SAN JOSÉ STATE UNIVERSITY

LANDSCAPE MASTER PLAN

JUNE 2013

San José State University
Landscape Master Plan

Update

June 2013

Prepared for San José State University

by WRT

CONTENTS

I. THE PURPOSE OF THIS PLAN

This plan is intended to be an update of the 1995 Landscape Master Plan. After almost 20 years, major elements of the 1995 plan have been implemented, transforming the campus landscape as well as the larger campus experience.

Whereas the 1995 plan instituted major structural changes to campus—the conversion of 7th, 9th and San Carlos streets into pedestrian malls or paseos; the development of the Central Plaza on 7th Street; the crossroads plaza at the junction of 7th and San Carlos streets; the Humanities Quad on 9th Street; and the development of the first phase of the new student housing village and residential quad on 9th Street—this update has a specific focus on updating the campus' plant material and secondary public spaces.

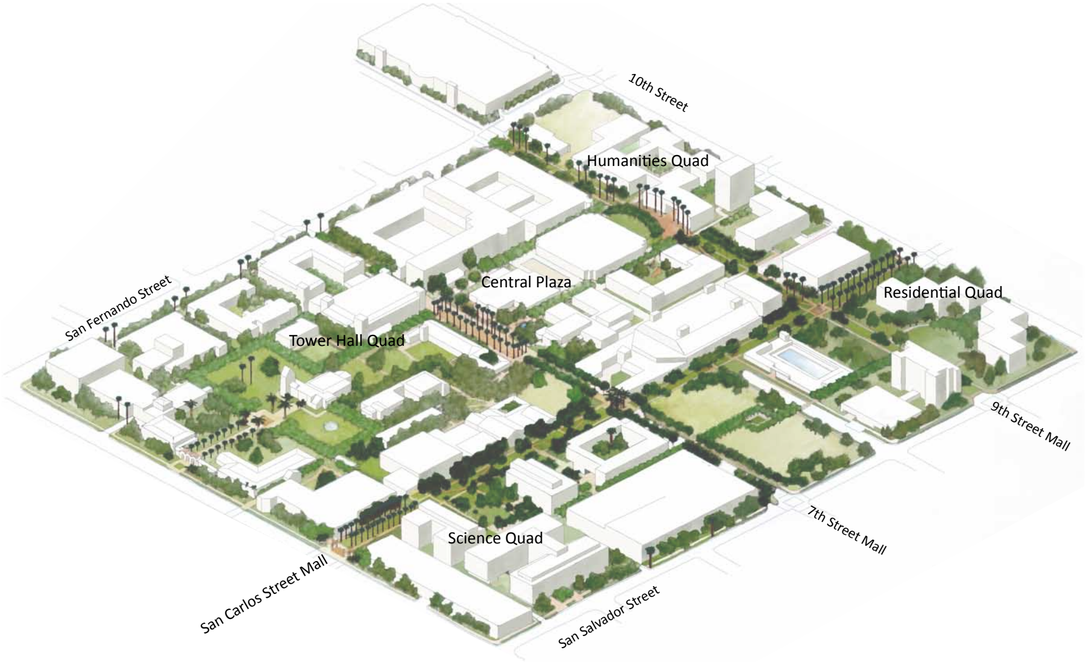
Since these major campus improvements were made—and, moreover, in the decades since much of the campus urban forest was first developed—changes have occurred in the regional ecology as a result of climate change that have caused certain species to struggle. Other specimens have simply reached the end of their productive lives. Much of the campus' understory is similarly overgrown and in need of renewal.

Maintaining a healthy and ecologically productive urban forest requires a consistent program of replenishment and replacement that maintains diversity both of maturity and type of species in an ongoing and deliberate way. This renewal process can be part of the day-to-day operations and maintenance of the campus landscape if plant maintenance is balanced with plant replacement on a regular and continual basis.

Overall, the campus represents a unique and rich mix of species that contribute to its distinctive character and environment. This plan looks at the totality of campus landscape resources and outlines a plan to build on its assets, while transforming elements that are not as successful. The plan should offer clear guidance to campus administrators, facilities staff and designers for a wide range of campus improvement strategies from day-to-day maintenance and operations practices to simple, short-term plant replacement projects to longer term capital improvements projects. The goal of the plan is to provide clear direction related to species selection and planting composition tailored to the various conditions and contexts around campus.

II. LEGACY LANDSCAPE

The 1995 Landscape Master Plan set a bold agenda for the campus landscape that recognizes the power of the historic landscape in creating campus identity as well as clear strategies that build upon and strengthen that identity. The plan's strategies are rooted in seven fundamental principles, which are as relevant today as they were in 1995.

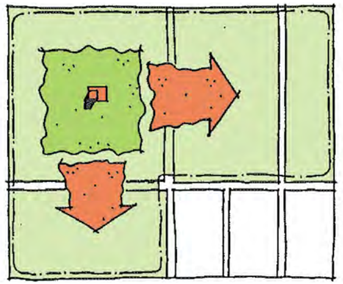


1995 LANDSCAPE MASTER PLAN

FUNDAMENTALS OF THE 1995 LANDSCAPE MASTER PLAN

1. The landscape image of Tower Hall Quad should become the landscape image of the main campus.

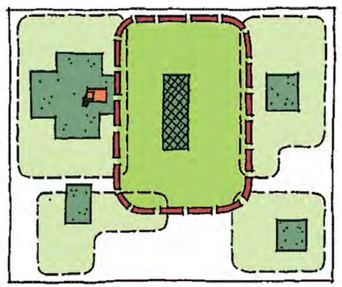
The landscape of Tower Hall quad has a very strong and distinctive image. In some ways it is a caricature of a California Mission / Mediterranean landscape. The power of this image should not be weakened through excessive duplication throughout campus but rather, reinforced in subtle and judicious ways that let the Tower Hall Quad remain an iconic space at the campus' heart.

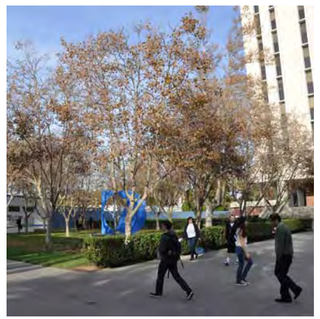


Tower Hall & Historic Quad

2. The campus should be organized around a series of quad spaces, which serve as centers of activity and identity in each campus district.

The campus quads are perhaps more important today than when they were first implemented, having become integral to the campus' social function. It is thus all the more important that their landscape character and the distinctiveness and durability of their plant materials support this level of activity.

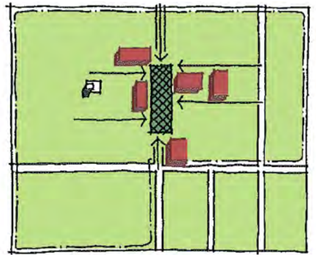




Humanities Quad

3. The campus should have a major space, which serves as a hub of campus activity, a place through which students, faculty and visitors pass every day and which serves as a meeting place and commons.

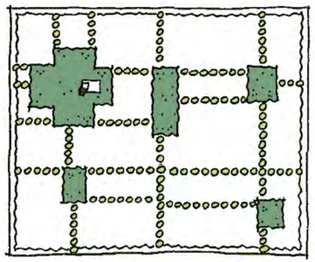
The central plaza has a unique character owing in part to the distinctive quality of its Washingtonia palms and the olive, oak and California Pepper trees that border it. Reinforcing and strengthening this character is critical.

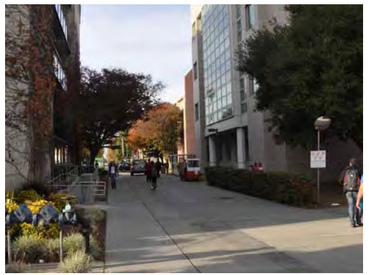


Central Plaza

4. The campus' unique quads should be linked and surrounded by landscape of a consistent character across campus.

Currently, many campus passageway spaces lack the strength of character that they deserve. Bringing these spaces up to the high quality of some of the campus' other iconic landscapes is an important goal of this plan.

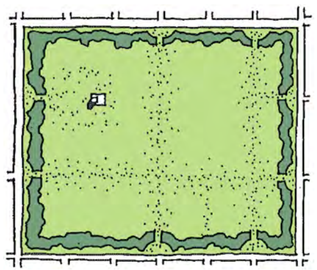




East-west passageway through campus

5. The edges of campus should be strongly defined and clearly differentiated from the surrounding city.

The campus' perimeter landscape has yet to fulfill the objectives of the 1995 Plan. Strengthening the four edges of campus is a primary goal of this plan in working towards the 1995 vision.

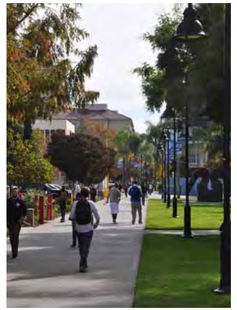


Western edge of campus along 4th St.

6. The 7th, 9th and San Carlos Street rights-of-way should be developed as open space and protected from encroachment by new buildings.

The creation of a series of pedestrian malls or paseos is one of the strongest achievements of the 1995 Plan in working towards the creation of a more pedestrian-friendly environment. The new plan seeks to preserve the strength of these paseos through a forest management strategy that ensures the ongoing health of the tree canopy and its associated understory plantings.

Paseo de Casesar Chavez



9th Street Mall

7. Plant materials should be selected to contribute to the botanical diversity and teaching value of the campus.

It is this last principle on which the new master plan update focuses most by offering a series of thematic plant palettes composed of species that range widely in texture, color, and origin.

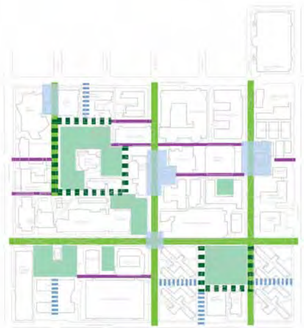
Dawn Redwood at Tower Quad

Acanthus and Alocasia understory plantings

Native plantings at campus Botantical Garden

CONTINUING EVOLUTION: THE 2005 CAMPUS MASTER PLAN

The 2005 Campus Master Plan reiterates the major landscape elements of campus as a framework for new development within the campus' four quadrants or districts, establishing building setbacks and build-to lines that codify the landscape framework's long term preservation.



Landscape Framework

Building Height Zones

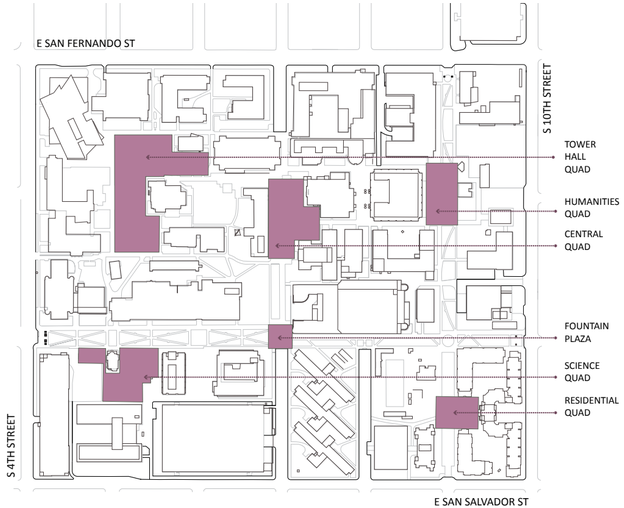
Future Conditions Figure-Ground Diagram

2005 CAMPUS MASTER PLAN

III. EXISTING CAMPUS LANDSCAPE FRAMEWORK

This Landscape Master Plan update begins with a detailed analysis of all the campus' framework elements: quads, courts, paseos, passageways, auto rights-of-way, perimeter, and thematic planting zones. Understanding the types, characteristics, functions and configurations of these spaces, as well as their context within each of the four districts and the larger campus, informs the nature of landscape changes and improvements that this plan recommends.

OVERALL LANDSCAPE FRAMEWORK



Fountain Plaza

Science Quad

QUADS + CENTRAL PLAZA

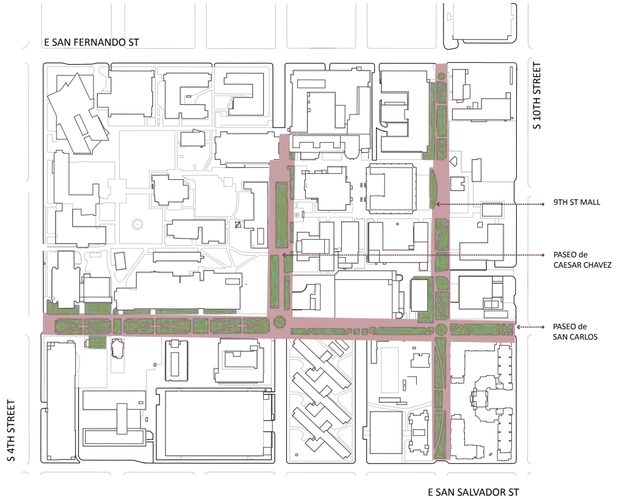
The primary gathering spaces on campus, the quads and Central Plaza, have varying degrees of clarity defining the space and character and offer different levels of attractiveness and comfort to support activity.

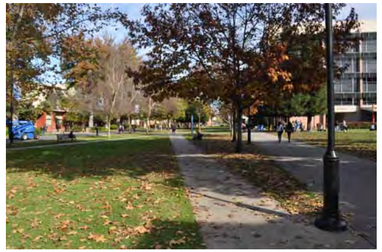
Well-used plaza at Boccardo Business Complex

Successful plaza at Sweeney Hall

COURTS, SMALL PLAZAS + OPPORTUNITY SITES

Many of the smaller gathering spaces on campus currently lack definition, but through new planting and/or program options could become more vital.

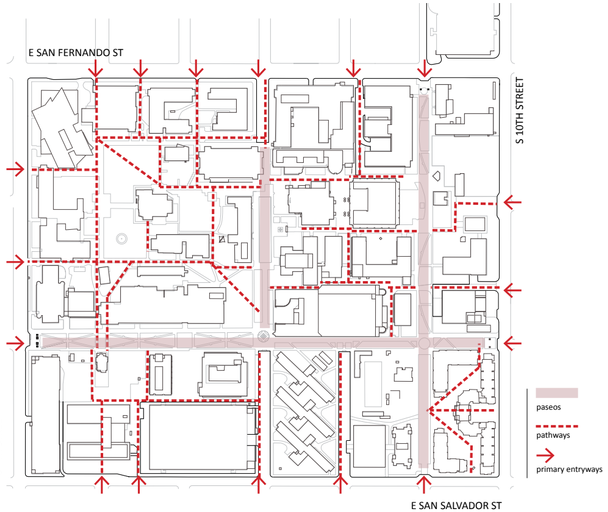


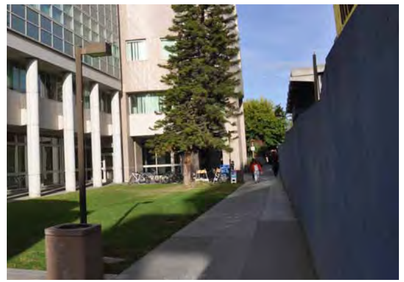


Paseo de San Carlos (top and above)

PASEOS (7TH, 9TH + SAN CARLOS)

Paseo de San Carlos, Paseo de Caesar Chavez, and the 9th Street Mall provide strong axes of circulation through campus. Per the 1995 and 2005 plans, these rights-of-way should continue be preserved and developed as open space and protected from encroachment by new buildings. There are opportunities for expanding the Paseo de Caesar Chavez to the north and south along the 7th Street rights-of-way.

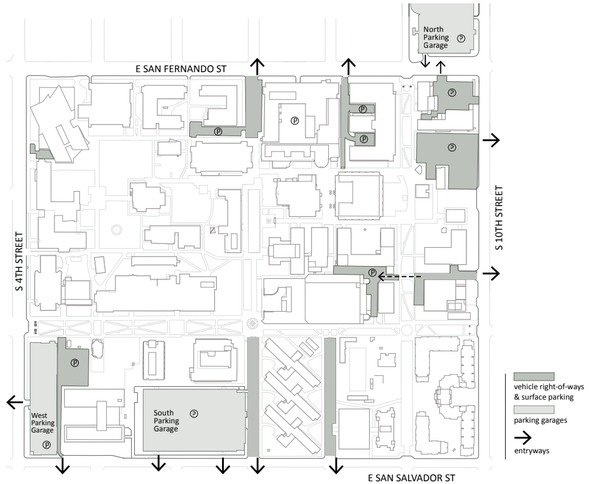


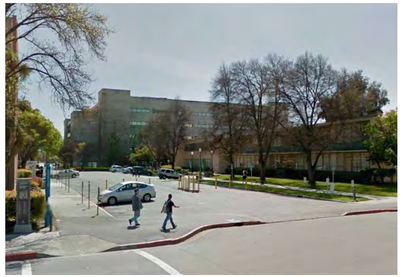


Passage between Engineering Building and Student Union (top and above)

PATHWAYS + PASSAGES

The campus' quads and smaller plazas are linked by the paseos as well as a series of smaller pathways that vary in degree of definition and overall character / clarity. Many of these are problematic, failing to meet their full potential in terms of strength of character and the quality of experience they provide.



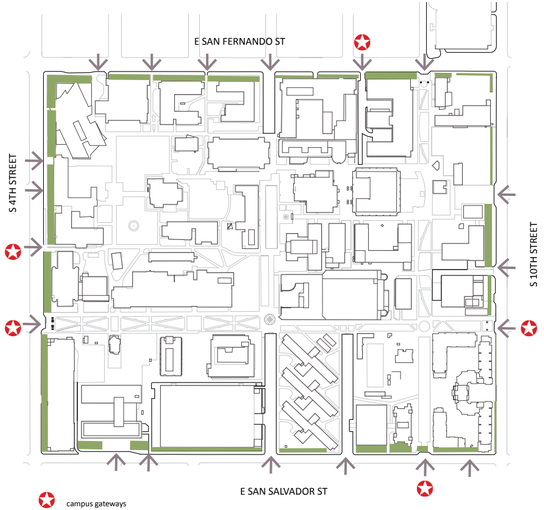


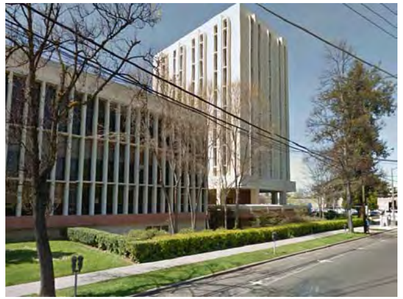
7th Street at North Entry to Campus

Frontage of South Parking Garage at East San Salvador Street

PARKING LOTS, GARAGES + SHARED STREETS

Surface parking, vehicular entries, and garage facades weaken the perimeter landscape and identity. This is particularly true where vehicular and pedestrian circulation overlap, as at the northern and southern entries to Paseo de Caesar Chavez at 7th Street.





South 10th Street Frontage

Entry along E. San Fernando Street

EDGES: PERIMETER LANDSCAPES

The campus perimeter landscape varies widely both by the side of campus as well as within individual blocks. Entrances are not always clearly defined.

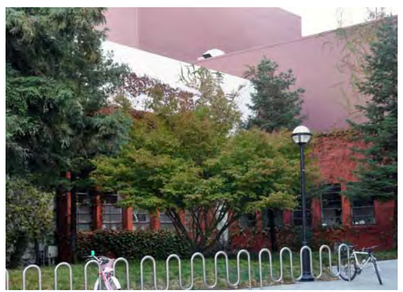
THEMATIC PLANTING ZONES

The campus hosts a wide variety of plant species. In some parts of campus, thematic clusters of plants or signature species help define a programmatic area, as at the Tower Hall Quad. In other places, the diversity of plant types detracts from the clarity of space, its intended uses and effects.

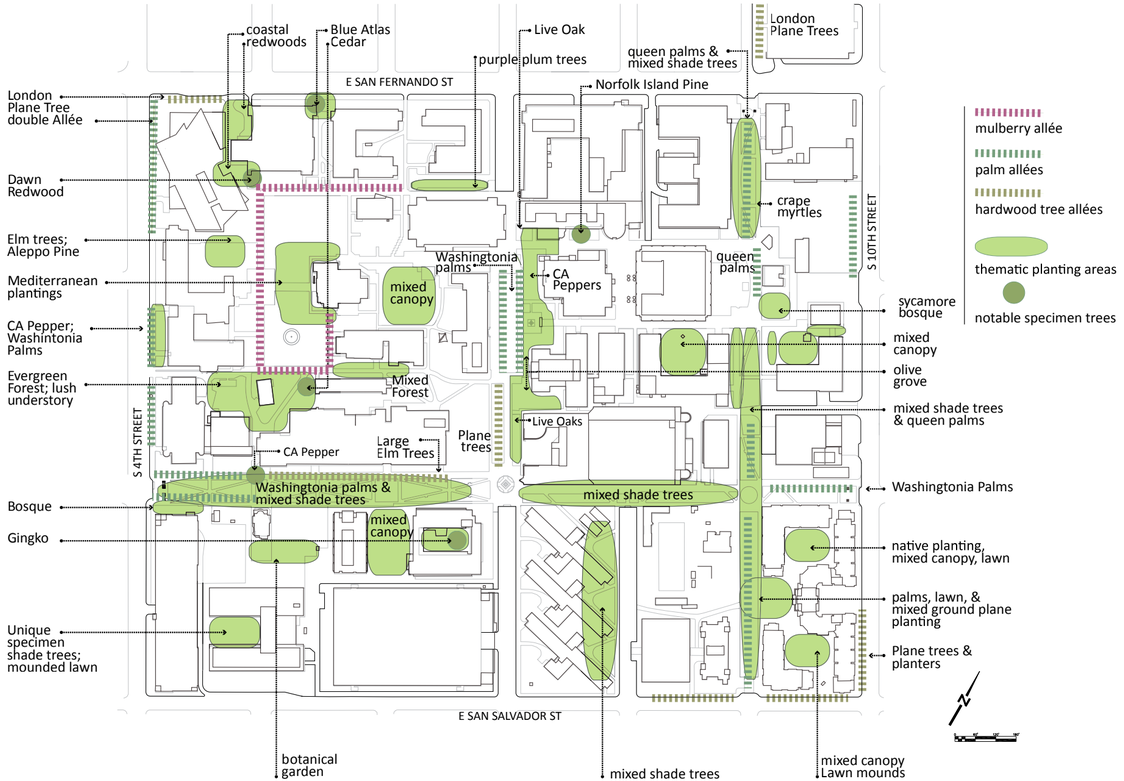
These areas of opportunity are summarized on the adjacent diagram. Examples are the evergreen forest trees surrounding the Tower Quad, the palm and mixed canopy trees along the paseos, the olive grove and live oaks bordering the central plaza and the Sycamore & Birch bosques in front of the Baccardo Business Complex along 9th Street.

This plan intends to build upon the positive attributes of the campus' urban forest and plant groupings as a basis for establishing thematic areas around the campus that guide future planting. These new thematic zones will have distinctive plant palettes and will give distinct and different experiences as one moves through campus.

Classic Mission Style Planting around Tower Hall



Coastal Redwoods and Red Maple cluster at Hugh Gillis Hall on the north perimeter of campus



EXISTING THEMATIC PLANTING ZONES

IV. VISION FOR THE FUTURE

The Landscape Master Plan proposes campus-wide planting strategy that builds upon current landscape assets, recognizes and responds to the effects of climate change, enhances the biodiversity of campus, and creates unique and distinctive experiences for campus users.

RESPONDING TO THE SHIFTING ECOLOGY OF CLIMATE CHANGE

Many trees in the campus' urban forest are in poor health. In some cases, trees have matured towards the end of their life cycle and are exhibiting normal signs of decline. In many cases, however, trees are struggling because they are no longer climatically appropriate to the campus due to the shift in climate zone since they were planted 20 or 30 years ago. This shift has been towards warmer, longer seasons with diminishing water supplies (and the corresponding need for water conservation best practices). Many of the Rosaceous and Northern Mesic species such as purple-leaf plum (*Prunus cerasifara*) and Linden (*Tilia spp.*) are now better suited to cooler climates existing farther north with shorter growing seasons. Conversely, plant species that have historically been suited to warmer climates to the south are now able to flourish in this region due to the same warming trends. These species are adapted to more heat, smog, and the predator/pathogen cycles inherent in this direction of change. This presents an opportunity to transition the urban forest to a more subtropical mix of species. This mix would be consistent with existing plantings in some areas of campus, while in other areas the change in species mix and character would be more evident.

The term "Subtropical" generally refers to global latitudes that fall between tropical and temperate zones (approximately 25-40 degrees latitude north and south, see adjacent map). The Mediterranean climate zones of the globe fall within these ranges.

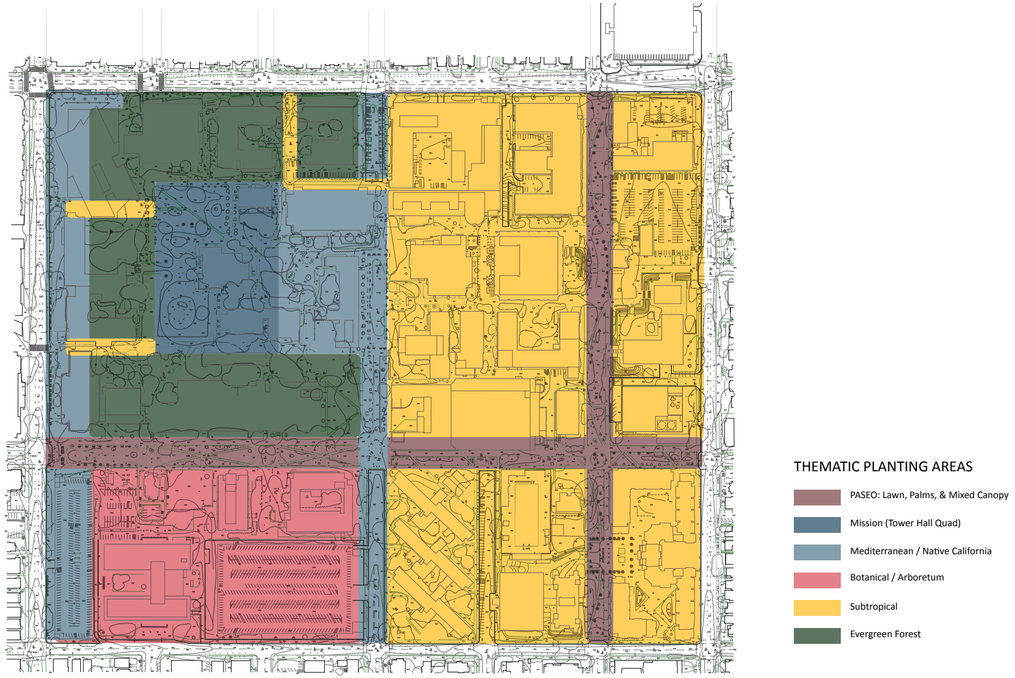
The subtropical designation applies generally to the entire campus to reflect a climate-appropriate approach to the campus landscape. In defining thematic zones below, other designations are given to specific areas of campus and are seen as variations (or subsets) of the subtropical theme. The northeast and southeast quadrants are designated as the general theme of subtropical.

In addition to climate shift consideration, the proposed approach to species selection also needs to consider the soils conditions on Campus with its relatively flat topography, alluvial sediment soils, and low infiltration rates for both air and water and high compaction.

Subtropical Climate Zones of the World (Image courtesy of Wikipedia Commons)

OVERALL LANDSCAPE FRAMEWORK & THEMATIC PLANTING PALETTES

This plan proposes to establish & clarify thematic zones in different parts of campus.

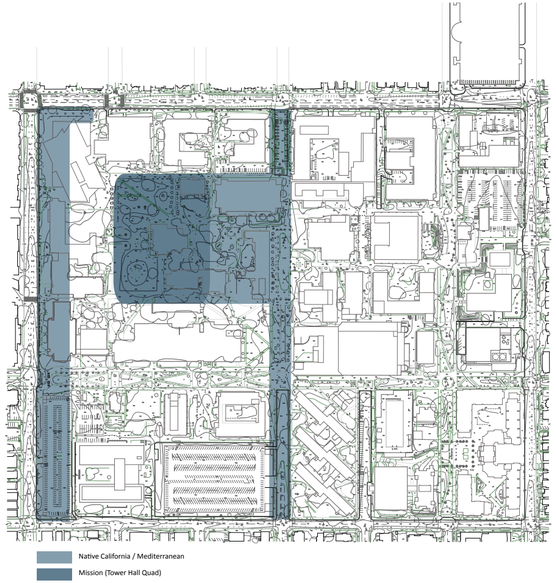


PROPOSED THEMATIC PLANTING ZONES (GENERALIZED)

MEDITERRANEAN, MISSION STYLE, & NATIVE CALIFORNIA LANDSCAPE

Emanating from Tower Hall Quad, a distinct Mediterranean plant palette extends down Paseo de Caesar Chavez (7th Street) through Central Plaza and along the Campus' 4th Street frontage. The Tower Hall Quad has a characteristic Mediterranean mix of fan palms—both tall (Washingtonia) and short (Chamaerops)—and Italian cypresses, while the 7th Street corridor has elements of the old California Mission landscape with its olive groves and palms. Both the 7th and 4th Street areas have elements of native California plantings with Coast Live Oaks and California Pepper trees. These are all compatible palettes that fit within a general arid classification of Mediterranean / California Mission / Native and tend towards drier, more drought-tolerant understory plantings. Decomposed granite (DG) is also used successfully as a ground cover in these areas and is aesthetically and hydrologically compatible with this planting theme.

The accompanying plant palette matrix illustrates recommended tree and understory species to support this theme.



PLANTING PALETTE: MEDITERRANEAN / CALIFORNIA MISSION & NATIVE PLANTING

CANOPY

Acacia Stenophylla	Shoestring acacia
Arbutus marina	Strawberry tree
Ceratonia siliqua	Carob
Cercis occidentalis	Western Redbud
Cupressus sempervirens	Italian Cypress
Diospyros spp.	Persimmon Tree
Hymenosporum flavum	Sweetshade
Laurus nobilis	Grecian Bay
Lyonothamnus asplenifolius	Catalina Ironwood
Olea europaea	Olive
Quercus agrifolia	Coast Live Oak
Quercus suber	Cork Oak
Schinus molle	California Pepper
Umbellularia californica	California Bay

(not pictured)

Quercus ilex	Holly Oak


Acacia Stenophylla


Arbutus marina


Ceratonia siliqua


Cercis occidentalis


Cupressus sempervirens


Diospyros spp.


Hymenosporum flavum


Lyonothamnus asplenifolius


Olea europaea


Quercus agrifolia


Quercus suber


Schinus molle


Umbellularia californica

PALMS

Brahea armata	Blue Hesper Palm
Phoenix canariensis	Canary Island Date Palm
Syagrus romanzoffiana	Queen Palm
Washingtonia filifera	California Fan Palm
Chamaerops humilis	Mediterranean Fan Palm


Brahea armata


Phoenix canariensis


Syagrus romanzoffiana


Washingtonia filifera


Chamaerops humilis

UNDERSTORY

Acanthus mollis	Bear's breeches
Agave spp.	Agave
Aloe arborescens	Aloe
Arbutus unedo	Strawberry tree
Arctostaphylos spp.	Manzanita
Artemisia californica	Artemisia
Ceanothus spp.	California lilac
Comarostaphylis diversifolia	Summer Holly
Eriogonum arborescens	Santa Cruz Buckwheat
Frangula californica 'Mound San Bruno'	Coffeeberry
Heteromeles arbutifolia	Toyon
Heuchera spp.	Coral bells
Lavendula	Lavender
Mahonia 'Golden Abundance'	Creeping barberry
Mahonia agrifolia 'compacta'	Creeping barberry
Penstemon spp.	Penstemon
Phlomis spp.	Phlomis
Phormium spp.	Dwarf New Zealand Flax
Punica granatum	Pomegranate
Rosmarinus officinalis	Rosemary
Salvia spp.	Sage


Acanthus mollis


Agave spp.


Aloe arborescens


Arbutus unedo


Arctostaphylos catalinae.


Ceanothus spp.


Artemisia californica


Comarostaphylis diversifolia


Eriogonum arborescens


Frangula californica 'Mound San Bruno'


Heteromeles arbutifolia


Heuchera spp.


Lavendula


Mahonia 'Golden Abundance'

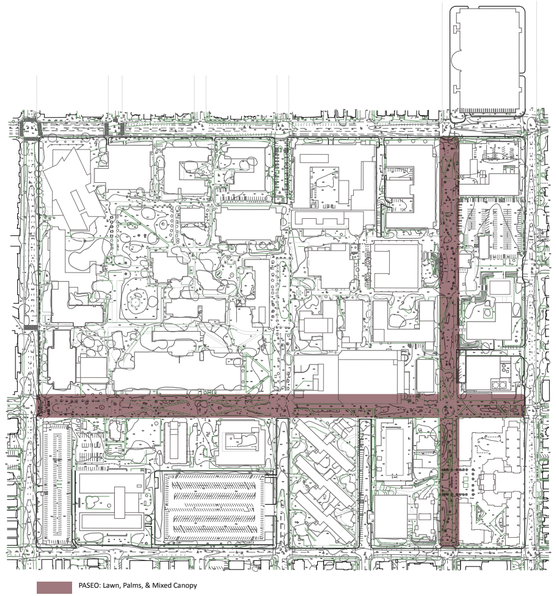

Penstemon spp.


Phlomis fruticosa

PASEOS: LAWN, PALMS + MIXED CANOPY

The 9th Street Mall and Paseo de San Carlos make powerful contributions to the identity of today's campus. Their distinctive characters combine lawn panels, palms and mixed canopy trees. In many ways, these are the primary social spaces of campus as students circulate along the paths and gather in the plazas and lawns. Since the lawn areas are critical in these corridors, tree plantings need to be compatible with the level of watering necessary to maintain the lawns. As the urban forest in these areas is maintained and updated, tree species should be adjusted to be climatically appropriate and reflect compatible water needs.

The accompanying plant palette matrix illustrates recommended tree and understory species to support this theme.



PLANTING PALETTE: PASEOS / LAWN, PALMS, & MIXED CANOPY

CANOPY

Azara microphylla	Boxleaf azara
Brachychiton populneus	Bottletree
Bauhinia purpurea	Butterfly Tree
Cassia leptophylla	Cassia
Cinnamomum camphora	Camphor Tree
Elaeocarpus decipiens	Japanese Blueberry Tree
Evodia spp.	Beebee Tree
Fraxinus ornus	Manna Ash
Geijera parviflora	Australian Willow
Ginkgo biloba	Maidenhair Tree
Jacaranda mimosifolia	Jacaranda
Koelreuteria bipinnata	Chinese Flame Tree
Leptospermum petersonii	Lemon-scented teatree
Magnolia Grandiflora	Southern magnolia
Pistacia chinensis	Chinese Pistache
Sophora japonica	Sophora
Tipuana tipu	Rosewood


Azara


Brachychiton populneus


Bauhinia purpurea


Cassia leptophylla


Cinnamomum camphora


Elaeocarpus decipiens


Evodia spp.


Fraxinus ornus


Geijera parviflora


Ginkgo biloba


Jacaranda mimosifolia


Koelreuteria bipinnata


Magnolia Grandiflora


Pistacia chinensis


Sophora japonica


Tipuana tipu

PALMS
(not pictured)

Brahea armata	Blue Hesper Palm
Chamaerops humilis	Mediterranean Fan Palm
Phoenix canariensis	Canary Island Date Palm
Syagrus romanzoffiana	Queen Palm
Washingtonia filifera	Mexican Fan Palm

UNDERSTORY

Acanthus mollis	Bear's Breeches
Canna spp.	Canna lily
Cannomois grandis	Bell Reed
Hibiscus spp.	Hibiscus
Impatiens sodenii	Impatiens
Mahonia 'Golden Abundance'	Creeping barberry
Nandina	heavenly bamboo
Osmanthus fragrans	tea olive
Rhaphiolepis spp.	Indian Hawthorne
Sarcococca spp	Sweet box
Viburnum suspensum	Viburnum


Cannomois grandis


Hibiscus spp.


Impatiens sodenii


Nandina


Osmanthus fragrans


Rhaphiolepis spp.


Sarcococca spp


Viburnum suspensum


Baumea juncea


Carex dipsacea

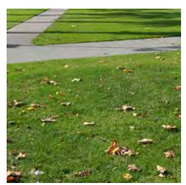

Chondropetalum elephantinum


Carex secta

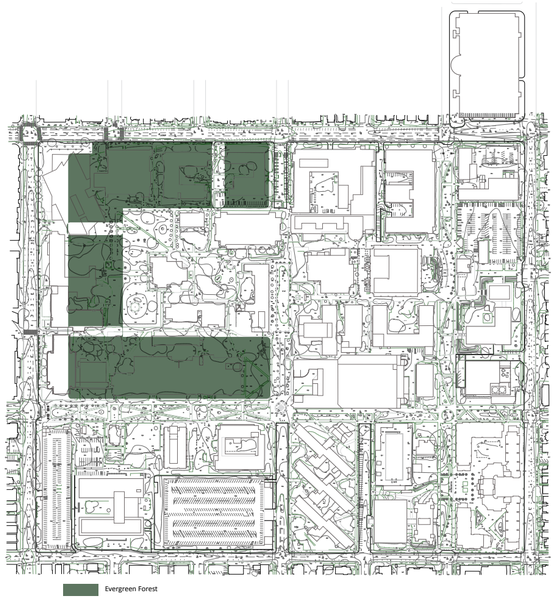
GROUND COVER

Baumea juncea	Blue coastal sedge
Carex dipsacea	Autumn sedge
Carex pansa	Meadow sedge
Carex secta	NZ Sedge
Carex spissa	San Diego sedge
Chondropetalum elephantinum	Large Cape Rush
	Lawn


Carex pansa


Lawn

EVERGREEN FOREST



In areas surrounding the Tower Hall Quad (outside the Mulberry alleè) and in some of the passages leading into the campus' northwest quadrant, a well-developed mix of mature evergreen forest trees creates a unique environment and experience of campus. Many of these forest trees—including Coast Redwoods, Blue Atlas Cedars, and Dawn Redwoods—are very healthy, climatically appropriate and still have many years of productive life remaining.

The Evergreen Forest Thematic Zone establishes these areas as a distinct ecological and character zone and suggests an enhanced palette of trees and lush understory—ferns, acanthus, and elephant ear—to further establish it.

The accompanying plant palette matrix illustrates recommended tree and understory species to support this theme.

PLANTING PALETTE: EVERGREEN FOREST

CANOPY

Calocedrus	Incense cedar
Cedrus atlantica	Blue Atlas Cedar
Metasequoia glyptostroboides	Dawn Redwood
Pinus canariensis	Canary Island Pine
Sequoia sempervirens	Coast Redwood


Calocedrus


Cedrus atlantica


Metasequoia glyptostroboides


Pinus canariensis


Sequoia sempervirens

UNDERSTORY

Alocasia spp.	Elephant Ears
Acanthus spp.	Bear's Breeches
Bergenia spp.	Elephant's Ears
Dicksonia spp.	Tree fern
Liriope muscari	Liriope
Oxalis oregana	Redwood Sorrel
Polystichum munitum	Western sword fern


Alocasia spp.


Acanthus spp.


Bergenia spp.

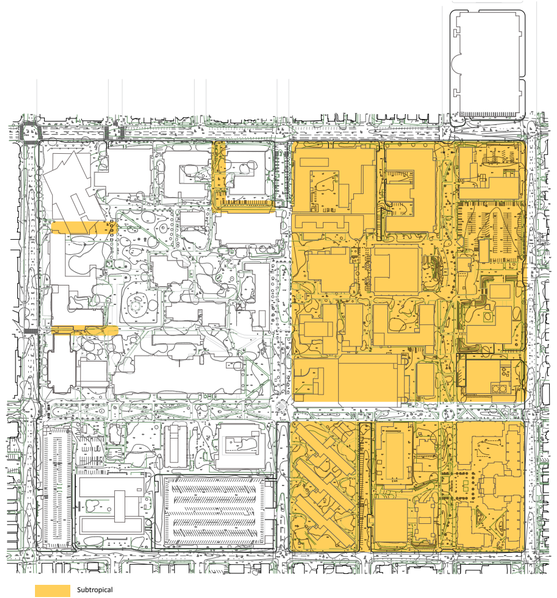

Dicksonia spp.


Liriope muscari


Oxalis oregana


Polystichum munitum

SUBTROPICAL ZONE



The northeast and southeast quadrants of campus are heavily influenced by the 9th Street Mall & Paseo de San Carlos with their signature combination of lawn, palms and mixed canopy trees. Some species among the mixed canopy trees, however, are suffering from either climate zone inappropriateness or overwatering in lawn areas. Replacing ill-performing species throughout these quadrants represents an opportunity to redefine the planting character in this part of the campus.

The “subtropical” palette defined for these quadrants represents a mix of trees and understory plantings that recognizes the shifting conditions of climate change and the need for plants better adapted to the longer growing seasons typical of subtropical climate zones.

This new mix of plants offers a colorful palette of unique species—jacarandas, crape myrtles, tabebuias and tipuanas—that pair well with existing plantings, but also create a fresh and exuberant new character for this area of campus. Understory plantings of aloe, canna lily, impatiens and cordyline will add to the color, interest and exuberance of this zone.

The accompanying plant palette matrix illustrates recommended tree and understory species to support this theme.

PLANTING PALETTE: SUBTROPICAL

CANOPY

Acca sellowiana	Pineapple Guava
Azara microphylla	Box-leaf azara
Brachychiton populneus	Bottletree
Cinnamomum camphora	Camphor Tree
Cocculus laurifolius	Laurel-leaf Cocculus
Elaeocarpus decipiens	Japanese Blueberry
Jacaranda mimosifolia	Jacaranda
Lagerstroemia indica	Crape Myrtle
Tabebuia ipe	Trumpet tree (pink)
Persea americana	Avocado Tree
Pittosporum phillyraeoides	Willow Pittosporum
Tipuana tipu	Rosewood


Acca sellowiana


Azara microphylla


Brachychiton populneus


Cinnamomum camphora


Cocculus laurifolius


Elaeocarpus decipiens


Jacaranda mimosifolia


Lagerstroemia indica


Tabebuia ipe


Persea americana


Pittosporum phillyraeoides


Tipuana tipu

UNDERSTORY

Agave spp.	Agave
Aloe spp.	Aloe
Alocasia spp.	Elephant Ear Plant
Beschorneria yuccoides	False Red Yucca
Canna spp.	Canna lily
Cordyline 'Purple Dazzler'	Black Cordyline
Dianella spp.	Flax Lily
Impatiens sodenii	Poor Man's Rhododendron
Lantana montevidensis	Trailing lantana
Nerium oleander	Oleander
Pittosporum tenuifolium	Kohuhu
Polygala spp.	Milkwort
Tecoma capensis	Cape Honeysuckle
Yucca spp.	Yucca


Agave palmeri


Aloe arborescens


Alocasia amazonica


Canna spp.


Beschorneria yuccoides


Cordyline 'Purple Dazzler'


Dionella variegata


Impatiens sodenii


Lantana montevidensis


Pittosporum tenuifolium

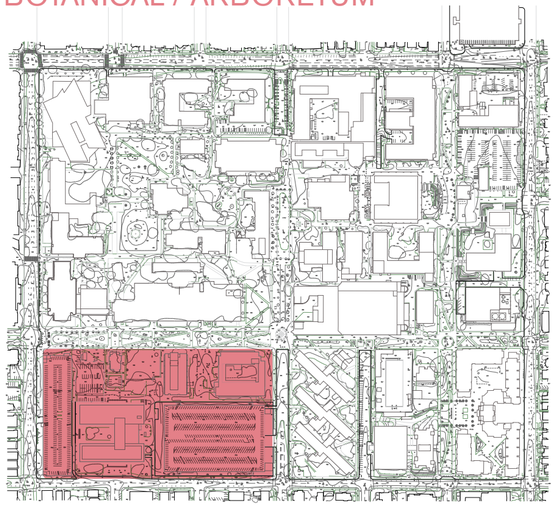

Tecoma capensis


Polygala spp.


Nerium oleander


Yucca spp.

BOTANICAL / ARBORETUM



Mediterranean Climate Zones of the World (Graphic courtesy of U.S. National Park Service California Mediterranean Research Learning Center)

The southwest quadrant of campus or Science District has a collection of exotic trees in the inner courtyard of Duncan Hall and the department's native plant garden adjacent to the Science Quad that provide the beginnings of a unique botanical garden or arboretum thematic zone.

The proposed planting would expand on those existing resources and provide an expanded educational collection of plant materials drawn from the various Mediterranean climate zones of the world: California and northern Baja; southwest Australia; the western cape of South Africa; the central coast of Chile and the Mediterranean Basin itself (see adjacent map of the world's Mediterranean climate zones). These areas take up only 3% of world land mass, but contain 16% of the world's plants species.

The Botanical/Arboretum theme contains two subcategories: "Dry Desert"—with an Arbutus, Koelreuteria, Corymbia and Leptospermum canopy and Aloe, Agave, Echiveria and Echium understory—and "Wet Tropical," which features a Poinciana, Calodendrum and Vitex canopy and lush understory of Alpinia, Anthurium, ferns and Caladium. These palettes are recommended for exposed, sunny areas and shady, moister areas respectively. This differentiation will both respond to real conditions within this district (sunny, shady, dry, moist) and also create different environments that enhance both the learning landscape and the user's experience.

These plants can not only serve as an educational garden which introduces interesting species from around the world, but also as a laboratory for studying the effects of climate change in the world's Mediterranean climate regions. This new addition to the campus environment will create a distinctive zone unlike any other area on campus through the use of unique mixes and combinations of these native and exotic species.

The accompanying plant palette matrix illustrates recommended tree and understory species to support this theme.

PLANTING PALETTE: BOTANICAL / ARBORETUM - WET/TROPICAL

CANOPY

(pictured)

Calodendrum capense	Cape Chestnut
Delonix regia	Poinciana
Phyllostachys aureosulcata 'Spectabilis'	Bamboo
Vitex agnus-castus	Chaste tree

(not pictured)

Sophora japonica	Japanese Pagoda
Tabebuia	Trumpet Tree
Tipuana tipu	Rosewood

UNDERSTORY

(pictured)

Alpinia spp.	Alpinia
Anthurium spp.	Flamingo Flower
Blechnum spicant	Water fern
Bromeliad spp.	Bromeliad
Caladium spp.	Caladium
Calathea.spp.	Calathea
Clerodendron trichotomum	Harlequin glorybower
Clivia spp.	Clivia
Curcuma spp.	Ornamental Ginger
Phlomis fruticosa	Jerusalem fern
Strelitzia juncea	Bird of Paradise

(not pictured)

Alocasia spp.	Elephant Ear
Cyathea cooperi	Tree Fern
Dianella spp.	Flax Lily
Equisetum spp.	Horsetail


Calodendrum capense


Delonix regia


Phyllostachys aureosulcata 'Spectabilis'


Vitex agnus-castus


Alpinia spp.


Anthurium spp.


Blechnum spicant


Bromeliad spp.


Caladium spp.


Calathea.spp.


Clerodendron trichotomum


Clivia miniata


Curcuma alismatifolia


Equisetum spp.


Phlomis fruticosa


Strelitzia parvifolia var. juncea

PLANTING PALETTE: BOTANICAL/ ARBORETUM - DRYVDESERT

CANOPY

Acacia cognata	River Wattle
Agonis flexuosa 'Jervis Bay Afterdark'	Peppermint
Arbutus marina	Strawberry
Beaucarnea recurvata	Ponytail Palm
Brachychiton populneus	Bottletree
Chitalpa	Chitalpa
Koelreuteria bipinnata	Chinese Flame Tree
Corymbia citriodora	Lemon-scented gum
Crinodendron patagua	Patagua
Garrya elliptica	Silk-tassel
Leptospermum petersonii	Lemon-scented Tea-Tree
Leptospermum scoparium	Tea-Tree 'Ruby Glow'
Yucca spp.	Yucca


Acacia cognata


Agonis flexuosa 'Jervis Bay Afterdark'


Arbutus marina


Beaucarnea recurvata


Brachychiton populneus


Chitalpa


Koelreuteria bipinnata


Corymbia citriadora


Crinodendron patagua


Garrya elliptica


Leptospermum petersonii


Leptospermum scoparium


Yucca rostrata

UNDERSTORY

Aeonium spp.	Houseleek Tree
Agave spp.	Agave
Aloe aborescens	Aloe
Anigozanthos spp.	Kangaroo Paw
Cereus peruvianus	Night Blooming Cactus
Cordyline Australis	Cabbage Tree
Cycas spp.	Sago Palm
Echeveria spp.	Hen and Chicks
Echium candicans	Pride of Madeira
Heuchera spp.	Coral Bells
Leucadendron 'Safari Sunset'	Safari Conebush
Pandanus spp.	Screw Palm
Phormium colensoi	Mountain Flax
Sedum spp.	Ornamental Sedum


Aeonium arboreum


Aloe aborescens


Anigozanthos spp.


Cereus peruvianus


Agave americana


Cordyline Australis


Cycas spp.

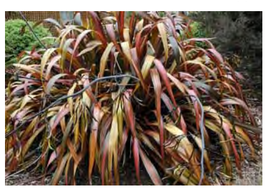

Echeveria spp.


Echium candicans


Heuchera spp.


Leucadendron 'Safari Sunset'


Pandanus spp.


Phormium colensoi


Sedum spp.

MEDITERRANEAN, MISSION STYLE, & NATIVE CALIFORNIA LANDSCAPE

PASEO LANDSCAPE: LAWN, PALMS & MIXED CANOPY

EVERGREEN FOREST

SUBTROPICAL

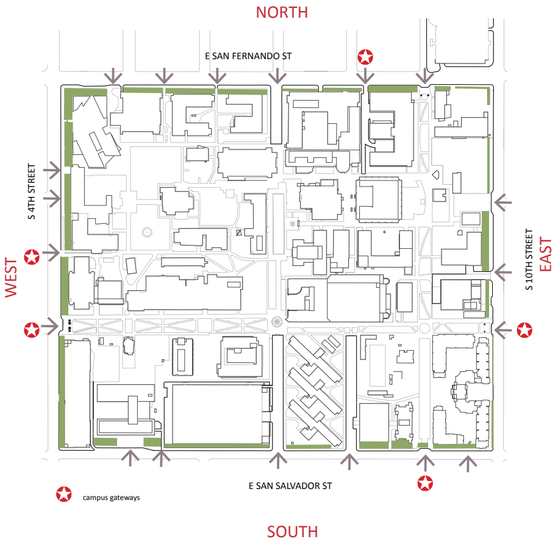
BOTANICAL / ARBORETUM

PROPOSED THEMATIC PLANTING ZONES AS APPLIED TO SPECIFIC SPACES ON CAMPUS

APPLICATIONS: EXAMPLE PROJECTS

The following applications provide examples of how the landscape thematic zones might manifest in typical campus conditions including: campus perimeters, circulation passageways, courtyards, et al. These examples are not meant to be taken literally as design proposals, but as general scenarios that illustrate the potential outcomes of applying the new plant palettes. Any new planting would need to be the subject of a carefully studied planting and irrigation design before being implemented.

EDGES: PERIMETER LANDSCAPES



The following four designs each consider one section of each perimeter edge that can inform the design and possibilities for unifying the planting palette along the entire edge.

NORTH: The north perimeter landscape of campus contains a series of entrances flanked by broad buildings that have frontages featuring large lawns, a mixed forest, and heavily pruned shrubs. The canopy needs to be managed and updated and perimeter beds should be updated.

EAST: South 10th Street flanks the eastern edge of campus, which—like the southern perimeter—is weakened by vehicular entries and surface parking. There is one primary pedestrian entry on this side, as well as two secondary entries that lack clarity.

SOUTH: East San Salvador Street forms the south perimeter of campus, which is defined in part by a pair of large parking structures to the west as well as a series of vehicular or mixed circulation entries to campus. The street trees vary in health and in some cases are absent.

WEST: The west perimeter is the most urban edge of campus, bordered by South 4th Street. It contains two of the primary entrances to campus, one leading to the Paseo de San Carlos and the extending across from the vibrant retail corridor of Paseo de San Antonio.

Images of southern edge of campus along San Salvador Street

ISSUE: Campus perimeter lacks cohesion & identity.

STRATEGY: Unify planting palette along four perimeter edges, screen parking and vehicular areas, address tree health, and bolster key entries. Consider each side of campus as a distinct area and clearly define the edge in a way that differentiates it from the rest of the city.

NORTH PERIMETER

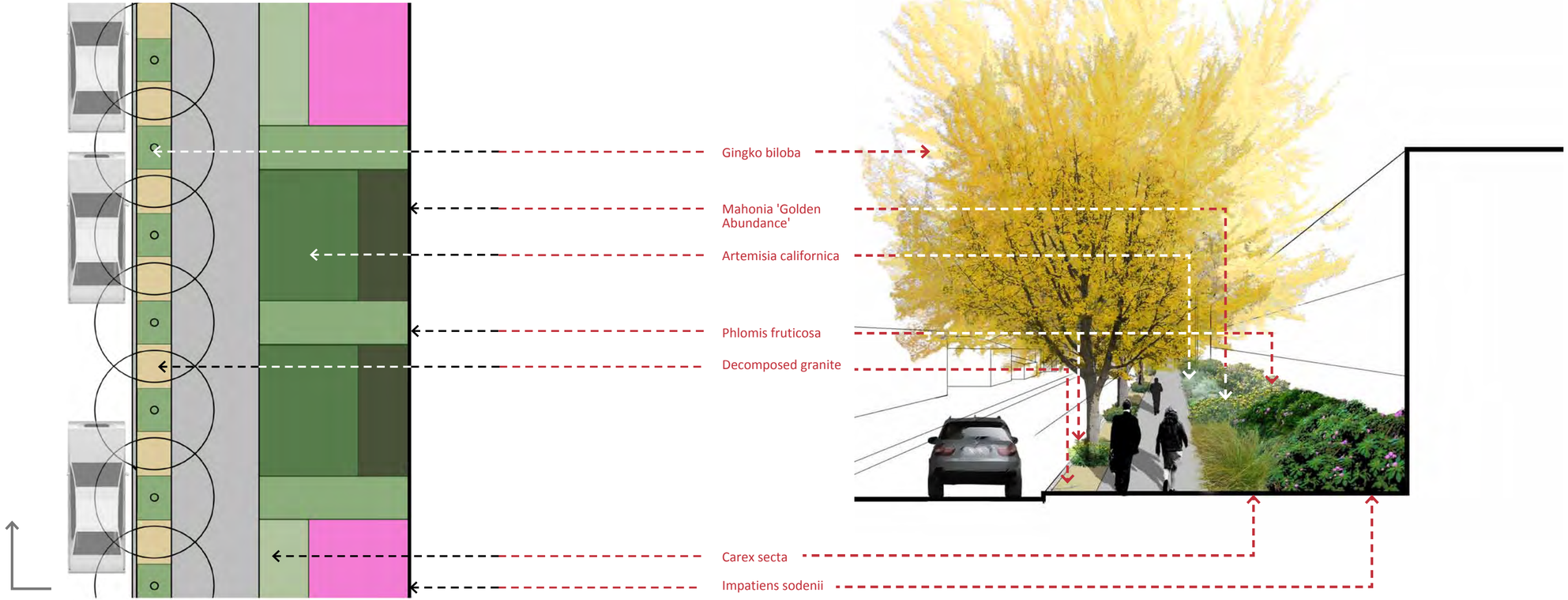
EXISTING CONDITIONS

View looking east along E. San Fernando Street

- Currently there are a series of Tilia trees with sooty mold, planted too close to buildings with a ground plane dominated by high maintenance, high water-use lawn.
- Proposed condition draws on the Paseo plant palette used on the adjacent 9th Street Mall, incorporating additional elements from the Mission/Mediterranean palette.
- Trees adjacent to north-facing buildings will be removed to allow additional light and open up views. They will be replaced with gridded masses of flowering shrubs and sedges stressing lower maintenance and water use.
- A curbside planting strip will host Gingko trees with an understory of Phlomis fruticosa alternating with DG to allow access to the sidewalk from parked cars.

PASEO LANDSCAPE ZONE

PROPOSED CONDITIONS



EAST PERIMETER

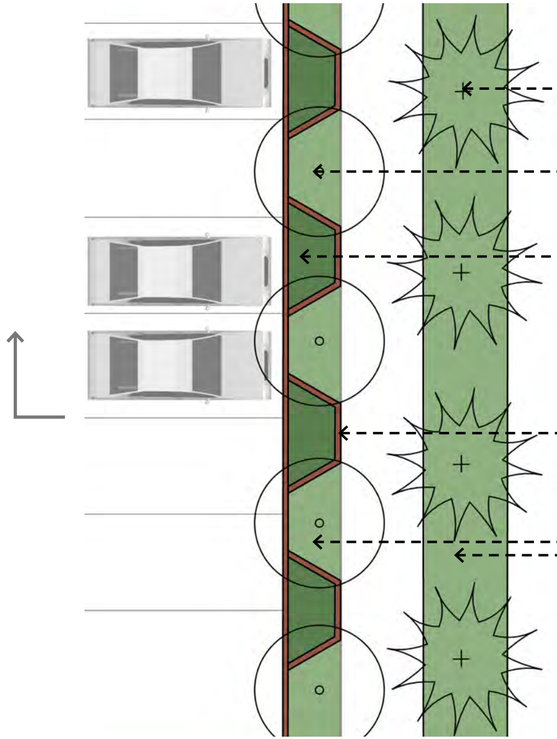
EXISTING CONDITIONS

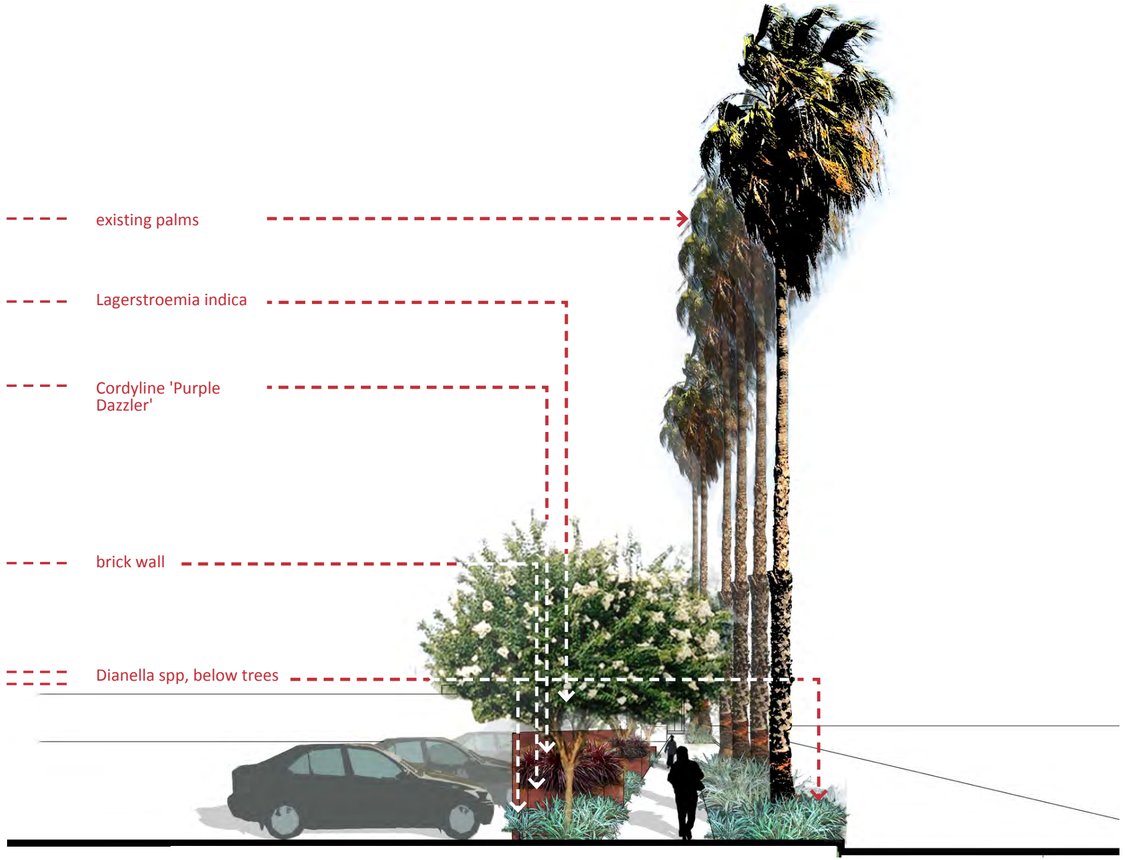
View looking north along 10th Street

- Currently the parking area dominates the street view. The Washingtonia palms are distinctive vertical elements, but the ground plane is barren.
- Proposed condition extends language of brick wall from campus housing further south and uses species from the Subtropical palette to create a planted barrier between the sidewalk and parking lot.
- A low canopy created by Crape Myrtles and supplemented by cordyline in raised planters further screens the parking lot.
- Ground plane planting of Dianella extends from face of wall into palm tree planting strip.

SUBTROPICAL ZONE

PROPOSED CONDITIONS





SOUTH PERIMETER

EXISTING CONDITIONS

View looking east past South Parking Garage along San Salvador

- Current planting—consisting of overgrown Australian Pines, scattered palms, and high maintenance lawn—does not screen parking structure.
- Proposed condition draws from the dry/desert category of the "Botanical / Arboretum" palette, adding an ornamental tree row (Leptospermum) at lower level to block view of parking structure, lush layers of understory and a new curbside planting strip with street trees.
- Understory palette favors colorful, scultptural plants, including Echeveria, Echium, and Heuchera.
- A curbside planting strip will host Arbutus trees with an understory of Kangaroo Paw alternating with DG to allow access to the sidewalk from parked cars.

BOTANICAL / ARBORETUM

PROPOSED CONDITIONS

WEST PERIMETER

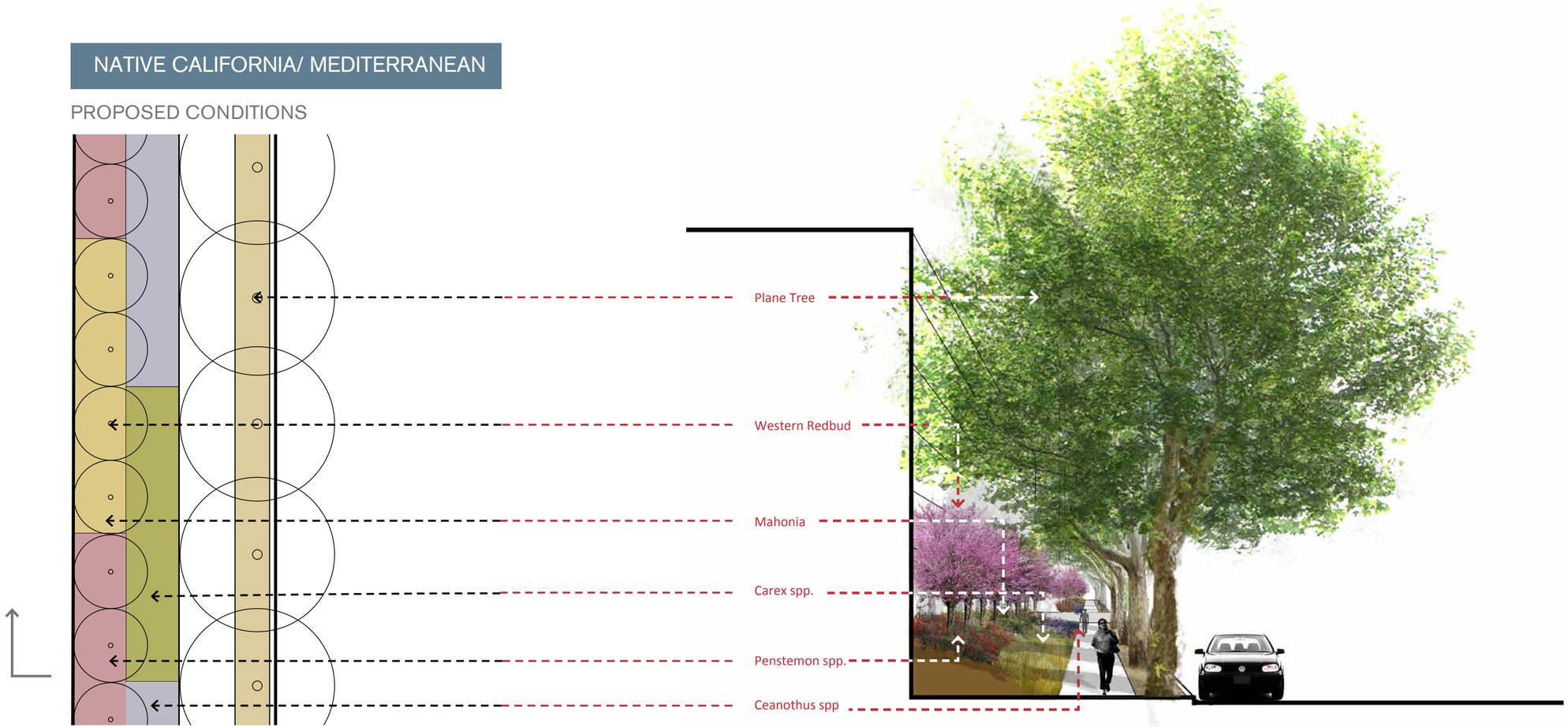
EXISTING CONDITIONS

View looking south past West Parking Garage along 4th Street

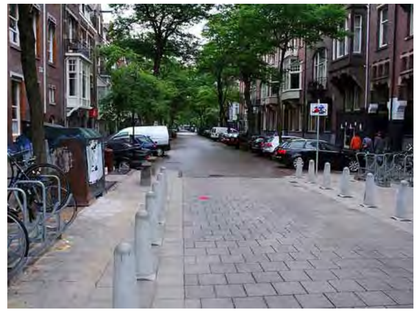
- Existing London Plane street trees are in poor health
- The slope up to the parking garage has outdated ivy groundcover and no screening function for the garage.
- Proposed condition draws on California/ Mediterranean/ Mission palette with new Plane trees planted in DG along street
- A continuous row of ornamentals (Penstemon and Mahonia) on bank screens the parking garage with layers of arid landscape planting beds (Carex spp. and Ceanothus spp.) anchoring the slope.

NATIVE CALIFORNIA/ MEDITERRANEAN

PROPOSED CONDITIONS



SHARED STREETS



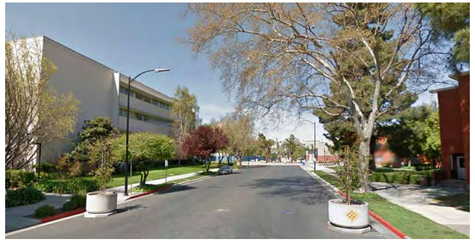
Successful examples of shared streets

ISSUE: Currently parking and car travel undermines pedestrian comfort and scale, especially in mixed circulation areas.

STRATEGY: To address this issue, the following design examples create hybrid car/pedestrian throughways that enhance comfort in mixed circulation areas, especially at gateways to Paseo Caesar Chavez.

SOUTH 7TH STREET

EXISTING CONDITIONS

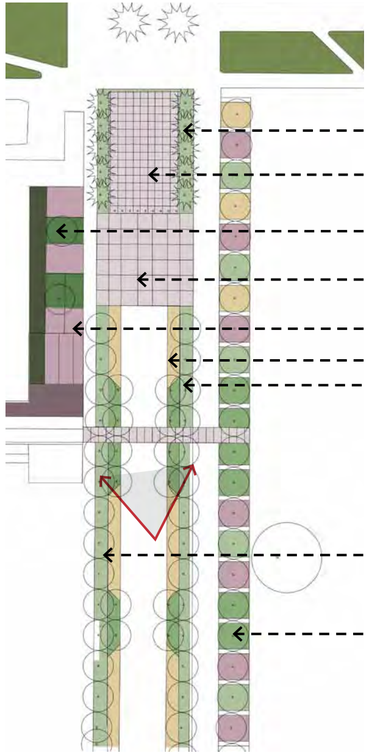


View looking north on South 7th Street past Sweeney Hall and student housing

- Currently South 7th Steet is dominated by vehicles, and lacks the richness of California /Mediterranean landscape further up Paseo de Caesar Chavez.
- Proposed condition brings the general character of Central Plaza down Paseo de Caesar Chavez and onto South 7th through the use of Washingtonia Palms, Oaks, and Olive trees.
- Fountain Plaza extends via unit pavers and palm allée, providing pedestrian-scale drop-off area.
- Classic Mediterranean plantings like lavender are complemented by native plants, including Eriogonum spp., to create a robust understory
- Curbside parking is marked with permeable paving and framed by planted bulb-outs

NATIVE CALIFORNIA/ MEDITERRANEAN

PROPOSED CONDITIONS



Proposed view of South 7th Street facing north towards Fountain Plaza

CENTRAL SERVICE ALLEY

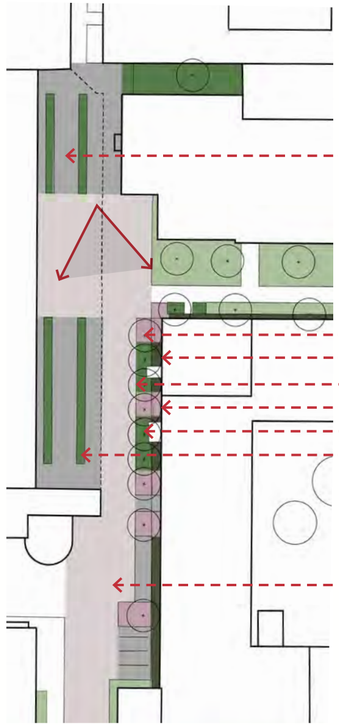
EXISTING CONDITIONS

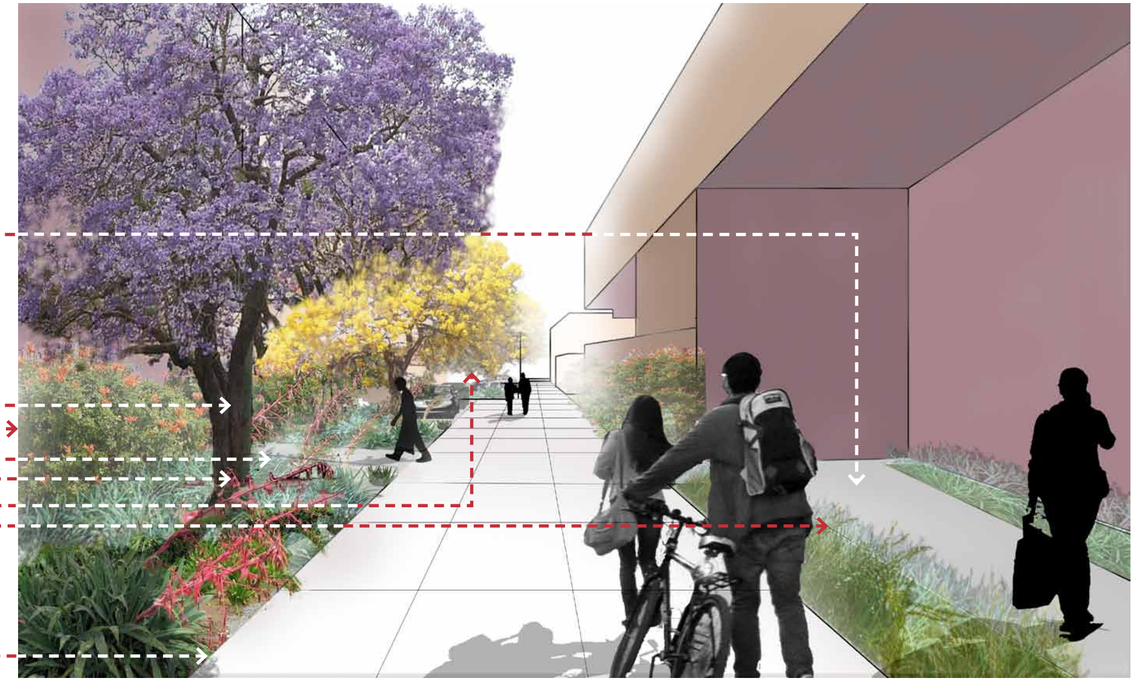
View looking east past Art Building and Event Center towards 9th Street Mall

- Currently the multi-use corridor resembles a back alley, dominated by pavement and service areas with little planting to offset the hard edges.
- Proposed redesign uses a combination of paving treatments and planting to beautify the space and enhance the pedestrian experience, while maintaining service access.
- Species from the Subtropical planting palette include colorful, flowering trees (*Jacaranda* and *Tabebuia*) and a lush understory, featuring *Beschorneria yuccoides* and *Tecoma capensis.*
- Selected areas incorporate permeable paving and stormwater detention planting.

SUBTROPICAL

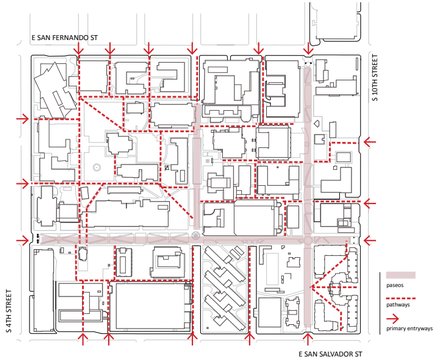
PROPOSED CONDITIONS



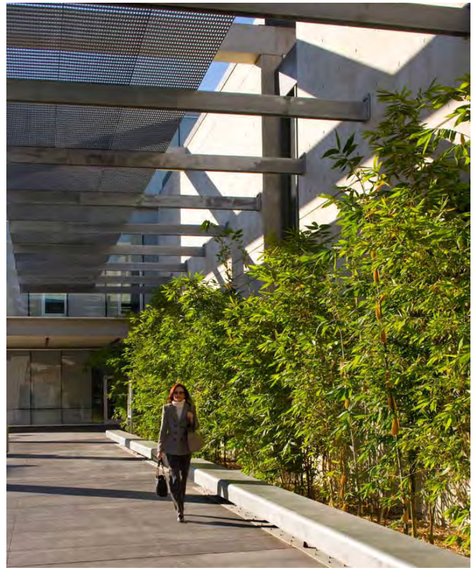


Proposed view of shared service alley facing east towards 9th Street Mall

PASSAGEWAYS



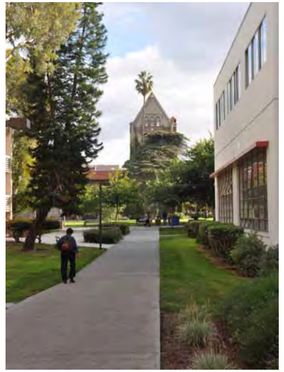
The following design examples seek to strengthen the campus' secondary circulation strategy and develop key passages to be more obvious & welcoming through landscape treatments.



Example of an attractive, inviting passageway (UCSD)

NORTH PASSAGE TO TOWER HALL QUAD

EXISTING CONDITIONS

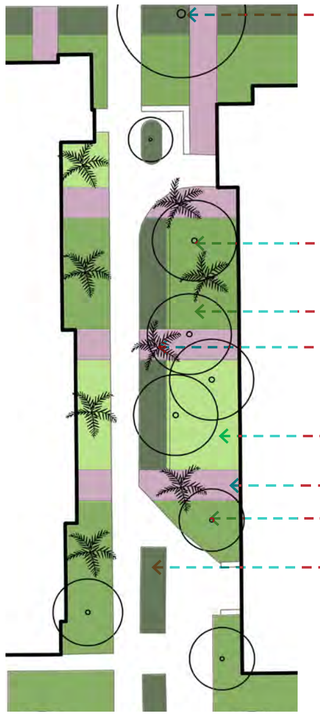


View looking south between Dudley Moorhead Hall and Hugh Gillis Hall towards Tower Hall

- Existing planting is outdated, including over-pruned shrubs and a high-maintenance lawn.
- Proposed condition builds upon nearby specimen trees, including a stunning Blue Atlas Cedar and Dawn Redwoods at north campus perimeter, and incorporates vegetation from the Evergreen Forest plant palette, including lush understory palette of ferns, Bergenia, Oxalis and tree ferns.

EVERGREEN FOREST

PROPOSED CONDITIONS



existing Blue Atlas Cedar

Dawn Redwood

Acanthus

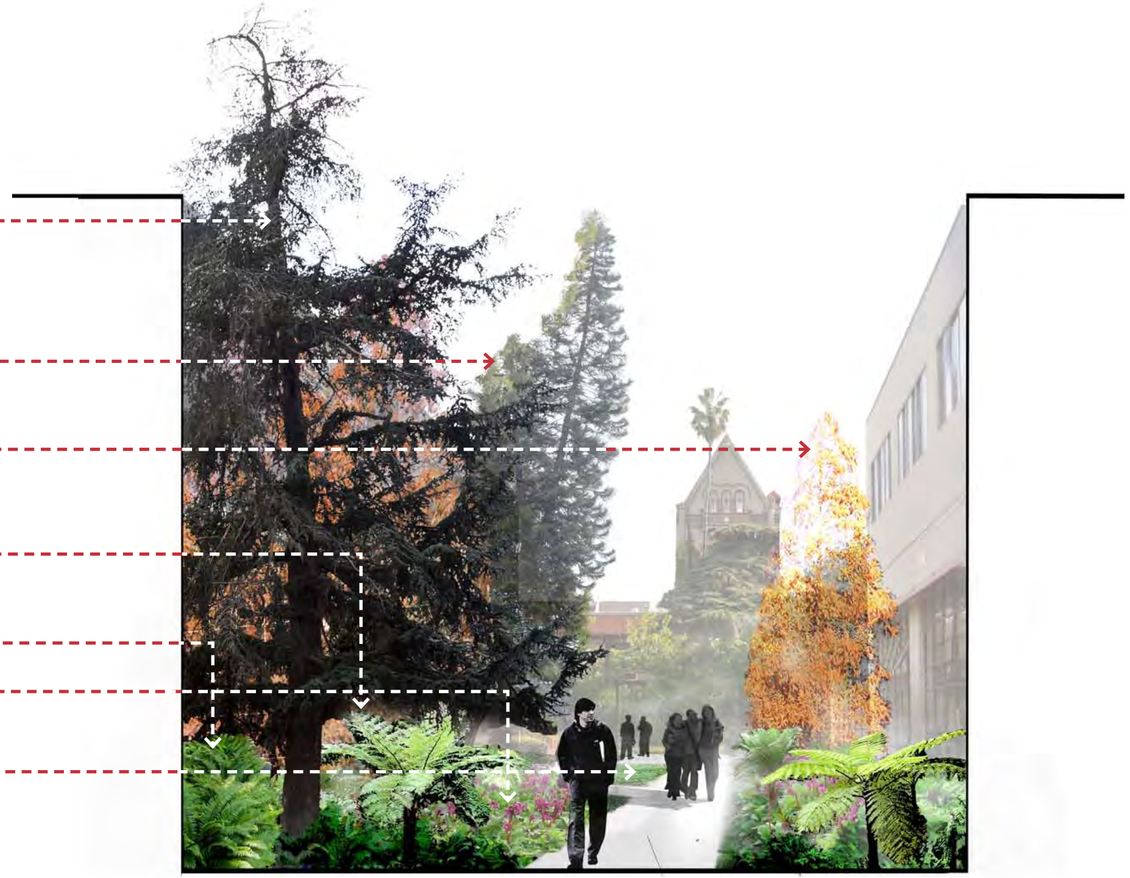
Dickinsonia spp.

Polystichum munitum

Bergenia spp.

existing Norfolk Island Pine

Oxalis oregana



Proposed view through passageway looking south towards Tower Hall

PASSAGE BEHIND SOUTH PARKING GARAGE

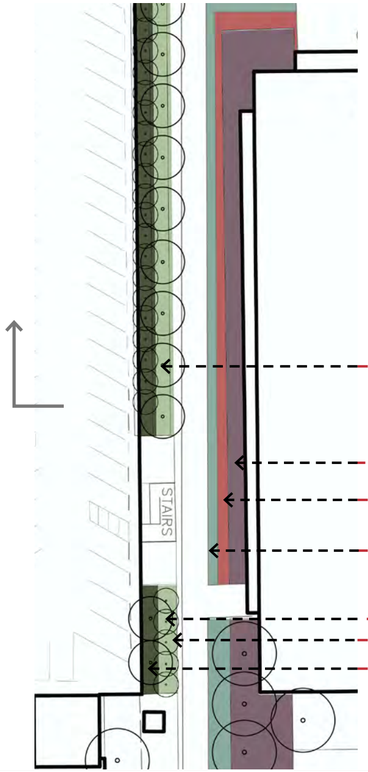
BOTANICAL / ARBORETUM

EXISTING CONDITIONS

View looking west between the S. Parking Garage and Sweeney Hall

- Currently the large buildings dominate the passage, which feels dark and narrow. The planting, including Australian pines, is outdated and overgrown, blocking light without serving a screening function, especially at the pedestrian scale.
- Proposed renovation uses tiered planting from the wet/tropical category of the 'Botanical/ Arboretum' palette to temper the scale of the buildings.
- White-trunked Eucalyptus citriadora match the scale of the parking garage and add light color to the space. A line of Vitex screens the ground floor. A brightly-colored tropical understory further enlivens the corridor.

PROPOSED CONDITIONS



Eucalyptus citriadora

Pachystachy lutea

Leucadendron "Safari Sunset"

Dianella variegata

Vitex

Cyathea cooperi

Cordyline 'Purple Dazzler'

Proposed view through passageway towards Science Quad

COURTS & PLAZA

The following projects look at opportunities to enhance gathering areas that are smaller and more intimate than the main quads. These renovations might be seen as opportunities for donors to finance discrete projects.

Examples of attractive, inviting courtyards at Paley Park (top) and UCLA (above)

SOUTH ENTRY PLAZA TO SCIENCE BUILDING

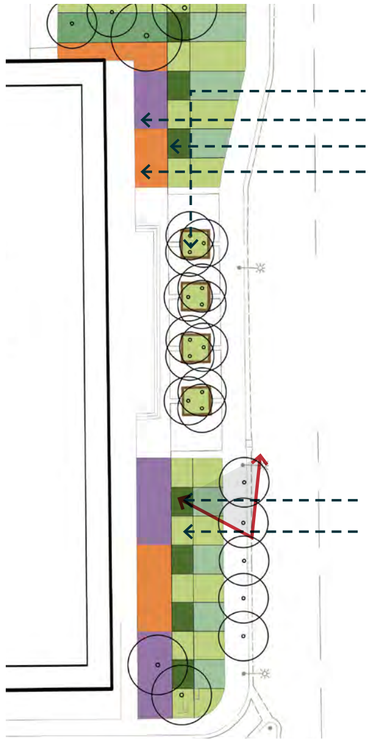
BOTANICAL / ARBORETUM

EXISTING CONDITIONS

View east along San Salvador Street in front of Duncan Hall

- The existing entry to Duncan Hall is marked by outdated planting in raised concrete beds with outdated globe lights.
- Proposed renovation uses plants from the dry/desert category of the 'Botanical/ Arboretum' palette. The globe lights are replaced by clusters of multi-branched Arbutus trees up-lit from within the planters.
- Sculptural and otherwise distinctive species are planted in grids on the ground plane flanking the building entrance, including larger specimens of Aloe and Echium and lower-lying succulents like Heuchera and Echeveria
- The new planting should create a biologically and visually distinctive image for this key entry into the science district of campus.

PROPOSED CONDITIONS



View of redesigned entry plaza to Duncan Hall

COURTYARD OF ART BUILDING

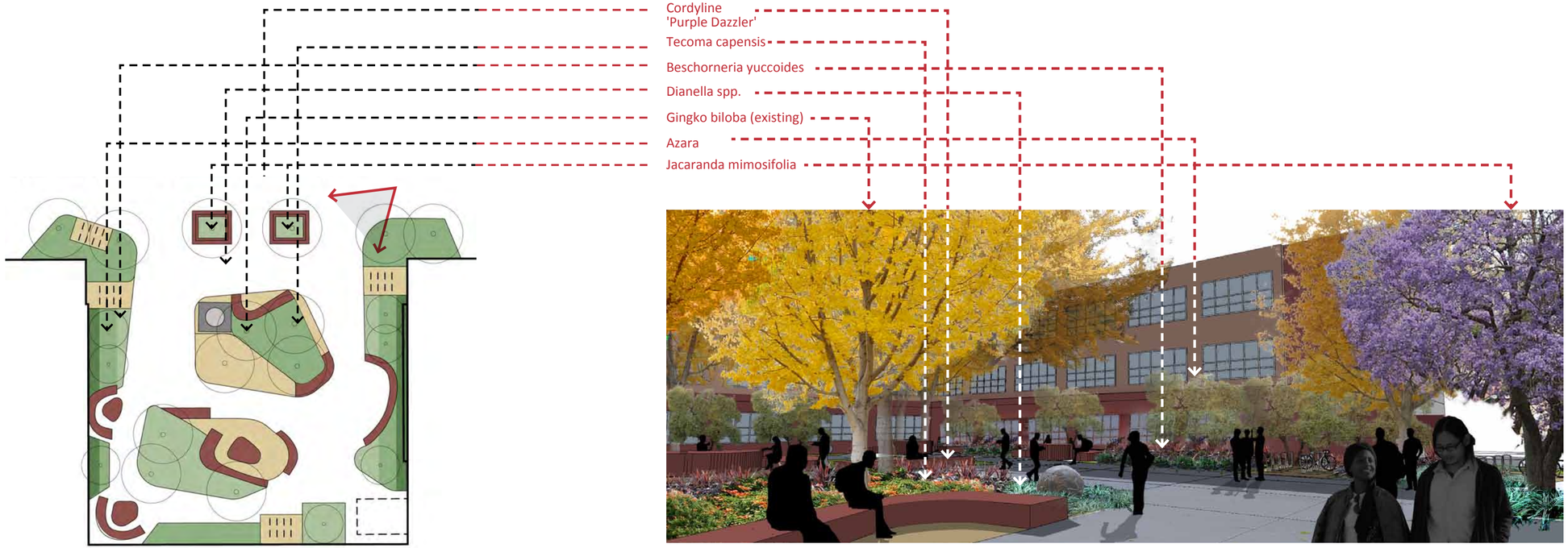
EXISTING CONDITIONS

View south into courtyard of the Art Building

- Currently, this important and centrally-located gathering place has sparse, outdated planting, inappropriate tree species in some cases (e.g. female ginkgo tree), and seating opportunities incommensurate with the level of demand.
- The proposed design for the plaza draws on brightly colored plants included in the Subtropical palette to build up color and texture. The female gingko is replaced by male gingkos and jacaranda trees.
- Seating is reconfigured using a combination of boomerang shaped benches and booths for a greater range of orientations and experiences
- Bike parking grounded in DG is placed between planting beds as part of the larger design strategy

SUBTROPICAL

PROPOSED CONDITIONS



View looking southeast into redesigned Art Plaza

WESTERN ENTRY TO PASEO DE SAN CAROS

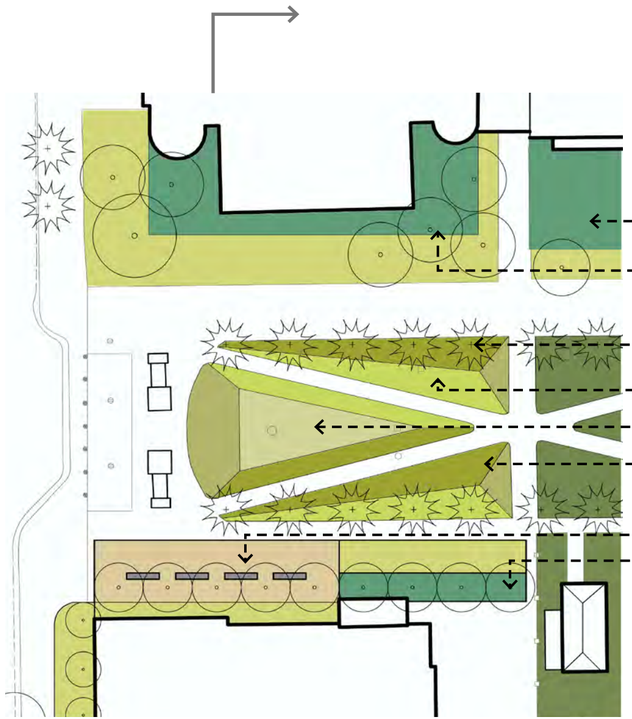
PASEO LANDSCAPE

EXISTING CONDITIONS

Looking east along Paseo de San Carlos from near the entry at S. 7th St.

- The Paseo is generally in quite good condition with its strong procession of palms and well-maintained lawn
- Building edges have overgrown, outdated planting to the north and a dying bosque set in concrete to the south.
- Many of the canopy trees are in mediocre condition and should eventually be phased out
- Proposed design adds interest at gateway with landforms planted with meadow grasses at the first lawn panels that also serve a stormwater management function
- A new plaza with a DG ground plane to the south screens the West Parking Garage and provides seating.
- A revised palette of canopy trees and low-maintenance understory, drawn from the Paseo plant palette, fills out landscape abutting Yoshihiro Uchida Hall.

PROPOSED CONDITIONS



Viburnum suspensum

mixed canopy trees (Elaeocarpus decipiens, Cinnamomum camphora, Tipuana tipu)

existing palms

mounded earth planted with meadow grasses (carex spp.)

depression planted with wet meadow grasses (carex spp.)

DG plaza with seating, replacing dying bosque

Evodia trees screening parking garage

View East from Entry to Paseo de San Carlos showing new planting at building edges, new seating area adjacent to South Parking Garage, and topographic treatments at edge of lawn

PLANTING PRACTICES

This section of the plan identifies a series of issues facing the campus landscape, strategies for overcoming those issues, and general guidance on day-to-day maintenance and operations practices.

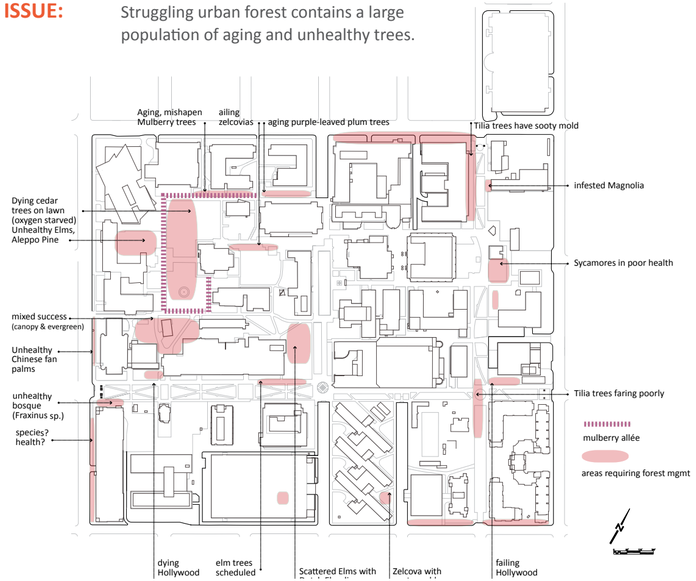
URBAN FOREST

Parts of the campus' urban forest are suffering for a variety of reasons, whether "terming-out" (coming to the end of their life cycle) or weakened by insect/fungi cycles due to the use of species that are inappropriate to the shifting climatic zone. To fully address the urban forest and properly manage it into the future, a detailed urban forest management plan is needed. This Landscape Master Plan offers a general summary of some of the key problems in the urban forest as well as few immediate actions that can help address some of those problems and begin to put the campus' urban forest on a path to better health.

The following is a summary of issues coupled with suggested strategies to address them.

Sick and overpruned trees (possibly Fraxinus Raywood Angustifolia), Paseo de San Carlos

ISSUE: Struggling urban forest contains a large population of aging and unhealthy trees.

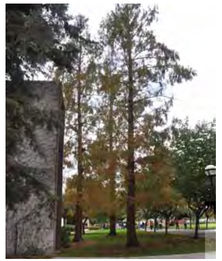


STRATEGY: Replace priority trees and create a detailed, phased urban forest management plan which will:

- identify priority trees to be removed and a replace in a phased approach
- identify species that consistently work v. fail
- remove and consider replacing select poorly performing woody species:
  - Alnus
  - Carpinus
  - Fraxinus
  - Liquidambar
  - Liriodendron
  - Sapium
  - Tilia
  - Ulmus
  - Zelkova
- develop plan for general thinning and strategic management of existing urban forest

ISSUE: Poor health in trees, particularly evergreen species, planted in lawns due to water tables elevated by irrigation and mowing traffic around roots. This is particularly visible along paseos and in cedar trees on the Tower Quad lawn.

STRATEGY: Create proper room around roots of trees in lawn areas. Remove or replace failing trees with species that can tolerate irrigation and mowing traffic. Some deciduous conifers like Dawn Redwoods (see photo) show more success. Or, alternatively, remove lawn and reduce or remove irrigation from the drip zones of these trees and transition them to a lower water regime or phase out watering all-together.



Tree damaged by lawn mower along the 9th Street Mall (left); Dawn Redwood at Tower Hall Quad (right)

ISSUE: Sycamore trees are faring poorly in several areas of campus, notably along the 9th Street Mall. Location in highly-irrigated lawn zones is contributing to poor health.

STRATEGY: Phased removal of unhealthy Sycamores and thinning/ pollarding of unhealthy specimens in the interim or, alternatively, remove lawn and reduce irrigation from drip zones.

Unhealthy bosque of Sycamore Trees along 9th St. Mall (left); Pollarded Sycamore trees, UC Berkeley (right)

ISSUE: Aging and failing Rosaceous tree species, including: Prunus, Pyrus, Malus, Crataegus, Eriobotrya, among other

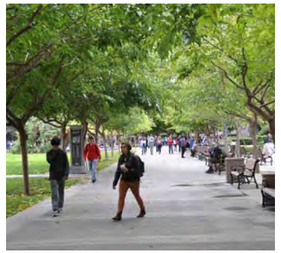
STRATEGY: Reduce Rosaceous tree species and replace trees with more climatically appropriate alternatives.

Aging Purple Plum trees on the north side of campus

Columnar Copper Beech (Fagus sylvatica atropurpurea)

ISSUE: Declining health of misshapen mulberry trees will eventually cause them to become too unsafe or costly to maintain.

STRATEGY: Replacement, in the near-future, would be the most cost-effective solution with a more tropical species like Tipuana tipu, red oak, or cork oak.



High maintenance Mulberry trees, lining Tower Hall Quad

Tipuana tipu could be appropriate species for Tower Hall Quad

ISSUE: Northern, deciduous species (including Zelkova,Tilia, and Prunus) suffering from sooty mold.

STRATEGY: Replace ailing trees with climatically appropriate deciduous species selected for their pest resistance, e.g. Ginkgo (pictured), Quercus, Pistacia, or Fraxinus americana.

Struggling Tilia trees in front of Engineering Building along north edge of campus

Gingko tree on 9th Street Mall

ISSUE: American Elms are in decline with Dutch Elm Disease. They will become increasingly less aesthetic and more hazardous as well as blocking attractive architecture lines.

STRATEGY: Remove and selectively replace with alternative species from the Paseo plant palette

American Elm along Paseo de San Carlos

PLANTING MASSES / BEDS

This Landscape Master Plan proposes a shift in strategy for landscape maintenance & operations from more intensive maintenance methods—nvolving high degrees of trimming and mowing—to less intensive methods allowed by a shift to self-heading plants that seek their own natural shape and require less pruning & trimming, less mowing (through selective turf reduction – see next section) and more attention to ongoing rehabilitation of soils, replanting of beds and gradual addition of new planting beds. The following issues and strategies are proposed as general guidelines for these new methods:

ISSUE: Planting masses typically associated with building foundation plantings are overgrown or outdated in many areas around campus. Many of these suffer from over-shearing or simply being at the end of their life cycle.

STRATEGY: Replace old shrub plantings with masses selected from the new planting palettes according to the thematic zone within which they fall. These planting masses should be thought of as the edges of the planting zone they are part of, rather than the perimeter of a particular building.

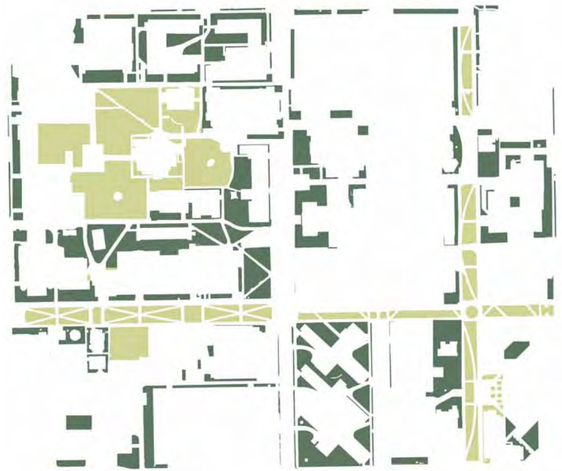
ISSUE: Excessive maintenance resources are being consumed on trimming superfluous growth on shrubs and groundcover.

STRATEGY: Begin replacement of all shrubs and groundcover that are not "self-heading", reducing the need for continual trimming/pruning.

ISSUE: Conventional fertilizers typically create a flush of growth in the spring season after application causing the need for additional trimming and pruning later.

STRATEGY: Begin transition to humic-based fertilizers that build soil structure and quality leading to more consistent support of plant materials throughout the year and reducing the need to supplement with conventional fertilizing.

LAWN



PRESERVE AS LAWN
TRANSITION TO PLANTING BEDS

The Landscape Master Plan recognizes that lawns are critical to campus image and campus social function as seating and gathering spaces, and work well to serve those purposes in many areas around campus, especially the paseos and quads. There are many areas, however, where lawns are not used for gathering, nor are they contributing to campus image as well as other planting strategies might. Replacing selective lawn areas with alternative groundcovers will reduce the resources needed for mowing, maintenance and irrigation.

typical campus lawn area (top) and drought tolerant lawn alternative (above)

ISSUE: Extensive lawn requires extensive maintenance and resources.

STRATEGY: Identify lawn areas that are under-used and replace with alternative groundcover or planting mix coupled with a reduction in the irrigation in this zone. See adjacent diagram showing potential under-utilized areas of lawn to transition to other types of planting.

OPERATIONS & MAINTENANCE

This Landscape Master Plan proposes a shift in strategy for landscape maintenance & operations from more intensive maintenance methods involving high degrees of trimming and mowing to less intensive methods involving planting species that seek their own natural shape and require less pruning & trimming, less mowing (through selective turf reduction) and more attention to ongoing rehabilitation of soils, replanting of beds and gradual addition of new planting beds. The following issues and strategies are proposed as general guidelines for these new methods:

MOWER DAMAGE

ISSUE: Trees are damaged at their bases where lawn mowers hit them.

STRATEGY: Remove lawn from the bases of trees and replace with shrub or mulch beds – adjust irrigation as needed.

HAT-RACKING

ISSUE: Maintenance compromises tree health through ill-advised pruning.

STRATEGY: Prune healthy trees in a manner that maintains and promotes their natural shape – typically thinning from the interiors and re-shaping lower branches to encourage raising the canopy height. Alternatively, remove unhealthy trees rather than aggressively pruning them.

TRAMPLING

ISSUE: Low planting and lawn are trampled in high traffic areas.

STRATEGY: Develop barrier strategy for directing traffic away from planting.

Damage caused by mowing up to the tree's base.

Tree health and appearance compromised by 'topping.'

Trampled lawn off 9th Street Mall

Example of an attractive planting barrier

OVER-WATERING

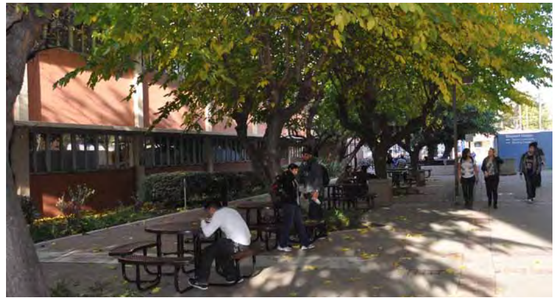
ISSUE: Over-watering is a problem in many areas throughout campus either applying excessive amounts of water to a given planting type or over-spraying paved areas because of misaligned irrigation heads.

STRATEGY: Conduct an Irrigation Systems Audit to rate the efficiency of each landscape zone. Reprogramming with up-to-date controllers that accommodate soil type and profile, season length of sunlight hours, precipitation, temperature, and resulting evapotranspiration, should reconcile runtimes and volumes. Valves, heads and manifolds should be inspected and upgraded to elevate efficiency. Periodic water quality testing should be routine, given the water sourcing.

ARBOREAL THATCH

ISSUE: Arboreal Thatch forms from colliding tree canopies. Trees shade each other out and create dark zones.

STRATEGY: Thinning and the creation of an 'Arboreal Plan' that prioritizes certain canopies over others. This should be part of a comprehensive urban forest management plan.



Overgrown canopy of Mulberry Trees between the Industrial Studies Building and Student Union

V. IMPLEMENTATION

The following diagrams and matrices prioritize the projects and practices identified in this document to help guide a strategy for phasing the implementation of this Landscape Master Plan. This section outlines three categories of implementation projects in order of their immediacy and complexity. Projects in all three groups are numbered in order of priority and seek to create a sequence of improvements that considers urgency of problem, impact to users, and the relationship to other improvements.

IMMEDIATE PROJECTS (“LOW-HANGING FRUIT”)

This first category identifies a series of immediately achievable projects that require a minimum of design effort and can provide some immediate results and improvement to the campus landscape.

Projects include mostly tree replacements and draw from the urban forest practices recommended in the previous section. Projects are summarize on the adjacent plan and also on the summary matrix at the end of this section.

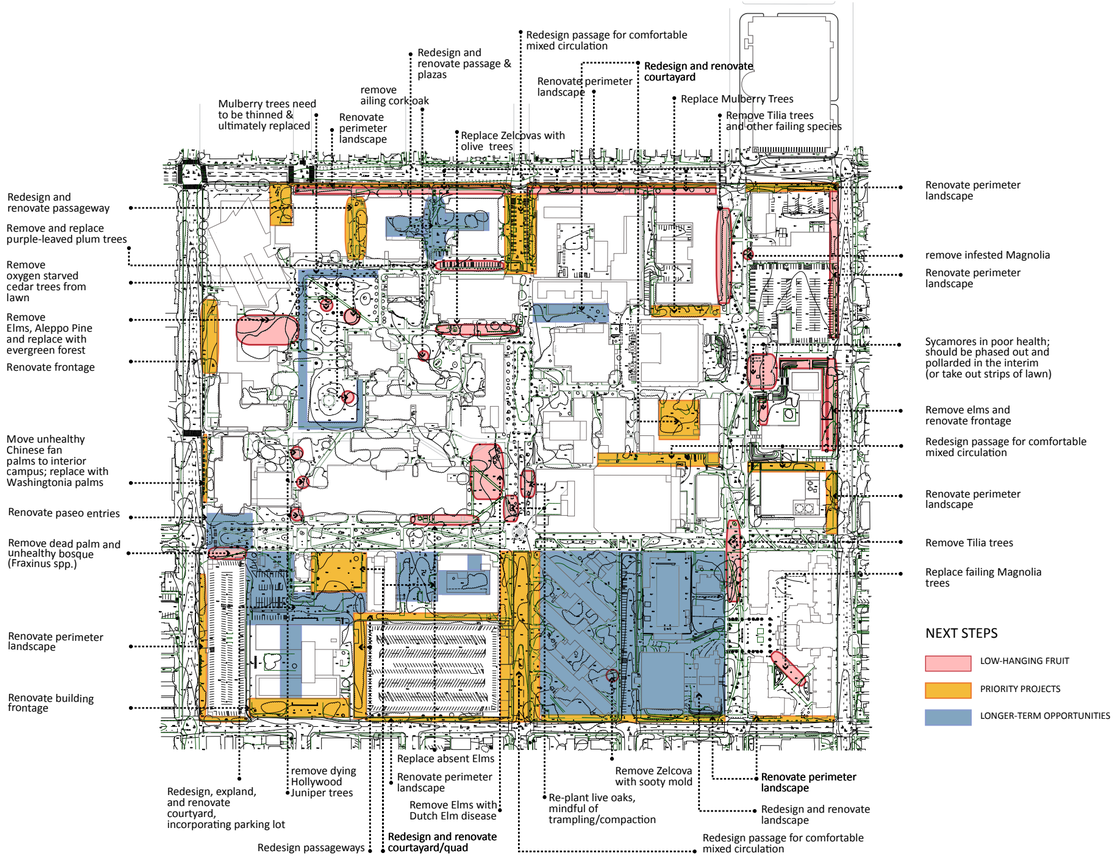
PRIORITY PROJECTS

This group includes projects that should be a high priority but require more planning and consideration than the ‘Immediate Projects’ due to the complexity of the changes recommended. These projects can be initiated and implemented as budgets allow.

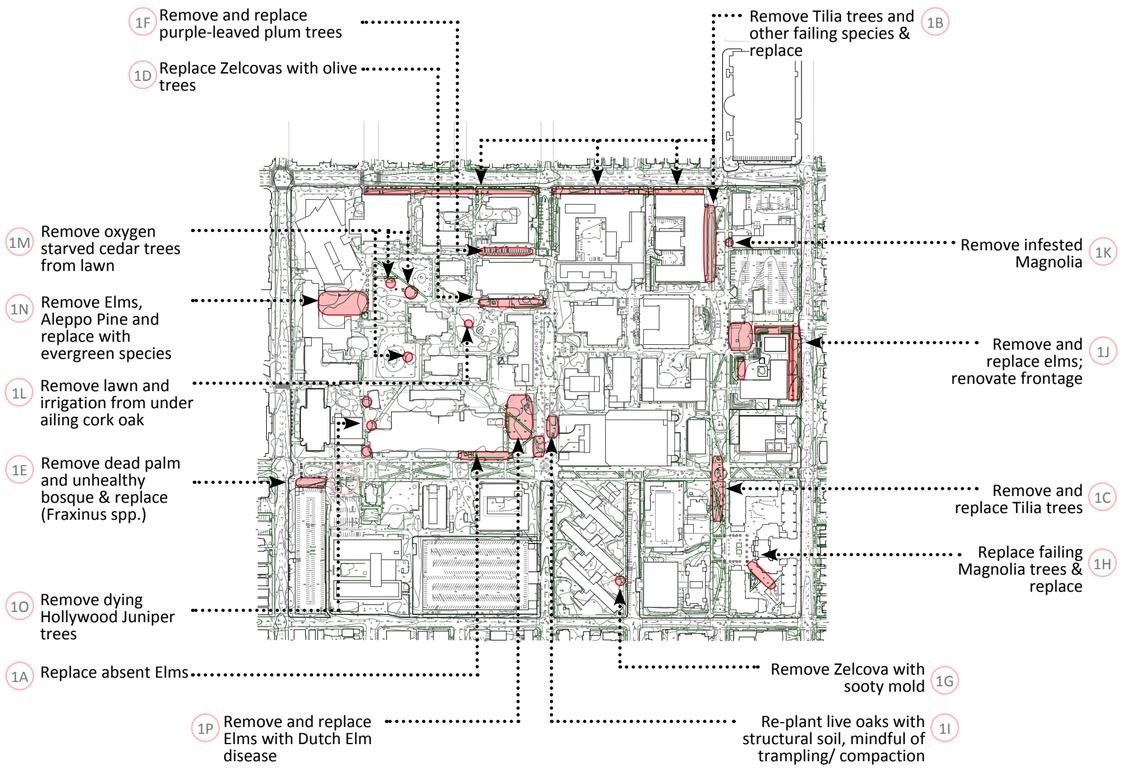
These projects are divided into two categories: plans and projects.

LONGER-TERM IMPROVEMENT PROJECTS

Longer-term projects are either of lower priority, higher complexity or tied to longer-term changes around campus. They will generally require a more significant level of study and detailed design before being ready for implementation.



SUMMARY PLAN OF ALL PROPOSED PROJECTS



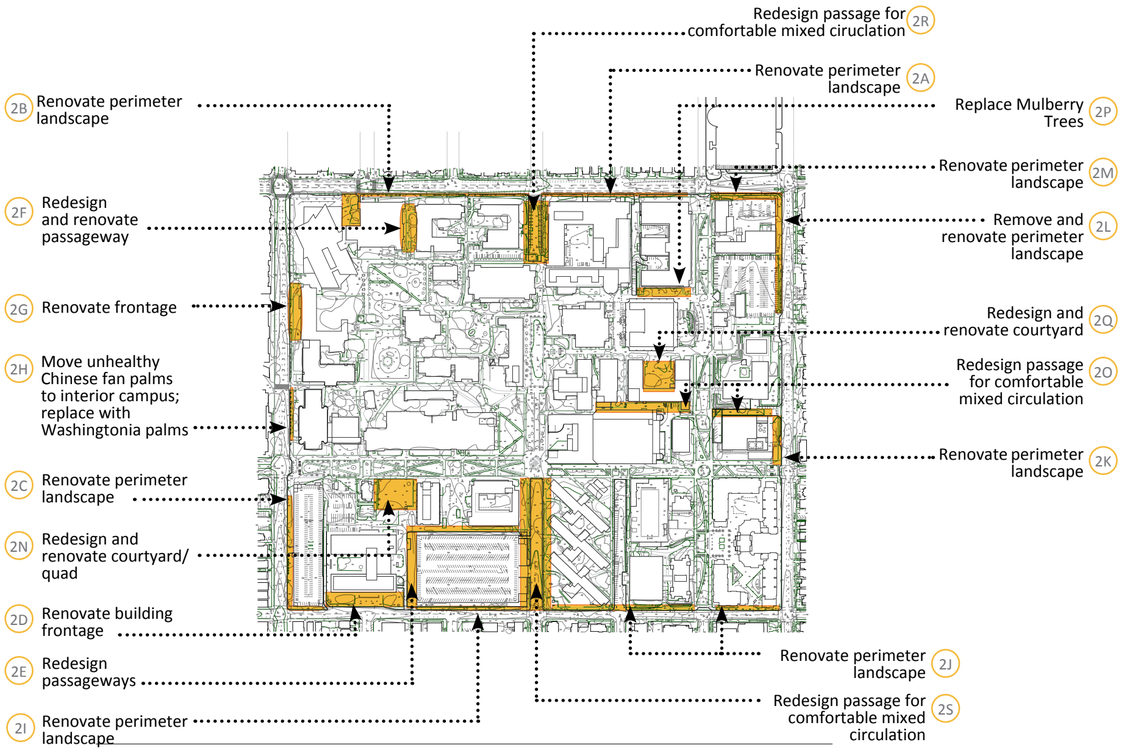
1. SHORT TERM ("LOW HANGING FRUIT")

IMPLEMENTATION PROJECTS

1. SHORT TERM ("LOW HANGING FRUIT")

KEY	PROJECT NAME	DESIGN CONSULTATION	DESIGN STUDY		COMMENT
1A	*Replace absent Elms*	●		LA ARB	Select new species
1B	*Remove Tilia trees and replace*	●		LA ARB	Remove existing; select new species
1C	*Remove/ replace Tilia trees*	●		LA ARB	Remove existing; select new species
1D	*Replace Zelcovas with Olive trees*	●		LA	Consult on cultivar and specifications
1E	*Remove palm, bosque & replace*		●	LA ARB IRR	Remove existing; new planting design recommended
1F	*Remove Zelcova with sooty mold*				
1G	*Remove/ replace plum trees*	●		LA ARB	Remove existing; select new species
1H	*Replace failing Magnolia trees*	●		LA ARB	Remove existing; select new species
1I	*Replant Live Oaks w/ struct. soil*		●	LA ARB	Remove existing; recondition soil; replace with new specimens
1J	*Remove/ replace Elms at frontage*		●	LA ARB IRR	Remove existing; new planting design recommended
1K	*Remove infested Magnolia*	●		LA ARB	Consult on replacement options
1L	*Remove lawn/ irr. from under oak*	●		LA ARB IRR	Consult on configuration and drip zone
1M	*Remove Cedar trees from lawn*				
1N	*Remove/ replace Elms & Aleppo P.*		●	LA ARB IRR	Remove existing; new planting design recommended
1O	*Remove dying Juniper trees*				
1P	*Remove/ replace Elms w/ disease*	●		LA ARB	Wait for Health Clinic Project to remove existing; if appropriate, select new species

LA Landscape Architect ARB Arborist/ Horticulturist IRR Irrigation Specialist



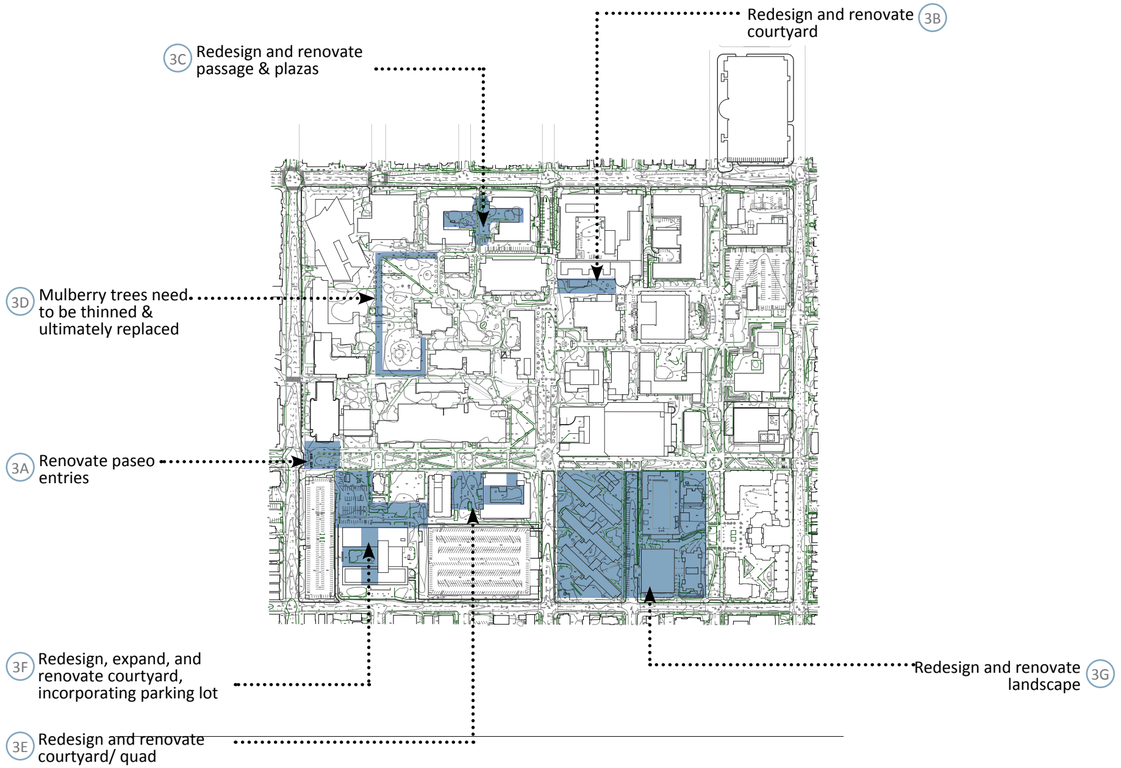
2. MID TERM (PRIORITY)

IMPLEMENTATION PROJECTS

2. MID TERM (PRIORITY)

KEY	PROJECT NAME	DESIGN CONSULTATION	DESIGN STUDY		COMMENT
2A	*Renovate perimeter landscape*		●	LA ARB IRR	Remove existing; new planting design recommended
2B	*Renovate perimeter landscape*		●	LA ARB IRR	Maintain selective specimens; replace understory; new planting design recommended
2C	*Renovate perimeter landscape*		●	LA ARB IRR	Remove existing; new planting design recommended
2D	*Renovate building frontage*		●	LA ARB IRR	Remove existing; new planting design recommended
2E	*Redesign passageway*		●	LA ARB IRR	Maintain selective specimens; new planting design recommended
2F	*Redesign/ renovate passageway*		●	LA ARB IRR	Maintain selective specimens; new planting design recommended
2G	*Renovate frontage*		●	LA ARB IRR	Remove existing; new planting design recommended
2H	*Move fan palm; replace w/ Wash.*	●		LA ARB	Remove existing; new planting design recommended
2I	*Renovate perimeter landscape*		●	LA ARB IRR	Maintain selective specimens; new planting design recommended
2J	*Renovate perimeter landscape*		●	LA ARB IRR	Maintain selective specimens; new planting design recommended
2K	*Renovate perimeter landscape*		●	LA ARB IRR	Maintain selective specimens; new planting design recommended
2L	*Renovate perimeter landscape*		●	LA ARB IRR	Maintain selective specimens; new planting design recommended
2M	*Renovate perimeter landscape*		●	LA ARB IRR	Maintain selective specimens; new planting design recommended
2N	*Design/ renovate courtyard/ quad*		●	LA ARB IRR	Maintain selective specimens; new planting design recommended
2O	*Redesign passage for mix use circ.*		●	LA ARB IRR	Major reconfiguration of hardscape; maintain selected species; new planting design
2P	*Replace Mulberry trees*		●	LA ARB IRR	Remove existing; new planting design recommended
2Q	*Redesign/ renovate courtyard*		●	LA ARB IRR	Major reconfiguration of hardscape; maintain selected species; new planting design
2R	*Redesign passage for mix use circ.*		●	LA ARB IRR	Major reconfiguration of hardscape; maintain selected species; new planting design
2S	*Redesign passage for mix use circ.*		●	LA ARB IRR	Major reconfiguration of hardscape; maintain selected species; new planting design

LA Landscape Architect ARB Arborist/ Horticulturist IRR Irrigation Specialist



3. LONGER TERM

IMPLEMENTATION PROJECTS

3. LONGER TERM

KEY	PROJECT NAME	DESIGN CONSULTATION	DESIGN STUDY		COMMENT
3A	*Renovate paseo entries*		●	LA ARB IRR	Integrate stormwater management; remove existing; new grading & planting design
3B	*Redesign/ renovate courtyard*		●	LA ARB IRR	Remove existing; new grading, hardscape, & planting design recommended
3C	*Design/ renovate passage, plazas*		●	LA ARB IRR	Remove existing; new grading, hardscape, & planting design recommended
3D	*Mulberry trees thinned/ replaced*		●	LA ARB IRR	Develop phased approach to ongoing maintenance and replacement
3E	*Design/ renovate courtyard, quad*		●	LA ARB IRR	Remove existing; new grading, hardscape, & planting design recommended
3F	*Design/ renovate courtyard w/ pkg*		●	LA ARB IRR	Remove existing; new grading, hardscape, & planting design recommended
3G	*Redesign/ renovate landscape*		●	LA ARB IRR	Once new development design is determined, design landscape to conform & integrate Landscape Master Plan principles.

4. ON-GOING STUDIES

KEY	PROJECT NAME	DESIGN CONSULTATION	DESIGN STUDY		COMMENT
4A	*Urban forest mgmt plan*		●	LA ARB	Develop comprehensive approach to managing campus urban forest
4B	*Maintenance & operations plan*		●	LA ARB	Guidelines for maintenance and operations methods, schedule & products
4C	*Irrigation systems audit*		●	LA IRR	Analyze in light new landscape strategies and species
4D	*Water & soils testing*		●	LA ARB	General, ongoing testing; integrate results into maintenance & operations plan
4E	*Botanical & arboretum plan*		●	LA ARB	Develop detailed plan for Science Quad botanical garden/arboretum

LA Landscape Architect ARB Arborist/ Horticulturist IRR Irrigation Specialist

V. ACKNOWLEDGMENTS

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WRT