaces in ATC, Baldwin, Campus Center, and SEM to support other program needs
- Improve vehicular circulation and develop new campus entry and drop-off



■ New Facilities
■ Renovation

Facilities Recommendations

Improve **Efficiency** of Facilities

Replace inefficient and underperforming facilities

Maximize land use with efficient planning

Develop flexible, multi-purpose facilities to adapt over time

- Remove L4, L5, L3 and F3 buildings and construct new multi-story building
- Program spaces to replace functions and support program needs



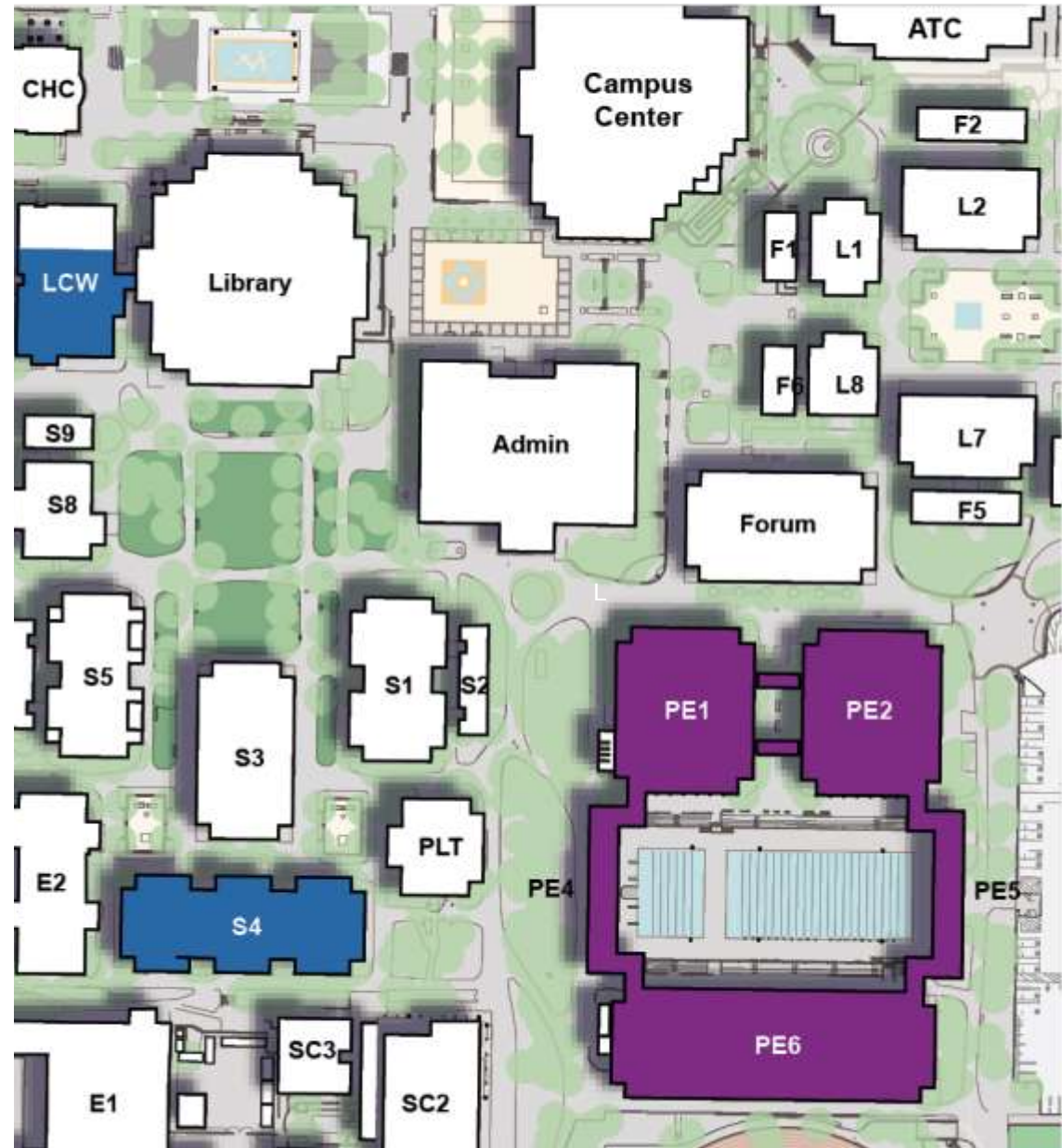
- New Facilities
- Major Renovation
- Renovation

Facilities Recommendations

Improve **Efficiency** of Facilities

Replace inefficient and underperforming facilities

- Improve PE facilities to support program needs, including teaching gym, classrooms, locker rooms, team rooms and meeting rooms. Conduct a feasibility study to determine level of renovation or reconstruction needed to address program needs and items not completed during Measure E and C Bonds
- Relocate ETS and repurpose the space for instructional or program needs
- Renovate computer lab on lower level of LCW
- Renovate S4 to improve instructional support services



- New Facilities
- Major Renovation
- Renovation

Facilities Recommendations

Improve **Efficiency** of Facilities

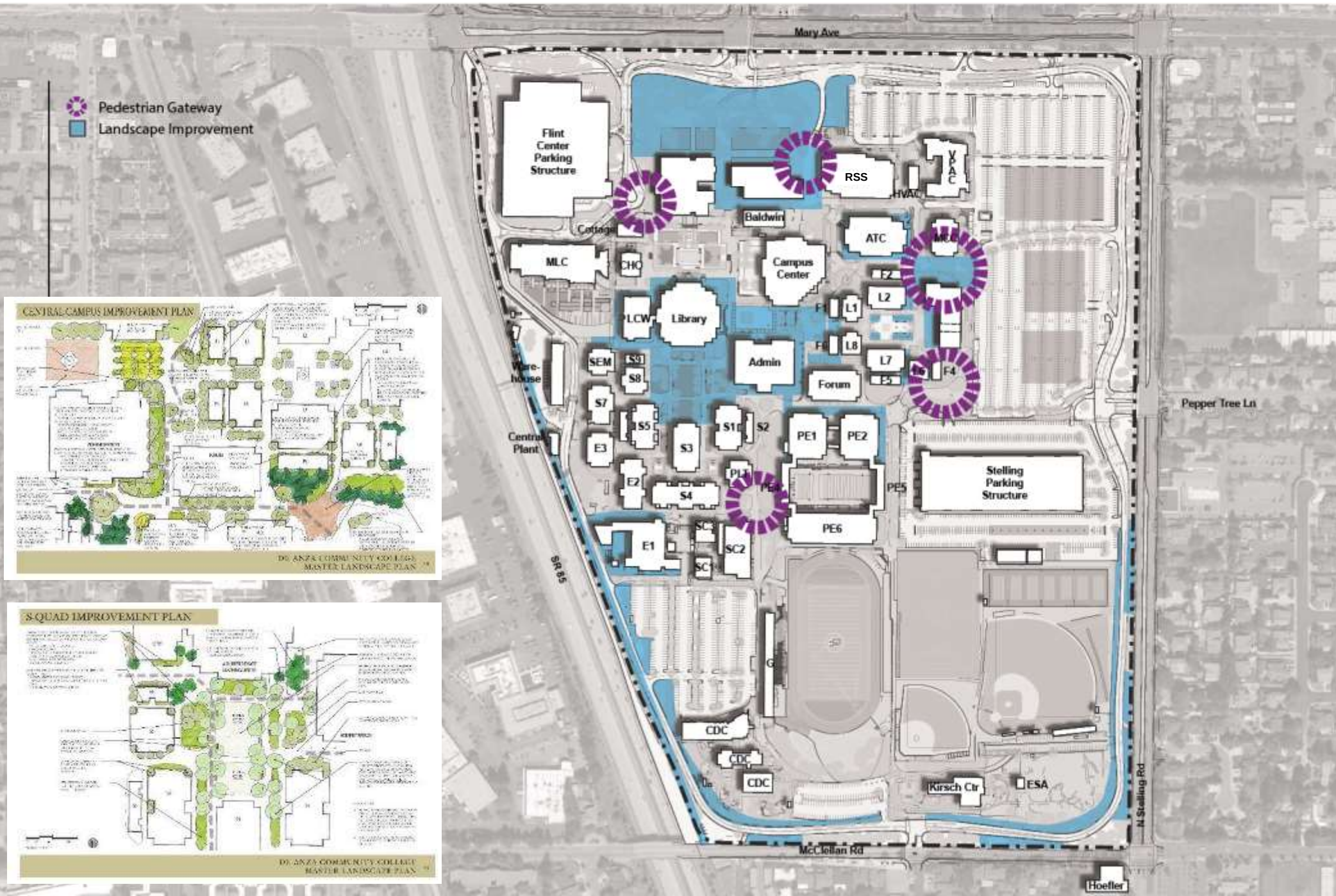
Replace inefficient and underperforming facilities

- Renovate Auto Tech and E2 to support program needs
- Further study is needed to define the scope for each facility



■ Renovation

Landscape Recommendations



Signage + Lighting Recommendations

Improve Campus **Connectivity**

Improve **Security and Safety**

Promote **Sustainability**

Improve campus wayfinding, including the addition of voice/audio support

Provide sufficient lighting for safety throughout campus

Reduce energy consumption



Signage Recommendations

- Add voice signage at entries and at locations TBD in campus interior

Lighting Recommendations

- Improve energy efficiency of lights and light levels



Draft Facilities Master Plan



Next Steps

Documentation + Reviews

Presentations + Approvals

College Council

Board of Trustees – August 2016

