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SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS OVERVIEW

Mt. SAC's learning environments are comprised of so much more than its buildings. Outdoor spaces and infrastructure systems are the campus' connective tissue—creating a cohesive setting for students to learn, explore, and interact. The infrastructure and site improvements that are recommended in this chapter are aimed at providing the best experiences for students, faculty, staff, and community members. The recommendations make the most of the campus by making it work on many levels to support Mt. SAC's educational programs, to promote access and wayfinding, to reinforce the College's positive identity, and to sustain efficient and environmentally responsible operations.

INTEGRATED PLANNING

These infrastructure and site planning recommendations are linked to the EFMP's educational planning and the existing site and facilities analysis. These links are described in Chapter 9: *Framework for Facilities Recommendations* and demonstrate the ways that the recommendations are informed by themes from the master plan interviews with faculty and staff, by the input of students and community members, by the College's projected enrollment, and by its projected parking needs. These links also help to ensure that the recommendations are well informed by the considerable amount of work done previously to improve infrastructure and site conditions.

ENVIRONMENTAL SUSTAINABILITY

These recommendations are also linked to Mt. SAC's *Climate Action Plan* through its recommendations for landscaping, natural habitat,

and infrastructure for transportation, energy, water, and waste. These are summarized in the *Climate Action Plan's* Sustainability Objectives, which are presented in Chapter 9: *Framework for Facilities Recommendations*. The College will periodically update its sustainability recommendations to reflect progress toward the goal of carbon neutrality. Readers are encouraged to refer to the most current update of Mt. SAC's *Climate Action Plan*, posted online.

FLEXIBLE, LONG-TERM PLANNING

Chapter 11: *Site and Infrastructure Improvements Recommendations* focuses on long-term, big picture concepts that are intended to be flexible and that would remain valid over time. While the graphics in this chapter may appear specific, they are conceptual sketches that illustrate general locations, adjacencies, and sizes of recommended improvements. The final design of each recommended project will take place as it is funded, and a detailed program and design will be developed with the participation of a user group. Please refer to Chapter 12: *Implementation* for additional recommendations.



SITE AND INFRASTRUCTURE IMPROVEMENTS

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RECOMMENDATIONS

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SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS

SITE AND INFRASTRUCTURE IMPROVEMENTS

PLANNING APPROACH

This section recommends a holistic framework for campus-wide site and infrastructure improvements. This section describes the approach to achieving site and infrastructure objectives that have been identified through the input of College and community stakeholders. It then describes the recommended projects.

In addition to the planning approach and recommended projects, this chapter includes four Site Enhancement Concepts, which provide more in-depth information to guide the development of key areas of the campus.

Please note that the term “infrastructure” refers to elements that work as a system throughout the campus, such as vehicular and pedestrian circulation infrastructure. Recommendations for utilities infrastructure systems are described in Chapter 10: *Facilities Recommendations*, in the Campus-wide Projects sections for Utilities Infrastructure and Energy, and in the *Appendix*, in the section titled Utilities Infrastructure.

PROJECT IMPLEMENTATION

The development of new site and infrastructure improvements would be guided by Mt. SAC’s Landscape Guidelines (found in the *Appendix*), as well as construction standards and design guidelines. These are important tools for unifying the campus through consistent and high quality design. Readers of the EFMP that are involved in the programming, budgeting, design, and construction of site and infrastructure improvement projects—such as administrators, construction program and project managers,

faculty and staff serving in user groups, and design professionals—are encouraged to refer to these standards and guidelines, as well as to Chapter 9: *Framework for Facilities Recommendations*, and to the sections in Chapter 3: *Instructional Programs*, Chapter 4: *Student Services*, Chapter 5: *Administrative Services and Human Resources*, and Chapter 6: *Master Plan Themes* that describe the programs and services to be supported by these improvements.

The site and infrastructure improvement projects would also implement the campus-wide projects that are described in Chapter 10: *Facilities Recommendations*. These campus-wide projects are initiatives that would integrate public art, informal student spaces, utilities infrastructure and sustainable energy systems, wayfinding systems, learning environments, and universal access throughout the campus. It is important for readers involved in the implementation of each site and infrastructure improvement project to actively facilitate the implementation of these important initiatives.

LEGEND

- PROPERTY LINE---
- PERMANENT FACILITIES
- TEMPORARY FACILITIES
- EXISTING UTILITIES INFRASTRUCTURE (UNDERGROUND)
- NEW UTILITIES INFRASTRUCTURE (UNDERGROUND)



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS

OPEN SPACE CONCEPT

The site and infrastructure improvements recommendations are based on the Campus Development Concept presented in Chapter 9: *Framework for Facilities Recommendations*. The intent of the framework is to provide a more clear campus organization, enhance the visual identity (from the outside and within the campus), and offer outdoor spaces throughout the campus that support a variety of uses. Facilities provide the primary locations for education to take place and for support services to be provided, but the campus landscape is what first welcomes visitors to Mt. SAC, guiding them to where they need to go, with a cohesive character and identity.

The open space concept responds to the themes articulated in Chapter 6: *Master Plan Themes*, which express the need for outdoor instructional space, universal design that ensures access, and large outdoor assembly spaces for flexible use by the campus and wider community. It also responds to student input, to have usable open space to study and gather.

The Open Space Concept builds upon the examples set by successful existing open spaces on the campus (see the Open Space Programming section in Chapter 7: *Existing Facilities and Site Analysis*).

The Open Space Concept graphic on the opposing page illustrates the primary open space concept that is the foundation for the site and infrastructure improvements recommendations. It includes the following objectives.

- Clarify wayfinding and unite the physical campus by establishing an intuitive hierarchy for pedestrian circulation, with Miracle Mile serving as the dominant organizing element and connection across campus
- Connect with the adjacent City of Walnut community and promote an active and healthy lifestyle on the Mt. SAC campus by providing a multi-route fitness trail around campus (the Healthy Living Loop)
- Develop the edges of campus along Temple Avenue as a "green corridor" that promotes sustainable performance, safely supports alternative modes of transportation, and unites the north and south sides of campus
- Provide extended landscape buffers between parking lots and Temple Avenue, at both ends of campus, to serve as green gateways to the campus with enhanced aesthetic character

LEGEND

- PROPERTY LINE ---
- PERMANENT FACILITIES
- TEMPORARY FACILITIES
- MIRACLE MILE
- PRIMARY PEDESTRIAN CIRCULATION
- SECONDARY PEDESTRIAN CIRCULATION
- TERTIARY PEDESTRIAN CIRCULATION
- HEALTHY LIVING LOOP
- GREEN GATEWAY
- TEMPLE AVENUE GREEN CORRIDOR
- OPEN SPACE
- UTILITIES INFRASTRUCTURE (UNDERGROUND)



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS
OPEN SPACE CONCEPT *(cont.)*

- o Establish and preserve significant open spaces throughout the academic core of campus that can accommodate large numbers of users and support a variety of functions
- o Extend student support from buildings into adjacent open space
- o Support the College goal of increasing student connection with the College by providing desirable open spaces for students to stay on campus
- o Provide small-scale biological environments for applied class work



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS

VEHICULAR CIRCULATION AND PARKING

The recommendations for vehicular circulation and parking improvements are aimed at providing welcoming, efficient, and equitable access to the campus for everyone, whether they are driving their own vehicle, being dropped off or picked up by a family member, taking the bus, or using ride-sharing services such as Lyft or Uber. These improvements would address existing issues and respond to input from students and community members about the need to improve wayfinding, safety, and to speed up the flow of vehicles within the campus and on the adjacent public roadways.

The EFMP's vehicular circulation and parking recommendations are built upon the analyses and recommendations of Mt. SAC's 2017 *Parking and Circulation Master Plan (PCMP)*, which based its planning on Mt. SAC's 2015 *Facilities Master Plan Update*. The EFMP provides additional layers of planning based on its recommended facilities projects and open space concept. Its recommendations focus on three elements: main entrances from public roadways, campus circulation facilities, and campus parking facilities.

MAIN ENTRANCES

Direct vehicular access into Mt. SAC's campus is provided primarily through three signalized intersections. San Jose Hills Road and Mt. SAC Way, which serve as high-volume campus entrance points at signalized intersections on Grand Avenue and Temple Avenue, respectively, would be improved by eliminating vehicle crossing points along the roadways within the campus to increase the vehicle stacking space and minimize conflicts for inbound vehicles. This is intended to increase

the rate of traffic flow to parking and pickup/drop-off zones.

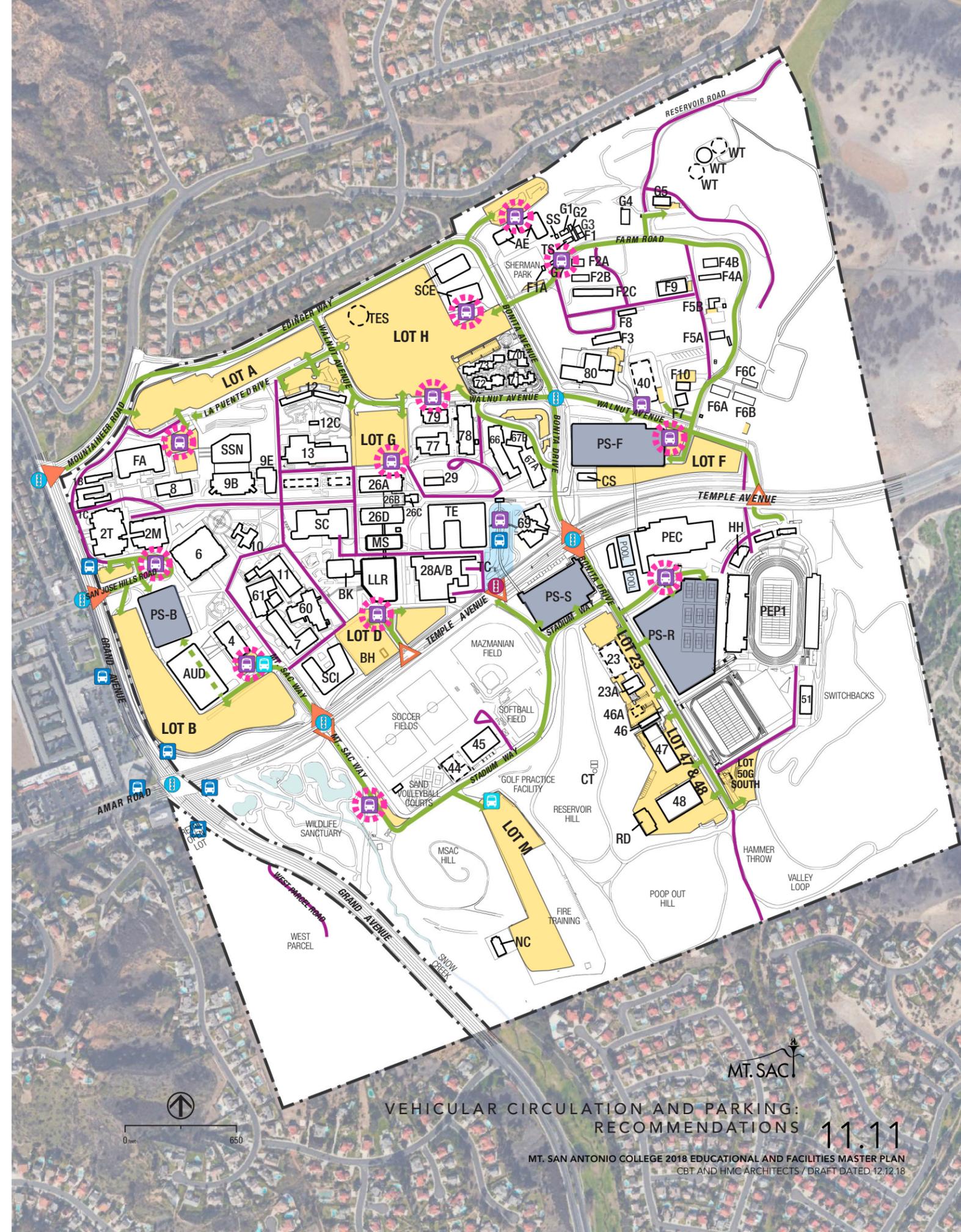
In addition, a streamlined entrance into Lot A from Mountaineer Road and additional entrances into Lot F from Temple Avenue and Bonita Drive would provide more options to access the campus. The PCMP includes detailed recommendations for the main vehicular entrances, which are summarized in the project descriptions in this section.

CAMPUS CIRCULATION

The recommended approach to on-campus vehicular circulation would keep vehicles on the outer portions of campus, thus helping to separate

LEGEND

- PROPERTY LINE ---
- PERMANENT FACILITIES
- TEMPORARY FACILITIES
- ▲ PRIMARY ENTRY TO CAMPUS
- ▲ SECONDARY ENTRY TO CAMPUS
- PUBLIC VEHICULAR CIRCULATION —
- OPTIONAL ALIGNMENT —
- RESTRICTED VEHICULAR CIRCULATION (EMERGENCY, SERVICE, VENDORS, ETC.) —
- PARKING LOT
- PARKING STRUCTURE
- PASSENGER PICK-UP / DROP-OFF
- LOT M SHUTTLE STOP
- ACCESS SERVICES SHUTTLE STOP
- PUBLIC TRANSIT STOPS
- TRANSIT CENTER
- UTILITIES INFRASTRUCTURE (UNDERGROUND)
- EXISTING ON-CAMPUS TRAFFIC LIGHT
- PROPOSED ON-CAMPUS TRAFFIC LIGHT



SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS VEHICULAR CIRCULATION AND PARKING (cont.)

pedestrian and vehicular circulation and reserve the academic core of campus for pedestrians. As recommended by the PCMP, much of the existing on-campus circulation facilities would remain unchanged, with the following two exceptions.

- o The segment of La Puente Drive from San Jose Hills Road to Lot A would be designated for service and emergency vehicle access only
- o The construction of a slip ramp from Mountaineer Road, between Grand Avenue and Edinger Way, would provide direct access into Lot A and the accessible parking and passenger drop-off/pick-up associated with the Student Services North project (refer to the Site Enhancement Concept: North description on page 11.50)

SERVICE ACCESS

Service vehicles—from carts to delivery trucks—often require access to areas of campus that are not served by public vehicular roadways. The routes through the academic core of the campus that are recommended for service vehicle access are indicated in the Vehicular Circulation and Parking: Recommendations graphic on page 11.11. Service routes would have controlled access, by gates or retractable bollards to prevent unauthorized vehicles from driving through the campus on these routes.

CAMPUS PARKING

In the Projection of Parking Needs section in Chapter 9: Framework for Facilities Recommendations, the EFMP projects the amount of additional parking that would be

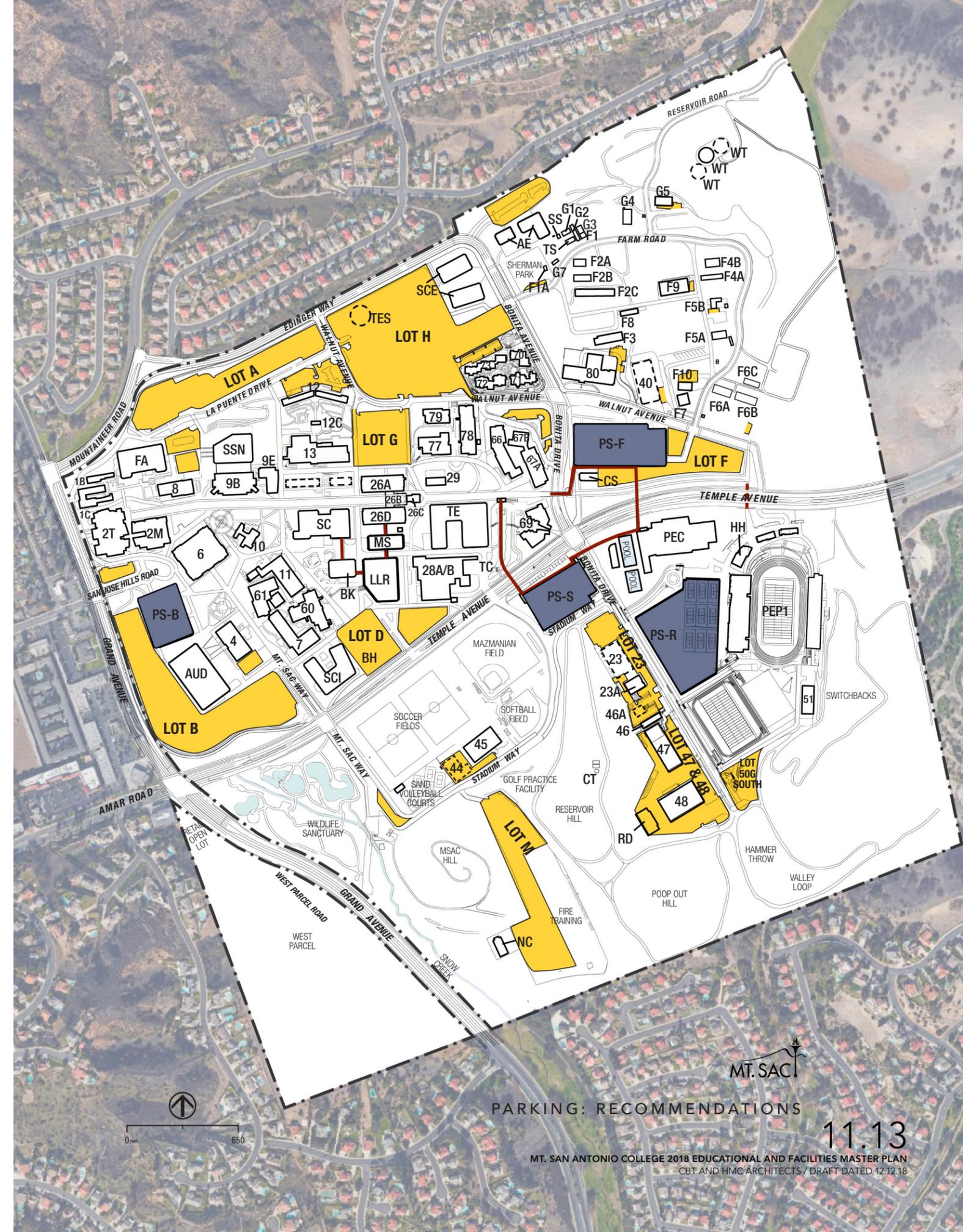
required to accommodate Mt. SAC's growth. The recommended approach to providing the additional parking employs two strategies: to improve existing surface parking lots and to build new parking structures. The PCMP's analysis of existing surface parking lots found them to be inefficiently configured and it recommends improvements that would increase the capacity of most lots, while also improving circulation flow within the lots. The EFMP restates these recommendations and adds design strategies that would help to address the pollution present in parking lot stormwater runoff, the heat islands that are intensified by unshaded asphalt, and sufficient site lighting for safety and security.

Parking Structures

Project planning will include evaluation of potential impacts of the parking structure project(s) on nearby residents and maintenance of a setback of no less than 400 feet from the nearest single-family residential property line. Most of the additional parking would be distributed at locations around the campus in medium-sized parking structures. Although construction costs are higher compared to fewer, larger parking structures, there are

LEGEND

- PROPERTY LINE ---
- PERMANENT FACILITIES
- TEMPORARY FACILITIES
- PARKING LOT
- PARKING STRUCTURE
- UTILITIES INFRASTRUCTURE (UNDERGROUND)
- PEDESTRIAN BRIDGES
- UNDERGROUND TUNNEL



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS
VEHICULAR CIRCULATION AND PARKING (cont.)

compelling reasons for building more medium-sized structures. Distributing traffic among the entry/exit points of several parking structures would reduce congestion and speed up the flow into and out of the campus—a solution that would help to address the concerns of the City of Walnut and neighboring residents. The locations were strategically determined through a process that considered the level of parking demand in existing surface parking lots—information that indicates where people would prefer to park. It also considered the location of College programs and land uses and their specific parking needs. Additionally, the determination considered the benefit of removing campus vehicular traffic from public roadways and into campus parking facilities before it impacts the Temple Avenue and Grand Avenue intersection.

In a collaborative process with the development of the EFMP’s open space concept, the PCMP planners developed several options for building additional parking on the campus. Scenario D in the PCMP is the recommended and preferred parking option. Its locations for parking structures have been integrated with the EFMP’s open space concept and coordinated with its recommended building and site development.

Scenario D recommends four parking structures, listed below. These four structures are intentionally located in proximity to the Transit Center and along Temple and Grand Avenues to minimize impacts on the surrounding residential neighborhoods located to the north and south of the campus. Three pedestrian bridges are recommended to be built with the parking

structure projects—two spanning Temple Avenue (between Parking Structure PS-S and the Transit Center and between Parking Structure PS-F and the Physical Education Complex) and one spanning Bonita Drive between Parking Structure PS-S and the Physical Education Complex.

- o Parking Structure PS-B in Lot B: 64,750 square foot footprint; 3 levels (ground level plus two levels above ground); 600 parking spaces
- o Parking Structure PS-F in Lot F: 120,000 square feet footprint; 4 levels (ground level plus three levels above ground); 1,498 parking spaces
- o Parking Structure PS-R in Lot R: 199,920 square feet footprint; 2 levels (ground level plus one level above ground for both parking and tennis courts); 709 parking spaces
- o Parking Structure PS-S in Lot S: 89,820 square feet footprint; 4 levels (ground level plus three levels above ground); 829 parking spaces

VEHICULAR CIRCULATION PROJECTS

The following are descriptions of recommended projects.

Lot A Improvements and Mountaineer Road Entry

The *2017 Parking and Circulation Master Plan* recommends general improvements to Lot A. Included in the PCMP is a recommended reconfiguration and new layout of Lot A, which would provide for more efficient vehicular

circulation and increased parking stall count, and could maintain a pay parking area for visitors. For more information, refer to Site Enhancement Concept: North, later in this chapter. The following modifications would be needed to support recommendations in the EFMP.

- o A landscaped buffer would be provided around the perimeter of the parking lot, along Mountaineer Road and Edinger Way. This buffer would be sized to accommodate the proposed Healthy Living Loop, with its supporting amenities, as well as trees and planting. Design of the buffer would also consider the impact on parking stall counts
- o Special consideration would be given to the crossing condition of the Healthy Living Loop and the parking lot slip ramp entrance from Mountaineer Road
- o Safe pedestrian crossings would also be provided between Lot A and Student Services North, across La Puente Drive
- o To improve universal access between Lot A and the campus, the western end of Lot A would be re-graded to the same elevation as the upper level of the Student Services North building entrance
- o Lot A could be a potential location for future asset development

Lot B Improvements

The PCMP recommendations include reconfiguration for surface parking within Lot B and a new parking structure in the northern portion of the lot (Parking Structure PS-B). Demolition of the existing Gymnasium Building 3 would provide an opportunity to redesign Lot B to support the proposed development of Parking Structure PS-B and the Auditorium.

One means of public access to Lot B would be provided from Mt. SAC Way and through Parking Structure PS-B. In addition, access for service and emergency vehicles only would be provided from San Jose Hills Road.

The Lot B layout would accommodate special event and visitor pay parking, general student and staff parking, service loading and parking to support the Auditorium, and accessible parking with a drop-off area to support Administration Building 4.

Similarly to Lot A, a landscaped buffer would be provided around the perimeter of the parking lot along Grand and Temple Avenues. The intent of the buffer would be to accommodate the Healthy Living Loop and to screen visibility of the parking in order to improve the public image of the campus. The Temple Avenue frontage of Lot B would be addressed as part of the proposed Temple Avenue Green Corridor, and the perimeter of Lot B at Mt. SAC Way would accommodate the pedestrian promenade that is proposed for this location. For more information, refer to Site Enhancement Concept: West, later in this chapter.

SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS VEHICULAR CIRCULATION AND PARKING (cont.)

Lot D Improvements

Lot D would be altered by the proposed Science and Library/Learning Resources projects. Lot D would be redesigned to include a pick-up/drop-off area adjacent to the Library/Learning Resources facility and would be easily utilized for event parking, to support the Student Center in particular. A portion could be considered for visitor pay parking, for short-term parking for visitors and students going to the Student Center and Library/Learning Resources facility.

A landscaped buffer would be provided along Lot D's perimeter at Temple Avenue, as part of the proposed Temple Avenue Green Corridor. Vehicular access between Lot D and the new Transit Center would be removed, and replaced with pedestrian and bicycle access to and from the Temple Avenue Green Corridor. The provision of bicycle parking could be considered as part of the Lot D improvements, and/or the Library/Learning Resources project. For more information, refer to Site Enhancement Concept: Central, later in this chapter.

Lot F Improvements

Lot F would be altered by the construction of the new Campus Safety and Parking Structure PS-F facilities, the extension of Miracle Mile and renovation of the pedestrian tunnel under Temple Avenue, the reconstruction of the pedestrian bridge over Bonita Avenue, and the implementation of pasture along the lot's Temple Avenue frontage. The redesign of Lot F in conjunction with these projects would optimize parking and circulation while balancing the goals of the other projects. Safe and efficient circulation

for large service vehicles would be provided on Walnut Avenue through Lot F, between Temple Avenue and Farm Road. Safe pedestrian crossings would also need to be provided between the Farm and Lot F/Parking Structure PS-F across Walnut Avenue, in particular at the connection to the pedestrian tunnel and eastern terminus of Miracle Mile. A segment of the Healthy Living Loop would be accommodated along the western edge of Lot F, at Bonita Avenue. The PCMP recommends new vehicle entrances to Lot F/Parking Structure PS-F from Bonita Avenue and Temple Avenue. These entrances would be acceptable if coordinated with the design of the Healthy Living Loop and the proposed pasture at Temple Avenue to address potential pedestrian circulation conflicts and ensure safe pedestrian crossings by employing grade separations or other effective means.

Lot W Improvements

As described in the PCMP, Lot W would be redesigned to accommodate bus parking for the Wildlife Sanctuary and the addition of sand volleyball courts. The PCMP provides recommendations for reconfiguring the parking stalls, widening the drive aisles and incorporating bicycle lanes. In addition, the EFMP recommends a pedestrian promenade that would extend from the intersection of Mt. SAC Way and Temple Avenue to the entrance of the Wildlife Sanctuary, and that the Healthy Living Loop would follow Stadium Way to Mt. SAC Way and the Temple Avenue intersection. Accommodation of these elements would require coordination with the vehicular circulation and parking on Mt. SAC Way during the design phase.

Parking Structure PS-B

The PCMP proposes two options for circulation associated with Parking Structure PS-B. The EFMP recommendations support Option 1, with circulation only to the west of the structure. This allows the east side of the parking structure to remain an open space with pedestrian connections to the campus (refer to Site Enhancement Concept: West later in this chapter). The EFMP also recognizes an opportunity to provide vehicular access to Parking Structure PS-B from Mt. SAC Way beneath the Auditorium building. The College may also consider lower level parking and/or service beneath the Auditorium, which would be connected to Parking Structure PS-B.

Parking Structure PS-F

The College may want to consider allowing for visitor paid parking (along with permit parking) within Parking Structure PS-F. It is expected that events at the Farm and athletic facilities would attract a significant number of visitors to this parking facility. The PCMP recommends two vehicle entrances to Parking Structure PS-F, one each from Temple Avenue and Bonita Drive. These entrances would introduce potential conflicts with proposed pedestrian circulation routes. It is recommended that a Bonita Drive entrance to the west side of PS-F be coordinated with the design of the Healthy Living Loop and the primary pedestrian pathway on Bonita Drive to address potential pedestrian circulation conflicts and ensure safe pedestrian crossings by employing a grade separation or other effective means. As an alternative, vehicular access to PS-F could be provided on the north and east sides of the structure. PS-F would also be linked

to the reconstruction of the pedestrian bridge over Bonita Drive. The bridge is discussed in the pedestrian circulation section. All vehicular access points would be well coordinated during planning and design with the Healthy Living Loop and other pedestrian pathways to ensure safe pedestrian crossings and efficient vehicular circulation.

Parking Structure PS-R

Parking Structure PS-R would provide parking beneath tennis courts in close proximity to the physical education facilities. The College may consider providing visitor paid parking (in addition to permit parking) within PS-R and/or PS-S. It is expected that these structures would serve a significant number of visitors due to their proximity to athletic facilities.

Parking Structure PS-S

As described in the PCMP, Parking Structure PS-S would include a pedestrian bridge spanning Temple Avenue and connecting to the future Transit Center. The EFMP recommends having one vehicular access point on the west side of the structure, with an access road from Temple Avenue, and a second vehicular access point on the south side of the structure from Stadium Way. The vehicular access would be coordinated with ongoing improvements for creating pocket turn lanes at the Temple Ave and Bonita Drive intersection. As mentioned previously, the College may consider providing visitor paid parking (in addition to permit parking) within PS-R and/or PS-S. It is expected that these structures would serve a significant number of visitors due to their proximity to athletic facilities.

SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS

VEHICULAR CIRCULATION AND PARKING (cont.)

Mt. SAC Way Improvements

The Temple Avenue/Mt. SAC Way Entrance provides access to surface Lot B to the north, and Lot W to the south. Improvements to this entrance and to the circulation within the parking lots would improve the flow of traffic, which currently impacts Temple Avenue and the Grand Avenue/Temple Avenue Intersection. Passenger pick-up/drop-off would be accommodated with a dedicated vehicle and shuttle loading zone at Administration Building 4. Access to Lot D from Mt. SAC Way would be used for emergency vehicles only. Mt. SAC Way would continue to function as a primary public vehicular entrance to the campus, on both the north and south sides of Temple Avenue. Gateway identity signage that is consistent with the College's brand identity and campus signage standards would be included on both sides of Temple Avenue. Mt. SAC Way would be cohesively designed with a complete streets approach to tie together these two sides of the campus for drivers, pedestrians, and cyclists. The existing row of trees on the north segment of Mt. SAC Way would be continued for the road's full length, with complementary plantings in the center median. The street trees would continue along the eastern edge of the southern segment. Refer to the Mt. SAC Way Promenade description in the Pedestrian Circulation section for related pedestrian improvements.

San Jose Hills Entry Improvements

San Jose Hills Road would continue to serve as a main entry to campus for drivers, pedestrians, and cyclists. This entry would be reconfigured to accommodate optimal vehicular, pedestrian, and cyclist circulation patterns for the proposed

Parking Structure PS-B project, and to facilitate the flow of vehicles into the campus from Grand Avenue. This redesign would also include an improved pick-up/drop-off area and—as noted in the PCMP—restricted access to La Puente Drive for service and emergency vehicle use only. The need to maintain service vehicle access to existing Building 6 would be evaluated, as would the ideal location for a visitor information kiosk. During the redesign of the San Jose Hills Entry, the opportunity to introduce an iconic feature, such as a specimen tree within a center median or traffic circle, would be explored. Visibility to destinations, in particular the pick-up/drop-off zone and Parking Structure PS-B entrance, would be clear for drivers as they enter the campus. Safe pedestrian connections from Grand Avenue to the campus would be provided, and provision of bicycle circulation and bicycle parking is recommended. The PCMP includes recommendations to improve the signalization at the San Jose Hills Road and Grand Avenue intersection to help promote efficient vehicular circulation entering and leaving the campus. Iconic gateway signage that is consistent with the College's brand identity and campus signage standards would be included at this entrance.

Temple Avenue Green Corridor

The Temple Avenue Green Corridor is a multi-benefit project aimed at beautifying the public frontage of the campus, enhancing sense of place, improving multi-modal safety, and providing sustainable performance by the landscape. The campus frontage along both sides of Temple Avenue would include a landscaped parkway with evergreen shade trees between the curband

and sidewalk. The parkway would act as a buffer between pedestrians and the traffic on Temple Avenue, increasing comfort and safety. It would also serve as a buffer to visually screen parking lots, and include stormwater best management practices, such as bioswales or filtration planters, to treat stormwater run-off. Furthermore, as travelers pass the campus property lines at either end of Temple Avenue, the consistent rows of street trees would mark the entry to campus, with significant open spaces (the Wildlife Sanctuary at the west end and Farm pasture at the east end) serving as natural gateways. Parallel parking along Temple Avenue would be removed and replaced by dedicated, buffered, highly visible bike lanes. Improvements would be coordinated with the City of Walnut and County of Los Angeles, as applicable. Refer also to recommendations in the Pedestrian Circulation and Urban Forest sections, as well as the Landscape Guidelines in the *Appendix*.

SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS
EMERGENCY ACCESS

These recommendations would expand and improve the campus emergency circulation infrastructure to keep pace with the growth of Mt. SAC's enrollment and facilities. The recommended improvements focus on two important objectives: maintaining emergency vehicle access throughout the campus and providing routes for expeditious and safe evacuation during emergencies. Implementation would occur through individual facilities and site improvement projects, including vehicular and pedestrian circulation projects, that would construct sections of the roadways and paths that comprise the campus-wide emergency circulation system. These facilities would comply with design and construction standards, such as those of the Los Angeles County Fire Department, that relate to their functions.

**EMERGENCY VEHICLE ACCESS
RECOMMENDATIONS**

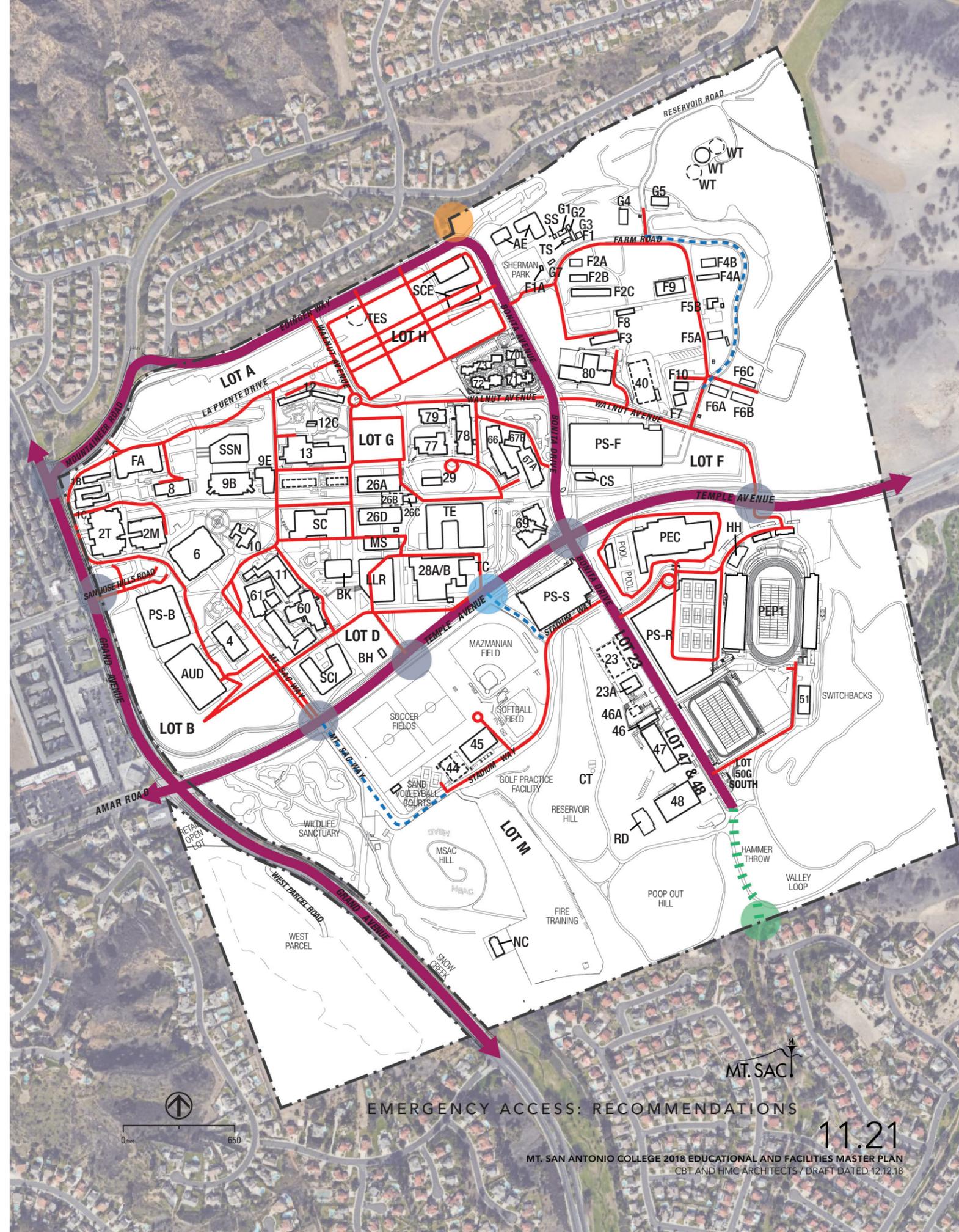
The Emergency Access Recommendations graphic on the opposing page illustrates proposed new access points and routes, as well as upgrades to make existing routes capable of accommodating emergency vehicles. The proposed signalized entrance to the Transit Center and Parking Structure S would provide a new emergency vehicle gateway from Temple Avenue. The proposed improvements of Miracle Mile, Mt. SAC Way, Bonita Drive, and the Farm Road would be opportunities to expand the emergency access system to new areas. The proposed alteration of existing campus areas, such as the West, North, and Central Site Enhancements described later in this chapter would also alter emergency access routes in those areas.

Bonita Drive Emergency Access Project

The development of a new access point for official emergency response vehicles would provide a new alternative way to enter the southern portion of the campus, where Mt. SAC's Emergency Operations Center is located. This project would build an access route from the southern end of Bonita Drive southward to the boundary of the campus property. Mt. SAC would propose a project to the City of Walnut to develop a connection from the campus boundary to the adjacent public roadway. The route would meet the Los Angeles County Fire Department's design standards for fire access routes. This project would also provide the opportunity to link Mt. SAC's Healthy Living Loop to the existing community trail system and provide pedestrian and equestrian access to the campus for the local community (refer to the Pedestrian Circulation section later in this chapter).

LEGEND

- PROPERTY LINE ---
- PERMANENT FACILITIES
- TEMPORARY FACILITIES
- CAMPUS FIRE ACCESS ROUTES
- EXISTING FIRE ACCESS TURNAROUND
- PROPOSED FIRE ACCESS ROUTES
- PROPOSED FIRE ACCESS TURNAROUND
- CITY FIRE ROUTES
- EXISTING CAMPUS GATEWAYS
- PROPOSED CAMPUS GATEWAYS
- EXISTING GATE
- PROPOSED GATE
- PROPOSED FIRST RESPONDER ACCESS ONLY ROUTE
- UTILITIES INFRASTRUCTURE (UNDERGROUND)



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS
EMERGENCY ACCESS (cont.)

**EMERGENCY EVACUATION
RECOMMENDATIONS**

Emergency evacuation of students and employees would continue to be accommodated on public roads. It is anticipated that the transition of Mt. SAC's Police and Campus Safety Department to become a POST-participating police force would enable it to participate more fully in the evacuation of the campus than in the past. Specifically, the Department would be authorized to implement traffic control measures on public roads to more quickly evacuate the campus. These and other measures would be included in the campus emergency response plan and be coordinated with the emergency response agencies of local governments.

Image of similar spaces at other colleges:



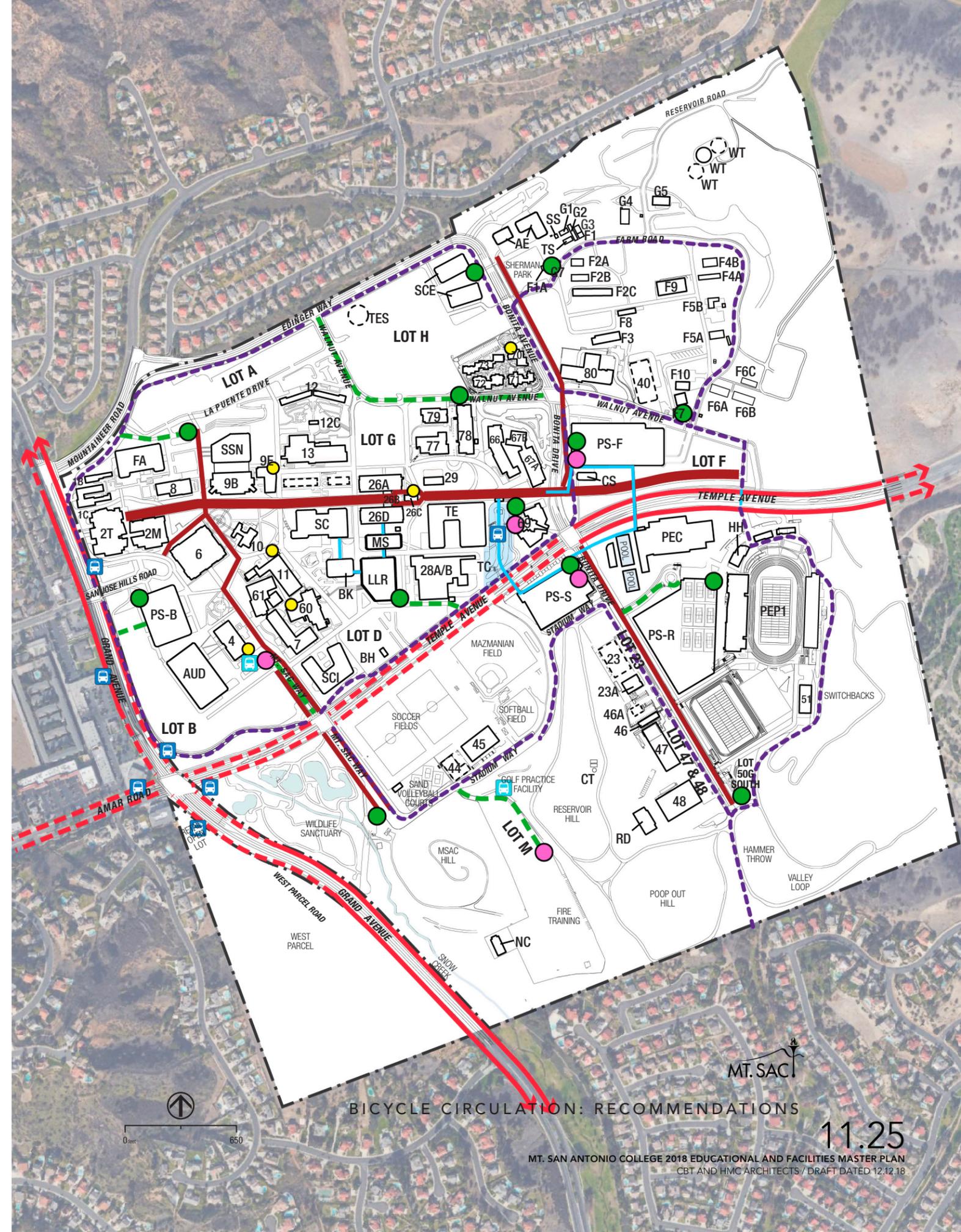
SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS BICYCLE CIRCULATION

The 2017 PCMP makes recommendations for bicycle infrastructure improvements, which this section expands. Campuses that are built on sloping land, as Mt. SAC is, require an on-campus bicycle circulation strategy that prioritizes safety. As a result, campus policy does not allow riding bicycles on campus sidewalks or service roads. The focus of bicycle circulation improvements at Mt. SAC is to support bicycle commuters by providing safe access to the campus, as well as secure and convenient bicycle storage. Guidelines, which are intended to promote the safe use of bicycles as an alternative mode of transportation to and from campus, are provided in the Landscape Guidelines section in the *Appendix*.

As part of the effort to encourage bicycle commuting as an alternative mode of transportation, Mt. SAC would participate in and support a regional bicycle network. The Mt. SAC District Service Area is within the planning area for the San Gabriel Valley Bike Master Plan Initiative, and the 2025 SGV Greenway Network. Students and other commuters often travel through multiple jurisdictions on their way to the campus; as a result, developing bicycle improvements within a regional context is increasingly important. Providing continuous, protected bike lanes along Temple and Grand Avenues would provide a direct connection between Mt. SAC and two potential Class I greenway paths—one along Walnut Creek through Covina and West Covina, and the other along San Jose Creek, stretching from Claremont to South El Monte.

Bicycle storage facilities would be secure and convenient. The locations would facilitate arrival to campus by bicycle, with a connection to the campus pedestrian circulation network so that students and employees can easily walk to their destination once they have parked their bike. The PCMP recommends providing bike storage as part of the parking structure projects. The parking structure locations provide easy access to and from the bike lanes on Temple and Grand Avenues, as well as to the campus pedestrian circulation network. Additional secure bike parking facilities would be located at other key campus destinations, which are accessible via the Healthy Living Loop or proposed bicycle routes. Refer to the graphic on the opposing page for potential

- LEGEND**
- PROPERTY LINE ---
 - PERMANENT FACILITIES
 - TEMPORARY FACILITIES
 - MIRACLE MILE
 - PRIMARY PEDESTRIAN CIRCULATION
 - EXISTING BICYCLE LANE
 - PROPOSED BICYCLE LANE (CITY OF WALNUT OR OTHER JURISDICTION)
 - PROPOSED BICYCLE ROUTES OR PATHS
 - PEDESTRIAN BRIDGES
 - UNDERGROUND TUNNEL
 - HEALTHY LIVING LOOP
 - TRANSIT STOPS
 - CAMPUS SHUTTLE STOPS
 - TRANSIT CENTER
 - EXISTING BICYCLE PARKING
 - PROPOSED SECURE BICYCLE PARKING
 - PROPOSED BICYCLE SHARE (PCMP)
 - UTILITIES INFRASTRUCTURE (UNDERGROUND)



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS
BICYCLE CIRCULATION (cont.)

bicycle parking locations. These facilities would have adequate lighting and visibility, to discourage bicycle theft.

Bicycle share services are recommended in the 2017 PCMP. The bicycle share stations, as indicated on the graphic on page 11.25, would be intended to encourage the use of parking lots that are located farther from the campus core. Students could park their cars, then ride a bike to a share station located closer to their destination. The bike share could also encourage use of the Healthy Living Loop, allowing visitors who do not have bicycles to check one out for a recreational ride around campus.

BICYCLE CIRCULATION PROJECTS

The following are descriptions of recommended bicycle circulation projects.

Temple and Grand Avenues Bicycle Lane Extensions (Temple Avenue Green Corridor)
The PCMP recommends extending the existing bicycle lanes on Temple Avenue and Grand Avenue to provide a continuous connection to and from the Mt. SAC campus. The PCMP notes that the width of Temple Avenue may allow for protected/buffered bike lanes, with the removal of the on-street parallel parking. Converting the on-street parking areas to buffered bicycle lanes would support the Temple Avenue Green Corridor project, also described in the Vehicular Circulation and Pedestrian Circulation sections of this chapter. This is a project that would be coordinated in partnership with the City of Walnut, as part of the regional bike network. The City of Walnut

and Cal Poly Pomona have expressed support for completing the Temple Avenue bicycle lanes.

Healthy Living Loop

The Healthy Living Loop is a concept that College and community stakeholders embraced during early development of the EFMP recommendations. The concept provides a publicly-accessible route around campus that encourages walking, jogging, and bicycling, and supports healthy living educational experiences.

Design of the Healthy Living Loop would consider safety for all users, providing separate paths of travel for bicyclists and pedestrians, where space allows. Some areas may require bicyclists to travel in a bicycle lane on an adjacent street, where space will not accommodate a separate bicycle path. Refer to the Pedestrian Circulation Projects for further description of the Healthy Living Loop.

Image of similar spaces at other colleges:



SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS PEDESTRIAN CIRCULATION

This section expands upon the recommendations for pedestrian facilities that were made in the 2017 PCMP. In general, pedestrian access on campus would be completed, connecting all points of arrival and departure with campus destinations and—as heard through community input—linking to the residential communities and businesses beyond Mt. SAC’s campus. Pedestrian circulation routes would also be made universally accessible, to the greatest extent feasible. Furthermore, the design of pedestrian routes would establish a cohesive hierarchy that facilitates wayfinding, appropriately accommodates pedestrian and service/emergency vehicle traffic, and contributes to the campus landscape character (see also the Pedestrian Circulation section of the Landscape Guidelines in the *Appendix*).

The graphic on the opposing page illustrates the general structure for the pedestrian circulation hierarchy. Primary and secondary routes would be generally connective, linking campus destinations through the most efficient path (these may be considered analogous to arterial and collector streets); while tertiary routes typically provide circulation within a particular site (much like neighborhood or local streets). A design concept for the pedestrian circulation hierarchy is described more fully in the Site Enhancement Concept: Pedestrian Circulation Hierarchy section later in this chapter.

ACCESSIBLE CIRCULATION

The Accessible Circulation graphic on page 11.31 illustrates the EFMP’s vision for an extended network of accessible routes throughout campus. To the greatest extent feasible, universally-

designed routes would be provided to connect destinations on campus. Where changes in elevation are too severe to allow access with walkways or ramps, the use of exterior elevators would be utilized to increase accessibility (see the Pedestrian Circulation section of the Landscape Guidelines in the *Appendix*).

PEDESTRIAN CIRCULATION PROJECTS

Following are descriptions of recommended pedestrian circulation site improvement projects.

Miracle Mile

Miracle Mile already exists as a well-known and prominent pedestrian corridor, but currently its design is inconsistent and incomplete. As the primary east-west corridor through the center of the academic core, Miracle Mile presents an

LEGEND

- PROPERTY LINE ---
- PERMANENT FACILITIES
- TEMPORARY FACILITIES
- MIRACLE MILE
- PRIMARY PEDESTRIAN CIRCULATION
- SECONDARY PEDESTRIAN CIRCULATION
- TERTIARY PEDESTRIAN CIRCULATION
- MULTI-PURPOSE TRAIL
- HEALTHY LIVING LOOP
- TRANSIT STOPS
- CAMPUS SHUTTLE STOPS
- TRANSIT CENTER
- CROSSWALKS
- PASSENGER DROP-OFF/PICK-UP (DESIGNATED)
- UNDERGROUND TUNNEL
- PEDESTRIAN BRIDGES
- UTILITIES INFRASTRUCTURE (UNDERGROUND)



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS
PEDESTRIAN CIRCULATION (cont.)

and vehicular solutions that benefit both the College and the City.

Healthy Living Loop

The Healthy Living Loop is a concept that College and community stakeholders embraced early during the development of the EFMP recommendations. The concept provides a publicly-accessible route around campus that would encourage walking, jogging, and bicycling, and would support healthy living educational experiences. It would be accessible by City of Walnut community members, although access through the Farm and physical education facilities may need to be restricted at times. Therefore, alternate routes would be provided, which would also provide variety in loop distance and experience (refer to the Pedestrian Circulation graphic on page 11.29). For example, the loop around the perimeter of the academic core is approximately 1.5 miles, while taking the route around campus, through the Farm and Athletics areas is about 2.5 miles. Where space allows, the Healthy Living Loop would include separate paths for cyclists and pedestrians. Where space is limited, cyclists would possibly need to be accommodated on adjacent roadways. At points where the Healthy Living Loop crosses vehicular traffic, the appropriate infrastructure would be provided to facilitate safety and to alert all parties of the crossing condition. Circuit stations, exercise equipment, and interpretive signage could be located along the Healthy Living Loop; and rest areas with shaded seating and water fountains or bottle filling stations could be located at appropriate intervals. The segment of the Healthy Living Loop that passes through the Farm would be coordinated with the Agricultural Literacy Trail.

Temple Avenue Green Corridor

As described in the Vehicular Circulation recommendations section, the Temple Avenue Green Corridor would be a multi-benefit project that includes enhancements for pedestrian circulation. As part of this project, sidewalks would be provided on both sides of Temple Avenue for the full length of Mt. SAC's property. These sidewalks would be considered secondary pathways in the pedestrian circulation hierarchy because of their connective function, however, an eight- to ten-foot width would be more appropriate than the fifteen-foot width noted in the Landscape Guidelines (found in the Appendix). Where the Healthy Living Loop follows the Temple Avenue sidewalk, an increased width would be appropriate. Other than the width, the design of the Temple Avenue Green Corridor sidewalks would reflect the recommendations for secondary routes in the Site Enhancement Concept: Pedestrian Circulation Hierarchy.

Grand Avenue Sidewalk Completion

As described in the Existing Facilities and Site Analysis chapter and reiterated in community meetings, the adequacy of perimeter pedestrian circulation connections between the campus and the surrounding community is inconsistent. Specifically, a sidewalk connection along the east side of Grand Avenue from San Jose Hills Road and extending north to Mountaineer Road and to the City of Walnut Timberline residential neighborhood is missing.

Mt.SAC and the City of Walnut have agreed to explore options to complete this sidewalk as a joint benefit to both the community and the campus.

Image of similar spaces at other colleges:



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS: SITE ENHANCEMENT CONCEPT

PEDESTRIAN CIRCULATION HIERARCHY

WHAT WOULD THIS CONCEPT ACCOMPLISH?

This concept establishes a hierarchy for the design of pedestrian circulation paths throughout the campus. It provides design concepts for primary, secondary, and tertiary pathways, as indicated in the Pedestrian Circulation narrative and graphics earlier in this chapter. Refer also to the Landscape Guidelines in the Appendix for applicable guidelines.

Primary Pathways and Miracle Mile

Primary pedestrian pathways would be a minimum width of 20 feet, as noted in the Landscape Guidelines. The total width of the pathway would include decorative paving borders along each edge. The borders would be one-fifth the total width of the walkway on each side. The decorative paving would be tan in color, to match the tan integral color concrete of the secondary pedestrian pathways, and have an exposed aggregate finish. The middle three-fifths of the walkway would be paved with poured-in-place concrete. The concrete would be standard gray color with a medium wash finish (to meet safety and accessibility requirements). Along the length of the walkway, 12-inch bands of poured-in-place concrete would be set perpendicular to the path of travel, at intervals equal to three-fifths of the walkway total width (or equal to the width of the standard gray poured-in-place concrete portion). The bands would be dark gray integral color with finish to match the adjacent standard gray concrete. The dark band would extend through the decorative paving borders and standard gray concrete area. The spacing of the bands would result in squares of standard gray concrete paving. Sawcut and construction joints in the concrete paving would

follow a square grid based on one-fifth the total walkway width. Refer to the graphic on page 11.37.

The design of Miracle Mile would follow the primary pedestrian pathway concept, but would also include program areas on either side of the walkway, as space and activity patterns allow. These program areas would be 10 feet wide, and follow the length of Miracle Mile to the greatest extent feasible. The program areas are intended to provide space for shade trees, seating, site lighting, signage, and use during events for pop-up tents and tables. The program areas would be paved with either decomposed granite or poured-in-place concrete. Decomposed granite would be stabilized and meet accessibility standards, and be tan in color; poured-in-place concrete would be brown integral color with a exposed aggregate finish. The most appropriate material (decomposed granite or concrete) would be selected for compatibility with site conditions. Where walkways intersect or join Miracle Mile, the program area paving would be the brown exposed aggregate concrete.

LEGEND

- PROPERTY LINE ---
- PERMANENT FACILITIES
- TEMPORARY FACILITIES
- MIRACLE MILE
- PRIMARY PEDESTRIAN CIRCULATION
- SECONDARY PEDESTRIAN CIRCULATION
- TERTIARY PEDESTRIAN CIRCULATION
- UNDERGROUND TUNNEL
- PEDESTRIAN BRIDGES
- UTILITIES INFRASTRUCTURE (UNDERGROUND)



SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS: SITE ENHANCEMENT CONCEPT PEDESTRIAN CIRCULATION HIERARCHY (cont.)

The design of Miracle Mile would include consistently spaced trees along both sides of the walkways, where conditions allow. Trees would be deciduous canopy trees. The species of trees could transition along the length of Miracle Mile as needed to maintain the health and diversity of the campus forest, however consistency of the visual character of the trees would be achieved to the greatest extent feasible.

There is also an opportunity for Miracle Mile to serve as a primary underground utility corridor across campus. To minimize the impact to walkway paving when repairs are needed, it is recommended to center the utilities beneath the minimum number of concrete panel widths necessary to accommodate the utilities (for example, center utilities between the concrete joints, so that if concrete is to be removed and replaced the repair can follow the existing joint pattern). It is also recommended to locate the utilities beneath the standard grey concrete paving, as it will be less costly to replace and easier to match to the existing paving in color and finish.

Secondary Pathways

Secondary pedestrian pathways would be a minimum width of 15 feet, as noted in the Landscape Guidelines. The pathway would be paved with poured-in-place concrete. The majority of the pathway concrete would be tan integral color, to match the color of the decorative paving band in the primary pedestrian pathway, with a medium wash finish (to meet safety and accessibility requirements). Along the length of the walkway, 12-inch bands of poured-in-place

concrete would be set perpendicular to the path of travel, at intervals equal to the total width of the pathway. The bands would be dark gray integral color with finish to match the adjacent tan concrete. The spacing of the bands would result in squares of integral color tan concrete paving. Refer to the graphic on page 11.39.

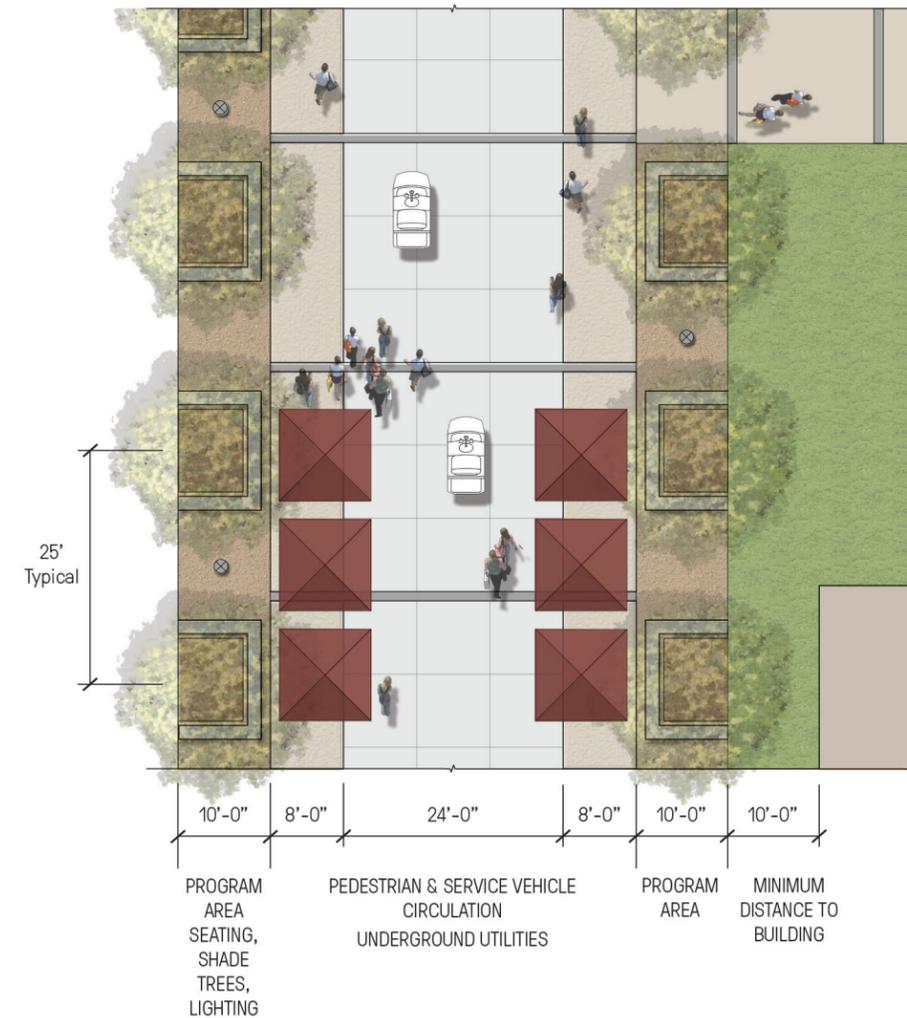
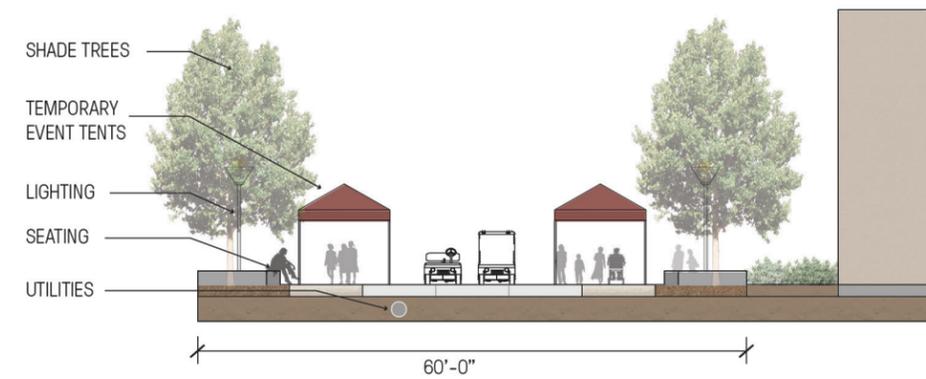
Tertiary Pathways

Tertiary pedestrian pathways would be a minimum width of six feet, as noted in the Landscape Guidelines. Generally, tertiary pathways would be a consistent paving material type, color, finish, and pattern within the project site. Options for recommended materials include tan or dark gray integral color poured-in-place concrete with a medium wash finish (to meet safety and accessibility requirements), or tan integral color poured-in-place concrete with a seeded aggregate finish. As tertiary pathways are contained within landscape sites, their design would be integrated with the overall design concept of the site project, and therefore may vary from these recommendations.

Based on the pedestrian circulation hierarchy design concepts, the College would establish standards for the specific paving material colors and finishes in order to achieve consistency across projects over time.

WHY IS A PEDESTRIAN CIRCULATION HIERARCHY NEEDED?

Currently, pedestrian circulation paths lack consistent design. As new projects are implemented and existing walkways are rehabilitated, this design concept would help



SITE AND INFRASTRUCTURE IMPROVEMENTS
 RECOMMENDATIONS: SITE ENHANCEMENT CONCEPT
PEDESTRIAN CIRCULATION HIERARCHY (cont.)

to develop consistency across the campus by establishing a hierarchy within the circulation system that helps to unify the campus character and facilitate intuitive wayfinding.

HOW WOULD THE HIERARCHY ADDRESS EDUCATIONAL PLANNING NEEDS?

Pedestrian circulation paths are the threads that tie all campus destinations together. Through consistent and legible design, that emphasizes universal access, this project would contribute to a welcoming environment throughout the College, and facilitate the use of outdoor spaces for instruction, study, gathering, and various other uses.

The design of any site improvement project on campus would incorporate these design concepts and guidelines for pedestrian circulation paths. If existing walkways are impacted by a facility or site improvement project, they would be replaced with walkways that follow these pedestrian circulation concepts and design guidelines (refer to the Landscape Guidelines in the *Appendix*).

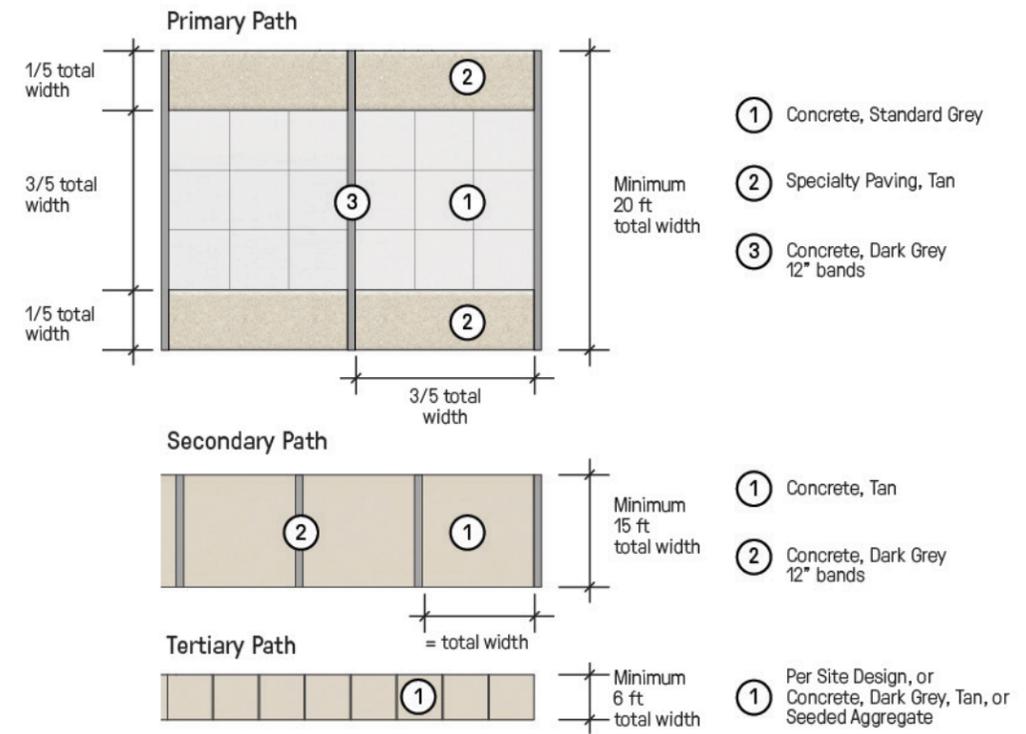


Image of similar spaces at other colleges:



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS

OPEN SPACE PROGRAMMING

Mt. SAC's open spaces currently support various uses and events, as described in Chapter 7: *Existing Facilities and Site Analysis*. The variety of open space typologies described in the Landscape Typology and Character section of that chapter would continue to be realized and enhanced throughout the development of the campus.

Students have offered feedback that existing indoor and outdoor student study and gathering spaces are overcrowded and insufficient. To address this condition, each new facility project would consider the inclusion of functional outdoor spaces that support the facility's users. Larger open spaces that support campus-wide users, or the users of multiple facilities in the vicinity would also be provided on the campus. These proposed spaces are described later in this section.

Chapter 3: *Instructional Programs* describes implications for facilities that are related to open space programming and the instructional programs. As educational objectives evolve, different types of open spaces are required. Several instructional programs expressed a need for an outdoor netted facility for unmanned aerial vehicles. If possible, this outdoor facility would be accommodated within one of the areas on campus identified for development. Other instructional programs have the need for an indoor-outdoor fabrication laboratory; the design of the Technical Education and Makerspace facilities would incorporate a courtyard or other protected outdoor space that can accommodate this use. Several instructional programs need a visually screened outdoor space for assault response training. Design of this type of space would be

developed in consultation with faculty from these programs to determine the requirements and appropriate location.

The Farm Precinct section of this chapter includes open space programming recommendations specific to the instructional programs that utilize that area of campus. The Natural Habitat and Urban Forest section in this chapter includes recommendations for the Wildlife Sanctuary.

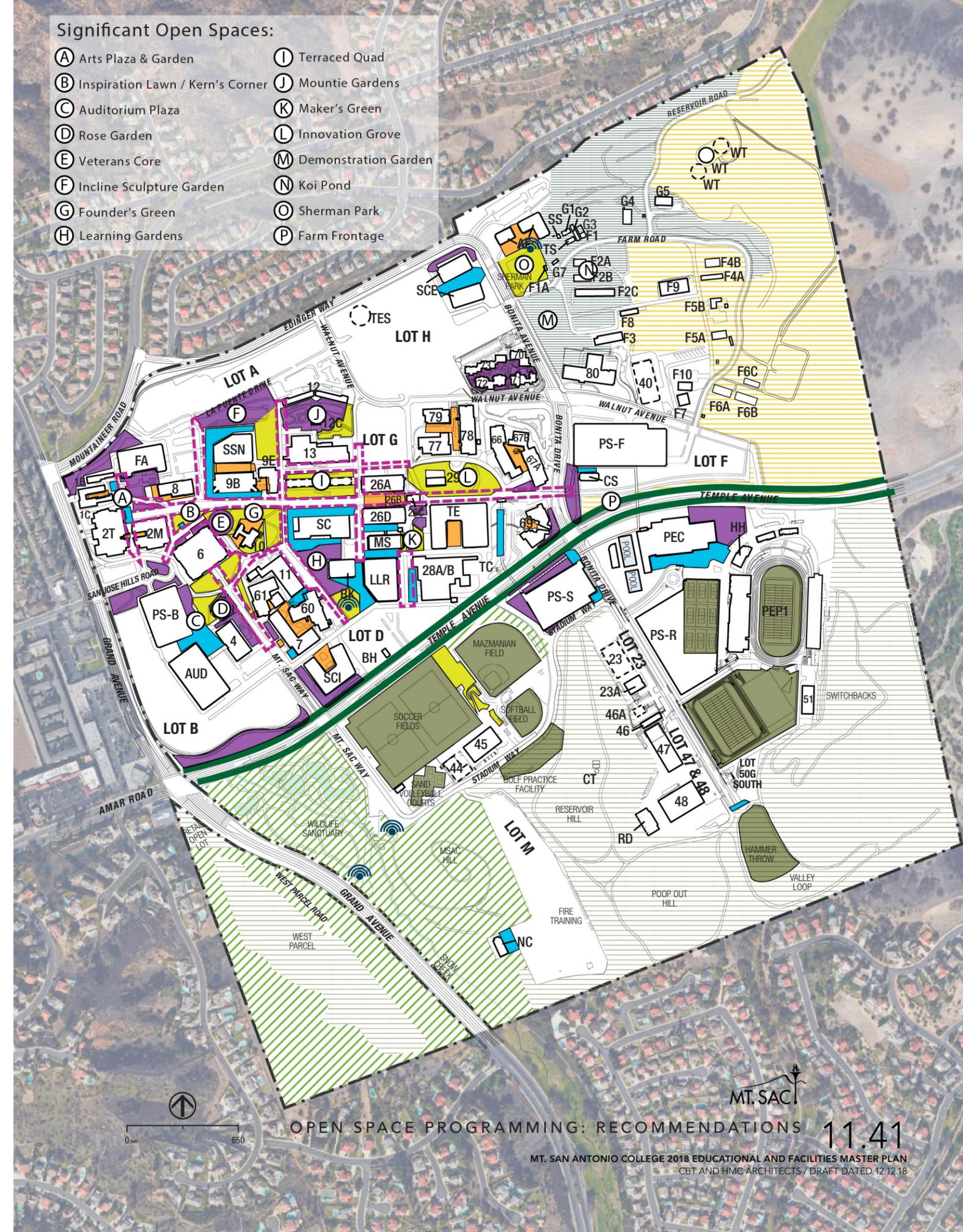
The EFMP planning approach for open space programming addresses Master Plan Themes identified in Chapter 6: *Master Plan Themes*. Open spaces throughout the campus would be programmed and designed to serve as outdoor instructional, demonstration, and/or performance spaces, where appropriate. Outdoor spaces would

LEGEND

- PROPERTY LINE ---
- PERMANENT FACILITIES
- TEMPORARY FACILITIES
- LAWNS
- SPORTS FIELDS / COURTS
- COURTYARDS
- GARDEN
- PLAZAS
- PEDESTRIAN CORRIDORS
- HABITAT
- SHARED USE OPEN SPACE
- FARM HORTICULTURAL SCIENCES (REFER TO FARM ENLARGEMENT)
- FARM ANIMAL SCIENCES (REFER TO FARM ENLARGEMENT)
- AMPHITHEATER
- GREEN CORRIDOR
- UTILITIES INFRASTRUCTURE (UNDERGROUND)

Significant Open Spaces:

- (A) Arts Plaza & Garden
- (B) Inspiration Lawn / Kern's Corner
- (C) Auditorium Plaza
- (D) Rose Garden
- (E) Veterans Core
- (F) Incline Sculpture Garden
- (G) Founder's Green
- (H) Learning Gardens
- (I) Terraced Quad
- (J) Mountie Gardens
- (K) Maker's Green
- (L) Innovation Grove
- (M) Demonstration Garden
- (N) Koi Pond
- (O) Sherman Park
- (P) Farm Frontage



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS
OPEN SPACE PROGRAMMING (cont.)

be designed for flexibility of use and universal access. The campus needs spaces that can accommodate small or large groups, and could be utilized by the community.

The Landscape Guidelines, found in the Appendix, recommends design strategies for gardens and lawns that are lush and green, while being sustainable and practical to maintain. It contains guidance on the selection of plant species that require little or no irrigation, on the use of water-efficient irrigation when it is needed, and on maintenance procedures such as composting and mulching.

The graphic on page 11.41 indicates the significant open spaces that would be preserved or developed as facility and infrastructure projects are implemented on the campus. A description of the intended programming and character for the primary open space typologies shown in the graphic within the academic core is included in the Landscape Typology and Character section in Chapter 7: *Existing Facilities and Site Analysis*.

OPEN SPACE PROJECTS

The following are descriptions of recommended projects.

Arts Garden Plaza

The Arts Garden Plaza is the western terminus of Miracle Mile. This project would renovate the existing outdoor space in front of the Sophia B. Clarke Theater to enhance its character as a focal point and destination. The Arts Garden Plaza would continue to support functions associated with the Performing Arts Center, as well as being

a casual campus-wide gathering space. Redesign would take into consideration its function during special events and everyday use to evaluate the most appropriate selection and layout of site furnishings, as well as the appropriate proportion of hardscape versus planted areas. Lawn areas that do not function as activity spaces would be converted to lower maintenance, less water-intensive plantings.

Inspiration Lawn / Kern's Corner

This space is the existing lawn located to the east of the Feddersen Recital Hall. It includes a fountain and seating area, which is utilized as an informal gathering space. The lawn provides flexible outdoor space, which is used freely by students on a daily basis, and also accommodates special events. The natural slope of the lawn and its location near the Performing Arts Center, Student Services, and Mountie Café make it a potential location for a small, informal performance platform/amphitheater and additional seating for outdoor dining.

Auditorium Plaza And Rose Garden

Refer to Site Enhancement Concept: West, later in this chapter for the description of this project.

Incline Garden

Refer to the Site Enhancement Concept: North, later in this chapter for the description of this project.

Founders Green

After the removal of Building 9C (refer to the section titled Removals in Chapter 12: *Implementation*), this site would be preserved as

Image of similar spaces at other colleges:



SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS OPEN SPACE PROGRAMMING (cont.)

open lawn and plaza space that expands upon the existing lawn spaces to the east and west of the site. This project would provide an open setting to reinforce Founders Hall as a landmark on campus, and provide a student-oriented flexible open space in close proximity to the Student Center. This project, in combination with the new Incline Garden, would address the Student Services themes in Chapter 6: *Master Plan Themes* regarding outdoor student gathering and assembly spaces that are needed to support a wide variety of activities (orientations, workshops, trainings, recognition events, and group activities).

Mountie Gardens

This is the existing open space to the north of the Design Technology Center. The space has been designed to provide universal access and small group study areas, within a setting of water-wise plantings and shade trees. The space is well used and well loved, and would be maintained to support ongoing use by students.

Terraced Quad

After permanent facilities have been constructed to house the Equity Center and the Campus Testing Center, the rectangular site that is framed by the Design Technology Center, Student Center, Student Success Center, and Humanities and Social Sciences would be preserved as a significant open space that functions as a traditional campus quadrangle. Being centrally located within the academic core and adjacent to Miracle Mile, the site has the potential to become the heart of the campus and a focal landmark; it would be an open and flexible outdoor space, utilized by the entire campus. The slope of the

site would be integrated as terraced seatwalls set in an open lawn. The space could serve as a large assembly area for special events, or casual lounging, study, socializing, and everyday use by students. Informally-arranged trees would provide a balance of sun and shade, while maintaining open views across the site to facilitate wayfinding. A universally-designed path would connect the terraced levels and provide circulation through the site between the Design Technology Center and the Student Center.

Library Gardens

Refer to Site Enhancement Concept: Central, later in this chapter for the description of this project.

Makers Green

This space is an existing lawn west of the recommended Technical Education Center and east of the recommended Makerspace facility. The lawn area would continue to function as an everyday lounging space and would also provide flexible open work and demonstration space to support the Makerspace and Technical Education facilities.

Innovation Grove

This project is the open space south of the Business and Computer Technology Center and north of the new Technical Education Center. This space would include water-wise mixed evergreen forest plantings with a grove of trees to provide shade and to extend the forest character of the pines around the Humanities and Social Sciences building to the west. Gathering and study areas with seating, access to electrical outlets, and appropriate night-time lighting would be provided.

This space would also accommodate garden space to grow table crops for use in the Hospitality and Restaurant Management Program's student-run restaurant.

Sherman Park

Sherman Park is an existing open space within the Farm Precinct. It would be maintained and improved as needed to continue its function for educational demonstration, events and scheduled activities, and casual recreational use. The option to integrate a small amphitheater within the slope at the northern corner would be considered to accommodate class demonstrations and other group events.

Demonstration Garden

The Demonstration Garden is an existing open space within the Farm neighborhood. It serves as an educational demonstration space where the Ornamental Horticulture Program cultivates various plant and tree species and tests landscape construction materials and methods for instructional purposes. It would continue to be maintained and improved as needed to support this function.

Koi Pond

The Koi Pond is an existing garden within the Farm precinct. It provides a peaceful space enjoyed by students, faculty, and staff from throughout the campus, while also serving as an instructional demonstration garden for the Ornamental Horticulture Program. It would continue to be maintained and improved as needed to support this function.

Farm Frontage

This project would provide an extension of open space between Temple Avenue and Parking Lot F, to be utilized as pasture by the Agricultural Sciences Program. It extends the pastoral setting of the Farm along a portion of the College's public frontage, buffering the parking lot from public view and enhancing the visibility of the Farm. The Farm Frontage would also provide a unique experience for pedestrians as they walk along the eastern portion of Miracle Mile, which would be adjacent to the pasture.

Veterans Core

A new plaza and 3-D public art installation that honors veterans of all five US military services through the display of service seals, insignia, and badges. The Veterans Core would be centrally located on the campus near Founders Hall.

SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS: SITE ENHANCEMENT CONCEPT
WEST

HOW WOULD THIS AREA BE DEVELOPED?

This site concept describes the development of open space and pedestrian circulation associated with the Auditorium and Parking Structure PS-B facilities. It would include open plaza space between the two buildings to support outdoor events and ingress/egress of visitors. The project would provide a relatively level area between the Auditorium, Parking Structure PS-B, the Rose Garden, and the Mt. SAC Way Promenade (described in the Pedestrian Circulation Recommendations section). It would also include an open, sloping lawn between the Rose Garden and Parking Structure PS-B. Stormwater management would be addressed through low-impact development strategies, seamlessly integrated with the site's design.

WHY IS THIS AREA IMPORTANT?

This area encompasses the interface between the most visible edge of campus and the community, as well as the campus' main gateway entry point and "front door." Key facilities, open spaces, and vehicular and pedestrian circulation routes populate and converge within this area, and planning is complicated by the sloping topography.

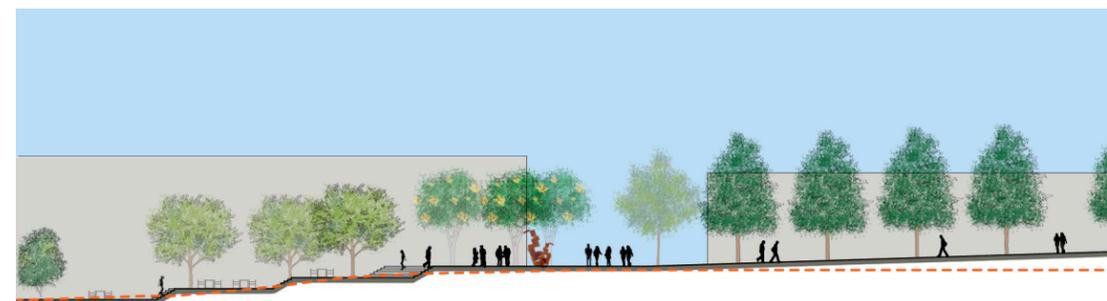
Together, Mt. SAC and the City of Walnut are exploring opportunities to improve town-gown connections between this area of campus and neighboring properties across Grand Avenue. Refer to the section titled Future Asset Development in Chapter 12: *Implementation* for a description of the Community-oriented Uses Development Zone.

HOW WOULD THIS CONCEPT ADDRESS EDUCATIONAL PLANNING NEEDS?

Through the design of pedestrian pathways and outdoor spaces, universal design would be emphasized to ensure access and a welcoming environment. The flexible design of the plazas and lawn would support a wide variety of activities, such as orientations, workshops, training, recognition events, and group activities, as well as the capacity to accommodate events of various sizes. With the area's proximity to parking, it would also be easily accessed and utilized by the wider community.

RECOMMENDATIONS

The proposed locations of the Auditorium and Parking Structure PS-B provide an opportunity to incorporate a plaza between the structures. The new facilities would also require universally-designed pedestrian circulation, connecting to parking and other campus facilities. The lobbies of both facilities would open directly onto the Events Plaza. Grade changes between the Events Plaza and Parking Lot B would be navigated by outdoor stairs and elevators within Parking Structure PS-B and the Auditorium. The plaza would terrace down to integrate the change in grade between it and the west side of Administration Building 4. The project includes a large service area to support the Auditorium and Administration Building 4, as well as an expansion of the accessible parking lot at the south end of Administration Building 4. Secondary pedestrian paths would connect the Auditorium, Parking Structure PS-B, and Events Plaza to the Fine Arts Complex and vehicular pick-up/drop-off to the north, as well as the Rose Garden and Mt. SAC Way Promenade to the east.



Existing Grade - - - - - 0 25' 50'

SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS: SITE ENHANCEMENT CONCEPT
WEST (cont.)

Images of similar spaces at other colleges:



- KEY**
- 1. Events Plaza
 - 2. Sloped Lawn
 - 3. Rose Garden
 - 4. Elevator
 - 5. Stairs
 - 6. Stepped Plaza
 - 7. Service Area
 - 8. Accessible Parking and Passenger Loading
 - 9. Mt. SAC Way Promenade
 - 10. Secondary Paths
 - 11. San Jose Hills Passenger Loading



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS: SITE ENHANCEMENT CONCEPT
NORTH

HOW WOULD THIS AREA BE DEVELOPED?

This site concept describes the development of the open space associated with the Student Services North facility to transform the “back door” of the Student Services area into a new front door entry experience. It would include universal pedestrian circulation from Parking Lot A, a new pick-up/drop-off area, and an accessible parking lot. The existing slope north of Student Services North would be developed into the Incline Garden with opportunities for site-specific art installations. A large open plaza would be provided between the terraced garden and Student Services North building, and a courtyard with an overhead canopy would bridge the two Student Services buildings at a lower level. Stormwater management would be addressed through low-impact development strategies seamlessly integrated with the site’s design.

WHY IS THIS AREA IMPORTANT?

Providing a student-oriented “front door” experience, inviting outdoor spaces, and strong connections to the campus pedestrian circulation system would encourage students to frequent this area and connect to support services that increase their likelihood of successfully achieving their educational goals.

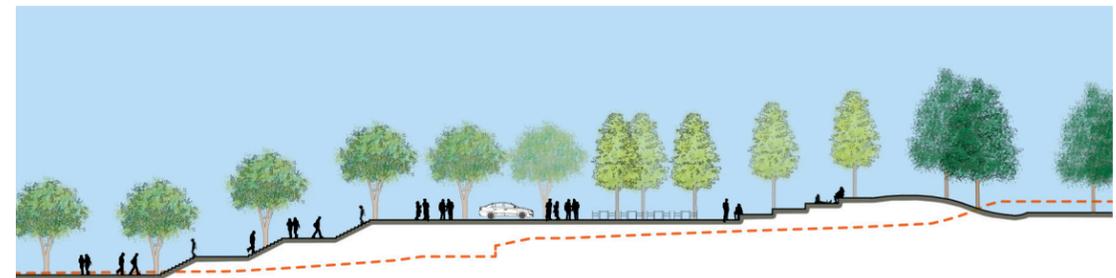
HOW WOULD THIS CONCEPT ADDRESS EDUCATIONAL PLANNING NEEDS?

The concept for creating a Northern Campus Arrival Experience aims to provide exterior spaces where Student Services can host program activities, set up displays, and organize interactions. Universal design would be emphasized to ensure access and a welcoming

environment. The exterior spaces would be designed to support a wide variety of activities, such as orientations, workshops, training, recognition events, and group activities; as well as groups of various sizes. With the area’s proximity to parking, it would also be easily accessed and used by the wider community.

RECOMMENDATIONS

The Student Services facilities must be easily accessible and close to welcoming outdoor spaces that support the services provided. Parking Lot A would be regraded to provide universal access between that parking lot and the Student Services facilities. A primary pedestrian pathway would bring visitors from Parking Lot A to an open plaza and the second level lobby of Student Services North. A designated pick-up/drop-off zone and bike parking area would be located at this same elevation, to the west of the plaza. The first level of Student Services North would be accessed directly from an accessible parking lot at its lower level, and via outdoor viewing steps or an indoor elevator from the Parking Lot A primary pathway. The open space to the east of Student Services North would be minimally developed with a sloping lawn, and could serve as a future building site, should new facilities be needed in Mt. SAC’s future (refer to the section titled Future Asset Development in Chapter 12: *Implementation*). The primary path would continue from the viewing steps and covered courtyard, past Mountie Café to Miracle Mile. A secondary pedestrian path would extend to the east from the covered courtyard.



Existing Grade - - - 0 25' 50'

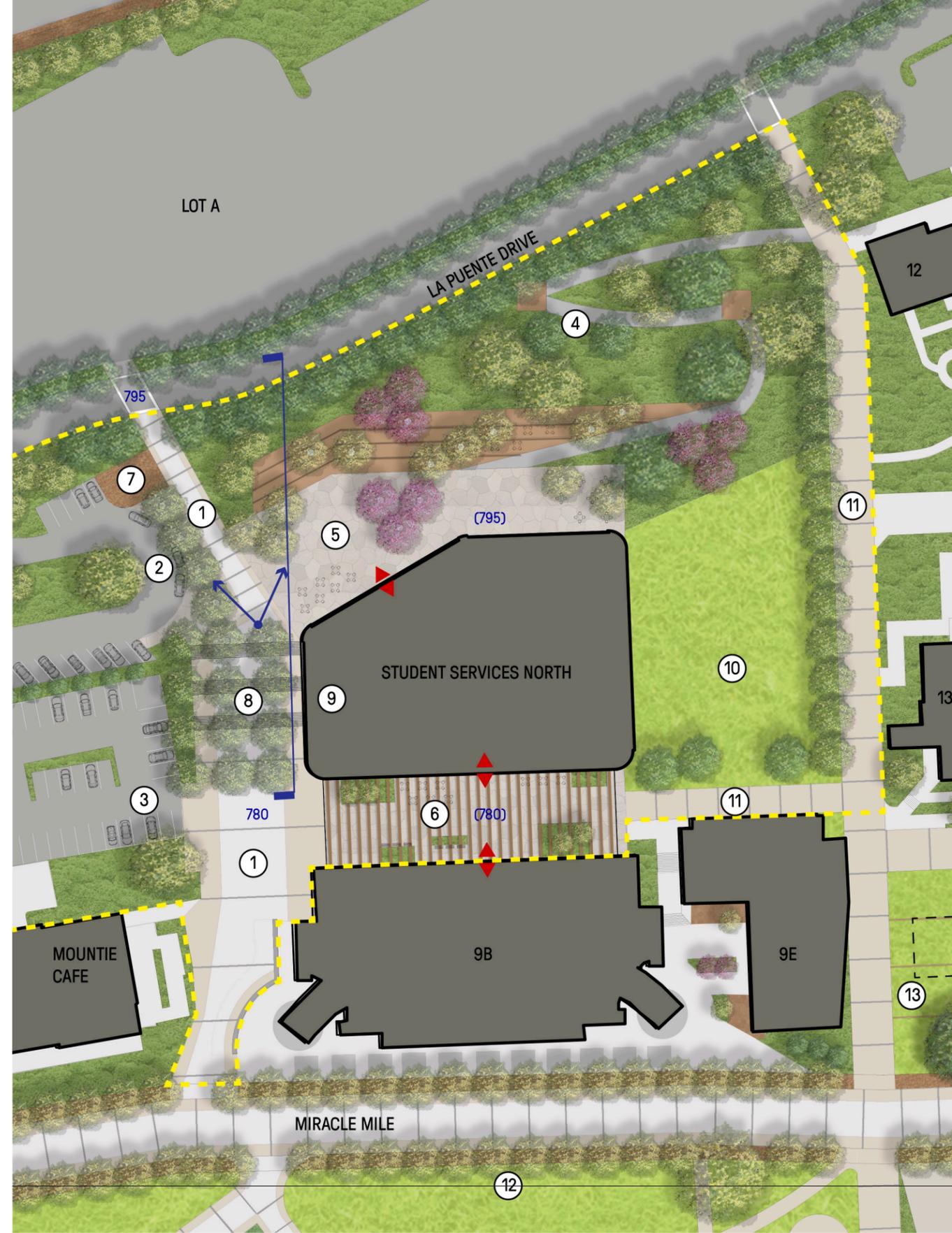
SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS: SITE ENHANCEMENT CONCEPT
NORTH (cont.)

Images of similar spaces at other colleges:



KEY

1. Accessible Primary Path
2. Passenger Loading
3. Accessible Parking
4. Incline Garden
5. Open Plaza
6. Covered Courtyard
7. Bicycle Parking
8. Viewing Steps
9. Elevator
10. Lawn / Potential Future Building Site
11. Secondary Paths
12. Founders Green
13. Terraced Quad



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS: SITE ENHANCEMENT CONCEPT
CENTRAL

HOW WOULD THIS AREA BE DEVELOPED?

This site concept describes the development of the open space and pedestrian circulation associated with the recommended Library/Learning Resources, Bookstore, and Student Center facilities. It would include a series of outdoor rooms nestled among garden plantings, with a sunken lawn framed by seating steps. Stormwater management would be addressed through low-impact development strategies seamlessly integrated with the site's design, including a detention area within the sunken lawn.

WHY IS THIS AREA IMPORTANT?

This central area of the academic core would encompass campus-wide resources and hubs for collaboration among students, faculty, and staff. Its signature buildings and open spaces would be most strongly identified with the College as an exemplary institution of higher education. Circulation and open space design in this area is challenged by demanding programmatic requirements and sloping topography, highlighting the need for more in-depth planning.

HOW WOULD THIS CONCEPT ADDRESS EDUCATIONAL PLANNING NEEDS?

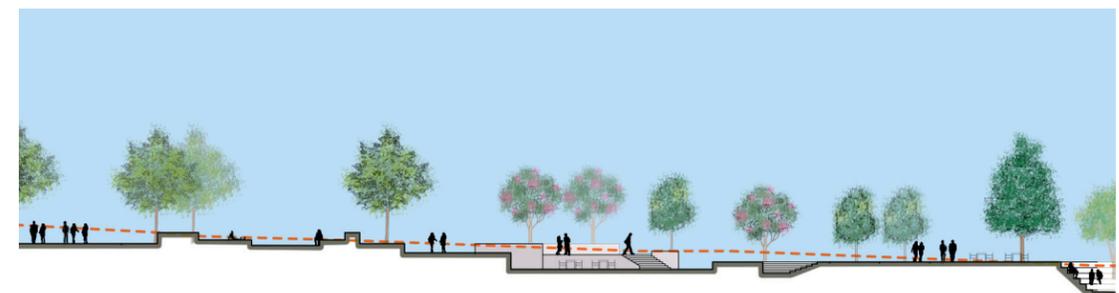
The primary goal of the Learning Gardens project would be to provide outdoor spaces for students to gather and study in outdoor garden rooms. The plaza and lawn would also support a wide variety of activities, such as orientations, workshops, training, recognition events, and group activities; as well as to support events of various sizes, including those that would be held in the Student Center's event spaces. With the area's proximity to parking it would also be easily accessed and

utilized by the wider community. Universal design would be emphasized to ensure access throughout the site and to provide a welcoming environment for all.

RECOMMENDATIONS

Removal of Building 19B and the modular buildings in this area would provide an opportunity for an open space project to support the Library/Learning Resources facility and the need for more outdoor study space for students. The location would be visible from Temple Avenue and enhance the public image of the College. The site would serve as an entrance to the College from Parking Lot D and provide a new designated pick-up/drop-off zone in Parking Lot D. A universally-designed secondary pathway would lead from Parking Lot D to the lower level of the Student Center, and connect to a universally-designed pathway within Founders Green to Miracle Mile. A plaza at the pick-up/drop-off zone would support ingress/egress of visitors to the first-level lobby of the Library/Learning Resources facility. A series of outdoor steps would connect to an upper plaza at the second-level lobby of the Library/Learning Resources facility and the first level of the Bookstore. The upper plaza would be connected to the first level of the Student Center by a universally-designed path.

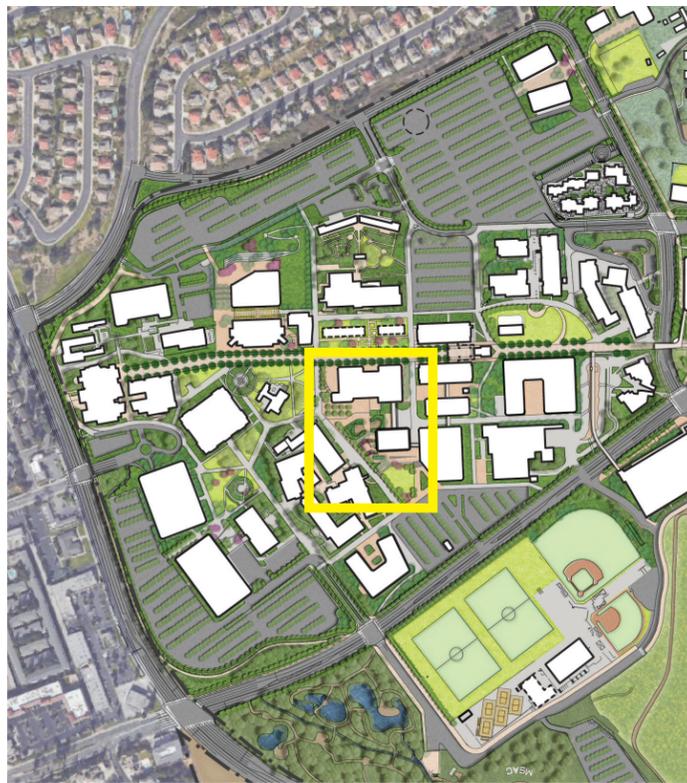
The design of this site area would be coordinated with the Student Center project, in particular its South Plaza and Service Area. Universal pathways would provide access to the outdoor garden rooms from multiple points of access.



Existing Grade - - - 0 25' 50'

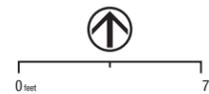
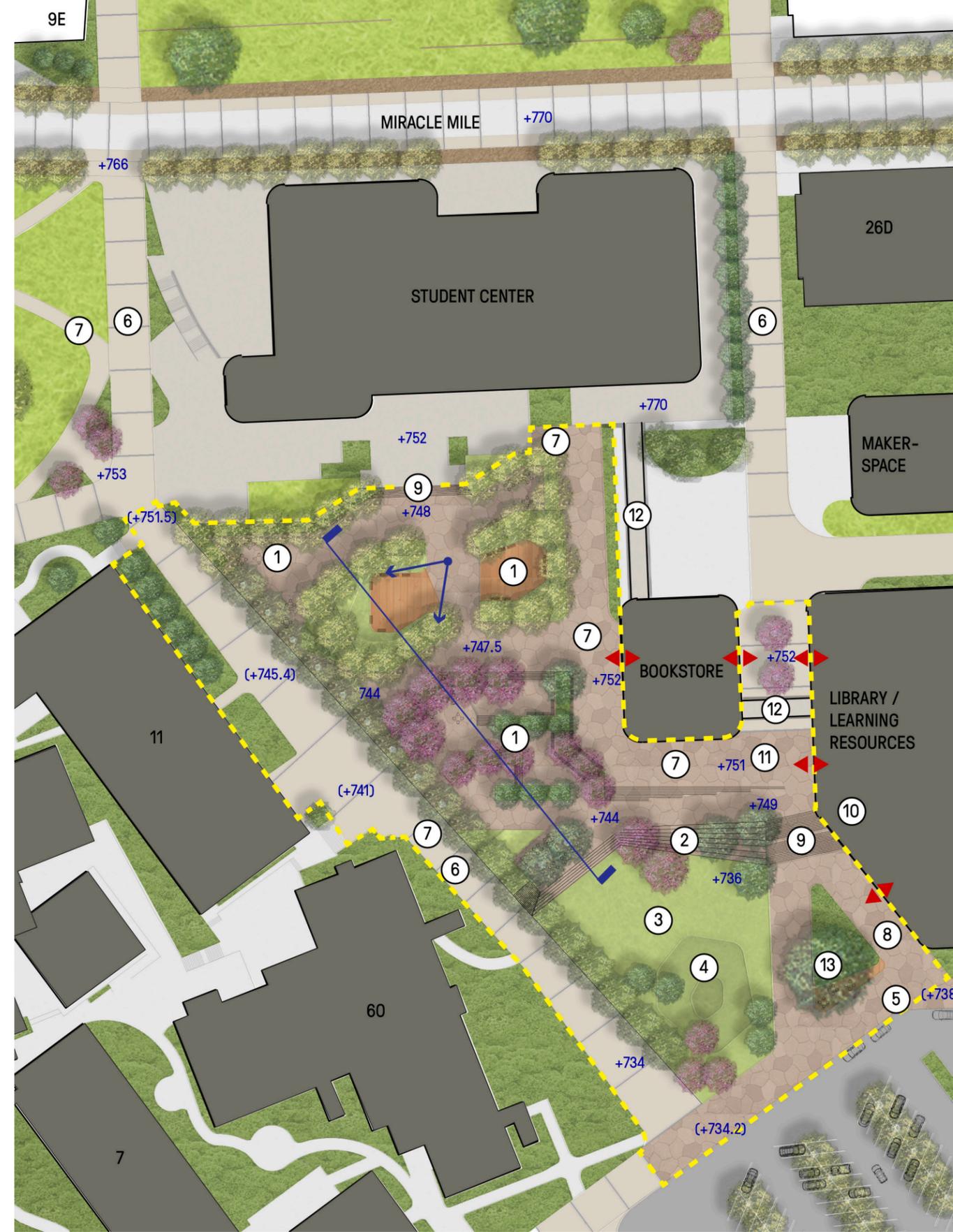
SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS: SITE ENHANCEMENT CONCEPT
CENTRAL (cont.)

Images of similar spaces at other colleges:



KEY

- 1. Outdoor Garden Rooms
- 2. Seating Steps
- 3. Sunken Lawn
- 4. Stormwater Detention
- 5. Passenger Loading
- 6. Secondary Path
- 7. Accessible Path
- 8. Lower Lobby Plaza
- 9. Stairs
- 10. Elevator
- 11. Upper Lobby Plaza
- 12. Pedestrian Bridge
- 13. Specimen Tree or Public Sculpture



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS

NATURAL HABITAT AND URBAN FOREST

The natural habitat areas of Mt. SAC's campus are an educational resource for the College and students in the region, and they provide ecological performance to improve air quality, micro-climate, stormwater quality, and wildlife habitat. The natural habitat areas indicated in the graphic on page 11.61 would continue to be maintained in a manner that supports and balances ecologically healthy plant and wildlife communities with educational objectives. Refer to Chapter 7: *Existing Facilities and Site Analysis* for background information on Mt. SAC's natural habitat areas.

NATURAL HABITAT AND URBAN FOREST PROJECTS

The following are descriptions of recommended projects.

Wildlife Sanctuary Improvements

The Wildlife Sanctuary is a unique educational resource for both the College and the wider communities. The EFMP recommendations align with the Wildlife Sanctuary's goals.

- o Support its primary use as a learning lab
- o Provide a secure habitat that is protected under a restrictive covenant that allows instructional uses
- o Support guided access by the public, and secure against unaccompanied public access

In order to support the Wildlife Sanctuary's goals, improvements are needed to both secure the site and improve access to it. The entire area of the Wildlife Sanctuary would be enclosed by fencing that prevents unauthorized access. Authorized access would be improved

by the recommendations for the Mt. SAC Way Promenade, described in the Pedestrian Circulation section earlier in this chapter, which would develop a strong pedestrian linkage between the Wildlife Sanctuary and the academic core of campus. Access would also be improved by providing a dedicated bus loading and bus parking zone, as recommended in the 2017 *Parking and Circulation Master Plan*.

It is important to state that the Wildlife Sanctuary Improvements project will not alter areas whose use is governed by Mt. SAC's natural habitat restrictive covenant agreement and the terms of jurisdictional habitat mitigation permits. These areas are illustrated by the Existing Campus Natural Habitat and Urban Forest graphic in Chapter 7: *Existing Facilities and Site Analysis*.

New trails would be developed, to link the entrance of the sanctuary to the recommended Nature Center. New trails would be routed outside of the restrictive covenant area, to avoid conflicts with the requirements of the covenant agreement. A gate would be provided at the southern property line and Snow Creek, so that students and tour groups could easily see the contrasting conditions of Snow Creek within the sanctuary and in the adjacent residential community.

Visibility and awareness of the Wildlife Sanctuary and the resources within it would be enhanced through upgraded signage. Site identification signage near the Wildlife Sanctuary entrance at Temple Avenue and Mt. SAC Way would describe the site's features, purposes, and restrictions, and include contact information. The main entry at



SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS NATURAL HABITAT AND URBAN FOREST (cont.)

Lot W would have an enhanced gateway feature, and wayfinding and educational signage would be provided throughout the sanctuary. All new signage would be consistent with campus-wide signage design (refer to the Wayfinding and Signage section of the Landscape Guidelines in the Appendix), but establish an identity unique to the Wildlife Sanctuary.

The use of the Wildlife Sanctuary as a learning laboratory would be supported by the addition of a Nature Center facility next to the sanctuary. This facility is described in Chapter 10: *Facilities Recommendations*. It would include outdoor space that is designed to serve as an outdoor classroom, a starting point for tours, and an overlook for bird watching and viewing the habitat area. The outdoor spaces at the Nature Center would be universally accessible.

The Wildlife Sanctuary would be further enhanced for instructional use by completing the desert habitat area. The Sanctuary's function as habitat is supported by the portion of natural grazing land located along the College's southern boundary. This land acts as a corridor, connecting the habitat of the Wildlife Sanctuary with the habitat of Cal Poly's former Spadra Landfill site adjacent to Mt. SAC.

The Wildlife Sanctuary would benefit from the use of a new restroom building, to be shared with athletics facilities and located at the new sand volleyball courts (described in the Minor Projects section of Chapter 10: *Facilities Recommendations*).

Additional site and infrastructure improvements include:

- Removing debris from Snow Creek within the Wildlife Sanctuary
- Providing hose bibs at appropriate locations throughout the Wildlife Sanctuary, for hand-watering seedlings
- Providing small storage sheds at appropriate locations in the Wildlife Sanctuary. Storage is needed for the Anthropology department's archaeology laboratory, in particular
- Upgrading existing temporary amphitheatres or replacing them with permanent amphitheatres, and adding audio/visual capabilities
- Upgrading existing temporary bridges, weirs, and small structures or replacing them with permanent structures

LEGEND

---	PROPERTY LINE
[Solid Box]	PERMANENT FACILITIES
[Dashed Box]	TEMPORARY FACILITIES
[Green Box]	TREE CANOPY
[Red/White Stripes]	NATURAL HABITAT: RESTRICTIVE COVENANT, RESTRICTED ACCESS
[Blue/White Stripes]	NATURAL HABITAT: NOT IN RESTRICTIVE COVENANT, RESTRICTED ACCESS
[Yellow/White Stripes]	NATURAL HABITAT: LIVESTOCK MANAGEMENT
[Blue Box]	NATURAL HABITAT: WATER
[Dotted Box]	WILDLIFE SANCTUARY
[Green Circle]	SPECIMEN TREE
[White Circle]	UTILITIES INFRASTRUCTURE (UNDERGROUND)



SITE AND INFRASTRUCTURE IMPROVEMENTS
RECOMMENDATIONS
NATURAL HABITAT AND URBAN FOREST (cont.)

A portion of the future asset development area in Parking Lot B, north of Temple Avenue, could be considered for an opportunity to extend the educational learning laboratory function of the Wildlife Sanctuary. This area could serve as a learning laboratory with more direct human intervention and experimentation, as a comparison to the natural maintenance of the existing Wildlife Sanctuary. It could also allow unaccompanied public access with the site designed appropriately for public safety. This site could accommodate a future Sustainability Institute, as described in the Future Asset Development section of Chapter 12: *Implementation*.

Urban Forest Initiative

Mt. SAC's Facilities Planning & Management department has set a goal of planting 4,000 new trees on the campus within the next ten years. Campus trees provide a multitude of benefits, including shade, heat island mitigation, improved air quality, reduced stormwater run-off, enhanced visual character, slope stabilization, natural habitat, and educational opportunities. To the greatest extent feasible, primary and secondary walkways through campus would be lined with trees, and open spaces would also include trees that would provide shade, support educational objectives, and support the campus landscape character. The Natural Habitat and Urban Forest graphic on page 11.61 shows the approximate coverage of the campus urban forest based on the EFMP recommendations. It also indicates the existing specimen trees that are likely to be impacted by development projects. These trees would be protected or relocated, as determined by an arborist and in keeping with the project's resources

and requirements. Refer to the section on Planting and the Campus Forest in the Landscape Guidelines in the *Appendix* for additional recommendations.

To further support the College goal of increasing and diversifying the campus' urban forest, the EFMP recommends the development of a tree inventory that documents every tree on the campus. The tree inventory would be used regularly to track the condition of individual trees, species performance, overall age and species composition of the campus forest, insect and disease problems, tree removals and replacements, tree impacts to infrastructure, and maintenance scheduling and expenditures. The College would reference information provided by the International Society of Arboriculture when developing the format for the inventory; the U.S. Forest Service is also a helpful resource for evaluating tree inventory software programs.

Joining the Arbor Day Foundation's Tree Campus USA program would also support Mt. SAC's commitment to its urban forest. The program is intended to promote healthy trees and student service and learning opportunities. The guidelines provided for Campus Forest Management in the Landscape Guidelines (found in the *Appendix*) support the requirements of the Tree Campus USA program.



SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS FARM PRECINCT

This section describes the EFMP recommendations for Mt. SAC's learning laboratories for the Agricultural Sciences, which are focused on the approximately 75 acres of the Farm Precinct located north of Temple Avenue, as shown in the graphic on the opposing page. All of the following recommendations would support the Farm's use as state-of-the-art indoor-outdoor teaching laboratories.

The EFMP recommends a site grading and infrastructure project as the first step to implement a long-term vision for the Farm Precinct and prepare for further development. This long-term vision informs the scope of the infrastructure project, and would be studied by readers who are involved with programming and designing future Farm Precinct projects. Refer to the section titled Future Asset Development, in Chapter 12: *Implementation*, for a description of the Farm Precinct Future Asset Development Zone.

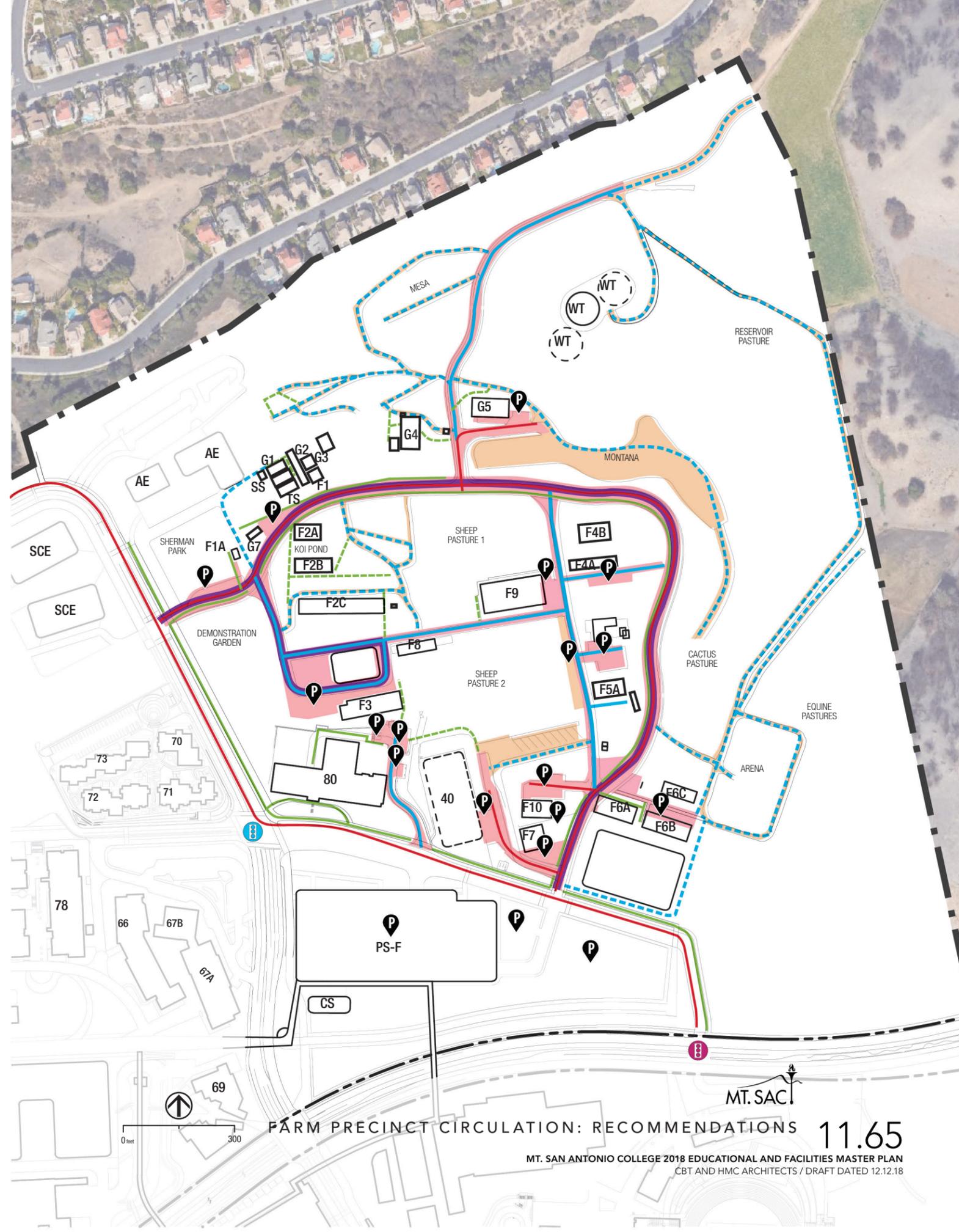
The recommended project would improve the Farm Precinct for future development by regrading, developing roadways and parking, and completing the stormwater management systems and site utilities infrastructure, including two new underground water tanks adjacent to the existing water tank on Reservoir Hill. These improvements are intended to provide the Farm Precinct with the level of services provided in the academic core of the campus and prepare it for development that would make the best and highest use of this 110-acre area. This project would provide necessary infrastructure improvements including domestic water, irrigation, site lighting, and access to current technology for educational use.

The Farm Precinct recommendations support the following objectives.

- Improve circulation to and within the Farm
- Improve and complete all utilities infrastructure systems—including, but not limited to, domestic water, storm water, irrigation, and lighting—to fully support its use in a sustainable and efficient manner
- Address the need for short-term repairs and upgrades

LEGEND

	PROPERTY LINE
	PERMANENT FACILITIES
	TEMPORARY FACILITIES
	PAVED VEHICULAR
	UNPAVED VEHICULAR
	DELIVERY TRUCK ROUTE, PAVED
	DELIVERY TRUCK ROUTE, UNPAVED
	PUBLIC VEHICULAR ROUTE, PAVED
	SERVICE VEHICLE ROUTE, PAVED
	SERVICE VEHICLE ROUTE, UNPAVED
	PEDESTRIAN (NON-VEHICULAR) ROUTE, PAVED
	PEDESTRIAN (NON-VEHICULAR) ROUTE, UNPAVED
	BUILDING ENTRANCE
	GATE
	PARKING
	EXISTING SIGNAL
	UTILITIES INFRASTRUCTURE (UNDERGROUND)



SITE AND INFRASTRUCTURE IMPROVEMENTS RECOMMENDATIONS FARM PRECINCT (cont.)

FARM INFRASTRUCTURE IMPROVEMENTS PROJECT

Infrastructure upgrades would be prioritized as the first phase of work to improve the Farm, in order to provide the foundation for future facilities reorganization and improvements within the precinct. Circulation, water, and stormwater infrastructure would be the focus of these recommendations; however, lighting, communications, and irrigation system upgrades would be recommended as well.

Addressing Educational Needs

Infrastructure upgrades would set the framework for all future facilities reorganization and primary improvements within the Farm precinct, with the objective of supporting its use as a state-of-the-art indoor-outdoor teaching laboratory. Upgrades to circulation within the Farm would support the completion of the Agricultural Literacy Trail. Educational signage along circulation routes would be included as part of the improvements.

Project Scope

The scope of this project would focus on circulation, stormwater management, lighting, communications, water infrastructure, and irrigation infrastructure. Circulation enhancements and realignment of Farm Road, Reservoir Road, and internal service circulation would include regrading and roadway reconstruction that includes pedestrian pathways, street lighting, stormwater management, and landscaping. Roadways would include underground utilities corridors where required. This would also include the removal of old Dairy Unit F3A and the relocation of the sow pens. Implementation

of a traffic control program to restrict public vehicular access to service roads would also be recommended. Irrigation efficiency upgrades would be provided throughout the Farm, and high-speed access to Mt. SAC's telecommunications network would be expanded.

FARM ROAD

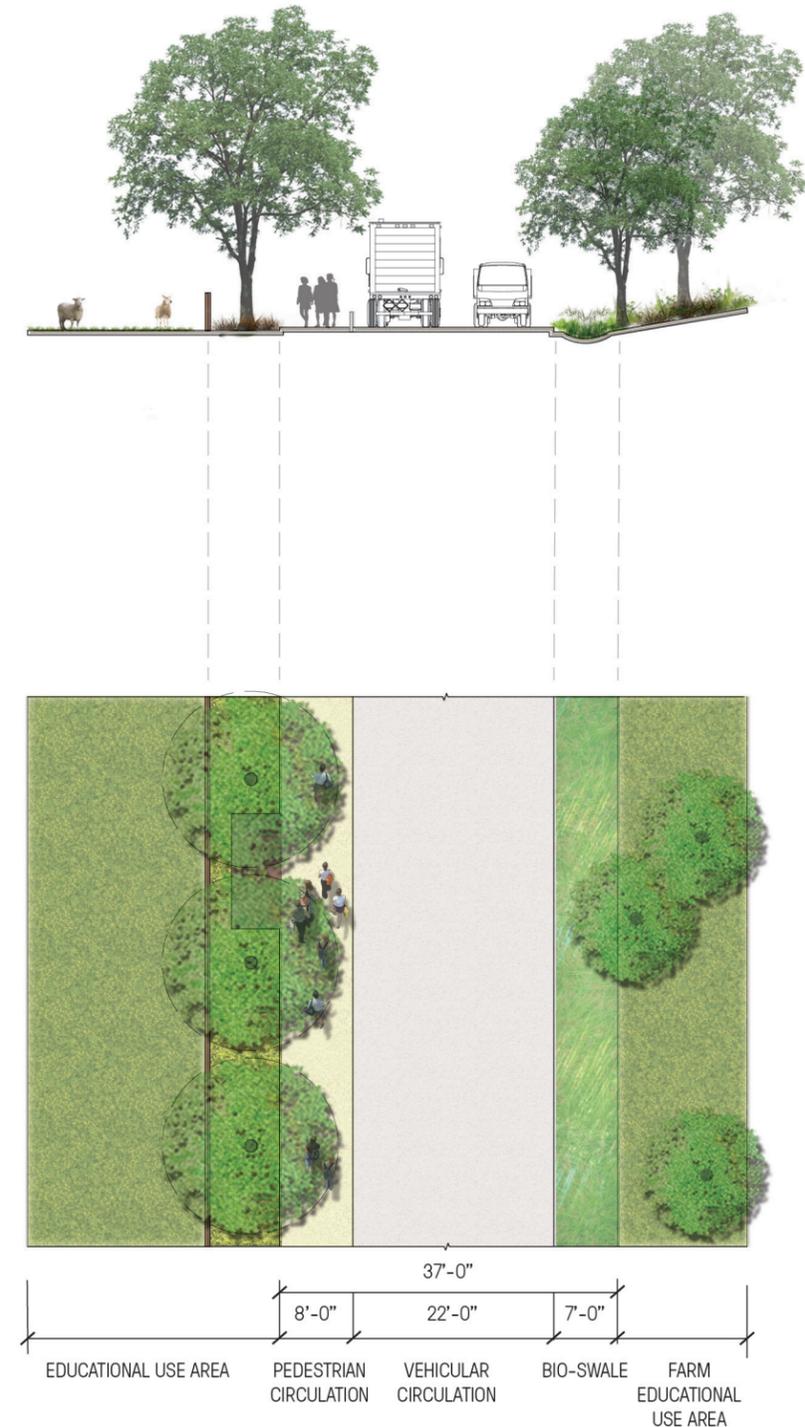
Farm Road's existing alignment bisects the animal facilities and does not safely and efficiently accommodate its many different users. This project would realign Farm Road and provide better separation between public and service traffic, combined with a "complete streets" approach that addresses stormwater and the needs of all users (vehicular, pedestrian, and animal). Special consideration would be given to the requirements of large delivery trucks and the facilities they need to access. The Farm Road: Recommendations graphic on the opposing page illustrates a typical section of the road.

SITE LIGHTING

As circulation and facility projects are implemented, lighting that is adequate for supporting safe evening and night-time use of the facility or outdoor space would be included.

IRRIGATION

The outdated irrigation infrastructure would be replaced with a centralized system fed by a single water source, separated from potable water. The improvements would increase overall water efficiency and economy, provide better control for fertilizer injections, and provide the ability to add reclaimed water when the main lines are extended to the Farm Precinct.



POTABLE WATER TANKS

The project would also build two new potable water storage tanks and replace portions of the campus water distribution system. The new tanks would be constructed underground, near existing water tanks located on high ground at the north-eastern portion of campus. The higher elevation is used to pressurize Mt. SAC's water distribution system. The two new tanks would allow Mt. SAC's potable water supply system to keep pace with growing needs by increasing its storage capacity, which currently comprises an existing one-million-gallon water tank and four existing 25,000-gallon supplemental tanks. Refer to the section titled *Utilities Infrastructure*, in the *Appendix*.