



Chapter 1 Introduction

The City of Davis (City), in partnership with Yolo County and in collaboration with University of California (UC) Davis, is pursuing creation of the Downtown/University Gateway Mixed-Use Innovation District (District), which currently falls within these three jurisdictions. The District consists of three distinct subareas: the Nishi property (currently undeveloped agricultural land located within the unincorporated county), the West Olive Drive subarea (located within the city boundaries south of Richards Boulevard and north of the Nishi property), and adjacent portions of UC Davis' Central Campus. To aid the partners in effectively planning for this area, the California Strategic Growth Council awarded a grant through the Sustainable Communities Planning Grant and Incentives Program. This financial assistance has provided significant support to enable the partners to further State and local sustainability and smart growth goals through this sustainability implementation plan.

As part of this effort, the City is considering a development proposal for the Nishi property, along with potential zoning and general plan designation changes that would apply to the West Olive Drive subarea. Collectively, these efforts are also known as the "Nishi Gateway" project. This plan serves as the sustainability implementation plan for the District. It identifies specific goals, objectives and implementing actions that provide direction and guidance for the City and applicant on how to make the Nishi development, and the Downtown/University Gateway District as a whole, into a new sustainable community that would serve as a model Innovation District for Davis, the Sacramento region, and beyond.

While the goals and objectives are meant to apply to the District as a whole, the City has jurisdiction only over the Nishi Gateway project. In addition, while redevelopment of the West Olive Drive properties is anticipated, no specific development projects have been submitted to the City for consideration. Because of these reasons, this document only provides an evaluation of how well the Nishi development complies with this implementation plan.

In its broadest sense, "sustainability" means that the project would achieve long-term positive and balanced outcomes for people, the environment, and the economy. Accordingly, this plan provides a framework for development of a low environmental impact, minimal carbon footprint development that provides high-quality amenities, livability, and economically-positive outcomes for the key project stakeholders: the City of Davis and its residents, UC Davis, Yolo County, the project applicant, and future project residents, employees, patrons, and visitors.

This plan includes the following chapters:

Chapter 1: Introduction – This chapter provides background for why this implementation plan is being prepared and how it will be used. It includes the purpose for pursuing this effort, it identifies the sustainability framework used and its relationship to other measurement and accreditation programs, and it provides an understanding of what to expect of the plan and how the City and applicant may use it.

Chapter 2: Project Overview and Site Plan – This chapter provides an overview of the Nishi Gateway project, including the proposed land uses, site plan and key infrastructure components. The chapter also includes overarching project goals and objectives, including those that apply specifically to sustainability and climate action.

Chapter 3: Transportation – This chapter identifies strategies for providing efficient, low-carbon transportation choices and enhancing mobility for future residents and employees. It emphasizes human-powered transportation (bicycling and walking) and connectivity, and includes actions to appropriately manage the use of cars through parking controls and other transportation demand management (TDM) strategies. It also provides actions to encourage and expand the use of low- or zero-emissions vehicles, as well as facilitating transit service to serve the Nishi development and the broader community.

Chapter 4: Energy – This chapter provides a strategic framework for maximizing the efficient use of energy in new buildings and public infrastructure serving the site, along with the provision of on-site renewable energy generation systems, in a manner that moves the project towards achieving zero net energy (ZNE) over the long term. Energy strategies are coordinated with other sustainability elements, including coordinating on-site edible landscaping and rooftop green space with solar photovoltaics (PV), and using site design and building orientations to maximize the opportunity for passive heating and cooling.

Chapter 5: Water – This chapter describes how the water, wastewater, and stormwater systems will be designed with sustainability in mind. It includes both indoor and outdoor water efficiency and conservation strategies, along with stormwater management and treatment methods that emphasize low-impact development practices, with a focus on integration with other site design components related to site landscaping and parks and open space programming.

Chapter 6: Open Space and Parks – This chapter describes how parks and open space areas will be provided on-site in a manner that supports active lifestyles and creates a healthy community, while also supporting native species and habitat. It establishes design and programming requirements for both active and passive recreational uses in parks and identifies the types of activities that may be allowed within these spaces, treatment of open spaces in terms of maximizing views and habitat connectivity, and the relationship of these spaces to other regional facilities (e.g., UC Davis Arboretum and Putah Creek Greenway). Implementing

actions for site landscaping and design are coordinated with water-related strategies discussed in Chapter 5.

1.1 Purpose

The City of Davis is a recognized leader in green building and sustainable development practice and policy. Davis residents are known for their commitment to ensuring that development within the community provides for housing and job needs while also nurturing the environment. The Davis General Plan lays out the visions for “a safe, sustainable, healthy, diverse and stimulating environment for all in the community”; “a cohesive, compact, university-oriented city surrounded by and containing farmland, greenbelts, natural habitats and natural resources”; and “a clean, safe, healthy, livable and ecologically sound environment for today and the future.” The visions describe a community that “pursue[s] sustainability.”

Sustainability in this context means that planned development of this site emphasizes long-term positive and balanced outcomes for people, the environment, and the economy. The purpose of this plan, therefore, is to provide both a framework and actionable guidance for the development of the Nishi Gateway project to achieve sustainability.

The Nishi Gateway project is proximate to both downtown Davis and UC Davis; and is in a high-visibility location along Interstate 80. As such, development of this area has incredible potential to ensure the visions of the City for sustainable and innovative development are achieved, as well as improving and building on the “gateway” image of the City in a manner that is compatible with surrounding development. An important focus of the project is to support job creation and strengthen the local economy by serving as an Innovation District. At the same time, development of Nishi Gateway is intended to create an exciting new mixed-use neighborhood that fits in with the community and enhances overall quality of life for both existing and new residents.

The Nishi Gateway project is consistent with the Center and Corridor Community designation for this vicinity of Davis in the 2035 Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS), adopted by the Sacramento Area Council of Governments (SACOG) in 2012. The strategies associated with the MTP/SCS that are considered in this plan include investing in active transportation (bicycling and walking) and transit-oriented mixed-use developments, providing opportunities for more small-lot and attached housing, and considering infill opportunities. The MTP/SCS is expected to reduce per capita transportation emissions from 2008 levels on a regional basis by 9 percent by 2020 and 16 percent by 2035, consistent with State goals for the region established by the Sustainable Communities and Climate Protection Act of 2008 (SB 375). By maintaining consistency with the type of growth and strategies that should be implemented in Center and Corridor Communities in the MTP/SCS, the Nishi Gateway project plays an important role in achieving regional goals for sustainability.

1.2 Guiding Principles and Goals

1.2.1 City of Davis Innovation Center Guiding Principles

The City Council Innovation Center Subcommittee developed “Guiding Principles” to establish a framework reflecting community values and expectations, to be used in evaluating and guiding refinement of proposed Innovation Center concepts and documenting community objectives in any Davis innovation center. The Guiding Principles were adopted by the City Council in December 2014.

The Downtown/University Gateway District is considered a possible Innovation District and the guiding principles are intended to apply to the City’s review of a development proposal at the Nishi site. This sustainability implementation plan strives to be consistent with the City’s guiding principles for innovation centers/districts which are summarized below:

- ▲ Principle #1: Density – An innovation center should focus on guidelines to maximize density to accommodate long-term business growth.
- ▲ Principle #2: Sustainability – The sustainability principle includes applying low impact development principles, ensuring minimal greenhouse gas (GHG) impacts at the project level, exploring opportunities to bolster the goals of the City’s *Climate Adaptation & Action Plan*, and mitigating for impacts on agricultural land.
- ▲ Principle #3: Transportation – bicycle/pedestrian/transit connections must be made in order to integrate sites as truly multi-modal projects.
- ▲ Principle #4: Work Environment – Projects should include elements of “work, live, play” that encourage an engaged and inviting workplace.
- ▲ Principle #5: Uses – Reflect a character that is uniquely “Davis” while achieving very high aesthetic standards. Model designs and uses after successful research areas.
- ▲ Principle #6: Timing and Project Phasing – Applicants need to demonstrate sufficient resources to ensure completion of the projects and address potential build out scenarios and timing (based on previous experience).
- ▲ Principle #7: Fiscal Consideration and Net Community Benefit – Achieve fiscal neutrality with regard to city services and provide substantial surplus annual revenue and positive economic impacts/multipliers citywide, and net community benefits (including social and environmental).
- ▲ Principle #8: Facilitate Collaborative Partnerships and Provide Opportunities for Increased University and Research Engagement – Facilitate technology and business development. All

partners – community, City, county, regional, and state government, UC Davis, research institutions, project proponents and innovative business partners should benefit and prosper together.

1.2.2 Downtown/University Gateway District Goals

The following goals were developed for the District-wide planning effort based on planning efforts and public outreach in the last several years, and presented to City Council in February 2014.

- ▲ Strengthen campus and community connections.
- ▲ Create a new gateway to Davis, linking and building upon existing downtown, West Olive Drive and UC Davis assets.
- ▲ Improve mobility and connectivity for all users (cars, trucks, transit riders, bicyclists and pedestrians) while reducing traffic congestion.
- ▲ Achieve balance between cultural, entertainment, visitor accommodation and recreational assets.
- ▲ Achieve synergy with UC Davis and downtown to complement, and not compete with, existing uses.
- ▲ Create a pedestrian-oriented community within easy walking, biking and transit distance to UC Davis and Downtown.
- ▲ Create a viable district that includes a mix of uses that meet the needs of UC Davis and the City of Davis.
- ▲ Create a balance between residential and employment uses.

1.3 Sustainability Goals and Objectives

The sustainability framework consists of a series of goals and objectives that will guide the Nishi development, along with implementing actions within each chapter of this plan to ensure the goals and objectives are achieved. Key performance metrics and monitoring programs are embedded within the evaluation and monitoring sections of each chapter of the plan to ensure that the development will achieve the outlined goals and objectives over time. The following goals and objectives serve as the sustainability framework. They are repeated, as applicable, within each topical chapter.

- ▲ **Goal 1:** Serve as a model for low-carbon, climate-resilient development that also enhances the fiscal and equitable sustainability of the broader community.
 - **Objective 1.1:** Achieve substantially lower GHG emissions per capita for both residents and employees of the District compared to baseline levels, in support of the City of Davis' and UC Davis' long-term goals to achieve carbon neutrality.
 - **Objective 1.2:** Encourage innovative site and building design that encourages a healthy and interconnected natural and built environment, conserves natural resources, and promotes equitable and efficient communities.
 - **Objective 1.3:** Contribute to resource conservation during construction through the use of sustainable materials and cost-effective resource conservation methods.
 - **Objective 1.4:** Promote and demonstrate resiliency to the effects of climate change and other challenges through project design.
- ▲ **Goal 2:** Strive for carbon neutral transportation through the use of innovative designs, infrastructure, technologies, and programs.
 - **Objective 2.1:** Reduce automobile dependency and reduce vehicle trips generated within the District by 10 percent compared to original project trip generation forecasts¹, working towards the communitywide goal of achieving 50 percent non-single-occupancy-vehicle (SOV) mode share for residential and commercial development by 2035.
 - **Objective 2.2:** Achieve a 20 percent reduction in project-related vehicle miles traveled (VMT), compared to original project VMT forecasts.
 - **Objective 2.3:** Achieve maximum connectivity and safety for pedestrians, bicyclists, and transit users.
 - **Objective 2.4:** Incentivize the use of clean, energy-efficient, active (i.e., human powered), and economically sustainable means of travel.
 - **Objective 2.5:** Achieve an average vehicle ridership (AVR)² of 1.5 for peak period commute trips by employees of the project office uses.
- ▲ **Goal 3:** Design and construct high-performance buildings, public lighting, and on-site renewable energy systems that work towards achieving ZNE by completion of Nishi development build-out.

¹ Original project-related trip and VMT forecasts are based on the traffic and transportation analysis for the project prepared by Fehr and Peers. These forecasts do not assume any of the TDM measures or related actions in this chapter. Refer to the remaining sections of this chapter, as well as Appendix B, for additional information.

² Average Vehicle Ridership (AVR) shall be determined by dividing the employee population at the work site, that report to work during the AM peak period, by the number of single-occupant autos (that have not dropped off employees at other work sites en route) driven by these employees commuting from home to the work site during these hours. Zero emission vehicles will be excluded from the count.

- **Objective 3.1:** Achieve high-performance buildings at a minimum 30 percent compliance margin relative to the 2013 Title 24 Building Energy Efficiency Standards, or equivalent. High-performance buildings will also incorporate energy consumption feedback mechanisms in order to encourage resident and employee engagement and minimize wasted energy use.
 - **Objective 3.2:** Other building loads not covered by Title 24 will also achieve high levels of efficiency, (i.e. 100 percent high efficiency lighting, ENERGY STAR appliances and equipment), and lighting will be adaptive where practicable.
 - **Objective 3.3:** Design the Nishi development to achieve ZNE such that all site energy use is offset with renewable energy generation on an annual basis. To the extent possible, on-site generation will be used to meet this objective; however, off-site generation and purchase of renewable energy offsets will also be considered. Site energy use to be offset includes building energy use, all street and area site lighting, and other community related energy uses such as pools and community buildings. It does not include mobile sources / transportation-related energy use.
- ▲ **Goal 4:** Maximize water and wastewater efficiency through the use of conservation, reuse, and integrated landscaping and stormwater management strategies.
- **Objective 4.1:** Meet or exceed 2013 CALGreen Tier 1 water use efficiency requirements for indoor water use.
 - **Objective 4.2:** Minimize use of potable water in outdoor landscaping and maximize the use of non-potable water.
 - **Objective 4.3:** Work towards achieving zero net water usage through use of best management practices and innovative technologies.
 - **Objective 4.4:** Incorporate creative low-impact development (LID) solutions to meet stormwater treatment and water quality requirements.
- ▲ **Goal 5:** Create synergy with other project design goals and existing community sustainability initiatives.
- **Objective 5.1:** Preserve and promote the health of future residents and employees and the local ecosystem.
 - **Objective 5.2:** Ensure appropriately sited and programmed open spaces and parks, in order to meet the recreational needs of new residents and workers while maximizing habitat connectivity, public health, active transportation connectivity, and stormwater management.

- **Objective 5.3:** Provide access to local agriculture, including on-site agriculture in the form of community gardens, rooftop gardens, vertical aeroponic farming, and other options.
- **Objective 5.4:** Identify sustainable architectural and site design options for new buildings and infrastructure on the Nishi property that will enhance and establish synergy with new development in the UC Davis campus.
- **Objective 5.5:** Reduce landfilled waste by maximizing on-site opportunities for waste reduction, reuse, recycling, and composting.
- **Objective 5.6:** Incorporate opportunities to educate and empower future residents and employees to increase awareness of resource consumption and their carbon footprint.
- **Objective 5.7:** Provide housing and employment-serving land uses that will positively contribute to the region’s jobs-housing balance.

1.4 Sustainability Plan Implementation

1.4.1 Chapter Format

The five chapters that follow this one are composed of the following elements:

- ▲ **Introductory Text** – The beginning section of each chapter provides background for the topic to be covered in the chapter. Chapter 2 also includes a description of the plan area and the land use program.
- ▲ **Goals and Objectives** – This section presents a selection of the goals and objectives listed above in Section 1.3, *Sustainability Goals and Objectives* most supported by the implementing actions within that chapter.
- ▲ **Implementing Actions** – Each chapter includes a series of implementing actions that ensure that the Nishi Gateway project will meet the applicable plan goals and objectives. Each implementing action statement is in the following format:

Action X.X: Title

Directive statement which provides the action to be taken. If needed, additional text describes other considerations, such as the benefits of such an action or additional directives for how the action may be best implemented.

- ▲ **Evaluation and Monitoring** – This section provides an evaluation of the expected performance of the project in terms of meeting the goals and objectives as related to the particular topic, along with monitoring activities to be used during and after project buildout

to ensure that the project stays on track over the long term. Each chapter has both an evaluation subsection and a monitoring subsection, with corresponding metrics, data collection methods and projected outcomes. The implementation of Action 2.6, Project Implementation and Monitoring Program, will ensure that the metrics and actions required in each chapter will be reviewed and monitored.

1.4.2 How to Read and Use this Plan

The goals and objectives listed above in Section 1.3 of this chapter describe the desired outcome for the Nishi Gateway project, especially the Nishi development. As described previously, each chapter provides topic-specific implementing actions to be used to meet the goals and objectives.

Appendix F includes a full list of the implementing actions and indicates who is responsible for carrying out the implementing action, the timing for when the action will be completed, and the mechanisms by which actions will be implemented and/or enforced. Responsible parties may include one or more of the following: the project applicant or subsequent developer(s); the City of Davis; and future employers, property managers, and building owners. The timing for each action may be accomplished as part of project approval, during the tentative map approval, during the permitting process, at buildout, or ongoing during operation of the project. Implementing mechanisms include the zoning code, design guidelines, conditions of approval, subsequent plan review and approval processes (e.g., landscaping, drainage, water/sewer, or other improvement plans), and the project monitoring program.

Through these implementing mechanisms, the responsible parties will carry out the actions listed in this plan. The language used for goals, guidelines, and implementing actions varies in tone from the responsible party “shall” do an action to more flexible language such as the responsible party will “consider” an action. While all actions are necessary to meet the overarching goals for this plan, the way they will be carried out may differ and may require some flexibility. Development standards, such parking requirements, building height, setbacks, types of uses, and other controls will likely be implemented through zoning requirements. Actions with guiding language will likely be reviewed at several stages to determine how the action could be implemented. For example, Action 4.23 which asks that off-site renewable energy strategies be considered, will likely be reviewed before the building permit is issued and again when the area begins to build out and the development is monitored for how well it achieves overarching goals.

1.5 Comparison with Other “Green” Rating Systems/Programs

There are multiple third-party “green” rating systems and programs available in the marketplace that help to ensure that development is implemented in the most sustainable manner and results in “green” buildings and communities. Examples of third-party rating systems include Leadership in Energy & Environmental Design (LEED), Living Communities / Living Building Challenge, or Sustainability Tools for Assessing & Rating (STAR) Communities.

In California, the California Green Building Standards [CALGreen] now contains many standards and requirements that are similar to those contained in third-party rating systems. The City of Davis requires all projects to meet CALGreen Tier 1 “reach code” standards, which are more stringent than minimum CALGreen requirements applied statewide.

The City of Davis and the Nishi Gateway project team opted to create this plan using a project-specific sustainability framework that sets goals, objectives and detailed implementing actions and performance standards that are consistent with relevant plans and policies already adopted by the City (e.g., General Plan, Climate Action and Adaptation Plan) or required in CALGreen Tier 1. This plan is not designed to replicate any one of the existing third-party ratings systems, but contains numerous objectives and implementing actions that are very similar to the required standards or guidance within these systems. For a more detailed discussion of CALGreen as well as existing third-party “green” rating systems, please refer to Appendix A.