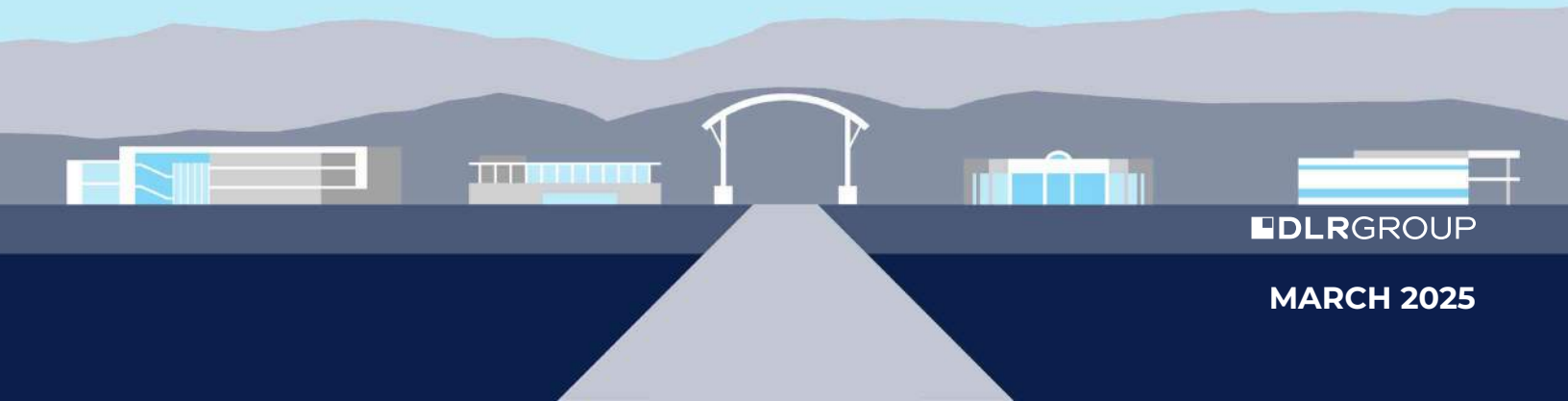
CUYAMACA COLLEGE

# SPACE UTILIZATION STUDY

APRIL - DECEMBER 2024

CUYAMACA
COLLEGE



DLRGROUP

MARCH 2025

CUYAMACA
· COLLEGE ·

*This document was prepared for Cuyamaca College*

*by* DLRGROUP

# CONTENTS


G
CUYAMACA COLLEGE

# 01 EXECUTIVE SUMMARY

**PURPOSE AND GOALS**

**SCHEDULE**

**RECOMMENDATIONS AND OPTIMIZATION STRATEGIES**

**ENGAGEMENT**

**SPACE TYPES**

**METHODOLOGY**

# EXECUTIVE SUMMARY

## PURPOSE AND GOALS

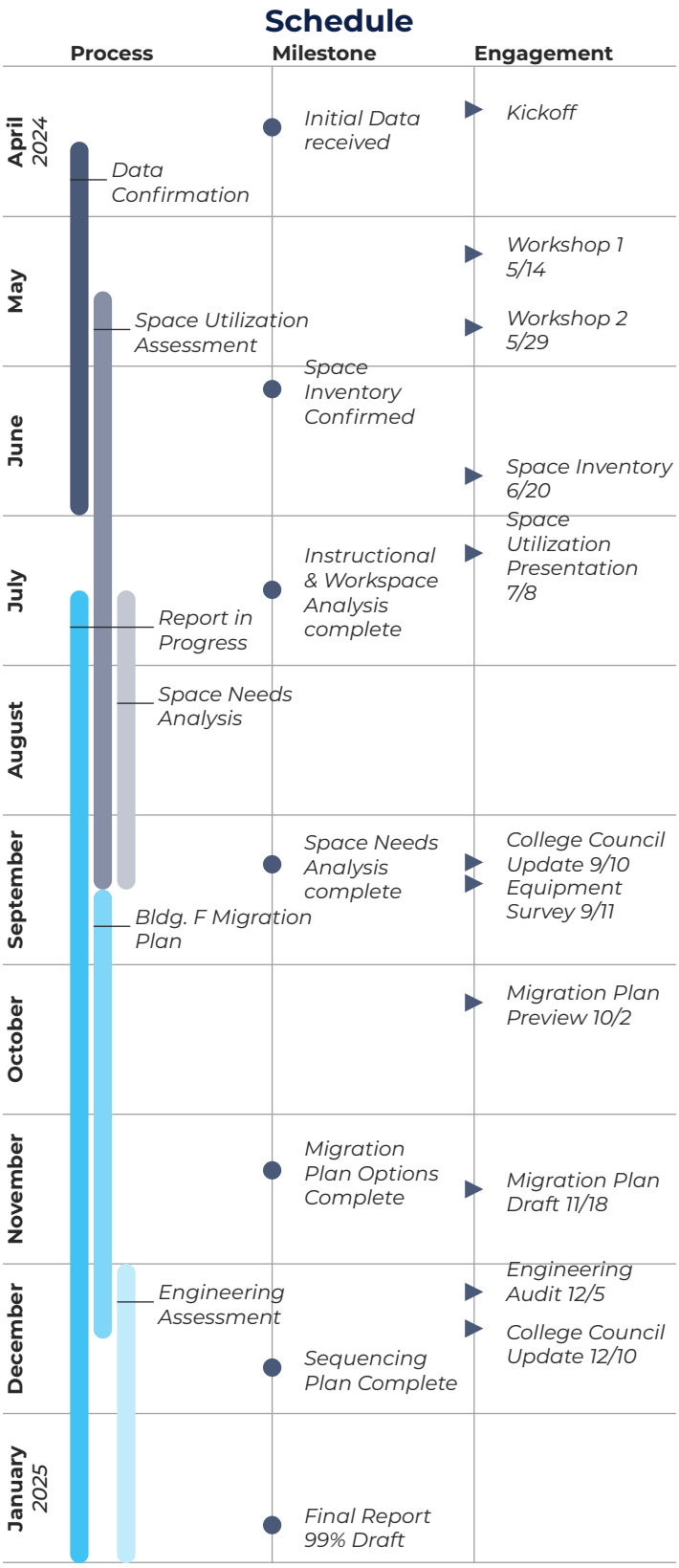
The Cuyamaca College Space Utilization Study assesses the utilization of campus facilities focusing on the use of instructional, workspace, and study space on campus, provides an overview of space needs for the future, prepares guidelines for efficient space use, and supports the future migration efforts related to Building F.

With the potential to impact multiple buildings, this study helps to envision how current space can be optimized to support future student and faculty needs.

## SCHEDULE

The project began in April 2024 with a space utilization assessment encompassing the entire campus. The first month consisted of a project kickoff, data request, confirmation, and verification. The instructional and workspace analysis would kick off in the second month. Several engaging workshops occurred in May sharing initial analysis and discussing current building use of Building F occupants. During the summer months when school was out of session, the project focused on data confirmation and room verification.

When students returned in Fall 2024, the study integrated space needs analysis and focused on future anticipated efforts on Campus. In depth evaluation of Building F occurred between August-December 2024. Building setup and program requirements as well as space allocation were documented to inform migration strategies.



## RECOMMENDATIONS AND OPTIMIZATION STRATEGIES

The following recommendations are informed by the facility assessment analysis and summarize key findings in the study providing strategies to optimize space.

1

**Balance the Course Schedule with Room Attributes**
Increasing instructional space utilization relies on aligning the course schedule with the best fit rooms. An in-depth evaluation of current scheduling patterns for classrooms and computer laboratories is recommended to optimize space on campus and align room use with course demand. Adjusting course timing may be necessary to balance active classroom portfolio in support of the Building F Migration Plan.

2

**Centralize Service Locations**
Creating central hub locations for activities such as tutoring support across multi-programs optimizes space, reduces redundant resources, and fosters student collaboration opportunities. Storage space is another opportunity to develop in a more central location reducing an underutilized, overabundance of storage located on the perimeter but needed on the campus core.

3

**Revitalize the Student Study Experience**
Reimagining the library as a collaborative learning hub by incorporating flexible study areas, technology zones, and community spaces supports College goals and increases use. This transformation centralizes student activity in a location with active resources and fosters student interaction outside traditional classroom settings.

4

**Assess Space Regularly**
Conducting annual space utilization assessments, particularly for instructional rooms and workspace, is essential to ensure that campus facilities align with evolving academic and programmatic requirements. Evaluating space on a regular basis at the institution level keeps data accurate and allows for quick adaptability to meet changing program needs.

5

**Align Campus Experience with College Goals**
Cuyamaca College establishes a vision for student engagement fostered in welcoming environments. Through strategic investment, Cuyamaca can align the campus with student needs through the redistribution of space to balance student demand. Low utilization of instructional space, particularly classrooms, should be considered for alternate space type conversion such as student wellness rooms, zoom or group study spaces, and faculty office hubs. Redeveloping space with a focus on social connection will lead to higher space utilization and alignment with goals.

# EXECUTIVE SUMMARY

## ENGAGEMENT

### WORKSHOP 01

In May 2024, DLR Group worked with the College Council representatives to explore space utilization standards and metrics in anticipation of the analysis. Representatives provided input on the California Community Colleges Standards on Space Utilization as established in 2020. Key areas of concern included office space needs and student program support areas. The Council discussed how facility condition may be a driver to some areas of low utilization on campus. In particular, it was noted that Building F's lower building condition most likely was a factor in low utilization for both offices and classrooms in the building. Class laboratories in Building F were anticipated to have high use due to the unique setup of several program lab spaces that are not replicated in other areas of campus.

Key goals for the study as established by the College Council include better understanding of campus space, ensuring student needs are met, and identifying areas of campus that can serve current needs such as storage space.

### WORKSHOP 02

The Campus Overview In-Person Workshop offered valuable insights into the utilization challenges and deficiencies of campus spaces. This collaborative session provided a broader perspective on how current spaces are being used and highlighted areas for improvement. It also served as a platform to better understand the needs, concerns, and aspirations of students, faculty, and staff, ensuring that future planning aligns with their expectations and priorities.

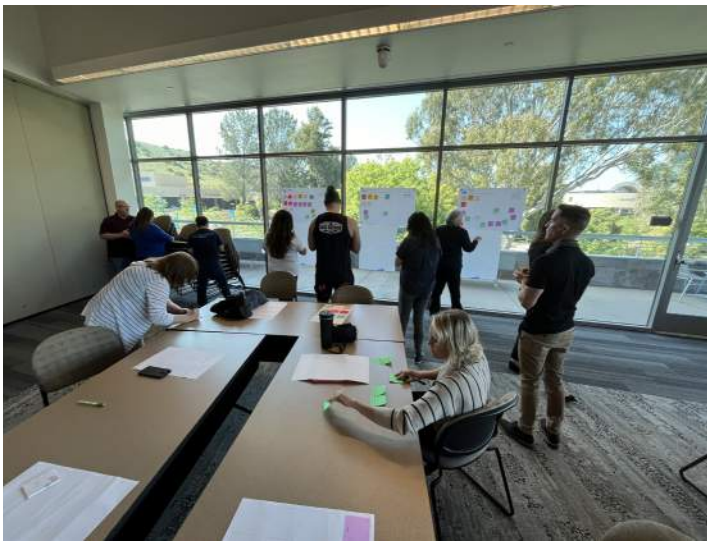
Key issues identified:

1. Insufficient Collaboration Spaces

2. Need for Active Learning Classrooms

3. Inefficiencies due to Non-Adjacent Departments

4. Limited Storage Space



## SPACE TYPES INCLUDED IN THE STUDY

**Classrooms**: Category includes all space used for scheduled, non-laboratory instruction for all academic units (classrooms, seminar rooms, lecture halls). This includes rooms allocated as classroom service / support space.

**Instructional Laboratories:** Category includes rooms characterized by special purpose equipment or special configuration that ties instruction to a particular discipline or closely related group of disciplines. Includes labs with scheduled use, open labs, and service space as an extension of the activities in the class labs.

**Workspace:** Category includes the office and work areas for academic and administrative personnel along with office service space (conference, files/ copy, waiting area, storage).

**Library/Study:** Category includes the study, stack, processing, and archive spaces.

**Health/Recreation/Athletics**: Includes spaces designated for student wellness and physical activity including gymnasiums, intramural-based recreation areas, and counseling services.

**Assembly:** This category is the space assigned for large gatherings in a formal setup such as a lecture hall. Most often, this category includes theater spaces and other performing arts based audience settings.

**Food Facilities:** Rooms designated for the preparation of consumption of food.

**Student-Centered:** Student-centered space includes lounges, student gathering areas, and meeting spaces designed to foster interaction and collaboration among students. These spaces play an essential role in supporting student engagement by providing areas for informal learning, networking, and restoration.

**Merchandising:** Merchandising spaces encompass the campus store for selling retail products, including school-branded apparel, books, electronics, food, and convenience items.

**Unused / Inactive Areas:** Rooms available for assignment to an organizational unit or activity but unassigned at the time of study.

# EXECUTIVE SUMMARY

## METHODOLOGY

### SPACE ANALYSIS

Analyzing space utilization varies for each space typology that was reviewed in the study. Space is assessed according to best known practices, state standards, and peer benchmarking.

Instructional space is analyzed on four components; the room location, the room sizing, the assigned occupant, and the course schedule. The course schedule provides the two main metrics used by the State of California as standard classroom utilization assessments; seat occupancy and classroom hours in use. The course schedule also provides information to analyze classrooms by time of day usage.

Room location and room sizing provide the data to determine assignable square feet per station used to assess room functionality and learning modality. Assigned occupant data provides context behind the summary utilization. This establishes the department overseeing the room, including whether the classroom is considered general purpose or overseen by Instructional Operations.

Office utilization was assessed using the office assignment directory and space data. An assessment of assigned versus vacant offices was developed and compared at the departmental level. Utilizing the California Board of Governors standards, a comparison of current office assignment to expected office assignment was developed highlighting buildings and departments with low occupancy.

Determining Library space utilization was completed using quantitative and qualitative data. The consultant team walked the Library space over three separate days throughout the end of the spring term and two days during the Fall term at various intervals during the day to document active individual use. This data was mapped against the Library floor plan creating a heat map of open seats versus active use. Working with Library personnel, the consultant team collected information regarding regular student use, peak library time periods, and future activity goals to increase utilization.

### GCCCD DESIGN STANDARDS

Cuyamaca College has their own standards and guidelines that affect space. These standards were also considered during the course of the study and impacted some analysis and recommendations. The purpose of the design guidelines is to provide direction regarding the physical design of the Grossmont and Cuyamaca College campuses. These guidelines establish a minimum standard of design excellence.

The goal of these guidelines is to provide design criteria for new facilities, renovations, and site improvements that are intended to enhance the quality and visual cohesiveness of the campus. An inviting image of each campus should be apparent when students, faculty, and staff first enter the campus grounds, and that conceptual image should be consistently reinforced throughout the entire campus.

Instructional spaces were evaluated utilizing the classroom sizing standards as indicated in the GCCCD Design Standards. Classroom sizing was compared to recommended square footage in the design standards and square footage per station was evaluated based on these guidelines.

## METHODOLOGY

### CALIFORNIA BOARD OF GOVERNORS

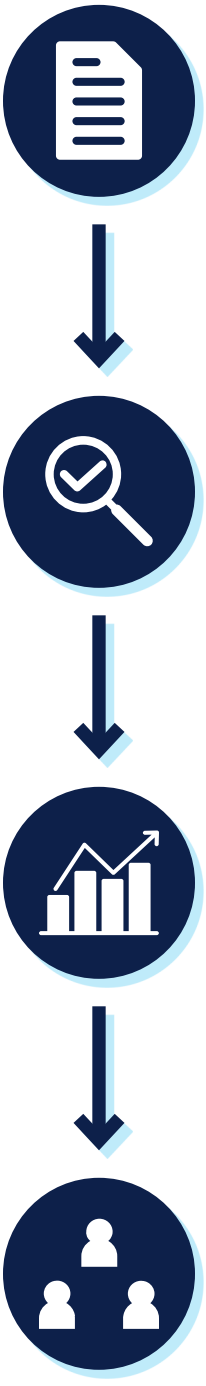
The Board of Governors of the California Community Colleges Policy on Utilization and Space Standards (referred to as CA BOG Standards) is a set of standards used to assess space use of current facilities and plan development of future facilities. The standards were updated in 2020 and supersede previous utilization targets established by the State of California under Title V.

These standards measure existing and future need for academic spaces such as classrooms, laboratories, library and technology space, and faculty offices. The standards are utilized in the space assessment to visualize how instructional spaces are being actively utilized and as the calculation guide to determining future need.

The standards represent intense instructional use with expectations that facilities actively have participants in space between 40 - 70% of the time in a given 70 hour week. In some cases, the space assessment adapted standards to align with Cuyamaca College's institutional goals or the Grossmont - Cuyamaca Community College District (GCCCD) standards more closely. These adaptations are noted in the assessment.

### PEER BENCHMARKING

Peer Benchmarking, referred to as CA Peers in this study and various analysis diagrams, serves as a reference point for the average space allocation and usage among similar institutions. Peers used as part of this project include Grossmont College, MiraCosta College, Chaffey College, Berkley City College, and Moreno Valley College.



**Compile Data**
Compile all data into one database, including the room inventory and course schedule.

**Verify Data**
Complete preliminary analysis of the database verifying room data and records in coordination with the College.

**Analyze Data**
Compare the data against GCCCD and CA BOG standards as part of the assessment process.

**Collaborate and Recommend**
Deliver preliminary findings with the client and engage stakeholders to draft recommendations for the final report.


STUDENT
SERVICES
G

# 02 EXISTING SPACE PORTFOLIO

CAMPUS-WIDE UTILIZATION

INSTRUCTIONAL SPACE

COURSE SECTION SIZING

WORKSPACE

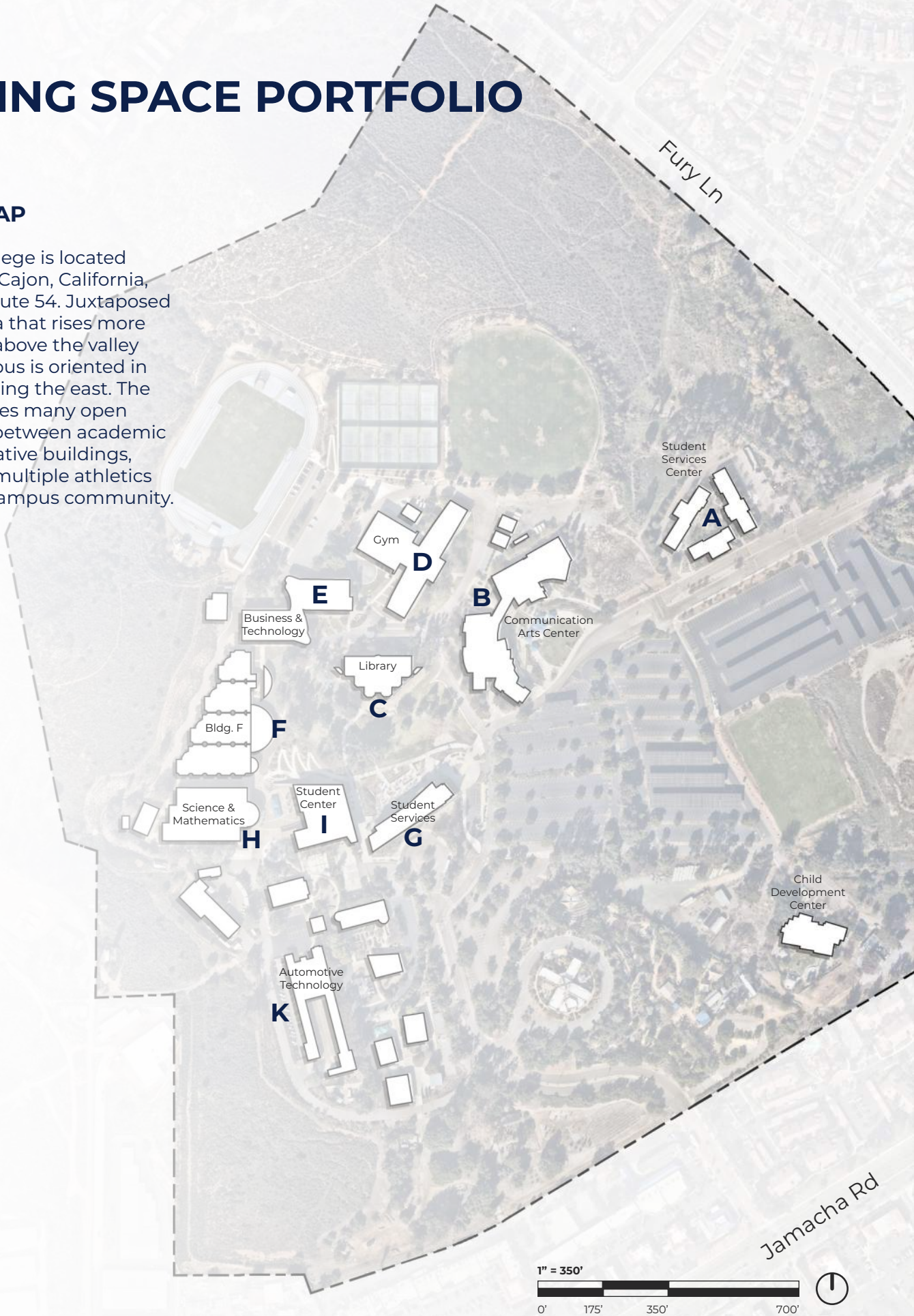
STUDY SPACE

COURSE BY BUILDING AND TIME OF DAY

# EXISTING SPACE PORTFOLIO

## CAMPUS MAP

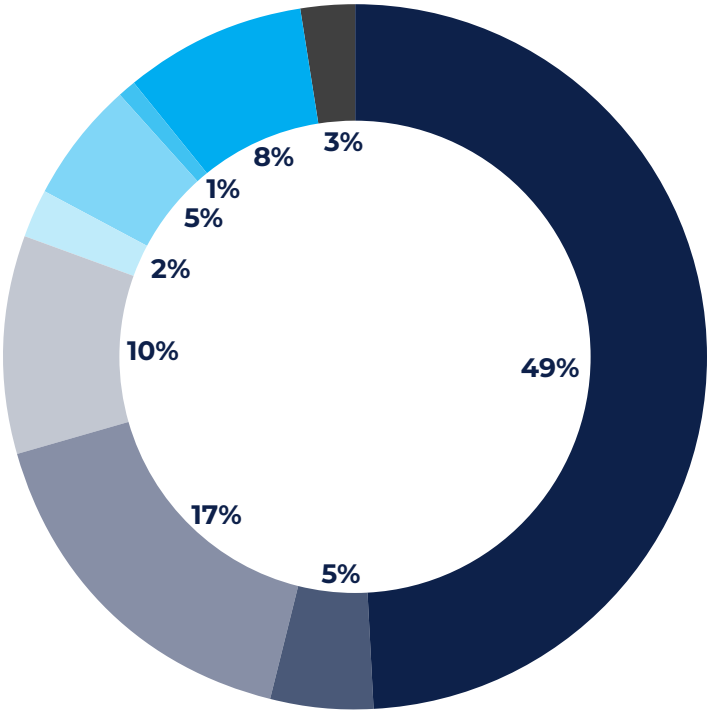
Cuyamaca College is located in southern El Cajon, California, along State Route 54. Juxtaposed against a mesa that rises more than 300 feet above the valley floor, the campus is oriented in a "C" shape facing the east. The campus features many open green spaces between academic and administrative buildings, in addition to multiple athletics fields for the campus community.



## CAMPUS-WIDE UTILIZATION

The breakdown of campus space types shown in the pie chart on the right indicates that a majority of space, totaling 178,856 assignable square feet (ASF), is dedicated to instructional uses, accounting for 49% of the campus. Workspace, encompassing 61,244 ASF, is slightly higher than expected at 18%, whereas a preferred metric for workspace is around 15% of total space. The General Use category appears low at just 5%, compared to a preferred metric of 10% - 15%.

Overall, the existing space breakdown by type falls close to the California Board of Governors and the Association for Learning Environments planning standards.




| Space Category | ASF | % of Space | Preferred % of Space Metric | Cuyamaca College Peers % of Space |
|---|---|---|---|---|
| Instructional | 178,856 | 49% | 30 - 40% | 33% |
| General Use | 17,261 | 5% | 10 - 15% | 12% |
| Workspace | 61,244 | 18% | 15% | 18% |
| Study | 35,678 | 15% | 10% | 15% |
| Central Service (Storage) | 8,870 | 5% | 5% | 5% |
| Student-Centered | 19,873 | 7% | 7 - 10% | 7% |
| Merchandise | 2,800 | 5% | 2 - 5% | 5% |
| Athletics | 30,017 | 8% | Varies | Varies |
| Inactive / Other | 9,017 | 3% | xx | xx |

## INSTRUCTIONAL SPACE

Instructional space is spread fairly evenly throughout campus with 32 classrooms and 44 class laboratories. Together with additional instructional support spaces, this results in 145,138 total square footage of space. Instructional space in many buildings is setup in traditional or seminar formats with tablet arm seating or chairs and tables. The average square foot per station for classroom falls at a healthy 25 square feet. This allows a variety of teaching modalities to be successfully taught in classrooms, from active learning to faculty-directive or student centered modes.

*Current Classroom Space with Tablet-Arm Style Chairs (18 ASF/ Station)*

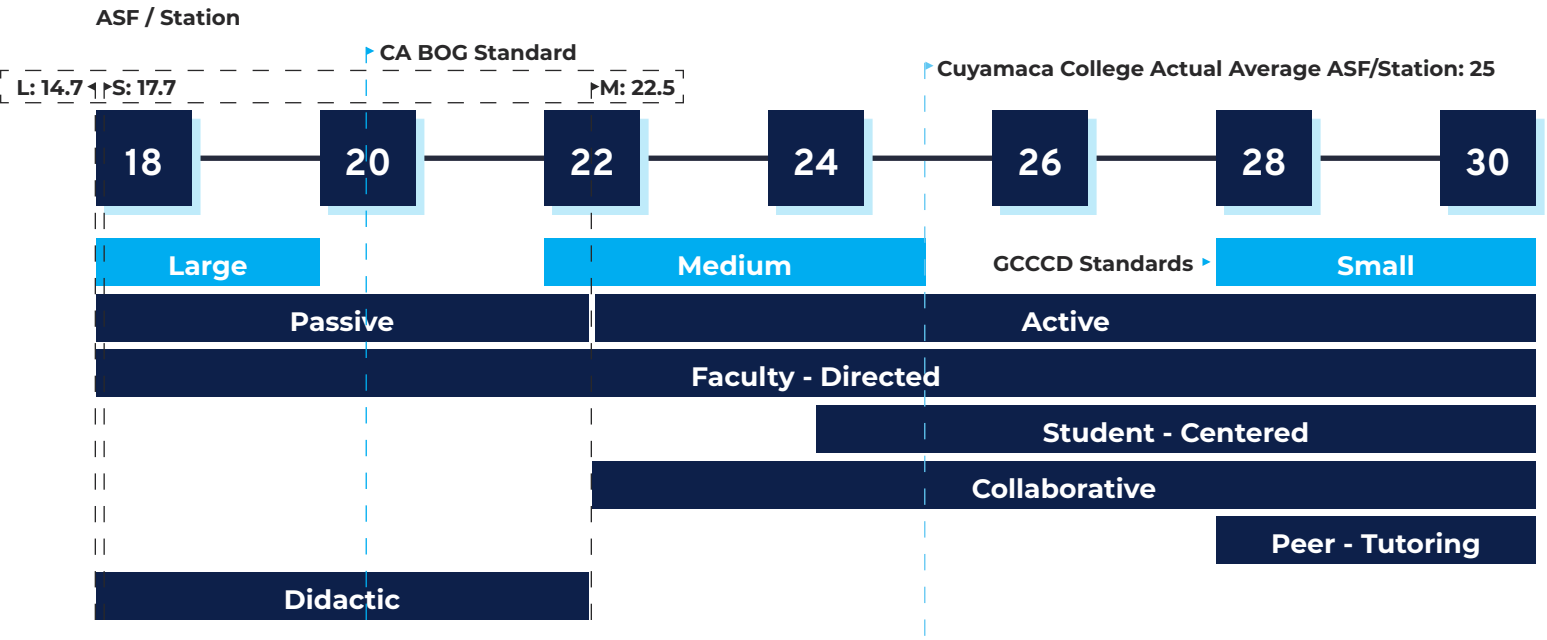
While many institutions follow design standards set by State or Federal agencies, Cuyamaca College also adheres to their own District design standards. Classroom spaces are categorized into small, medium, or large by room ASF:

- Small (≤990 ASF)
- Medium (991 - 1,584 ASF)
- Large (≥1,585 ASF)

*Current Classroom Space with Flexible Table and Chairs (22 ASF / Station)*

Based on the room size classification, the GCCCD design standards provide an anticipated square footage per station as indicated below.

## SIZING SPACES FOR USE TODAY



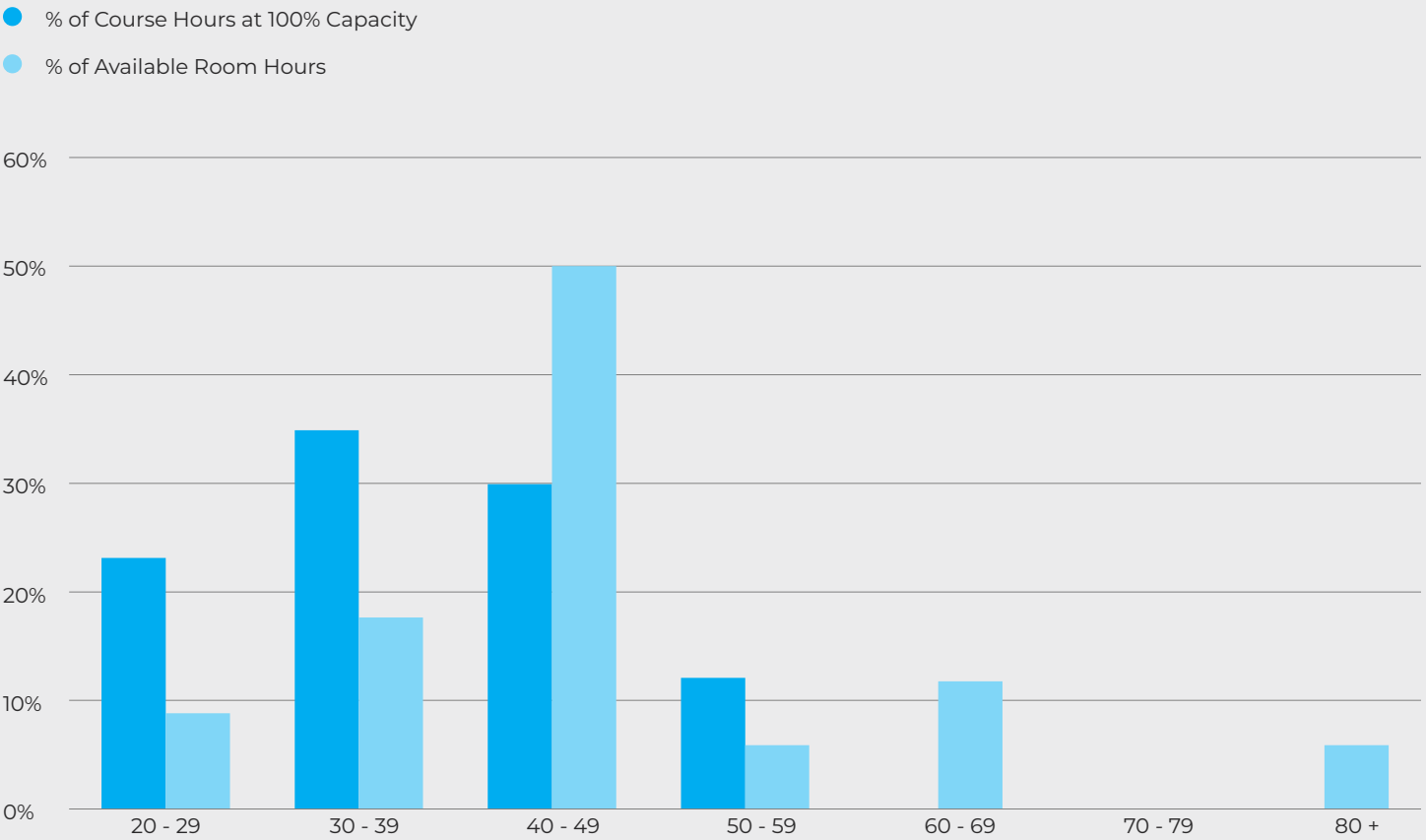
## CLASSROOM TO CLASS SECTION SIZE COMPARISON

The chart below compares classroom seating capacities with section sizes. About half of the classrooms on campus are designed to hold 40-49 students, but only 30% of class hours are in sections with that number of students, indicating that there are more classrooms of that size than are needed. Smaller class sections (those with 20-29 students) make up about 22% of the total scheduled class hours, but are scheduled in larger rooms. This indicates a need for more small classrooms. There is also a need for more 30-39 seat classrooms.

When section and classroom sizing have a mismatch this reduces seat fill since section sizes are forced to be placed in a larger room with more seats than are needed. Seat fill percentages are one of the metrics used by California Community Colleges to determine utilization of classrooms, and an unbalanced classroom inventory gives a negative perception of classroom use.

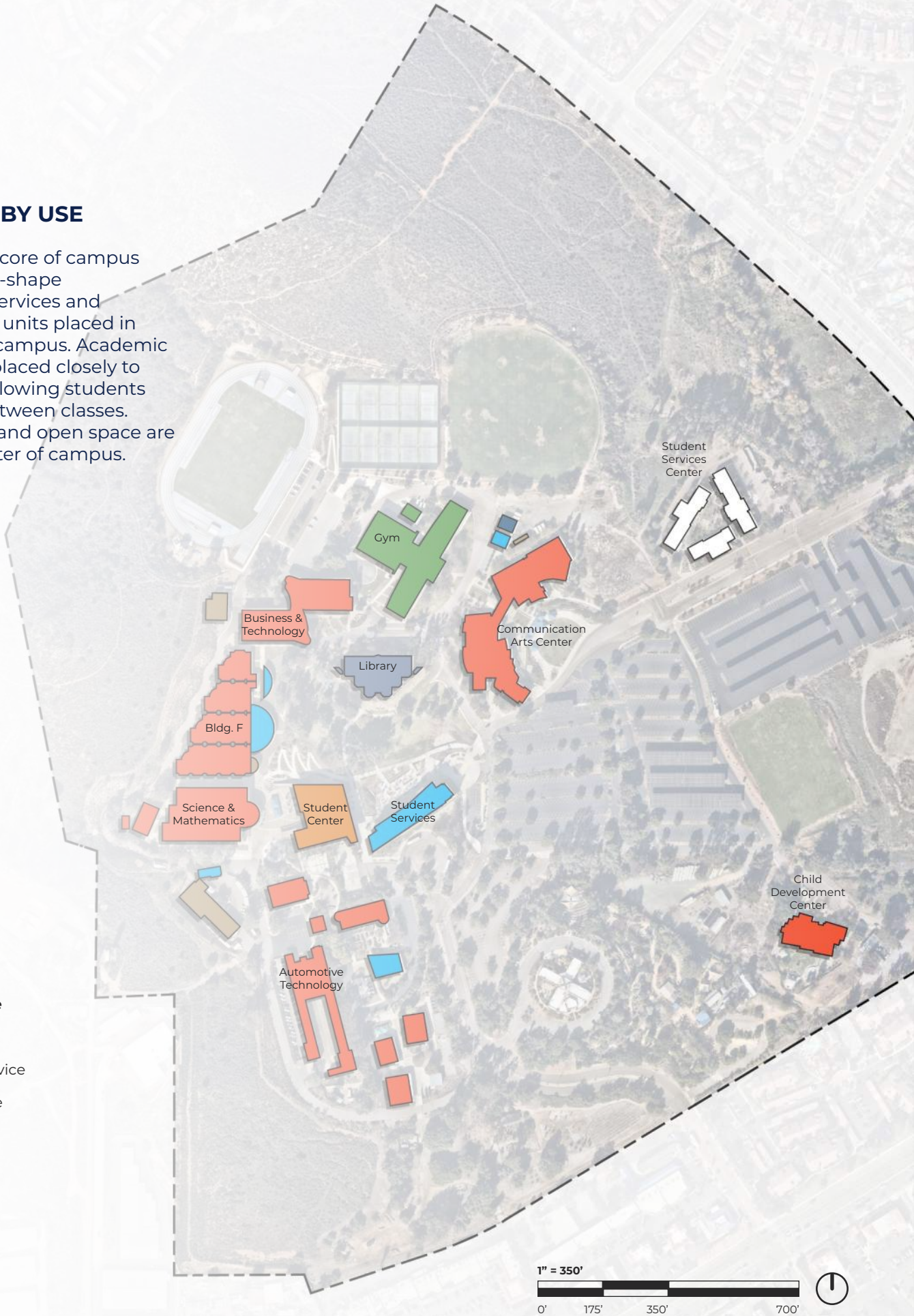
To fix this discrepancy, Cuyamaca College should use all future capital projects to align classroom capacity with section sizes. Right-sizing rooms should go beyond the square footage per station and assess what number of seats is most in-line with the classes scheduled in that room. This will help increase seat fill percentages to align with CA BOG standards.

**Classroom to Section Size Comparison**



## BUILDINGS BY USE

The academic core of campus curves into a C-shape with support services and administrative units placed in the middle of campus. Academic buildings are placed closely to one another allowing students easy access between classes. Athletic fields and open space are on the perimeter of campus.




**Buildings by Type**

- Academic
- Academic Service
- Administrative
- Athletics
- Facilities
- Parking
- Recreation
- Student Life
- Not in Data

## WORKSPACE

Cuyamaca College has a variety of workspace dedicated to office use and office support, including offices, cubicle areas, conference rooms, break rooms, office storage, and printer or mail rooms. The campus workspace follows a traditional layout with many private offices, closed doors, and limited collaboration space.

Current workspace consists primarily of private offices. Workspace is distributed between buildings, each of which is typically dedicated to one or two departments. Office types vary significantly based on the building in which they are located. Several entities have established office areas that include collaboration zones and touch down spaces for visitors or adjunct faculty. The more outdated facilities primarily have large underutilized office spaces that could accommodate multiple occupants but are often set up for one individual. This discrepancy in office types leads to a variety of utilization based on the building.

*Current workspace with adjacent collaboration zone*

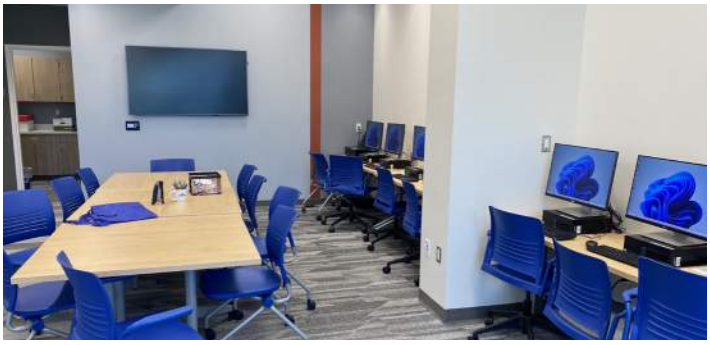
*Current workspace*

## STUDY SPACE

The Library or Learning Center (Building C) makes up 60% of all student study space on campus. The remainder is spread throughout campus in three academic buildings (Building H, Building B, and Building E). Building I, the Student Center, also provides many spaces that could be considered study areas but are classified as student centered space for the sake of this analysis.

Smaller study spaces are distributed across campus, either with seating in open circulation areas, or within several academic support resource centers for individual programs.

*Current Library space*



*Current Resource space*

## SPACE ALLOCATION BY USER

This map provides a visual representation of the distribution of programs by building. Space assignment is sourced from the Fusion space database and rolled up to the division level.

Programs are primarily located within one building creating program hubs. Building F has the largest variety of assigned programs. The migration study in Chapter 9 includes strategies to redistribute Building F programs in anticipation of the building's future demolition. This redistribution is informed by aligning programs from Building F adjacent to their program hubs when possible.

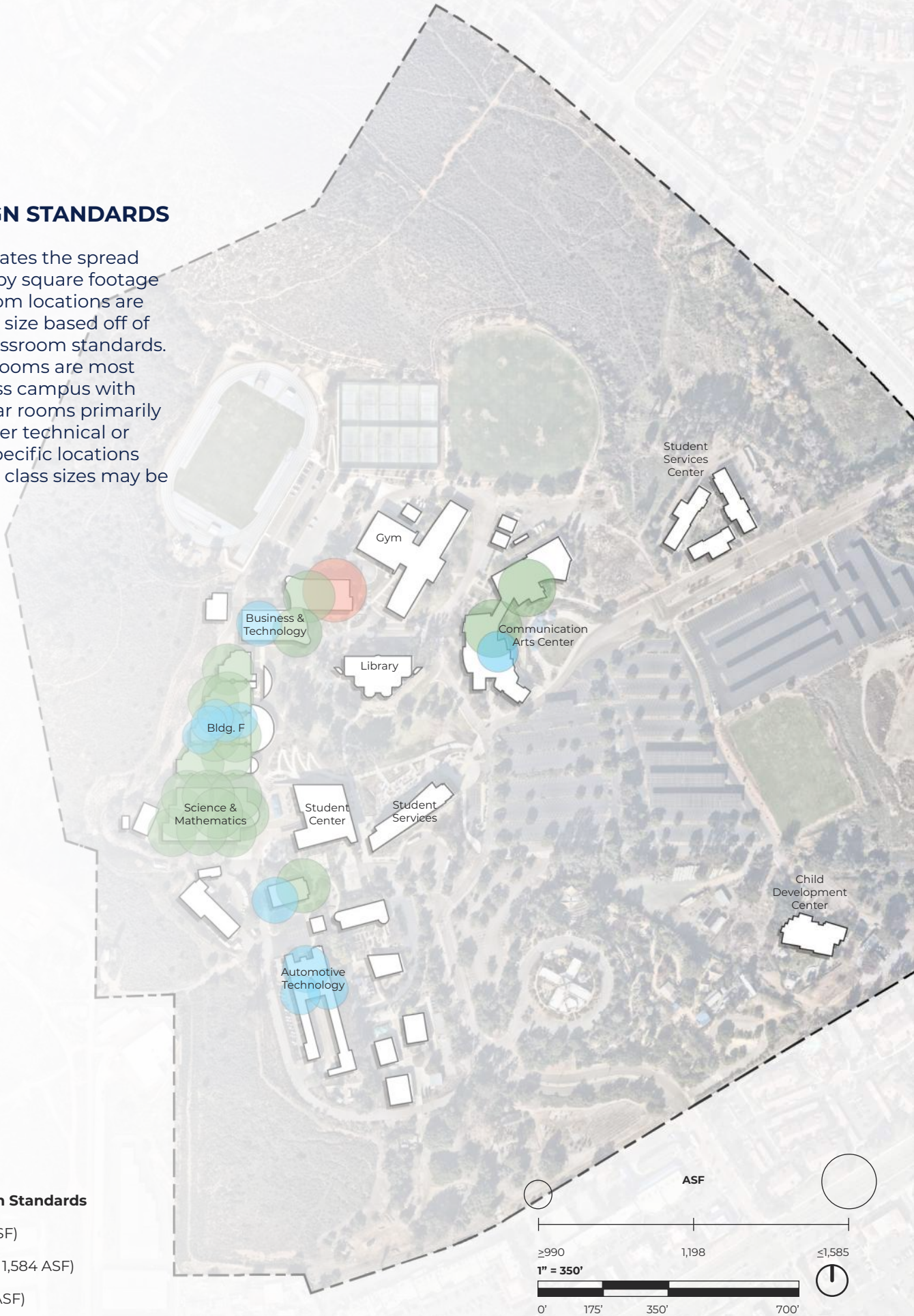
Though some programs are distributed across the campus, most buildings are accessible within a 5- to 10-minute walk of each other, allowing students to transition quickly between classes and campus resources as needed. Student services are accessible and centered for current and future students to interact with regularly.


**Department**

- Student Services
- Administrative Services
- Learning & Technology Resources
- Math, Science & Engineering Division
- Career Technical Education
- Office of Instruction

## ASF / DESIGN STANDARDS

This map indicates the spread of classrooms by square footage sizing. Classroom locations are color coded by size based off of the GCCCD classroom standards. Medium classrooms are most common across campus with smaller seminar rooms primarily located in career technical or department specific locations where student class sizes may be smaller.




**GCCCD Classroom Standards**

- Small (≥990 ASF)
- Medium (991 - 1,584 ASF)
- Large (≤1,585 ASF)

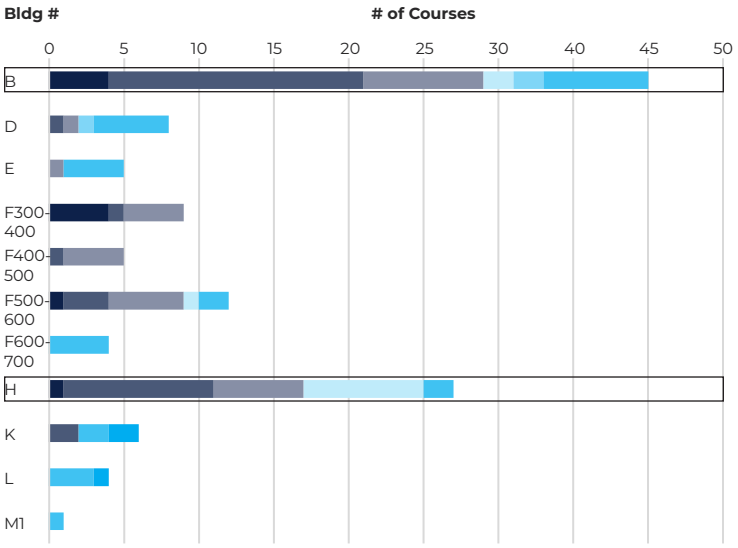
## COURSES BY BUILDING AND TIME OF DAY

The following charts, based on the Fall 2023 course data, show the number of courses in each building according to their start times. Because there were multiple start times across the day, start times were rounded to the nearest two-hour interval to present a clearer picture.

While the x-axis shows the total number of courses occurring in a specific building, some buildings have also been outlined to show peak hours, where more than 5 courses begin at the same time. Note that the majority of these peak hours occur around 10:00 AM and 12:00 PM.

Buildings B and H are the best utilized on campus for all days of the week. Building M1 has the lowest number of classes scheduled. Very few courses occur on Fridays and Saturdays, with most classes taking place Monday through Thursday.

## MONDAY



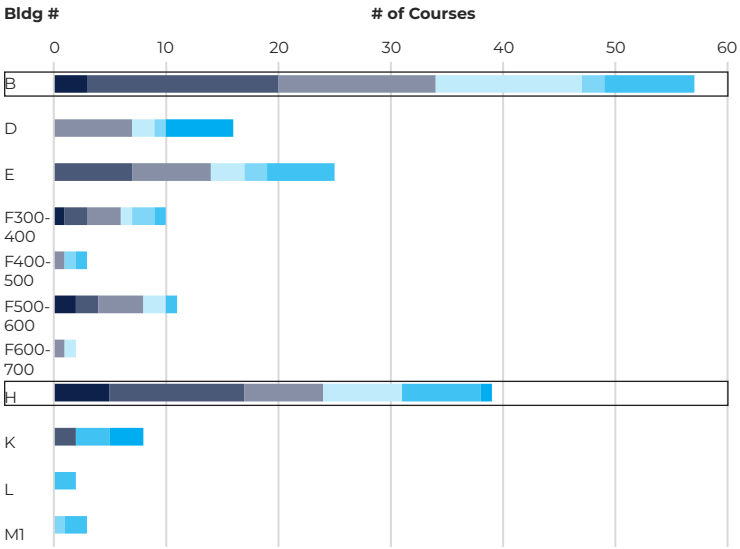

### Time of Day

- 8:00 AM
- 10:00 AM
- 12:00 PM
- 2:00 PM
- 4:00 PM
- 6:00 PM
- 8:00 PM
- Buildings with Peak Hours

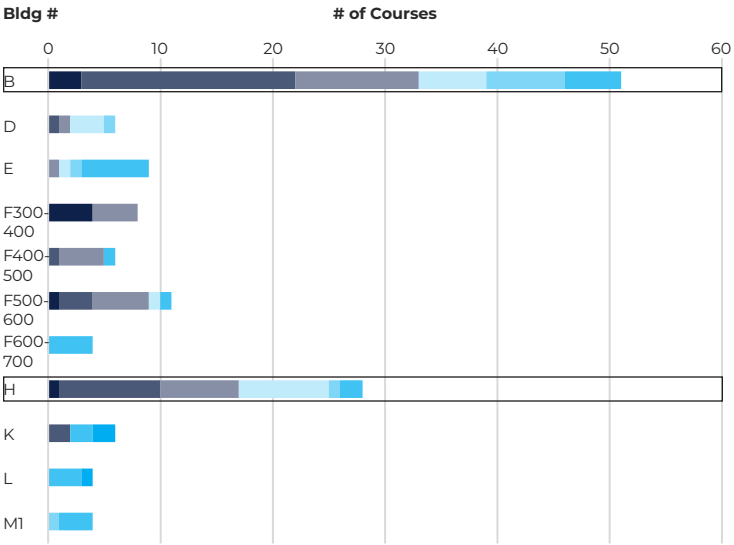
## BUILDING WITH PEAK HOURS

| Day | Building | Peak Hour |
|---|---|---|
| Monday | B, H | 10:00 AM |
| Monday | B | 12:00 PM |
| Monday | B | 06:00 PM |
| Monday | H | 02:00 PM |
| Tuesday | B, E, H | 10:00 AM |
| Tuesday | B, D, E, H | 12:00 PM |
| Tuesday | B, H | 02:00 PM |
| Tuesday | B, E, H | 08:00 PM |
| Wednesday | B, H | 10:00 AM |
| Wednesday | B, H | 12:00 PM |
| Wednesday | B, H | 02:00 PM |
| Wednesday | E | 06:00 PM |
| Thursday | B, H | 10:00 AM |
| Thursday | B, D, E, H | 12:00 PM |
| Thursday | B, H | 02:00 PM |

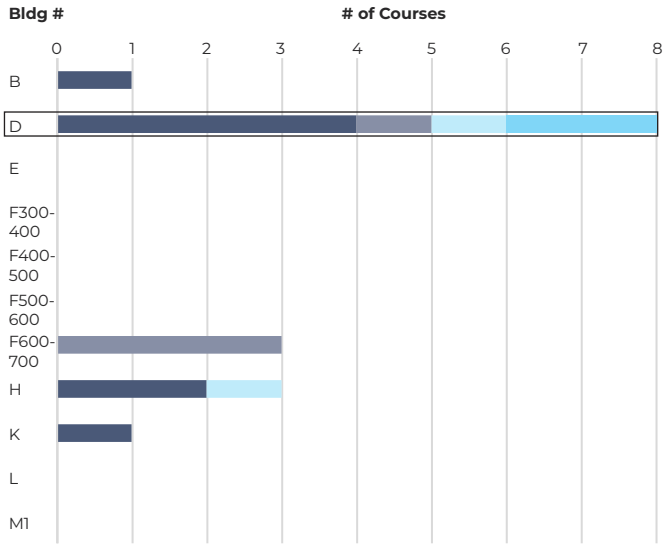
## TUESDAY



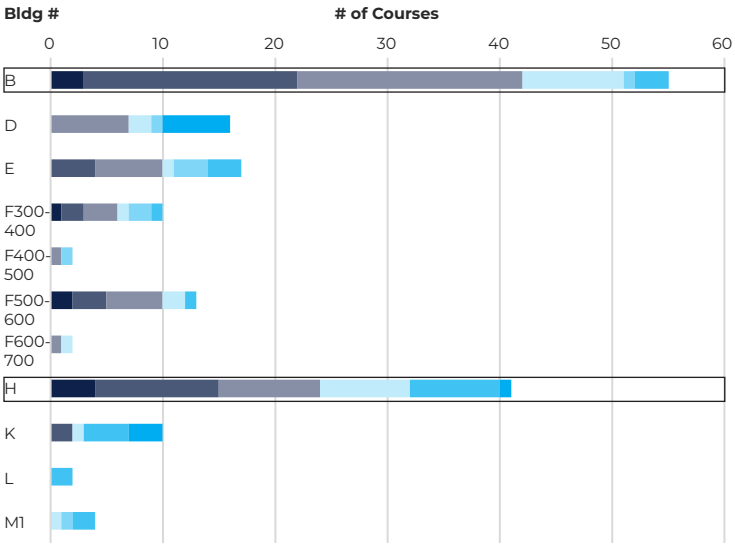
## WEDNESDAY



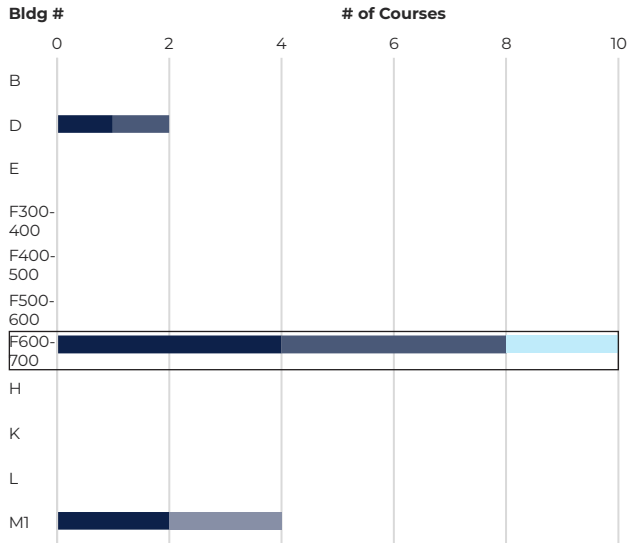

## FRIDAY




## THURSDAY



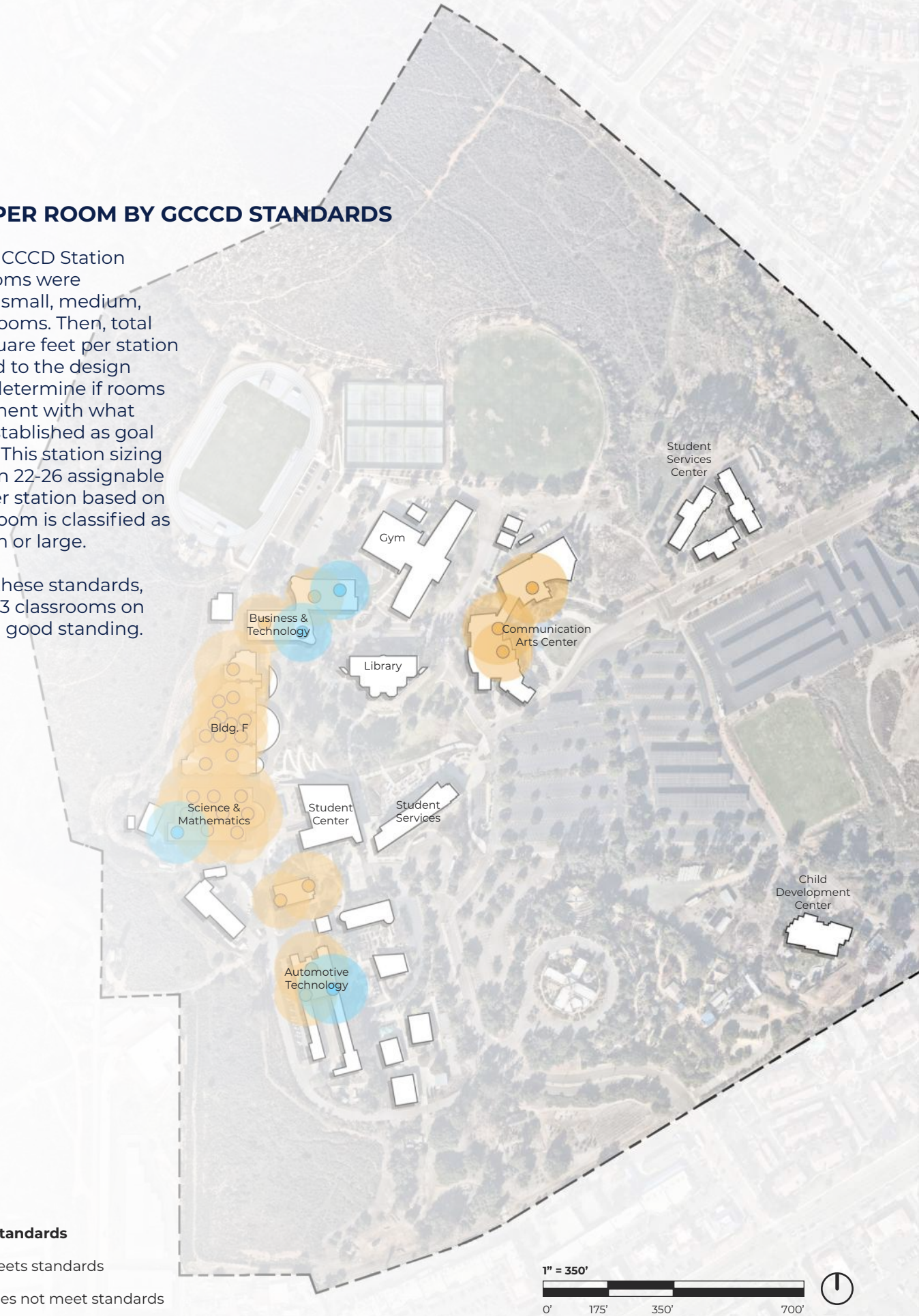

## SATURDAY



## STATIONS PER ROOM BY GCCCD STANDARDS

Utilizing the GCCCD Station Standards, rooms were classified into small, medium, or large classrooms. Then, total assignable square feet per station was compared to the design standards to determine if rooms were in alignment with what GCCCD has established as goal station sizing. This station sizing varies between 22-26 assignable square feet per station based on whether the room is classified as small, medium or large.

According to these standards, only 4 of the 33 classrooms on campus are in good standing.



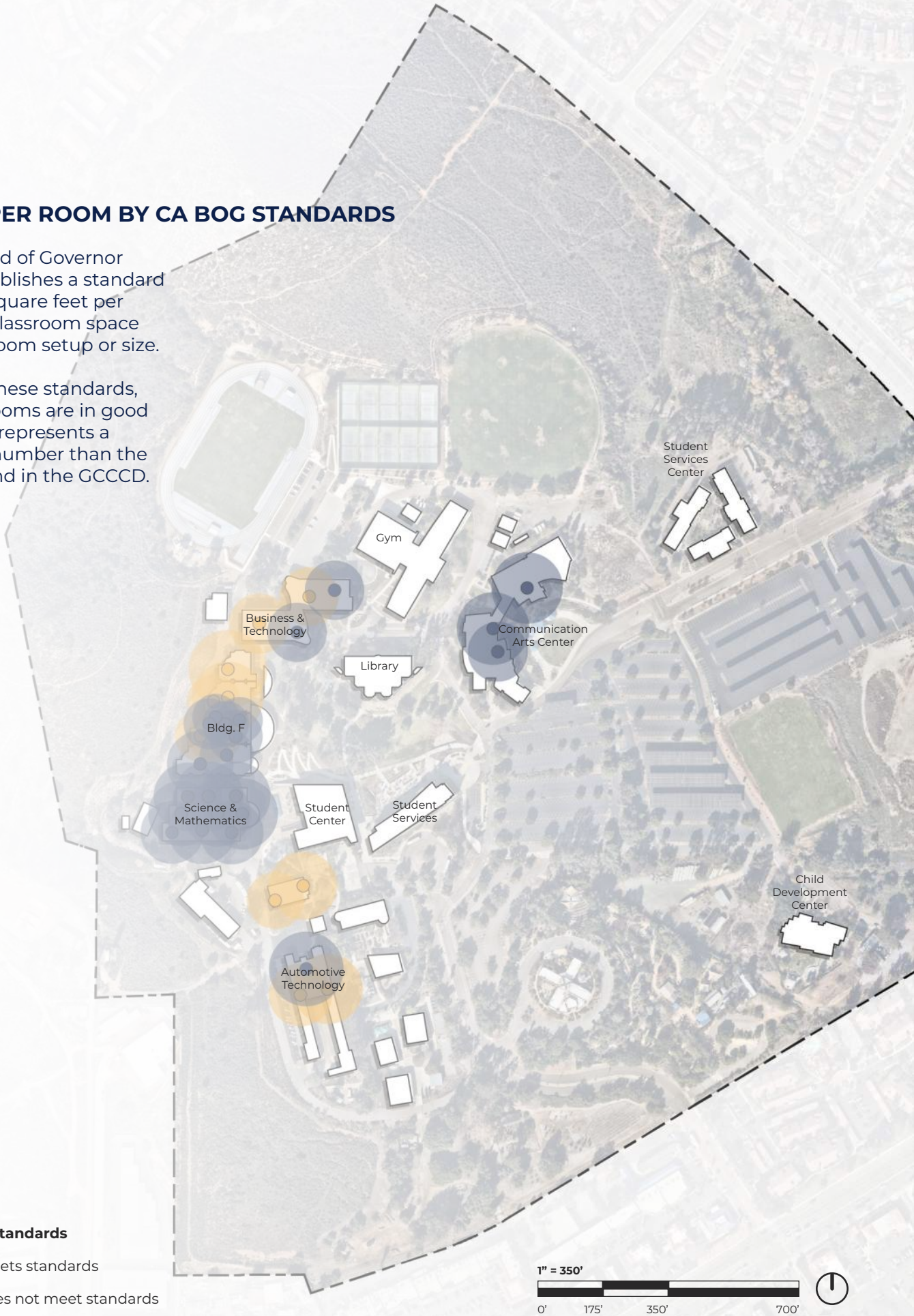

**GCCCD Station Standards**

- Classroom meets standards
- Classroom does not meet standards

## STATIONS PER ROOM BY CA BOG STANDARDS

California Board of Governor standards establishes a standard of at least 20 square feet per station for all classroom space regardless of room setup or size.

According to these standards, 22 of 33 classrooms are in good standing. This represents a much higher number than the standards found in the GCCCD.




**CA BOG Station Standards**

- Classroom meets standards
- Classroom does not meet standards


H

# 03 CLASSROOM SPACE UTILIZATION

**UTILIZATION ASSUMPTIONS & GUIDELINES**

**CLASSROOM TIME BY DAY ANALYSIS**

**CLASSROOM ANALYSIS**

**CLASSROOM SEAT FILL AVERAGE BY BUILDING**

# CLASSROOM SPACE UTILIZATION

## UTILIZATION ASSUMPTIONS AND GUIDELINES

Classrooms define the student experience and make up the largest proportion of overall space on campus. We assess utilization to understand how the portfolio of instructional space aligns with the courses being taught. This allows for optimization of the campus space portfolio.

The Board of Governors of the California Community Colleges Policy on Utilization and Space Standards provides an overview of assessing classroom utilization based on seat fill occupancy and hours in use. Seat fill represents the percentage of available seats occupied during a class session. A higher seat fill rate indicates more efficient use of classroom space, while a lower rate may suggest underutilization. California sets some of the highest utilization goals for instructional spaces in the country, requiring classrooms to be used for 48 weekly room hours. Meeting this standard is challenging, as it demands consistent room usage from early morning to evening or even on weekends. Due to the complexities of course scheduling, achieving this metric is often impractical. Overall, these two standards serve as key metrics in the assessment.

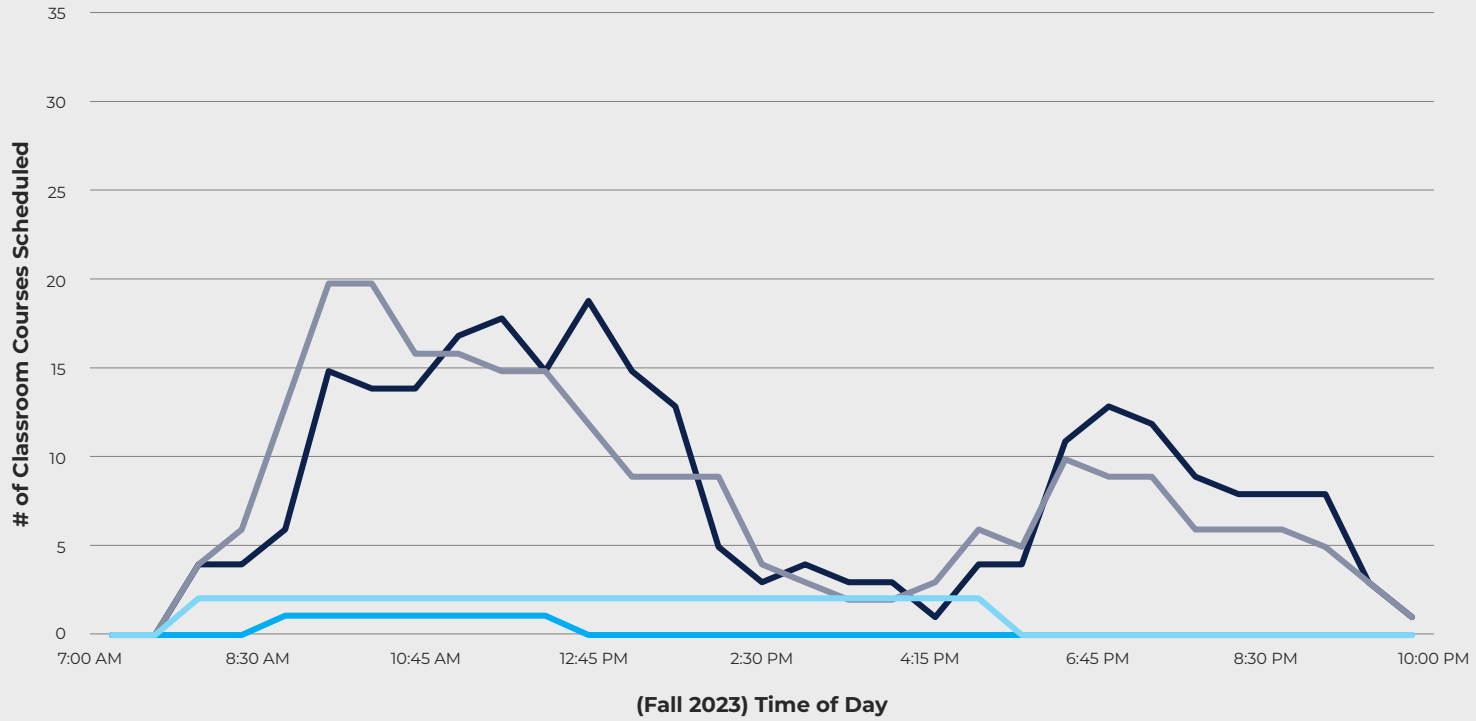
Other utilization metrics used to assess instructional use include course offerings, classroom layout, and assignable square feet per station. Assessments identify areas of high and low utilization on campus by overlaying usage data with course schedules, enabling an analysis of potential factors influencing these patterns . This helps provide context to what types of classrooms layout, sizing, or locations should be recreated or avoided in future capital projects.

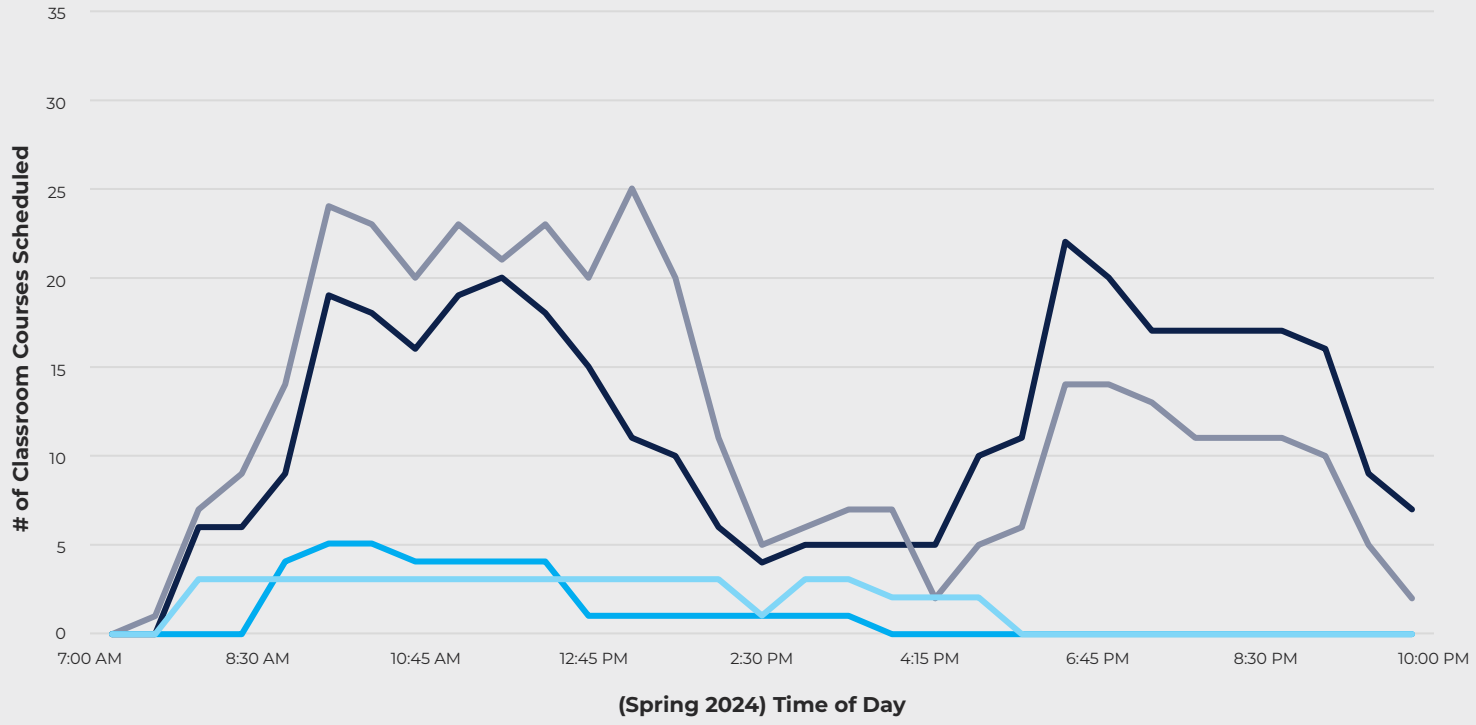
### CLASSROOM TIME BY DAY ANALYSIS

Community colleges that support two student populations (full-time students and working professionals) often have two peak times of day. The pressure on classrooms during peak time periods results in a burden on scheduling to find sufficient rooms that align with student and faculty preferences. This also results in a perception of needing a larger classroom inventory to meet course offerings during that time. Additional classrooms reduce the room weekly hours in use, a main metric used to assess classroom utilization.

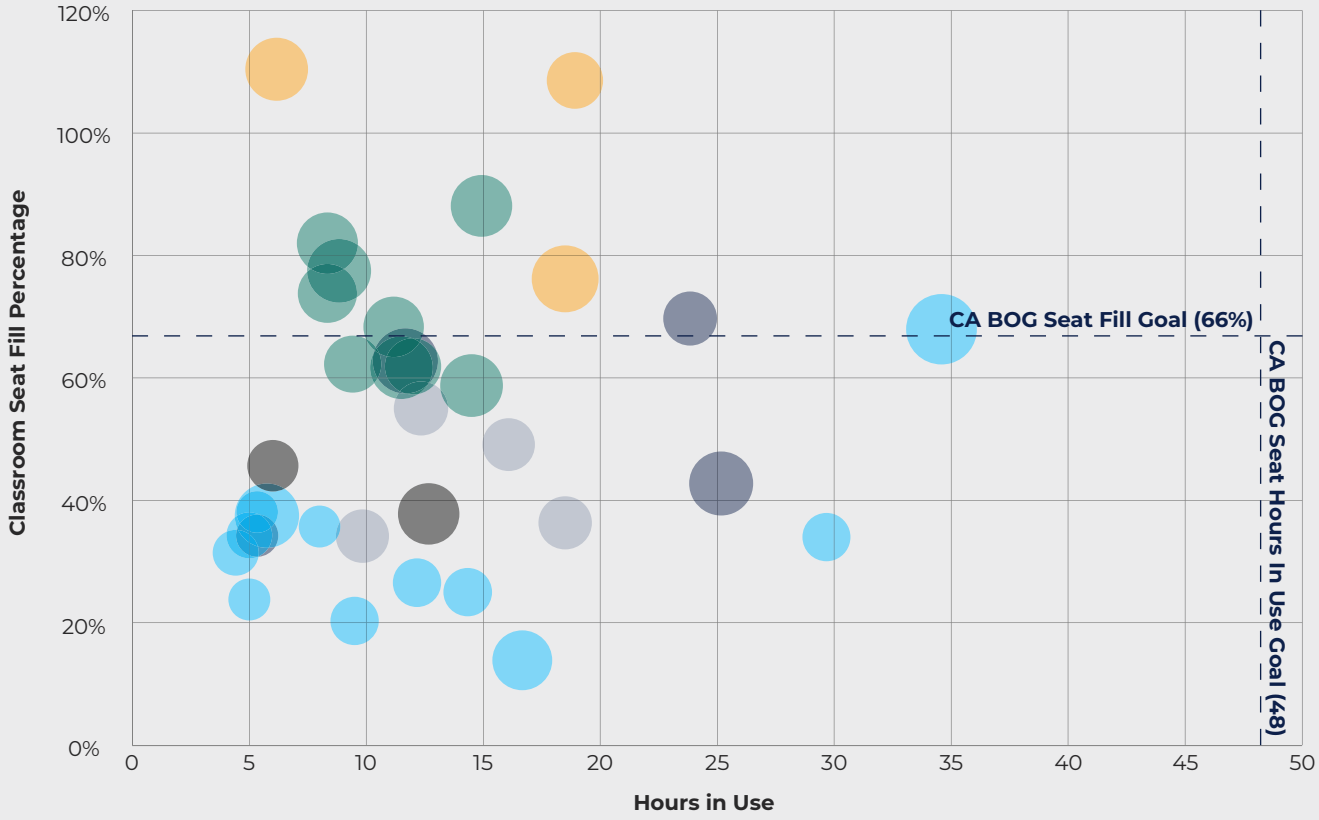
Peak classroom usage is primarily on Monday-Thursday in the mornings and mid-day from 9:00 AM-2:00 PM and evenings from 6:45 PM-9:45 PM. No day has any more than 25 courses scheduled at a single time, with Tuesday and Thursday courses reaching this maximum around 9:00 AM. Monday and Wednesday courses come close to this maximum around 12:00 PM. Both Friday and Saturday have no more than a few courses scheduled at the same time throughout the day.

## CLASSROOM TIME BY DAY ANALYSIS



## CLASSROOM ANALYSIS




### CLASSROOM ANALYSIS

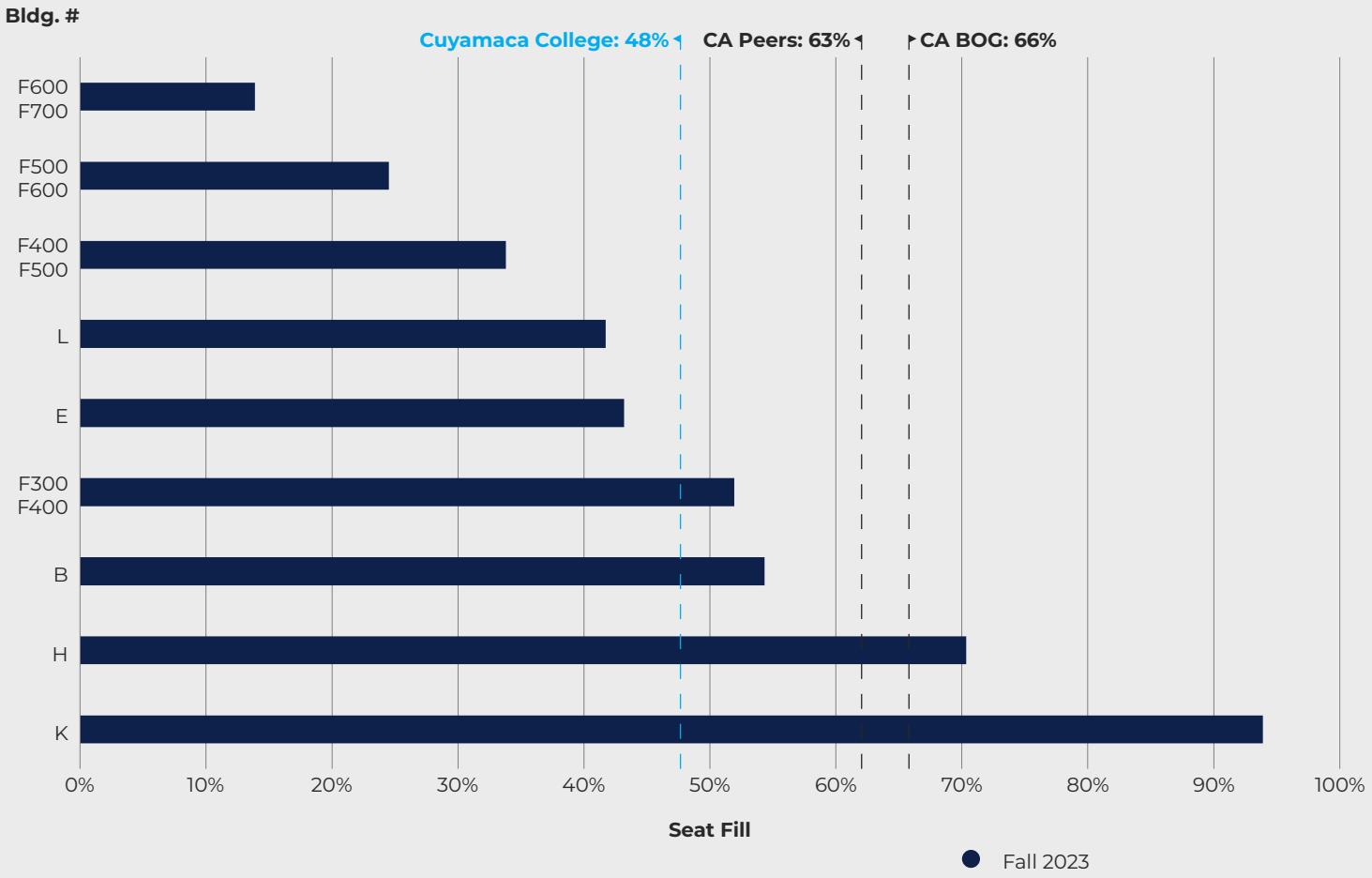
The chart above shows a dot representing each classroom on campus, colored based on the building in which that classroom is located. Dots that are below and to the left of the dotted lines do not meet CA BOG's aggressive utilization standards. The CA BOG recommends seat fill goal of 66% and an hours in use goal of 48 hours. The size of the bubbles or classrooms is representative of the assignable square footage of these rooms.

While some buildings are reaching their seat fill goals, others are lagging behind. Both H - Annex and K - Automotive are either at or above the goal. F - Vocational Technology is far behind, with some of the lowest seat fill on campus. No classrooms are meeting the hours in use goal, with only one room at 35 hours in use.

**Buildings**

- B - Communication Arts
- E - Business & Technology
- F - Vocational Technology
- H - Annex
- K - Automotive
- L - Waste Water Technology

## CLASSROOM SEAT FILL AVERAGE BY BUILDING




### SEAT FILL AVERAGE

The chart above uses the average classroom seat fill in each building to show how many buildings are meeting CA BOG seat fill goals (66%). Only two buildings have exceeded these goals, with the rest of campus falling behind. The overall average is brought down significantly with the inclusion of Building F. Cuyamaca College needs to increase its seat fill, as it is 15% below compared to its California peers and 18% behind the total state goal.


H

# 04 CLASS LAB SPACE UTILIZATION

UTILIZATION ASSUMPTIONS & GUIDELINES

CLASS LAB TIME BY DAY ANALYSIS

CLASS LAB ANALYSIS

CLASS LAB SEAT FILL AVERAGE BY BUILDING

# CLASS LAB SPACE UTILIZATION

## UTILIZATION ASSUMPTIONS AND GUIDELINES

CA BOG Standards include two main space utilization goals in regard to class labs: weekly room hours and average seats filled. CA BOG indicates a target metric of 27.5 room hours in use during a 70 hour week and an average seat fill of 80%.

The room hour goal is less than classrooms while the seat fill goal is higher. This is primarily due to the need for class labs to have more flexible setup and cleanup hours to provide availability for students to access equipment outside of course hours as well as wanting the room to have a higher seat fill, since laboratories are more expensive to build and maintain. Having more students actively participating in course hours increases the return on investment for these spaces.

The campus has a wide variety of laboratory types for different disciplines. Many programs are located into a single building with class laboratories built for a specific course. This creates few opportunities for increasing class lab utilization beyond adding additional courses that need that specific type of lab.

Science-based disciplines and rooms that fall under the Career and Technical Education have higher seat fill and higher hours. These laboratories are highly specialized and therefore fewer rooms may be available with equipment to support programs in these rooms. The images on the right showcase the variety of class labs found throughout the campus.

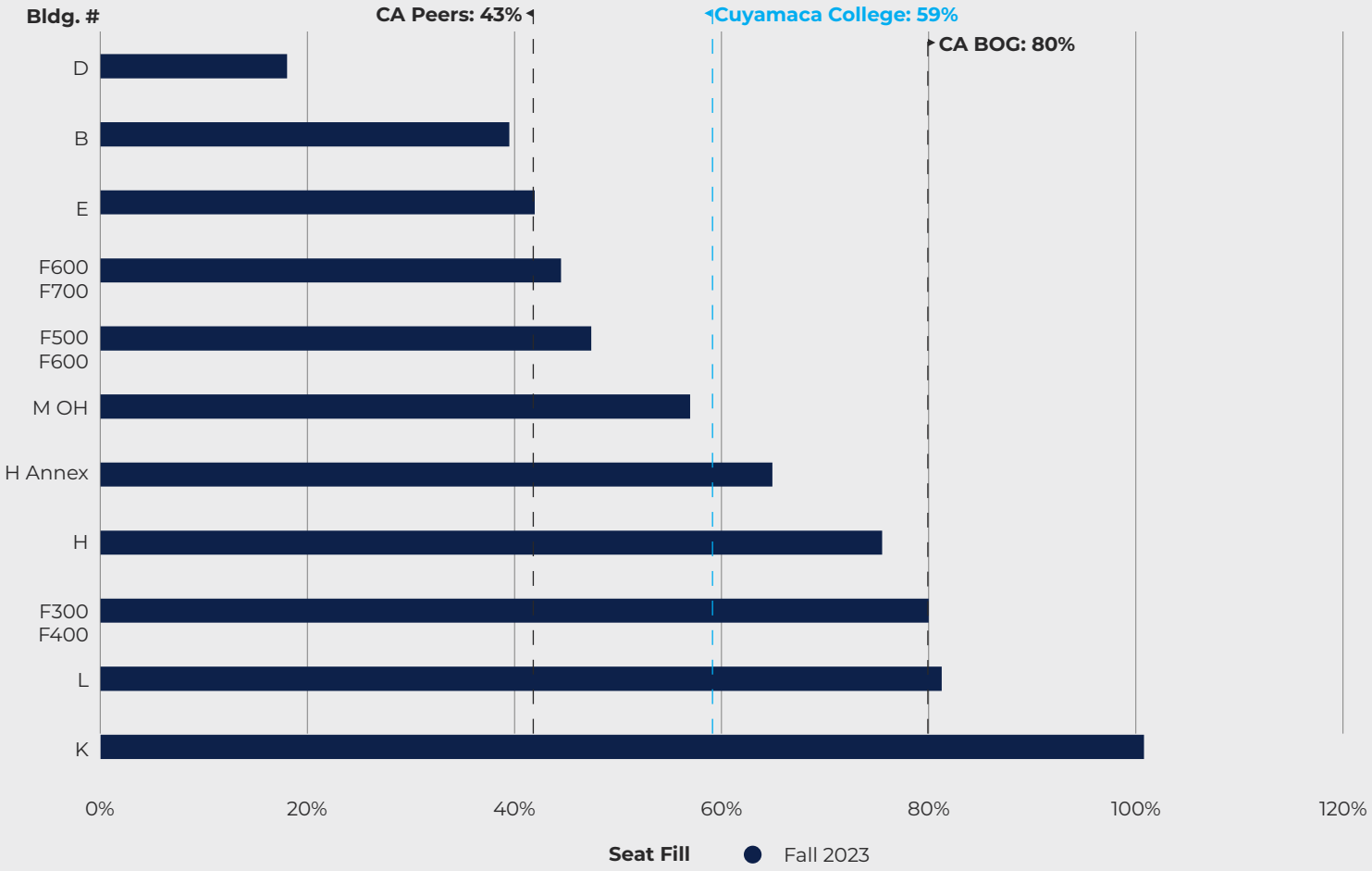
*Class Laboratory space: Building M*

*Class Laboratory Space: Building K*

*Class Laboratory Space: Building H*

*Class Laboratory Space: Building E*

## CLASS LAB SEAT FILL AVERAGE BY BUILDING



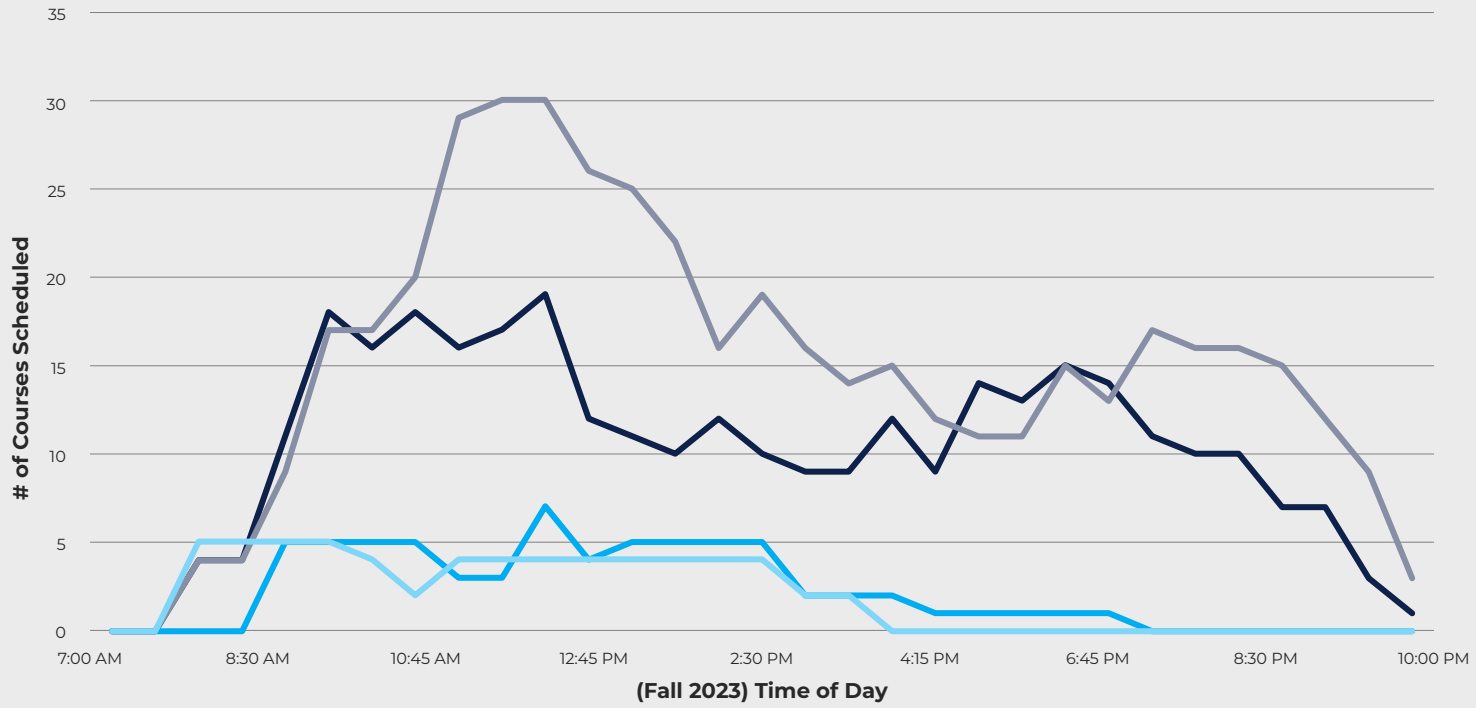

### AVERAGE SEAT FILL

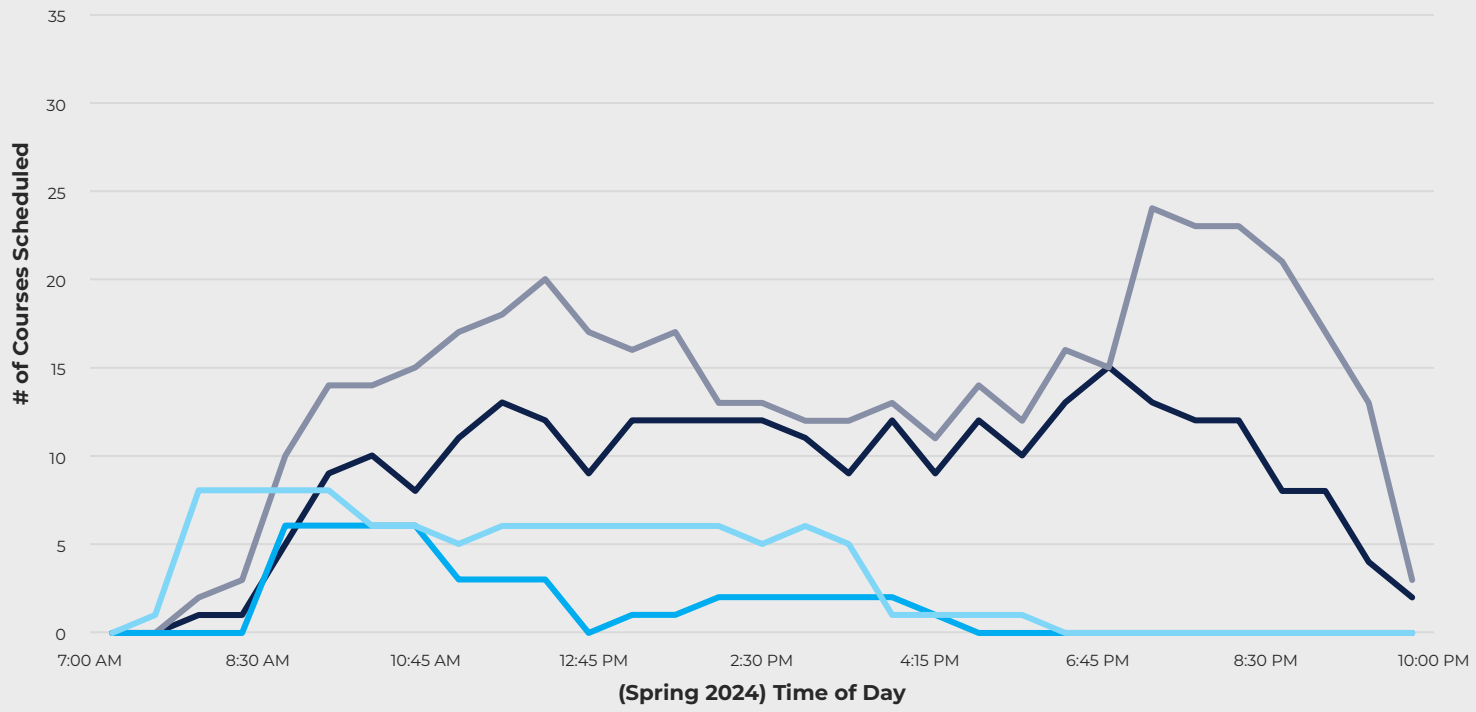
The chart above represents the average class lab seat fill in each building to show how many buildings are meeting the CA BOG seat fill goal (80%). Three of the 10 buildings with class laboratories are meeting these standards, with another 2 buildings not far behind. Buildings H, L, and K are exceeding seat fill goals. On average, the campus has a 59% seat fill for class laboratories as compared to the California peers who average 43%.

### CLASS LAB TIME BY DAY ANALYSIS

The charts on the following page shows class lab utilization throughout the day. Most class labs experience peak usage in the mid-mornings and late afternoons. Tuesdays and Thursdays are the most popular days, followed closely by Mondays and Wednesdays. Comparatively, Friday and Saturday have very few class labs taking place.

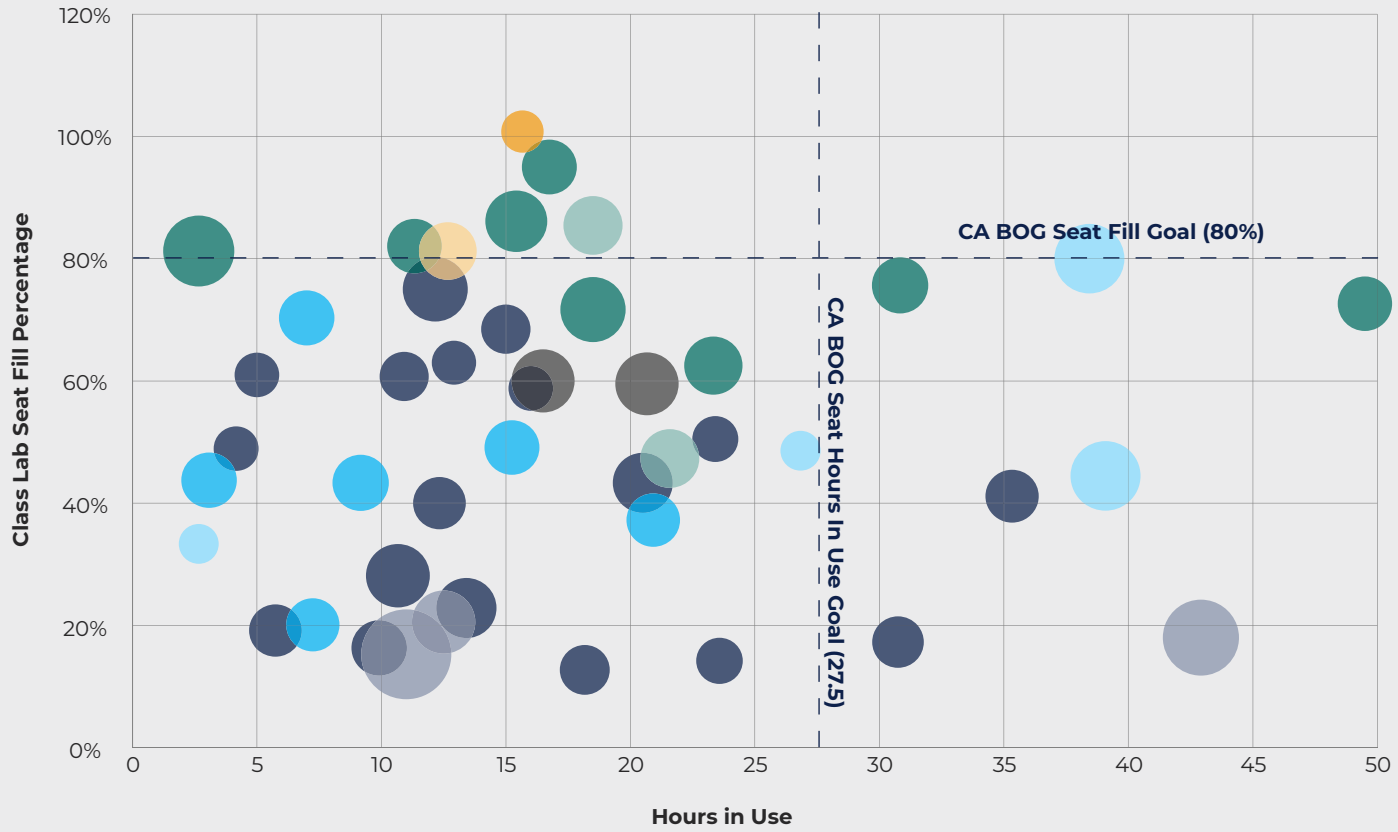
## CLASS LAB TIME BY DAY ANALYSIS




Monday and Wednesday
Friday
Tuesday and Thursday
Saturday

## CLASS LAB ANALYSIS




### CLASS LAB ANALYSIS

Similar to the classroom chart in the previous chapter, this chart maps the seat fill and hours in use for different class labs across campus. Six class labs are exceeding hours in use goals, while 7 are exceeding seat fill goals. Many class labs in Building B and E fall well below the CA BOG standards. Many other class labs are getting close to both of these goals. Unlike classrooms, several class labs surpass the hours in use goal. While high utilization is important, too high of scheduled use may impact the student experience. In particular, rooms that have courses that require setup and takedown or students accessing labs after hours for practice require that the weekly room hours stay closer to the standard to support flex time in the room. Additional evaluation of science laboratories should be considered to ensure rooms are not over scheduled.

**Buildings**

- B - Communication Arts
- D - Indoor PE
- E - Business & Technology
- F - Vocational Technology
- H - Annex
- H - Science & Mathematics
- K - Automotive
- L - Waste Water Technology
- M1-OH Classroom

# 05 WORKSPACE UTILIZATION

**OCCUPIED AND UNOCCUPIED SPACE**

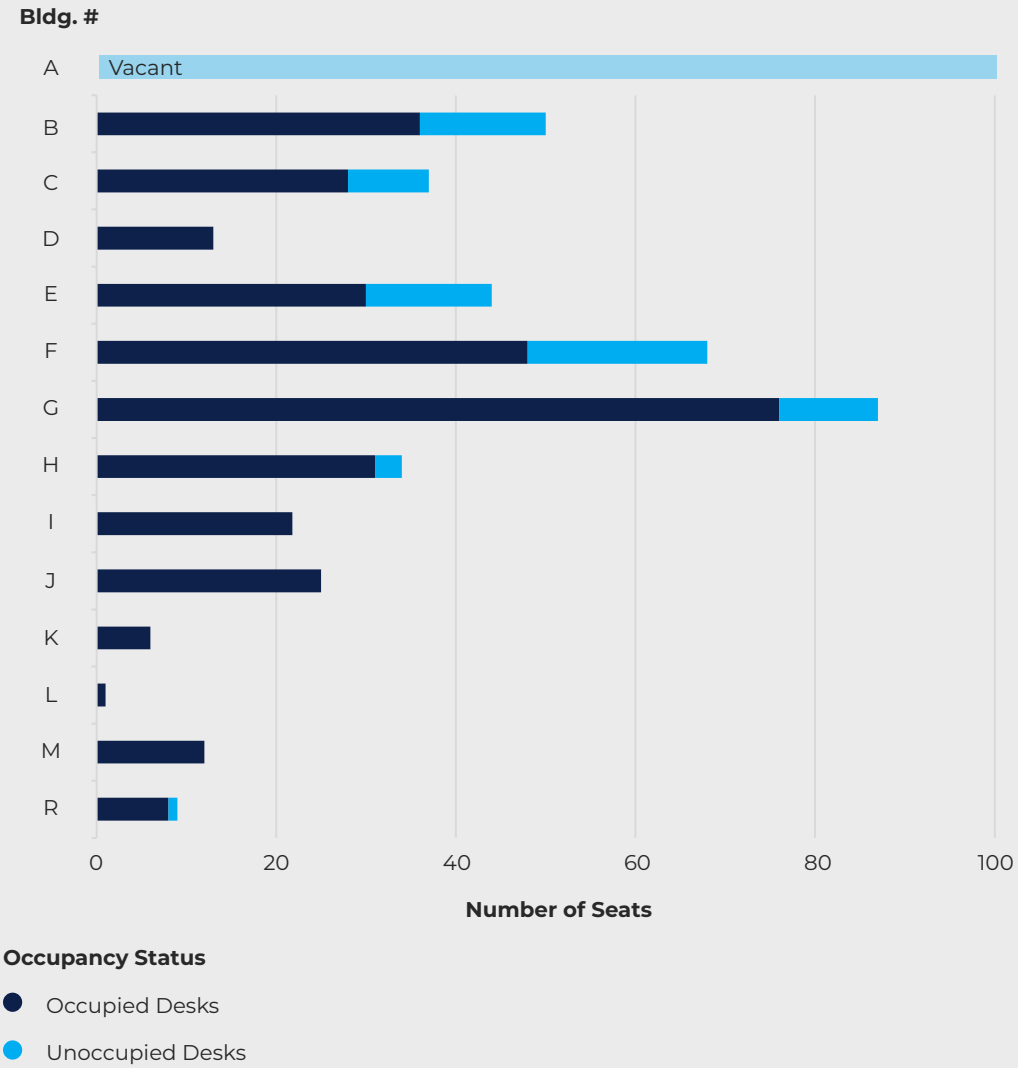
**OCCUPIED SPACE BY BUILDING**

# WORK SPACE UTILIZATION

## OCCUPIED AND UNOCCUPIED SPACE

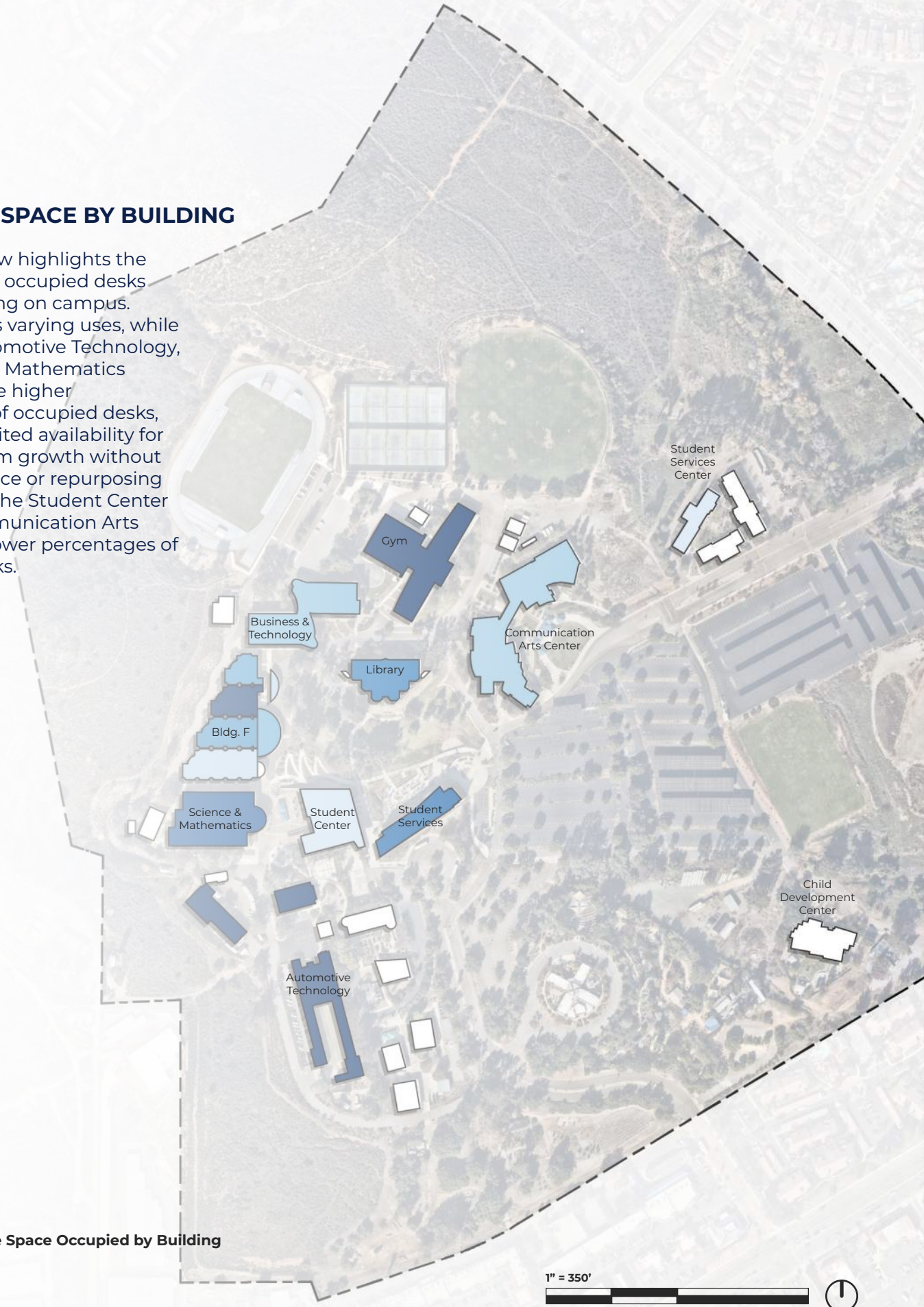
Office space is analyzed on a room basis and a workstation basis. Workspace guidelines from the California Board of Governors define utilization as active assignment of space and the bar chart below represents the amount of occupied versus unoccupied desks. Workstation utilization varies primarily by building. Academic buildings show the highest vacancy rate while administrative areas are often filled to capacity.

Many vacancies are related to offices that have a capacity of two desks but only one of which is assigned. It is likely that over time, and post pandemic, individuals spread out and shared offices became less desirable for faculty. Buildings with low facility condition also indicate lower desk assignment. Migrating from Building F will increase occupancy throughout campus and re-align available office space with active individuals.



## OCCUPIED SPACE BY BUILDING

The map below highlights the percentage of occupied desks in each building on campus. Building F has varying uses, while the Gym, Automotive Technology, and Science & Mathematics Buildings have higher percentages of occupied desks, indicating limited availability for future program growth without additional space or repurposing office space. The Student Center and the Communication Arts Center have lower percentages of occupied desks.




**Percent of Office Space Occupied by Building**

100%

0%

**1" = 350'**

0' 175' 350' 700'

# 06 STUDY SPACE UTILIZATION

## UTILIZATION ASSUMPTIONS AND GUIDELINES

## LIBRARY SPACE

# STUDY SPACE UTILIZATION

## UTILIZATION ASSUMPTIONS AND GUIDELINES

Study space is assessed on two levels: using California Board of Governors standards and visual inspections collected through on-site visits by the consultant team. The California Board of Governors does not incorporate an hours in use model for study space. They do provide guidance on a square footage need for study space and a count of reader stations anticipated for an institution the size of Cuyamaca College.

The CA BOG standard for reader stations is based of 50 reader stations plus .09 stations for every on-ground FTES. Reader stations for the purpose of this study are anticipated to be any seat count that represents an area a student can study in. The first and second floor of the library includes 280 seats in various layouts for students to study.

The first floor of the library showcases a heavier utilized interactive zone surrounded by zoom rooms. Students are met with greeters at the circulation desk and can access food resources and a microwave. This is the only area in the library students can eat at which most likely increases activity. During each visual inspection of the library, students were seen in this area often with food.

The second floor of the library includes the bulk of the study space. Student use is highest in quiet dark nooks and near areas where their back is not exposed to circulation space. The upstairs portion of the library includes the stacks, collection support, and computer resources. It also includes group study rooms, an event room and library instructional course computer room.

Some potential future improvements that would increase library utilization could include partnering with other entities on campus and developing the space to be a destination hub for students to access between courses. Partnership opportunities could include integrating artwork from art classes or exhibiting museum displays. Furniture in the library is outdated, leading students to study in buildings such as Building I instead of the library.

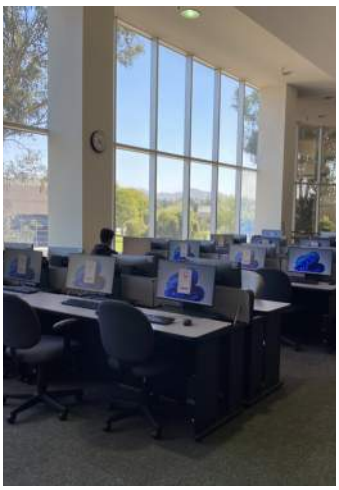
Updating furniture to include more flexible lounge chairs and technology hookups with outlets would support student demand. Since students gravitate toward areas without circulation space behind them, arranging study carrels within the stacks or focusing students study space along the walls could increase utilization.

The following utilization assessment includes a breakout of user count data by seating type and utilization maps. This data was collected by the consultant team during visual inspections of the space.

## EXISTING LIBRARY SPACES






*Photos of library layout and furniture*

## LIBRARY FIRST FLOOR

The Library (Building C) includes a variety of study spaces for independent and group work. Library space was categorized by furniture type and usage by visual headcount inspection.

Study space utilization was calculated using user count data collected over five days during the Spring and Fall 2024 terms. Consultants walked spaces to capture student utilization at a variety of times during the day and days of the week. Student activity in the library was visually reviewed as highest around lunch time and the afternoon. Consultants targeted both peak weeks of student activity (time periods leading up to finals week) and typical week usage.

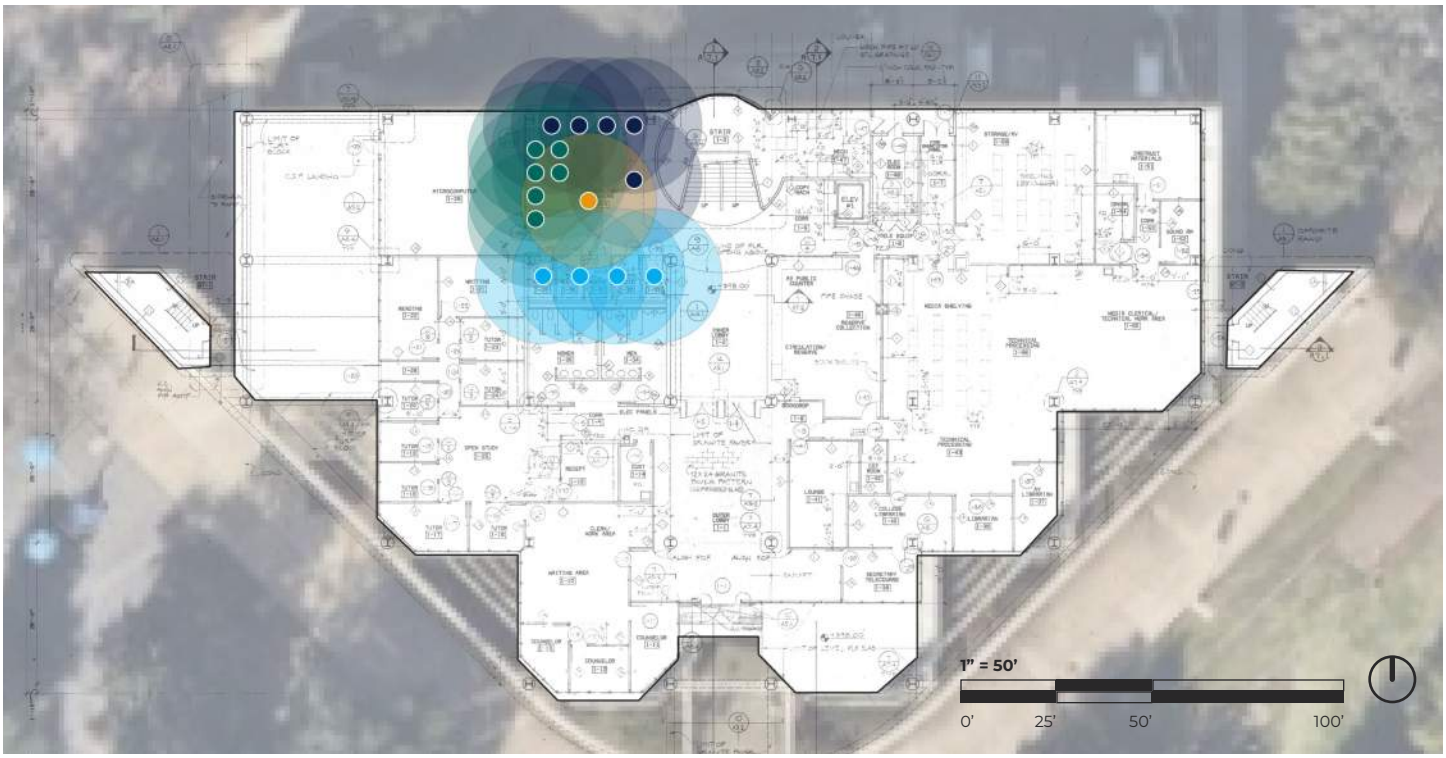
The floor plan below shows the low, medium, and high usage of study areas colored by the type of furniture located in the space. This heat map shows that the first floor area devoted to study use had higher student activity for almost all furniture type setups.

| Type | Total Available Seats | Usage |
|---|---|---|
| Study Carrel | 60 | Medium |
| Lounge Chairs | 20 | Medium |
| Zoom Rooms | 4 | Medium |
| Small Table | 6 | Low |
| Medium Table | 12 | Low |
| Large Table | 152 | Low |
| Computers | 26 | Low |

## AREAS OF LOW, MEDIUM, & HIGH USAGE

**Furniture Type**

- Zoom Rooms
- Study Carrels
- Medium Table
- Lounge Chairs
- Large Table
- Small Table



## LIBRARY SECOND FLOOR

The second floor of the library houses additional reader station study space and the physical book collection. While the majority of the space is devoted to study areas, there is still some underutilized collection space that could be repurposed for independent study carrels. The circular cubbies in the center of the second floor have low use. Instead, students gather at tables, lounge chairs, and independent areas near the windows surrounding the perimeter of the floor.

The group study rooms along the back wall appeared during the walkthrough to have high use of students. The group study rooms house between 4-6 students but are often occupied with just one individual. This points to a need for more quiet, heads-down spaces within the library. The Zoom booths on the first floor and group study rooms on both floors have consistently high use by students interacting in them and represents students' desire to have individualized space to themselves.

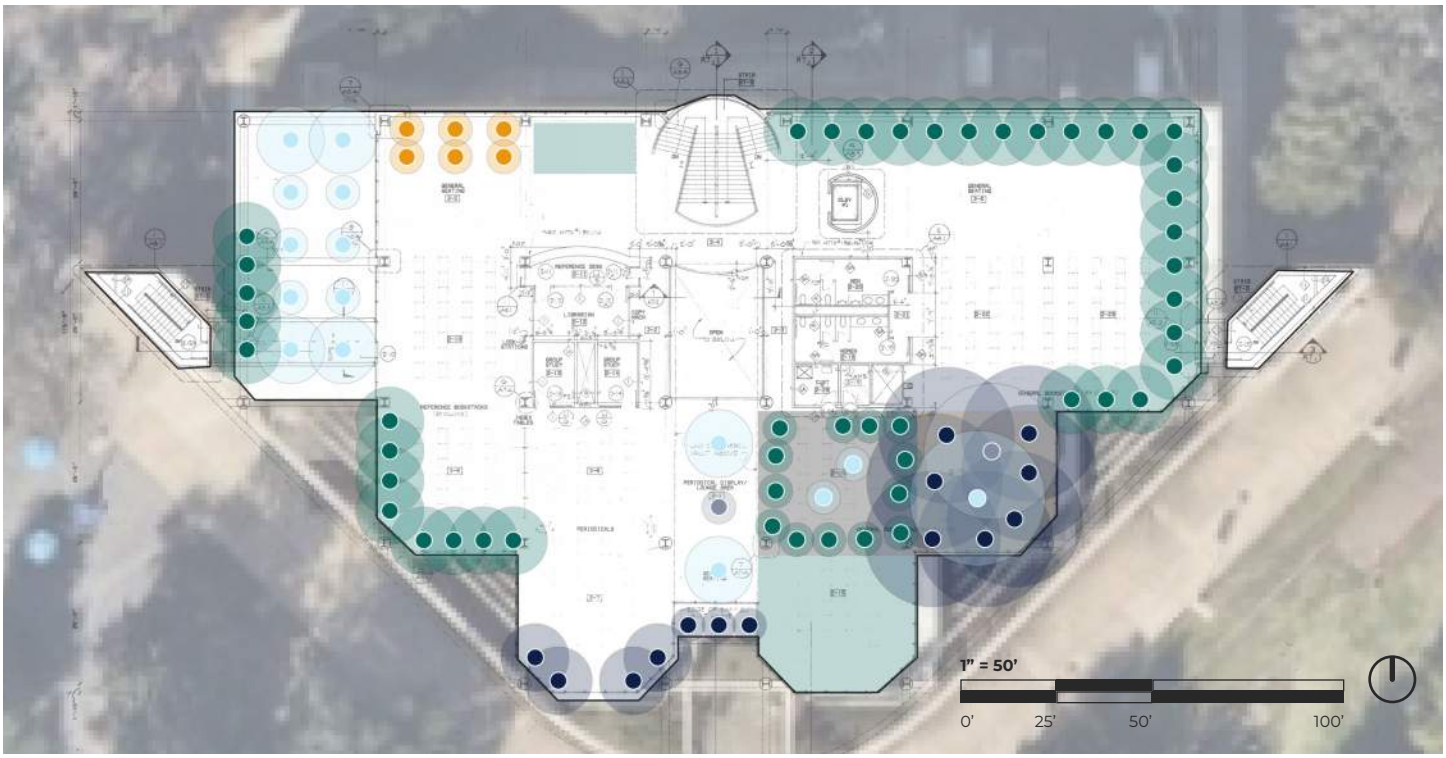
Since online courses have grown, students may be utilizing these spaces to join an online course or watch a virtual lecture between class times. Future library projects should consider ways to create these individualized spaces for students.

Another key aspect of areas with higher use was furniture with a wall or backing behind the reader station. Students preferred areas that did not back up to an open area. Furniture located on the perimeter and against walls was heavily preferred. This is most notable on the second floor, where small tables along the walls and windows were seen to have higher use than open cubbies in the center of the room.

## AREAS OF LOW, MEDIUM, & HIGH USAGE

**Furniture Type**

- Zoom Rooms
- Lounge Chairs
- Study Carrels
- Large Table
- Medium Table
- Small Table



# 07 SPACE NEEDS

## CURRENT AND FUTURE SPACE DEMAND

## SPACE NEEDS CHART

# SPACE NEEDS

## CURRENT AND FUTURE SPACE DEMAND

Space needs calculations are developed using metrics established by the California Board of Governors. These calculations rely heavily on current and future FTES and FTEF. Using the current space inventory as a baseline, each space type is calculated on a square footage level for what Cuyamaca College should have today and what they will need in 2028 and 2033. Calculations of square footage rely on the on ground enrollment since these are the students who we would expect to utilize on campus space. A small additional factor is added to enrollment for student-centered, merchandise, health and recreation, and study space categories assuming that these amenities could be utilized and accessed by online students visiting campus.

**Student-Centered** space includes lounges, student gathering, and student meeting space. These spaces are for students to interact, socialize, restore, or collaborate. This does not take into account outdoor gathering spaces. Student-centered space is calculated to be in line with future need. Consultants did note high utilization of student social gathering spaces in open areas during touring. Enclosed student meeting rooms had lower use which may result in a need to reestablish spaces in the future for ongoing student needs.

**Merchandise** includes the campus bookstore, quick service food vendors, and space devoted to the retail of plants in the horticulture department. Current space aligns with future projected needs.

**Health and Recreation** covers all recreation space and any student clinical or student counseling space on campus. Though the needs calculations based on planning standards aligns well with current and future needs, feedback gathered from students indicated a preference for more access to intramural recreation and indoor recreation space for independent workout needs.

**Classroom Laboratory** needs are projected using the current course offerings and the California Board of Governors space standards for laboratory station sizing. A surplus is indicated of this space type in future years. The consultant noted that there was high variability in laboratory type demand. Computer labs were noted by consultants as a large portion of the classroom laboratory square footage inventory.

**Class Lab Specialty** This category includes class laboratories with student station assignable square feet above 100 per station. In particular, horticulture, automotive programs, and theater arts are included in this category due to their higher square footage per student expectations. These spaces are well sized for student enrollment though the consultants noted the potential for additional space related to Automotive Technologies due to the high class lab utilization.

**Workspace** needs calculations for California's Community College standards are 200 $ft^2$ per each full time instructional faculty member. That is meant to cover all office, office service, and conference space for employees (including part time faculty and administrative staff). An adapted metric was used for this calculation, adding 140 $ft^2$ for administrative staff. Workspace indicates a surplus compared to future years but this is most likely due to larger office sizing impacting total square footage available and future projects should focus on right sizing office spaces to align with CA BOG standards.

**Study** space is calculated using state standards and projected enrollment. Study space is represented at a surplus. There are several opportunities on campus to optimize study space including the consolidation of student study support resources. Building's B, E, and H include large open student study support areas devoted to specific programs with staffing. Consolidating these resources into one centralized location would optimize study space and reduce the represented surplus

**Classroom** space calculates at the highest surplus of space on campus. This is partly due to the high metric of hours in use (48 hours) that California sets for classrooms. The other factor is there is an abundance of classrooms on campus compared to the active on-ground course load. Growth in online courses has resulted in less need for classrooms overall. Following the future demolition of Building F, this surplus is expected to be reduced significantly and better align classroom square footage inventory with enrollment.

## SPACE NEEDS CHART


**Year**

- 2024*
- 2024
- 2028
- 2033

**2024 Actual Inventory*

| Space | 2024* | 2024 | 2028 | 2033 | Difference |
|---|---|---|---|---|---|
| Assembly | 14,811 | 22,000 | 22,000 | 22,000 | (7,189) |
| Food Facilities | 3,953 | 5,095 | 5,676 | 5,686 | (1,142) |
| Open Lab | 2,733 | 3,821 | 4,257 | 4,264 | (1,088) |
| Merchandise | 15,800 | 12,737 | 14,189 | 14,214 | 3,064 |
| Student Centered/Meeting Rooms | 28,106 | 24,518 | 27,315 | 27,363 | 3,588 |
| Health/Recreation/Athletics | 30,017 | 19,105 | 21,284 | 21,322 | 10,912 |
| Study/Library | 32,945 | 19,888 | 21,999 | 22,036 | 13,057 |
| Workspace | 62,473 | 40,180 | 44,763 | 44,794 | 22,293 |
| Classroom | 46,109 | 6,145 | 13,894 | 15,479 | 39,964 |
| Class Lab Specialty | 28,661 | 23,551 | 27,518 | 28,123 | 538 |
| Class Lab | 68,910 | 43,154 | 48,077 | 48,162 | 25,756 |

# 08 SPACE EFFICIENCY GUIDELINES

GUIDING PRINCIPLES

SPACE ASSIGNMENT AND USE CONSIDERATIONS

# SPACE EFFICIENCY GUIDELINES

## GUIDING PRINCIPLES

The following guiding principles establish Cuyamaca College's future goals for optimizing space use.

## SPACE IS...

1

A SHARED COLLEGE RESOURCE

Classroom space will be allocated to departments for use, but not owned by any one entity. Space can be reallocated at any time.

2

ASSIGNED IN ALIGNMENT WITH THE COLLEGE MISSION, CORE VALUES, AND STRATEGIC DIRECTION

Space is a vital resource supporting Cuyamaca College's goals. As new programs, evolving needs, and strategic opportunities emerge, space should be reallocated to adapt to the campus community's requirements

3

USED EFFICIENTLY

Regular space surveys will occur to assess utilization of space and confirm inventory.

4

ANALYZED REGULARLY

Regular evaluation of space use and assignment will occur to ensure proper use.

## SPACE ASSIGNMENT AND USE CONSIDERATIONS

### INTRODUCTION

The oversight of space is vital to increasing space utilization across campus and reporting space data at District and State levels. By establishing a process for keeping space data up to date, handling space changes, and actively participating in the use of space, Cuyamaca College will increase the use of their facilities and grow in the areas of their greatest needs.

### INSTRUCTIONAL SPACE

Instructional space use should regularly be assessed using the California Board of Governors Policy on Utilization and Space Standards as a guide for assessment. The CA BOG standards includes two components of space utilization: hours in use and seat occupancy.

- Classrooms on campus should be scheduled for 48 hours per week with an average seat occupancy of 66%.
- Class laboratories on campus should be scheduled for 27.5 hours per week with an average seat occupancy of 85%.
- Classroom sizing should align with recommendations provided by the CA BOG standards and GCCCD design standards.
- Instructional spaces are a College resource and should be allocated in a manner that increases student access to space. Classroom space that is not program-specific should be accessible for a variety of course types to be scheduled in the room to increase utilization.

### OFFICE SPACE

- Office space should be assigned based on a person's duties and schedule, with their position title as a secondary consideration.
- Personnel tasked with regular confidential and student-facing meetings should have access to private office space or private meeting space on an as-needed basis.
- Adjunct faculty should be allocated open or shared workspace with private workspace access as needed. Adjunct workspace assignment should be at departmental discretion.
- Large offices (greater than 150 ASF) should be designated for multi-occupant use.
- Vacant offices may be evaluated by Cuyamaca College for reallocation in coordination with the unit to which the space is assigned. This process should include the unit in discussions of use, current/future needs, and open positions.

### STORAGE SPACE

- Items being stored for long or short-term use should be placed in spaces designed for storage.
- Storage space should be evaluated by programs regularly and non-active items should be removed.

### COLLABORATION SPACE

- Collaborative space should be created throughout the campus to support interdisciplinary discussion, student-faculty interaction, and visitor resources.
- Collaboration space should be available for staff and students to access as needed.

### SPACE CHANGE PROCESS

- Changes to space should include the following:
  - Room type or use
  - Room allocation by unit
  - Office allocation by personnel
  - Facility updates
- Changes to space should be approved by the President prior to the change taking place.
- Changes that require Governing Board approval must be coordinated through the Office of the Chancellor.


NEW
BOOKS!

# 09 MIGRATION PLAN & ENGINEERING ASSESSMENT

**OVERVIEW**

**STRATEGY 1 - CLASSROOMS AND CLASS LABS**

**STRATEGY 2 - CLASSROOMS AND CLASS LABS**

**SUMMARY AND RECOMMENDATIONS**

**OFFICE SPACES**

**SEQUENCING PLAN**

**ENGINEERING ANALYSIS**

**EQUIPMENT SURVEY**

# MIGRATION PLAN

## OVERVIEW

The Migration Plan for Cuyamaca Community College focuses on reallocating existing **Building F** spaces across the campus while optimizing space utilization and improving accessibility.

Vacating Building F is a priority for the College in anticipation of building a New Building F and demolishing the current structure following the migration of programs. New Building F will be an academic building but will not have enough space to support current Building F's occupants. For the purpose of this chapter, "Building F" is in reference to the current building, not the anticipated new structure.

The Migration Plan primarily focus on the following two aspects:

1. **Strategic Redistribution of Facilities:** The plan ensures that essential facilities and services are redistributed to locations that maximize convenience for students and faculty. This includes prioritizing spaces that are centrally located or well-connected to other campus resources

2. **Minimizing Operational Disruption:** By carefully analyzing current course schedules and campus workflows, the plan is designed to minimize disruptions to academic and administrative operations. This includes scheduling moves during low-activity periods and leveraging underutilized spaces to maintain continuity.

To achieve this, **two strategies** have been developed, each offering a distinct approach to using available spaces efficiently and meeting the needs of students and faculty during the transition.

### STRATEGY 1

- Maximizes the use of Building A while keeping renovation needs to a minimum. By identifying and repurposing spaces that require little to no modification, this strategy ensures cost-effectiveness and reduces downtime, enabling a smoother transition for both academic and administrative activities.

- Leverages Buildings E and H to accommodate Engineering courses and the support spaces. These buildings were selected based on their proximity to related disciplines and the availability of suitable spaces, ensuring that students and faculty benefit from improved functionality and collaboration opportunities.

### STRATEGY 2

- Utilizes Building A for Administrative and Support Spaces: Building A will be primarily repurposed to house administrative offices, support services, and CADD labs. This centralization reduces operational redundancies and creates a dedicated hub for academic and technical support functions.

- Allocates Classrooms and Class Labs to Buildings B, E, and H: Classrooms and class labs will be redistributed across Buildings B, E, and H to improve spatial distribution and accessibility for students and faculty. This approach ensures a balanced campus layout, enhances proximity to related programs, and supports collaborative learning environments.

# MIGRATION PLAN STRATEGY 1

## SUMMARY

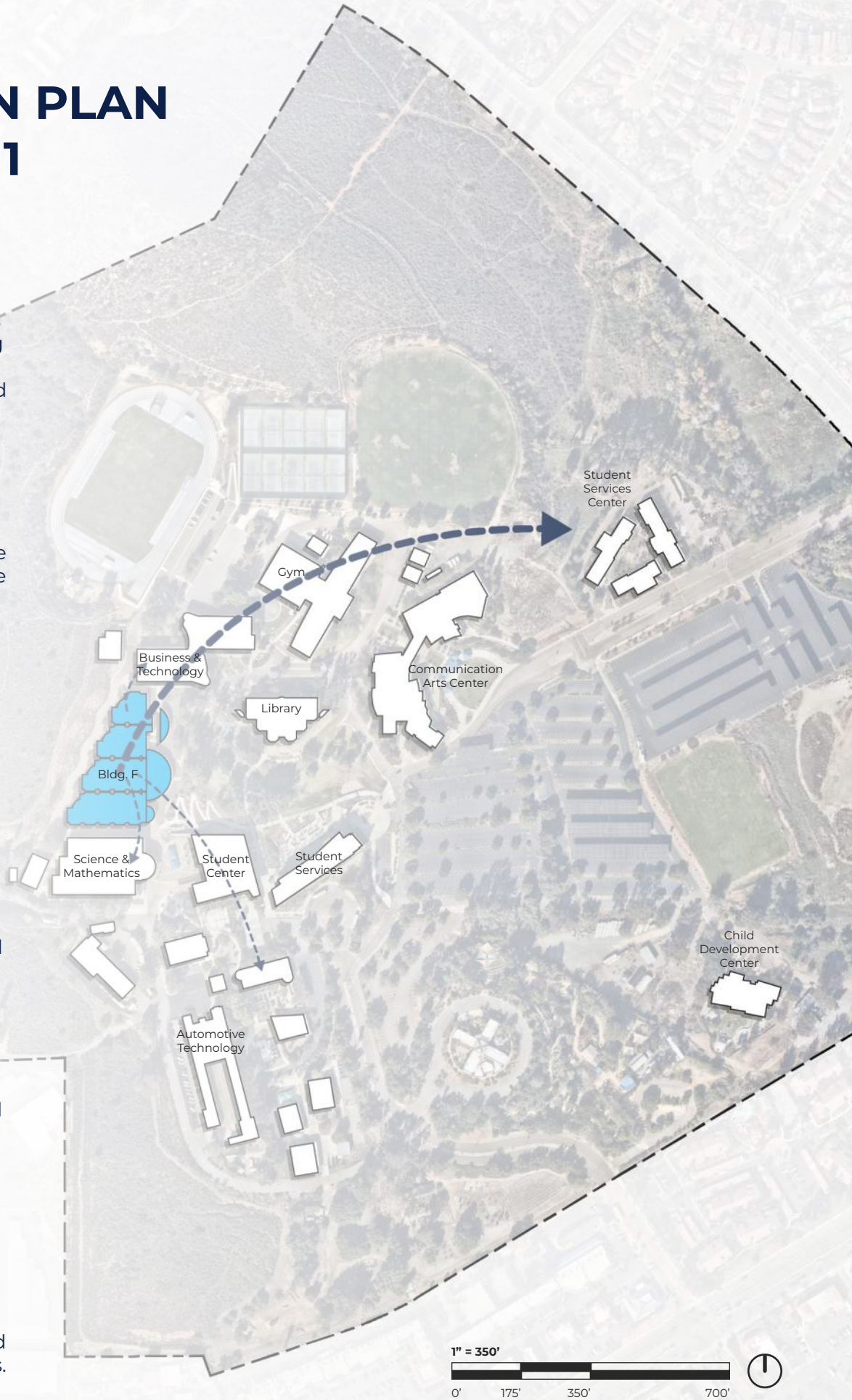
**Strategy 1** focuses on classrooms, class labs, offices, and support spaces being allocated to **Building A**, with spaces distributed evenly to ensure a balanced use of rooms and optimal utilization.

Building A, with its current layout, is well-suited to accommodate several spaces from Building F. The buildings offer ample space and separate entrances, making it ideal for efficient equipment storage and operations.

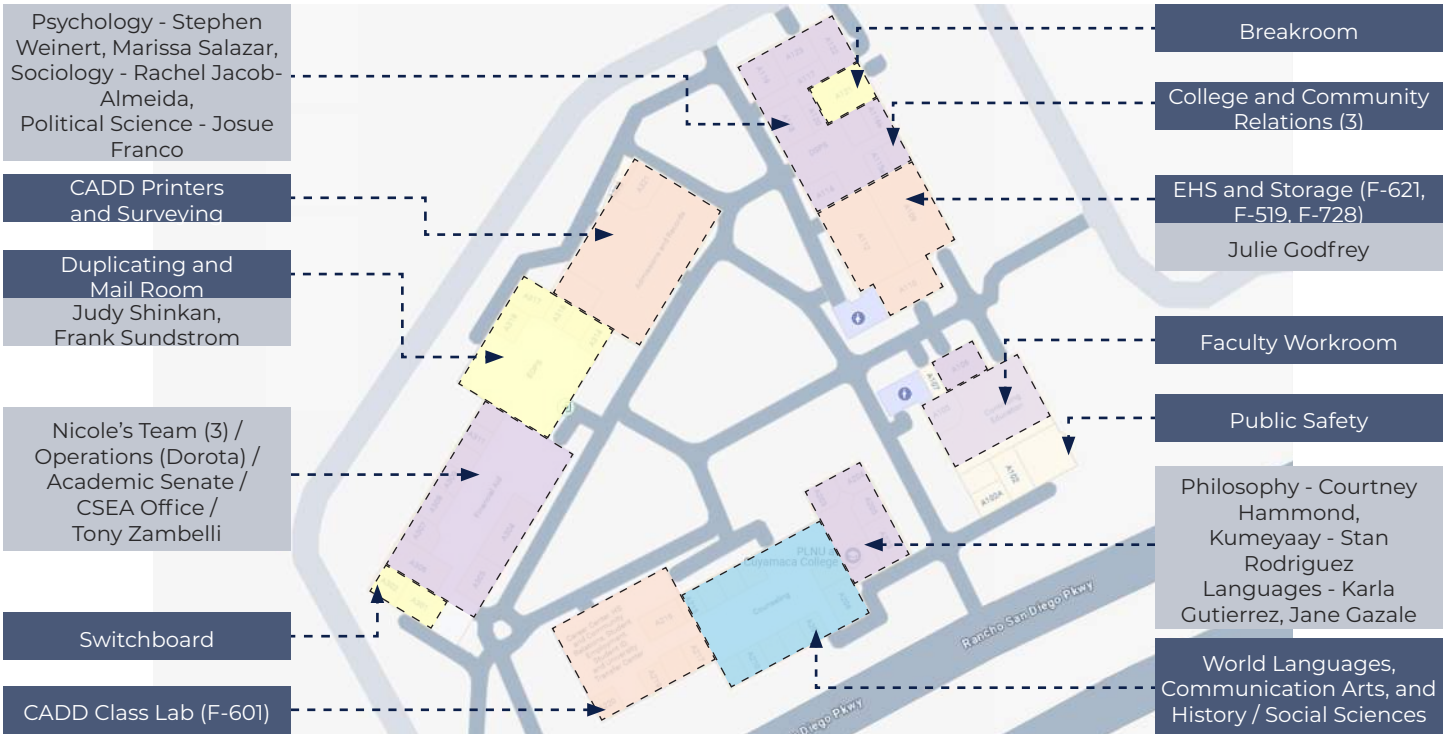
This arrangement allows for **minimal remodeling**, maintaining the existing structure of Building A as much as possible.

Since Building A is located outside the campus core, a few classrooms and the Engineering Support spaces have been allocated to **Buildings E, B, and M**. Engineering and Biology classrooms are planned for Building E and M respectively to enhance adjacency and space utilization, while Behavioral Science courses have been assigned to Building B.

This strategic distribution aims to maximize student accessibility and achieve better space adjacency, ensuring smoother operations and minimizing travel time for students and faculty between key spaces.

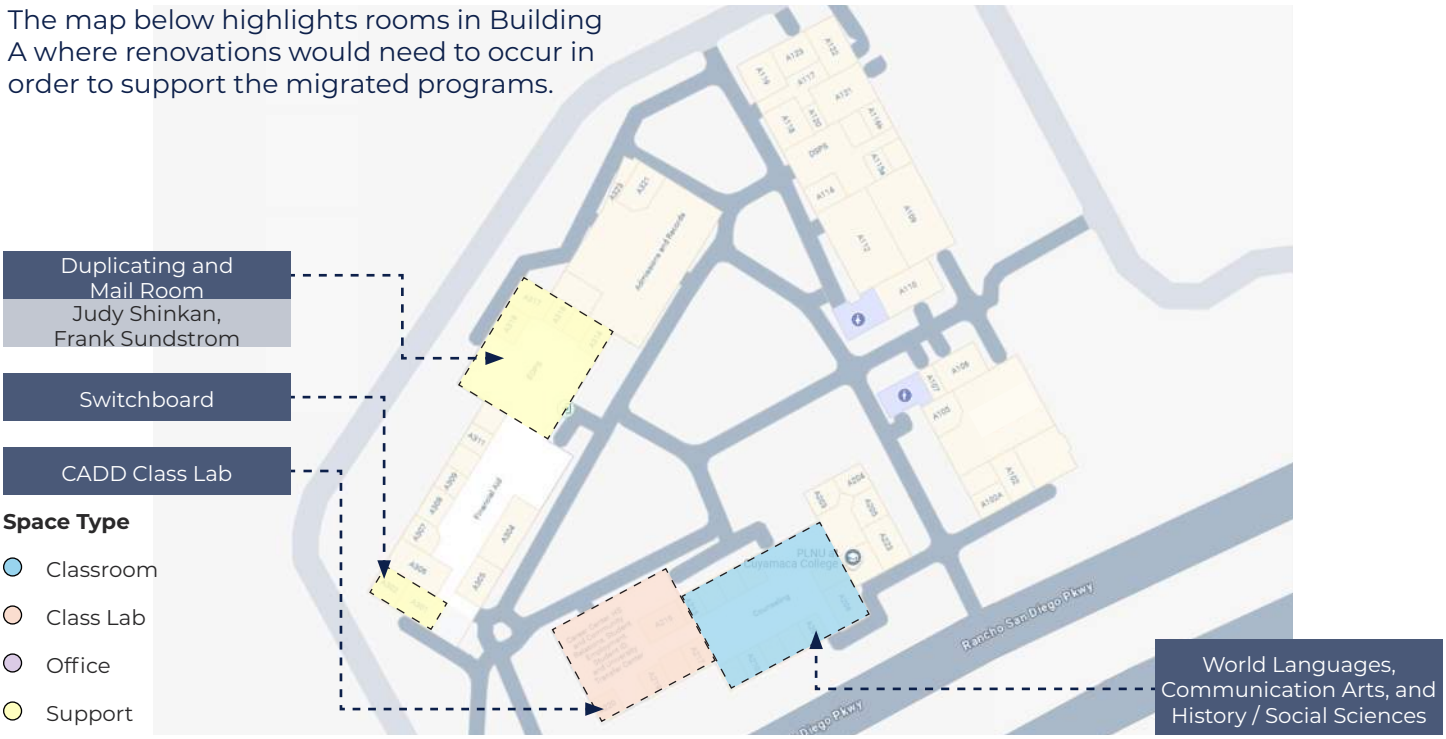


## BUILDING A




## POTENTIAL RENOVATION - BUILDING A

The map below highlights rooms in Building A where renovations would need to occur in order to support the migrated programs.

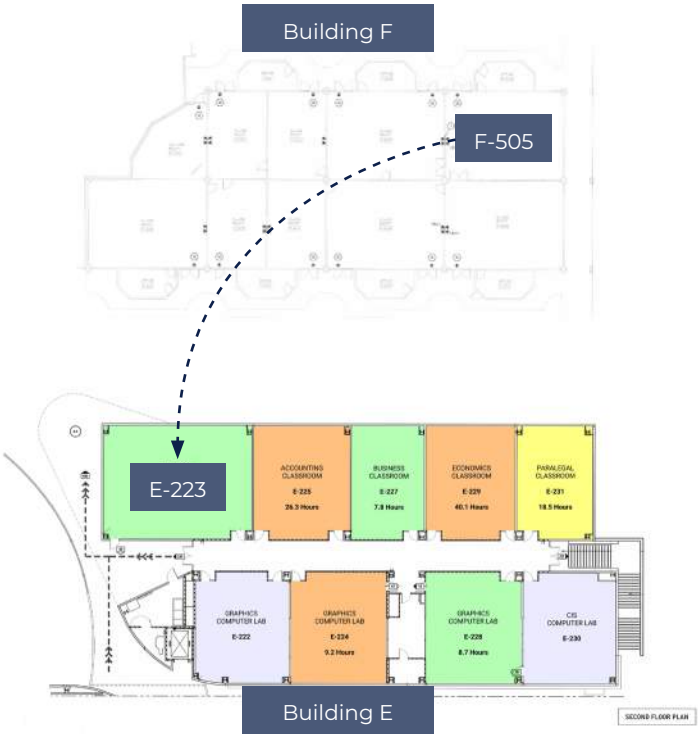


# MIGRATION PLAN - STRATEGY 1

## SCIENCE / ENGINEERING CLASSROOM

As per the course schedule, Science / Engineering Classroom (F-505) is currently being utilized for only 2.7 hours weekly in the Fall semester. These courses can be reassigned to Classroom E-223 in Building E which currently hosts Business courses.

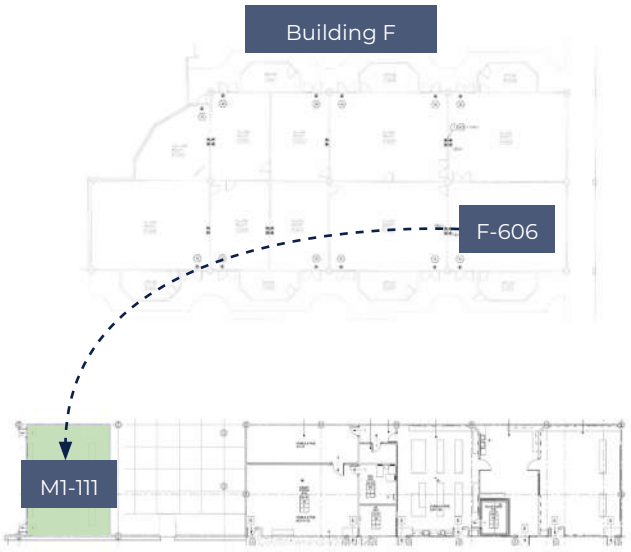
Relocating the Science / Engineering courses to room E-223 will improve the overall utilization of the space without disrupting the existing course schedule.




## BIOLOGY

Room M1-111 has adequate space to house the Biology courses located in F-606 without affecting the current course schedule.

With the lecture and lab courses being combined in the upcoming semesters, M1-111 is best equipped to host the Biology courses.




**Space Usage**

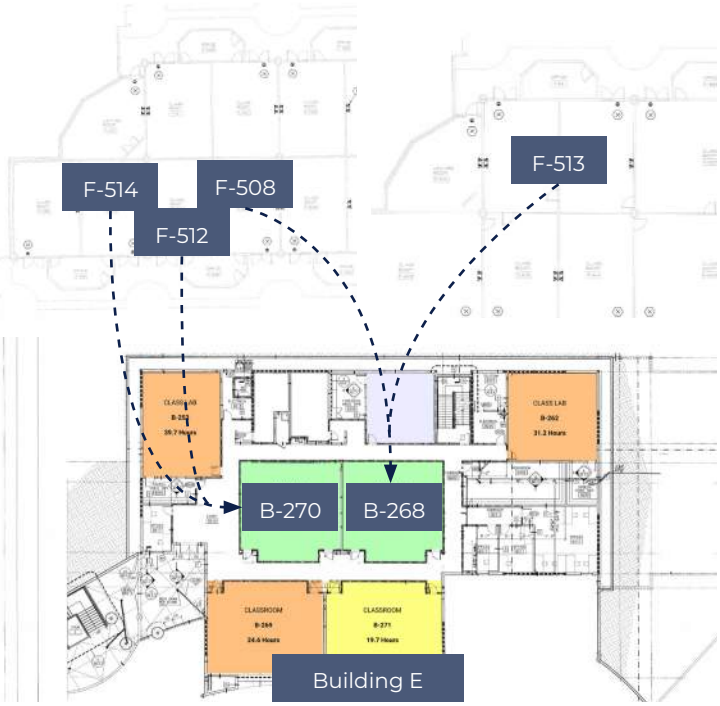
- High Use
- Moderate Use
- Low Use
- Not in Use

Building M

## BEHAVIORAL SCIENCE

Behavioral Science courses are currently scheduled in four classrooms in Building F (F-508, F-512, F-513, F-514). However, only two classrooms are needed to achieve the optimal average weekly room utilization.

Rooms B-268 and B-270 in Building B are best suited to adapt these courses and the courses scheduled in these rooms could be consolidated into B-162.

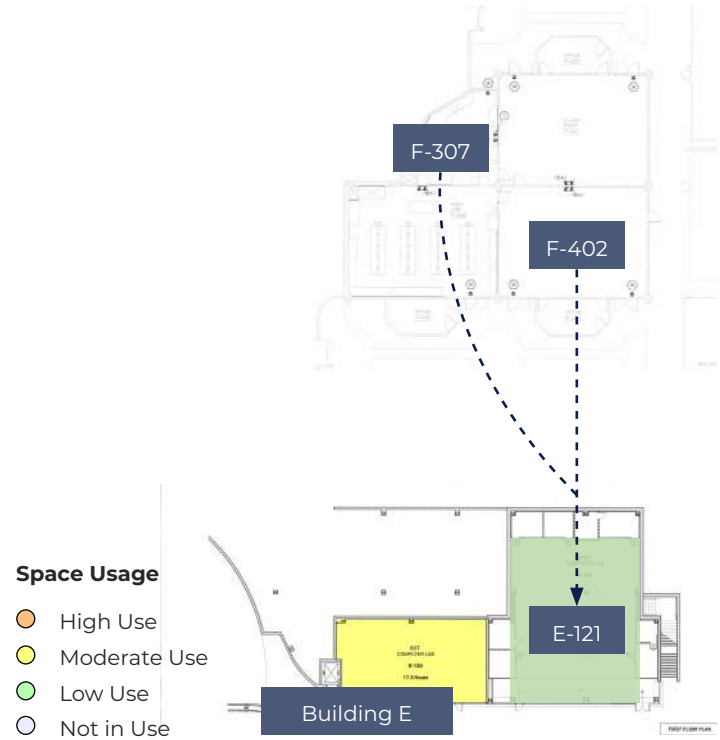



## ENGINEERING SUPPORT & MAKERSPACE

F-307 and F-402 house a variety of 3D Printers and milling machines utilized by students during and outside of course hours. The Migration plan explored options to bring this equipment together in a centralized location serving as a Makerspace for students. In strategy 1, this equipment is recommended to shift into E-121 due to the following location attributes:

- Central Location and versatility to accommodate all equipment in one space
- Proximity to computer labs and effective noise insulation from classrooms
- Direct and easy outdoor access
- Access to smaller side rooms to support equipment needing more secure space

Scheduled classes in F-402 could be relocated to E-230.

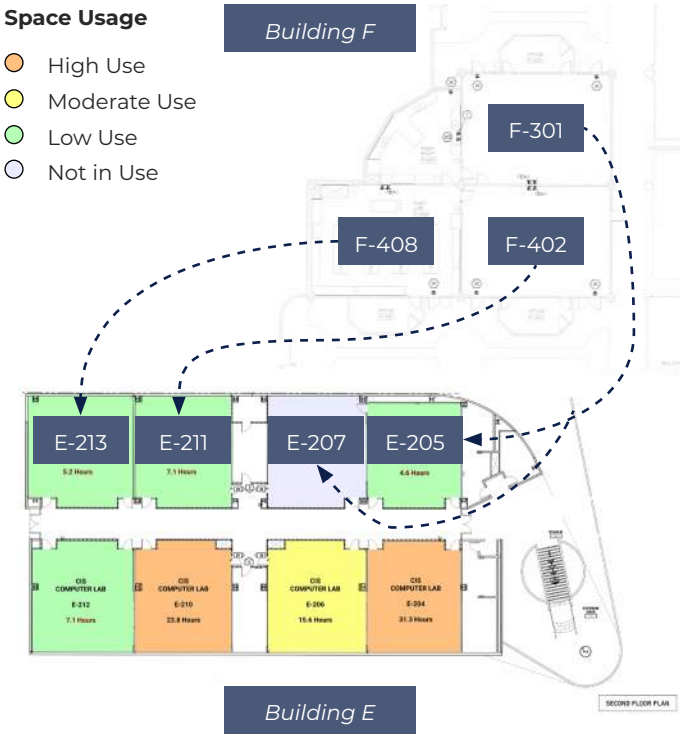


# MIGRATION PLAN - STRATEGY 1

## SCIENCE AND ENGINEERING CLASS LABS

The Science & Engineering class labs in Building F experience a high fill rate and heavy utilization throughout the Fall and Spring semesters. To achieve optimal seat fill, it is recommended to split the scheduling based on Classroom and Class Lab courses.

The new Makerspace would house the equipment often used by students outside of course hours. F-408 classroom hours shift into E-213. F-402 course hours shift into E-211. F-301 is recommended to split course hours across two rooms (E-207 and E-205) to reduce room demand. Courses currently occurring in E-205, E-207, E-211, and E-213 can be integrated with the new course sections or shifted to alternate areas across Building E with lower hour utilization.



**This page intentionally left blank.**

# MIGRATION PLAN STRATEGY 2

## SUMMARY

**Strategy 2** focuses on the partial use of **Building A** while relocating classrooms, class labs, offices, and supporting spaces from Building F to various locations across the campus, optimizing space utilization.

Primarily, **Buildings B, E, and H** have been identified as key opportunities for the migration plan due to their location and programs.

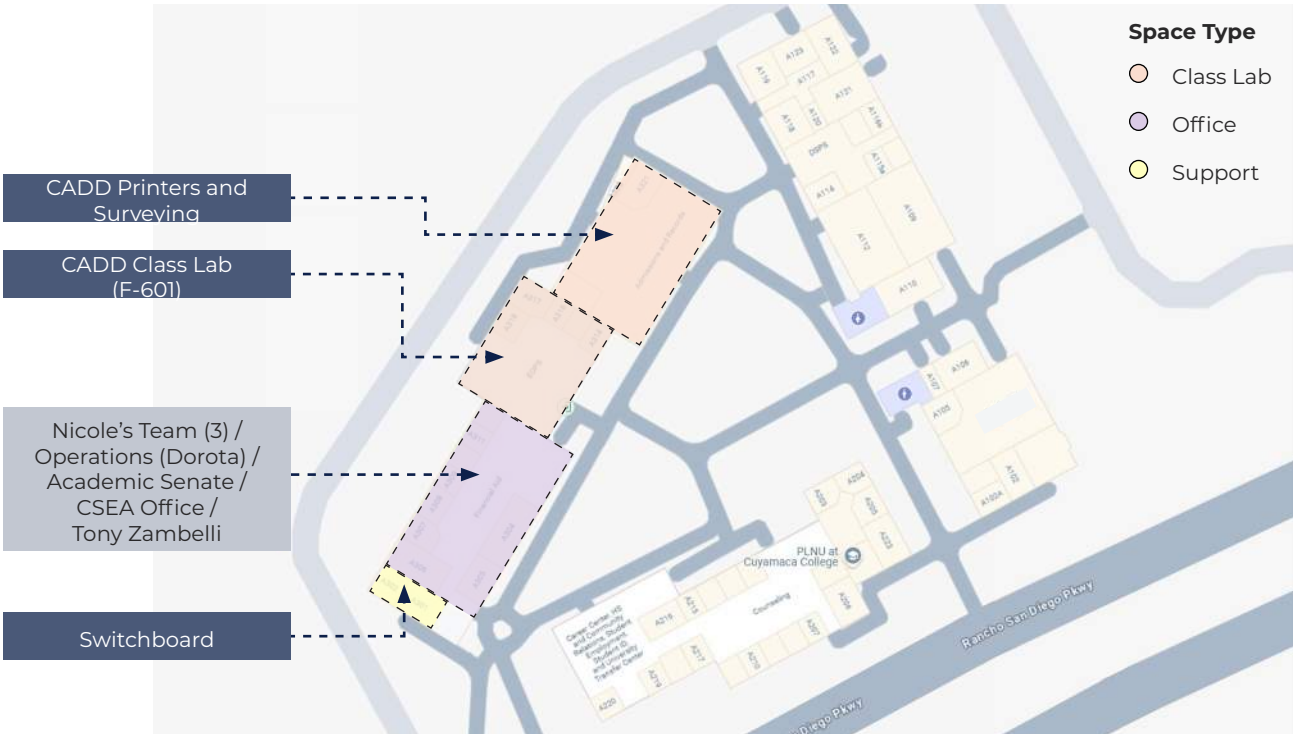
**Building A,** due to its existing layout, is well-suited to meet the needs of CADD labs and office spaces. The building offers ample space and separate entrances, making it ideal for equipment storage and operational efficiency.

The other unused spaces in Building A could be allocated for the Cuyamaca Cares program and future administrative spaces.

**Key factors considered in the Migration Plan:**

- Current classroom and class lab utilization metrics across the campus to ensure a balanced distribution of space.
- Improving overall room utilization across multiple buildings for efficiency.
- Proximity of relocated spaces to related facilities for better functionality.

## BUILDING A



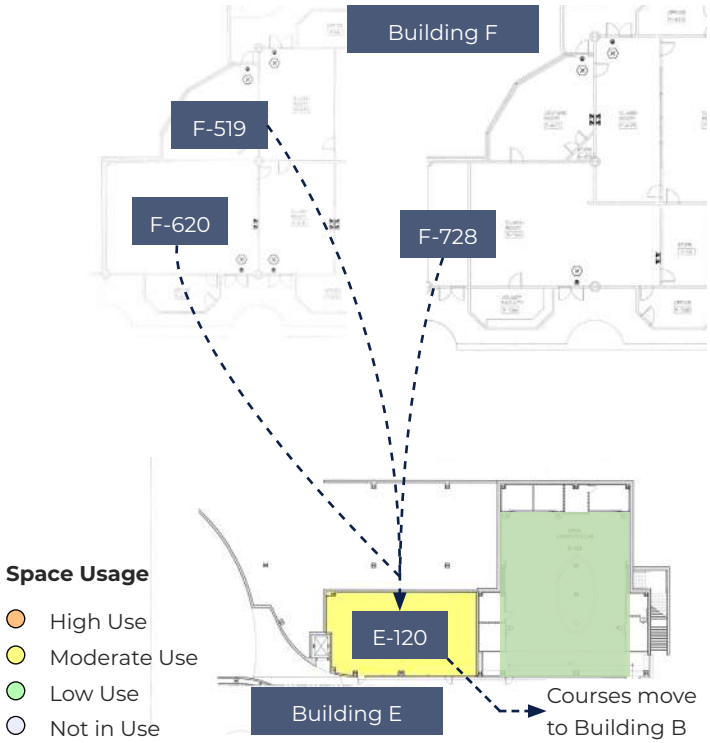

## EHS AND STORAGE

EHS spaces include a class lab equipped with measure tables and a storage room housing the Air Fill system and storage units.
A suitable option for relocating the EHS spaces is room E-120 in Building E.

Currently designated as a Computer Lab, E-120 is utilized for a total of 17.3 hours during the Fall and Spring semesters.
The courses scheduled in E-120 can be reassigned to room B-373 in Building B, allowing space for the EHS relocation.

Key factors considered for this migration:

- Accessibility for safety inspections and regular maintenance
- Proximity to computer labs
- Direct and easy outdoor access
- Adequate space for exhaust
- Separation from other classrooms



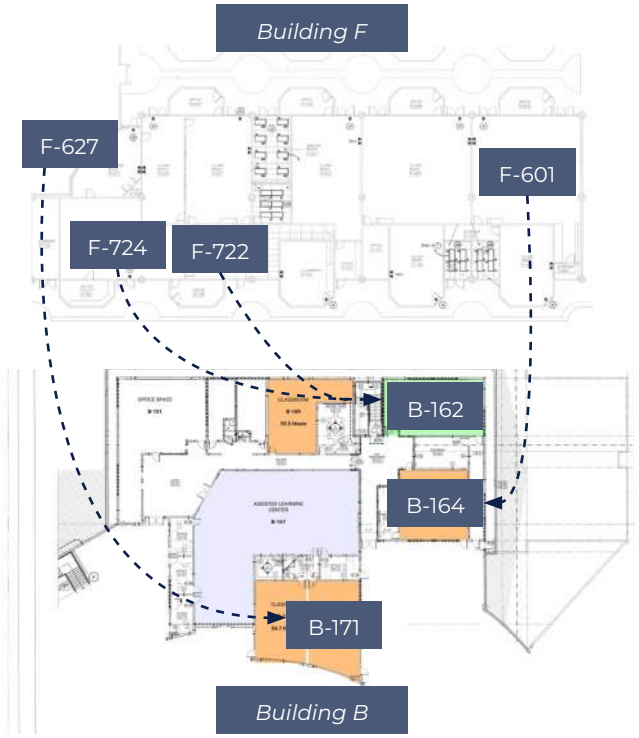
# MIGRATION PLAN - STRATEGY 2

## CADD PRINTERS AND SURVEYING - ALTERNATE OPTION

Although the CADD spaces have been allocated to Building A in Strategy 2, another suitable option is Level 01, Building B. CADD rooms in Building F primarily house 3D printers, lathes, and milling machines, each with unique size and space requirements**.** Courses scheduled on Level 01 rooms in Building B could be reassigned to Level 02 classrooms that are currently underutilized.

Key factors considered for this migration include:

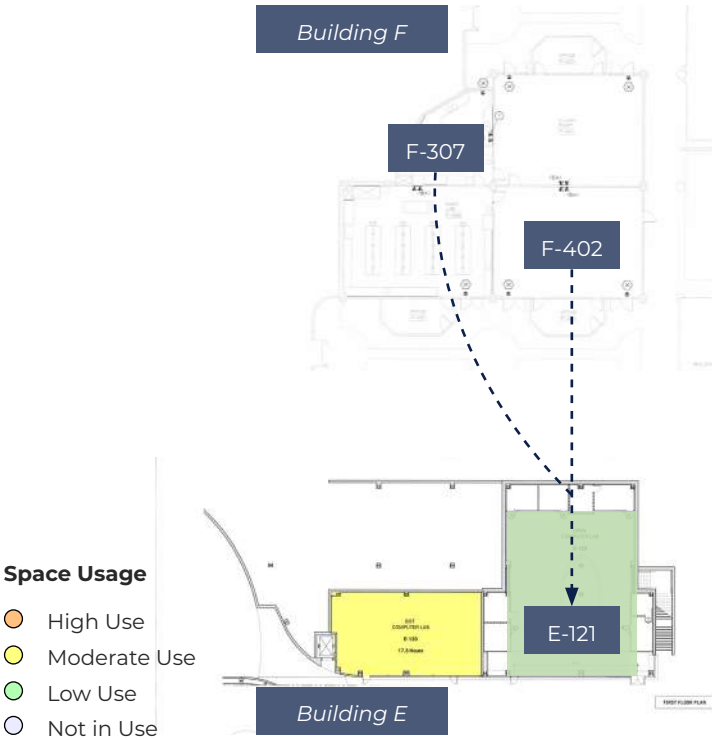
- Flexibility to accommodate all equipment in one space
- Proximity to other computer labs
- Direct and easy outdoor access
- Effective noise insulation for classrooms
- Minimal MEP modifications




## ENGINEERING SUPPORT

Similar to Strategy 1, in strategy 2 the Makerspace supporting the 3D printers and milling machines from F-307 and F402, is relocated to E-121. Key factors considered for this migration include:

- Central Location and versatility to accommodate all equipment in one space
- Proximity to computer labs and effective noise insulation from classrooms
- Direct and easy outdoor access
- Access to smaller side rooms to support equipment needing more secure space



## SCIENCE AND ENGINEERING CLASS LABS

The Science & Engineering class labs in Building F experience a high fill rate and heavy utilization throughout the Fall and Spring semesters. To achieve optimal seat fill, it is recommended to split the scheduling based on Classroom and Class Lab courses.

The new Makerspace would house the equipment often used by students outside of course hours. F-408 classroom hours shift into E-213. F-402 course hours shift into E-211. F-301 is recommended to split course hours across two rooms (E-207 and E-205) to reduce room demand. Courses currently occurring in E-205, E-207, E-211, and E-213 can be integrated with the new course sections or shifted to alternate areas across Building E with lower hour utilization.

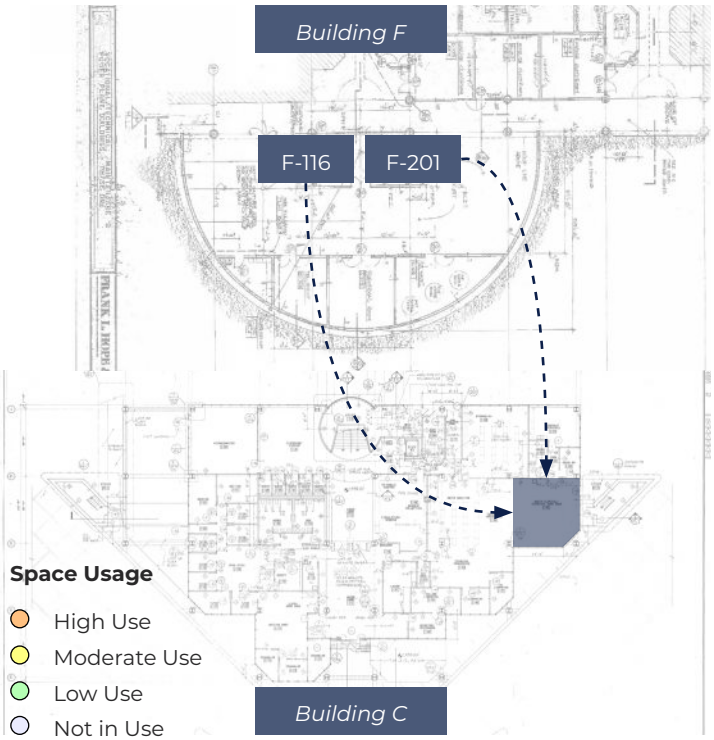

## DUPLICATION AND MAILROOM

An alternative relocation option for the Duplicating, Mailroom, and related offices is the Technical Processing room in the Library Building.

Given that this room is currently underutilized, it can be repurposed to accommodate both the Duplicating and Mailroom operations, making use of available space more effectively.

This solution not only maximizes the use of existing facilities but also maintains a central and accessible location for these services, ensuring easy access for faculty and staff.

Additionally, it reduces the need for extensive renovations elsewhere, saving time and resources in the migration process.



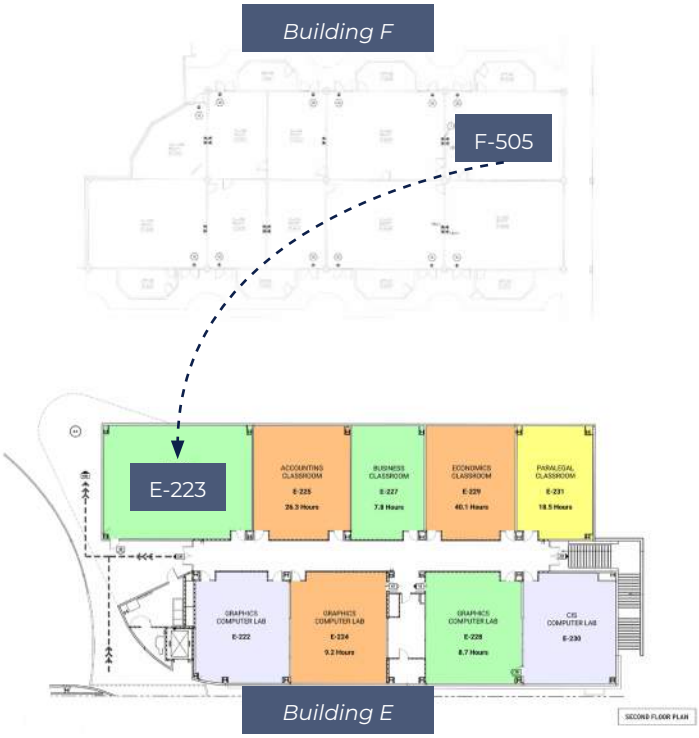
# MIGRATION PLAN - STRATEGY 2

## CLASSROOM RELOCATIONS

### SCIENCE / ENGINEERING CLASSROOM

As per the course schedule, Science / Engineering Classroom (F-505) is currently being utilized for only 2.7 hours weekly in the Fall semester. These courses can be reassigned to Classroom E-223 in Building E which currently hosts Business courses.

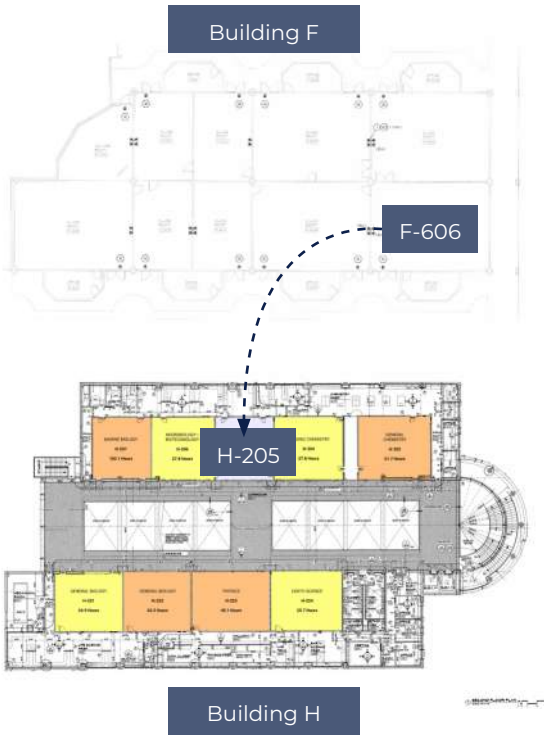
Relocating the Science / Engineering courses to room E-223 will improve the overall utilization of the space without disrupting the existing course schedule.




### BIOLOGY

Several options were explored for the Biology courses currently located in F-606. Ensuring courses are located near program hubs was an important consideration in the migration plan. H-205 was identified as a support space utilized primarily outside of course hours. Establishing this room as a classroom for F-606 courses increases utilization and places classroom hours nearby class laboratory hours.

H-205 support services will need to be spread through the additional support rooms on the North side of the building.

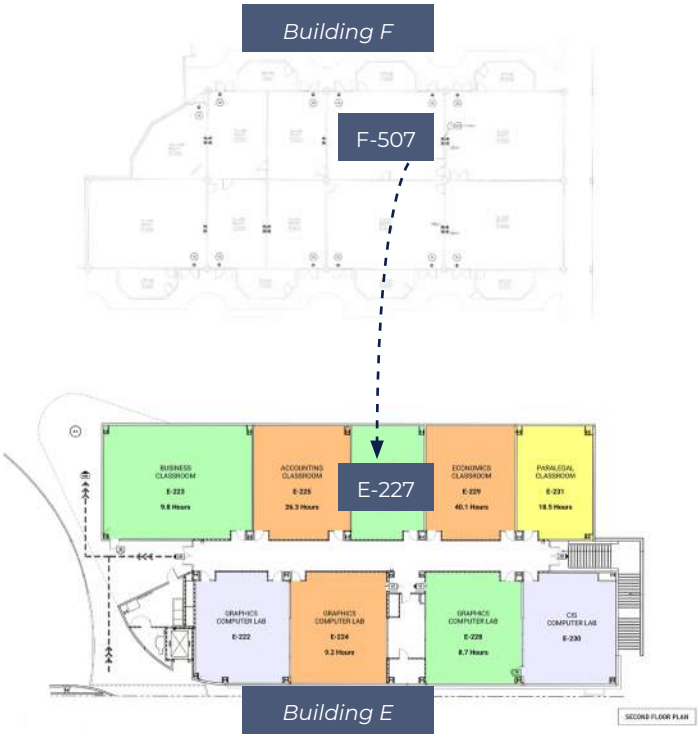


## HISTORY AND SOCIAL SCIENCE

History and Social Science courses are currently scheduled in classroom F-507 during the Fall Semester.

A possible relocation for these courses could be room E-227 in Building E which is not in use in the Fall Semester.

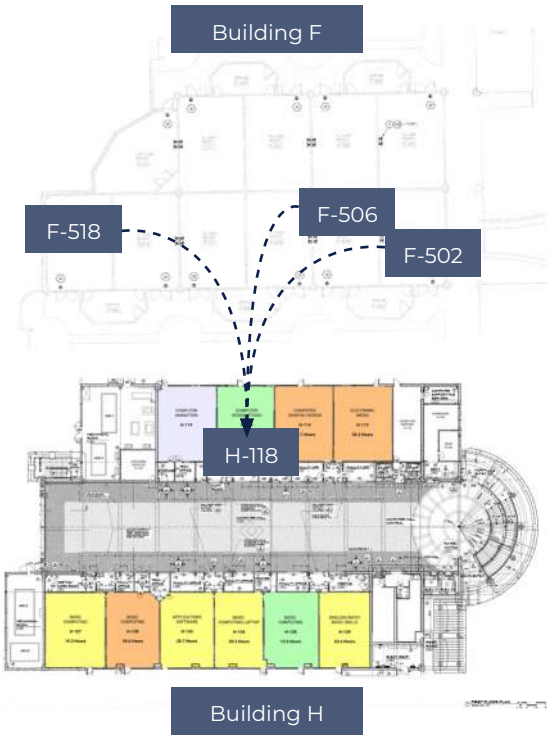
Therefore, this reassignment will enhance the classroom utilization for E-227 without affecting the course schedule.




## WORLD LANGUAGES

World Language courses require just one classroom to meet optimal weekly room utilization.

As Room H-118 is underutilized throughout the year, relocating the World Language courses would improve the room's overall utilization.



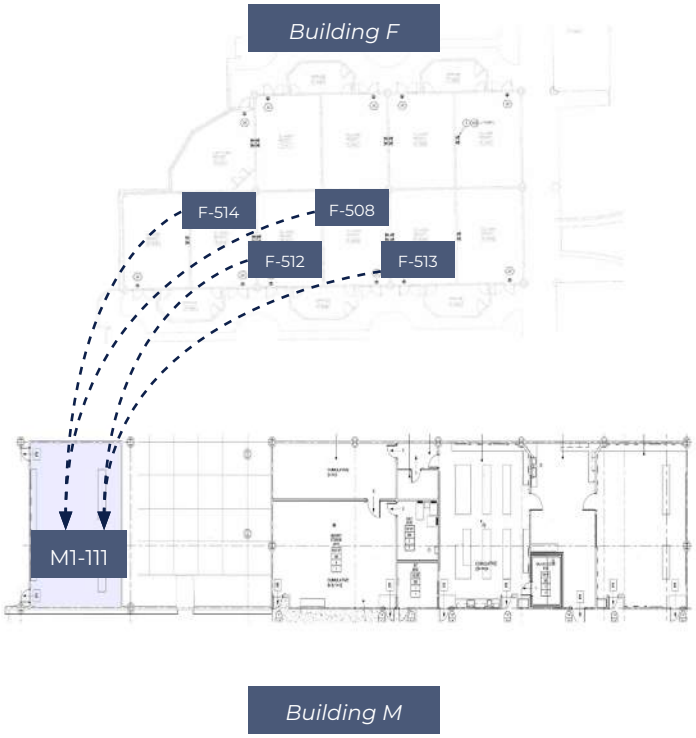
# MIGRATION PLAN - STRATEGY 2

## CLASSROOM RELOCATIONS

### BEHAVIORAL SCIENCE

Behavioral Science courses are currently scheduled in four classrooms in Building F. However, only two classrooms are needed to achieve the optimal average weekly room utilization.

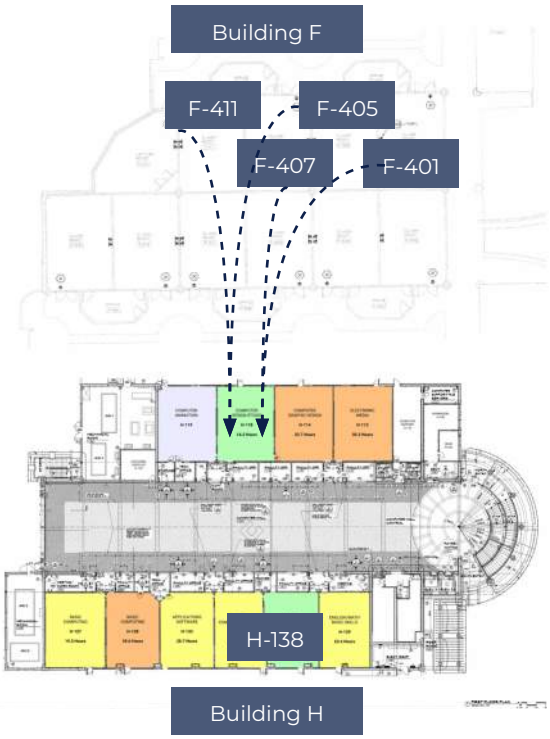
Room M1-111 has adequate space to house the Behavioral Science courses without affecting the current course schedule.




### COMMUNICATION ARTS

The classrooms designated for the Communication Arts course do not meet the Weekly Room Hours (WRH) standards. As per the course schedule and room utilization standards, only one classroom is needed to host these courses.

Since the Communication Arts courses are only scheduled in the Spring semester, they could be assigned to room H-138 in Building H which would also help improve the average room utilization.



# MIGRATION PLAN - SUMMARY AND RECOMMENDATION

## SUMMARY - STRATEGY 1 AND 2

**Strategy 1** focuses on optimizing space utilization by redistributing key facilities mainly to Building A and a few spaces across multiple buildings on the campus to enhance accessibility and operational efficiency. Given Building A's location outside the campus core, select classrooms and the Engineering Support spaces have been allocated to Buildings E, B, and M.

This realignment ensures that students and faculty can easily access these spaces, reducing travel time and improving the flow between classrooms, labs, and support areas.

For **Strategy 2**, the overall approach aims to balance space use, minimize remodeling needs, and maintain flexibility for future adjustments.

This approach proposes a partial use of Building A while relocating classrooms, class labs, offices, and support spaces from Building F to various buildings across the campus.

By strategically utilizing portions of Building A and distributing other spaces throughout the campus, this strategy enhances flexibility in space planning, and course scheduling, and better meets the needs of different departments.

## ADDITIONAL RECOMMENDATIONS

An option explored throughout the project but not selected for strategies 1 or 2 was the merging of Engineering Support spaces and CADD labs within the library creating a centralized collaborative hub. This would further develop an environment where students can access both technological tools and academic resources in one location fostering interdisciplinary education and encouraging students to engage in innovative resources seamlessly.

Another recommendation includes the distributed phased migration approach where the migration plan is spread out capturing smaller portions of Building F moves over a longer portion of time. By moving facilities and services in stages, resources would be less stretched and disruption minimized.

# MIGRATION PLAN - OFFICE SPACES

## SUMMARY

The Migration Plan outlines recommendations for relocating office spaces from Building F across the campus in alignment with the proposed strategies. Certain occupants have been allocated office spaces in the New Building F by Cuyamaca Community College, while others have been reassigned based on the following points:

**Proximity to Related Departments:** Office relocations prioritize proximity to related departments and programs to enhance operational efficiency and collaboration.

**Utilization of Underused Spaces:** Underutilized spaces across the campus have been identified and repurposed to accommodate displaced occupants from Building F.

**Alignment with Space Functionality:** The plan carefully considers individual space requirements and ensures that offices are assigned in alignment with their functional relationships to adjacent spaces or scheduled courses.

## NEW BUILDING F OCCUPANTS

| Occupant Type | Occupant Name | FTE |
|---|---|---|
| VP Team | Debra Ridulfo | 1 |
| VP Team | Jeanie Machado Tyler | 1 |
| VP Team | Aiden Lovewell, Taylor Owen | 2 |
| VP Team | Julie Kahler | 1 |
| VP Team | Michael Navarre | 1 |
| Support | PIO Support | 2 |
| Astronomy / Physics | Glenn Thurman, Misha Kutzman | 2 |
| History | Peter Utgaard, Moriah Gonzalez-Meeks | 2 |
| Drafting Tech | Cyrus Saghafi | 1 |
| Engineering | Keenan Murray | 1 |
| **Total FTE** | | **14** |

## MIGRATION PLAN - OFFICES (EXCLUDING NEW BUILDING F OCCUPANTS)

| Occupant / Space Type | Existing Room | Occupant Name | Strategy 1 | Strategy 2 |
|---|---|---|---|---|
| Operations | F-114 | Dorota Szpyrka | A-100 | G-124 |
| Marketing | F-106 | Michael Delgado | A-300 | G-307 |
| Marketing | F-106 | TBD | A-300 | G-308 |
| Admin Services | F-118 | Michael Erickson | A-100 | A-100 |
| Admin Services | F-119 | Nicole Salgado | A-100 | A-100 |
| Admin Services | F-101 | Laci Diaz | A-100 | A-100 |
| Faculty | F-409 | Tony Zambelli | A-100 | E-109-B |
| Faculty | F-504 | Courtney Hammond, Stan Rodriguez | A-200 | B-362 |
| Faculty | F-509 | Karla Gutierrez, Jane Gazale | A-200 | B-366 |
| Faculty | F-510 | Stephen Weinert, Marissa Salazar | A-300 | E-107-A |
| Faculty | F-515 | Rachel Jacob-Almeida, Josue Franco | A-300 | E-107-B |
| Academic Senate | F-623 | TBD | A-100 | A-100 |
| CSEA Office | F-615 | TBD | A-100 | A-100 |
| Breakroom | F-107 | General | A-300 | A-100 and Existing Breakrooms in Building E and B |
| Switchboard | F-113 | Dennis Sigler | A100 | A-100 |
| EHS | F-519 | Julie Godfrey | A-300 | E-120 |
| Duplicating / Mail Room | F-116, F-201 | Judy Shinkan, Frank Sundstrom | A100 | Library |

# MIGRATION PLAN - SEQUENCING

## SUMMARY

The sequencing plan provides a phased approach for the migration effort, ensuring the availability of target spaces while minimizing disruptions to courses currently scheduled in those spaces. This structured plan allows for efficient use of resources and smooth transitions between spaces, aligning with the institution's goals for space optimization and functionality.

To address the migration challenges, classroom and class lab spaces in Building F have been identified for relocation to Building B or Building E, depending on course schedules, space requirements, and the functional needs of the programs. To facilitate this process, courses scheduled in the target rooms have been strategically rescheduled or merged into other available spaces. This ensures that academic activities are uninterrupted while maximizing the usability of the target spaces.

The following section details the sequencing plan for required courses based on two previously outlined strategies:

## SEQUENCING PLAN

The sequencing plan follows a two-phase approach:

Phase 01 – Relocate and consolidate existing courses from targes spaces (Green) into available spaces (Grey).

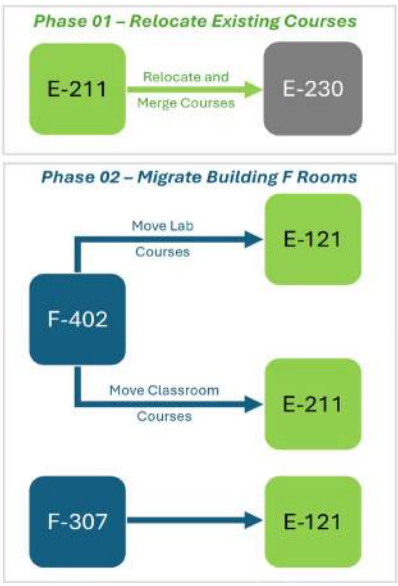
Phase 02 – Transfer courses from Building F (Blue) into target spaces (Green).

**Legend**

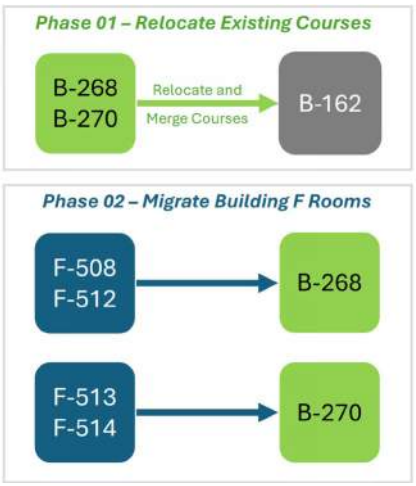
- Target Spaces
- Building F rooms
- Other Classroom / Class Lab with scheduled courses

## SEQUENCING PLAN - STRATEGY 01

Building F -
F-307: Engineering Support
F-402: Engineering Support

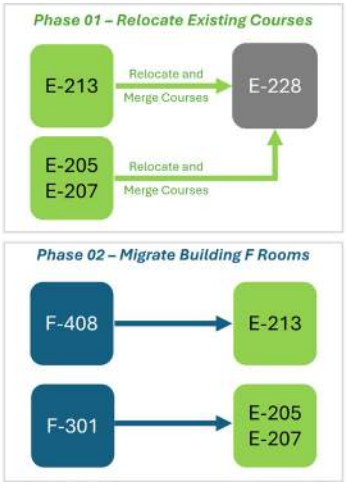



Building F -
F-508, F-512, F-513, F-514: Behavioral Science



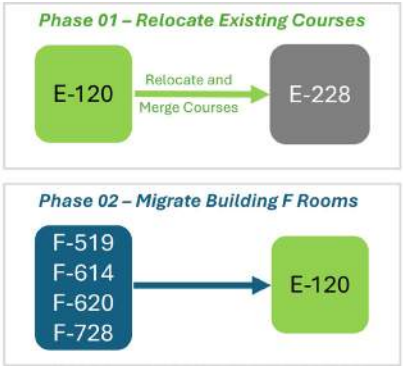
## SEQUENCING PLAN - STRATEGY 01

Building F -
F-301: Innovation Lab Science and Engineering
F-408: Science and Engineering Class Lab

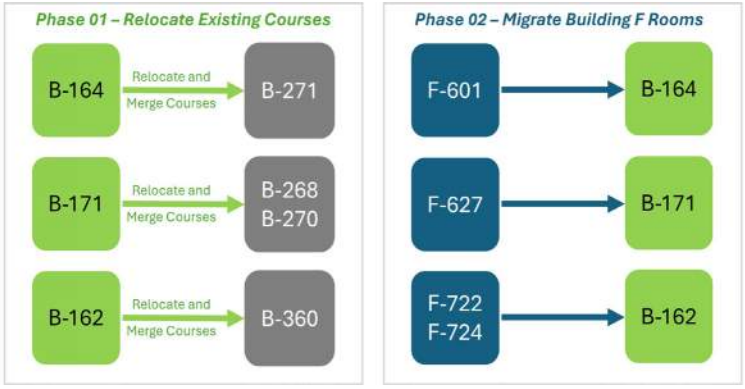



## SEQUENCING PLAN - STRATEGY 02

Building F -
F-519, F-614, F-620, F-728: EHS and Storage




Building F -
F-601, F-627, F-722, F-724: CADD Printers and Surveying



# MIGRATION PLAN - ENGINEERING ANALYSIS

## INTRODUCTION

To ensure the migration plan works, an engineering survey was conducted on campus to evaluate proposed spaces in both the strategies, especially for EHS, CADD labs, and Engineering Support. The evaluation includes a detailed analysis of the existing infrastructure, such as HVAC systems, electrical capacity, and structural integrity, to verify that each target space can support it's new function. Additionally, the evaluation assisted in identifying any renovation needs, from minor electrical adjustments to large HVAC modifications, that would be required to make the spaces fully functional for their intended use.

## GENERAL SUMMARY

### Architectural

- Building A Upgrades: Building A would require a full restart of its systems, including addressing ADA accessibility upgrades to ensure compliance with current standards. This may involve modifications to parking, site access, restrooms, and other facilities to accommodate individuals with disabilities. Additionally, mitigation of moisture issues must be prioritized due to the building's extended period of non-use. Plumbing updates may also be necessary to replace outdated PVC roof piping with copper.
- Building E: Building E features newer spaces with high-quality finishes, making it well-suited for modern classroom or office use. Minimal updates may be required to ensure it meets the specific needs of the program being relocated.
- Computer Stations: The computer stations in Building E appear to have basic setups consisting of software access, monitors, keyboards, and mice, with no local CPU battery systems observed. This setup indicates reliance on a centralized server or network-based computing, which should be verified for compatibility with any relocated programs or additional hardware needs.
- EHS and 3D Printer Equipment Needs: It is crucial to determine whether the Environmental Health and Safety (EHS) requirements or the 3D printer equipment rooms necessitate a chemical fume hood for their oven equipment or specific Standard Operating Procedures (SOPs). If the equipment is used primarily for heat exhaust rather than chemical off-gassing, alternative designs such as canopy hoods or recirculated HVAC systems may suffice. A thorough assessment of safety protocols and equipment use is essential before finalizing relocation plans
- F-724 double doors can be disassembled to move large equipment, though the lathe cannot be disassembled and requires a 54-60” wide door at its new location.
- F-519’s compressed-air cylinder tank filling machine can fit through a 36” door when disassembled. A new unclaimed lab-grade oil-free air compressor could be integrated if needed for EHS.
- F-402 Astronomy Lab does not require a fume hood or polished DI water, and its mobile equipment can be relocated easily.
- F-307 has a chemical fume hood likely used for heat exhaust rather than chemical processes. Equipment like 3D printers only requires power and data. The 3D printers take up adequate floor space in the room. Design consideration for student access and equipment security should be given.

- All spaces in Building A exit directly to the exterior. The building has tall suspended ceilings in open areas while the private offices have low suspended ceilings.
- E-120 and E-121 have carpets, computer stations, and teaching walls. The larger room needs a teaching wall upgrade, while the smaller room is in good condition. No foldable partitions were observed.
- Classrooms B-164, B-171, and B-162 have 36" wide doors, vinyl flooring, and fluorescent or indirect lighting.
- If considering moving Building F spaces to Building A, campus connection could be further improved by expanded hardscapes and sidewalk upgrades allowing students easier access and flow between core campus and the more exterior campus building.

**Mechanical**

- The site survey for mechanical covers the Building F with the existing spaces and the other buildings that the spaces will be moved to, including Buildings A, B, and E. In addition to the building HVAC system, the existing Building Management System (BMS) has been visited to understand the existing HVAC systems that are connected to the BMS.
- In Building A (including A-100, A-200 and A-300), it is understood that the HVAC systems (including the packaged rooftop units, split systems and exhaust fans) have not operated for a long period of time except the systems serving the sheriff's office in A-100. The power, natural gas and condensate drain pipe have been disconnected from some of the existing HVAC equipment.
- The existing HVAC systems in proposed destination buildings (Buildings B and E) are single duct variable air volume with air terminal heating hot water reheat. Per conversations with Facilities, the existing HVAC systems are in good operating condition with sufficient capacities for air distribution, cooling and heating. **Major systems upgrade is not anticipated for the space migration strategy.**
- Air pre-readings for the existing HVAC systems would still be recommended to verify the system capacities, including the airflows within the destination spaces, main AHUs operating data, etc.
- F-724: Room has ceiling air distribution (supply and return air) with dedicated thermostat for thermal control, typical for other rooms in this visit. No special exhaust system or ducted vent is provided for the 3D printing machines in this room.
- F-402: An existing fume hood in the room has been disabled. The fume hood is still connected with stainless steel exhaust duct up to roof and up to the roof to a lab exhaust fan with discharge stack. It is understood that no fume hood is anticipated in the new location.
- F-307: An existing fume hood is active with exhaust connection ducted to exhaust fan in mechanical room #F-309 above this room. The fume hood appears not to be used for chemical exhaust purpose, which has the equipment general heat placed inside the hood for heat extraction. Two (2) PVC pipes are used for venting purpose to 2 storage cabinets, which are used for dry storage (e.g. stationary). 3D printing machines have no special exhaust system or ducted vent to outdoor.
- Existing air distribution layout in the destination spaces will be revised for new space layout. New exhaust system will be provided to the existing destination space if it is determined the exhaust required.

# MIGRATION PLAN - ENGINEERING ANALYSIS

**Electrical**

- The three proposed destination buildings observed (Buildings A, B and E) all have modern electrical services and distribution systems appropriate for buildings of their size. It is unlikely that major electrical service upgrades would be required for either migration strategy.
- Building A has an 800A 480V 3Ph switchboard
- Building B has a 2,500A 480V 3Ph switchboard
- Building E has a 4,000A 208V 3Ph switchboard
- 30-day load studies would still be recommended to confirm the available capacity on destination electrical systems. **Real time metering available in Building E suggested sufficient capacity, but a load study would still be recommended.**
- Classroom F-724 appeared to have the most significant individual loads. The room has (2) existing 400A, 120/208V panels. There was an active 50A/3P circuit breaker for the lathe. There were also three 100A/3P circuit breakers on and unlabeled. Equipment of this size was not identified, so it's possible these circuits feed unused welder outlets in the room. Most of the other equipment in the room appeared to use normal 120V power, so the (2) 400A panels would likely not need to be fully replicated. However, a new panel (with a new conduit feeder from a switchboard) will be required in the destination room under either strategy.
- Generators were observed at Buildings A and B. Based on labeling (60kW at A and 100kW at B), they are moderately sized and used for life safety systems. Though some capacity is likely available, it would not be recommended that these be used for emergency power to any relocated equipment.
- An inverter for emergency lighting was observed in Building E.
- Wattstopper lighting control systems were observed in Buildings A, B and E. Building F has basic line voltage switching.
- Simplex Fire Alarm systems were observed in all buildings.
- Floor boxes for power and data were observed in computer labs in Building E, but do not exist in most of the proposed destination locations. For new computer labs, wall connections or power poles would likely need to be used to avoid cutting existing floors.

**Lighting**

- Provide new energy efficient LED lighting with new lighting code-compliant lighting controls including vacancy sensing and dimming control.
- Target light levels of 30-40 footcandles average with a uniformity ratio of 10:1 for maximized visual comfort and task performance.

**Plumbing**

- Plumbing utility services and upgrades will be necessary for both strategies in the proposed destination buildings (Buildings A, B, and E) to ensure accessible water, drainage, and other essential plumbing infrastructure for the relocated spaces

- Building A-100 has conventional domestic plumbing utilities, including waste, water, and natural gas, whereas the other two buildings lack certain domestic plumbing services. Upgrades will be necessary to extend plumbing utilities from the exterior building site.

- Building B has existing classrooms with no domestic plumbing utilities nearby. Upgrades will be required to bring utilities from exterior building site.

- Building E has existing classrooms with no domestic plumbing utilities nearby. Upgrades will be required to bring utilities from exterior building site.

- The existing classrooms in Building F classrooms F-402, F-307, and F-301 had laboratory counter sinks and chemical fume hood, which required special utilities for laboratory plumbing systems like Deionized (D.I) water faucets, Acid Waste Trap, hot and cold-water faucets at the lab sinks and Compressed Air, Natural Gas, cold water, vacuum outlets at the Fume hoods. One Fume hood will not be relocated.

- The existing Equipment Room, F-519, contains storage and a few pieces of equipment, including an 80-gallon vertical tank with a single compressor, an air dryer, and two inert gas cylinders, which are uninstalled, inactive, or not in use.

**Audiovisual**

- Some existing building F classrooms include simple AV presentation systems. These systems do not match AV equipment provided for newer classrooms which typically supports Hy-Flex (Hybrid/Flexible) learning.

- **It is anticipated that the relocation efforts will include new AV equipment for the new spaces.**

- From discussions with the IMS staff, the latest classroom standards are better represented by rooms in the B and E buildings. These rooms typically include:

  a. Video Projection: Ceiling-mounted projector with a manual, pull-down screen.
  b. Instructor Lectern housing a room computer, HDMI document camera, and ScreenBeam (for wireless sharing).
  c. (2) AVer PTZ Cameras and a Shure MXA920 Ceiling Microphone for Hy-Flex (distance learning). These devices connect to the room PC via Magewell SDI/USB capture devices and a Shure DSP.
  d. Video routing and system control is provided by an Extron DTP Crosspoint 4K switcher and touchscreen controller at the lectern.
  e. A small Netgear switch is provided for AV LAN.

- Each of the relocation strategies are equally viable for the AV systems. Instructional systems will require the following infrastructure:

  a. Duplex receptacle at the ceiling-mounted projector location. Where available, use a dedicated 120V/20A circuit.
  b. 120V receptacle at the lectern location. Where available, use a dedicated 120V/20A circuit.
  c. 2-gang box with 1-1/4” EMT conduit from the projector to a 2-gang box at the teaching station for AV cabling.

# MIGRATION PLAN - ENGINEERING ANALYSIS

## Room Evaluation

**Building A, A-100**

- Mechanical – The room will have a significant number of 3D printing machines from relocation of room F-724. Comparing to the original room function, higher cooling load is expected in this room. Cooling load should be tested to determine if the existing packaged rooftop unit has enough capacity. Evaluation of the operation shall be conducted for the existing packaged rooftop unit is recommended. Per equipment label, the unit is manufactured in 2015 which is still within the equipment life expectancy, 15 years. Special exhaust or vent for 3D printing is not anticipated to match existing configuration.

- Electrical – **This room has the most significant amount of relocated electrical load for Strategy 1.** The equipment relocating from room F-724 is currently fed from dedicated panels in that room. For these reasons, a new panel and transformer would be required in A-100. This new equipment would need to be fed from main electrical room A-223, with a new underground conduit between the buildings. Existing panels in the building would be back-fed from the new panel. Typical interior wall renovations would then be required to install receptacles and connections fed from the new panel.

- Plumbing – There are no plumbing fixtures to be relocated from F-627 and F-724 to Building A-100.

**Building A, A-200**

- Mechanical – Relocation of the CADD classroom F-601 will require higher ventilation and higher cooling load due to the number of people in the space. Cooling load should be tested to determine if the existing packaged rooftop unit has enough capacity. Similar to A-100, evaluation of the operation for the existing packaged rooftop unit is recommended. Per equipment label, the unit is manufactured in 2015 which is still within the equipment life expectancy, 15 years.

- Electrical – Relocation of CADD lab F-601 to this room would require a few new dedicated circuits, in addition to the existing receptacle circuits in the room. The new circuits could be pulled from the existing distribution panel boards in room A-223. Existing panel P2 likely has sufficient capacity, but this should be confirmed with a 30-day load study. Within the room, only typical interior renovations would be required to install receptacles and connections.

- Plumbing - There are no plumbing fixtures to be relocated from F-601 to Building A-200.

**Building A, A-300**

- Mechanical – Classroom and storage are relocated to these spaces. **The classroom will require higher ventilation and higher cooling load due to the number of people in the space**. Cooling load should be tested to determine if the existing packaged rooftop unit has enough capacity. Similar to A-100, evaluation of the operation for the existing packaged rooftop unit is recommended. Per equipment label, the unit is manufactured in 2015 which is still within the equipment life expectancy, 15 years.

- Electrical – The programming moved to this room is mostly classroom and storage, with manageable loads. The compressor from room F-519 would require a dedicated circuit. All these new loads could be fed from existing panels in Electrical Room A-322. Within room A-300, only typical interior renovations would be required to install receptacles and connections.

- Plumbing – Moving the F-519 Equipment storage room to Building A-300 will require electrical power connections and new piping system for compressed air as well as inert gas lines. Migration study did not identify exact location of tank filling system and additional study for inert gas line connection may be required. It is anticipated that chemical fume hoods and laboratory sinks from F-301, F307, and F-402 are not required for current courses and therefore no additional plumbing needs are identified.

**Building E, E-121**

- Mechanical – The room will have a variety of equipment from relocation of room F-402, so higher cooling load will be expected from the equipment going into the space. Cooling load should be tested to determine the required airflow for the new function. Revision to existing air distribution will be expected, which may involve air terminal unit(s), ductwork re-routing, air inlet/outlet relocation and thermostat relocation. New exhaust system should be added if it is required for the equipment operation.

- Electrical – The programming moving to this room has a variety of equipment that requires dedicated circuits. Source room F-402 has an existing panel within it (which was inaccessible during survey). However, the equipment in the room did not appear to have significant electrical loads, so replication of this localized panel is likely not required. The required circuits could be provided by reusing the existing computer lab circuits and supplementing them with spare circuits from existing panels in Electrical Room E-101. Within room E-121, only typical interior renovations would be required to install receptacles and connections.

- Plumbing - Moving the programming and associated equipment from F-301, F-307, and F-402 to E-121 does not require additional piping or connections due to courses not requiring sink or chemical fume hoods. In Strategy 2, F-519 is anticipated to move to E-120. This would require connections and piping to support EHS tank filling equipment.

# MIGRATION PLAN - ENGINEERING ANALYSIS

**Building E, E-120**

- Mechanical – Relocation of classroom and storage from Building F to this space shall have minimal HVAC system impact since the existing space is a classroom. Cooling load should be tested to confirm the required airflow. Revision to existing air distribution may be expected, which may involve air terminal unit(s), ductwork re-routing, air inlet/outlet relocation and thermostat relocation. New exhaust system should be added if it is required for the equipment operation.
- Electrical – The programming moved to this room is mostly classroom and storage, with manageable loads. The compressor from room F-519 would require a dedicated circuit. All of these new loads can be fed from existing computer lab circuits and spare circuits in existing panels in Electrical Room E-101. Within room E-120, only typical interior renovations would be required to install receptacles and connections.
- Plumbing – Relocating the EHS Tank Filling Equipment with Air compressor, Air dryer and inert gas cylinder from F-519 to E-120 will require electrical power 5-HP, 230 V & 60 Hz for the existing Air compressor.

**Building B, B-162**

- Mechanical - The room will have a significant number of 3D printing machines from relocation of room F-724. Cooling load should be reviewed to confirm the required airflow for the new function. Existing air distribution will likely be able to serve the new function. Special exhaust or vent for 3D printing is not anticipated to match existing configuration.
- Electrical – **This room has the most significant amount of relocated electrical load for Strategy 2.** The equipment relocating from room F-724 is currently fed from a dedicated panel in that room. For these reasons, a new panel and transformer would be required in room A-100. This new equipment would need to be fed from the main electrical yard on the opposite end of building B, with a new underground conduit around the building. Typical interior wall renovations would then be required to install receptacles and connections fed from the new panel.
- Plumbing - There are no plumbing fixtures to be relocated from F-627 and F-724 to B-162.

**Building B, B-164**

- Mechanical - Relocation of the CADD classroom F-601 shall have minimal HVAC system impact since the existing space is a classroom. Existing air distribution will likely be able to serve the new function. Cooling load should be reviewed to confirm the required airflow for the new function.

- Electrical – Relocation of CADD lab F-601 to this room would require a few new dedicated circuits, in addition to the existing receptacle circuits in the room. The new circuits could likely be pulled from the existing distribution panel boards in the area. So, only typical interior renovations in this room (and adjacent corridors) would be required.

- Plumbing - There are no plumbing fixtures to be relocated from F-601 to B-164.

# MIGRATION PLAN - ENGINEERING ANALYSIS

## EQUIPMENT SURVEY

An Equipment Survey was conducted to evaluate all the equipment in the Building F rooms slated for relocation. This assessment provided critical insights into whether the proposed target spaces could adequately accommodate the equipment loads and maintain the functionality required to support the scheduled courses. The survey was essential in identifying possible remodeling and additions to ensure a smooth transition without compromising operational efficiency.

A total of 118 pieces of equipment were identified, essential for laboratory experiments, engineering projects, and classroom activities. The following table summarizes the equipment (excluding storage cabinets) and their proposed relocation under both strategies:

| EQ # | Equipment Name | Model | Existing Location | Migration - Strategy 1 | Migration - Strategy 2 |
|---|---|---|---|---|---|
| EQ-1 | COPIER with GBC | Pro 8220s | F-201 | A-100 | LIBRARY |
| EQ-2 | COPIER | Pro 8220s | F-201 | A-100 | LIBRARY |
| EQ-3 | COPIER | 5955i | F-201 | A-100 | LIBRARY |
| EQ-4 | Paper Folder | 959 | F-201 | A-100 | LIBRARY |
| EQ-5 to EQ-19 | Desk with 2 Monitors (15) | Dell | F-301 | E-205, E-207 | E-205, E-207 |
| EQ-20 | 3D PRINTER | RAISE3D - Pro2 Plus | F-307 | E-121 | E-121 |
| EQ-21 | 3D PRINTER | RAISE3D - Pro2 Plus | F-307 | E-121 | E-121 |
| EQ-22 | 3D PRINTER | RAISE3D - Pro2 Plus | F-307 | E-121 | E-121 |
| EQ-23 | 3D PRINTER | RAISE3D - Pro2 Plus | F-307 | E-121 | E-121 |
| EQ-24 | 3D PRINTER | RAISE3D - Pro2 Plus | F-307 | E-121 | E-121 |
| EQ-25 | 3D PRINTER | RAISE3D - Pro2 Plus | F-307 | E-121 | E-121 |
| EQ-26 | 3D PRINTER | DREMEL - 3D45 | F-307 | E-121 | E-121 |
| EQ-27 | 3D PRINTER | DREMEL - 3D45 | F-307 | E-121 | E-121 |
| EQ-28 | 3D PRINTER | DREMEL - 3D45 | F-307 | E-121 | E-121 |
| EQ-29 | CNC Mill | TORMACH - 770M | F-307 | E-121 | E-121 |
| EQ-30 | Air Compressor | California Air Tools - 4610XC | F-307 | E-121 | E-121 |
| EQ-31 | 3D PRINTER | Flash Forge - Creator Pro | F-307 | E-121 | E-121 |
| EQ-32 | Kiln | Paragon - SC2 | F-307 | E-121 | E-121 |
| EQ-33 | Drill Press | Central Machinery - 813B | F-307 | E-121 | E-121 |

| EQ # | Equipment Name | Model | Existing Location | Migration - Strategy 1 | Migration - Strategy 2 |
|---|---|---|---|---|---|
| EQ-34 | Bench Grinder | CRAFTSMAN - 6" Bench Grinder | F-307 | E-121 | E-121 |
| EQ-35 | Flammable Storage Cabinet | - | F-307 | E-121 | E-121 |
| EQ-36 | Base Cabinet with Sink | - | F-402 | E-121 | E-121 |
| EQ-37 | Base Cabinet with Sink | - | F-402 | E-121 | E-121 |
| EQ-38 | Base Cabinet with Sink | - | F-402 | E-121 | E-121 |
| EQ-39 | Fume Hood | - | F-402 | E-121 | E-121 |
| EQ-40 | Power Mill | PEPETOOLS - X-Drive XD190.00 160MM | F-402 | E-121 | E-121 |
| EQ-41 | Fatigue Testing Machine | TERCO - MT3012-E | F-402 | E-121 | E-121 |
| EQ-42 | Hardness Tester | phase 2 - 900-390 Series | F-402 | E-121 | E-121 |
| EQ-43 | LASER CUTTER | Full Spectrum - MLE-40 | F-402 | E-121 | E-121 |
| EQ-44 | Metal Cutter | Central Machinery - 93762 | F-402 | E-121 | E-121 |
| EQ-45 | Cylinder Tanks Cart | - | F-519 | A-300 | E-120 |
| EQ-46 | Air Compressor | Industrial Air - IV5048055 | F-519 | A-300 | E-120 |
| EQ-47 | Air Fill Station | REVOLVE AIR SYSTEMS - RAS | F-519 | A-300 | E-120 |
| EQ-48 | Air Compressor | REVOLVE AIR SYSTEMS - G5VE-14-E3 | F-519 | A-300 | E-120 |
| EQ-49 | Printer | HP - Designjet 510 | F-601 | A-100 | A-100 / B-164 |
| EQ-50 | Printer | HP - LaserJet 700 M712 | F-601 | A-100 | A-100 / B-164 |
| EQ-51 | Printer | HP - LaserJet 600 M603 | F-601 | A-100 | A-100 / B-164 |
| EQ-52 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-53 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-54 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-55 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-56 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-57 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-58 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-59 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |

# ENGINEERING ANALYSIS

| EQ # | Equipment Name | Model | Existing Location | Migration - Strategy 1 | Migration - Strategy 2 |
|---|---|---|---|---|---|
| EQ-60 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-61 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-62 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-63 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-64 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-65 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-66 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-67 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-68 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-69 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-70 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-71 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-72 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-73 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-74 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-75 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-76 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-77 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-78 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-79 | Computer | Dell - Precision 3460 | F-601 | A-100 | A-100 / B-164 |
| EQ-80 | 3D PRINTER | VAQUFORM | F-627 | A-100 | A-100 / B-171 |
| EQ-81 | 3D PRINTER | VAQUFORM | F-627 | A-100 | A-100 / B-171 |
| EQ-82 | 3D PRINTER | VAQUFORM | F-627 | A-100 | A-100 / B-171 |
| EQ-83 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |
| EQ-84 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |
| EQ-85 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |

| EQ # | Equipment Name | Model | Existing Location | Migration - Strategy 1 | Migration - Strategy 2 |
|---|---|---|---|---|---|
| EQ-86 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |
| EQ-87 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |
| EQ-88 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |
| EQ-89 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |
| EQ-90 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |
| EQ-91 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |
| EQ-92 | Computer | Dell - Precision Tower 3420 | F-627 | A-100 | A-100 / B-171 |
| EQ-93 | 3D PRINTER | RAISE3D - Pro3 | F-724 | A-100 | A-100 / B-162 |
| EQ-94 | 3D PRINTER | RAISE3D - Pro3 | F-724 | A-100 | A-100 / B-162 |
| EQ-95 | 3D PRINTER | formlabs - Form 1+ | F-724 | A-100 | A-100 / B-162 |
| EQ-96 | LASER CUTTER | BOSSLASER - LS1416 | F-724 | A-100 | A-100 / B-162 |
| EQ-97 | INDUSTRIAL CHILLER | Teyu - CW-3000DG | F-724 | A-100 | A-100 / B-162 |
| EQ-98 | Wash+Cure | nexa3D - XiP | F-724 | A-100 | A-100 / B-162 |
| EQ-99 | 3D PRINTER | phrozen - SONIC MEGA 8K | F-724 | A-100 | A-100 / B-162 |
| EQ-100 | 3D PRINTER | phrozen - SONIC MEGA 8K | F-724 | A-100 | A-100 / B-162 |
| EQ-101 | 3D PRINTER | Bambu Lab - X1-Carbon | F-724 | A-100 | A-100 / B-162 |
| EQ-102 | 3D PRINTER | Bambu Lab - X1-Carbon | F-724 | A-100 | A-100 / B-162 |
| EQ-103 | 3D PRINTER | Bambu Lab - X1-Carbon | F-724 | A-100 | A-100 / B-162 |
| EQ-104 | 3D PRINTER | Flash Forge - Creator Pro | F-724 | A-100 | A-100 / B-162 |
| EQ-105 | Dryer | Sunlu - FilaDryer S4 | F-724 | A-100 | A-100 / B-162 |
| EQ-106 | 3D PRINTER | Flash Forge - Creator Pro | F-724 | A-100 | A-100 / B-162 |
| EQ-107 | 3D PRINTER | Corner Equipment | F-724 | A-100 | A-100 / B-162 |
| EQ-108 | Cleaning Apparatus | PADT - SCA-1200HT | F-724 | A-100 | A-100 / B-162 |
| EQ-109 | 3D PRINTER | stratasys - uPrint SE | F-724 | A-100 | A-100 / B-162 |
| EQ-110 | Toolroom Lathe | TRAK Machine Tools - TRL 1630RX | F-724 | A-100 | A-100 / B-162 |
| EQ-111 | Controller | TRAK Machine Tools - TRL 1630RX | F-724 | A-100 | A-100 / B-162 |

| EQ # | Equipment Name | Model | Existing Location | Migration - Strategy 1 | Migration - Strategy 2 |
|---|---|---|---|---|---|
| EQ-112 | Milling Machine | Roland - MODELA MDX-50 | F-724 | A-100 | A-100 / B-162 |
| EQ-113 | Milling Machine | Roland - MODELA MDX-15 | F-724 | A-100 | A-100 / B-162 |
| EQ-114 | Milling Machine | emco - Concept Mill 55 | F-724 | A-100 | A-100 / B-162 |
| EQ-115 | 3D PRINTER | Ultimaker - Ultimaker 2 | F-724 | A-100 | A-100 / B-162 |
| EQ-116 | 3D PRINTER | Ultimaker - Ultimaker 2 | F-724 | A-100 | A-100 / B-162 |
| EQ-117 | Drill Press | JET - J-2500 | F-724 | A-100 | A-100 / B-162 |
| EQ-118 | Bench Grinder | PALMGREN - 6" Bench Grinder | F-724 | A-100 | A-100 / B-162 |

**This page intentionally left blank.**


You
Belong
Here

# 10 APPENDIX

**REFERENCES**

**WORKSHOP ATTENDEES**

**MAPS**

**CHARTS**

# APPENDIX

## REFERENCES

California Board of Governors. *Board of Governors of the California Community Colleges Policy on Utilization and Space Standards.* https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/College-Finance-and-Facilities-Planning/Facilities-Planning/Reports-and-Guidelines

Grossmont - Cuyamaca Community College District. *District Guidelines + Standards.* https://propsrv.gcccd.edu/Projects/Project%20Related%20Resources/Design%20Guidelines%20and%20Standards.pdf

## WORKSHOP ATTENDEES

| Workshop 02: Building F Migration |
|---|
| **Attendees** |
| Jeanie Machado Tyler |
| Julie Kahler |
| Michael Navarre |
| Victoria Marron |
| Frank Sundstrom |
| Karen Marrujo |
| Karla Gutierrez |
| Moriah Gonzalez-Meeks |
| Dorota Szpyrka |
| Julie Godfrey |
| Keenan Murray |
| Michael Erickson |
| Nicole Salgado |
| Jessica Robinson |
| Josue (Josh) Franco |

| College Council Update - September |
|---|
| **Attendees** |
| Jessica Robinson |
| Karen Marrujo |
| Katie Cabral |
| Rachel Jacob-Almeida |
| Rafael Ayala |
| Brycen Brown |
| Juan (JP) Arredondo |
| Rachelle Panganiban |
| Michael Allen |
| Jeanie Machado Tyler |
| Victoria Marrón |
| Nicole Salgado |
| Bri Hays |
| Moriah Gonzalez-Meeks |
| Michael Erickson |
| Josh Franco |
| Julie Godfrey |
| Francisco Gonzalez |
| Judy Shinkan |
| Natalia Sigala |
| Dennis Sigler |
| Frank Sundstrom |
| Patrick Thiss |

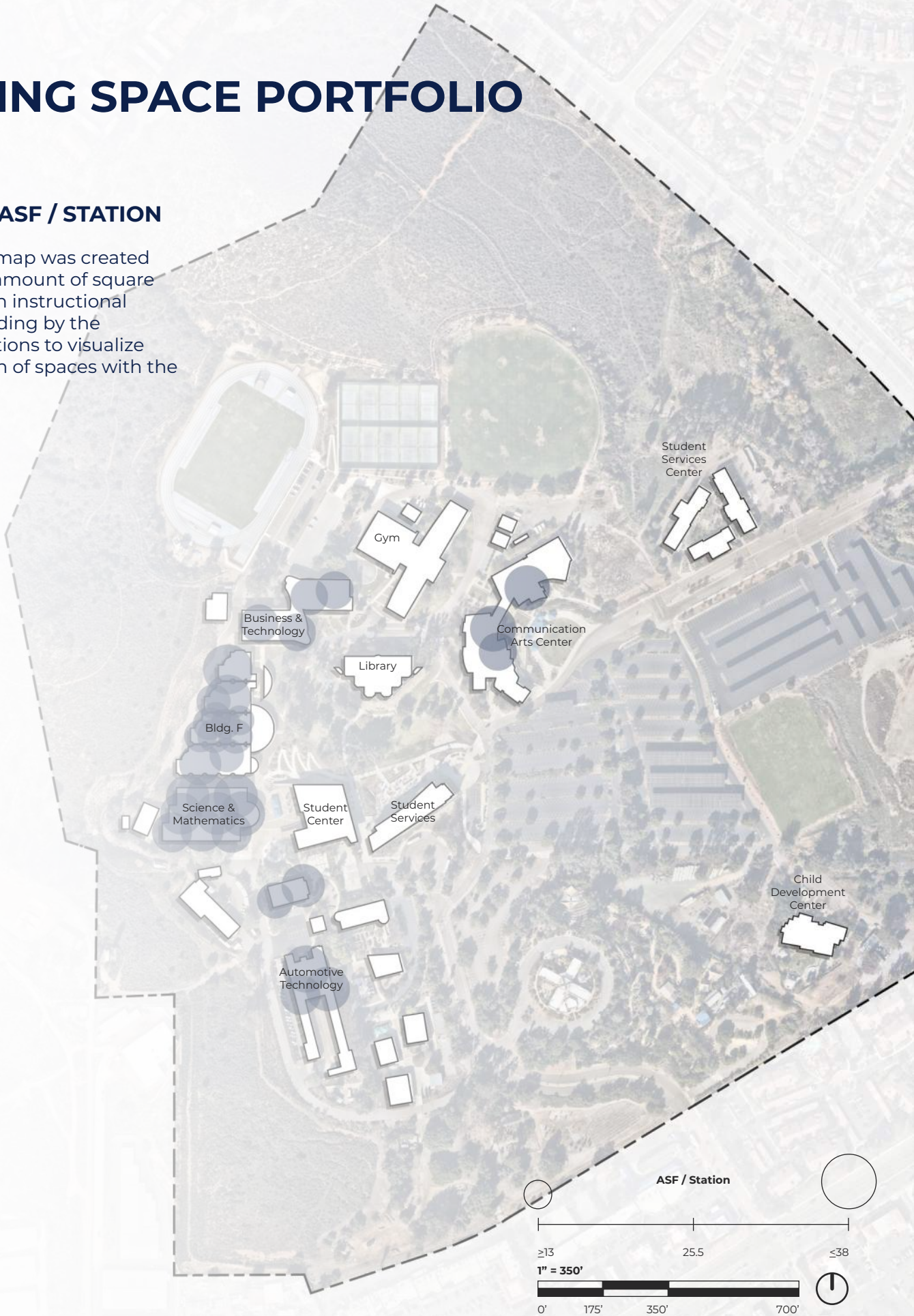
| College Council Update - December |
|---|
| **Attendees** |
| Jessica Robinson |
| Karen Marrujo |
| Rana Al-Shaikh |
| Rachel Jacob-Almeida |

| College Council Update - Continued |
|---|
| **Attendees** |
| Rafael Ayala |
| Rachelle Panganiban |
| Michael Allen |
| Jeanie Machado Tyler |
| Victoria Marrón |
| Bri Hays |
| Moriah Gonzalez-Meeks |
| Laci Diaz |
| George Dowden |
| Michael Erickson |
| Jane Gazale |
| Rita Ghazala |
| Julie Godfrey |
| Karla Gutiérrez |
| Jessica Hurtado Soto |
| Julie Kahler |
| Tammi Marshall |
| Keenan Murray |
| Taylor Owen |
| Paul Palacios |
| Joan Rettinger |
| Cyrus Saghafi |
| Marissa Salazar |
| Judy Shinkan |
| Natalia Sigala |
| Miriam Simpson |
| Frank Sundstrom |
| Dorota Szpyrka |
| Patrick Thiss |

# EXISTING SPACE PORTFOLIO

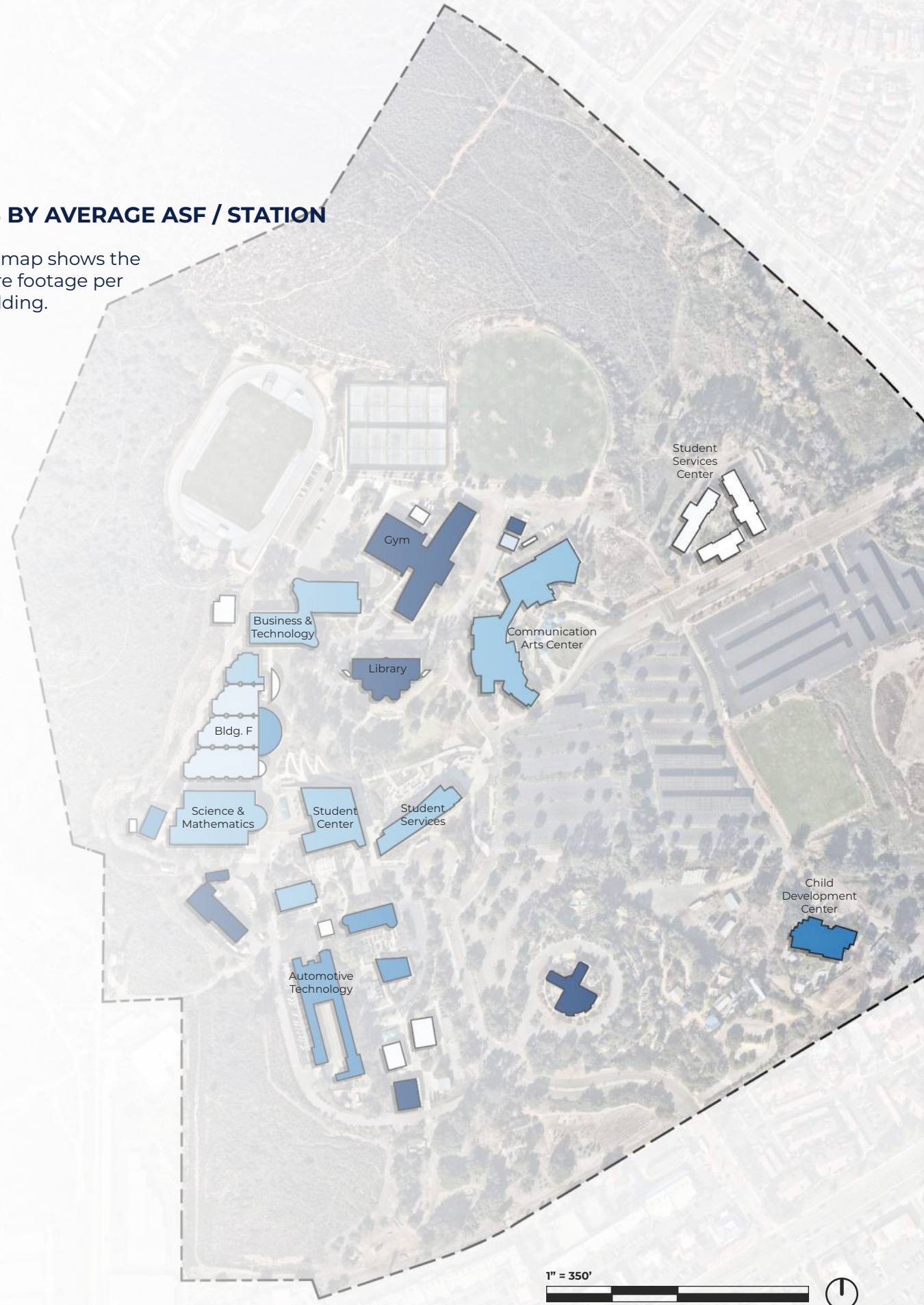
## ROOMS BY ASF / STATION

The following map was created by taking the amount of square footage in each instructional space and dividing by the number of stations to visualize the distribution of spaces with the most stations.



## BUILDINGS BY AVERAGE ASF / STATION

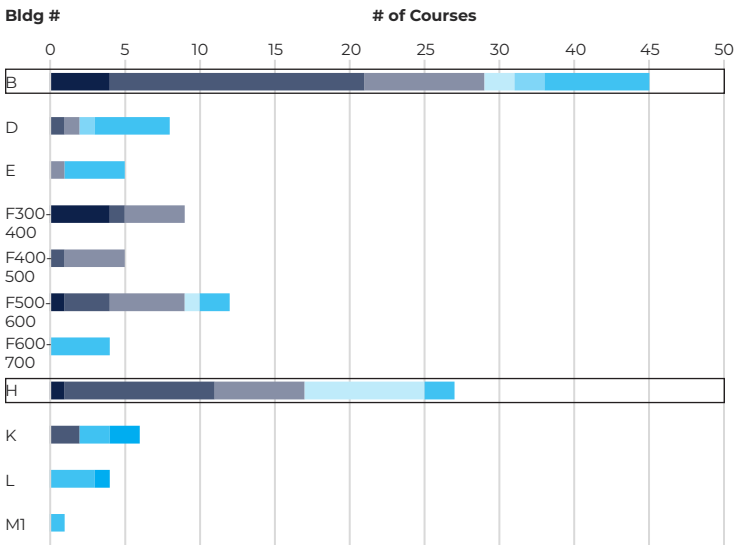
The following map shows the average square footage per station by building.



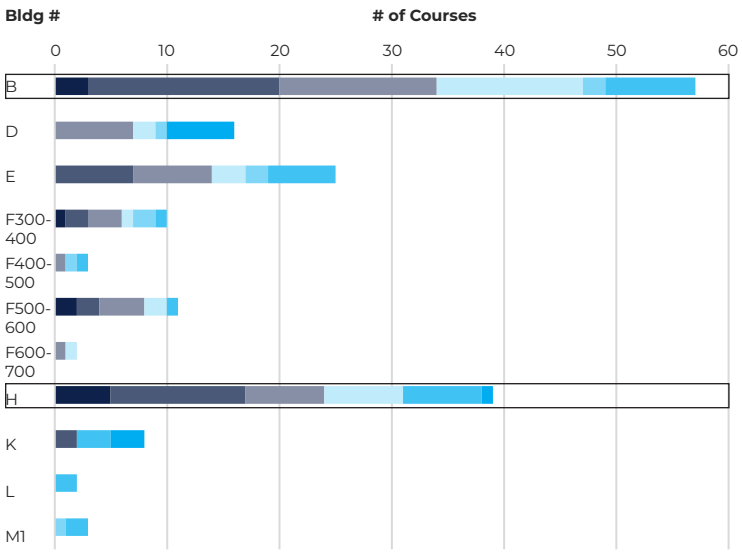
# APPENDIX

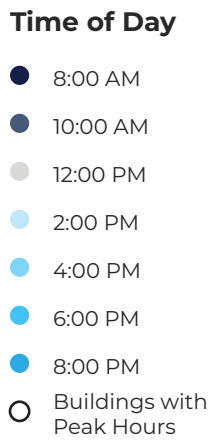
## COURSES BY BUILDING AND TIME OF DAY - FALL 2023

### MONDAY

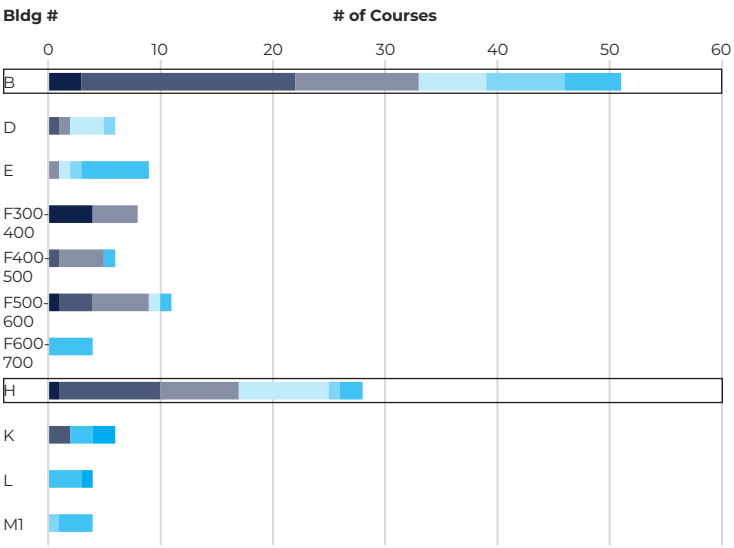



### TUESDAY

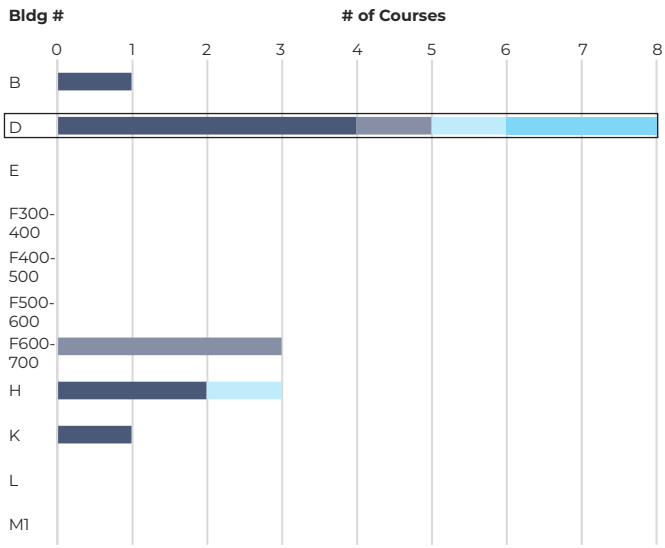


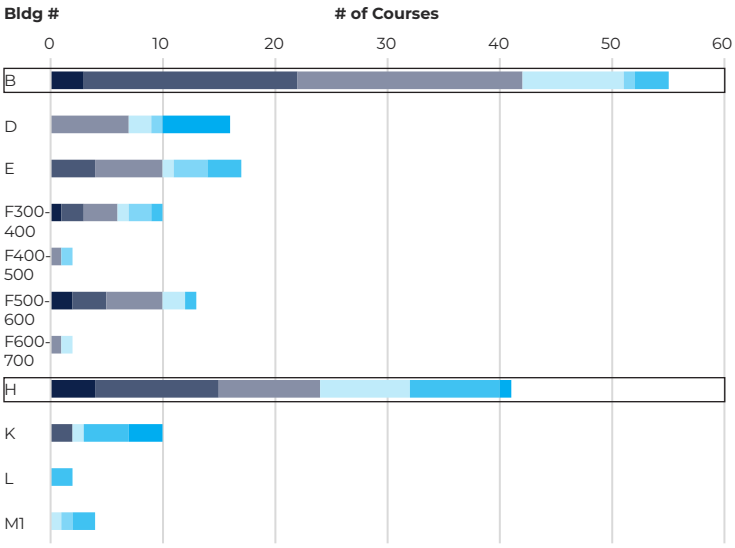
## WEDNESDAY



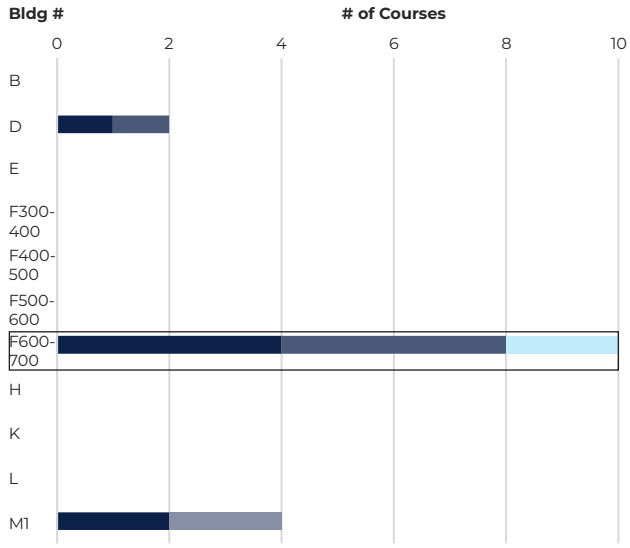

## FRIDAY




## THURSDAY

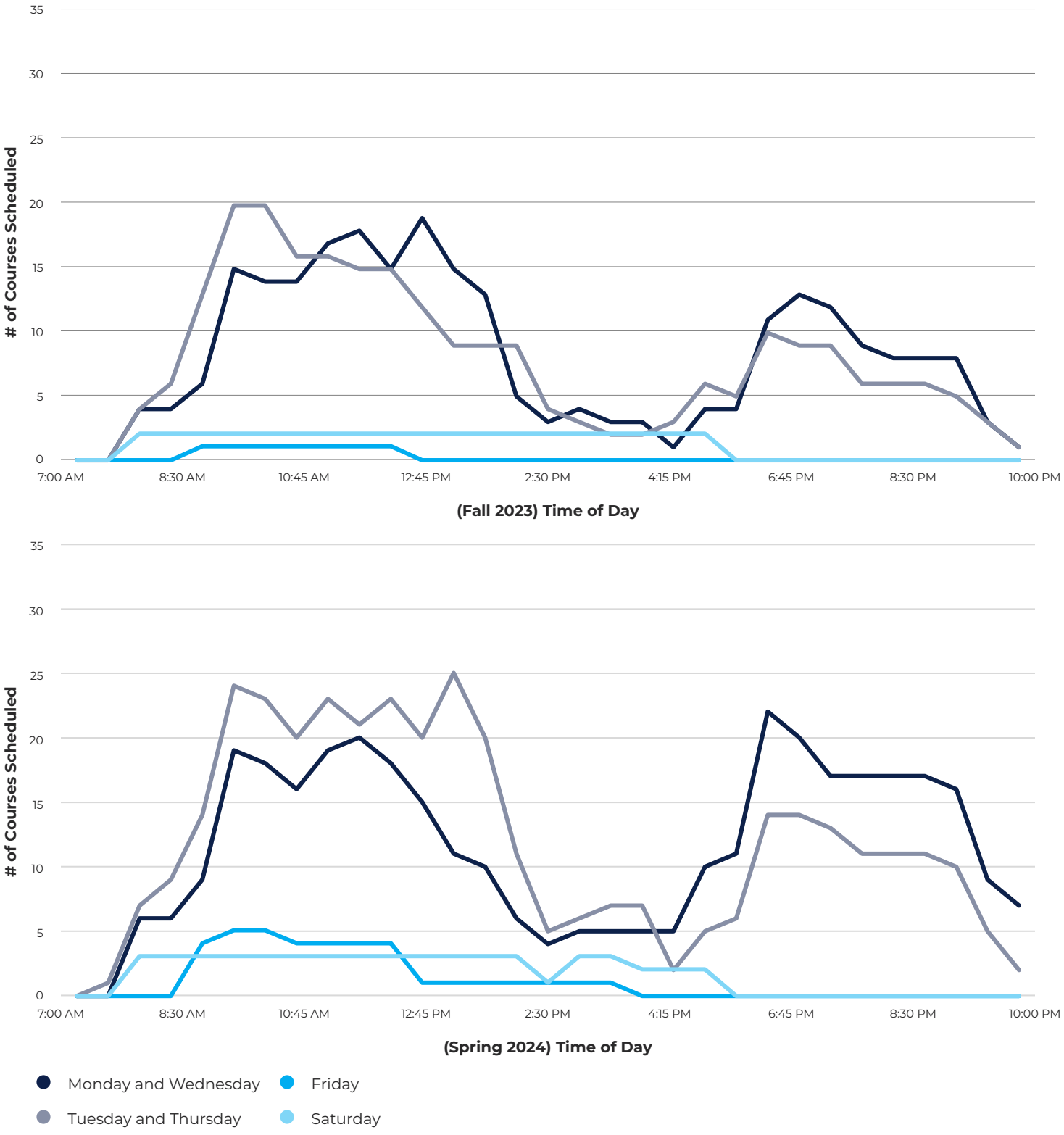



## SATURDAY

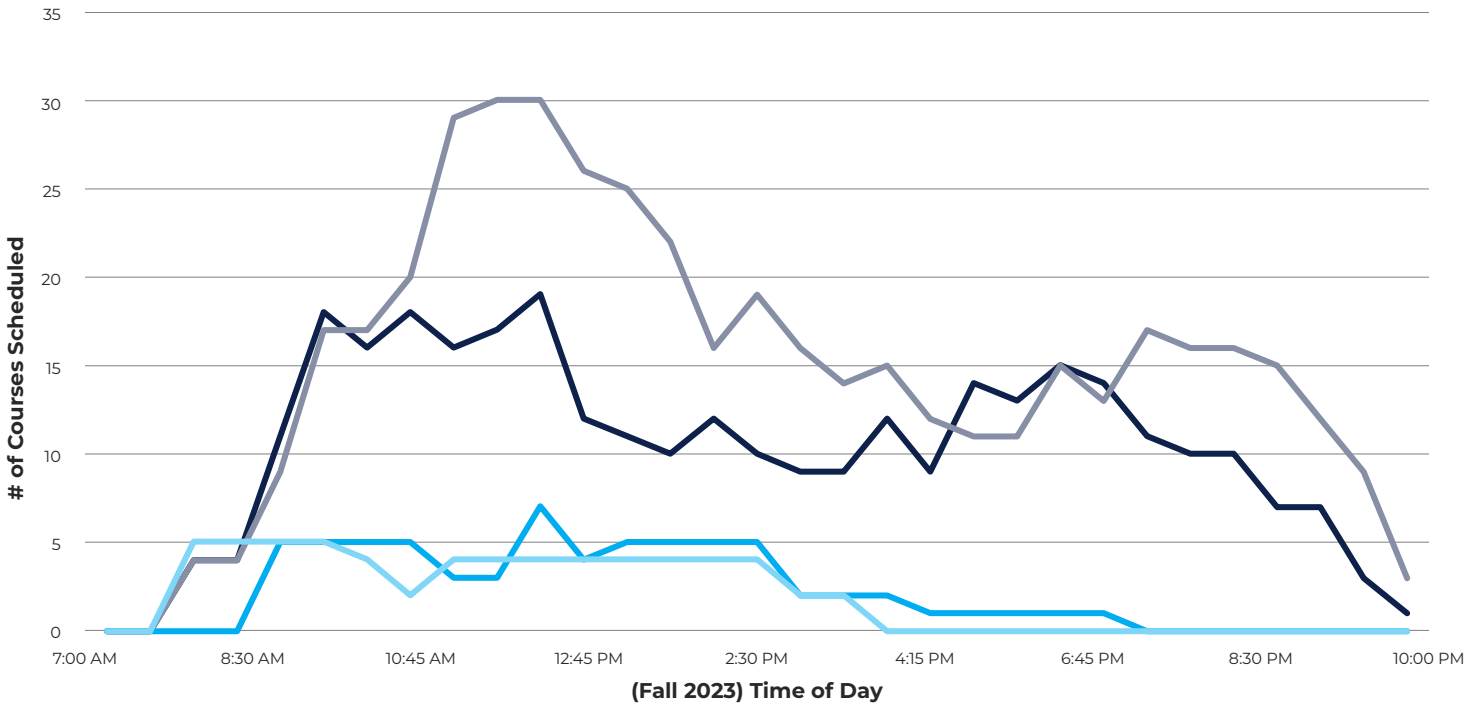


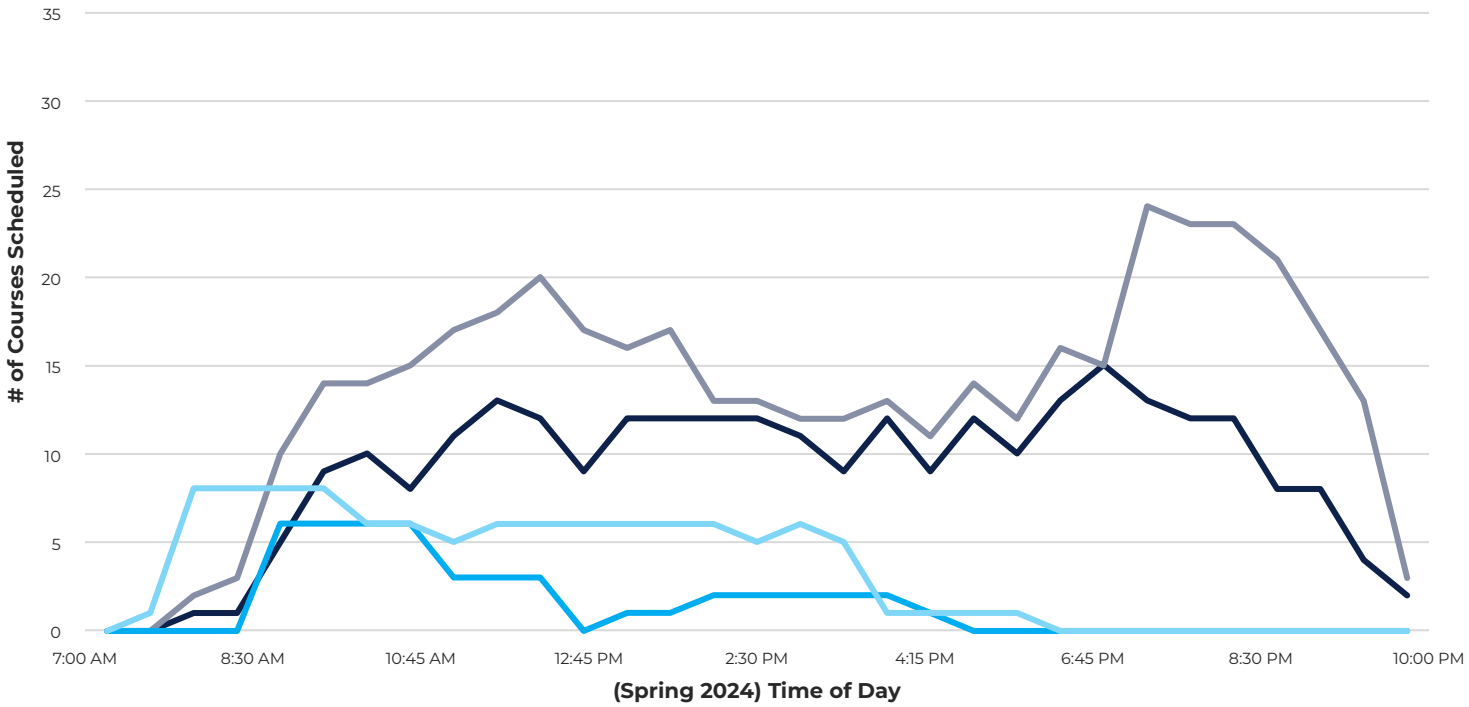
# APPENDIX

## CLASSROOM TIME BY DAY ANALYSIS

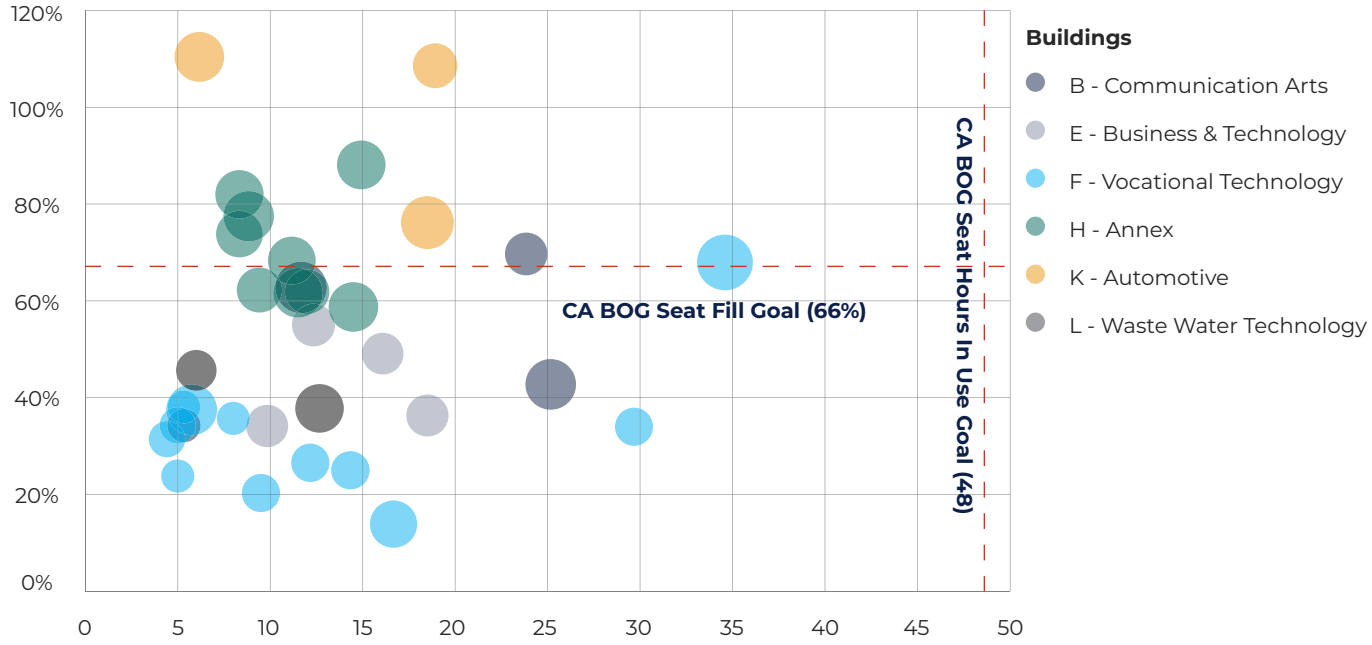


## CLASSROOM LABORATORY TIME BY DAY ANALYSIS

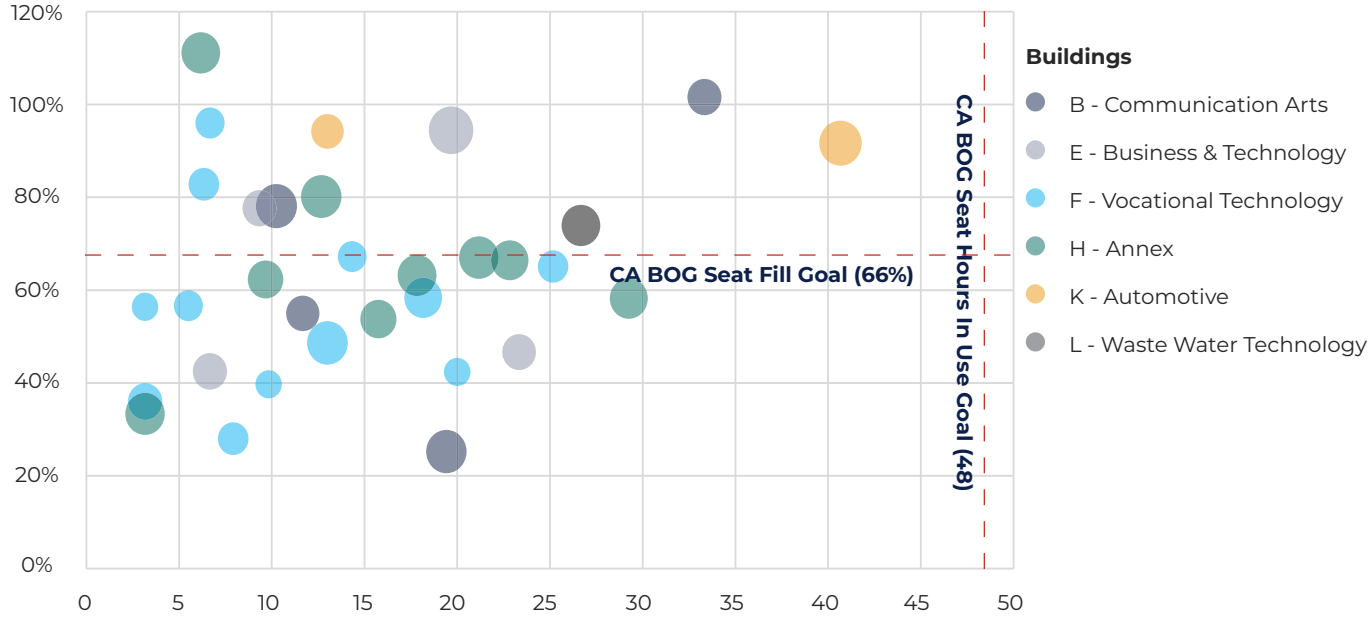


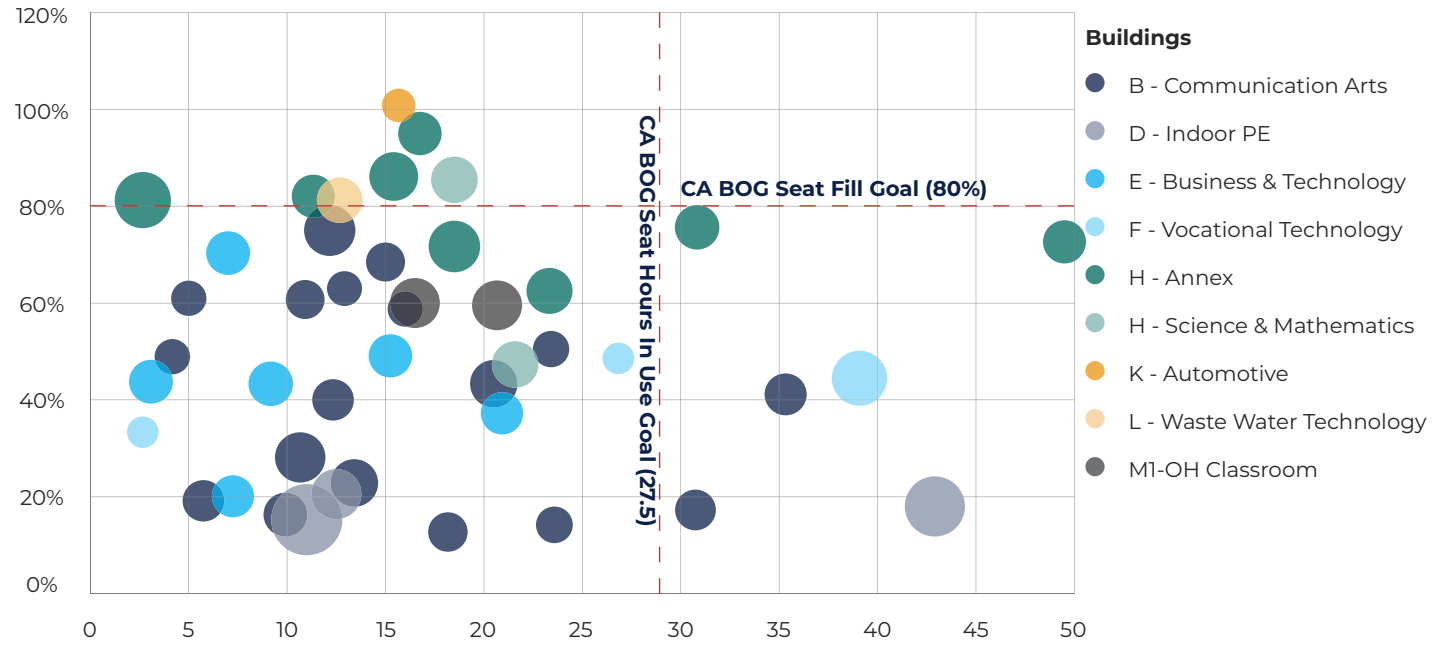
## CLASSROOM ANALYSIS - FALL 2023



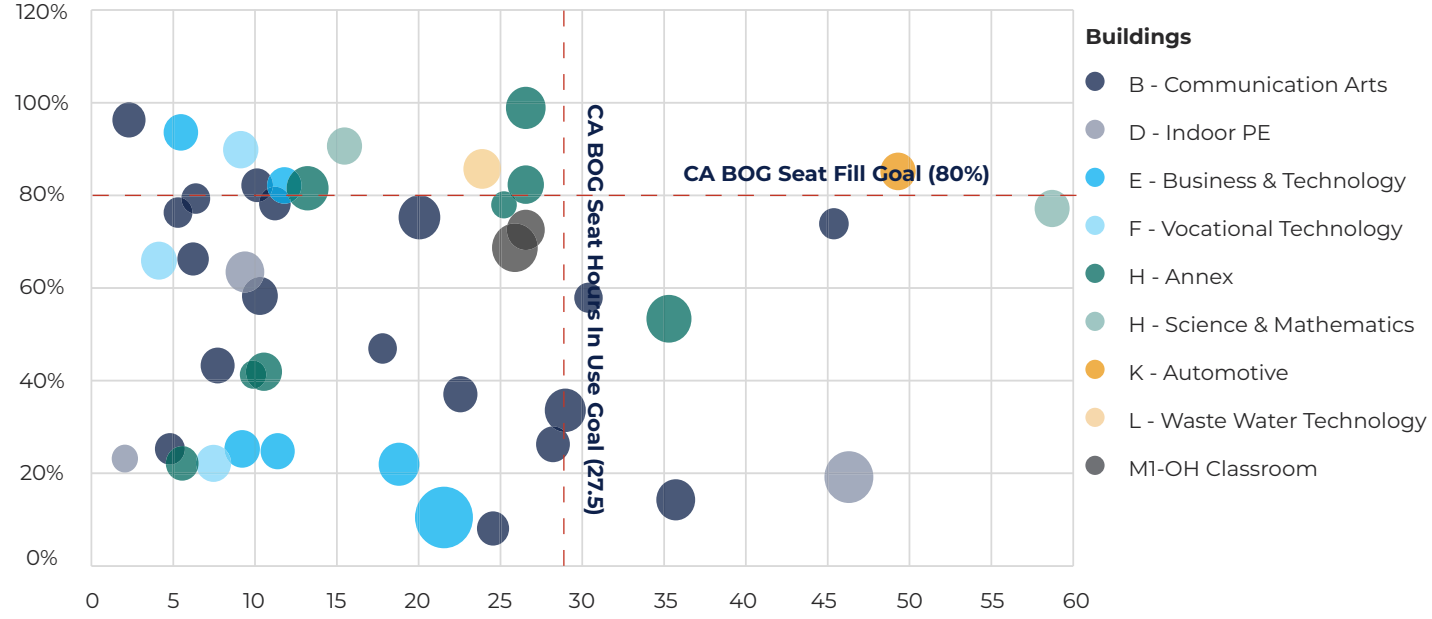

## CLASSROOM ANALYSIS - SPRING 2024



## CLASSROOM LABORATORY ANALYSIS - FALL 2023

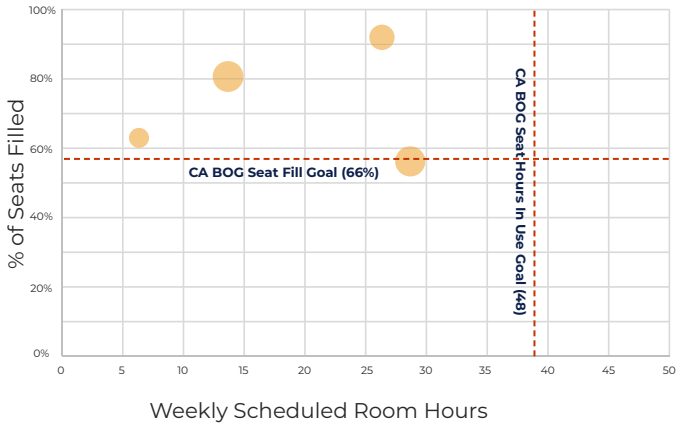



## CLASSROOM LABORATORY ANALYSIS - SPRING 2024

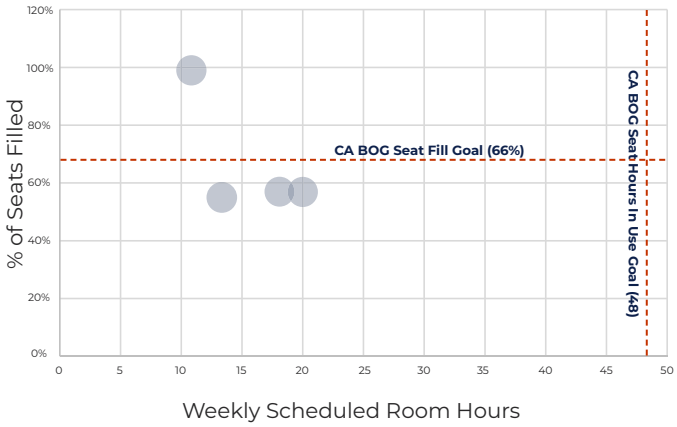


## CLASSROOM ANALYSIS BY BUILDING - FALL 2023

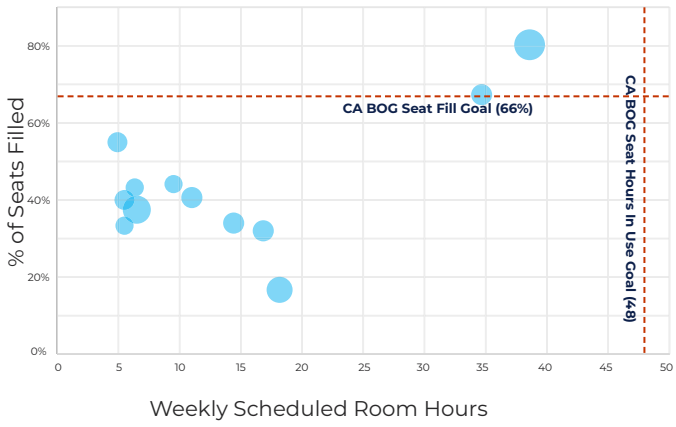
### Building B



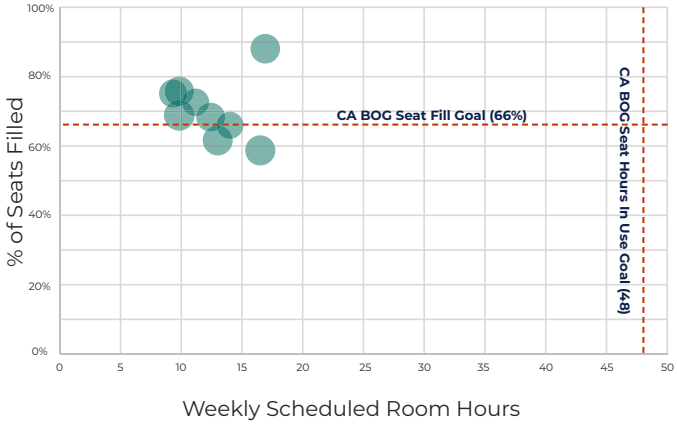

### Building E



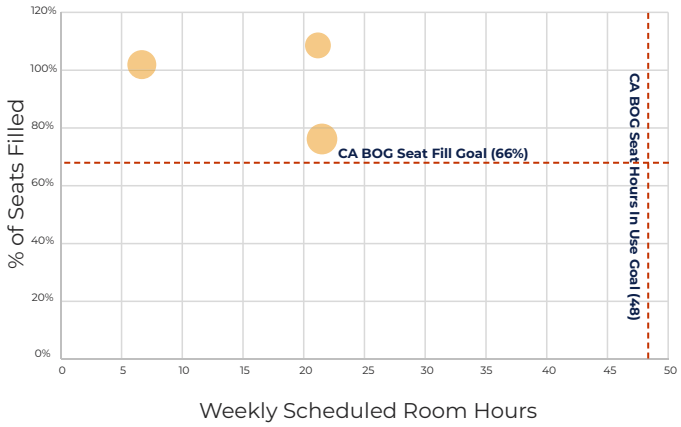

### Building F



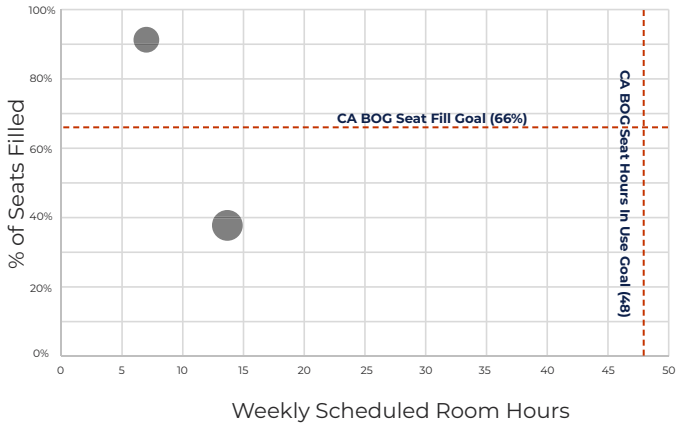

### Building H



### Building K

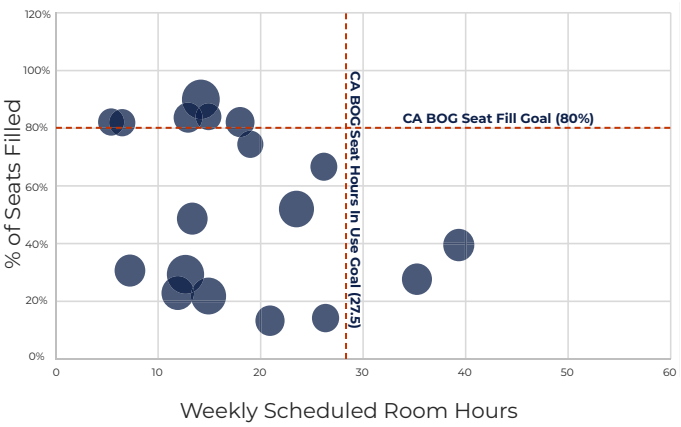



### Building L

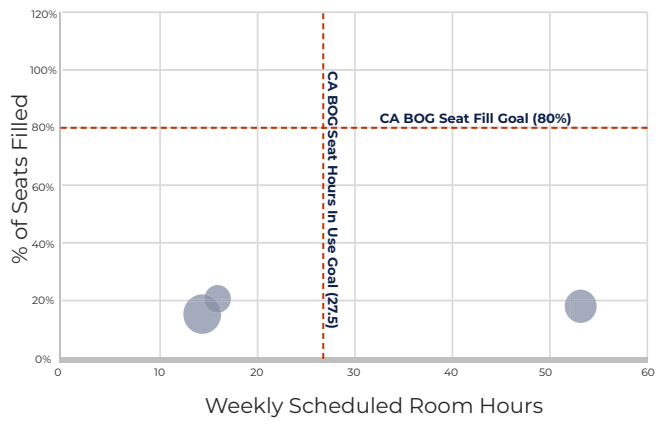



## CLASSROOM LABORATORY ANALYSIS BY BUILDING - FALL 2023

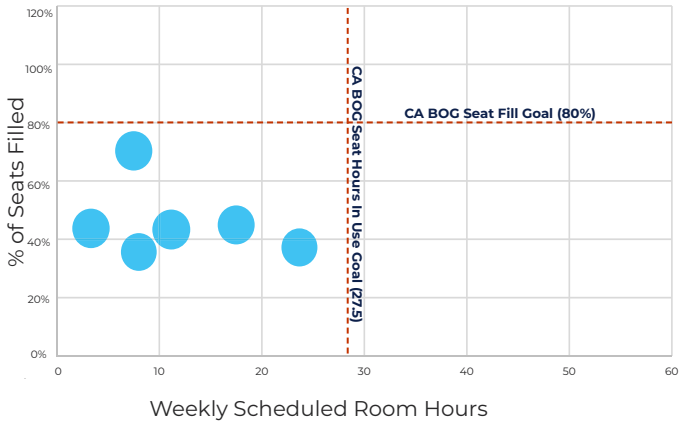
### Building B



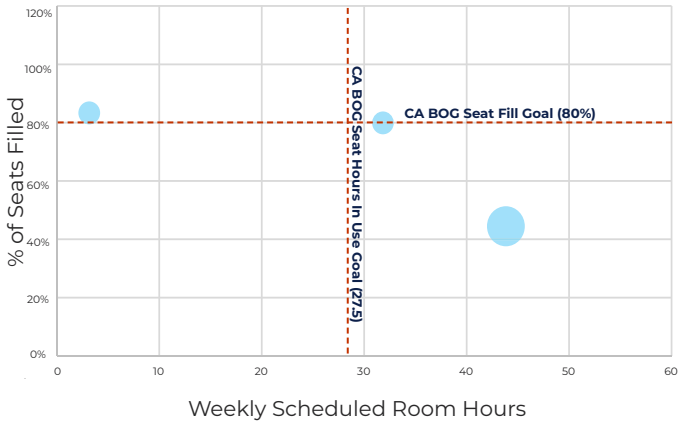

### Building D



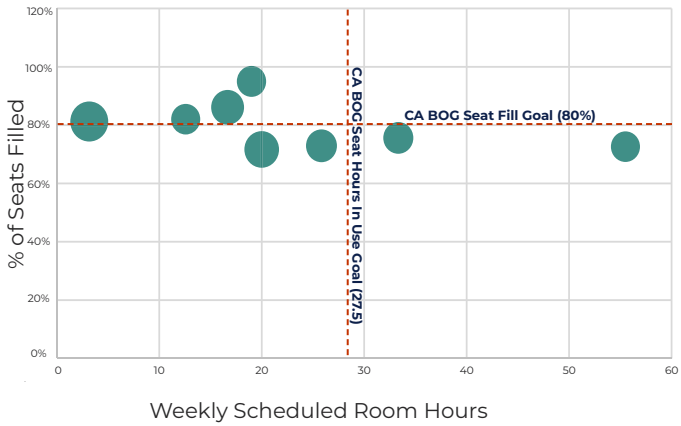
## Building E



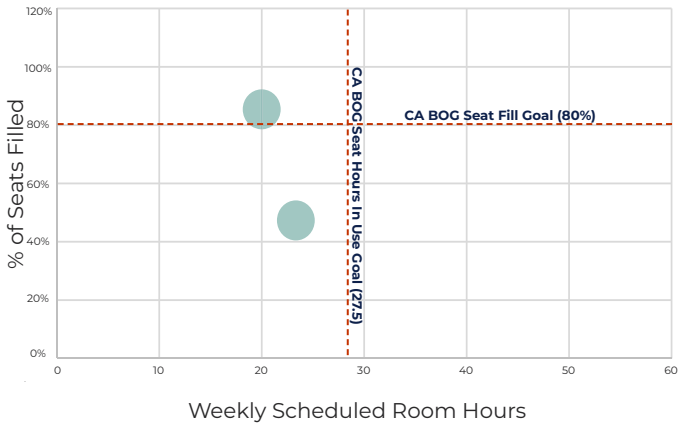

## Building F



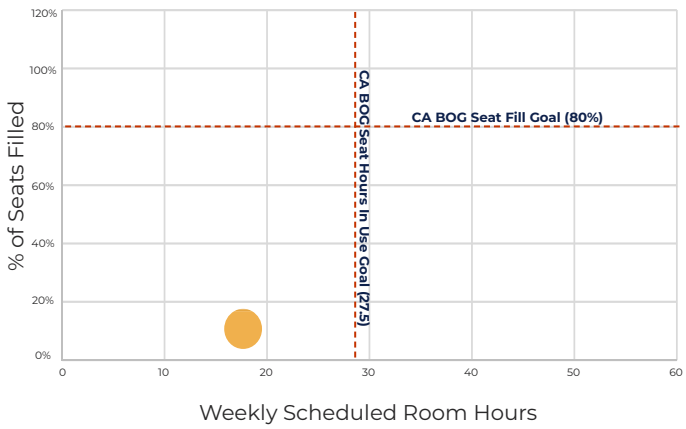

## Building H - Annex



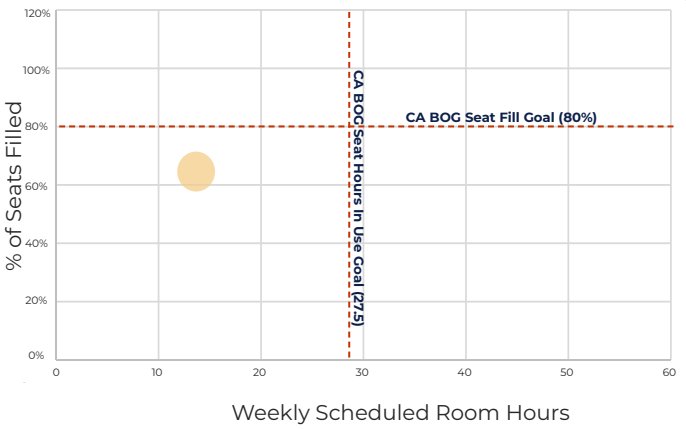

## Building H - Science and Maths



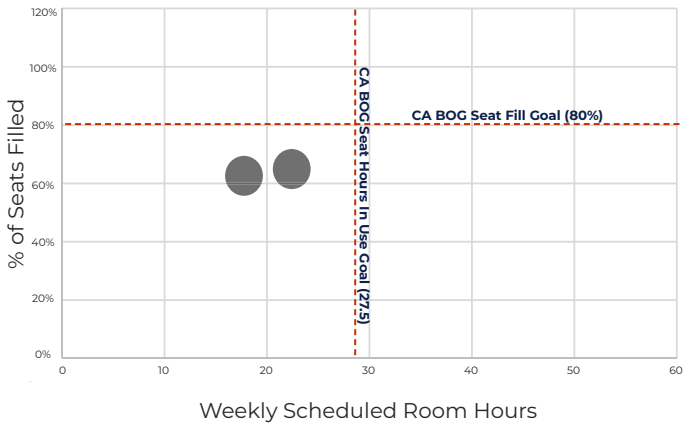
## Building K




## Building L

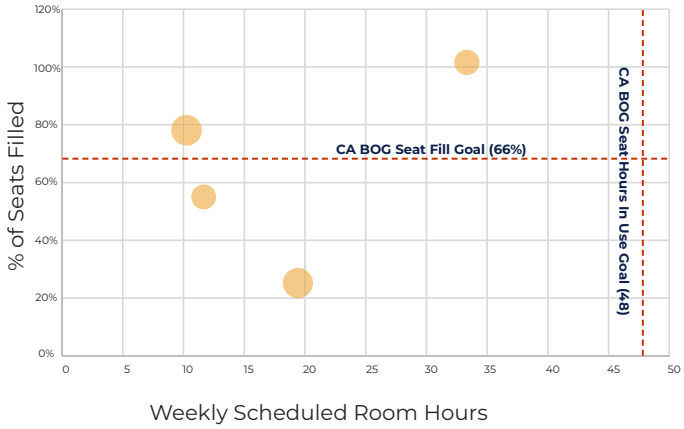



## Building M1

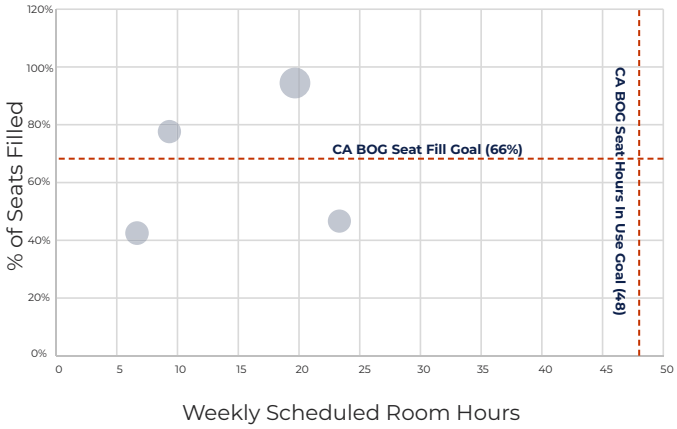


## CLASSROOM ANALYSIS BY BUILDING - SPRING 2024

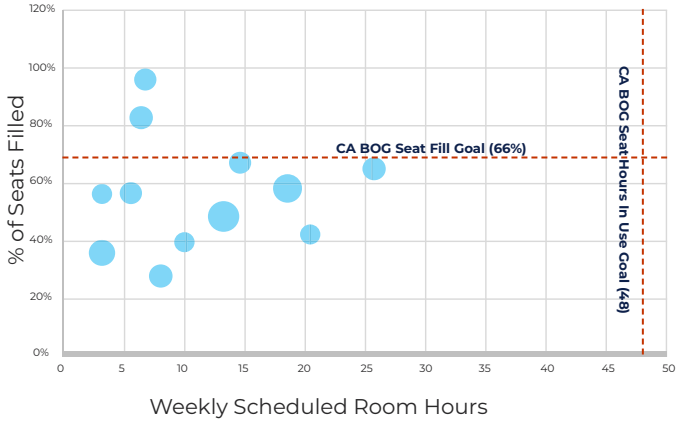
### Building B



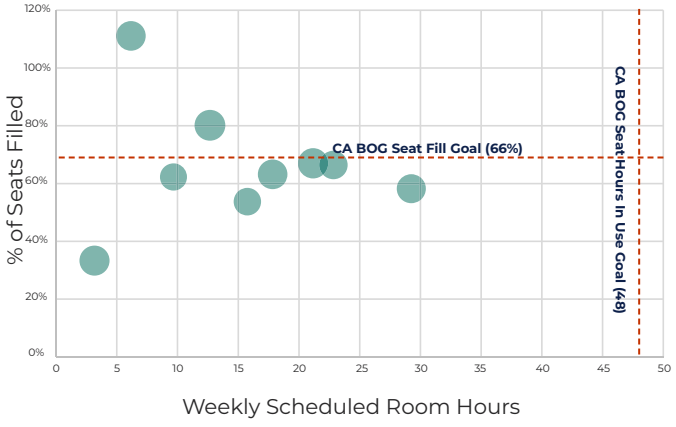

### Building E



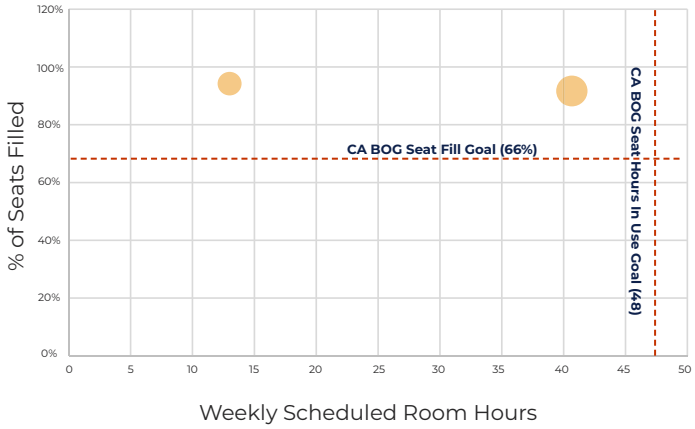

### Building F



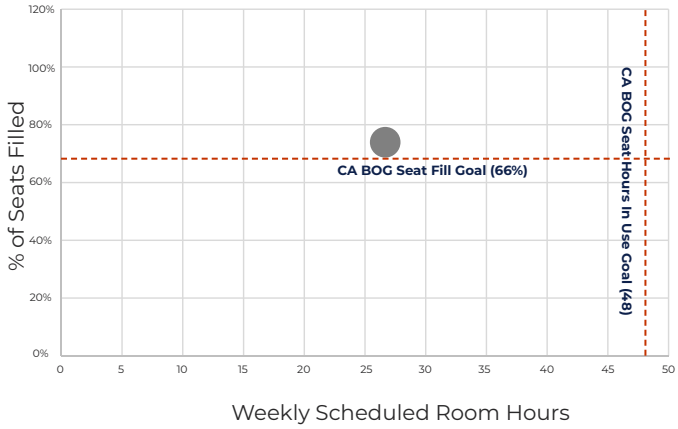

### Building H



### Building K

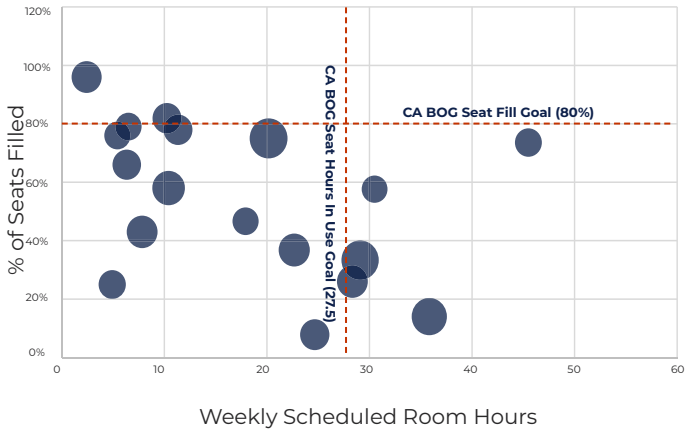



### Building L

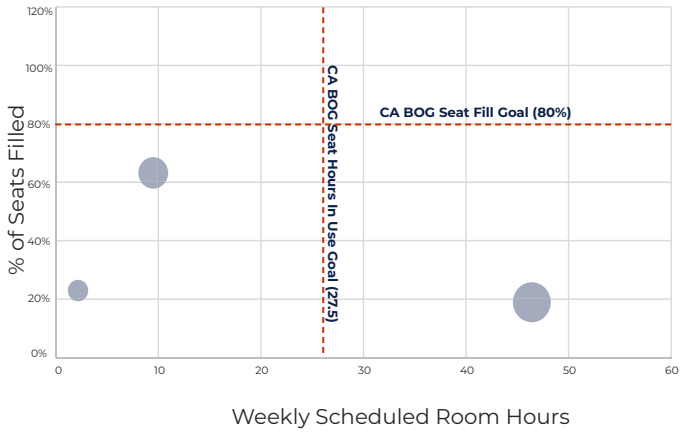



## CLASSROOM LABORATORY ANALYSIS BY BUILDING - SPRING 2024

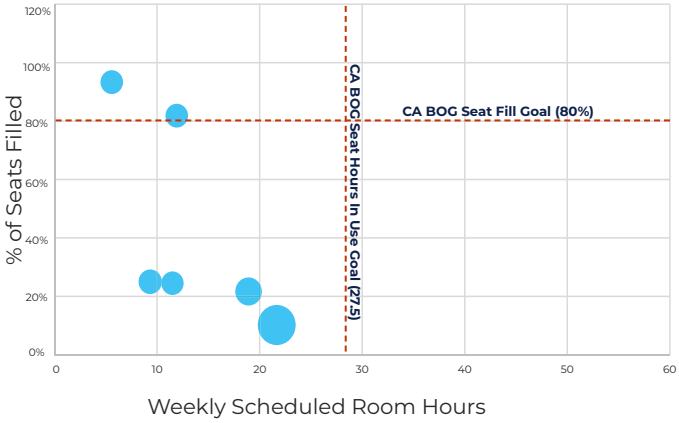
### Building B



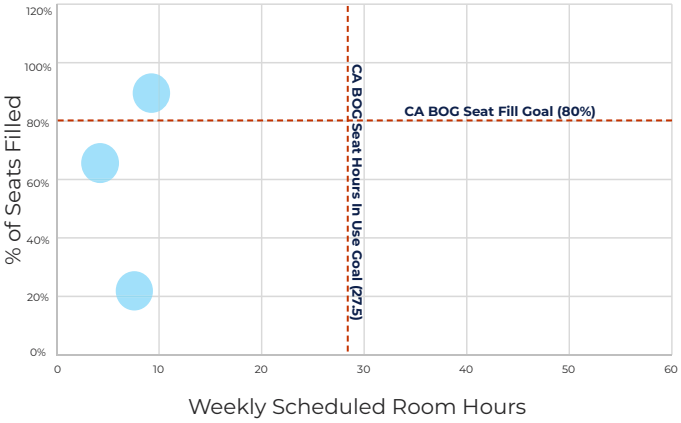

### Building D



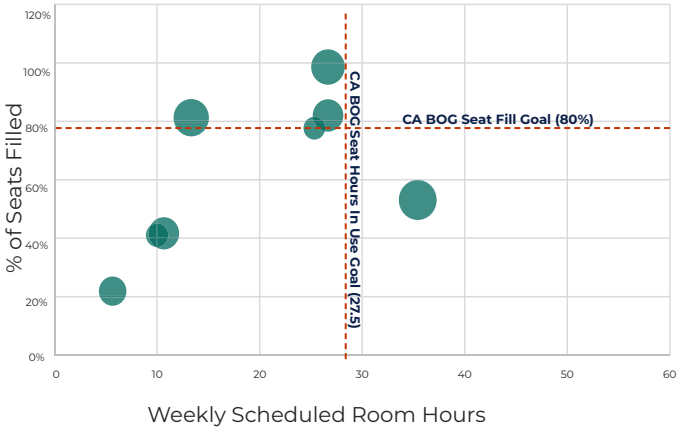
## Building E



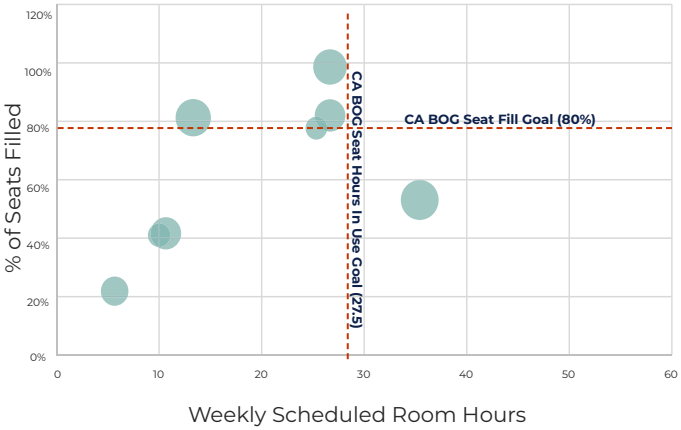

## Building F



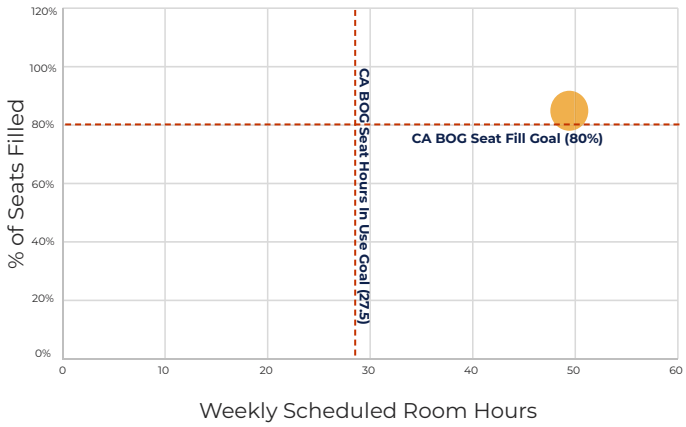

## Building H - Annex



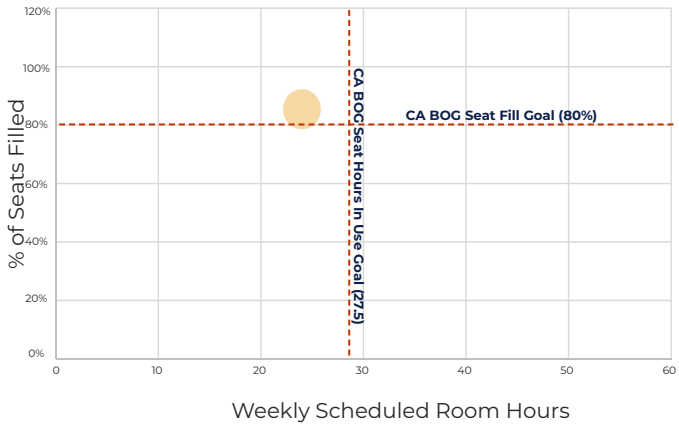

## Building H - Science and Maths



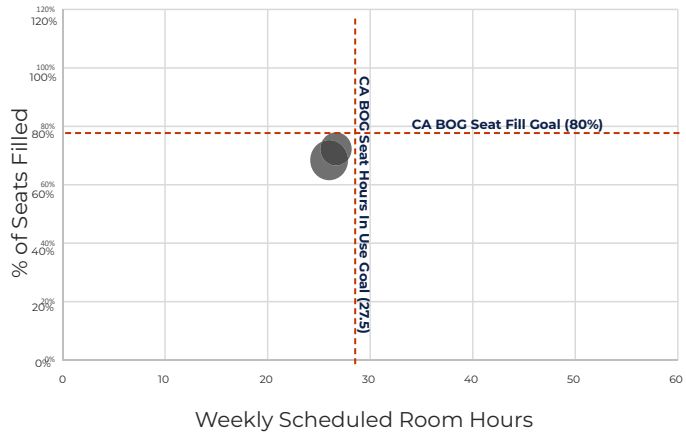
## Building K




## Building L




## Building M1



DLRGROUP
1650 Spruce St., Suite 300
Riverside, CA 92507

CUYAMACA COLLEGE
900 Rancho San Diego Pkwy.
El Cajon, CA 92019