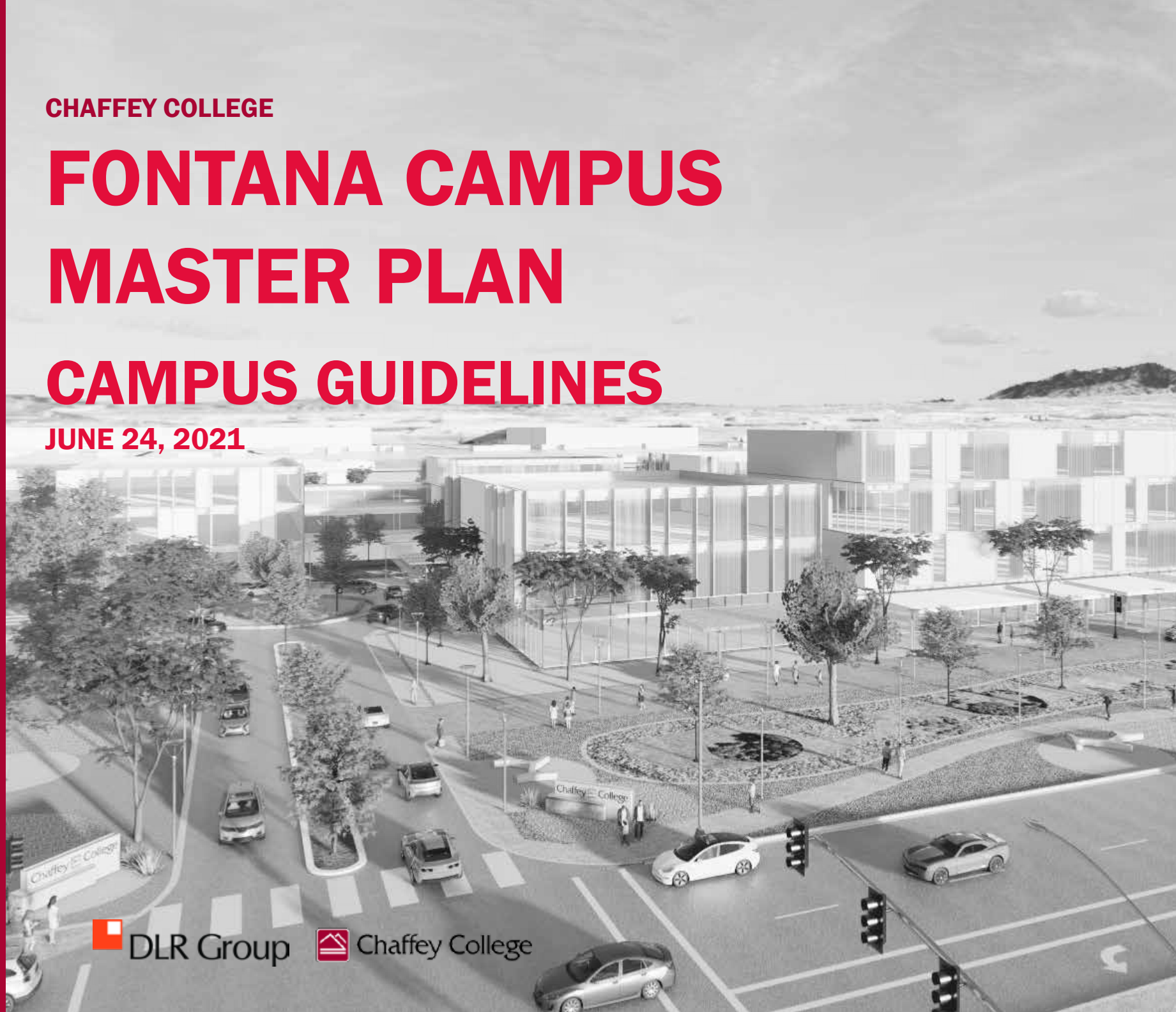
CHAFFEY COLLEGE

FONTANA CAMPUS MASTER PLAN

CAMPUS GUIDELINES

JUNE 24, 2021



DLR Group Chaffey College

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INTRODUCTION

The campus guidelines provide standards and direction for development on the new campus. This document establishes basic premises and intentions for site and architectural guidelines where creative design decisions can be determined. Guidelines are determined by the necessity to conform to the principles established by the approved Master Plan. The over-arching rationale for their inclusion is to safeguard the framework of the campus plans by providing a coherent approach to the physical plan including holistic sustainability, access, circulation, open space, and building architecture. Specific criteria are designed for flexibility, allowing a range of creative solutions to be applied to each proposed project. Professionals hired by the College must commit to implementing the guidelines for future campus projects.

It is important to reference other documents supporting the Fontana Campus Development. *Vision 2030: Chaffey College Educational Master Plan* outlines the College's energies and resources for the coming decade. The Chaffey Goals for 2020-30 include the following:

- Equity and Success
- Learning and Completion
- Community Opportunities and Needs
- Technology
- Efficiency
- Agility
- Professional Learning

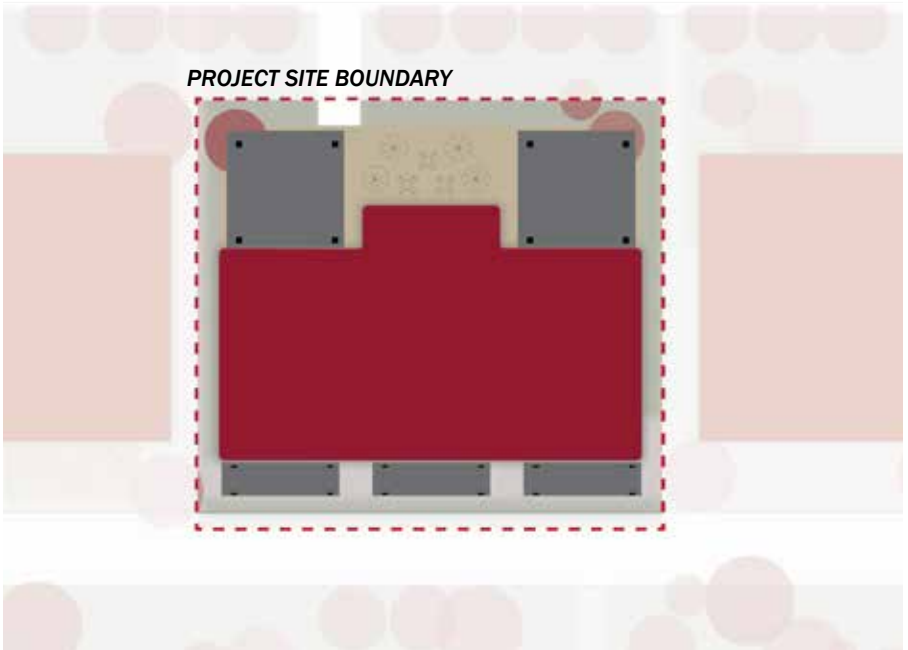
The Sustainability Master Plan (SMP) provides a comprehensive framework for the strategic measures Chaffey Community College District uses to meet its core value of environmental responsibility. To achieve sustainability within the District, targets and goal areas are identified which will be assessed annually. Five priority topics are highlighted for the new Fontana Campus: Climate Change, Materials Resource Conversation, Energy Conservation, Water Conservation, and Transportation. References to the priorities are integrated throughout the architectural and site landscape guidelines.

The development of a comprehensive Climate Action Plan is recommended specifically for the New Fontana Campus, to include Scope 3 emissions. This action plan shall provide guidelines for the campus over the first decade of development and into the future. Until the Climate Action Plan is developed, the campus shall follow the Chaffey Community College District's Sustainability Master Plan.

01 ARCHITECTURE & PLANNING GUIDELINES

PROJECT SITE BOUNDARY

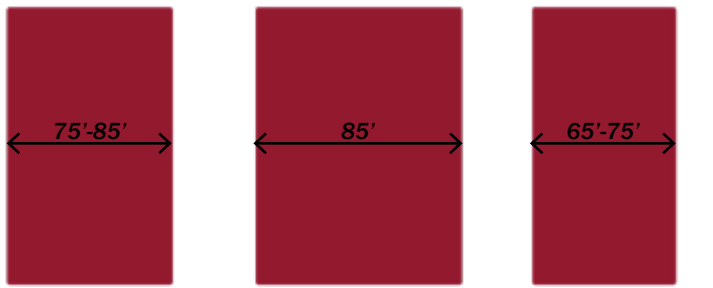
A project site boundary includes the building site as well as its associated open spaces and circulation requirements as defined by this document. Areas are outlined and should be implemented as a single project whenever possible.



BUILDING MASSING

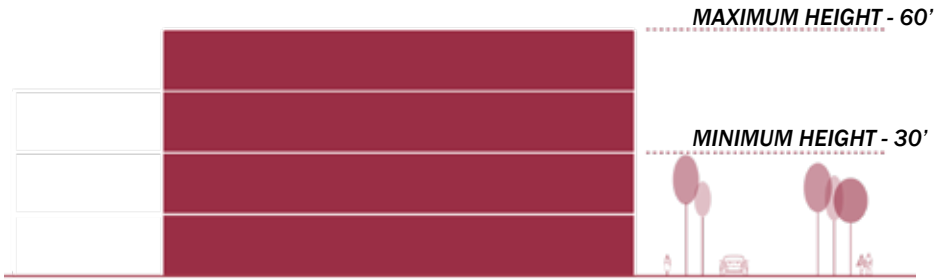
The massing of the building will align with the functional needs of its program, while also relating to the campus and surrounding context. Buildings shall utilize appropriate forms, heights, and proportions as generally shown in the master plan. Typical building footprint modules are used to form the site plans, and new buildings shall be planned to the modules with the following general guidelines:

- Academic Building: 75’-80’ typical width
- Science / Specialized Academic: 85’ typical width
- Administrative / General Use: 65’-75’ typical width, varies



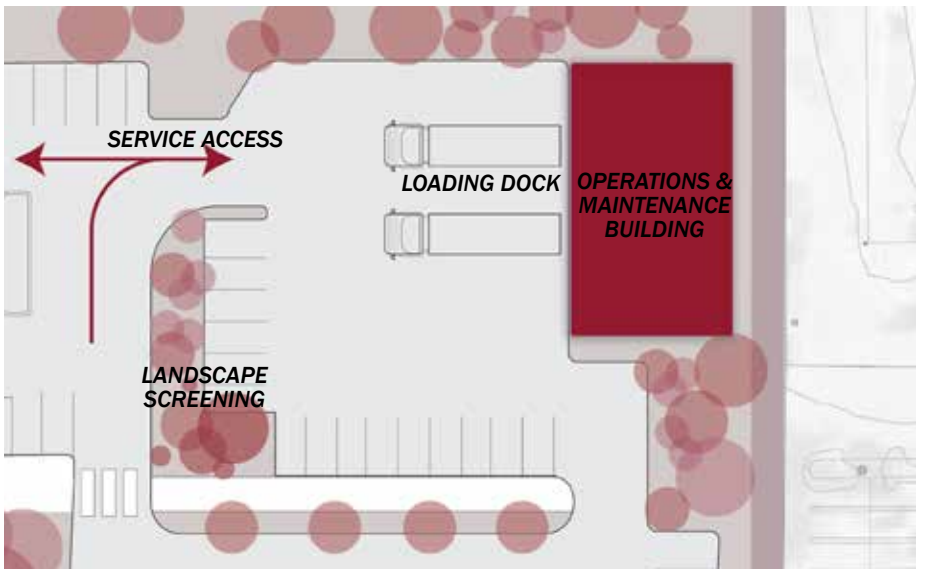
BUILDING HEIGHT

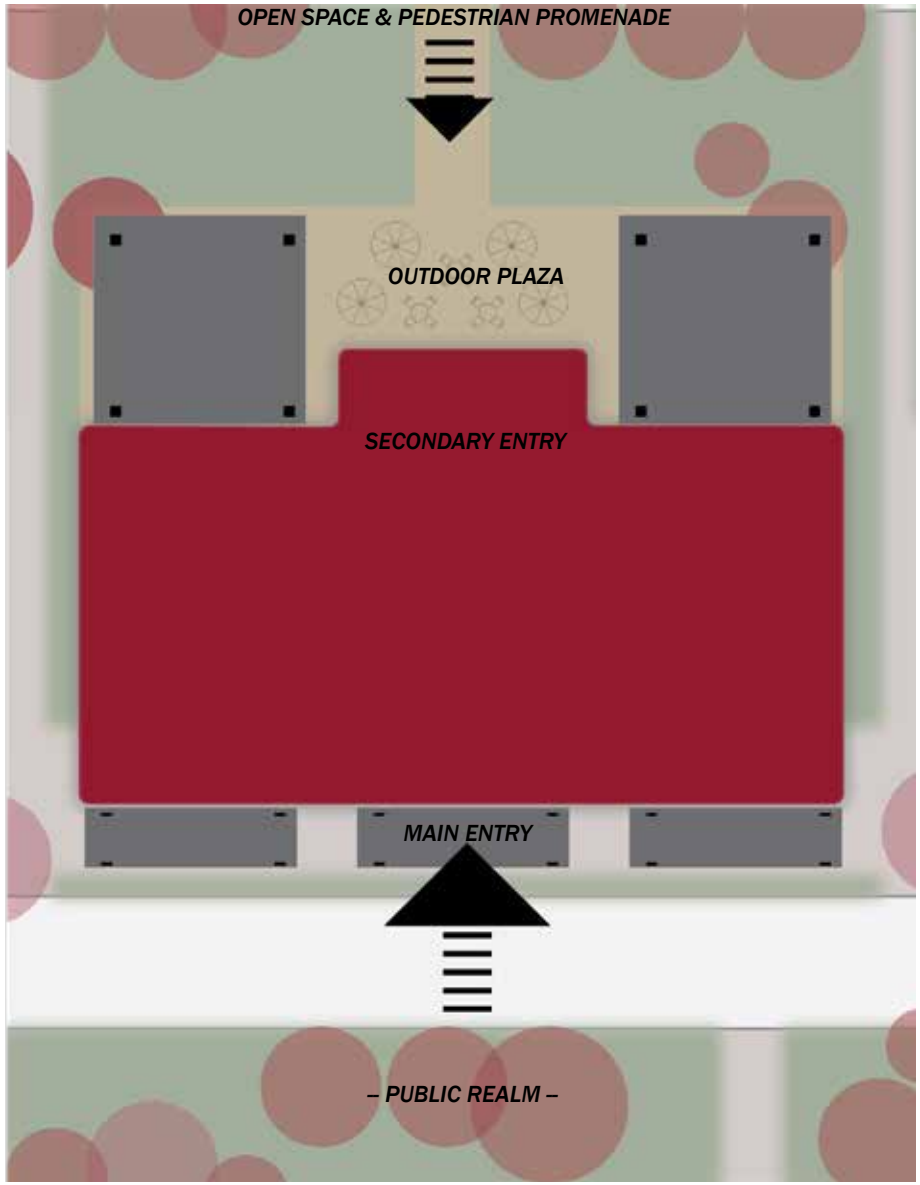
Maximum Building Height is defined by the maximum number of building stories. The height of the campus buildings shall relate to the surrounding campus and follow local jurisdiction requirements. Campus buildings shall have a typical floor height of 15-feet tall, with a majority of the buildings ranging from two stories (30-feet) to three stories tall (45-feet). However, the centrally located iconic Welcome Center shall be the tallest building on campus at four stories (60-feet) tall. To maintain the highest and best use of the land, no building is to be one-story, with the exception of the Operations and Maintenance Building. In addition, the increase in building heights reduces the urban heat island effect.



SERVICE AREA

Generally, campus deliveries and services shall be from one central location at the Operations and Maintenance Building. For mechanical equipment infrastructure, screening should be integrated into each building design to compliment the building's architecture. Where building screening is not possible, screening shall be designed with built enclosures, softscape, or fencing systems. All equipment and associated screening shall be kept out of public sight, while still providing proper ventilation as required.





BUILDING SITING, ORIENTATION, AND ENTRY

Building orientation and location shall strengthen the definition of the campus and open space, with emphasis on strong pedestrian connections. Building orientation can influence the character, perception, and activity of the campus. Generally, campus buildings shall be oriented to welcome visitors and encourage activity throughout the campus. Main entries shall face the public realm along Sierra Avenue and major pedestrian promenades on the east, center, and west sides of campus. All main entries shall be clearly defined and accessible to all. Secondary entries will align with open spaces and adjacent plazas or outdoor workspaces.

Based on the environmental design analysis of the new Fontana Campus, a building shall be positioned to orient east/west to create shaded campus pathways and open space. To reduce strong full Santa Ana winds, avoid narrow passageways between buildings and provide off-sets where possible.

SUSTAINABILITY CONSIDERATION

Buildings shall be oriented east/west to maximize solar energy purposes and create shaded areas.

ACTIVE USE

Building engagement with the surrounding pedestrian circulation and use zones is a critical element of an activated campus. Buildings should orient towards the major centrally-located pedestrian promenade, central quad, and outdoor plazas, especially on the ground floor level. Building layout and orientation shall create outdoor spaces of various scales and purposes to support the campus uses.

BUILDING DEVELOPMENT GUIDELINES

The building development guidelines are based in part upon what we learned from staff, faculty, and students to meet academic and functional needs. The building learning spaces must accommodate ever-changing technology, and provide for maximum flexibility for a variety of academic programming.

This section will provide guidance for construction of new buildings with recommendations for materials, architectural character, energy sustainability, office spaces, classrooms and labs, and collaboration spaces.

CONTEXTUAL AESTHETICS

New buildings should reflect a contemporary architectural aesthetic that is representative of our place and time. Students and faculty want to be a part of a higher education institution that reflects the thriving Southern California environment and the forward-thinking world in which we live. This perspective should be applied to building exteriors, interiors, and outdoor spaces.

The building massing and footprint should not only relate to the building's function and program but should also work to give form to inviting and authentic outdoor spaces. Special care should be given to creating thoughtful spaces between buildings, especially as they relate to the creation of the campus quad. All buildings, especially those that interface with the campus quad area, should strive to create well-designed and landscaped outdoor areas for student and faculty collaboration and social gathering.

SUSTAINABILITY CONSIDERATION

Document material sourcing . Provide local building materials, ingredients, and sourcing. Utilize recyclable material and end-of-life use.

The building enclosure systems should further support the notion of a contemporary higher education environment and communicate the activities within with appropriate levels of transparency, especially at the ground level where visual connections between interior and exterior can create a more cohesive campus experience. The enclosure systems will need to be energy-efficient and durable as well, providing a long service life of heavy use in the Southern California environment. Consider the use of primary materials that are complementary and timeless and make appropriate reference to existing campus buildings. Building materials should be locally sourced and utilize recyclable ingredients. Primary materials to be employed can include:

- Cast-in-place concrete
- Architectural brick
- Architectural metal wall panels
- Fiber cement board
- Stucco
- Aluminum storefront and curtain wall glazing systems
- Metal or glass sun-shading elements for glazing

Buildings should maximize the visual impact or effects of particular materials in order to be strategic in an articulation of the building massing and the creation of visual hierarchy. Formal and material delineation should emphasize key moments such as an entry sequence or areas of high visual transparency for greater visual continuity between indoor and outdoor spaces.

HEALTHY BUILDINGS

SUSTAINABILITY FEATURES

Buildings should provide natural daylighting, indoor air quality, and connections to biophilic design elements.

Studies have demonstrated that healthy building environments can enhance the student experience and promote learning and engagement. The implementation of sustainable design best practices is one avenue to creating a healthy building environment. Buildings should provide adequate natural daylighting to interior spaces, create appropriate thermal conditions, maximize indoor air quality, and address acoustics. Where feasible, buildings should seek to encourage physical movement by prioritizing the use of open, appropriately located stairs or ramps that connect complementary programs, over elevator use.

Studies have also identified positive relationships between learning and a visual connection with nature. Buildings should create these visual connections while also considering biophilic design elements that can be deployed in the interior of the building.

OCCUPANT SECURITY

All buildings should provide a safe and comforting environment for students, faculty and visitors. The facility's design should employ the use of passive and active strategies and systems for user security that address the contemporary challenges of providing security on college campuses. The physical building design can contribute to a safe environment by considering visibility internally between various spaces, as well as visibility from inside to outside. Equal consideration should be given to exterior spaces around the building and between adjacent buildings.

TECHNOLOGY FLEXIBILITY

Technology systems should be designed with the future in mind and look beyond current needs. The recent and rapid shift to virtual and remote learning has demonstrated a need to design systems that are adaptable and scalable to meet a variety of teaching modalities. Consideration should be given to accommodating hybrid models of in-person and virtual learning, from the perspective of both the educator and the student. Technology and teaching methods will continue to evolve at a rapid pace, as will career paths and their associated skill sets, making it necessary to plan as best we can for that change.

Every effort should be made to incorporate the necessary forward-looking technology into all spaces, from the classroom to common areas and corridors. Designs should take into consideration the needs of contemporary students and their mobile digital technology and the need to use and charge them flexibly throughout the building.

LEARNING ENVIRONMENTS

Learning spaces should provide an enriching environment that mirrors the workplace to equip students with the state-of-the-art skills that will enable them to confidently transition from student to working professional. These real-world, academic environments can attract opportunities to collaborate with external industry partners and local corporations who often express an interest in pursuing specialized training and internship programs. Providing students with access to current workforce technologies and processes positions them to succeed during and after their education. To accommodate changes in technologies, applications, and partnerships, flexible space planning is necessary. Spaces that can readily transform through easily movable partitions and furniture are desirable. Consideration should be given to the adaptability of audio-visual and communications technologies in this context.

STUDENT ENGAGEMENT AND COLLABORATION

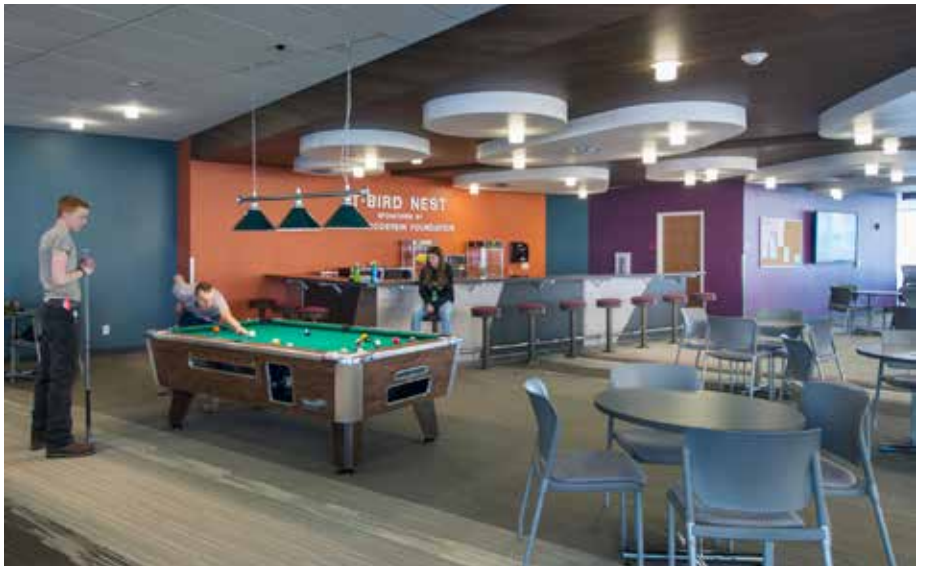
Environments that foster collaboration and discussion between students and faculty can lead to a more engaging educational experience for students and further lead to deeper understanding in their studies. Students require real-world scenarios where they can practice team-based problem solving and develop inter-disciplinary working skills.

Collaborative learning spaces should be incorporated into every building where feasible. These spaces should allow faculty and students the opportunity to adapt their environment to their immediate needs and accommodate various types of interaction and active learning. Such spaces can be flexible, multi-use spaces that accommodate both informal and formal collaboration as well as spaces dedicated to this purpose. The spaces should be open and inviting with a variety of work areas and built-in seating as well as soft, movable furniture to provide enhanced flexibility. These areas should be technology-rich and designed to be reflective of the disciplines they support.

STUDENT LIFE AND SUPPORT

College campuses are increasingly focusing on student-centered services and student wellbeing to enhance the on-campus experience. This is accomplished through programs and amenities that create and foster a sense of community, encourage social interaction and engagement, and support the students' physical and mental wellness. Where feasible, buildings should provide facilities that enhance physical and mental wellbeing, such as fitness and wellness rooms. Offering social spaces on campus that are embedded with technology can allow students to study and socialize together, supporting each other in their studies. These spaces can be in a dedicated library facility, they can be in the lobby of an academic building, or located outdoors. There are many possibilities to explore.

Buildings should take into consideration the location of the campus and the proximity of goods and services that students require on a daily basis. Easy access to the bookstore, basic supplies, dining, and snacks is critical. A clear understanding of the accessibility of these services and how students reach them through various modes of transportation is invaluable to the robust development of these services.



FACULTY SPACES

Recent trends in higher education administrative spaces are reflective of the shifts observed in workplace environments to increase collaboration and maximize spatial efficiency. New academic office environments for faculty and staff need to provide the same opportunities for casual encounters and cross-department collaboration as student-oriented spaces do. These faculty spaces also require consideration of new workplace models that involve hybrids of virtual and physical workspace. Each project should develop an understanding of the different work modalities anticipated and ensure that technology and space plans work to establish as equal an experience for each faculty and staff person as is feasible. Spatial models should take into consideration that faculty are often teaching across campuses, virtually, or on part-time schedules where they may not need a desk every day.

Trends towards smaller and fewer private offices create more opportunities for flexible, open lounge spaces that invite collaboration and accommodate a range of working models through movable furniture and flexible technology. Open office models can be augmented with teaming stations, various sized meeting rooms, and supplemental collaborative lounges that allow for scheduled or impromptu meetings. Focused work can be supported by the creation of private rooms or workstations. This shared space model can promote a shared sense of ownership and elevate inter-departmental communication and cooperation.

01 SITE LANDSCAPE GUIDELINES

Open spaces on campus are defined and developed into specific uses including connections, large and small gathering areas, educational spaces, and recreational spaces. Consistency and continuity are keys to establishing a pleasant site landscape experience throughout a campus. Materials and planting shall reflect the larger campus aesthetic. A sense of order and place can be applied through the repetition of hardscape and softscape materials. Campus plantings should be native or adaptive species. Landscape weed control shall continue to be maintained by the local goat population. Materials should be locally sourced whenever possible.

Providing site development guidelines for outdoor spaces is essential to creating the look and feel for the new Fontana Campus. A unified appearance can be attained by following the general guidelines which include Pedestrian Promenade, Drop-Off Zones, Campus Quad, Outdoor Plazas, Outdoor Learning Spaces, and Parking Lot Connections.

PEDESTRIAN PROMENADE

Pedestrian promenades provide an intuitive, safe, and enjoyable pedestrian experience throughout the campus. The walks provide clear circulation direction to major buildings and open spaces through campus. Promenades shall include a higher level of design and finishes to easily distinguish from secondary pedestrian circulations walkways. Heavy-duty decorative pavement shall be used along the major promenades. Integrated seating areas and shade trees shall line both sides of the walkway. Establishing a safe and welcome environment shall be accomplished by using pedestrian-scale lighting elements and a unique planting design. As the promenades also serve as a limited-access emergency drive, they shall be kept clear a minimum 26-feet width.

DROP-OFF ZONES

Clearly identified drop-off zones provide a welcoming entrance into campus, along with clear circulation directions. Drop-off zones shall be located along the major pedestrian promenade for clear pedestrian circulation into central campus. Continuous circulation shall be provided by placing the drop-off zones adjacent to major vehicular entrances into the campus, with a clear and safe area for pedestrians to exit. Areas shall be easily identified with the use of shade structures. Pedestrian-scale lighting, large pedestrian circulation walkways, and integrated seating areas for waiting shall be included into the design.

CAMPUS QUAD

SUSTAINABILITY FEATURE

Utilize the local goat population for an environmentally friendly weed control method on campus.

A campus quad is an important feature in a campus setting, typically becoming the iconic feature of the campus experience and an expression of the College's unique identity. The quad is generally large expanses of turf lawn complemented with large shade trees and landscape planting surrounding the buildings. The use of shade trees provides a great canopy and can create a "room" feeling. Maintenance of the lawn, plantings, and trees are essential for a successful quad space to encourage continued use. Open lawn spaces provide flexibility in campus use. Students are provided a space for reading, social gatherings, and light recreational use. Quads also function as locations for events such as graduation, performances, community gatherings, and festivals.

OUTDOOR PLAZAS

Outdoor plazas provide gathering spaces for students, faculty, and the community to socialize in large or small groups. Spaces shall be located outside of frequented campus buildings, such as the Welcome Center, and all academic buildings. Various types of flexible seating are essential, refer to the site furnishings section for recommendations. Providing outdoor WiFi and charging stations will encourage student and faculty use of the space for learning purposes. Incorporating plantings such as shade trees, flowering trees, shrubs, grasses, and perennials will enhance visual interest and add to the aesthetic of the space.

OUTDOOR LEARNING SPACES

Outdoor learning spaces are an important feature to the campus setting, by providing a different learning atmosphere for all students. Spaces must be strategically placed on campus adjacent to academic buildings with classrooms or labs. While they can be located near pedestrian promenades or the open quad, outdoor learning spaces should generally not be adjacent to loud gathering spaces. However, the outdoor learning space for the Auto & Tech Building is an exception, which should be located away from the central quad and easily accessible for service and supplies.

Learning spaces should be flexible in nature to accommodate various class sizes, designed with work areas and seating. Access to WiFi, charging stations, and writable surfaces shall be considered for a successful learning space. Flexible seating can include movable tables and chairs or some permanent features. Incorporating trees can provide shade while also creating an outdoor “room” feeling. Planting should be kept open to surrounding walkways for safety while also creating an enclosed atmosphere. All outdoor spaces must be accessible in order to be used formally as education spaces.

PARKING LOTS & CIRCULATION

Providing an aesthetically pleasing and easy-to-understand parking lot circulation is essential for the campus experience. Entrance into the site and parking lot areas shall be from a few easy to identify locations. Parking shall be distributed evenly throughout the site, with a clear circulation path across the campus from one parking area to another. ADA accessible parking stalls shall be provided near frequented campus buildings for easy access. The inclusion of electric vehicular

charging stations shall also be provided near frequented campus buildings.

Parking lot medians shall be provided at terminus ends of parking stalls, with curb and gutter and a minimum of 5-feet wide planting bed areas. Plantings shall include overstory shade trees and native plantings at a 2- to 3-feet height. Additional 4-foot diamonds can be incorporated throughout the parking area to allow for shade tree plantings.

SUSTAINABILITY FEATURES

Parking lots shall incorporate the use of solar panels or additional shade trees in bump-outs for shaded parking stalls.

Provide electrical vehicle charging stations throughout campus.

Pedestrian circulation shall be clearly defined at strategic locations in the parking lot areas. Parking medians on the outer edge of campus shall include pedestrian walkways and crosswalks leading to a central walkway. The central pedestrian promenade shall extend into the parking lot for a clearly identified pedestrian corridor. Clearly identified crosswalks provide a safe-zone for pedestrian to cross a vehicular circulation. Design elements may include decorative pavement, elevated surfaces, and signage. Utilize light pavement colors and additional shading elements throughout parking lots to reduce the urban heat island effect.

ACCESS AND TRANSPORTATION

SUSTAINABILITY CONSIDERATION

Review Virtual & Hybrid courses to reduce trips to campus and/or align with Public Transit schedules.

An equitable experience shall be provided on campus for all modes of transportation to include public transportation, personal vehicles, pedestrians, and bicycles. Implement policies to

encourage reduction of vehicular commuter trips and increased use of public transit. Incentives, such as parking discounts, may be offered to those with low-emission vehicles. Intentional location of the public transit bus stop along with aligning courses with the transit schedule will promote ridership. The local public transit, OmniTrans, should continue to provide bus passes for all students, faculty, and staff on campus.

Safe and easy-to-identify bike lanes should be strategically located leading into the campus core, along with providing sufficient bicycle parking locations. Intentional and safe pedestrian routes shall take priority over vehicular routes throughout the campus.

WASTE MANAGEMENT

SUSTAINABILITY CONSIDERATION

Develop a Campus Waste Reduction Plan for the new campus.

As described under the Architectural Guidelines, the service areas will be contained in one central location at the Operations and Maintenance building. Easy to identify receptacles shall be provided for landfill waste and recyclable materials throughout campus. Within the first year of operation at the new campus, it is recommended to track and establish the baseline of the campus waster. Chaffey College shall then create a future Campus Waste Reduction Plan with targets of non-biodegradable waste and non-recyclable items.

LANDSCAPE AESTHETICS

SUSTAINABILITY CONSIDERATION

Document material sourcing . Provide local site materials, ingredients, and sourcing. Utilize recyclable material.

Landscape aesthetics provide a cohesive look and feel across the campus. While this section provides guidelines, all current local and state requirements must be followed and take precedent.

A Landscape Master Plan shall be considered for the campus to follow, including a comprehensive planting palette. The planting palette should be uniform and connect through campus, while still providing variety for different spaces and uses. Maintaining one aesthetic through campus provides a cohesive experience.

According to the most recent Plant Hardiness Zone Map, the City of Fontana falls into Plant Hardiness Zone 10a. All plant materials used on the campus must have a proven record of high survivability, ability to acclimate, low-water requirements, and no fire risk. Native plantings must be used to the fullest extent. Most plantings shall be located within a decomposed granite or gravel material to minimize fire risk. Plantings in organic hardwood mulch should be kept to a minimum and located at prominent locations on campus. Turf sod shall solely be located in the central quad green space area.

Layering of plant material from larger to smaller plants along pedestrian or vehicular corridors helps create visual interest and serves as an inviting link throughout campus. Low plantings help maintain large spaces and open views across the core of campus. Large shade-trees with a canopy create “outdoor rooms,” while the use of ornamental flowering trees provides interest and focal

points. The use of palm trees shall be concentrated at the main entry drives for an iconic feature. Evergreen trees provide an excellent wind-block as well as screening for service areas.

SUSTAINABILITY CONSIDERATION

Reduce the heat island effect with increased vegetation and shade trees.

Per the environmental site analysis, the building orientation must be considered to provide comfortable shaded outdoor spaces. The increased presence of vegetation will reduce the urban heat island effect. Green areas will act as heat sinks (transpiration) and wind modifiers, while filtering/controlling dust, and reducing pollution.

STORMWATER MANAGEMENT

Incorporating innovative design for stormwater management is essential for a healthy, maintainable campus plan. Numerous stormwater management designs are feasible. Stormwater management is planned in two applications on campus, as both above-ground and below-ground installations. The above-ground stormwater feature shall be located in the open space along Sierra Avenue. It shall be designed to enhance the campus entry, but also incorporate water management strategies. This feature shall connect with a below-ground system under the adjacent parking lots.

The College must work with a Civil Engineer and a Landscape Architect to maximize function and aesthetic effectiveness of the stormwater management practices. A comprehensive stormwater analysis is recommended for the campus to show proposed calculations for Best Management Practices.

IRRIGATION

Designing a sustainable landscape and irrigation system for minimal water use is recommended. The irrigation system shall incorporate water-efficient heads, water application rates which only apply the needed amount of water, and systems responsive to weather conditions. Smart irrigation control programs reduce planting bed maintenance and water use, while increasing the success and survivability of new plant materials.

SUSTAINABILITY CONSIDERATION

Develop a Community Water Partnership plan. Engage the Fontana Water District on district-wide measures to implement on campus. Investigate use of city gray water.

Utilize smart irrigation controls.

SITE FURNISHINGS

An important component of creating a unique campus feeling is a complementary family of site furnishings along with wayfinding and signage. Elements strategically located throughout the campus will create a higher quality experience for students and visitors. The elements shall complement the look and feel of other Chaffey College campus experiences. A consistent appearance is important, so to not appear as visual clutter or lead to confusion. The style and design should be timeless, complement the surrounding architecture, and be low-maintenance.

Chaffey College should develop a standard of site furnishings family including, but not limited to, the following items:

- Fixed Tables and Chairs
- Flexible Tables and Chairs
- Security Bollards
- Light Bollards

- Benches
- Bike Racks
- Litter and Recycling Receptacles
- Shade Structures
- Pedestrian Light Poles
- Planters
- Umbrellas
- Outdoor Power

Outdoor seating shall include both fixed and flexible seating, providing options based on location and type of use. Picnic-style tables are recommended to encourage socialization, in lieu of round-style tables. Tables with minimal holes for drainage are acceptable; however, flat surfaces will increase study use by students on the outdoor furniture. Benches may be a traditional design, or more flexible and organic to promote socialization.

Bike racks shall be easy to identify and strategically located on campus at frequently used buildings or main entry points. Bike racks help promote the sustainable practice of biking to campus. Separate litter and recycling receptacles will also encourage sustainable practices.

WAYFINDING & SIGNAGE

Various types of signage are needed to help navigate the campus, while either in a vehicle or as a pedestrian. Chaffey College should develop a standard of signage elements to include, but not be limited to, the following signage types along with a Signage Location Plan:

- Monument Signage
- Vehicular Wayfinding
- Pedestrian Wayfinding
- Building Sign
- Information Kiosk
- Banners

Monument signage shall be located at the main vehicular entrance into the campus, and at the signaled entrance of Sierra Avenue and Underwood Drive. A secondary monument sign shall be considered at the secondary vehicular entrance drive.

Vehicular wayfinding signage is to be located along the primary vehicular routes around campus, directing users to appropriate locations on campus such as drop-off areas and main buildings. Lettering on signage must be legible while driving in a vehicle.

Pedestrian wayfinding signage must be located at the drop-off areas and where pedestrians immediately enter the site. The signs should list from three to six buildings or outdoor spaces on campus. At major pedestrian entrances on campus, or at critical decision points, an information kiosk with a campus map and interactive screen shall be provided.

Building signs must be located at the primary entrance into each building. The sign must clearly state the building's name along with the building services and any adjacent outdoor plaza spaces.

Banners are located on light poles along the main entrances into the campus, as well as along Sierra Avenue. The banners shall clearly identify the Chaffey College logo, and may highlight various events or news for the College.