

UC DAVIS

GATEWAYS PROJECT

Gardens, Arts, & the Environment



A campus-wide initiative to create an inviting, interactive & sustainable showcase of UC Davis



Progress Update: January 2014



Why the UC Davis GATEways Project?

Gardens, Arts and The Environment

LAND GRANT INSTITUTIONS ACROSS THE COUNTRY are struggling to find strategies to create true accessibility, as well as a deep connection between traditional academic teaching and lifelong learning and engagement.

The Kellogg Commission on the Future of State and Land-Grant Universities, a document created by a consortium of land-grant university chancellors, calls for the renewal of our commitment to deliver both accessibility and lifelong learning...

Today, the promise of American public higher education must be made whole in a new era and a completely different world. The great international, economic, technological, and geo-political forces reshaping the world are hardly by-passing higher education. We find new publics appearing at our doors—a more diverse pool of traditionally aged applicants, as well as more and more adults seeking learning opportunities throughout their lives.

The shape of today's university will still be visible in a new century, but it will have been transformed in many ways, major and minor. It will truly be a new kind of public institution, one that is as much a first-rate student university as it is a first-rate research university, one that provides access to success to a much more diverse student population as easily as it reaches out to "engage" the larger community.

Perhaps most significantly, this new university will be the engine of lifelong learning in the United States, because it will have reinvented its organizational structures and re-examined its cultural norms in pursuit of a learning society.

— The Kellogg Commission

It is with this vision in mind that the UC Davis Arboretum and Public Garden developed the UC Davis GATEways Project concept. The momentum for this project has grown exponentially since its inception. Our community can now experience the impact of the project through the physical and programmatic changes taking place throughout our university environment, and, more importantly, can participate in shaping its future.



UC DAVIS GATEWAYS PROJECT *Background*

This is something that has not been done anywhere else before. It is a good way to bring together many elements and provide a model for other campuses. Campuses should be places for people to participate and build.

Dr. Peter Raven
*President Emeritus
Missouri Botanical Garden*

In July 2011, Vice Chancellor of UC Davis Administration John Meyer merged four administrative units charged with operating and maintaining outdoor spaces, the Arboretum, Grounds and Landscape Services, the Putah Creek Riparian Reserve, and Civil and Industrial Services. These four units, with strengths respectively in community engagement, large-scale landscape management practices, native habitat restoration, and construction came together under the leadership of Kathleen Socolofsky, Assistant Vice Chancellor and Arboretum Director, to create a team responsible for leading the campus to a new level of sophistication and collaboration in its approach to stewarding the campus landscape. This new “Public Garden” team would also work in partnership with Bob Segar, Assistant Vice Chancellor and Campus Planner to support the larger vision of UC Davis as a visitor-centered destination.

To assist the Public Garden team in envisioning an innovative type of campus landscape, Dr. Peter Raven—longtime director of the Missouri Botanical Garden (now President Emeritus), MacArthur “Genius” Fellow, U.S. National Medal of Science honoree, and Time Magazine “Hero for the Planet”—came to speak at a retreat of Public Garden team staff and stakeholders.

Inspiring our team with the possibilities for what our campus landscape could be, focusing our vision of the university campus as an innovative and transformative model for public gardens worldwide, he motivated us to create an ideal similar to that of the “Eden Project” in Cornwall, England.

Discussions with the Arboretum GATEways Planning Council, staff and stakeholders led our public garden team to the conclusion that the “UC Davis Arboretum GATEways Project,” a new model for university gardens created by Arboretum staff and stakeholders in 2005 solely for the Arboretum, was the right project approach to upsize to our entire landscape and now serve as foundation for the “UC Davis GATEways Project.”



About the UC Davis GATEWAYS Project

Physical & Programmatic Gateway to UC Davis

The UC Davis GATEways Project and its academic partners are developing the campus's physical site and programs as a multi-layered learning experience that will enlighten community members and visitors about UC Davis endeavors. In this vision, the campus grounds, including the Arboretum, will function as an open door into the campus, a physical pathway complete with a variety of learning programs that provide engaging experiences and an innovative means for disseminating the work of our university.



Model for Translating the Excellence of UC Davis

The GATEways vision is shaped by its educational and outreach programming which fosters a strong connection between the formal academy and the real-world. The UC Davis GATEways Project offers a transformative vision of the role of the university, with the campus's physical environment as a center for connecting the academic enterprise with the public it ultimately serves—a vision that reflects the goals of the Kellogg Commission on the Future of State and Land-Grant Universities.



Portal for Community Engagement

Tens of thousands of people a day come to UC Davis to learn, conduct ground-breaking research, facilitate university business, visit the Arboretum, join an event or attend a veterinary appointment. The one thing all these people have in common is *this place*, our campus. The UC Davis GATEways Project makes it possible for this diverse audience of students, faculty, staff, alumni and visitors to shape, share and learn about the strengths of our university all while fostering ties that bind long after graduation caps are tossed or research published.



Framework for Leveraging Support

In the same way that the UC Davis GATEways project cuts across the entire campus to engage our community, its framework for leveraging support serves multiple academic partners and purposes. In an era of state funding cuts and tuition hikes, the UC Davis GATEways Project continues to progress as relatively small campus investments fuel our community engagement and fundraising programs to much larger gifts and grants all the while providing our academic partners with development opportunities that would not otherwise exist.



It is a portal for engagement that will help sustain the university into the future...

As much as our medical center, museums, performing arts centers, and athletic events cut across multiple audiences and gain long-term support from a variety of people, the UC Davis GATEways Project is a portal for engagement that will set our university apart from ALL others and help sustain it into the future. It is the primary opportunity we have to co-create our environment with campus-wide, multi-disciplinary, cross-generational participants.

The UC Davis GATEways Project strengthens and builds upon the best of what UC Davis has to offer as a place—growing ways that people can connect to the physical place as well as support and engage in our academic mission, providing a welcome environment to visitors, reinforcing our college town atmosphere, supporting our cooperative ties with the community, as well as developing our connection to the region and beyond.



Community Outreach & Fundraising



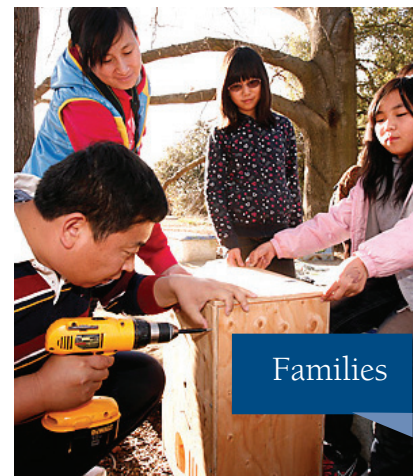
Members & volunteers



Students & alums



Visitors



Families



Gifts: Eric Conn Acacia Grove

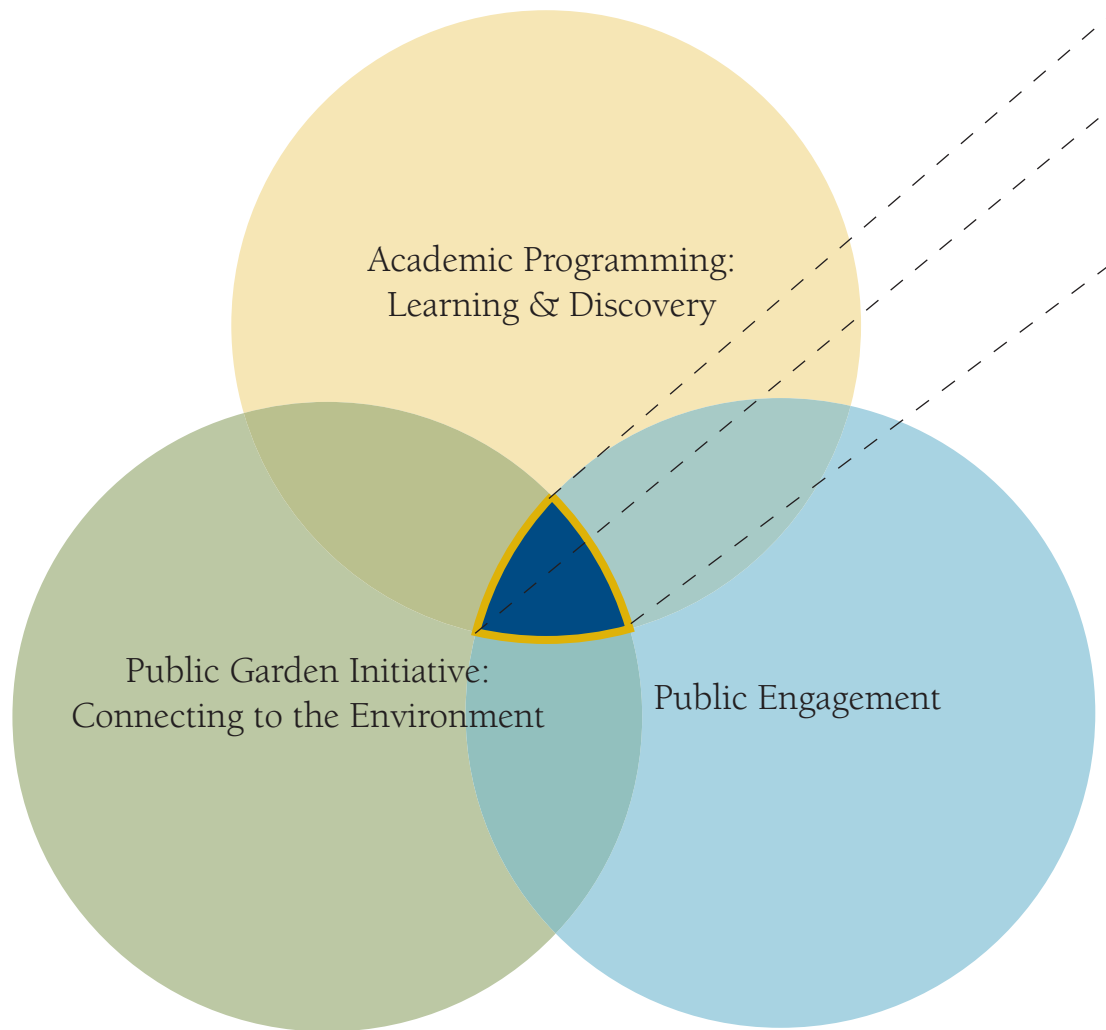


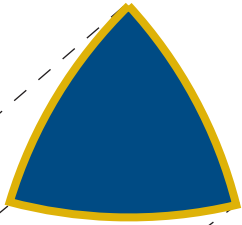
Public events



GATEWAYS Program Model

Transformative Program Model





The GATEways Project Program Model connects UC Davis student learning with public engagement through the diverse outdoor environments of the campus. The programs tie the learning, discovery and engagement mission of the university to our environment and serves to create an inviting, interactive and sustainable showcase for UC Davis.

Academic Collaboration + Connecting with the Environment + Public Engagement

The GATEways vision is shaped by its educational and outreach programming which fosters a strong connection between the formal academy and the real-world. The UC Davis GATEways Project offers a transformative vision of the role of the university by connecting the academic enterprise with the public it ultimately serves through the environment.

With the UC Davis GATEways Project, the Arboretum will continue to serve as the major botanical garden for the Central Valley, but it along with the rest of the campus landscape will also adopt

an important new mission: to demonstrate—in teaching landscapes, exhibits, and programs—some of the important ideas and complex issues UC Davis scholars and deep experts are tackling.

Visitors will engage through interactions with students, innovative uses of technology, as well as a range of other inspired learning opportunities, to become a vital part of the creative work and the spirit of inquiry at UC Davis.

Program Model in Practice

Academic and community collaboration does not end once a physical landscape is complete. To highlight the university's academic enterprise, members of the UC Davis GATEways Project team partner with members of the community alongside faculty and staff from the featured academic program to develop educational signage that showcases the academic program's contributions to

society, creates an environment for learning and discovery, and provides a tool for long-term engagement with the public. This iterative process begins with preliminary sign ideas, involves multiple public focus groups and ends with community-created interpretive signage.



Arboretum staff and volunteers work with Anita Oberbauer (second from the left), Chair of the Animal Science Department, to develop exhibit signage for the new Animal Science GATEway Garden.



Professor Emeritus Peter Schiffman, former Geology Department Chair, advising the GATEways Project team on educational messages for interpretive signage in the new California Rock Garden (a Geology GATEway Garden).



Professor Emeritus Eldridge Moores (Earth and Planetary Sciences) and his wife Judy (right) help design interpretive signage for the California Rock Garden (a Geology GATEway Garden).

GATEWAYS COMPONENTS

GATEWAYS GARDENS

Teaching landscapes created to reflect the academic strengths of UC Davis

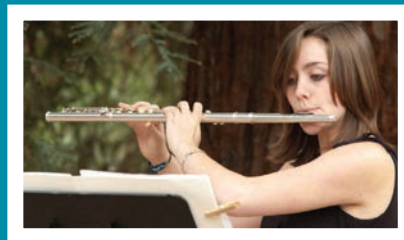
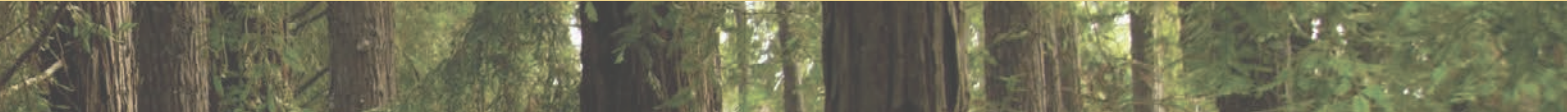
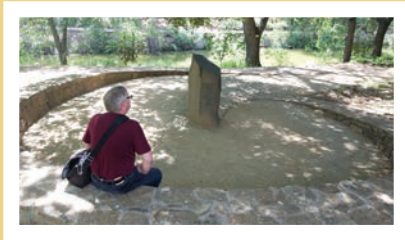
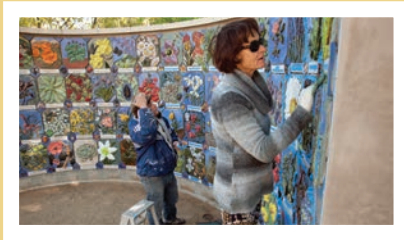
GATEWAYS LANDSCAPE CONVERSIONS

Sustainable plantings that showcase landscape management best practices

GATEWAYS PROGRAMS

Learning experiences that actively engage the public in the riches of the university





GATEWAYS GARDENS

THE GATEWAYS GARDENS ARE INSPIRED BY THE LONG TRADITION of the UC Davis Arboretum's collections and gardens serving as a living museum and teaching resource to the campus. The Arboretum has always worked with faculty, students and the community to build the teaching collection. These collections include, but are not limited to:

Mary Wattis Brown Garden

An extensive collection of native plants that work well in home landscapes, arrayed along meandering paths under stately oaks. Mary Wattis Brown was an avid gardener and botanist who recognized the need for education to promote conservation of California's wild heritage. Brown's good friends, Professor Jack Major (Botany) and his wife, Mary, played a big role in envisioning the garden and developing a major endowment for sustaining it into the future.



Ruth Risdon Storer Garden & Arboretum Teaching Nursery

Valley-wise gardens showcase plants and practices that promote more sustainable horticulture. The Ruth Risdon Storer Garden featuring plants that are especially well suited to Central Valley gardens, including many Arboretum All-Stars, our recommended plants for Valley-wise gardens that need less water and maintenance. The garden is named for Dr. Ruth Storer, Yolo County's first pediatrician and an avid gardener. Dr. Storer left an endowment to support the garden in perpetuity. The Arboretum Teaching Nursery showcases demonstration plantings of Arboretum All-Stars and pollinator-attracting plants to help the home gardener create beautiful and sustainable gardens. Donors have dedicated several planting beds to support the sustainable horticulture programs.



Eric E. Conn Acacia Grove

A display of over 50 species of acacias from Australia, Africa, and the Americas. The Arboretum tests these attractive heat- and drought-tolerant plants for use in Central Valley gardens. The grove is named for Dr. Eric E. Conn, professor emeritus of biochemistry at UC Davis and an internationally-recognized expert on acacias. Dr. Conn and his late wife, Louise, established an endowment to support the ongoing operations and programs of the Arboretum, and Dr. Conn has supported the Acacia Grove and the Arboretum with generous gifts over the years.



T. Elliot Weier Redwood Grove

One of the largest collections of coast redwood trees outside their native range. Established in 1936 as one of the original plantings of the Arboretum, faculty and students watered the newly planted trees with water carried in buckets from the waterway. The grove is named for Dr. T. Elliot Weier, a professor of botany at UC Davis who helped establish the Arboretum in 1936. Dr. Weier developed the Arboretum's first docent program.



Native American Contemplative Garden *(Complete)*

About

Dedicated in November 2011, the Native American Contemplative Garden is the first phase of the UC Davis Project to Honor Native Americans.

This project began several years ago after the discovery of Patwin remains during the construction of the Mondavi Center catalyzed the desire to educate the UC Davis community about the first inhabitants of this land.

A committee of UC Davis faculty, staff and students, including members of the campus Native American community, consulted with Patwin elder Bill Wright and engaged Far Western Anthropological Research Group to develop concepts for a series of honoring sites across campus.



Support

UC Davis
Funded by UC Davis as well as academic and outreach units across the campus

Academic Partners

College of Letters & Science
Division of Humanities Arts & Cultural Studies
Native American Studies Department
Professor Ines Hernandez-Avila
Professor Juan Avila



Community Engagement

Faculty
Native American Studies faculty members collaborate to develop a series of sites across campus to honor the Patwin people.

Students
Native American Studies students help with planting and tours for the public.

Staff
Arboretum staff develop planting plan and collaborate with community to create interpretative signage.

Community
Patwin members partner to develop a series of sites honoring their people and help dedicate the space.

Arboretum volunteers partner to develop interpretive signage, maintain the landscape, and offer tours for the public.



California Rock Garden

a Geology GATEways Garden (Near completion)

About

The California Rock Garden started with the Earth and Planetary Sciences faculty's desire to showcase the incredible diversity of geology across the state. Fifty striking rock specimens are now displayed in a drought-tolerant landscape of California native plants surrounding their facility. These boulders—located and collected from around the state by UC Davis alumni—now serve to teach students, community members and visitors about the earth and the UC Davis program in earth and planetary sciences.

Support

Campus Building Funds
UC Davis Department of
Earth and Planetary Sciences

Alumni and Mining Companies
Rock specimen donations

Other
Rocks now serve as potential
dedication opportunities

Academic Partners

College of Letters & Science
Dean Winston Ko
Department of Earth and
Planetary Sciences
Professor Emeritus Eldridge Moores
Former Chair Peter Schiffman

Community Engagement

Faculty

Eldridge Moores, Professor Emeritus and Peter Schiffman, Former Chair collaborate with staff to develop design, teaching messages, and interpretive signage

Students

Geology students assist in planting the native California plant selections surrounding the rocks.

Staff

Arboretum and Public Garden staff develop the planting plan and collaborate with community, faculty and students to create interpretive signage and oversee community planting programs.

Civil & Industrial Services staff (Public Garden Initiative team members) place the rocks in their chosen locations.

Community

UC Davis alumni help locate and deliver rock specimens to location. Arboretum and Public Garden volunteers plant and maintain the landscape and help develop interpretive signage.



Nature's Gallery Court

(Complete)

About

The focal point of this garden is a ceramic mosaic mural composed of over 140 tiles—handcrafted by students, staff, faculty, and community members—created through the UC Davis Art-Science Fusion Program. Each tile showcases diverse drought-tolerant plants or insects found in the Arboretum's Ruth Risdon Storer Garden. In addition to creating the art, community members' generous support

Support

Campus
Partnership of academic & administrative sources
Community

Community members fund the installation of this unique project with their dedication donations. Other naming opportunities in this garden will serve to fund its long-term support. Revenue from event rentals will support maintenance.

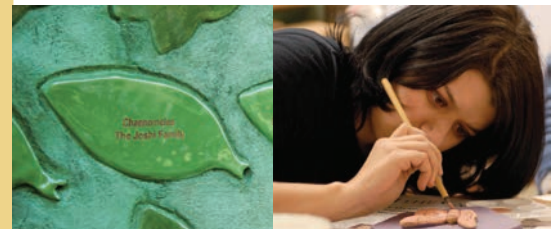
Community Engagement

Faculty

Professor of Entomology Diane Ullman and ceramic artist Donna Billick work with students in Entomology 1 and community members to create the Nature's Gallery mural.

Students

Art-Science Fusion students create art pieces.



Peter J. Shields Oak Grove

(Complete)

helped fund this installation. Future naming gifts will provide long-term support for Arboretum educational and outreach programs as well as the UC Davis Art-Science Fusion Program. The gardens surrounding the court feature demonstration plantings of Arboretum All-Stars that connect this landscape to the Arboretum Teaching Nursery.

Academic Partners

College of Agricultural & Environmental Sciences
Associate Dean for Undergraduate Academic Programs Diane Ullman
Art-Science Fusion Program

Staff

Arboretum and Public Garden manage the development of the site plan, collaborate with community and Art-Science Fusion Program participants to create tiles, raise support to fund the project, oversee its construction, create the planting plan, and install and help maintain the garden.

Community

Community members participate in the Art-Science Fusion Program classes to create the tiles in addition to helping fund the projects installation with dedication donations.

Arboretum volunteers work to maintain the space and demonstration plantings.



About

Planted by hand from acorns over 50 years ago, the Shields Oak Grove now contains the largest collection of mature oaks in the southwestern United States, with 275 trees representing 89 types of oak species, varieties and hybrids. In 2007 the Arboretum's oaks were recognized as a collection of national significance by the North American Plant Collections Consortium. We received funding from the Institute of Museum and Library Services to install a new Shields Oak Grove trail system. Understory plantings have converted what was once a bare expanse of wood chip mulch under the trees into a thriving native grass meadow. Over 20,000 native grass and wildflower plugs were planted by Arboretum volunteers, interns and UC Davis student volunteers to improve bird and insect habitat.

Support

Institute of Museum and Library Services (IMLS) Grant
Grounds & Landscape Services
Funds to improve conditions and correct physiological problems with the oaks.
Community
Dedication donations

Academic Partners

College of Agricultural & Environmental Sciences
Diane Ullman, Associate Dean
Dr. Tucker, Phylogenetic Oak Tree Research
Ian S. Pearse, Graduate Student, Entomology

Community Engagement

Faculty

Development of original collection through acorns from Dr. John Tucker's oak tree research.

Professor of Entomology Diane Ullman and ceramic artist Donna Billick work with students in Entomology 1 and community members through the Art-Science Fusion Program to create the multiple mosaic pieces.

Students

Art-Science Fusion students create artistic works throughout collection.
Arboretum Ambassador students engage public with programs about the collection.

Staff

Arboretum staff manage the development of the site plan, partner with volunteers and Art-Science Fusion Program, raise support and oversee the site maintenance.

Community

Community members participate in 'labudio' (lab+studio) sessions to create tiles in addition to helping fund the projects installation with dedication donations.

Arboretum volunteers who work to maintain the space and demonstration plantings.



Animal Science GATEway Garden *(Under construction)*



About

Thanks to a partnership with the College of Agricultural and Environmental Sciences, GATEways Project team members are collaborating with the Department of Animal Science to create a teaching landscape where the Arboretum's Southwest U.S. and Mexican collection adjoins the Cole Facility and horse barns. This new garden will serve to showcase Animal Science's research and societal contributions as well as function as an outdoor classroom and event space.

Support

College of Agricultural & Environmental Sciences
Institute of Museum and Library Services (IMLS) Grant
Updating irrigation to the Southwest U.S./ Mexican collection.
Community
Revenue from event rentals will support maintenance.
Potential for development through naming and dedication opportunities.

Academic Partners

College of Agricultural & Environmental Sciences
Professor Anita Oberbauer, Chair
Dan Sehnert, Staff, Cole Facility

Community Engagement

Faculty

Animal Science faculty collaborate to develop site as a showcase for the department, outdoor classroom, and event space.

Students

*A Landscape Architecture student designed and helped build the garden.
Animal Science students help with planting and programming the space.*

Staff

Arboretum and Public Garden staff design space, planting plan and collaborate with community to create interpretative signage.

Community

Volunteers partner with stakeholders to develop interpretive signage, construct hardscape, plant & maintain landscape.



Good Life Garden (Conversion)

About

In 2008, UC Davis Grounds and Landscape Services created an ornamental and edible demonstration garden that quickly became a popular destination and campus icon. Located in the courtyard of the Robert Mondavi Institute for Wine and Food Science, the 1.5 acre UC Davis Good Life Garden contains an ever-changing edible landscape of seasonal vegetables, herbs and flowers.

This garden will soon be converted to a GATEways garden through increased academic collaboration and community engagement support.



Support

Current: Campus Planning & Community Resources, College of Agricultural & Environmental Sciences Dean's Office, Seeds of Change

Potential: Community

Event rental income

Naming opportunities

Dedication opportunities

Potential: Grant Funding

Academic Partners (potential)

College of Agricultural & Environmental Sciences
Robert Mondavi Institute for Wine and Food Science

Food Science Department
Viticulture & Enology Department
UC Davis Olive Center
Integrated Pest Management
UC Master Gardeners



Community Engagement (potential)

Faculty

Academic faculty collaborate to develop site to reflect academic expertise.

Students

Horticultural student interns participate in planting, programming, research and maintenance.

Staff

Arboretum staff develop planting plan based on academic needs, collaborate with campus and community to create interpretative signage, and oversee maintenance.

Community

Volunteers partner to develop interpretive signage & maintain the landscape.

California Native Plant GATEway Garden *(Newly-constructed)*



Support

Arboretum George Mason Donation Fund
City of Davis
City of Davis Municipal Arts Fund
Glide Foundation Grant
Institute of Museum and Library Services
Pacific Gas & Electric Company
Pacific Gas & Electric Company Foundation
Rotary Club
Shields Development Fund
Stanley Smith Horticultural Trust
Stuart Foundation
UC Davis Administrative and Resource Management
Urban Greening Grant

Academic Partners

College of Letters & Science
Department of Chemistry
Professor Jared Shaw
Design Department
Chair Tim McNeil
College of Agricultural & Environmental Sciences
Landscape Architecture Department
Professor Heath Schenker
Department of Land, Air & Water Resources
Professor Wendy Silk
School of Education
Professor Heidi Ballard

About

To date the California Native Plant GATEways Garden and City Arts GATEway have received over \$1 million in external funding based on an initial \$63K investment of campus planning funds and an additional \$215K of ADA funding. This unique landscape, optimally located at the east end of the Arboretum, where the UC Davis campus adjoins downtown Davis, now serves as a physical gateway from the city to the campus and the Arboretum.

The area features the community-created “Shovel Gateway” sculpture, plants native to the lower Putah Creek watershed displayed in themed plantings surrounding three teaching patios. Interpretive signs will educate visitors about the regional flora and fauna, the history of the Putah Creek watershed and its current management, and how to create sustainable landscapes with native plants.

Community Engagement

Faculty

Faculty collaborate to develop garden exhibit, outdoor teaching venue and associated educational programming.

Students

Students collaborate with faculty and Arboretum and Public Garden staff to develop garden exhibit, associated educational programming and partner to install the landscape.

Staff

Arboretum and Public Garden staff design the space, planting plan, collaborate with community to create interpretative signage and manage maintenance oversight with community volunteers.

Community

Volunteers partner with stakeholders from the City of Davis and community to develop interpretive signage, donate shovels for the sculpture, plant & maintain landscape.



(Upsizing) Cruess Hall Design GATEway Garden



About

In 2011, a donor came forward with an idea to improve the courtyard at Cruess Hall, new home to the Design Department and the UC Davis Design Museum. This project then became the first to upsize the GATEways Garden ideas from the Arboretum to the campus as part of the UC Davis GATEways Project. The GATEways Project team has been working closely with Tim McNeil, chair of the Design Department and Director of the Design Museum, to develop preliminary ideas for engaging faculty and students in the garden design and explore funding options. The Dean's Office of the Division of Humanities, Arts and Cultural Studies has also pledged to help support this project.

Academic Partners

College of Letters & Science
Division of Humanities, Arts &
Cultural Studies
Design Department
Chair Tim McNeil
Professor Ann Savageau

Community Engagement

Faculty

The faculty will be involved in developing design ideas to facilitate use of the garden by courses and students.

Students

The students are involved in developing design ideas, planting the garden and using the garden for coursework and projects.

Staff

Develop design and community engagement ideas in collaboration with the academic partners.

Community

The team will develop ideas for community engagement throughout the process.

Support

Private Donors

Partially funded by a major gift.

College of Letters & Science

Partially funded by Dean Jessie Ann Owens of the Division of Humanities, Arts and Cultural Studies.

Wayfinding: Turning the inside out

The UC Davis Department of Design is also collaborating with UC Davis GATEways Project team members to revise building monument signage which previously only featured the building name to signs that highlight the departments and public venues (e.g. museums) housed inside.

With full-scale implementation of this model, a simple walk

across campus will serve a visitor-centered marketing function by communicating compelling stories about our university and the breadth of our academic expertise; these signs also address our campus's need for a building numbering system that complies with safety regulations.



The graphic image on the right side of this sign was chosen by the Design Department and features a detail from a quilt that is part of the permanent collection at the Design Museum, a gallery that is open to the public.

Chemistry Plaza (Complete)



About

The UC Davis Art-Science Fusion Program, in collaboration with the Arboretum and Public Garden Initiative, worked closely with the Chemistry Department and Campus Planning and Community Resources to design The Elements of Life, an art-science fusion plaza of tiles that depict how atoms connect to make bigger molecules and materials in biology and life. The plaza is located in front of the Chemistry Building.

Through a freshman seminar, UC Davis students learned about science concepts related to chemistry and transformed sample images submitted by the chemistry faculty into beautiful clay tiles that will serve as a permanent learning and engagement feature for the campus community and public. It serves as a physical and programmatic gateway to the scholarly work of the Chemistry Department.

Community Engagement

Faculty

College of Agricultural & Environmental Sciences

Associate Dean for Undergraduate Academic Programs and Entomology Professor Diane Ullman and ceramic artist Donna Billick, co-founders of the Art-Science Fusion Program, work with faculty and students to design The Elements of Life project.

Department of Chemistry

Faculty collaborate to develop the theme and sample images for The Elements of Life project.

Students

Students create ceramic tiles through their learning about chemistry to become part of a large-scale piece of public art in the Chemistry Building plaza.

Community

Community members will help make tiles for the project through open studio sessions with the Art-Science Fusion Program.

Support

Campus Planning & Community Resources

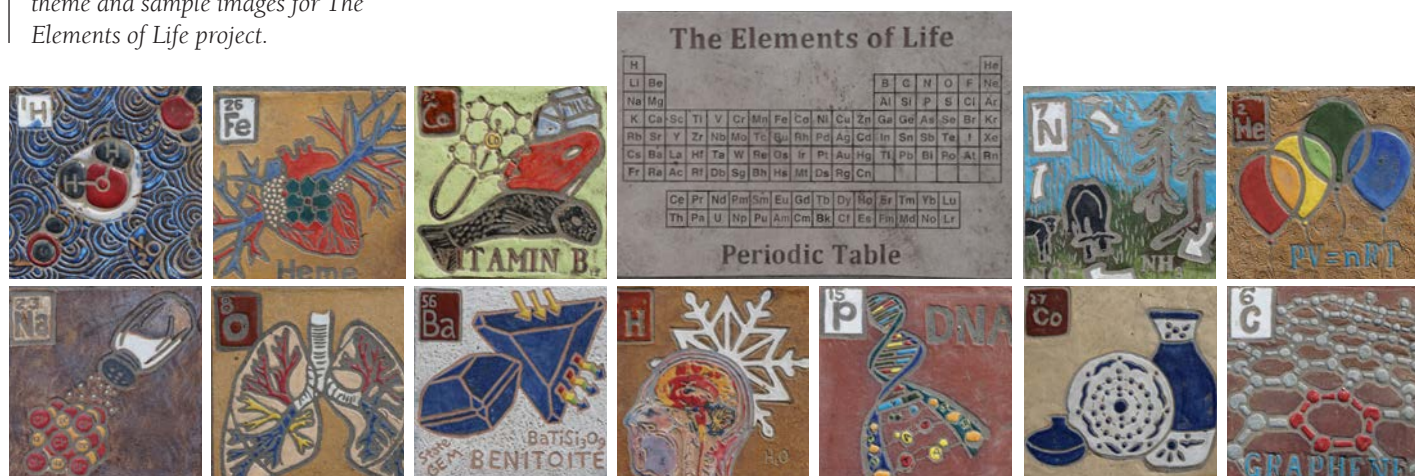
College of Letters & Science

Department of Chemistry

Academic Partners

College of Letters & Science

Assistant Professor Annaliese Franz and other faculty members



GATEWAYS LANDSCAPE CONVERSIONS

Showcasing landscape management best practices and sustainable plantings

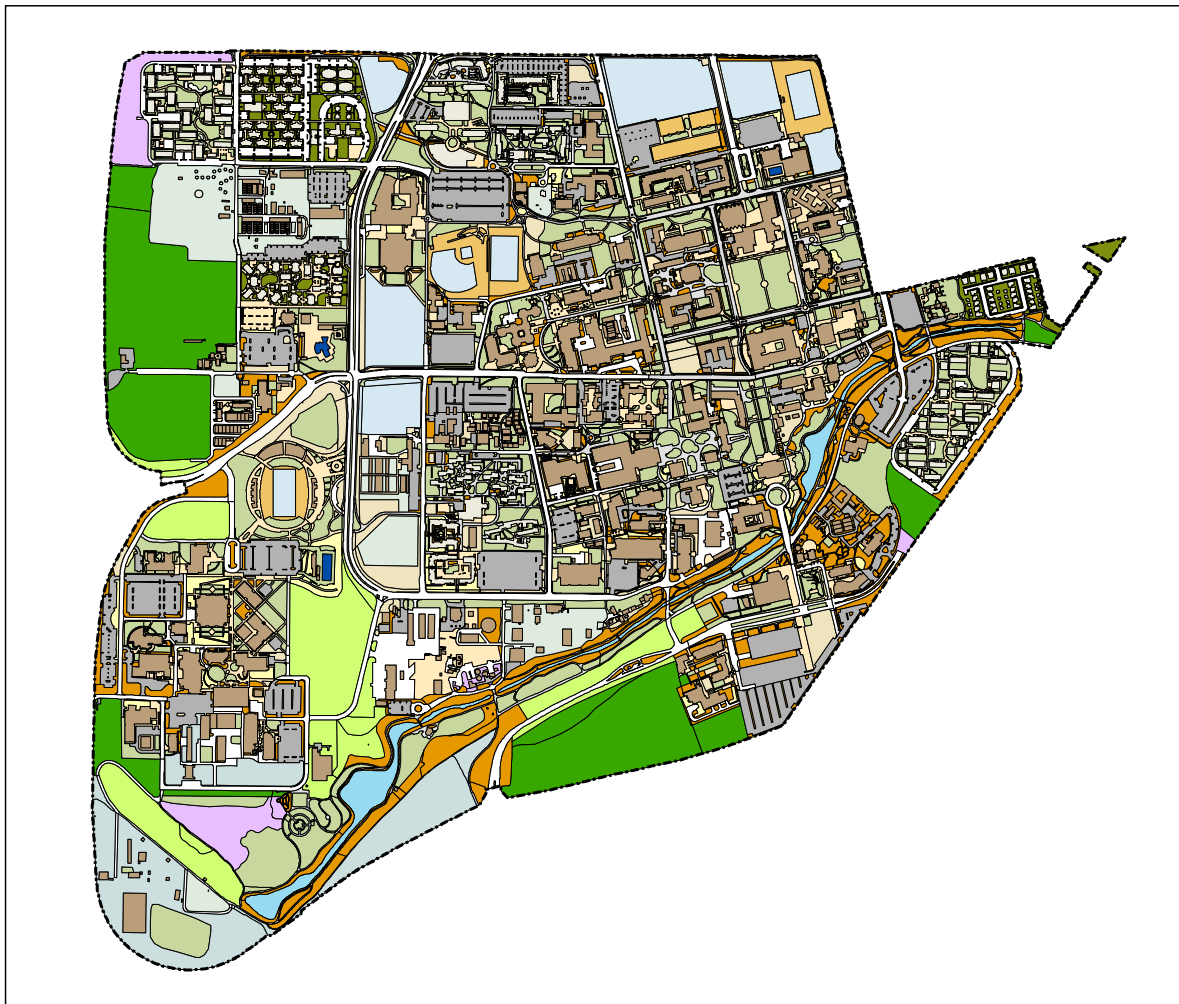
In 2011, the Campus Planning and Community Resources team conducted a landscape conversion plan to direct our landscape sustainability efforts with the objective of reducing the amount of inputs into our campus landscape while increasing sustainability, aesthetics, and ecosystems. In addition, redefined landscapes at UC Davis will become a model of best practices for other institutions looking to do these types of conversions.

Our landscape conversion plan analyzes landscape types, uses, visibility, activity levels and maintenance workload to make informed decisions in order to identify campus landscapes that would be good candidates for conversion, and to determine areas of campus that should be given more attention due to

higher use and visibility.

The benefits of converting high-input landscapes will not only reduce maintenance expenses and water use; the campus will also gain a Central Valley aesthetic as well as increased sense of identity and place.

Based on this document our team has so far embarked on several landscape conversions. Overviews of these projects can be found on the following two pages.



La Rue Road Median Conversion

The La Rue Median Strip Conversion is the first of two pilot conversion projects to convert high-maintenance turf areas into lower-maintenance and lower-cost landscape types which will showcase Central Valley ecosystems and Valley-wise plants.

In addition to less water use and less cost to maintain, these conversions will be more attractive and give UC Davis a unique look and sense of place.

Our first step was to rid the area of Bermuda grass—a task easier said than done. The extensive root systems of Bermuda grasses go dormant during the winter season rendering them impermeable to traditional spray abatement methods.

In the fall of 2011 Grounds crews were able to spray this stretch of weeds twice in time for most of it to be removed by Civil and Industrial Services crews. In early January 2012 our team seeded the area with locally-collected native wildflowers

to replenish the soil of its nutrients, prevent erosion, and give our team another growing season to make sure the pesky and resilient Bermuda grasses are completely eliminated.

In spring 2013, about a third of the median was planted with selections determined by staff horticulturists to be low-water, easy-care, attractive, and especially durable.

The La Rue Road median is almost a mile long and stretches from Russell Blvd. all the way to Garrod Drive.

This site will serve as testing site and best practices model for other individuals, cities and institutions interested in sustainable landscape practices.



Shields Oak Grove Meadow Conversion

Once a little-used, high-maintenance, high-water use landscape, the Shields Oak Grove Meadow on the far west side of the Arboretum has been converted to a lower-maintenance, lower-water, lower-cost meadow of native grasses.

Initial herbicide treatments took place in October 2011, irrigation infrastructure was updated, and the area was seeded in

early December by Arboretum and Public Garden staff. The area is now a thriving meadow of native grasses comprised primarily of the California state grass, purple needlegrass.

This space has gone from a little-used lawn that required mowing once a week and irrigation three times a week to a meadow of native grasses which requires mowing two to four times a year and irrigation about twice

during the summer.

Not only is this landscape more sustainable, the grasses are providing vital nesting ground for the western pond turtle (see below); an outcome that dovetails serendipitously with a Wildlife and Fisheries Biology Department study on these turtles taking place nearby.



Waterway & Turtle Habitat Upgrade

Arboretum and Public Garden staff collaborated to complete a project on a channel of Putah Creek that improves our campus utility operations and also restored a native turtle habitat.

Before the project was completed, the channel had caused problems from an operations perspective because an overgrowth of cattails and marsh plants clogged an intake pump which drains the Arboretum waterway. In order to prevent this obstruction, our campus utilities

department would seasonally remove the plants to keep the waterway clear, but unknowingly were disrupting a habitat of the western pond turtle that was being studied by Wildlife and Conservation Biology researchers.

The Arboretum and Public Garden team, the Campus Utilities Department, and researchers from Wildlife and Conservation Biology worked together to develop a solution to meet both goals. They deepened the channel in front of the intake pump to discourage plant growth and allow for an

unimpeded flow of water, and scalloped the edges of the channel to create a shallow area for marsh plants to grow which will also attract the turtles.

Volunteers from the Wild Campus student group partnered with Arboretum and Public Garden staff to revegetate the area with tule donated by the Yolo Basin Foundation.

To date the upgrade is a success; baby western pond turtles (see below) were seen basking on the newly-engineered shoreline just a few weeks after construction was complete.



GATEWAYS Student Engagement Program:

THE UC DAVIS GATEWAYS PROJECT STUDENT ENGAGEMENT PROGRAM IS BASED ON A BOLD PREMISE: THAT STUDENTS LEARN BEST THROUGH LEADING.

UC Davis students and faculty have partnered with the UC Davis Arboretum and Public Garden and UC Davis GATEways Project team members on projects like those pictured below.

In each of these efforts, UC Davis students have been in leadership roles, learning invaluable lessons in planning, collaboration, teaching, public speaking, and problem solving as they design community-centered projects that share what they have learned with

interested visitors, while helping connect the rich scholarship and excellence of UC Davis in the arts, the humanities, and sciences.

This program has attracted national attention and we believe that it may be a new national model for universities seeking to teach 21st Century Leadership Skills. In addition, the “Learning by Leading” Program has received capacity-building support from the EXCElerate Foundation as we develop and expand it for the future.

The program is comprised of five distinct areas that serve as frameworks for student learning and leadership and have become catalysts for innovation and external funding.

1. Innovation in Educational Leadership



Environmental leadership students, the Arboretum Ambassadors, learn leadership skills as they plan and implement a broad range of public engagement activities. Ambassadors provide outreach both on-site at the UC Davis Arboretum as well as at community or regional events. They create engaging educational programs for youth and families, including under-served populations in our region. Ambassadors also organize campus events such as the Arboretum’s Picnic Day activities, workshops, movie nights, tours, and more. These students learn the skills of teamwork, building their strengths, developing new areas of expertise, program proposal development and grant writing, and event planning and facilitation.

Children attending UC Davis Arboretum’s Oak Discovery Day learn to create artistic pieces from plant material in a group led by Arboretum Ambassador, Mira Parekh.

2. Sustainable Horticulture & Greening the Built Environment

The UC Davis Arboretum is home to over 25 demonstration gardens and scientific collections that showcase plants that grow in a Mediterranean-type climate with cool, wet winters and hot, dry summers. Students benefit from having a practical, experiential learning experience in the garden that complements their coursework and helps them build confidence in their skills, knowledge, and abilities. Working directly with horticultural staff, students develop projects in environmental horticulture, landscape architecture and environmental sciences. They gain real-world experience through planning and implementing their projects as they work alongside the experts.



Students in Dr. Peter Hartsough’s course, Environmental and Resource Science 108: Environmental Monitoring, learned to use standard instruments and methods for environmental and ecological monitoring with the Arboretum as their research site. They also conducted phenological observations of plants and insects in the demonstration planting beds at the Arboretum Teaching Nursery, recording data on bloom times and pollinator activity.



Learning by Leading

3. Arts in the Environment

UC Davis faculty and students in the Division of Humanities, Arts and Cultural Studies explore the innovative space where the arts and the environment intersect. The Arboretum, through its role as a programmatic gateway, provides a catalyst for this cutting edge scholarship. Faculty across the arts, from theater and dance to visual arts and music, use the Arboretum as the inspiration for their work to create venues for public engagement in the landscape. Student-led Studio 301 performed plays and musicals in the Arboretum and has gone on to spawn a non-profit organizations called the Davis Shakespeare Ensemble and Common House Productions, which continues to perform and run theater summer camps in the Arboretum.



Studio 301, a student-led theater troupe, presented “Hair: The American Tribal Love-Rock Musical” under the stars near the Arboretum’s Gazebo.

4. Conservation of Biodiversity & Plant Collections

Geographic Information Systems (GIS) are used to create, manage, analyze, and display data with a spatial component. Used in virtually every industry, GIS skills are becoming more and more important in the workplace. The Arboretum has been a pioneer in the use of GIS at public gardens and has created a data model that is in use at over 100 gardens. UC Davis students work with the professional staff of the Arboretum to survey locations of plants, amenities, hardscape, and utilities. They gain botanical, horticultural, and technical (GIS, GPS, and Database) knowledge that can be applied in numerous fields of employment.

Mark Miller was a GIS student intern at the Arboretum. After leaving the Arboretum, he became a, GIS Field Consultant, at the San Francisco Botanical Garden.



5. Creating and Leading Communities of Engagement



GATEways partners create communities of engagement through programs that authentically involve students and the public on many levels. The UC Davis Art-Science Fusion Program collaborates with the GATEways Project Team to develop large-scale public works of art that help translate the science behind Arboretum gardens and collections. In their Art-Science Fusion coursework, UC Davis students learn about entomology and plant sciences in ways that are inspired by the Arboretum collections. The students then go into the art studio to create ceramic tiles that express their learning. Community members work alongside students in open studio sessions to learn and contribute their expertise.

Students in Entomology 1 learned about the diversity of oaks in the Shields Oak Grove and created individual Mosaic Tree Plaques for over 35 trees in the collection. The plaques depict the leaves, acorns and bark of each tree, as well as insects and other animals that interact with the oak in its native habitat.

COMMUNITY ENGAGEMENT

OVER 40 YEARS AGO, WHEN ALL FUNDING TO THE UC DAVIS ARBORETUM WAS CUT, the Friends of the UC Davis Arboretum was born. This grassroots community group banded together to save the Arboretum's collections with campaigns that focused on hose donations and blossomed into successful plant sales. Today the Friends of the UC Davis Arboretum is the only university support group to receive the Chancellor's

Laureate, an honor bestowed upon groups who have raised over \$1 million for the campus.

Although university funding for the Arboretum was restored, that funding only partially covers operating costs. It is only through the assistance of the Arboretum's support group that community engagement and fundraising programs continue

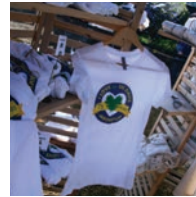
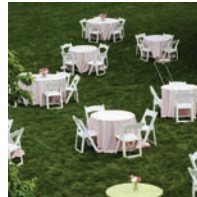
Plant Sales Arboretum and Public Garden Plant Sales are large public events that provide a major unrestricted income through outreach and sales of beautiful, region-appropriate plants.



Workshop & Tour Earned income from workshops and tours offers wonderful growth potential, as new opportunities arise both from internal and external sources.



Event Rentals This program would create an event rental income stream for campus venues whose rate structures do not currently support the units charged with maintaining the spaces.



Dedications A robust dedication program gives supporters an occasion to honor loved ones and special occasions. This program creates life-long connections between these donors and their special sites, and publicly demonstrates dedication opportunities to other visitors.



Annual Gifts Campaigns run in the last months of each calendar year raise a consistent amount of unrestricted funding that is donated to the Arboretum and Public Garden, above and beyond Friends' membership dues.



Special Plant Sales Special Plant Sales are marketed directly to targeted groups, which increase revenues through tour fees and exclusive shopping opportunities. These sales are strategically planned and scheduled to increase the efficiency of servicing multiple groups of common purpose through larger invitational events.

Merchandise By providing a line of unique, high-quality products representing UC Davis and the Arboretum and Public Garden, this program provides an income source while promoting our name and identity to a national and international audience.

Visitor Gifts While free to the public, the Arboretum and Public Garden must explore ways to inform visitors about its funding needs, and to encourage visitors to contribute to ongoing costs either on-site, texting, on-line, or through special events.

Fundraising Events Signature annual fundraising events have the potential to raise significant funding through ticket sales, participation fees, auctions, etc. These events are desirable for engaging with both new and existing supporters.

Donor Stewardship The Arboretum and Public Garden provides outstanding stewardship to its supporters by celebrating, honoring and appreciating the many people who give to the Arboretum and the many different ways they contribute.



& FUNDRAISING PROGRAMS

to grow today. After over 75 years, the UC Davis Arboretum has enough momentum to support an initiative as unique and transformative as the UC Davis GATEways Project.

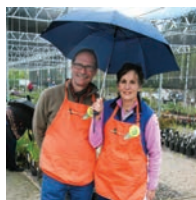
To assist the Arboretum and the UC Davis GATEways Project team, the GATEways Planning Council was created to advise and support this larger campus initiative in partnership with

the Friends of the UC Davis Arboretum and its board members. Together with staff from the Arboretum and Public Garden team these groups partner on over 20 programs to support the GATEways Project mission for creating an inviting, interactive and sustainable showcase of all that UC Davis has to offer. These programs ultimately connect people to UC Davis and lead to future support.

Student Engagement Our student engagement program develops leadership and service skills for participants and expands the student learning domain beyond the classroom into campus and our community.



Volunteers Volunteer involvement is not only desirable from a community engagement standpoint, but also an administrative necessity. Volunteer training, management and recognition is a priority through this program.



Grants Many projects at the Arboretum and Public Garden have been largely grant funded; efforts over the past five years have generated more than \$1.8m. This program manages applications to government, corporations, or foundations for grants to fund UC Davis GATEways projects.



Fundraising Campaign Plan The success of the UC Davis GATEways Project hinges on our ability to communicate its ground-breaking, unique qualities to public. This program will create the tools necessary to drive an intensive fundraising effort to secure transformational gifts and pledges for a specific purpose.



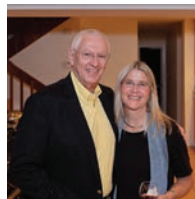
Planned Giving Building on the recently launched Warren G. Roberts Arboretum Legacy Society, this program will provide individuals and donors a means to continue their financial support into the future through planned bequests.



Strategic Partnerships UC Davis and its Arboretum and Public Garden can use its reputation among professional, educational, governmental entities and the general public at large to engage in partnerships that realize shared goals.



Communications & Marketing Strategic communications planning and implementation for each of the programs is being used to connect our audiences with the Arboretum and Public Garden's critical educational and fundraising messages.



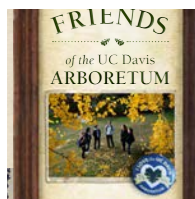
Foundations This program will manage applications to and relationships with foundations whose missions mirror UC Davis GATEways Project programs and priorities.



75th Anniversary The 75th Anniversary was used to launch a team approach to fundraising, build a large endowment to sustain the Arboretum into the future, reconnect with and steward supporters, and cultivate donors toward giving in our areas of greatest need.

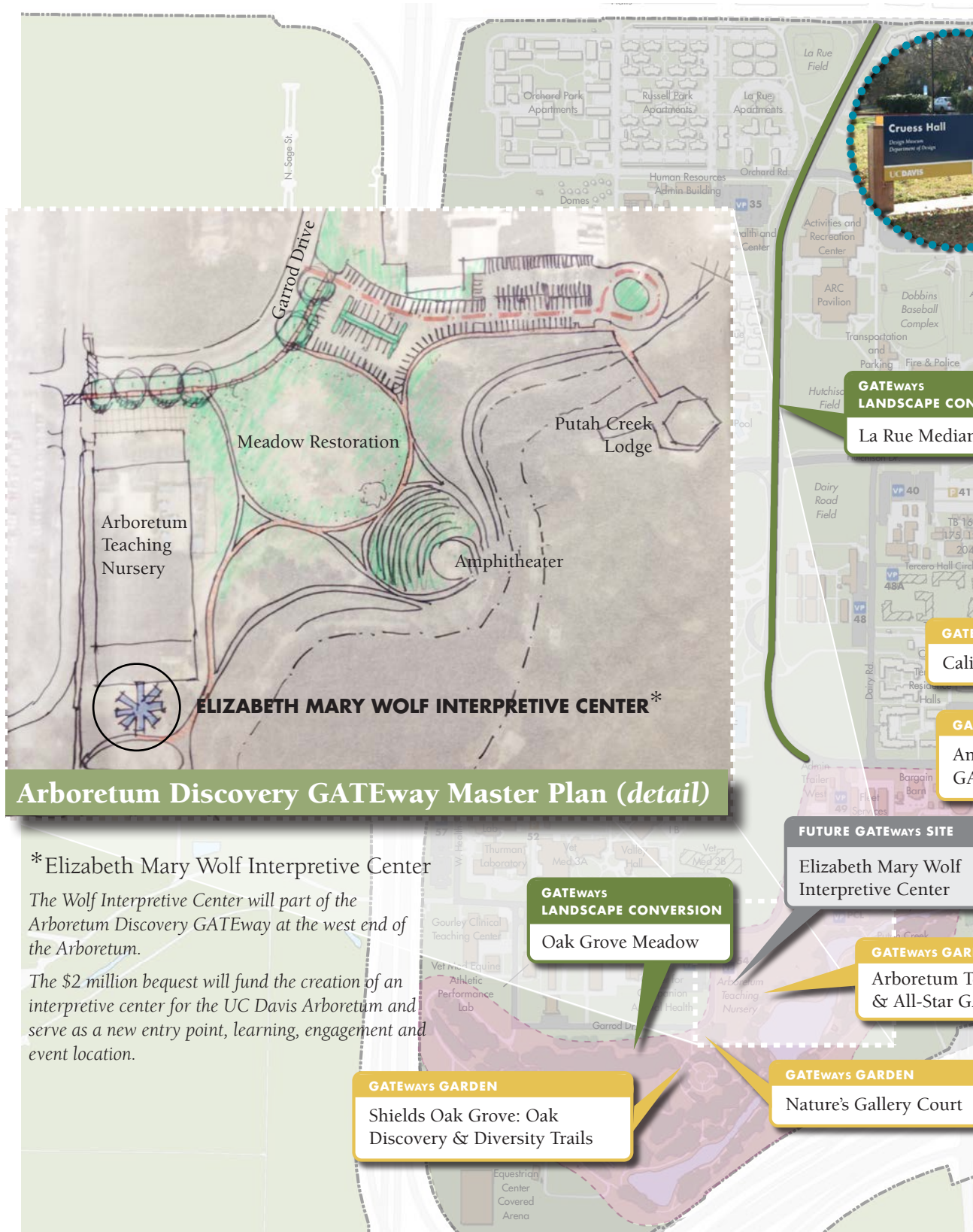


Major gifts Through this program, individuals with the capacity to give gifts defined as \$25,000 or greater, are cultivated and stewarded through personalized interactions that deepen their understanding of the role and values of campus gardens.



Membership The Friends of the UC Davis Arboretum has created a consistently growing unrestricted donation base while helping people establish and expand their connections with the Arboretum and Public Garden.

GATEways Project Map



Arboretum Discovery GATEway Master Plan (detail)

* Elizabeth Mary Wolf Interpretive Center

The Wolf Interpretive Center will part of the Arboretum Discovery GATEway at the west end of the Arboretum.

The \$2 million bequest will fund the creation of an interpretive center for the UC Davis Arboretum and serve as a new entry point, learning, engagement and event location.



GATEways GARDEN
Cruess Hall Courtyard

GATEways GARDEN
Elements of Life
(Chemistry Plaza)

GATEways GARDEN
California Rock Garden

GATEways GARDEN
Animal Science
GATEway Garden

GATEways GARDEN
Good Life Garden

GATEways GARDEN
Teaching Nursery
GATEway Garden

GATEways GARDEN
Arts Walk

GATEways GARDEN
California Native Plant
GATEway Garden

GATEways GARDEN
Native American
Contemplative Garden

LEGEND

- New Building Monument Signage Locations
- GATEways Gardens
- GATEways Landscape Conversions
- Future GATEways Site
- City Arts GATEway
- University GATEway
- Arboretum Discovery GATEway



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