2016 Facilities Master Plan

SAN BERNARDINO VALLEY COLLEGE
SAN BERNARDINO COMMUNITY COLLEGE DISTRICT

SBVC-Main Campus
701 S Mt Vernon Ave.
San Bernardino, CA 92410

September 12, 2016 DRAFT

Introduction
PROCESS

The 2016 Facilities Master Plan was developed through an inclusive, participatory, and transparent process that engaged and sought input from the College's many constituencies. San Bernardino Valley College Council (Valley College Council)—which represents the committees within Valley College's collegiate consultation structure and includes faculty, staff, students, and administrators—played a key role as the working committee that participated most closely in the development and review of this document. Additional venues for dialogue included one-on-one interviews, presentations, open forums, community meetings, and working sessions with the SBCCD Board of Trustees. Meeting minutes and exhibits were posted on the SBCCD intra-net and widely shared.

At the district-level, the FMP was reviewed by the SBCCD District Strategic Planning Committee before being recommended by that body to the Board of Trustees for final adoption. The contributions of Valley College Council members and other participants were vital to the success of the facilities master planning process. Please refer to the Acknowledgements section for a complete listing.

The educational and facilities master plans were prepared through an integrated process that was facilitated by a single team of educational and facilities planning consultants. When it was practical, stakeholders were engaged in joint educational and facilities planning interviews and forums. Discussions were framed by a holistic perspective that acknowledges the connection between the quality of the campus environment and the success of the students.

As part of the integration and alignment of long-range planning across the district, a five-step facilities planning process was followed within the same timeframe at both San Bernardino Valley College and Crafton Hills College. This process is organized around a logical sequence of activities and discussions that is intended to foster a shared understanding of the planning environment and build consensus around planning objectives and recommendations. This five-step process is outlined below.

THE 5 STEPS

01

PREPARE

Planning began in fall 2015 with the development of the timeline of planning activities. Measures of success for the master planning process and outcomes were gathered from stakeholders. Educational and facilities planning information was requested.

02

ANALYZE

To build an understanding of existing campus facilities and their current use, campus facilities were surveyed and the space inventory was updated in fall 2015. In early spring 2016, educational and facilities planners participated in program interviews with faculty and staff from each instructional, student support, and administrative support department in order to hear about facilities-related issues first-hand. The analysis of existing campus conditions was prepared, presented, and validated with Valley College Council and is documented in *Chapter 9: Analysis*.

03

FRAME

In the spring of 2016, during college-wide discussions of the EMP strategic directions, the facilities planning process advanced into a discussion of planning objectives and space needs. The forecasted space needs that are documented in *Chapter 7: Program of Instruction and Space Needs* were established through the educational planning process and analyzed in relation to the current space inventory on the campus. The planning objectives and programmed space needs provided a framework for the exploration of development options in the next step. This framework and the methodology used to arrive at these results are documented in *Chapter 9: Needs*.

04

EXPLORE

Over the course of two workshops that were held prior to summer 2016, development options were presented to Valley College Council, who provided insightful input. During this step, a Final Project Proposal (FPP) was developed to apply for state funding for a facility to replace the Technical Education Building. Faculty in the Applied Technology, Transportation, & Culinary Arts Division participated in its development. Additional meetings with faculty and staff took place as needed to gather specific input. A draft list of recommended projects was reviewed with Valley College Council during the second workshop.

05

RECOMMEND

When planning resumed in fall 2016, the draft FMP document, which had been prepared over the summer, was reviewed and revised in accordance with the College's established procedures. During this time, discussions of the linkages between the educational and facilities plans took place with Valley College Council, yielding more specific implications for facilities planning that were included in the FMP document and addressed in its recommendations. Following approval by Valley College Council, the FMP was recommended to the District Strategic Planning Committee, which reviewed it from the perspective of intra-district alignment and coordination of resources and priorities.

Introduction

PLANNING PRINCIPLES

This list of planning principles represent good planning practices that guided the evaluation and discussion of facilities development options with Valley College Council.

- Maximize functional space + activity zoning
- Eliminate non-functional space
- Improve efficiency & utilization of space/land
- Right-size facilities to address program needs
- Enhance the campus environment
- Consider safety & security in redevelopment
- Utilize CPTED (crime prevention through environmental design) principles in site design
- Plan for a sustainable campus
- Plan for flexibility, change, + growth
- Simplify implementation
- Use resources prudently

SAN BERNARDINO VALLEY COLLEGE

Facilities Analysis

This chapter documents the analysis of existing conditions that shape the use of the San Bernardino Valley College campus. It was compiled from the College's existing planning information, overlaid with the insights of faculty and staff and the observations of the Planning Team.

The analysis of the existing campus is presented through the following lenses.

- District Service Area
- Neighborhood Context
- Environmental Conditions
- Existing Campus
- Development History
- Vehicular Circulation & Parking
- Pedestrian Circulation
- Site Utilities Infrastructure
- Facilities Condition
- Space Utilization
- Campus Zoning

Facilities Analysis

DISTRICT SERVICE AREA

The SBCCD service area is characterized by geographical and geological diversity. Situated at the edge of the Inland Empire, it includes Cajon Pass, a gateway to the high desert, as well as a large portion of the San Bernardino Mountains. The abrupt transitions in regional geology result from the movement of tectonic plates as they grind past each other along the San Andreas rift zone. The rift zone passes through the SBCCD service area at Cajon Pass and along the southern edge of the San Bernardino Mountains. It is this movement that has lifted the San Bernardino and San Gabriel Mountains and set the stage for this region's role as a crossroads and destination.

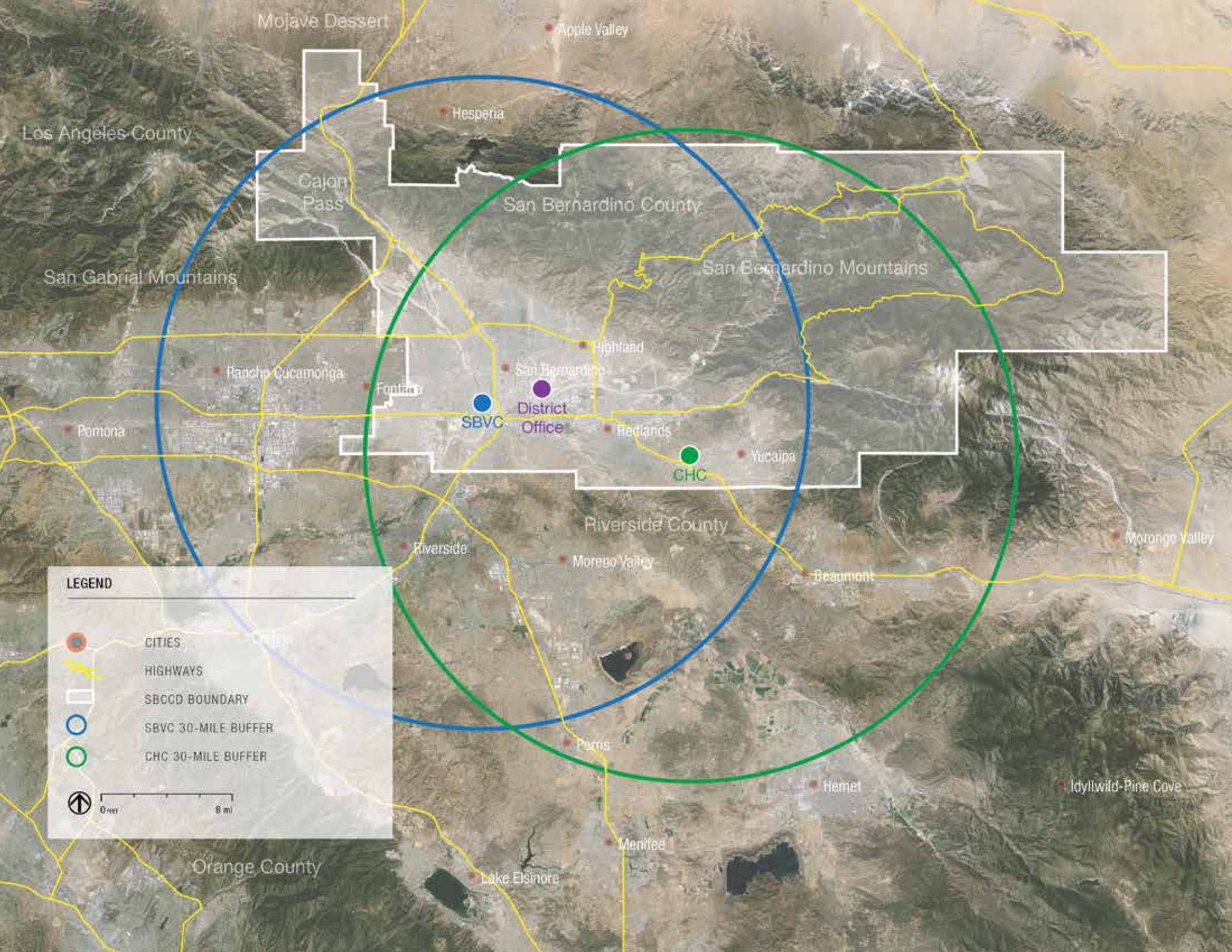
These great transverse mountain ranges are barriers at the edge of the high desert that force travelers to choose among a few routes into the Inland Empire. As a crossroad on the routes from the north, through Cajon Pass, and the east, through Banning Pass, the San Bernardino Valley has long been a notable point along the route of travelers to coastal Southern California, as well as the home to people of many cultures. It continues to be a hub as successive transportation systems were built, including railroads, and interstate highways. World War II brought the development of San Bernardino Army Air Field. This facility is currently the San Bernardino International Airport, which provides passenger, air cargo and logistics, general aviation, and aircraft maintenance services.

These mountains profoundly influence climate conditions in this region. They capture rain and snow and send rivers freighted with alluvium out into the valleys of the Inland Empire. The riverine natural environment of the region's valleys was created by these processes and supported early communities. As the land was developed, frequent flooding was controlled in channels that confine rivers in their courses.

The campus is situated in the western portion of the SBCCD service area. It is the western-most of SBCCD's three sites, nearest to the densest population centers within the Los Angeles metropolitan area and San Bernardino County. The campus is situated within San Bernardino Valley near the confluence of Lytle Creek and the Santa Ana River, within a long-established, albeit evolving, suburban community.

Observations:

- The campus has been in service for many decades and benefits from its longstanding presence and physical connections within its community.


Mojave Dessert
Apple Valley
Hesperia
Los Angeles County
Cajon Pass
San Bernardino County
San Gabrial Mountains
San Bernardino Mountains
Highland
Rancho Cucamonga
San Bernardino
Fontana
SBVC
District Office
Pomona
Redlands
Yucaipa
CHC
Riverside County
Riverside
Moreno Valley
Morongo Valley
Beaumont
Perris
Hemet
Idyllwild-Pine Cove
Menifee
Orange County
Lake Elsinore
LEGEND
CITIES
HIGHWAYS
SBCCD BOUNDARY
SBVC 30-MILE BUFFER
CHC 30-MILE BUFFER
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Facilities Analysis

NEIGHBORHOOD CONTEXT

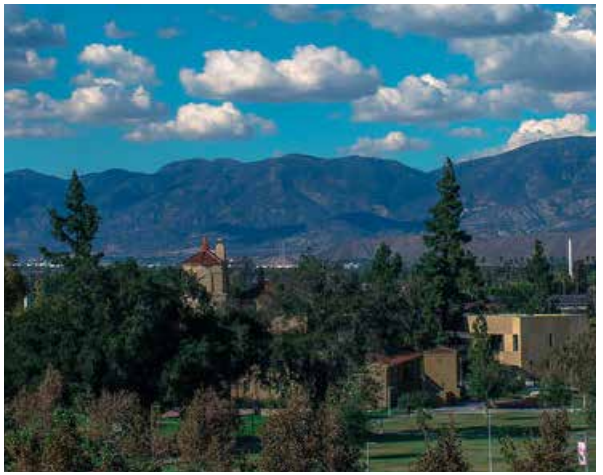
The San Bernardino Valley College campus is located in the City of San Bernardino at its border with the City of Colton. Its neighborhood is served by direct connections to municipal streets and nearby freeways. Regional commercial centers include downtown San Bernardino, which lies around a mile and a half to the northeast and the Inland Center Shopping Mall, which lies less than a mile to the east. Land uses to the north, east, and south of campus mainly consist of single-family residential neighborhoods that are served by San Bernardino City Unified School District. The closest schools are Urbita Elementary School, Richardson PREP HI Middle School, and Lytle Creek Elementary School. Lytle Creek Park is the only public park within a mile of the Valley College campus.

The Valley College campus abuts South Mt. Vernon Avenue, a primary commercial corridor, and is within walking distance of many community services, eateries, and stores. The Pro-Swap Meet is situated across Mt. Vernon Street and directly west of the campus. The College and Pro-Swap Meet have both benefited for many years from a joint-use parking agreement. The campus of Valley College's Middle College High School (MCHS) is situated across West Esperanza Street and directly north of the College. High school students walk between and attend classes on both campuses.

The campus is open to its neighborhood for the enjoyment of the community and the vast majority of visitors respect and are protective of the campus. When incidents occur they tend to be focused on the outer edges of campus, between buildings and the surrounding streets. Measures taken to protect facilities include CCTV system and intrusion alarms. SBCCD Police patrol the campus at all times and are on call to escort students and staff to the swap meet parking lot or other destinations in the evenings. Homeless individuals do shelter in less visible areas of courtyards and outdoor walkways where they are not seen by police patrolling in vehicles.

Observations:

- Open space, parks, and outdoor recreational facilities are not plentiful in the College's neighborhood and use of the College campus and facilities is valued by the community.




LYTLE CREEK PARK
MILL ST
RICHARDSON PREP HI MIDDLE SCHOOL
MT VERNON AVE
MIDDLE COLLEGE HIGH SCHOOL
ESPERANZA ST
K ST
J ST
I ST
INLAND CENTER SHOPPING MALL
PRO-SWAP MEET PARKING
JOHNSTON ST
BORDWELL AVE
SBVC CAMPUS
HAZEL AVE
215
INLAND CENTER DR
URBITA ELEMENTARY SCHOOL
CITRUS ST
GRANT AVE
FAIRVIEW PRECINCT
LA CADENA DR
COLTON AVE

Facilities Analysis
EXISTING CAMPUS

The Valley College campus occupies most of the city block bounded by South Mt. Vernon Avenue, West Esperanza Street, South K Street, and East Grant Avenue. The existing campus comprises 82 acres. About 18 acres that lie within the earthquake fault and folding zones have been set aside as The Glade, a permanent open space.

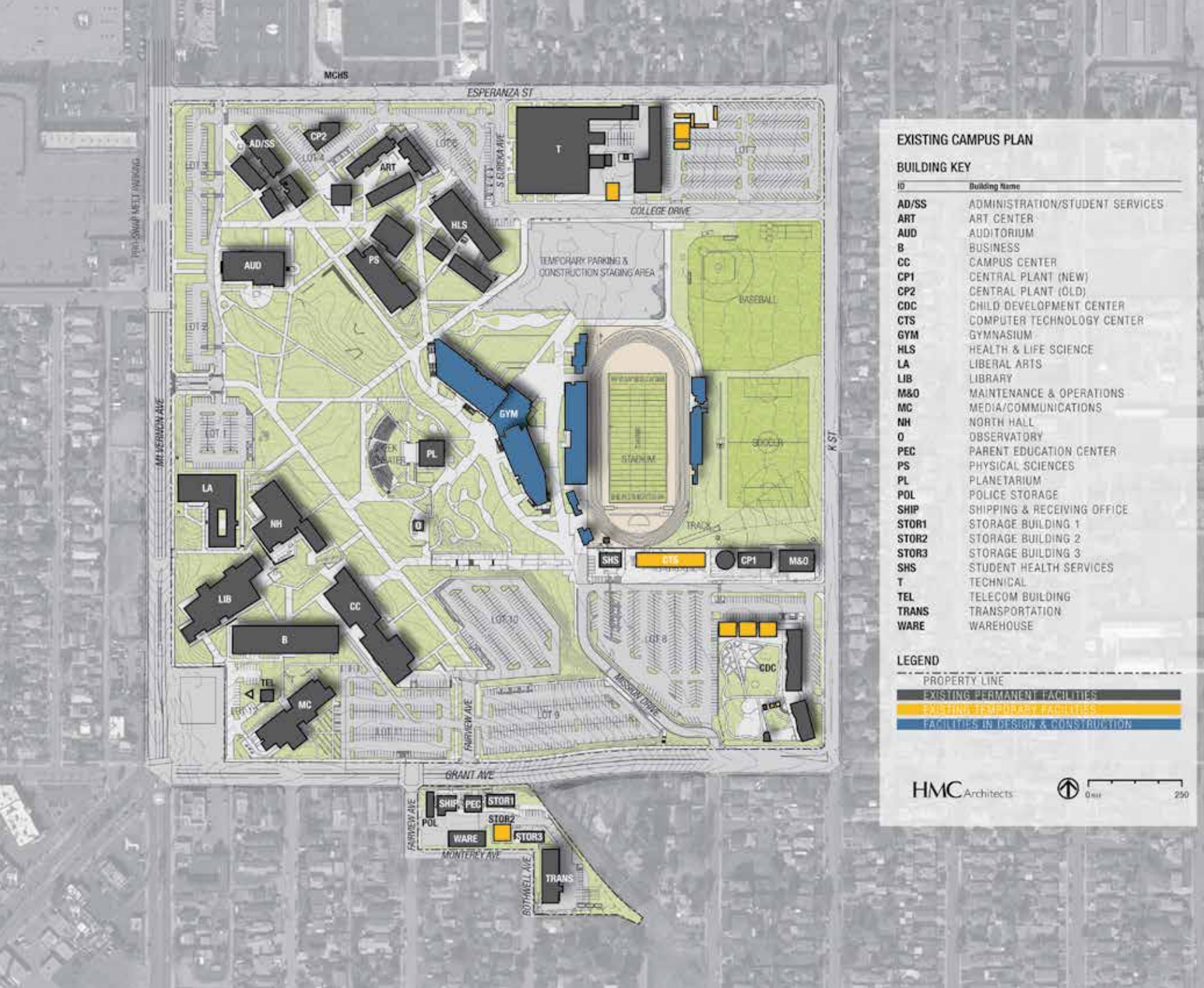
A portion of the campus lies to the south of Grant Avenue and will be referred to as the Fairview Precinct. This area was the campus of Fairview School that was acquired by SBCCD in 1963. It contains four former school buildings that were constructed in the 1930s and 1950s, as well as temporary buildings and the Transportation Building, which houses the Diesel Technology Program.

The graphic on the facing page shows the campus as it is projected to appear in 2017, after the construction of the Gymnasium, Stadium, and athletic fields is completed. In 2017, Valley College will hold 684,712 gross square feet of building area and 464,791 square feet of assignable space—59% of all assignable space that will be held by SBCCD.

Permanent buildings are shown with a dark gray color. There are a number of temporary buildings on the campus and these are shown with a yellow color. Facilities used for SBCCD functions, such as the warehouse and the campus office of the SBCCD Police Department are indicated on the graphic. Most of the Media & Communication Building is used by KVCR, the SBCCD public television and national public radio broadcast station.

Observations:

- The earthquake fault and folding zone are a significant portion of the campus and divide campus buildings into two clusters.
- Many of the buildings built during the last 15 years are oriented to be generally parallel or perpendicular to the fault. Buildings constructed earlier are aligned with the cardinal points of the compass.
- The largest temporary facility houses Campus Technology Services (CTS) who are responsible for supporting the use of instructional and institutional technologies on the campus.



EXISTING CAMPUS PLAN

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
CC	CAMPUS CENTER
CP1	CENTRAL PLANT (NEW)
CP2	CENTRAL PLANT (OLD)
CDC	CHILD DEVELOPMENT CENTER
CTS	COMPUTER TECHNOLOGY CENTER
GYM	GYMNASIUM
HLS	HEALTH & LIFE SCIENCE
LA	LIBERAL ARTS
LIB	LIBRARY
M&O	MAINTENANCE & OPERATIONS
MC	MEDIA/COMMUNICATIONS
NH	NORTH HALL
O	OBSERVATORY
PEC	PARENT EDUCATION CENTER
PS	PHYSICAL SCIENCES
PL	PLANETARIUM
POL	POLICE STORAGE
SHIP	SHIPPING & RECEIVING OFFICE
STOR1	STORAGE BUILDING 1
STOR2	STORAGE BUILDING 2
STOR3	STORAGE BUILDING 3
SHS	STUDENT HEALTH SERVICES
T	TECHNICAL
TEL	TELECOM BUILDING
TRANS	TRANSPORTATION
WARE	WAREHOUSE

LEGEND

PROPERTY LINE

EXISTING PERMANENT FACILITIES

EXISTING TEMPORARY FACILITIES

FACILITIES IN DESIGN & CONSTRUCTION

HMC Architects

0 250

Facilities Analysis
ENVIRONMENTAL CONDITIONS

Environmental Conditions
The San Bernardino Valley College campus is situated in the San Bernardino Valley near the point where the Santa Ana River emerges from the San Bernardino Mountains. This broad inland valley is framed by the striking profiles of rugged mountains shaped by active geological forces. Understanding the campus' environmental conditions will help to shape recommendations for sustainable campus design strategies.

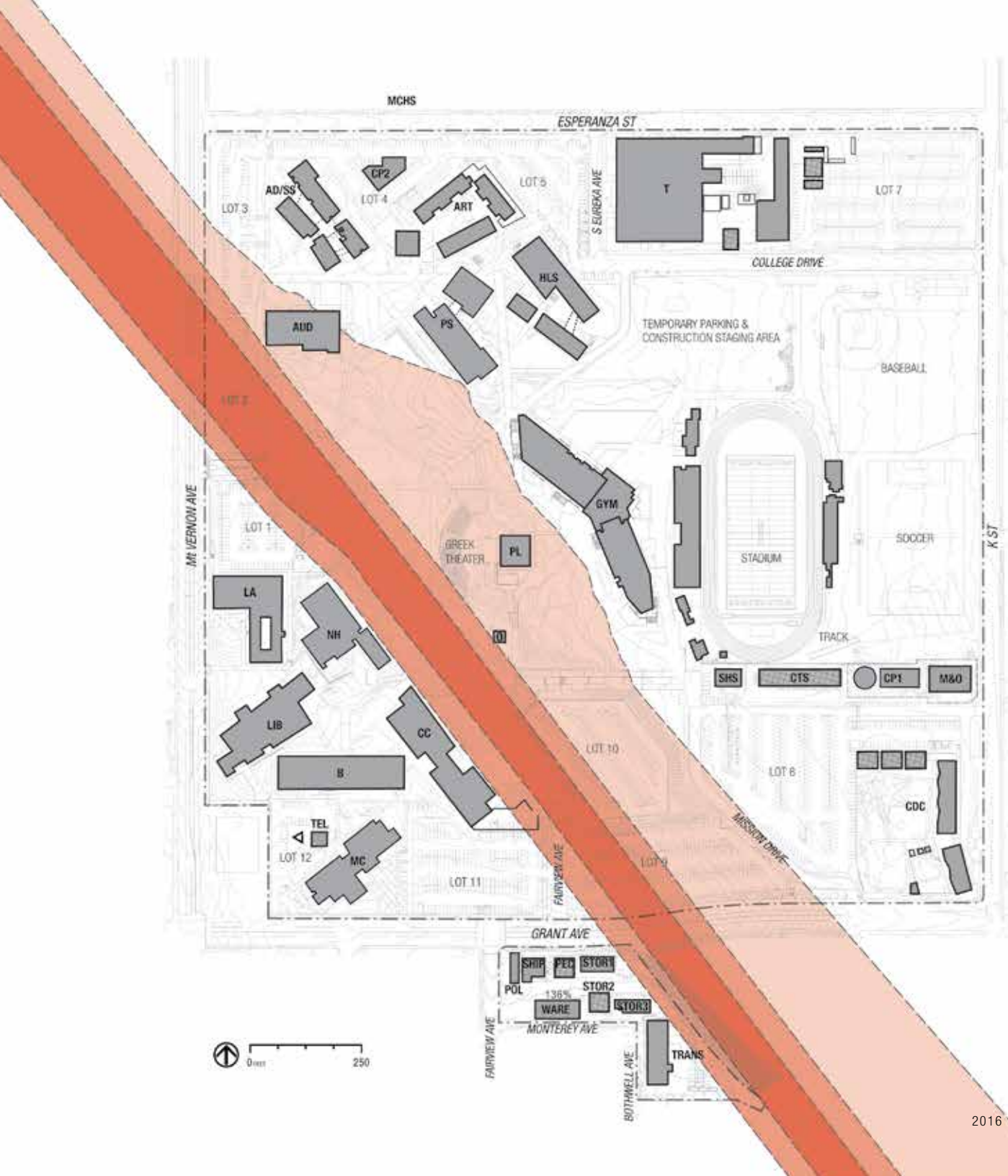
Climate
Climate conditions at Valley College are influenced by its inland valley location. Valley floors become colder during the winter when frost is a possibility and warmer in the summer than the surrounding slopes and hillsides from which cold air drains and warm air rises. This climate is only nominally influenced by the ocean. Days are quite sunny and the conditions are favorable for solar energy production. Most of the rain falls during the winter, with the exception of summer monsoons that can bring strong wind and heavy rain. Storm water flows can be sudden and heavy and the college's infrastructure must be ready to prevent flooding and erosion. Wildfire is a growing concern during an increasingly lengthening fire season, but especially during the fall and winter when downslope winds are more frequent, sweeping down from Cajon Pass and the San Bernardino Mountains.

Natural Habitat
Prior to its development, the San Bernardino Valley was characterized by chaparral. Wide and constantly shifting river beds, most of which are dry and cobble-filled during most of the year, absorbed water that swept with great force out of the San Bernardino and San Gabriel Mountains to recharge ground water aquifers. Oak woodlands grew along rivers and streams. Having evolved with periodic fire, many of these native trees and shrubs are less flammable than non-native plants.

Geology
Geological forces are clearly visible on the San Bernardino Valley College campus. The SBVC campus lies about 7 miles from the San Andreas rift zone and within the wider zone of fracturing and associated faults. One of these, the San Jacinto Earthquake Fault, passes though the campus. The presence of this fault and folding zone was discovered and studied in great detail during the mid-1990s. In accordance with the Alquist-Priolo Earthquake Fault Zoning Act, the construction of structures are not permitted within 50 feet of an earthquake fault. New structures are also not permitted within the folding zone. Following the mapping of these zones, which are shown on the graphic on the facing page, the campus was reorganized significantly. SBCCD's geotechnical engineering study noted that planning for buildings to be rectangular, three-stories tall, and orienting perpendicular or parallel to the fault would simplify their structural design.

Observations:

- Protection from sun, wind, and rain will make outdoor spaces much more comfortable and usable. Hot and windy conditions in particular can discourage the use of outdoor areas.
- Open space within suburban areas can provide green oases that mitigate heat islands and provide homes for beneficial birds and insects.
- Most of the natural riverine habitat within Valley College's neighborhood has long been replaced with suburban development, but understanding the natural landscape of the past can help the College to foster an appreciation of its benefits and beauty.



CAMPUS SEISMIC ZONE

- TEMPORARY FACILITIES
- EXISTING/FUTURE BUILDINGS
- FAULT ZONE
- 50' SETBACK
- FOLD ZONE
- PROPERTY LINE

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
CC	CAMPUS CENTER
CP1	CENTRAL PLANT (NEW)
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T	TECHNICAL
TEL	TELECOM BUILDING
TRANS	TRANSPORTATION
WARE	WAREHOUSE

Facilities Analysis

DEVELOPMENT HISTORY

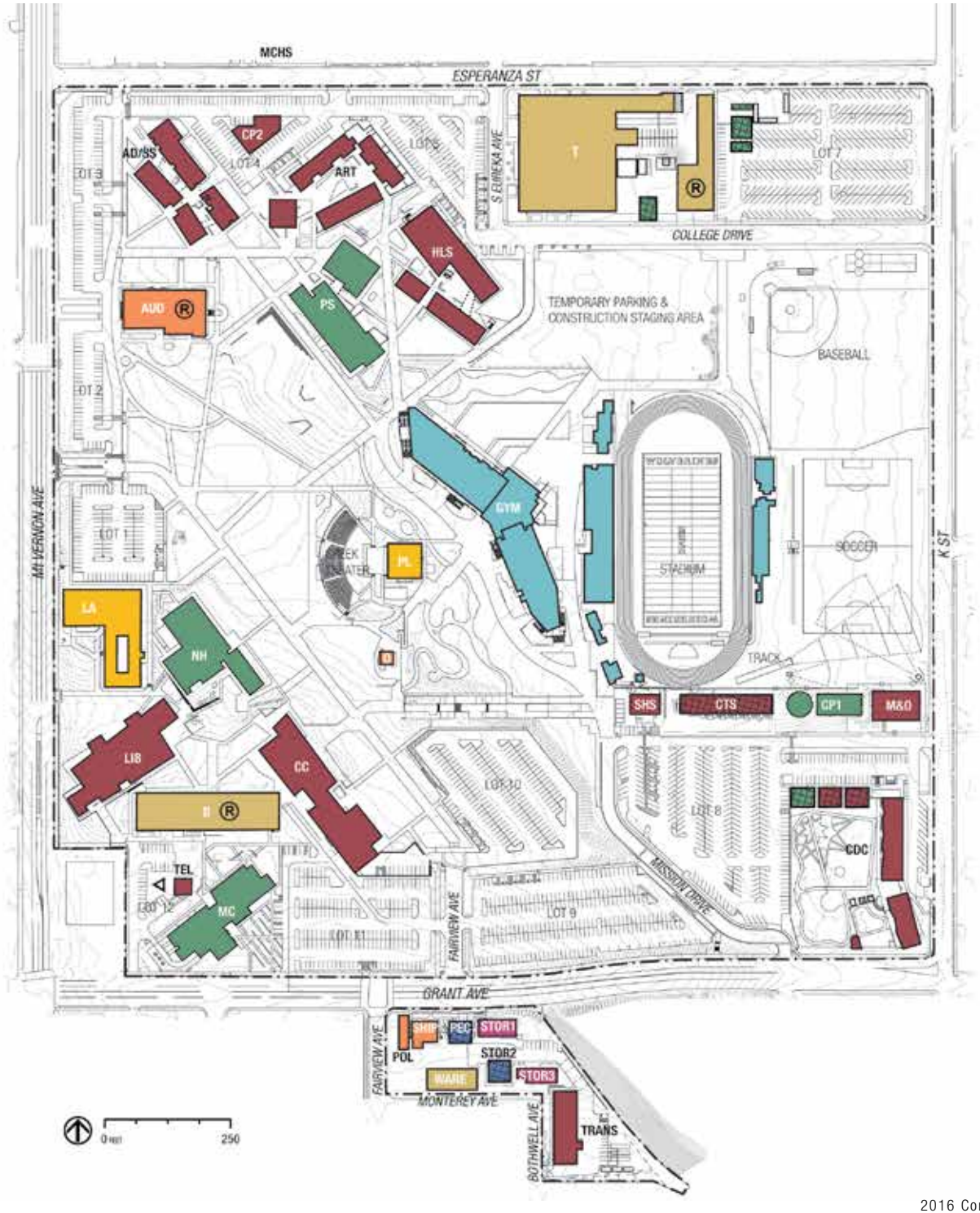
Campus construction by decade is shown by color on the graphic on the opposing page. Buildings that have recently undergone a comprehensive renovation are shown with a ®.

Observations:

- Many college staff and members of the community fondly recall the campus as it was before being redeveloped in the last decade. They recall that indoor and outdoor spaces encouraged a greater and more visible degree of gathering, collegiality, and use by students and staff.

- Although most of the campus buildings were built or renovated after 2000, several aged facilities remain in service. The Liberal Arts Building and the Technical Education Building are the two most aged instructional buildings. The east wing of the Technical Education Building was recently renovated to address health and safety issue.

- The service buildings on the Fairview Precinct are among the oldest with two building that were constructed in the 1930s and two in the 1950s.



CAMPUS DEVELOPMENT HISTORY

- TEMPORARY FACILITIES
- R RECENTLY RENOVATED
- 1930-1939
- 1950-1959
- 1960-1969
- 1970-1979
- 1980-1989
- 1990-1999
- 2000-2009
- 2010-2017
- UNDER CONSTRUCTION

PROPERTY LINE

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
CC	CAMPUS CENTER
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SHS	STUDENT HEALTH SERVICES
T	TECHNICAL
TEL	TELECOM BUILDING
TRANS	TRANSPORTATION
WARE	WAREHOUSE

Facilities Analysis

VEHICULAR CIRCULATION + PARKING

The campus occupies most of a roughly square city block, with the exception of the commercial property at the corner of South Mt. Vernon and Grant Avenues. Therefore, much circulation occurs on the surrounding city streets. Mt. Vernon Avenue, a major arterial, is the most travelled circulation route and it connects the campus to Interstate Highway 10. Plans are in place to upgrade the Mt. Vernon Avenue/I-10 interchange for improved mobility and Mt. Vernon Avenue is being considered for the route of a future bus rapid transit (BRT) line. A Metrolink light rail station is planned for Colton.

The main campus vehicular entry is on Mt. Vernon Avenue, to the south of the signal at Johnston Street. West Mill Street connects to Interstate Highway 215, as does Grant Avenue via South I Street and Inland Center Drive. Many travel to campus via Grant Avenue. Entry points from Grant Avenue, South K Street, and Esperanza Streets lead directly to well-distributed parking lots.

Near the perimeter of campus, several on-campus streets, such as College Drive and South Eureka Avenue, accommodate general vehicular traffic within the campus, but travel through the center of campus is restricted to emergency and service vehicles.

Parking

Available parking include 1,585 stalls in 12 campus parking lots and 465 on-street spaces on the surrounding streets: South Mt. Vernon Avenue, Grant Avenue, South K Street, Esperanza Street, South Eureka Avenue, Holly Avenue, and Fairview Avenue. Through a joint-use agreement, 414 stalls in the Pro Swap-Meet parking lot, which is situated directly across Mt. Vernon Avenue at Johnston Street, are available for campus use. In exchange, stalls in Lots 1 through 5 are used by the swap meet in the evenings on Friday, Saturday, and Sunday.

Transit

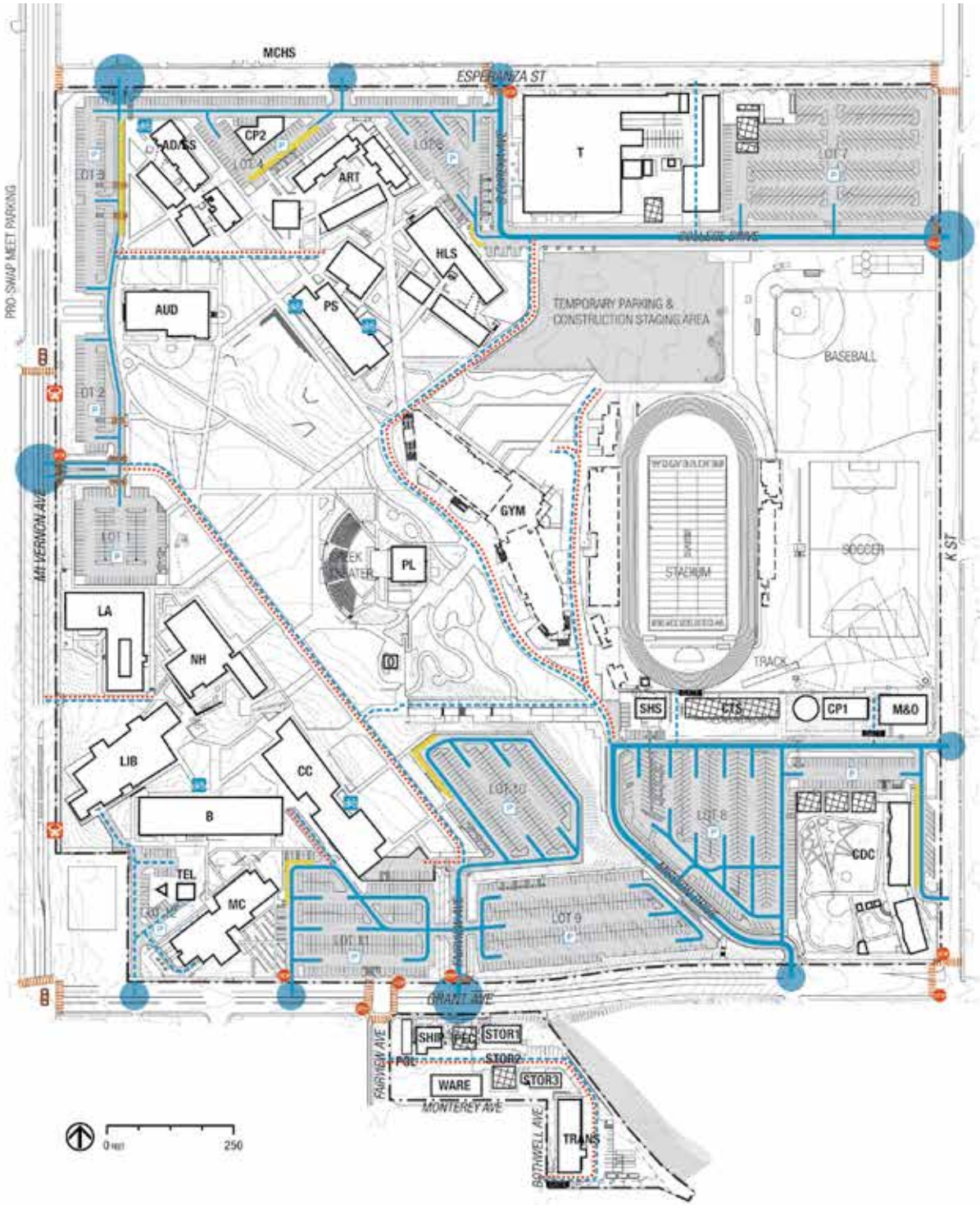
Half of the students at Valley College regularly use public transportation to travel to the campus. Through the Go Smart Program, Valley College encourages students to commute by bus. OMNITRANS is the primary bus transit provider in the Colton and San Bernardino region. Students can ride for free on any regular OMNITRANS route with their student identification card. Routes 1 and 15 provide frequent and convenient service to the campus.

Bicycling and Walking

Valley College encourages commuting by bicycle and provides two bicycle racks next to the Physical Sciences Building. The City of Colton, in its mobility plan, expresses its commitment to maintaining Mt. Vernon Avenue and other key transportation corridors as attractive and walkable. Mt. Vernon Avenue is a designated Class III bicycle route and a multi-modal transit street that accommodates public transit, pedestrians, and bicycles, as well as vehicles. The Class I bicycle path that parallels nearby Colton Avenue is intended for the exclusive use of bicycles. The City plans to extend the Class I Bike Path along the Lytle Creek Channel, which passes close to the campus and connects to Mt. Vernon Avenue.

Observations:

- During hot weather, students place a premium on parking that is close to their destination and parking lots near instructional buildings fill quickly. During the peak periods, on-campus parking even in remote areas along K Street, are filled. However, on-street parking is observed to be available, as well as swap meet parking, even during the busiest times.



EXISTING VEHICULAR CIRCULATION

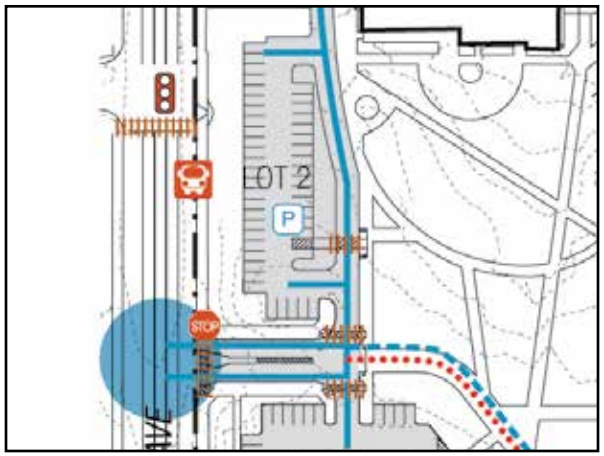
- FACILITIES
- IN DESIGN/UNDER CONSTRUCTION
- TEMPORARY FACILITIES
- CAMPUS ENTRY - MAJOR/MINOR
- PASSENGER LOADING/DROP OFF ZONE
- PARKING AREA
- PRIMARY VEHICULAR ROUTE
- SECONDARY VEHICULAR ROUTE
- SERVICE VEHICULAR ROUTE
- EMERGENCY VEHICULAR ROUTE
- BICYCLE PARKING
- CROSSWALKS
- BUS STOPS
- TRAFFIC SIGNALS
- STOP SIGNS
- GATED ENTRY
- PROPERTY LINE

Lot	Spaces
1	99
2	45
3	70
4	104
5	106
6 (gravel)	25
7	203
8	298
9	232
10	160
11	139
12	26
College Dr	45
Eureka Ave	9
CDC	10
Total	1585

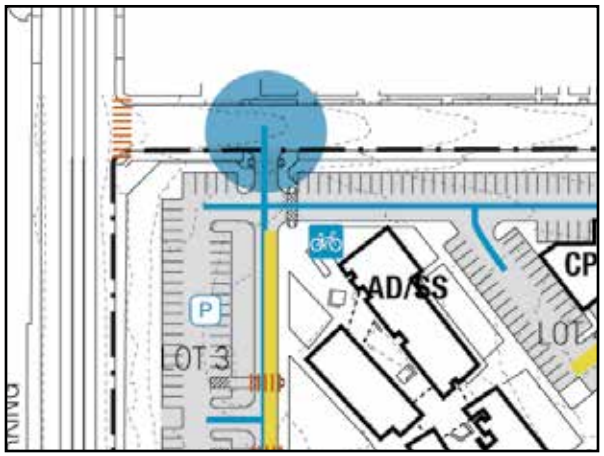
Facilities Analysis

VEHICULAR CIRCULATION + PARKING *(cont.)*

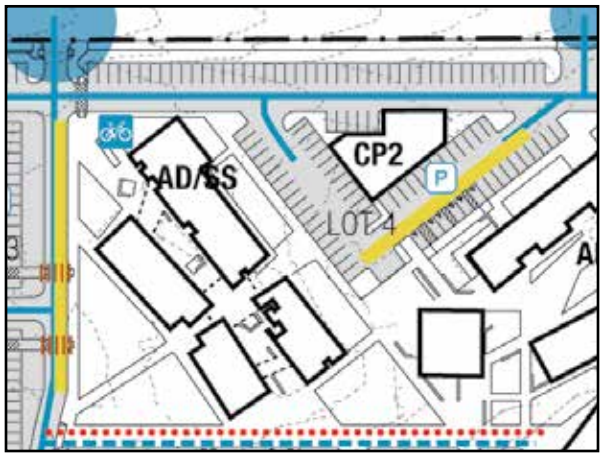
VEHICULAR CIRCULATION NEEDS



The main vehicular entry point, being offset from the signal at Johnston Street, limits traffic to right turns-in and right turns-out.



The busy entry point to Lot 3 on Esperanza Street near the intersection at Mt. Vernon Avenue lacks stacking space and is occasionally gridlocked during busy hours.



Passenger loading occurs in designated zones and informally in parking lots, especially Lots 1, 3, and 4.

Year	Planned Fall Student Headcount	Recommended Supply Rate	Recommended Supply	Recommended On-campus Supply
Horizon 1 - 2021	14,040	0.18	2,527	1,648
Horizon 2 - 2026	15,060	0.18	2,711	1,832
Horizon 3 - 2031	16,145	0.18	2,906	2,027

Parking Needs

An assessment of existing parking utilization and future parking needs was prepared in 2003 and updated in June 2009. The updated report projected future parking demand during three master plan development horizons, based upon enrollment projections that were current in 2009. For this plan, updated enrollment projections that are established by the Educational Master Plan for years 2021, 2026, and 2031 are used. The current projections reflect more conservative expectations for the growth of the College's enrollment. A parking utilization rate of 0.16 spaces per enrolled student was calculated for the 2009 parking study, based on vehicle counts and field observations. To estimate future demand, the study recommended a parking supply rate of 0.18 spaces per enrolled student—after adding a 15% circulation and turnover factor.

It is likely that in the long-term the required supply rate will drop as students and staff have available more transportation choices that lessen their demand for parking capacity. Local and regional mobility plans show that the cities and county are committed to this objective. And Valley College is successfully encouraging students and staff to use public and alternative transportation. It is also likely that trends toward online delivery of instruction and support services will change students' the amount of time that each student spends on campus. Parking is but one of many land uses competing for space on the Valley College campus. Sufficient parking is necessary, but not directly linked to the College's educational mission. And due to the expense of acquiring land and building parking structures, a measured approach is recommended when planning for parking. This approach should encourage alternatives to single-occupant vehicle use and monitor changes in the actual parking utilization rate.

Facilities Analysis

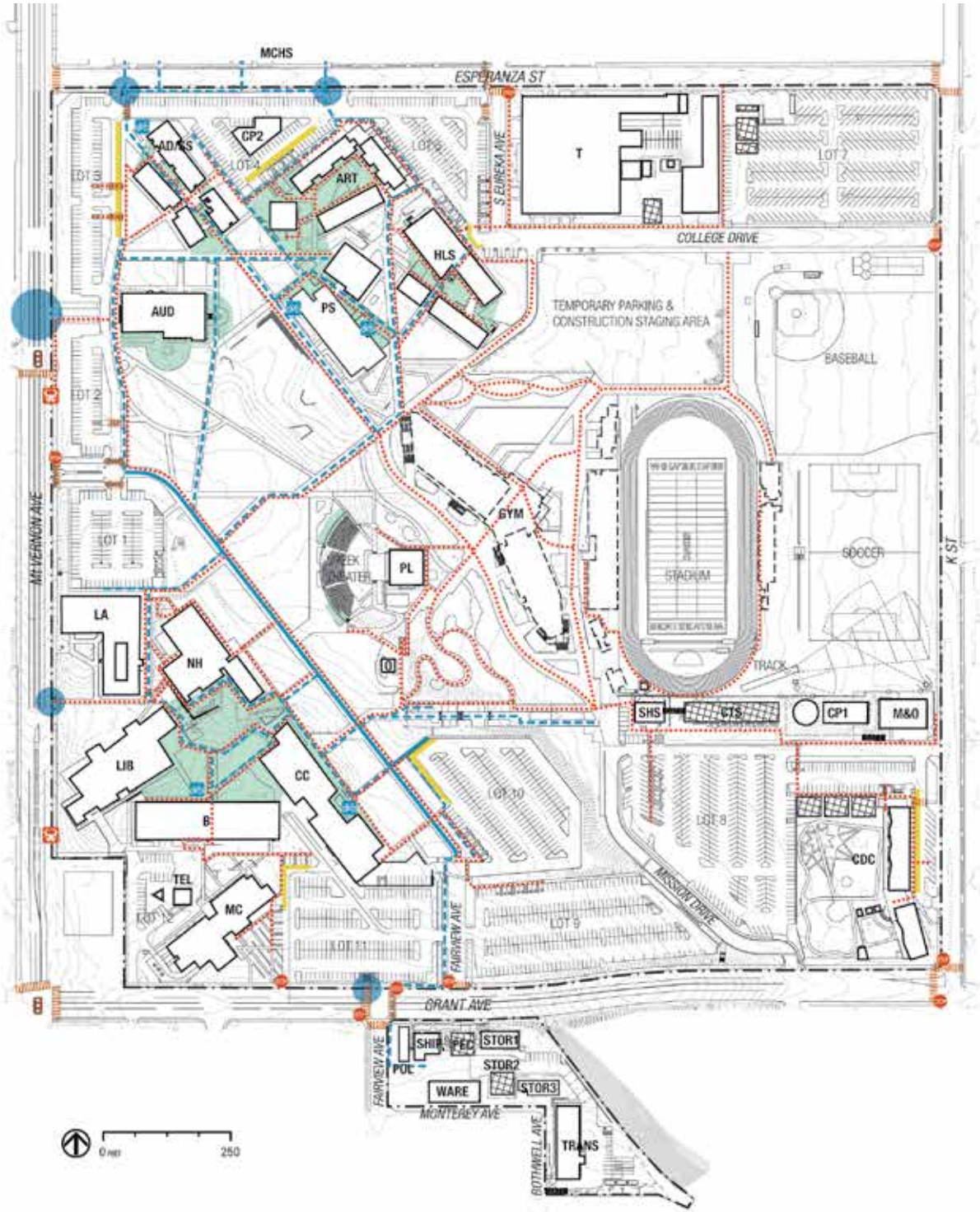
PEDESTRIAN CIRCULATION

SBCCD and Valley College studied how well campus facilities comply with accessibility requirements and prepared a plan to remove existing architectural barriers. Each recent project has implemented part of this plan and together they have removed most of the barriers that prevent universal access to parking, buildings, and site areas. The New Gymnasium and Field Building Project is transforming the center of the campus by constructing accessible new paths, plazas, and learning gardens. The last phase of this project will provide barrier-free paths to outdoor athletic fields. The Glade, which contains the earthquake fault and folding zones, is the primary open space on campus. Much of the Glade consists of open lawns. The more mature trees grace the areas near the Auditorium and the Greek Theater.

Courtyards among the two clusters of buildings vary in character, scale, and degree of use by students. One of the better used courtyards is set between North Hall, the Library, the Business Education Building, and the Campus Center. The courtyards around the Physical Sciences and Health and Life Science Buildings are also well used.

Observations:

- The Glade has changed the character of the campus. It has lessened the sense of place and the level of activity in the outdoor spaces. The Glade offers little to engage students, but it has the potential to be developed further.
- The existing paths across the Glade do not offer the choice of a clear and direct path between the two instructional building clusters.
- A safer way to cross Esperanza Street could be provided for high school students traveling between MCHS and Valley College.
- A safer crosswalk to cross Grant Avenue could be provided for students and staff traveling between the Fairview Precinct and the rest of campus.
- Electric carts used by college maintenance staff are often recharged in walkways, blocking the path of students.



EXISTING PEDESTRIAN CIRCULATION

- FACILITIES
- IN DESIGN/UNDER CONSTRUCTION
- TEMPORARY FACILITIES
- CAMPUS ENTRY - MAJOR/MINOR
- PASSENGER LOADING/DROP OFF ZONE
- STUDENT GATHERING AREA
- PRIMARY PEDESTRIAN ROUTE
- SECONDARY PEDESTRIAN ROUTE
- ACCESSIBLE PATH OF TRAVEL
- BICYCLE PARKING
- CROSSWALKS
- BUS STOPS
- TRAFFIC SIGNALS
- STOP SIGNS
- PROPERTY LINE

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
CC	CAMPUS CENTER
CP1	CENTRAL PLANT (NEW)
CP2	CENTRAL PLANT (OLD)
CDC	CHILD DEVELOPMENT CENTER
CTS	COMPUTER TECHNOLOGY CENTER
GYM	GYMNASIUM
HLS	HEALTH & LIFE SCIENCE
LA	LIBERAL ARTS
LIB	LIBRARY
M&O	MAINTENANCE & OPERATIONS
MC	MEDIA/COMMUNICATIONS
NH	NORTH HALL
O	OBSERVATORY
PEC	PARENT EDUCATION CENTER
PS	PHYSICAL SCIENCES
PL	PLANETARIUM
POL	POLICE STORAGE
SHIP	SHIPPING & RECEIVING OFFICE
STOR1	STORAGE BUILDING 1
STOR2	STORAGE BUILDING 2
STOR3	STORAGE BUILDING 3
SHS	STUDENT HEALTH SERVICES
T	TECHNICAL
TEL	TELECOM BUILDING
TRANS	TRANSPORTATION
WARE	WAREHOUSE

Facilities Analysis

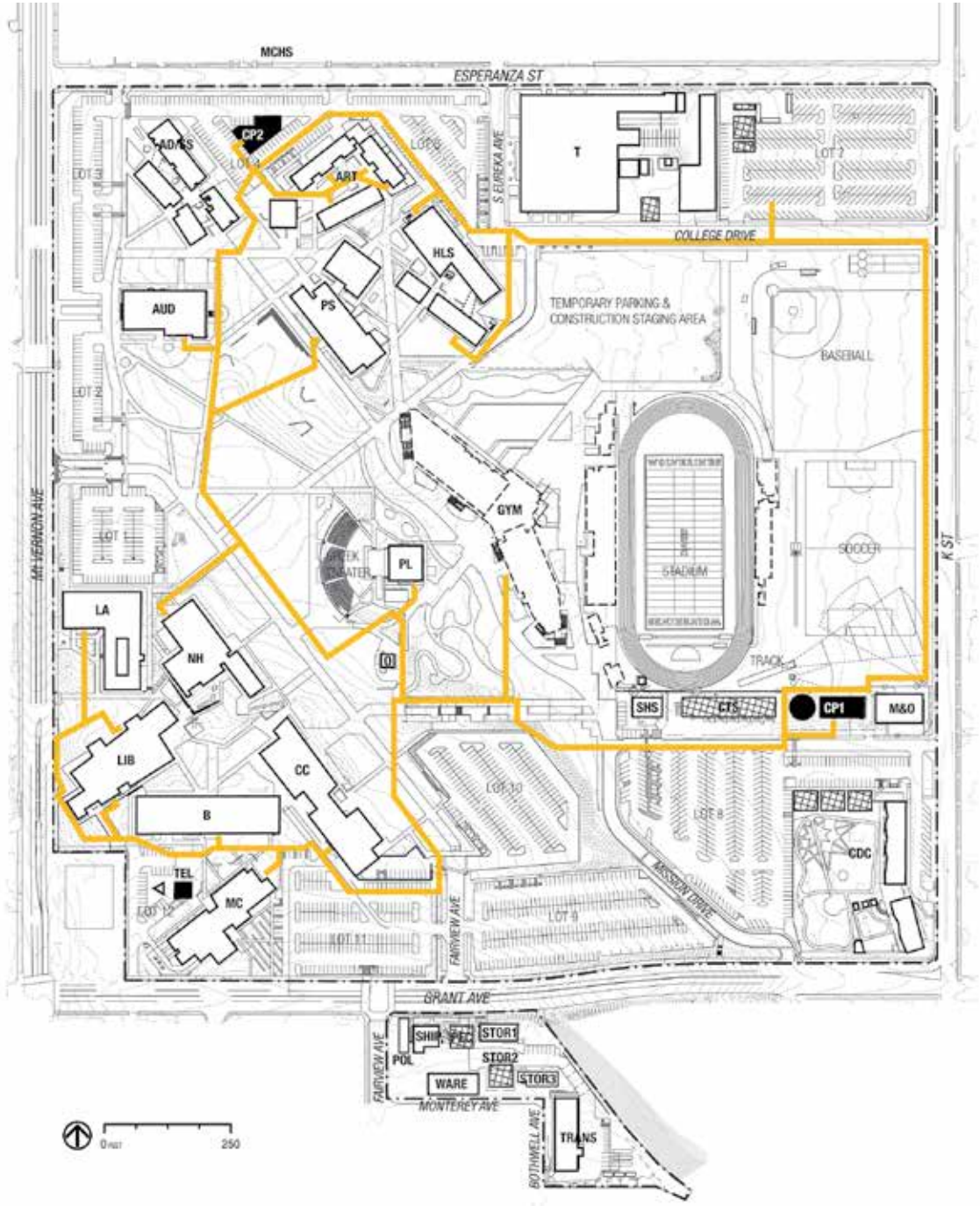
SITE FACILITIES INFRASTRUCTURE

Campus-wide infrastructure systems connect college facilities to utilities and communication systems that support the College's educational mission. Robust power, water, and data connections are increasingly necessary to fully use state of the art learning environments. As part of its program to replace seismically vulnerable buildings, the College implemented an infrastructure project that built new pathways for utilities to the planned sites of new buildings. In 2013, SBCCD and Valley College completed a central plant and thermal energy storage (TES) tank that allows the campus to chill water at night, when the cost of power is lower, and store it for use the next day. Currently, a new communication fiber optic backbone is being installed as part of the Gymnasium and Field Buildings project. WiFi access points serve the indoor areas of all buildings, but coverage does not yet extend to all outdoor spaces.

Valley College's students, faculty, and staff are working to make SBVC an even greener campus. Guided by the SBCCD Sustainability Plan, they are adopting environmentally sustainable practices in their daily habits as they operate and use the campus facilities. New buildings, renovation projects, and gardens are being designed and constructed to meet increasingly stringent goals for efficient and healthy places to work and learn. For example, recently constructed buildings, beginning with the Physical Sciences Building, have been designed and constructed to be certified though the Leadership in Energy and Environmental Design (LEED) rating system. These buildings are or will soon be certified by the US Green Building Council at either the LEED Silver or LEED Certified levels.

Observations:

- Due to current water quality regulations, adequate space must be set aside for the storm water retention and treatment systems that will be required for future building projects.
- The capacity of the TES tank is currently being fully used. As when considering any strategy, the cost of increasing the capacity should be weighed against projected savings and compared to the benefits of investing in other energy saving strategies.



CAMPUS UTILITIES

FACILITIES
UNDER CONSTRUCTION
TEMPORARY FACILITIES
CHILLED WATER LOOP
PROPERTY LINE

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
CC	CAMPUS CENTER
CP1	CENTRAL PLANT (NEW)
CP2	CENTRAL PLANT (OLD)
CDC	CHILD DEVELOPMENT CENTER
CTS	COMPUTER TECHNOLOGY CENTER
GYM	GYMNASIUM
HLS	HEALTH & LIFE SCIENCE
LA	LIBERAL ARTS
LIB	LIBRARY
M&O	MAINTENANCE & OPERATIONS
MC	MEDIA/COMMUNICATIONS
NH	NORTH HALL
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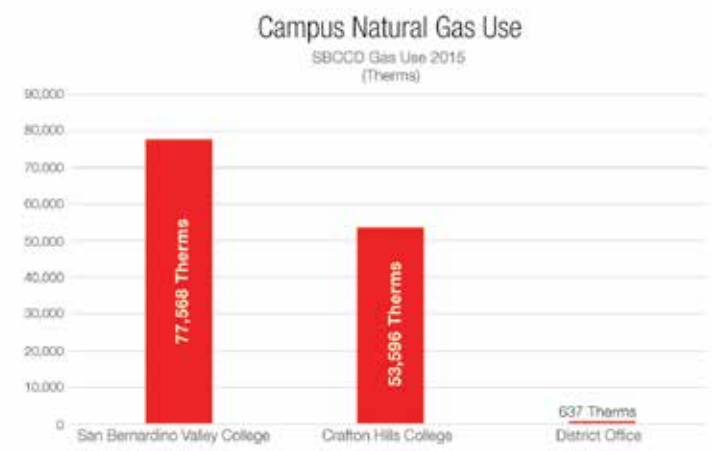
PEC	PARENT EDUCATION CENTER
PS	PHYSICAL SCIENCES
PL	PLANETARIUM
POL	POLICE STORAGE
SHIP	SHIPPING & RECEIVING OFFICE
STOR1	STORAGE BUILDING 1
STOR2	STORAGE BUILDING 2
STOR3	STORAGE BUILDING 3
SHS	STUDENT HEALTH SERVICES
T	TECHNICAL
TEL	TELECOM BUILDING
TRANS	TRANSPORTATION
WARE	WAREHOUSE

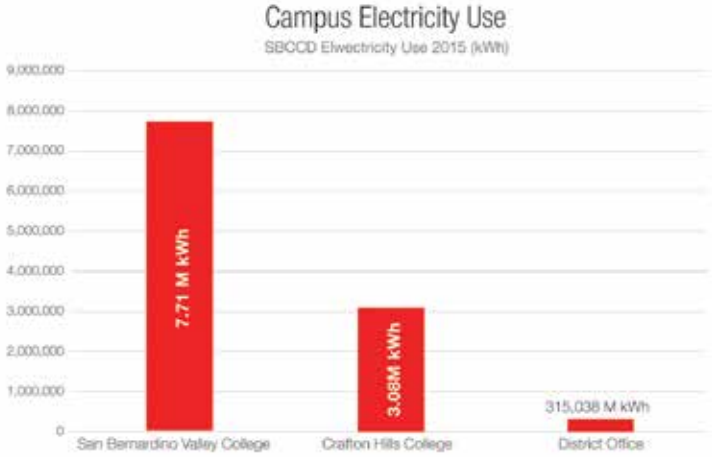
Facilities Analysis

SITE FACILITIES INFRASTRUCTURE *(cont.)*

Energy Use

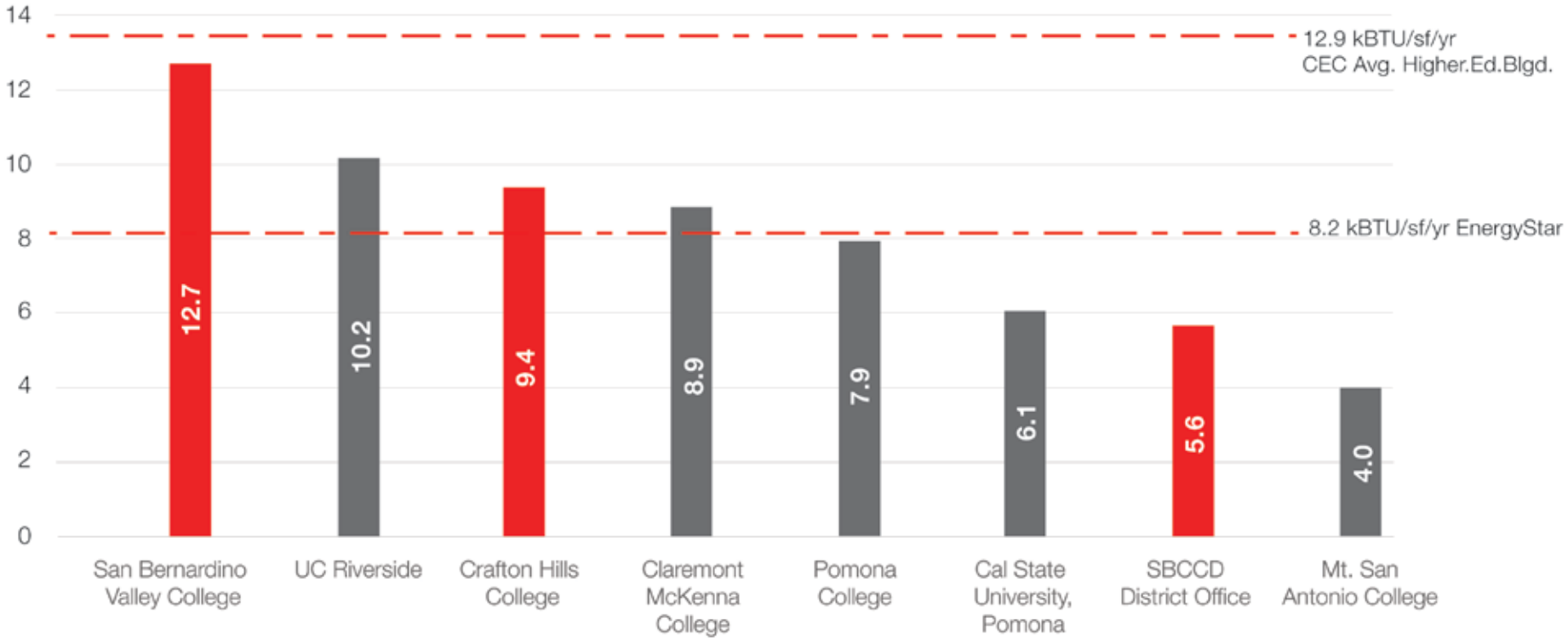
SBCCD and Valley College have invested in measures that are making the campus more energy efficient. The two graphs on this page compare the use of energy in the forms of electricity and natural gas on SBCCD's three main sites. The graphs show the total number of kilowatt-hours of electricity and therms of gas used in 2015. Because the three sites are not the same size, it is helpful to compare their average energy usage for each square foot of building area. For the graph on the opposing page, the data has been converted to the equivalent amount of carbon dioxide (CO_2e) expressed in metric tons per square foot of overall gross campus building area. Several other higher education institutions are shown for comparison, using data that they reported to the American College and University Climate Action Plan's 2014-2015 Annual Report. At 12.7 CO_2e/square foot/year, the level of energy use at Valley College falls just below 12.9 CO_2e/SF/year, the level of the average higher education building in this climate zone, as reported by the California Energy Commission. Both Valley College and Crafton Hills College are at a higher level than 8.2 CO_2e/SF/year, the Energy Star benchmark, which represents the level of a green building in this climate zone.





Campus Carbon Footprint from Energy Use

Natural Gas and Electricity
(CO2e/gsf/yr expressed in metric tons)



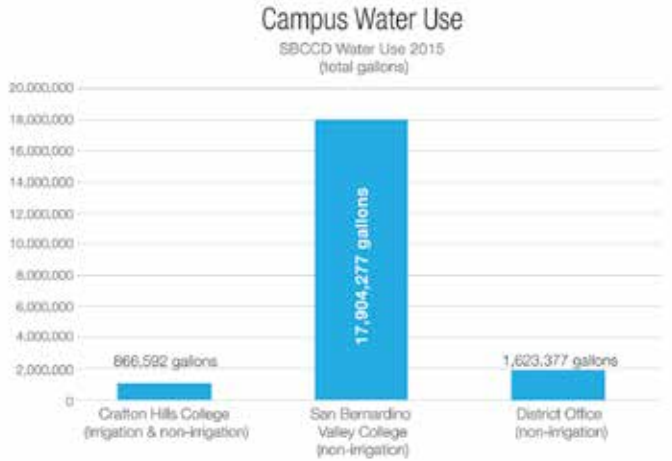
Facilities Analysis

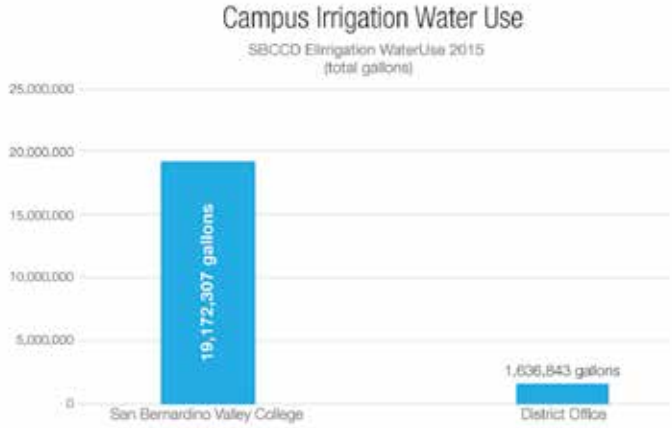
SITE FACILITIES INFRASTRUCTURE *(cont.)*

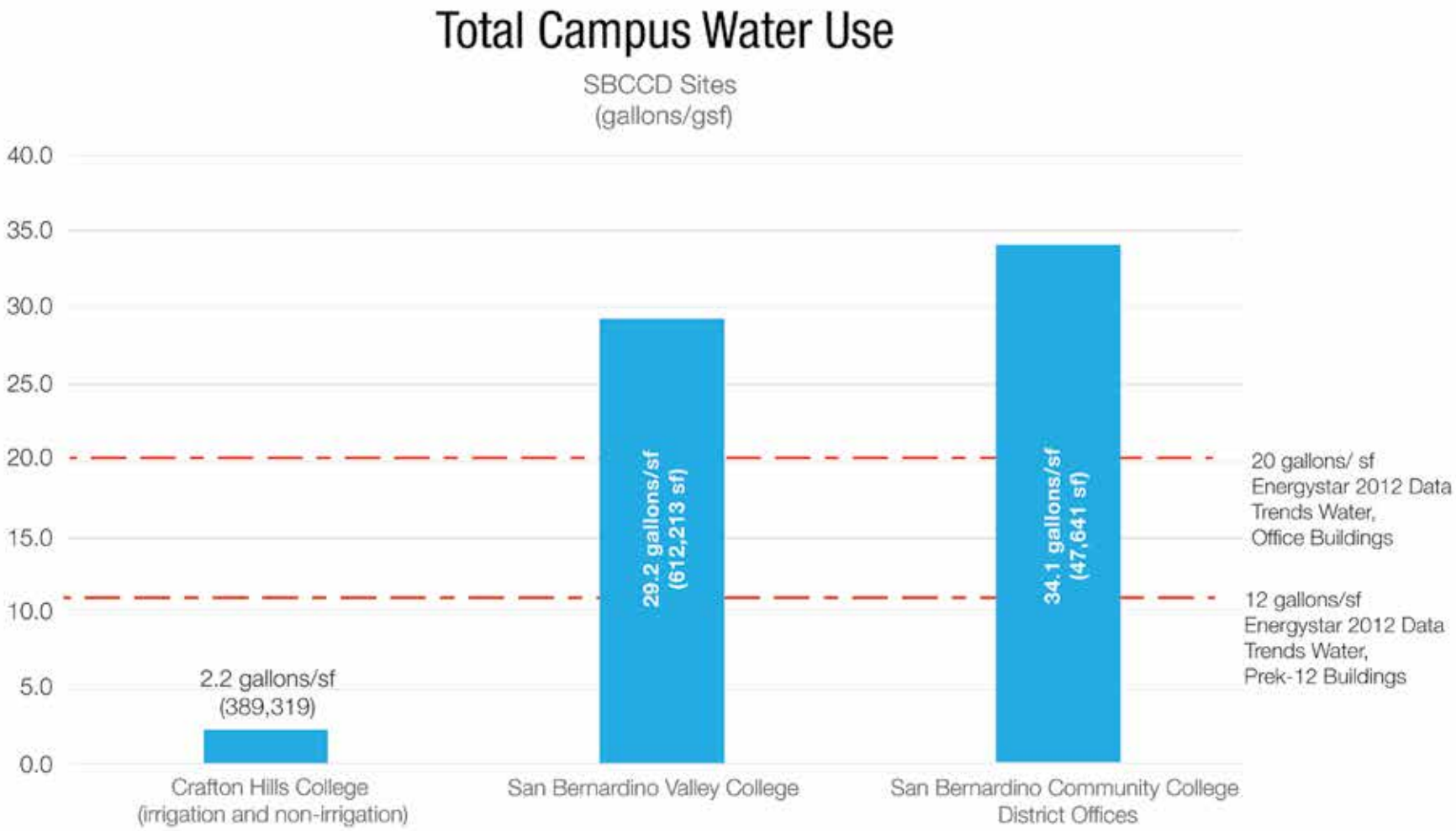
Water Use

The two graphs on this page compare the use of water on SBCCD's three main sites. Valley College used almost 18 million gallons of water in 2015 for non-irrigation purposes. It used over 19 million gallons to irrigate landscaped areas and lawns. The water usage data for Crafton Hills College is not metered separately for irrigation and non-irrigation use. CHC used under 900,000 gallons total for both. Once again, because the three sites are not the same size, it is helpful to compare their average building water usage for each square foot of building area. The graph on the opposing page shows that Valley College used an average of 29 gallons/SF/year in 2015. This amount is greater than the two benchmarked levels: 20 gallons/SF/year for the Energy Star 2012 Data Trends for Office Buildings and 12 gallons/SF/year for the Energy Star 2012 Data Trends for Pre-K-12 School Buildings.

In 2015 Valley College used about 19 million gallons of potable water for landscape irrigation, which cost about $250,000. Irrigation of the turf in The Glade likely accounted for much of this usage.






Total Campus Water Use
SBCCD Sites
(gallons/gsf)
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2.2 gallons/sf
(389,319)
29.2 gallons/sf
(612,213 sf)
34.1 gallons/sf
(47,641 sf)
20 gallons/ sf
Energystar 2012 Data
Trends Water,
Office Buildings
12 gallons/sf
Energystar 2012 Data
Trends Water,
Prek-12 Buildings
Crafton Hills College
(irrigation and non-irrigation)
San Bernardino Valley College
San Bernardino Community College
District Offices

Facilities Analysis

FACILITIES CONDITIONS

San Bernardino Valley College and SBCCD participate in the California Community Colleges Facility Condition Assessment Program, which assesses existing buildings to help districts plan for maintenance and repair work. The results of the spring 2016 assessment are shown on the graphic on the opposing page. The Facilities Condition Index (FCI) is the ratio of the cost of all needed repairs to the replacement cost of the facility, expressed as a percentage. An FCI value is shown for each facility.

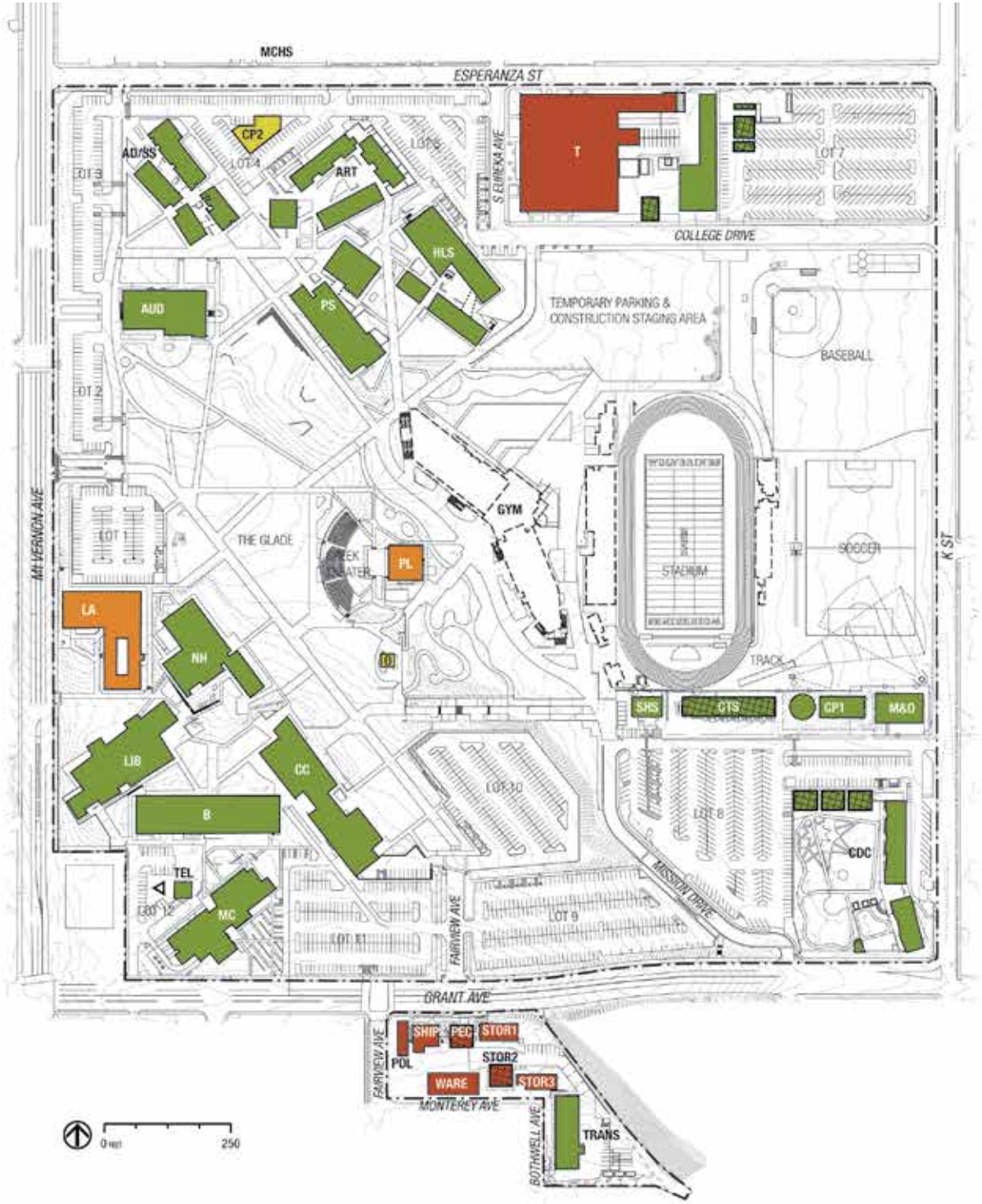
In addition, San Bernardino Valley College gathers information on maintenance needs, regulatory compliance, potential sustainability and energy efficiency upgrades, and repair issues. Based on interviews with college staff and the Facilities Condition Assessment report, each facility has been placed in one of four categories:

- Good Condition
- Fair Condition
- Poor Condition
- Very Poor Condition

Observations:

- Most of the building are in good condition, being fairly new or recently renovated, however, very little has been done to maintain these newer buildings since they were constructed.

- Several of the buildings are in poor or very poor condition. These few buildings use a disproportional amount of the resources that are allocated for the maintenance of the entire campus.



FACILITIES CONDITIONS INDEX

- TEMPORARY FACILITIES
- IN DESIGN/UNDER CONSTRUCTION
- GOOD
- FAIR
- POOR
- VERY POOR
- (X%) FACILITIES CONDITION INDEX
- PROPERTY LINE

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES - 0%
ART	ART CENTER - 0%
AUD	AUDITORIUM - 29%
B	BUSINESS - 0%
CC	CAMPUS CENTER - 0%
CP1	CENTRAL PLANT (NEW)
CP2	CENTRAL PLANT (OLD)
CDC	CHILD DEVELOPMENT CENTER - 0%
CTS	COMPUTER TECHNOLOGY CENTER
GYM	GYMNASIUM
HLS	HEALTH & LIFE SCIENCE - 0%
LA	LIBERAL ARTS - 41%
LIB	LIBRARY - 0%
M&O	MAINTENANCE & OPERATIONS - 0%
MC	MEDIA/COMMUNICATIONS - 0%
NH	NORTH HALL - 0%
O	OBSERVATORY - 8%
PEC	PARENT EDUCATION CENTER - 5%
PS	PHYSICAL SCIENCES - 0%
PL	PLANETARIUM - 17%
POL	POLICE STORAGE
SHIP	SHIPPING & RECEIVING OFFICE - 17%
STOR1	STORAGE BUILDING 1 - 40%
STOR2	STORAGE BUILDING 2
STOR3	STORAGE BUILDING 3
SHS	STUDENT HEALTH SERVICES - 0%
T	TECHNICAL - 20%
TEL	TELECOM BUILDING - 0%
TRANS	TRANSPORTATION - 0%
WARE	WAREHOUSE - 11%

Facilities Analysis
SPACE UTILIZATION

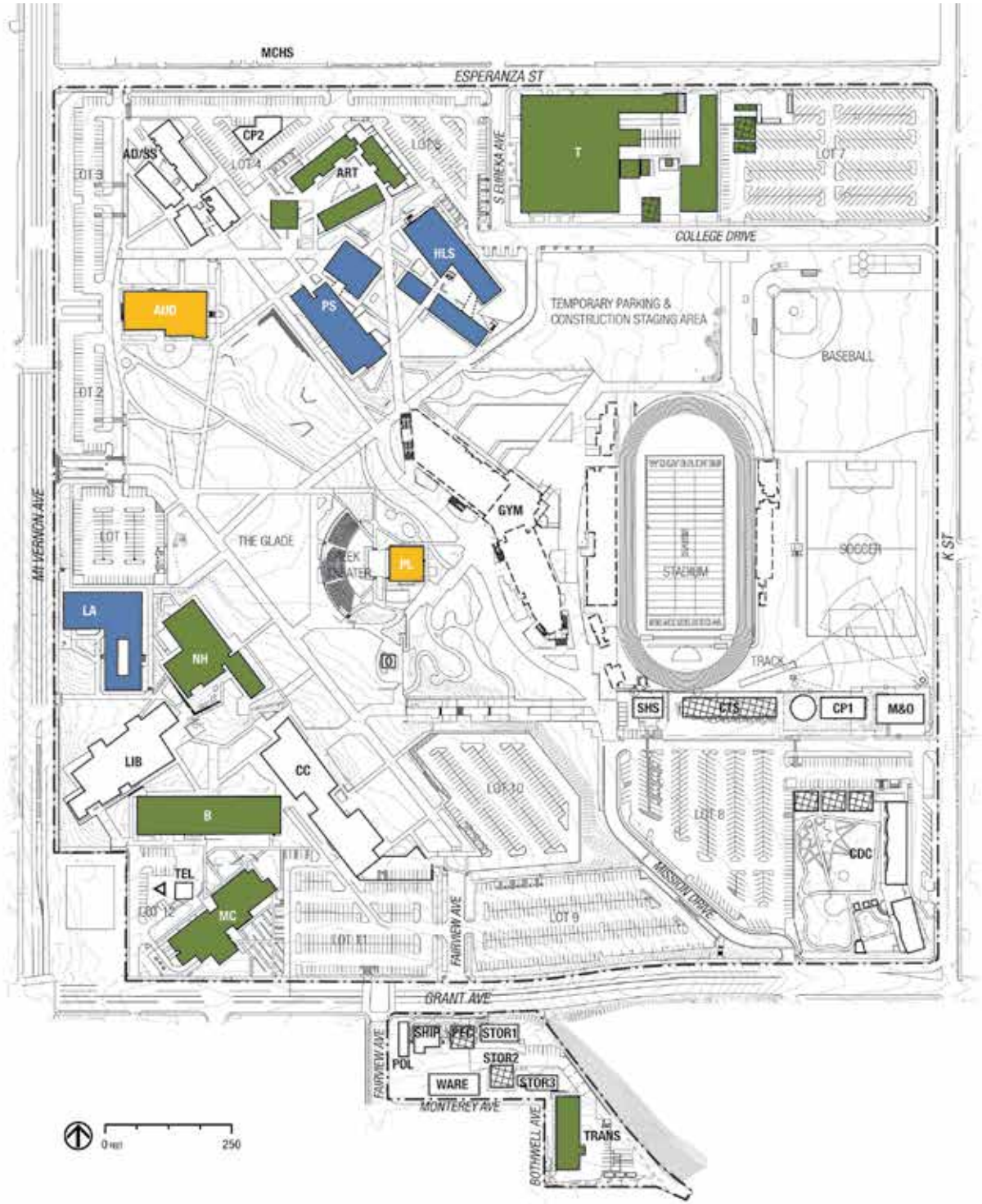
The EMP includes a study of the utilization of Valley College's lecture and laboratory space. The study looks at usage in fall 2014, the most recent available for the study and does not include the new Gymnasium and Field Buildings.

The graphic on the opposing page illustrates the results of the first section of the study, the Overall Building Summary, which indicates the instructional space usage by hours of weekly utilization per semester on an overall building level. The level of utilization of a classroom or lab can be influenced by its many physical attributes, including its configuration, equipment, furnishings, acoustics, indoor environmental quality, location, and accessibility. Low hourly utilization could indicate deficient facilities and spaces that are not desirable or adequately outfitted places to learn.

Please refer to *San Bernardino Valley College Space Utilization,* dated April 2016 for the full report.

Observations:

- Utilization could be improved for many of the buildings, with regard to the average number of contact hours that occurred in classrooms and labs. The site review indicated that the utilization of most classrooms and labs was not due to deficiencies in physical design and outfitting.
- The study showed that the highest average hourly utilization occurred in the Health Life Science, Liberal Arts, and Physical Sciences Buildings.
- In many classrooms only one or two subjects were taught, indicating that classrooms may be "owned" by specific programs instead of being shared among all programs.
- Often a perceived shortage of classrooms and labs is due to competition for desirable timeslots.



SPACE UTILIZATION

- TEMPORARY FACILITIES
- IN DESIGN/UNDER CONSTRUCTION
- HIGH UTILIZATION
- MEDIUM UTILIZATION
- LOW UTILIZATION
- PROPERTY LINE

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
CC	CAMPUS CENTER
CP1	CENTRAL PLANT (NEW)
CP2	CENTRAL PLANT (OLD)
CDC	CHILD DEVELOPMENT CENTER
CTS	COMPUTER TECHNOLOGY CENTER
GYM	GYMNASIUM
HLS	HEALTH & LIFE SCIENCE
LA	LIBERAL ARTS
LIB	LIBRARY
M&O	MAINTENANCE & OPERATIONS
MC	MEDIA/COMMUNICATIONS
NH	NORTH HALL
O	OBSERVATORY
PEC	PARENT EDUCATION CENTER
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PL	PLANETARIUM
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STOR3	STORAGE BUILDING 3
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T	TECHNICAL
TEL	TELECOM BUILDING
TRANS	TRANSPORTATION
WARE	WAREHOUSE

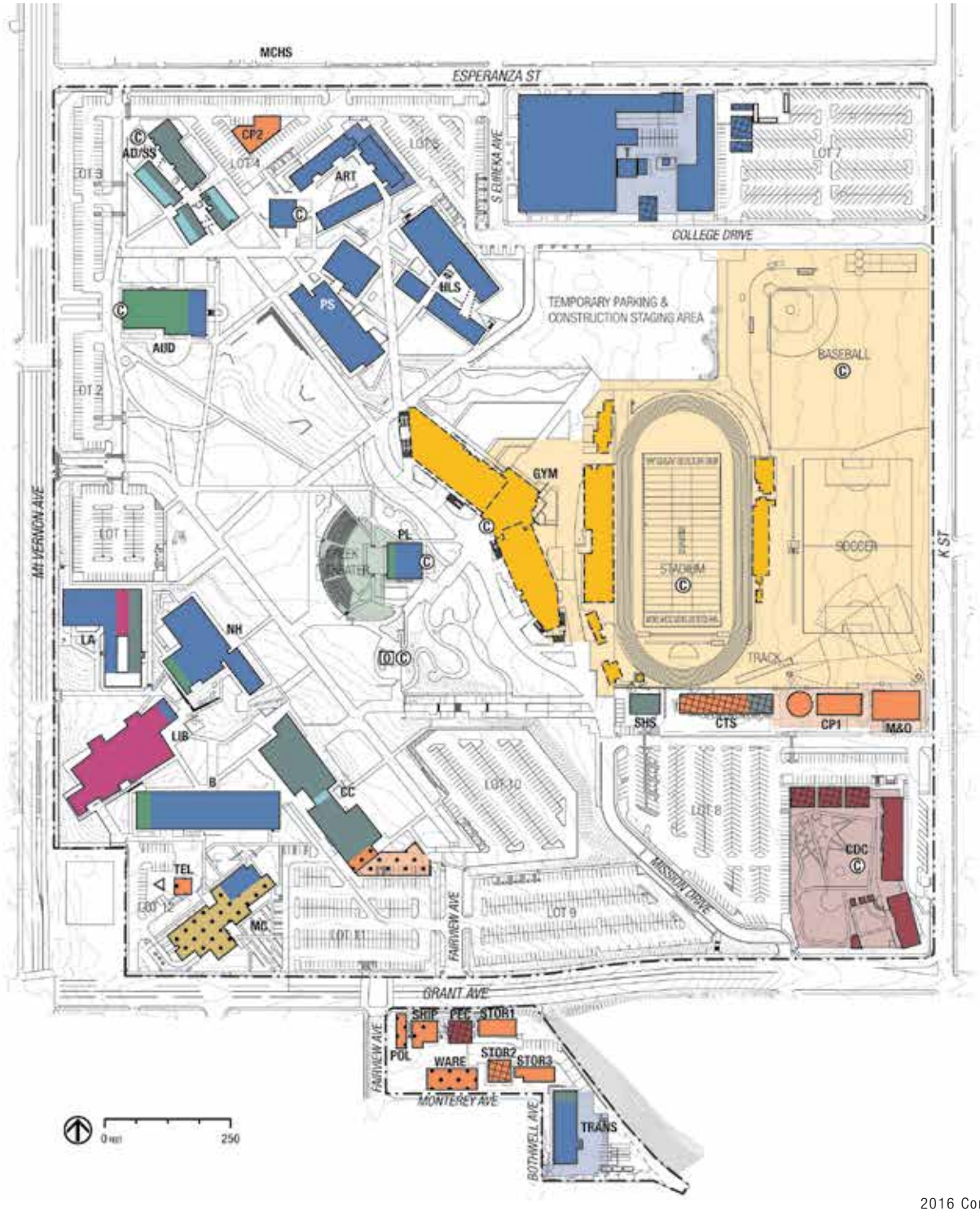
Facilities Analysis
CAMPUS ZONING

The programmed uses of facilities across the campus are logically zoned for most college functions. Functions that are visited by the community, such as the administrative offices in the AD/SS Building, are located on Mt. Vernon Avenue where they are visible and near parking. The Auditorium and Library are also clearly visible from Mt. Vernon Avenue. Kinesiology and athletic facilities are well organized and clustered. Instructional facilities are loosely organized into program-related clusters. The Child Development Center is separated appropriately from the rest of campus.

An important exception to the logical zoning of college functions is the zoning of facilities that house student support services. The Administration/Student Services Building was intended to be a one-stop location for all student services, but it was quickly outgrown. Students must seek guidance and support from services that are distributed across the AD/SS Building, the Liberal Arts Building, the Campus Center, and the Student Health Services Building—complicating their access to services that are critical to their success. It also complicates the ability of student services faculty and staff to collaborate and share resources.

Observations:

- The spaces assigned to student support services in the Liberal Arts Building are often not easily found by many students. These former faculty office spaces lack full accessibility and have not been repurposed to support the specific needs of these programs.
- Spaces in the older buildings on the Fairview Precinct have not been properly repurposed to suit their current use.
- The Diesel Technology Program occupies the Transportation Building, which is located on the Fairview Precinct, separated from support services and related programs that are housed in the Technical Education Building.
- The STEM Success Center, a tutoring center in the Physical Sciences Building, cannot grow further due to lack of available space.



CAMPUS ZONING

- TEMPORARY FACILITIES
- DISTRICT FACILITIES
- IN DESIGN/UNDER CONSTRUCTION
- STUDENT SERVICES + ACTIVITIES
- ADMINISTRATION
- LIBRARY
- INSTRUCTIONAL
- CHILD DEVELOPMENT CENTER
- SERVICE
- PHYSICAL EDUCATION
- EVENT SPACE
- AUX
- Ⓒ COMMUNITY USE
- EMPTY
- PROPERTY LINE

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
CC	CAMPUS CENTER
CP1	CENTRAL PLANT (NEW)
CP2	CENTRAL PLANT (OLD)
CDC	CHILD DEVELOPMENT CENTER
CTS	COMPUTER TECHNOLOGY CENTER
GYM	GYMNASIUM
HLS	HEALTH & LIFE SCIENCE
LA	LIBERAL ARTS
LIB	LIBRARY
M&O	MAINTENANCE & OPERATIONS
MC	MEDIA/COMMUNICATIONS
NH	NORTH HALL
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STOR1	STORAGE BUILDING 1
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STOR3	STORAGE BUILDING 3
SHS	STUDENT HEALTH SERVICES
T	TECHNICAL
TEL	TELECOM BUILDING
TRANS	TRANSPORTATION
WARE	WAREHOUSE

SAN BERNARDINO VALLEY COLLEGE

Needs

This chapter highlights the linkage between the *Educational Master Plan* and the *Facilities Master Plan*. The data developed in *Chapter 7 Program of Instruction & Space Needs* served as the foundation for all discussions related to facilities and was used to drive decisions related to the recommendations for the campus. The purpose of this section of the Facilities Plan is to establish the amount and type of space necessary to support the academic program of instruction and support services through the year 2031.

- Educational Linkages
- Space Needs
- Planning Objectives

Needs

EDUCATIONAL LINKAGES

01 INCREASE ACCESS

GOALS:

IMPROVE THE APPLICATION, REGISTRATION AND ENROLLMENT PROCEDURES FOR ALL STUDENTS.

SUPPORTING ACTIONS:

- Match the number of basic skills courses to student demand
- Increase the number of accelerated basic skills courses
- Provide more pre-assessment workshops
- Improve the assessment process for more accurate placement
- Establish and maintain partnerships with community organizations, K-12 systems and adult schoools
- Explore and expand online advising opportunities
- Imrpove access to transfer, CTE Certificate, and other courses needed for graduation
- Create better balance between transfer and CTE program offerings
- Improve access to technology

FACILITIES LINKAGES:

- Welcoming and easy to find one-stop Student Services.
- Marketing, Public Relations, and Outreach space.
- Opportunities for K-12 students' exposure to campus / familiarity with campus.

02 PROMOTE STUDENT SUCCESS

GOALS:

INCREASE COURSE SUCCESS, PROGRAM SUCCESS, ACCESS TO EMPLOYMENT, AND TRANSFER RATES BY ENHANCING STUDENT LEARNING.

SUPPORTING ACTIONS:

- Increase the percentage of students who succeed in basic skills courses
- Promote and increase the number of students in learning communities
- Expand the use of early alert systems (i.e. SARS)
- Improve performance on all Student Success Scorecard measures
- Increase the use of low-cost and free online resources
- Maintain up-to-date curriculum that is relevant to community needs
- Encourage greater full-time enrollment
- Use Student Learning Outcomes (SLOs) and Service Area Outcomes (SAOs) in an ongoing, systematic cycle of continuous quality improvement
- Increase the number of students with terminal education plans
- Establish and maintain an appropriate ratio of full-time to part-time faculty
- Increase the number of grant opportunities to support student success

FACILITIES LINKAGES:

- Collaboration space.
- Student Services space.
- Tutoring and supplemental instruction space, as well as Basic Skills instruction space.
- Campus living laboratory
- Technology

03 IMPROVE COMMUNICATION, CULTURE, AND CLIMATE

GOALS:

PROMOTE A COLLEGIAL CAMPUS CULTURE, WITH OPEN LINES OF COMMUNICATION BETWEEN ALL STAKEHOLDER GROUPS ON AND OFF CAMPUS.

SUPPORTING ACTIONS:

- Promote a sense of community and solidarity within the campus and embrace diversity (students, faculty and staff)
- Promote budgetary transparency
- Disseminate college committee meeting minute and all plans online
- Build community recognition and networks by capitalizing on the College community roots
- Expand and enhance local business and community awareness of the College
- Establish a College historical archive that is accessible online
- Build a stronger relationship with the SBVC foundation
- Ensure exceptional customer service in all campus offices
- Work with the District to streamline and expedite campus hiring practices
- Improve campus morale

FACILITIES LINKAGES:

- Event, meeting and collaboration spaces.
- Useful and welcoming outdoor spaces.
- Library, historical archives and a Multi-cultural center.
- Transportation access and parking for cars and bicycles.
- Invisible maintenance (lessen the impact of maintenance staff and equipment in student areas by building maintenance facilities with adequate cart charging and equipment storage space)

04 MAINTAIN LEADERSHIP AND PROMOTE PROFESSIONAL DEVELOPMENT

GOALS:

MAINTAIN CAPABLE LEADERSHIP AND PROVIDE PROFESSIONAL DEVELOPMENT TO STAFF THAT WILL NEED SKILLS TO FUNCTION EFFECTIVELY IN AN EVOLVING EDUCATIONAL ENVIRONMENT.

SUPPORTING ACTIONS:

- Reduce manager turnover – fewer interims and more permanent managers
- Improve access to a wide variety of professional development activities/organizations
- Maintain a personal achievement inventory for a faculty and staff
- Establish partnerships with neighboring community colleges

FACILITIES LINKAGES:

- Collaboration space for faculty and Campus Technology Services (CTS). More centralized faculty office space.
- Professional Development Center.
- Learning Lab.

05 EFFECTIVE EVALUATION AND ACCOUNTABILITY

GOALS:

IMPROVE INSTITUTIONAL EFFECTIVENESS THROUGH A PROCESS OF EVALUATION AND CONTINUOUS IMPROVEMENT.

SUPPORTING ACTIONS:

- Maintain up-to-date information on campus indicators, including evaluation data on support/retention programs and accreditation self study evidence
- Improve and maintain effective Program Review procedures
- Evaluate and update all campus level plans on a regular cycle
- Produce and present annual reports that assess student success
- Measure satisfaction with assessment and placement
- Manage grant expenditures and align them with gram objectives

FACILITIES LINKAGES:

- Integrated planning areas.
- Facilities Implementation Studies.
- Facilities Archives and Records.

06 PROVIDE EXCEPTIONAL FACILITIES

GOALS:

SUPPORT THE CONSTRUCTION AND MAINTENANCE OF SAFE, EFFICIENT, FUNCTIONAL FACILITIES AND INFRASTRUCTURE TO MEET THE NEEDS OF STUDENTS, EMPLOYEES, AND COMMUNITY.

SUPPORTING ACTIONS:

- Conserve resources
- Maintain a safe and secure environment
- Improve campus signage
- Continue with the facilities improvement plan (Implementation of the Facilities Master Plan)
- Develop and maintain adequate parking
- Provide exemplary technology and support while maintaining fiscal and environmental responsibilities

FACILITIES LINKAGES:

- Maintenance and facilities planning space.
- Sustainable and comfortable outdoor learning environments.
- Safe and secure campus with effective wayfinding.
- Parking capcity.
- Technology Improvements

Needs
SPACE NEEDS

SPACE INVENTORY ANALYSIS

Text

MASTER PLAN SPACE PROGRAM

Text

Needs
PLANNING OBJECTIVES

In addition to quantified space needs, the discussions with Valley College Council were informed by the vision of a campus that is imbued with the desired character and qualities. These lists of Needs, Issues, and Challenges and Planning Objectives summarize the most resonant elements of this qualitative vision and were used to guide the development and evaluation of facilities options.

Needs, Issues, and Challenges

The following were heard as recurring themes in the program interviews or the analysis of existing facilities.

1. More classrooms and offices
2. Flexible classrooms
3. Appropriate instructional tools and equipment in classrooms
4. Consistent design standards for classrooms
5. Program-specific storage space
6. Faculty offices near shared collaboration space
7. A one-stop student services location
8. Consistent/equitable delivery of learning resources & tutoring
9. Dedicated open computer labs
10. Current with technology and technology access
11. More student study & gathering spaces
12. More parking
13. Improved safety & security on campus

Planning Objectives

These objectives were established to guide the discussion and decision-making.

1. Align campus space with the educational priorities
2. Maximize the physical space on campus
3. Ensure a student-centered and friendly campus
4. Develop student gathering spaces + activity zones
5. Improve College visibility to the community
6. Provide flexible + consistent + well-equipped instructional spaces
7. Plan for future teaching and learning opportunities
8. Showcase students' projects and successes
9. Create faculty office space that encourages collaboration
10. Continue sustainable campus development
11. Address parking needs and alternative transportation
12. Allocate resources to care for facilities

SAN BERNARDINO VALLEY COLLEGE


HIGH VOLTAGE
ENERGY
EcoCAR3

Recommendations

The *2016 Facilities Master Plan* translates the strategic directions and space needs, which are identified in the *2016 Educational Master Plan*, into recommendations for the future development of the campus. While the drawings presented in this chapter may appear specific, the forms are conceptual sketches that describe the general location and purpose of improvements. As they are funded, each project will be programmed and designed in detail with the participation of a user group.

The recommendations for the future development of the campus are described in the following sections.

- Recommended Demolition + Replacement
- Opportunities
- 2016 Long-Range Campus Master Plan
- Project Descriptions
- Exploration of Future Options
- Implementation

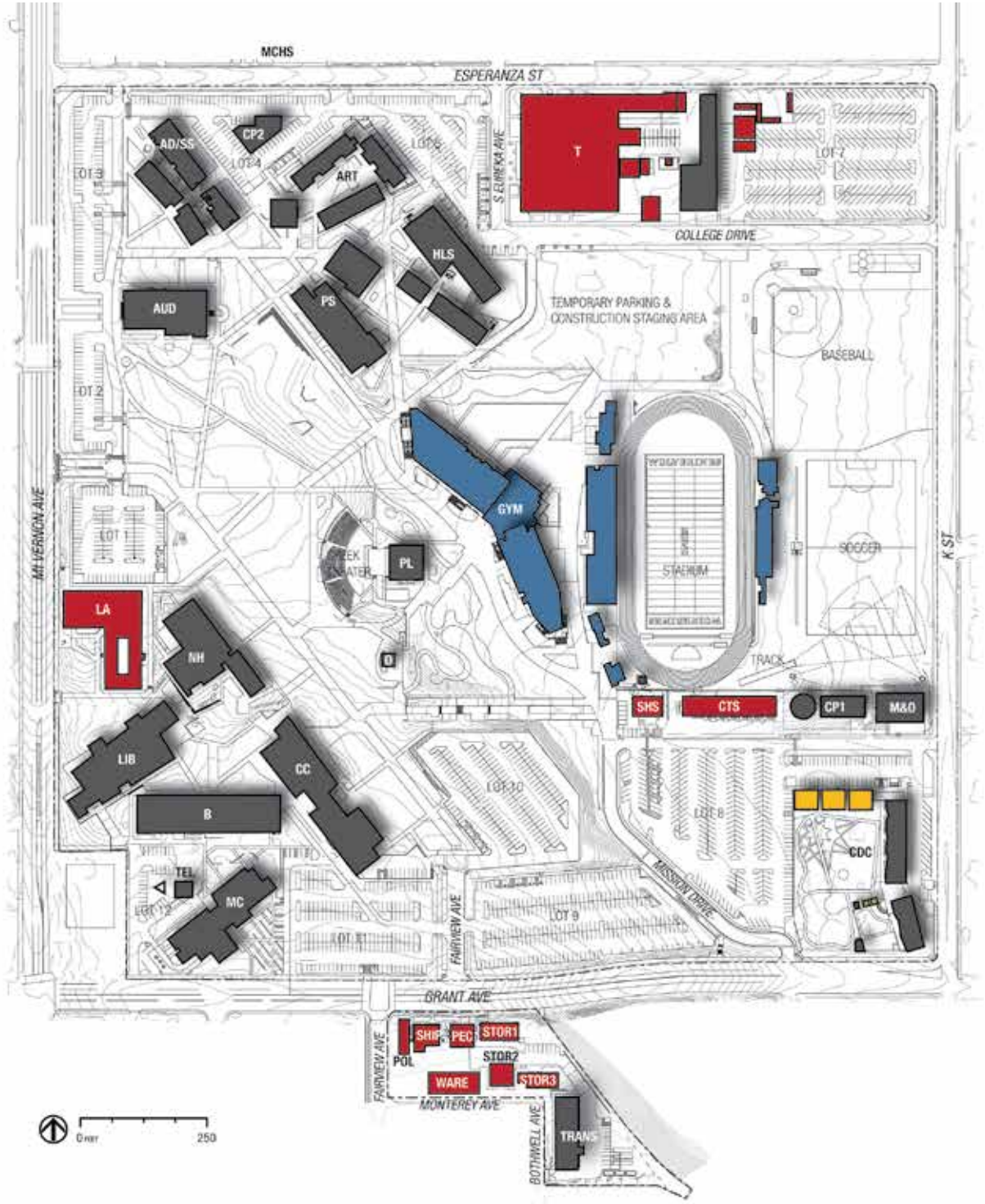
Recommendations

RECOMMENDED DEMOLITION + REPLACEMENT

The graphic on the opposing page illustrates the recommendations for demolition and removal of facilities. Temporary facilities, as well as aged permanent facilities that are no longer feasible or cost effective to renovate, are recommended for replacement. The decision to renovate or replace an existing facility is often influenced by the limitations that an existing structure or site places on the success of a potential renovation. These factors were considered by SBCCD and San Bernardino Valley College in the course of seeking the most effective solutions.

The removal of the following facilities clears the way to improve the utilization of the campus land area. Removal of facilities will be phased to take place as new and renovated space becomes available. In certain circumstances, programs may be temporarily housed in swing space prior to being relocated to long-term facilities.

- Technical Education Building (main wing and temporary buildings)
- Liberal Arts Building
- CTS Portables and Classrooms
- Student Health Services
- Police Storage
- Shipping & Receiving
- Parent Education Center
- Warehouse
- Storage Building 1
- Storage Building 2
- Storage Building 3



RECOMMENDED DEMOLITION & REMOVAL

PROPERTY LINE
EXISTING PERMANENT FACILITIES
EXISTING TEMPORARY FACILITIES
FACILITIES IN DESIGN & CONSTRUCTION
RECOMMENDED DEMOLITION & REMOVAL

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
CC	CAMPUS CENTER
CP1	CENTRAL PLANT (NEW)
CP2	CENTRAL PLANT (OLD)
CDC	CHILD DEVELOPMENT CENTER
CTS	COMPUTER TECHNOLOGY CENTER
GYM	GYMNASIUM
HLS	HEALTH & LIFE SCIENCE
LA	LIBERAL ARTS
LIB	LIBRARY
M&O	MAINTENANCE & OPERATIONS
MC	MEDIA/COMMUNICATIONS
NH	NORTH HALL
O	OBSERVATORY
PEC	PARENT EDUCATION CENTER
PS	PHYSICAL SCIENCES
PL	PLANETARIUM
POL	POLICE STORAGE
SHIP	SHIPPING & RECEIVING OFFICE
STOR1	STORAGE BUILDING 1
STOR2	STORAGE BUILDING 2
STOR3	STORAGE BUILDING 3
SHS	STUDENT HEALTH SERVICES
T	TECHNICAL
TEL	TELECOM BUILDING
TRANS	TRANSPORTATION
WARE	WAREHOUSE

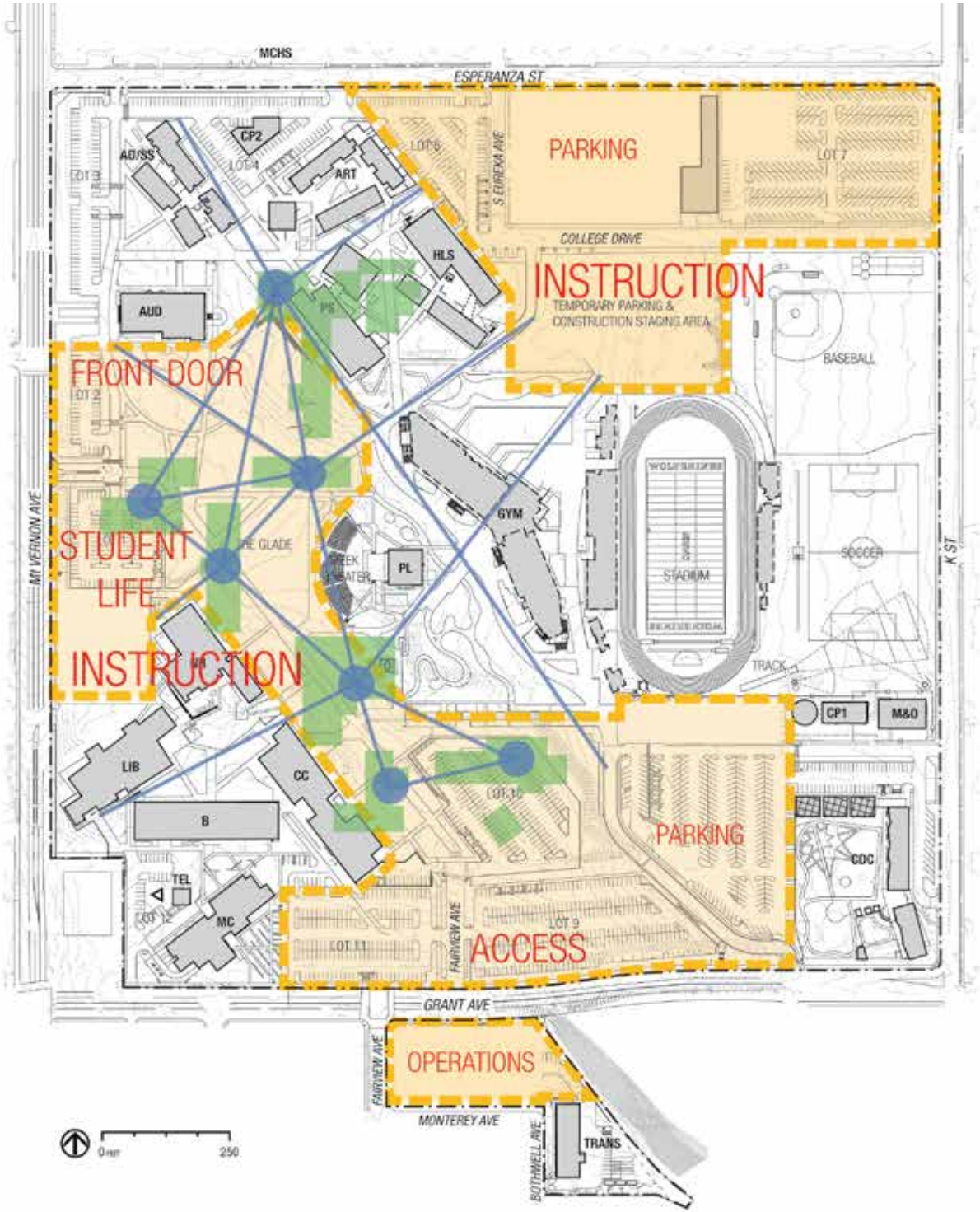
Facilities Analysis
OPPORTUNITIES

Removal of buildings opens up opportunities to improve the campus and address educational program needs. The graphic on the opposing page shows the campus without the facilities that are recommended for demolition and removal. Areas of opportunity are available to achieve many objectives.

In addition, the facilities planning process took inspiration from the campus as it existed prior to the changes that followed the mapping of the San Jacinto Fault on the campus. Many stakeholders expressed their fond memories of the vibrant and well-used courtyards and walkways that comprised the spaces between buildings. The graphic illustrates the footprints of these long gone buildings (shown in green) and the scale of the outdoor spaces that connected them.

Opportunities

- To create a more prominent “front door” and visually consistent edges that strengthen the campus’ identity
- To create usable, welcoming, and sustainable outdoor spaces
- To build facilities that align with the new vision for career technical education
- To build a hub for student services and activities
- To provide modern operational support and storage facilities
- To satisfy the long-range need for parking
- To replace the most aged and inefficient facilities



CAMPUS OPPORTUNITIES

- TEMPORARY FACILITIES
- IN DESIGN/UNDER CONSTRUCTION
- AREAS OF OPPORTUNITIES
- OLD CAMPUS FOOTPRINTS
- BUILDING FOOTPRINT NODES
- NODE CONNECTIONS/CAMPUS PATHWAYS
- PROPERTY LINE

BUILDING KEY

ID	Building Name
AD/SS	ADMINISTRATION/STUDENT SERVICES
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
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CP1	CENTRAL PLANT (NEW)
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HLS	HEALTH & LIFE SCIENCE
LA	LIBERAL ARTS
LIB	LIBRARY
M&O	MAINTENANCE & OPERATIONS
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STOR1	STORAGE BUILDING 1
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STOR3	STORAGE BUILDING 3
SHS	STUDENT HEALTH SERVICES
T	TECHNICAL
TEL	TELECOM BUILDING
TRANS	TRANSPORTATION
WARE	WAREHOUSE

Recommendations
2016 LONG-RANGE CAMPUS MASTER PLAN

The *Facilities Master Plan* for the San Bernardino Valley College campus presents a picture of development that is intended to support the College's Strategic Directions and accommodate its projected enrollment and program forecasts.

Furthermore, the FMP supports the vision for a welcoming and student-centered campus that supports collegial interaction and collaboration among all who learn, teach, and support Valley College's students.

The recommendations are described in a series of capital construction and renovation projects, as well as initiatives for campus-wide improvement that are intended to be implemented in a flexible and phased manner.

PROJECT LIST

New Facilities

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

Renovation of Facilities

- Maintenance & Operations Building Renovation
- Administration Building Renovation
- Campus Center Renovation
- Greek Theater & Planetarium Renovation

Campus-Wide Improvements

- Campus-wide Learning Environment Upgrades
- Campus-wide Vehicular Circulation & Parking
- Campus-wide Enriched Outdoor Environment
- Campus-wide Security & Safety
- Ancillary Logistics & Infrastructure

Exploration of Future Options

- Downtown San Bernardino 8th Street Building
- Aeronautic Technology Program Facility at San Bernardino International Airport

2016 LONG-RANGE CAMPUS MASTER PLAN

BUILDING KEY

ID	Building Name
AD	ADMINISTRATION
ART	ART CENTER
AUD	AUDITORIUM
B	BUSINESS
CC	CAMPUS CENTER
CP1	CENTRAL PLANT 1
CP2	CENTRAL PLANT 2
CDC	CHILD DEVELOPMENT CENTER
CTS	COMPUTER TECHNOLOGY CENTER
GRND	GROUNDS
GYM	GYMNASIUM
HLS	HEALTH & LIFE SCIENCE
LIB	LIBRARY
M&O	MAINTENANCE & OPERATIONS
MC	MEDIA/COMMUNICATIONS
NH	NORTH HALL
O	OBSERVATORY
PAC	PERFORMING ARTS CENTER
PATH1	CAREER PATHWAYS 1
PATH2	CAREER PATHWAYS 2
PRK	PARKING STRUCTURE
PS	PHYSICAL SCIENCES
PL	PLANETARIUM
SS/INST	STUDENT SERVICES/ INSTRUCTIONAL BUILDING
TEL	TELECOM BUILDING
WARE	WAREHOUSE

LEGEND

- PROPERTY LINE
- EXISTING FACILITIES
- PROPOSED RENOVATIONS
- PROPOSED NEW FACILITIES
- PROPOSED PARKING STRUCTURE

HMC Architects

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Recommendations
CAREER PATHWAYS

PHASE 1

Phase 1 of the Career Pathways Complex will provide additional flexible, hands-on learning labs for the instruction of evolving and emerging applied technologies. This facility will replace one of the most aged and maintenance-intensive facilities on the campus with space that simulates current working environments and is richly supported with technology network connectivity and utilities. As a model of sustainable building design, this two-story facility will demonstrate and teach the use of innovative green technologies. Adjacent outdoor instructional spaces will support flexible, high-clearance ground floor laboratories. A new laboratory for diesel technology instruction will allow this program to move out of its current isolated location in the Fairview Precinct and near to related programs.

Both Phase 1 and 2 are planned to be near existing instructional buildings, thus taking advantage of this opportunity to expand the college's inventory of laboratory space for many programs that have outgrown their facilities. Phase 1 will house a new STEM Tutoring Center, allowing for the expansion of this function and the repurposing of the existing tutoring space in the Health Life Science Building into needed laboratories. The STEM Tutoring Center will extend into an outdoor courtyard between Phase 1 and Phase 2.

PHASE 2

Phase 2 of the Career Pathways Complex will provide additional laboratory space to accommodate the planned growth of Valley College's current and future career pathway programs—in particular, the programs that have grown to fill the Health Life Science and Physical Sciences Buildings. In addition to flexible and well-equipped laboratories, this facility will provide additional space for student-faculty interaction, supplemental instruction, and study.

This project will include a partial reorganization and repurposing of space in the existing Health Life Science and Physical Sciences Buildings, in order to implement a holistic approach to zoning existing and new programs and functions throughout these facilities.

Vignette Plan


Key Plan


Work together
work safely

Recommendations

PARKING STRUCTURE

The Parking Structure will provide 1,225 parking stalls, including handicap accessible stalls, 51 stalls with electric vehicle charging stations, and 30 stalls for fuel efficient vehicles. It will replace a portion of the surface parking stalls in Lot 8, providing a net increase of 975 stalls. A 400 kW solar photovoltaic production plant will be built on the structure's top level.

The Parking Structure will be well-placed to accommodate parking for large campus events at the Stadium, The Glade, and the Greek Theater. It will be set back from the street front and screened with landscaping. Vehicular access directly from Grant Avenue will help to reduce traffic on campus driveways and spacious and accessible pedestrian pathways will link this structure to all parts of the campus.

The Parking Structure design shown on these pages is reflective of the prior design completed in 2010, which was not constructed due to a reprioritization of bond financed facilities allowing instructional buildings to be constructed instead.

Vignette Plan

Key Plan


SBVC

Recommendations

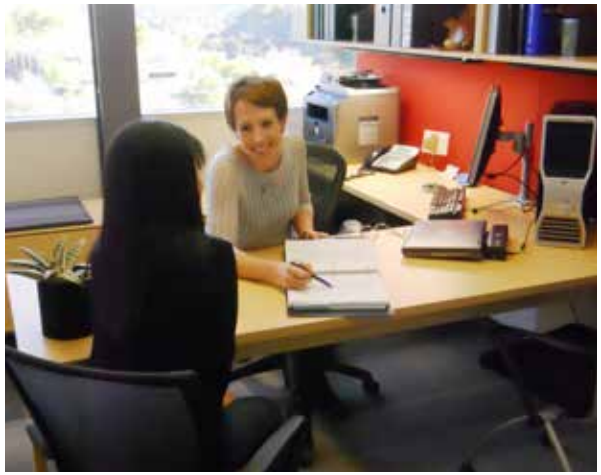
STUDENT SERVICES/INSTRUCTIONAL BUILDING

The Student Services & Instructional Building will bring student-centered instructional and support space into a welcoming facility at the front of campus. The new "one-stop" center will replace offices that are currently distributed among three widely separated buildings, simplifying way-finding and access for students and collaboration and sharing of resources for staff. This facility will also provide modern space to replace aged classrooms, laboratories, and faculty offices in the existing Liberal Arts Building, which has outlived its usefulness. The location next to the existing Library is ideal to house the expansion of learning resources, tutoring centers, instructional media, study space, and open computer labs—providing sufficient space to grow these functions and support the initiative for basic skills instruction. Because the quality of resources and support for faculty bears directly on student success, this facility will provide space to expand the College's Professional Development Center and faculty collaboration space in a central campus location.

The Student Services & Liberal Arts Building is well-located to give Valley College a stronger presence on Mt. Vernon Avenue. It will be bracketed by pedestrian-friendly outdoor spaces that flow directly into a ground-level student welcome center. A plaza will draw students in from the "front door" of the College. Students and their family and friends will find respite in the sheltered and shady courtyard between this building and North Hall. A strong physical connection is recommended to link related functions to the existing Library.

Vignette Plan

Key Plan



Recommendations

WAREHOUSE FACILITIES

The Warehouse Facility will provide space for SBCCD's district shipping, receiving, and storage functions, as well as a storage space for San Bernardino Valley College. This facility replaces six aged and temporary buildings, including two that were built in the 1930s. The new facility will be durable and easy to maintain—providing flexible and efficient space for receiving and handling deliveries, inventory processing, and disposing of obsolete equipment. It will provide secure storage for the SBCCD Police Department. The college portion of this facility will provide secure storage for general college needs and the needs of individual departments. This facility will include provisions to support the management and recycling of waste, including the storage and disposal of hazardous materials.

The Warehouse will be located on the Fairview precinct of campus. The outdoor areas will be improved to provide for delivery vehicle access and loading and staff parking—all secured by an attractive perimeter wall and landscaping.

Vignette Plan

Key Plan

Recommendations

MAINTENANCE & OPERATIONS BUILDING RENOVATION

Following the construction of the Career Pathway Complex, Phase 1, which will provide a new laboratory for the Diesel Technology program, the Transportation Building and its surrounding site will be repurposed to provide maintenance & operations work space. These work spaces are necessary to properly maintain the campus facilities and operate them efficiently, sustainably, and safely.

The building's location on the Fairview Precinct, south of Grant Avenue, is currently surrounded by unimproved grounds and this project will renovate the site and provide outdoor work space and maintenance vehicle parking and charging stations that are safely separated from student walking paths.

Vignette Plan

Key Plan

Recommendations

ADMINISTRATION BUILDING RENOVATION

Following the construction of the Student Services & Instructional Building and the relocation of student services offices, the vacated space in this building, the former Administration/Student Services Building, will be repurposed to house additional meeting space and workspace for Campus Technology Services (CTS), as well as offices for the College Foundation and Marketing and Public Affairs, which are currently housed in the Campus Center. The renovation of this building is an opportunity to repair and replace worn building components, to make it more efficient to operate, and to update its technology network infrastructure and connectivity.

The Administration Building will provide an ideal location for CTS. Since CTS staff work closely with administration, faculty, and staff to integrate, support, and refresh general and program-specific instructional technologies in offices, classrooms, and labs, their ability to support the College will benefit from the needed expansion of their workspace and a location closer to their “customers.”

Vignette Plan

Key Plan

Recommendations

CAMPUS CENTER RENOVATION

The Campus Center Renovation will provide more space that is dedicated to student activities and recreation, student government, and clubs. Relocating the Veteran's Center to the Student Services and Instructional Building and the College Foundation and Marketing and Public Affairs to the Administration Building frees space for a student lounge and recreation room and a student club workroom and meeting space.

Outdoor areas, including the enclosed patio and the lanai adjacent to the Sunroom and dining room will be shaded, improved, and outfitted to enlarge the space that is available for student dining and gathering. The renovation of this building is an opportunity to repair and replace worn building components, to make it more efficient to operate, and to update its technology network infrastructure and connectivity—specifically to integrate the use of student-owned devices to support college life.

Vignette Plan

Key Plan


STUDENT GOVERNMENT
NOTICES


SOUPER DELI


Veterans Resource Center

Recommendations

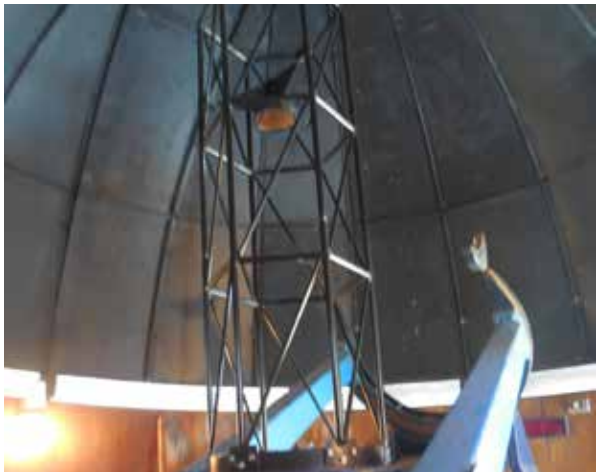
GREEK THEATER & PLANETARIUM RENOVATION

The Greek Theater is well-known and loved by Valley College's community as the location of many memorable graduation ceremonies, events, and performances. This facility also serves the community through its many shows at the 57-seat planetarium that are seen each year by thousands of local K-12 students and that are also open to the public on Friday evenings twice a month from September through April. The Observatory houses a college history collection, as well as the 14-inch telescope that is open for night sky viewing after each public planetarium show.

To prepare these facilities for many more years of service, they will be renovated and updated for accessibility and energy efficiency. The Greek Theater will receive audio-visual and technology equipment and infrastructure upgrades. Options for shading the seating area, within the seismic constraints of the Alquist-Priolo Act, will be explored. Interior space that has been used for temporary housing during the construction of many buildings, including the Gymnasium and Stadium, will be repurposed for permanent uses.

Vignette Plan


Key Plan



Recommendations

PERFORMING ARTS CENTER

Text

Vignette Plan

Key Plan

Recommendations
AQUATIC CENTER

Text

Vignette Plan

Key Plan

Recommendations

SOFTBALL FIELD

Text

Vignette Plan

Key Plan

Recommendations

CAMPUS-WIDE LEARNING ENVIRONMENT UPGRADES

Text

Vignette Plan

Key Plan

Recommendations

CAMPUS-WIDE VEHICULAR CIRCULATION & PARKING

The Facilities Master Plan makes recommendations to improve circulation and access at specific portions of the campus vehicular circulation system. It increases the amount of parking spaces while also providing for alternatives to single-vehicle commuting that will helps to slow the growing need for parking capacity. The FMP aligns with regional and local mobility plans to provide a range of transportation modes from which to choose. Close collaboration among SBCCD and Valley College, transit authorities, and local and regional planning authorities is recommended to facilitate these improvements.

Campus Entry Points and Circulation

The FMP plans for the development of a welcoming "front door" to the campus along Mt. Vernon Avenue, between the Auditorium and the Student Services & Instructional Building. Within this zone, the main vehicular entry point is recommended to be aligned with the signal at Johnston Street. This change would allow both north-bound and south-bound vehicles to enter the campus. The signalized intersection would continue to provide for the pedestrians crossing Mt. Vernon Avenue between the campus and the Pro Swap-Meet. To improve the flow of traffic at the juncture of Lots 3 and 4, the driveway connecting Esperanza Street and Lot 3 should be altered to allow entrance only. Vehicles will be able to exit the campus farther east to Esperanza Street and further south to Mt. Vernon Avenue.
The FMP recommends closing College Drive to general vehicular circulation. This area will be incorporated into the outdoor instructional labs of the Career Pathway Complex and be restricted to pedestrian, service, and emergency circulation between the Baseball and Softball Fields.

The Parking Structure project will improve circulation in the driveways and parking lots near Grant Avenue. Traffic will flow directly into and out of the parking structure via Grant and Fairview Avenues lessening the traffic in other parking lots.

Transit Stops & Passenger Loading zones

Currently many students are dropped off and picked up at the campus by family and friends. As the use of ride-sharing and ride-hailing becomes an even greater proportion of vehicle trips to campus, the need for passenger loading zones with adequate vehicle stacking space will grow. Providing dedicated loading zones reduces congestion in parking lots that currently serve as informal waiting and loading zones. The development of three passenger loading zones are recommended.

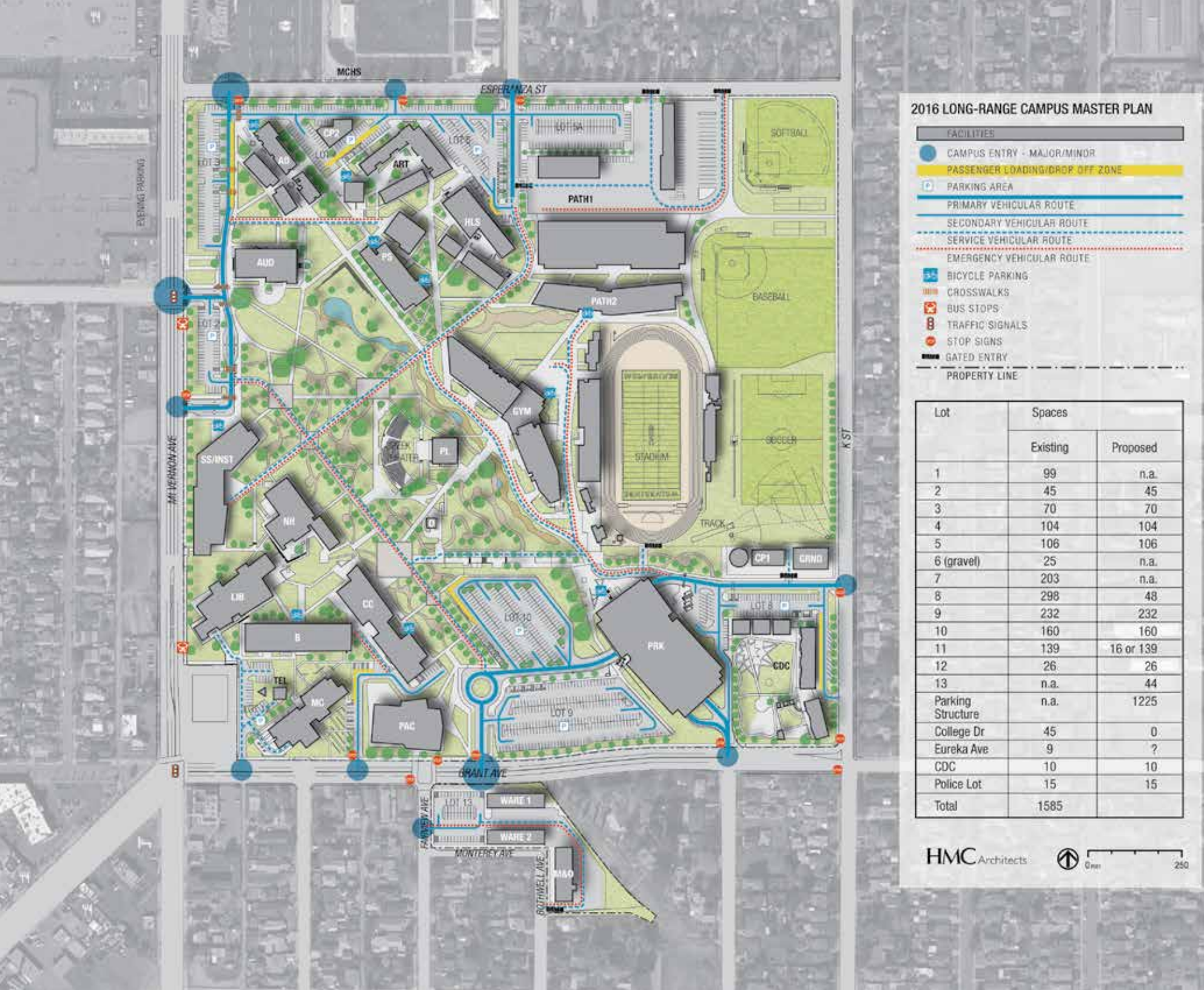
- Main entrance passenger loading zone and transit stop
- Eureka Avenue passenger loading zone
- Fairview Avenue passenger loading zone

Parking

The FMP plans for more parking on the Valley College campus. It also assumes that the joint-use parking agreement with Pro Swap-Meet, as well as on-street parking in the surrounding public streets will remain available during the master planning horizon.

The Parking Structure project will provide a net increase of 975 additional parking spaces. The FMP alters previous plans to build a second parking structure near Esperanza Street and instead plans for a redistribution of surface parking lots in the northern part of the campus. Much of the location previously planned for a second parking structure will instead be used to provide more indoor and outdoor instructional space for the Career Pathways Complex.

Looking beyond the planning horizon for this FMP, it is recommended that SBCCD and Valley College continue to implement policies and programs that encourage the use of alternative transportation modes that help



2016 LONG-RANGE CAMPUS MASTER PLAN

FACILITIES

- CAMPUS ENTRY - MAJOR/MINOR
- PASSENGER LOADING/DROP OFF ZONE
- PARKING AREA
- PRIMARY VEHICULAR ROUTE
- SECONDARY VEHICULAR ROUTE
- SERVICE VEHICULAR ROUTE
- EMERGENCY VEHICULAR ROUTE
- BICYCLE PARKING
- CROSSWALKS
- BUS STOPS
- TRAFFIC SIGNALS
- STOP SIGNS
- GATED ENTRY
- PROPERTY LINE

Lot	Spaces	
	Existing	Proposed
1	99	n.a.
2	45	45
3	70	70
4	104	104
5	106	106
6 (gravel)	25	n.a.
7	203	n.a.
8	298	48
9	232	232
10	160	160
11	139	16 or 139
12	26	26
13	n.a.	44
Parking Structure	n.a.	1225
College Dr	45	0
Eureka Ave	9	?
CDC	10	10
Police Lot	15	15
Total	1585	

HMC Architects

0 250

Recommendations
CAMPUS-WIDE VEHICULAR CIRCULATION & PARKING *(cont.)*

to reduce the parking utilization rate. Because the continued availability and terms of use of the Pro Swap-Meet and off-campus street parking are not guaranteed, SBCCD and Valley College should continue to explore additional options. The joint-use agreement with Pro Swap-Meet should serve as a model for addressing the need for parking in ways that are cost-effective and based on community partnerships.

Bicycle Facilities

Bicycling to campus promotes fitness and reduces the demand for parking lots. It also helps to reduce the College's carbon footprint that results from fuel-based transportation, by far its largest contribution of greenhouse gases. Valley College could do more to welcome cyclists. Discussions among stakeholders and a review of current policies are recommended to build consensus around a set of goals, policies, and rules for safe and convenient bicycle use on the campus.

The FMP recommends integrating bicycle use at the campus entry points, especially at or near existing and planned community bicycle routes and paths. Bicycle entrances are recommended at points on Mt. Vernon Avenue, which is a Class III bicycle route, and on Grant Avenue nearest the Lytle Creek Channel Class I bicycle path. Signage along campus routes shared with vehicles or pedestrians will promote awareness of bicycle traffic. Existing pedestrian/emergency vehicle routes have the capacity to serve as bicycle routes and should be designated with signage placed next to or painted on the pavement. These paths extend to the Gymnasium, where secure parking and access to showers would be provided.


SBVC

Recommendations

CAMPUS-WIDE ENRICHED OUTDOOR ENVIRONMENT

Beginning 20 years ago, when it became necessary to redevelop much of the campus, Valley College has tested different approaches for the design of its buildings and open spaces. Currently, a large area at the center of campus is being redeveloped for the Gymnasium and Stadium, implementing concepts that were developed with the participation of many faculty and staff.

These concepts draw upon the College's physical context and educational mission for inspiration. Learning gardens and outdoor classrooms are transforming the campus into a lab for learning that accommodates the diverse and active ways in which students learn. The FMP recommends extending these features into The Glade and throughout the campus—making it clear that the campus is here for Valley College's community by fostering a welcoming neighborhood feel that celebrates Valley College's community, history, and heritage.

Student-centered Campus

In support of San Bernardino Valley College's strategic directions, the FMP recommends a revisioning of the campus into a place that welcomes and invites students to use it to further their growth and educational goals. To be an effective resource for student learning and growth, the campus must be an enriched, stimulating, and interactive environment that offers many lessons that grow organically out of available opportunities. These include but are not limited to proximity to instructional programs, campus facilities, the natural environment, local history, and the expertise and interests of faculty and staff. Special features such as small performance opportunities and interactive displays may be incorporated. The concepts described are just a taste of the many possibilities.

The Campus as a Living Laboratory

Valley College's history would be highlighted and honored through features that recall buildings, courtyards, and places such as the Free Speech platform, and their role in college history. Architectural elements of the Mission Revival-style that have been saved from the original campus buildings would be incorporated. Public art and student art will be displayed and featured in indoor and outdoor spaces to enhance gathering spaces.

Opportunities will be sought to program and design learning gardens such as the Biology Learning Garden that is being built next to the Gymnasium. For example, an Astronomy Learning Garden could be constructed around the Observatory and Planetarium. Other gardens could feature native habitat and wildlife, the local

Recommendations
CAMPUS-WIDE ENRICHED OUTDOOR ENVIRONMENT *(cont.)*

geology and seismicity, and storm water management and its effect on regional water quality.

Network connectivity through the campus WiFi system will be extended to cover outdoor areas to support instructional and social activities using both college- and student-owned devices.

The Glade

Native riverine environments will be modeled by a dry creek bed that winds pass the Gymnasium and into The Glade to find its destination among the oak trees. The dry creek would serve a double-duty by helping to manage storm water on the campus while recalling the restorative beauty of the naturally flowing water.

Plazas and gathering spaces of a variety of sizes and scales would be developed at nodes that recall the location and functions of past campus buildings. Areas furnished with tables and seating and paved with decomposed granite or other materials would support many uses, such as outdoor dining and events, or define outdoor living rooms that would welcoming students and staff. Use of natural elements such as boulders for informal seating and walkways accented with stone pavers will be encouraged.

Larger paths would link destinations across the campus. Smaller, winding paths would bring walkers through the garden environments at a slower pace. Large trees will be preserved and many more trees will be planted to create shade. Shade structures will be provided where permitted.

Courtyards

Paving, shade structures, landscaping, lighting, and furnishings will be provided for courtyards that are adjacent to the Career Pathways Complex and the Student Services and Instructional Building. Charging stations for personal devices and WiFi coverage will be provided.

Recommendations

CAMPUS-WIDE SECURITY & SAFETY

SBCCD and the College will take a proactive approach to the security and safety of the campus including designing outdoor and building space using CPTED (Crime Prevention through Environmental Design) design principals and best practices for creating secure environments. This approach will be augmented with electronic security and safety systems. Projects to upgrade systems can be done as new buildings and site areas are built, as existing facilities are renovated, or as specific security systems are brought on line. The implementation of these upgrades should be coordinated with the campus police and a campus-wide safety and security plan.

Projects include:

- Expand the electronic access control system to control access to all buildings.
- Install digital CCTV security cameras and monitoring system in parking areas and other key areas of the campus.
- Expand the intrusion alarm system on campus to include all buildings and key spaces on campus.
- Install a campus-wide emergency notification system through the fire alarm system and include exterior speakers to cover all areas of the campus.

Recommendations

ANCILLARY LOGISTICS & INFRASTRUCTURE

Developing new facilities, roads, and infrastructure on an active campus requires a rigorous and logistically-sound approach. New facilities must be integrated into existing systems, which, in turn, must be upgraded to accommodate increasing loads. Simultaneously, campuses must evolve to keep up with new regulations and standards for sustainability and efficiency—a responsibility that community colleges have embraced as an extension of their educational mission and as stewards of public resources. In addition to the improvements listed below, this project will fund temporary facilities, moving expenses, systems integration, and site utilities that must be upgraded and extended to new facilities.

Gymnasium Rooftop Solar Photovoltaic Plant

Valley College is poised to make its first move toward a renewable energy future. The new Gymnasium is solar-ready—built to support a 450 kW rooftop solar PV plant that will supply the campus with clean energy.

Parking Structure Solar Photovoltaic Plant

The next renewable energy project is ready to build. The Parking Structure has been designed to support a 400 kW rooftop solar PV plant that will further decrease Valley College's reliance on the grid.

Softball Field Storm Water Retention and Treatment

Recently enacted water quality regulations no longer exempt community colleges from complying with their requirements. Moving forward, the design of new buildings and site improvements must mitigate against increases in impervious surface areas—surfaces that restrict storm water from being absorbed into the ground. The design must include measures to retain and treat storm water that runs off roofs, parking lots, and other impervious surfaces. To the extent that it is practical, localized measures such as bio-swales, rain gardens, and pervious paving will be used to capture storm water close to where it falls. But it is likely that a more extensive retention and treatment system will be needed for development in the northeast portion of the campus, including Career Pathways, Phase 1 and 2 and Parking Lots 5A and 5B. The planned Softball Field is next to the connection to the municipal storm drain line and is a logical location for such a system.

In addition to storm water requirements, water quality regulations also require a campus sewer management plan and SBCCD and the College are currently studying the existing sewer infrastructure and identifying needed repairs and upgrades.

Central Cooling Plant Upgrades

Air conditioning on campus runs on chilled water that is generated at the central cooling plant and circulates underground to each building. The Central Plant operates throughout the night when power costs less and stores chilled water in the thermal energy storage tank for use during the next day. This project will upgrade the chilling and storage capacity to keep pace with the development of new buildings.

Site Utilities Infrastructure Improvements

The preparation of an infrastructure master plan is recommended as a necessary step in the implementation of this facilities master plan. The infrastructure master plan will study the current capacity of campus-wide data, energy, hydronic cooling, water, sewer, and storm drainage systems and make recommendations to upgrade and extend these services as required to support the recommended new and renovated facilities and site improvements. Included should be recommendations that address the need to simplify operations and promote safety and security, involving systems such as the energy management system, security and access control systems, among others.

Recommendations
EXPLORATION OF FUTURE OPTIONS

Downtown San Bernardino 8th Street Building

Collaborate in a district-wide exploration of options to use the SBCCD-owned 8th Street property in downtown San Bernardino. The location of this property within a regional urban center places it at a hub of transportation systems, as well as business and government activity. This site could provide an opportunity for many students to learn in a location that is closer to where they live and work. It could also be a strong presence in the community from which to reach out and build partnerships.

Aeronautic Technology Program Facility at San Bernardino International Airport

Explore the option for students in the Aeronautic Technology Program to learn within the active environment of an operating international airport. A facility here could have the space needed to expand Valley College's existing program beyond what is possible to teach on its campus. A presence at the airport could help to build partnerships with the industry, train incumbent workers, and place Valley College students in jobs and internship programs.

Recommendations
IMPLEMENTATIONS

Text

References