Landscape Guidelines

Landscape Goals

Landscape Design Process

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Signage

Section 4

"Men and women come here at the most impressionable period of their lives, and lost is the most important of opportunities for raising the standard of their taste and cultivating higher instincts, if they do not find themselves at once in an atmosphere of fine artistic surroundings."
John Galen Howard

Preceding page: Ansel Adams, View from the "Big C" Hill, Eucalyptus Grove, 1966
Keystone-Mast Collection, California Museum of Photography, University of California, Riverside

The Classical Core of UC Berkeley is the heart of the campus community and the center of campus life. It is rich in architectural resources and landscape expression, having developed and evolved over a 150-year period. Responding to this valued historical and environmental context, the landscape guidelines address site planning and landscape components for the Classical Core.

The Landscape Guidelines section includes:
- Landscape Goals
- Landscape Design Process
- Site Planning: which defines the contextual relationship of landscape components with buildings and campus-wide systems.
- Landscape Components: which describes the materials and furnishings pallete appropriate for the Classical Core.

The landscape guidelines are derived from the values and characteristics of the Classical Core as discerned from the historical assessment and the implementation concepts. They provide direction for the overall composition of elements within a particular landscape setting.

Landscape Goals | The following goals and objectives form the foundation of the Classical Core's landscape guidelines. They supplement and further the goals and objectives of the University's *Landscape Master Plan*.

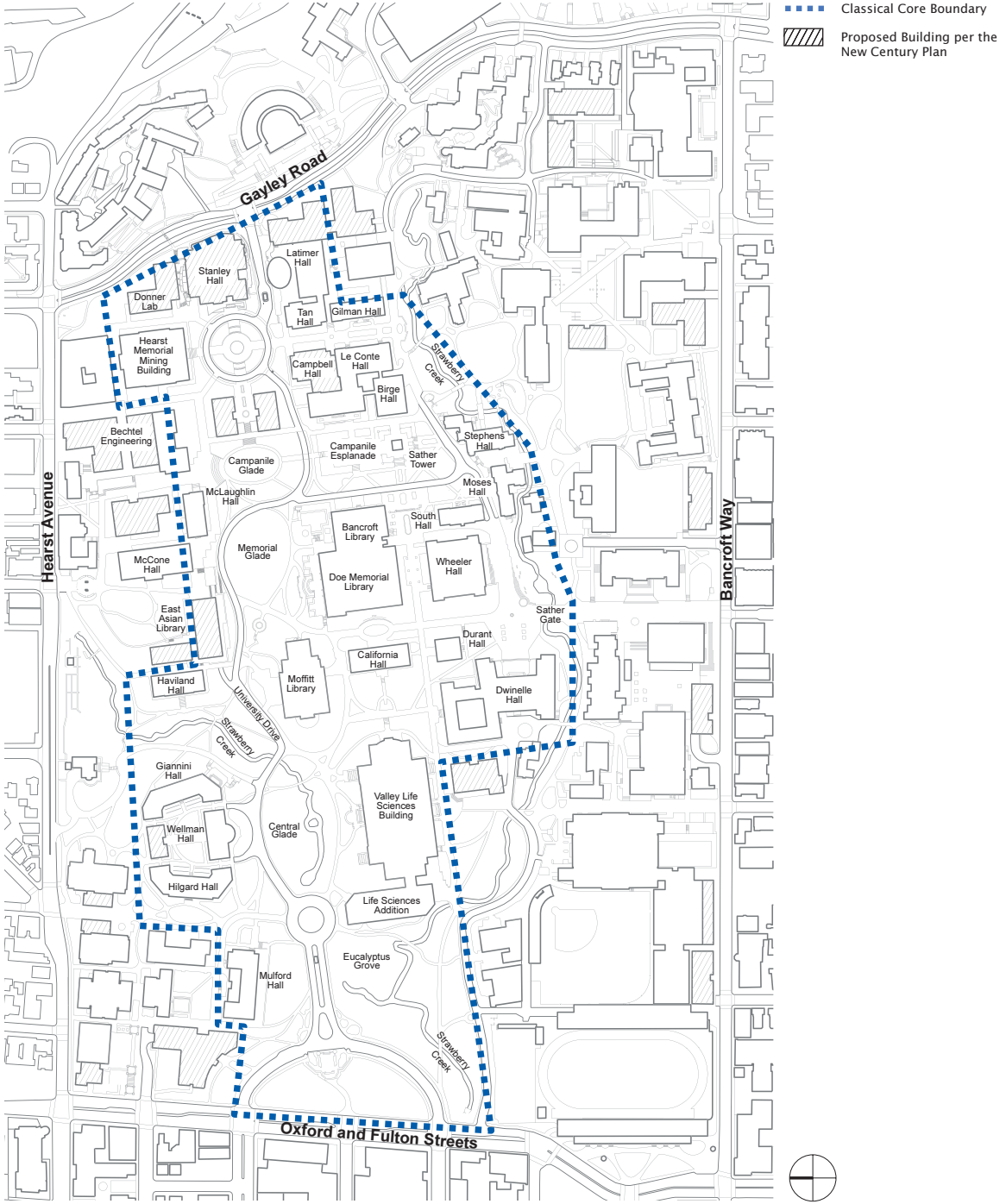
Respect the character of the historic landscapes in the Classical Core
- Evaluate extant features within historical landscapes and determine the strategy(s) for recommended treatments
- Integrate appropriate materials, textures, and patterns to complement historic landscapes
- Create compositions that respect the historic landscape character

Integrate functional, aesthetic, and sustainable considerations
- Promote principles of sustainability, accessibility, and ecological management
- Advocate for the use of sustainable materials with all landscape design
- Integrate and promote elements that are established and successfully used on campus

Provide a safe, accessible campus environment
- Integrate universal access standards in design
- Define and designate separate circulation routes for vehicles and pedestrians
- Provide adequate lighting, furnishings, and signage to accommodate day and night pedestrian use

Landscape Design Process | The landscape guidelines provide direction to designers, maintenance personnel, and University staff in all stages of a project. When undertaking landscape improvements in the Classical Core, project participants should undertake the following steps:
- Review UC Berkeley (campus-wide) site improvement requirements and codes
- Review detailed project-specific guidelines as prepared by the University
- Consult with the Campus Landscape Architect on location, color, size, and configuration of all landscape elements
- Submit landscape plans and details to the Campus Landscape Architect and the Design Review Committee for review and approval

The Campanile Esplanade (2003).



Campus map highlighting buildings and prominent landscape spaces in the Classical Core.

Site Planning | Site planning addresses the relationship of site-specific improvements to important contextual elements of the landscape, such as views or circulation. In some cases, this includes establishing and defining contextual elements. Guidelines relating to site planning, used in conjunction with guidelines for planting, paving, lighting, and other landscape components, provide the overall direction and approach for site-specific landscape enhancements in the Classical Core.

The Site Planning section provides descriptions and guidelines for the elements listed below, which are described in further detail on the following pages. When a design is being prepared for a campus open space, all of these contextual elements should be considered.

- Formal and Dynamic Views
- Circulation Systems
- Grading and Drainage
- Service Areas
- Utilities

The **West Entrance** of campus emphasizes the east-west axis along the Central Glade, established by Olmsted and reinforced by Howard.

The vignette illustrates:

- Restoring historical views along the Central Glade axis.
- Creating a pedestrian plaza within the West Circle.
- Using the Campus Standard light fixtures in symmetrical configurations along University Drive.
- Locating low bollards around the West Circle to control vehicular circulation.

Formal and Dynamic Views | Views are an important element of the landscape, orienting pedestrians and enriching their experience as they move through the campus.

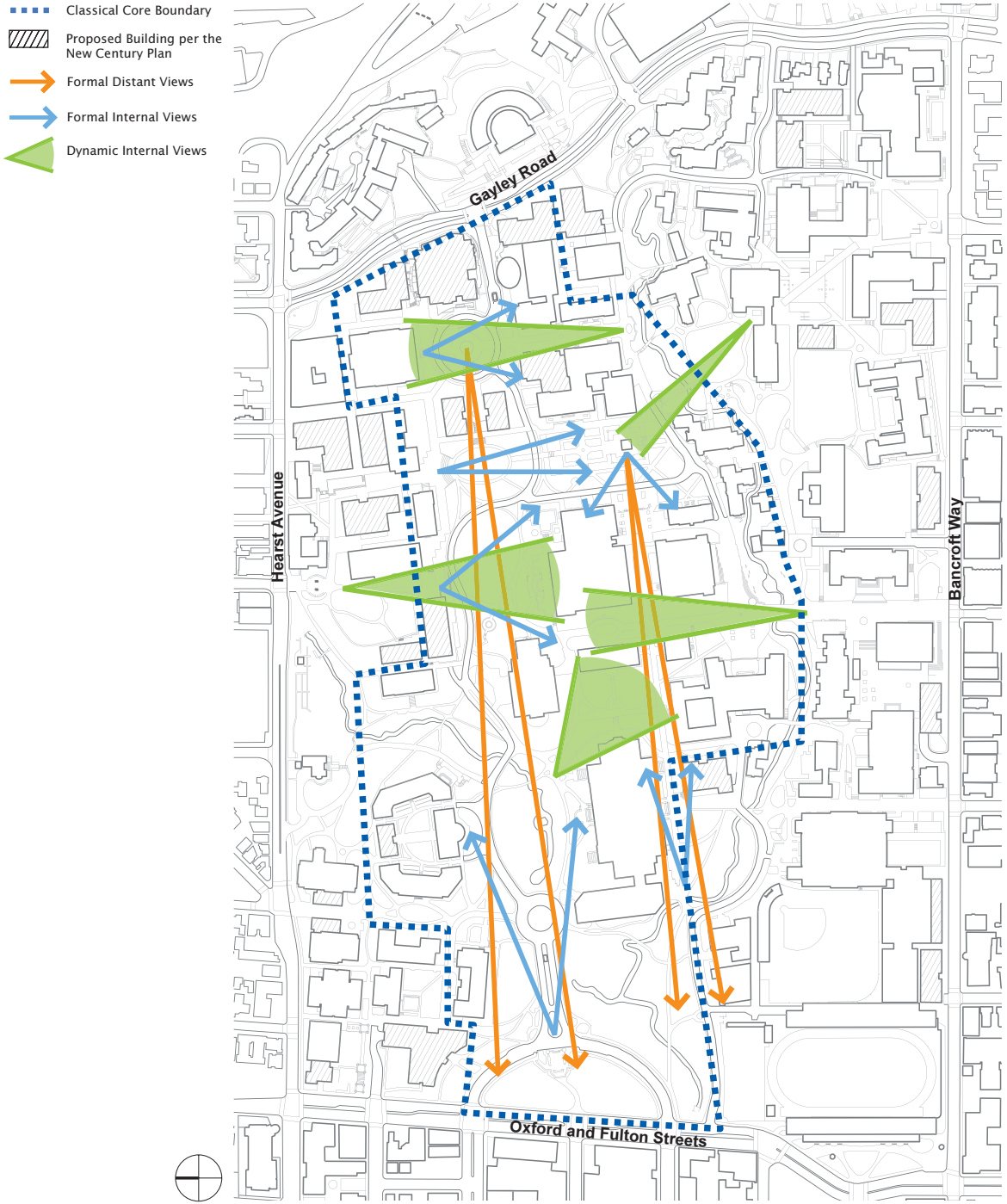
Illustrated in the accompanying diagram, the campus includes both formal and dynamic views. Through careful placement of buildings and landscape, formal views orient the viewer from a specific vantage point to discreet objects in the landscape. Within the Classical Core, the composition of neoclassical buildings and landscape frame distant views to the Golden Gate and internal views to landmark buildings on campus, such as Sather Tower (the Campanile).

Dynamic views are experienced as one moves through the landscape. Continuously changing, dynamic views in the Classical Core focus on historic beaux-arts buildings and the movement through the outdoor rooms, such as Campanile Esplanade and Harmon Way. Dynamic views of the landmark Sather Tower (the Campanile) - the visible icon rising above trees, buildings, and city blocks - orient visitors to the campus from near and far.

Design Intent:

- Organize and integrate design components to respect the formal and dynamic views of the Classical Core.
- Conduct a site-specific spatial analysis to determine sensitive formal and dynamic views around buildings or within landscapes.

The view of the Central Glade with signature red tile roofs of campus buildings, and the San Francisco Bay beyond (2003).



Formal and Dynamic Views Diagram

Circulation Systems | The Classical Core is pedestrian oriented with restricted vehicular use. Its historic network of vehicular and pedestrian routes affords access to campus buildings and amenities, provides places for social interaction, connects visitors to the campus's past, and serves as character-defining features in the landscape. The guidelines build upon and enhance the existing circulation system, establishing a clear hierarchy and maintaining the integrity and symbolic values of the Classical Core.

Illustrated in the accompanying diagram and discussed below, the circulation system in the Classical Core consists of:

- Vehicular Roads
- Walks
- Paths
- Trails
- Plazas
- Building Entrances
- Bridges

The Landscape Components section provides discussion and guidelines for the treatment of circulation materials and finishes in the Classical Core.

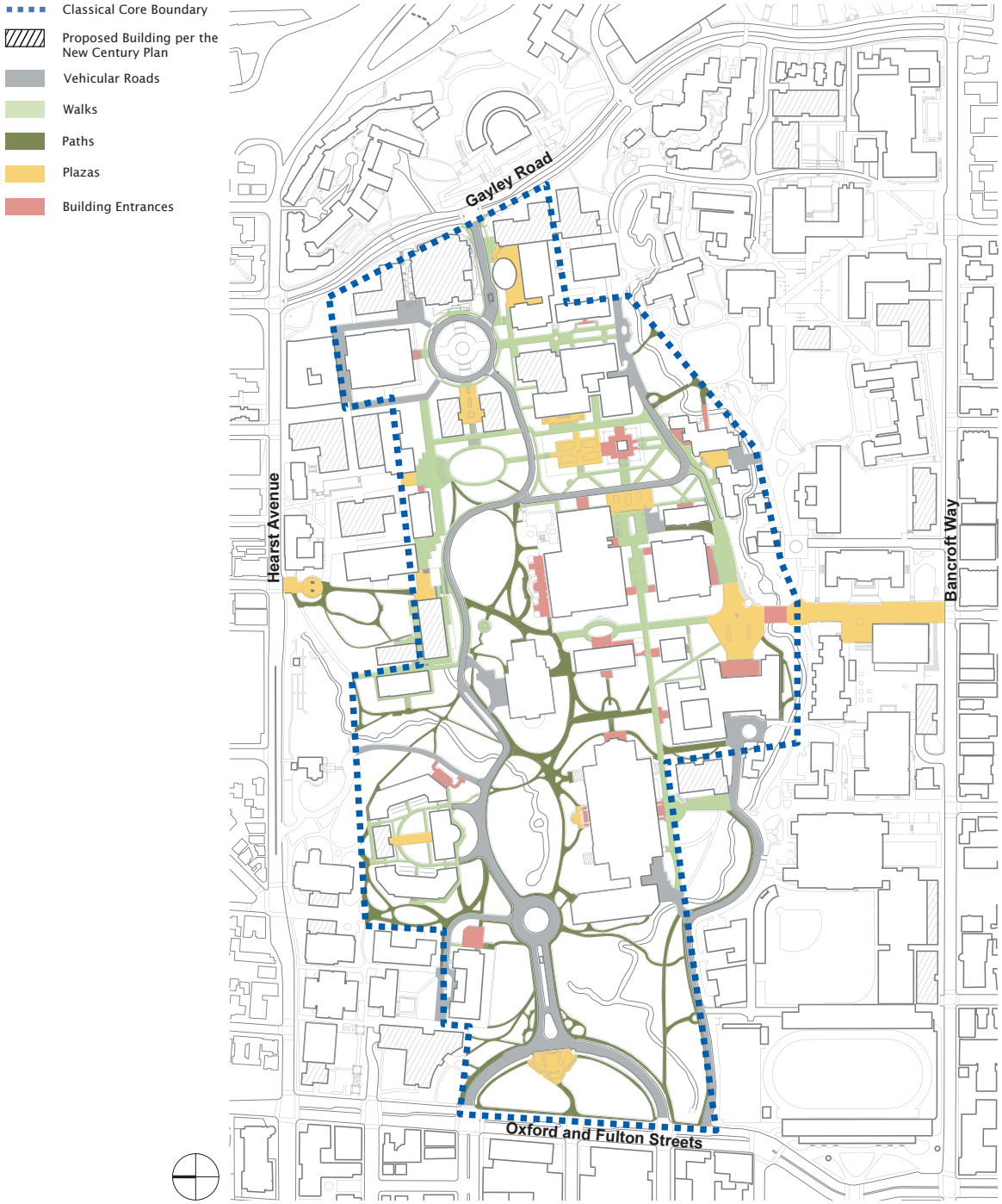
Design Intent:

- Apply the Campus Accessibility Master Plan program for improving and correcting deficiencies.
- Conduct site-specific analysis and programming to determine circulation systems, and material selection, within and around a project site.

Improvements along **South Hall Drive** create a harmonious setting in the heart of the Classical Core.

The vignette illustrates:

- Creating an allee of trees along the Drive, held back from the curb to manage street use.
- Defining road, walks, and plazas with distinct paving materials.
- Using the Campus Standard light fixtures in symmetrical configurations, held back from the curb edge, without obstructing prominent views of neoclassical buildings.



Circulation Diagram

Sather Road is categorized as a campus walk with its linear character (2003).

The distinct design of the Campanile Esplanade is an exemplary plaza on campus (1996).
Courtesy Charles Benton

Vehicular Roads
Vehicular roads are routes designated primarily for vehicular and bicycle traffic. Examples of roads on campus include University Drive and South Hall Drive.

Walks
Pedestrian walks are formal pedestrian ways that respond to the building geometries of the Classical Core. They are geometric in character, reflecting the beaux-arts influence, or curvilinear reflecting the picturesque or modern influence. Pedestrian walks include paved areas defined by buildings and paved areas adjacent to buildings in architectonic configurations. Though designated for pedestrian use, major walkways may also provide emergency vehicle access. Examples of typical pedestrian walks include Sather Road, Campanile Way, Oppenheimer Way, and the proposed University Walk.

Paths
Pedestrian paths are sinuous circulation elements reflecting the picturesque influence. They provide linkages between exterior spaces and buildings. Integrated with the topography of the Berkeley campus, this network of paths results in flowing routes for pedestrians navigating the grounds. Pedestrian paths include those in and around Memorial Glade and Central Glade.

Trails
While not a primary means of circulation, pedestrian trails serve the natural areas of the Classical Core and other areas of campus. They weave through the heavily wooded sections of Strawberry Creek, providing access to quiet, intimate spaces. Pedestrian trails are not identified on the *Circulation Diagram*.

Plazas
Plazas are large, social gathering areas on campus, generally located adjacent to major pedestrian routes. They serve as outdoor rooms for studying, places of interaction, contemplation, and eating. Plazas may be active or passive in character. Plazas are often affiliated with building entries and are typically defined by the surrounding architecture. Examples of existing plazas include Dwinelle Plaza and the plaza between Stephens and Moses Halls.

Building Entrances
Primary building entrances are important historical features, serving as the forecourt and providing the transition from exterior to interior space. They contain the richest use of paving materials in intricate patterns. Exemplary building entrances include those at Wheeler Hall, Doe Library, and Giannini Hall.

Bridges
Due to their unique character and setting, bridges are an independent category of the circulation system. Bridges play an important historic role representing different architectural periods and styles, and a functional role of crossing the forks of Strawberry Creek. Although primarily for pedestrian use, some bridges provide vehicular access. The bridges are not identified on the *Circulation Diagram* due to the scale and quantity of data found on the plan.

Grading and Drainage | The campus's natural landform is characterized by the gentle sloping plane toward San Francisco Bay bisected by the drainage patterns of Strawberry Creek. The pattern of stair-stepped building terraces express the campus's formal topography. The constant change in grade from the east to the west on campus affords distant views to the west.

Design Intent:

- Use grading techniques that complement the campus's remaining natural landforms.
- Minimize the use of ramps and stairs for building connections to adjacent walks, paths, and plazas.
- Design surface drainage systems to minimize concentration of surface runoff and avoid soil erosion.
- Promote natural infiltration, such as grass-lined swales, to restrain surface flows, filter water, and reduce stormwater drainage into Strawberry Creek.

Service Areas | Buildings within the Classical Core typically have four main facades and lack any "back of building" for service uses. However, service areas are needed for loading docks and large building utilities as a functional requirement of building programs. They may also include trash containers, which should be relocated or screened to improve building appearance or consolidate service uses.

Design Intent:

- Integrate enclosures for service areas with adjacent buildings, and use finishes similar to the construction materials of the buildings.
- Accommodate large utilities or trash containers within the building. If not possible, cluster components and screen from entries and primary pedestrian paths.
- Integrate external enclosures into the surrounding environment with appropriate lighting, materials, and finishes. Conceal enclosures by using trees, shrubs, and vines.

Opening views along **Strawberry Creek** reveals Howard's neoclassical bridge set within the natural landscape type.

The vignette illustrates:

- Restoring views of the 1910 bridge and views across Strawberry Creek through the management of the tree canopy within the creek woodland.
- Revegetating creek banks with low native plantings suitable for the riparian woodland environment.
- Locating site amenities at pedestrian gathering areas.

Example of typical landform creating a building terrace (2003).

Utilities | Due to the topography and the landscape context of the Classical Core, each site on campus is unique and requires significant coordination of building and site utilities.

Design Intent:

- Design and coordinate the location of new surface utilities to accommodate long-term maintenance requirements and minimize conflicts with the campus's mature landscape.

Below Grade Elements

The relationship of underground elements and the landscape is highly important in this dense, urban campus. Examples of underground utilities include electrical substations, manholes, controlled environment vaults, and steam service.

Design Intent:

- Consolidate new underground utilities into "tunnels", in multiple, parallel installations, under roads, walks, and plazas to minimize impacts on the landscape.
- Locate surface hatches, utility covers, and ventilation and access elements within paved areas. If planted areas are the only option, coordinate with existing tree locations and integrate into shrub and ground cover plantings to conceal their appearance.
- Conceal vault covers in modular paving areas, utilizing a pan-like cover to accept the finish paving material.

Above Grade Elements

Above grade utilities include backflow preventors, fire standpipes, gas docks, emergency generators, and other large elements. They typically require maintenance access and clearances.

Design Intent:

- Integrate above grade elements into the site or building design to minimize their impact on the landscape.
- With new building construction, consolidate utilities with adjacent facilities where possible.
- Locate air intake units for buildings away from outdoor sitting areas and service areas to minimize the intake of smoke and exhaust fumes.
- If utilities occur in the landscape, locate away from primary entries and walks and screen with an enclosure and/or plant material.
- Integrate external enclosures into the surrounding environment by using appropriate scale, materials, and finishes.
- For enclosure materials, use concrete, wood, or metal, depending on the landscape context.
- Paint above grade utilities with the campus standard color (Elephant's Breath) unless specific color is required by code or the location makes it more desirable to blend with an adjacent structure color.
- Coordinate landscape and engineering disciplines to prevent visible utilities in historic view corridors and other undesirable locations.

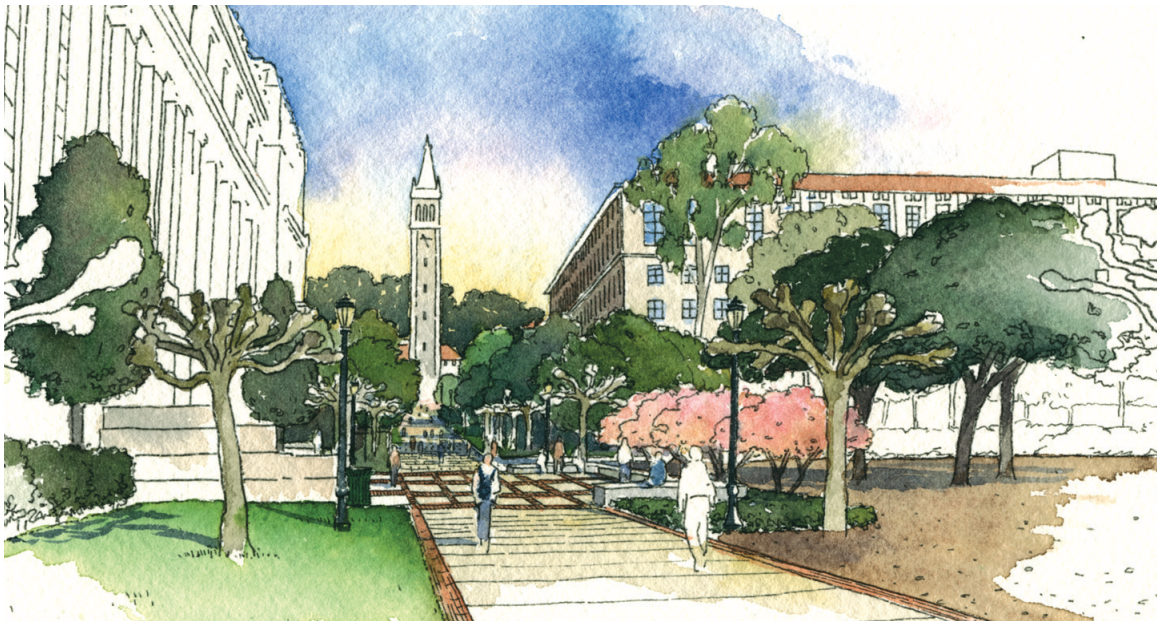
Landscape Components | Landscape Components refer to discrete elements in the designed landscape, such as planting, paving, light fixtures, and benches. To enhance a landscape, careful consideration must be given to site planning (discussed in the previous section), style of landscape components appropriate for the historic setting, and the overall arrangement of the components in the landscape setting.

The Landscape Components section provides descriptions and guidelines for the elements listed below, which are described in further detail on the following pages.

- Planting
- Paving Materials
- Lighting
- Pedestrian Barriers and Traffic Controls
- Furnishings
- Signage

For each element, the guidelines address the location, use, overall composition, materials, colors, and finishes. When a design is being prepared for a campus open space, all of these compositional elements should be considered.

This section begins with a diagram and description of landscape types for the central campus and a narrative of the evolution of campus planting.



The future rehabilitation of **Campanile Way** restores this major east-west circulation corridor to its primary use as a pedestrian walk.

The vignette illustrates:

- Restoring views to the Campanile with selective pruning of large canopy trees.
- Planting pollarded London Plane Trees to infill locations along the allee.
- Using consistent modular pavers along the length of the walk and restoring the historic brick gutters.
- Locating Campus Standard light fixtures in a symmetrical configuration along the walk.

Landscape Types

As documented in the *Landscape Master Plan*, the campus landscape is comprised of a typology consisting of five types, used to describe and organize the physical attributes and historic context of the campus open space system. The order of the types below reflect the chronology of their development.

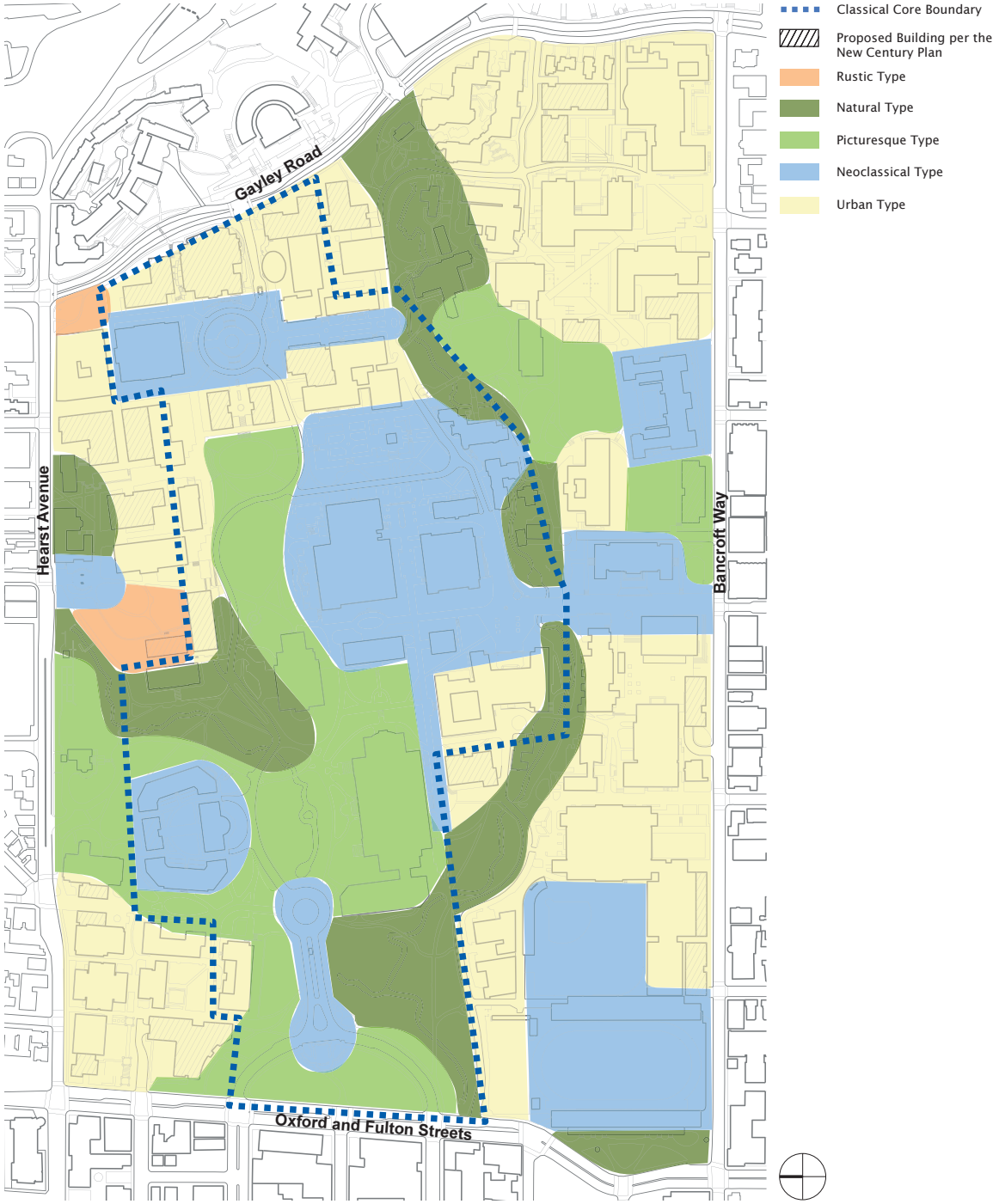
Rustic type - The original landscape character featuring native plant dominance, rustic character, low maintenance requirements, and relating to neoclassical or rustic architecture. Example: Founder's Rock

Natural type - A landscape that appears natural in the campus, but has been altered. Native or indigenous plant dominance, low maintenance requirements; may support neoclassical or rustic architecture. Example: Grinnell Natural Area

Picturesque type - The picturesque Olmsted-style landscape of rolling pastoral lawns, informal mixed tree borders, mixed exotic and native plants, high maintenance requirements, and not directly related to particular architectural styles. Example: Central Glade

Neoclassical type - Rigid architectural landscape framing neoclassical and Beaux-Arts campus buildings, with typically exotic plants selected to enforce the architectural styling and moderate to high maintenance requirements. Example: Campanile Esplanade

Urban type - Typically exotic landscape plantings in contemporary, geometric urban plazas, popular as places of interaction, with building forms dominant and moderate maintenance requirements. Example: Dwinelle Plaza



Landscape Types Diagram

The Evolution of Campus Planting

In a span of nearly 150 years, the Berkeley campus has evolved from a natural landscape of grassy fields creased by riparian woodlands to a complex composite of planted spaces varying from naturalistic compositions of mature trees to geometric patterns in the urban and neoclassical settings. This evolution results from a complex layering of plantings based on functional needs, support of research and academic requirements, and designs by planners, horticulturists, and landscape architects.

Ecological History

The site chosen for the new College of California was that of a classic California landscape - barren, grassy slopes, dormant in summer, dotted with dark broadleaf trees along the streams and on cooler north-facing slopes. Though the landscape imagery has changed, many trees and understory shrubs still exist. Live Oaks (*Quercus agrifolia*) follow the forks of the creek and still dot Faculty Glade and Observatory Hill. California Bay (*Umbellularia californica*) line the creeks, their fragrance filling the air during rain or when crushed under foot. Several gnarled, old California Buckeyes (*Aesculus californica*) serve as landmark sculptures in Faculty Glade and at North Gate. Toyon (*Heteromeles arbutifolia*) emerges in winter with its bright red "Christmas berries".

Academic and Research History

The campus has served as both an arboretum and outdoor laboratory planted for research and classroom needs of the faculty for over 100 years. The early plantings of the Agricultural Experiment Station supported the research and academic needs of the faculty. Oats and wheat were grown in the vale north of North Hall to feed the University's work animals. An orchard of over 200 varieties of fruit trees was planted on the knoll where Wellman, Giannini and Hilgard Halls now stand. The Experiment Station also planted various conifers and hardwood timber trees (English Oaks, Tulip Trees, elms and hickories) and many Australian species that still remain both on the Central Campus and in Strawberry Canyon.

An Economic Garden was once established near the Center Street entrance. It contained grasses, forage plants, cereals, medicinal and textile plants, vegetables and a variety of trees and shrubs studied by students in botany, pharmacy, and other disciplines.

Design Ideals

The planting of the campus reflects layers of concepts and ideals about the design of the landscape. Some are bold and clear, such as the Campanile Esplanade beaux-arts classicism, while other periods are more subtle, with only a few relic trees remaining.

Agricultural Crops

Planting orchards and other crops served the needs of the University to experiment with various crop plants and techniques for the state's developing agricultural economy. With a climate so different from the rest of the country, faculty and researchers in the Agricultural Experiment Station needed to test different varieties of fruit trees and explore farming techniques suitable for California.

Ornamental Plants

The second influence was the importation of and experimentation with the unique array of ornamental plants from around the world. New plants were being brought to California from South America, Australia, New Zealand, and Asia to satisfy the curiosity of horticulturists, nurserymen, and the University faculty.

These exotic plants were in fashion to decorate gardens and parks in California. Palms, conifers, acacias, eucalyptus, and many tropical and subtropical plants were planted on campus. A few such plants, such as a Camphor Tree (*Cinnamomum camphora*), the Titoki (*Alectryon excelsum*), and Chilean Soapbark (*Quillaja saponaria*), remain today where the Botanical Garden once existed.

Picturesque Landscape

Frederick Law Olmsted's early design for the College of California campus was laid out following the romantic ideal of the picturesque landscape. Remnants of this setting are visible in the Central Glade, Faculty Glade, and the West Entrance.

Beaux-Arts Landscape

The classical ideals expressed in design fostered by Ecole des Beaux-Arts began to appear on campus with John Galen Howard's Plan of 1914, which created a landscape married with neoclassical architecture. Plantings followed architectural patterns in allees, bosques, hedges, and in pollarded canopies of plane trees. A rhythm of planting large conifers at the corners of these monumental buildings, linked by hedges or low shrubby ground cover, created a softer counterpoint to the symmetry and geometry of both architecture and the plane trees.

Modern Landscape

During the late 1900s, landscapes for individual buildings followed no discernible pattern or style. Plant composition relates primarily to the building and less often to the context of the surrounding campus landscape. Popular plants used during this period were star jasmine, Canary Island Ivy, Indian Hawthorn, Coast Redwood, Xylosma, and Pittosporum. After the drought years following 1977, more attention was paid to water conservation in plant selection. More California native plants and Mediterranean climate plants were used on projects.

Topographic - Turf used on the gentle slope of Faculty Glade (2003).

Linear - Allee of pollarded London Plane Trees along Campanile Way (2003).

Planting | The planting patterns within the Classical Core were carefully studied in the development of this plan. The planting guidelines document the Classical Core's history and extant conditions as an invaluable guide for future improvements. The guidelines take into consideration the dynamic quality of plant materials and the related need for maintenance to ensure the proper design intent. In some cases within the Classical Core, the extant plant materials have outgrown their intended expression and are in need of refinement.

The guidelines also respond to the decline in diversity of campus plantings caused by the loss of aging specimen trees to age or disease, the construction of new facilities and buildings, a simplification of the plant palette partly driven by the need to simplify maintenance, and past trends in landscape design.

The guidelines for planting are organized as follow:

- Planting Compositions
- Plant Categories
- Plant Materials

Planting Compositions

The arrangement of planting materials on campus is categorized as topographic, linear, spatial, and architectural. These interrelated categories address the development of forming landscapes around buildings and the definition of outdoor space.

Topographic

The natural topography of the campus is a gentle sloping plane descending towards the Bay, with landforms defining the drainage patterns of Strawberry Creek. Memorial Glade, Faculty Glade, and West Oval all express this relationship to the original campus landform. A series of manipulated slopes and building terraces express the landscape's more formal topography. This strong expression of the terraces allows buildings to sit prominently on a level terrain, creating an intertwining rhythm with the character of the landscape. Retaining walls also express the campus's topography. They serve as grade separation devices as well as seating opportunities and provide a variety of planting alternatives.

Design Intent:

- Respect and reinforce natural and designed slopes and their functions.

Linear

Linear plantings, either straight or curvilinear in nature, serve as significant landscape expressions on campus. The dominant corridor of Strawberry Creek vegetation, the allee of pollarded trees along Campanile Way, and the hedges around the Campanile Esplanade are examples of linear compositions.

Design Intent:

- Reinforce the linear compositions found in the landscape.

Spatial

Formal, architectonic arrangements and informal, natural planting configurations spatially define the campus's outdoor rooms, glades, and quadrangles. The formal bosque at the Campanile Esplanade, the informal clustering of groves, and the understory plantings around glades contribute to defining these spaces. Specimen and large canopy trees also create landscape spaces by their location, canopy structure, and form. Many specimen trees, scattered

around the Classical Core, are remnants of the Agricultural Experiment Station and the Botanical Garden of an earlier period.

Design Intent:
- Reinforce the expression of outdoor spaces through formal and informal plantings.

Architectural

As architectural elements, plant materials accentuate building facades and pedestrian entries. Large, coniferous evergreen trees are often located at elevated corners to enhance the facade, while smaller human-scale trees accentuate the building entries. Uniform, low-growing shrub or ground cover provides a visual contrast to the light-toned buildings. Where rooftop terraces occur, plants soften the effects of paved surfaces, provide shade, and define spaces in these open areas.

Design Intent:
- Enhance and accentuate the architectural style of campus buildings.

Plant Categories

Various types of plants articulate and define the landscapes of the Classical Core. Primarily, specific plants are used to create compositions based on the plants form, height, texture, or color. The *Plant Categories for Landscape Compositions* Table identifies the dominant plant categories appropriate for individual landscape compositions. The *Plant Categories Summary Table* describes the plant categories based on primary characteristics.

Design Intent:
- Preserve or reinforce plant compositions in the Classical Core with appropriate plant materials.

Plant Materials

The character of the landscape remains strong in many areas where past periods of historic plantings remain dominant. The Classical Core includes areas that serve as teaching laboratories for plant identification and other classes. This can require a diversity of plants.

Design Intent:
- Identify areas with extensive historic plantings and plantings that define the area's character.
- If possible, retain the plantings that define the area's character. Replant as plants age and decline.
- Introduce new plantings as needed to reinforce the existing character or to impose a desired character that strengthens the dominant period type.
- Increase plant diversity to satisfy educational needs while retaining and reinforcing the harmony of areas with a highly identifiable character.
- In areas with a neoclassical landscape, retain existing specimen plants for their diversity as a supplement to the dominant landscape pattern.

Spatial - Bosque of pollarded London Plane Trees at Campanile Esplanade (1995). *Courtesy Charles Benton*

Architectural - Evergreen trees accentuate the building entry of California Hall (2003).

The view looking northeast over the Agricultural Complex and the wooded fork of Strawberry Creek (1999). *Courtesy Charles Benton*

Plant Categories for Landscape Compositions

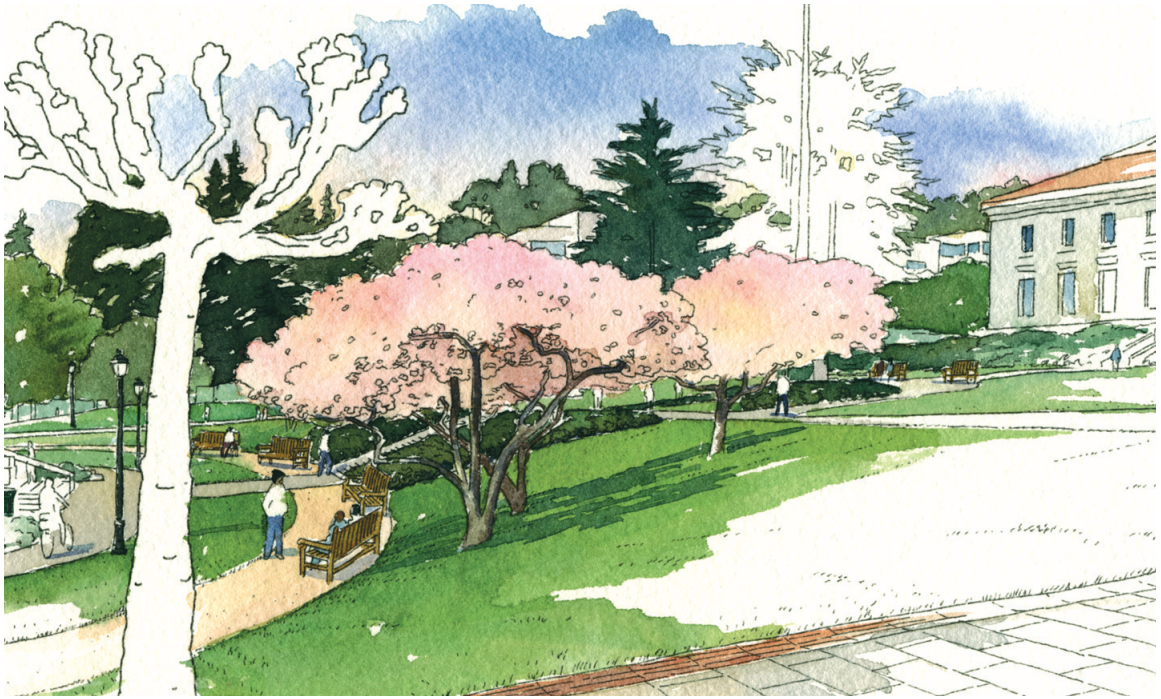
Landscape Compositions	Plant Categories				
	Canopy Trees	Accent Trees	Conifer Trees	Shrubs	Ground Covers
Topographic				•	•
Linear	•	•	•	•	
Spatial	•	•	•	•	•
Architectural		•	•	•	•

Plant Categories Summary

Plant Categories	Plant Descriptions			
	Height	Spread	Growth Habit	Characteristics
Canopy Trees	30' +	30' +	Single trunk, upright, broad spreading or picturesque form	Deciduous or Evergreen; provides shade, scale in large open spaces, or interesting branching habits for specimens
Accent Trees	15' - 30'	15' - 30'	Single or multi-trunk, columnar, upright, or narrow form	Deciduous or Evergreen; provides interesting flowers, texture, or leaf color suited for pedestrian scale
Conifer Trees	30' +	10' +	Single trunk, pyramidal to picturesque form	Evergreen (needle or scale-type); provides scale, screens, or frames views to buildings
Tall Shrubs	6' +	4' +	Clumping or spreading, regular or irregular form	Deciduous or evergreen; provides interesting flowers, texture, or leaf color
Low Shrubs	2' - 6'	2' - 6'	Clumping or spreading, regular or irregular form	Deciduous, evergreen or perennial; provides interesting flowers, texture, or leaf color
Ground Covers	Up to 2'	2' - 10'	Clumping or spreading forms	Evergreen; provides interesting flowers, texture or leaf color

Plant Selection

The information on the following pages summarizes the characteristics and names of commonly used plant materials appropriate for the Classical Core based on the plant categories discussed earlier in this section. Although the 1976 UC Berkeley publication *Trees of the Berkeley Campus* provides a comprehensive reference of trees once used throughout the campus, the abbreviated lists to follow represent selections specific to the Classical Core based on historic significance, compatibility with existing materials, availability, and successful plantings on campus. The listings should not be construed as complete inventories, as the University will consider additional plants that meet the description of the categories.



The picturesque landscape of **Harmon Way** is framed by neoclassical buildings and expressed through the use of landforms and plantings.

The vignette illustrates:

- Retaining the picturesque setting with views of California Hall on the upper terrace.
- Emphasizing the slope with low shrubs in a formal configuration surrounding the stairs.
- Creating a hierarchy of circulation through materials and path widths.
- Incorporating wood benches into this picturesque landscape type.

The Eucalyptus Grove west of Valley Life Sciences Building (2003).

Canopy Trees

Mature Size	30'+ height / spread	
Growth Habit	Single-trunk, upright, broad spreading, or picturesque form	
Characteristics	Deciduous or evergreen; provides shade, scale, or interesting branching habits as specimens	
Abbreviated List	Acer macrophyllum	Bigleaf Maple
	Aesculus californica	California Buckeye
	Aesculus x carnea	Red Horsechestnut
	Cinnamomum camphora	Camphor Tree
	Eucalyptus species	Eucalyptus
	Liriodendron tulipifera	Tulip Tree
	Magnolia grandiflora	Southern Magnolia
	Pittosporum undulatum	Victorian Box
	Platanus x acerifloia	London Plane Tree
	Quercus agrifolia	Coast Live Oak
	Umbellularia californica	California Bay

Accent Trees

Mature Size	15' to 30' height / spread	
Growth Habit	Single or multi-trunk, columnar, upright, or picturesque form	
Characteristics	Deciduous or evergreen; provides interesting flowers, texture, or leaf color suited for pedestrian scale	
Abbreviated List	Acer palmatum	Japanese Maple
	Ginkgo biloba	Maidenhair Tree
	Liquidambar styraciflua	American Sweet Gum
	Magnolia soulangeana	Saucer Magnolia
	Malus species	Flowering Crabapple
	Melaleuca ericifolia	Heath Melaleuca
	Olea europaea	Olive
	Platanus x acerifloia	London Plane Tree (pollarded)
	Populus nigra `Italica'	Lombardy Poplar
	Prunus species	Flowering Cherry

Conifer Trees		
Mature Size	30'+ height / 10'+ spread	
Growth Habit	Single-trunk, pyramidal to picturesque form	
Characteristics	Evergreen (needle or scale-type); provides scale, screen effects, or frame views to buildings	
Abbreviated List	Cedrus atlantica	Atlas Cedar
	Cedrus deodara	Deodar Cedar
	Cupressus macrocarpa	Monterey Cypress
	Metasequoia glyptostroboides	Dawn Redwood (deciduous)
	Pinus canariensis	Canary Island Pine
	Pinus radiata	Monterey Pine
	Sequoia sempervirens	Coast Redwood
	Sequoiadendron giganteum	Giant Sequoia
	Taxus baccata `Stricta'	Irish Yew
	Thuja occidentalis	American Arborvitae
	Thuja plicata	Western Red Cedar

Tall Shrubs		
Mature Size	6' + height / 4'+ spread	
Growth Habit	Clumping or spreading, regular or irregular form	
Characteristics	Deciduous or evergreen; provides interesting flowers, texture, or leaf color	
Abbreviated List	Abelia x grandiflora	Glossy Abelia
	Arbutus`Marina'	Strawberry Tree
	Camellia species	Camellia
	Cotoneaster lacteus	Cotoneaster
	Heteromeles arbutifolia	Toyon
	Leptospermum species	Tea Tree
	Ligustrum jap. `Texanum'	Privet
	Photinia species	Photinia
	Pittosporum species	Pittosporum
	Prunus laurocerasus	English Laurel
	Xylosma congestum	Xylosma

A Gingko specimen tree is a landmark from the campus's early years (2003).

Star jasmine in the Campanile environs (2003).

Low Shrubs		
Mature Size	2' to 6' height / spread	
Growth Habit	Clumping or spreading, regular or irregular form	
Characteristics	Deciduous, evergreen or perennial; provides interesting flowers, texture, or leaf color	
Abbreviated List	Arctostaphylos species	Manzanita
	Agapanthus species	Lily-of-the-Nile
	Azalea hybrids	Azaleas
	Buxus species	Boxwood
	Ceanothus species	Wild Lilac
	Hemerocallis hybrids	Daylilies
	Juniperus chin. `Pfitzeriana'	Pfitzer Juniper
	Pittosporum tobira	Tobira
	Prunus laur. `Zabeliana'	Zabel Laurel
	Taxus baccata `Repandens'	Spreading English Yew

Groundcovers		
Mature Size	up to 2' height /2' to 10' spread	
Growth Habit	Clumping or spreading forms	
Characteristics	Evergreen; provides interesting flowers, texture, or leaf color	
Abbreviated List	Arctostaphylos species	Manzanita
	Dwarf Tall Fescue	Turf
	Fragaria chiloensis	Ornamental Strawberry
	Hedera canariensis	Algerian Ivy
	Hedera helix	English Ivy
	Hedera helix `Needlepoint'	Needlepoint Ivy
	Juniperus s. `Tamariscifolia'	Tam Juniper
	Trachelospermum jasminoides	Star Jasmine
	Vinca minor	Dwarf Periwinkle
	Vinca major	Periwinkle

Paving Materials | Consistent use of selected paving materials enrich the campus environment, improve its functional and aesthetic qualities, and further the campus's sustainability goals. The *Paving Applications Table* identifies appropriate paving materials for the Classical Core and their application for the campus's circulation system (as illustrated in the *Circulation Diagram* in the Site Planning Section). The *Paving Materials Table* summarizes key characteristics of the paving materials allowed in the Classical Core. The rest of this section discusses the paving materials, categorized as modular pavements, poured-in-place pavements, or boardwalks.

The modular paving materials recommended for **Campanile Way** and **Sather Road** enhance the pedestrian environment at this major cross-axes of the campus.

The vignette illustrates:

- Maintaining the views of neoclassical buildings along these prominent corridors.
- Planting pollarded London Plane Trees to create design symmetry along both walks and restoring foundation planting around neoclassical buildings.
- Enhancing these pedestrian walks with modular paving materials - Campanile Way pavers to be larger in scale than Sather Road pavers.
- Locating Campus Standard light fixtures in symmetrical configurations without obstructing prominent views.
- Incorporating low seat walls at the intersection, framing views to the west.

The Campanile Esplanade, as viewed from above, with it's historic use of brick pavers (1998). *Courtesy Charles Benton*

Paving Applications

Circulation Categories	Paving Materials					
	Concrete or Stone Pavers	Brick Pavers with Granite Insets	Concrete	Asphaltic Concrete	Decomposed Granite	Boardwalks
Vehicular Roads/Bridges				•		
Walks	•		•			
Paths			•	•		
Trails					•	•
Plazas	○	•	•			
Building Entrances		•				
Pedestrian Bridges		○	•			•

• Typical

○ Exception Allowed

Paving Materials

Materials	Size	Color *	Finish	Manufacturers
Concrete Pavers	Varies	Varies	Ground	Hanover, Basalite, or McNear Brick
Stone Pavers	Varies	Sierra White or Iridian	Thermal	Cold Spring Granite
Brick Pavers	Varies	Red tones	Meet Applicable Codes	McNear Brick or HL Muddox
Granite Insets	8x8	Sierra White	Thermal	Cold Spring Granite
Concrete **	N/A	Neutral tones	Broom, Sandblast, or Exp. Aggregate	N/A
Asphaltic Concrete	N/A	Natural black	Rolled	N/A
Decomposed Granite	Per CDS***	Tan/Gold	Stabilized Fines	N/A
Boardwalks	2x6 decking	Tan/Brown	Meet Applicable Codes	Trex or Equal

* Color to be reviewed by Campus Landscape Architect

** Aggregates commonly used within the Classical Core for exposed aggregate paving include Red River, Terry Beach, Lodi, and Yuba and are typically 3/8"- 5/8" stones

*** CDS - UC Berkeley Construction Design Standards

**** Permeable pavements may be considered within this system

Modular Pavements

The use of modular pavers on walks and plazas is consistent with the historical character of the Classical Core. They permit water percolation and are reusable after trenching or repairs if constructed with un-mortared joints. Modular pavers set over a pervious material improves stormwater management, reduces long-term maintenance costs and repair time, and supports the sustainability goals of the campus.

Design Intent:

- Select a method of installation based on site-specific conditions, anticipated uses, and the demands of vehicle weight loads.
- Install modular pavers over a pervious material where possible.
- Use simple edge restraints where modular paving meets adjacent soil.

Concrete or Stone Pavers

Concrete or stone pavers are the appropriate materials for pedestrian walks on campus.

Design Intent:

- Incorporate concrete interlocking pavers or stone pavers in monochromatic colors, rectangular forms, and with slip-resistant surfaces.
- Incorporate pavers with sizes appropriate in scale based on landscape context and project goals.
- Determine thickness of pavers based on functional requirements and material strength.
- In general, configure pavers in pattern perpendicular to the direction of travel.

Brick Pavers

The historic use of brick pavers is evident throughout the Classical Core, exhibiting a variety of paver sizes, colors, patterns, and configurations. Based on observation of historical applications, the herringbone pattern, used on walkways, typically represents movement. The basket-weave pattern characterizes a stationary space, such as a building entrance.

Design Intent:

- In all cases, incorporate brick pavers in red clay tones, with a slip-resistant surface, and size to accommodate specific functional requirements.
- In general, use red brick pavers for paving fields and borders at building entrances.
- In general, use brick pavers as accents in pedestrian plazas.
- For Campanile Way, reconstruct the gutter with red brick pavers that match the module size and color of Campanile Esplanade. Configure pavers in a stacked-bond pattern with aligned joints.
- For Sather Bridge and Campanile Esplanade, retain the historical application of red brick pavers and granite insets.

Example of a herringbone pattern on a walkway (2003).

Example of a basket-weave pattern at a building entrance (2003).

Example of granite insets in brick paving at Campanile Esplanade (2003).

Example of plaza paving consisting of exposed aggregate concrete with brick bands (2003).

Granite Insets

Historically, square granite insets, in conjunction with brick paving, serve as decorative accents denoting corners in the edge bands. They serve as anchoring elements, with the benefit of minimizing the cutting of brick pavers to finish out corners.

Design Intent:

- Where appropriate, use granite insets in conjunction with brick paving fields at building entrances to transition between the brick bands meeting at opposing angles.

Poured-in-Place Pavements

The campus uses poured-in-place paving materials as a functional, durable, and long-lasting solution for vehicular and pedestrian surfaces. Historically, the University has used poured-in-place pavements throughout the Classical Core, providing surfaces that do not compete with the richness of the neoclassical buildings and historical landscapes.

Concrete

Concrete paving material is often used for pedestrian walks and pedestrian plazas due to the resulting formal geometries and architectonic forms.

Design Intent:

- At pedestrian plazas, incorporate brick paver accent bands with concrete paving in patterns that complement the historical configurations found within the Classical Core.
- Use concrete in lieu of asphaltic concrete, as appropriate, for service areas that need to withstand heavy vehicle loads.
- Always use neutral tones for concrete paving, either by adding industrial by-product material (carbon) or an integral pigment color.
- At a minimum, include carbon-black additives in natural gray concrete paving to reduce glare and reflection.
- Base the thickness of the concrete slab on a soils report and functional requirements.
- For walks, use a heavy broom finish on steeper slopes, and medium or light broom finish on flatter slopes.
- For plazas, use a sandblasted or exposed aggregate finish (see *Paving Materials Table* for specific aggregate materials).
- For the Mining Circle, which functions as a vehicular roadway, pedestrian walk, and plaza area, consider using concrete paving to distinguish the area as a unified public space. Provide flexibility and safety for pedestrians, while reducing the visual dominance of vehicular circulation.

Asphaltic Concrete

The use of asphaltic concrete for pedestrian paths and vehicular roads accommodates the pathways' fluid lines and diminishes their visual impact on the landscape.

Design Intent:

- Use CalTrans Standard Specifications for Type A or B asphaltic concrete with extra fines.
- Use concrete, or granite, curbs and gutters along vehicular roads where a vertical separation from pedestrian areas is needed. (extruded asphalt curbs shall not be used).
- Base the thickness of the asphalt concrete on a soils report and functional requirements.

Decomposed Granite

The use of decomposed granite paving for pedestrian trails in natural areas complements the character of their setting.

Design Intent:

- Use tan-gold quarry materials that meet sieve sizes specified in the UC Berkeley Construction Design Standards (CDS).
- Ensure paving is polymer stabilized with a finished thickness of 2-inches minimum.
- Edge trails with a wood header.
- Use decomposed granite on trails with slopes not exceeding 4% and with light expected use.

Boardwalks

The use of boardwalks for selected trail segments along Strawberry Creek can minimize the impact to root zones of sensitive tree species and improve disabled access in a cross-sloped environment.

Design Intent:

- Construct of recycled materials, consisting of post-consumer plastic and wood waste.
- Construct on pier footings to minimize the impact on existing grades and tree roots.
- Ensure that planks are slip-resistant.
- Use planks with a natural wood grain, texture, and color.
- Where appropriate, use planks as replacement bridge decking.

Example of a decomposed granite trail leading to a wooden bridge in the natural area along Strawberry Creek (2003).

Lighting | Three types of lighting occur within the Classical Core: the Campus Standard, Architectural, and Accent. The lighting concept for the Core provides safe levels of light on major circulation routes and plazas while preserving views of the neoclassical buildings and landscapes.

Design Intent:

- Consider the locations and intensity of light fixtures in context with trees and other site elements to help diminish their appearance in the open landscape.
- Incorporate lighting techniques to manage light pollution.
- Carefully integrate special use lights, such as the Architectural or Accent fixtures, into the landscape so as not to distract or diminish the historic value of the cultural landscape.

The **Haviland Hall** environs represent the merging of the Neoclassical and Natural landscape types.

The vignette illustrates:

- Restoring views into woodlands along Strawberry Creek.
- Incorporating woodland plantings along creek and emphasize slope with formal arrangement of low shrubs and accent trees around stairs.
- Using Campus Standard light fixtures along path at base of slope and incorporating accent lights at creek crossings.
- Locating wood benches along path and sawn logs along woodland edge.

Campus Standard

The Campus Standard is a single- or double-mounted tulip-shaped luminaire on a fluted pole with a decorative base cover. Most of those on campus are single headed fixtures. The *Double-Headed Light Fixture Primary Zone Diagram* illustrates the principle areas where the double-headed light standards are permitted.

Design Intent:

- Use Campus Standard fixtures along roads, walks, paths, in parking areas, and in pedestrian plazas.
- Meet the following foot-candle illumination level objectives: 1.0 ft/c in parking lots, near night entries to buildings, bus stops, and campus entries, and 0.5 ft/c on walks and paths.
- Use standard campus paint color (Elephant's Breath).
- Recommended Spacing:
  50 feet on center near entries and parking
  70 feet on center along walks and paths
  70-100 feet on center for double-headed fixtures.

Manufacturer:
Sentry Electric, Freeport, NY

Model:
Pole: SCI-NY20, cast iron, 13-foot length,
Luminaries: SBP - Battery Park, 175-watt metal halide, type 3 or 5 distribution, photocell control
Crossarm for double-headed fixtures:
SAL-WB-T

Webpage:
www.sentrylighting.com

Architectural

The use of site-specific architectural fixtures acknowledges that light standards may need to vary from the Campus Standard and relate to the associated architecture. Area lighting associated with the Faculty Club is an example of an existing architectural fixture appropriately set within the context of building and landscape.

Design Intent:

- Consider the architectural and landscape context when selecting a fixture.
- Consider the University's ease of maintenance and availability of replacement parts and lamps when selecting a fixture.
- Incorporate industry-standard components that provide long lamp life and full spectrum color rendition.

Accent

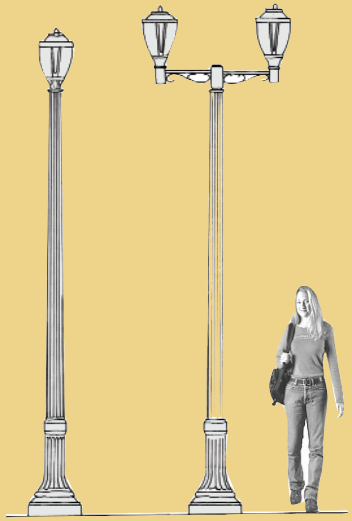
Accent fixtures can add charm and scale to a campus landscape. Examples of existing accent fixtures appropriately set in the landscape occur over several of the bridges crossing the south fork of Strawberry Creek. The University permits the use of accent lights on a site-specific basis.

Design Intent:

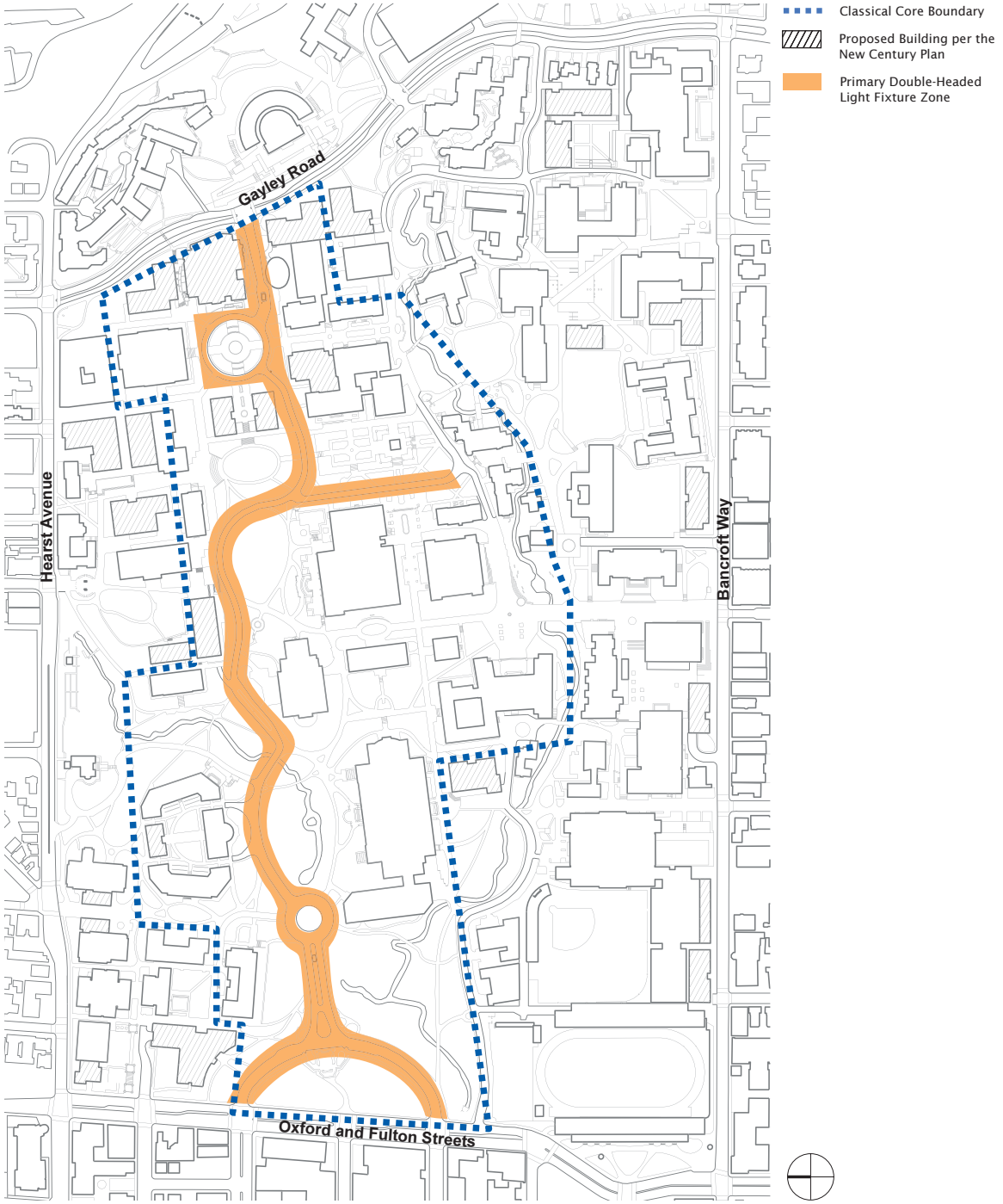
- Consider landscape character and scale appropriate for pedestrians when selecting a fixture.
- Consider the University's ease of maintenance and availability of replacement parts and lamps when selecting a fixture.
- Incorporate industry-standard components that provide long lamp life and full spectrum color rendition.

Architectural fixture at Faculty Club (2003).

Accent fixture over Strawberry Creek bridge (2003).



Single and double-headed Campus Standard light fixtures.



Double-Headed Light Fixture Primary Zone Diagram

Pedestrian Barriers and Traffic Controls | Pedestrian barriers direct pedestrians to preferred circulation routes and define landscape spaces. Pedestrian barriers do not address hazardous conditions and associated code requirements. Traffic controls typically restrict vehicular circulation to roads, walks, and service areas. The family of barrier and control elements includes fences, walls, and bollard systems.

Design Intent:

- Use materials that are compatible with the landscape type, other site furnishings, and the architecture in the area.
- Construct at a height and scale appropriate for context and function.

The Pedestrian Barriers and Traffic Control Table summarizes the appropriate location, material, color, and finish of each control item. The text following describes the control item's role and associated guidelines and standards.

Oppenheimer Way will be returned to a pedestrian environment in the future.

The vignette illustrates:

- Maintaining prominent north-south views between the Mining Circle and Strawberry Creek.
- Rehabilitating the beaux-arts formality with appropriate plant material.
- Restoring the corridor to a pedestrian environment and using paving materials similar to Mining Circle environs.
- Incorporating wood benches in this neoclassical landscape and using low bollards to restrict vehicular access.

The West Circle represents an area for the potential use of traffic controls (1999). *Courtesy Charles Benton*

Pedestrian Barriers / Traffic Controls Summary					
Item		**Location: Landscape Type**	**Material**	**Color**	**Finish**
Fences					
	Two-rail	Natural	Posts: 6x6 Rails: 4x6 Rough sawn redwood or PTDF*	Campus Standard (Brown)	Stained
	Cable-rail	Natural and Picturesque	Posts: 6x6 Rails: (4) 1/8" SS, 7-strand aircraft cable**	Campus Standard (Brown)	Stained
Landscape Walls					
	Stonewall / Stone Veneer	Natural	Field Volcanic Stone	Brown/Gray/Tan	Rough, Mortared Stone
	Balustrade	Neoclassical and Urban	Concrete or Granite	Per Project	Per Project
	Formed Concrete	Picturesque, Neoclassical, and Urban	Concrete	Natural Gray	Sandblast
Bollards					
	Stone	Neoclassical	Granite	Per Project	Per Project
	Concrete	Neoclassical and Urban	Concrete	Per Project	Per Project
	Ornate Metal	Neoclassical	Cast Aluminum	Per Project	Painted
	Retractable Metal	All	Steel	N/A	Painted
	Pipe	All	Aluminum or Steel	Natural	Brushed
	Wood	Natural	6x6 Rough sawn redwood or PTDF*	Campus Standard (Brown)	Stained

* PTDF - pressure treated Douglas fir

** SS - stainless steel

Fences

Fences serve as barriers for pedestrians where hedges would be ineffective or out of character. Their use is seen as a necessary intervention. The family of low fences appropriate for use in the Classical Core consists of a two-rail fence and a cable-rail fence.

Two-rail

The low, two-rail wood fence, for use along walks and paths, is a permanent structure that prohibits pedestrian traffic on steep slopes and banks and directs pedestrians away from intersections at vehicular crossings. This fence style is appropriate for use in the natural landscape type only. An example of a two-rail fence exists along Frank Schlessinger Way.

Design Intent:

- Construct only of rough sawn redwood or pressure treated Douglas fir, stained campus standard color (brown).

Cable-rail

The mid-level, cable-rail fence with wood posts, for use along walks and paths, is a permanent or temporary structure that directs pedestrians onto core walking surfaces and minimizes undesirable foot traffic off of established walks and paths. This fence style is appropriate for use in the natural and picturesque landscape types. An example of a cable-rail fence exists at the east end of West Oval.

Design Intent:

- For posts, construct only of rough sawn redwood or pressure treated Douglas fir, stained campus standard color (brown).
- For rails, construct of four strands of aircraft cables, equally spaced in proportion to the overall fence height.

Landscape Walls

Landscape walls are used to retain slopes, create raised planters, or separate outdoor spaces. They can also be used to integrate seating into the landscape. A well designed landscape wall discourages skateboard use along wall edges and surfaces. The family of walls appropriate for the Classical Core consists of stonewalls, stone veneer, balustrades, or formed concrete with an appropriate finish.

Design Intent:

- Consider opportunities for seating when possible.

Stonewall/Stone Veneer

The stonewall, or stone veneer wall, is appropriate as a retaining structure in the natural landscape type only. An example of a stonewall exists along Strawberry Creek next to the Alumni House.

Design Intent:

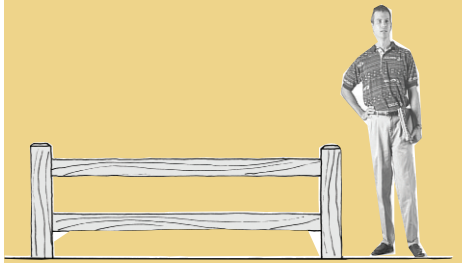
- Construct only of volcanic Napa-Sonoma fieldstone, brown-black in color, with recessed mortar joints.

Balustrades

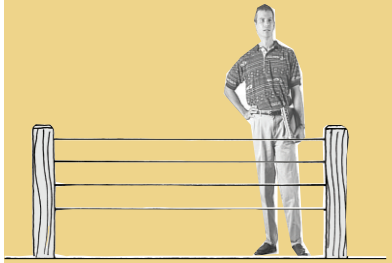
A custom designed element, the balustrade is appropriate as a specialty element in the neoclassical and urban landscape types. An example of a neoclassical balustrade exists around the Campanile Esplanade.

Design Intent:

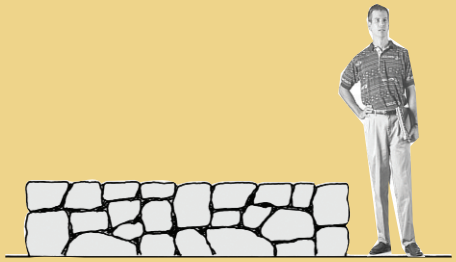
- Construct only of granite or precast concrete.
- Relate style, color, and finish to adjacent architecture or major site amenities.



Two-rail fence concept

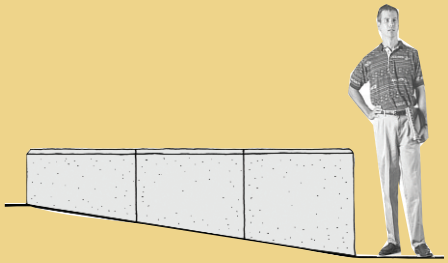


Cable-rail fence concept



Stonewall / stone veneer wall concept

Neoclassical balustrade concept



Formed concrete wall concept

Formed Concrete
A formed, or poured-in-place, concrete wall can be used for retaining slopes, raised planters, as freestanding elements to define a space, or as optional seating elements. These walls are appropriate for use in the picturesque, neoclassical, and urban landscape types. An example of a formed concrete wall exists on the north side of Valley Life Sciences Building.

Design Intent:
- Construct only of natural gray concrete, with a sandblast finish.

Bollards
Bollards are used to limit vehicular access to selected roads, walks, and service areas. The family of bollard materials appropriate in the Classical Core consists of stone, precast concrete, and metal (ornate, retractable, or pipe styles).

Stone
Stone bollards are appropriate for use in the neoclassical landscape type. An example of stone bollards exists at the northwest corner of Evans Hall.

Design Intent:
- Complement neoclassical building materials in color, texture, and finish, and appropriately scale for pedestrian applications.
- Construct only from a cored, round, single-piece of granite.

Manufacturer:
Cold Spring Granite

Model:
Round, cored single-piece

Webpage:
www.coldspringgranite.com

Precast Concrete
Resembling a stone bollard in general appearance, a precast concrete may be used adjacent to neoclassical buildings or in plazas. Precast concrete bollards are appropriate for use in the neoclassical and urban landscape types. An example of precast concrete bollards exists at Tolman Hall breezeway.

Design Intent:
- Complement adjacent buildings in style, color, and finish.

Manufacturers:
Quick Crete, Dura Art Stone, or Napa Valley Cast Stone

Model:
Varies by architecture

Webpage:
www.quickcrete.com
www.duraartstone.com
www.napavalleycaststone.com

Metal Ornate Bollard
An example of an ornate metal bollard exists outside of Stephens Hall, where an ornate design is used in conjunction with victorian and neo-classical architecture. Metal ornate bollards are appropriate for use in all landscape types.

Design Intent:
- Install as a single-piece, fluted cast aluminum post, permanently mounted on a concrete footing.
- Use color that relates to adjacent architecture or, as a default, use campus standard paint color (Elephant's Breath) to diminish the bollard's appearance.

Manufacturer:
Canterbury International

Model:
1890 Bollard

Webpage:
www.canterburyintl.com

Metal Retractable Bollard
The University is installing retractable bollards in response to a heightened interest in vehicle controls and security. The bollards may be either hydraulic or pneumatic. Metal retractable bollards are appropriate for use in all landscape types.

Design Intent:
- Locate at emergency or special vehicular service entries.
- Construct of stainless steel with a painted finish.
- Determine operation of the control unit on a project-by-project basis with direction from the Campus Landscape Architect.
- Match fixed bollards to retractable units when placed in the same location.

Manufacturer:
Delta Scientific Corp.

Model:
TT203, stainless steel

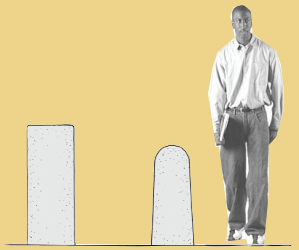
Webpage:
www.deltascientific.com

Metal Pipe Bollard
The pipe bollard may be a removable or fixed element. Metal pipe bollards are appropriate for use in all landscape types.

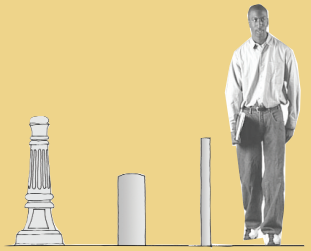
Design Intent:
- Construct only of aluminum or steel, not to exceed 3-inches in diameter.
- If a removable bollard, set sleeves in the paving and secure with padlocks.
- If a removable bollard, treat remaining hole and lock depression with safety cover, complying with accessibility code.
- Leave unpainted with a brushed finish.

Wood
Wood bollards are permanent elements appropriate for use in the natural landscape type.

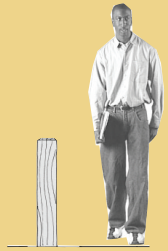
Design Intent:
- Construct only of rough sawn redwood or pressure treated Douglas fir, stained campus standard color (brown).
- Chamfer the top of the bollard to remove rough edges and to relate to the post construction for fences.



Stone and precast concrete bollards concept



Metal ornate, retractable, and pipe bollards concept



Wood bollard concept

Furnishings | The relationship of landscape furnishings to buildings, walks, paths, and plaza areas is important to the character of the Classical Core and to the views of the historic landscapes and neoclassical buildings in the area. The family of furnishings for the Classical Core consists of benches, waste and recycling containers, bike racks, drinking fountains, picnic tables, and news racks. Wayfinding systems in the Classical Core are discussed separately in the Signage section.

The *Furnishings Summary Table* summarizes the appropriate location, material, color, and finish for the various site furnishing elements. The furnishings' locations, as shown on the table, refer to the landscape types in the Classical Core. The text following the table describes the furnishings' roles and associated guidelines and standards.

The renovations of the corridor east of **Campanile Esplanade** will create a vibrant pedestrian space.

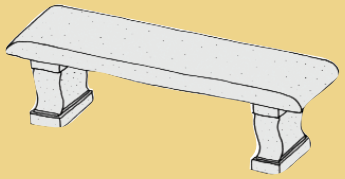
The vignette illustrates:

- Maintaining views of Campanile Esplanade and to the future Campanile Glade beyond.
- Incorporating appropriate paving materials in this pedestrian environment.
- Locating Campus Standard light fixtures in symmetrical configurations without obstructing prominent views.
- Incorporating benches, waste and recycling containers, and bike racks suitable for this neoclassical landscape.

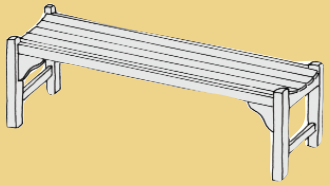
Furnishings Summary					
Item		**Location: Landscape Type**	**Material**	**Color**	**Finish**
Benches					
	Precast Concrete	Neoclassical	Precast Concrete	Natural	Acid-etched or Sandblasted
	Wood (backless)	Picturesque, Neoclassical, and Urban	Teak	Natural	Unfinished
	Wood	All	Teak	Natural	Unfinished
	Sawn Log	Natural	Redwood or Cedar	Natural	Natural
	Custom	All	Stone, Precast Concrete or Wood	Per project	Per project
Containers					
	Standard Waste Container	All	Precast Concrete	Gray	Exposed Aggregate
	Standard Recycling Container	All	Precast Concrete	Tan	Sandblast
	Alternative Waste & Recycling Containers	All	Metal	Campus Standard or Per Project	Painted
Bike Racks					
	Standard Racks	All	Metal	Natural	Galvanized
	Secure Racks	Per University	Stainless Steel	Natural	Stainless Steel
Miscellaneous					
	Drinking Fountains	All	Varies	Varies	Varies
	Picnic Tables	Natural	PTDF*	Natural	Natural
	Modular News Racks	Urban	Metal	Campus Standard	Painted

* PTDF - pressure treated Douglas fir

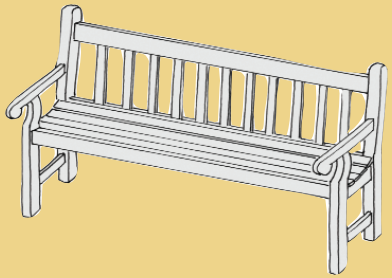
Custom wood benches and historic fountain in the Campanile Esplanade (2003).



Precast concrete bench concept



Wood backless bench



Wood bench with back

Benches

Benches are an integral part of the pedestrian circulation system, providing seating opportunities along walks and paths and at pedestrian plazas. The family of benches for the Classical Core consists of precast concrete, teak wood with and without backs, a sawn log, and the option of a custom element.

Design Intent:

- Integrate seating opportunities with the pedestrian circulation system and plazas.
- Incorporate adequate space for companion wheelchair parking as an integral component in bench layouts and configurations.
- Anchor benches to concrete footings with hidden dowels.

Precast Concrete

Benches constructed of precast concrete are specialized elements suited for entries and plazas around neoclassical buildings. Several varieties of precast concrete benches now exist in the Classical Core. The precast concrete bench is appropriate as the standard bench in hardscape areas throughout the neoclassical landscape type. An example of a precast concrete bench exists Doe Memorial Library terrace.

Design Intent:

- As replicas of historical, backless stone benches, design and manufacture with two ornate pedestal supports and a rounded edge to the bench top, and finish to resemble stone.

Wood (backless)

The backless wood bench complements the standard wood bench (with back) in form and style, and it is useful in omni-directional landscape settings where a low, horizontal element is desirable. The backless version is appropriate for use in the picturesque, neoclassical, and urban landscape types.

Design Intent:

- Construct in unfinished teak with slats and mortise and tenon joinery.

Manufacturer:
Smith & Hawken

Model:
Belvedere #274928, 5-foot length

Webpage:
www.smithandhawkentrade.com

Wood (with back)

The campus standard wood bench provides seating opportunities along walks, paths, and in plaza areas where historic views will not be impacted. The wood bench, with high back and armrests, is appropriate for use in all of the landscape types.

Design Intent:

- Construct in unfinished teak with slats and mortise and tenon joinery.

Manufacturers:
Smith & Hawken (standard)
Gardenside Limited (alternative)

Model:
Gloucester #722132, 6-foot length (standard)
Parkside Bench #2608, 8-foot length (alternative)

Webpage:
www.smithandhawkentrade.com
www.gardenside.com

Sawn Log

Sawn logs used for seating have been a traditional element on the Berkeley campus for decades. The log benches serve as auxiliary seating in the woodland areas, along the banks of Strawberry Creek, and in Faculty Glade. Although they exist elsewhere in the Classical Core, log benches are appropriate for use only in the natural landscape type.

Design Intent:

- Remove, and do not replace, sawn log benches that are at the end of their life span in all areas other than the Natural landscape type.
- Construct of redwood or cedar logs, at least 30-inches in diameter, 6 to 8 feet in length, and quarter-sawn and sanded to create a comfortable bench.

Custom

Custom benches are allowed in the Classical Core, primarily for plaza, building entrances, and memorial situations. Custom benches are appropriate for use in all of the landscape types.

Design Intent:

- Integrate into the context of the designed space or building vernacular.
- Review the design and use of these benches on a project-by-project basis with the University.

Waste and Recycling Containers

Waste and recycling containers are a necessity on campus. The primary family of containers appropriate for the Classical Core consists of a concrete waste receptacle and multi-use recycling component. The Campus Landscape Architect may modify the design of these elements in the near future. Containers made of metal slats may be used as an alternative to the standard in the Classical Core.

Design Intent:

- Limit the visual clutter of containers in the views of historical buildings and landscapes.
- Integrate containers into the landscape of gathering areas, major pedestrian walks, and building entrances without dominating the view.
- Locate containers with careful attention to their servicing needs and aesthetic orientation, and redesign as needed to meet these and ergonomic needs of campus users.
- Provide recycling opportunities across the campus.

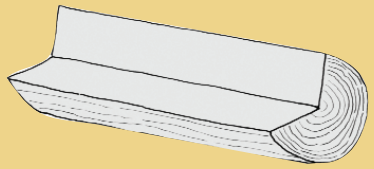
Campus Standard Waste Container

The square, precast concrete container with exposed aggregate finish and black metal top is the campus standard outside of plazas and building entries, meeting the need for durability and volume. The waste container is appropriate for use in all landscape types.

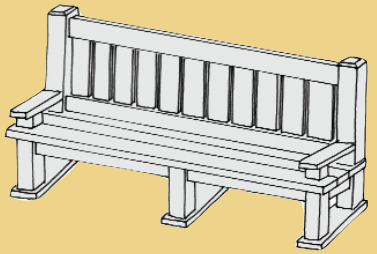
Manufacturer:
Best Litter

Model:
Sentry Collection, Model S-001

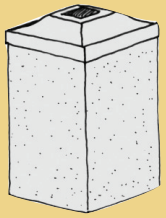
Webpage:
www.bestlitter.com



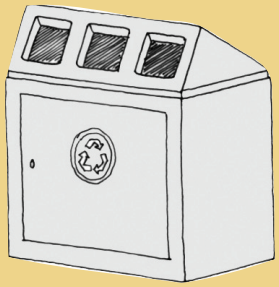
Sawn log concept



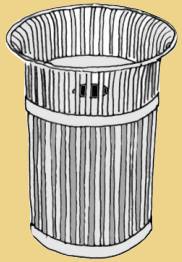
Custom bench concept (used in Campanile Esplanade)



Campus Standard waste container



Campus Standard recycling container



Alternative waste and recycling container

Campus Standard Recycling Container
The rectangular, precast concrete container with multiple access holes is the campus recycling element for glass, aluminum cans, and paper. The recycling container is appropriate for use in all landscape types.

Design Intent:
- Customize the manufacturer's container design to include a front door access and a pitched top to shed water.

Manufacturer:
Doty and Sons

Model:
Custom design

Webpage:
www.dotyconcrete.com

Alternative Waste and Recycling Containers
As alternatives to the standard waste and recycling containers, round, metal slat containers are appropriate for use throughout the Classical Core.

Design Intent:
- Incorporate an opening side door for easy access.
- For recycling, provide two separate containers: one for glass/aluminum combination and one for paper and identify the contents within on the lid.
- For containers away from buildings, use campus standard paint color (Elephants Breath). For containers near buildings, consider colors that relate to the building.

Manufacturer:
Victor Stanley or comparable

Model:
SD-42 and SD-35, Ironsites™ series (separate lids for glass/aluminum and paper receptacles)

Webpage:
www.victorstanley.com

Bike Racks
Bicycle racks are an important component supplementing the campus circulation system.

Design Intent:
- Locate to minimize visual clutter and circulation conflicts.
- Integrate the layout and configuration of bike racks with the pedestrian circulation system, plaza designs, and building entries, and incorporate adequate lighting.
- Provide consolidated bike parking areas where possible.
- Consult with the Campus Bicycle Sub-Committee to determine the capacity and location of bike racks for a project.

Standard Bike Rack
The standard bike rack has a continuous ribbon-style configuration. Standard bike racks are appropriate for use in all landscape types.

Design Intent:
- Construct of 2-3/8 inch, Schedule 40 pipe, with a galvanized finish.
- Install with flanged or embedded mounting.
- Construct pervious bike parking surfaces where feasible, using materials like bark mulch (example: Sather Gate) or decomposed granite (example: McCone Hall).

- Screen bike parking areas with hedges or walls where feasible.

Manufacturer:
The Palmer Group – Bikeparking.com

Model:
Welle Multiple

Webpage:
www.bikeparking.com

Secure Bike Rack
The secure bike rack has a built-in heavy duty chain and hitching post to secure the frame and tire of a bike. The racks are typically found at the edge of campus.

Design Intent:
- Locate secure bike racks as directed by the Campus Bicycle Sub-Committee.
- Construct of 11-gauge stainless steel with a 3/8-inch thick security chain with black cordura sleeve cover.
- Anchor bike rack to the finished paving surface.

Manufacturer:
The Palmer Group – Bikeparking.com

Model:
Crankcase Security Rack

Webpage:
www.bikeparking.com

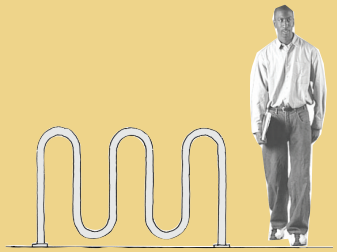
Miscellaneous
An assortment of miscellaneous furnishings is used in the Classical Core. Typical items include drinking fountains, picnic tables, and modular news racks.

Drinking Fountains
Drinking fountains are traditionally custom design elements on campus, donated as class gifts. Drinking fountains, often unique, highly detailed features, are appropriate for use in all landscape types.

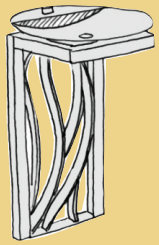
Design Intent:
- Integrate into the landscape fabric around gathering areas or adjacent to walks.
- Design to meet current accessibility requirements.
- Construct from high quality, durable materials with weather-resistant fountain components.

Picnic Tables
Picnic tables serve as additional opportunities for seating and studying in quiet landscape settings. Picnic tables are appropriate for use in the natural landscape type.

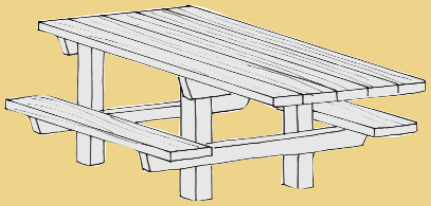
Design Intent:
- Construct of heavy duty, large-member, durable wood with attached benches.
- Anchor mount with embedded concrete to finish paving surface.
- Design for wheelchair accessibility. Incorporate an accessible hardened surface, at a minimum, under the area used for wheelchair parking.



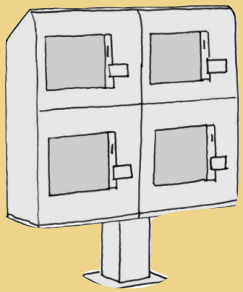
Standard bike rack



Drinking fountain concept



Picnic table concept



Modular news rack concept

Manufacturer:
Columbia Cascade or comparable

Model:
TimberForm Arbor #2243-8-P

Webpage:
www.timberform.com

Modular News Racks
The news rack is a consolidated, modular metal container consisting of four units maximum, set on a single pedestal mount. Modular news racks are appropriate for the urban landscape type only.

Design Intent:
- Locate at campus perimeters in coordination with the City of Berkeley and news vendors.
- Integrate at edge of walks.
- Locate out of major view corridors.
- Use campus standard paint color (Elephants Breath).
- Consult with the Campus Landscape Architect for the use and design of optional campus logos, seals, or other impressions on the modular units.

Manufacturer:
Kaspar Sho-Rack

Model:
Concourse

Webpage:
www.shorack.com

Signage | The University's Campus Sign Program (*Signage Guidelines, January 1995*) organizes the multitude of exterior informational, directional, and regulatory signs on campus. The system is made up of diverse elements, allowing variation of expression, and it is hierarchical to provide clarity within the campus environment. The wayfinding system was designed to be universally understandable for first-time visitors, students, faculty, and alumni.

The Campus Sign Program identifies three primary signage types for the campus wayfinding system:

- Informational Signage: This type of signage is the first major introduction to the campus. It includes identification information such as street and path names, building identification, and campus maps. This category can also include helpful information such as safety/protection tips, listing of facility hours, phone numbers, and current events.

- Directional Signage: This type of signage directs visitors from surrounding areas to the campus, parking, and campus shuttle bus locations. It includes directional signage within the campus environment.

- Regulatory Signage: This category of signage includes public and permit parking information, accessibility signage, and all standard campus regulatory signs.

The guidelines below further define the locations and contextual relationships of sign types appropriate for the Classical Core.

Wayfinding Signage

According to general descriptions, sketches, and diagrams in the *Signage Guidelines*, some informational, directional, and regulatory signage is integrated into building walls or light poles, while others are freestanding elements in the landscape.

Design Intent:

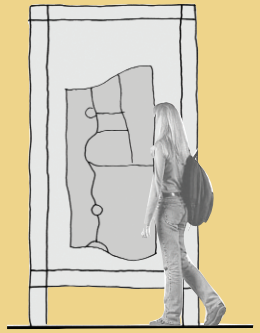
- Locate signs to minimize the visual impact of the historic view sheds of neoclassical buildings and landscapes.
- Locate freestanding signs off of walk edges and outside of pedestrian plazas, preferably in landscape areas.
- Use directional signs to guide visitors to public venues. Do not use directional signs to guide visitors to individual buildings.

Plaques and Commemorative Markers

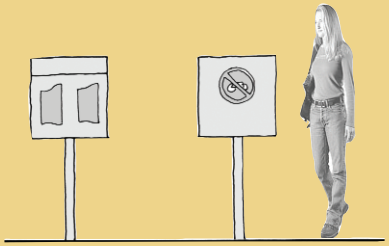
Plaques and commemorative markers are not included in the *Signage Guidelines*. Traditionally, these elements are cast in bronze with slightly raised letters and are attached to rocks, benches, or walls. They can also be incorporated into the paving surface, such as the Memorial Glade markers. Plaques and markers are appropriate for all landscape types.

Design Intent:

- Consult with the Campus Landscape Architect and the Committee on Naming for the design of plaques and commemorative markers.



Informational signage concept



Directional and regulatory signage concept