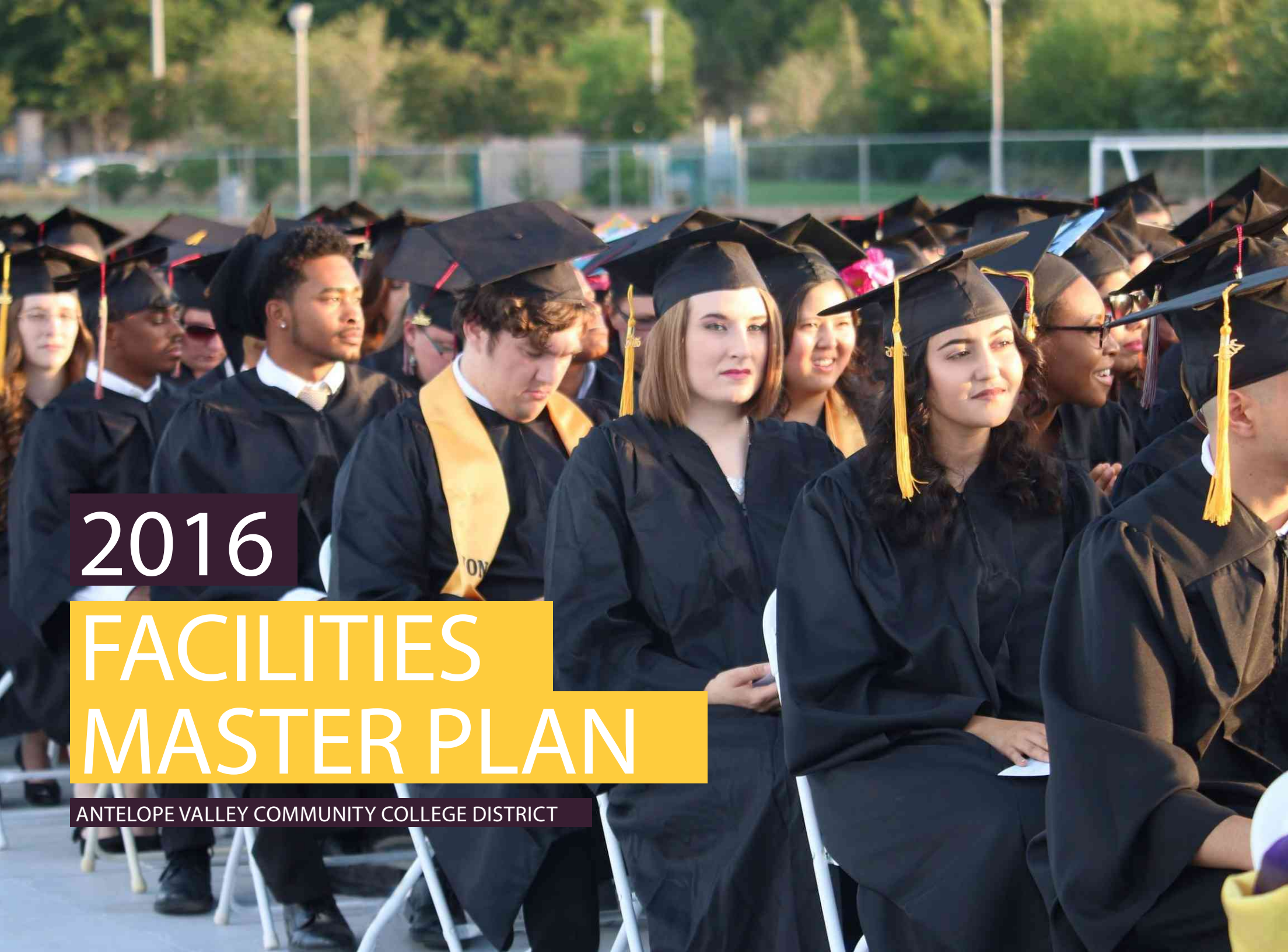

2016 FACILITIES MASTER PLAN

ANTELOPE VALLEY COMMUNITY COLLEGE DISTRICT

2016 FACILITIES MASTER PLAN

ANTELOPE VALLEY COLLEGE

LEADERSHIP

Edward Knudson / Superintendent/President
Erin Vines / Vice President, Student Services
Mark Bryant / Vice President, Human Resources
Bonnie Suderman / Vice President, Academic Affairs
Meeta Goel / Dean, IERP/Library Services
Louis Tom O'Neil Dean / Social & Behavioral Sciences
Duane Rumsey / Dean, Arts and Humanities
Gary Roggenstein / Dean Counseling and Matriculation
LaDonna Trimble / Dean, Enrollment Services
Les Uhazy / Dean, Math, Science, and Engineering
Jill Zimmerman / Dean, Student Development and Services
Peter Chege / Dean, Health Safety Sciences
Laureano Flores / Dean, Career and Technical Education
Riley Dwyer / Dean, Rhetoric and Literacy
Doug Jensen / Executive Director, Facilities Services
Elizabeth Diachun / Executive Director, Marketing and Public Information
Dianne Knippel / Executive Director, Institutional Advancement & Foundation
Rich Shaw / Executive Director, Information Technology Services

BOARD OF TRUSTEES

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Michael Adams / Vice President
Barbara Gaines / Clerk
Lew Stults / Member
Dr. Laura Herman / Member
Kimberly Dolatowski / Student Member

MASTER PLANNING TEAM

Gensler / Facilities Planning
BrightViewDesignGroup / Landscape Planning
S&K Engineers / Infrastructure Planning
Vantage / Technology Planning
Fehr & Peers / Transportation Planning

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letter from the president

From its humble beginnings in a single classroom at the Antelope Valley Joint Union High School on September 10, 1929, admitting 20 students, Antelope Valley College has grown steadily over its 87-year history. Moving from the high school to "Quonset" huts at the fairgrounds in the 1950s, the college moved to its current location in 1960. The current site has gradually expanded over the 56 years of occupying its current location now occupying nearly 140 acres and serving 15,000 students per semester. Throughout the entirety of the college history, the residents of the Antelope Valley have provided consistent, loyal, and unparalleled support.

In 2004 the residents demonstrated that support with the passage of a 139 million dollar general obligation bond for capital improvements. This infusion of capital allowed the college to add needed campus utility and technology infrastructure, state-of-the-art science and health science classrooms, modern athletic facilities, and a state-of-the-art Performing Arts Center.

This Facilities Master Plan is the culmination of the participation of the community and all college constituency groups. The process began in the fall of 2015 with the all-college planning retreat, and through a series of focus groups, meetings with college constituent groups and planning committees, including students, a comprehensive, participative planning approach was utilized.

We are very excited about this innovative, creative, environmentally friendly, and service oriented plan for the college. It establishes a comprehensive view of service to the community from a full-service Child Development Center where our students receive education and training in Early Childhood Development; to the award winning SOAR High School; to AVC, a fully comprehensive community college including a full-service education center in Palmdale; to co-location of partnerships with two members of the CSU system; and all share the convenience of proximity and the efficiency of shared property and services.

This plan is a ten-year plan, but it lays the foundation for the next century for Antelope Valley College. It is exciting to have been a part of developing this vision for the college, and even more thrilling to look forward to beginning the construction on what promises to be a gem for the Antelope Valley and the California Community College system.

Ed Knudson
President
Antelope Valley College

about AVC

PHILOSOPHY

Antelope Valley College is a comprehensive community college in the California Community College System dedicated to providing services to a broad range of students with a variety of educational goals. Antelope Valley College is dedicated to providing educational programs and services as expressed in the California Master Plan for Higher Education. The College is committed to equal educational opportunity and reinforces that commitment through a program of active affirmation of diversity.

Antelope Valley College is dedicated to meeting the dynamic needs of a changing community. The College addresses the educational needs of a diverse and evolving population. The College recognizes that it is uniquely capable of responding to the requirements of regional business, industry, and public service, as well as the social and cultural needs of the Antelope Valley.

Antelope Valley College affirms the rights of the individual and respects human dignity. The programs and activities of the College foster the individual's ability to think clearly, critically, and independently to meet the demands of an increasingly complex society. The student is the primary concern of the College. The curriculum, activities, and services of the College help students understand their physical, cultural, ethnic, and social environment. The preservation of academic freedom provides a college environment in which students and faculty can examine ideas freely.

This philosophy is reflected in the curriculum, the student-faculty relationships, the services and resources, and the policies of the College.

VISION

To provide quality education that transforms lives.

MISSION

Antelope Valley College, a public institution of higher education, provides a quality,comprehensive education to a diverse population of learners. We are committed to student success offering value and opportunity, in service to our community.

VALUES

Education - We are dedicated to students, faculty, staff, and alumni in their endeavor for lifelong learning.

Integrity - We expect honesty, trust, candor, and professionalism from one another.

Excellence – We commit to the highest quality in all our endeavors, being responsive to our community in innovative ways.

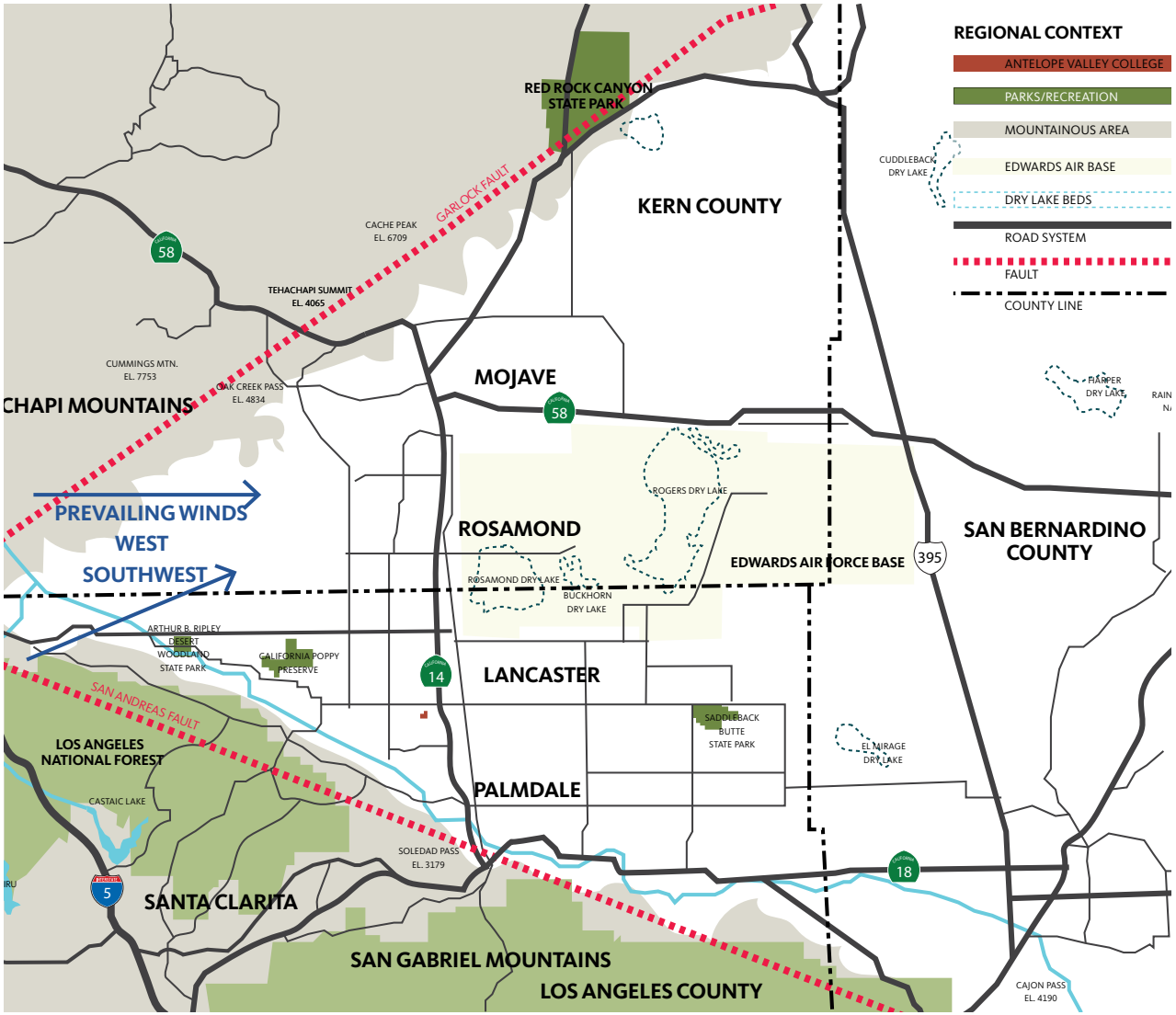
Community – We create and foster relationships between AVC and its diverse constituents: students, faculty, staff, alumni, and the community at large.

*Source: Antelope Valley College website

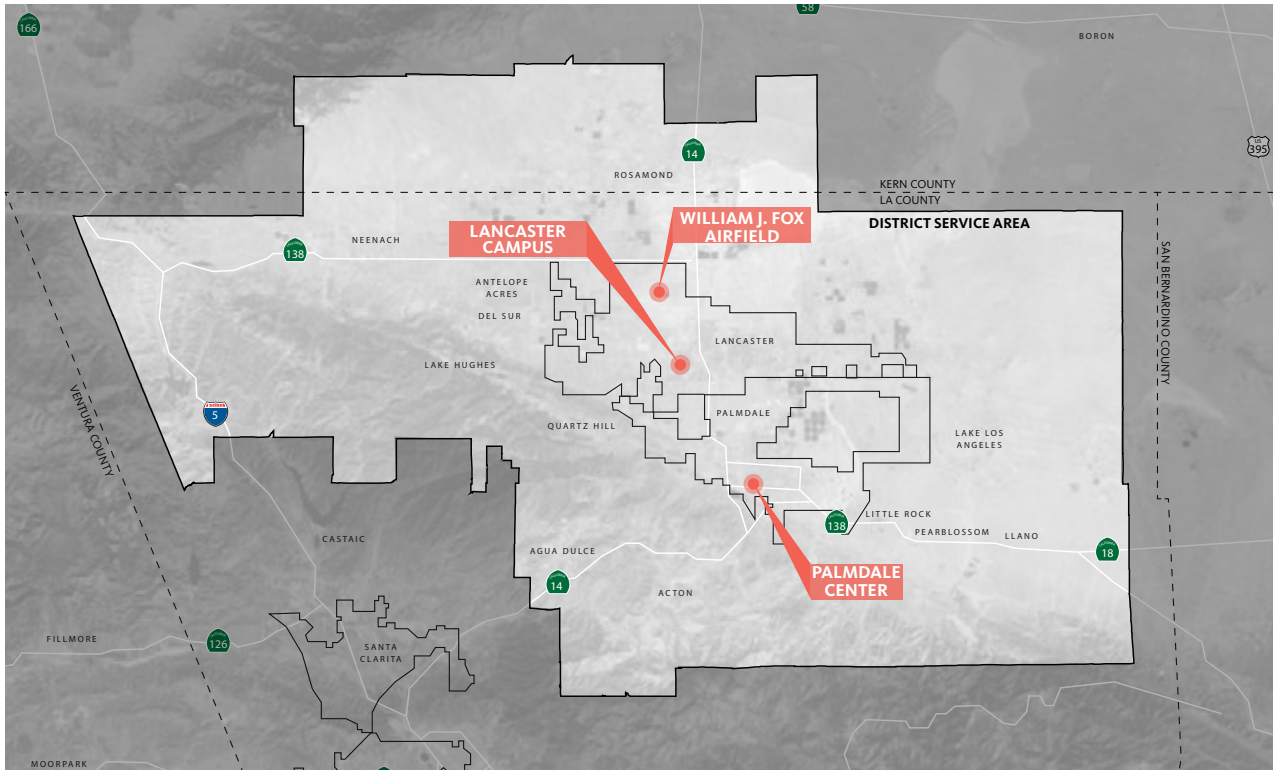
regional context

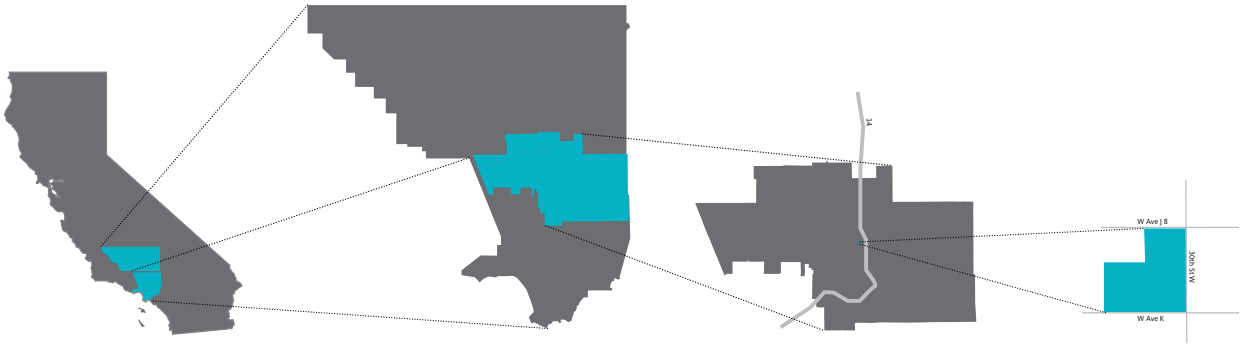
Antelope Valley College is nestled in the Western tip of the Mojave Desert. The wind patterns blow predominantly from the west-southwest direction across the Valley's surface. The region's prevailing and dominant winds are affected by the positioning of the Valley within the nearby mountain ranges.

Antelope Valley has historically been the site of many significant aeronautical accomplishments, which has helped to shape the regions identity. Due to the low and vast nearby geography, NASA space shuttles originally landed at Edwards Air Force Base. The aeronautical community is still present and has grown into an identifiable staple throughout the area.



district service area





CALIFORNIA

KERN COUNTY AND LOS ANGELES COUNTY

ANTELOPE VALLEY COMMUNITY COLLEGE DISTRICT

AVC

The District Service Area includes 40% of the land mass of Los Angeles County, as well as a small section in the southeastern part of Kern County. The geography is characterized by a broad flat high desert valley that merges into the San Gabriel Mountains. The mountains serve as a physical divider between the Antelope Valley and the Los Angeles Basin.

In the center of the District are the two cities Lancaster and Palmdale that account for 81 percent of the district population. The rest of the population is dispersed somewhat equally throughout the region. The nearest community colleges in the other districts are at list 50 miles away, making commuting time to these locations over an hour in length. Despite this long commute some students still choose to attend classes in other districts.

Antelope Valley Community College District includes three locations:

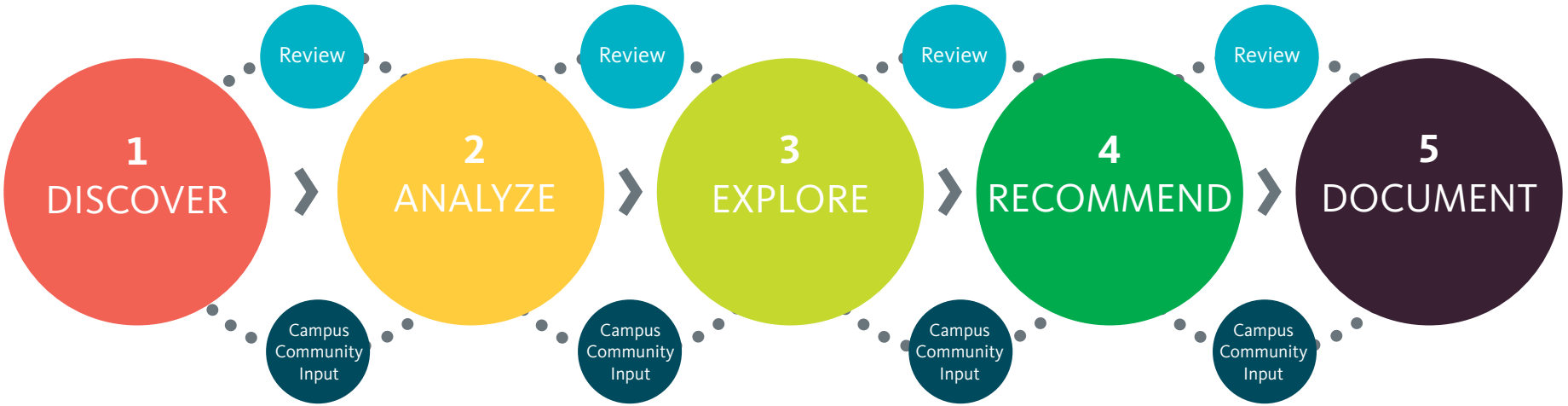
- Lancaster Campus (main campus)
- Palmdale Campus
- Fox Field

This Facilities Master Plan (FMP) focuses primarily on the Lancaster Campus, and is referred to throughout the document as AVC.

purpose and process

The **2016 Facilities Master Plan** (FMP) for Antelope Valley College has been developed to serve as a guide for future development. It provides a quantitative and qualitative description of the College's strategy to support the educational program needs, address the long range forecast for enrollment, and maximize funding opportunities. It is guided by the **2016 Educational Master Plan** (EMP), which serves as the foundation for recommendations regarding facilities. The plan provides a framework for future development, including the placement of new facilities, the renovation of existing facilities, and the improvement of a number of campus-wide sites.

The planning process was a participatory one involving many individuals from the college. The Planning Team worked closely with the designated Facilities Strategic Planning Subgroup to define planning goals, review the analysis of existing conditions, evaluate a series of development options, and make decisions that led to the development of the master plan recommendations.



participation

FACILITIES STRATEGIC PLANNING SUBGROUP

Doug Jensen/ Facilities Services
Richard Shaw/ ITS
Karl Ritchie/ Maintenance
Jared Simmons/ Facilities Services
Neal Weisenberger/ Math Science
Louis O'Neil/ Dean Social & Behavioral Sciences
Jill Zimmerman/ Dean Student Development and Services

PLANNING MEETING PARTICIPANTS

Ed Knudson
Erin Vines, Ed.D.
Mark Bryant
Bonnie Suderman, Ed.D.
Erin Tague
Noe Flores
CJ Rohr
Yvonne Harvey
Jared Simmons
Mike Maher
Robert Stanton
Allan Gold
James Yoakum
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Rick Shaw
Louis O'Neal
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Jill Zimmerman
Susan Lowry, Ed.D.
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Dianne Knippel
Diana Keelen
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Dawn McIntosh
Michael Dioquino
Javier Carcano
Stephen Burns
Patricia McClure
Chris Grado (AVUHSD)
Leslie Uhazy, Ed.D.
Deborah Morgan
Ed Beyer, Ed.D.
Jeffery Foster (AVUHSD)
Randy Schultz, Ed.D (CSUB)
Thom Davis (CSUB)
Pat Jacobs (CSUB)

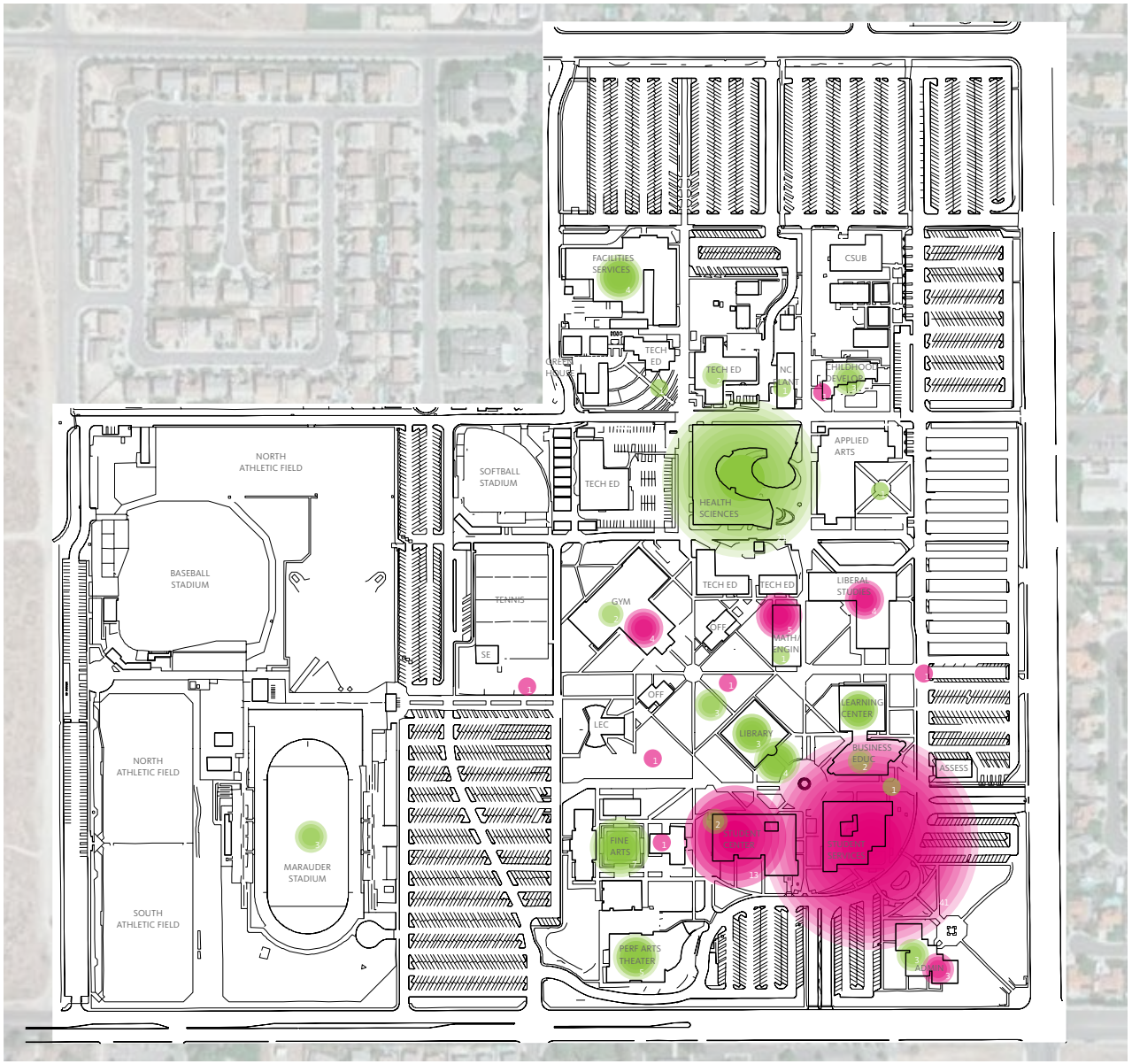
planning forums

In order to maximize participation and to include the many voices of AVC, the planning process included a series of outreach forums. The forums were attended by stakeholder representatives from all areas of the college: administration, faculty, staff, and students.

- All Campus Retreat
- Flex Day
- Student Focus Group
- Foundation Focus Group
- Sustainability Workshop

Results of the planning forums are summarized in the following pages.

The **Sustainability** section of the FMP includes a detailed summary of the Sustainability Workshop.



ALL CAMPUS RETREAT

SEPTEMBER 2015

At the start of the planning process, members of the AVC faculty and staff attended an All Campus Retreat to kick off the EMP and FMP discussions. During the session the group participated in an activity to collect thoughts and perceptions regarding their 'favorite' and 'least favorite' areas of the existing Lancaster Campus.

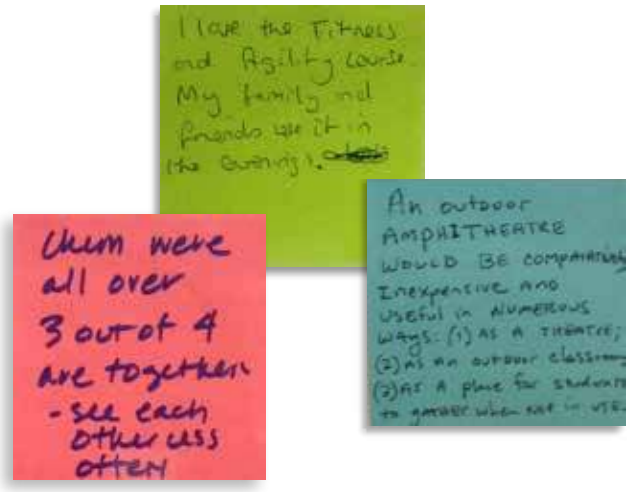
An experiential map was created based on the data gathered at the forum.

- FAVORITE
- LEAST FAVORITE

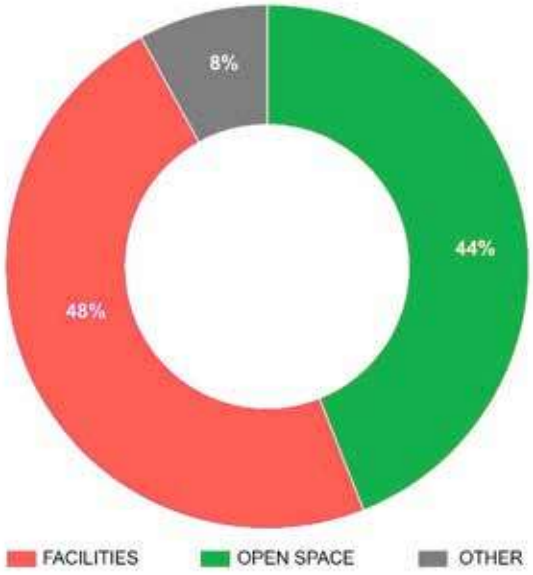
FLEX DAY

FEBRUARY 2016

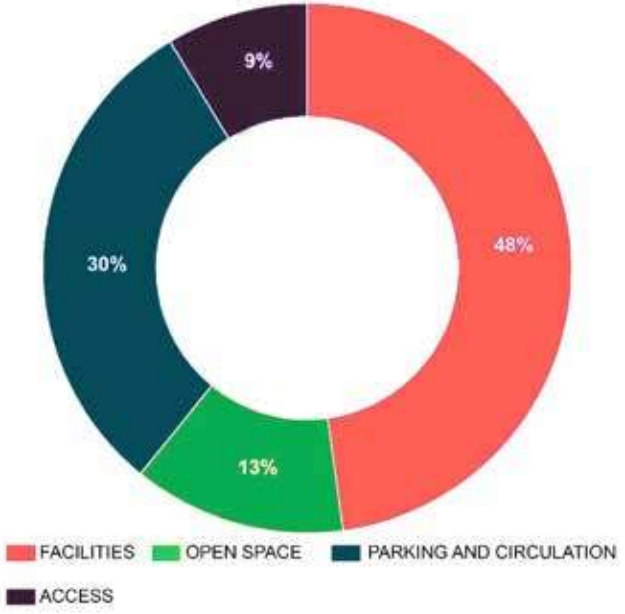
During the flex day session, the faculty and staff participated in a range of activities designed to elicit each participant's ideas for the future of the AVC. Perceptions, issues and ideas were collected to inform the planning process.



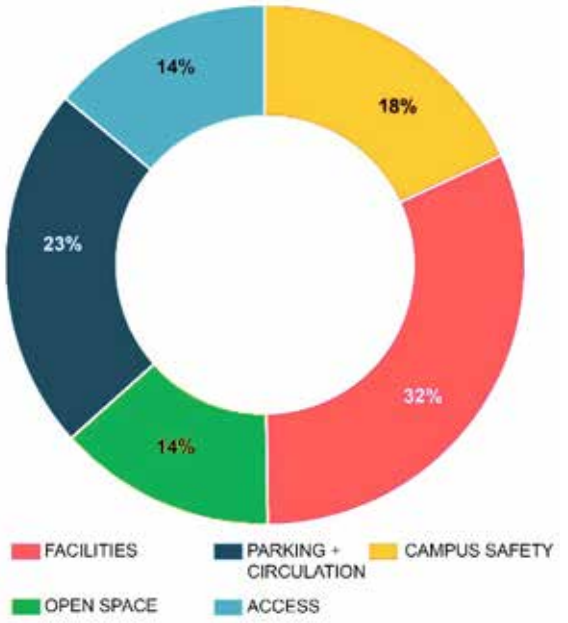
WHAT DO YOU LIKE BEST



WHAT CAN BE IMPROVED



WHAT ARE THE BIGGEST ISSUES



STUDENT FOCUS GROUP

MARCH 2016

A student focus group was conducted to collect thoughts and perceptions from the student perspective. The students highlighted key issues on the existing campus.

KEY ISSUES:

- Intersecting vehicular and pedestrian circulation
- Aging facilities in poor condition
- Limited outdoor shaded areas for student activities
- Congested parking and drop-off areas

FOUNDATION FOCUS GROUP

MARCH 2016

A discussion with the Foundation was conducted to gain a broader perspective of AVC within the surrounding community. Thoughts and ideas were recorded and a series of priorities were identified.

PRIORITIES:

- Improve campus visibility
- Provide a safe and accessible campus
- Encourage student collaboration
- Increase on-line and hybrid courses
- Provide more gathering spaces
- Enhance wayfinding
- Provide more covered parking
- Enhance pedestrian experience


ANTELOPE VALLEY
COLLEGE
ANTELOPE VALLEY
COLLEGE

PLANNING DATA


FACULTY OFFICE
OF2
TEX-PN
Pediatric
Nursi
NCLEX
3300
Nursing
Boards

overview

The **2016 Facilities Master Plan** (FMP) for AVC is an extension of the **2016 Educational Master Plan** (EMP) prepared by Cambridge West.

The EMP, includes an environmental scan, assumptions and goals, opportunities for the future and projections for future growth. Projections for enrollment and instructional programs served as the basis for development of the FMP recommendations.

This **Planning Data** section describes the methodology used to establish the FMP Space Program, which outlines the amount and type of space necessary to support AVC through the year 2025.

The FMP Space Programs are based on a series of standards established by the California Community College Chancellor's Office (CCCCO). The standards are used by the CCCCO and AVC for developing the District Space Inventory and the Five Year Construction Plan, which are updated annually by the District.

The following elements are used in the development of the facilities master plan program and included in this section:

- Enrollment Forecasts
- Space Inventory
- Space Utilization and Planning Standards
- Capacity Load Ratios
- Space Inventory Analysis
- Proposed Demolition
- Facilities Master Plan Program

enrollment forecasts

The Long Range Enrollment and Weekly Student Contact Hours (WSCH) forecasts are issued by the CA Community Colleges Chancellor's Office (CCCCO) each year and projects enrollment growth for the next 10 years. It includes historical data from the previous years and project total enrollment and WSCH for the District using an average anticipated growth factor.

The forecasts were reviewed during the development of the 2016 EMP and updated to respond to the external scan and internal discussions. The base year used for this analysis is the fall semester of 2014 (the most recent complete year of data available at the start of this planning process), and the long range forecast is for fall semester of 2030.

EXCERPTS FROM EMP:

The current and immediate future economic indicators are improving, and it is anticipated that the College will continue to experience positive growth in the foreseeable future. Therefore, planning must involve developing a long-term vision as well as meeting short-term goals.

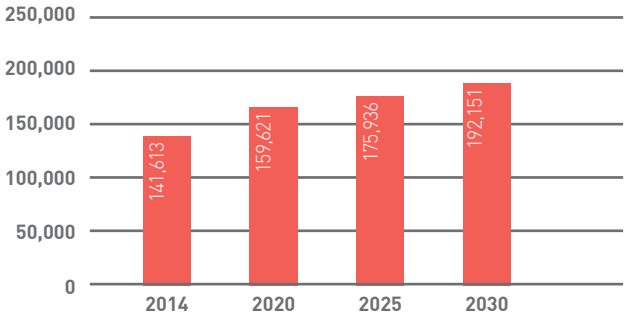
Table: Enrollment Patterns by Location, Fall 2014 and Beyond

Location	2014	2020	2025	2030	% Change	Each Yr % Change
Palmdale	902	1,099	1,293	1,428	58.3%	3.6%
Lancaster	11,730	13,220	14,568	15,908	35.6%	2.2%
Both	2,045	2,136	2,279	2,516	23.0%	1.4$
Total	**14,677**	**16,454**	**18,140**	**19,852**	**35.3%**	**2.2%**

LANCASTER CAMPUS

By considering expected economic and fiscal factors out to 2030, a growth projection for WSCH was established for the Lancaster Campus. Its projected growth is at an annual rate of 2.2% through the 2030. While modest, this growth does represent a reasonable forecast for this College at this time.

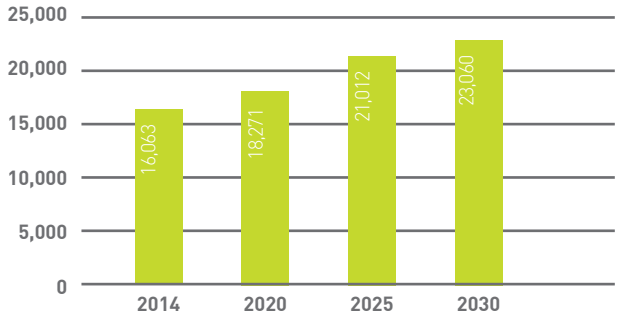
AVC, Lancaster Campus Weekly Student Contact Hours (WSCH) Forecast



PALMDALE CENTER

As a satellite center operation the Palmdale Center has generated far less weekly student contact hours. The new location that is scheduled to open in spring 2017 will increase the capacity of the Center to accommodate more student services. The projected growth is at an annual 2.7% through the 2030. While modest, this growth does represent a reasonable forecast for this College Center at this time.

AVC, Palmdale Center Weekly Student Contact Hours (WSCH) Forecast



Source: 2016 Educational Master Plan, Cambridge West Partnership, LLC Projections

space inventory

The inventory of facilities is an important tool in planning and managing college campuses. The Facilities Utilization Space Inventory Options Net (FUSION) is a database maintained by the California Community Colleges Chancellor Office (CCCCO), and includes descriptive data on buildings and rooms for each college and district within the state. This information is essential for analyzing space utilization, projections, space needs and capital outlay planning.

The District maintains a detailed Space Inventory of all buildings on the Lancaster campus according to the requirements of the State Chancellor's Office Space Inventory Handbook. As required by the state standards, it is updated and submitted to the State Chancellor's office annually. The Space Inventory contains data about every building and room according to state guidelines for space code, space type name, and ASF.

ROOM USE CATEGORIES

100s
Classrooms
Support

LECTURE

300s
Offices
Support
(All offices including administrative and student services)

OFFICE

530s
AV/TV
Technology
Support

INSTR. MEDIA

200s
Labs
Support

LAB

400s
Library
Study
Tutorial
Support

LIBRARY

520, 540 – 800s
PE
Assembly
Food Service
Lounge
Bookstore
Meeting Rooms
Data Processing
Physical Plant
Health Service

OTHER

space utilization and planning standards

To determine space capacity requirements for a college, the enrollment and program forecasts are applied to a set of standards for each type of space. Title 5 of the California Code of Regulations, prescribes standards for the utilization and planning of educational spaces on public community college campuses. These standards, when applied to the total number of students, or weekly student contact hours (WSCH), produce total capacity requirements that are expressed in assignable square feet (space available for assignment to occupants).

The Title 5 space standards used to determine future capacity requirements are listed in the table to the right. Each component of these standards is applied with an appropriate form of enrollment to produce a total assignable square feet (ASF) capacity requirement for each category of space. The sum of these categories represents the total building requirements for the college.

CATEGORY	FORMULA	RATES / ALLOWANCES
Classrooms	ASF / Student Station	15
	Station Utilization Rate	66%
	Average hours room/week	53
Labs	ASF / Student Station*	
	Station Utilization Rate	85%
	Average hours room / week	27.5
Offices / Conference Rooms	ASF per FTEF	140
Library / Learning Resource Center	Base ASF Allowance	3,795
	ASF / 1st 3,000 DGE	3.83
	ASF / 3,001-9,000 DGE	3.39
	ASF / > 9,000 DGE	2.94
Instructional Media AV / TV / Radio	Base ASF Allowance	3,500
	ASF / 1st 3,000 DGE	1.50
	ASF / 3,001-9,000 DGE	0.75
	ASF / > 9,000 DGE	0.25

* Varies per discipline

capacity load ratios

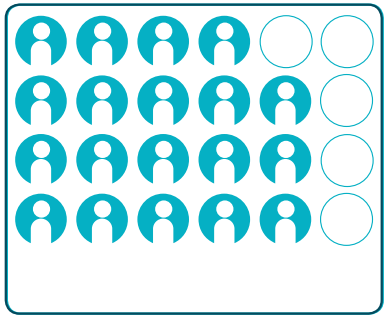
Capacity load ratios represent the direct relationship between the amount of space available, by type, which may be used to serve students, and the number of students participating in campus programs. The space type "other" includes a number of spaces on campus that are considered to be non-capacity load categories. These are spaces that are not analyzed by the CCCCO in relation to utilization and efficiency, but are important as part of the college's inventory related to maintenance and operations.

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

RIGHT-SIZED

# of seats **=** # of students
100% capacity / load

OVER CAPACITY



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

UNDER CAPACITY

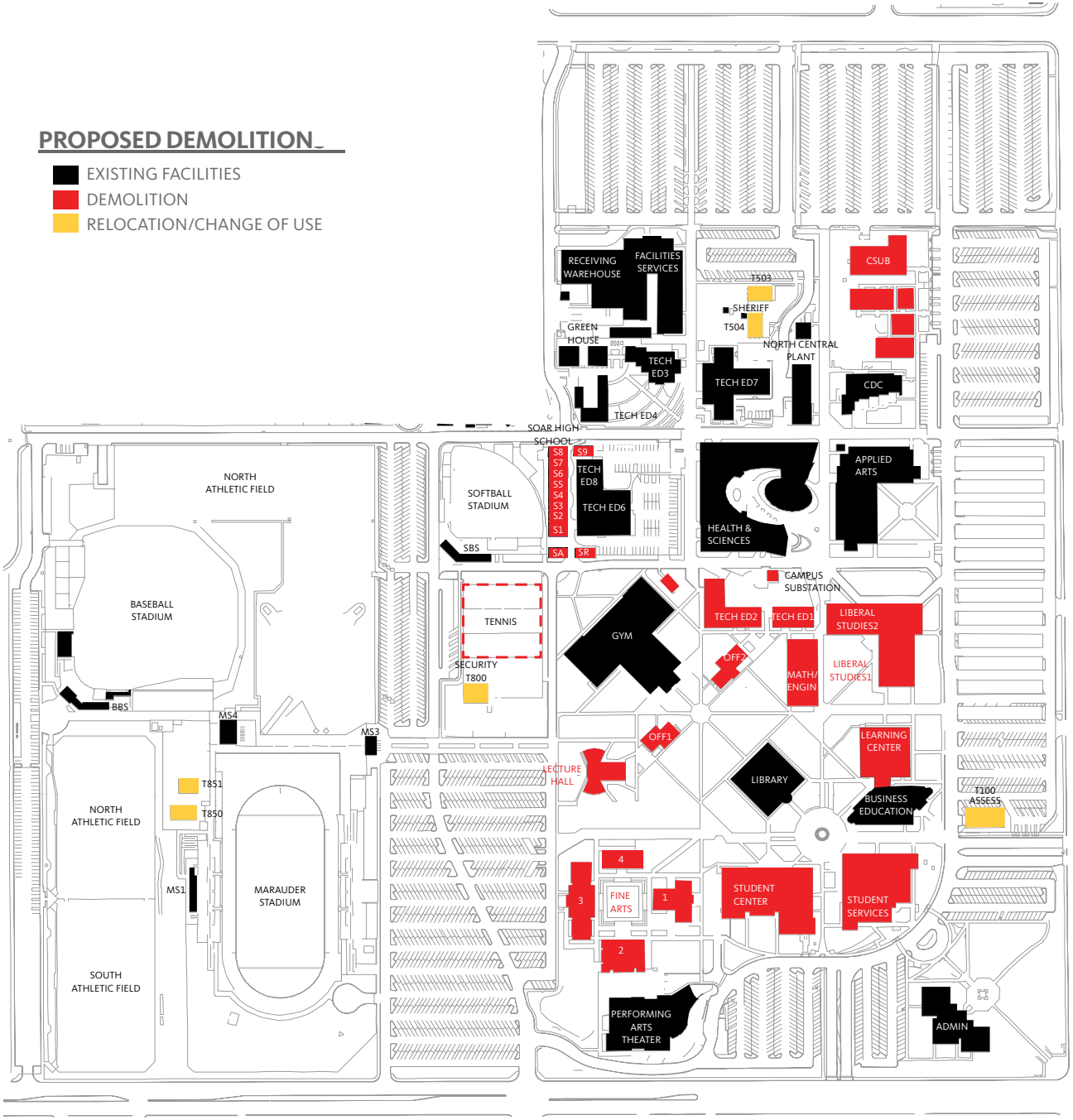
# of seats **<** # of students
under 100% capacity / load

space inventory analysis

The **2015 Space Inventory Report** was used as the basis for the analysis of space. The table on the right includes a summary of the categories of space on the Lancaster campus and their respective totals.

It is important to note that the Space Inventory report includes all facilities on campus that are in use, including temporary facilities. As described on the following page, there are several facilities that are recommended as part of this master plan to be removed. The following table represents an adjusted inventory in which the removal of temporary facilities and several buildings is accounted for. The new column is referred to as the "adjusted inventory."

	Current Inventory (ASF)	Proposed Demolition (ASF)	Adjusted Inventory (ASF)
LECTURE +LAB	188,214	65,472	122,742
OFFICE	56,883	26,815	30,068
LIBRARY	26,559	3,352	23,207
INSTR. MEDIA	10,600	89	10,511
OTHER	139,687	35,335	104,352
TOTAL CAP/ LOAD ASF	421,943	131,063	290,880



proposed demolition

Based on the analysis of existing conditions, the EMP, and the review of the Facilities Condition Index (see **Existing Conditions** section), a number of buildings have been identified to be demolished as part of this FMP. Six modular buildings have been identified to be relocated with a change of use.

DEMOLISH:

- Student Services
- Student Center
- Fine Arts 1, 2, 3 and 4
- Learning Center
- Faculty office 1, 2 and 3
- Lecture Hall
- Liberal Studies 1, and 2
- Math/Engineering
- Technical Education 1, and 2
- Learning Center
- SOAR High School
- CSUB

RELOCATE:

- T100
- T503
- T504
- T800
- T850
- T851

facilities master plan program

The Facilities Master Plan Program summarizes the projected need for capacity load space categories as defined by state standards. The methodology for developing this program is summarized as follows:

- Enrollment forecasts and WSCH projections were applied in combination with appropriate space planning standards to result in a total space requirement in ASF by type and space.
- The current inventory (2015) for each campus was subtracted from the total space requirements described above to result in the net ASF need by type of space for the 2025 master plan horizon.

The Facilities Master Plan Program highlights that there is a need for additional ASF to accommodate the projected growth. Following the removal of several buildings, this need increases and provides an opportunity to improve the overall efficiency and utilization of facilities. The additional need for ASF served as the basis for developing recommendations for future facilities.

The overall square footage need on campus is calculated by dividing the ASF by a grossing factory to arrive at gross square footage (GSF). The ASF is the assignable or usable space within a building, and the GSF is the added space required for circulation, stairs, elevators, restrooms, etc. The State Chancellor's Office recommends grossing factors for community college facilities which average approximately 65% for instructional facilities.

	Adjusted Inventory	Space Needs 2025 (State Standard ASF)	Additional Need (ASF)
LECTURE +LAB	122,742	196,301	73,559
OFFICE	30,068	46,916	16,848
LIBRARY	23,207	32,948	9,741
INSTR. MEDIA	10,511	11,908	1,397
TOTAL CAP/ LOAD ASF	186,528	288,073	

EXISTING CONDITIONS


Superintendent/President
Dr. Jackie L. Fisher, Sr.
Mrs. Carla F. Fisher

overview

The planning process began with the analysis of existing conditions in order to identify the key planning issues to be addressed in the FMP. The information was based on meetings with college staff, campus tours, and discussions with the AVC Facilities Strategic Planning Subgroup.

The findings are summarized in a series of graphic plates that illustrate patterns and characteristics to guide future development.

This section consists of the following elements:

- Local Context and Community
- Campus Development History
- Existing Campus
- Facilities Condition Index
- Vehicular Circulation
- Pedestrian Circulation and Open Space
- Campus Zoning
- Water Use
- Plant Typology
- Tree Canopy
- Landscape Typologies
- Building Typology

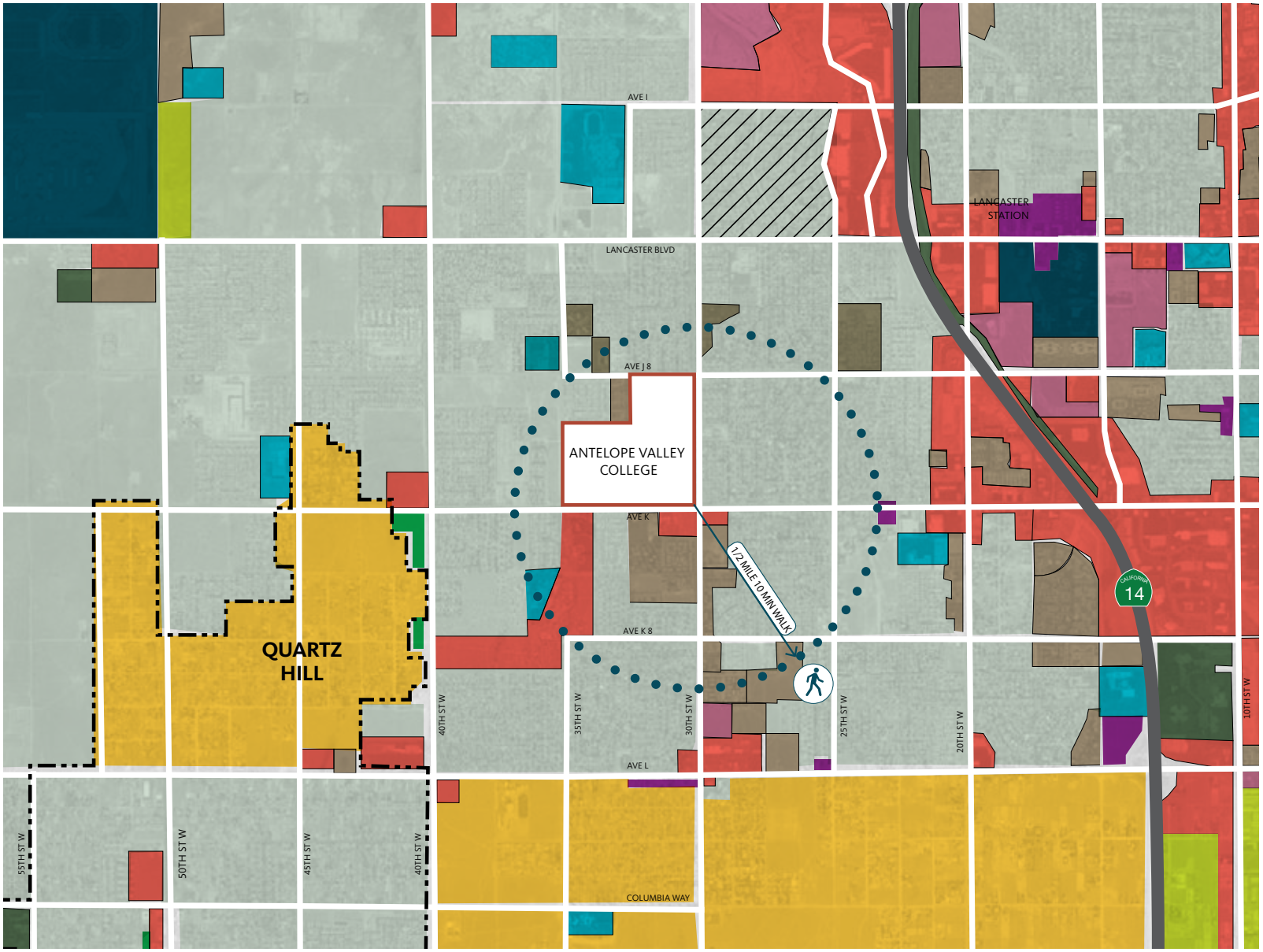
local context and community

The AVC Lancaster campus occupies 135 acres of land west of downtown Lancaster. It is accessed by the 14 freeway, Avenue K and 30th Street. The campus is surrounded on all sides by residential neighborhoods and the state-protected Antelope Valley Poppy Reserve fifteen miles to the west.

Antelope Valley Poppy Reserve

The Antelope Valley

Aerospace Walk of Honor, Lancaster, CA



LOCAL CONTEXT + COMMUNITY

- ANTELOPE VALLEY COLLEGE
- URBAN RESIDENTIAL
- MULTI RESIDENTIAL
- OPEN SPACES
- NON URBAN RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC
- SPECIFIC PLAN
- FREEWAY
- LOCAL STREET
- CITY LIMITS

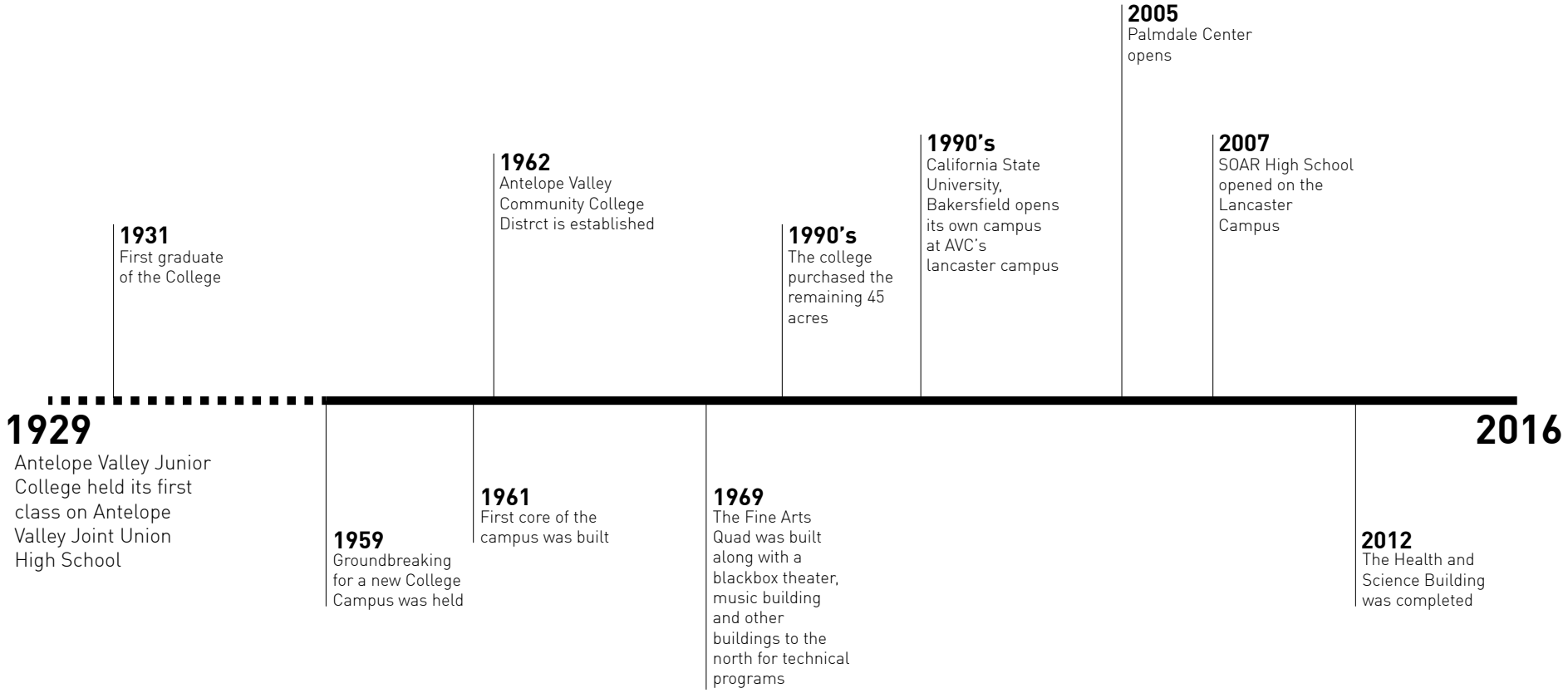
campus development history

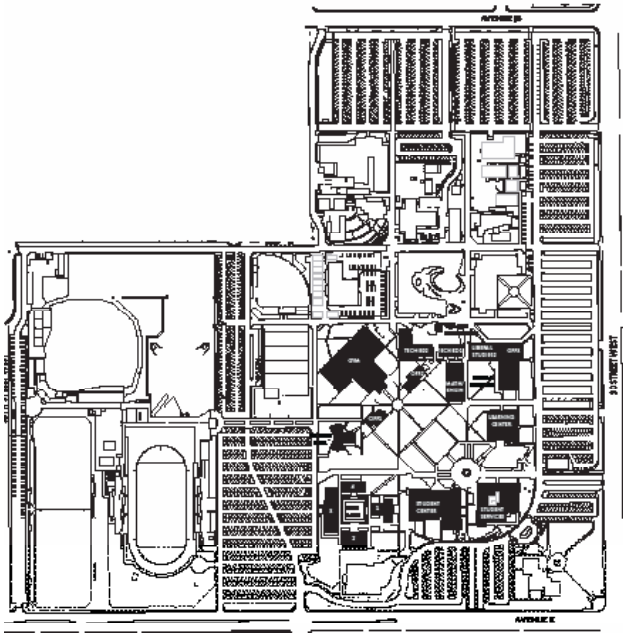
AVC held its first classes on September 10, 1929 as an extension of Antelope Valley Joint Union High School in Lancaster. In June 1931, Aubrey Byron Chase became the first graduate of the college.

In September 1959 groundbreaking for a new college campus on 90 acres at Avenue K and 30th Street West was held. The new campus – designed to accommodate 1,500 students -- opened two years later.

July 1, 1962 marked the official start of the new college district and the college continued to grow, as did the surrounding community. In the late 1960s, the campus added a black box theater, music building, consumer education building and arts building creating what is known as the Fine Arts Quad. Other buildings were added on the north side of the campus to accommodate technical programs such as automotive technology, welding and electronics.

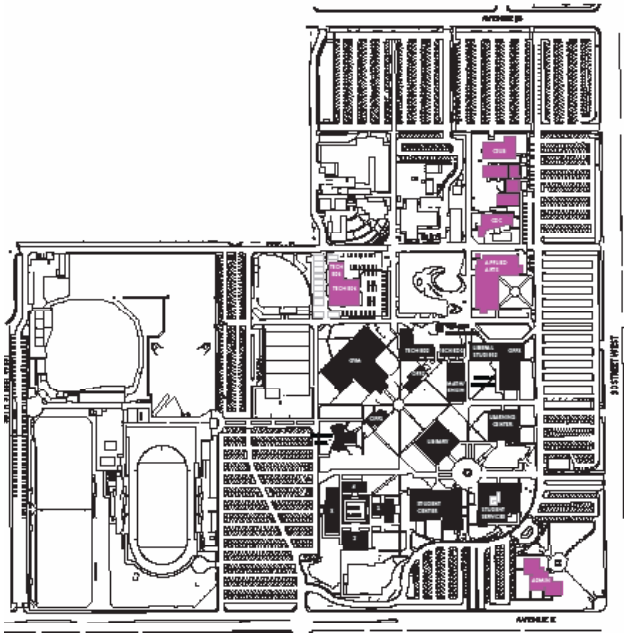
In the 1998 AVC partnered with California State University, Bakersfield, to open a satellite facility campus on the AVC Lancaster campus. In response to the needs of south valley residents, AVC opened the Palmdale Site, in 2005.





1960 – 1969

- Campus Substation
- Gymnasium
- Faculty Office 1, 2 And 3
- Fine Arts 1, 2, 3, And 4
- Learning Center
- Lecture Hall
- Liberal Studies 1 And 2
- Math & Engineering
- Tech Ed 1 and 2
- Student Center
- Student Services



1970 – 1979

- Tech Ed 6

1990 – 1999

- Administration
- Applied Arts
- Child Development Center
- Library

2000 – 2009

- Performing Arts
- Business Education
- Technical Education 3, 4, 5 And 7
- Ehs Greenhouse
- Facilities Services
- FS Storage Bldgs
- Warehouse
- Temporary Buildings
- Storage Farm

2010 – PRESENT

- Tech Ed 8
- Central Plant/Mdf
- Health & Sciences
- Technical Education

existing campus

The graphic on the facing page describes the existing campus plan highlights the permanent and temporary buildings. The 135-acre campus includes 205 buildings (including permanent and temporary). Refer to the **Appendix** for the complete list of buildings.

*Source: FUSION, Space Inventory 2015

EXISTING CAMPUS

- EXISTING FACILITIES
- TEMPORARY FACILITIES

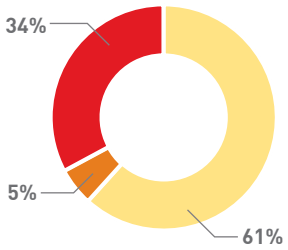
facilities condition index

The Facilities Condition Index (FCI) for a building is a ratio of deferred maintenance dollars to replacement dollars and provides a straightforward comparison of the campus' building assets.

The CCCCO conducts surveys of college campuses at regular intervals and buildings are assigned FCI scores. This diagram summarizes the scores as reported on FUSION

The original 1960's buildings have high FCI numbers (>50%). This indicates that the cost to renovate would be very high and replacement should be considered.

FCI
% OF TOTAL GSF




Student Center


Fina Arts 2


Fine Arts 1


Mathematics/Engineering

FACILITIES CONDITIONS INDEX

- >50%
- 10%-50%
- <10%
- PROPERTY LINE

*Source: FUSION, FCI report

vehicular circulation

The graphic plan on the facing page illustrates campus vehicular circulation patterns. Campus entry points and major vehicular circulation routes are shown along with areas allocated for parking, passenger loading, public transit stops, and emergency vehicular circulation.

OBSERVATIONS:

- Based on the 2012 traffic study, the majority of people come from the east and use the multiple entrances on 30th St and Avenue K.
- The main campus entry on Avenue K is close to the original campus core.
- The multiple entries along 30th St cause confusion and traffic congestion.
- The loop road between the parking lots and the inner campus creates pedestrian and vehicular conflicts.
- Informal drop-off areas are used in parking lots and leads to congestion.
- The total number of parking spaces is adequate to support the current and projected enrollment.
- Additional bike parking is needed.

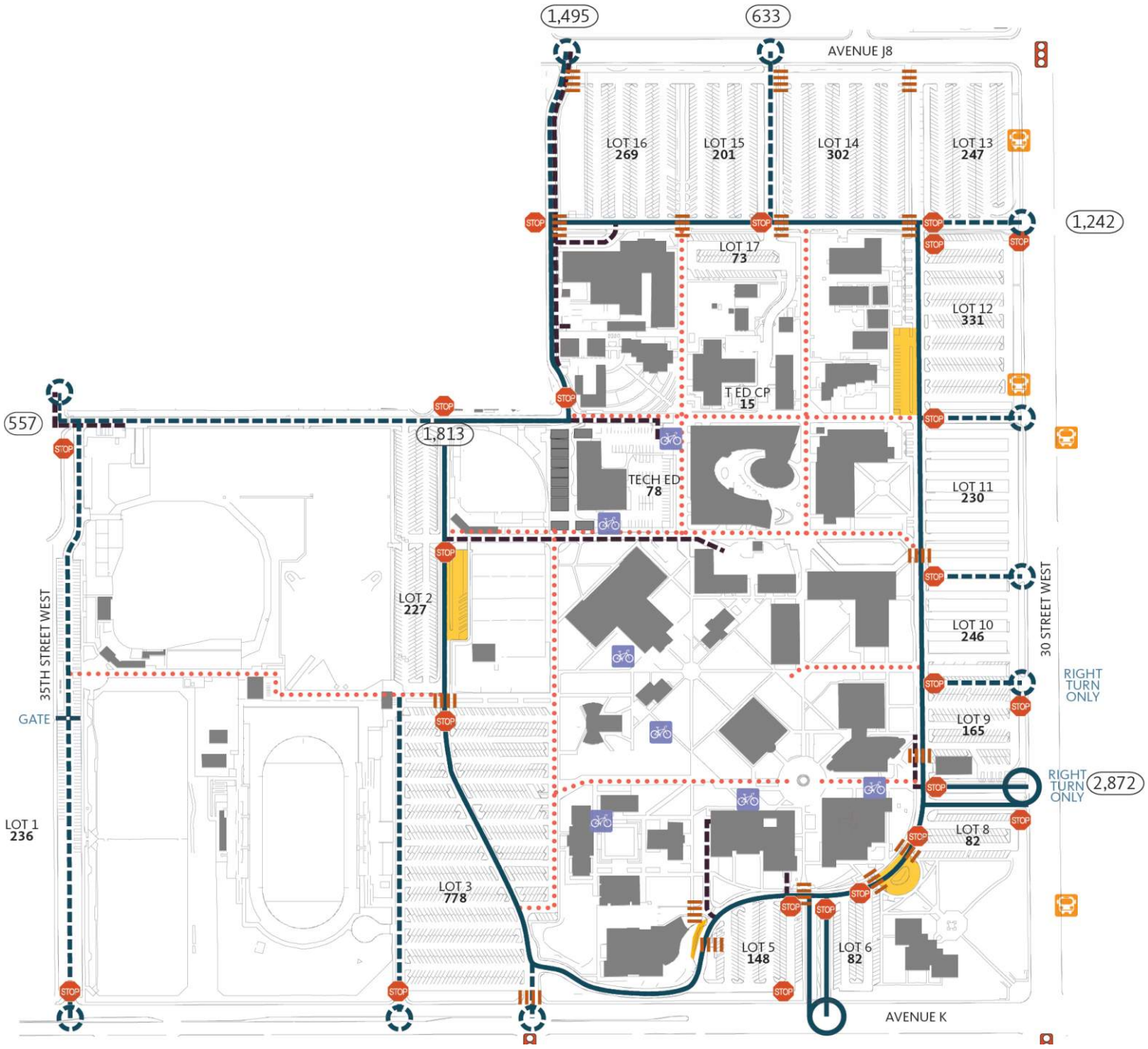
PARKING COUNT

Parking Lot #	# of Spaces
1	238
2	252
3	778
5	141
6	82
8	82
9	164
10	244
11	238
12	331
13	232
14	376
15	201
16	269
17	75
B/TE7	6
WC/FAC	4
B/TE6-TE8	68
TOTAL	**3,794**

PARKING NEED

	Baseline	Master Plan 2025
Enrollment	12,183	14,768
Guideline (1:5)*	2,436	2,953
Existing Total	**3,794**	**3,794**

* 1 space per 5 enrolled



EXISTING VEHICULAR CIRCULATION

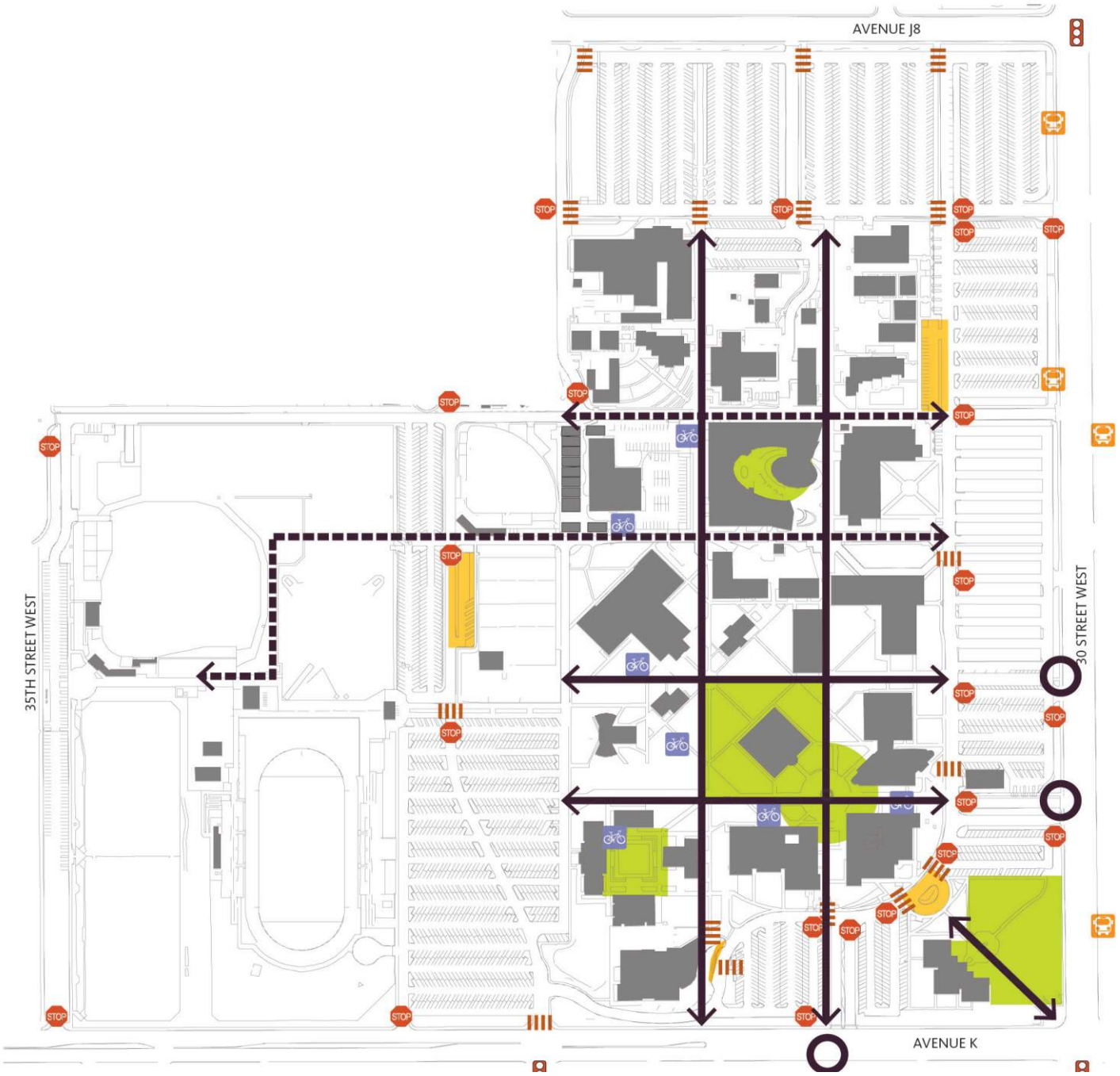
- EXISTING FACILITIES
- TEMPORARY FACILITIES
- CAMPUS ENTRY
- DROP-OFFS
- PARKING AREAS
- PRIMARY VEHICULAR ROUTE
- SECONDARY VEHICULAR ROUTE
- SERVICE VEHICLE ROUTE
- EMERGENCY ACCESS ROUTE
- BICYCLE PARKING
- CROSSWALKS
- BUS STOPS
- STOPLIGHTS
- STOP SIGNS
- # TOTAL CAR MOVEMENT

pedestrian circulation and open space

The graphic plan on the opposite page illustrates the pedestrian circulation patterns and student gathering areas.

OBSERVATIONS:

- Students enjoy the “park-like” atmosphere around the Library building.
- The Fine Arts quad is highly used by students because is comfortable and protected.
- The interior courtyard of the Health and Sciences building it is a popular destination.
- There are limited outdoor spaces for students to gather and study.
- Shaded, comfortable outdoor seating areas are limited.
- There is no direct pedestrian access from the campus core to the physical education fields.



EXISTING PEDESTRIAN CIRCULATION

- EXISTING FACILITIES
- CAMPUS ENTRY
- MAIN ENTRY PLAZA
- PRIMARY PEDESTRIAN ROUTES
- SECONDARY PEDESTRIAN ROUTES
- AREAS OF STUDENT GATHERING
- BICYCLE PARKING
- CROSSWALKS
- BUS STOPS
- STOPLIGHTS
- STOP SIGNS

campus zoning

The graphic plan on the opposite page illustrates the campus and building zoning.

OBSERVATIONS:

- Student support services are located at the original front door to the campus and away from the center of the campus.
- Impacted space within the Student Services building has resulted in functions moving to portables.
- Development of the campus to the north has resulted in isolated communities of learning with limited connections.
- Academic support services are distributed throughout campus.
- Parking zones surround the campus core, providing ample access to buildings.
- The physical education zone of the campus is isolated and is accessed across a large parking lot.

EXISTING CAMPUS ZONING

- ADMINISTRATION
- STUDENT SERVICES / ACTIVITIES
- INSTRUCTION
- LIBRARY STUDY
- PHYSICAL EDUCATION / ATHLETICS
- SOAR HIGH SCHOOL & CSUB
- OTHER
- SERVICE
- TEMPORARY FACILITIES
- © COMMUNITY ACCESS

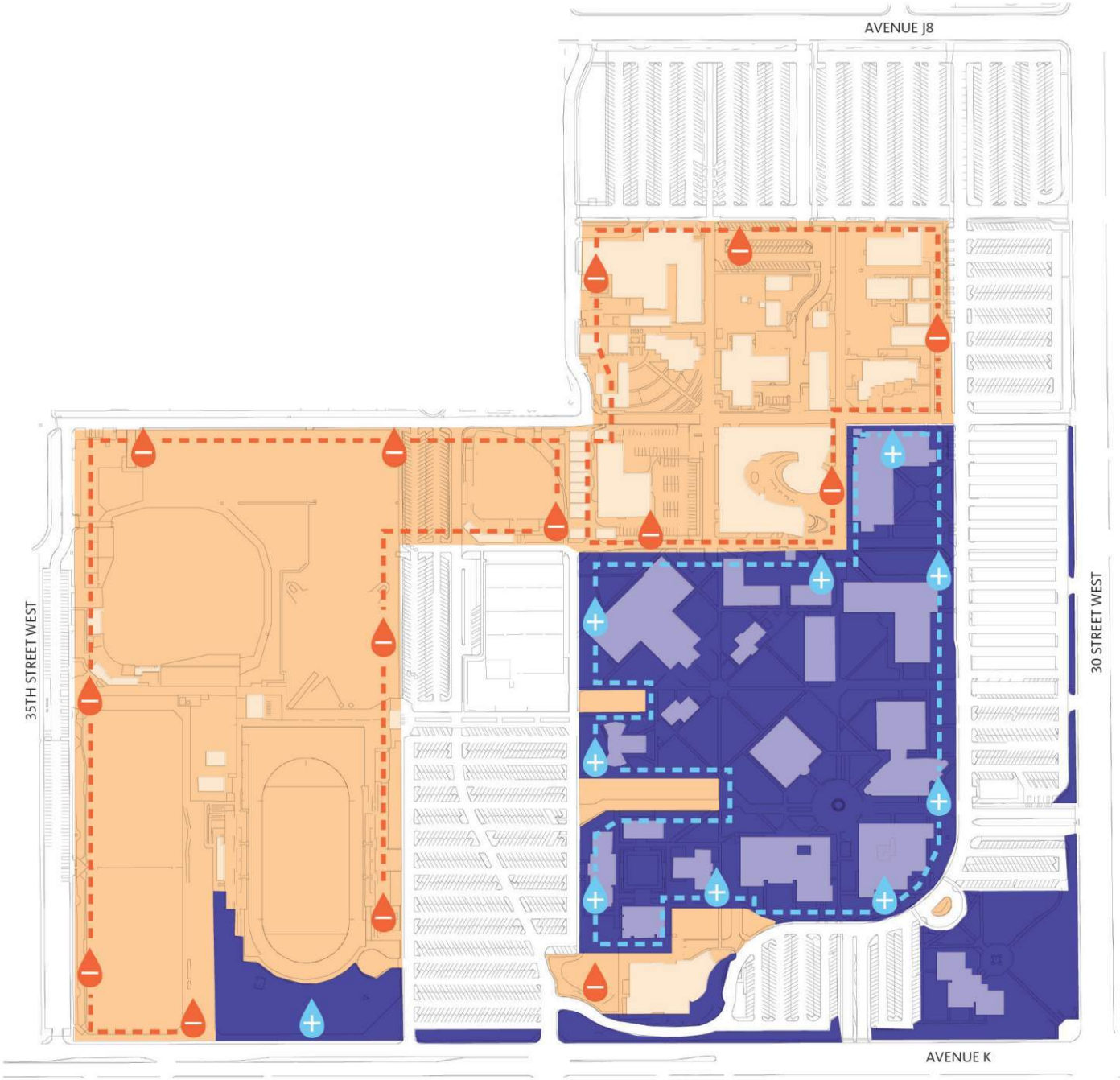
water use

Water use is an important topic due to the existing statewide water regulations and the region's lack of annual rainfall. AVC is currently very conscientious of it's water use, however lowering landscape water use even further is an important goal of the FMP.

Water-use is directly tied to the aesthetics of a landscape and clearly defines the landscape typologies we see on the existing AVC campus.

OBSERVATIONS:

- The campus landscape can easily be divided into two types of areas based on water demands; high water use areas and low water use areas.
- The high water use areas can be described as the historic campus core and is characterized by large canopy trees and lawn areas.
- The low water use areas are limited to newly constructed buildings or recent landscape projects that have converted small planting areas into drought tolerant planting areas with decomposed granite.



EXISTING WATER USAGE

EXISTING AREAS OF HIGH WATER USI

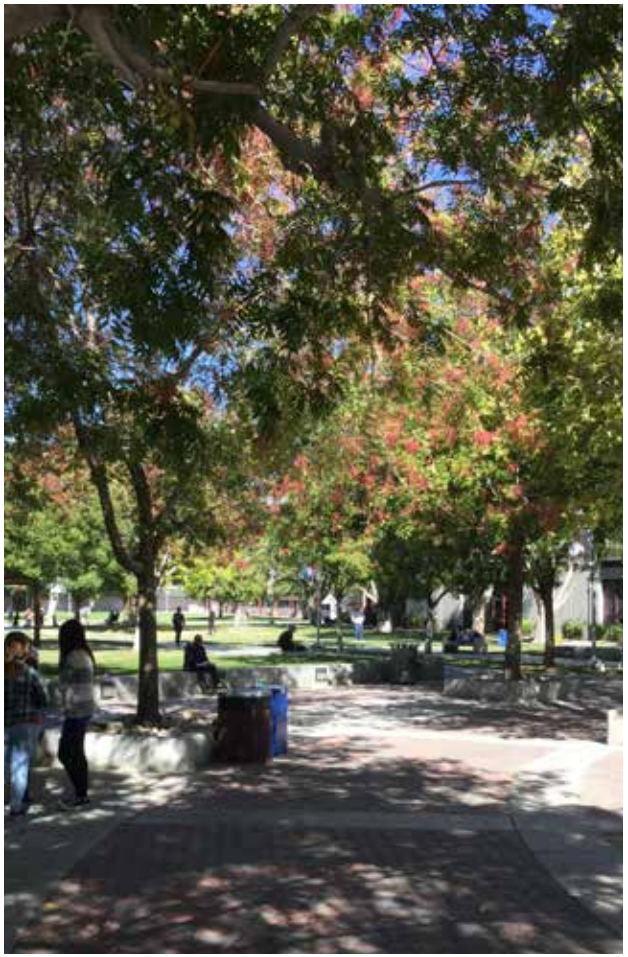
EXISTING AREAS OF LOW WATER USE

plant typology

The primary difference in the landscape typology found on campus is related to water use, an inconsistent typology found throughout the campus with a few general typologies defined by their general aesthetic and how they are being used.

OBSERVATIONS:

- The central core, or historic areas of the campus, include non-native lawns and canopy trees that create a 'park-like' feeling that is valued as a campus amenity.
- The high water use lawn areas are considered easy to maintain with regular mowing and leaf collections.
- The intimate sunken courtyard with lawn and mulberry trees is one of the cherished outdoor areas and its feel should be recreated in the future development.
- The north end of the campus has several newer plantings that are more drought tolerant and appear compliant to current water use regulations.
- Small areas on campus have been redesigned to experiment with more "environmentally suitable" solutions including drought tolerant plants, decomposed granite, and boulders.
- Minimal planting is present in the parking lot areas where additional shade would be valued.



EXISTING PLANT TYPOLOGIES

- PROPERTY LINE
- EXISTING FACILITIES
- TEMPORARY FACILITIES
- IN DESIGN / CONSTRUCTION
- EDUCATIONAL
- CANOPY TREES
- DG / ROCK / XERISCAPE
- DROUGHT / MIXED ORNAMENTAL
- GARDEN PERIMETER / BUFFER
- ATHLETIC FIELDS
- LAWN / GRASS

tree canopy

The existing tree canopy is concentrated within the historic 'park-like' core of the campus and is defined by a limited number of tree species.

OBSERVATIONS:

- Mulberry trees are the dominant species on campus.
- The typical lifespan of a Mulberry tree is 25 '-50 years and many found on campus are starting to reach their limits.
- Fraxinus (Ash) and Platanus (Sycamore) spp. Are also found within the existing tree canopy. Both species do well with supplemental water and are thriving within the lawn conditions.
- Palo Verde and Chilopsis (Desert Willow) spp. are found within some of the newer plantings areas on campus. These species should be considered as excellent examples of drought tolerant trees that aesthetically fit into the desert landscape.
- There are a few specimen examples found on campus that should be considered an educational resource and preserved. They include a planting of the rare Ghost Eucalyptus, one of the largest California Juniper and the endemic Joshua Tree which is found in two areas on campus, the entry garden where the AVC signage is found and a native garden in front of the Environmental Horticulture Science building.

EXISTING TREE CANOPY

- PROPERTY LINE
- EXISTING FACILITIES
- TEMPORARY FACILITIES
- IN DESIGN / CONSTRUCTION
- MISC. CANOPY TREES
- MULBERRY TREE
- ASH TREE
- SYCAMORE TREE
- WALNUT TREE
- PINE TREE
- EUCALYPTUS TREE

landscape typologies

The existing campus includes several landscape typologies. This results in varying degrees of water usage throughout campus as well as inconsistency in aesthetics and in physical sense. The historical and non-native typologies are associated with an environmental and financial cost affiliated with regular mowing, increased maintenance and heightened water consumption.

Recent campus development includes the use of natural drought tolerant landscapes through several steps and applications. The following pages include a summary of the existing landscape typology.

EDUCATIONAL

The Agricultural/Park and Landscape Management program have access to an active and engaging learning experience in which they are able to integrate an existing educational garden into the curriculum. The landscape based education provides hands-on activities and lesson plans while granting educators an integrated and interactive resource for students.

DG/ROCK/XERISCAPE

In a continued effort to naturalize and simplify existing landscape and hardscape maintenance, the campus currently takes advantage of the benefits offered by decomposed granite. These include limit of water usage, natural, permeable, aesthetic, versatile, and inexpensive qualities. Decomposed granite emulates a soft and natural look with a practical purpose.

DROUGHT TOLERANT

Emulating the surrounding natural desert system, the campus is sprinkled with areas of drought tolerant native trees and plants. In these areas, the planting structure is designed in a naturalistic manor, found in ranges of intermittent clusters and spread out.

GARDEN PERIMETER

The non-native garden perimeter surrounds the campus and creeps into its borders. These areas are sprinkled with high maintenance non-native trees, flowering plants and grasses. Most plants have not evolved under conditions as harsh as those experienced in the Mojave Desert. As a direct result, these areas tend to be higher maintenance, more expensive and less sustainable.

LAWN AND CANOPY

The lawn and canopy landscape within the college drastically reduce campus sustainability and are the least environmentally friendly application. The maintenance required and the water volume amounts necessary to sustain growth and health in these areas result in the depletion of local campus resources. There is value in preserving the historical green of the campus for identity and pride purposes at a smaller scale.

building typology

Developed over the past seven decades the AVC campus reflects the changing styles and ideas surrounding construction and building design. Multiple architectural styles and material selections exist throughout the campus. It is common to experience a 60 year old building with regular structural grids expressed through large expanses of glass directly adjacent to a building composed of solid, windowless concrete walls. This mix of styles and materials contributes to a lack of coherence throughout the campus. The built environment of a campus, which includes both architecture and landscaping, is the main image directed towards the community it serves. It provides to the community a way of visually indicating the institutions values, and can serve as a point of pride.

The following analysis of the current campus indicates the mix of styles present on campus and highlights the areas that are consistent with plans for moving forward on future development, as well as identifies practices which are to be avoided.

1960's

Many of the original campus buildings reflect the clean lines and expressed structure of the Mid Century Modern movement. The Student Center is a good example of the use of exposed structure to evoke an authentic style generated from the building systems. The paint scheme for this building of mixed grays and burgundy match the AVC colors, however, they do not match the more current buildings and do not connect the campus to the colors of the surrounding context.

1970's

There was not a lot of campus development during the 1970's, however the Tech Ed 6 building is an example of varied styles. This structure, although not significant, has an impact on the overall campus composition as it introduces a different material (concrete masonry units) and is void of any connection to expressed structure or expanses of glass which defined the campus up to this period.

1990's

With very little development in the 70's and no development in the 80's there is a big shift in approach to the campus architecture in the 90's when several buildings were constructed. The Library serves as a good representation of this approach. The building is placed on one of the most important open spaces on campus (the central quad), yet takes on a very inward focused plan. This departs from previous buildings which had a strong indoor/outdoor relationship. The exterior façade of the Library is decorated with square motifs that are void of connection to either the building design itself or the broader campus context.

2000's

The Performing Arts Center connects the AVC campus to the community, is located along Avenue K, and takes on curvilinear forms. These forms coupled with the austere white color scheme makes this building very different from other buildings on campus. Other than the applied square motif patterns found on the Library, this building is predominately unfamiliar to the campus context.

2010's

The Health and Sciences building is the most recent addition to the campus and begins a new chapter for the campus in terms of material and building form composition. The curvilinear forms are foreign to the internal campus, and creates a further departure from the more efficient building strategies of the original campus. Textured precast concrete connects to some of the original cast-in-place board form concrete on the arts complex, and the earth toned color connects well to the broader Mojave Desert region. The introduction of corrugated metal panels on the Health and Sciences, Environmental Horticulture Science (TE 3) and Facilities Services buildings connects the newest structures on the AVC campus.

SUSTAINABILITY


DOUGLAS
SKYROCKET
NAVY

overview

Colleges are leaders in their communities; they provide knowledge, research, practice, and inform education to communities and create positive and sustainable futures.

As part of the FMP, the planning team conducted a Sustainability Workshop, on February 24, 2016. Workshop participants included a cross representation of faculty, staff and students, engaged in a dialogue focused on sustainability at AVC.

A summary of the sustainability workshop is presented in this section:

- Environmental Analysis
- Sustainability at AVC
- Sustainability Themes
- Workshop Activities
- Sustainability Goals

environmental analysis

The environmental analysis for AVC focused on existing climate data related to campus sustainability.

As a result of the surrounding San Gabriel and Tehachapi Mountains and westward wind patterns, the climate in the area is a dry semiarid four season climate averaging four inches of rainfall annually. Native plant life have adapted in unique ways to survive drought conditions. To minimize excessive heat damage, most desert plant material remains leafless instead with a protective and thicker skin. Cacti and succulent plants tend to grow in an erect form, allowing for less damaging sun exposure over surface area at peak times. Most species have a shallow and large root system which helps to minimize the length of time between water absorption and rainfall.

The diagrams on the following pages describe wind patterns, comfort zones, and solar radiation.

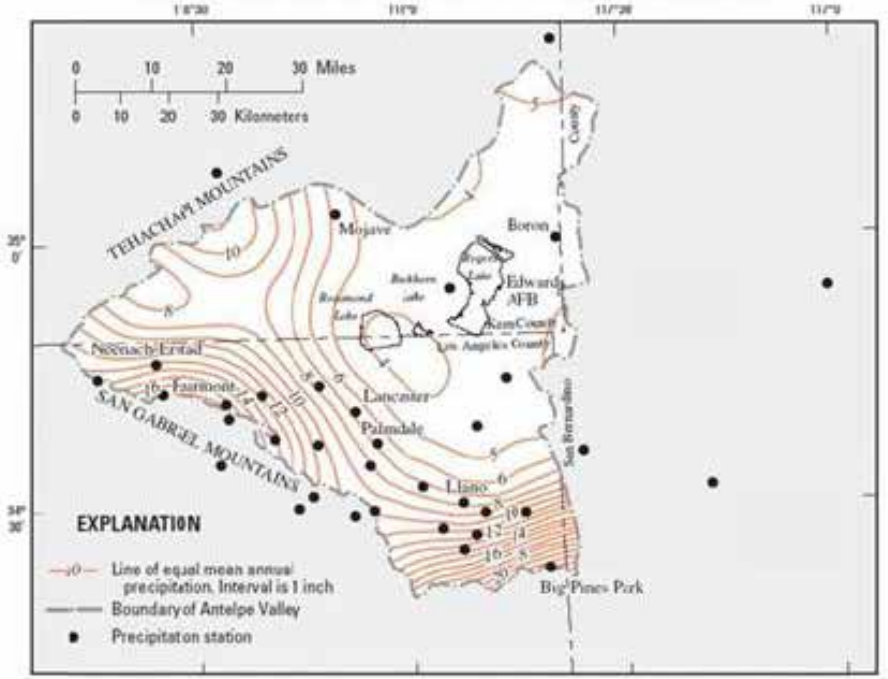
CLIMATE IN THE ANTELOPE VALLEY REGION:

	Jan	Feb	Mar	Apr	May	Jun
Standard Monthly Average ETo (inches)[a]	2.02	2.61	4.55	6.19	7.30	8.85
Average Rainfall (inches)[b]	1.46	1.53	1.24	0.48	0.14	0.03
Average Max Temperature(°F)[b]	58.5	62.1	67.4	74.0	81.9	90.2
Average Min Temperature (°F)[b]	32.4	35.6	39.2	44.0	51.0	58.0

	Jul	Aug	Sept	Oct	Nov	Dec	Annual
Standard Monthly Average ETo (inches)[b]	9.77	8.99	6.52	4.66	2.68	2.05	66.19
Average Rainfall (inches)[b]	0.05	0.15	0.19	0.33	0.67	1.36	7.62
Average Max Temperature(°F)[b]	97.6	96.9	91.4	80.2	67.3	58.7	77.2
Average Min Temperature (°F)[b]	65.3	63.9	57.6	48.1	38.1	32.7	47.2

Sources:
(a) CIMIS Data for Palmdale No. 197 Station since April 2005.
(b) Western Regional Climate Center, Palmdale Station (046624) for the Years 1903 to 2012.

ANNUAL PRECIPITATION ON THE ANTELOPE VALLEY REGION:



Source: "Precipitation depth-duration and frequency characteristics for Antelope Valley, Mojave Desert, California" Author(s): Blodgett, J. C., Los Angeles County (Calif.), Geological Survey (U.S.) Sacramento, Calif. : U.S. Geological Survey ; Denver, CO : Earth Science Information Center, Open-File Report Section [distributor], 1996.

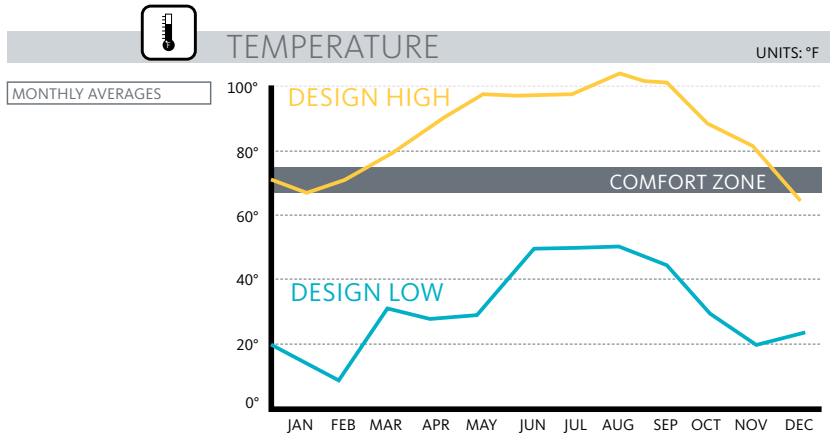
TEMPERATURE

Temperature is the primary climatic element that contributes to human comfort. Temperature can be a liability in both hot and cold climates especially if it is consistently too hot or consistently too cold.

At AVC, during the fall and winter months (November-February), seasonal temperatures tend to stay below the comfort zone, ranging between 15–80 degrees Fahrenheit.

During the spring and summer months (May-September), temperatures tend to stay well above the comfort zone, and can dip as low as 35 degrees spiking as high as 110 degrees.

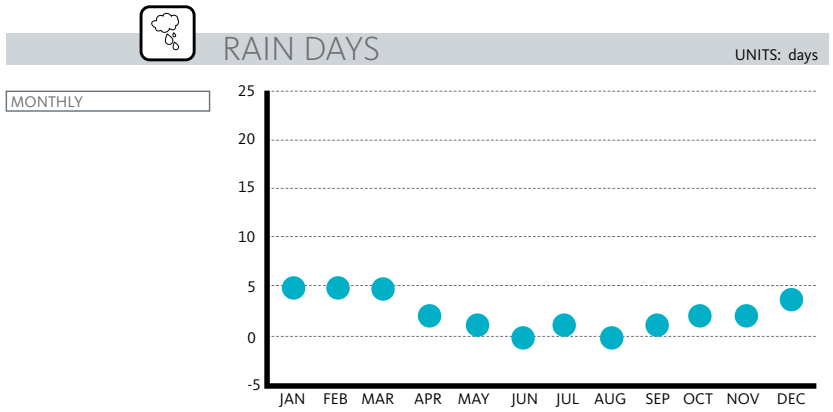
This temperature range is characteristic of the Lancaster area and provides ideal conditions for solar passive design strategies such as night cooling and thermal mass.

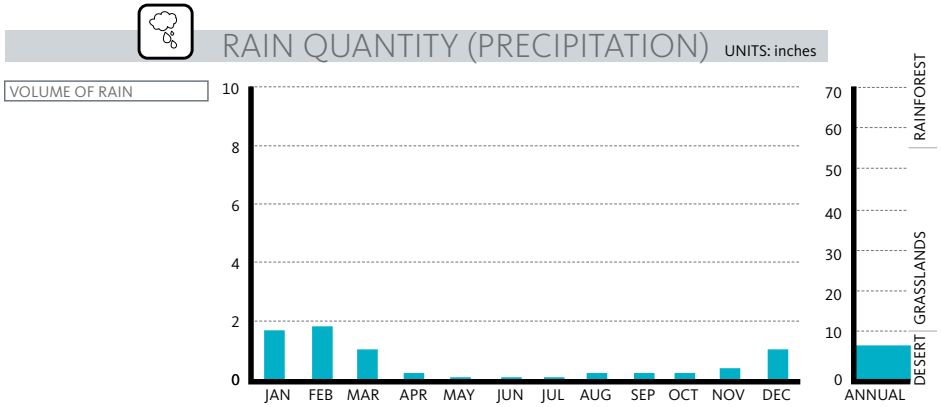


RAIN DAYS

There are many reasons to consider the amount of rainfall on a project site including control of storm water runoff, mitigation of urban heat-island effects, and creation of wildlife habitats.

The probability that precipitation will be observed in Lancaster varies between 0 and 5 days the year. Precipitations are least likely during the summer season.

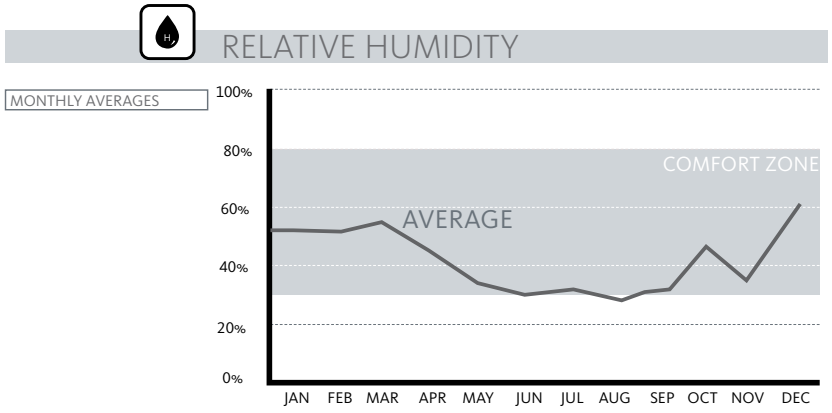




PRECIPITATION

Looking at the volume and distribution of rainfall on the site, along with temperature and solar radiation, informs potential strategies such as a green roof or a rainwater retention system.

At AVC, the amount of precipitation varies between 0 and 2 inches and puts Lancaster in a cold semi-arid steppe climate.



RELATIVE HUMIDITY

To feel comfortable, both the temperature and humidity must be within their comfort zones. Thus, excessively high or low humidity can push otherwise comfortable temperatures to feel uncomfortable.

High humidity is a liability because it reduces the effectiveness of sweating to cool the body and prevents the evaporation of perspiration from the skin. This causes people to feel hotter than they would at the same temperature with low humidity.

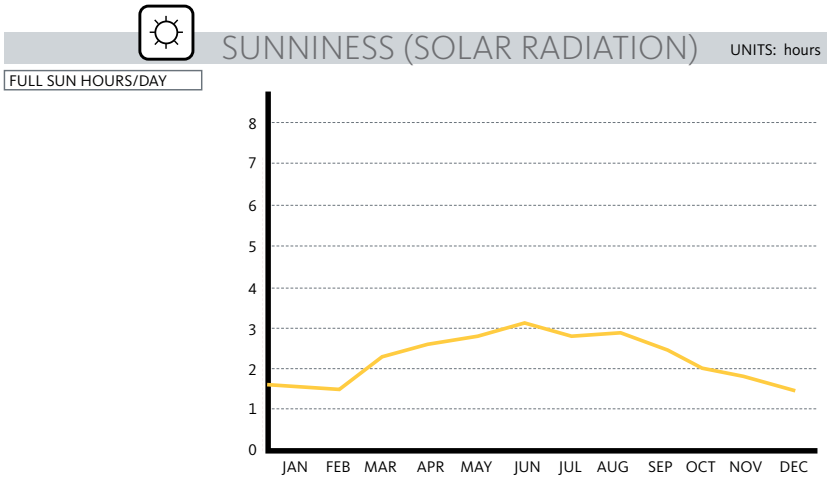
Moisture (humidity) can be an asset by evaporating in hot, dry climates to cool and humidify the air. The relative humidity ranges from 30% to 60%. The air is driest around July and August and the most humid in March.

SUNNINESS

Solar radiation can extend the comfort zone by heating cool temperatures.

The sun can be used as an asset in cool and cold climates to provide passive heating to reduce heating loads, but can be a significant liability in hot climates where it can quickly overheat a building.

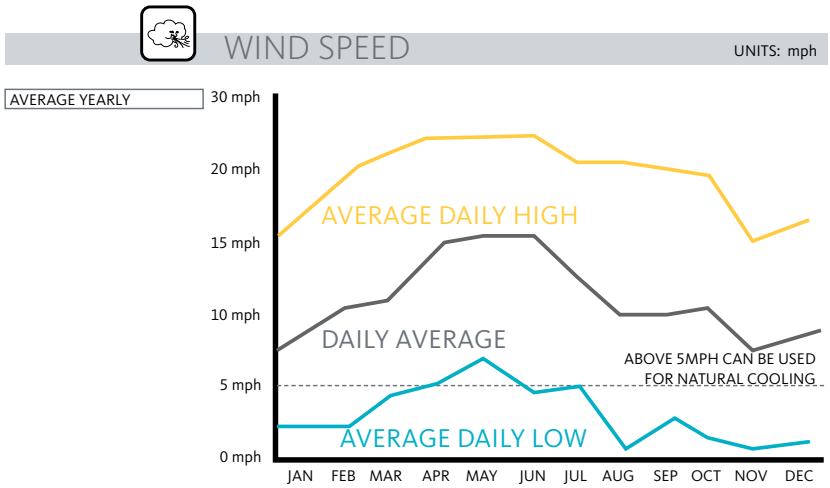
The length of the day varies significantly over the course of the year. The shortest day is in December; the longest day in June 20 with.



WIND SPEED

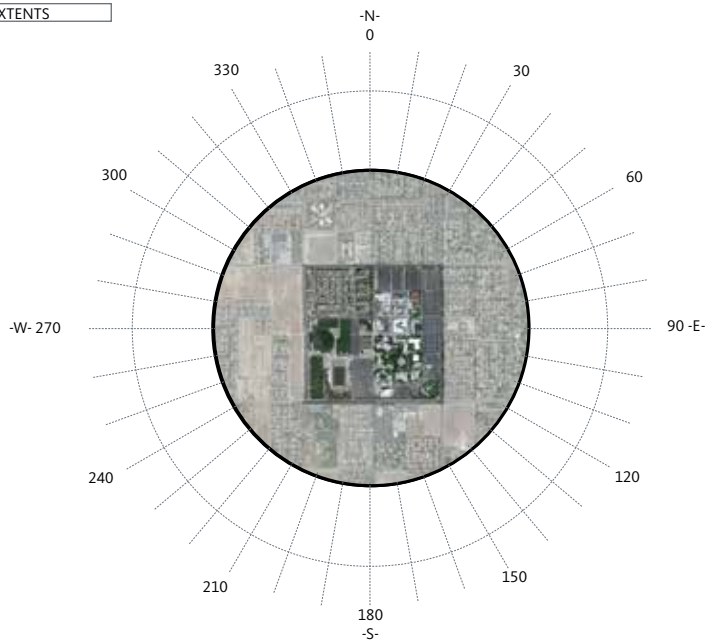
Wind can extend the comfort zone by cooling during periods of high temperatures.

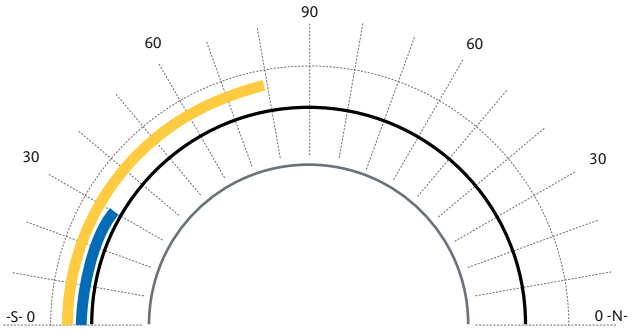
Wind is a liability in cold climates because it carries away heat more quickly than usual. Wind can also be a liability to comfort in hot, dry climates when winds causes dehydration and leads to overheating. Wind can be an asset in hot, humid climates to provide natural ventilation.



SUN PATH

YEARLY EXTENTS





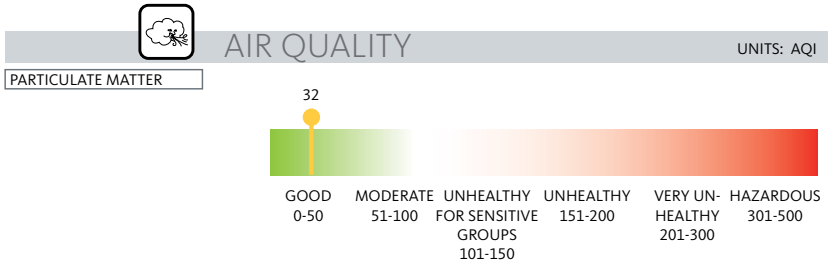
SUN PATH

The Sun Path diagram characterizes the movement of the sun through the sky in summer and winter. The orange arc indicates the widest extent of sunrise and sunset in summer. The blue arc indicates the minimum extent of sunrise and sunset in winter. The diagram at left begins to illuminate where the opportunities are for sun penetration into the building and the characteristics of shading devices.

This diagrams illustrates the sun's path throughout the year. The highest arc represents the sun's altitude in the summer, while the shortest, lowest arc is the sun's altitude in the winter.

AIR QUALITY

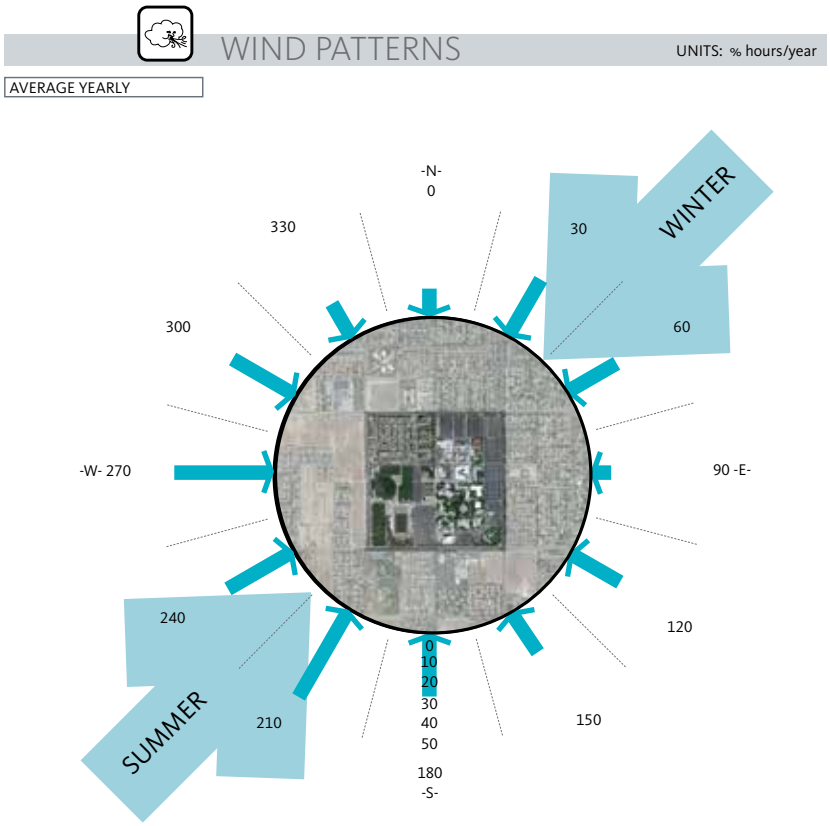
The quality of the air determines whether natural ventilation would be appropriate in terms of health considerations for the building's occupants. The air quality in the Lancaster area is good.



WIND PATTERNS

The Wind Patterns diagram characterizes the direction from which the wind enters the site and the percentage of hours per year that the wind is coming from a particular direction. The length of each arrow indicates the percentage of hours per year that wind blows from each direction. This diagram describes orientation opportunities that exist, along with locations where natural ventilation may be incorporated into the design, and the availability of user-accessible comfort strategies.

During the summer and fall season the winds tend to come from the west with an annual range between 5 and 45 miles per hour, and temperatures which range between 30–70 degrees Fahrenheit. During the winter consistent wind coming from the north east hit the campus as high as 30 miles per hour, with temperature ranging between 30 and 70.



sustainability at AVC

PAST AND PRESENT PERFORMANCE

CURRENT SUSTAINABILITY PROGRAMS

AVC currently has a number of projects for campus comfort, sustainability, and health and safety. These include the following:

- Enhance materials recycling
- Decrease waste management costs
- Reduce irrigation water usage
- Increase the efficiency of grounds maintenance
- Use energy efficient LED fixtures
- Replacement with energy efficient boiler systems
- Use effective EMS controls

FS Features: Sustainability

FS Operations is responsible for campus recycling and waste management. Managed by Allan Gold, FS Operations ensures all college waste is sorted and recycled appropriately. Recycling efforts are handled by team members Terry Boles and Jose Serrata. During the past year several initiatives to improve recycling and decrease waste management costs have been implemented. These initiatives have decreased waste management costs by nearly 60% from the past year. In addition to these savings, revenue from recycling has increased significantly to nearly $5,000 annually. Improvements for more effectively handling the campus waste stream include the installation and use of a waste compactor and a cardboard baler.

In the past year the FS Operations has handled 100 tons of waste and 75 tons of recycled materials. FS Grounds is responsible for much of the green waste recycling effort.

Recycled materials include:

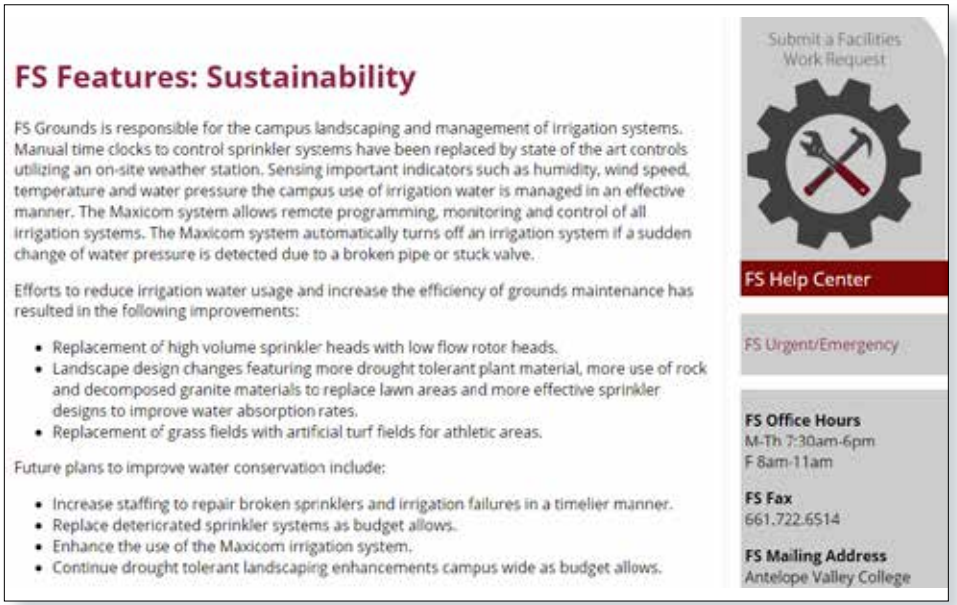
- Cardboard – 17,040 lbs.
- Paper – 19,790 lbs.
- Bottles & Cans – 1,048 lbs.
- Mixed metals – 5,380 lbs.
- Green Waste - 111,140 lbs.

Submit a Facilities Work Request

FS Help Center

FS Urgent/Emergency

FS Office Hours
M-Th 7:30am-6pm
F 8am-11am



FS Features: Sustainability

FS Grounds is responsible for the campus landscaping and management of irrigation systems. Manual time clocks to control sprinkler systems have been replaced by state of the art controls utilizing an on-site weather station. Sensing important indicators such as humidity, wind speed, temperature and water pressure the campus use of irrigation water is managed in an effective manner. The Maxicom system allows remote programming, monitoring and control of all irrigation systems. The Maxicom system automatically turns off an irrigation system if a sudden change of water pressure is detected due to a broken pipe or stuck valve.

Efforts to reduce irrigation water usage and increase the efficiency of grounds maintenance has resulted in the following improvements:

- Replacement of high volume sprinkler heads with low flow rotor heads.
- Landscape design changes featuring more drought tolerant plant material, more use of rock and decomposed granite materials to replace lawn areas and more effective sprinkler designs to improve water absorption rates.
- Replacement of grass fields with artificial turf fields for athletic areas.

Future plans to improve water conservation include:

- Increase staffing to repair broken sprinklers and irrigation failures in a timelier manner.
- Replace detericrated sprinkler systems as budget allows.
- Enhance the use of the Maxicom irrigation system.
- Continue drought tolerant landscaping enhancements campus wide as budget allows.

Submit a Facilities Work Request

FS Help Center

FS Urgent/Emergency

FS Office Hours
M-Th 7:30am-6pm
F 8am-11am

FS Fax
661.722.6514

FS Mailing Address
Antelope Valley College

kpi analysis

WATER USE AND REUSE

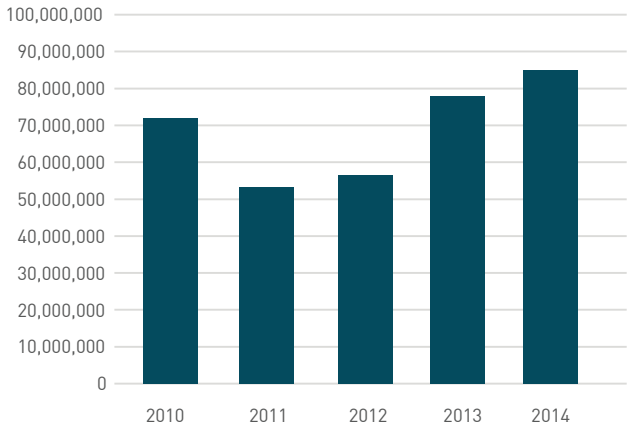
An analysis was conducted of AVC's water, energy, and carbon usage/output to generate the college's Key Performance Indicators (KPI's), a measurable value that indicates how effectively an institution is achieving its objectives related to sustainability.

WATER CONSUMPTION

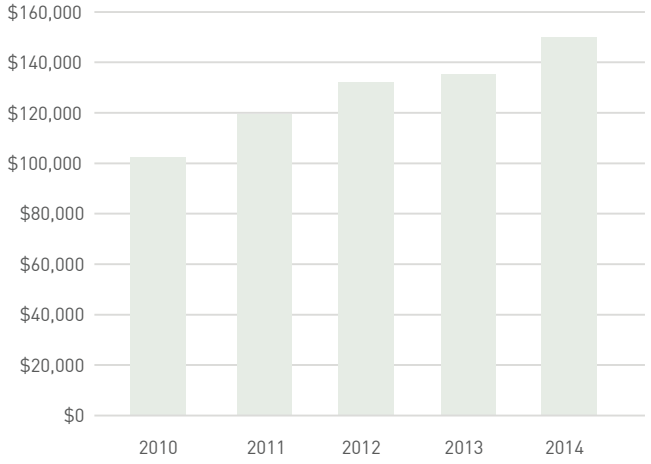
Water consumption was over 80,000,000 gallons in 2014. It had increased 19% compared to 2010/11 baseline. Water cost also increased 46.2% since 2010.

WATER COST

AVC water cost was over 140,000 in 2014 and has increased 46% from 2010/11 baseline.



WATER CONSUMPTION (GALS)



WATER COST ($)

ENERGY CONSERVATION AND GENERATION

ENERGY CONSUMPTION

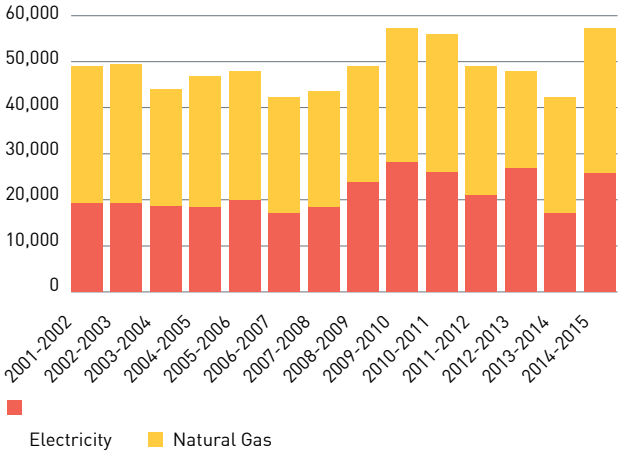
Total energy increase at AVC is 18.7% from 2001-2002 baseline, at approximately 58,000 MBtu.

* The British thermal unit (BTU or Btu) is a traditional unit of work equal to about 1055 joules. It is the amount of work needed to raise the temperature of one pound of water by one degree Fahrenheit

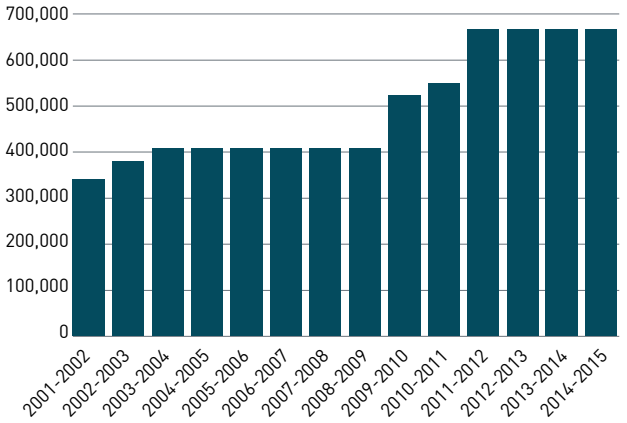
GROWTH IN GROSS SQUARE FOOTAGE

AVC has grown 95% in square foot, from the 2001-2002 baseline.

TOTAL ENERGY CONSUMPTION (MBTU)



GROSS SQUARE FOOTAGE (SF)



ENERGY USE INTENSITY (EUI)

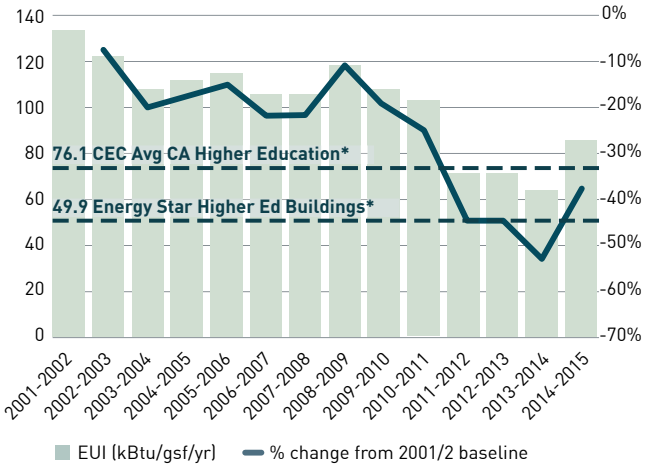
Energy Use Intensity has a 36.8% reduction from the 2001-2002 baseline. Currently above 80, it is still higher than the CA Energy Commission Average CA Higher Education EUI of 76.1.

*Energy Use Intensity (EUI) expresses a building's energy use as a function of its size or other characteristics. For most property the EUI is expressed as energy per square foot per year. It's calculated by dividing the total energy consumed by the building in one year (measured in kBtu) by the total gross floor area of the building.

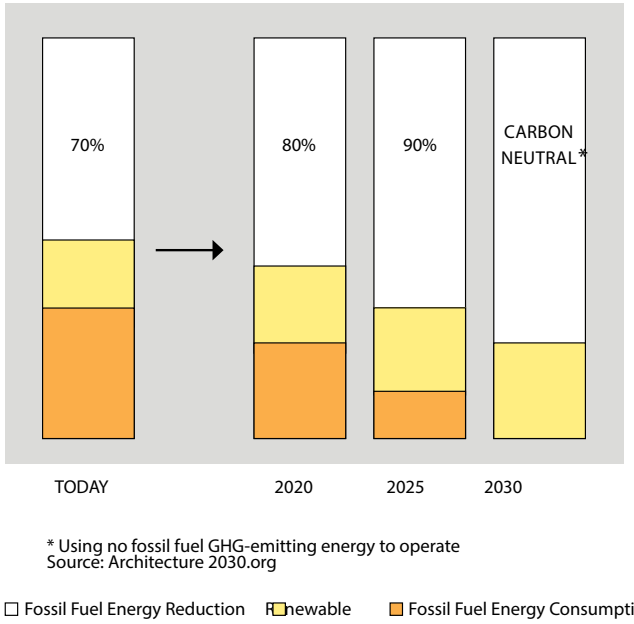
THE 2030 CHALLENGE

All new buildings, developments, and major renovations shall be carbon-neutral by 2030. The target for energy use intensity is 31.2 kBtu/gsf, less than half of the current campus EUI.

ANTELOPE VALLEY COLLEGE
ENERGY USE INTENSITY (KBTU/GSF/YEAR)
AND PERCENT (%) CHANGE FROM 2001/2 BASELINE



THE 2030 CHALLENGE



* Using no fossil fuel GHG-emitting energy to operate
Source: Architecture 2030.org

THE 2030 CHALLENGE TARGETS
U.S. NATIONAL MEDIANS

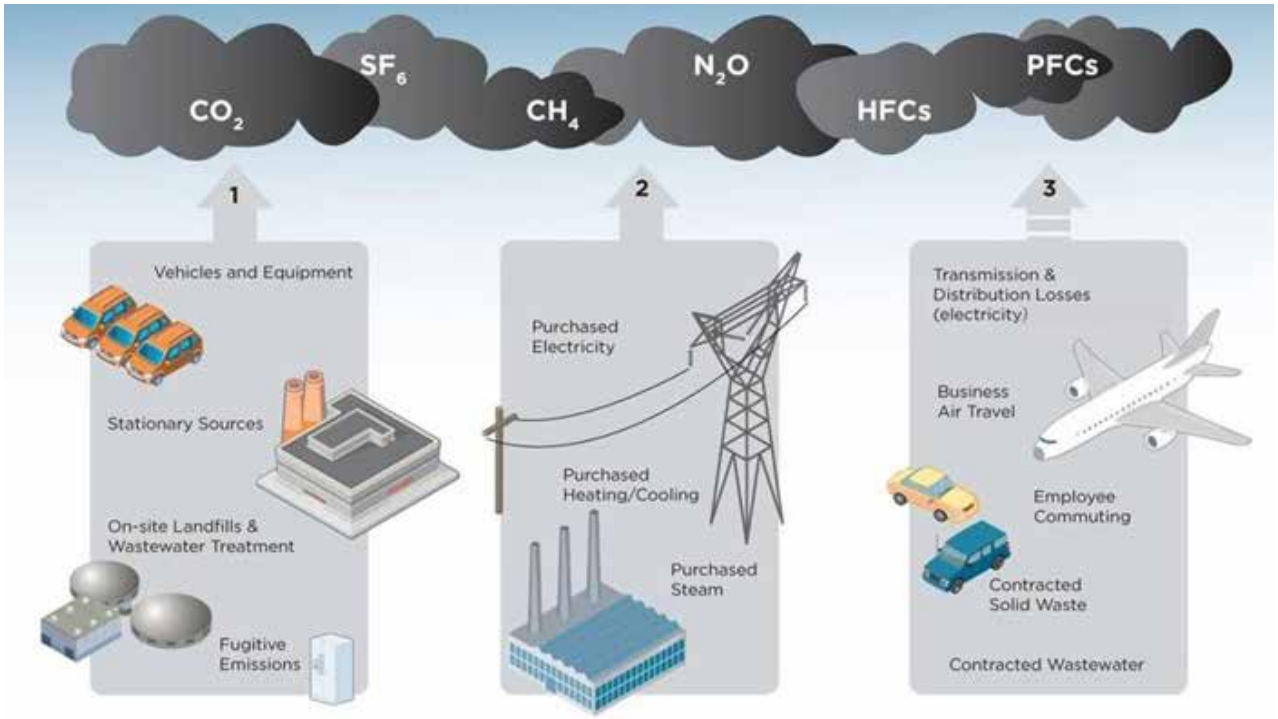
U.S. MEDIANS FOR SITE ENERGY USE AND 2030 CHALLENGE ENERGY REDUCTION TARGETS BY SPACE/BUILDING TYPE from the Environmental Protection Agency (EPA): Use this chart to find the site fossil-fuel energy targets

Building Use Description	MEDIAN SITE EUI (kBtu/Sq.Ft./Yr)	2030 CHALLENGE SITE EUI TARGETS (kBtu/Sq.Ft./Yr)		
		70% Target	80% Target	90% Target
Education	58	17.4	11.6	5.8
College / University (campus-level)	104	31.2	20.8	10.4

CARBON AND CLIMATE ACTION

UNDERSTANDING GHG EMISSIONS' SOURCES

The Greenhouse Gas (GHG) Protocol categorizes direct and indirect emissions into three broad scopes (see image at right).



COMMON SOURCES OF FEDERAL GREENHOUSE GAS EMISSIONS

SCOPE 1

Greenhouse gas emissions from sources that are owned or controlled by a Federal agency.

SCOPE 2

Greenhouse gas emissions resulting from the generation of electricity, heat, or steam purchased by a Federal agency.

SCOPE 3

Greenhouse gas emissions from sources not owned or directly controlled by a Federal agency but related to agency activities.

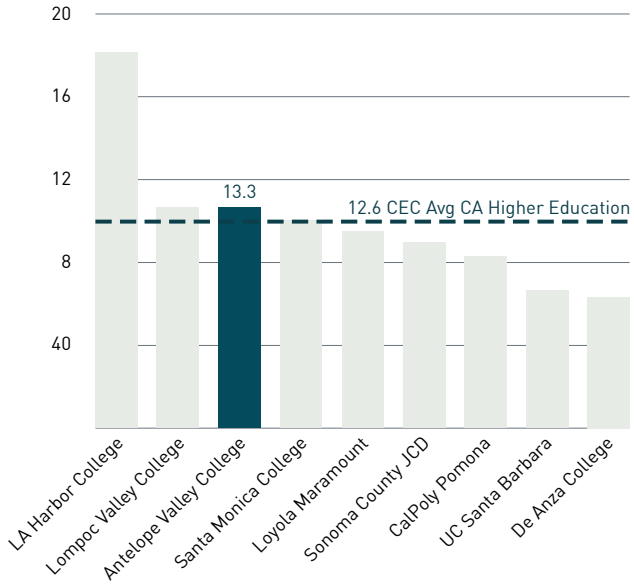
GREENHOUSE GAS EMISSION

AVC reported an emission of 13.3 lbs CO2e/gsf. It is slightly higher than California Energy Commission's 12.6 Average California Higher Education Emission.

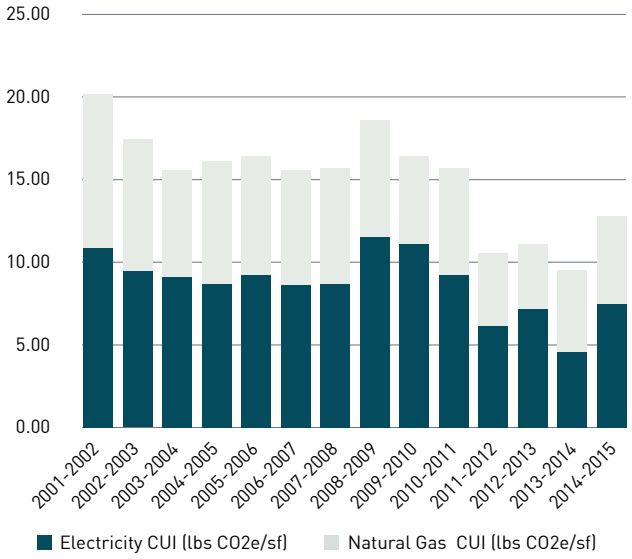
CARBON USE INTENSITY SCOPE 1 AND 2

Carbon Use Intensity has reduced 35.7% from the 2001-2002 baseline. Current Carbon Use Intensity is over 10.00 lbs CO2e/gsf for Scope 1 & 2 emissions.

GHG EMISSIONS - SCOPE 1&2
(LBS CO2E/GSF)



CARBON USE INTENSITY (LBS CO2E/GSF)



sustainability themes

During the Sustainability Workshop, Resource Stewardship and Social Equity Themes were presented and discussed. Six topics within each theme provided examples for implementation.

RESOURCE STEWARDSHIP

CLIMATE ACTION

- Green House Gas Inventory
- Greenhouse Gas Reduction Target
- Climate Action Plan
- Outdoor Air Quality Monitoring Program

WATER & WASTEWATER

- Water measurement and reporting
- Low Flow Fixtures
- Climate appropriate Plants
- Low Impact Development
- Non-Potable Water Usage
- Net Zero Water

MATERIAL PROCUREMENT & WASTE MANAGEMENT

- Sustainable Purchasing Guidelines
- Healthy Materials
- Local Sourcing
- Make Recycling Easy
- Solid Waster Diversion

SITE & HABIT

- Biodiversity
- Habitat Support
- Invasive Species
- Runoff Management
- Impervious Surface Ratio
- Heat Island Effect

ENERGY CONSERVATION & GENERATION

- Energy Efficiency
- Renewable Energy
- Commissioning and Retrocommissioning
- Total Cost Of Ownership/Life Cycle Costing

SOCIAL EQUITY

TRANSPORTATION & ACCESS

- Transportation Commute Study
- Public Transit Access
- Bicycle Network & Storage
- Pedestrian Network & Safety
- Smart Parking
- Other

EDUCATION & CULTURE

- Sustainability in Curriculum
- Clean/Greentech Workforce Development
- Engaging Diversity - Faculty, Staff & Students
- Sustainability Focused Lectures & Events
- Professional development/credentialing

HEALTH & WELLNESS

- Access to Daylight & Views
- Healthy Indoor Air Quality
- Ergonomic Furnishings (Classroom & Office)
- Healthy Food & Beverages
- Universal Design
- Other

STUDENT & COMMUNITY ENGAGEMENT

- Student & Employee Orientation
- Outreach Materials & Publications (including Social Media)
- Community Service & Partnerships
- Inter-Campus Collaboration
- Integrated Design Process
- Other

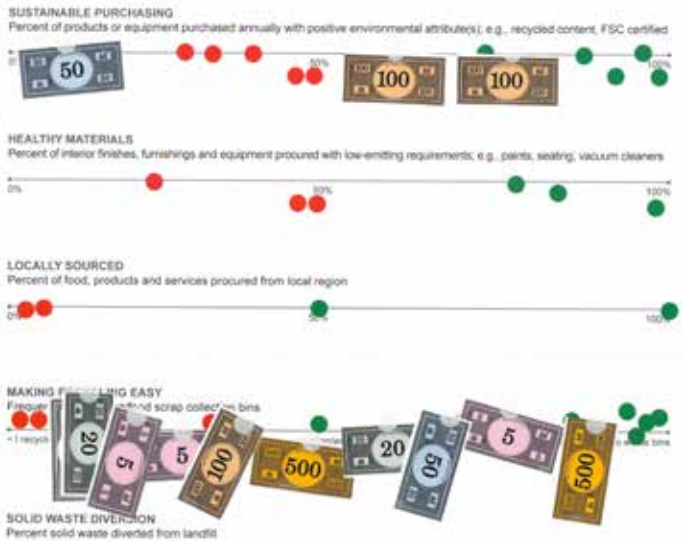
MONITORING & REPORTING

- Sustainability Action Plan Development
- Annual Sustainability Performance Report
- Green Building Certification (LEED, Energy Star)
- Continuous Monitoring & Online Reporting (Digital Dashboard)
- Sustainability and Social Media
- Other

workshop activities

Workshop participants engaged in a series of activities to establish priorities and goals.

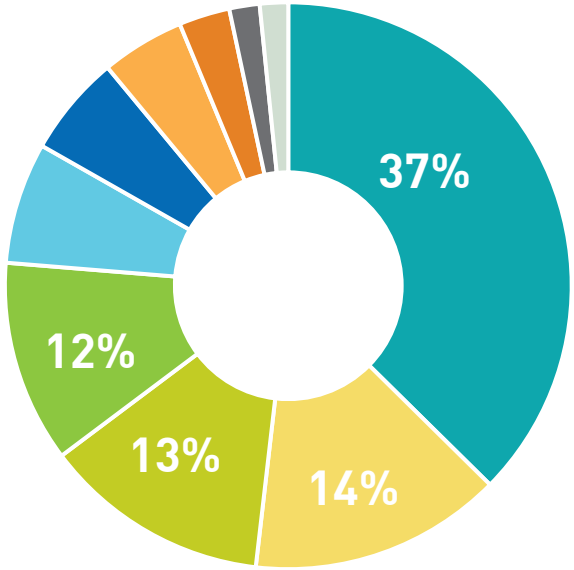
Participants were also given red and green dots to indicate the college's current and envisioned statuses, respectively, for each stewardship theme. In general, the participants think the college is currently in the lower half of sustainability-related accomplishments and should strive to be in the top half of sustainability-related achievements.



INVESTMENTS BY THEMES

Following the initial priority-setting exercises, participants were asked to "invest" in topics with a set dollar value. Each participant was given $676 to distribute to their top priority theme. Topics that received the highest investments were Sustainability Action Development Plan (37%) and Renewable Energy (14%).

- Sustainability Action Development Plan ($1,620)
- Renewable Energy ($626)
- Student Employee Orientation ($560)
- Healthy Indoor Quality ($500)
- Healthy Food and Beverages ($300)
- Sustainable Purchasing ($250)
- Making Recycling Easy ($206)
- Monitoring and Reporting ($126)
- Sustainability in Curriculum ($75)
- Total Cost of Ownership ($70)



sustainability goals

MONITOR

Set high bars for building performance goals, with consistent monitoring and routinely report

DEVELOP A SUSTAINABILITY ACTION PLAN

MONITOR AND REPORT

RECYCLE

Promote a culture of reduce, reuse and recycle

PURCHASE EQUIPMENT WITH POSITIVE ENVIRONMENTAL ATTRIBUTES

PROCURE FOOD AND PRODUCTS FROM LOCAL REGION

MAKE RECYCLING EASY

EDUCATE

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

STUDENT AND EMPLOYEE ORIENTATION

PROMOTE SUSTAINABILITY IN CURRICULUM

OUTREACH MATERIAL AND PUBLICATIONS

COMMUNITY SERVICE AND PARTNERSHIP

ENERGY

Become a leader in Energy Efficiency and increase the levels of on and off-site renewable energy

REDUCE ENERGY CONSUMPTION / INCREASE ENERGY EFFICIENCY

INCREASE SELF-GENERATED ENERGY CAPACITY

WATER

Manage building and landscape water use to conserve water

INCREASE BIODIVERSITY ACROSS CAMPUS

AVOID INVASIVE SPECIES

AVOID HEAT ISLAND EFFECT

HEALTH

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

PROVIDE HEALTHY FOOD & BEVERAGES

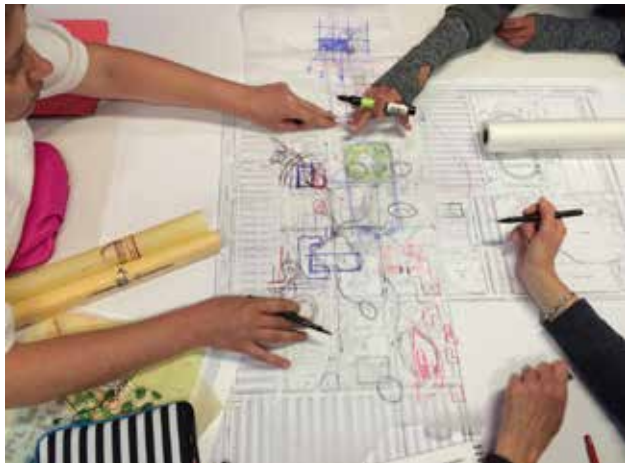
IMPROVE INDOOR / OUTDOOR AIR QUALITY

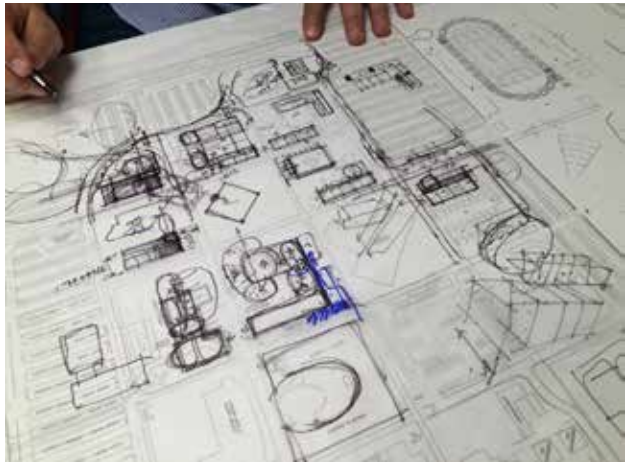
PROVIDE ACCESS TO DAYLIGHT AND VIEWS

PROVIDE PUBLIC TRANSIT ACCESS

RECOMMENDATIONS


ENGAGE
CONNECT
with community
April Roberts ('15)
Aeronautical and Aviation Technology
DISCOVER
Derek Abramson ('11)
Engineering
NASA Operations Engineer
UTILIZE
support services





overview

The 2016 FMP recommendations for the Lancaster Campus present an overall picture of the future developed campus and includes proposed sites for new facilities, recommendations for renovations of existing facilities and site development projects.

The recommendations included in this section follow the Facilities Master Plan Program (from **Planning Data** section of this report), and address the discussion that took place during the planning process.

The recommendations are organized into the following sections:

- Facilities Planning Principles
- Development Concepts
- 2016 Facilities Master Plan
- Project Descriptions
- Phased Development

facilities planning principles

The Facilities Planning Principles form the basis for all projects identified in this FMP. The recommendations for site and facility improvements will strengthen the AVC campus community and support the long term vision and goals.

promote student learning and success

- Improve access to student support services
- Develop indoor and outdoor spaces to encourage collaboration and support student engagement
- Develop campus as a welcoming and nurturing community

plan campus to address program needs

- Improve infrastructure and technology to support evolving learning environments
- Right size facilities to align with state guidelines
- Position AVC to maximize state and local funding

enhance community engagement

- Increase visibility of AVC within the community
- Create welcoming gateways to the campus
- Develop campus to enhance a sense of community

improve efficiency/ utilization

- Improve facilities to support current and future program needs
- Replace inefficient and underperforming facilities
- Improve functional zoning and operational efficiencies
- Develop flexible, multi-purpose facilities that can

improve circulation and connections

- Promote safe and universally accessible circulation
- Enhance connections and campus wayfinding
- Develop AVC as an inviting learning oasis

promote stewardship of resources

- Improve energy conservation & generation
- Establish continuous monitoring and online reporting
- Develop a sustainability action plan
- Educate and engage campus community

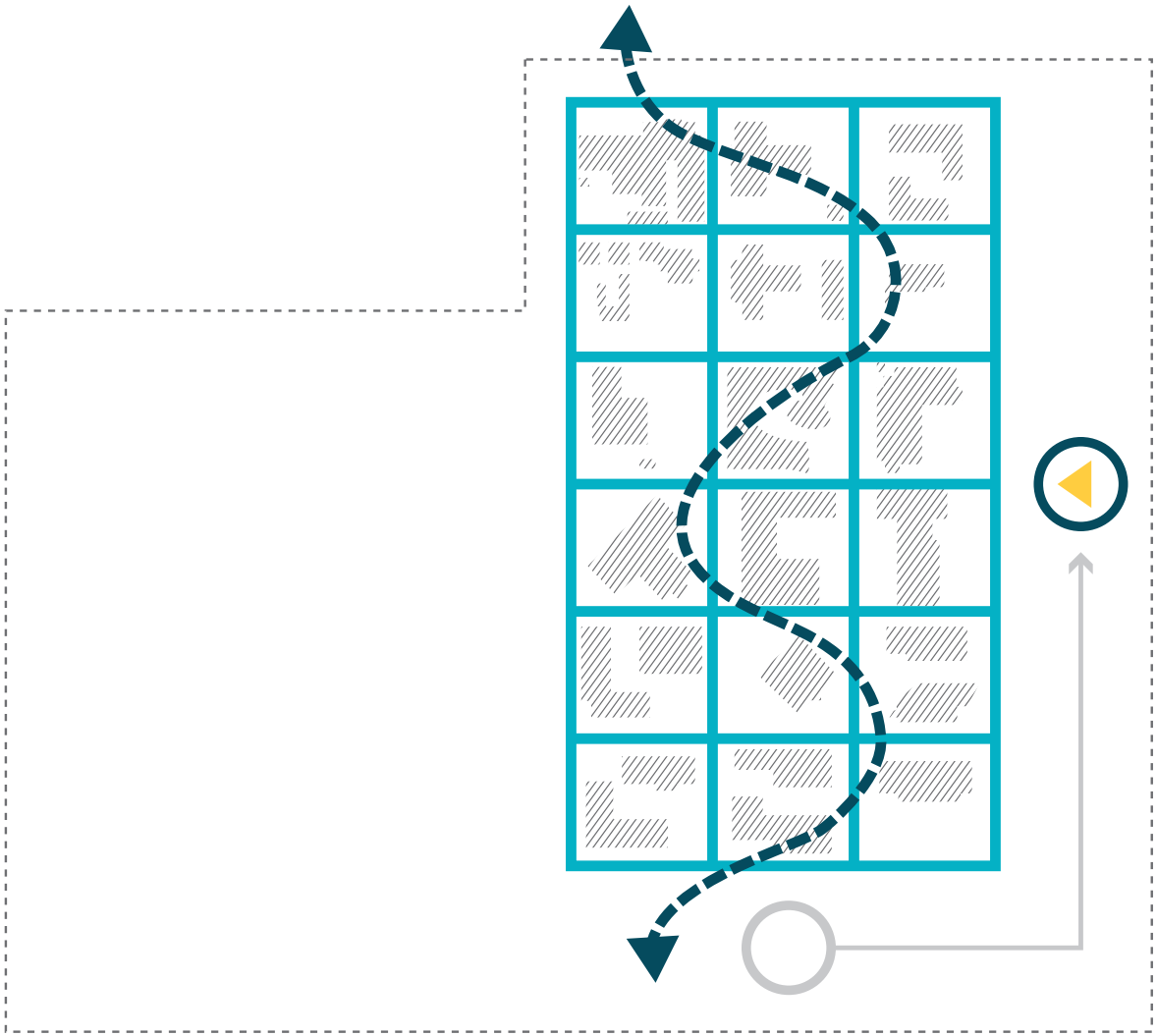
development concepts

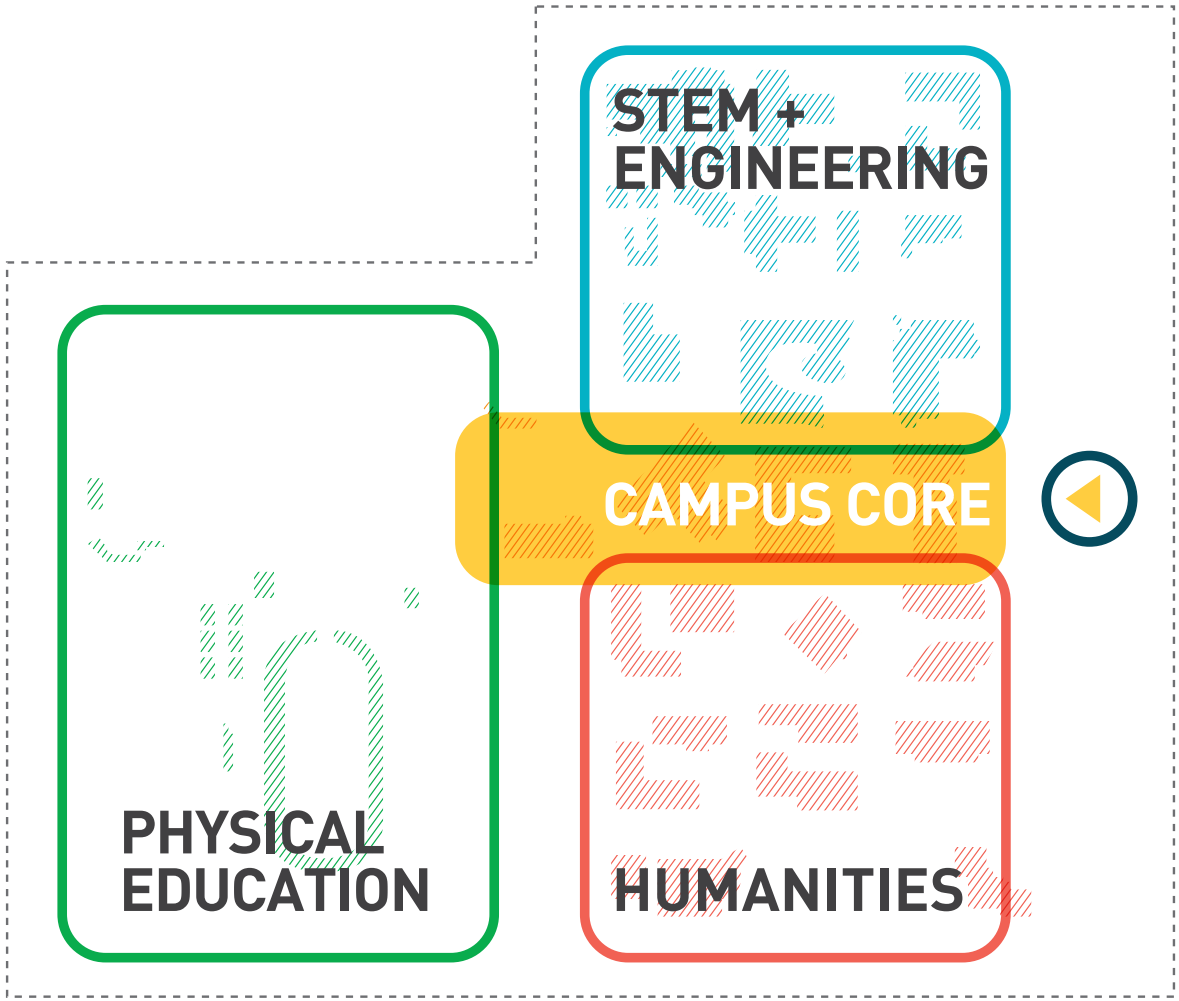
Creating a distinct sense of place requires an understanding of the unique forces that shape a particular environment. This includes the physical characteristics of a given site along with the cultural values and behaviors of its inhabitants. The development concepts form the basis for the FMP recommendations and will create a campus environment that celebrates the native characteristics of the area, supports a robust and diverse population, enables the campus community to flourish and demonstrates the importance of sustainability and resource management within the Mojave Desert setting.

The development concepts are predicated on 3 main concepts that support the overarching facilities planning principles listed on the previous pages:

- The re-centered student support services activate the campus core.
- The orthogonal grid represents the campus history and frames future development.
- The curvilinear gardens connect the campus to its regional context.

The existing pedestrian pathway system establishes a strong orthogonal grid and an organized framework for campus development that sets the tone for future building geometry. This grid of pathways is original to the campus and serves as a connector to AVC's history. The dominance of the grid is also a major influence in the broader regional structure and helps connect the Campus to the Community. This grid is the backbone to the FMP planning structure.





A secondary system is inspired by the natural patterns of the river washes inherent to the Antelope Valley floor and adds a counterpoint to the strong orthogonal grid - similar to how the colorful poppies contrast the local earth toned desert scape. This ribbon of native and low water fauna creates a framework for exterior spaces for multiple scaled gatherings promoting social and learning interaction. This ribbon with its contrasting form and native plants binds the campus to its regional surroundings and celebrates its unique characteristics.

The many decades of development on campus have consistently moved the campus center to the north, while the core student support services remain on the south, near the existing campus entry. This has disconnected many of the students on the north side of campus from the vital services on the south side. This FMP takes the bold step of relocating the core student support services to the center of the campus, activating the campus core and developing a new campus entry on 30th street.

A new Student Services building and Student Center building will welcome visitors to the AVC campus and define a clear organization of core services. The campus core will be centrally located and adjacent to the STEM + Engineering Zone to the north, Humanities Zone to the south, and Physical Education Zone to the West. This re-organization of the overall campus will improve connectivity, enhance collaboration and enhance student success.

2016 facilities master plan

The FMP for Antelope Valley College presents an overall picture of the future developed campus and includes recommendations for new construction, building renovations, change of use and site development projects. While drawings appear specific, the forms are conceptual sketches that highlight the location and purpose for the proposed improvements.

The FMP recommends the demolition and replacement of a number of the oldest buildings on the campus. These are identified in the **Planning Data** section of this document. Functions currently housed in these facilities will be relocated to new or existing facilities and will be designed to support the new campus zoning diagram and address projected instructional program needs. A complete list of all program moves is included in the **Appendix** of this document.

The project list to the right summarizes the key FMP projects that are illustrated on the campus plan and described on the following pages.

project list

NEW CONSTRUCTION

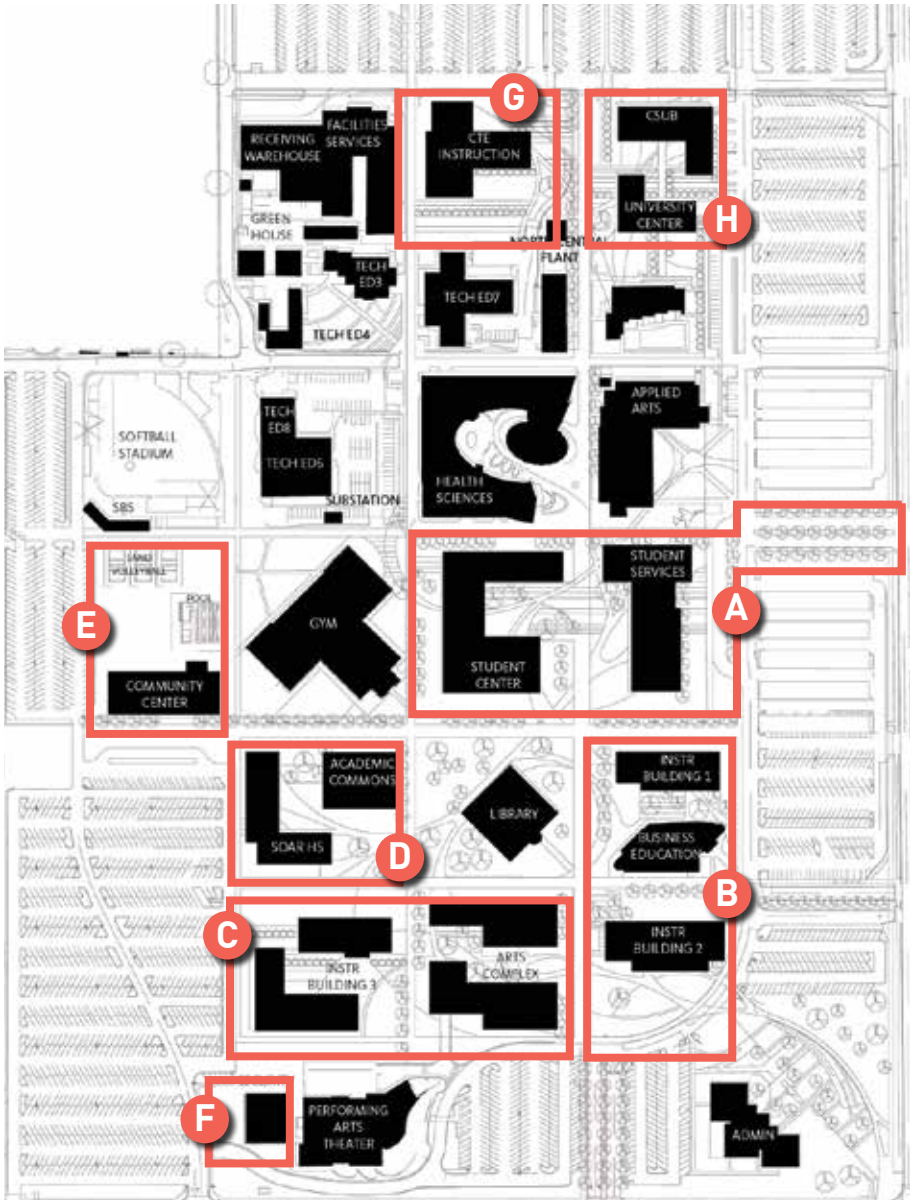
- Academic Commons
- Arts Complex
- Campus Security
- Community Center
- CSUB + University Center
- CTE Instruction
- Field House
- Instructional Building 1 (IB1)
- Instructional Building 2 (IB2)
- Instructional Building 3 (IB3)
- SOAR High School
- Student Center
- Student Services

RENOVATIONS/CHANGE OF USE

- Applied Arts
- Business Education
- Gymnasium
- Field House

FACILITIES MASTER PLAN

- EXISTING FACILITIES
- PROPOSED NEW FACILITIES
- RENOVATION/CHANGE OF USE



project descriptions

Descriptions for each of the projects identified in the FMP are described on the following pages and grouped as illustrated in this key plan.

A Student Services
Student Center
30th Street Entry
Student Plaza

B Instructional Building 1 (IB1)
Instructional Building 2 (IB2)

C Arts Complex
Instructional Building 3 (IB3)

D Academic Commons
Soar High School

E Community Center

F Campus Security

G CTE Instruction

H CSUB + University Center

project descriptions

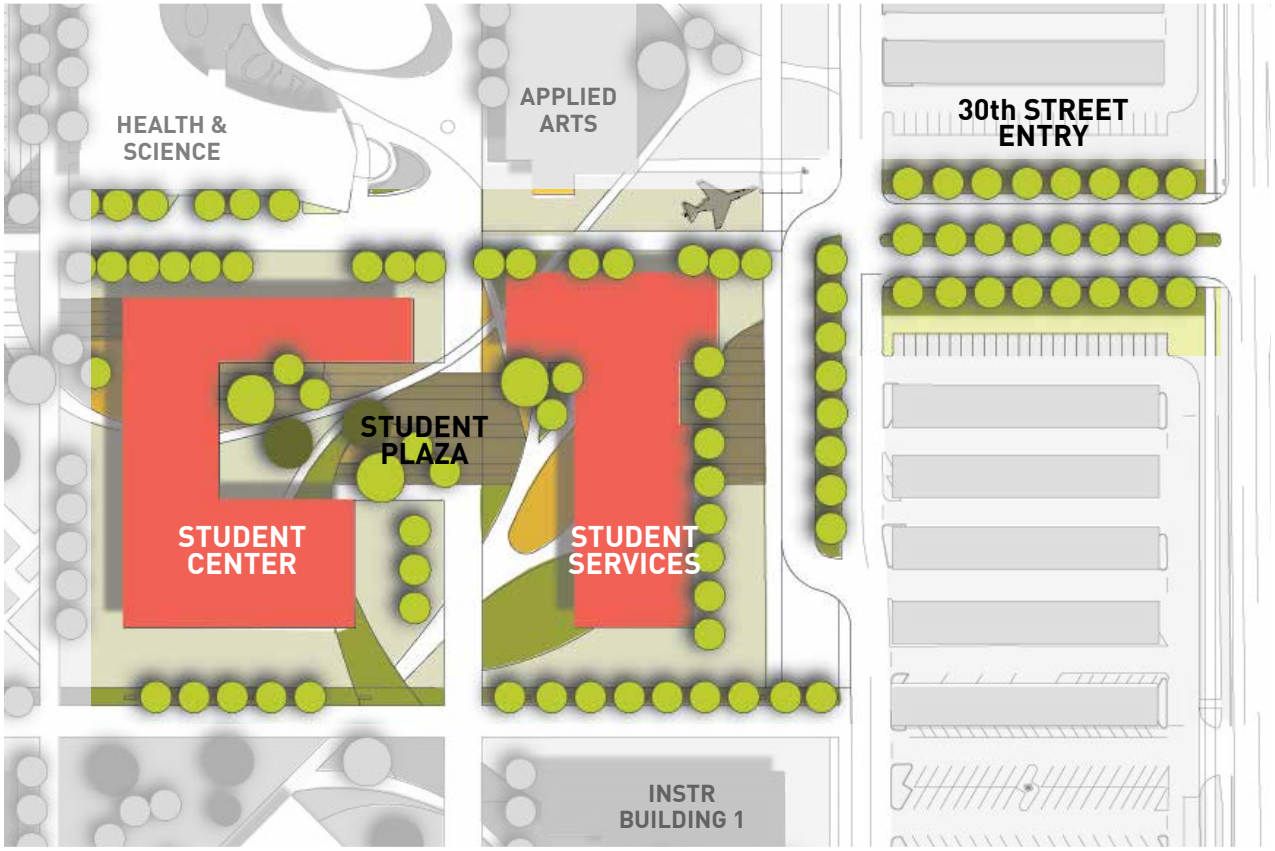
A

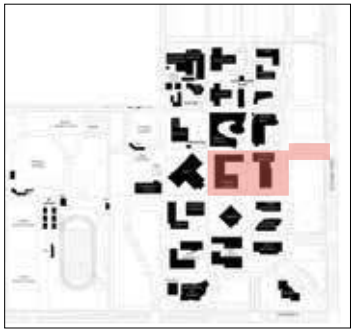
STUDENT SERVICES

A new Student Services Center is recommended to replace aging facilities and to locate the student support services in a centraled, front door location. The consolidation of these key support functions will increase students' access to services, improve efficiency and enhance students success. The new multi-story building is prominently positioned adjacent to the new 30th street campus entry and will welcome first time visitors, students and community members to the AVC campus. Multiple access points and clear circulation patterns will connect this important building to the campus core, the new Student Plaza and the adjacent Student Center.

STUDENT CENTER

The new Student Center will replace aging facilities and relocate campus-wide support services from the south end of campus to the campus core. Functions to be housed in the new building include the Bookstore, Food Services, Student Activities Space, Mailroom, Reproduction and Graphics. Strategically located at the new 'heart' of the campus, the Student Center will be accessed from multiple directions to engage the entire campus community. Positioned across from the new Student Services building, these two buildings will frame the Student Plaza and connect to the primary pedestrian path linking the campus core to the north and south instructional zones.





30TH STREET ENTRY

As front door services shift to the north, a new campus entry on 30th street is recommended to welcome first time visitors, students and community members to the AVC campus. Developed in coordination with the city, the new entry will include a new traffic signal, improved traffic flow and a safe drop-off area in front of the new Student Services building. Prominent signage and landscape development will mark this new entry and increase visibility of the reinvigorated AVC Campus within the surrounding community. The development of this new arrival experience will create a sense of place, and create positive and lasting first impressions.

STUDENT PLAZA

The new Student Plaza will be a central student gathering area that will enhance collaboration, encourage student engagement and improve access to student support services. Framed by the Student Services and Student Center buildings, the plaza will connect the two buildings and allow activities in each to spill to the outdoors. The primary north-south pedestrian spine bisects the plaza and connects the campus core to the north and south instructional zones. This plaza will be a hub of student life and support a variety of formal and informal activities, including outdoor dining, career fairs and student events.

project descriptions

B

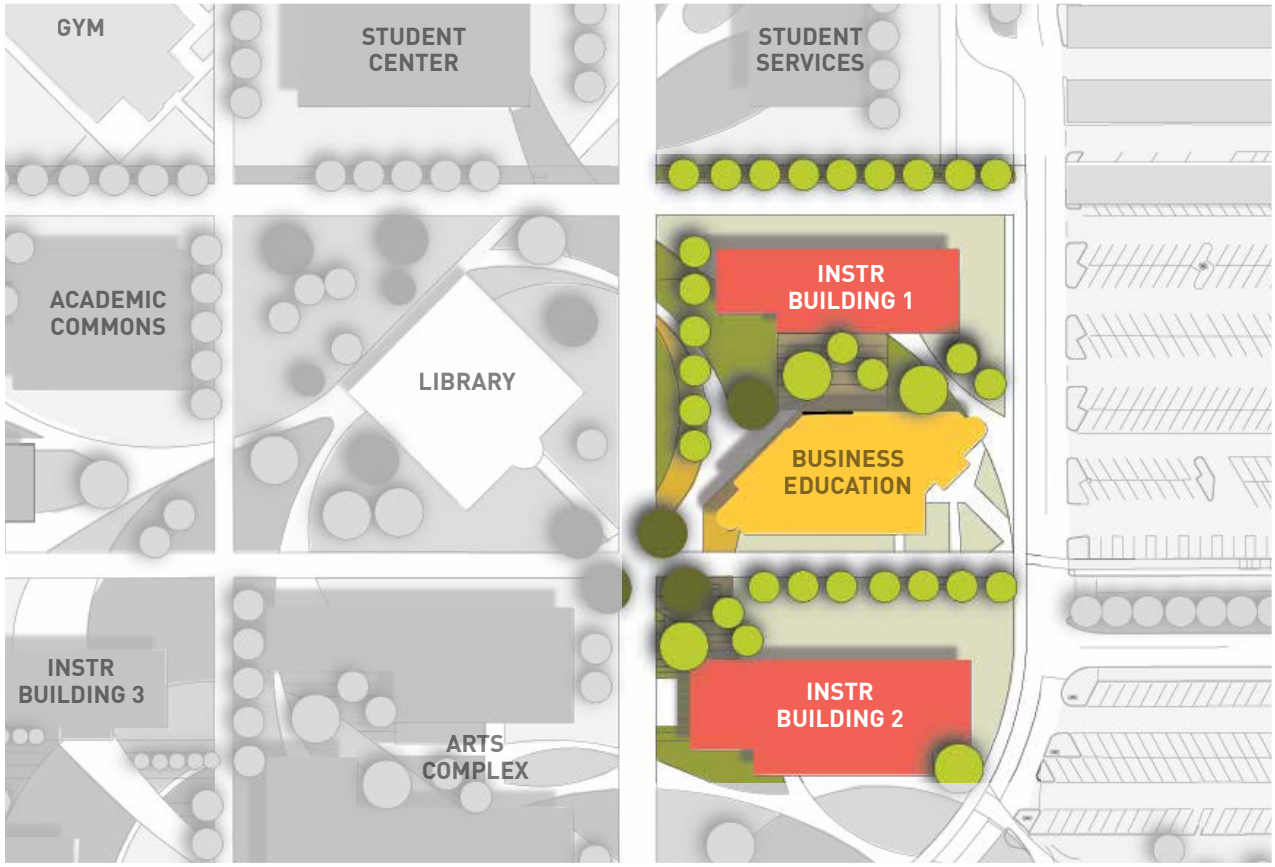
INSTRUCTIONAL BUILDING 1

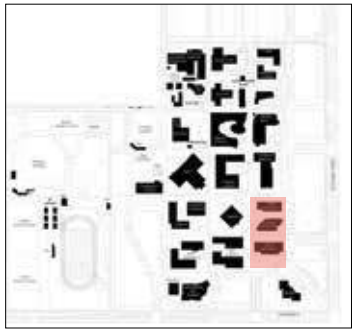
Instructional Building 1 (IB1) will replace underperforming and aging facilities and provide improved instructional space to support current and projected program needs. Interdisciplinary instructional space will support improved teaching/learning environments, integrate the latest technological innovations and adapt to flexible teaching methods. Core humanities classrooms, labs, study space and offices will be designed to maximize collaboration between disciplines and enhance student learning. Located to the north of the Business Education building, the new instructional building will frame a new courtyard for outdoor instruction and study.

INSTRUCTIONAL BUILDING 2

Similar to IB1, Instructional Building 2 (IB2) will also replace underperforming and aging facilities and provide improved instructional space to support current and projected program needs. Core humanities classrooms, labs, study space and offices will be designed to maximize collaboration between disciplines and enhance student learning.

IB2 will complete the southern end of the Humanities Zone and the surrounding landscape development will link to the Administration Building and new Community Corner. The Garden Ribbon flows across the campus loop road and will create a bridge-like channel, to improve pedestrian flow into the campus core.





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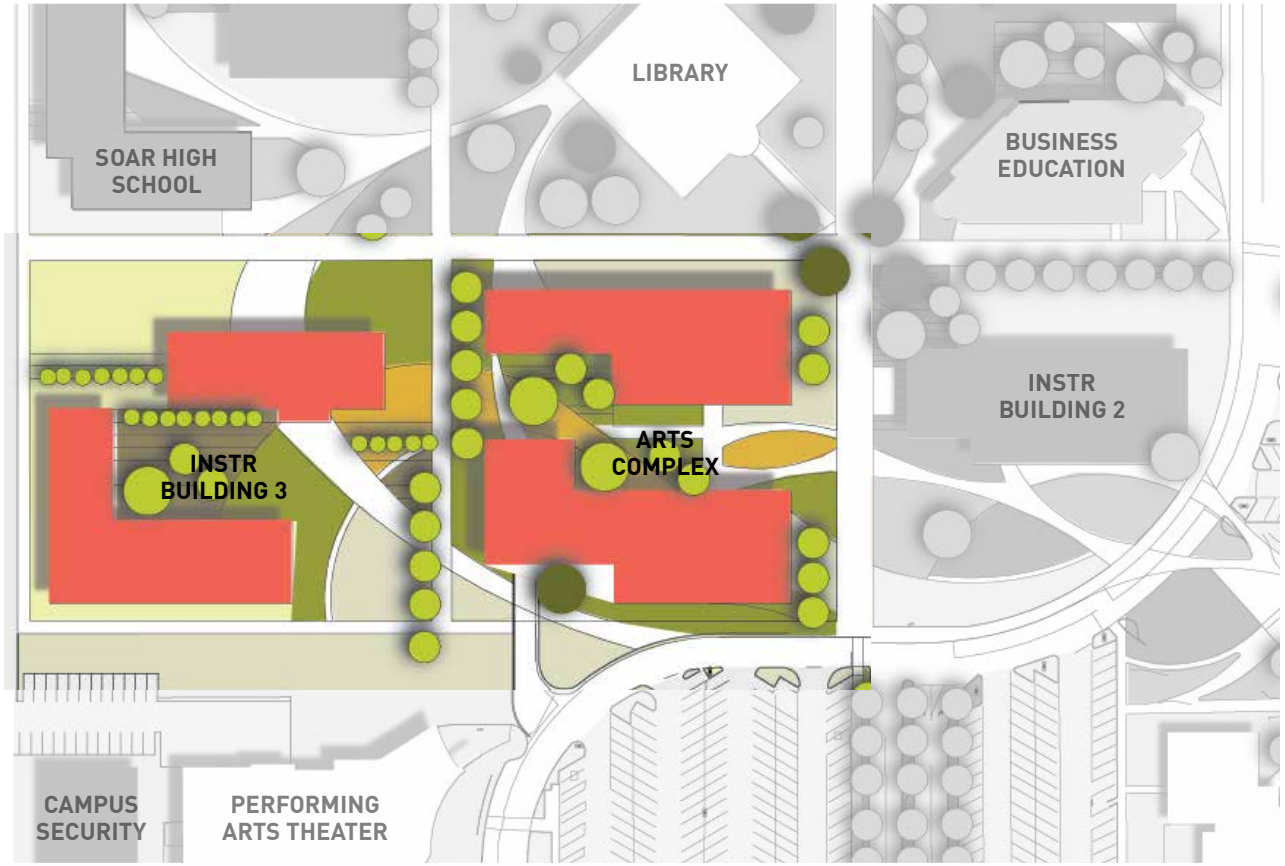
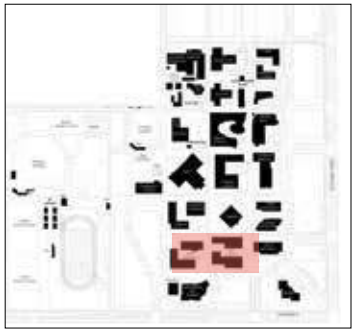


ARTS COMPLEX

The new Arts Complex is recommended to replace underperforming and aging facilities and support the projected program needs. The new complex will consolidate functions currently located in the Fine Arts quad, support current and projected program needs and promote interdisciplinary collaboration. The placement of the complex is arranged to include an arts courtyard and provide the opportunity for formal and informal outdoor instruction and study. Strategically located adjacent to the Performing Arts Theater, the Arts Complex will enhance connections between the two facilities and provide connections to the campus core. Together the new Arts Complex and the Performing Arts Facility will expand the visibility of the arts on the AVC campus and enhance community engagement.

INSTRUCTIONAL BUILDING 3

Instructional Building 3 (IB3) will replace underperforming and aging facilities and provide improved instructional space to support current and projected program needs. Interdisciplinary instructional space will support improved teaching/learning environments, integrate the latest technological innovations and adapt to flexible teaching methods. Classrooms, labs, study space and offices will be designed to maximize collaboration between disciplines and enhance student learning. Located next to the Performing Arts Center and the new Arts Complex, the new instructional buildings will support adjacent disciplines and anchor the southeast corner of the Humanities Zone. An exterior courtyard will support individual and group activities including outdoor instruction, special events, and informal gatherings.



project descriptions

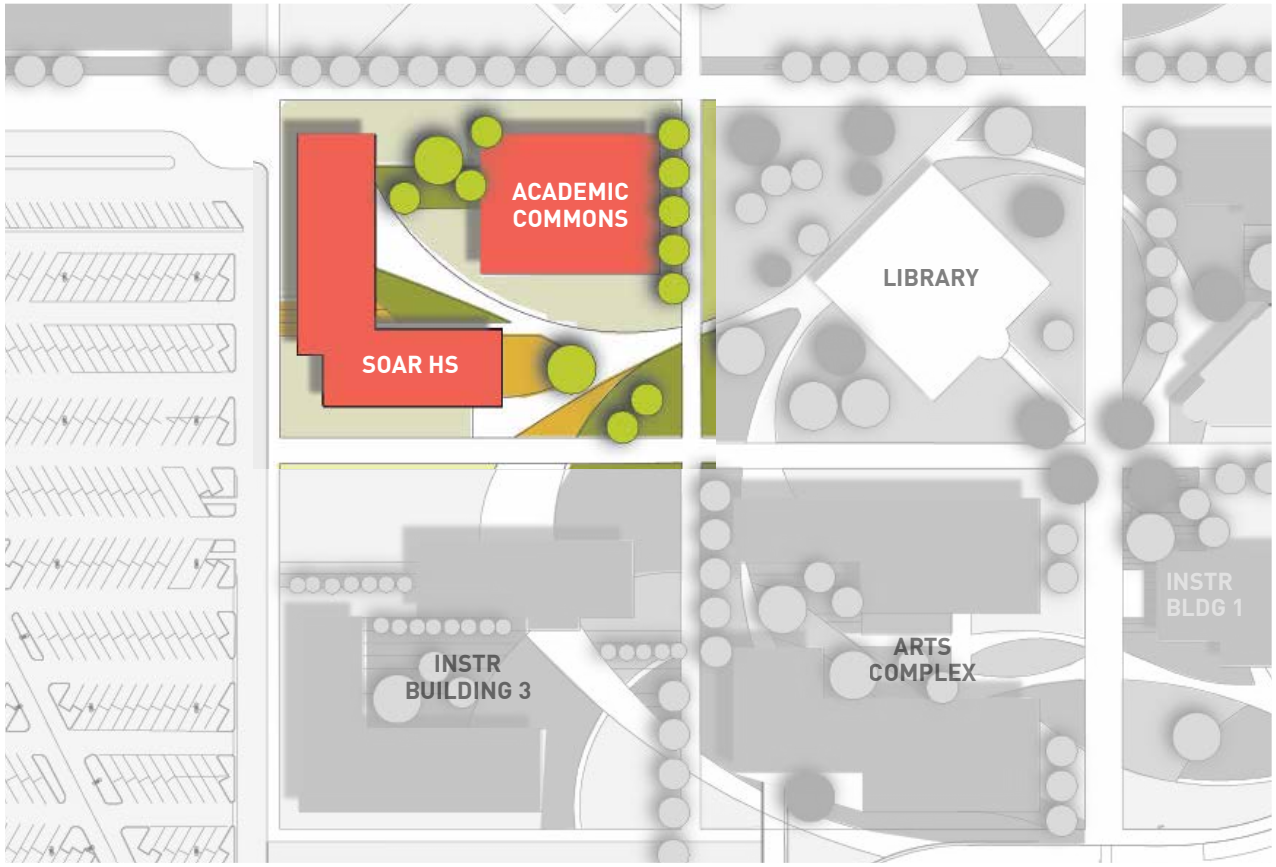
D

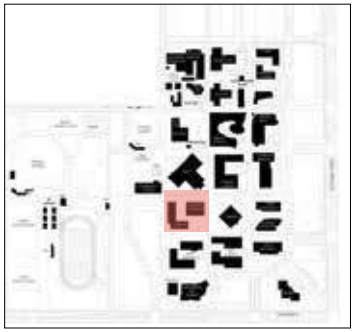
ACADEMIC COMMONS

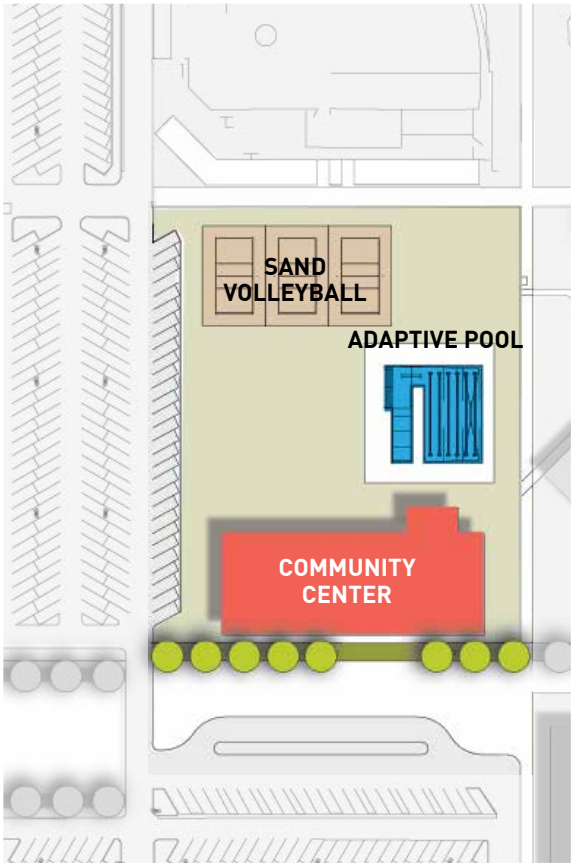
The new Academic Commons will centralize and expand academic support services into a central campus location. The current space housed in the existing Learning Center will move into the new Academic Commons into improved space for supervised tutoring and learning assistance, individual and group instruction and open study space. In addition, a new Faculty Development Center will be housed there. Positioned next to the campus core, library, and SOAR High School, the new Academic Commons will be visible from multiple directions and used by the entire campus community. This facility promotes learning and student success by increasing student's access to multiple academic support services.

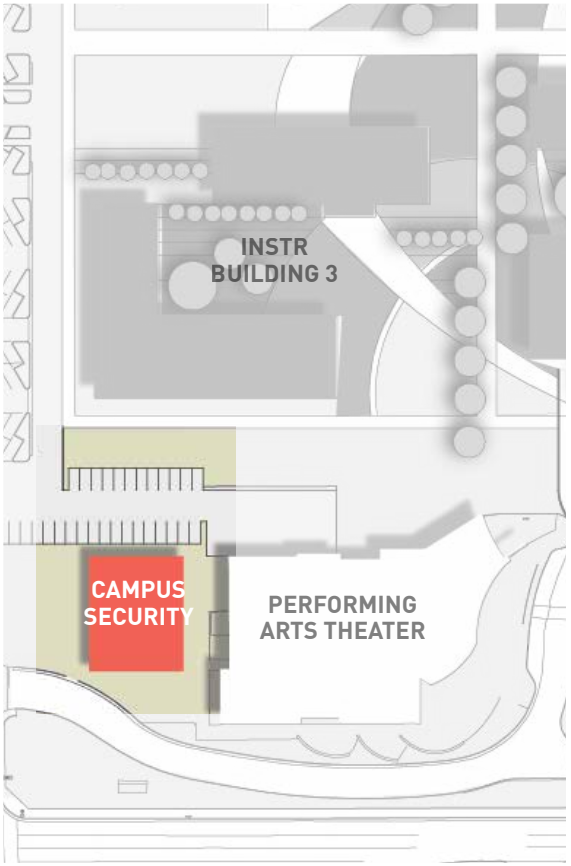
SOAR HIGH SCHOOL

The new SOAR High School building will replace temporary facilities and provide a permanent location for the successful High School program. The new high school faculty will provide improved teaching/learning environments, integrate the latest technological innovations and adapt to flexible teaching methods. Situated on the west edge of the campus core, close to parking and a safe drop-off area, this location maximizes opportunities to create an identifiable high school zone within the context of the overall college campus. Connections to core instructional areas, study spaces and student support functions will be maximized to improve integration of SOAR high school students into AVC.







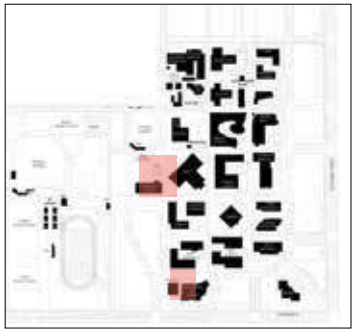


E

COMMUNITY CENTER

The new Community Center will enhance internal campus collaboration and broaden external community engagement. The center will provide flexible space to host large events, forums, and meetings and will be easily accessed on the west side of campus near parking and a new drop-off area. The Board Room will be relocated from the Administration building to the new building, along with the Foundation Offices that are currently located in buildings planned for demolition of renovation. The AVC Hall of Fame will be designed as part of the welcoming lobby, which is situated along the core pedestrian spine connecting the campus core to the Physical Education zone of the campus.

North of the Community Center, a new adaptive P. E. pool and sand volleyball courts are planned to replace the existing natatorium and address program needs. Support space for the pool, including locker rooms and showers, will be located on the north side of the Community Center with a separate entrance for varied hours of operation.



F

CAMPUS SECURITY

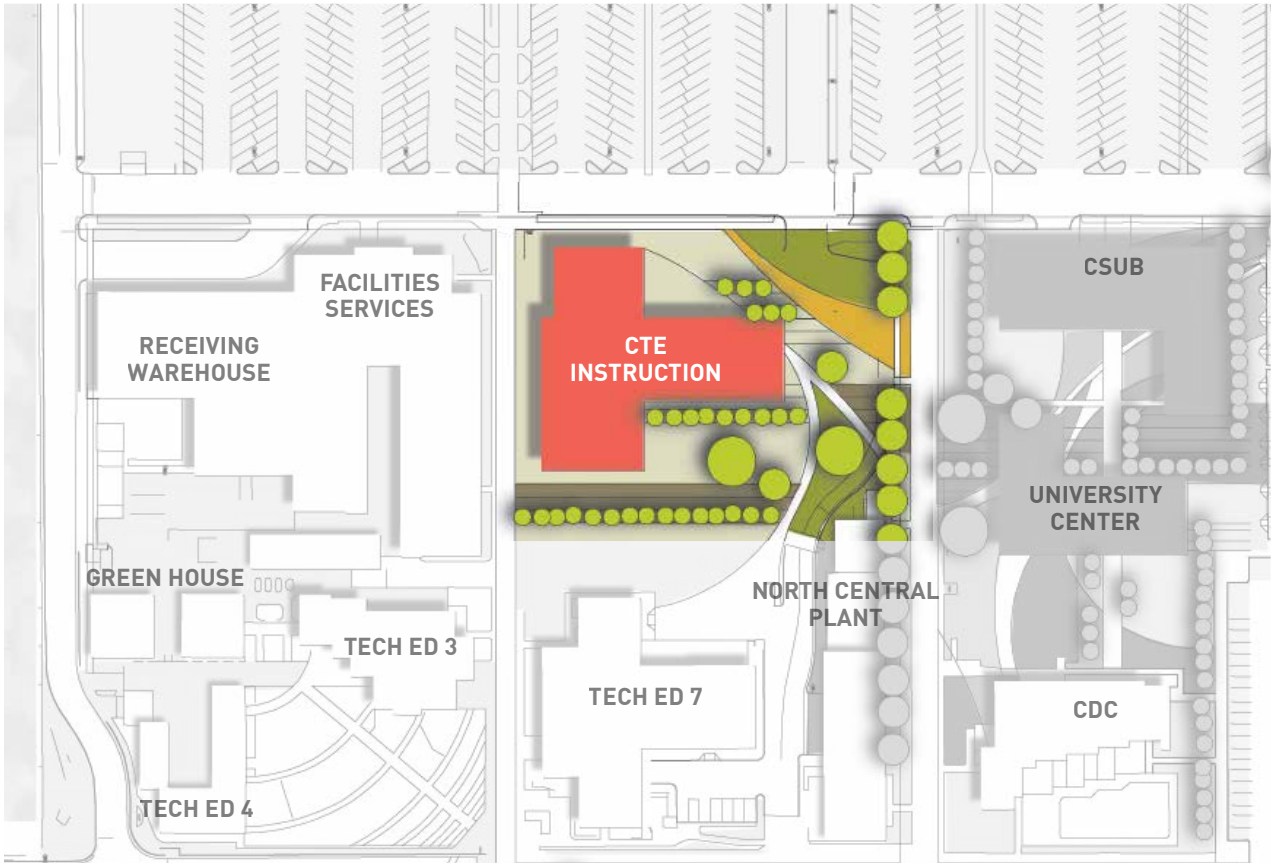
The new Campus Security building will replace the current temporary facility and provide appropriate space to house Security and Risk Management functions. The placement of the Campus Security building has been strategically located for easy access from K Street and the primary vehicular circulation campus routes. An adjacent dedicated parking will provide space for campus security vehicles and short term parking for visitors to the building.

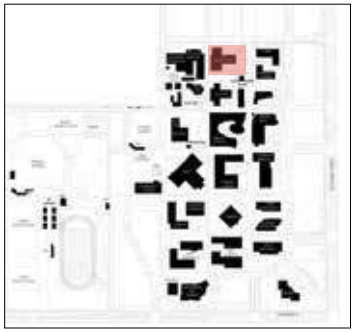
project descriptions

G

CTE INSTRUCTION

A new CTE Building is recommended to replace underperforming and aging facilities and support the projected program needs. The building will be designed for functions currently located in TE1 and TE2, including Electronics, Fire Technology, Welding and HAVC. Located adjacent to other CTE programs, there are opportunities to improve interdisciplinary collaboration through the development of outdoor learning areas and clear connections. The new CTE building will anchor the developed STEM + Engineering Zone and mark the north end of the pedestrian path connecting to the campus core.

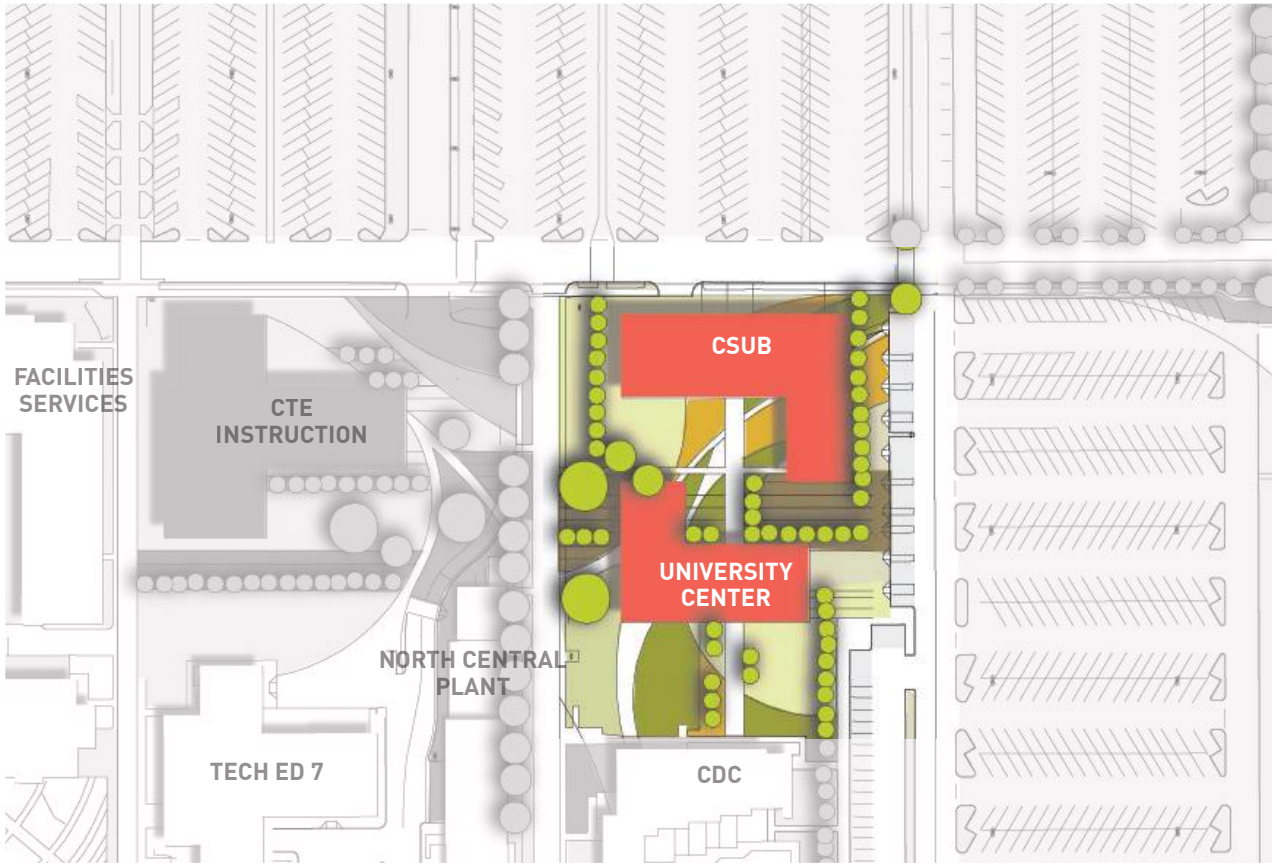


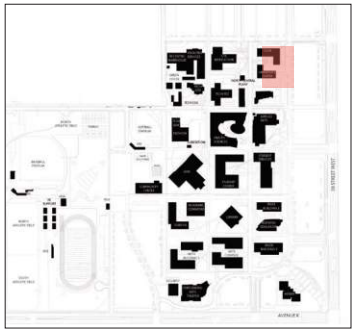


H

CSUB + UNIVERSITY CENTER

The new CSUB and University Center buildings will replace modular facilities and provide updated space on the AVC campus for these prominent upper division, undergraduate, and graduate universities. The new facilities will strengthen connections between the community college and the CSU system, and maximize opportunities for students to complete their associates, baccalaureate and graduate degrees on one campus, without leaving the Antelope Valley. Prominently located on the east side of campus, between the new 30th Street Entry, the proposed bus drop-off and parking, the facilities will be easily accessed. As part of the STEM + Engineering zone of the campus, the new CSUB and University Center will seamlessly integrate into the campus fabric and maximize opportunities for branding of the site as the 'Center for Higher Education in the Antelope Valley'.





renovation/change of use

APPLIED ARTS

The existing Applied Arts (APL) building houses a variety of programs and will be renovated to accommodate the shifting of functions into and out of the building. Positioned on the southeast corner of the STEM Zone of the campus, the renovated APL will house core STEM programs including functions currently located in the existing Math/Engineering (ME) building. Functions that are planned to be relocated to other facilities include, ITS (move to BE), Journalism (move to IB1 or IB2), Music and Fine Arts (move to Arts Complex).

BUSINESS EDUCATION

The existing Business Education (BE) building will be renovated to accommodate the shifting of functions into and out of the building. Auxiliary services, including Mail room, Reproduction and Graphics will move to the new Student Center and will free up space to support the centralization of IT services. Consolidating IT services into one central location will enhance collaboration, maximize space and improve operational efficiencies.

GYMNASIUM

The existing gymnasium was built in 1961 and has a Facilities Condition Index (FCI) of 59%. The FMP recommends a complete renovation of the existing facility to correct building deficiencies and address the current and projected kinesiology program needs.

FIELD HOUSE

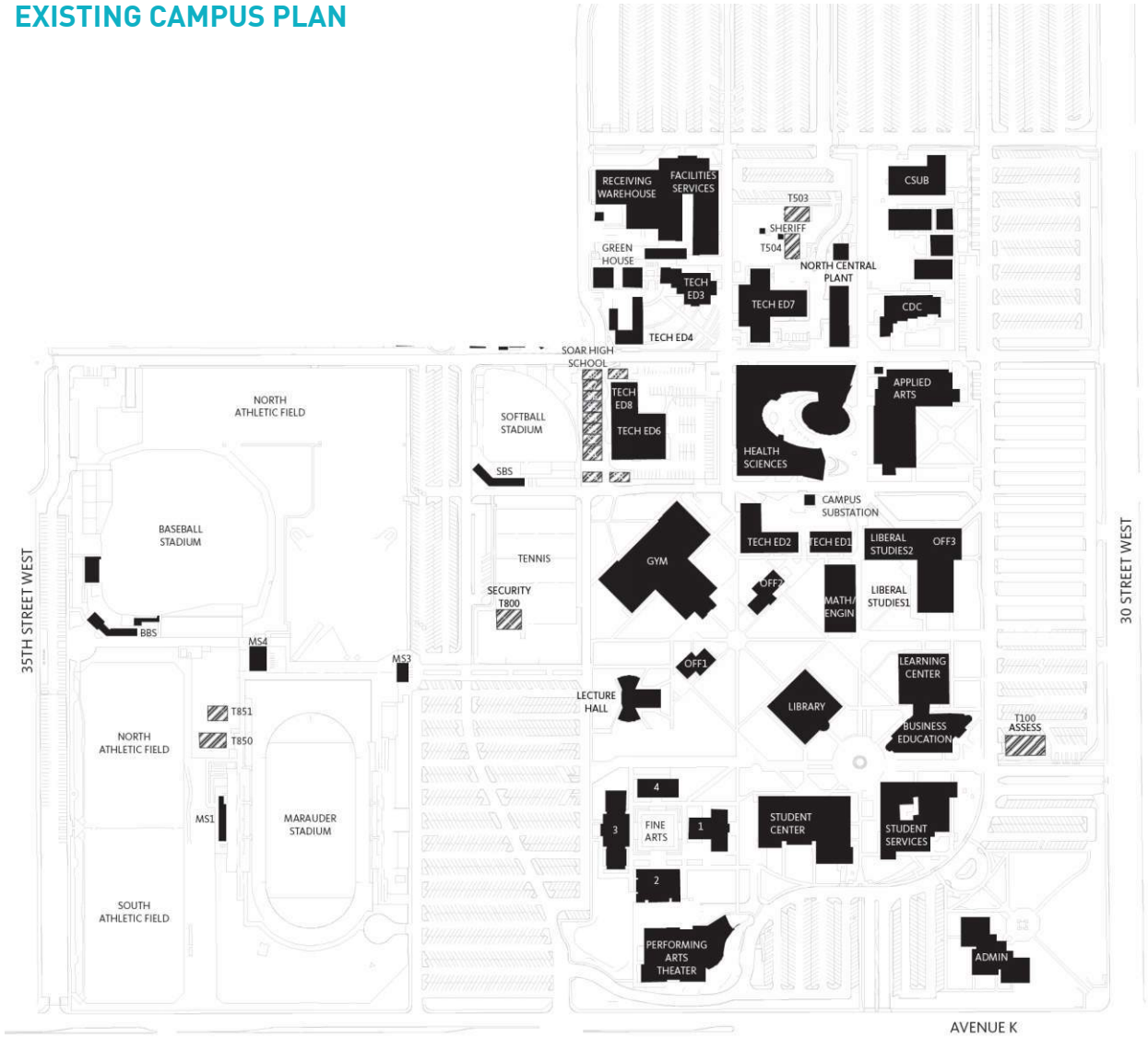
Existing modular buildings will be relocated to meet accessibility requirements for restrooms, locker rooms, first-aid & training rooms and equipment areas for the athletic complex. The facility will support community and college events.

Business Education

Applied Arts

Gymnasium

EXISTING CAMPUS PLAN



phased development

OVERVIEW

The FMP recommendations for AVC present an overall picture of the future developed campus and includes recommendations for renovation, replacement of facilities, and campuswide site improvements.

While drawings in the plan appear specific, the forms are conceptual sketches that highlight the location and purpose of improvements. The final design of each site and facility project will take place as projects are funded and detailed programming and design occurs.

phased development

phase 1:

PHASE 1A:

Build:

- Swing space area (by the existing T100 bldg)
- Swing Space area (by Fine Arts)
- Swing Space area (by CSUB)
- New Tennis Courts
- Campus Security Building

PHASE 1B:

Vacate and Remove:

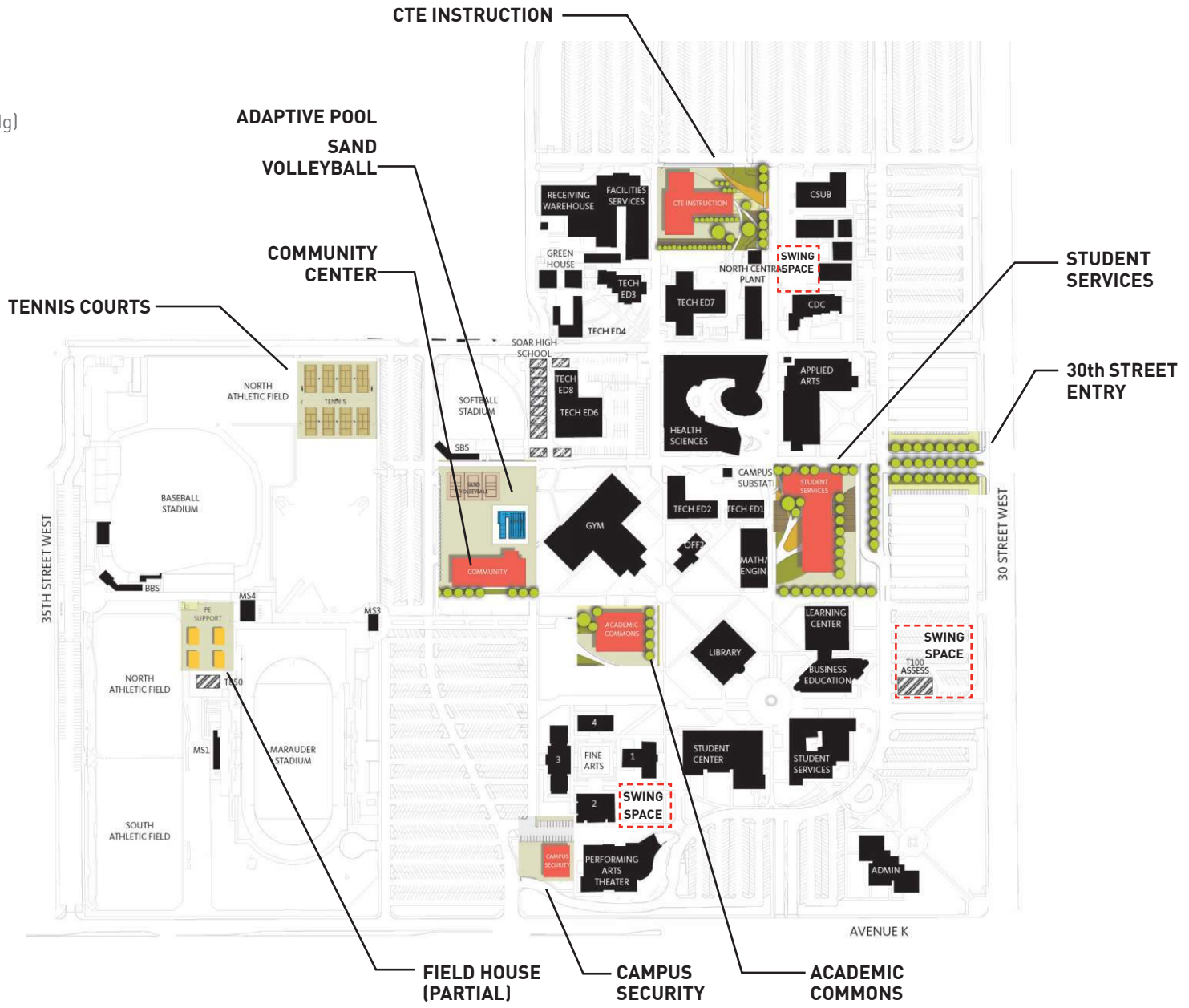
- Lecture Hall (LH)
- Office 1 (OF1)
- Liberal Studies (LS1, LS2)
- Office 3 (OF3)
- Security (T800)
- Tennis Courts

Vacate and Relocate:

- T503 and T504
- T850 and T851

Build:

- CTE Instruction
- 30th Street Entry
- Student Services
- Academic Commons
- Community Center
- Adaptive PE Pool + Sand Volleyball
- Field House (partial)



phase 2:

Vacate and Remove:

- TE1 and TE2
- Math/Engineering (ME)
- Office 2 (OF2)
- Learning Center (LC)
- Student Services (SSV)
- CSUB
- All Swing Space

Vacate and Relocate:

- T100

Renovate:

- Gym

Build:

- Instructional Building 1
- Student Center
- Instructional Building 2
- Field House (finish)
- SOAR High School
- CSUB & University Center

phased development

phase 3:

Vacate and Remove:

- Student Center to New Student Center
- SOAR High School to New SOAR High School

Build:

- Arts Complex

phase 4:

Relocate and Remove:

- Fine Arts to the Arts Complex

Build:

- Instructional Building 3

Renovate/Change of Use:

- Applied Arts
- Business Education


DISCOVER

DEVELOPMENT GUIDELINES


RAE O. YOSHID
APPLIED ARTS
APL

overview

The 2016 FMP for AVC establishes a new vision for the Lancaster campus that promotes a reinvigorated sense of pride for the students, faculty, staff and local community. The planning and design decisions for the FMP are based on 2 themes.

- To respect and honor the history of the original Antelope Valley College campus
- To approach design of the overall campus in an authentic way which ties the campus to its specific place.

The Campus Development Guidelines presented in this section provide a framework for the future design of site and facilities projects. It is intended to ensure the development of AVC as a cohesive campus while supporting creative expression and innovative design solutions for individual projects.

The following elements are included in this section:

- campus guidelines
- landscape guidelines
- building guidelines

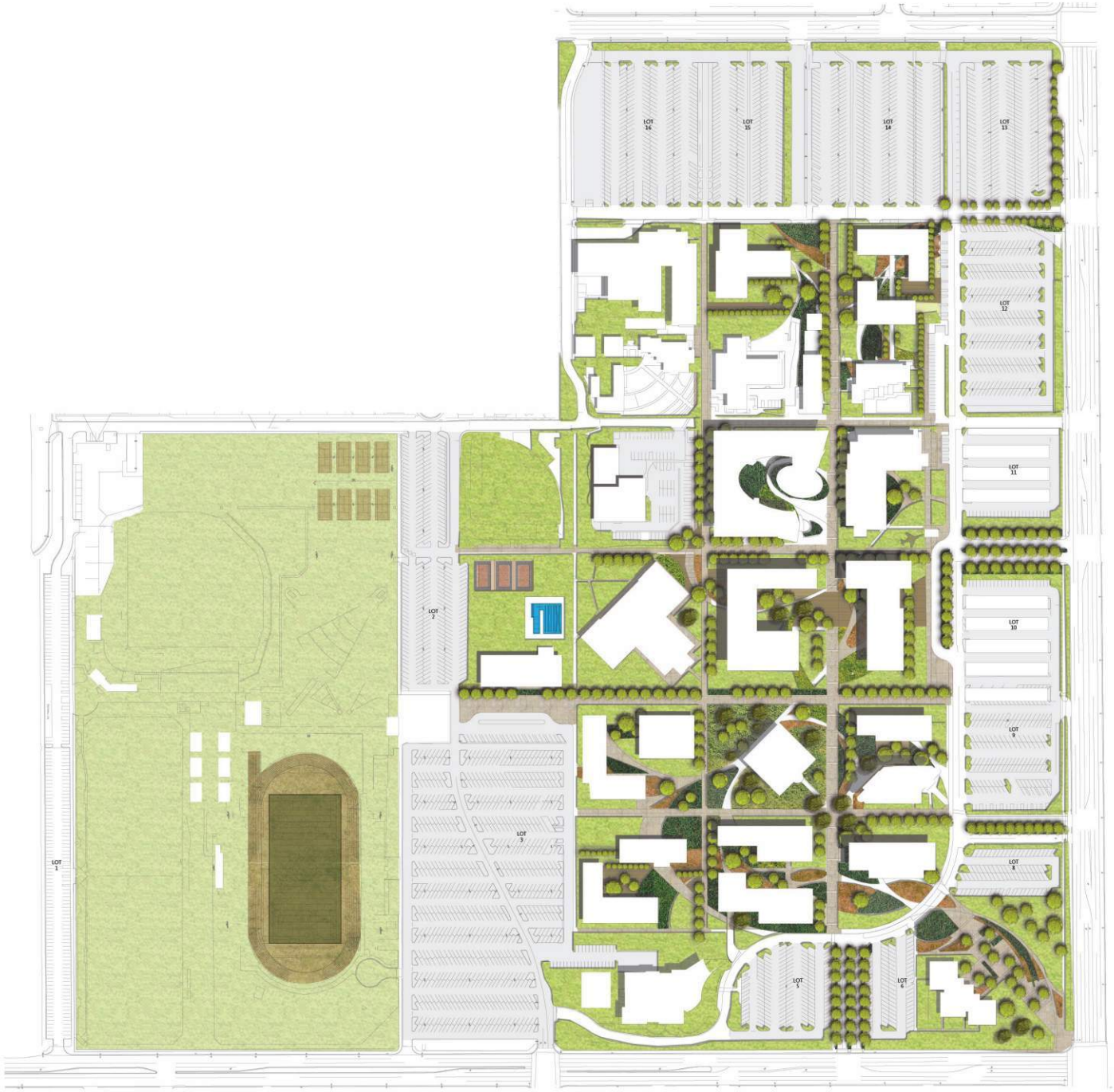
campus guidelines

Creating a distinct sense of place requires an understanding of the unique forces that shape a particular environment. This includes the physical characteristics of a given site along with the cultural values and behaviors of its inhabitants. Thus, a goal of the master plan is to create a campus environment that celebrates the native characteristics of the Mojave Desert region, while offering a robust and diverse set of uses, and enabling the culture of its users to flourish and grow.

The FMP recommendations create a new landscape pattern using the existing grid language of the campus and surrounding community and overlaying it with a secondary system that is inspired by the natural patterns seen within river washes inherent to the Antelope Valley floor. This is reflected in the way exterior spaces are formed for enhanced use, how buildings are organized to create clarity and how the natural environment is used to bind the campus to regional surroundings and celebrate its unique characteristics.

The grid concept creates the primary pedestrian circulation and organizational language for the site acting as the backdrop or backbone to the campus infrastructure. The more organic secondary system nicknamed the garden ribbon meanders through the grid, helping to create and define the edges of exterior gathering and learning areas.

RECOMMENDED LANDSCAPE PLAN

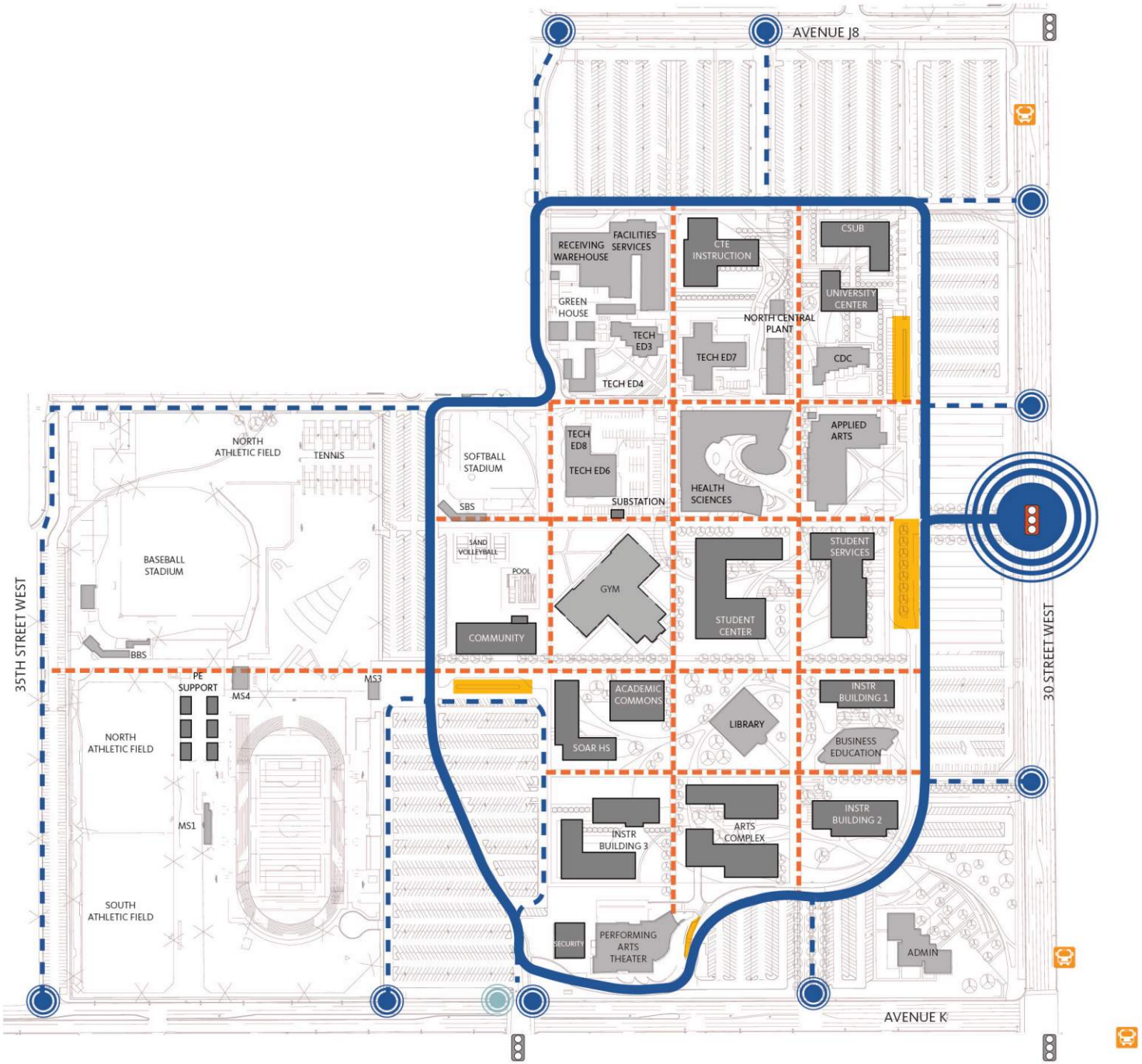


vehicular access

The proposed vehicular circulation plan establishes a framework for improved access, circulation and safety throughout the campus.

As student support services shift to the center of campus, the new 30th Street entry will welcome first time visitors, students and community members to the AVC campus. The new entry will tie into the updated vehicular circulation system and improve campus navigation.

Two new drop-offs are planned to improve safety and traffic flow within the campus core. On the east side of campus, a new drop off area is proposed adjacent to the new entry in front of the new Student Services building. On the west side, a new drop off is proposed between the new Community Center and SOAR High School to support access from K Avenue and the west parking lots.



VEHICULAR CIRCULATION

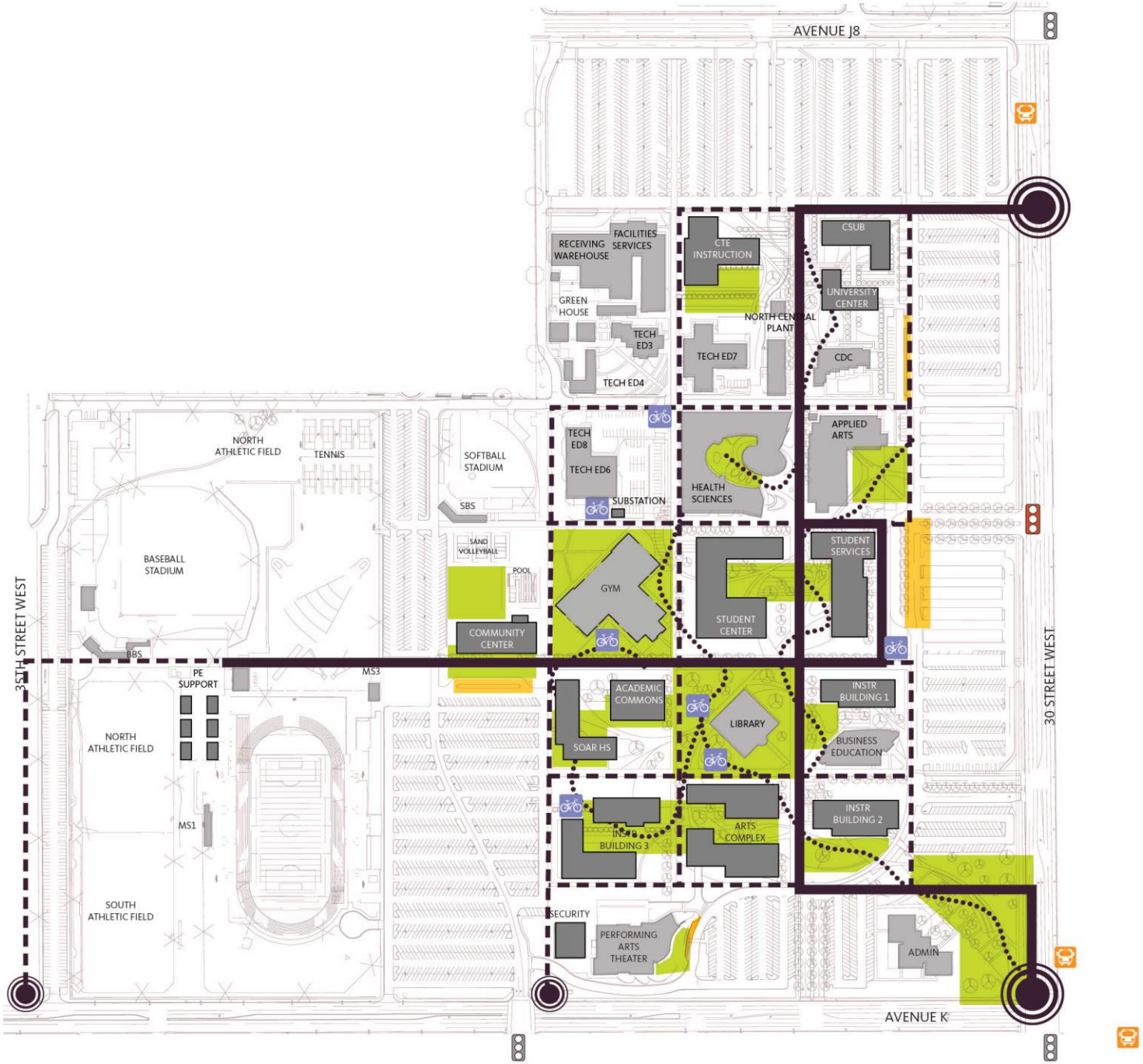
- EXISTING FACILITIES
- PROPOSED NEW FACILITIES
- PROPOSED RENOVATIONS
- CAMPUS ENTRY
- HIGH SCHOOL ENTRY
- PRIMARY ROUTE
- SECONDARY ROUTE
- EMERGENCY ROUTE
- DROP-OFF
- BUS STOP
- EXISTING STOP LIGHT
- NEW STOP LIGHT

landscape guidelines

PEDESTRIAN SPINES AND WALKS

The grid acts as the primary pedestrian circulation for the campus. The linear north-south and east-west spines are envisioned as the socials spines of the campus as they are wide enough to accommodate groups of students as well as maintenance and emergency vehicles. They provide direct transects across the campus and should be designed with a linear planting of shade trees, pedestrian lightings, and a variety of seating opportunities.

A secondary pedestrian system is proposed as part of the garden ribbon, that connects the different areas of the campus, is envisioned as a more passive system than the utilitarian pedestrian spines.



PEDESTRIAN CIRCULATION

- EXISTING FACILITIES
- PROPOSED NEW FACILITIES
- PROPOSED RENOVATIONS
- CAMPUS ENTRY
- PRIMARY PATHS
- SECONDARY PATHS
- TERTIARY PATHS
- AREAS OF STUDENT GATHERING
- BICYCLE PARKING
- DROP-OFF
- BUS STOP
- EXISTING STOPLIGHT
- NEW STOPLIGHT

landscape guidelines

LANDSCAPE FIELD

The dominant landscape typology planned for the site is referred to as the Landscape Field, and is made up of ornamental grasses, hardy shrubs, and grass-like succulents. The Landscape Field is thought of as a background landscape that uses minimal resources by having low water use and maintenance requirements.

This typology is planned for campus' edges, the building perimeters, and along the pedestrian corridors. It is inspired by the exiting perimeter planting around the Health and Science building.


Atriplex lentiformis
quail bush


Heteromeles arbutifolia
toyon bush


Muhlenbergia capillaris
pink muhly grass


Muhlenbergia rigens
deer grass


Agave geminiflora
twin flower agave


Dasylirion acrotrichum
green dessert spoon


Juniperus californica
california juniper


Santolina virens
green cotton lavender


Baccharis pilularis
coyote brush


Yucca filamentosa
adam's needle


Dasylirion bigelovii
nolina biglovii


Chilopsis linearis
desert willow 'pinyon pine'


Achillea
yarrow


Yucca elata
soap tree yucca

landscape guidelines

COURTYARDS

Enclosed within each building cluster is a proposed small exterior courtyard space, similar to the existing Fine Arts courtyard. These small exterior spaces shall be programmed in direct relationship with the adjacent building programs and maximize opportunities for outdoor gathering, education, and socialization. Designed around opportunities for convergence, these places should create a variety of settings intended for both individual and group activities; such as outdoor classes, special events, and informal gatherings.

Specific design recommendations include:

- Provide a variety of seating areas and configurations for a variety of group functions. Seating options should include a variety of table sizes.
- Provide exterior lighting.
- Provide power outlets and Wi-Fi access for computer use.
- Use evergreen tree and/or shade structures to provide year-round shade.

COURTYARDS

landscape guidelines

GARDEN RIBBON

The second landscape typology is the Garden Ribbon, which runs in contrast to the Landscape Fields and provides a colorful garden element that connects each of the courtyard spaces planned throughout campus. The Garden Ribbon meanders through the campus and is intended to use a more ornamental palette of plants, highlighting many showy natives that would be appropriate for a drought tolerant residential garden.

Agave angustifolia
marginata

Agave desmettiana
zebra stripe

Agave desmettiana
variegata

Opunitia basilaris
beavertail cactus

Opuntia macroscentra
purple prickly pear

Coreopsis grandiflora
tickseed

Cerastium tomentosum
snow-in-summer

Fouquieria splendens
ocotillo

Teucrium chamaedrys
prostratum dwarf germander

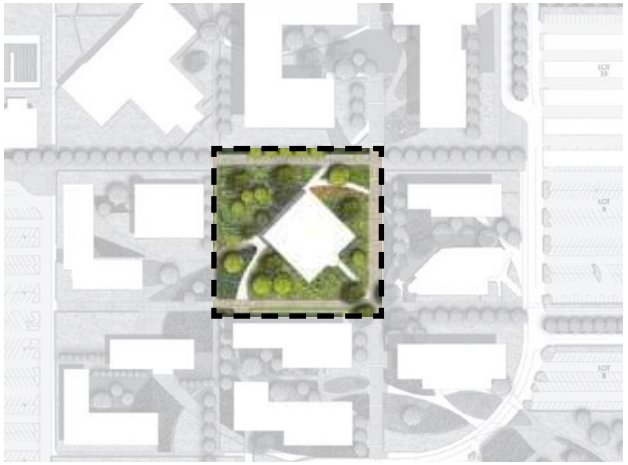
landscape guidelines

STUDENT PLAZA

The Student Plaza anchors the Campus Core, establishes a centerpiece of activity and enhances the spirit of AVC. It is a defined space that attracts students, faculty and staff for passive recreation, social interaction and academic purposes. It is essential that the spirit of the campus is preserved, celebrated and enhanced in this central campus location.

HISTORIC COMMONS

The existing park-like setting around the Library is characterized as open lawn spaces with large canopy trees. This landscape is a cherished typology by the campus community despite its inherent conflict with the goal to reduce water consumption. To help balance this, the FMP proposes to reduce the lawn to a dedicated area around the Library building, lowering the high-water use footprint. Located at the heart of the campus, this area would speak to the history of the campus while also creating an open green core. Adding movable chairs is highly recommended as a way to activate the space and make it more inviting to users.



landscape guidelines

COMMUNITY CORNER

A medium sized plaza/amphitheater space is proposed at the highly visible corner of Avenue K and 30th Street. Seen as a primary pedestrian gateway into the campus, this space is intended to be a community resource and available for events and activities that the entire community would be invited to, such as health fairs or weekly farmers markets.

landscape guidelines

COMMUNITY ENGAGEMENT

In addition to creating spaces for social and academic gathering, the FMP proposes the development of a series of walks around the campus to promote health and wellness and education. A physical fitness walk is planned around the perimeter of the site and is intended to provide a dedicated measured walking path for the campus and the adjacent community. The dedicated route should be designed for multiple users, have a smooth walkable surface, and be programmed with fitness stations, signage, drinking fountains and shaded rest areas every 150-300'.

The educational trail is developed through marked stops throughout the campus, which will convey information about flora and fauna, soil change and ecology.

COMMUNITY ENGAGEMENT

building guidelines

The primary purpose of these building guidelines is to define a set of general design criteria for all future buildings on the AVC, including new construction, additions and renovations. The ultimate goal is to create a well-defined, consistent physical campus environment that strengthens the AVC identity, fosters intellectual and social exchange, and inspires the entire campus and surrounding community.

The FMP facilities planning principles provide the foundation for these guidelines which focus on these primary elements:

- Transform the AVC campus identity.
- Create a strong sense of place for AVC.
- Enhance AVC's students' pride.
- Respect and enhance the AVC legacy through authentic design.

PLACEMAKING

FORM

MASSING

WAYFINDING

FACADE ARTICULATION

MATERIALITY

COLOR

SUSTAINABILITY

building guidelines

PLACEMAKING

Place making is a holistic approach to the planning and design of public spaces that maximizes a local community's assets, inspiration and potential and results in the development of spaces that promote health, happiness and wellbeing. This approach is the foundation of the guidelines portion of this FMP document that highlights the importance of developing the entire campus to create a strong sense of place for all students, faculty, staff, and community members that interact with AVC.

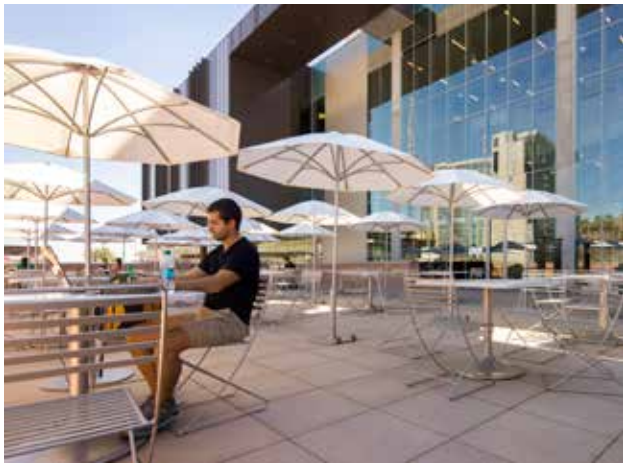
Learning in the 21st Century takes place anywhere, any place and anytime and the transformation of the Lancaster campus provides the opportunity to create a campus experience where all students, faculty and staff feel welcomed, interconnected and safe. One strategy for promoting these goals is to expand the learning and social environments beyond the boundaries of the buildings out into the landscape as much as possible. With that in mind, one must consider that the Antelope Valley experiences severe winds and temperature swings year round and this unique and challenging climate must be taken into consideration when developing any new project.

The FMP recommendations respond to these environmental factors as well as proposed zoning, pedestrian and vehicular flow throughout the campus. The building placements and configuration are designed to promote the use of outdoor gathering spaces that provide the entire campus community a variety of places to work, study, and play. The areas directly adjacent to buildings are as important as the internal spaces and should be considered as part of the building design.

It is desired to have multiple scales of outdoors spaces, from individual and small group gatherings to large campus events and forums. The configuration of new buildings shown on the FMP are intentionally positioned to block prevailing winds coming from the South-West and care should be given to provide varying types of shade to the south facing facades and create multiple scaled gathering spaces to maximize use of the outdoors and promote a sense of place.

Learning takes place anywhere, anytime.

Shaded seating area supports indoor-outdoor connection.



Variety of types and scales of spaces provides choice.

building guidelines

FORM

The existing campus is a result of multiple phases of development spanning several decades starting in the late 1950's. The original building forms and shapes are consistently orthogonal, taking their cue from the original campus style which was influenced by the Mid Century Modern movement. This movement was known for its honest reflection of structure, and patterns born from the belief in highly efficiency structures. This model is still very relevant today and reflects the AVC belief that the physical structures on campus should reflect the values of the institution.

As a reflection of efficiency, and to support the broader goals of this FMP, future buildings should build on this legacy and predominantly express and reinforce the linear/orthogonal grid. By reinforcing this grid with building forms, the curvilinear shapes, planned within the landscape, provide a counterpoint and are strengthened. Similarly, the local flora of the bright blooming flowers play as a counterpoint to the proposed monotone color palette of the buildings. This primary focus on orthogonal geometry for building structures does not preclude the implementation of massing or material transitions which can invoke interest or intrigue.

Massing as well as varied patterns, materials expressed in an orthogonal manner.

Expression of building structure as exterior detail

Building designs with curvilinear forms should be avoided

building guidelines

MASSING

The existing campus buildings are predominately 1 and 2 story structures with the one exception of the Business Education building which is 3 stories. All of the future buildings outlined in this FMP are planned as 1 and 2 story buildings. This is intended to establish a consistent experience within the campus.

Much attention should be given, during the design process, to the pedestrian experience of the campus. It is important to reflect efficiency as mentioned before, however it is desirable to introduce multiple scaled experiences through-out the campus. Future buildings should reflect honest expressions of program or patterns that aid in creating interest within the building massing. A variety of scales and volumes are encouraged to provide a variety of experiences through-out the campus. Building components such as exterior exit stairs, sun shade structures or second story volumes extended beyond the ground floor as ways to introduce a variety of scale experiences.

Scale is articulated through multiple masses and materials.

Overhang of Second story mass provides pedestrian scale at ground plane.

Building mass is broken up into multiple volumes.

building guidelines

WAYFINDING

College campuses welcome new students, staff, and visitors on a regular basis. With multiple academic sessions per year and a variety of monthly community functions, there is a large number of first time visitors on campus at any given time. With this in mind it is important that building design supports intuitive wayfinding and improves campus flow and circulation. This is done with appropriate building massing, clear articulation, and design of entries that establishes a hierarchy for primary and secondary access points. The clarity can be accomplished with oversized glazing and overhangs at main building entry points and will provide visual cues to the campus community.

Canopy structure provides shading while establishing clear hierarchy.

Building program pulled apart at entry provides a clear threshold to the building complex.

Entry aligned to axis is reinforced by the split in building massing.

building guidelines

FAÇADE ARTICULATION

The design of the building facades should support AVC's goal of developing a strong sense of pride within the campus community as well as the broader Lancaster/ Palmdale communities. The approach to building design is an important aspect in creating a consistent representation of the campus to these communities, and that will highlight the academic programs and promote a sense of pride. It is important that the new AVC buildings represent the broad cross-section of AVC students, faculty, and staff. This can be accomplished through the design of varied façade configurations that are authentic to the academic programs and/or building systems. These varied design patterns should also be within a consistent design language and material palette so the campus takes on a consistent representation to the community and establishes a strong sense of place.

Building facades should exhibit respect for the regional context while proposing a new image for the campus in a simple and logical way without applied decoration. Applied décor and motifs are not authentic and should not be incorporated in the building design.

Placement of large expanses of glazing should be consistent with program and directed to maximize natural light while minimizing glare and solar heat gain. Sun shade devices, and louvers should be consistent with orientation of the sun path and applied as functional elements not as decoration. The direct expression of structure and honest use of materials is encouraged.

Vertical shade structures at north facing glazing protect from western sun while providing interest to elevation.

Steel trellis provides shading of south facing glazing.

Structural system expressed in facade

building guidelines

MATERIALITY

The Mojave Desert and its very specific climate is one of the defining regional identifiers of the Antelope Valley. As part of this region the AVC campus should be developed to embrace this unique context and reflect the regional vibrancy and complexity of flora and fauna. The selection of building materials should be sensitive to the overall context of the Lancaster campus as well as the surrounding region.

Developing a consistent material and color palette for the campus will promote a strong sense of place and help reinforce AVC's institutional identity within the community. Materials should be carefully chosen for durability, maintainability and connection to its region. The unique climate of the valley with its large swings in temperature from day to night and periodic heavy winds creates a need for building materials that can stand up to these conditions. Consideration of long term maintenance costs versus initial construction costs must be critically evaluated during the building design process. To meet critical durability and maintainability standards, as well as connect to the local region, the following are recommended for exterior building materials:

- Integral colored concrete (CIP, Precast, Tilt-up)
- Rammed earth
- Painted corrugated metal panels
- Cor-ten steel
- Integral colored exterior plaster
- Clear anodized aluminum curtain wall and window wall
- Insulated glazing .

Weathered steel with protective patina provides durable finish.

North facing Glazing maximizes natural light.

Integral colored concrete connects to the local region

building guidelines

COLOR PALETTE

The color palette for the campus should be selected for their appropriateness to the climatic and regional qualities, and relate to the local regional character. In conjunction with material selection, establishing a new color palette that directly ties the campus to the local region will have a profound effect on redefining the look of the campus. These choices, in concert with the proposed landscape will establish a new look, and support the goal of presenting a revitalized vision to the community and enhancing AVC's sense of pride.

The color palette for the campus is critical and must be consistent throughout the implementation of this FMP. Base colors should relate directly to the Mojave Desert with warm earth tones and muted accents. Natural materials are preferred as their color tones are more consistent and easier to maintain. For example, concrete should be an integral color in lieu of painted surfaces because the tonal qualities are richer and provide more depth. Cor-ten steel, which ages over time with a rust colored patina, is proposed as a way to directly connect building materials to the environment. Bright accent colors should be avoided, or used very judicially, as mostly contributed by the landscape plant selection. The monotone palette of the buildings are considered as a canvas to the landscape color swings through the seasons which helps connect the campus directly to its natural environment and the seasonal cycles.

Earth tones connect to regional desert.

Varied texture and tone of weathered steel patina relates to desert context.

Darker warm tones accents are consistent with desert scape.

building guidelines

SUSTAINABILITY

Antelope Valley College is committed to serving as an example to its community and recognizes its responsibility to act as a steward of its environment. The severe drought of the past several years and continued concerns of our changing climate, are calls to expand the efforts for protecting and limiting the use of our natural resources. With projected costs for these resources to continue to rise, it also makes sound economic sense to find ways to reduce energy and water usage. The FMP recommends maximizing opportunities to incorporate sustainable design strategies throughout the development of the campus.

The focus for building design will be on strategies that demonstrate the highest reduction in negative impacts to the environment, are cost efficient and maximize savings. Each project should develop a strategy for each of the following categories and set clear priorities for the reduction of long term costs, reduction in greenhouse gases, and demonstrate a clear educational message to the campus and community. AVC does not have a specific LEED requirement, and does not plan to pursue certification of their buildings, but chooses instead to spend available resources on productive sustainable strategies that maximize the benefits to the campus and environment.

ENERGY

Become a leader in Energy Efficiency and increase the levels of on and off-site renewable energy

The Antelope Valley experiences both cold and very hot temperatures. Buildings should be properly insulated to reduce energy consumption as much as possible. Consider strategies and systems which not only minimize energy consumption but also allow for the production of energy when appropriate. Consider shading and location of glazing with respect to solar orientation to minimize heat gain.

WATER

Manage building and landscape water use to conserve water

The campus has traditionally consumed a majority of its water through irrigation. The main focus for reducing future water consumption will be in the implementation of a new landscape plan that embraces a more regionally specific and native plant palette. Developing strategies for reducing water consumption within all new building projects is also critical to meet the State of California's water usage requirements.

HEALTH

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

The quality of indoor environments where most student, faculty, and staff will spend large parts of their days is directly connected to learning performance. It is critical to provide proper natural lighting with controls to reduce glare and provide views to nature. The indoor air quality is also important for healthy indoor environments. Provide Low or No VOC interior finishes and design mechanical systems to that filter toxins and or dust particles.

EDUCATE

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

Sustainable strategies that are visible and clearly identifiable can contribute to the overall educational experience for students, staff, faculty, and community alike. Consider sustainable strategies that demonstrate a clear sustainable outcome, and can provide 'teaching moments' whenever possible.

MONITOR

Set high bars for building performance goals, with consistent monitoring and routinely report

Healthy and efficient buildings need to be regularly evaluated and measured. Some systems need adjustments to maintain or maximize the benefits. Consider creating monitoring systems that are easy to implement and maintain.


Monica Tobon ('09)
Arts and Humanities
Art Historian
ACHIEVE
your goals
LeShaeveon Rowe ('15)
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APPENDIX

overview

The appendix section of this FMP document includes information that was referenced and developed during the planning process.

- Building Summary
- Relocation of Functions

Additional recommendations and reports are not included in this version of the FMP and will be included in the final printed document.

- Traffic Recommendations
- Utility Infrastructure Report
- Information Technology + Security Report

building summary

A summary of all existing buildings on the Lancaster Campus are listed here and includes the total assignable square feet (ASF) and year of original construction.

ASF is the measurament of space that is "assigned" to a room use and is functionally usable by occupants of the college.

BLDG #	BLDG NAME	TOTAL ROOM ASF	YEAR BUILT
1	administration	14,163	1994
2	student services	29,302	1961
3	south c.plant	1,000	1969
4	student center	27,200	1961
5	performing arts	32,125	2011
6	fine arts 1	6,670	1969
7	fine arts 2	8,793	1969
8	fine arts 3	10,840	1969
9	fine arts 4	4,098	1969
10	business ed	42,750	2002
11	learning center	15,412	1961
12	library	33,535	1994
13	science - physics	5,727	1960
14	science - biology	5,726	1960
15	science - chem	5,727	1960
16	greenhouse	496	1963
17	faculty off 2	3,483	1960
18	lecture hall	6,270	1960
19	liberal studies 1	8,944	1967
20	liberal studies 2	7,997	1967
21	faculty office 1	2803	1960
22	math & eng	9319	1962
23	tech ed 1	4118	1960
24	tech ed 2	10127	1960
25	campus sub.	2082	1969
26	faculty office 3	4887	1967

BLDG #	BLDG NAME	TOTAL ROOM ASF	YEAR BUILT
27	gymnasium	43,962	1961
28	applied arts (apl)	53,992	1995
29	health & sciences	105,085	2012
31	te-6 automotive	12,483	1960
32	te-8 auto body	3,581	2010
33	child dev. ctr.	8,822	1995
34	c. plant/mdf	9,447	2010
35	te-7 technical ed	17,525	2003
37	te-3 env horticul	7,698	2009
38	te-4 ehs equip	2,479	2009
39	te-5 ehs mat st	645	2009
40	ehs shadehouse	1,035	2009
41	ehs lath house	1,780	2009
42	ehs greenhouse 1	1,176	2009
43	ehs greenhouse 2	1,176	2009
44	ehs greenhouse 3	1176	2009
45	ehs greenhouse 4	1,176	2009
46	facilities services	45,412	2009
47	fs covered st 1	2,994	2009
48	fs paint st 2	160	2009
49	hazmat st 3	426	2009
50	fs boiler room	160	2009
51	fs haz waste 4	160	2009
52	warehouse	19,120	2009
53	sball-prs box	1,654	2010
54	sball-restrooms	1,753	2010

BLDG #	BLDG NAME	TOTAL ROOM ASF	YEAR BUILT
55	sball-home dg	300	2010
56	sbal-vstr dg	300	2010
57	bball-press box	714	2010
58	bball-tickt booth	176	2010
59	bball-conc/rest	1,539	2010
60	bball-home dg	2,491	2010
61	bball-vstr dug	1,104	2010
62	mrdr stdm-tkt	5,824	2009
63	mrdr stdm-conc	1,000	2009
68	t100 - aosd	3,840	2008
69	t300	3,360	2007
72	t502	2,160	2006
73	sheriffs acad	2,160	2006
74	sheriffs acad	2,160	2006
76	t800 - constr	2,800	2007
77	t850 - f h home	2,160	2009
78	t851 - f h vstr	1,440	2009
79	s1 - storage farm	160	2009
80	s2 - storage farm	160	2009
81	s3 - storage farm	160	2009
82	s4 - storage farm	160	2009
83	s5 - storage farm	160	2009
84	s6 - storage farm	160	2009
85	s7 - storage farm	160	2009
86	s8 - storage farm	160	2009
87	s9 - storage farm	160	2009

BLDG #	BLDG NAME	TOTAL ROOM ASF	YEAR BUILT
88	s10 - storage farm	160	2009
89	s11 - storage farm	160	2009
90	s12 - storage farm	160	2009
91	s13 - storage farm	160	2009
92	s14 - storage farm	160	2009
93	s15 - storage farm	160	2009
94	s16 - storage farm	160	2009
95	s17 - storage farm	160	2009
96	s18 - st grounds	160	2009
97	s19 - st grounds	160	2009
98	s20 - st emerg	160	2009
99	s21 - st emerg	160	2009
100	s22 - st stadium	160	2009
101	s23 - st stadium	160	2009
102	s24 - st stadium	160	2009
103	s25 - st stadium	160	2009
104	s26 - st stadium	160	2009
105	s27 - st stadium	160	2009
106	s28 - st ceramics	160	2009
107	gym/sherriff	24	2009
108	tennis courts	24	2009
109	pump hs - stadium	54	2009
200	agric greenhouse	360	1975
201	agriculture lab	1,600	1981
202	security	1,672	1982
204	agric bldg a	1,360	1975
205	lath house	1,008	1967

relocation of functions

CURRENT LOCATION	FMP RECOMMENDATION	RELOCATE FUNTIONS TO
STUDENT SERVICES BUILDING	**Demolish**	
Student services functions		New Student Services
Human development classes		New Student Services
Board Room		New Community Center
Math classes		Applied Arts
Interdisciplinary classes		Applied Arts or New Instructional Building 1 (IB1)
T100 BUILDING	**Demolish**	
Student services functions		New Student Services
STUDENT CENTER BUILDING	**Demolish**	
Bookstore		New Student Center
Food Services		New Student Center
Auxiliary Services		New Student Center
FINE ARTS 1, 2, 3, 4	**Demolish**	
Fine Arts Instruction		New Arts Complex
LEARNING CENTER	**Demolish**	
Instructional Support		New Academic Commons
FACULTY OFFICE BUILDING 1, 2, 3	**Demolish**	
Student Services Offices		New Student Center
PE Offices		Gymnasium
Humanities		New Instructional Building 1 (IB1)
ITS		Business Education
LECTURE HALL	**Demolish**	
Humanities Instruction		New Instructional Building 1 (IB1)
LIBERAL STUDIES (LS1 and LS2)	**Demolish**	
Humanities Instruction		New Instructional Building 1 (IB1)
MATH / ENGINEERING	**Demolish**	
Humanities Instruction		New Instructional Building 1 (IB1)
Math - STEM Instruction		Applied Arts

CURRENT LOCATION	FMP RECOMMENDATION	RELOCATE FUNTIONS TO
TECHNICAL EDUCATION 1, 2	**Demolish**	
Photo Lab		New Arts Complex
Humanities Instruction		New Instructional Building 1 (IB1)
Electronics		New CTE Building
Fire Technology		New CTE Building
Welding		New CTE Building
LEARNING CENTER	**Demolish**	
Instructional Support		New Academic Commons
TECHNICAL EDUCATION 7	**Demolish**	
Ind Sys. Tech - HVAC		New CTE Building

EXISTING BUILDING	FMP RECOMMENDATION	PROPOSED LOCATION
GYMNASIUM	**Renovate/Change**	
Dance Studio		New Arts Complex
APPLIED ARTS	**Renovate/Change**	
ITS		Business Education
Keyboard		New Arts Complex
Journalism		New Instructional Building 1 or 2
Humanities		New Instructional Building 1 or 2
Digital Media		New Arts Complex or IB2
Photo/Radio-TV		New Arts Complex or IB2
ADMINISTRATION	**Renovate/Change**	
Risk Management		New Security Building
Board Room		New Community Center
Foundation		New Community Center
BUSINESS EDUCATION	**Renovate/Change**	
Mail room		New Student Center
Reproduction		New Student Center
Graphics		New Student Center
Instructional Lab		New Academic Commons