



A Winery for the Future



Robert Mondavi Institute
for Wine and Food Science

UNIVERSITY OF CALIFORNIA, DAVIS

THE RIGHT TIME – THE RIGHT OPPORTUNITY

Nearly a century ago, UC Davis ushered in an age of scientific discoveries and public education across California, including helping to found what has grown into a \$45 billion-a-year wine industry.

Building upon its deep agricultural roots, the university has become an international leader addressing many of the most complex issues facing the world today. A solutions powerhouse, UC Davis touches everything that matters to us as human beings – the environment, public health, transportation and energy, to name just a few – and our innovations make a very real and positive difference in people's lives every day.

There has never been a better time to partner with UC Davis. From the very beginning, visionary leaders have been instrumental in shaping the university as one of the world's finest, with an enduring impact locally and worldwide.

Among its many distinctions, UC Davis has long been recognized for excellence and leadership in grape, wine, and food research. Now, in partnership with Robert and Margrit Mondavi and many other philanthropic leaders, the university has strengthened its position as the world's leading educational center for viticulture, enology and food science.

UC Davis is grateful to the Mondavis and the many visionary donors who have helped bring this project to fruition.

We invite you to join us in assuring that the Robert Mondavi Institute for Wine and Food Science continues the tradition of being the global leader in discovery, teaching and technology transfer that enables the success of California wine businesses.

UC Davis is seeking visionary donors who share our commitment to the wine industry's future. We would be pleased to provide information regarding specific philanthropic opportunities at the Robert Mondavi Institute for Wine and Food Science.



FROM PIONEER TO POWERHOUSE

The opening of the Robert Mondavi Institute for Wine and Food Science in October 2008 will signal a new era of opportunity. The Mondavi name has increased the visibility of the university's wine and food science program, and Robert and Margrit Mondavi have created a wonderful philanthropic tradition at UC Davis through their very generous gift to establish the institute.

The institute will bring together two of the College of Agricultural and Environmental Sciences' most widely acclaimed departments – Viticulture and Enology, and Food Science and Technology – in a new facility that will house the world's largest and most prestigious wine and food science program.

The Department of Viticulture and Enology has long been recognized for innovative research and scientific leadership. UC Davis has been the conveyor of grape growing and winemaking knowledge that enabled the growth and success of the hundreds of wine companies that exist today.

UC Davis faculty members conduct transformational research that has an impact throughout the world. UC Davis graduates are highly regarded and continue to distinguish themselves as leaders in the grape-growing and winemaking industries.

This tradition of excellence has long benefited industry leaders who have relied upon the department's research, expertise and counsel. In the past three years alone, requests for formal partnerships with UC Davis' program have come from France, Spain, Italy, Australia and Israel. These partnerships in international markets reflect the remarkable contributions the university continues to make in a broad range of strategic opportunities.



ENHANCING QUALITY OF LIFE

The Robert Mondavi Institute for Wine and Food Science is poised to become the global leader and innovator in university-based wine and food science. There is not a more appropriate place for such a vision to be realized than at UC Davis.

No other academic institution can claim the rare combination of the premier College of Agricultural and Environmental Sciences, a large agricultural sector renowned for its fine wine and food production, and the diversity and uniqueness of California cuisine.

The institute will house two of UC Davis' world-renowned departments – Viticulture and Enology, and Food Science and Technology. The new academic building will feature approximately 75,000 square feet for classrooms, laboratories, offices, and meeting rooms. The complex will include a state-of-the-art teaching and research winery as well as the August A. Busch III Brewing and Food Science Laboratory.

The Robert Mondavi Institute for Wine and Food Science will serve as the gateway between UC Davis and a broad community of scientists, engineers, policymakers and

industry professionals engaged in all dimensions the teaching, research and the transfer of understanding related to grape growing and winemaking. The educational components associated with the winery, brewery, and food processing plant are expected to draw many national and international visitors annually.



The university has been a true partner in building the international reputation of the California wine industry. We are now leading the way with UC Davis graduates at the helm of many of our finest wineries.

–Robert Mondavi

A WINERY FOR THE FUTURE



The Robert Mondavi Institute's teaching and research winery offers a unique opportunity for those who are passionate about the future of wine to partner with UC Davis in ensuring the long-term health and success of the wine community.

The wine industry's future depends upon having a highly skilled workforce. Tomorrow's leaders must be trained with modern techniques and the latest equipment to maintain the advantage that has given California wines their competitive edge in the global marketplace.

UC Davis' new teaching and research winery will integrate sustainable winemaking practices and efficient winery systems into the practical training of tomorrow's leaders in the grape and wine industry. An integral component of the Robert Mondavi Institute, the winery will facilitate the creative experimentation to teach our students how to lead in wine innovation and, by extension, successful wine businesses. Practical training will provide the scientific basis for knowledge of wine flavor development and efficient resource management, both vital to the industry's future.

We envision an advanced, resource-efficient winery, with low energy requirements due to building design, construction materials, and innovative cooling and heating systems. This leadership winery would demonstrate highly efficient water use with innovative, clean chemistries. Advanced monitoring and control systems will allow exact experimentation on wine flavors and teach students the principles of precision winemaking.

Powered by renewable energy systems and capturing carbon dioxide emissions, this green winery will be much more than an example of sustainability. With its zero-carbon footprint, it will be the a platform for teaching and discovery that will be essential for California wine companies to meet the evolving challenges of resource limitations with green and sustainable winemaking practices.



Sustainable Winemaking

ESSENTIAL FEATURES

We envision the world's most advanced and innovative, energy- and water-efficient green winery without a carbon footprint.

Topic	Features	Needs	Benefits
Water Use Efficiency	CIP technology, with re-cycling filtration, will use 1/10th of the water (and chemicals) required by present practices.	Water is the most critical resource in winery operations.	Reduce waste stream and need for treatment to allow for growth and investment elsewhere
Green Cleaning Chemistry	Based on potassium salts and hydrogen peroxide. This reduces chemical input by 10 and eliminates all sodium	Vineyard soils are made saline by long term application of waste from winery cleaning solutions that are high in sodium	Improve rather than degrade soil with waste water, a critical component of sustainable practices
Building Efficiency	A high efficiency building design that will provide exceptionally low energy requirements for heating and cooling, with Leadership in Energy and Environmental Design (LEED) Platinum certification, as well as test future technologies for greater energy savings	Summer climate in interior California and other warm winegrowing areas have high energy demands for cooling and air conditioning	Reduced energy usage reduces costs and demonstrates the commitment of the wine industry to a sustainable future
Renewable Energy	Electrical power will be generated by an advanced solar photovoltaic system. A hydrogen fuel cell could provide night-time and backup generation. Water and building heating from passive solar reflectors.	Current energy sources create a large carbon footprint and reliance on trouble prone power grids	Ultra green technologies reduce costs and show global green technology leadership
Zero Carbon Footprint	The carbon dioxide emissions from fermentations will be captured and sequestered to demonstrate the feasibility of various possible technologies. With the high efficiency and renewable energy noted above, the Winery may even be able to operate with a negative carbon footprint!	Emissions of CO ₂ are 135 lb/ton of grapes as well as other regulated chemicals	Reduced emissions of various sorts demonstrate leadership in improving our environment
Web-based LIVE Winery	The Winery will have its teaching and experimental equipment instrumented to facilitate precision winemaking and provide that data via an open, web-based interface to enable remote learning and observation of the viability of new technologies and advanced process engineering in real time.	Data from teaching and many experiments are not widely distributed and are underutilized	Advanced data capture and management system for wineries Global viewing of experiments
Summary	An innovative facility that will test and study advanced and evolving technologies while enabling rigorous research experiments, maintaining our leadership teaching curriculum and ensuring that research findings and system performance can be rapidly disseminated	No existing facility or center integrates all sustainable practices, nor provides for a test bed for testing and development of improved systems or technologies	Provides for education and research founded on sustainable principles and practices, and offers opportunities for continuing education to address current and future challenges to sustainability

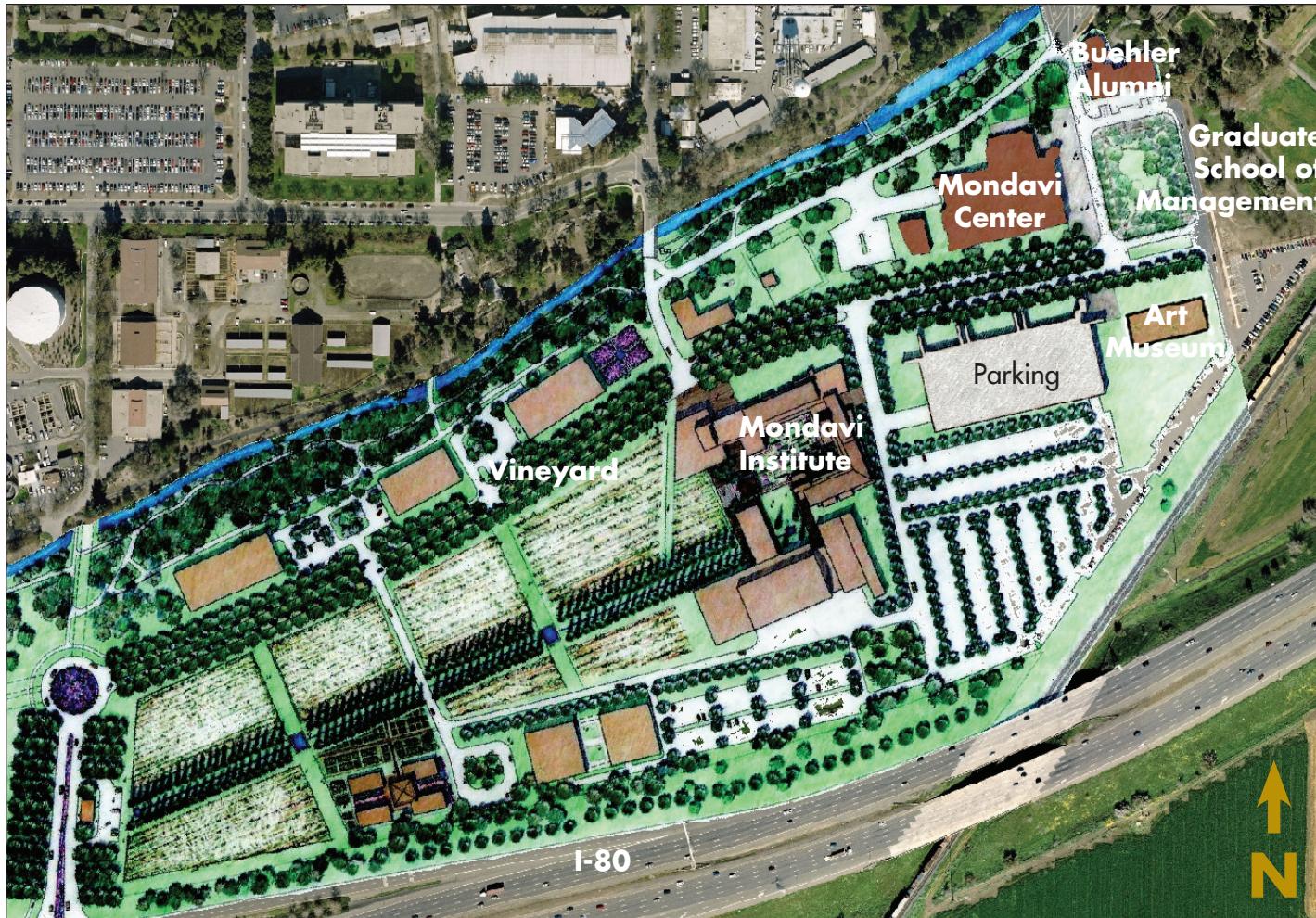
State-of-the-Art Facility



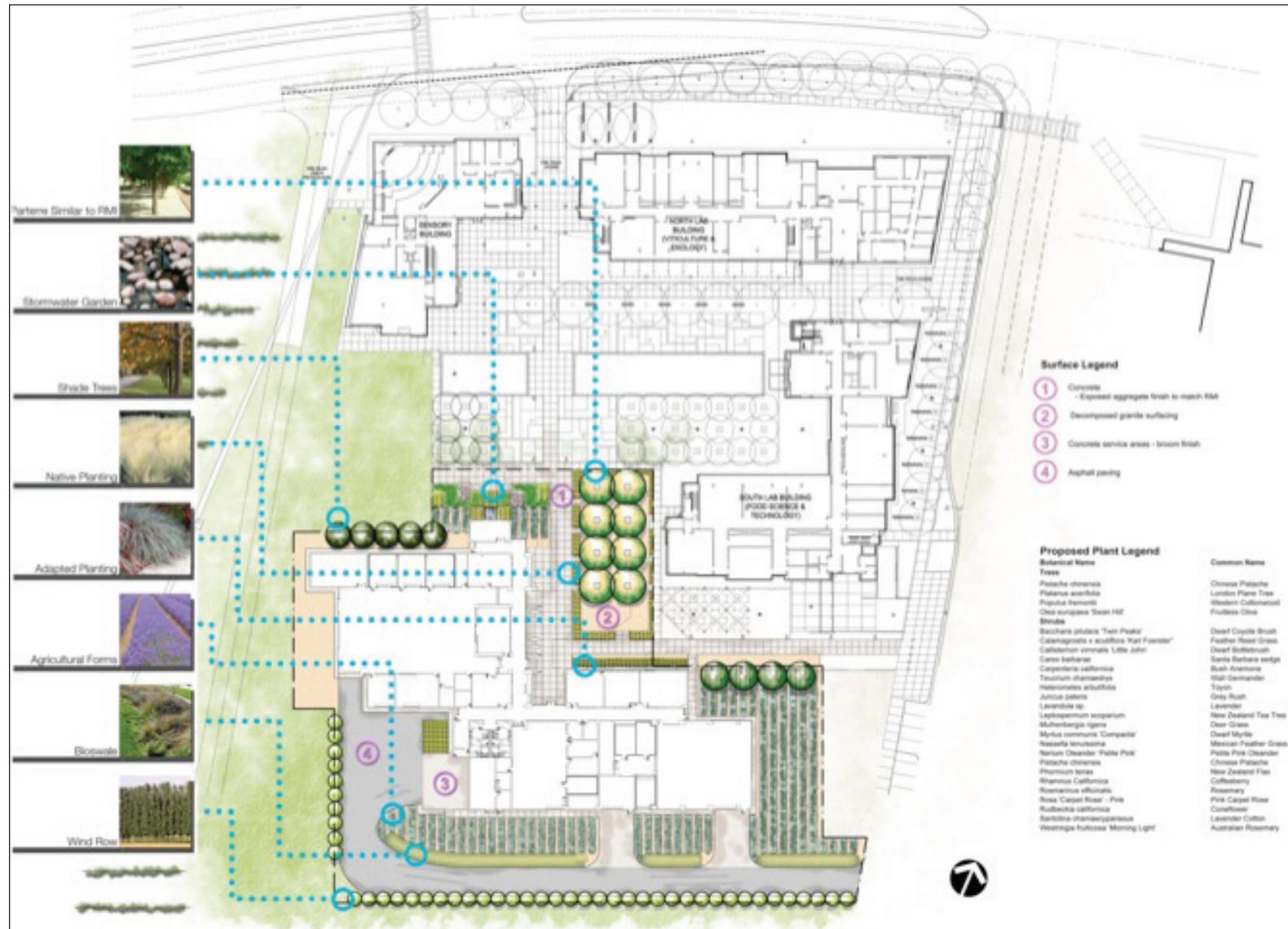
A Prominent Setting

A PROMINENT SETTING

The Robert Mondavi Institute for Wine and Food Science is located just west of the Robert and Margrit Mondavi Center for the Performing Arts. A 12-acre teaching vineyard will be a signature feature of the new complex, which will welcome visitors at the new south campus gateway via the Interstate 80 corridor.



The lay of the landscape



BUILDING BRIDGES

The University of California, Davis campus is set in the heart of California's Central Valley, close to the state capital and to the San Francisco Bay Area – with easy access to the Sierra Nevada mountains and the Pacific Ocean beaches, and in close proximity to the wine country.

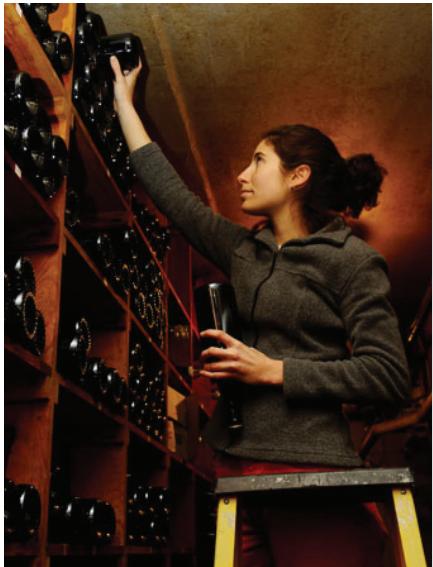
Over the past several years, there has been tremendous growth on both the Sacramento and Davis campuses of UC Davis. With a total of nearly 5500 acres (5300 in Davis alone; and 140 in Sacramento, as well as facilities at Lake Tahoe and Bodega Bay), UC Davis has managed over \$1 billion in capital projects.

Clearly visible from Interstate 80, the Robert Mondavi Institute will be situated in a prominent “visitor corridor” that has been steadily emerging on the southern edge of campus, where the Robert and Margrit Mondavi Center for the Performing Arts alone attracts over 125,000 visitors each year.

The UC Davis community is strong and thriving, with over 30,400 students, 2,400 faculty and 26,700 staff members – each of whom builds bridges to the region and beyond.



VITICULTURE AND ENOLOGY HALLMARKS OF EXCELLENCE



The Department of Viticulture and Enology traces its origin back to 1880 when the University of California was directed by the Legislature to provide “instruction and practical exercises” in the fields of growing of grapes, making of wines and the distillation of wines. In the 125 years since, it has become the model for similar programs throughout the world and its curriculum, texts research publications continue to be the reference by which others are measured. Its long tradition of transferring research findings into its degrees programs and short course offerings, its consulting and advising activities, continues today, have no equal.

The Viticulture and Enology program has been the major developer of intellectual capacity for the US and global wine industries. Its graduates, numbering more than 1,650 in the last 30 years, have been the foundation on which wine companies and related businesses have developed, grown and flourished.

The Department has established formal international winemaking fellowships in France and Italy, with others under consideration. The international network of its faculty enable many students to obtain their own internship experiences in Australia, New Zealand, Spain, Portugal, Argentina, Chile and Germany.

The support of others, in the form of endowments for professorships, scholarships and other activities now exceeds \$15 million. These include the Amerine, Scott, Martini and Sands Chairs and the Wine Spectator scholarships, together with the recently established Rossi endowment, and many other individual gifts and prizes.

The opportunity to design a leadership winery in which these advanced systems and environmental engineering comes at a critical and challenging time. This winery would be an essential component in the education of the next generation of winemakers, while at the same time providing examples of solutions and performance to wine companies throughout California.