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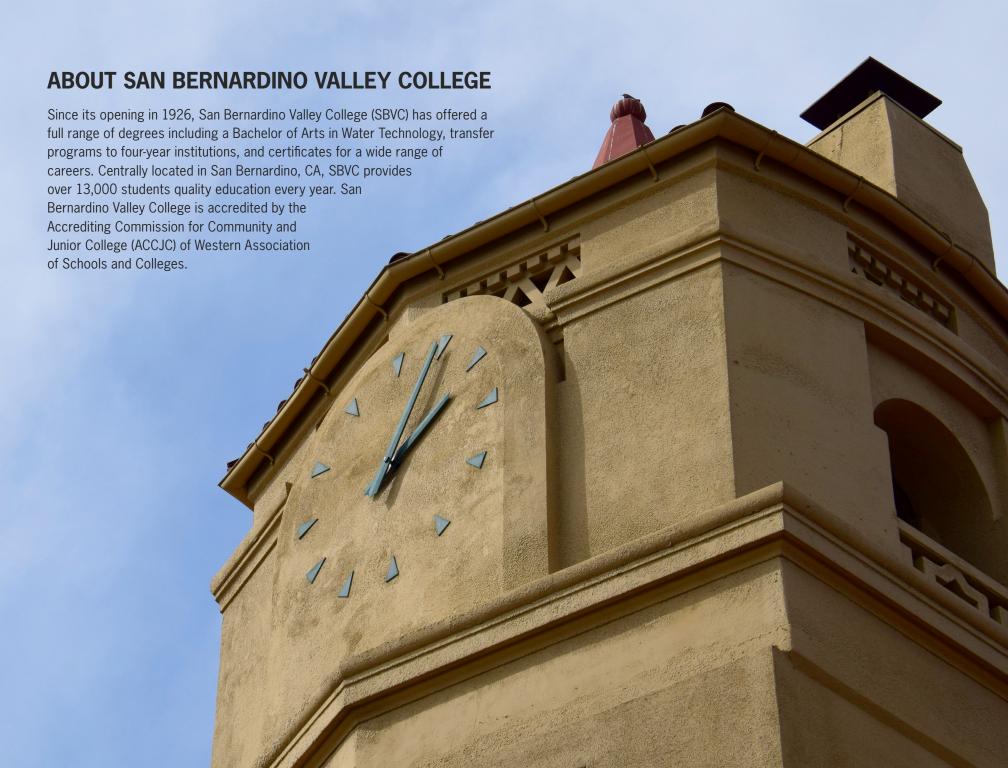


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- 2.3 GUIDING PRINCIPLES, SPACE NEEDS, AND PROGRAM NEEDS
- 2.4 CAMPUS VISION PLAN
- 2.5 IMPLEMENTATION PLAN
- 2.6 APPENDIX

PROJECT INTRODUCTION





SBVC MISSION, VISION, VALUES, AND GOALS

MISSION

San Bernardino Valley College provides innovative instructional programs and cohesive student services to support the educational goals of a culturally diverse community of learners by engaging in continuous improvement and actively working towards an antiracist culture to foster an environment of meaningful learning and belonging for our students, employees, and the community.

VALUES

Student Success, DEIA (Diversity, Equity, Inclusion, and Anti-Racism), Open Access, Campus Climate, and Participatory Governance.

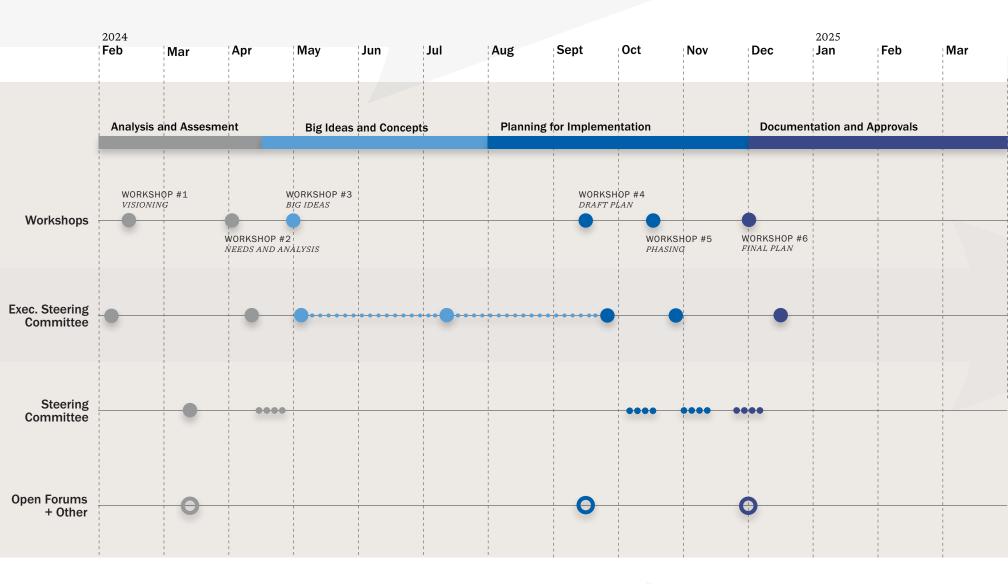
VISION

Through offering a variety of degrees, certificates, skill-building courses, and opportunities for personal and professional enrichment, San Bernardino Valley College strives to be the institution of choice for the region. Our inclusive culture, quality education, and comprehensive support services will create leaders dedicated to promoting social justice and community advocacy on a local and national level.

GOALS

- 1. Eliminate barriers to student access and success
- 2. Be a diverse, equitable, inclusive, and anti-racist institution
- 3. Be a leader and partner in addressing regional issues
- 4. Ensure fiscal accountability/sustainability

MASTER PLANNING SCHEDULE



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01: Analysis and Assessment

Goals, opportunities, and needs were identified through extensive data gathering, analysis, assessment, and engagement with stakeholders. Qualitative and quantitative data informed the physical planning at San Bernardino Valley College.

03: Planning for Implementation

Campus improvements were prioritized according to return on investment, strategic value, and impact on recruitment, retention, and completion.

02: Big Ideas and Concepts

Additional stakeholder engagement generated "Big Ideas", created alternatives to campus development, and defined a development framework that allows for flexible implementation.

04: Documentation and Approvals

The San Bernardino Valley College Facilities Master Plan was confirmed, documented, and delivered. The following document provides a summary of the planning process, existing conditions, and strategic recommendations to guide future development for SBVC.

PREVIOUS PLANS AND STUDIES

As a part of the Master Planning Process the team referenced past planning efforts completed by San Bernardino Valley College and San Bernardino Community College District, including the following documents:

- 2017 Comprehensive Plan
- 2018 Sewer System Management Plan
- 2020 Utility Master Plan
- 2021 Land Acquisition Visioning Document
- 2022 Updated Land Acquisition Visioning Document
- 2022 Strategic Plan
- 2023 Education Master Plan
- 2023 Sustainability
 Plan

- 2023 Landscape
 Master Plan
- 2024 Wayfinding Master Plan
- ZNE Plan
- Five-Year Construction Plan
- Waste Management
 Plan

2017 COMPREHENSIVE MASTER PLAN

The 2017 Comprehensive Master Plan outlined the goals and objectives set forth by the Educational Master Plan and the Facilities Master Plan within one cohesive document, where the programmatic recommendations of the Educational Master Plan guided the long-term facilities planning process.

As a result of this effort, the following project list was proposed:

New Construction

- Career Pathways 1
- Career Pathways 2
- Parking Structure
- Student Services/ Instructional Building
- Warehouse Facilities
- Softball Field
- Performing Arts Center

Renovation

- Maintenance & Operations Building Repurposing
- Administration Building Repurposing
- Lois Carson Campus Center Repurposing
- Library Repurposing
- Greek Theater & Planetarium Renovation
- Physical Sciences and Heath & Life Science Secondary Effects

Campus-Wide

- Learning Environment Upgrades
- Vehicular Circulation and Parking
- Enriched Outdoor Environment
- Security and Safety
- Ancillary Logistics and Infrastructure

Proposed projects from the previous Plan that were not funded, implemented, nor are being planned for, were studied for incorporation into the current Plan.

2022 SBCCD STRATEGIC PLAN

In April 2022, the SBCCD Board of Trustees adopted the San Bernardino Community College District Strategic Plan 2022-2027. The Plan encompasses four broad goals to serve the residents, communities, and employers of the SBCCD region:

- 1. Eliminate Barriers to Student Access and Success
- 2. Be a Diverse, Equitable, Inclusive, and Anti-Racist Institution
- 3. Be a Leader and Partner in Addressing Regional Issues
- 4. Ensure Fiscal Accountability / Sustainability





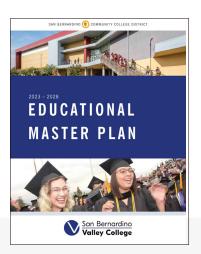
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2023 EDUCATIONAL MASTER PLAN

Through a series of listening sessions with SBCCD stakeholders, an external environmental scan and visioning conversations, San Bernardino Community College District created five strategic directions along with supporting actions to help progress the effort.

The Educational Master Plan Strategic Directions are as follows:

- 1. Increase Student Enrollment
- 2. Engage in Practices that Prioritize and Promote Inclusivity, Equity, Anti-Racism, and Human Sustainability
- 3. Increase Student Success and Equity
- 4. Develop a Campus Culture that Engages Students, Employees, and the Broader Community
- 5. Foster and Support Inquiry, Accountability, and Campus Sustainability



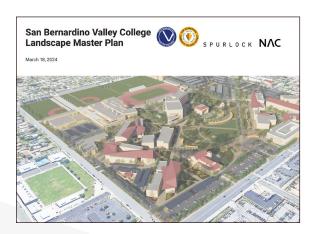
THE EDUCATIONAL MASTER PLAN & THE FACILITIES MASTER PLAN

The Facilities Master Plan emphasizes the importance of aligning with the Educational Master Plan. Each project was chosen and prioritized based upon its support for the Educational Master Plan. In the Campus Vision Plan section of the report, each project is described in relation to the Educational Master Plan and how it enhances the strategic direction of Valley College.

2023 LANDSCAPE MASTER PLAN

The Landscape Master Plan strives to build off of the historic assets and successful spaces, weaving new gardens, spaces and infrastructure into existing beloved spaces to create a strong and enduring sense of place and belonging, embodying the following project goals:

- Improve Comfort, Heat & Shade
- Create a Sense of Place and Beautification
- Improve Wayfinding and Arrival
- Create Opportunities for Exterior Gathering
- Maintenance and Sustainability



2023 SUSTAINABILITY MASTER PLAN

This Sustainability Plan serves as a strategic blueprint devised for the San Bernardino Community College District establishing a comprehensive and robust plan for sustainability efforts.

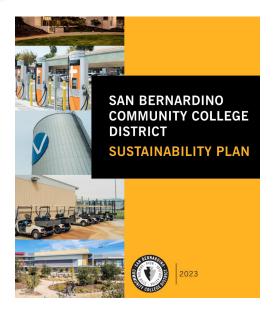
SBCCD's sustainability vision is woven around several sustainability focus areas, under which high-level goals have been defined for:

- Carbon Mitigation
- Materials
- Energy
- Ongoing Engagement and Transparency
- Water
- Education
- Transportation

2024 WAYFINDING MASTER PLAN

The planning process for the SBVC Wayfinding Master Plan included efforts in understanding the campus environment and existing signage conditions as a precursor to developing ideas. In response to components identified through collaborative visioning sessions, the plan presents a holistic set of recommendations to create an engaging, accessible, and dynamic environment aligning with the college's dedication to meaningful learning and belonging.

- Make it Welcoming
- Make it Clear
- Make it Specific
- · Make it Connected
- Make it Systematic



SAN BERNARDINO VALLEY COLLEGE

WAYFINDING MASTER PLAN

PREPARED BY NAC

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ENGAGEMENT WITH CAMPUS COMMUNITY

San Bernardino Community College District understands the importance of user engagement in a successful planning process. Building from the framework established in the Educational Master Plan, the Facilities Master Plan demonstrates the integrated design process in bringing together a multitude of design elements, driven by stakeholder feedback. The planning efforts contained in this report were developed through a series of interactive workshops with campus leadership and stakeholders.

Multiple workshops were held to solicit feedback, providing information on campus existing conditions, priorities, and experiences. Each workshop incorporated engagement exercises that provided a lens for the planning team to understand campus perspectives and establish planning principles, goals, and objectives to guide the Plan forward.

The timeline below outlines the frequency of engagement with the campus community and college leadership:

Visioning

Big Ideas

Draft Plan

Document

March 26th, 2024 - Virtual Open Forum
March 28th, 2024 - In-Person Open Forum
May 1st, 2024 - Academic Senate
May 8th, 2024 - College Council
May 9th, 2024 - Special Senate
May 10th, 2024 - Classified Senate
September 17th, 2024 - Virtual Open Forum
September 19th, 2024 - In-Person Open Forum
October 31, 2024 - Student Senate
November 13th, 2024 - College Council
November 15th, 2024 - Classified Senate
November 20th, 2024 - Academic Senate
December xxth, 2024 - Classified Senate
December xxth, 2024 - College Council



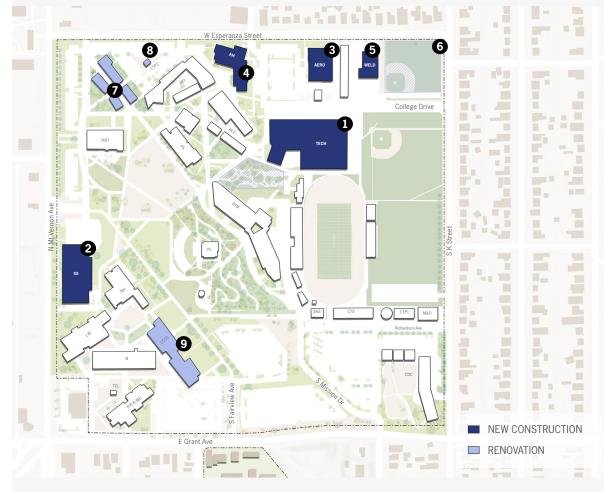






PHASE 00

Phase 00 Projects are Measure CC/Measure M funded projects that were determined prior to this planning process. These projects are the immediate, priority projects, serving as the cornerstone for this Facilities Master Plan.



*Infrastructure and additional projects include: Campus-wide Roof Replacement, Biology Garden Expansion, Landscape Master Plan, Wayfinding Master Plan, EV Charging Stations, Old Central Plant Repurpose, Campus-Wide Utility Upgrades, Observatory Investigation, Marque Replacement, Fiber Updates, Irrigation Controller Replacement, Campus-wide Security Migration, Gym Lobby Flooring, Retro-Commissioning, New Scoreboard at Baseball/Soccer Field, Planetarium HVAC Replacement, PS & HLS Mechanical Improvements, Perimeter Fencing, and East Wing Mechanical Upgrades.

PHASE 00 PROJECT LIST

The following projects outline Phase 00, including new construction, renovations, demolition and campus-wide improvements. For the purposes of the Master Plan, these projects are assumed as the baseline condition of the Plan. The following pages highlight additional details on some of the new construction and renovation projects.

NFW	ICTD	IOT	
INFW	 US I RI		

- Career Pathways 1 Applied Technology
 Building Replacement
- 2 Student Services Building
- 3 Career Pathways 2 Aeronautics Building
- 4 Career Pathways 2 Allied Health Building
- 5 Career Pathways 2 Welding Building

RENOVATION

- 7 Administrative Building Repurpose
- 8 Old Central Plant Repurpose
- 9 Lois Carson Campus Center Repurpose

DEMOLITION

Tech Building

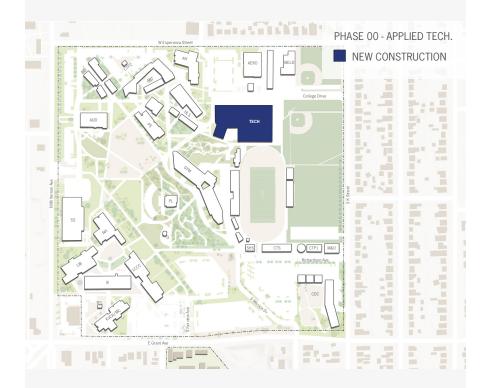
Liberal Arts Building

CAMPUS-WIDE

Irrigation Upgrades

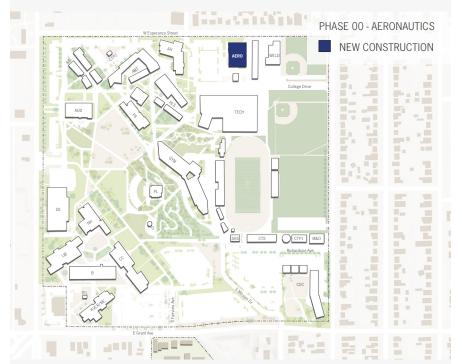
Utility Upgrades

Infrastructure Upgrades*



PHASE 00 - CAREER PATHWAYS 1: APPLIED TECHNOLOGY

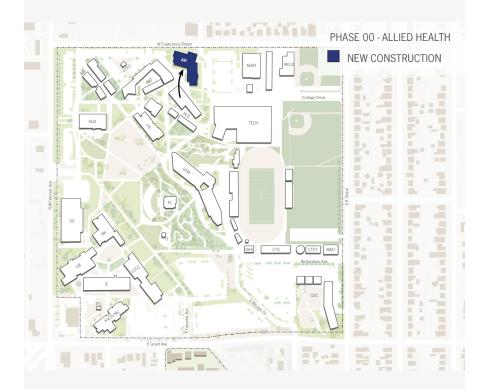
Currently under construction, the 114,987 GSF Applied Technology building will replace the previous technology building. Consolidating and increasing laboratory space for Career Technical Education, this new facility will provide state-of-the-art, collaborative training in electric automotive repair, water inspection technology, modern machining, HVAC technology, and more. The new facility is planned to be occupied by 2025. The existing Technical Building will be vacated and demolished, except for the East Wing.



PHASE 00 - CAREER PATHWAYS 2: AERONAUTICS

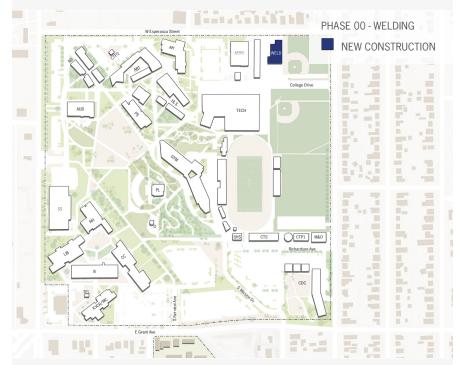
To be completed in 2027, the new 26,300 GSF Aeronautics building will increase laboratory space, and modernize technology and instructional delivery methods for the Aeronautics Career Pathways program. The building will also be supported by a hangar and outdoor yard. The new facility is planned to be occupied by 2026.

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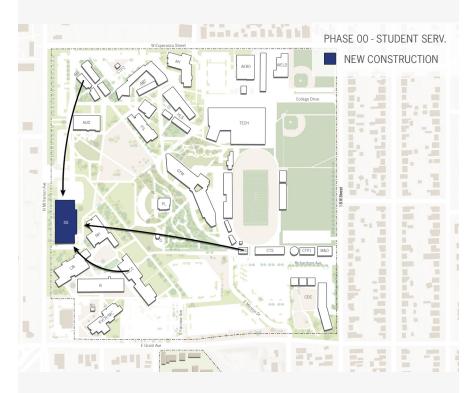
PHASE 00 - CAREER PATHWAYS 2: ALLIED HEALTH

To be completed in 2027, adjacent to the Aeronautics and Applied Technology building, the new 17,200 GSF Allied Health building will increase and modernize instructional and laboratory space for health, nursing, and surgery. The facility is planned to be occupied by 2026, and will lead to opportunities within vacated space in the Health and Life Sciences building.



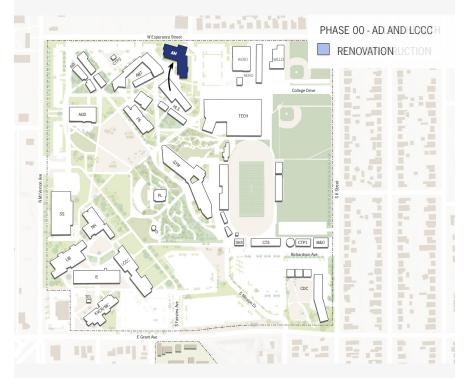
PHASE 00 - CAREER PATHWAYS 2: WELDING

To be completed in 2028, the new Welding building will support the growing Welding program that currently exists at SBVC. At approximately 12,000 GSF, the building will include classroom, lab/fabrication and storage space. The new facility is planned to be occupied by 2028.



PHASE 00 - STUDENT SERVICES

Currently in Design, the 102,691 GSF new Student Services building will provide a new one-stop shop for student services, including Admissions and Records, Financial Aid, Counseling Services, Health Services, Learning Resource Center, Placement Services, CalWORKs, Veterans Services, DSPS, EOPS, STAR Program, First Year Experience, Foster & Kinship Care Education, Dreamers, Guardian, and Outreach. The building will also include some classrooms and instructional labs. The new facility is planned to be completed by Fall 2027. This project enables the demolition of the existing Liberal Arts building, and will open up space in the Administration Building, Lois Carson Campus Center, and Student Health Services. The old Student Health Services building can provide a home for Basic Needs.

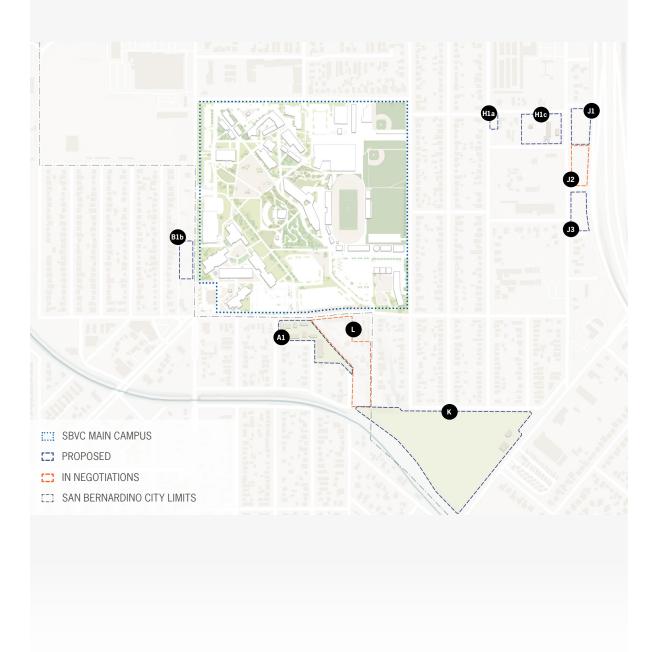


PHASE 00 - ADMINISTRATION BUILDING (AD) AND LOIS **CARSON CAMPUS CENTER (LCCC) REPURPOSE**

With the new Student Services building constructed, there will be space vacated in AD and LCCC. These spaces can provide a home for uses that are in existing modular space, or will be in temporary swing space, due to the demolition of Liberal Arts.

AD with its existing office and workspace configuration can house IT, faculty offices from Liberal Arts, and Human Resources. Additionally, there is the opportunity to move the College Foundation and Marketing from LCCC to AD.

The open LCCC space will house Mental Health Services. With the College Foundation and Marketing moving to AD, that space can support the Blu Foundation, Affinity Groups, and the Honors DRAFT November 12, 2024 program.



PARCEL ACQUISITIONS

The parcels illustrated on the map are recent acquisitions or are currently in negotiation for acquisition. The Master Plan will incorporate these parcels into the future vision, with input from previous studies and needs identified through the planning process.

Parcel K will be used for the development of mixed-use student housing.

THE CAMPUS BASELINE

Located in the heart of San Bernardino along the 10 and 215 freeways, San Bernardino Valley College is comprised of 82 acres. Curated around an existing fault line, SBVC's facilities and open space foster a vibrant academic environment to serve the needs of nearly 13,000 students. The campus showcases a mix of architectural styles ranging from historic red brick to modern designs, complemented by a network of walkways and refined green spaces that connect the various academic and administrative buildings.

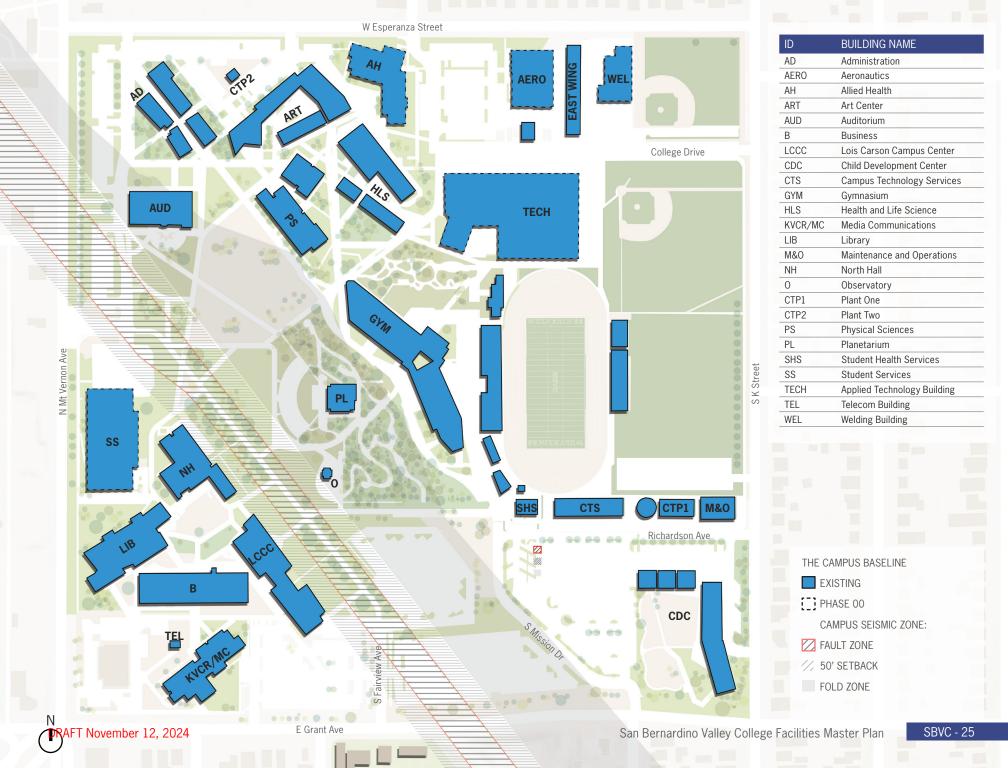
The following section summarizes existing conditions, including Phase 00 as the baseline, as it relates to buildings, landscape and open space, circulation and edges, and infrastructure.







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BUILDINGS BY TYPE

The buildings at San Bernardino Valley College provide the physical framework for student success, fostering learning, discovery, and personal growth, ultimately creating a community in which all users can thrive. The physical spaces and mix of uses throughout campus support the academic mission of SBVC and bring students, faculty, staff, and community together.

ACADEMIC

Academic and instructional facilities are concentrated on the northern and southwestern sides of campus. Many of the existing academic facilities, like North Hall, Business, Auditorium, Planetarium, Art, and Health and Life Science, were designed and constructed to provide interdisciplinary space. Future buildings planned for SBVC - Applied Technology, Aeronautics, and Allied Health - are designed with the same intention, and provide modern spaces to support growing and thriving programs, while also supporting a more collaborative academic environment.

OFFICE AND ADMINISTRATION

Complementary to the academic space, the office and administration spaces are critical functions of the campus environment. Accessibility to the programs in these spaces is imperative for student success and the collocation of these uses with academics and student space strengthens the mission of the institution. While all administrative uses do not need to be directly in the center of campus, student services and student facing programs should. The development of the new Student Services building will address this, centrally locating many of the office and administrative spaces important for students. There is an opportunity to continue to foster student-focused administrative space in the core of campus.

ATHLETICS

The gym on San Bernardino Valley College's campus has quickly become a paramount feature on the campus, responsible for hosting various campus functions including everyday use, athletics, and events. The gym is an opportunity to strengthen engagement with the entire campus community and serve as a heart within campus that supports health and well-being.

LIBRARY

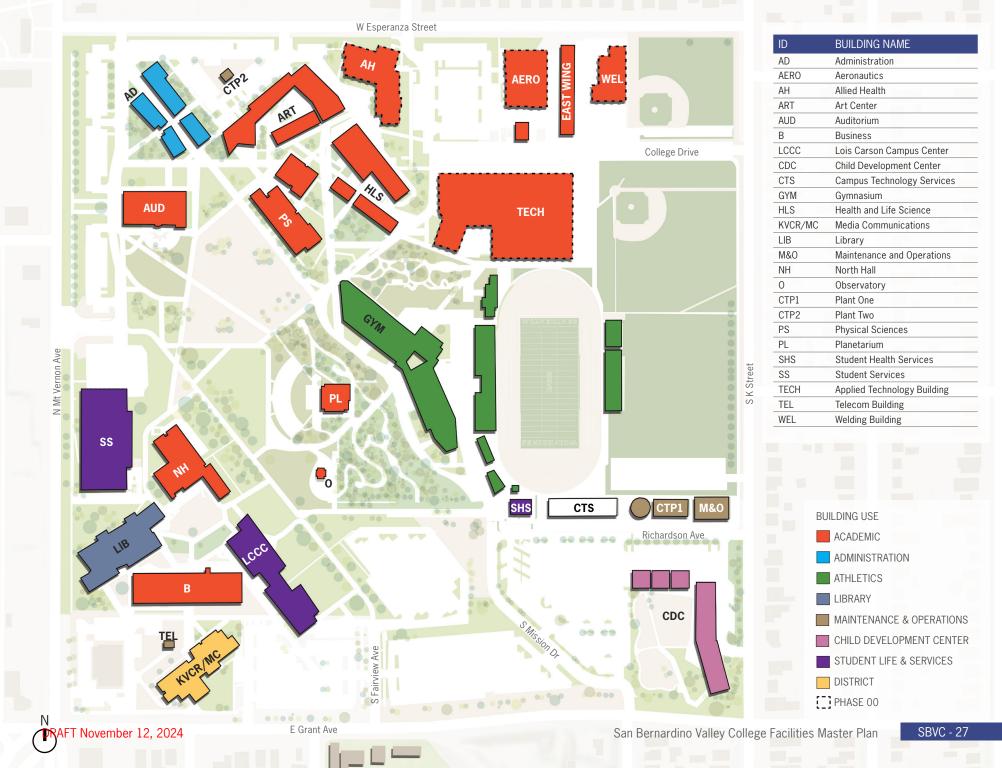
The Library has long since provided a haven for students, staff, and faculty alike. The Library was intentionally designed as an interdisciplinary space, collocating programs leading to collaboration. A variety of spaces support collaboration, study, and flexible use, including first-come, first-served group study rooms, an open and accessible first floor, and stack space on the second floor. There is an opportunity to

rethink stack space on the second floor, as the need for physical volumes decreases with the evolution of technology and higher education.

STUDENT LIFE AND STUDENT SERVICES

The campus prioritizes student services and student life with facilities like the Student Services building and the Lois Carson Campus Center. With close proximity to one another, these two buildings create a hub and a heart on campus for student services and functions such as health services, dining, and the bookstore should be bolstered through this plan. Prioritizing the centralization of these types of uses will continue to be important in this Plan.

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FACILITIES CONDITION

San Bernardino Valley College has developed over time with buildings constructed in different eras; two buildings were constructed in the 1930's, two buildings were constructed in the 1960's, two buildings were constructed in the 1970's, seven buildings were constructed in the early 2000's and four buildings were constructed within the last 15 years. The overall condition of each campus facility is key information for a long-term planning effort, signaling when building infrastructure and maintenance upgrades will be needed. This is a piece of the holistic picture that informs renovations and replacements of facilities within a larger plan.

FACILITIES CONDITIONS ASSESSMENT

A Facilities Condition Assessment (FCA) was completed as a part of the Facilities Master Planning Process. The full findings of the 2024 Facilities Conditions Assessment can be found in the Appendix. A major goal of the FCA is to calculate the Facility Condition Index (FCI), which provides a theoretical objective indication of a facility's overall condition. The FCI is defined as the ratio of the cost of current needs divided by the current replacement value (CRV) of the facility.

The adjacent chart presents the industry standard ranges. As the Master Planning process examines and assumes the future of the campus environment in 10 years, the diagrams on the facing page outline the anticipated conditions of each of the facilities at the end of defined

FCI Ranges and Description		
Good: 0 - 5 %	In new or well-maintained condition, with little or no visual evidence of wear or deficiencies.	
Fair: 5 - 10%	Subject to wear but is still in a serviceable and functioning condition.	
Poor: 10 - 30%	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	
Critical: 30% and above	Has reached the end of its useful or serviceable life. Renewal is now necessary.	

periods (if no action was taken). This provides an illustration of when specific buildings will need focused investment.

CURRENT (2024)

As of 2024, all but two of the assessed buildings receive an FCI rating of less than 5% and a classification of 'Good'. The remaining two buildings, Shipping/Receiving Office and the Liberal Arts Building, receive 'Fair' classifications. Since the Liberal Arts building is already slated for demolition in Phase 00, it stays absent from the diagrams.

2027

Projecting three years out, to 2027, the majority of the assessed buildings still hold a classification of 'Good' or 'Fair', with the exception of two buildings, the Shipping/Receiving Office and Lois Carson Campus Center buildings, receiving a 'Poor' classification.

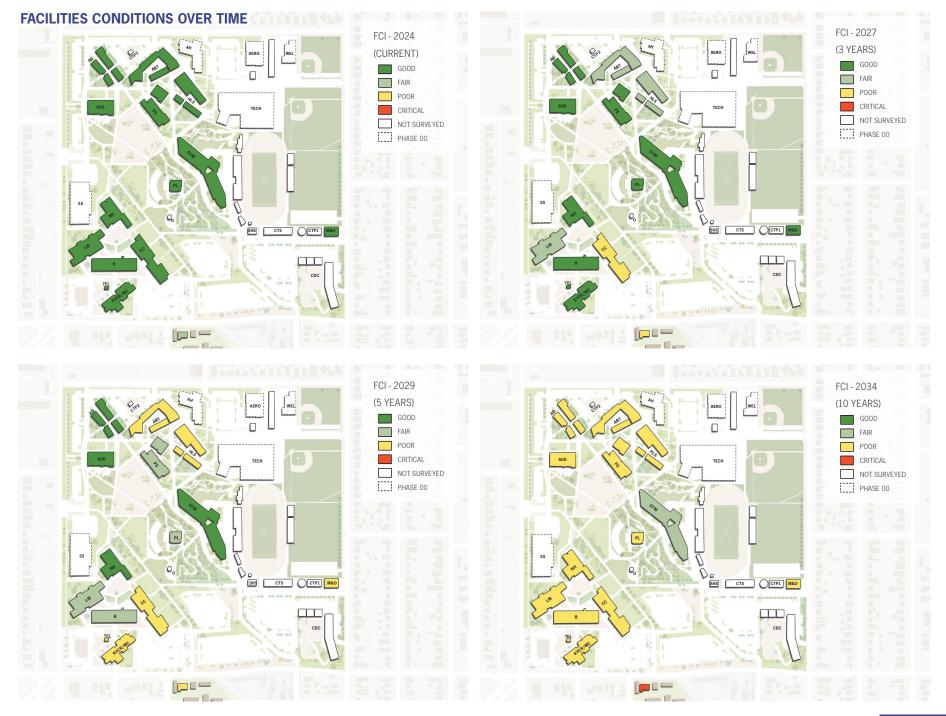
2029

Projecting five years out, to 2029, eight of the assessed buildings receive a 'Poor' classification, five of the assessed buildings receive a 'Fair' classification and three buildings, the Auditorium, North Hall and the Gym, hold a 'Good' classification.

2034

Projecting 10 years out, to 2034, the majority of assessed buildings receive 'Poor' classifications, aside from Gym and the first 'Critical' classification emerges with the Shipping/Receiving Office building.

Although campus buildings are generally in good condition today, investment in maintenance will need to continue over the next ten years to ensure they remain operational.



OPEN SPACE

SBVC has a variety of open spaces, including axial corridors, intimate courtyard space between buildings, educational gardens, stormwater management areas, a Greek Theater, and athletic fields. Much of the campus open space comprises of expanses of lawn intersected by a network of pedestrian paths. There are educational gardens adjacent to the Planetarium and the Gym, and several courtyard gardens distributed throughout the campus.

The large centrally-located educational gardens are within high-traffic areas, along a main pedestrian corridor through the campus core. The Greek Theater with built-in seating further defines the center of campus and is a unique asset to the community and place for respite. These open spaces require additional shading and seating to enhance the habitability of the area.

The courtyard gardens situated between buildings on the northwest and southwest side of campus share a similar sentiment to their larger open space counterparts. They are well-appreciated areas, recognized as opportunities for rest and transition outside of their classes. There are opportunities to amplify the spaces with increased seating and shading, for year-round comfort.

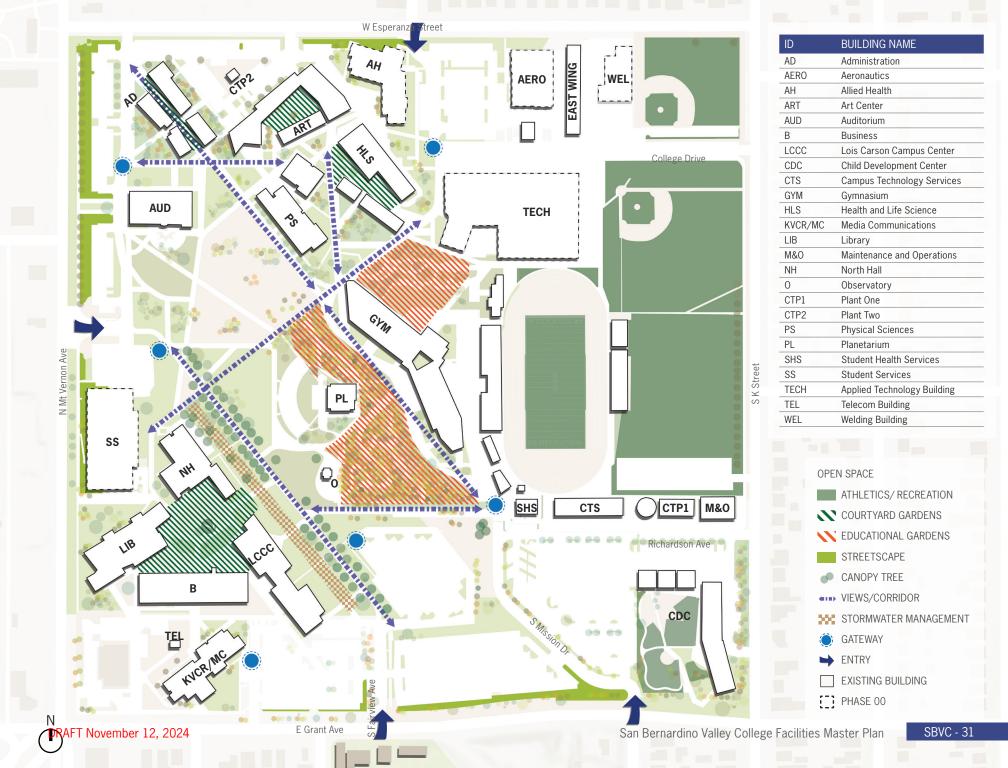
A row of trees lines a pedestrian corridor along the fault line, creating a main axis through campus. As outlined in the Landscape Master Plan, this key corridor should be enhanced into a main identifying feature on campus.

The Landscape Master Plan outlines a variety of recommendations to enhance outdoor spaces for programming, gathering, events, and informal meeting, all while making outdoor spaces more comfortable year-round and sustainable. These recommendations are incorporated into this Plan.





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PEDESTRIAN AND BICYCLE CIRCULATION

PEDESTRIAN

The campus has an extensive network of pedestrian pathways connecting buildings, parking, and the surrounding San Bernardino Community. The existing walkways on campus are typically accessible and wide enough to accommodate service vehicles. The Landscape Master Plan offers recommendations to enhance pathways, further emphasizing key corridors and creating functional exterior programming adjacent to pathways.

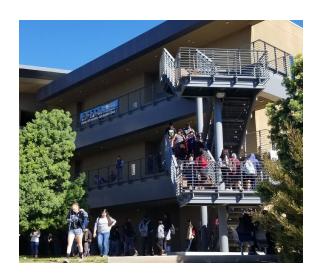
Noted areas of conflict between pedestrian and vehicular patterns on the campus include North Mt. Vernon Avenue. As a multi-lane, high traffic road, it is currently a difficult road to cross. This should be taken into consideration for future development and interaction with uses on parcels across this road.

BICYCLE

The campus currently does not have dedicated bike lanes within its boundary. There are four separate designated areas for bike parking across campus. One is located on the north side of the Business building, one is located on the northeast side of the Lois Carson Campus Center, and two are located on either side of the Physical Sciences building. While the distribution

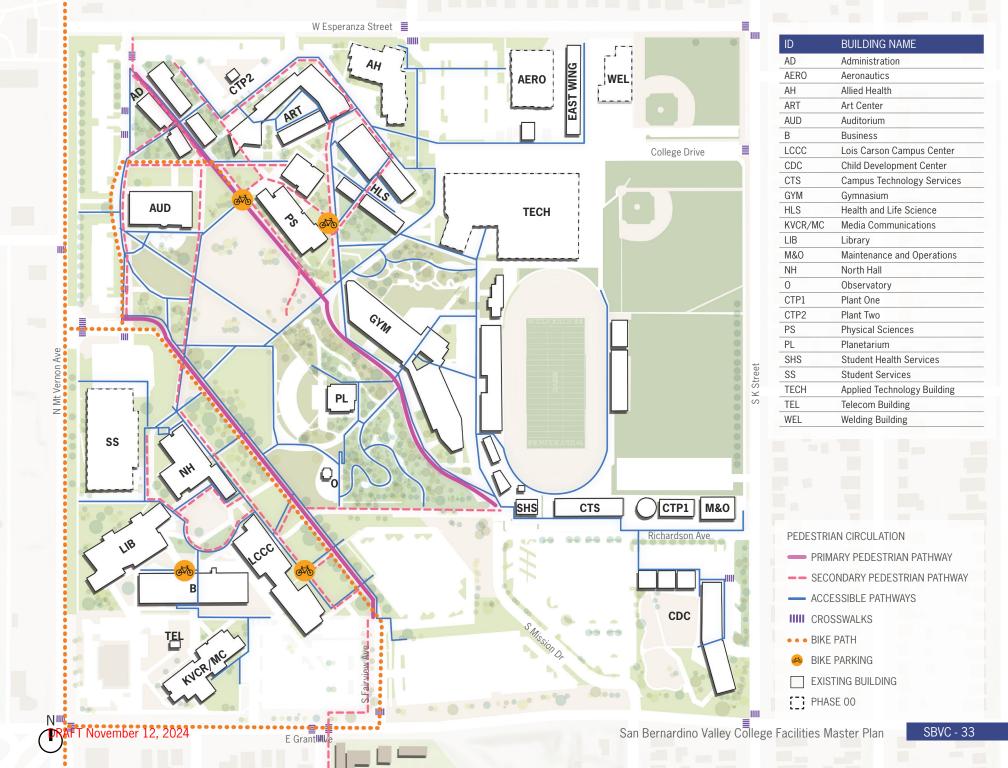
of bike parking areas helps enhance accessibility for cyclists, there is an opportunity to increase dedicated bike lanes to promote cycling as a sustainable transportation option on campus.

Currently, the San Bernardino area has a similar opportunity to the campus regarding the development of bicycle infrastructure. An example is highlighted along North Mt. Vernon Avenue on the west side of campus, where there are no dedicated bike lanes along a high-vehicular-traffic route.





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VEHICULAR CIRCULATION

CAMPUS ENTRY/GATEWAY

There are entry points to campus from the north, east, south, and west sides. With many points of access, campus gateways and their hierarchy become important wayfinding elements to consider. The College has identified a desire for a stronger, more prominent main entry onto campus, including more iconic, recognizable, and intuitive signage.

PARKING

There are 10 defined parking lots on campus; three of these lots contain EV chargers. Parking lots are located along the edges of campus, with access points on all four streets that define campus. On-street parking is also utilized along K Street, E. Grant Ave., and W. Esperanza Street. The campus community has expressed a desire and need for more parking as it is difficult to find parking, specifically during peak class hours. Additionally, there is a need for more defined drop-off zones to provide intuitive, organized entry for personal and rideshare vehicles.

PUBLIC TRANSIT

Omnitrans Route 1 is the one public transit route offering a convenient commute to campus. The route runs primarily along N. Mt. Vernon Avenue, dropping individuals off at three separate bus stops. Two stops are located along the east

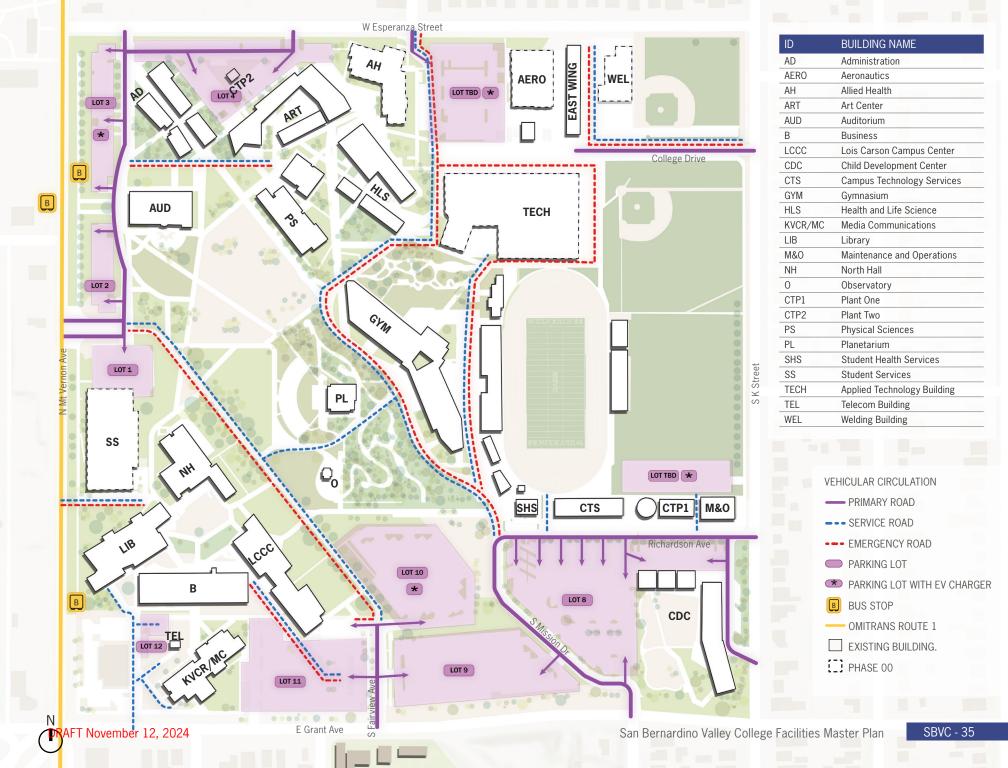
side of the street, one towards the north end and one towards the south end of campus, with the remaining stop located along the west side of the street towards the north end of campus. There is interest in enhancing the campus shuttle. Currently, the identified public transit routes are bogged down with a higher frequency of stops. Concepts surrounding a direct line from the transit center to campus and vice versa have been positive, especially considering the commute times to and from campus.

SERVICE ROUTES

Multiple routes on campus support service and emergency vehicles with a prominent route running along the main pedestrian corridor along the Fault Line. Other routes supporting service include north of the Auditorium, around the Gym, on both sides, and through Lot 11 behind the Lois Carson Campus Center building. There are three dedicated service routes, one off E Grant Avenue to the Library and two connected to the track and athletic fields in between Student Health Services and the Campus Technology Building, and the Central Plant 1 and Operations and Maintenance Building.



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SUSTAINABILITY

San Bernardino Community College District has taken on a leadership role in regards to sustainability both within its local community and within the network of community colleges.

Through a series of initiatives and planning documents at the District Level, SBCCD leads the way in sustainable planning; these documents include an updated Sustainability Plan, which encompasses ambitious initiatives tailored to support the long-term sustainability of the District, a Waste Management Plan, and a Zero Net Energy (ZNE) Implementation Plan, which embraces energy efficiency upgrades and the transition to clean energy and battery storage.

Guided by the Sustainability Plan, SBVC is making strides in fostering a green, energy efficient, climate friendly campus.

In addition to the Distric-level initiatives, at SBVC specifically the Landscape Master Plan provides a roadmap for sustainable initiatives around planting, irrigation, and human comfort.

As pioneers in sustainable infrastructure, SBVC has been designing and constructing Leadership in Energy and Environmental Design (LEED) certified buildings in recent years, as new construction and renovation projects emerge. This includes all Phase 00 projects.

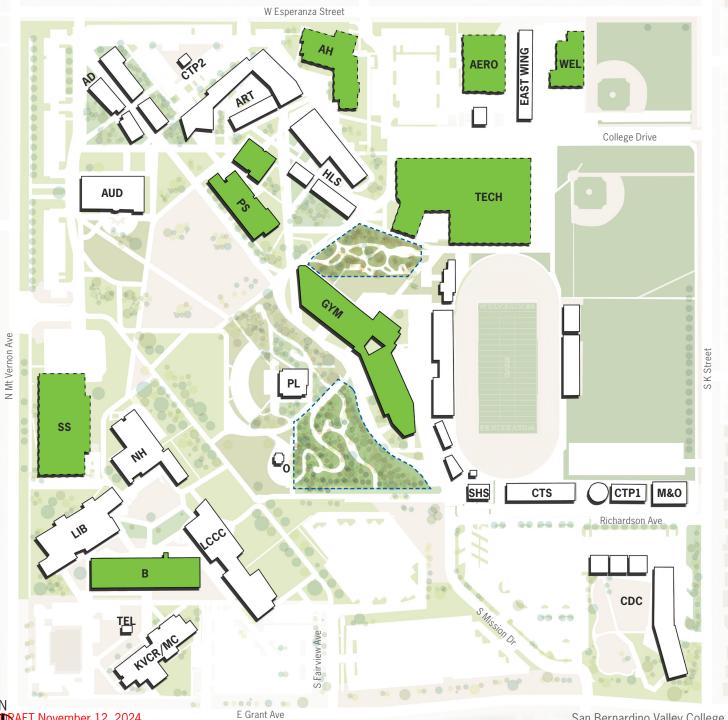
Additionally, EV chargers are being introduced in parking lots on campus. Currently there are EV chargers in lots 3, 10, and the new lot adjacent to the AERO building.

Sustainability is also fostered through on campus educational opportunities, specifically through the landscape. Another strategy has been to implement a variety of living laboratories and

outdoor classrooms with stormwater treatment. Located adjacent to the Planetarium and near the Gym, the Bio Garden is an existing living lab garden on campus that provides an educational moment on indigenous plants and animals, and stormwater treatment.



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ID	BUILDING NAME
AD	Administration
AERO	Aeronautics
AH	Allied Health
ART	Art Center
AUD	Auditorium
В	Business
LCCC	Lois Carson Campus Center
CDC	Child Development Center
CTS	Campus Technology Services
GYM	Gymnasium
HLS	Health and Life Science
KVCR/MC	Media Communications
LIB	Library
M&O	Maintenance and Operations
NH	North Hall
0	Observatory
CTP1	Plant One
CTP2	Plant Two
PS	Physical Sciences
PL	Planetarium
SHS	Student Health Services
SS	Student Services
TECH	Applied Technology Building
TEL	Telecom Building
WEL	Welding Building

SUSTAINABILITY

LEARNING AND LIVING GARDEN

LEED CERTIFIED BUILDINGS

UTILITIES

The following summarizes the existing utilities serving the SBVC campus. The entire utilities report, with greater detail, can be found in the Appendix.

The utilities within the campus boundaries comprise of domestic and fire water, sewer, storm drain, irrigation water, chilled and hot water distribution, gas, electrical and telecommunications systems, and are all owned and operated by the campus.

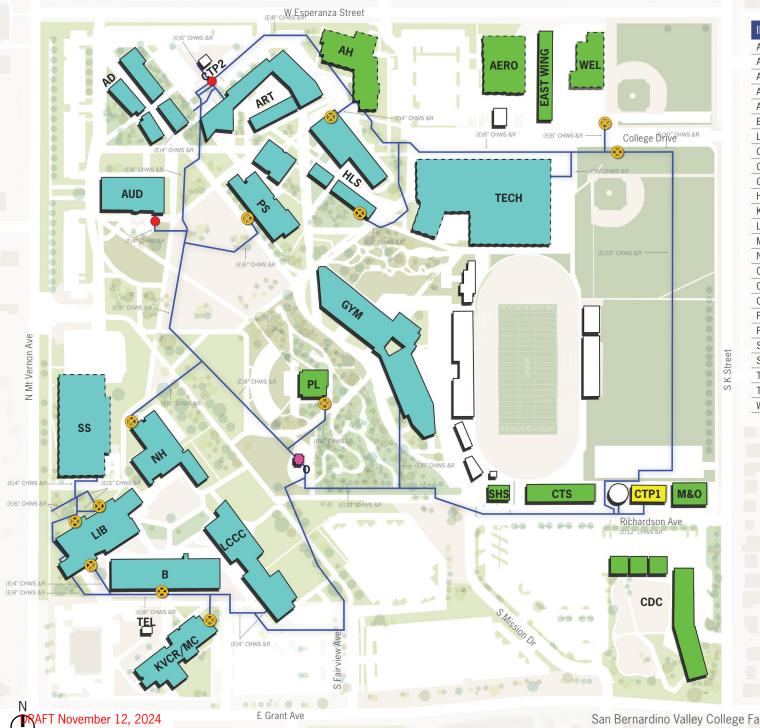
HYDRONIC SYSTEMS

CHILLED WATER SYSTEM (CHW)

The cooling needs of the majority of the facilities at the campus are met by a central plant located next to the Maintenance and Operation facility off of K Street on the southeast side of the campus. A few of the facilities are served by dedicated package systems.

Equipment in the Central Cooling Plant is 12 years old and in good condition. The CHW piping distrubution network was installed in 2013 and is in good condition.

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ID	BUILDING NAME					
AD	Administration					
AERO	Aeronautics					
AH	Allied Health					
ART	Art Center					
AUD	Auditorium					
В	Business					
LCCC	Lois Carson Campus Center					
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TEL	Telecom Building					
WEL	Welding Building					

CHILLED WATER LINES VALVES VAULT CENTRAL PLANT SERVICED BY CENTRAL PLANT PACKAGED SYSTEMS NO AC SERVICE

CHILLED WATER LINES

■ EXISTING BUILDING

PHASE 00

HYDRONIC SYSTEMS.

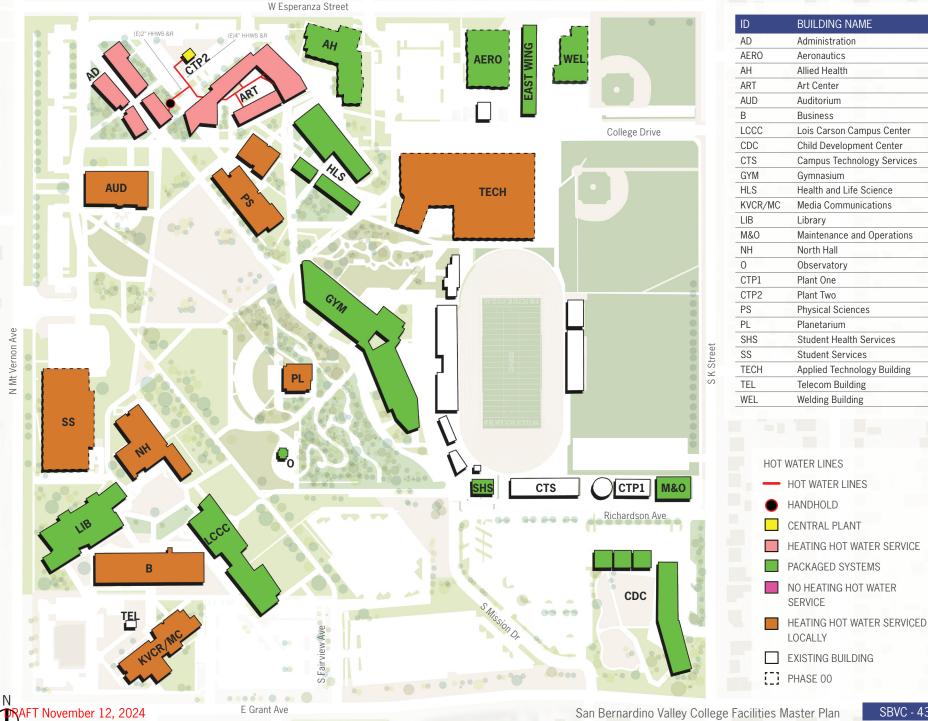
HEATING HOT WATER SYSTEM

The heating needs of the buildings on campus are met by a combination of gas fired package units and heating hot water systems. A cluster of buildings that make up the Administration buildings, as well as the Art & Gallery buildings are served by a small Heating Hot Water Central Plant located on the northernmost section of campus.

The remainder of the buildings' heating needs are met by gas package units or hydronic heating hot water systems in the individual buildings served by local gas boilers.

The North Central heating plant was installed in 2004. It contains two (2) small outdoor boilers (Camus & Lochinvar), giving the plant a total heating capacity of 2,155 million BTU/Hr (MBH). The boilers are approximately 20 years old. ASHRAE suggests a useful life of approximately 20 years for this type of equipment and it should be considered for replacement over the next 2 years.

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ELECTRICAL

San Bernardino Valley College campus is currently served from a 4.16kV, 1200A 3phase, 3wire switchgear that derives its service from a 3,750KVA, 4.16kV SCE switch and transformer located in the utility yard on the north side of the campus. The switchgear comprises of a main 5kV, 600A, 3P breaker with a SCE main meter section and four 4.16kV, 600A fused interrupter switches housed in a seven sectional outdoor switchgear. The service is metered at 4.16kV and distributes power to substations in each building on campus through a series of manholes and medium voltage duct banks. The main switchgear was installed in 2003 with a main 5kV breaker and four 5kV feeder switches equipped with modern microprocessor relays and Square D power logic digital meters for monitoring energy usage and is in fairly good condition.

Power to each building on campus is served through a series of manholes and concrete-encased medium voltage ductbank originating from the main switchgear. The medium voltage feeders are routed primarily through modular splice connectors located in individual manholes and provide limited redundancy for isolating

power to the building without affecting all the other building being served from the same feeder. 15kV, 600A selector switches(4) are installed at certain locations on the campus as part of some of the recently completed projects that enable to facilitate disconnection of few individual buildings.

The electrical power distribution system at the campus was installed in 1990's and is approximately 30 years old. Majority of the underground cables were installed in 1970. The cables are approximately 35-40 years old and at the end of their useful life. Portion of feeders '1' to '4' have been replaced as part of building upgrade project but no major improvements have been undertaken to upgrade the existing power distribution system.

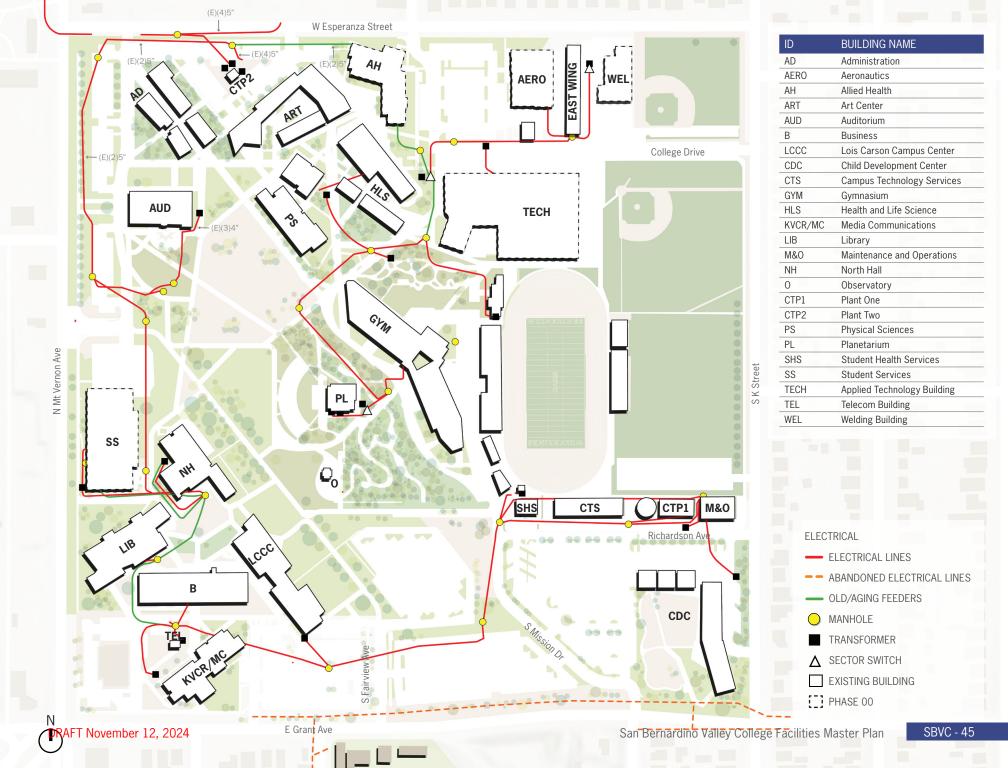
While a majority of the buildings have undergone renovation in recent years and are equipped with new transformer substations and distribution switchboards, a few buildings still have the original transformer substations and switchboards from the time of building inception. The individual buildings have transformers with

4.16kV primary and 277/480V and 120/208V secondary voltages.

A majority of the Campus Facilities are served by a primary selective feeder system, fed from the main 5kV switchgear.

The peak demand seen by the campus varies between 2.26MW to 2.4MW. The main switchgear can accommodate an overall capacity of 3,750KVA. Thus the main switchgear has adequate capacity to not only support existing loads but also has adequate spare capacity to support future loads.

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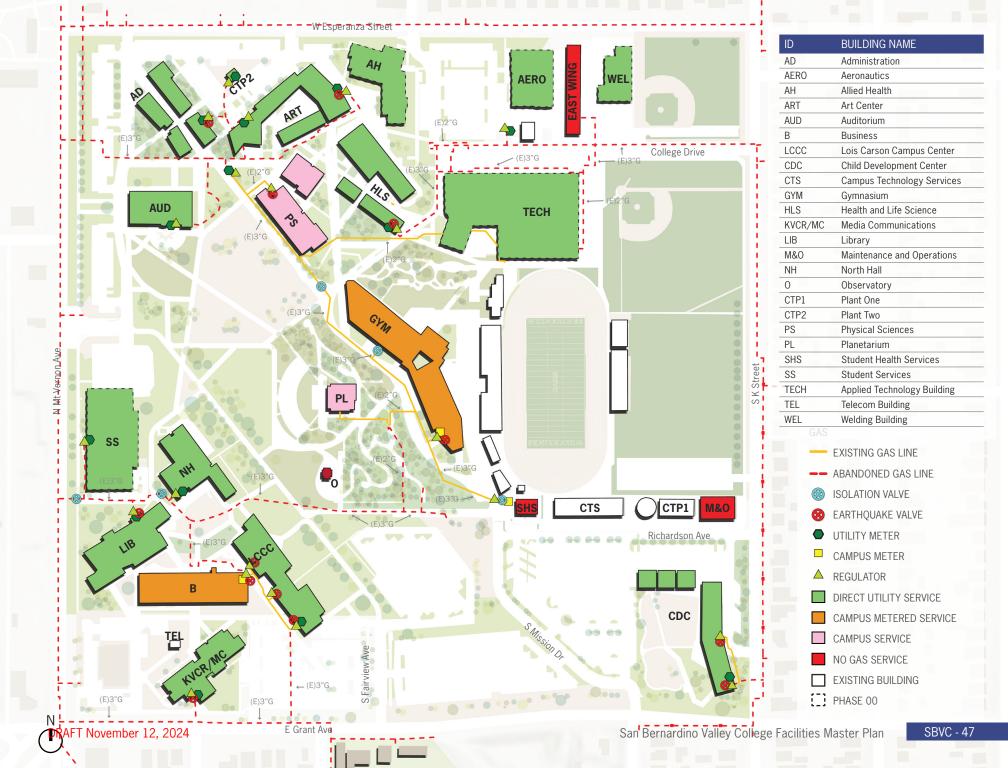
NATURAL GAS

Natural gas is distributed to campus buildings via multiple meters from the Southern California gas company. Gas enters the campus from 6 main feeds. Two feeds enter from Mt Vernon Ave., two feeds enter from Grant Ave. and two feeds enter from S K St. Gas Company main distribution lines are located in all the main streets (Mt Vernon Ave, Esperanza St., S K St. and E Grant Ave) surrounding the campus. According to the Gas Company, the system operating pressure of the gas mains range between 30-50 PSI. A majority of the buildings on campus have separate meters. There are however a few instances where multiple buildings are served via one meter. Both the Physical Sciences building and Gymnasium are served at medium pressure from a meter located north west of the Physical Sciences building. All gas lines upstream of the meters are owned and operated by the Gas Company.

The majority of the campus gas infrastructure was installed roughly 50 years ago. The distribution system throughout the campus has undergone extensions over the years to accommodate campus expansions and additions and comprises of a mixture of PE and steel lines.

The majority of buildings on campus are served by their own utility-owned meters. High pressure gas lines are routed throughout campus with operating pressure between 30-50 psi. This gives the campus adequate capacity to accommodate future expansion.

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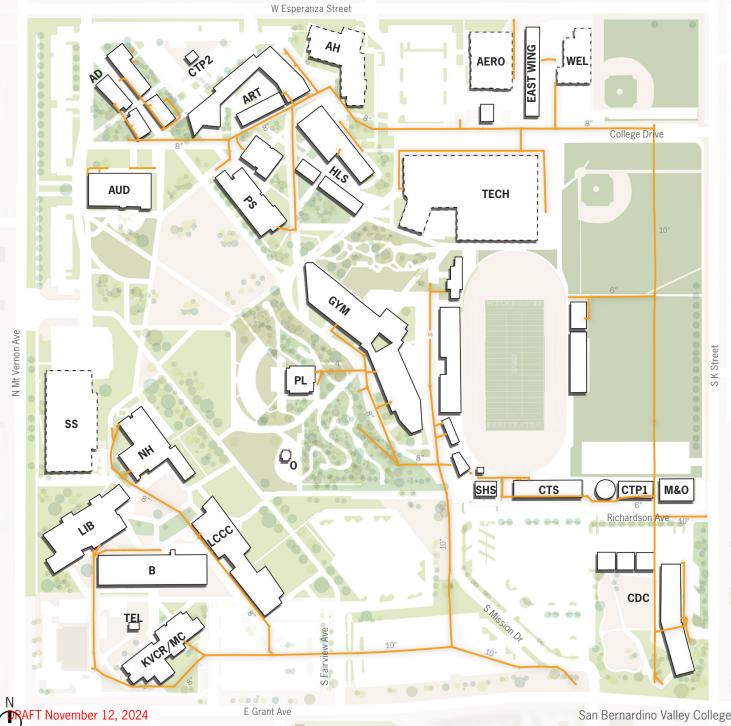


SEWER

The San Bernardino Valley College (SBVC) sanitary sewer system is served by an 8-inch Vitrified Clay Pipe (VCP) public main located in Grant Ave. In general, sewage flows travel east and south on campus and join the public system in Grant Ave. Several of the mains and sub-mains located on campus were at one time owned and operated by the City of San Bernardino; however maintenance responsibilities of all lines within the campus have since been accepted by SBVC.

Due to the age of many of the formerly public sewer mains on campus a replacement program was initiated by the campus and as a result and by way of capital improvement projects, most of the campus sewer system has been replaced or repaired.

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ID	BUILDING NAME					
AD	Administration					
AERO	Aeronautics					
AH	Allied Health					
ART	Art Center					
AUD	Auditorium					
В	Business					
LCCC	Lois Carson Campus Center					
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SHS	Student Health Services					
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TECH	Applied Technology Building					
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SEWER

SEWER LINES

■ EXISTING BUILDINGS

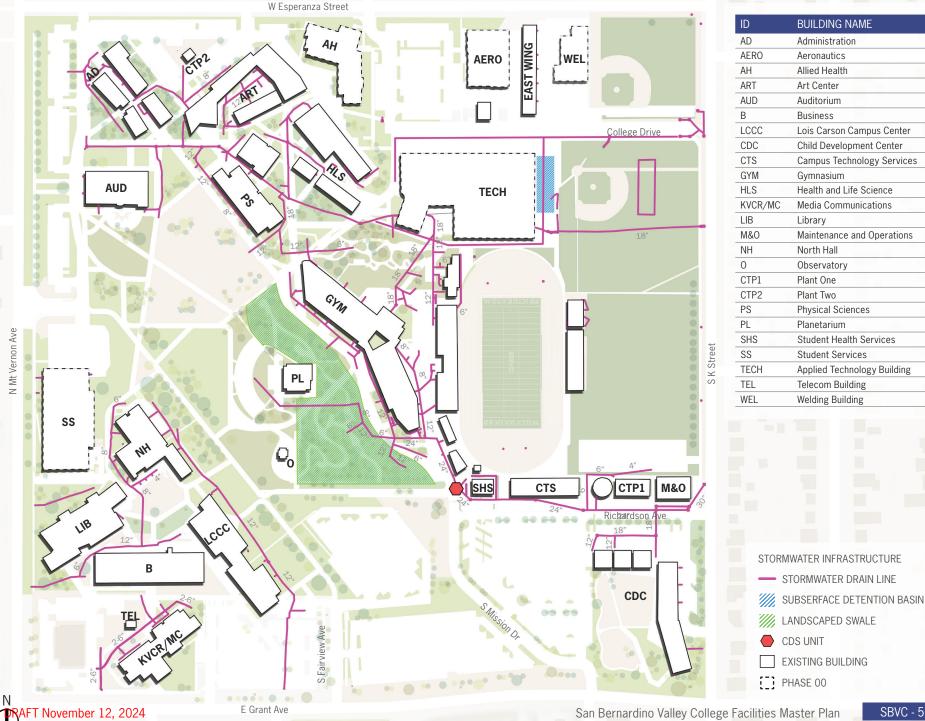
PHASE 00

STORMWATER INFRASTRUCTURE

The San Bernardino Valley College (SBVC) storm drain system is served by a public main located in K St. In general, drainage flows travel east and south on campus and join the public system in K St at multiple locations. Some areas in the southern portion of the campus direct drainage to Grant Ave via curb outlets and via overland flow. The campus has made improvements to storm systems over the past several years by way of new building projects and infrastructure upgrades.

There are no reported maintenance issues on the campus related to inadequate collection systems. Two of the readily identifiable large diameter (>18") pipes appear to be sized adequately to accommodate the 100-year design storm event that drains to them. The remaining areas of campus which do not drain to these two storm drain pipes are assumed to drain via overland flow to the surrounding streets.

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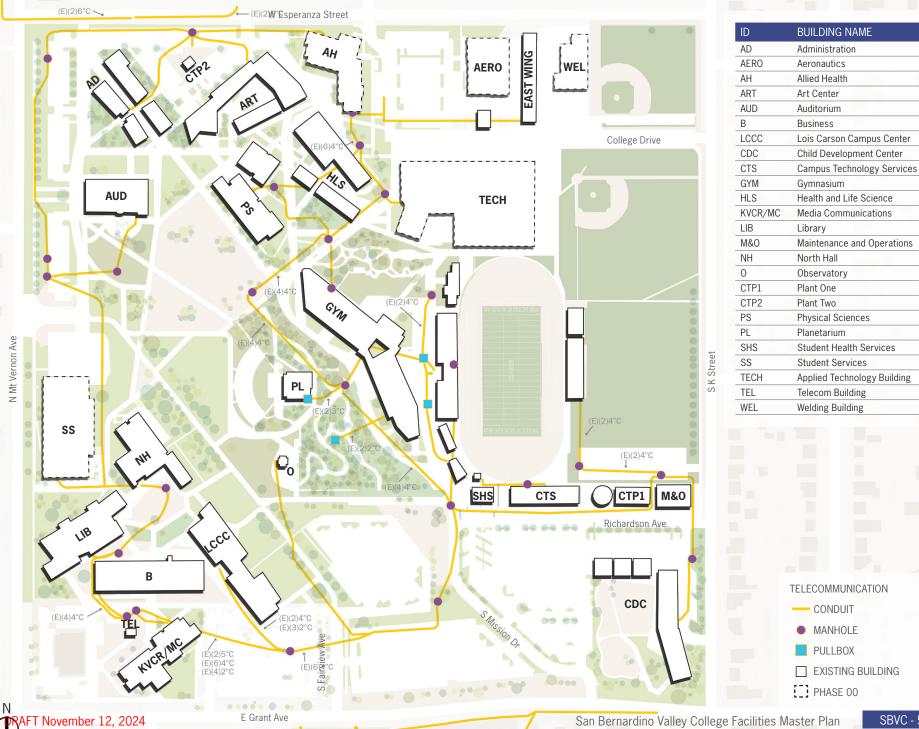
TELECOMMUNICATION

The main telecommunication services are derived from both Verizon and AT&T. The incoming service runs along the Mt Vernon Avenue, and enters from the Northwest side of the campus, and then transitions to Esperanza street through a series of underground vaults as it enters the campus from that side of the campus. The campus services that come in from Esperanza street then around the perimeter, via underground vaults, and then into the Main Distribution Frame (MDF) located in CSB.

The main telecommunications services to the campus are served from a MDF or "Main Distribution Frame", located on the south side of the campus near the on-site antenna donor tower, between the Business Building and the Media Communications Building. The CSB server room/MDF consists of a mix of 4-post racks, network server cabinets, wall mounted telecommunications terminations and main core

for the campus fiber distribution. The server/
network racks and cabinets are laid out in two
aisles and air cooled, to cover the entire room,
with no dedicated "hot" and "cold" aisles. There
is also a centralized battery backup/ generator
system for all the network equipment located
just outside of the CSB building in case of power
failure. There is a VOIP phone system serving
the campus and is distributed via the fiber to
the individual campus buildings; with the main
equipment is located in the CSB building.

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WATER DISTRIBUTION SYSTEM

The existing water distribution system serving the campus is a public looped system in the surrounding streets along with some public mains bisecting the campus that reside within a public easement. All potable, fire water, and irrigation services are connected to the public system throughout the campus. Several of the potable water services include a "bull head" configuration in which a single service from the main branches into a domestic meter and an irrigation meter.

The San Bernardino Municipal Water District (SBMWD) provides domestic and fire water services at thirty-eight locations along Mt Vernon Ave, College Dr, K St, Gant Ave, and numerous interior campus locations.

The campus buildings are served by separate domestic and fire water SBMWD meters, however some domestic meters are also used for irrigation. The public distribution network consists mostly of ductile iron (DI) and cast iron (CI) pipe.

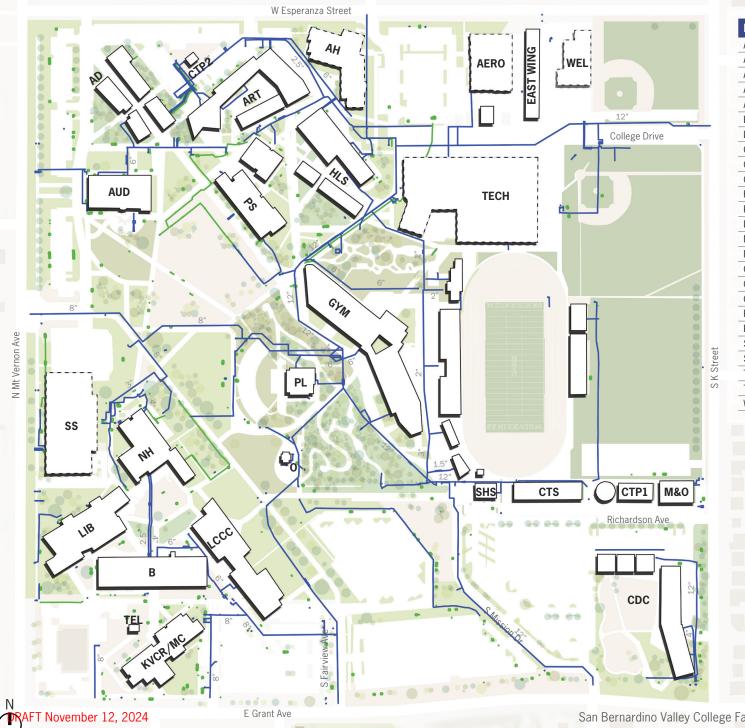
There are some combined domestic/irrigation services. Savings can be realized by separating domestic and landscape water usage as the agency charges are less for a landscape only meter as no sewer capacity fees are incurred.

A previous evaluation of the existing water system revealed that the existing water system adequately supports the demand for existing buildings with no significant pipe losses due to pipe size or elevation. In addition, the existing water pressures throughout the campus satisfy SBFD's minimum requirement of 20 psi as analysis.

The campus is considering two improvements to the water system. The first is to provide sub-metering to the buildings and separate the irrigation systems to better track each buildings usage. Part of that would be to separate the irrigation systems in order to realize savings in capacity fees that are not paid on irrigation as compared to domestic water.

The second is to consider a privatization of the campus water system. Currently the main water system is owned and operated by the SBMWD. Discussions have been initiated with SBMWD to better understand the feasibility. Benefits to this would be more flexibility to improve and serve the campus needs, and a realized savings in processing plans and permits with the SBMWD. Additionally, the campus would assume all maintenance of the water system on campus, which would likely introduce increased maintenance costs. There would likely be associated improvements required in order to switch the system from a public system to a private system.

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ID	BUILDING NAME
AD	Administration
AERO	Aeronautics
AH	Allied Health
ART	Art Center
AUD	Auditorium
В	Business
LCCC	Lois Carson Campus Center
CDC	Child Development Center
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HLS	Health and Life Science
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PS	Physical Sciences
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SHS	Student Health Services
SS	Student Services
TECH	Applied Technology Building
TEL	Telecom Building
WEL	Welding Building

DOMESTIC WATER DISTRIBUTION

MAIN WATER LINE

IRRIGATION LINE

■ EXISTING BUILDING

PHASE 00



PROGRAM NEEDS



INTRODUCTION

Planning themes, principles, space needs, and program needs for SBVC's campus were derived through engagement, tours, analysis, previous studies, and trends in higher education.

Overarching Master Plan Themes, established for the entire SBCCD Facilities Master Plan, and SBVC specific Planning Principles serve as a framework and guide for all future physical investments in SBVC's campus facilities and infrastructure.

Data derived from program and space needs guide the recommendations in this Plan. A space utilization study, space needs assessment, and engagement on educational program growth provides guidance on the level of investment in various space types, both in terms of quantity of space and quality of space. Ultimately, the plan addresses these program needs under the umbrella of the guiding principles.





FACILITIES MASTER PLAN DISTRICT-WIDE THEMES

MODERNIZE FACILITIES:

Modernize existing facilities to propel excellence and community prosperity.

RIGHT-SIZE & MAXIMIZE EFFICIENCY:

Right-size and equitably redistribute space and services to maximize efficiency and respond to trends in higher education.

FOSTER A SUSTAINABLE FUTURE:

Ensure development addresses each of the goals within the Sustainability Plan, prioritizing resource conservation and the well-being of people and the planet.

DESIGN FOR SAFETY & INCLUSIVITY:

Design a built environment that fosters a safe and welcoming setting for students, faculty, and staff.

BUILD COMMUNITY & FOSTER COLLABORATION:

Create spaces for events and daily gatherings to build community and foster collaboration.

IMPROVE BRANDING, WAYFINDING, ART:

Improve branding, wayfinding, and public art to strengthen SBVC's identity.

CREATE FLEXIBLE CLASSROOMS & SUPPORT ACTIVE LEARNING:

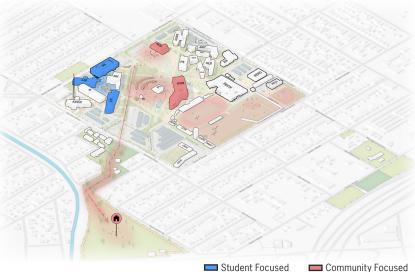
Design classrooms for flexibility and active learning to facilitate a collaborative learning environment.

SBVC GUIDING PRINCIPLES

The guiding principles set the overall vision and key values for planning decisions that impact the physical campus. Guiding the direction of the Plan, the projects that compose the future vision of campus serve to meet multiple principles.



Bolster and define facilities that support community programming, gathering, and events





Address key renovations, infrastructure improvements, demolitions, and opportunities within vacated space





Support the unique character and identity of the campus through beautification and functional outdoor programs and amenities



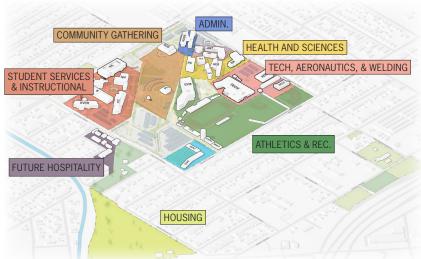


Enhance arrival and wayfinding and create an efficient, multi-modal circulation network





Create space for new and immersive academic programs that align with industry needs and support hands-on learning



SPACE ANALYSIS

OVERVIEW

A space utilization study and space needs assessment are tools that quantitatively analyze campus space types to inform decision-making regarding physical planning and resources. The **Space Utilization Study** measures and analyzes the efficiency of instructional room usage (classroom and laboratory space) during a designated term. The **Space Needs Assessment** quantifies the amount of space SBVC currently utilizes, and calculates the ideal quantity of space needed in the future based upon specific metrics and strategic enrollment growth and goals. As a mathematical model, these studies serve as a baseline to understand how space can best serve SBVC, assuming state standards and best practices. In combination with programmatic input, facilities conditions, and qualitative data, both studies contribute to identifying opportunities for new, re-purposed, or elimination of space.

Both studies utilize The Board of Governors of the California Community Colleges Policy on Utilization and Space Standards (referred to as CA BOG Standards) as the measurable standard. These standards are used to assess space use of current facilities and plan development of future facilities, specifically for state-mandated Cap Load categories. The adjacent table outlines the space types studied through this process.

Note the full Space Utilization Study and Space Needs Assessment can be found in the Appendix.

SPACE TYPE	CAP LOAD	UTILIZATION STUDY	NEEDS ASSESSMENT
Classroom			
Class Laboratories			
Open Laboratories			
Library & Study			
Workspace			
AV/TV			
Student-centered			
Assembly/Meeting/Exhibition			
Health & Recreation			
Dining & Merchandising			







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SPACE UTILIZATION STUDY

INTRODUCTION

The Space Utilization Study (SUS) was conducted by ALMA Strategies and San Bernardino Community College District to better understand the most current on campus instructional space use and efficiency at Valley College.

METHODOLOGY

ALMA Strategies employed State efficiency metrics to measure the hourly instructional utilization and Weekly Student Contact Hours (WSCH) capacity and actual generation of each instructional room.

The analysis utilizes District instructional and scheduling data for Fall 2023 and the Campus 2023 Space Inventory from the California Community College Chancellor's Office FUSION (Facilities Utilization Space Inventory Option Net).

The analysis looks at two key metrics: Weekly Student Contact Hours (WSCH) Efficiency and Room Use Efficiency.

Weekly Student Contact Hours (WSCH) Efficiency analyzes WSCH generated versus WSCH Capacity. WSCH generated refers to the number of contact hours an instructional room generates per week based on the number of enrolled students and contact hours schedule. WSCH Capacity refers to the capability of a room to host a maximum number of contact hours per week according to room use type, size, and Title 5 Standards.

Room Use Efficiency (RUE) is a sliding scale based on Average Station Occupancy and Contact Hours per Week. Room Use Efficiency is an inclusive metric that takes all Title 5 Standards for space utilization into account to determine an individual room's overall efficiency rate.

Classroom Findings

WSCH Efficiency: 31%

RUE Average: 29%

	ROOM	AVERAGE
BUILDING NAME	KOOW	AVERAGE
	COUNT	RUE
Library	2	4%
Art Center & Gallery	1	10%
Auditorium	1	10%
Gymnasium Building	2	11%
Liberal Arts	7	18%
Technical	6	21%
Media & Comm.	1	27%
Physical Sciences	9	29%
Health & Life Sciences	14	31%
North Hall	21	31%
Business Education	20	42%
Transportation	2	46%
CAMPUS-WIDE AVERAGE	86	29%

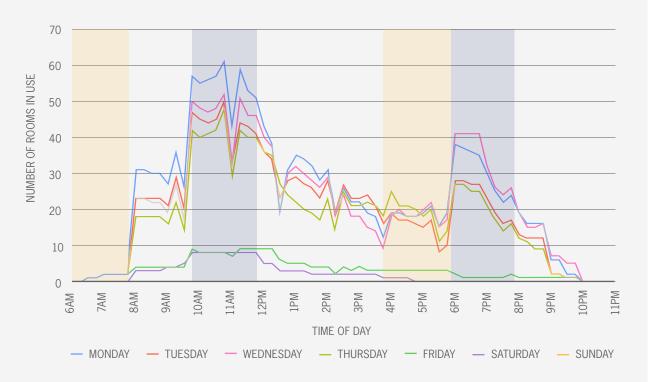
Laboratory Findings

WSCH Efficiency: 63%

RUE Average: 58%

BUILDING NAME	ROOM	AVERAGE
DOILDING NAME	COUNT	RUE
Auditorium	1	0%
Liberal Arts	6	0%
Library	1	0%
Observatory	1	0%
Planetarium	1	0%
Transportation	3	13%
Media & Comm.	2	21%
Business Education	6	42%
Art Center & Gallery	10	49%
Technical	24	56%
Gymnasium Building	1	61%
North Hall	4	70%
Physical Sciences	11	89%
Health & Life Sciences	11	124%
Lois Carson Campus Center	2	206%
CAMPUS-WIDE AVERAGE	84	58%

LECTURE USE BY HOUR OF DAY



Peak

Classroom and assembly lecture spaces across SBVC peaked between **10am and 12pm** in the first half of the day and then peak again between **6pm to 8pm**. At the peak of lecture space usage, up to **61 of 86** lecture rooms were being used. While this may indicate the room usage is high, the actual utilization of each room varies.

Drop

The precipitous drop off in lecture space usage occurred early in the morning (6am - 8am), late afternoon (3pm - 5pm), and evening into night (8pm - 10pm). These times aligned with how students would typically expect their courses to be scheduled.

Source: ALMA Space Utilization Study

FINDINGS: UTILIZATION OF CLASSROOMS (LECTURE)

During the Fall 2023, SBVC used lecture spaces at a WSCH efficiency of approximately 31% (including 2 assembly lecture spaces). The utilized 85 spaces spread across campus totals an estimated 75,778 ASF and are capable of hosting approximately 120,092 lecture WSCH. The WSCH generated on campus in these lecture spaces totals about 37,027 lecture WSCH, which represents the 31% WSCH efficiency.

Campus-wide, lecture rooms were being used at an average room use efficiency (RUE) of 29%. This measure takes into account all combined course activities in those lecture spaces across the campus (contact hours, enrollment, and station occupancy) on a weekly basis. While a high-level measurement, this also somewhat correlates with the on campus WSCH Efficiency (31%).

Health & Life Sciences, North Hall, and Business Education make up 60% of the campus' total lecture WSCH Capacity and combine for 55 of the 86 lecture type spaces on campus.

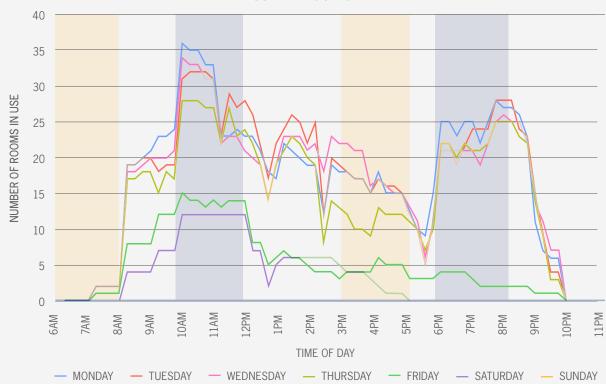
FINDINGS: UTILIZATION OF LABORATORIES

During Fall 2023, SBVC used laboratory spaces at a WSCH efficiency of approximately 63% of capacity. The majority of lab spaces, which are primarily labeled as class lab per the space inventory, consist of 75 rooms, totaling an estimated 103,436 ASF. Specialized class lab categories, including study labs and non-class labs, total 15 rooms across campus for an estimated 9,756 ASF. Labs are capable of hosting approximatley 38,309 lab WSCH. The WSCH generated on campus in these lab spaces totals about 24,909 lab WSCH, which represents the 63% WSCH efficiency.

Campus-wide, labs were being used at a room use efficiency (RUE) of 58%. Typically, the average RUE of labs trends higher than lecture spaces since students need the in-person component in order to conduct course requirements. The 58% campus-wide average also takes into account lab spaces in buildings that either do not utilize the lab space or are not regularly scheduled with instruction but are used by students in capacities such as tutoring or computer stations.

Similar to lecture rooms, buildings typically only contain a few lab rooms. The Art Center & Gallery, Technical, Physical Sciences, and Health & Life Sciences buildings combine for 56 of the 84 coded labs and 60% of the campus' total lab WSCH Capacity.

LAB USE BY HOUR OF DAY



Peak

Laboratory spaces across SBVC peaked between **10am and 12pm** in the first half of the day and then peak again in the evening between **6pm to 8pm**. At the peak of lecture space usage, up to as many as **36 of 84** lab rooms were being used.

Drop

The precipitous drop off in lab space usage occurred early in the morning (**6am - 8am**), late afternoon (**3pm - 5pm**), and late into the night (**9pm - 10pm**). These times aligned with how lecture/lab component courses were scheduled, where lectures typically take place first followed by lab.

Source: ALMA Space Utilization Study

SPACE NEEDS ASSESSMENT

INTRODUCTION

The Space Needs Assessment was conducted by DLR Group and San Bernardino Community College District to quantify existing space utilized and to calculate the ideal quantity of space needed in the future based upon specific metrics and strategic enrollment growth and goals.

METHODOLOGY

Space needs calculations are developed using metrics established by the California Board of Governors and industry standards when necessary (noted in the "Standards and Metrics" section of this report). These calculations rely heavily on the inputs of current and future Full-Time Equivalent Students (FTES), Weekly Student Contact Hours (WSCH) and Full-Time Equivalent Faculty (FTEF). Using the current space inventory as a baseline, each space type is calculated on a square footage level for what Valley College should have today and what will be needed in 2028 and 2033. The following section outlines the key inputs and standards utilized to calculate the space needs.

Existing Space

Quantifying existing space serves as the baseline to compare against ideal existing need and future need calculations. This Assessment utilizes the FUSION Space Inventory, as it existed in March 2024. The inventory was then updated with space impacts from Phase 00 projects (projects funded by Measure CC/Measure M). These projects are assumed as a part of the existing baseline for the purposes of the Facilities Master Plan.

SPACE CATEGORY	ASF	% of Space
Instructional	236,860	42%
Classroom	72,715	13%
Class Laboratory	160,347	28%
Open Laboratory	3,798	1%
Workspace	85,857	15%
Library and Study	43,517	8%
General Use	34,134	6%
Student-centered	3,855	1%
Assembly/Meeting	22,201	4%
Exhibition	2,766	1%
AV/TV	5,312	1%
Dining & Merchandising	15,894	3%
Merchandising	5,557	1%
Food Facility	10,337	2%
Health & Recreation	56,806	10%
Athletics & Rec.	55,331	10%
Health & Well Being	1,475	0%
Campus Service	43,715	8%
Child Development	15,327	3%
Unclassified	36,713	6%
TOTAL	568,823	

Notes:

- Unclassified includes vacated space in Lois Carson Campus Center (2,908 ASF), AD (17,405 ASF), Health & Life Sciences (6,887 ASF), Student Health Services (1,526 ASF), Parent Education Center (2,008), and Multipurpose Portable (897 ASF). Lois Carson Campus Center, AD, and SHS will be repurposed in Phase 00 (see Phase 00 section for most likely uses).
- Workspace includes some 680 Meeting Rooms that serve as conference rooms and 650 Lounge or 690 Locker Room space that serves as office service.

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FTES, WSCH, and FTEF Projections

As referenced earlier, space needs calculations rely heavily on the inputs of current and future FTES, WSCH, and FTEF. An important delineation for FTES is the FTES in-person versus the FTES online, as space needs are impacted by students visiting and interacting on campus. Additionally, for instructional space calculations, it is important to understand what percentage of WSCH occurs in lecture/classroom spaces versus laboratory spaces.

The District provided actual enrollment data for Fall 2023 and Fall 2024. Additionally, the District provided target enrollment growth percentages for Fiscal Year 25 through Fiscal Year 29. The assessment projected enrollment from Fall 2024 (actual) data utilizing these percentages through 2029. For 2029 - 2033, the Assessment assumes 1% growth, year over year.

For the purposes of the Assessment, all future projections assume 65% in-person versus 35% online. More students are returning to campus and the 65% in-person parameter tests a slight increase from the existing 58%, to understand the implications if students continue to return to campus. Note the enrollment numbers utilized are from Main Campus and do not include Off-Campus FTES.

The table below outlines the FTES numbers and growth percentages used in this study, as well as the on campus versus online split.

The WSCH split between lecture and lab is derived from the Fall 2023 course data. The data was analyzed to calculate WSCH from all sources. On campus lecture equates to 55.1% of WSCH on campus; on campus lab equates to 38.3% of

WSCH on campus; And on campus PE equates to 6.6% of WSCH on campus. These percentages factor into FTES input for space projections for classroom and laboratory space (see table below).

FTEF is utilized to calculate workspace needs. Existing and future faculty and staff counts were provided by the District and the College.

Full Time Equivalent Student (FTES Data)

FALL TERM	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
% Growth	(ACTUAL)	4%	4%	4%	4%	1%	1%	1%	1%	1%
TOTAL FTES (Main Campus)	4,591	4,775	4,966	5,164	5,371	5,425	5,479	5,534	5,589	5,645
In-Person FTES	2,654	3,104	3,228	3,357	3,491	3,526	3,561	3,597	3,633	3,669
% On Campus	58%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Online FTES	1,938	1,671	1,738	1,807	1,880	1,899	1,918	1,937	1,956	1,976
% Online	42%	35%	35%	35%	35%	35%	35%	35%	35%	35%

Note: FTES from Main Campus was utilized for the Assessment. Off-Campus FTES are not factored into space needs.

FALL TERM	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
% Growth	(ACTUAL)	4%	4%	4%	4%	1%	1%	1%	1%	1%
On Campus FTES	2,654	3,104	3,228	3,357	3,491	3,526	3,561	3,597	3,633	3,669
% On Campus Lecture	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%
On Campus Lecture	1,462	1,710	1,778	1,850	1,924	1,943	1,962	1,982	2,002	2,022
% On Campus Lab	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%
On Campus Lab	1,016	1,189	1,236	1,286	1,337	1,350	1,364	1,378	1,391	1,405
% On Campus PE	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
On Campus PE	175	205	213	222	230	233	235	237	240	242



Standards & Metrics

Standards and metrics are applied to the people (FTES, FTEF, WSCH) inputs to calculate the ultimate need. The following standards are applied in this assessment:

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 used to assess space use of current facilities and to 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 used in the space assessment to visualize how instructional spaces are being actively utilized and as guide to calculate future need. The standards represent intense instructional use with expectations that facilities have participants in each space between 40 - 70% of the time in a given 70 hour week.

Other Standards

For certain space types, the *CA BOG* does not have set standards. When applicable, standards from *CA Title V*, the *Council of Education Facility Planners (CEFPI)*, and recognized metrics based upon expertise are used. Trends in higher education are referenced throughout to support, challenge, and provide context on results from the space needs analysis.

SPACE TYPE	STANDARDS APPLIED
Classroom	CA BOG
Class Laboratories	CA BOG
Open Laboratories	Best Practices
Library & Study	CA BOG
Workspace	CA BOG
AV/TV	CA BOG
Student-centered	CA Title V
Assembly/Meeting/Exhibition	CEFPI and Best Practices
Health & Recreation	CA Title V
Dining & Merchandising	CEFPI

SPACE NEEDS ASSESSMENT RESULTS

SPACE TYPE	EXISTING + PHASE 00	2024	2028	2033	2033 (+) SURPLUS OR (-) DEFICIT				
Classroom	72,715	27,696	36,431	38,289	+ 34,426				
Class Laboratory	160,347	88,044	115,785	121,691	+ 38,656				
Open Laboratory	3,798	3,981	5,237	5,504	- 1,706				
Library & Study	43,517	19,511	23,405	24,406	+ 19,111				
AV/TV	5,312	7,213	8,132	8,369	- 3,057	_			
Workspace	85,857	65,475	76,596	80,503	+ 5,354			_	
Student-centered	3,855	14,437	18,211	19,150	- 15,295				
Assembly/ Meeting/ Exhibition	24,967	29,219	31,110	31,575	- 6,608			YEA	AR
Health & Recreation	56,806	50,746	52,136	52,494	+ 4,312			•	
Dining & Merchandising	15,894	12,554	15,844	16,652	- 758			•	
Other*	95,755	59,042	59,042	59,042	+ 36,713				
TOTAL	568,823	377,917	441,939	457,674	+ 111,149	0 20,000	60,000	100,000	

^{*}Other includes Campus Service, Child Development, Unclassfied; Campus Service will be impacted by construction of future facilities, not by growth of people.

PROGRAM NEEDS & EDUCATIONAL PLAN ALIGNMENT

INTRODUCTION

In addition to space needs, educational and non-educational program needs contribute to the type of space needed and how space is used on campus. Valley College provided a list of programs that are expected to grow or be introduced in the next decade. These programs are inputs into the plan, as differing programs require varying types of spaces.

In parallel, a Program Demand Gap Analysis: Environmental Scan and Review of Academic Programs was completed in April 2024 by Lightcast. This report assists in determining the relevant programs to grow and focus on at SBVC in relation to the regional economy and labor demand. This report was compared against the College's list of programs, to ensure student success and academic excellence.

PROGRAMS

Immersive Environments

Immersive environments create simulation spaces to emulate real-world scenarios. Two immersive environments were outlined as opportunities for growing programs: "Community" Clinic and Hospitality space.

The "Community" Clinic space would support programs such as Pharmacy Tech., Surgery Tech., Phlebotomy, and Medical Billing and

Coding. Although not outwardly serving the community, this space would simulate a clinic space with a blood lab, pharmacy space, waiting room, and office space. The Health and Life Sciences Building and the new Allied Health Building are existing hubs of health sciences space.

The Hospitality space would support programs such as Hospitality, Culinary, and Baking. This space would simulate hotel check-in and restaurant, provide a culinary kitchen, community garden, and event space.

The Environmental Scan showed a large demand gap for Culinary Arts, although wages were not high.

New Program Opportunities

Underwater Welding, Underwater Robotics, Vet. Tech., Construction Tech., Drone Tech., Operational Pilot/Flight Training, and Air Traffic Controller were identified as emerging programs for long-term growth. Within the Environmental Scan, Welding is a program opportunity for growth; Veterinary Tech. was outlined as a new program opportunity. The Air Traffic Controller and Operational Pilot programs expand beyond jobs in the region with a large demand gap and high wages, and were identified by the College as opportunities. Drone Tech is an emerging and

growing field. Construction Tech. and Robotics are fields with high demand and high wages.

A majority of these programs will rely on classroom spaces and lab spaces. Underwater Welding and Robotics would require a pool. Construction Tech. would require large indoor/outdoor lab spaces. Operational Pilot program requires space for large simulators.

Active Learning

A need for active learning spaces was identified through engagement with faculty and students. There is a desire for more flexible furniture arrangements, technology, and informal classroom arrangements.

Non-Educational Program Needs

Additional program needs beyond academic programs were identified through engagement and previous studies as well, including:

- Housing
- E-Sports
- Basic Needs Center: Laundry, Clothing Closet, Food Pantry
- Barbershop
- Concentration of Student Services
- Wayfinding Elements
- Renovation of Athletic Fields

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SUMMARY OF NEEDS

Together, the Space Utilization Study and the Space Needs Assessement provide a quantitative lens on how space is being utilized and an estimate of how much space is needed based upon metrics and standards. The Program Needs provide a qualitative lens on what types of functions these spaces need to serve.

CLASSROOM

SBVC has the opportunity to mature into their classroom spaces as enrollment grows and more students return to campus. As shown by the Utilization Study, there is an opportunity to increase efficiency of use by increasing WSCH in classrooms. This could be done through course scheduling by offering courses at off-peak hours or off-peak days.

Although classroom space is physically abundant, these spaces do not always meet the needs of modern teaching and learning methods. Active, more collaborative learning methods are desired on campus, which require greater square footage per seat, flexible furniture, and technology. Renovations and new construction of classrooms should reference the 2020 District Standards and Campus Guidelines.

CLASS LABORATORY

With Phase 00, SBVC has enough physical class laboratory space to support existing programs, but this should be continually assessed as programs grow and emerge. Several buildings on campus are utilizing labs efficiently, but there is an opportunity to assess underutilized labs in buildings, such as the Business Building, to see how repurposing or renovation may increase utilization. Similar to classrooms, there is an opportunity to assess the course schedule and increase offerings during non-peak hours or days.

The new TECH Replacement, Aeronautics, Allied Health, and Welding Buildings provide modern spaces for growing programs. Future program growth and specialized equipment will dictate need for an increase in lab space and renovation of existing lab spaces.

OPEN LABORATORY

Open Laboratory space includes unscheduled lab space that students utilize for outside of class practice, experimentation, study, and work. There is an existing and future need to increase open laboratory space to provide students with the resources for learning and investigation.







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LIBRARY & STUDY

SBVC has sufficient library and study space. Even with a concentration of space in the Library, the campus provides pockets of study space in other buildings on campus such as the New Student Services Building and TECH Replacement Building. As digital resources become increasingly prominent, there is an opportunity to rethink stack spaces in the library for increased student space, collaboration space, and open labs.

AUDIO VISUAL / TELEVISION (AV/TV)

An area of need identified from the assessment is in AV/TV. Virtual and hybrid learning is prominent in teaching modalities today. Facilities such as tech based study areas, "zoom" rooms, and recording studios for teaching should be provided to increase accessibility and flexibility.

WORKSPACE

SBVC currently has enough total square footage of workspace to support faculty and staff. With Phase 00 new construction and demolitions, there is a need to address displaced office space and move workspace to different buildings. Similar to classrooms, even if there is enough space, this space is not always configured to meet the needs of faculty and staff. Also,

while there may be enough total space, there may not be an adequate count of offices, as oversized offices cannot be right-sized overnight. Workspace should be accommodated in new construction projects and renovations to support growing programs and growing enrollment. Workspace configurations should be designed to accommodate working styles, considering amount of touchdown/focus work, collaborative work, and meetings. Types of touchdown space may vary between private to open office. to hoteling based upon hybrid work policy and a user's daily routine. Collaboration and meeting spaces may vary in size and formality. Renovations and new construction of workspace should reference the 2020 District Standards and Campus Guidelines for sizing and configuration.

STUDENT-CENTERED

Student-centered space shows a large need for space; student-centered spaces include 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 should be spread across buildings on campus, while also concentrating spaces close to student services.







ASSEMBLY/MEETING/EXHIBITION

The Space Assessment does identify a need for assembly, meeting, and exhibition space at Valley College. The College also expressed a desire and need for larger event spaces to serve the campus and the greater community. A majority of assembly, meeting, and exhibition space exists in the Auditorium, Art Center & Gallery, and Business Building.

HEALTH & RECREATION

SBVC has an adequate amount of recreation and athletics space with a majority of that space in the Gymnasium Building. Even though there is enough physical space, there can be the perception there is not enough space due to how space is shared between athletics and recreation. The Gymnasium Building should be optimized for sharing, so that all campus users can access the amenities and services within the building. This would require attention on access and scheduling of spaces.

Although not accounted for in the space needs assessment, SBVC also has a variety of field space for athletics. There is a need to upgrade and renovate fields such as the soccer field, baseball field, and track.

SBVC will have an adequate amount of health services space, once moved into the new Student Services Building in Phase 00. The new location will co-locate Health Services with other complimentary student services, such as Counseling.

DINING & MERCHANDISING

Dining and merchandising spaces, including food facilities and the bookstore, are generally in balance on campus, but as SBVC grows and more students return to campus, more space may be required. Additionally, if housing is introduced on campus, food facilities and hours of operation will need to be assessed to accommodate residents.







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CAMPUS VISION PLAN



VISION PLAN

At Valley College, the 2024 Facilities Master Plan serves to support the College's mission, fostering an environment of meaningful learning and belonging for students, faculty, staff, and the community. The Plan includes several projects focused on expanding academic programs, building a sense of community among students, bringing the community to campus, and addressing infrastructure needs. Ultimately, it will serve as a phased roadmap for development and implementation over the next decade and beyond.

The proposed recommendations are organized into the categories of: New Construction, Renovations, Demolitions, and Campus-Wide Improvements.

The following section walks through each of these recommendations in further detail. The Vision Plan embraces new development and growth on recent parcel acquistions. In the future, funds may be allocated to acquire more parcels for the growth of campus. Altogether, the Plan is designed with flexibility and resiliency in mind, to achieve the goals and mission of Valley College.

	NEW CONSTRUCTION	GSF
1	Campus and Community Resource Hub	65,000 +
		690 parking stalls
2	Mixed-Use Housing Site	TBD
3	Hospitality Hub	32,000
4	Child Development Center (CDC) and Parent	35,000
	Education Center (PEC)	33,000
5	KVCR Additions	5,200
6	Community Hub	16,000
7	Future Parcel Development	

	RENOVATIONS	ASF	
8	Maintenance & Operations (M&O) Building	7,100	
9	Library Repurposing	810 - 1,500	
10	Greek Theater and Planetarium	4,100	
11	Health and Life Sciences	6,900	
12	Lois Carson Campus Center (Police Department Space)	1,500	
13	Athletic Fields and Facilities	407,000 (SF)	

	DEMOLITIONS	GSF
14	Warehouse	
	(Parent Ed. Center, Shipping & Receiving, Police	20,300
	Storage, Warehouse, and Storage Buildings)	
15	Campus Technology Services (CTS)	4,800
16	Student Health Services	2,400

CAMPUS WIDE IMPROVEMENTS	
Alignment with Sustainability Plan	
Placemaking in the Exterior Environment	
Active Learning Classroom Retrofits	
Circulation and Parking	
Infrastructure and Safety	

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CAMPUS AND COMMUNITY RESOURCE HUB

Size:

65,000 GSF Mixed-Use Liner (2-3 stories)

~690 parking stalls (4 stories/5 levels)

Building Programs:

- Police Department
- Police Academy
- Printing Services
- Warehouse
- Program and workspace expansion space

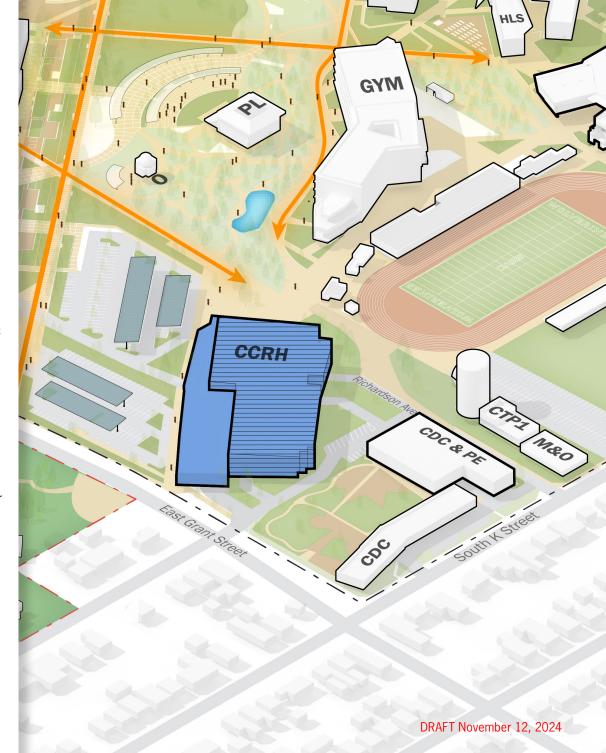
The project will construct a new multi-purpose facility that accommodates district service functions, expanding academic programs, and provides additional parking spaces.

Key district services include Campus Police, currently housed in the Lois Carson Campus Center. Their current space is significantly undersized, and relocation is necessary to better serve the growing needs of the campus community. The new facility will offer dedicated parking for the police fleet on the first floor of the parking structure.

Printing Services, presently located at Crafton Hills Campus, will be relocated on Valley College's campus—the primary user of the service—reducing transit time between the service and campus. Additionally, a new warehouse space will be provided, requiring a large, open ground-floor space for deliveries and storage, similar to Printing Services.

The College also plans to expand its Police Academy. With its proximity to Campus Police and the opportunity to customize the space to the program's specific needs, the new facility will serve as an ideal location for Academy space.

In total, the structure will include approximately 690 parking stalls, across 4-stories (5 levels).



- Increases parking on campus for students and community
- Expands District resources on campus to support students, faculty, and staff
- Relocates uses to centralize student services in the core

SUSTAINABILITY PLAN ALIGNMENT

- New construction project designed for LEED/ZNE, and to meet indoor water efficiency goals
- Site improvements that implement native landscaping and stormwater strategies

GUIDING PRINCIPLES ALIGNMENT



Supports and bolsters District functions and space to support the operations and safety of campus



Enhances arrival, circulation, and wayfinding by increasing and consolidating parking, and creating a new key entry to campus



Creates immersive space for Police Academy





MIXED-USE SITE WITH HOUSING

Size:

TBD

Building Programs:

- Flex/community housing
- Affordable apartments
- Student housing
- Campus/community green connector
- Parking
- Retail or community uses

The 15-acre site, just south of Main Campus, is being envisioned as a vibrant mixed-use development, which may include market-rate, affordable, and workforce housing, retail, and student housing. This development will provide quality, affordable housing, serve the community with economic development opportunities, and bolster student success.

A green corridor will connect the mixed-use site with the main campus. This corridor will provide intuitive pedestrian routes, open spaces, landscaping, public art, and opportunity for programmable space, such as community gardens or farmer's markets. A new branded street crossing will ensure safe access across E. Grant Street.



- Housing security promotes student success and increases student retention and enrollment
- Provides student access to basic needs and resources, enhancing well-being

SUSTAINABILITY PLAN ALIGNMENT

- Fosters social sustainability (human health and well-being)
- New construction project designed for LEED/ZNE, and to meet indoor water efficiency goals
- Site improvements that implement native landscaping and stormwater strategies
- Decreases student vehicle miles traveled to SBVC

GUIDING PRINCIPLES ALIGNMENT



Provides a mix of uses including housing that support community



The site and green connector can contribute to beautification, outdoor programming, and amenities



Creates a new entry, gateway, and pedestrian corridor into campus





HOSPITALITY HUB

Size:

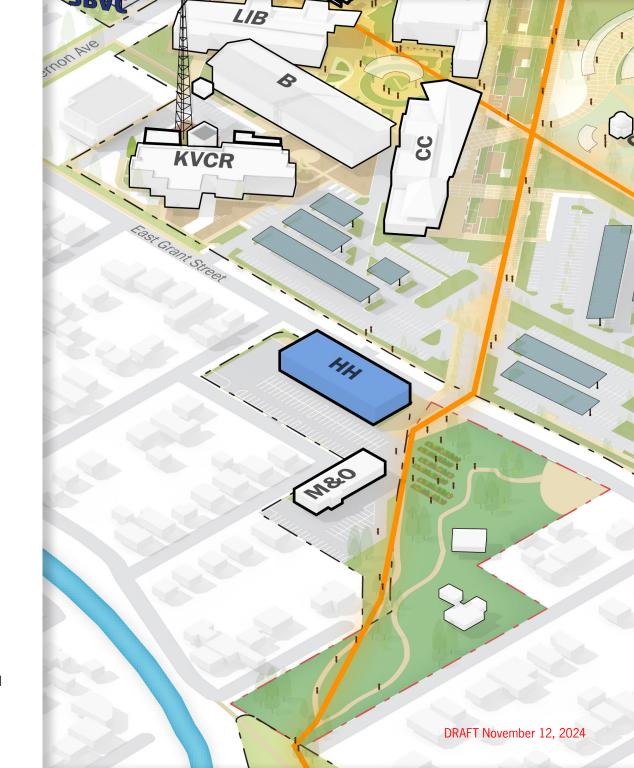
32,000 GSF

Building Programs:

- Event space (up to 400 people)
- Culinary kitchen
- Simulation hotel Check-In
- Space for Culinary and Baking programs
- Non-profit and community programs office space
- Flex space
- Community garden

The new facility will feature an event space designed to meet the current and future needs for large gatherings of up to 400 people. The space will serve campus, district, and community needs, while also generating revenue through external use. In addition, the building will house the hospitality, culinary, and baking programs. With its design as a real-world example of a meeting center, students will benefit from immersive learning opportunities, such as a mock check-in desk and a catering kitchen for hands-on culinary and baking experiences.

Outside, a community garden will support both the culinary program and the campus food pantry, providing fresh ingredients for learning and community use. The building will be conveniently located near the College's largest parking lots and the new multi-level parking structure, along the newly developed pedestrian path and crossing, ensuring easy access for all users.



- Provides space and state-of-the-art facilities for Hospitality and Culinary Arts
- Brings the community to campus
- Increases student recruitment and enrollment
- Creates experiential learning opportunities that improve and enhance program experience

SUSTAINABILITY PLAN ALIGNMENT

- New construction project designed for LEED/ZNE, and to meet indoor water efficiency goals
- Site improvements that implement native landscaping and stormwater strategies
- Removes aging facilities

GUIDING PRINCIPLES ALIGNMENT



Provides event space for community gathering and programming



Addresses demolition of aging, inefficient facilities



The building's presence on E. Grant Street can enhance arrival and wayfiding to campus



The community garden enhances outdoor programming and amenities



Creates immersive spaces that support hands-on learning





CHILD DEVELOPMENT CENTER (CDC) AND PARENT EDUCATION CENTER (PEC) BUILDING

Size:

35,000 GSF

Building Programs:

- Replaces CDC Modulars
- Provides new and expanded space for Parent Ed. Center
- Other program opportunities

The Child Development Center (CDC) and Parent Ed. Building will replace the existing, aging CDC modulars into a state of the art facility. In addition to CDC uses, expanded Parent Education Center space will also be in this building, supporting academic excellence. While the programs will be within a single structure, the building will have two separate entry points to control access for safety and security purposes.

The size of the facility provides expansion space that could be used for continued growth in Child Development and Parent Education, or for a complimentary program use.



- Provides expanded space and state-of-the-art facilities for Child Development and Parent Education
- Increases student recruitment and enrollment
- Creates experiential learning opportunities that improve and enhance program experience

SUSTAINABILITY PLAN ALIGNMENT

- New construction project designed for LEED/ZNE, and to meet indoor water efficiency goals
- Site improvements that implement native landscaping and stormwater strategies
- Enables removal of aging facilities



GUIDING PRINCIPLES ALIGNMENT



Replaces aging facilities, expanding amount and quality of space for CDC and PEC



Creates immersive spaces that support hands-on learning



KVCR ADDITIONS

Size:

7,800 GSF

Building Programs:

- New studio expansion
- New classroom/lab expansion
- Shared storage

Additions to KVCR will expand on the existing building to create space for a new studio, classroom and lab space, a media courtyard, and storage. These spaces will support the continuation of collaboration between KVCR and the Institute of Media Arts.

The studio addition will be two-story, with the second story providing space for growth and further expansion. The second story space in the near-term can provide much needed room for other spaces such as communal space, and conference room space.

With the expansion, KVCR can support live events (screenings), new production, television content creation, live television, social media content creation, photography, film production, music video production, commercial production, and XR content creation.

The studio will include programming such as a chroma green cyclorama wall, pure white cyclorama wall, a black curtain, mobile studio control, and a green room.



- Supports collaboration between IMA and KVCR
- Improves program experience and supports enrollment
- Creates experiential and immersive learning opportunities
- Expands District resources on campus to support students, faculty, and staff

SUSTAINABILITY PLAN ALIGNMENT

 Renovation and new construction to include sustainable materials and site improvements

GUIDING PRINCIPLES ALIGNMENT



Addresses key renovations and improvements for KVCR, a District operation



Creates immersive spaces that support hands-on learning





COMMUNITY HUB

Size:

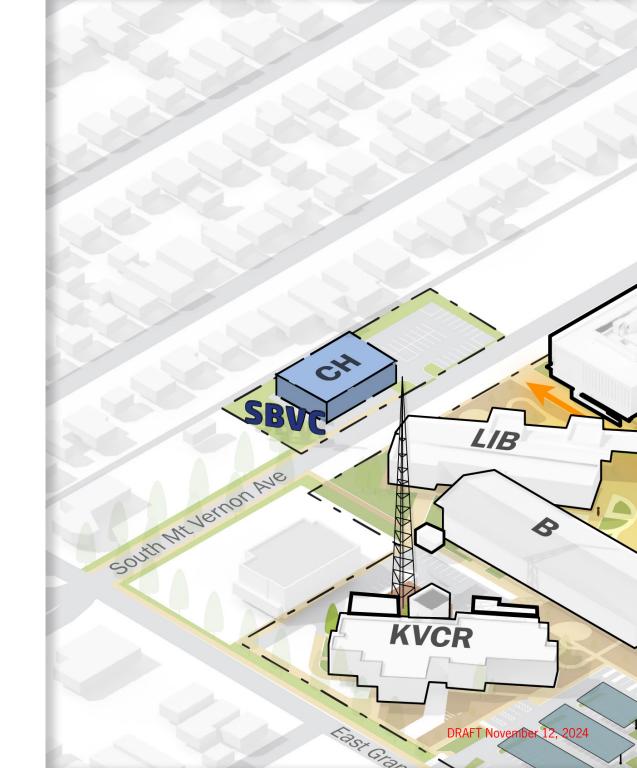
16,000 GSF

Building Programs:

Remains flexible for programming, but potential uses include:

- Alumni House
- Community workspace
- Student-focused space

Located on a recently purchased property along Mt. Vernon Avenue, a new community hub building will create a new gateway to the campus. The building's purpose will be to house community-facing programs such as work and meeting space for local non-profit organizations and an alumni center/hall of fame. On the exterior of the building, gateway signage will be placed on the south end of the site, and surface parking will be on the north end of the site. Street improvement projects will be necessary to screen the parking lot.



- Space provides the opportunity to bring the community to campus
- Space could be student or alumni focused, supporting recruitment, retention, and alumni support

SUSTAINABILITY PLAN ALIGNMENT

- Fosters social sustainability (human health and well-being)
- New construction project designed for LEED/ZNE, and to meet indoor water efficiency goals
- Site improvements that implement native landscaping and stormwater strategies



GUIDING PRINCIPLES ALIGNMENT



Space can support community programming and gathering



Gateway enhances arrival on to campus



Gateway is a branding opportunity that builds identity



MAINTENANCE & OPERATIONS (M&O) REPURPOSING

Size:

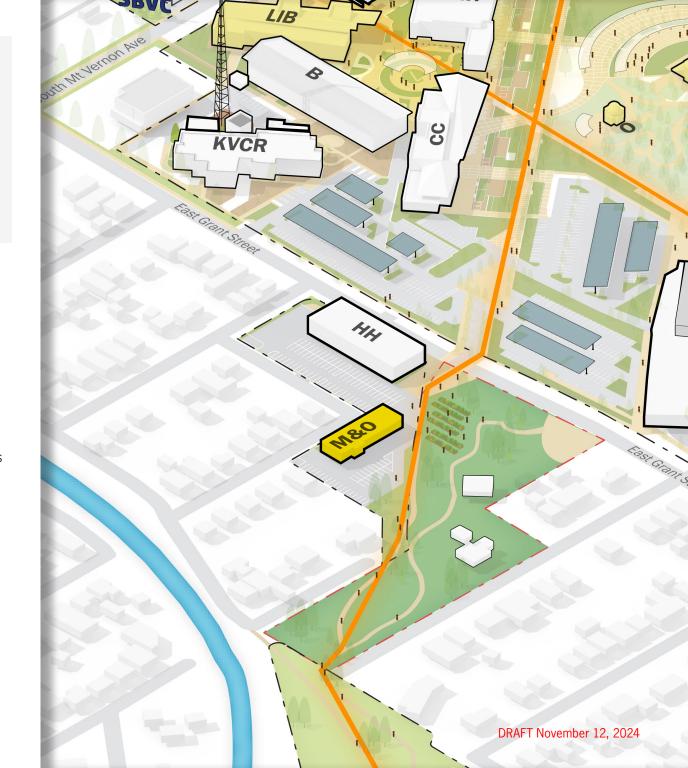
7,100 ASF

Building Programs:

- M&O office, storage, and service space
- Repurpose old Transportation Building
- Shade structure or outdoor canopy

This project will renovate the existing Transportation Building for Maintenance and Operations functions such as offices, outdoor vehicle storage, and shop space. The diesel program will move to the new Technology Building upon its completion.

As the building is located along the new pedestrian link and adjacent to the Hospitality Hub, it will be important to screen the outdoor areas of the building so the back-of-house areas are screen away from the public areas.



- Relocates non-student facing functions from the core
- Expands resources on campus to support the operations of campus facilities that impact students, faculty, and staff

SUSTAINABILITY PLAN ALIGNMENT

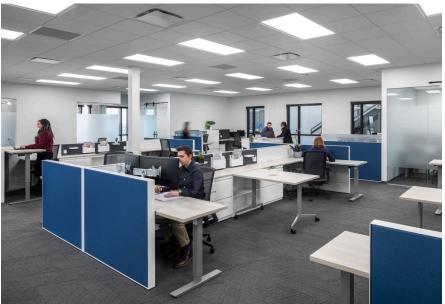
- Reuses and repurposes existing building for campus need
- Renovation to include sustainable materials
- Potential for site improvements that implement native landscaping and stormwater strategies

GUIDING PRINCIPLES ALIGNMENT



Addresses a key renovation, supporting functions that improve campus facilities and infrastructure





LIBRARY REPURPOSING

Size:

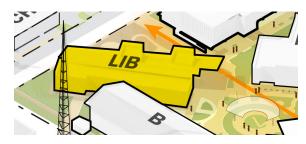
810 - 1,500 ASF

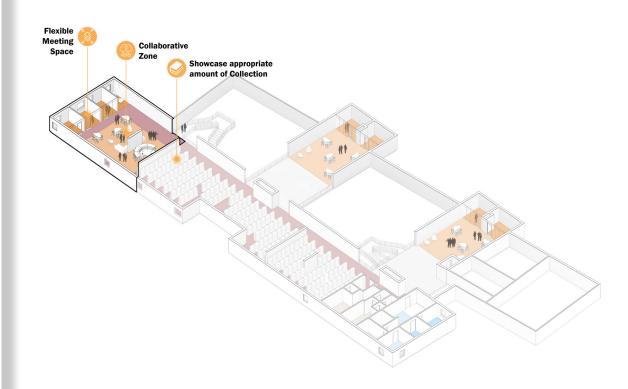
Building Programs:

- Student collaboration and meeting space
- Computer stations
- Opportunity for E-Sports

On the second floor of the Library, stacks will be repurposed to create informal student gathering areas, computer stations, tutoring space, and/or flexible meeting rooms. These spaces will be supportive of building community among students and providing spaces dedicated to student groups and impromptu instructional, meeting, and studying needs. The design of the space should include art and branding, that reflect student culture, and comfortable, flexible furniture.

With low utilization of classrooms in the Library, there is an opportunity to increase the utilization of classrooms campus-wide and transition one of the Library classrooms to an E-Sports facility, supporting a use growing in popularity among students.





Note: This is an illustrative, conceptual design for the Library, not a final design.

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- Student-focused spaces promote student success, equity, and increase student retention
- Develops campus culture and community through informal gathering spaces
- Expands resources for students and diversifies types of spaces on campus

SUSTAINABILITY PLAN ALIGNMENT

- Fosters social sustainability (human health and well-being)
- Renovation to include sustainable materials
- Opportunity for sustainable education exhibit within space

GUIDING PRINCIPLES ALIGNMENT



Supports student gathering and building community on campus



Key renovation of underutilized space





GREEK THEATER & PLANETARIUM RENOVATION

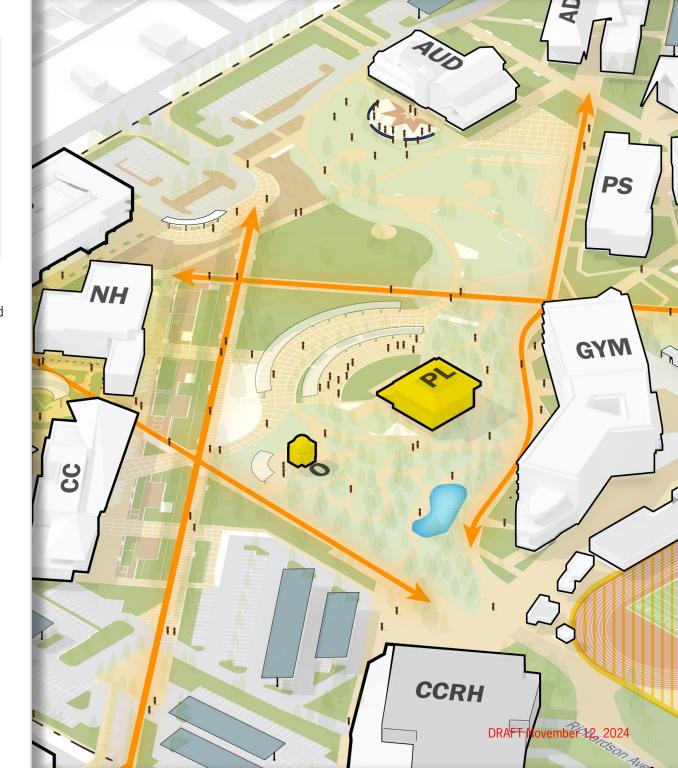
Size:

~4,100 ASF (Planetarium and Observatory)

Building Programs:

- Astronomy program space
- Community and event space (Greek Theater)

This project will renovate the existing Greek Theater and Planetarium, including structural upgrades, improvements to building systems, and accessibility improvements. The project will also include equipment upgrades for performances and events in the theater, including audio-visual and technology improvements. Upgrades to the Greek Theater include the inclusion of shade structures, and a new adjacent event plaza with shade structures and programmable space. The improvements would support comfort and year-round use of the Greek Theater for a variety of uses including campus/community fairs, catered events, and large events.



- Provides the opportunity to bring the community to campus
- Develops campus culture and community through gathering and event space
- Creates experiential and immersive learning opportunities
- Creates spaces to support inclusivity

SUSTAINABILITY PLAN ALIGNMENT

- Fosters social sustainability (human health and well-being)
- Renovation to include sustainable materials and building efficiency upgrades
- Potential for site improvements that implement native landscaping and stormwater strategies
- Increase in shade and tree canopy reduces heat island effect

GUIDING PRINCIPLES ALIGNMENT



Greek Theater is a key event and gathering space to support community programming, gathering, and events

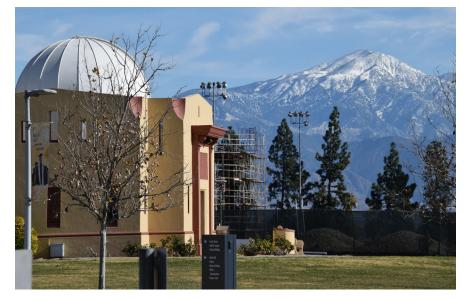


Unique feature on campus that contributes to identity, beautification, and outdoor programming



The Planetarium, Observatory, and Greek Theater all support immersive learning





HEALTH & LIFE SCIENCES

Size:

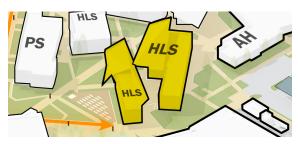
~6,900 ASF

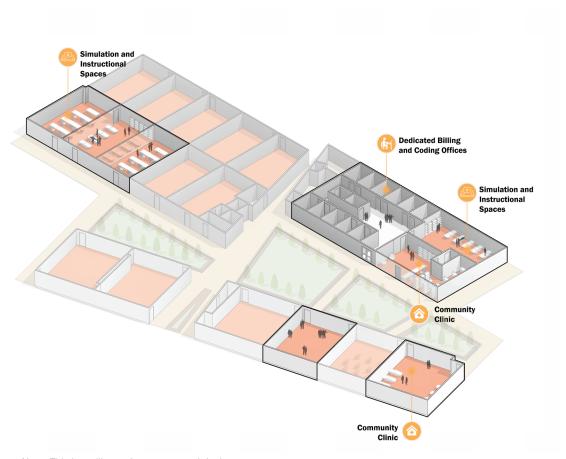
Building Programs:

"Community" Clinic spaces

- Pharmacy for Pharmacy Tech
- Operating Room for Surge Tech
- Blood Lab for Phlebotomy
- Office Space for Medical Billing & Coding

To create more immersive spaces within the academic environment, and as spaces within the Health and Life Sciences move into the new Allied Health Building, the vacated spaces will be transformed into a mock "clinic" space. Spaces include office space for Medical Billing, a blood lab for Phlebotomy students, a mock pharmacy for Pharmaceutical Tech students, a second operating room for Surge Tech students, and growth space for Nursing. These spaces support the expansion and growth of Allied Health and Health Sciences' programs. Additionally, there is an opportunity to consider how the exterior spaces connect the Health Sciences building and Allied Health buildings together with outdoor classsrooms. gathering spaces, artwork, and landscaping.





Note: This is an illustrative, conceptual design for Health and Life Sciences, not a final design.

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- Provides new space types and state-of-the-art facilities for Health Sciences/Allied Health
- Increases student recruitment and enrollment
- Creates experiential learning opportunities that improve and enhance program experience

SUSTAINABILITY PLAN ALIGNMENT

 Renovation to include sustainable materials and support any building efficiency upgrades

GUIDING PRINCIPLES ALIGNMENT



Addresses key repurposing of vacated space - building on the hub of Health Sciences/Allied Health space



Opportunity to improve the exterior environment connecting the Health Sciences together with outdoor programming, landscaping, and art



Creates immersive academic spaces that align with industry needs, supporting hands-on learning





LOIS CARSON CAMPUS CENTER (POLICE DEPARTMENT SPACE)

Size:

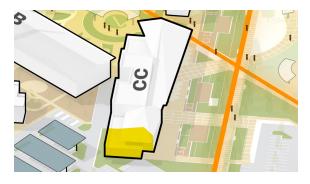
~1,500 ASF

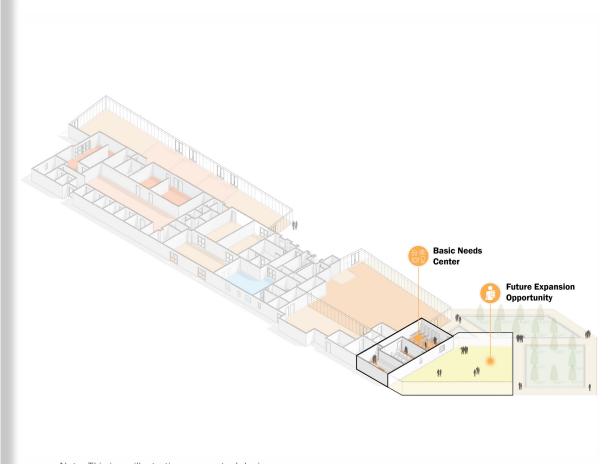
Building Programs:

Basic Needs Center

- Clothing Closet
- Food Pantry
- Barbershop
- Laundry

Within the space being vacated by Campus Police, a new basic needs center will be created that consolidates and co-locates the food pantry, barbershop, and laundry services into a single point on campus. The program may require an addition to the building, as these programs grow in demand and serve a growing student population. A separate entrance to the center should be considered on the south end of the building for both privacy and convenience.





Note: This is an illustrative, conceptual design forthe Lois CarsonCampus Center, not a final

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- Student-focused spaces promote student success, equity, and increase student retention
- Centralizes and expands student services within Lois Carson Campus Center, improving communication and access
- Creates spaces to support inclusivity, equity, anti-racism, and human sustainability

SUSTAINABILITY PLAN ALIGNMENT

- Fosters social sustainability (human health and well-being)
- Renovation to include sustainable materials

GUIDING PRINCIPLES ALIGNMENT



A Basic Needs Center located in the core of campus supports the student community at large



Addresses a renovation within vacated space that focuses on centralizes student services



Potential for beautification and improvements of exterior spaces directly outside the building



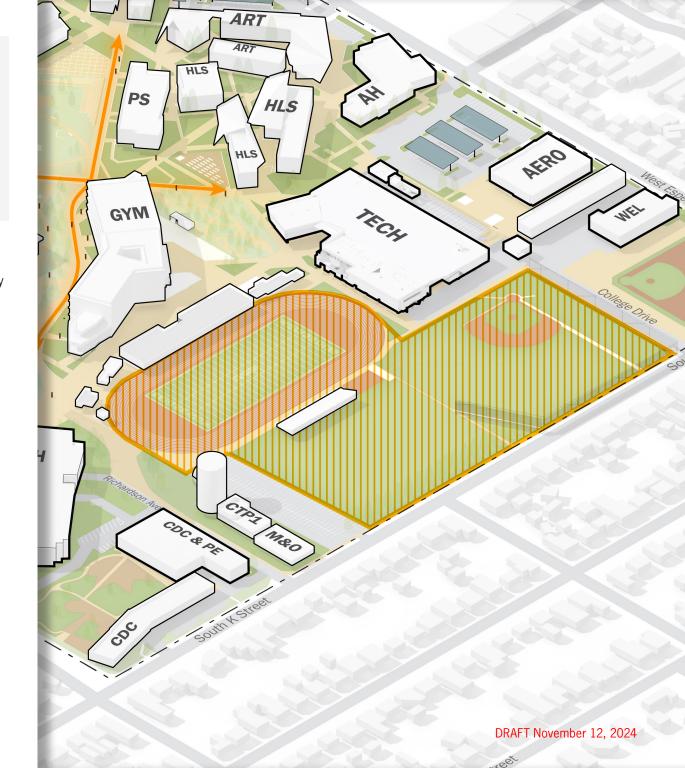


ATHLETIC FIELDS & FACILITIES

Programs:

- Soccer Field
- Baseball Stadium
- Track
- Stadium Field

Several field improvement projects are planned, including converting the fields to turf, extending the use of the facilities, and increasing the safety of the student-athletes. Fields impacted are the baseball stadium, soccer field, and the field within the stadium. In addition, the track will be resurfaced.



- Facilities that support student well-being also promote student success and increases student retention
- Increases student recruitment and enrollment
- Facilities can support and engage the community

SUSTAINABILITY PLAN ALIGNMENT

- Fosters social sustainability (human health and well-being)
- Site improvements that implement native landscaping and stormwater strategies

GUIDING PRINCIPLES ALIGNMENT



Athletic facilities invite the community to campus



Addresses key renovation needs for modern field spaces



Field and site improvements contribute to identity and placemaking





ALIGNMENT WITH SUSTAINABILITY PLAN

The 2023 Sustainability Plan outlines goals to guide the operation and development of SBCCD towards a sustainable future. The SBVC Facilities Master Plan aligns with these goals and ensures each project within the Plan furthers the development of a sustainable campus.

Physical investments in buildings, whether through new construction or renovation, improve energy efficiency, indoor water efficiency, and the utilization of sustainable materials. All new buildings will be LEED Gold, Platinum, or Zero Net Energy. Any renovation will consider retrocommissioning, sustainable materials, and building system improvements, where applicable.

The Campus and Community Resource Hub provides the opportunity for photovoltaic shade structures to be incorporated on top of the parking structure, increasing renewables on-site.

Landscape and open space improvements within the Plan play a role in sustainability, as well. The Landscape Master Plan outlines a set of strategies to achieve sustainability goals. These strategies include:

- Reducing the heat island effect through the incorporation of shade structures, a more robust tree canopy, and hardscape limitation
- Treating stormwater run-off with plantings and strategic locations

- Conserving water through improved irrigation and the utilization of native and adaptive vegetation
- Increasing renewable energy through photovoltaic shade structures in parking lots
- Usining locally sourced products
- Encouraging alternate forms of transportation through pedestrian improvements and bike facility expansion
- Promoting on-site food production through a community garden
- Providing the opportunity for living laboratories and educational moments centered around sustainability

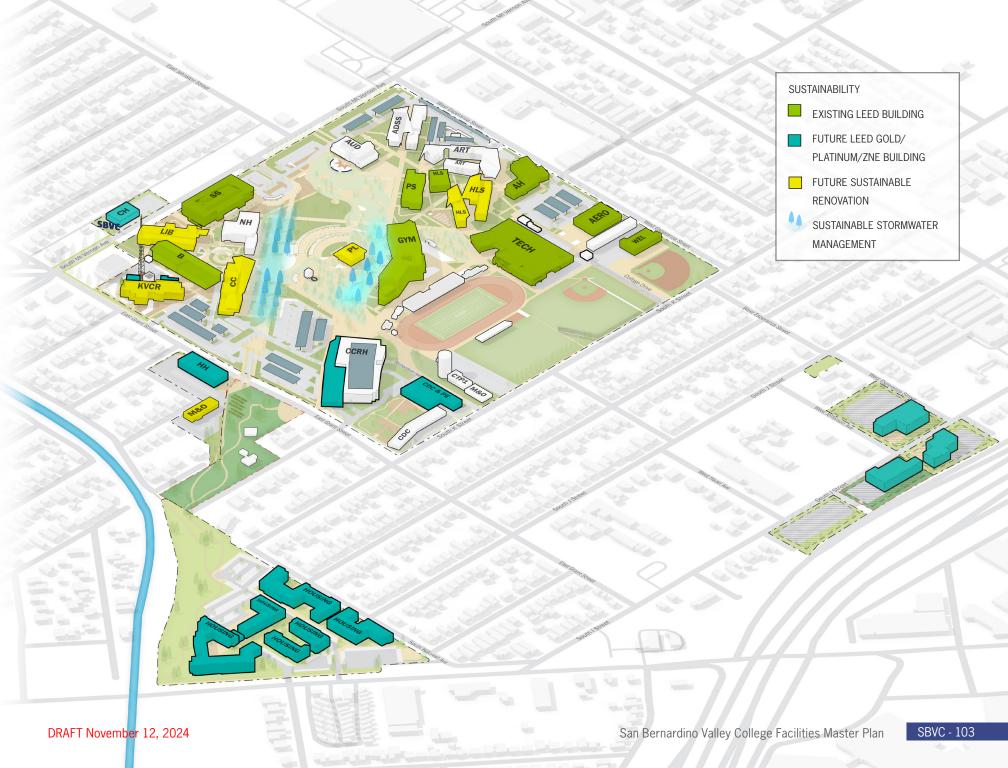
Other sustainable initiatives include: EV charging (in alignment with Title 24), electrification of facilities, and reduction of embodied carbon.

EDUCATION PLAN ALIGNMENT

- Expands implementation of efficient and sustainable services and practices
- Promotes well-being for students, faculty, staff, and the broader community



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PLACEMAKING IN THE EXTERIOR ENVIRONMENT

Placemaking is the process of creating vibrant, welcoming spaces that foster community engagement and connection. Achieved through improved signage and wayfinding, clear entries, enhanced event and gathering spaces, and strong pedestrian pathways, placemaking enhances the student experience and welcomes the community on to campus.

The Landscape Master Plan and the Wayfinding Master Plan are two key (previously developed) plans that are adopted into this Master Plan. Both plans emphasize the importance of connecting the heart of campus to the periphery of campus and creating clear and welcoming entry points on campus.

The Wayfinding Master Plan outlines a system of signage, ranging from gateway signage to entrance signage and digital signage to information hubs and map directories to educational and historical signage. Reference the Wayfinding Master Plan for signage design and location.

Clear, welcoming, and intuitive entries and arrival points are central to establish a front door and circulation sequence on campus. In alignment with the Landscape Master Plan, a new main entry, arrival plaza, and drop-off is recommended off of South Mt. Vernon Ave, adjacent to the new Student Services Building. Complimentary to the entrance, new gateway signage that brands the

entry corridor into campus is proposed on the newly acquired parcel across South Mt. Vernon. Other entries into campus should be branded with signage and intuitive streetscape improvements including along East Grant Street across from the greenway connector and the entrance to the Campus and Community Resource Hub. Heightened gateways and entries are proposed at the new parcel acquisitions, including the mixeduse site.

Enhanced pedestrian pathways improve circulation, beautify campus, and create stronger visual and physical connections between areas of campus. Key pedestrian improvements in the Plan include the Fault Line Promenade. (proposed in the Landscape Master Plan) and a greenway connector from the mixed-use site to main campus. The Fault Line Promenade is a central spine running through campus that incorporates landscaping, paving, and public art improvements. The Promenade is complimented with gathering spaces, outdoor classrooms, and stormwater treatment gardens alongside it. The greenway connector creates a comfortable, welcoming, and beautiful circulation route between the mixed-use site and campus. Along with landscaping, paving, lighting, and artwork, there are opportunities to program the connector, such as with a farmer's market. It provides open space, contributing to well-being of students, faculty, staff, and residents. The connector

includes a prominent, branded crosswalk across East Grant Street, solidifying the connection to main campus and creating a safe environment for pedestrians.

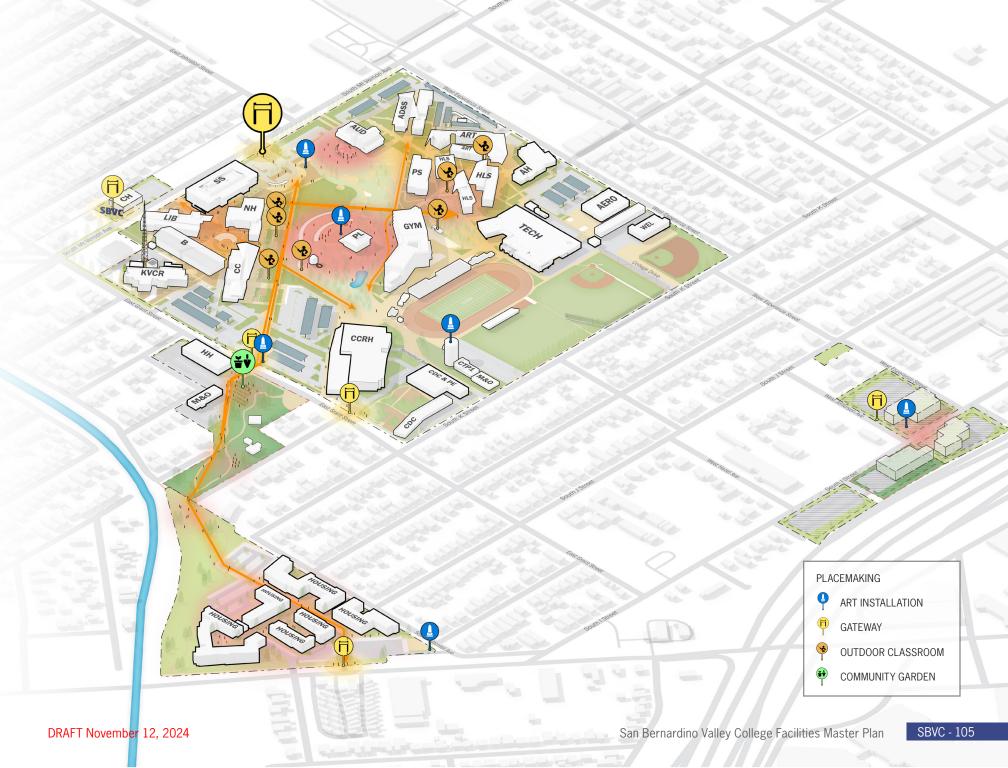
With the right design, the exterior environment can serve as a prime venue for event and gathering space. The Plan recommends and supports improvements to a variety of outdoor event spaces highlighted by the Landscape Master Plan, including the Greek Theater (see pages 94-95), the Event Lawn, and the Auditorium Plaza, and the Arts Grove.

Campuswide, the Landscape Master Plan outlines outdoor classrooms, stormwater gardens, educational gardens, including the Geology Garden, and solar shade structures. These projects create identity, vibrancy, and multipurpose uses of outdoor space.

EDUCATION PLAN ALIGNMENT

- Improves campus facilities, removing barriers to access, and improving wayfinding
- Opportunities for art and placemaking to represent the student population and values
- Exterior spaces that promote linger and learn spaces
- Improve communication

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ACTIVE LEARNING CLASSROOM RETROFITS

Active learning spaces are dynamic, flexible environments designed to promote student engagement and collaboration. These spaces are crucial for fostering innovative thinking, enhancing learning outcomes, and preparing students for real-world challenges.

Designing for active learning requires providing sufficient square footage per seat to allow for flexible furniture arrangements, and technology that supports informal teaching styles and collaboration. Currently, SBVC averages 20.6 square feet per seat in classrooms, which is approximately the state standard of 20 square feet per seat. While some classrooms will retain a more traditional, passive layout, the College should consider increasing to 25 square feet per seat in new classrooms and campus-wide renovations. This adjustment would raise the average, fostering a richer, more versatile insturctional environment.

The 2020 District Standards and Campus Guidelines outline recommended interior design standards and layouts for classrooms, including traditional, flexible, active, computer and lecturebased. These standards should guide future classroom designs.

With the projects outlined in Phase 00, such as Aeronautics, Allied Health, and the Student Services Building, 10 classrooms can be designed for active learning. After these classrooms are

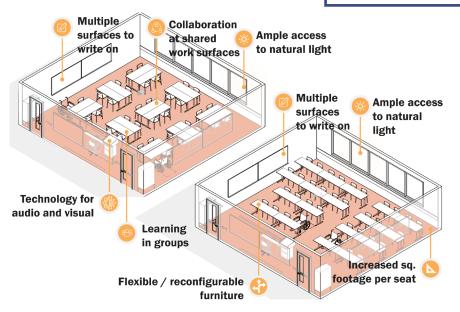
implemented, there is an opportunity to look at the remaining 71 classrooms and determine a plan for future renovations and retrofits. North Hall, the Business building, Health and Life Sciences and Physical Sciences hold the largest concentration of existing classrooms and would be key buildings to implement a classroom refresh.

In addition to active learning design, SBVC can utilize classrooms more efficiently by increasing the times in which classes are offered and aligning classroom size to the course schedule. Currently, classroom use peaks from 10 am - 12 pm Monday through Thursday. There is an opportunity to increase afternoon courses and increase offerings on Fridays.

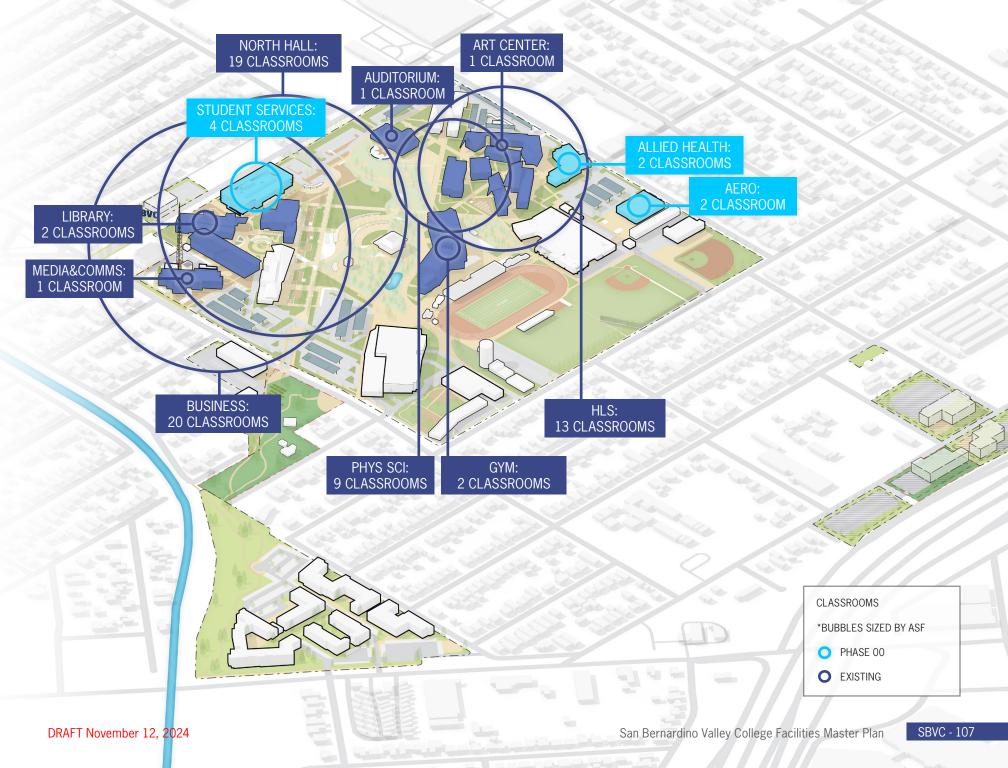
As future classrooms are designed, the size of classrooms should also consider the enrollments in the course schedule. Movable walls and reconfigurable furniture provide ways to create room flexibility for use and size.

EDUCATION PLAN ALIGNMENT

- Creates spaces that provide flexibility for different teaching modalities
- Enhances well-being and engagement for students and faculty
- Expands access to resources
- Improves communication



Note: This is an illustrative, conceptual design for learning spaces, not a final design.



VEHICULAR CIRCULATION & PARKING

The existing campus is currently strained by a lack of parking. The Plan aims to alleviate the parking needs by adding over 530 spaces. In addition to adding spaces, adjustments in course scheduling to alleviate parking during peak hours is another strategy SBVC can study further.

The Campus and Community Resource Hub is a key project to build parking vertically, maximizing the use of the land. The following projects will impact parking counts on campus (note all parking counts are approximate and will be determined in future design of projects):

- The impacts of the Campus and Community Resource Hub and the new CDC and PEC will provide a net ~275 spaces
 - Builds ~690 spaces
 - Removes ~412 spaces (lot 8, and a portion of lot 9, and CDC lot)
- A new lot adjacent to the soccer field will add ~105 spaces
- The new parcel across South Mount Vernon Ave will add ~27 spaces
- Lot 1 will be removed in Phase 00, but ~20 spaces will be added back with the redesign of the entry and drop-off
- The Hospitality Hub site and M&O repurpose site will add ~110 spaces
- The mixed-use site south of main campus will add an undetermined amount of spaces to support the uses developed

 The newly acquired parcels east of campus can be surface lots in the short-term and will eventually provide parking to support the new buildings developed in the long-term

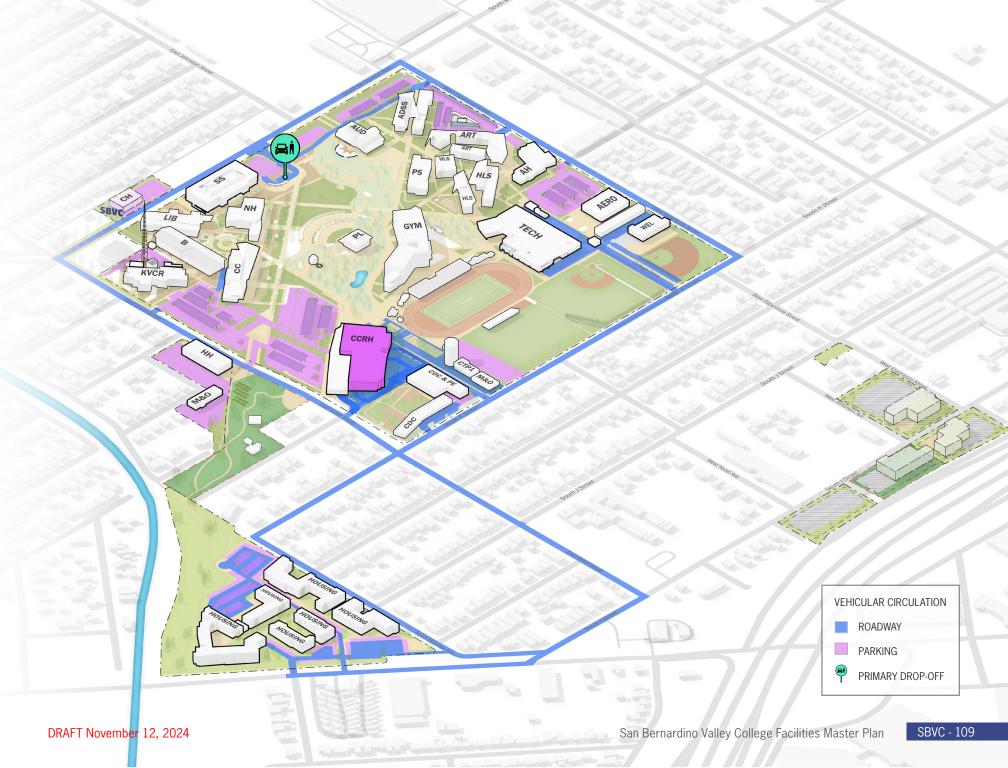
Additional circulation improvements include a new drop-off area at the entry along South Mt. Vernon Avenue. A designated place for rideshare and visitor drop-off will create a more intuitive arrival point. Wayfinding can be more direct to serve this area, creating a more intuitive experience coming onto campus. Additionally, EV charging will be implemented in alignment with Title 24. PV shade structures will be implemented over parking lots, in alignment with the Landscape Master Plan.

EDUCATION PLAN ALIGNMENT

- Improves campus facilities by removing barriers to physical access
- Promotes safety and well-being for students, faculty, and staff
- Expands implementation of sustainable practices



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INFRASTRUCTURE AND SAFETY

EDUCATION PLAN ALIGNMENT

- Improves campus facilities by removing barriers to physical access
- Promotes safety and well-being for students, faculty, and staff
- Expands implementation of sustainable practices

The following outlines utilities and infrastructure findings and recommendations. The full Utility Infrastructure Master Plan can be found in the Appendix.

CHILLED WATER SYSTEM & HOT WATER SYSTEM

Overall System

A review of the loads added as part of the proposed facilities revealed that the buildings added another 630 GPM to the loop for a total of about 2,800 GPM. This increases the total required system pressure to 185 ft hd. Heat recovery/air cooled chillers shall be installed as a part of the Career Pathways 2/North Central Plant, Technology Building, & Student Services Building, Mixed-Use Housing Site, Hospitality Hub facility, Campus and Community Resource Hub and the Parent Ed and CDC Building project

to meet the anticipated future chilled water and heating hot water campus loads.

Considering the overall increase in system pressure, the operation of the secondary pumps at the central plant should be re-evaluated and considered for replacement with pumps capable of providing a greater pressure differential. Adding booster pumps at selected connected buildings should also be evaluated as an alternative to replacing the Central Plant secondary pumps. Utilizing booster pumps as needed will save overall pumping energy.

A review of the capacities at the central plant revealed that the plant also appeared to be operating close to its maximum capacity. When future loads come on, the campus loop will require additional chiller capacity for redundancy in meeting the campus load and additional flexibility. Adding a heat recovery/air cooled chillers at each of the proposed buildings which already have built in infrastructure connections to the campus CHW loop will provide additional chiller capacity and provide required redundancy. The addition of heat recovery chiller (through use of waste heat) will also minimize gas usage and reduce overall greenhouse gas emissions.)

Hot Water System

In order to meet the increased cooling demands of the campus, Heat Recovery Chillers should be

installed connecting the new Career Pathways building to the existing North Satellite Central Plant heating hot water network. This will augment the overall chilled water capacity of the campus loop system and provide heating for all the buildings on the North Satellite Central Plant HHW network.

Campus should continue to utilize local boiler plants at the existing buildings and transition to a heat recovery chiller/air source heat pump system at the end of the useful life of these boilers. In addition, campus should install heat recovery chillers/air source heat pumps to provide space heating in all new proposed buildings.

The following are recommendations for improvements to the hot water system to accommodate future development:

- Due to the significant cost of implementing a central heating hot water system and campus wide distribution piping and the limited savings that would result, the recommendation is to continue providing distributed systems within each building or complex of buildings.
- Interviews with campus facilities staff indicated that no regular water treatment service contract is in place for the local

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heating hot water plants at the buildings.
Due to poor water quality, it is highly
recommended that the campus engage a
water treatment vendor to regularly maintain
a chemical treatment program for each of the
HHW hydronic loops.

Campus should continue to utilize local boiler plants at the existing buildings and transition to a heat recovery chiller/air source heat pump system at the end of the useful life of these boilers. In addition, campus should install heat recovery chillers/air source heat pumps to provide space heating in all new proposed buildings.

RECOMMENDATIONS

Chilled Water & Hot Water Systems

- Utilize local boiler plants at the existing buildings until the end
 of their useful life and then transition to a heat recovery chiller/
 air source heat pump system at the end of the useful life.
- Re-evaluate the operation of the secondary pumps at the central plant and consider replacement with pumps capable of providing a greater pressure differential.
- Consider adding booster pumps at selected connected buildings as an alternative to replacing the Central Plant secondary pumps.
- When future loads come on, the campus loop will require additional chiller capacity for redundancy in meeting the campus load and additional flexibility.
- Add a heat recovery/air cooled chillers at each of the proposed buildings which already have built in infrastructure connections to the campus CHW loop.

ELECTRICAL

An evaluation of the existing electrical system currently serving the campus revealed that the existing electrical infrastructure is in good condition. An evaluation of the existing loads revealed that feeders '1' through '4' capacities are of adequate capacities to support existing and future planned facilities. Based on load calculations, an estimated overall demand of approximately OOkVA is anticipated for the campus. The existing switchgear and 5kV distribution system is sized adequately to serve the present demands and meet the future growth of the campus.

In addition, an evaluation of the existing system revealed that the existing system provides limited redundancy because of its configuration: primary selective configuration. Few buildings are equipped with selector switches that enable isolation and transfer of building to the redundant feeder, however most of the buildings on campus are fed from radial feeders originating from t-bodies inside manhole, providing no redundancy to the buildings. Since the campus operates and maintains the 5kV switchgear and the electrical distribution system, the campus requires an electrical system that must provide (a) Improved system reliability (b) ease of maintenance and isolation of circuits either during a fault or during a regular maintenance without interrupting

power to every building on campus (c) be sized to accommodate existing loads and planned future loads resulting from new buildings addition as well as additions to existing buildings (d) be well coordinated to eliminate nuisance tripping of upstream protective devices (e) have all equipment listed for the short circuit availability at the point of installation.

An evaluation of the capacities of the existing feeders revealed that the feeders are adequately sized to support the future planned facilities at the campus.

The following recommendations are proposed:

- Provide new 15kV switches close to each proposed building to enable isolation of feeders during a fault condition and for ease in undertaking maintenance work.
- Replace ageing existing 5kV medium voltage feeders routed as part of the underground distribution system. While majority of the medium voltage cable has been recently replaced in 2010 and is in good condition, some portions of existing medium voltage feeders are old and at the end of their useful life. We recommend a partial discharge test/ tan delta test be conducted on the existing medium voltage cables to determine any cables that have deteriorated over the

- years and replace the same with new 8kV, 3#350kcmil, EPR conductor cables.
- Provide sub metering at each building to monitor demand at each building.
- Relocate existing lines that are in conflict with existing buildings.

In order to provide the campus with redundancy and the capability of scheduling maintenance on high voltage equipment without interrupting power to the campus, a primary selective system is recommended. Primary Selective system would provide the campus with the ease of isolating faults within the campus distribution system and minimize power interruptions to the buildings during maintenance on the medium voltage distribution system.

NATURAL GAS

A large portion of the gas distribution is steel piping. It is recommended to upgrade this piping to PE piping for extended life expectancy. Additionally, it was observed that several buildings on campus lack earthquake valves. To meet current code requirements, earthquake valves should be installed on the gas feeds serving following buildings: Art Center, Auditorium, Liberal Arts, Planetarium, North Hall, Physical Sciences, Technology, Power Station, and Football Building.

It is recommended to install sub-meters on the following buildings to provide better monitoring

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of the campus gas loads: Planetarium, Physical Sciences, CDC, Lois Carson Campus Center, and the Book Store.

The following recommendations are proposed to serve the proposed buildings:

- Relocate existing lateral serving the HLS building to avoid conflict with the PATH 2 building footprint
- Install new high-pressure gas lines to connect the PATH 2 buildings to the relocated gas lateral
- Relocate high-pressure gas line under proposed Hospitality Hub to avoid conflict with the PAC building footprint

RECOMMENDATIONS

Electrical

- Provide new 15kV switches close to each proposed building.
- Replace ageing existing 5kV medium voltage feeders routed as part of the underground distribution system. While majority of the medium voltage cable has been recently replaced in 2010 and is in good condition, some portions of existing medium voltage feeders are old and at the end of their useful life. We recommend a partial discharge test/tan delta test be conducted on the existing medium voltage cables to determine any cables that have deteriorated over the years and replace the same with new 8kV, 3#350kcmil, EPR conductor cables.
- Provide sub metering at each building to monitor demand at each building.
- Implement a primary selective system.

Natural Gas

- Upgrade piping to PE piping and install earthquake valves.
- Install sub-meters.
- Relocate existing lateral serving the HLS building.
- Install new high-pressure gas lines to connect the PATH 2 buildings to the relocated gas lateral.
- Relocate high-pressure gas line under proposed Hospitality Hub.
- Relocate high-pressure gas line serving the Liberal Arts, Library, North Hall and Business buildings.
- Demolish existing high-pressure branch serving the LA building.

- Relocate high-pressure gas line serving the Liberal Arts, Library, North Hall and Business buildings to avoid conflict with the proposed SS/INST building footprint
- Demolish existing high-pressure branch serving the LA building

SEWER

There are no sewer issues at this time. The recommendations include extension of the sanitary sewer system to serve proposed buildings presented in the Master Plan; and removal and relocation of existing sanitary sewer service mains and laterals serving existing buildings planned to be demolished to provide a clear site for future development. Although no problems currently exist, the VCP main should undergo a CCTV camera scan to determine the condition of the line.

STORMWATER

The following best management practices are recommended:

- Each future building project should prepare a WQMP per the City of San Bernardino template in order to document all project related BMPs and mitigation measures.
- LID strategies should be incorporated with future development where feasible.

- New projects should look for ways to decrease impervious area and decrease runoff.
- The campus storm drain collection system should be inspected and cleaned on a regular maintenance schedule. This will identify potential issues and identify needs, repairs, and improvements before they become larger problems.

With further analysis SBVC could consider treating storm water runoff from some of the future building sites in a regional fashion, such that some BMPs could be shared. A complete Storm Water Management Plan could refine the existing and future hydrology of the campus and incorporate BMPs based on the hydrology and hydraulic characteristics.

Since all of the future buildings are either replacing existing buildings or parking lots the future runoff is not expected to increase appreciably, since the impervious area is relatively the same.

WATER

Recommendations include providing new services to proposed buildings and re-routing water lines that conflict with proposed buildings as depicted in the Master Plan and the following:

- SBVC should coordinate with SBMWD staff to ensure that credit is given whenever existing water meters to be abandoned or relocated.
 New acquisition services charge should not be applied since some buildings are being replaced in kind, such as the Gymnasium and the Technical Building.
- Each future building should have a dedicated fire service and a separate domestic/ irrigation service to minimize acquisition charges which are based on the size of the meter or service.
- Install sub-meters on any irrigation services which are cross-connected to domestic meters.
- Investigate FW-3, FW-7, FW-11 and FW-13 to determine if illicit cross connections have occurred from these fire services.
- Abandon POC# FW-7 and DW-13 when the existing Technical (T) building is demolished.

It should be noted that the analysis assumes that the existing campus square footage will be maintained and that existing utilities are in adequate condition and maintained. In the case that the individual proposed building designs yield larger flow rates than presented herein, it is recommended that the college re-evaluate the data analysis and update the findings.

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RECOMMENDATIONS

Sewer

- Extend the sanitary sewer system to serve proposed buildings and realign existing lines that conflict with future buildings.
- VCP main should undergo a CCTV camera scan to determine the condition of the line

Stormwater

- Prepare a WQMP per the City of San Bernardino template for future projects
- Incorporate LID strategies in future development
- Decrease impervious area and decrease run-off.
- Inspect and clean the campus storm drain collection system on a regular maintenance schedule.
- Consider treating storm water runoff from some of the future building sites in a regional fashion, such that some BMPs could be shared.
- Complete Storm Water Management Plan.

Water

- Provide new services to proposed buildings and re-route water lines that conflict with proposed buildings.
- Coordinate with SBMWD staff to ensure that credit is given whenever existing water meters are abandoned or relocated.
- Install dedicated fire service and a separate domestic/ irrigation service for future buildings.
- Install sub-meters on any irrigation services which are crossconnected to domestic meters.
- Investigate FW-3, FW-7, FW-11 and FW-13.
- Abandon POC# FW-7 and DW-13.
- Provide sub-meters to all buildings.
- Separate irrigation from domestic usage.
- Convert water system from public to private within campus.

TECHNOLOGY & TELECOMMUNICATIONS

A list of the individual recommendations for each building was developed and can be referenced in the Appendix report. Some of the overall recommendations include cleaning out the IT server rooms, providing additional protection for the fiber and copper infrastructure (within the racks and on the backboards) and addressing room temperature in some of the outlying rooms that do not currently have controlled temperature environments. Additionally, there is a need for the following, campus-wide:

- Replace the VoIP voice system as it's nearing the end of its useful life
- Replace Modular UPS unites located in IDF rooms as they are nearing the end of their useful life
- Complete a wireless upgrade study and project to enhance WiFi throughout campus
- Evaluate cellular wireless coverage
- Create an IDK room to serve areas where IT cabinets exist
- Implement redundant and diverse backbone feeds at each building's main IT room or Building Distribution Frame
- Repair/replace damaged fiber infrastructure
- Provide dual fiber redundancy for each building
- Employ single mode fiber for the fire alarm system in all buildings

The campus telecommunications infrastructure has been updated within the last 5 years; a fiber infrastructure (Air Blown) has been installed to support the campus network services. Some of the fiber is not installed within an enclosure and some of the fiber is loosely installed on the backboard and in the server racks. It is recommended that each fiber location have an enclosure and fiber cable protection, in order to minimize damage.

Fiber panels in most of the rooms were labeled with a few exceptions – some of the fiber panels were missing covers – fiber dust covers were missing – some if the jumper cables outside of the wire managers need to be supported. The majority of the fiber jumpers were loosely dressed into the wire management with little to no protection.

Most of the existing copper cabling not in use, was removed and cleared from the server rooms and conduits feeding the server rooms when the fiber infrastructure was installed. Although a new fiber infrastructure has been installed throughout the campus, it is recommended that the fiber cables not in use, are periodically tested to ensure that they are in good working condition for all future expansion. Some of the copper feed cabling used for interbuilding infrastructure has been abandoned and should be removed from the backboards and conduits.

A recommendation for all IDF rooms and closets would be additional cable protection around some of the main fiber distribution patch cables; innerduct or wire management can be used to better protect the fiber patch cabling going from the termination points into the network switch. Wire management with covers should help reduce some of the cluttered patching. Most closets or racks were lacking vertical wire management.

Most of the larger IDF's still have rack mounted UPS units; these units should be removed and disposed of if not in use.

There were several server rooms that are also used for miscellaneous storage. It is recommended that all server rooms and closets be dedicated to cabling and network equipment, to avoid any unnecessary damage to the cabling and equipment.

Some of the priority rooms include the Administration - #AD100F, CTS and CSB: all of these rooms need several items to be addressed in the near future in order to make sure the networks function as intended.

New conduit and media infrastructure will need to be installed from the nearest manhole to serve proposed buildings planned as part of the master plan.

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RECOMMENDATIONS

Technology & Telecommunications

- Clean out the IT server rooms, providing additional protection for the fiber and copper infrastructure and addressing room temperature.
- Replace the VoIP voice system as it's nearing the end of its useful life
- Replace Modular UPS unites located in IDF rooms as they are nearing the end of their useful life
- Complete a wireless upgrade study and project to enhance WiFi throughout campus
- Evaluate cellular wireless coverage
- Create an IDF room to serve areas where IT cabinets exist
- Implement redundant and diverse backbone feeds at each building's main IT room or Building Distribution Frame
- Repair/replace damaged fiber infrastructure
- Employ single mode fiber for the fire alarm system in all buildings
- Ensure that each fiber location have an enclosure and fiber cable protection, in order to minimize damage.

- Test the fiber cables not in use, to ensure that they are in good working condition for all future expansion.
- Remove the copper feed cabling used for interbuilding infrastructure has been abandoned from the backboards and conduits.
- Remove rack mounted UPS units that are not in use
- Relocate existing lines that are in conflict with proposed buildings
 Dedicate all server rooms to cabling and network equipment, no
 other storage
- Address priority rooms to keep networks functioning
- Install new conduit and media infrastructure from the nearest manhole for proposed buildings

IMPLEMENTATION PLAN



PROJECT PHASING

The Implementation and Phasing Plan, developed in collaboration with College leadership, considered various factors such as prioritization, sequencing, swing space requirements, cost assumptions, and funding opportunities. Rather than being prescriptive, the phasing plan offers a flexible framework for implementing the overall strategy. It is driven primarily by academic program needs, community needs, and addressing infrastructure needs. The outlined timeframes indicate when projects are likely to begin, based on the prioritization of needs and the availability of resources.

PHASE 00 PROJECTS (IN PROGRESS - 2028)

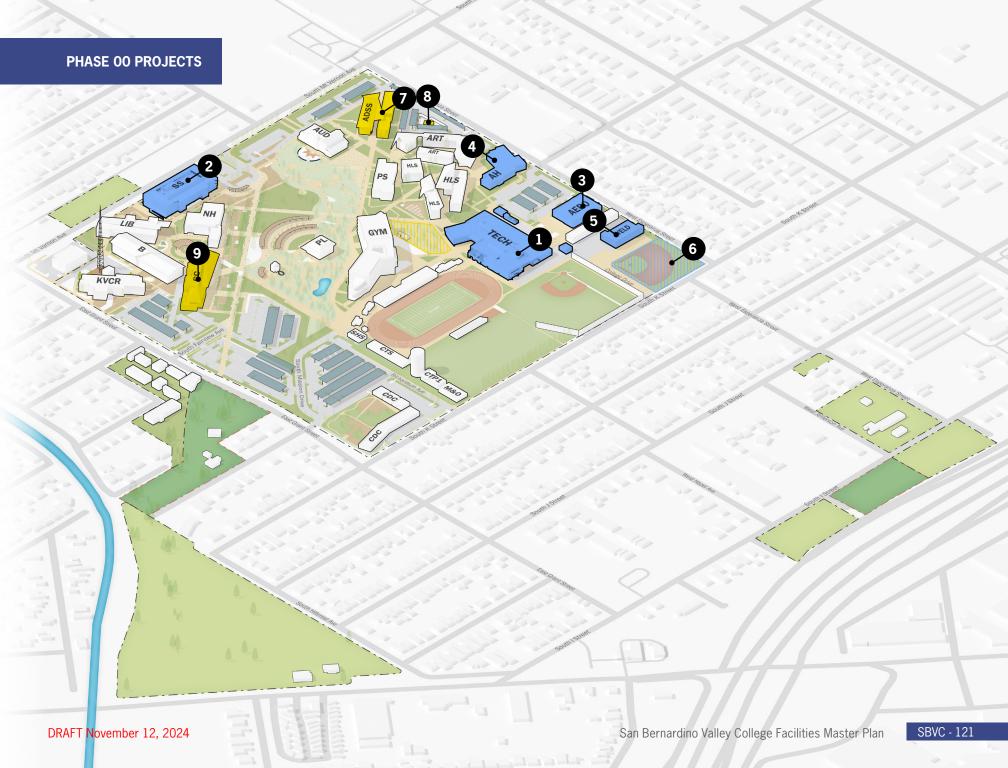
PROJECTS CURRENTLY UNDER CONSTRUCTION, IN DESIGN AND/OR FUNDED.

	Project	Project Type	Demolition (GSF)	Renovation (ASF)	New (GSF)
1.	CAREER PATHWAYS 1 - APPLIED TECHNOLOGY BUILDING	NEW CONSTRUCTION	-	-	114,897
2.	STUDENT SERVICES BUILDING	NEW CONSTRUCTION	-	-	102,691
3.	CAREER PATHWAYS 2 - AERONAUTICS BUILDINGC]	NEW CONSTRUCTION	-	-	24,765
4.	CAREER PATHWAYS 2 - ALLIED HEALTH BUILDING	NEW CONSTRUCTION	-	-	40,346
5.	CAREER PATHWAYS 2 - WELDING BUILDING	NEW CONSTRUCTION	-	-	10,000
6.	SOFTBALL FIELD	NEW CONSTRUCTION	-	-	1,561
7.	ADMINISTRATION BUILDING REPURPOSE	RENOVATION	-	17,400	-
8.	OLD CENTRAL PLANT REPURPOSE	RENOVATION	-	600	-
9.	LOIS CARSON CAMPUS CENTER REPURPOSE	RENOVATION	-	2,900	-
10.	TECH BUILDING (PART OF CAREER PATHWAYS 2 PROJECT)	DEMOLITION	78,100	-	-
11.	LIBERAL ARTS BUILDING (PART OF STUDENT SERVICES BUILDING PROJECT)	DEMOLITION	39,400	-	-
12.	INFRASTRUCTURE UPGRADES*	CAMPUS-WIDE	=	-	-

*Infrastructure and additional projects include:

- Campus-wide Roof Replacement
- Biology Garden Expansion
- Landscape Master Plan
- Wayfinding Master Plan
- EV Charging Stations
- Old Central Plant Repurpose
- Campus-Wide Utility Upgrades
- Observatory Investigation
- Marque Replacement
- Fiber Updates
- Irrigation Controller Replacement
- Campus-wide Security Migration
- Gym Lobby Flooring
- Retro-Commissioning
- New Scoreboard at Baseball/ Soccer Field
- Planetarium HVAC Replacement
- PS & HLS Mechanical Improvements
- Perimeter Fencing
- East Wing Mechanical Upgrades

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PHASE 1 PROJECTS

PROJECTS PLANNED TO START WITHIN 5 YEARS OF PHASE 00 ENDING

Phase 1 projects are **projects prioritized in the Plan**, due to campus needs and the projects' alignment with the Educational Master Plan, student success, and community outreach. Phase 1 projects shown with a blue number can be implemented without complex sequencing; projects with a color other than blue, are bundled and therefore require sequencing or should be completed together.

	Project	Project Type	Size	Unit	Notes
1	CAMPUS AND COMMUNITY RESOURCE HUB	NEW CONSTRUCTION	65,000 212,000	GSF	Liner building is 65,000 GSF of programmable space; also includes 212,000 GSF garage with 690 parking stalls. Includes front door signage and site improvements.
2	LOIS CARSON CAMPUS CENTER REPURPOSE - PD AREA	RENOVATION	1,500	ASF	Potential for expansion of building (3,000 GSF)
3	STUDENT HEALTH SERVICES (SHS)	DEMOLITION	2,400	GSF	
4	CAMPUS TECHNOLOGY SERVICES (CTS)	DEMOLITION	4,800	GSF	
5	PARENT ED. CENTER, SHIPPING & RECEIVING, POLICE STORAGE, WAREHOUSE AND STORAGE BUILDINGS	DEMOLITION	20,300	GSF	
6	NEW PARKING LOT (FUTURE HOSPITALITY HUB SITE - PARCEL A1)	CIRCULATION	53,000	SF	
7	PARKING LOTS ON PARCEL ACQUISITIONS (H1C, J1, J2, J3)	CIRCULATION	244,600	SF	
8	CDC & PARENT ED. CENTER BUILDING	NEW CONSTRUCTION	35,000	GSF	
9	NEW PARKING LOT (SWING SPACE SITE - ADJACENT TO SOCCER FIELD)	NEW CONSTRUCTION	32,200	GSF	
10	COMMUNITY HUB WITH PARKING	RENOVATION	16,000	GSF	16,000 GSF Building 15,000 GSF parking lot. Includes gateway signage along South Mt. Vernon Ave.
11	KVCR ADDITIONS	NEW CONSTRUCTION	7,800	GSF	
12	M&O REPURPOSE	RENOVATION	7,100	ASF	
13	ATHLETIC FIELDS RENOVATION: BASEBALL AND SOCCER FIELDS	RENOVATION	250,000	SF	
14	ARRIVAL DROP-OFF AND ENTRY GATEWAY	CIRCULATION	58,000	SF	Includes a new drop off, parking spaces, special paving, landscaping, front door signage and a drop-off plaza.
15	WAYFINDING IMPROVEMENTS	EXTERIOR ENVIRONMENT			(See Wayfinding Master Plan)
16	EDUCATIONAL GARDENS	EXTERIOR ENVIRONMENT	4	EA	Gardens adjacent to Library, Business, KVCR, and AD (Reference Landscape Master Plan)
	10-YEAR DEFERRED MAINTENANCE*				
	INFRASTRUCTURE PROJECTS*				

* Additional information on deferred maintenance and infrastructure projects included in Appendix

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PHASE 2 PROJECTS

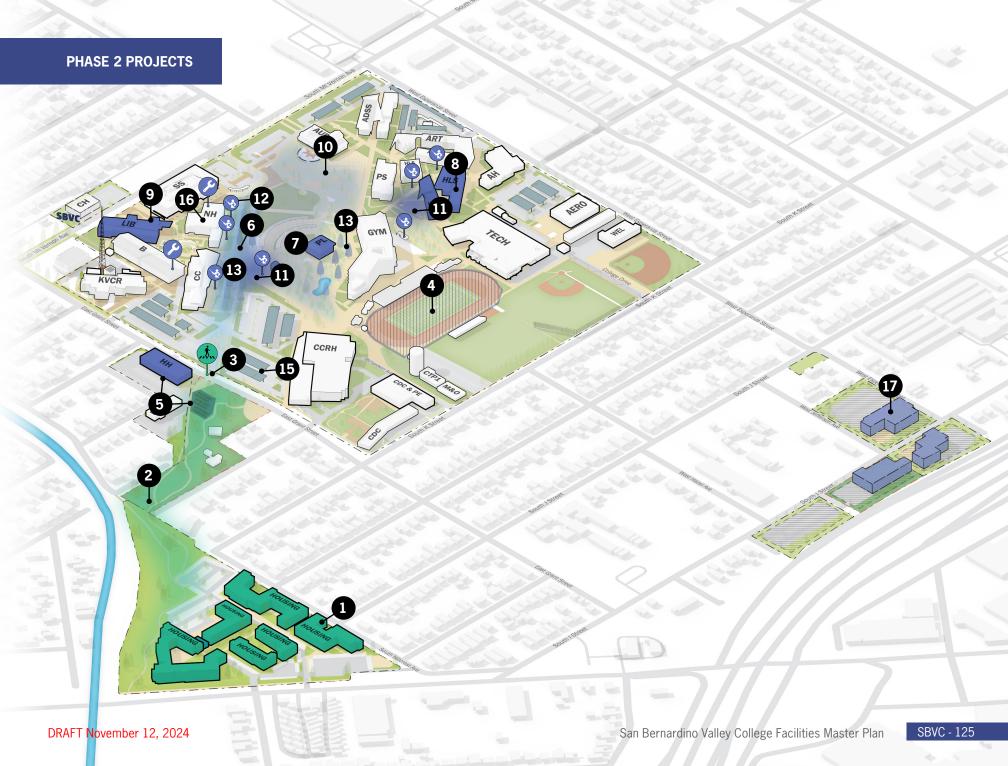
PROJECTS PLANNED TO START WITHIN 10 YEARS OF PHASE 00 ENDING

Phase 2 projects are **projects prioritized after Phase 1 projects are complete**. Phase 2 projects shown with a blue number can be implemented without complex sequencing; projects with a color other than blue, are bundled and therefore require sequencing or should be completed together.

	Project	Project Type	Size	Unit	Notes
1	MIXED-USE SITE WITH HOUSING	NEW CONSTRUCTION	TBD	GSF	
2	GREEN CORRIDOR	EXTERIOR ENVIRONMENT	2,350	LF	
3	NEW STREET CROSSING AND GATEWAY IMPROVEMENTS	CIRCULATION	70	LF	
4	TRACK RESURFACING AND STADIUM FIELD RENOVATION	RENOVATION	157,000	SF	
5	HOSPITALITY HUB WITH COMMUNITY GARDEN	NEW CONSTRUCTION	32,000	GSF	
6	FAULT LINE PROMENADE	EXTERIOR ENVIRONMENT	58,600	SF	(Reference Landscape Master Plan)
7	PLANETARIUM, GREEK THEATER, OBSERVATORY, EVENT PLAZA	RENOVATION	4,100 53,600 SF	ASF SF	4,100 ASF includes Planetarium and Observatory 53,600 SF includes Greek Theater and Event Plaza (See Landscape Master Plan)
8	HEALTH AND LIFE SCIENCES REPURPOSING	RENOVATION	6,900	ASF	
9	LIBRARY REPURPOSING	RENOVATION	1,500	ASF	
10	AUDITORIUM PLAZA AND NORTH OPEN SPACE	EXTERIOR ENVIRONMENT	(Reference Landscape Master Plan)		
11	EDUCATIONAL GARDENS	EXTERIOR ENVIRONMENT	3	EA	Gardens adjacent to HLS, Gym, and Greek Theater
12	OUTDOOR CLASSROOMS	EXTERIOR ENVIRONMENT	7	EA	(Reference Landscape Master Plan)
13	STORMWATER TREATMENT	EXTERIOR ENVIRONMENT	Along Fault Line Promenade (Reference Landscape Master Plan)		
14	EV PARKING SPACES	CIRCULATION		EA	(Total 83 spaces/stations)
15	PARKING LOT PV SHADE STRUCTURES	INFRASTRUCTURE			
16	ACTIVE LEARNING RETROFITS	RENOVATION	31,000	ASF	Business and North Hall Classrooms
17	EAST PARCEL DEVELOPMENT	NEW CONSTRUCTION	TBD	GSF	
	10-YEAR DEFERRED MAINTENANCE*				
	INFRASTRUCTURE PROJECTS*				

* Additional information on deferred maintenance and infrastructure projects included in Appendix

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PROJECT SEQUENCING

Project sequencing strategically determines the order in which bundled projects should be initiated and completed, with a focus on minimizing disruptions, managing costs, and ensuring academic program continuity. Some projects require enabling projects, temporary space, or depend on permanent relocations to proceed. While every project in the Facilities Master Plan involves some degree of sequencing, certain projects present more complex dependencies or require significant enabling steps.

The adjacent table outlines the various bundled projects that will be sequenced.

Note: These sequencing plans are subject to change depending on the actual implementation timeline.

PHASE 1:

CAMPUS AND COMMUNITY RESOURCE HUB					
	STUDENT HEALTH SERVICES	DEMOLITION			
	PARKING LOTS ON PARCEL ACQUISITIONS	CIRCULATION			
	CAMPUS AND COMMUNITY RESOURCE HUB	NEW CONSTRUCTION			
	LOIS CARSON CAMPUS CENTER REPURPOSE - PD AREA	EXTERIOR ENVIRONMENT			
	PARENT ED. CENTER, SHIPPING & RECEIVING, POLICE STORAGE, WAREHOUSE AND STORAGE BUILDINGS	DEMOLITION			
	NEW PARKING LOT (FUTURE HOSPITALITY HUB SITE)	CIRCULATION			
	NEW PARKING LOT (SWING SPACE SITE)	CIRCULATION			
CDC AND PEC BUILDING					
	CDC AND PEC BUILDING	NEW CONSTRUCTION			
	NEW PARKING LOT (SWING SPACE SITE)	CIRCULATION			

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CAMPUS AND COMMUNITY RESOURCE HUB

In order to construct the new Campus and Community Resource Hub, temporary parking will have to open up while the site is under construction. The newly acquired parcels east of Campus (H1a, J1, J2, J3) can be converted to large surface lots and a circulator shuttle can assist in transporting commuters from these lots to Main Campus. Street improvements can also encourage walking to campus (5-10 minute walk).

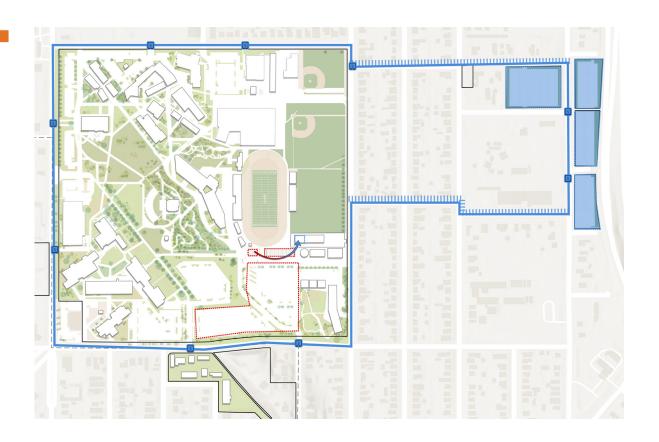
Additionally, Student Health Services (SHS) and CTS will be demolished. Prior to demolition, SHS and CTS can be studied during the design process as potential construction trailers for the project. CTS will already be vacated in the Phase 00 repurpose of AD. Basic Needs in Student Health Services will need to swing into modular swing space set up on the parcel adjacent to the soccer field (this area was used as swing space in Phase 00).

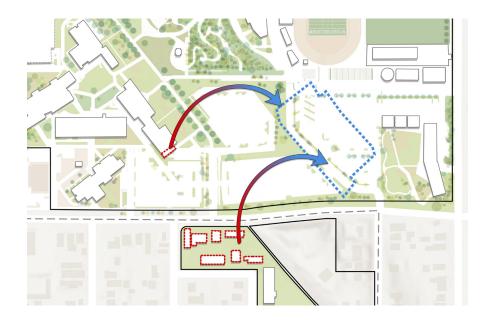
Demolitions

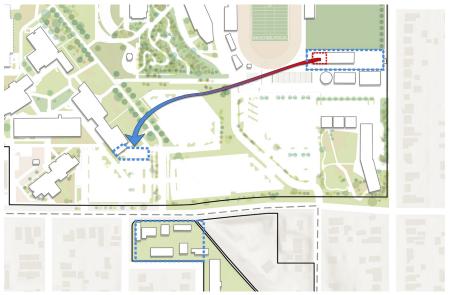
- SHS
- CTS
- Parking Lot 8 & 9

New Construction & Exterior Improvements

- New Parking Lots on Acquired Parcels
- Circulator Shuttle and Street Improvements







CAMPUS AND COMMUNITY RESOURCE HUB CONTINUED

Once the Community Center and Resource Hub is constructed (along with the reconstruction of Lot 9), programs can move in, including the Police Department (from Lois Carson Campus Center), Printing Services (from CHC), and the Warehouse functions.

Once these uses have moved, the old Warehouse can be demolished. That lot can be transformed into surface parking until Phase 2.

The former Police Department space in the Lois Carson Campus Center can be converted to Basic Needs, swinging out of the modulars space.

New Construction

• Campus and Community Resource Hub

Demolitions

 Parent Ed. Center, Shipping & Receiving, Police Storage, Warehouse, and Storage Buildings

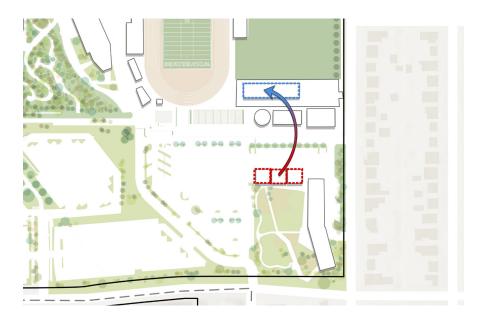
Exterior Improvements

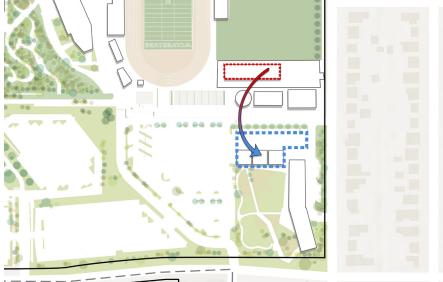
• New Parking Lot on E. Grant Street Parcel

Renovation

Former PD Space to Basic Needs

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CDC AND PEC BUILDING

To construct the CDC and PEC Building, the existing CDC modulars must be moved. This space is proposed to swing onto the existing site utilized for Phase 00 swing space. Once the space is moved, the modulars can be demolished and the new building can be constructed.

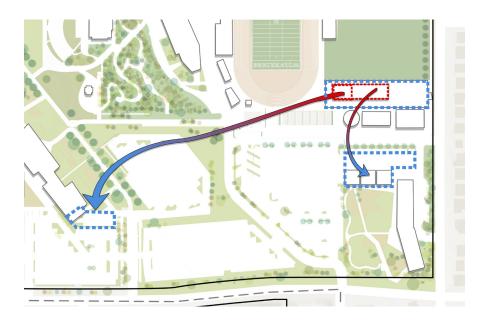
Once the new building is constructed, the CDC swing space can move back.

Demolitions

• CDC Modulars

New Construction & Exterior Improvements

• CDC and PEC Building



PARKING LOT (SWING SPACE SITE)

This lot will serve as space for swing space modulars starting in Phase 00. Continuing into Phase 1, this space will adapt for swing space for Basic Needs and the CDC Modulars. Once the Community and Campus Resource Hub and the CDC and PEC buildings are constructed, and space swings back out of the modulars, this lot can turn into its long-term use as a surface parking lot.

Demolitions

• Swing Space Modulars

New Construction & Exterior Improvements

Parking Lot

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APPENDIX





APPENDIX TABLE OF CONTENTS

A.1 SPACE UTILIZATION STUDY

A.2 SPACE NEEDS ASSESSMENT

A.3 FACILITIES CONDITION ASSESSMENT

A.4 UTILITY INFRASTRUCTURE MASTER PLAN

A.5 COST ESTIMATES