PASADENA CITY COLLEGE

2024 FACILITIES STRATEGIC PLAN UPDATE

FINAL DRAFT Report | July 17, 2024

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July 17, 2024

FINAL DRAFT

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Table of Contents*

** This report is not intended to replace the approved 2020 FMP in its entirety, but serves as a companion document that updates select portions of the previous FMP to reflect changes since 2020.*

1.

Executive Summary

Executive Summary

PRELUDE

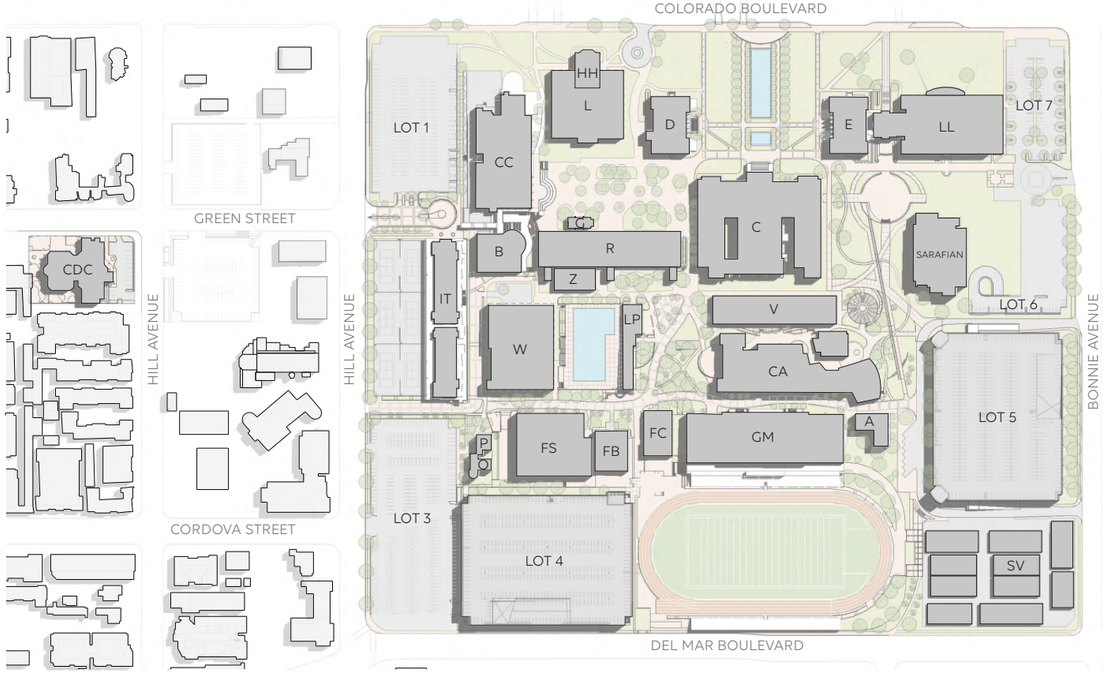
On February 28, 2020, the 2020 Facilities Master Plan (FMP) was published for Pasadena City College, and contained a bold vision and robust, actionable framework for improving and augment existing campus facilities with the broader goal of supporting PCC's mission statement:

Pasadena City College is an equity-minded learning community dedicated to enriching students' academic, personal, and professional lives through an array of degree and certificate programs, campus engagement, and customized student support.

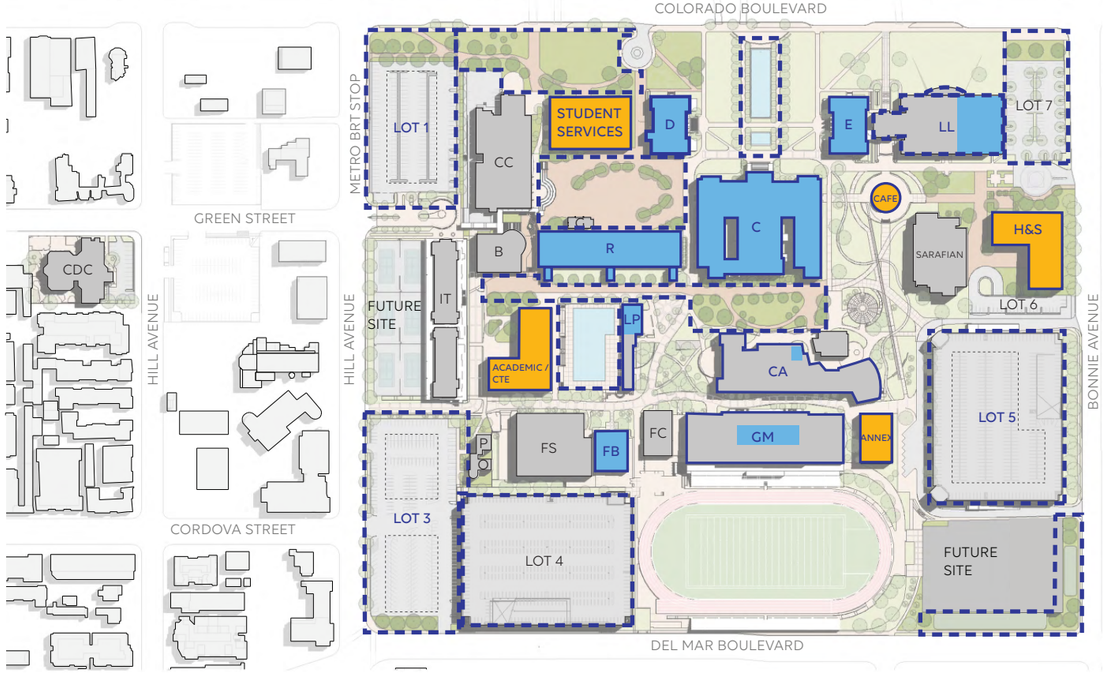
The 2020 FMP provided an assessment of PCC's existing facilities across its multiple campuses, and identified recommendations for building improvements, replacement, or removal in order to more effectively support its anticipated future academic, social, cultural, functional, and operational needs. The framework for the facilities improvement outlined a build-out timeframe of roughly ten years, with a conceptual sequencing plan to minimize campus disruption and maximize economies of scale.

The 2020 FMP was informed by a multitude of data – enrollment, utilization, operations, financial – from the years leading up to its publication in February 2020, with emphasis on the 2019 data that was at the time most recent. The culmination of the 2020 FMP effort narrowly preceded the onset of the COVID-19 pandemic, which has had a profound, far-reaching, and possibly permanent impact on virtually every facet of higher education, from enrollment trends to preferred instructional modalities to resiliency and disaster preparedness.

In order to address the rapidly-shifting landscape of California Community College higher education in the wake of the pandemic, an update to the 2020 FMP was needed in order to ensure that priorities and strategies are aligned with current and anticipated needs, resources, and external factors.



Colorado Campus - Existing



Colorado Campus - Full Build-out

PROCESS

In February 2024, HGA was enlisted to facilitate the 2024 Facilities Strategic Plan (FSP) Update, continuing the previous work on the 2020 FMP and basing the update on the parameters described herein. Prior to this effort, HGA conducted a separate utilization study for PCC, which yielded insights into opportunities for programmatic consolidation in light of post-pandemic enrollment declines and associated projections. Equipped with new dimensions of data analysis, the planning and design team endeavored to build upon the robust framework of the 2020 FMP while refining the recommendations of the FSP to address evolving themes, priorities and guiding principles, such as:

- Equity
- Accessibility
- Sustainability
- Student Success
- Safety
- Community Engagement
- Enhancement of Outdoor Spaces
- Improved Utilization of Interior Spaces

As with the 2020 FMP, HGA worked with PCC leadership to facilitate a comprehensive series of general and focused outreach sessions to ensure that the process incorporated a shared governance mindset that afforded the diverse range of perspectives throughout the PCC community to contribute. The groups engaged through this process included:

- Board of Trustees
- Executive Team
- College Council
- Academic Senate
- Associated Students
- Classified Senate
- Management Association
- Academic and Administrative Deans
- Non-credit Division
- Economic Workforce Development
- Athletics
- Community members

Once these outreach efforts were completed, HGA worked with PCC leadership to review and interpret the feedback and supporting data, and explored various options for implementing capital improvement projects through scenario planning. These scenarios were analyzed against the overarching objectives of PCC's Mission Statement and the Guiding Principles established in the 2020 FMP, in order to establish prioritization.

On May 8, 2024, College leadership and the HGA team provided a progress presentation of the FSP effort to the PCC Board of Trustees, giving an overview of the purpose for the update, the latest data metrics, and the process of engaging groups within the community. On June 18, 2024, College leadership and HGA provided a follow-up presentation to the BOT, outlining the preliminary recommendations of the 2024 FSP with two options for project lists to be funded by Measure PCC. At this meeting, the Board of Trustees unanimously approved the project list described herein.

2024 Facilites Strategic Plan Update

This report serves as an update to the PCC 2020 FMP, establishing a revised framework for campus facilities improvements based on the latest data, developments and trends (both within PCC and across the broader landscape of higher education) that have materialized since the 2020 FMP was finalized. Its recommendations are in response to pandemic-era, current-state, and projected needs that account for the continued evolution of PCC, as well as the passing of Measure PCC in November 2022 which will fund many of the capital improvement projects described herein.

This report is not intended to replace the approved 2020 FMP in its entirety; rather, it serves as a companion document that supersedes select portions of the previous FMP. Recommendations specifically articulated in this report, such as the project list and phasing/sequencing, should be considered as a revised framework that replaces its corresponding information in the original report. While the 2020 document used the terminology "Facilities Master Plan" for its title, this update has been renamed to "Facilities Strategic Plan" to reflect a broader progression in the preferred terminology for this type of initiative.

The 2024 FSP provides an updated comprehensive project list, organized into two categories:

Near-term projects funded by Measure PCC (approximately 5 year timeframe)

1. Rosemead Satellite Campus Building & Parking Structure (new construction)
2. Health & Sciences (new construction)
3. Student Services Building (new construction)
4. Annex Building (new construction)
5. Galloway Plaza Café (new construction)
6. Photovoltaics at Lots 1, 3, and 5 (new construction)
7. Mirror Pool Modernization
8. Sexson Auditorium Modernization
9. Boiler House Modernization
10. Aquatics Center Modernization
11. Lancers Pass Modernization
12. LL Building Partial Modernization
13. GM Building Partial Modernization - Locker Rooms
14. CA Building Partial Modernization – Instructional Spaces
15. CEC Partial Modernization – Offices (at Foothill Campus)
16. W Building Demolition
17. L Building Demolition
18. Temporary Swing Space for Student Services (location of former W Building)

Long-term projects beyond Measure PCC (approximately 5 - 10 year timeframe)

1. Academic Building (new construction - location of former W Building)
2. R Building Modernization
3. C Building Modernization
4. D Building Modernization
5. E Building Modernization
6. LL Building Partial Modernization
7. V Building Demolition
8. Z Building Demolition
9. EV Charging Stations (multiple lots at Colorado Campus)
10. Miscellaneous Open Space Site Improvements at Colorado Campus

The projects identified beyond Measure PCC reflect the long-term build-out of the campus, and will be contingent on alternative funding sources such as state funding or a future PCC bond.

OTHER SECTIONS

In addition to a comprehensive list of recommended capital improvement projects for PCC, this amendment report describes the updated data for analysis of enrollment, space projections, and utilization; new academic programs and shifts in existing program growth areas; renewed sustainability initiatives (informed by a broadly distributed survey to the campus community); transportation and parking demands in response to new enrollment projections; enhancement of open space; and an acknowledgement and expression of diverse cultures, histories, and identities.

Colorado Campus - Full Build-out Plan Aerial Perspective

2.

Enrollment, Projections, & Analysis

SECTION 2

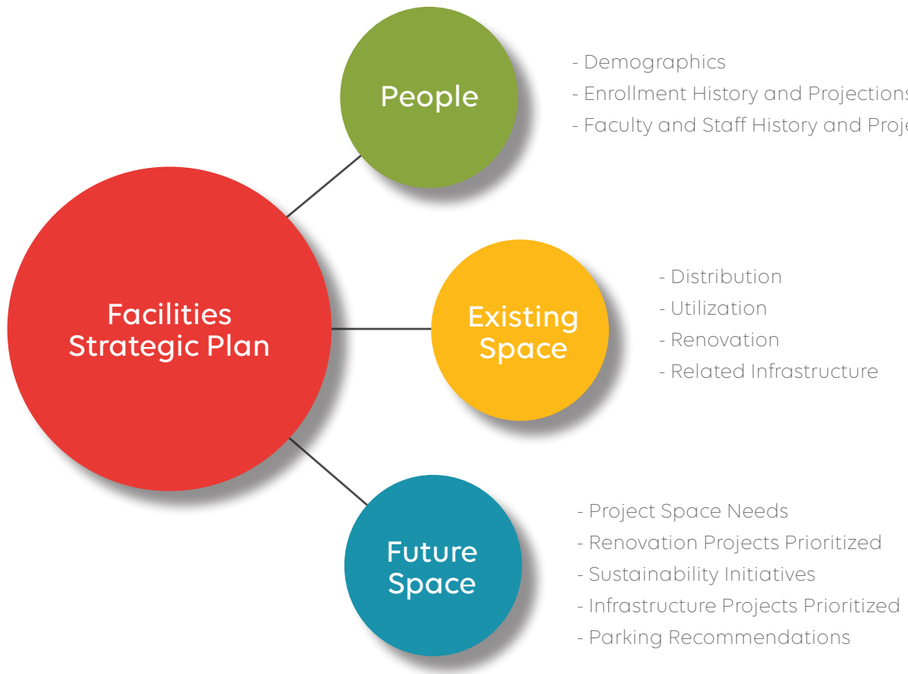
Enrollment, Projections, & Analysis

PROCESS

The design team updated the strategic plan support material to reflect changes that have occurred since the publication of the 2020 plan. Updated material include the qualitative data collected in the listening sessions and at Board of Trustee meetings, survey results, and new quantitative inputs. New data inputs included:

- Updated enrollment growth projections
- Post-COVID utilization of teaching spaces
- Programs identified as highest potential for growth
- Programs identified to be added
- California Community College Chancellor's Office Cap/Load space entitlement calculations
- Quantifying distribution of groups across campuses
- Accounting for anticipated moves as a result of renovations and demolitions
- Space need calculations based on anticipated Full-Time Student Equivalent (FTES) numbers

Facilities Strategic Plan Inputs



Enrollment

The Enrollment sub-section illustrates historical and existing enrollment and staffing conditions by department. It includes the District's projections for future enrollment growth that are based on past enrollment trends and anticipated programmatic changes/additions.

The enrollment growth projections fed directly into the analysis of future space needs at PCC.

Existing Space

Physical space at PCC including the Colorado, Foothill, and anticipated new Rosemead campuses, is quantified in the Existing Space sub-section. The distribution of space by location, type and assignment was examined to identify areas that may lack space or have an abundance of space, in addition to identifying groups that may be divided across more than one building.

Understanding existing space helps with quantifying the need for new space, prioritizing projects and identifying co-location opportunities.

Findings and suggestions on existing space use and the campus inventory close out this sub-section.

Classroom and Class Lab Utilization

The Classroom and Class Lab utilization sub-section provides a high level update of utilization changes since 2020. Although campuses are still navigating a post-COVID environment, enough terms have passed to begin to see patterns in space use, including the effect of additional online course offerings.

The District recently completed a full utilization study of their teaching spaces. So in-depth analysis and data is not included in this update. Reference the study for full data analysis.

Space projections

Projections for space need at PCC are included in the Space projections sub-section. Space projections were based on enrollment projections and programmatic need in addition to an analysis of current building conditions.

The space projections were utilized in scenario planning as projects and their phasing were considered. A list of projects including renovations, demolitions, new construction, sustainability and infrastructure projects and their suggest timeline are included in Sections 3 and 6 of this update.

CURRENT & PROJECTED ENROLLMENT

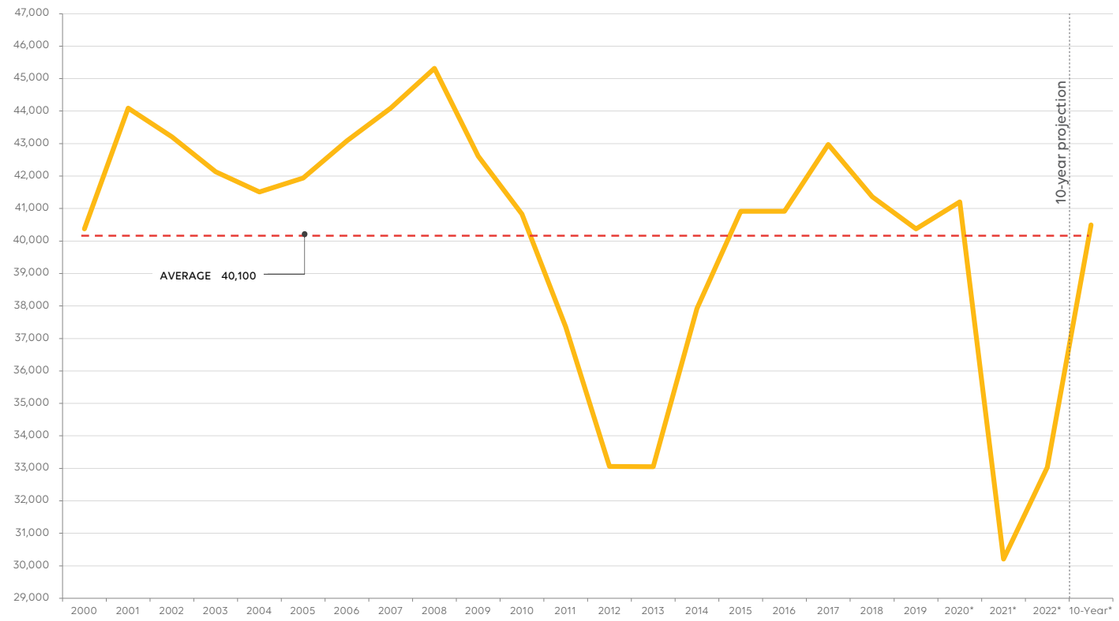
Understanding enrollment over time is essential for planning for the future of physical space at the District. It identifies trends but also highlights areas where the campus may wish to invest in facilities to maintain or grow specific departments.

The tables on this page illustrate both headcount and FTES numbers. FTES is the equivalent of 525 hours of student instruction per each one FTES. 525 hours was derived by assuming a full time student would be enrolled in courses for 3 hours a day, 5 days a week over the course of an academic year.

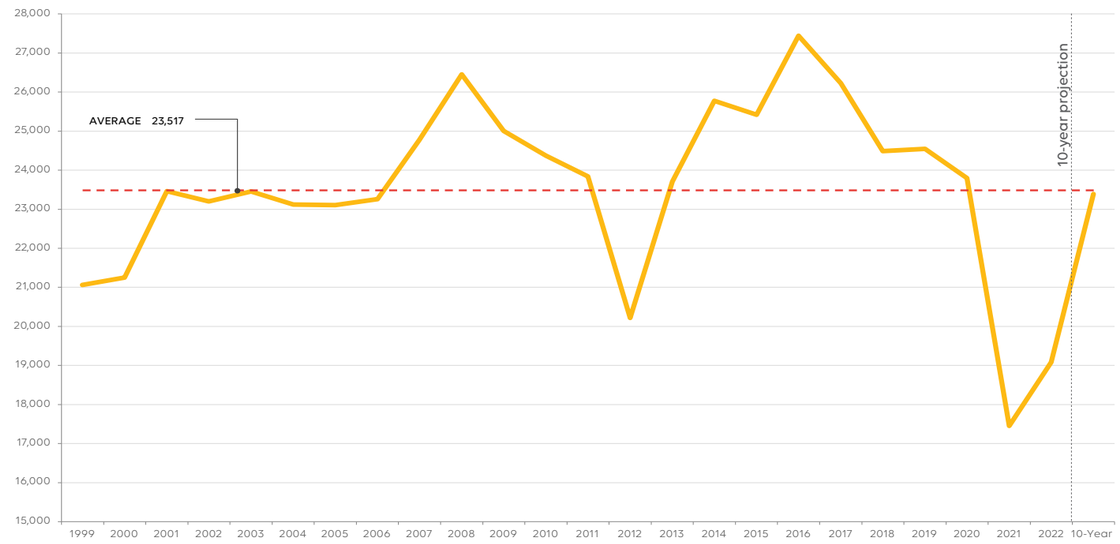
PCC historical head count has fluctuated with a few periods of sharp declines and increases, most recently in 2020 during the Pandemic, which is typical for every higher education institution in the country.

The second table, illustrating FTES, also shows fluctuation over time corresponding with headcount. Annual growth rates have generally been positive with the exception of 2012 and the dip during the COVID-19 pandemic that all colleges felt. The District anticipates steady positive growth over the next ten years, identifying the programs most in demand that will help to dive enrollment. However, projections indicate it may take longer than ten years to exceed 2008/2009 and 2016/2017 peaks.

PCC Annual Headcount - Total District



PCC Annual FTES * - Total District



* Note the Rosemead campus is not included in these numbers because the previous facility went off line in June 2023. A replacement Rosemead campus has been identified for future growth. Note the 10 year growth does not include anticipated new programs discussed later in this section.

CURRENT & PROJECTED STUDENTS (FTES)

In addition to PCC's projections for enrollment growth, the California Community College Chancellor's Office (CCCCO) publishes assumed enrollment growth for all community colleges in California. It projects PCC will grow 2.2% between 2023 and 2029. Note that these projections do not include bringing the new Rosemead campus, online, or anticipated new programs. CCCCO projections do not reflect the potential of anticipated programmatic and space changes on enrollment growth.

CCCCO - FUSION Enrollment Forecast Fall Unduplicated

FUSION Day Enrollment (data pulled April 2024)			
Year	Colorado Campus	Foothill (CEC) Campus	Total District Enrollment
2023	19,308	2,145	21,453
2024	19,289	2,143	21,432
2025	19,379	2,153	21,532
2026	19,469	2,163	21,632
2027	19,559	2,173	21,732
2028	19,650	2,183	21,833
2029	19,742	2,194	21,936

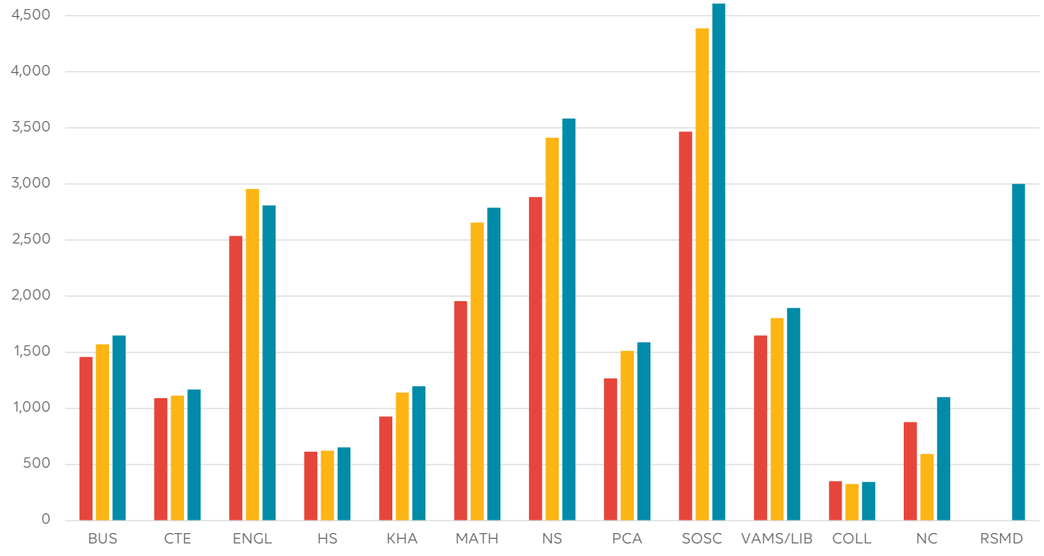
FTES by Location in the Last 3 Years

This table illustrates where FTES are distributed across PCC - online or in-person locations. In addition to the Colorado and Foothill campuses, courses are also being taught at PCC Northwest Campus (John Muir High School). The fully online numbers in 2020-21 are reflective of the COVID-19 pandemic forcing students to learn remotely. Note they balance out significantly with in-person in the two years following.

Campus	2020–21	2021-22	2022–23	3-Year Average
Colorado Campus	189	5,201	9,527	4,972.33
Fully Online	21,316	8,800	6,837	12,317.67
Foothill Campus	573.2	725.6	1,247.1	848.63
Rosmead	0	102.2	269.1	123.77
Off-campus locations	73.508	187.331	262.865	174.57
Dual Enrollment High School	1.6	120.6	123.4	81.87
Northwest	63	56.6	109.7	76.43
Total	**22,217**	**15,193**	**18,376**	**18,595**

Current & Targeted Enrollment by Instructional Division

The following bar chart illustrates the Fall 2022 to Spring 2023 full time equivalent students (FTES) by instructional division compared to the 5 year average was utilized to calculate the 10 year FTES projections provided by the District.



Divisions	
BUS	Business
CTE	Career & Technical Education
ENGL	English & Language Studies
HS	Health Sciences
KHA	Kinesiology, Health, & Athletics
MATH	Mathematics
NS	Natural Sciences
PCA	Performing & Communication Arts
SOSC	Social Sciences
VAMS/LIB	Visual Arts, Media Studies, & Library
COLL	First Year Seminar
NC	Non-credit
RSMD	Rosemead Campus

	BUS	CTE	ENGL	HS	KHA	MATH	NS	PCA	SOSC	VAMS/LIB	COLL	NC	RSMD	Total
Total FTES 2022/2023	1,459	1,092	2,536	615	928	1,956	2,884	1,266	3,467	1,649	352	877	0	19,081
5 year average FTES Growth	1,572	1,113	2,954	622	1,141	2,656	3,413	1,513	4,388	1,804	327	595	0	22,100
10 year FTES Projections *	1,650	1,169	2,810	654	1,199	2,789	3,584	1,589	4,607	1,895	344	1,100	3000	26,388
Overall % Change	113.11%	107.05%	110.81%	106.24%	129.20%	142.57%	124.29%	125.48%	132.88%	114.86%	97.64%	125.45%	-	138.30%

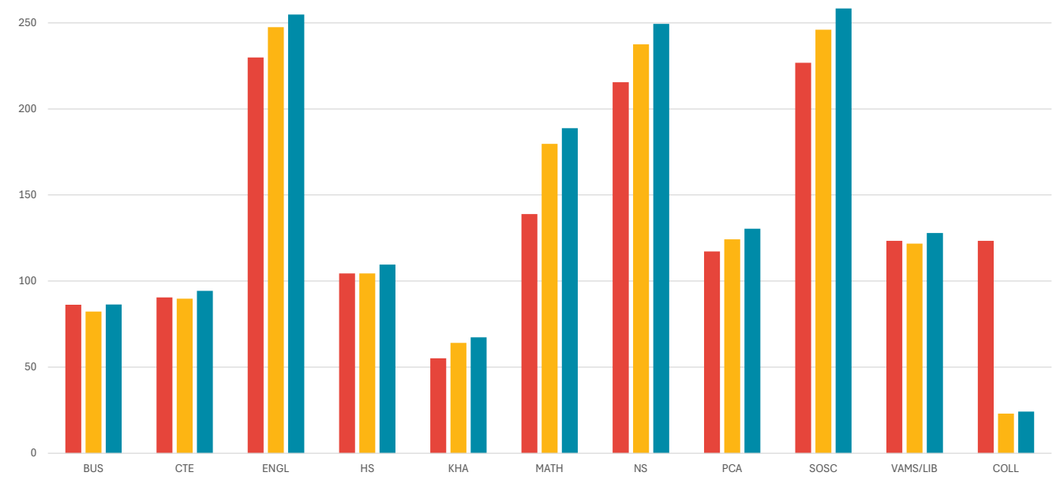
* The 5 year average growth rate was used to calculate the target 10 year growth. Note the 10 year growth does not include anticipated new programs discussed later in this section.

CURRENT & PROJECTED INSTRUCTIONAL & STAFF (FTEF)

Similar to student FTES growth, CCCCO publishes faculty growth projections. These can be compared to the table below that quantifies PCC's targeted growth.

Faculty Growth by Instructional Division

The following bar chart illustrates the Fall 2022 to Spring 2023 full time equivalent faculty (FTEF) by instructional division compared to the 5 year average growth. 5 year average was utilized to calculate the 10 year FTEF projections provided by the District.



Divisions	
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PCA	Performing & Communication Arts
SOSC	Social Sciences
VAMS/LIB	Visual Arts, Media Studies, & Library
COLL	First Year Seminar
NC	Non-credit
RSMD	Rosemead Campus

	BUS	CTE	ENGL	HS	KHA	MATH	NS	PCA	SOSC	VAMS/LIB	COLL	NC *	RSMD *	Total
Total FTEF 2022/2023	86	90	230	104	55	139	216	117	227	123	123	-	-	1,511
5 year average FTEF Growth	82	90	248	104	64	180	237	124	246	122	23	-	-	1,521
10 year FTEF Projections	86	94	255	110	67	189	249	130	258	128	24	-	-	1,591
Overall % Change	100.17%	104.29%	110.85%	105.00%	122.27%	135.90%	115.66%	111.24%	113.89%	103.57%	19.62%	-	-	105.29%

* Non-credit or Rosemead FTEF target growth not included.

SPACE INVENTORY

The campus space inventory was recently updated to reflect changes in space assignments and uses. The updated inventory is summarized in the tables and charts below.

It is important to understand existing conditions and assignments to ensure all departments' and administrative units' needs are met. Not only was the quality of space considered when planning projects, the location of groups on campuses also played a factor. It is desired to support the Career Communities, to keep groups as a single unit, and to co-locate related groups for better collaboration and ease of student use.

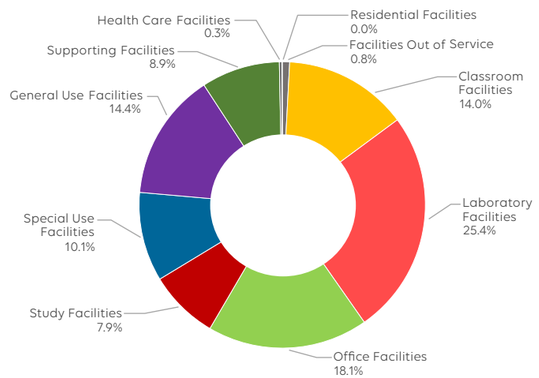
The table and charts to the bottom right outline space use by space use category as listed in the campus inventory. This is representative of the entire District. The table and charts below right pull out total space by location and also capture the use of John Muir High School. In addition, the Armen Sarafian Science Building replacement, currently under construction, is listed as it is anticipated to come online in 2025. The recently demolished U and UU Buildings are also listed for reference as their removal will affect the CCCCO cap/load ratios quantifying space entitlements.

Existing Space Inventory by Space Type - Total District

FUSION Room Detail Summary (data pulled March 2024)				
Room Use Category		Total ASF*	# of Rms	Example Of Facility Type
000s	Facilities Out of Service	6,488	17	Inactive, Alteration, Unfinished
100s	Classroom Facilities	108,476	159	Classrooms, Service
200s	Laboratory Facilities	196,381	306	Teaching Labs, Open Labs, Service
300s	Office Facilities	140,244	737	Offices, Conference, Service
400s	Study Facilities	61,013	55	Library Stacks, Study Space, Service
500s	Special Use Facilities	77,919	133	Athletics, AV/Radio/TV, Child Care, Service
600s	General Use Facilities	111,242	151	Assembly, Exhibition, Food, Service
700s	Supporting Facilities	68,661	147	Computer, Shop, Storage, Service
800s	Health Care Facilities	2,162	11	Treatment, Waiting, Service
900s	Residential Facilities **	290	4	Sleep, Toilet/Bath, Apartment, Service
Grand Total		**772,876**	**1,720**	

* The totals do not include the following: off-site warehouse of 10,450 ASF, demolished U Building (Armen Sarafian) of 57,929 ASF, demolished UU Building (L Vosloh Forum) of 6,250 ASF, and deactivated Rosemead Campus of 15,842 ASF.

** Located in the CDC

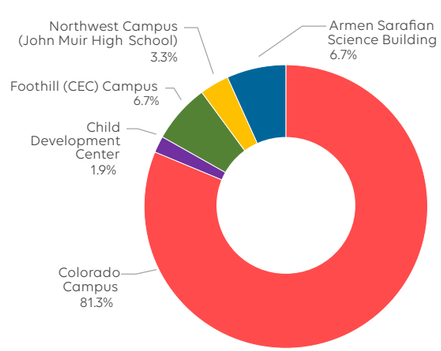


District ASF by Room Type

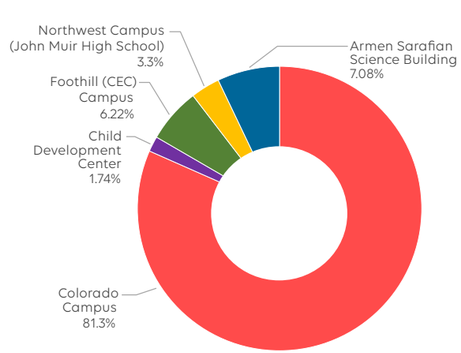
Existing Space (GSF & ASF) by Campus - Total District

FUSION Room Detail Summary (data pulled March 2024)*				
Building Name	ASF	GSF	Rooms	Stations
Colorado Campus**	698,737	1,045,747	1,517	18,449
Child Development Center	16,231	22,302	43	395
Foothill Campus (CEC)	57,908	79,750	160	1,862
Total	**772,876**	**1,147,799**	**1,720**	**20,706**
Northwest Campus (John Muir High School)	28,758	42,640	Under Development	
Armen Sarafian Science Building (Occupancy 2024)	58,012	90,763		
Total with Additional Sites	**859,646**	**1,281,202**		
U Bldg. / Armen Sarafian (Demolished)	0	81,205	0	0
UU Bldg. / L Vosloh Forum (Demolished)	0	10,000	0	0

* The totals do not include off-site warehouse and deactivated Rosemead Campus. Note the totals are based on the FUSION Room Detail, which includes rooms with "D" and "U" statuses and differ from totals generated from the FUSION Building Summary, which only includes rooms with "A" statuses.
** The totals for the Colorado Campus does not include demolished U Building and UU Building.



District ASF



District GSF

The CCCCO cap/load space entitlements organize space in a unique method that groups the space types into five main categories: lecture (classrooms), lab, office, library, and AV/TV. They look at a District's campuses and centers. In the case of PCC, the Colorado location is a campus and the Foothill (CEC) location is a center. Centers provide access to comparable student services available at a campus, in addition to coursework.

Other College owned or long-term leased space is rolled up under the Colorado campus inventory.

The table and chart below right focuses on the physical space at the Colorado campus.

Understanding how space is distributed and utilized will help identify opportunities for using existing space better. The goal is to only build new facilities when existing facilities cannot be renovated to reflect best practices in learning environments, meet District needs, or fulfill code, seismic or other regulatory requirements. Note the majority of space at Colorado is devoted to three typologies - laboratory, Classroom and offices. Improving the use of Classrooms, or assessing how office and office support space is utilized post-pandemic, can highlight opportunities for re-use of existing facilities.

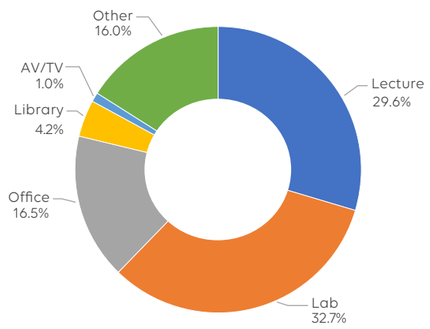
Existing Space Inventory by Space Type - By Campus

FUSION Space Inventory by Room Type (data pulled March 2024)							
Campus	Lecture	Lab	Office	Library	AV/TV	Other	Total ASF
Foothill (CEC) Campus	16,900	18,664	9,416	2,375	592	9,153	57,100
Pasadena City College	100,943	174,559	131,051	59,070	76,562	187,760	729,945

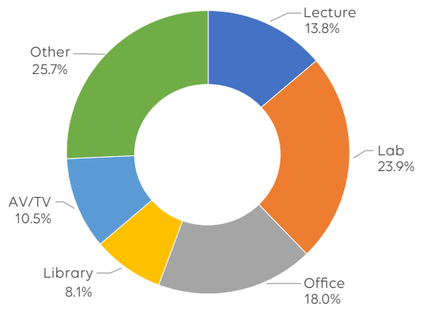
Note, the space inventory is updated every year to reflect changes to space availability and assignments. These numbers currently include the U and UU buildings that will not appear on the next iteration of the campus space inventory submitted to the Chancellor's office.

Existing Space Inventory by Space Type - Colorado Campus

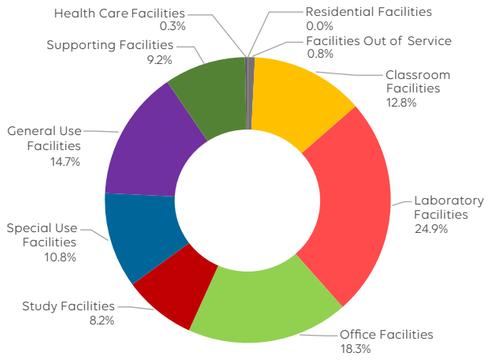
FUSION Room Detail Summary (data pulled March 2024)				
Room Use Category		Total ASF	# of Rms	Example Of Facility Type
000s	Facilities Out of Service	5,680	11	Inactive, Alteration, Unfinished
100s	Classroom Facilities	9,1576	130	Classrooms, Service
200s	Laboratory Facilities	177,717	267	Teaching Labs, Open Labs, Service
300s	Office Facilities	130,828	690	Offices, Conference, Service
400s	Study Facilities	58,638	50	Library Stacks, Study Space, Service
500s	Special Use Facilities	77,327	124	Athletics, AV/Radio/TV, Child Care, Service
600s	General Use Facilities	105,054	139	Assembly, Exhibition, Food, Service
700s	Supporting Facilities	65,778	135	Computer, Shop, Storage, Service
800s	Health Care Facilities	2,080	10	Treatment, Waiting, Service
900s	Residential Facilities	290	4	Sleep, Toilet/Bath, Apartment, Service
Grand Total		**714,968**	**1,560**	



District Inventory by Space Type - Foothill Campus



District Inventory by Space Type - PCC



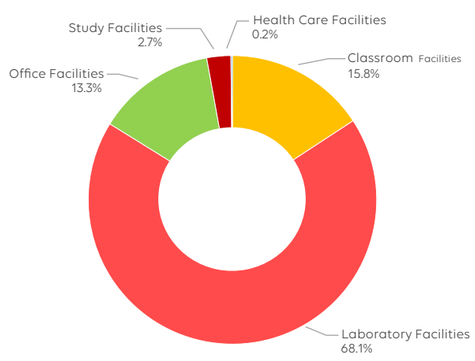
Colorado Campus ASF by Room Type

Most spaces currently in the Science Village portable units were decanted from the Armen Sarafian building before it's demolition. Upon completion of the replacement building in 2025 it is anticipated space in Science Village will become available to use as swing space.

The Foothill campus is currently home to many Health Sciences spaces. As outlined later in this section, a suggested Health and Science Building would co-locate all health sciences programs on campus, freeing up space in Foothill for the expansion of non-credit, cosmetology, and other programs. It could also free up enough space to decant functions in the bungalows currently on-site to more permanent space in the main building. This could allow the bungalows to be removed to provide parking the District does not need to lease.

Existing Space Inventory by Space Type - Science Village

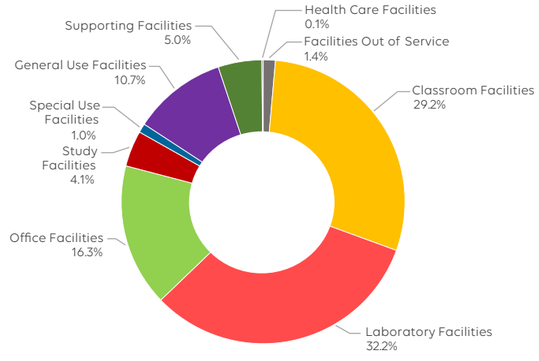
FUSION Room Detail Summary (data pulled March 2024)				
Room Use Category		Total ASF	# of Rms	Example Of Facility Type
000s	Facilities Out of Service	0	0	Inactive, Alteration, Unfinished
100s	Classroom Facilities	6,333	6	Classrooms, Service
200s	Laboratory Facilities	27,309	25	Teaching Labs, Open Labs, Service
300s	Office Facilities	5,341	11	Offices, Conference, Service
400s	Study Facilities	1,079	1	Library Stacks, Study Space, Service
500s	Special Use Facilities	0	0	Athletics, AV/Radio/TV, Child Care, Service
600s	General Use Facilities	0	0	Assembly, Exhibition, Food, Service
700s	Supporting Facilities	0	0	Computer, Shop, Storage, Service
800s	Health Care Facilities	67	1	Treatment, Waiting, Service
900s	Residential Facilities	0	0	Sleep, Toilet/Bath, Apartment, Service
Grand Total		**40,129**	**44**	



Science Village ASF by Room Type

Existing Space Inventory by Space Type - Foothill (CEC) Campus

FUSION Room Detail Summary (data pulled March 2024)				
Room Use Category		Total ASF	# of Rms	Example Of Facility Type
000s	Facilities Out of Service	808	6	Inactive, Alteration, Unfinished
100s	Classroom Facilities	16,900	29	Classrooms, Service
200s	Laboratory Facilities	18,664	39	Teaching Labs, Open Labs, Service
300s	Office Facilities	9,416	47	Offices, Conference, Service
400s	Study Facilities	2,375	5	Library Stacks, Study Space, Service
500s	Special Use Facilities	592	9	Athletics, AV/Radio/TV, Child Care, Service
600s	General Use Facilities	6,188	12	Assembly, Exhibition, Food, Service
700s	Supporting Facilities	2,883	12	Computer, Shop, Storage, Service
800s	Health Care Facilities	82	1	Treatment, Waiting, Service
900s	Residential Facilities	0	0	Sleep, Toilet/Bath, Apartment, Service
Grand Total		**57,908**	**160**	



Foothill Campus ASF by Room Type

DIVISION DISTRIBUTION - EXISTING

The maps below illustrate the distribution of space by division on the Colorado campus. One map for each major division. During scenario planning to finalize the facilities plan update projects the location of groups across campus were considered with the goal of reducing possible moves (whether during renovation to swing space or to new space) and grouping functions to best serve students and promote collaboration.

Some divisions such as Business are located in adjacent buildings, while groups like the Natural Sciences are separated.

Per the District's educational plans, ensuring space distribution supports the Career Communities by creating hubs for students to access services is also another goal that is supported by the suggested master plan projects. In the diagrams below the career community groups are indicated by color with a key naming the six communities:

- STEM
- Business & Industry
- Liberal Arts
- Social & Behavioral Sciences
- Health Sciences & Wellness
- Arts, Communication & Design

Business

CTE

English & Language Studies

Health Sciences

Kinesiology, Health, & Athletics

Mathematics

Natural Sciences

Performing & Communication Arts

Social Sciences

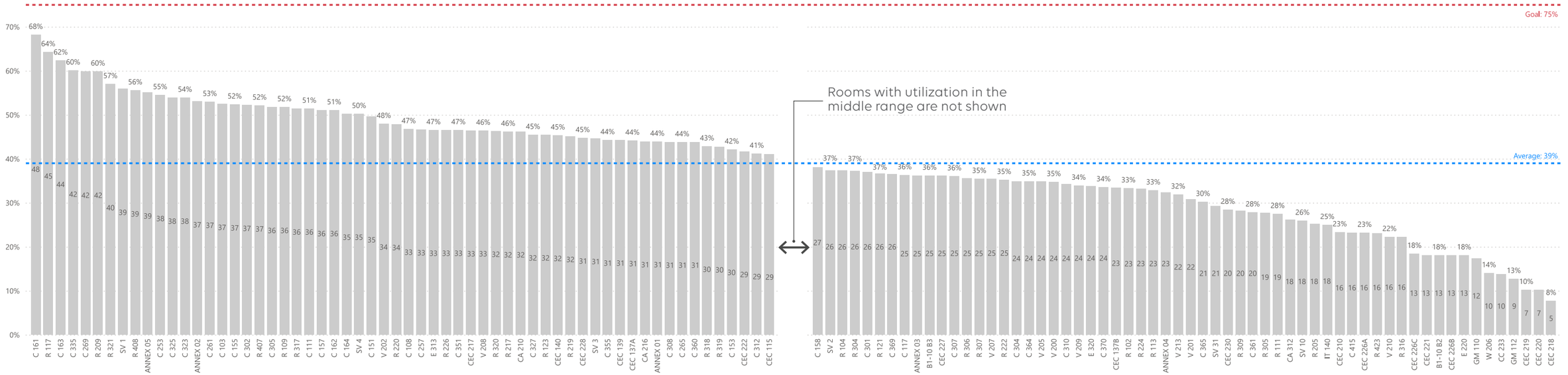
Visual Arts & Media Studies & Library

Career Communities — STEM · Business & Industry · Liberal Arts · Social & Behavioral Sciences · Health Sciences & Wellness · Arts, Communication, & Design

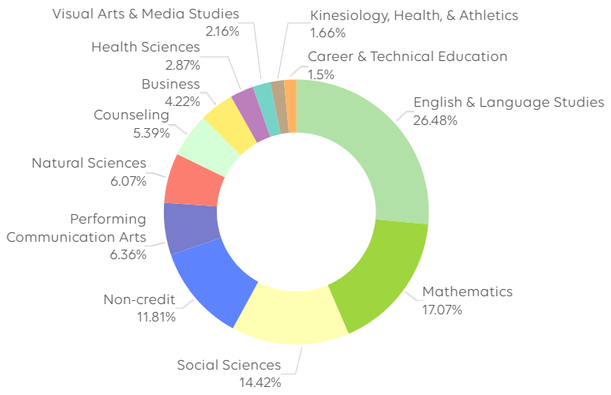
UTILIZATION ANALYSIS - CLASSROOMS

The following graphics are generated from the Fall 2023 course scheduling to analyze Classroom utilization. Fall term is used for the analysis because that typically represents the heaviest use of campus facilities in an academic year. Classrooms are, in general, underutilized. Additionally, courses appear to be often scheduled in rooms that are much larger than they need to be. Historical scheduling practices may be contributing to poor utilization given the prevalence of courses taught at the "preferred" times, Monday to Thursdays from 9 or 10 AM to 3 PM. The utilization goal of 75% or 53 hours per week is based on the target set by the state Chancellor's office. The lower utilization may reflect more courses going online, regardless, the Classrooms at PCC are underutilized and should be looked at for opportunities to better align rooms sizes with class sizes and for opportunities to perhaps convert Classrooms to other uses such as specialized labs or student support.

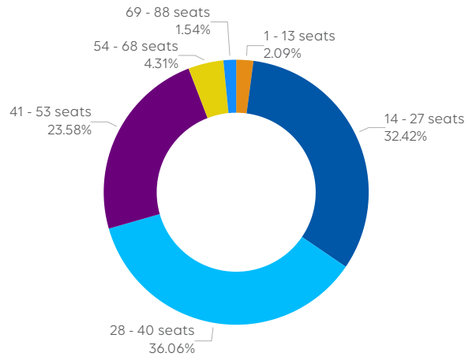
A full analysis of Classrooms and teaching labs was completed by the campus in 2023 and includes in-depth space use information and conclusions. Note that use of Classrooms for purposes other than teaching is not considered by the Chancellor's office and reduces the utilization of the room. Low utilization Classrooms might be considered for conversion to other uses to concentrate coursework into fewer Classrooms thus improving overall utilization.



Classroom Utilization - Total District

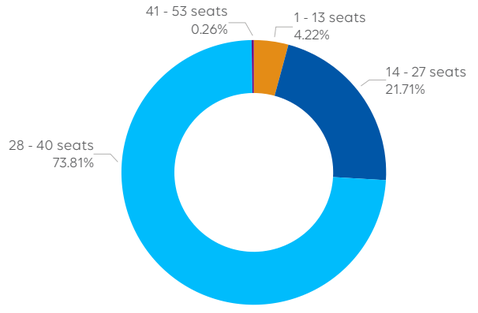


Hours by Division



Hours by Room Capacity

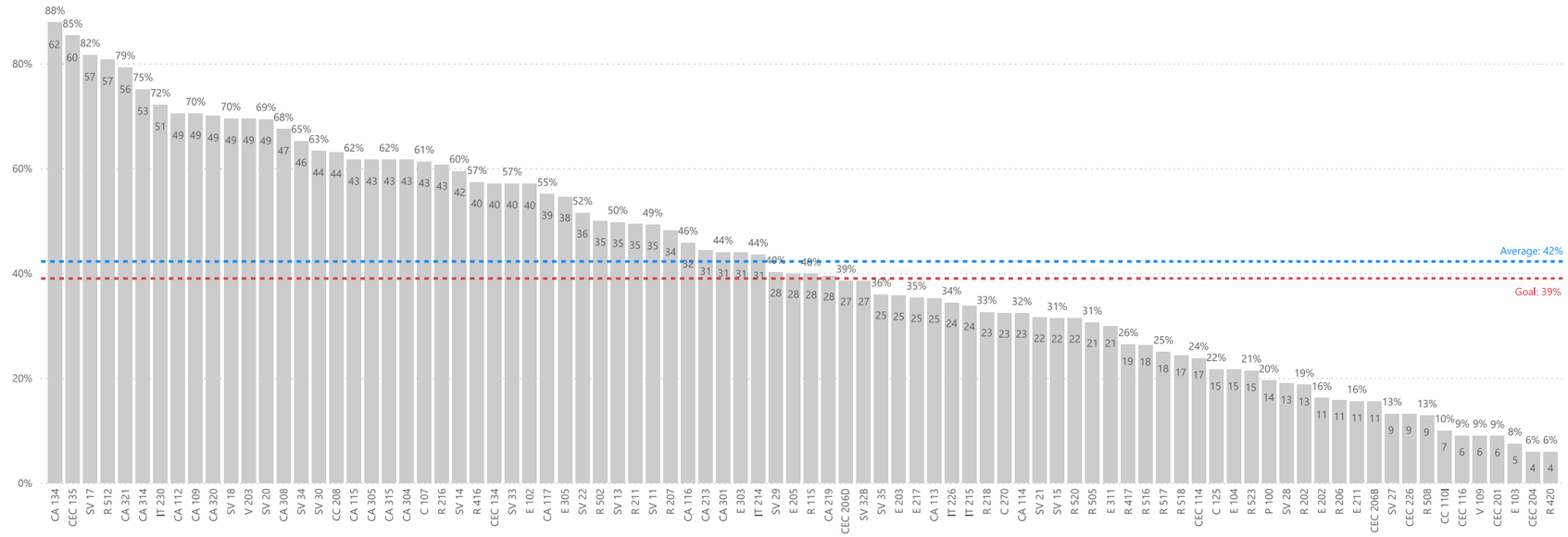
When comparing the hours by capacity to the hours by section size, most sections are 27 seats or less whereas the majority of classes are scheduled in rooms with 28 seats or more.



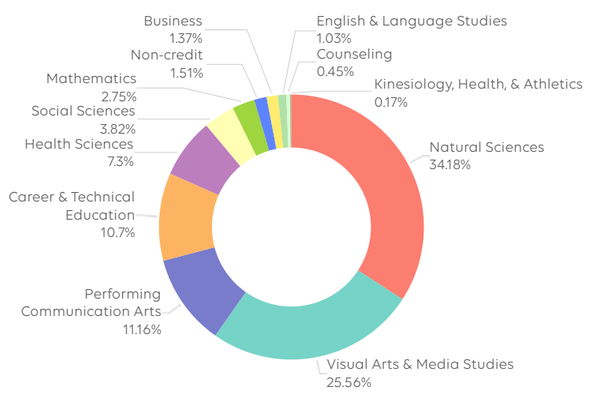
Hours by Section Size Scheduled

UTILIZATION ANALYSIS - CLASS LABS

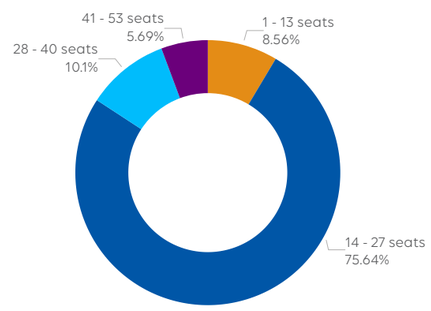
Class Labs are a bit different because they serve very specific functions. They must be evaluated on a program-by-program basis. Additionally, the functionality of labs and number of students in each lab are important to look at to ensure they support pedagogy and safety. The utilization goal of 39% or 27.5 hours per week is based on the target set by the state Chancellor's office. The 42% average utilization of Class Labs at PCC indicate that Class Labs are on average above the state target, with select specialized lab spaces being highly utilized. Note that some new programs may require new or put additional demand on existing specialized labs. Similar to Classrooms, section size and capcity of the Class Labs do not always align.



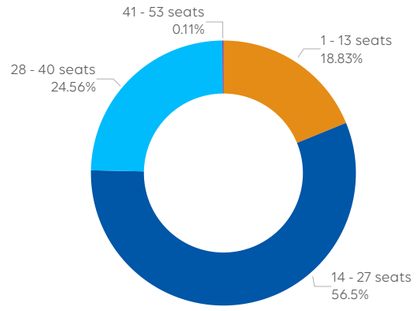
Class Lab Utilization - Total District



Hours by Division



Hours by Room Capacity

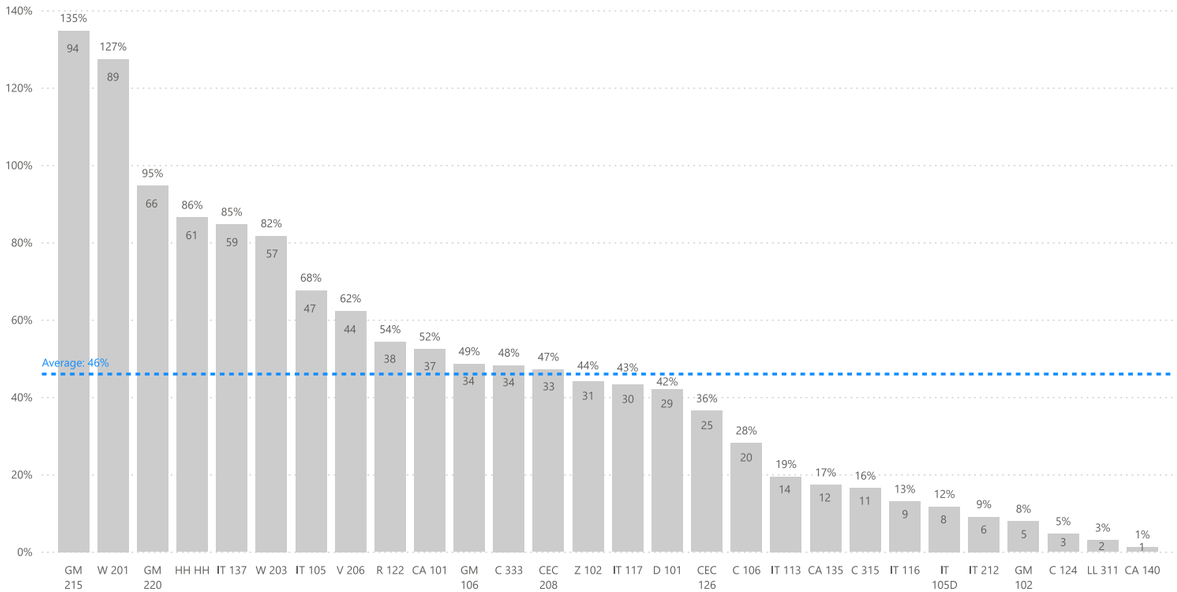


Hours by Section Size Scheduled

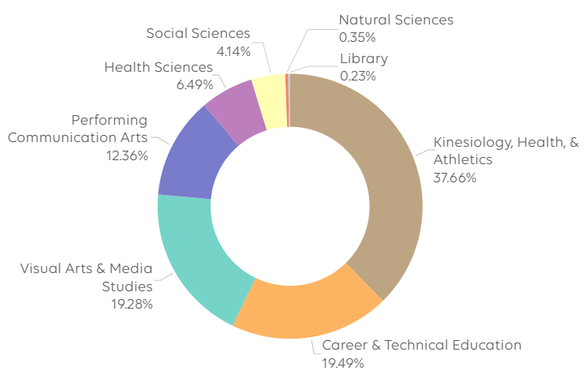
UTILIZATION ANALYSIS - OTHER USES

There are other specialized spaces that are not categorized as labs such as gyms and theatres. Some of these are impacted when courses from different divisions are scheduled within them, reducing their availability for function-specific use.

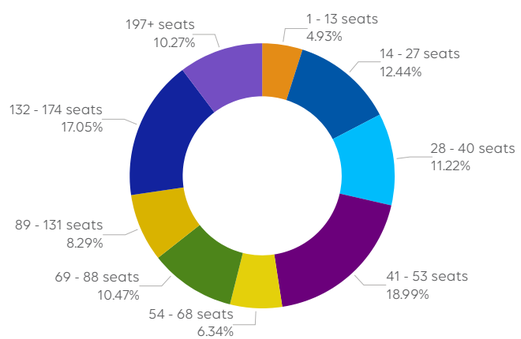
Courses taught in this category usually occur in performing arts and kinesiology type spaces.



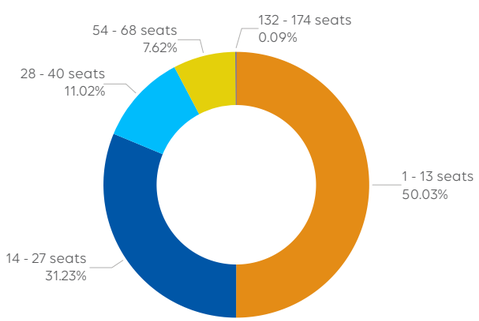
Other Room Use Code Utilization - Total District



Hours by Division



Hours by Room Capacity



Hours by Section Size Scheduled

CLASSROOM DEMAND ANALYSIS

Another element of assessing utilization of Classrooms at PCC is to conduct a demand analysis based on use and section sizes balanced against the Chancellor's office target utilization. The tables below, using Fall 2023 scheduling quantifies the total sections and room hours along with the section sizes to articulate the total number of rooms required to accommodate the Fall 2023 course load for Colorado and Foothill.

At Colorado (below table left), the majority of required rooms (45 rooms) are in the 28-40 section size range followed by 14-27 section size range (14 rooms). Overall, there are 62 rooms required to accommodate Fall 2023 scheduling at the target utilization. Comparing that to the existing inventory at PCC, 110 Classrooms are available. In addition, many of the available Classrooms are larger than required.

This indicates that some rooms can be converted to other uses with still providing sufficient Classroom space to meet current and anticipated demand based on enrollment growth projections. In addition, larger rooms might be divides to create smaller capacity ones or room capacities may be recalculated to provide for more active learning pedagogies that generally require more square feet than traditional tablet are chairs.

The Foothill analysis (below table right) also indicates more Classrooms available than required. Classrooms at Foothill could be converted to teaching lab spaces or to provide more student services spaces or even needed student collaboration and lounge space. This analysis also indicates that the 5 bungalow classrooms could be vacated and coursework accommodated in the main building.

Colorado Campus — Using Current Section Sizes (Fall 2023)

Section Size	Total Sections	Total Required Room Periods	Maximum Room Capacity	Total Required Rooms	No. Of Available Rooms	Balance
001 - 013	22	87	20	2	2	0.00
014 - 027	104	691	40	14	39	25.00
028 - 040	158	2,347	55	45	34	-11.00
041 - 053	2	9	70	1	26	25.00
054 - 068	0	0	90	0	7	7.00
069 - 088	0	0	110	0	2	2.00
089 - 131	0	0	150	0	0	0.00
132 - 174	0	0	200	0	0	0.00
175 - 196	0	0	225	0	0	0.00
199+	0	0		0	0	0.00
Total	**286**	**3,134**		**62.0**	**110.0**	**48.0**

Foothill Campus — Using Current Section Sizes (Fall 2023)

Section Size	Total Sections	Total Re-quired Room Periods	Maximum Room Capacity	Total Re-quired Rooms	No. of Available Rooms	Balance
001 - 013	8	66	20	2	1	-1.00
014 - 027	18	97	40	2	16	14.00
028 - 040	23	332	55	7	6	-1.00
041 - 053	0	0	70	0	0	0.00
054 - 068	0	0	90	0	0	0.00
069 - 088	0	0	110	0	0	0.00
089 - 131	0	0	150	0	0	0.00
132 - 174	0	0	200	0	0	0.00
175 - 196	0	0	225	0	0	0.00
199+	0	0		0	0	0.00
Total	**49**	**496**		**11.0**	**23.0**	**12.0**

Header Notes for Demand Analysis Tables:
Section Size - range for number of students enrolled in a scheduled class section
Total Sections - total number of scheduled class sections in a particular size range
Total Required Room Periods - total number of room periods scheduled for a particular size range (1 credit = 1 room period)
Room Capacity - fixed field, maximum room capacity...calculated based on SECTION SIZE and planned occupancy %
Total Required Rooms - TOTAL ROOM PERIODS / Classroom USE STANDARD
No. of Available Rooms - number of rooms available for scheduled class sections in a particular size range
Balance = No. of Available Rooms - Total Required Rooms

General Notes:
In general, the room size is usually slightly larger to allow for additional space during testing and at the beginning of the term when a course may be overbooked.

The tables look only at rooms identified as Classrooms. Special spaces like auditorium or fitness spaces are not included.

Any course work that appears on the PCC class schedule, including non-credit classes, is included in this analysis.

CAPACITY / LOAD RATIOS

Mentioned in previous sub-sections, the Chancellor's office looks at available physical space in five space type categories compared to the number of existing FTES and Chancellor's office projections for future FTES growth. Their formulas calculate how much assignable square feet (ASF) of each space type the campus should have and then measures that against the current space inventory.

Currently PCC is over in Classroom and Classroom support spaces by 38% and over in lab and lab support spaces by 10%. Regarding Classrooms, the utilization analysis and Classroom demand study affirm there are too much Classroom space on campus. For the teaching lab overage, when compared to the relatively good utilization of many teaching labs at PCC, this could indicate that some labs are oversized, there may be too much support space, or the very low utilized labs are candidates for consolidation or re-purposing.

SPACE PROJECTIONS

This master plan update quantified the additional space needed at PCC - both currently and to meet anticipated enrollment growth. Space demand was assessed from multiple fronts.

The previous master plan utilized space projection calculations developed by an organization called A4LE. These projections were updated based on new enrollment projections by division/department. Note that these space projections result in an idealized demand that far exceeds what any one institution can provide. Due to this fact additional considerations are incorporated to justify and right size space need.

These included looking specifically at what space is required to:

- Support new programs
- Accommodate growing programs
- Address programmatic changes in pedagogy
- To improve student services
- Provide student non-programmed space (eg: lounge and study)
- To accommodate any changes to administrative and office functions.

Additional considerations that fed into space demand conclusions included :

- CCCCO Cap Load Space Entitlements
- Classroom and Class Lab Demand Analysis
- Condition and location of existing spaces.

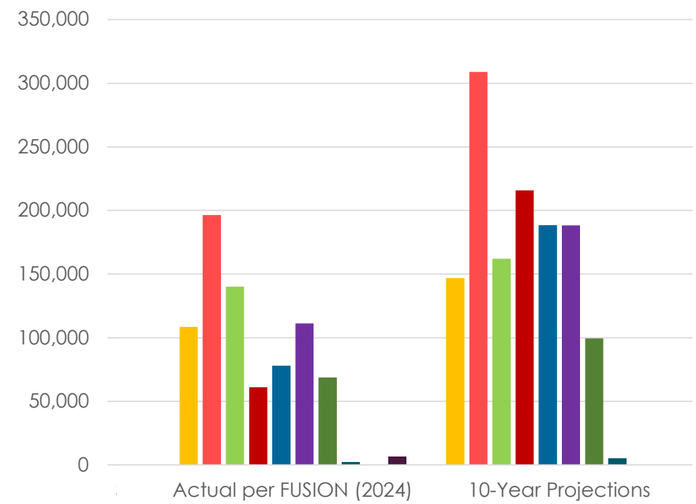
Furthermore, the suggested projects in Section 3 of this update also account for the available space for new construction, capacity to renovate individual buildings, and the reality of budget versus project size. The project list and phasing is representative of a holistic look at PCC both the quantitative and the qualitative feedback gained through surveys and listening sessions.

Space projections are further adjusted considering a campus's unique attributes:

- Identified areas of program growth and addition of new programs
- Types of instruction delivery (in-person, online, hybrid)
- Existing available space
- Utilization analysis of Classrooms and Class Labs

Space projections updated based on enrollment projection adjustments between 2020 FP and 2024 FSP update by Division.

A4LE Space projections - Total District



Room Type	Actual per FUSION (2024)	10-year Projected (2024 FSP)
Classroom Facilities	108,476	146,987
Laboratory Facilities	196,381	309,085
Office Facilities	140,244	162,130
Study Facilities	61,013	215,839
Special Use Facilities	77,919	188,410
General Use	111,242	188,336
Support Facilities	68,661	99,375
Health Care Facilities	2,162	5,127
Other Facilities	290	-
Facilities Out of Service	6,488	-
Total Assignable Square Feet (ASF)	772,876	1,315,289
Assignable Square Feet Difference	-	542,413
Total Gross Square Feet (At 65%)	1,147,799	2,023,522
Gross Square Feet Difference	-	875,723

ANTICIPATED PROGRAM GROWTH

PCC is committed to supporting all the existing programs on campus, and the projects proposed in the master plan update are reflective of providing renovated and new spaces for both academic and non-academic functions.

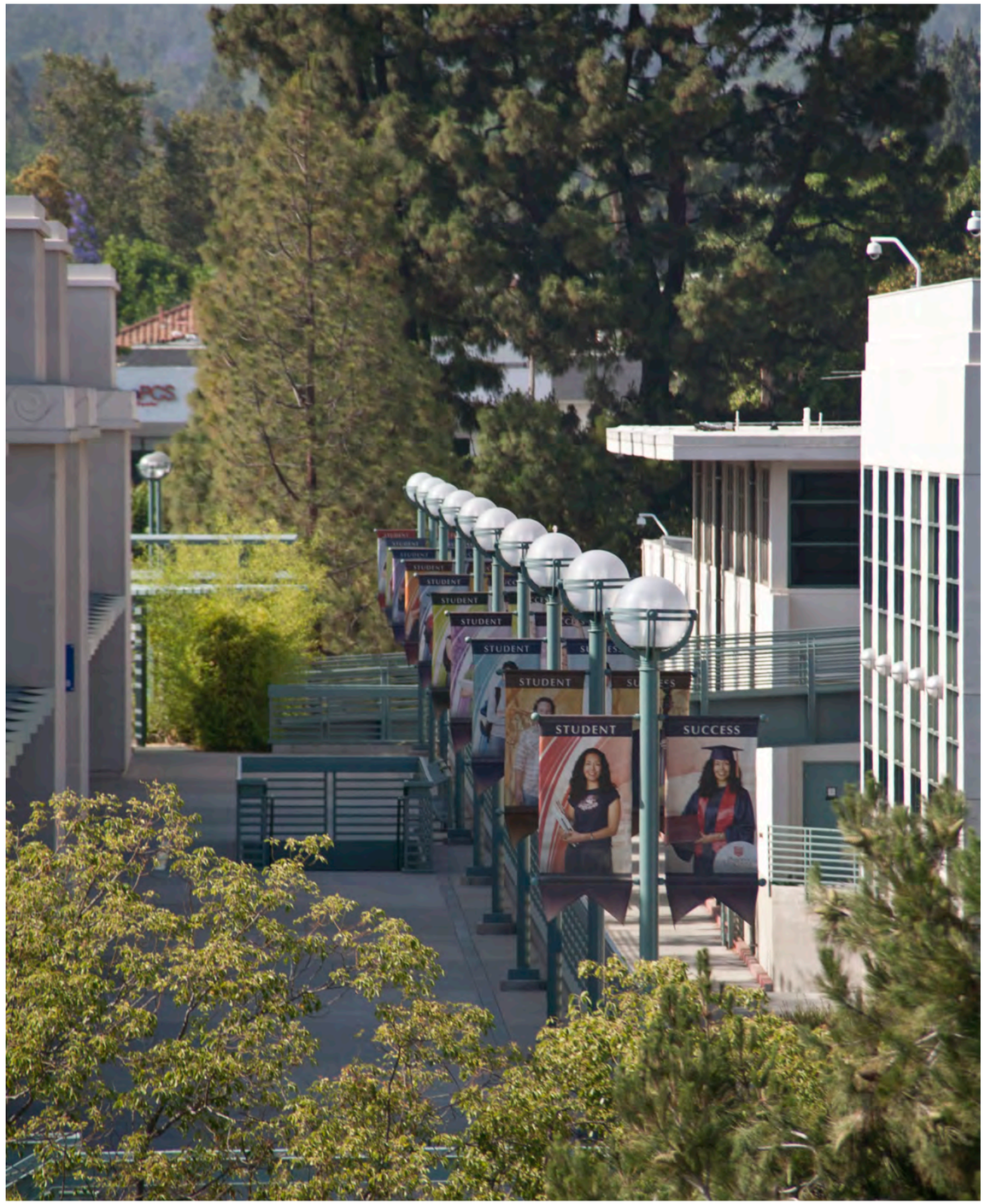
In addition to holistic upgrades to spaces over time, several existing programs have the potential to grow strongly based on the industry (jobs demand) and student interest. These spaces may require additional space for new teaching labs and support spaces in addition to teaching personnel. They include:

- Natural Sciences
    - Anatomy
    - Biology
    - Bio Tech
- Social Sciences
    - Speech-Language Pathology Assistant (SLPA)
- English & Language Studies
    - American Sign Language (ASL)
    - Chinese / Mandarin
    - Spanish

The District has also identified new programs in the Health Sciences that expand upon the existing Health Sciences framework and programs at PCC. These include:

- Health Sciences
    - Electroencephalography (EEG)
    - Telemetry
    - Pharm Tech Advanced
        - Perioperative
        - Sonography
    - Audiology
    - Paramedic

In order to maximize shared space uses, create a hub of health sciences on campus and provide centralized student services, most programs at the Foothill campus would be relocated to co-locate at Colorado. These programs include Radiation Technology, Nursing, Licensed Vocational Nursing (LVN), and Certified Nursing Assistant (CNA).
A proposed new Health and Science Building would also allow the Dental program and other Colorado health sciences spaces to be relocated to the new building where current concerns with the clinic spaces could be addressed and the public better served.



3.

Proposed Capital Improvement Projects

SECTION 3

Proposed Capital Improvement Projects

OVERVIEW

The vision, goals, and aspirations for PCC— as detailed in the 2020 Facilities Master Plan and Educational Master Plan— remain unchanged. Using the principles established in the 2020 FMP as guidance, the updated planning strategies captured in this amendment report take into account campus and community feedback and address the various new circumstances and decisions affecting the PCC Campuses.

As detailed in the previous sections, updates to enrollment, space projections, utilization, new programs, program growth, and pedagogies are considered in the proposed building sizes and locations. Scenario testing of existing programs are also evaluated to ensure all programs are relocated and accounted for in the full build-out phase. In addition to new construction projects, modernization and renovations projects are recommended to maximize instructional spaces and to repurpose existing underutilized areas. While this amendment report describes the full build-out phase in detail, focus is also given to Measure PCC projects, which identify projects to be prioritized under the current Measure PCC funding.

This section describes the planning strategies in more detail in the following parts:

1. **Planning Rationale**

   Rationale followed in identifying potential building sites, open spaces, and circulation paths in the Colorado Campus

2. **Building Blocks - Existing & Proposed**

   Visual representation of existing and proposed spaces by division at the PCC campuses

3. **Colorado Campus - Proposed Demolition**

   List of existing buildings to be demolished and their associated ASF and GSF

4. **Colorado Campus - Proposed New Construction**

   List of new buildings to be constructed and their associated ASF and GSF

5. **Colorado Campus - Full build-out**

   Site plan of the Colorado Campus at the full build-out phase, along with a tabulation of added ASF and GSF totals

6. **Colorado Campus - Career Communities**

   Visual representation of new buildings as extensions of the existing career communities on the Colorado Campus

7. **Satellite Campuses:**

   - **Foothill Campus - Demo & Proposed**

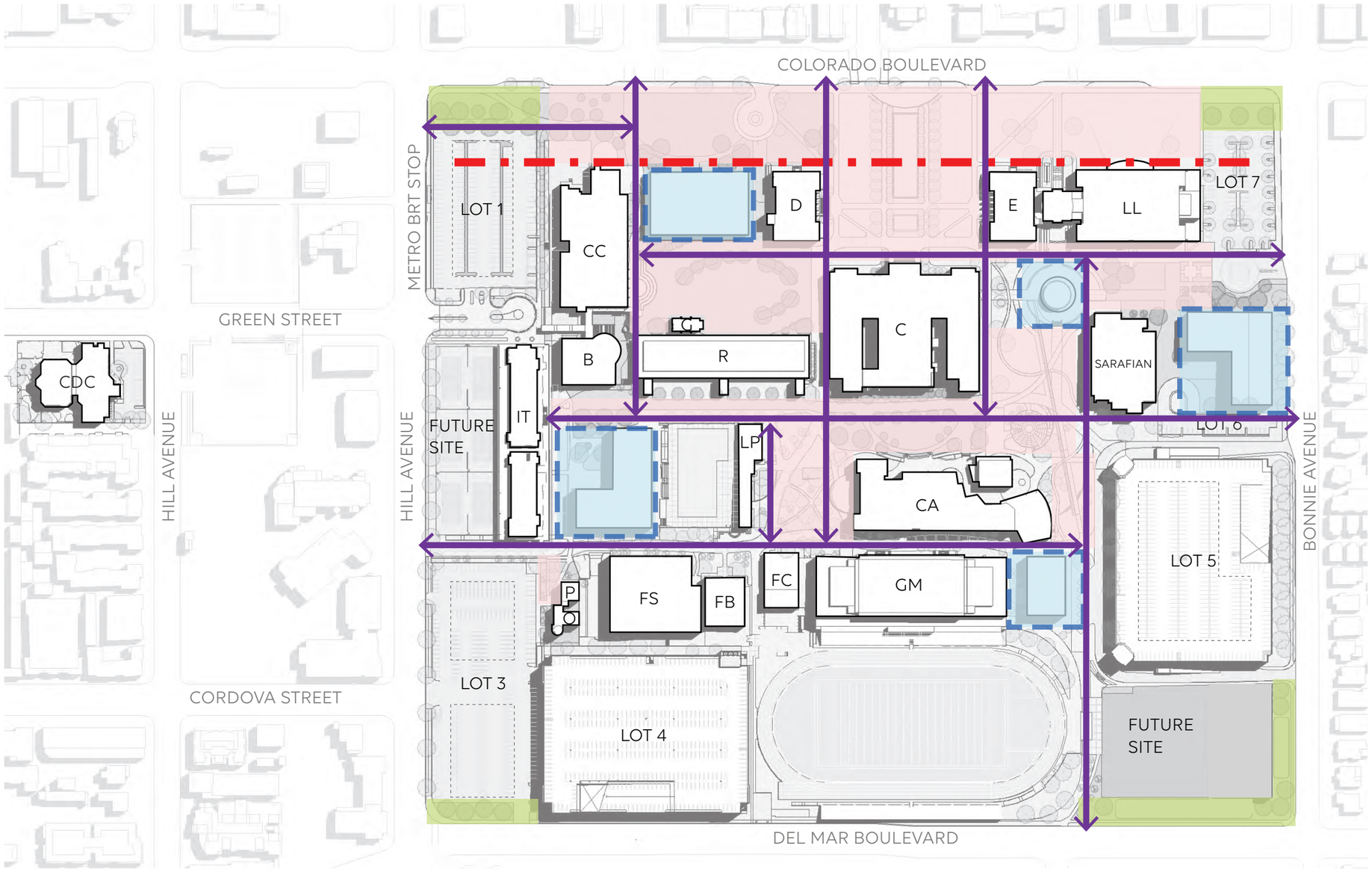
     Existing bungalows to be removed and their associated ASF and GSF, along with new renovation project

   - **New Rosemead Campus**

     Visual representation and a list of anticipated programs envisioned for the new satellite campus

8. **Measure PCC Projects**

   Site plan of Colorado Campus at the completion of all Measure PCC projects



Colorado Campus - Proposed Building Sites and Open Spaces

Legend — Proposed building sites — Landscaped edges — Open spaces — Setback — Circulation

Scale: NTS

N

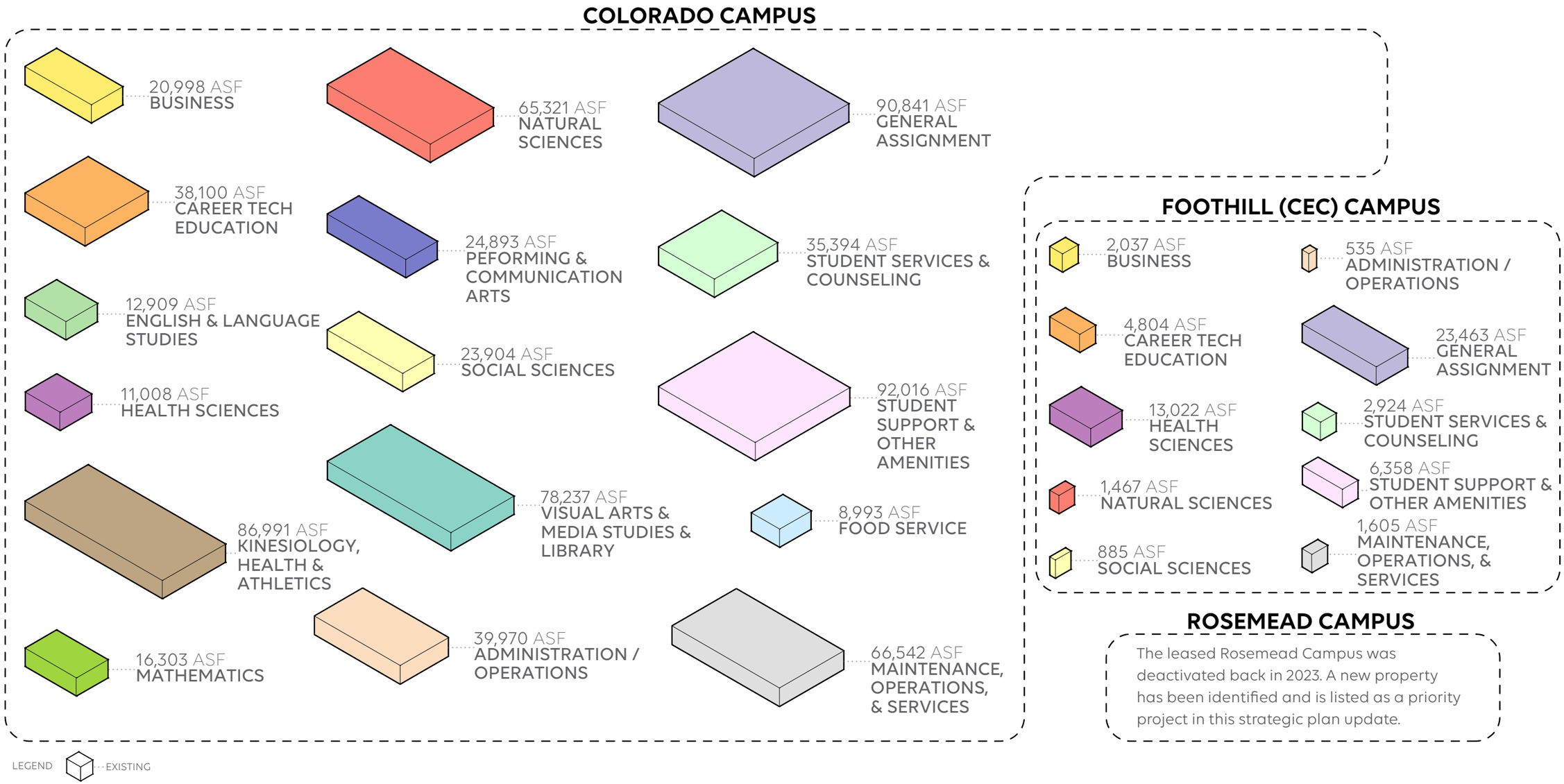
COLORADO CAMPUS - PLANNING RATIONALE

The following rationale were followed in identifying potential building sites, maintaining the original campus architectural language and landscape, and enhancing the physical journey of the PCC community:

- Maintain front lawn and setback along Colorado Boulevard and Mirror Pools
- Increase opportunities for exterior study, teaching, and social activities throughout campus
- Maintain and enhance major circulation spines through campus
- Building setbacks to align with adjacent context
- Landscape buffers to improve exterior image and identity

BUILDING BLOCKS - EXISTING

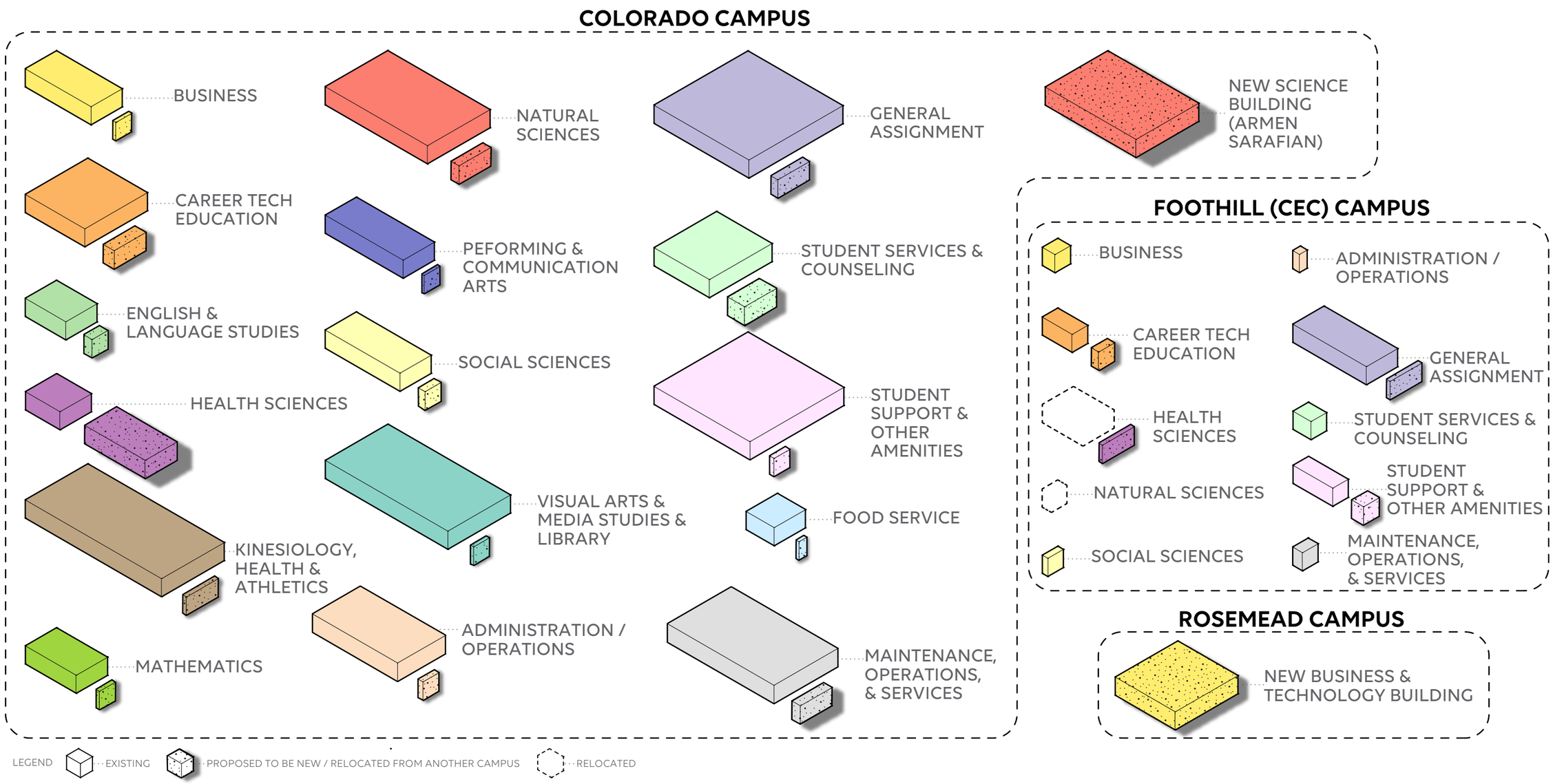
The following diagram is a visual representation of the existing assignable square footage (ASF) by division by campus, based on data from FUSION.



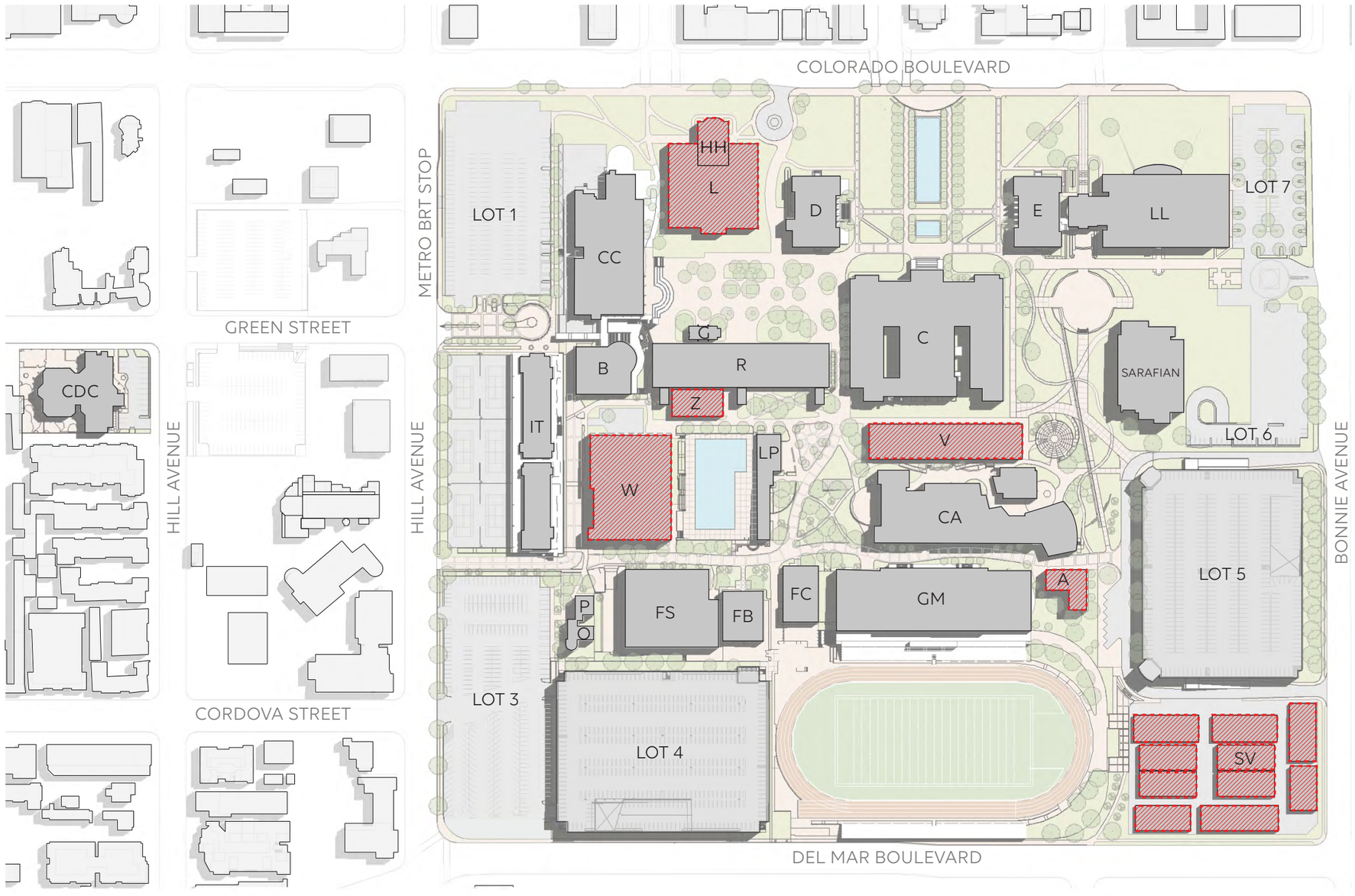
Existing ASF Distribution by Division

BUILDING BLOCKS - PROPOSED

The following diagram is a visual representation of the proposed assignable square footage (ASF) by division by campus, based on the intended programs in the proposed new buildings and vision for the campuses. The programming and design of each project will further refine this distribution.



Proposed ASF Distribution by Division



COLORADO CAMPUS - DEMOLITION

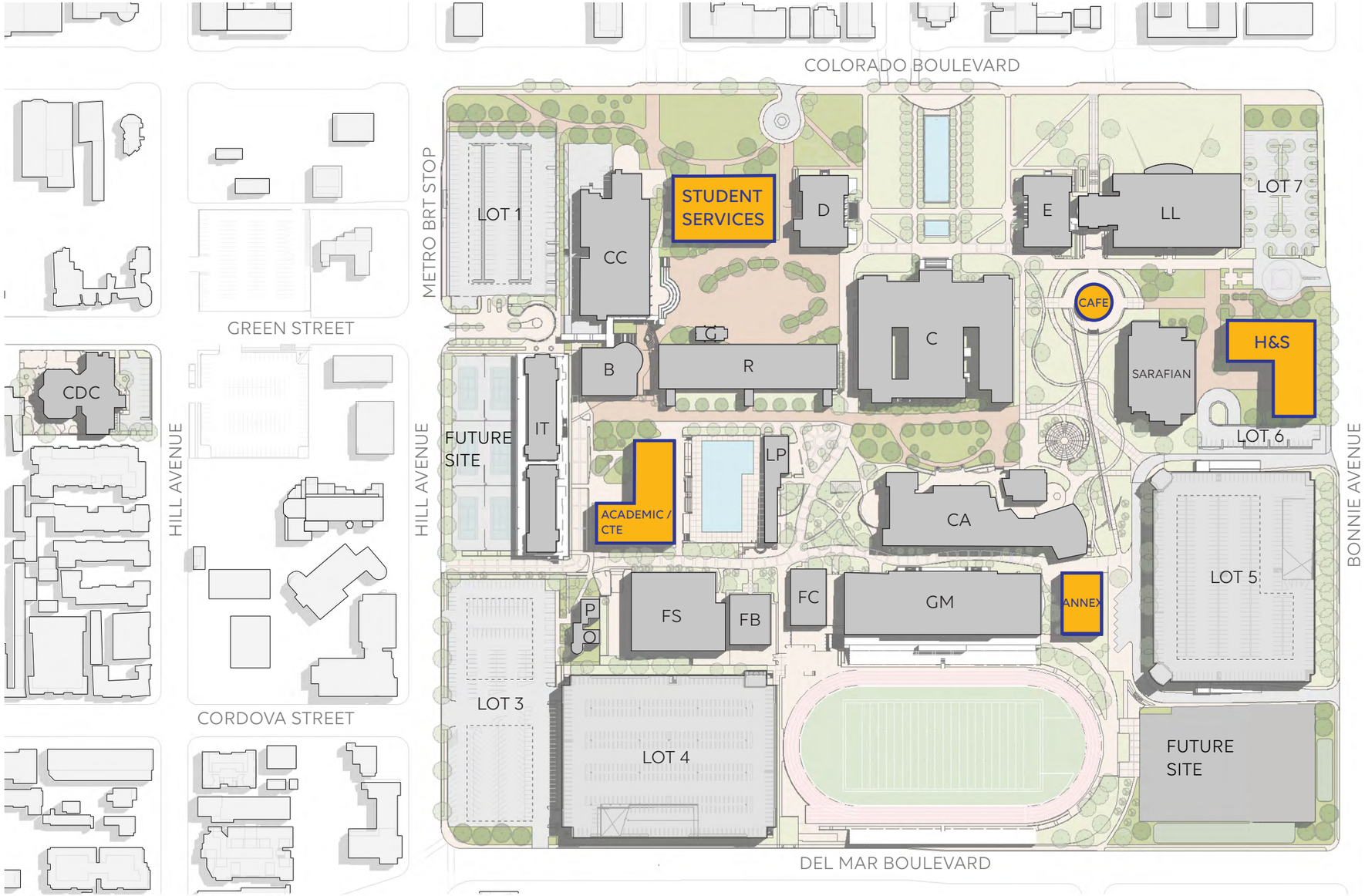
Many factors, such as cost, space and flexibility for future growth, compliance with various codes, etc. are evaluated prior to recommending existing buildings for demolition. Aligning with the previously approved 2020 FMP, the adjacent diagram identifies the existing buildings proposed to be demolished at the full build-out phase and their assignable square footage (ASF) and gross square footage (GSF) per the FUSION database.

Existing Space Distribution - Demolition		
Building	ASF	GSF
W Bldg	33,117	43,000
HH Bldg	3,736	5,040
L Bldg	23,089	32,738
V Bldg	34,507	45,992
Z Bldg	4,088	4,770
Annex Bldg	4,480	4,800
Science Village	40,129	49,529
Grand Total	**143,146**	**185,869**

Colorado Campus - Existing Space Distribution by Building (Demolition)

Legend Existing Demolition

Scale: NTS



Colorado Campus - Proposed Space Distribution by Building (New)

Legend: New construction; Existing

Scale: NTS

N

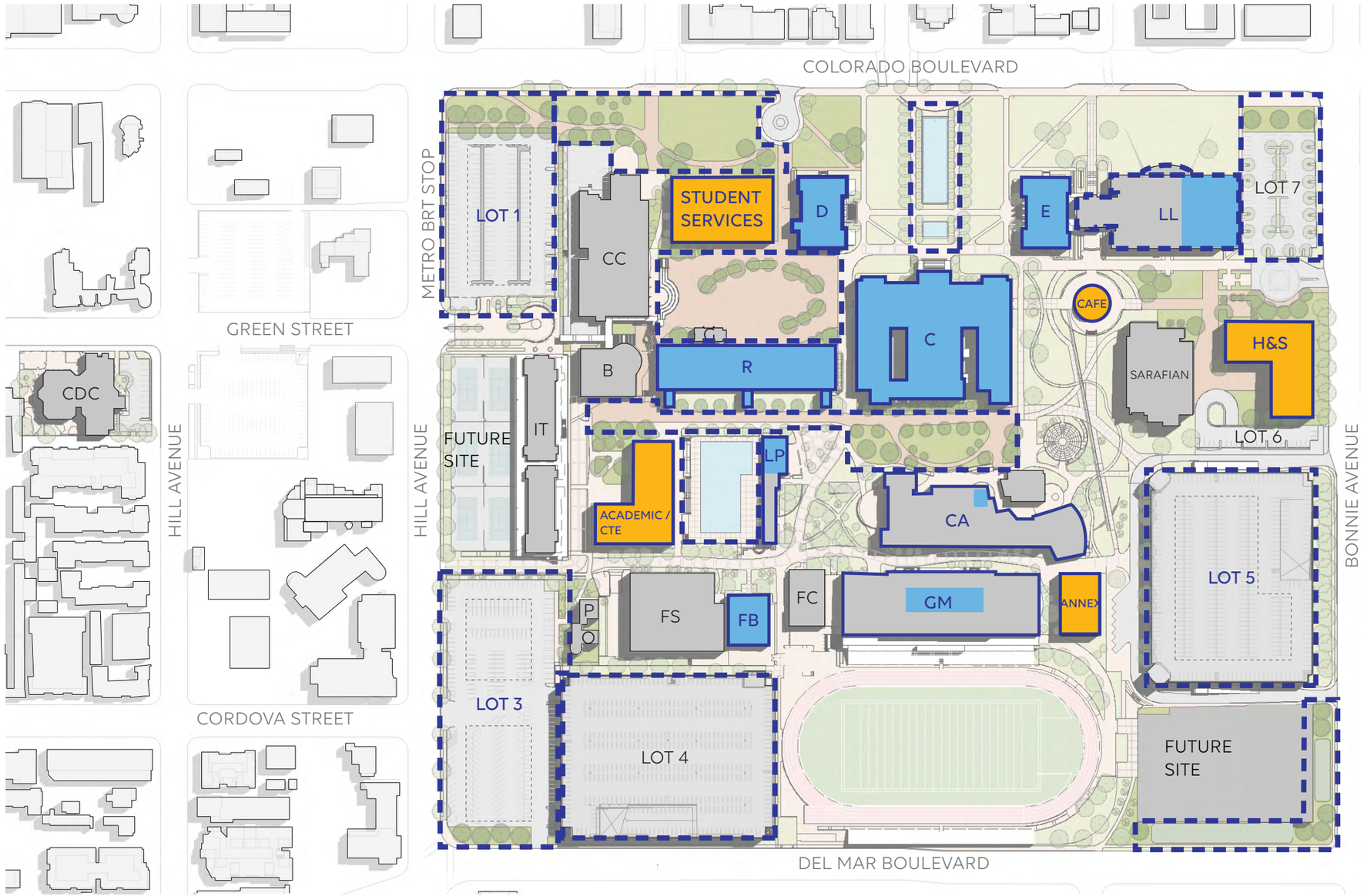
COLORADO CAMPUS - NEW CONSTRUCTION

The adjacent diagram identifies the new buildings proposed to be constructed at the full build-out phase. The associated projected ASF and GSF of each building are provided as a range to provide flexibility for each projects, refer to table below.

Proposed Space Distribution * - New Construction

Building	ASF	GSF
Cafe	1,170 – 1,625	3,100 **
Health & Sciences Building	47,400 – 63,300	73,000 – 97,300
Student Services Building	36,100 – 48,100	55,600 – 74,100
Academic / CTE Building	92,600 – 192,700	142,600 296,600
Annex Building	11,000	17,000
Grand Total	**188,270 – 316,725**	**291,300 – 488,100**

Notes:
* Space projections are based on a model developed by A4LE and represent ideal conditions. GSF assumes 65% efficiency
** Based on design documents provided by PCC



Colorado Campus - Full Build-out Plan

Legend: New construction; Modernization / Renovation; Exterior Improvements; Existing

Scale: NTS

N

Space Distribution - Delta		
Building	ASF	GSF
Grand Total Existing Space Distribution - Demolition	143,146	185,869
Grand Total Potential Space Distribution - New Construction	188,270 – 316,725	291,300 – 488,100
DELTA	45,124 - 173,579	105,431 - 302,231

COLORADO CAMPUS - FULL BUILD-OUT

The adjacent diagram identifies the following proposed new construction, modernization and renovation projects, including building and open space improvements, at the full build-out phase (associated ASF and GSF of space distribution is listed in the adjacent table):

Measure PCC Projects at Colorado

1. **New Cafe** provides food service and student gathering space on the east side of the Colorado Campus

2. **New Health & Sciences Building** is a significant expansion of the Health and Natural Sciences divisions, including the Dental program that is currently located in the R Building

3. **New Student Services Building** is a significant expansion and consolidation of student-related services to serve a growing student body. Consolidated services in existing buildings can be released back for instructional use. Swing space at the existing W Building footprint will need to be provided during demolition of the existing L Building

4. **New Annex Building** envisioned for movement-based courses and other multipurpose functions

5. **LP Building Modernization** for Culinary and Hospitality program

6. **FB Building Modernization** repurposes underutilized area for administrative offices to release spaces back to the campus for instructional uses

7. **Sexson Auditorium Renovation**

8. **CA Buiding Renovation** is a small renovation and reconfiguration of Classroom spaces to support Visual Arts and Media Studies division

9. **GM Building Renovation** is a small renovation and reconfiguration of existing locker room to better utilize space and maximize program needs

10. **LL Building Renovation** is a small to medium renovation of the basement floor of LL Building for Library or instructional use

11. **Solar panels at Lots 1, 3, and 5** includes construction of solar panel arrays over existing parking lots. See Section 5 Sustainability for more details.

Other Projects

12. **New Academic / CTE Building** is a new academic building for general instruction, CTE programs, and other multipurpose uses as well as provide support spaces for the Aquatic Center

13. **C Building Modernization** includes building seismic retrofit and modernization

14. **D Building Modernization** includes seismic retrofit and modernization of the existing building

15. **E Building Modernization** includes seismic retrofit and modernization of the existing building

16. **R Building Modernization** includes seismic retrofit and modernization of the existing building, though replacement building can be considered

17. **LL Building Renovation** is a renovation of library spaces to encourage greater student collaboration and study options

18. **EV charging at all parking lots** can be phased pending on college needs

19. **Open Space Improvements** see Section 5.2 Open Space Improvements for more info

COLORADO CAMPUS - CAREER COMMUNITIES

Proposed new construction projects maintain the career communities established on campus:

- STEM
- Business & Industry
- Liberal Arts
- Social & Behavioral Sciences
- Health Sciences & Wellness
- Arts, Communication, & Design

Colorado Campus - Career Communities

Career Communities — STEM — Business & Industry — Liberal Arts — Social & Behavioral Sciences — Health Sciences & Wellness — Arts, Communication, & Design

Scale: NTS

N

Colorado Campus - Full Build-out Plan Aerial Perspective

FOOTHILL CAMPUS - REMOVAL

The adjacent diagram identifies the existing bungalows proposed to be removed at the full build-out phase and their assignable square footage (ASF) and gross square footage (GSF) per the FUSION database. It is one of the District's goals to phase out trailers from its campuses.

Existing Space Distribution - Removal		
Building	ASF	GSF
Bungalows	8,992	10,080
Grand Total	**8,992**	**10,080**

Foothill Campus - Existing Space Distribution by Building (Removal)

Legend ○ Existing ○ Removal

Scale: NTS N

Foothill Campus - Full Build-out Plan

Legend Modernization / Renovation Existing

Scale: NTS N

FOOTHILL CAMPUS - FULL BUILD-OUT

Once the health and natural sciences programs are moved back to the Colorado Campus at the completion of the new Health and Sciences Building, remaining programs at the Bungalows can be vacated and relocated in the existing CEC Building. While a new building is not proposed for the Foothill Campus, the removal of the Bungalows in the full build-out phase provides a future site for the college.

During various engagement and listening sessions with the college, the following are identified as new and growth programs for the Foothill Campus:

- Noncredit programs such as ESL, older adult classes, business and computer application, etc.
- Multipurpose space for pharmotology, teleography, and cynagraphy
- Various student support programs:
  - Pre-apprenticeship and apprenticeship hub
  - Tutoring and Career Center
  - Business Center
  - Small Business Development Center (SBDC)

Measure PCC Projects at Foothill

A small to medium renovation of administrative office spaces to provide a more open concept is envisioned at the CEC as part of Measure PCC projects.

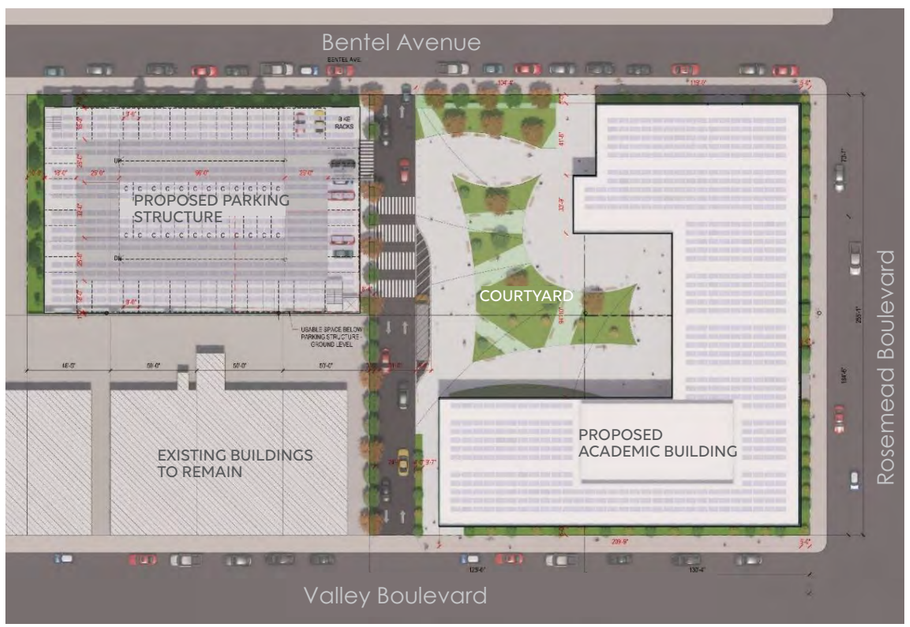
View from Valley Boulevard

View from Bentel Avenue

NEW ROSEMEAD CAMPUSE - FULL BUILD-OUT

The new Rosemead Campus - to be constructed as part of the Measure PCC Projects - is envisioned to be a full center with an emphasis on Business and Technology or Business, art, and Technology focused with the following components:

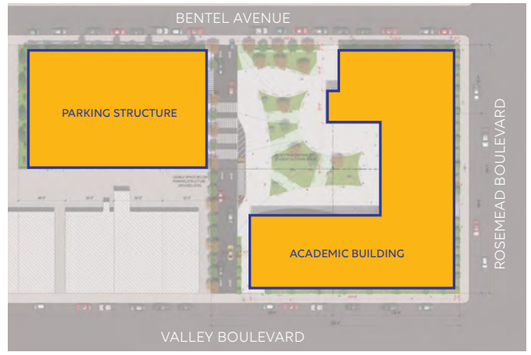
1. Instructional Programming
    - General Classrooms
    - Computer labs
    - Wet labs
    - Multipurpose spaces
    - Noncredit presence
2. Support Services
    - Student services
    - Tutoring / Success Center
3. Community Engagement
    - PCC Shuttle to El Monte Station
    - Covered outdoor spaces



Site Plan

Colorado Campus

Scale: NTS

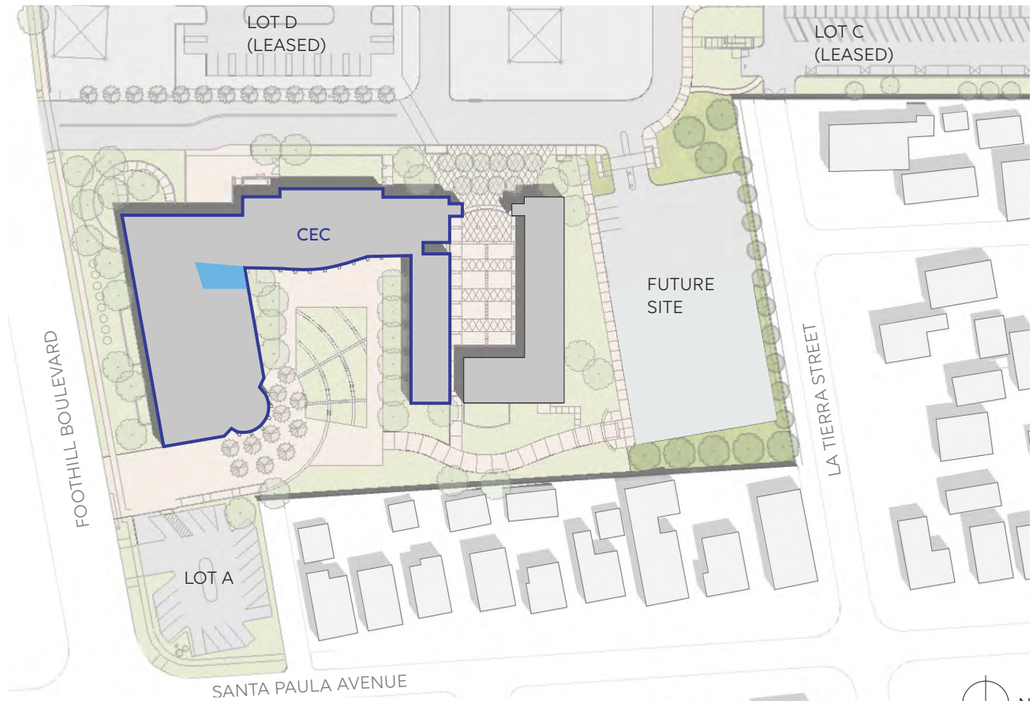


New Rosemead Campus

Scale: NTS

MEASURE PCC PROJECTS

The adjacent diagrams illustrate the new construction, modernization, and renovation projects in various campuses prioritized for Measure PCC funding, refer to previous pages for descriptions of the Measure PCC Projects. Subsequent projects in the full master plan build-out to be funded by other sources, to be determined in the future.



Foothill (CEC) Campus

Scale: NTS

Legend: New construction | Modernization / Renovation | Exterior Improvements | Existing | Demolition

4.

Sustainability

SECTION 4

Sustainability

SUSTAINABILITY EFFORTS

The Pasadena City College 2020 Facilities Plan provided recommendations for improving campus sustainability efforts. The recommendations identify the STARS program as a guideline for implementing, monitoring, and reporting sustainability related achievements on the PCC campuses, and these recommendations remain unchanged for the 2024 Facilities Plan (FP) Update. In addition, the 2024 FP Update looked more closely at what progress has been made since 2020 on the college's sustainability efforts and if more focus is needed on certain aspects related to overall campus sustainability, as well as how the progress would inform the Facilities Plan with additional information and strategies to enhance PCC's objectives to be a more sustainable campus.

One significant item that has occurred since the 2020 Facilities Plan is the Pasadena City College Board of Trustees adoption of Resolution No. 799 as a decarbonization policy goal, generally referred to as the "Carbon Pledge". This policy addresses carbon-free energy sourcing as well as implementation of a zero-carbon campus vehicle fleet. Resolution No. 799 has been developed in cooperation with the City of Pasadena and its affiliated branches to pursue carbon-free status for PCC by the year 2030.

Another item that was identified in the 2020 FP that was further studied in the 2024 FP Update and supports the PCC Carbon Pledge is the implementation for production of on-site renewable energy. The 2020 FP recommendation for providing Photovoltaic (PV) systems to offset PCC's energy use has now been further defined to identify specific locations of PV systems as well as their anticipated energy production. There are 3-site locations on the Colorado campus that have been initially identified to implement PV array systems that will at a minimum produce energy to support their sites. The anticipated energy production surplus could provide support to other electrical energy needs such as electric vehicle charging stations including the campus vehicle fleet or stored for other electrical energy needs. These energy production sites will be in addition to the on-site energy production that is required by current building codes for newly constructed facilities.

As part of the research and analysis performed for the 2024 FP Update, a Sustainability Survey was prepared and distributed to the PCC community including students, faculty, and staff. The survey intended to gage where the PCC community currently stood in its personal sustainability interests and efforts and provide information how PCC could help improve individual and collective activities to become a more sustainable campus. The responses received also helped inform related topics and improvement recommendations under the general 2024 FMP Updates. One notable topic extracted from the survey was related to transportation; the sampling of respondents has helped identify areas that need further study and possible solutions to issues such as commuting to and from PCC, as well as vehicle parking needs and the need for electric vehicle charging on campus. In short summary, the survey results show there is interest in public transit and PCC shuttle services to help reduce the number of trips to the PCC campuses, and in turn could reduce the need for additional parking as the college population grows. A summary of the Sustainability Survey results has been provided on the following page with a more complete version of the results included in the Appendix.

Other updated sustainability measures include the recommendation to enhance a framework to track sustainability improvements, as well as the commitment to retain a sustainability coordinator for the PCC campuses. PCC's current certification with the American Green Zone Alliance (AGZA) will be maintained to further help reduce emissions generated from the use of fossil fuels.

SUSTAINABILITY SURVEY

To better understand the priorities beyond the Zero Carbon Campus Pledge and to identify potential projects for incorporation into the Facilities Strategic plan update, a sustainability survey was distributed to the PCC community for input.

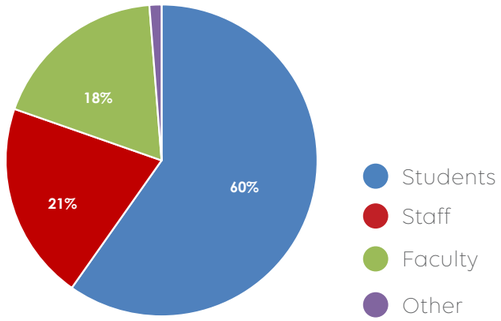
Overview

The following are respondent demographics:

- Response rate: ~4% [1]
  - 1,114 Responses; 959 included in analytics [2]
- Most time spent on these campuses:
  - Colorado: 87%
  - Foothill (CEC): 10%
- 97% Personally Interested in Sustainability
- 11% Involved in Sustainability on Campus

1. *Statistically significant sample size representing 95% confidence and approx. 3% margin of error. While this response rate is considered a valid and reliable representative of the PCC community, those passionate about sustainability may have been more compelled to respond.*

2. *Responses removed from analytics included:*
   a. *Respondents who answered demographic questions only*
   b. *Duplicates from same individual respondent*



Survey Respondents - Connection to PCC

.PCC Priorities

The following are survey responses regarding PCC Priorities:

- Strong agreement that PCC should take active steps to:
- 85% Be sustainable
- 77% Be a community college leader in sustainability
- 82% Be resilient to the impacts of climate change
- Top sustainability priorities for PCC operations [1]:
    1. Energy efficiency, renewables
    2. Education
    3. Waste reduction
    4. Emissions reduction
    5. Climate resilience
- Those involved in sustainability at PCC selected a wider range of priorities. This group desires holistic approach to sustainability, which was reinforced in the open-ended responses.

1. *Priorities varied somewhat by role & involvement in sustainability*

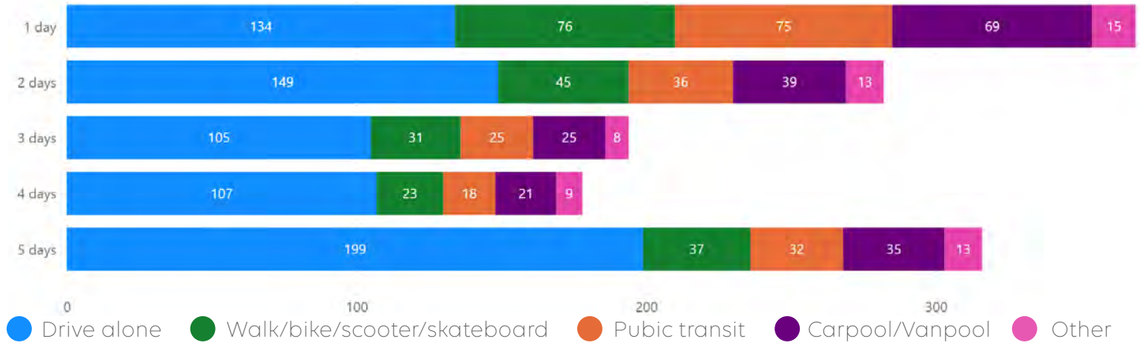
Key Findings

There are key findings in the following categories:

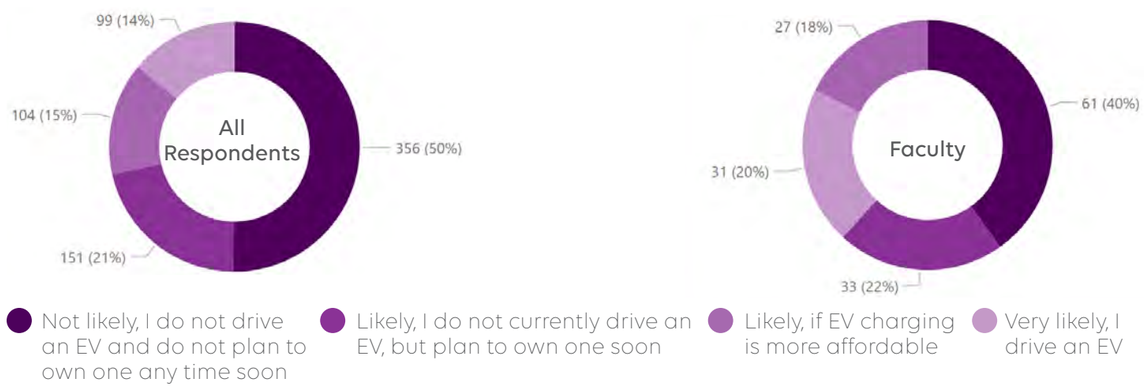
1. Transportation
2. Engagement
3. Resources

Transportation

- Multiple modes of transportation are utilized, though many drive alone
    - 84% of respondents drive alone at least 1 day per week
    - 24% of respondents drive alone 5 days per week
    - Faculty and staff drive the most; students are more likely to use other modes of transportation
- Top tools or resources needed to use other modes of transportation:
    - Awareness of transportation programs at PCC
    - Connect with other individuals who live near me for carpool/vanpool
    - Broaden PCC shuttle service to the campus
    - Financial support from PCC to use sustainable transportation (e.g. subsidized bus pass)
- Some respondents said they would not be able to use alternative modes of transportation, mentioning safety concerns with public transit, work/life scheduling, and commute distance
- 50% of respondents indicated they may take advantage of EV charging on campus in the future
    - 40% of staff, 49% of students, 60% of faculty
    - Higher faculty interest indicates potential for EV charging as contract benefit



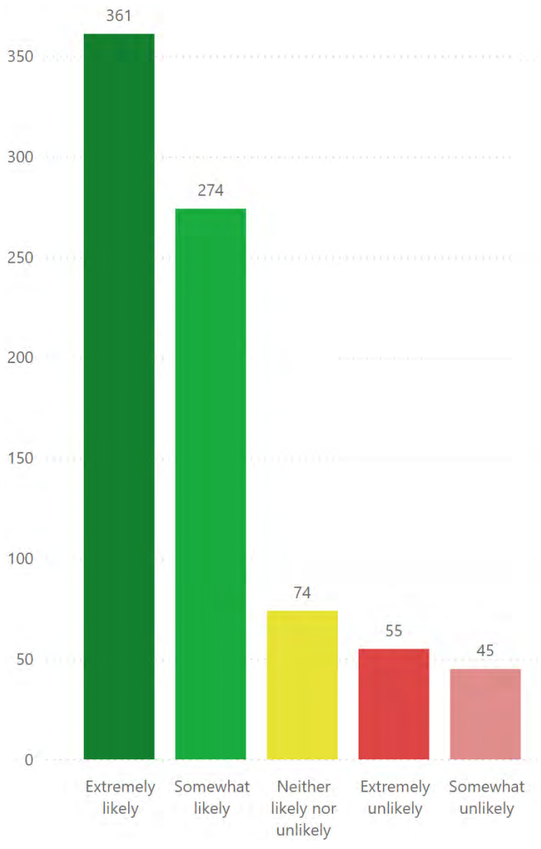
Responses to: how many days per week do you use these modes of transportation to commute to PCC?



Responses to: how likely are you to take advantage of EV (Electric Vehicle) charging on campus?

Engagement

- Most respondents indicated they engage in sustainable behaviors on campus
- Opportunities identified:
  - Waste diversion not available on campus (recycling, composting)
  - Conserving power not within user control (lights, thermostat)
  - Lack of awareness about how to conserve resources
- Respondents overwhelmingly indicated they would contribute to a more sustainable PCC with the right tools and resources



Responses to: how likely would you contribute to a sustainable PCC campus if you have the tools and resources to do so?

Resources

- Respondents selected a wide range of tools and resources needed, prioritizing:
  - Incentives/financial support [1]
  - Infrastructure: transportation, buildings, utilities that advance sustainability goals
  - Sustainable products and food on campus
  - Technology: telecommuting, online or hybrid learning platforms
  - Data/information: surveying, measuring information, monitoring progress
  - Sustainability Coursework
- Sustainability Certifications [2] was one of the least-selected options, even among respondents involved with sustainability on campus.

1. *14 open-ended responses requested a grant-writer*

2. *A Certification such as STARS or LEED offers a framework or pathway to take a holistic, third-party verified approach to sustainability. It is a data/information and accountability tool; but does not educate or drive individual behavior change.*

- Respondents use multiple communication streams for news/events/information
  - Students use social media (26%) and paper fliers (16%) more than faculty and staff
  - Faculty entered Email into the "other" field more than other groups
- When elevating sustainability education and communications on campus, multiple channels should be utilized

Recommendations

Based on the top 5 sustainability priorities:

1. **Energy efficiency, renewables**
   - See following sub section for photovoltaics considerations
2. **Emissions Reduction**
   - See Section 6.1 for Electric Vehicle charging considerations
   - Identify energy efficency opportunities
   - Begin tracking emissions and develop campus-wide decarbonization plan, including Scope 1, 2, and 3 emissions reductions
   - Explore incentives for sustainable transportation
3. **Education**
   - Identify strategies to incentivize key sustainable behaviors to support emissions and waste reduction goals
   - Leverage multiple communications channels to communicate the benefits of, teach, and incentivize those behaviors
   - Add Sustainability information to the PCC website
4. **Waste Reduction**
   - Conduct waste audit to identify primary waste streams
   - Identify waste stream diversion opportunities & begin piloting
5. **Climate Resilience**
   - Identify primary climate hazards and likely impacts to campus operations and infrastructure
   - Discuss risk tolerance and identify

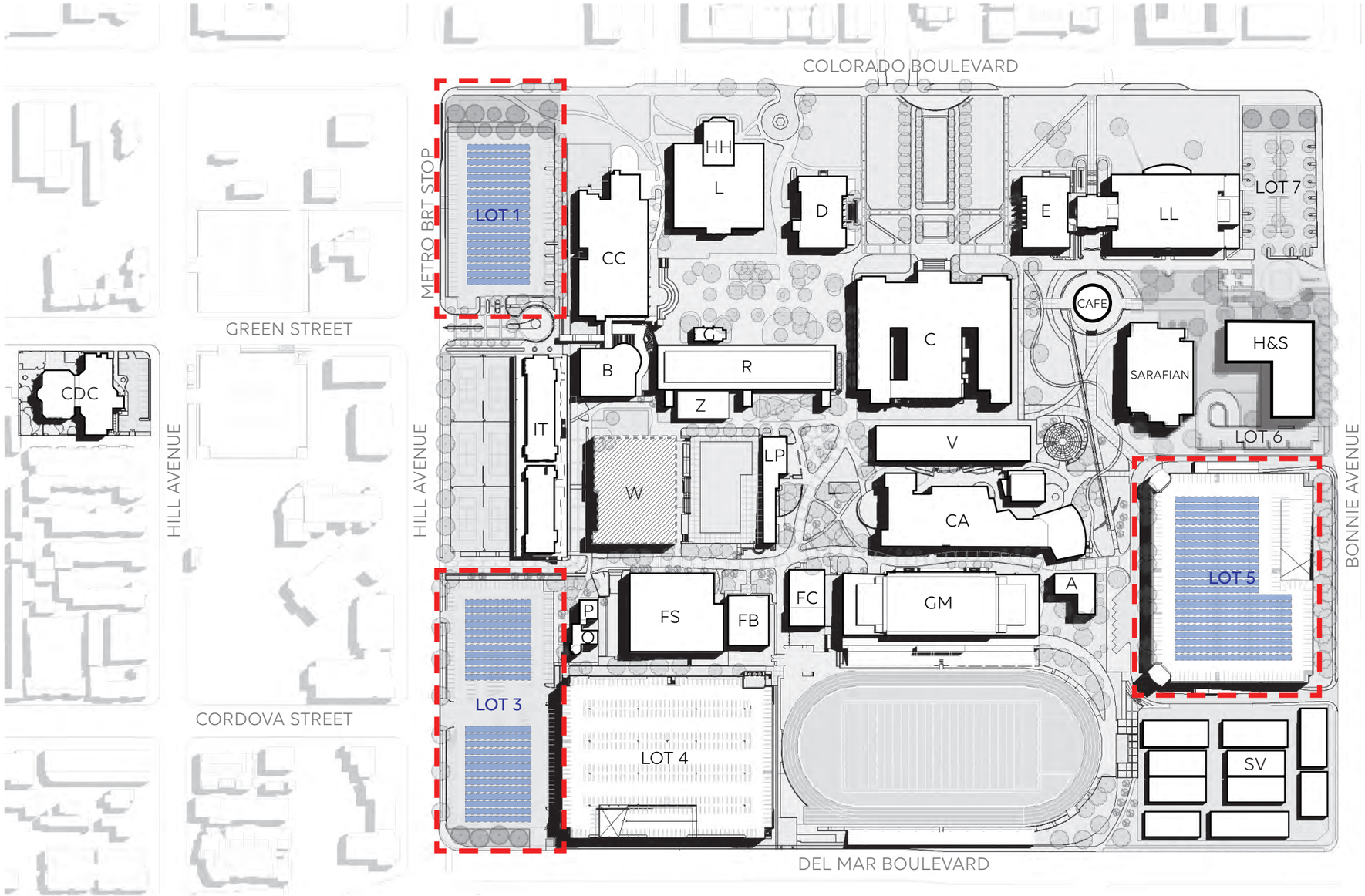
Survey Results

For a complete list of survey results by question, click here.

COLORADO CAMPUS - PHOTOVOLTAIC PANEL CONSIDERATIONS

In addition to the new photovoltaic / solar panels (PV) associated with each new building construction project, construction of PVs are also proposed for Lots 1, 3, and 5 as part of the Measure PCC projects. The proposed PVs align with PCC's commitment to the Carbon Pledge policy goal as well as reflect the top sustainability priorities identified in the sustainability survey.

The adjacent diagram provides a possible solar panel layout for the purposes of estimating annual electricity production, resulting annual savings, carbon offset, etc. PV arrays should consider emergency vehicle access throught the parking lots and location of structural supports for efficiency and least impact to parking layouts. Though not identified as part of the Measure PCC projects, other sites, including but not limited to Lot 4, can be assessed for the construction of PV arrays, pending on college needs in the future.



Colorado Campus - Proposed Photovoltaic (PV) Locations

Legend — PV areas

Scale: NTS

N

Estimated Annual kWh Consumption *	
Lot 1	410,000
Lot 3	470,000
Lot 5	1,225,240
Total	**2,105,240**

Estimated Annual kWh Production *	
Lot 1	585,480
Lot 3	742,560
Lot 5	1,190,000
Total	**2,518,040**

% Consumption offset by PV	
Lot 1	142.8%
Lot 3	158.0%
Lot 5	97.1%
Total	**119.61%**

$ Savings per Year **	
Lot 1	$94,000
Lot 3	$120,000
Lot 5	$192,000
Total	**$406,000**

Annual CO^2 Offset (kg) ***	
Lot 1	132,094
Lot 3	167,534
Lot 5	268,484
Total	**568,112**

Notes:
* Based on CBECS & average College and University EUI figures. Numbers may vary pending on final PV design. Estimates do not inlcude new EV charging stations.
** Based on provided electricity bill
*** Based on figures from eGRID.gov

5.

Supplemental Information

Transportation

INTRODUCTION

As part of the 2024 Facilities Strategic Plan update, the parking demand for the Colorado and Foothill Campuses are evaluated to align with the updated enrollment projections. Various factors are also considered during this evaluation:

- Potential increase in alternate modes of transportation to align with the campus's sustainability goals, especially with the addition of the new Metro bus terminal stop near Lot 1
- Hybrid and online course offerings may reduce the demand

The following section will provide a brief overview of the existing and projected parking conditions for the Colorado and Foothill Campuses before describing each campus at a deeper level.

COLORADO CAMPUS

Existing Conditions

Since the 2020 FMP report, various circumstances have resulted in the loss of Parking Lots 10 and 11 (a total of 242 parking stalls, reference the 2020 FMP report). As such, the total number of existing stalls shall be 4,902 stalls.

Future (Year 2034) Conditions

Based on the 10-year projected full time equivalent staff, faculty, and student totals provided by PCC, the projected parking need is 4,778 stalls. With the reduction of the existing stall counts due to various proposed open space improvement projects and electrical equipment proposed in Lot 1 as part of the future Metro Bus Rapid Transit (BRT) stop, the provided total stall count at the full build-out phase is 4,768 stalls, which is a further reduction of 134 stalls from the existing count. See diagram on the following page for additional considerations.

Potential Electric Vehicle (EV) Charging

The Colorado Campus currently has a total of 12 EV charging stalls located in Lots 1, 5, and 7. Considerations for providing additional EV charging are noted later in this section.

Metro Bus Rapid Transit (BRT)

A terminal bus stop for the Metro Bus Rapid Transit (BRT) is planned near Colorado Boulevard and Hill Avenue near Lot 1. This bus line is planned to run from North Hollywood to Pasadena, with stops at various locations within the cities of Burbank, Glendale, Los Angeles, and Pasadena. This project will also add a canopy/shelter and bus charging masts along Hill Avenue. Transformer and cabinet equipment for this scope is proposed at the southwest corner of Lot 1, which will displace a few parking stalls. A pedestrian promenade north of Lot 1 is proposed to provide an arrival point from the bus stop onto the campus.

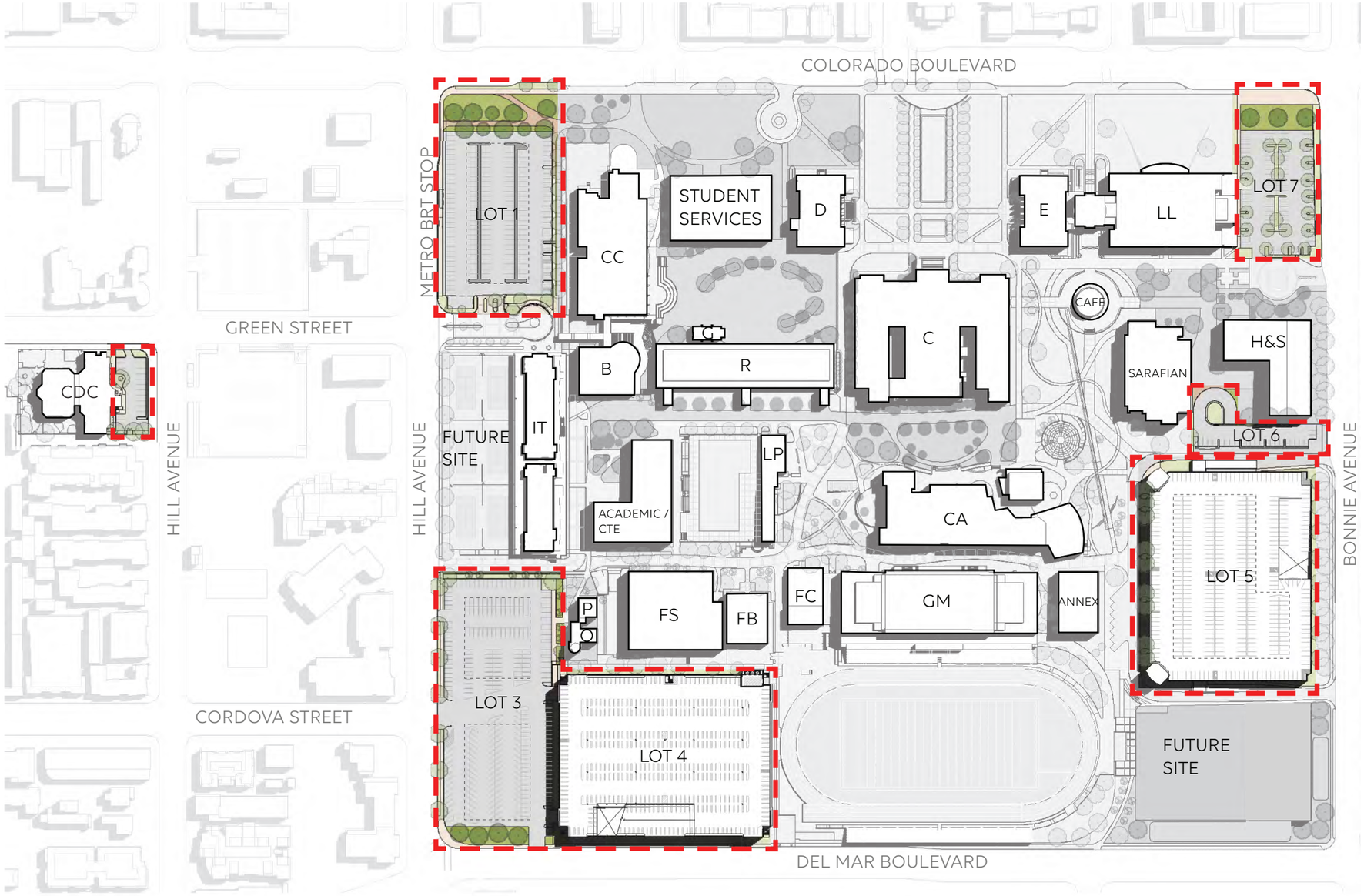
FOOTHILL CAMPUS

Existing Conditions

There are no changes to the parking count since the 2020 FMP report. As such, the total number of existing stalls shall be 516 stalls.

Future (Year 2034) Conditions

Based on the 10-year projected full time equivalent staff, faculty, and student totals provided by PCC, the projected parking need is 269 stalls. The provided total stall count at the full build-out phase is expected to remain the same as the existing, which is 516 stalls. Since Lots C and D are leased lots, removal of those lots See the diagram on the following pages for additional considerations.



Colorado Campus - Potential Parking Updates

Legend — Parking areas

Scale: NTS

N

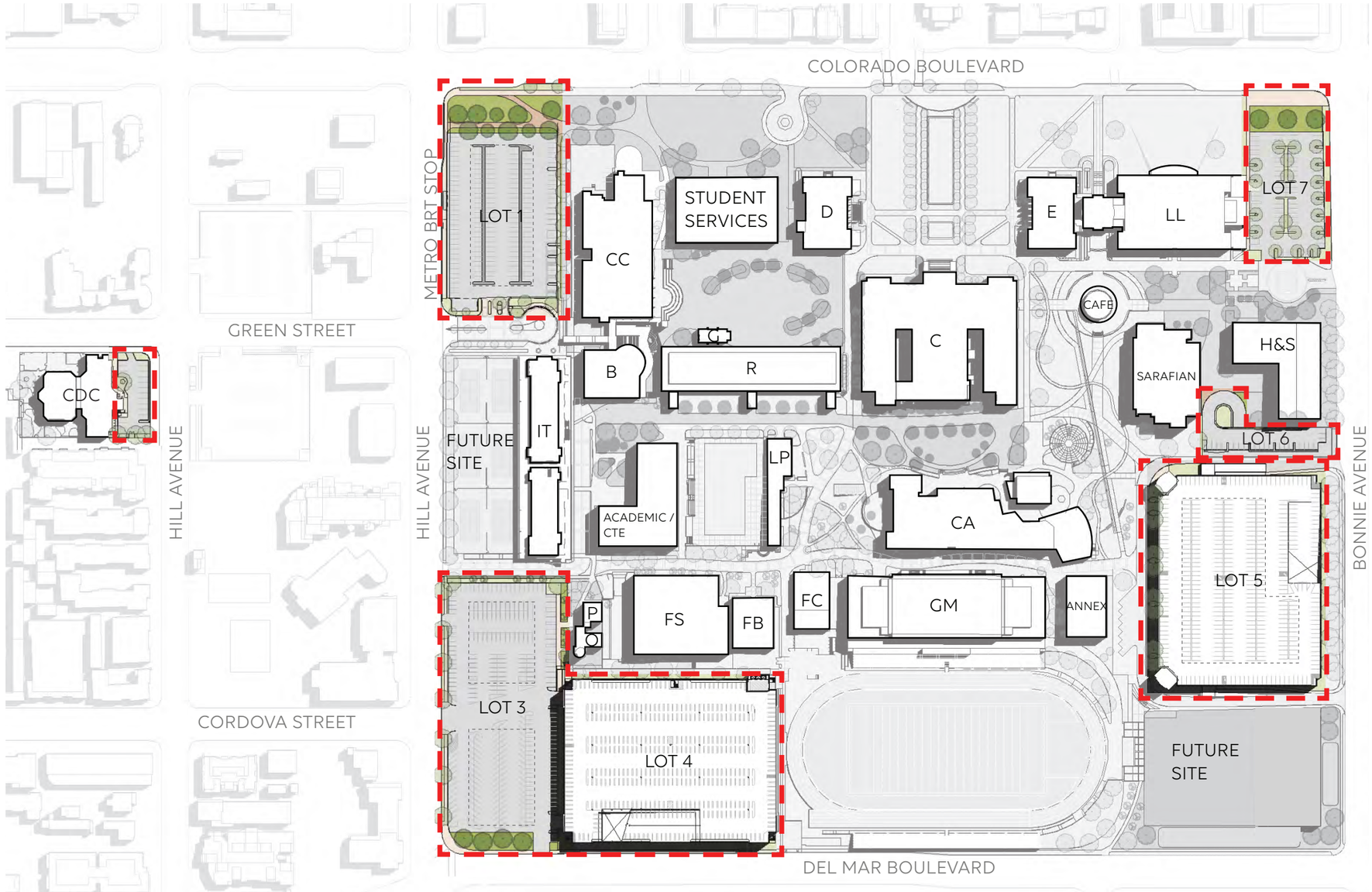
COLORADO CAMPUS - CONSIDERATIONS

The parking demand is based on the full time equivalent of students, faculty, and staff physically located at the Colorado Campus and multipled by an industry standard parking rate to generate the parking need as identified in the table below. The 15% buffer is intended to account for any sudden surge in parking count, though it is unlikely that the surge would happen at the same time all parking is filled.

Based on current numbers, the parking is currently showing a surplus of stalls. There is no deficit in the 10-year projections, which indicates that new parking is not necessary. Future sites are identified to alleviate parking demand as needed. However, it is recommended for the parking demand to be reevaluated every 3 - 5 year as college needs change.

		Current (2024)	10-Year Projections (2034)
A	Need *	1,891	4,778
B	Need + 15% buffer	2,175	5,495
C	**Provided**	**4,902**	**4,778**
D	**Delta (= C - A)**	**+ 3,011**	**0**
E	**Delta (= C - B)**	**+ 2,727**	**- 717**

Notes:
* Parking rates are from Parking Generation Manual 5th Edition



Colorado Campus - Potential Electric Vehicle (EV) Charging

Legend — Parking areas

Scale: NTS

N

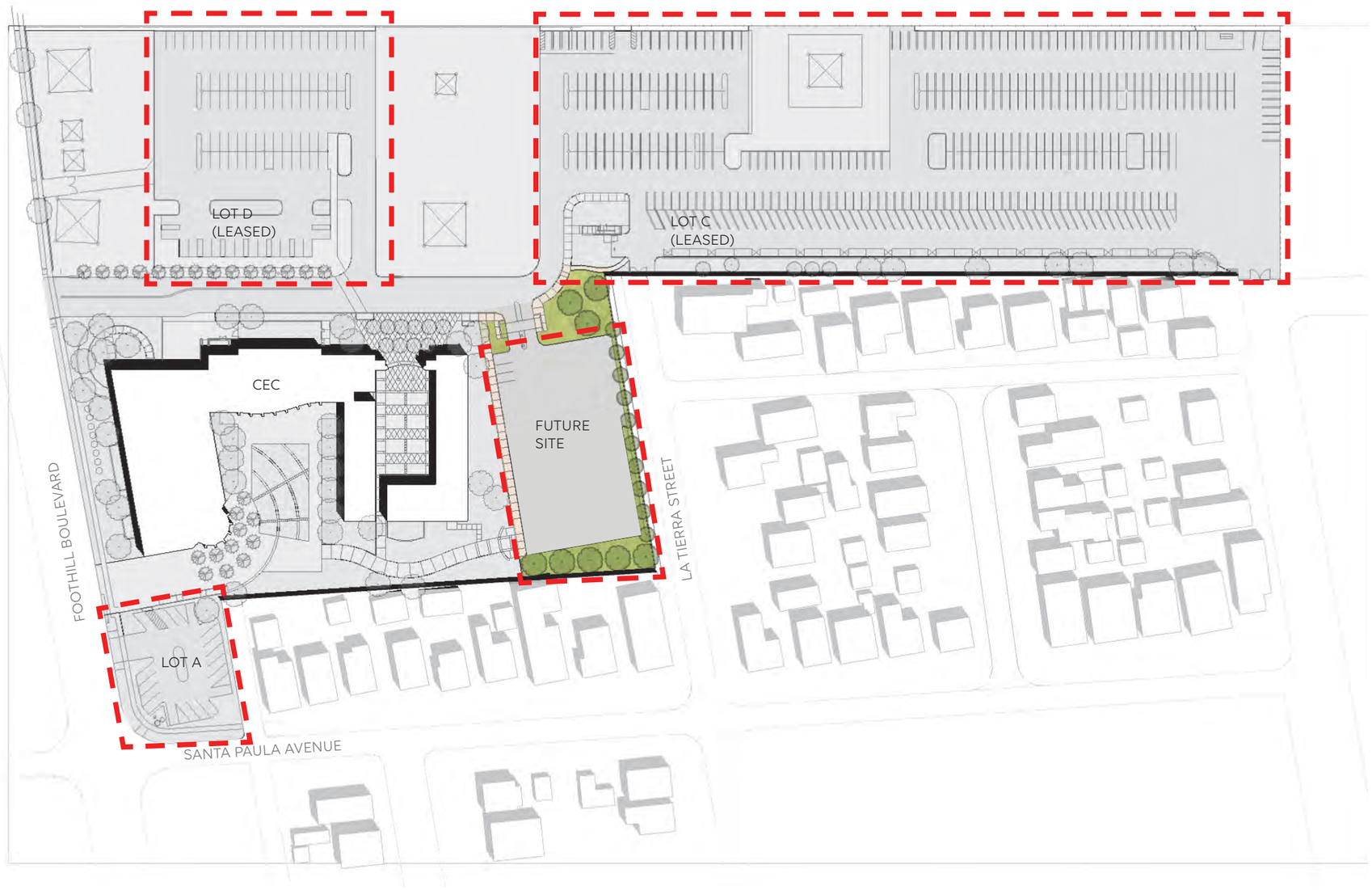
COLORADO CAMPUS - EV CHARGING CONSIDERATIONS

There is no code requirement that dictates the amount of electric vehicle (EV) charging since no new parking is proposed. As a guideline, the numbers indicated in the table below shows the figures identified in the latest version of the CalGreen code.

The college can consider a phased approach and continue to assess the need for EV charging to align with PCC's commitment to the Carbon Pledge policy goal as well as reflect the top sustainability priorities identified in the sustainability survey. The college expressed a desire to triple the existing EV charging stalls and provide EV chargers on all parking lots in the near future.

Lot #	# of Parking Stalls	EV Capable (EVCS + EV ready)*	EVCS	Existing EVCS	Total
1	197	35	9	4	5
3	279	56	14	0	14
4	2,190	438	110	0	110
5	1,980	396	99	4	95
6	12	4	0	0	0
7	93	25	6	4	2
9	17	4	0	0	0
Tot.	**4,768**	**954**	**237**	**12**	**225**

Notes:
* Tabulations based on 2022 CalGreen Code
EVCS - EV capable spaces with electric vehicle supply equipment (EVSE)



Foothill (CEC) Campus - Potential Parking Updates

Legend Parking areas

Scale: NTS N

FOOTHILL (CEC) CAMPUS - CONSIDERATIONS

The parking demand is based on the full time equivalent of students, faculty, and staff physically located at the Foothill Campus and multipled by an industry standard parking rate to generate the parking need as identified in the table below. The 15% buffer is intended to account for any sudden surge in parking count, though it is unlikely that the surge would happen at the same time all parking is filled.

Based on current numbers, the parking is currently showing a surplus of stalls. 10 year projections also indicate a surplus of stalls. The delta without the leased Lots C and D are calculated below should the college consider to remove those lots:

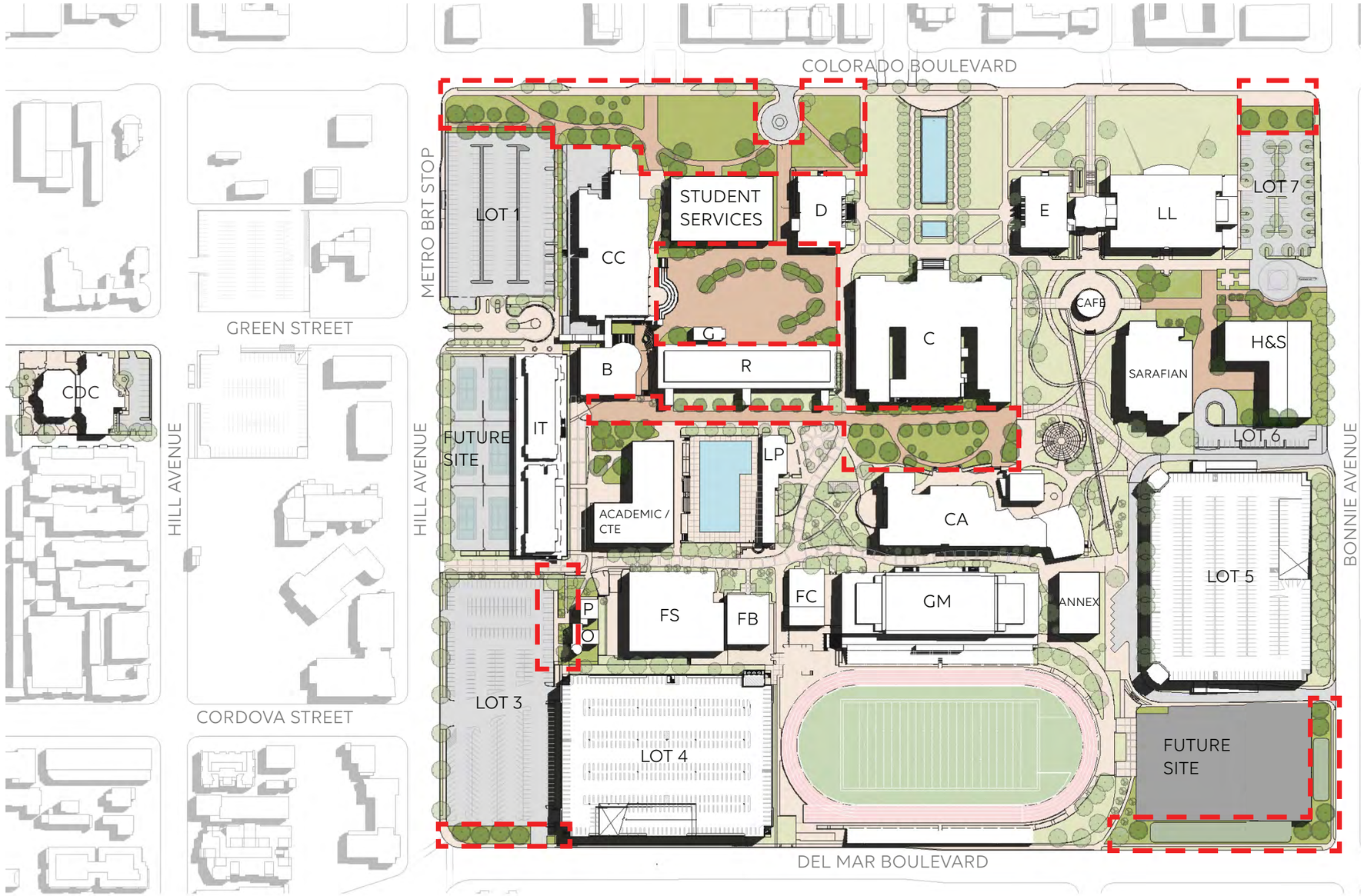
- Without leased Lot C:
  - Delta (need): +148
  - Delta (need + 15%): +108
- Without leased Lot D:
  - Delta (need): -143
  - Delta (need + 15%): -183

Future site is potential area for temporary surface parking or new parking structure if needed.

		Current (2024)	10-Year Projections (2034)
A	Need *	168	269
B	Need + 15% buffer	193	309
C	**Provided**	**516**	**516**
D	**Delta (= C - A)**	**+ 348**	**+ 247**
E	**Delta (= C - B)**	**+ 323**	**+ 207**

Notes:
* Parking rates are from Parking Generation Manual 5th Edition

Open Space



Colorado Campus - Proposed Open Space Improvements

Legend Site Improvement areas

Scale: NTS

N

COLORADO CAMPUS - OPEN SPACE IMPROVEMENTS

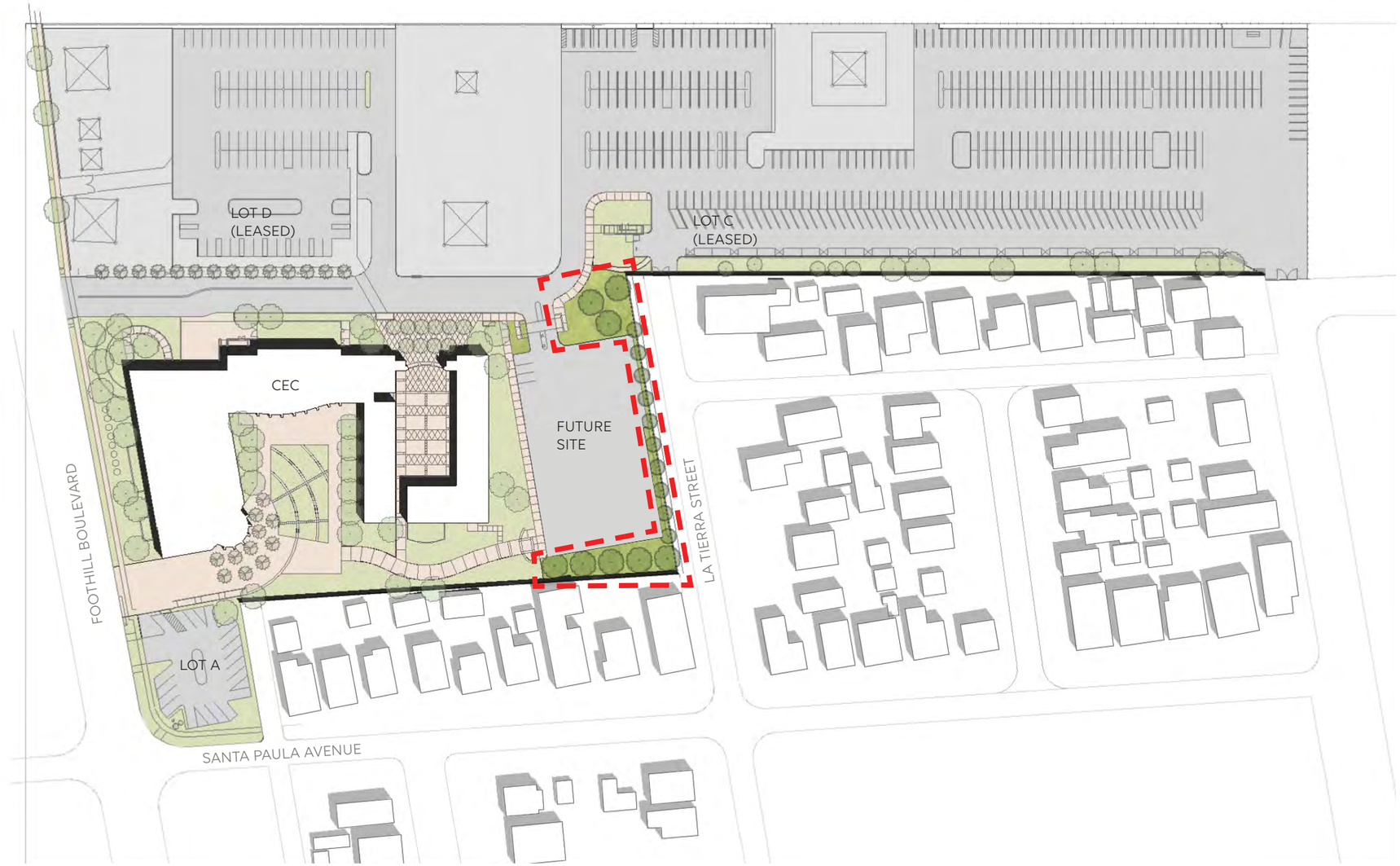
Open spaces are not only an important aspect of a person's experience on campus, but also are tools to improve wayfinding, increase opportunities for exterior study, teaching, and social activities, as well as enhance the quality of landscape and hardscape to strengthen a campus's identity and image.

Based on the assessment of current campus outdoor spaces and the above objectives, the proposed Facilities Master Plan recommends the following primary outdoor space strategies:

- Landscaping at four corners to soften campus edges
- Plan for outdoor Classrooms
- Reimagine Main Quad
- Highlight prominence of the Planetarium and Observatory (P & O Buildings)
- Stormwater filtration opportunities
- Planting material to reflect approved
- Implementation of the approved sustainable plant palette, refer to Section 7 Appendix for more info.

FOOTHILL (CEC) CAMPUS - OPEN SPACE IMPROVEMENTS

Landscaping around the future site can be updated to align with the approved sustainable plant palette. Trees are also recommended along the edges.



Foothill (CEC) Campus - Proposed Open Space Improvements

Legend Site Improvement areas

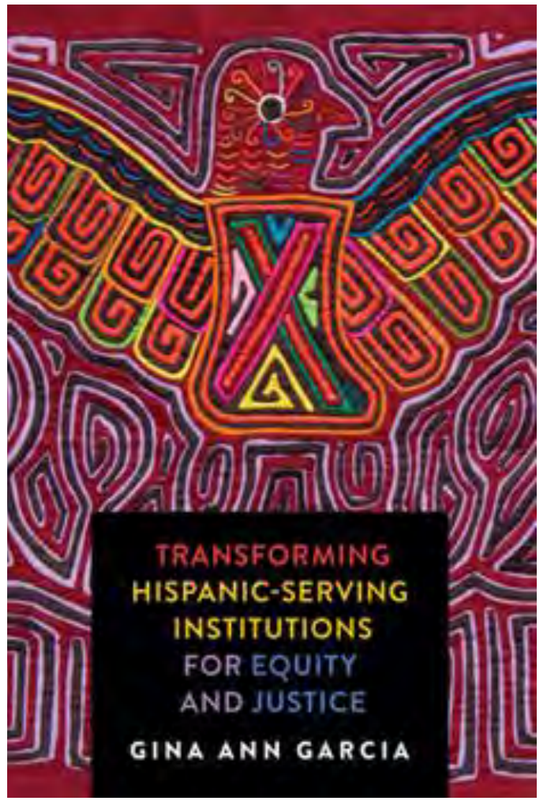
Scale: NTS N

SECTION 5.3

Expressions of Diverse Cultures, Histories, & Identities

Hispanic Serving Institutions (HSIs) must design artistic spaces and expressions that can serve as essential contextual cues for supporting diverse students. Art, including murals and sculptures, centered on students' racial, cultural, and linguistic ways of knowing and being can be powerful.

Creating a physical space is important; however, the feelings created within the space are essential, ranging from feelings of belongingness to feelings of empowerment that can be enhanced through art, murals, sculptures, and people and resources provided.



Cover of Transforming Hispanic-serving Institutions for Equity and Justice by Gina Ann Garcia

Latino/a Student Cultural Center at Northeastern University

INTERSECTIONALITY & SERVINGNESS

Reflecting Diverse Cultures and Histories

Murals and artifacts that reflect the diverse cultures, histories, and identities of the student body can serve as a form of building environments for a sense of belonging. This approach aligns with the concept of "dynamic diversity," which involves not just having a critical mass of diverse students but also creating environments that disrupt historical patterns of exclusion.

Promoting Cross-Cultural Understanding

Art can serve as a bridge for cross-cultural understanding among students. By showcasing diverse cultural narratives through murals and artifacts, institutions can foster an environment of mutual respect and learning

Enhancing Student Engagement

Murals and artifacts that students find relatable can enhance their engagement and sense of belonging. Research has shown that positive same-race interactions contribute to students' overall success and identity development. Facilities can consider designing to include spaces where students can engage/see the art that resonates with their cultural identities.

Multicultural Student Services Center at University of Virginia

Journey Into the Heart of America: The API Experience by Eliseo Art Silva at APISC Student Center in CSU Pomona

Black Bruin Resource Center at University of California, Los Angeles

6.

Projected Schedule & Sequencing

Projected Schedule & Sequencing

PROJECT MILESTONE SCHEDULE*				2024				2025				2026				2027				2028				2029				2030				2031			
				QUARTER				QUARTER				QUARTER				QUARTER				QUARTER				QUARTER				QUARTER				QUARTER			
CAMPUS	GROUP	DEL	PROJECTS	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
COLORADO	1	D-B-B	**Sarafian Replacement** Building																																
			Mirror Pools Renovation																																
			Sexson Auditorium Renovation																																
	2	D-B-B	Vacate **W Building**																																
			Procurement																																
			W Building Demolition																																
			Aquatics Center Renovation																																
	3	D-B-B	Procurement																																
			Lancers Pass Modernization																																
	4	D-B	Programming / Procurement																																
			Swing Space																																
			Vacate **L Building**																																
			L Building Demolition																																
			Student Services Center																																
	5	D-B	Programming / Procurement																																
			Galloway Plaza Café																																
			Health & Sciences Building																																
			Power Distribution Center																																
	6	D-B	Programming / Procurement																																
			Photovoltaics (Solar) Panels																																
			Lot 5																																
			Lot 1																																
			Lot 3																																
	7	D-B	Programming / Procurement																																
			Boiler House (FB) Modernization																																
			LL Building Renovation																																
			CA Building Renovation																																
	8	D-B	Programming / Procurement																																
			New Annex Building																																
			GM Building Renovation																																
			Demolish **Annex Modulars**																																
FOOTHILL	9	D-B-B	Procurement																																
			CEC Renovation																																
ROSEMEAD	10	D-B	Programming / Procurement																																
			Rosemead Satellite Campus																																

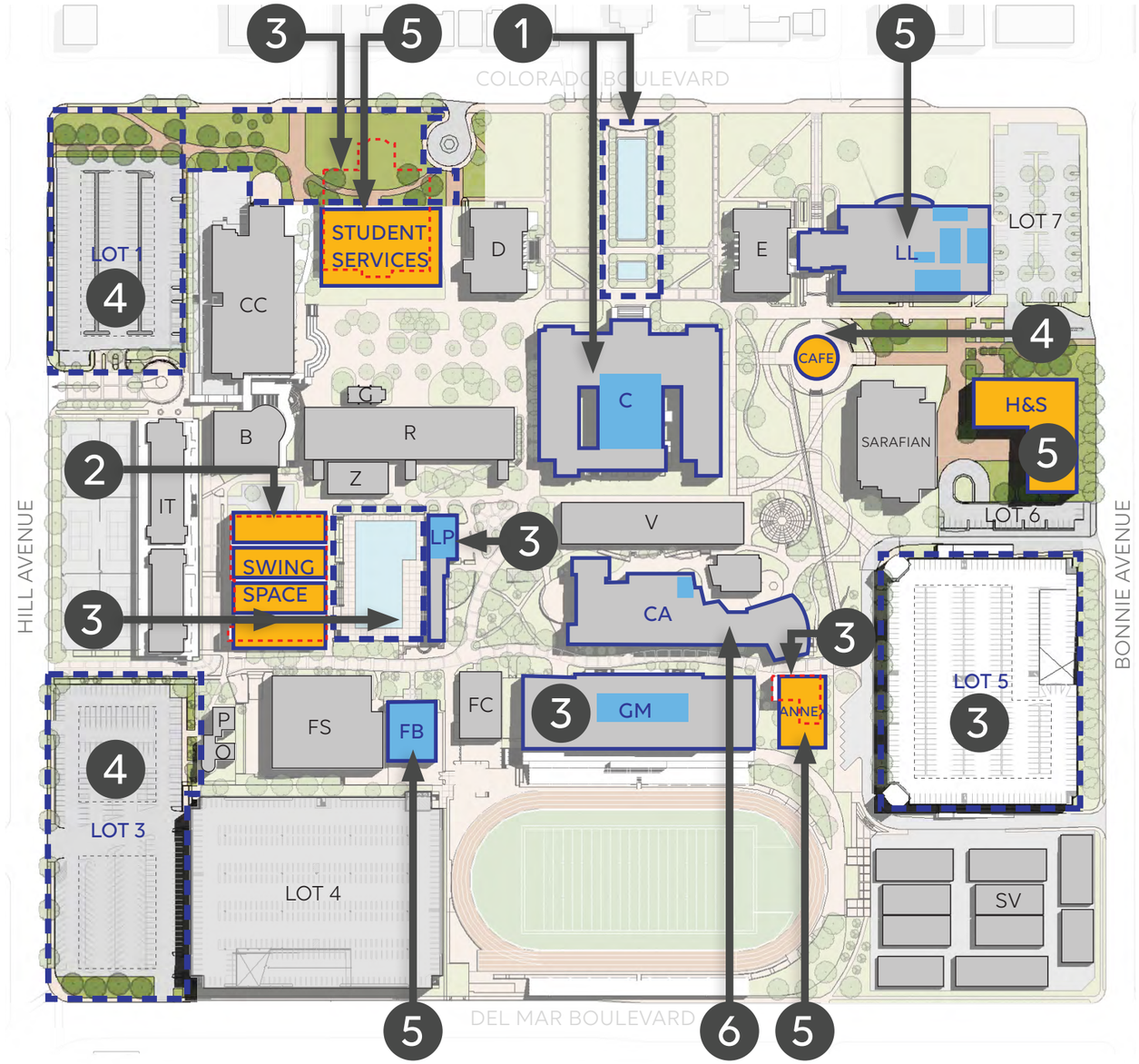
MEASURE PCC - SCHEDULE

The adjacent schedule indicates a high level sequencing and anticipated start and completion date of the major Measure PCC construction projects. Other minor projects are anticipated to occur, but are reflected on this schedule. Although a proposed sequence is illustrated, each planning option is flexible to occur at various times based on the priorities and needs of the college and are subject to change.

Legend

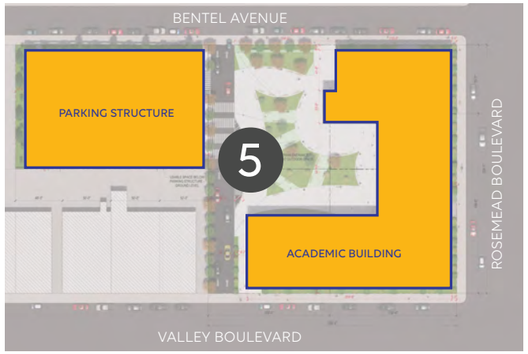
- D-B DESIGN-BUILD
- D-B-B DESIGN-BID-BUILD
- PCC PREPARATION
- PROGRAMMING / PROCUREMENT
- DESIGN
- APPROVALS
- CONSTRUCTION

** Exact duration to be determined based upon actual progress at each phase*



Colorado Campus

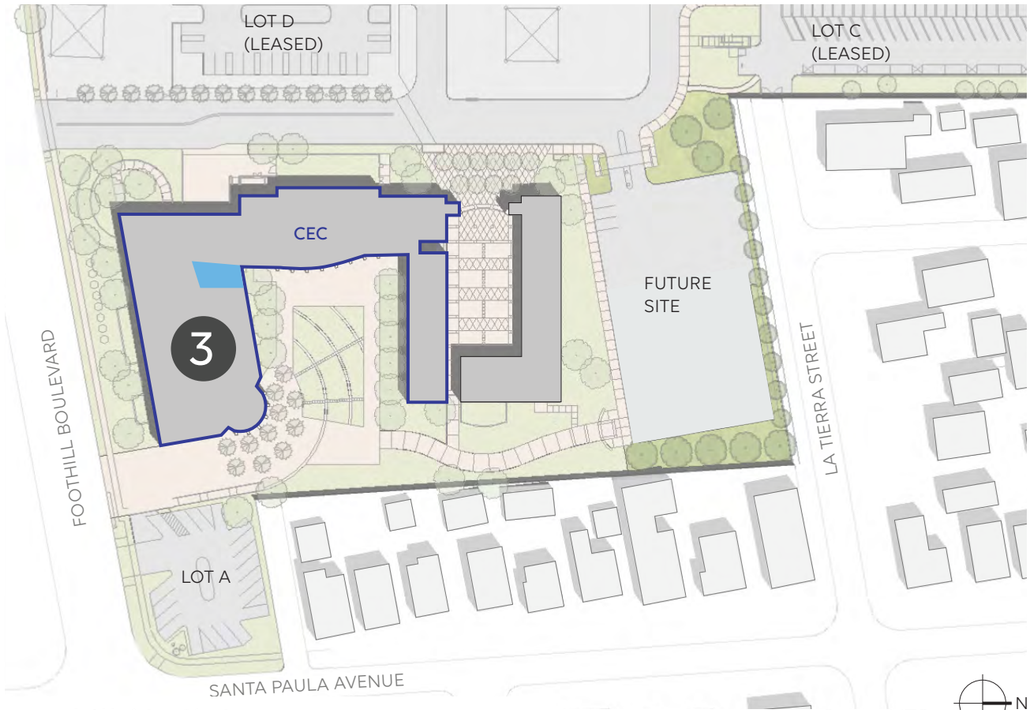
Scale: NTS



New Rosemead Campus

MEASURE PCC - OVERALL PROJECT SEQUENCING

The numbers indicate the proposed sequencing order of projects at the construction completion, as part of Measure PCC. The actual project start date, which includes college preparation, programming / procurement, design, and approvals, etc., may start earlier than shown. See construction sequencing diagrams on the following pages for a more detailed breakdown by year.

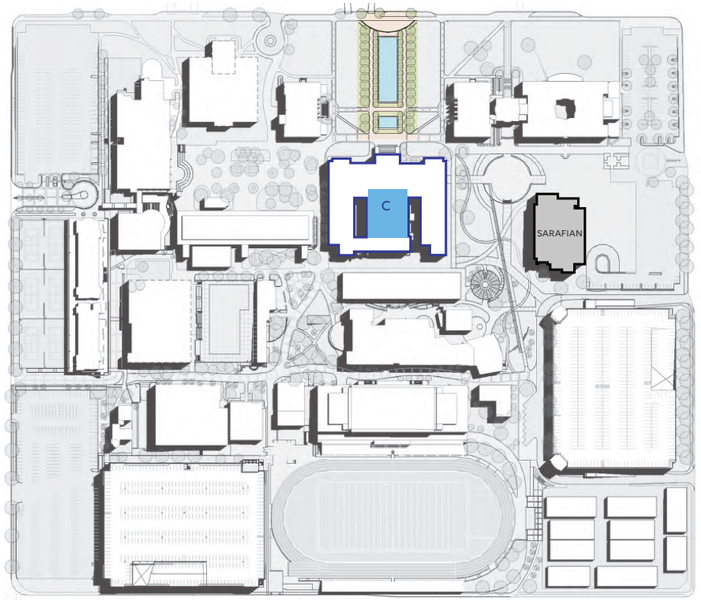


Foothill (CEC) Campus

Scale: NTS

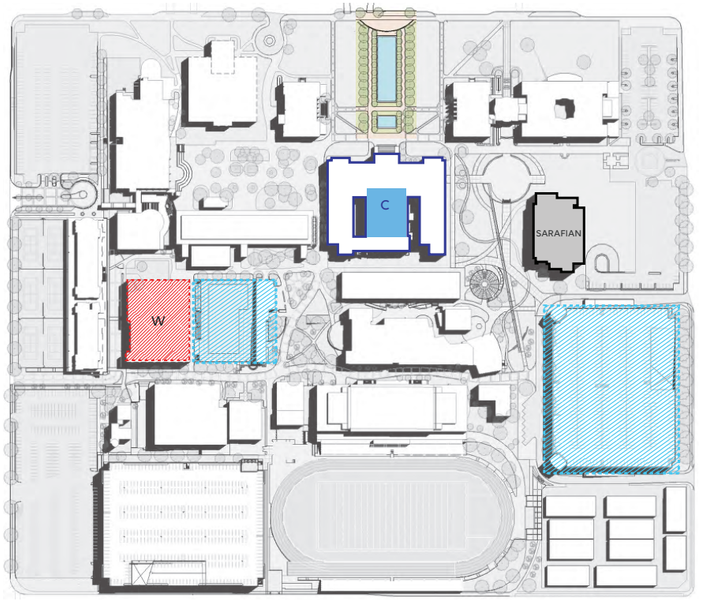
Legend: New construction | Modernization / Renovation | Exterior Improvements | Existing | Demolition

CONSTRUCTION SEQUENCING DIAGRAMS



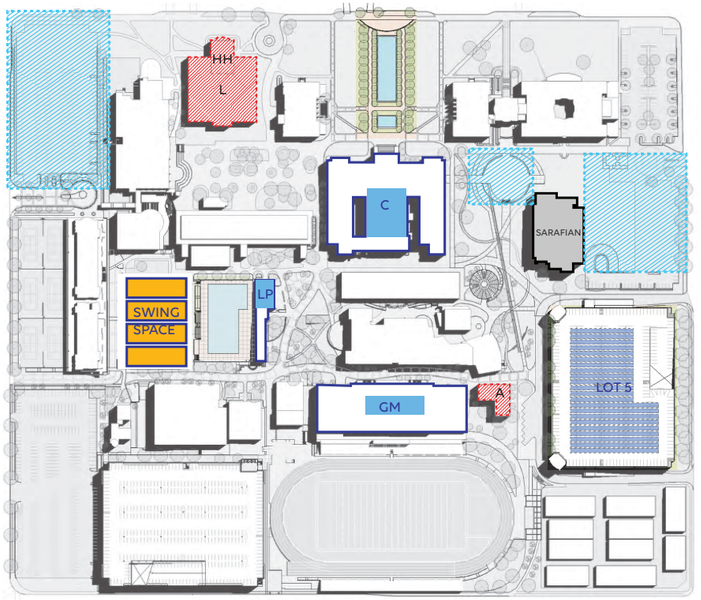
1 YEAR 1 (2025)

- **Sarafian Building** construction completes
- **Mirror Pools** renovation completes
- **Sexson Auditorium** renovation completes



2 YEAR 2 (2026)

- **W Building** demolition completes
- **Power Distribution Center** construction completes (not diagrammed)

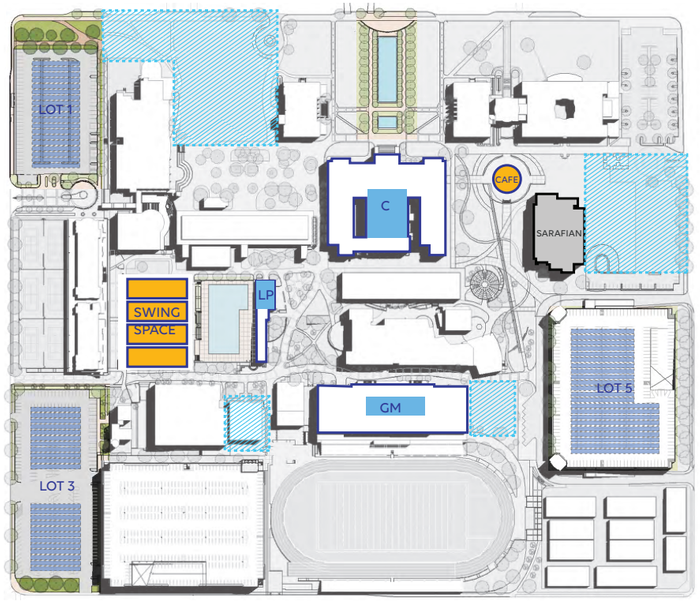


3 YEAR 3 (2027)

- **Aquatics Center** renovation completes
- **Swing Space** construction completes
- **LP Building** modernization completes
- **L Building** demolition completes
- **Lot 5** Solar Panels (PV) construction completes
- **GM Building** renovation completes
- **Annex Modulars** removal complete
- **CEC** renovation completes (not diagrammed)

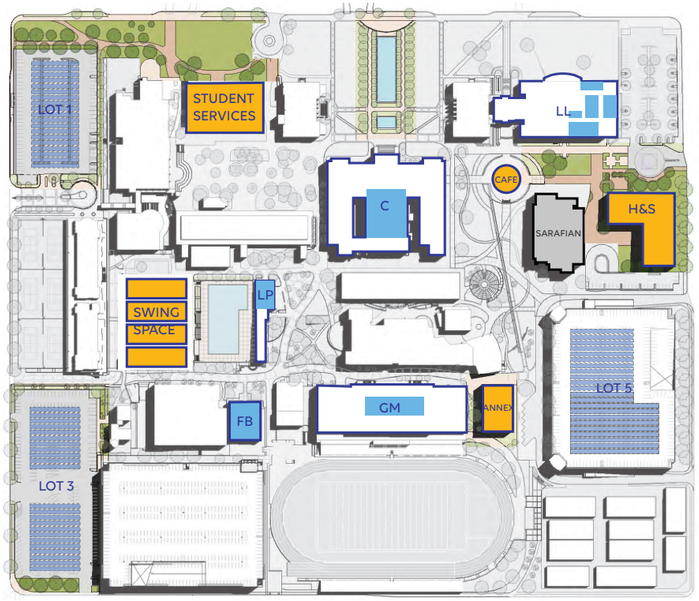
Legend ○ Existing ● New construction completion (funded by other sources) ● In progress construction ● Demolition completion ● New construction completion ● Modernization / Renovation completion

CONSTRUCTION SEQUENCING DIAGRAMS



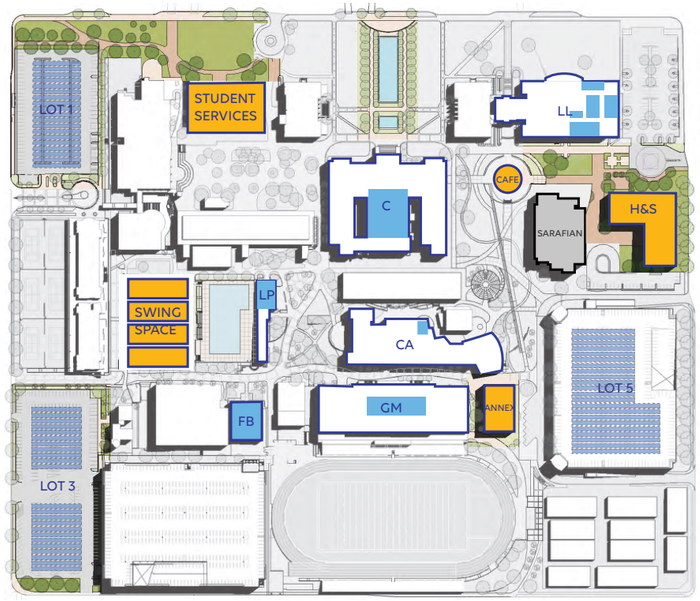
4 YEAR 4 (2028)

- **Cafe** construction completes
- **Lot 3** Solar Panels (PV) construction completes
- **Lot 1** Solar Panels (PV) construction completes



5 YEAR 5 (2029)

- **Student Services Building** construction completes
- **Health & Sciences Building** construction completes
- **FB Building** modernization completes
- **LL Building** renovation completes
- **New Annex Building** construction completes
- **New Rosemead Campus** construction completes (not diagrammed)



6 YEAR 6 (2030)

- **CA Building** renovation completes

Legend ○ Existing ● New construction completion (funded by other sources) ● In progress construction ● Demolition completion ● New construction completion ● Modernization / Renovation completion

7.

Appendix

SECTION 7.1

Approved Sustainable Plant Palette

The following is the recently approved sustainable plant palette for the PCC campuses. The college will continue to assess and add to the approved sustainable plant palette as the campus landscaping practices evolve.


YARROW


CREEPING SAGE


CATALINA FUCHSIA

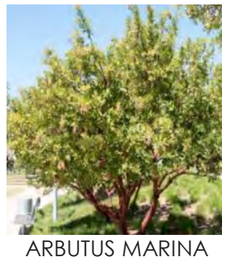

DEER GRASS


BLUE FLAME AGAVE


CALIFORNIA GRAY RUSH


BERKELEY SEDGE


CALIFORNIA WILD ROSE


ARBUTUS MARINA


CARMEL CEANOTHUS


SAND DUNE SEDGE


ROCKY MT. BEARDTONGUE


JUNCUS PATENS


ARTICHOKE AGAVE


PINK MUHLY


COYOTE BUSH


HUMMINGBIRD SAGE


PALO VERDE


NEW GOLD LANTANA


BREAKLIGHT RED YUCCA


ALOE VERA


BLUE ELF ALOE


GHOST ALOE


PINK MUHLY


CALIFORNIA LILAC


ROSMARINUS


COAST LIVE OAK


BUFFALO GRASS


LACE FERN


INDIAN HAWTHORNE


WESTRINGIA


PACIFIC MIST


CALIFORNIA SAGEBRUSH


GREVILLEA “NOELLI”

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