

# University Commons Project

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SCH# 2018112044

## Draft Environmental Impact Report

Volume I of II (Chapters 1–8 & Appendices A-D)

Prepared for  
City of Davis



November 2019

Prepared by



# **University Commons Project Draft Environmental Impact Report**

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SCH# 2018112044

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# 1. Introduction

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# 1 INTRODUCTION

## 1.1 PURPOSE AND INTENDED USES OF THIS EIR

The Environmental Impact Report (EIR) for the University Commons Project, previously referred to as the University Mall Redevelopment project, was prepared in accordance with the California Environmental Quality Act of 1970 (CEQA) as amended. The City of Davis is the lead agency for the environmental review of the proposed project evaluated herein and has the principal responsibility for approving the project. As required by Section 15121 of the CEQA Guidelines, this EIR will (a) inform public agency decision-makers, and the public generally, of the significant environmental effects of the project, (b) identify possible ways to minimize the significant adverse environmental effects, and (c) describe reasonable and feasible project alternatives which reduce environmental effects. The public agency shall consider the information in the EIR along with other information that may be presented to the agency in deciding whether to approve the application.

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues. CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. For the purposes of CEQA, the term *project* refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed project, the City has determined that the proposed development is a *project* within the definition of CEQA, which has the potential for resulting in significant environmental effects. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth-inducing impacts, and cumulative impacts.

## 1.2 PROPOSED PROJECT

This section provides an overview of the project location and components. For additional project description details, please refer to Chapter 3, Project Description, of this EIR.

### Project Location and Setting

The 8.25-acre project site is located in the City of Davis, California, north of Russell Boulevard, east of Sycamore Lane, and west of Anderson Road. Access to the project site is provided by a main access point at Russell Boulevard and several driveways along Sycamore Lane and Anderson Road. The site is 0.3-mile east of State Route (SR) 113 which provides regional access to the site. The site is identified by Assessor's Parcel Number (APN) 034-253-007.

Currently, the project site is developed with the University Mall, a community shopping center that includes a variety of commercial uses and restaurants, including the following tenants: Cost Plus World Market; Starbucks; Forever 21; Fluffy Donuts; and smaller shops and services. In addition, professional offices are located on a partial second floor. The project site also contains a paved parking lot. Mature trees are located in parking lot landscape islands. The proposed project would



involve redevelopment of 90,563 square feet (sf) of the existing University Mall. A Trader Joe's grocery store is situated on a stand-alone pad in the southwest portion of the site that fronts onto Russell Boulevard, at the northeast corner of the intersection of Russell Boulevard and Sycamore Lane. While the site includes the 13,200-sf Trader Joe's building, the building would not be altered or redeveloped as part of the project.

Surrounding uses include: an ARCO service station with a mini-mart, located adjacent to the southeast border of the site, at the northwest corner of the intersection of Russell Boulevard and Anderson Road; the Davis Chinese Christian Church and Rite Aid pharmacy located east of the site across Anderson Road; and the University of California, Davis, (UC Davis) campus to the south of the site across Russell Boulevard. Uses on the UC Davis campus in the project vicinity include a softball field (La Rue Field) and student housing (The Atriums Apartments/Russell Park Apartments). A three-story apartment complex (University Court) is located west of the project site, across Sycamore Lane. The site is bounded to the north by the two-story Sycamore Lane Apartments complex.

### **Project Components**

The proposed project would include demolition of approximately 90,563 sf of the existing University Mall building to construct a mixed-use development. Generally, buildout of the proposed project would result in the addition of 264 new multi-family residential units and approximately 136,800 sf of retail space. As noted above, the existing 13,200-sf Trader Joe's building is not part of the redevelopment area and will remain at the current location. A three-level, 246,000-sf parking structure containing a total of 518 parking spaces would be situated beneath the western portion of the residential development and provide parking for the proposed residential and retail uses. The proposed structures would range in height. The redeveloped University Commons building would be seven stories and approximately 80 feet in height, with the northeast portion along Anderson Road stepping down to three stories and 44 feet in height.

The layout of the residential portion of the proposed project would consist of four levels of residential uses over the three-level parking garage and four levels of residential uses over retail uses. The residential portion of the project would be arranged around three separate courtyards, one of which would contain an outdoor lounge area, which could potentially include a pool, as well as additional amenities such as a fitness room, bicycle storage, a bike repair station, and a rooftop terrace.

The proposed project would require the following entitlements from the City of Davis:

- Certification of the EIR and adoption of the Mitigation Monitoring Plan;
- General Plan Amendment to create a new land use designation of Mixed-Use Urban Retail that allows for large-scale, multi-story mixed-use development, and a land use map amendment to apply the designation to the site;
- Rezone/Preliminary Planned Development to establish a new Preliminary Planned Development (PD #03-18) for the project site, consisting of development standards for the proposed project and allowable mix of uses; and
- Approval of a Development Agreement between the City of Davis and Brixmor Property Group, Inc. for the proposed mixed-use development.

In addition, the proposed project would require a separate application for Site Plan and Architectural Review when building design and final site details have been determined.



### **1.3 PROJECT CONSISTENCY WITH SACOG'S 2036 METROPOLITAN TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY (i.e., ELIGIBILITY FOR CEQA STREAMLINING)**

The Legislature has adopted several statutory provisions to incentivize infill development within this region of the state that is consistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) adopted by the Sacramento Area Council of Governments (SACOG) including but not limited to Public Resources Code sections 21155-21155.4, 21159.28, and 21099. SACOG has provided a letter to the City of Davis (see Appendix A) indicating that the proposed project is consistent with SACOG's MTP/SCS. Streamlining benefits applicable to qualifying infill projects that are consistent with SACOG's MTP/SCS include the following:

1. The EIR is not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network. (Pub. Resources Code, § 21159.28, subd. (a).)
2. Alternative locations, densities, and building intensities to the proposed project need not be considered. (Pub. Resources Code, § 21159.28, subd. (b).)
3. Aesthetic and parking impacts should not be considered significant impacts on the environment. (Pub. Resources Code, § 21099, subd. (d)(1).)

Transit Priority Areas are areas of the region within one-half mile of a major transit stop or an existing or planned high-quality transit corridor included in the MTP/SCS. Per the letter provided by SACOG, the project qualifies as a Transit Priority Project, as the proposed project would involve greater than 50 percent residential uses, has a minimum density of 20 units per acre, and is located within 0.5-mile of a high-quality transit corridor (i.e., the Russell Boulevard high-quality transit corridor). Furthermore, the proposed project is an infill project within the Established Community designation of the MTP/SCS for the City of Davis. Within the Established Community, the MTP/SCS forecasts a range of low- to high-density residential, commercial, office, and industrial uses. The proposed project's land uses fall within this range of general uses, densities, and building intensities.

Based on the above, the City has streamlined the University Commons Project EIR pursuant to PRC 21159.28.

### **1.4 EIR PROCESS**

The EIR process begins with the decision by the lead agency to prepare an EIR, either during a preliminary review of a project or at the conclusion of an Initial Study. Once the decision is made to prepare an EIR, the lead agency sends a Notice of Preparation (NOP) to appropriate government agencies and, when required, to the State Clearinghouse (SCH) in the Office of Planning and Research (OPR), which will ensure that responsible and trustee State agencies reply within the required time. The SCH assigns an identification number to the project, which then becomes the identification number for all subsequent environmental documents on the project. Commenting agencies have 30 days to respond to the NOP and provide information regarding alternatives and mitigation measures they wish to have explored in the Draft EIR and to provide notification regarding whether the agency will be a responsible agency or a trustee agency for the project. An NOP (see Appendix B), as well as a detailed Initial Study (see Appendix C), was prepared for the proposed project and circulated from November 16, 2018 to December 17, 2018. A public scoping meeting was held on December 5, 2018 for the purpose of informing



the public and receiving comments on the scope of the environmental analysis to be prepared for the proposed project. See Section 1.6 below for a summary of comments received on the NOP.

As soon as the Draft EIR is completed, a Notice of Completion will be filed with the SCH and a public notice of availability will be published to inform interested parties that a Draft EIR is available for agency and public review. In addition, the notice provides information regarding the location of copies of the Draft EIR available for public review and any public meetings or hearings that are scheduled. The Draft EIR will be circulated for a period of 45 days, during which time reviewers may make comments. The lead agency must respond to comments in writing, describing the disposition of any significant environmental issues raised and explaining in detail the reasons for not accepting any specific comments concerning major environmental issues. During the Draft EIR public review period, a public meeting will be held before the Planning Commission in order to receive verbal comments on the Draft EIR. If significant new information, as defined in CEQA Guidelines section 15088.5, is added to an EIR after public notice of availability is given but before certification of the EIR, the revised EIR or affected chapters must be recirculated for an additional public review period with related comments and responses.

A Final EIR will be prepared, containing comments and responses to comments on the Draft EIR. The Final EIR will also include any changes to the Draft EIR text made as a result of public comment. Before approving a project, the lead agency shall certify that the Final EIR has been completed in compliance with CEQA, and that the Final EIR has been presented to the decision-making body of the lead agency, which has reviewed and considered the EIR. The lead agency shall also certify that the Final EIR reflects the lead agency's independent judgment and analysis.

The findings prepared by the lead agency must be based on substantial evidence in the administrative record and must include an explanation that bridges the gap between evidence in the record and the conclusions required by CEQA. If the decision-making body elects to proceed with a project that would have unavoidable significant impacts, then a Statement of Overriding Considerations explaining the decision to balance the benefits of the project against unavoidable environmental impacts must be prepared.

## **1.5 SCOPE OF THE EIR**

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This EIR constitutes a project-level analysis for the University Commons Project and, pursuant to CEQA Guidelines Section 15161, covers "all phases of the project including planning, construction, and operation." State CEQA Guidelines § 15126.2(a) states, in pertinent part:

An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.

Pursuant to the CEQA Guidelines, the scope of this EIR addresses specific issues and concerns identified as potentially significant in the Initial Study prepared for the proposed project.

### **Environmental Issues Dismissed in the Initial Study**

The Initial Study prepared for the proposed project during the scoping period (see Appendix C) includes a detailed environmental checklist addressing a range of technical environmental issues. For each technical environmental issue, the Initial Study identifies the level of impact for the



proposed project. The Initial Study identifies the environmental effects as either “no impact,” “less-than-significant,” “less-than-significant with mitigation incorporated,” or “potentially significant.” Impacts identified for the proposed project in the Initial Study as “no impact,” “less-than-significant,” or “less-than-significant with mitigation incorporated” are summarized below and discussed further in Appendix C. All remaining issues identified in the Initial Study as “potentially significant” are discussed in the subsequent technical chapters of this EIR.

- *Aesthetics (All Items)*: The proposed project is consistent with the MTP/SCS and CEQA streamlining provisions, which state that aesthetics impacts of infill projects within Transit Priority Areas are not considered significant effects on the physical environment. Nevertheless, the Initial Study included an analysis for information purposes. Because established scenic vistas are not located on or adjacent to the project site, and the project site is not located within the vicinity of a State Scenic Highway, *no impact* related to scenic vistas or damaging scenic resources within a State Scenic Highway would occur.

Although the proposed University Mall building would be taller than the immediately surrounding development, the project would not substantially degrade the aesthetic quality of the site or the site’s surroundings, as the project area currently consists of a developed environment lacking notable scenic features such as agricultural lands, open space, or extensive native vegetation. In addition, the visual character of the project site would be consistent with future urban development in the area. Therefore, impacts related to substantially degrading the existing visual character or quality of the site and its surroundings were determined to be *less than significant*.

Although existing sources of light and glare occur on the project site and surrounding area, because the proposed project would alter the type and intensity of development on the project site, an increase in the amount of light or glare on the project site as compared to existing conditions could occur. However, the project would be required to comply with all applicable regulations, such as the City’s Outdoor Lighting Control policies and the goals and policies of the General Plan, which would prevent the proposed project from creating new sources of light that would create a nuisance for the nearby residences in the project vicinity. Therefore, impacts related to creating a new source of substantial light or glare which would adversely affect day or nighttime views in the area were determined to be *less than significant*.

- *Agriculture and Forest Resources (All Items)*: The proposed project site is currently built-out with commercial uses and is identified as “Urban and Built-Up Land” in the Yolo County Important Farmland 2016 map. As such, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. In addition, buildout of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and Forest lands are not located within the project area, nor does the project site contain any portions zoned for forest land or Timberland Production. As such, *no impact* would occur related to agriculture and forest resources as a result of the proposed project.
- *Air Quality (e)*: Mixed-use land uses, such as the proposed project, are not typically associated with the creation of substantial objectionable odors. As a result, the proposed project operations would not create any objectionable odors that would affect a substantial number of people. Diesel fumes from construction equipment are often found to be





objectionable; however, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per Chapter 24 of the City's Municipal Code, and would likely only occur over portions of the improvement area at a time. Project construction would also be required to comply with all applicable YSAQMD rules and regulations, which would help to ensure any objectionable odors are minimized and addressed appropriately. Therefore, construction and operation of the proposed project was determined to result in a *less-than-significant* impact related to the creation of objectionable odors that would affect a substantial number of people.

- *Biological Resources (All Items):* Due to the infill and highly disturbed nature of the project site, the site does not contain any wetland features or riparian habitat. As a result, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS, nor have a substantial adverse effect on a federally protected wetland, as defined by Section 404 of the CWA. Therefore, *no impact* would occur.

Due to lack of habitat and the disturbed nature of the site, potential for use of the site as a wildlife corridor or native wildlife nursery site is severely limited. Therefore, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and a *less-than-significant* impact would occur.

While the project site is located within the boundaries of the Yolo Habitat Conservation Plan/Natural Conversation Community Plan (HCP/NCCP), the proposed project would not be subject to payment of habitat mitigation fees, as the project site does not contain high-quality habitat for covered species. Thus, impacts related to a conflict with the provisions of an adopted HCP/NCCP or other approved local, regional, or state habitat conservation plan would be *less than significant*.

In the absence of preconstruction surveys, development of the proposed project could have a potentially significant impact with respect to having an adverse effect, either directly or through habitat modifications, on a species identified as a special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS), particularly related to Swainson's hawk and migratory birds whose nests are afforded protection under the Migratory Bird Treaty Act. However, implementation of Mitigation Measures IV-1 and IV-2 set forth in the Initial Study, which require surveys to be conducted and appropriate actions be taken should any nests be found, would ensure any impacts would be *less than significant*.

Development of the proposed project would require the removal of 82 of the existing 98 on-site trees (42 were recommended for removal by the arborist due to their poor condition and suitability for preservation). The remaining 16 on-site trees would be preserved. Although the proposed project would involve removal of existing on-site trees, including trees protected by the City's Municipal Code, Mitigation Measure IV-3, which requires compliance with the appropriate protection measures for the trees that are being preserved on-site, would ensure impacts related to a potential conflict with any local



policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, would be *less than significant*.

- *Cultural Resources (All Items)*: Based on a Cultural Resources Inventory and Architectural History Evaluation Report (Report) prepared for the proposed project by ECORP Consulting, Inc., which included an evaluation of the existing building relative to the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR), the University Mall was determined not to be considered a historical resource as defined in Section 15064.5. Thus, implementation of the proposed project would result in a *less-than-significant* impact related to historical resources. Due to the built-out nature of the site and the surrounding area, the discovery of underlying archeological, paleontological, and/or tribal resources is not expected. However, given the prehistoric and historic activity that has occurred over time in the greater project area, unknown archaeological resources, including human bone, have the potential to be uncovered during ground-disturbing construction activities at the proposed project site. However, Mitigation Measures V-1, V-2, and V-3 set forth in the Initial Study require that the appropriate procedures are followed in the event that any subsurface historic remains, prehistoric or historic artifacts, other indications of archaeological resources, or cultural and/or tribal resources are found during grading and construction activities, including human remains, bones, or teeth. Implementation of Mitigation Measures V-1, V-2, and V-3 would ensure that impacts would be *less than significant*. It should be noted that, since the release of the NOP/Initial Study, the City's Historic Resources Management Commission reviewed and accepted the conclusions of the report with the supplemental information provided and clarifications. The City, in consultation with the Historic Resources Management Commission, determined that minor amendments to the language of Mitigation Measures V-1, V-2, and V-3 should be implemented. The amendments made to the above mitigation measures are for clarification purposes and do not alter the conclusions of the Initial Study. The revised mitigation measures are included in Table 2-1 of Chapter 2, Executive Summary, of this EIR.
- *Geology and Soils (All Items)*: Due to the project site's proximity to the nearest active fault and relatively flat topography, as well as the project design's required compliance with all applicable State and local regulations, including the California Building Code (CBC), the proposed project would not expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, and/or liquefaction or landslides. During early stages of construction, prior to overlaying the ground surface with structures, the potential exists for wind erosion to occur, which could affect the project area and potentially inadvertently transport eroded soils to downstream drainage facilities. In accordance with National Pollutant Discharge Elimination System regulations, in order to minimize the potential effects of construction runoff on receiving water quality, the project applicant must obtain a General Construction Permit, which includes preparation of a Stormwater Pollution Prevention Plan (SWPPP) and implementation of best management practices (BMPs) to reduce construction effects on receiving water quality by implementing erosion control measures. The project site could potentially contain expansive soils. However, the project would be required to comply with applicable General Plan policies, the CBC, and implement standard development practices, which would ensure effects associated with expansive soils are avoided. Therefore, a *less-than-significant* impact related to all of the above would result.



The proposed project would connect to the City's existing sewer system and would not require the use of a septic tank or other alternative waste water disposal method. Therefore, *no impact* would occur related to having soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems.

- *Hazards and Hazardous Materials (All Items)*: Although a limited amount of potentially hazardous materials could be used on-site during construction and operations, regulations governing the use of such materials and amount anticipated to be used on site would ensure the routine handling, transport, use, or disposal of such materials would not create a significant hazard to the public or the environment. The nearest school relative to the proposed project site is the Cesar Chavez Elementary School, located 0.5-mile north of the project site. The project site is not located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and is not in an area subject to a substantial risk due to wildland fires. The project site is located approximately 1.85 miles away from the University Airport; however, the proposed project would not introduce any obstructions to the necessary airport clear space, and a safety hazard for people residing or working in the project area would not occur due to development of the proposed project. The proposed project does not involve any operations or changes to the existing roadway network that would impair implementation or physically interfere with the City's Multi-Hazard Functional Planning Guide or the County's Emergency Operations Plan or Multi-Hazard Mitigation Plan (MHMP). Construction activities affecting any of the identified evacuation routes would be both temporary and subject to traffic controls. Therefore, *no impact* and/or a *less-than-significant* impact related to all of the above would occur.

Based on a Phase I Environmental Site Assessment (ESA) Report prepared for the proposed project by AEI Consultants, the proposed project site is not located in the vicinity of any identified hazardous materials sites that could pose a risk to future residents of the proposed project and on- or off-site recognized environmental conditions considered likely to impact the project site were not identified as part of the Phase I ESA. However, development of the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, particularly associated with asbestos containing materials (ACMs) and lead-based paint (LBP) potentially present within the existing University Mall building. However, Mitigation Measures VIII-1 and VIII-2 set forth in the Initial Study, which require an evaluation of the presence of ACMs and LBP and the appropriate procedures to follow should the materials be found, would ensure that impacts related to ACMs and LBP would be *less than significant*.

- *Hydrology and Water Quality (All Items)*: Construction and buildout associated with the proposed project could result in increased stormwater runoff or the degradation of water quality. However, implementation of Mitigation Measure IX-1, which requires permanent stormwater control, treatment, and attenuation features, would reduce impacts related to the violation of storm water quality standards, the creation of stormwater runoff in exceedance of capacity, and the substantial degradation of water quality to a *less-than-significant* level. Based on the Yolo County Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project site is not located within a Special Flood Hazard Area, and development of the proposed project would not place housing within a 100-year flood hazard zone nor place structures within a 100-year floodplain such that flood flows would be impeded or redirected, and restrictions on development or





special requirements associated with flooding are not required for the project. Therefore, the proposed project would not expose people or structures to a risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam, and *no impact* would occur. In addition, because the City of Davis is not located near waters subject to tidal changes, closed bodies of water, or hilly or mountainous terrain, *no impact* related to seiches, tsunamis, or mudflows would occur.

- *Land Use and Planning (a,c)*: The project is considered infill development and would not physically divide an established community. In addition, as previously discussed, the project would not be subject to payment of habitat mitigation fees of the Yolo HCP/NCCP. Thus, a *less-than-significant* impact would occur related to physically dividing an established community and a conflict with any applicable habitat conservation plan or natural communities conservation plan.
- *Mineral Resources (All Items)*: Due to the lack of mineral resources in the City's Planning Area, including the project site, *no impact* related to mineral resources would occur.
- *Noise (e-f)*: The proposed project is located within a two-mile radius of the University Airport. However, the project site is located outside of the 55 decibel Community Noise Equivalent Level (CNEL) noise level contour, which extends approximately 4,500 feet from either terminus of the airport's runway. Therefore, a *less-than-significant* impact related to exposure of people residing or working in the project area to excessive noise levels associated with airport operations occur.
- *Population and Housing (All Items)*: Because the proposed project is consistent with SACOG's MTP/SCS, the project qualifies for streamlining benefits, including that a discussion of potential impacts related to population growth inducement are not required. Therefore, the proposed project would have a *less-than-significant* impact related to inducing substantial population growth in an area, either directly or indirectly. The proposed project would not displace existing housing or people, necessitating the construction of replacement housing elsewhere, and *no impact* would occur.
- *Public Services (c-e)*: The project site is located within the Davis Joint Unified School District and would be served by surrounding schools including Willett Elementary School, Emerson Junior High School, and Davis Senior High School. The project includes residential development and, thus, could increase the number of students attending local school facilities. However, a project's impacts on school facilities are fully mitigated by the payment of the requisite new school construction fees established pursuant to Government Code Section 65995. The proposed project would include payment of such fees. Furthermore, the proposed project would include on-site recreational amenities for future residents, and the project applicant would be required to pay all applicable development fees to the City related to recreational facilities. Thus, the proposed project would not substantially contribute to the need to alter existing parks or construct new parks within the City. Based on the above, impacts related to schools, recreation facilities, and other public facilities would be considered *less than significant*.
- *Recreation (All Items)*: The proposed project would include on-site recreational amenities for project residents and would be required to pay all applicable fees to the City related to recreational facilities. The payment of applicable impact fees would constitute



implementation of uniformly applicable standards that would serve to mitigate any potential impacts to park, recreation, and other governmental resources. Therefore, the proposed project would have a *less-than-significant* impact related to substantial physical degradation of existing recreational facilities and construction or expansion of recreational facilities.

- *Transportation and Circulation (c)*: While the proposed project is located approximately 1.85 miles northeast of the University Airport, the project would not, in any way, affect air traffic patterns at the University Airport. Therefore, the proposed project would not result in a change in air traffic patterns, including either an increase in air traffic levels or a change in location that results in substantial safety risks, and *no impact* would occur.
- *Tribal Cultural Resources (All Items)*: The potential for unrecorded Tribal Cultural Resources to exist within the project site is relatively low based on the developed and disturbed nature of the site. Tribal Cultural Resources have not been identified within the vicinity of the project site. In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to the Lone Band of Miwok Indians and the Yocha Dehe Wintun Nation on June 5, 2018. Requests for consultation from either tribe were not received prior to the closure of the mandatory 30-day response period for consultation under AB 52. However, the Yocha Dehe Wintun Nation subsequently provided a letter to the City, requesting formal consultation. The City of Davis reached out and clarified with the Yocha Dehe Wintun Nation that the consultation request response period had closed, but that the City would take any comments the Tribe might have on the project under advisement as a public comment. Nonetheless, the possibility exists that future development occurring on the proposed project site could result in a substantial adverse change in the significance of a Tribal Cultural Resource if previously unknown Tribal Cultural Resources are uncovered during ground-disturbing activities. However, Mitigation Measures V-1, V-2, and V-3 set forth in the Initial Study would ensure impacts related to Tribal Cultural Resources would be *less than significant*. As stated above, since the release of the NOP/Initial Study, the City's Historic Resources Management Commission reviewed and accepted the conclusions of the report with the supplemental information provided and clarifications. The City, in consultation with the Historic Resources Management Commission, determined that minor amendments to the language of Mitigation Measures V-1, V-2, and V-3 should be implemented. The amendments made to the mitigation measures are for clarification purposes and do not alter the conclusions of the Initial Study. The revised mitigation measures are included in Table 2-1 of Chapter 2, Executive Summary, of this EIR.

### **Environmental Issues Addressed in this EIR**

The sections of the CEQA Guidelines Appendix G Checklist identified for study in this EIR include the following:

- Air Quality;
- Greenhouse Gas Emissions and Energy;
- Land Use and Planning;
- Noise;
- Public Services and Utilities; and
- Transportation and Circulation.



The evaluation of effects is presented on a resource-by-resource basis in Sections 4.1 through 4.6. Each section is divided into the following four sections: Introduction, Existing Environmental Setting, Regulatory Context, and Impacts and Mitigation Measures.

## **1.6 SUMMARY OF COMMENTS RECEIVED ON THE NOP**

The City of Davis received 18 comment letters during the open comment period on the NOP for the project EIR and two letters after the open comment period. A copy of each letter is provided in this EIR (see Appendix D). The following letters were authored by public agencies and residents.

### **Public Agencies**

- Central Valley Regional Water Quality Control Board

### **Residents, Groups, and Organizations**

- Robert Barandas
- Earl Bossard
- Valerie Durbin
- Mark Estremera
- Richard Haggstrom
- Ernst Von Kugelgen
- Heather & Malcolm MacKenzie
- Jarue Manning (2)
- Jeff March
- Paul Ochs
- Kathy Ormiston
- Greg Rowe
- Eileen Samitz
- Steve Streeter
- Nancy Sweet
- Jennifer & Ted Tucker

### **Letters Received After the Public Comment Period**

- Hannah Hughes, Lozeau|Drury LLP
- Steve Smith

The following list, categorized by issue, summarizes the concerns addressed in the comment letters:

<b><u>Land Use and Planning</u></b> (Section 4.3)	Concerns related to the following: <ul style="list-style-type: none"><li>• Potential incompatibilities associated with development of high-density, student-oriented housing within the vicinity of existing residential neighborhoods.</li></ul>
<b><u>Noise</u></b> (Section 4.4)	Concerns related to the following: <ul style="list-style-type: none"><li>• Increased noise due to loud music, parties, etc. at the proposed residences;</li></ul>



	<ul style="list-style-type: none"><li>• Increased noise associated with the outdoor lounge area.</li></ul>
<b><u>Transportation and Circulation</u></b> (Section 4.6)	Concerns related to the following: <ul style="list-style-type: none"><li>• Increased vehicle traffic on nearby residential streets due to project.</li><li>• Increased congestion at the Russell Boulevard/Sycamore Lane intersection as a result of the project.</li><li>• Increased cut-through traffic on Oeste Drive as a result of the project.</li><li>• Inadequate parking for the residential portion of the proposed project resulting in a reduction of available retail parking spaces.</li><li>• Cumulative traffic issues associated with development of the proposed project combined with the Davis Live project.</li><li>• Site access from Russell Boulevard not being sufficient to serve the proposed project.</li><li>• Safety concerns related to bicycle, pedestrian, and transit passenger access at the project site.</li></ul>
<b><u>Initial Study</u></b> (see Appendix C)	Concerns related to the following: <ul style="list-style-type: none"><li>• Degradation of public views due to proposed building height.</li><li>• Effect on views from adjacent Sycamore Apartments to the north.</li><li>• Population growth due to the construction of high-density housing as part of the project.</li></ul>

All of the above issues are addressed in this EIR, in the relevant sections identified in the first column.

## **1.7 ORGANIZATION OF THE EIR**

The University Commons Project EIR is organized into the following sections:

### **Chapter 1 – Introduction**

Provides an introduction and overview describing the intended use of the EIR and the review and certification process, as well as summaries of the chapters included in the EIR.

### **Chapter 2 – Executive Summary**

Summarizes the elements of the project and the environmental impacts that would result from implementation of the proposed project, describes proposed mitigation measures and indicates the level of significance of impacts after mitigation. Acknowledges alternatives that would reduce or avoid significant impacts.

### **Chapter 3 – Project Description**

Provides a detailed description of the proposed project, including the location, background information, major objectives, and technical characteristics.

### **Chapter 4 – Environmental Setting, Impacts and Mitigation**

Contains a project-level and cumulative analysis of environmental issue areas associated with the proposed project. The section for each environmental issue contains an introduction and description of the setting of the project site, identifies impacts, and recommends appropriate mitigation measures.

### **Chapter 5 – Statutorily Required Sections**

Provides discussions required by CEQA regarding impacts that would result from the proposed project, including a summary of potential growth-inducing impacts, significant irreversible changes to the environment, energy conservation, and significant and unavoidable impacts.



### **Chapter 6 – Alternatives Analysis**

Provides a comparative analysis of the alternatives to the proposed project, their respective comparative environmental effects, and a determination of the environmentally superior alternative.

### **Chapter 7 – EIR Authors and Persons Consulted**

Lists EIR and technical report authors who provided technical assistance in the preparation and review of the EIR.

### **Chapter 8 – References**

Provides bibliographic information for all references and resources cited.

### **Appendices**

Includes the SACOG MTP/SCS consistency determination, NOP, Initial Study, comments received during the NOP comment period, and all technical reports prepared for the proposed project.



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## **2. Executive Summary**

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## 2 EXECUTIVE SUMMARY

### 2.1 INTRODUCTION

The Executive Summary chapter of the EIR provides an overview of the University Commons Project (proposed project) and summarizes the conclusions of the environmental analysis provided in Sections 4.1 through 4.6. In addition, the chapter outlines the mitigation monitoring plan, summarizes the alternatives to the proposed project that are described in the Alternatives Analysis chapter, identifies the Environmentally Superior Alternative, and discusses areas of controversy and issues to be resolved. Table 2-1 found at the end of this chapter, provides a summary of the environmental effects of the proposed project, as identified in each technical section of the EIR and the Initial Study prepared for the project (see Appendix C). Table 2-1 also contains the potential environmental impacts associated with the proposed project, the significance of the impacts, the proposed mitigation measures for the impacts, and the significance of the impacts after implementation of the mitigation measures.

### 2.2 PROJECT LOCATION AND DESCRIPTION

The 8.25-acre project site is located in the City of Davis, California, north of Russell Boulevard, east of Sycamore Lane, and west of Anderson Boulevard. Regional access to the site is provided by State Route (SR) 113, located approximately 0.3-mile west of the site. The site is identified by Yolo County Assessor's Parcel Number (APN) 034-253-007. The project site is currently developed with the University Mall, a community shopping center that includes a variety of commercial uses and restaurants. Surrounding uses include: an ARCO service station with a mini-mart, located adjacent to the southeast border of the site, at the northwest corner of the intersection of Russell Boulevard and Anderson Road; the Davis Chinese Christian Church and Rite Aid pharmacy located east of the site across Anderson Road; and the University of California, Davis, (UC Davis) campus to the south of the site across Russell Boulevard. In addition, a Trader Joe's grocery store is situated on a stand-alone pad in the southwest portion of the site that fronts onto Russell Boulevard, at the northeast corner of the intersection of Russell Boulevard and Sycamore Lane. Uses on the UC Davis campus in the project vicinity include a softball field (La Rue Field) and student housing (The Atriums Apartments/Russel Park Apartments). A three-story apartment complex (University Court) is located west of the project site, across Sycamore Lane. The site is bounded to the north by the two-story Sycamore Lane Apartments complex.

The proposed project would include demolition of approximately 90,563 sf of the existing University Mall building to construct a mixed-use development. Generally, buildout of the proposed project would result in the addition of 264 new multi-family residential units and approximately 136,800 sf of retail space. While the project site includes the existing 13,200-sf Trader Joe's building, the building would not be altered or redeveloped as part of the project and will remain at the current location. A three-level, 246,000-sf parking structure containing a total of 518 parking spaces would be situated beneath the western portion of the residential development and provide parking for the proposed residential and retail uses. The proposed structures would range in height. The redeveloped University Commons building would be seven stories and approximately 80 feet in height, with the northeast portion along Anderson Road stepping down to three stories and 44 feet in height.





The layout of the residential portion of the proposed project would consist of four levels of residential uses over the three-level parking garage and four levels of residential uses over retail uses. The residential portion of the project would be arranged around three separate courtyards, one of which would contain an outdoor lounge area, which could potentially include a pool, as well as additional amenities such as a fitness room, bicycle storage, a bike repair station, and a rooftop terrace.

The proposed project would require the following entitlements from the City of Davis:

- Certification of the EIR and adoption of the Mitigation Monitoring Plan;
- General Plan Amendment to create a new land use designation of Mixed-Use Urban Retail that allows for large-scale, multi-story mixed-use development, and a land use map amendment to apply the designation to the site;
- Rezone/Preliminary Planned Development to establish a new Preliminary Planned Development (PD #01-19) for the project site, consisting of development standards for the proposed project and allowable mix of uses; and
- Approval of a Development Agreement between the City of Davis and Brixmor Property Group, Inc. for the proposed mixed-use development.

In addition, the proposed project would require a separate application for a Final Planned Development and Site Plan and Architectural Review when building design and final site details have been determined.

### **2.3 MITIGATION MONITORING PLAN**

Section 15097 of the California Environmental Quality Act (CEQA) requires all State and local agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of environmental findings related to environmental impact reports (see Guidelines Section 15091 for Findings). In order to ensure that the mitigation measures and project revisions identified in the EIR are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

Consistent with CEQA Section 15097, implementation of the proposed project would require adoption of a Mitigation Monitoring Plan (MMP) by the City of Davis. The MMP, to be included in the Final EIR, specifies the methods for monitoring mitigation measures required to eliminate or reduce the project's significant effects on the environment.

### **2.4 ENVIRONMENTAL IMPACTS AND REQUIRED MITIGATION MEASURES**

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the existing physical conditions within the area affected by the project, including land, air, water, mineral, flora, fauna, ambient noise, and objects of historic or aesthetic significance. Mitigation measures must be implemented as part of the proposed project to reduce potential adverse impacts to a less-than-significant level. Such mitigation measures are noted in the Initial Study (Appendix C) and the following sections of Chapter 4 of





this EIR: Air Quality, Greenhouse Gas Emissions and Energy, Noise, and Transportation and Circulation. As discussed in Chapter 4.6, Transportation and Circulation, given that the additional bicycle and pedestrian traffic associated with the project could increase the potential for bicycle-vehicle or bicycle-pedestrian conflicts, a significant impact could occur. While Mitigation Measures 4.6-2(a) through 4.6-2(f) would require improvements to existing bicycle and pedestrian facilities, the improvements would occur within UC Davis right-of-way and would not be enforceable by the City, as lead agency. In addition, for Mitigation Measures 4.6-2(d) through (f), the final improvements will be subject to the Russell Boulevard Corridor Plan, which is identified in General Plan Policy TRANS 2.8, Action a. The City has held initial discussions with UC Davis with the intent to proceed on developing a Russell Boulevard Corridor Plan. A Corridor Plan will be prepared by the City and the formal process is expected to begin in the near future, but a Corridor Plan has not yet been adopted. As such, the impacts to bicycle and pedestrian facilities would remain significant and unavoidable. In addition, three intersections in the vicinity of the project site would operate unacceptably under Cumulative Plus Project conditions. While Mitigation Measure 4.6-9 would require modifications to Russell Boulevard, vehicle demand would remain high under Cumulative Plus Project conditions, which would limit the effectiveness of potential mitigation actions. Additionally, some improvements would be made within UC Davis right-of-way and would be subject to final approval by UC Davis. Further, the preferred improvements cannot be determined at this time, as they will be determined through the City's Corridor Plan process. Thus, even with mitigation, the impact would remain significant and unavoidable. All other impacts identified in this EIR could be eliminated or reduced to a less-than-significant level by mitigations imposed by the City.

A summary of the identified impacts in the technical sections of the EIR is presented in Table 2-1. In addition, the table includes a summary of the potentially significant impacts for which the Initial Study set forth mitigation necessary to reduce the impacts to less-than-significant levels. Table 2-1 includes the level of significance of each impact, any mitigation measures required for each impact, and the resulting level of significance after implementation of mitigation measures for each impact.

## **2.5 ALTERNATIVES TO THE PROPOSED PROJECT**

This section presents a summary of the alternatives considered for the proposed project, which include the following:

- No Project Alternative;
- Retail Project Only Alternative;
- Existing Zoning Mixed Use Build Out Alternative; and
- Low Parking Alternative.

The following summary provides brief descriptions of the four alternatives to the proposed project that are evaluated in this EIR. In addition, the summary explains the alternatives relative to the objectives for the proposed project (see page 3-4 of Chapter 3, Project Description, for a list of the project objectives). For a more thorough discussion of project alternatives, please refer to Chapter 6, Alternatives Analysis.

### **Summary of the No Project Alternative**

The original University Mall buildings are located on the northern portion of the roughly rectangular site. In addition to the existing structures, the project site contains a paved parking lot that provides approximately 427 parking spaces and extends throughout the south, east, and west portions of



the site. The No Project Alternative assumes that the project site would remain in the current condition, and the existing on-site commercial uses would remain in operation. The No Project Alternative would not be considered to meet any of the project objectives.

Overall, the No Project Alternative would result in fewer impacts related to air quality, greenhouse gas (GHG) emissions and energy, noise, and transportation and circulation.

### **Summary of the Retail Project Only Alternative**

Under the Retail Project Only Alternative, only the retail portion of the proposed project would be developed. The Alternative assumes demolition of 90,563 sf of the existing shopping center and redevelopment of the site with a total of 136,800 sf of retail uses, an increase of approximately 46,237 sf relative to the existing shopping center. The Retail Project Only Alternative does not include residential uses. Under the Alternative, the site would continue to operate as community retail center, albeit with additional square footage and possibly a smaller parking structure for additional required parking.

The Retail Project Only Alternative would result in a floor-to-area ratio (FAR) of 0.38, which is permitted under the project site's existing zoning and land use designations, which allow for a maximum FAR of 0.50. Thus, a General Plan Amendment would not be required. In addition, because the Alternative would not include multiple stories of residential uses, the overall height of the proposed buildings would be substantially reduced compared to the proposed project, likely to a height of 32 feet or less.

The Retail Project Only Alternative would not meet Objectives #1, #2, #3, #5, or #8. In addition, the Alternative would only partially meet Objective #4.

Based on the analysis included in Chapter 6 of this EIR, the Retail Project Only Alternative was determined to result in fewer impacts related to air quality, GHG emissions and energy, and transportation and circulation, and similar impacts related to noise compared to the proposed project.

### **Summary of the Existing Zoning Mixed Use Build Out Alternative**

Under the Existing Zoning Mixed Use Build Out Alternative, the majority of existing on-site retail uses would be demolished (e.g., not including Trader Joe's). The site would be redeveloped and the mixed uses, building heights, and floor area would be per the property's current Community Retail land use designation and PD 2-97B zoning district. The Community Retail designation allows a maximum floor area ratio of 0.50 with an additional 0.15 for the residential component of a mixed use project. Under the existing standards, the 8.25-acre parcel could accommodate up to 179,685 sf of retail uses and an additional 53,905 sf of residential uses, for a total allowable floor area of 233,590 sf. The Existing Zoning Mixed Use Build Out Alternative assumes that the same amount of retail proposed for the proposed project (136,800 sf) is included on-site (not including the existing 13,200-sf Trader Joe's), with the remaining allowable space comprising residential uses (83,590 sf), resulting in 220,390 sf of retail and residential space. The total number of residential units included in the Alternative is assumed to be 53, with the mixed-use buildings anticipated to be between two and three stories. Similar to the proposed project, the Alternative would include a parking structure; however, the overall size of the structure would be reduced to accommodate the reduction in residential units.



With the exception of Objective #4, the Existing Zoning Mixed Use Build Out Alternative would generally meet all of the project objectives. Objective #4 would only be partially met, as the Alternative would include a reduced amount of development compared to the proposed project, but would include a similar building footprint, thereby resulting in a less efficient use of land compared to the proposed project and an increased per capita carbon footprint.

Based on the analysis included in Chapter 6 of this EIR, the Existing Zoning Mixed Use Build Out Alternative was determined to result in fewer impacts related to air quality, GHG emissions and energy, and transportation and circulation, and similar impacts related to noise compared to the proposed project.

### **Summary of the Low Parking Alternative**

Under the Low Parking Alternative, the project site would be redeveloped as a mixed use center of similar scale and intensity as the proposed project. However, the Alternative would include aggressive transportation demand strategies and parking demand management measures with incentives to encourage alternative transportation and disincentives to discourage car ownership by residents and vehicle trips by customers. In order to discourage the use of single-occupancy vehicles at the project site, a maximum of 50 resident permit parking spaces would be provided on-site under the Low Parking Alternative, compared to 264 under the proposed project. The full retail parking requirement of 429 spaces would continue to be provided under this Alternative. The Low Parking Alternative could also include advanced bicycle and pedestrian facilities, connections, and improvements, bicycle- and car-sharing programs, shuttle services, monetary incentives, parking charges, and other similar measures.

With the exception of Objective #9, the Low Parking Alternative would generally meet all of the project objectives. Objective #9 would be only partially met, as the Alternative would include substantially reduced residential parking relative to the City's standard requirements.

Based on the analysis included in Chapter 6 of this EIR, the Low Parking Alternative was determined to result in fewer impacts related to air quality and GHG emissions and energy, and similar impacts related to noise and transportation and energy compared to the proposed project.

## **2.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." All of the significant impacts identified for the proposed project would not occur or would be fewer under the No Project Alternative. Thus, the No Project Alternative would be considered the environmentally superior alternative. However, given that a "no project" alternative shall not be selected as the environmentally superior alternative, the No Project Alternative may not be chosen as the environmentally superior alternative, and the environmentally superior alternative among the other alternatives should be chosen.

The No Project Alternative would not be considered to meet any of the project objectives. The Retail Project Only Alternative would not meet Objectives #1, #2, #3, #5, or #8, and would only partially meet Objective #4. The Existing Zoning Mixed Use Build Out Alternative and the Low



Parking Alternative would generally meet all of the project objectives, with the exception of Objectives #4 and #9, respectively, which would be only partially met.

All of the significant impacts identified for the proposed project would not occur or would be fewer under the No Project Alternative. Both the Retail Project Only Alternative and the Existing Zoning Mixed Use Build Out Alternative result in fewer impacts than the proposed project for three resource areas, as opposed to only two resource areas under the Low Parking Alternative. However, the Retail Project Only Alternative would result in a reduced number of pedestrian, bicycle, transit, and vehicle trips during operations relative to the Existing Zoning Mixed Use Build Out Alternative, thereby resulting in fewer traffic impacts. In addition, the Retail Project Only Alternative would not require implementation of Mitigation Measures 4.2-3(a) and 4.2-3(b) related to GHG emissions. As a result, the Retail Project Only Alternative would be considered the environmentally superior alternative to the proposed project.

## **2.7 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED**

The CEQA Guidelines, Section 15123(b), require that this EIR consider areas of controversy known to the lead agency, including issues raised by agencies and the public. Areas of controversy that were identified in NOP comment letters and verbal comments received at the public scoping meeting held on December 5, 2018 should be considered, as well. The areas of known controversy for the project site include the following:

- Sufficient parking;
- Tree removal;
- Impacts to bicycle and pedestrian paths;
- Aesthetic impacts of building design;
- Increased traffic;
- Noise generation;
- Water quality; and
- Impacts associated with concurrent development within the City.

Although parking is not required to be analyzed in this EIR pursuant to the project's eligibility for CEQA streamlining, and is not considered a CEQA issue nor required to be analyzed in this EIR per CEQA Guidelines, because parking is an important planning consideration, the Transportation Impact Study (Appendix J) includes a parking analysis. Similarly, due to CEQA streamlining provisions, aesthetics impacts of infill projects within Transit Priority Areas are not considered significant effects on the physical environment. Nevertheless, the Initial Study (see Appendix C) included an analysis of aesthetics impacts for information purposes. All of the remaining issues listed above are addressed in this EIR in the relevant chapters.



**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>4.1 Air Quality</b>			
<b>4.1-1</b> Conflict with or obstruct implementation of the applicable air quality plan during project construction.	LS	<i>None required.</i>	N/A
<b>4.1-2</b> Conflict with or obstruct implementation of the applicable air quality plan during project operation.	LS	<i>None required.</i>	N/A
<b>4.1-3</b> Expose sensitive receptors to substantial pollutant concentrations.	S	<p><b>4.1-3</b> Prior to approval of any grading or demolition plans, the project applicant shall show on the plans via notation that the contractor shall ensure that all off-road diesel-powered equipment over 25 horsepower to be used in the construction of the project (including owned, leased, and subcontractor equipment) shall meet California Air Resources Board (CARB) Tier 4 emissions standards or cleaner. The plans shall be submitted for review and approval to the Department of Community Development and Sustainability. In addition, all off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to 5 minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB.</p> <p>Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration</p>	LS

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>Program (PERP) placard and sticker issued by CARB.</i></p> <p><i>Idling shall be limited to five minutes or less for all on-road related and/or delivery trucks in accordance with CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation. Clear Signage regarding idling restrictions should be placed at the entrances to the construction site.</i></p>	
<b>4.1-4 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).</b>	LCC	<i>None required.</i>	N/A
<b>4.1-5 Expose sensitive receptors to cumulatively substantial pollutant concentrations.</b>	LS	<i>None required.</i>	N/A
<b>4.2 GHG Emissions and Energy</b>			
<b>4.2-1 Result in the inefficient or wasteful use of energy associated with construction.</b>	LS	<i>None required.</i>	N/A
<b>4.2-2 Result in the inefficient or wasteful use of energy, or conflict with a State or local</b>	LS	<i>None required.</i>	N/A

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
plan for renewable energy or energy efficiency, associated with project operations.			
<b>4.2-3</b> Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	CC	<p><b>4.2-3(a)</b> The project proponent shall prepare and implement a GHG Reduction Plan, to the satisfaction of the City, to demonstrate a downward trajectory in GHG emissions, towards the goal of zero net GHG emissions by the year 2040. Prior to the issuance of a building permit for the proposed project the project proponent shall implement the following steps:</p> <ol style="list-style-type: none"> <li>1. Model net non-mobile operational GHG emissions using CalEEMod, or another method accepted for the purpose of modeling GHG emissions for the proposed project, taking into account applicable building standards and other regulatory requirements, as well as building design, use of renewable energy, etc. The updated modeling shall take into account any updated project design measures incorporated in compliance with this mitigation measure or as proposed in future project design details.</li> <li>2. Based on the construction and operational schedules proposed at the time of building permitting, the modeled emissions shall be compared to the maximum permitted emissions for the first year of occupancy, based on the Table below:</li> </ol>	LCC

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures			Level of Significance After Mitigation		
			Year	Maximum Permitted Net Project Emissions (MTCO <sub>2</sub> e)	Emissions Reductions Achieved (MTCO <sub>2</sub> e)		
			2024	326.69	0.00		
			2025	306.27	20.42		
			2026	285.85	40.84		
			2027	265.44	61.25		
			2028	245.02	81.67		
			2029	224.60	102.09		
			2030	204.18	122.51		
			2031	183.76	142.93		
			2032	163.35	163.35		
			2033	142.93	183.76		
			2034	122.51	204.18		
			2035	102.09	224.60		
			2036	81.67	245.02		
			2037	61.25	265.44		
			2038	40.84	285.85		
			2039	20.42	306.27		
			2040	0	326.69		
			Total Emissions Reductions		2,776.87		
			3. Should net operational emissions be shown to exceed the maximum emissions levels presented in the table above, the project applicant shall identify feasible actions to				

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>achieve sufficient emissions reductions for the year or years being modeled. Reduction measures may include, but are not limited to:</i></p> <ul style="list-style-type: none"> <li><i>• Use of all-electric, energy-star appliances in all or part of the project;</i></li> <li><i>• Installation of on-site photovoltaic systems in excess of the City's standards in place at the time of this environmental analysis;</i></li> <li><i>• Use of LED lights in proposed parking areas and other outdoor areas;</i></li> <li><i>• Construct on-site or fund off-site carbon sequestration projects (such as tree plantings or reforestation projects);</i></li> <li><i>• Implement a Transportation Demand Management Program in accordance with Section 22.15 of the City of Davis Municipal Code;</i></li> <li><i>• Provide electric vehicle charging infrastructure in excess of existing CBSC requirements; and/or</i></li> <li><i>• Purchase carbon credits to offset Project annual emissions. Carbon offset credits shall be verified and registered with The Climate Registry, the Climate Action Reserve, or another</i></li> </ul>	

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>source approved by CARB, YSAQMD, or the City of Davis.</p> <p>4. The emissions reductions resulting from implementation of the above measures shall be calculated, using methods acceptable to the City.</p> <p>5. Proof of compliance with the maximum annual net emissions targets and the steps above shall be verified through the submittal of a Technical Memorandum of Compliance (TMC) to the City of Davis Department of Community Development and Sustainability. The TMC shall document the following minimum items: modeling (step 1); comparison of modeled emissions to maximum emissions levels identified in step 2; chosen feasible actions to achieve required reductions (step 3); and measurable GHG reduction value of each action (step 4). TMCs prepared in compliance with the foregoing steps may cover individual operational years or multiple operational years. Should a TMC be prepared for multiple operational years, the TMC shall demonstrate compliance with the maximum emissions levels for each year included in the TMC.</p> <p>6. Implement the authorized actions and provide evidence of this to the City of Davis Department of Community Development and</p>	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>Sustainability. The City upon review and acceptance of implementation, shall issue the certificate of occupancy.</i></p> <p>4.2-3(b) <i>The owner of the project shall submit a GHG Emissions Reduction Accounting and Program Effectiveness Report for the project to demonstrate the project's compliance with the GHG emissions targets established by Mitigation Measure 4.2-3(a). The Report shall be submitted prior to the issuance of a certificate of occupancy for the first residential unit leased. The Report shall identify the following minimum items. Other documentation requirements may be added by the City if found to be necessary to satisfy this mitigation measure.</i></p> <ol style="list-style-type: none"> <li><i>1. Projected annual net GHG emissions from the initial date of operations through the year 2040.</i></li> <li><i>2. Running total of project emissions reductions and reduction credits.</i></li> <li><i>3. Comprehensive database and summary of implemented reduction actions.</i></li> </ol> <p><i>Should the initial Report demonstrate that measures have been incorporated into the project sufficient to achieve the GHG emissions targets established by Mitigation Measure 4.2-3(a), further Reports are not required.</i></p>	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>If the initial Report does not demonstrate that measures have been incorporated into the project sufficient to achieve the aforementioned emissions targets at the time of initial occupancy, the owner shall be required to submit subsequent Reports every five years until such time that demonstration is made that the project has achieved the required emissions reductions. Subsequent Reports shall contain the same content as required of the initial Report, and demonstrate the implementation of additional measures sufficient to reduce project GHG emissions in compliance with Mitigation Measure 4.2-3(a). Upon demonstration that the project has achieved the required emissions reductions, further Reports are not required.</i>	
<b>4.2-4 Result in cumulative impacts related to the inefficient or wasteful consumption of energy, or cumulatively contribute to a conflict with State or local plan for renewable energy or energy efficiency associated with project operations.</b>	LS	None required.	N/A
<b>4.3 Land Use and Planning</b>			
<b>4.3-1 Cause a significant environmental impact due to a conflict with any land use</b>	LS	None required.	N/A

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.			
<b>4.3-2</b> Cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LS	<i>None required.</i>	N/A
<b>4.4 Noise</b>			
<b>4.4-1</b> Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	S	<p><b>4.4-1</b> Prior to issuance of any grading permit, the applicant shall submit proposed noise-reduction practices (to ensure individual piece of equipment shall not produce a noise level exceeding 83 dBA at a distance of 25 feet and the noise level at any point outside the property plane of the project shall not exceed 86 dBA), for review and approval by the Department of Community Development and Sustainability. The following measures shall be utilized to reduce the impact of construction noise (below the above stated single-source and property boundary standards):</p> <ul style="list-style-type: none"> <li>• Comply with the hours of operations between 7:00 AM and 7:00 PM on Mondays through Fridays, and between the hours of 8:00 AM and 8:00 PM on Saturdays and Sundays;</li> <li>• Impact tools and equipment shall have intake</li> </ul>	LS

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>and exhaust mufflers recommended by manufacturers;</p> <ul style="list-style-type: none"> <li>All equipment shall not exceed 86 dBA outside of the property line. Based upon Table 4.4-7, compactors, dozers and excavators shall maintain a distance of 50-feet from the north property line. Concrete saws and jackhammers shall maintain a distance of 100-feet from the nearest property line. If any equipment listed cannot provide either a housing or muffler, or other type of noise suppression equipment to reduce noise levels to 86 dBA or less outside of the property line, then approval by the Director of Public Works shall be required;</li> <li>If equipment such as compactors, dozers and excavators need to be within 50 feet of the north property line, temporary barriers such as "Noise Soaker" curtains shall be applied at the construction site fence. The barriers shall be eight feet in height along the north property line.</li> </ul>	
<b>4.4-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</b>	S	4.4-2(a) Prior to building permit issuance, the construction drawings shall include a noise barrier located along the north property line of the project site where trucks circulate for the loading docks. The partial loading dock walls may be eliminated, if desired. Based upon the Environmental Noise Assessment (October 2, 2019) prepared for this EIR, the noise barrier height	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>requirements would be different depending upon the delivery hours, as follows:</p> <ul style="list-style-type: none"> <li>Daytime deliveries only (7:00 AM to 9:00 PM): An eight-foot wall shall be required along the north property line of the project site to meet the City's 55 dB <math>L_{eq}</math> daytime noise standard.</li> <li>Daytime (7:00 AM to 9:00 PM) <u>AND</u> Nighttime (9:00 PM to 7:00 AM): A 10-foot wall shall be required along the north property line of the project site to meet the City's daytime (55 dB <math>L_{eq}</math>) and nighttime 50 dB <math>L_{eq}</math> noise standards.</li> </ul> <p>The delivery truck hours and sound wall height shall be finalized prior to City approval of the Final Planned Development for the project. Final design and height of the barrier shall be approved by the City of Davis Department of Community Development and Sustainability.</p> <p>4.4-2(b) Alternatively, the applicant may submit a subsequent acoustical report in conjunction with the submittal of the Final Planned Development to the City. The subsequent acoustical report, using additional design-level details developed during the Final Planned Development process, shall estimate the delivery truck/loading dock noise levels at the nearest sensitive receptors to verify the height of the wall needed to meet the City's stationary noise level standards (55 dB <math>L_{eq}</math> daytime and 50 dB <math>L_{eq}</math></p>	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>nighttime). If the report determines that a reduced sound wall height, compared to the heights identified in MM 4.4-2(a), could achieve the City's noise standards at the nearest sensitive receptors, then the reduced height should be considered acceptable.</i></p> <p><i>The subsequent acoustical report could also consider the feasibility of relocating or eliminating the loading dock. Any proposed relocation would require analysis within the acoustical report to ensure that those sensitive receptors located closest to the relocated loading dock would not be subject to noise levels in excess of the City's noise level standards. Final loading dock design and barrier height shall be approved by the City of Davis Department of Community Development and Sustainability.</i></p>	
<b>4.4-3 Generation of excessive groundborne vibration or groundborne noise levels.</b>	LS	None required.	N/A
<b>4.4-4 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout of the City's Planning Area.</b>	LS	None required.	N/A
<b>4.5 Public Services and Utilities</b>			

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>4.5-1</b> Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.	LS	<i>None required.</i>	N/A
<b>4.5-2</b> Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.	LS	<i>None required.</i>	N/A
<b>4.5-3</b> Require or result in the relocation or construction of new or expanded water,	LS	<i>None required.</i>	N/A

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.			
<b>4.5-4</b> Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LS	<i>None required.</i>	N/A
<b>4.5-5</b> Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	LS	<i>None required.</i>	N/A
<b>4.5-6</b> Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid	LS	<i>None required.</i>	N/A

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
waste reduction goals, or conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.			
<b>4.5-7</b> Development of the proposed project, in combination with future buildout in the City of Davis, would increase demand on fire and police protection services.	LS	<i>None required.</i>	N/A
<b>4.5-8</b> Development of the proposed project, in combination with future buildout in the City of Davis, would increase demand on utilities and service systems.	LCC	<i>None required.</i>	N/A
<b>4.6 Transportation and Circulation</b>			
<b>4.6-1</b> Impacts to study intersections under Existing Plus Project conditions.	LS	<i>None required.</i>	N/A
<b>4.6-2</b> Impacts to bicycle facilities under Existing Plus Project conditions.	S	<b>4.6-2(a)</b> <i>Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall implement modifications to improve the southbound bike lane approach at the Russell Boulevard/Sycamore Lane intersection to reduce the potential for bicycle-vehicle conflicts, to the satisfaction of the City Engineer. Improvements shall</i>	SU

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>either physically separate bicyclists and vehicles, or more clearly demarcate the existing bicycle-vehicle mixing zone if the City is unable to physically separate bicyclists and vehicles. Potential improvement alternatives include (but shall not be limited to):</i></p> <ol style="list-style-type: none"> <li><i>1. Switch the placement of the southbound right-turn lane and the bike lane. Consistent with CAMUTCD standards (for a bicycle facility adjacent to a right-turn lane), such a configuration would place a Class IV separated bikeway immediately against the curb, enabling bicyclists to queue against the curb prior to crossing during the exclusive bicycle crossing signal phase (during which southbound right-turns for vehicles are prohibited). This configuration would eliminate the need for southbound bicyclists to weave across vehicular traffic at the intersection approach. The configuration shall include vertical separation between the bikeway and the right-turn lane, consistent with standard Class IV separated bikeway design.</i></li> <li><i>2. Highlight the existing bicycle-vehicle mixing zone with additional pavement markings (e.g., green skip pavement markings) and warning signage.</i></li> </ol>	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>4.6-2(b) Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall implement modifications to improve the southbound bike lane approach at the Russell Boulevard/Anderson Road/La Rue Road intersection to reduce the potential for bicycle-vehicle conflicts, to the satisfaction of the City Engineer. Improvements shall more clearly demarcate the existing bicycle-vehicle mixing zone. Potential improvement alternatives include highlighting the existing bicycle-vehicle mixing zone with additional pavement markings (e.g., green skip pavement markings) and warning signage. Implementation of such improvements, or an improvement of equal effectiveness, would enhance the southbound bike lane approach at the Russell Boulevard/Anderson Road/La Rue Road intersection and reduce the potential for conflicts between bicyclists and vehicles.</p> <p>4.6-2(c) The project applicant shall implement one of the following options prior to issuance of certificates of occupancy, with the bicycle facility and final design to be determined by the City Engineer and the City Traffic Engineer as follows:</p> <p><u>Option A: Off-Street Shared-use Path.</u> Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall construct an off-street shared-use path on the north side of</p>	

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>Russell Boulevard between Sycamore Lane and Anderson Road along the project site frontage, generally along the alignment of the existing sidewalk. The path may need to be widened into the existing roadway (i.e., into the parking lane) due to right-of-way constraints such as existing trees and driveways (e.g., along the ARCO gas station frontage). The new path shall be sufficiently sized to prevent crowding and minimize the potential for conflicts between bicyclists and pedestrians. The City of Davis 2016 Street Design Standards specifies a shared-use path width of 12 feet for arterial roadways, with two-foot wide all-weather shoulders on either side of the path where sufficient space exists to accommodate the standard. The City may determine that a narrower shared path, split path, combination, or alternative path design is acceptable in instances where right-of-way or design constraints, preservation of existing trees, or other considerations would limit the ability to implement the standard path width and design.</i></p> <p><i>Option B: Protected Bike Lane/Cycle Track. Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall construct a protected bike lane on the north side of Russell Boulevard, between Sycamore Lane and Anderson Road along the project site frontage.</i></p>	

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Summary of Impacts and Mitigation Measures**

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		<p>4.6-2(d) Consistent with cumulative Mitigation Measure 4.6-9, prior to the occupancy of the project, the project applicant shall contribute funding to cover their proportionate cost of bicycle improvements to the Russell Boulevard/Anderson Road/La Rue Road intersection as determined in the Development Agreement. The funding shall be submitted to the City of Davis. Given the multi-modal nature of the intersection and future improvements, fair share calculations should consider all modes of transportation utilizing the intersection.</p> <p>Modifications to improve crossings at the Russell Boulevard/Anderson Road/La Rue Road intersection shall be implemented to reduce the potential for bicycle-bicycle, bicycle-pedestrian, and bicycle-vehicle conflicts. Because intersection modifications would affect right-of-way on the UC Davis campus, the City shall coordinate with UC Davis to identify the ultimate modifications. Improvements shall, to the extent feasible, physically separate bicyclists, pedestrians, and vehicles and reduce bicycle crossing distances and exposure time. Potential improvement alternatives include (but are not limited to):</p> <ol style="list-style-type: none"> <li>1. For all intersection crosswalks, widen crosswalks to increase the capacity for crossing bicyclists and pedestrians and reduce</li> </ol>	

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		<p>the frequency of meeting and passing events that diminish the performance of the crosswalks.</p> <p>2. Reconfigure the intersection into a protected intersection with corner refuge islands, setback crossings, and exclusive bicycle and pedestrian crossing phases (i.e., vehicles would not be permitted to turn on red during this phase). For all intersection crosswalks, physically separate bicyclists and pedestrians by installing special pavement treatment or striping to clearly demarcate pedestrian and bicycle crossing zones, increase the capacity for crossing bicyclists and pedestrians, and reduce the frequency of meeting and passing events that diminish the performance of the crossings. This alternative would also include the removal of the eastbound and northbound channelized right-turn lanes.</p> <p>4.6-2(e) Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall contribute funding to cover their proportionate cost of improvements to the shared-use path on the south side of Russell Boulevard between Sycamore Lane and the UC Davis softball field; the project's proportionate cost shall be determined in the Development Agreement. The funding shall be submitted to the City of Davis. The City shall</p>	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>negotiate funding contributions with UC Davis as part of the City's Corridor Plan process. Path improvements shall reduce the potential for bicycle-bicycle and bicycle-pedestrian conflicts, to the satisfaction of the City Engineer. Potential improvement alternatives include (but are not limited to):</i></p> <ol style="list-style-type: none"> <li><i>1. Widen the existing shared-use path to accommodate bicyclists and pedestrians within a shared facility. Consider installing special pavement treatment or striping to clearly demarcate pedestrian and bicycle zones.</i></li> <li><i>2. Physically separate bicyclists and pedestrians by constructing a new pedestrian pathway parallel to the existing shared-use path.</i></li> <li><i>3. Install pedestrian-scale lighting to improve visibility.</i></li> </ol> <p><b>4.6-2(f)</b> <i>Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall contribute funding to cover their proportionate cost of improvements to the shared-use path on the south side of Russell Boulevard between Anderson Road and the bicycle roundabout near Primero Grove; the project's proportionate cost shall be determined in the Development Agreement. The funding shall be submitted to the City of Davis. The City shall negotiate funding contributions with UC Davis as part</i></p>	

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>of the City's Corridor Plan process. Path improvements should reduce the potential for bicycle-bicycle and bicycle-pedestrian conflicts, to the satisfaction of the City Engineer. Potential improvement alternatives include (but are not limited to):</p> <ol style="list-style-type: none"> <li>1. Widen the existing shared-use path to accommodate bicyclists and pedestrians within a shared facility. Consider installing special pavement treatment or striping to clearly demarcate pedestrian and bicycle zones.</li> <li>2. Physically separate bicyclists and pedestrians by constructing a new pedestrian pathway parallel to the existing shared-use path.</li> <li>3. Install pedestrian-scale lighting to improve visibility.</li> </ol>	
<b>4.6-3 Impacts to pedestrian facilities under Existing Plus Project conditions.</b>	S	4.6-3 Implement Mitigation Measures 4.6-2(d), 4.6-2(e), and 4.6-2(f).	SU
<b>4.6-4 Impacts to transit facilities and services under Existing Plus Project conditions.</b>	S	4.6-4 Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall enhance the existing bus stop on southbound Anderson Road north of Russell Boulevard, to the satisfaction of the City Engineer. Bus stop enhancements shall include the addition of a shelter, seating, waste receptacle, as well as an expanded dedicated passenger waiting area that can sufficiently accommodate dwelling passenger without impeding the adjacent sidewalk.	LS

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Summary of Impacts and Mitigation Measures**

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		<i>Bus stop enhancements shall be developed in consultation with Unitrans staff.</i>	
<b>4.6-5 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).</b>	LS	<i>None required.</i>	N/A
<b>4.6-6 Impacts related to emergency access.</b>	LS	<i>None required.</i>	N/A
<b>4.6-7 Impacts related to construction vehicle traffic.</b>	S	<p><b>4.6-7</b> Before commencement of any construction activities for the project site, the project applicant shall prepare a detailed Construction Traffic Control Plan and submit it for review and approval by the City Department of Public Works. The applicant and the City shall consult with Unitrans, YoloBus, and local emergency service providers for their input before approving the Plan. The Plan shall ensure that acceptable operating conditions on local roadways and freeway facilities are maintained during construction. At a minimum, the Plan shall include:</p> <ul style="list-style-type: none"> <li>• The number of truck trips, time, and day of street closures;</li> <li>• Time of day of arrival and departure of trucks;</li> <li>• Limitations on the size and type of trucks, provision of a staging area with a limitation on the number of trucks that can be waiting;</li> <li>• Provision of a truck circulation pattern;</li> <li>• Provision of driveway access plan so that safe vehicular, pedestrian, and bicycle movements</li> </ul>	LS

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Summary of Impacts and Mitigation Measures**

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		<p>are maintained (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas);</p> <ul style="list-style-type: none"> <li>• Maintain safe and efficient access routes for emergency vehicles;</li> <li>• Manual traffic control when necessary;</li> <li>• Proper advance warning and posted signage concerning street closures; and</li> <li>• Provisions for bicycle, pedestrian, and transit access and safety.</li> </ul> <p>A copy of the Construction Traffic Control Plan shall be submitted to local emergency response agencies and these agencies shall be notified at least 14 days before the commencement of construction that would partially or fully obstruct roadways.</p>	
<b>4.6-8 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).</b>	S	<p>4.6-8(a) Prior to the issuance of demolition permits, the project applicant shall extend the eastbound left-turn pocket at the Russell Boulevard/Sycamore Lane intersection from 300 to 375 feet, which is the maximum distance feasible without affecting the adjacent westbound left-turn pocket at the Russell Boulevard/Orchard Park Drive intersection. The extension will enable the eastbound left-turn pocket to accommodate the maximum queue of 325 feet under Existing Plus Project conditions. The timing of this modification is necessary to accommodate the considerable number of truck trips related to the project's demolition and construction.</p>	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>4.6-8(b) Prior to issuance of grading plans, the project improvement plans shall reflect the modifications listed below, or equivalent measures based on the final site design, to reduce vehicle queuing spillback at the project driveways, to the satisfaction of the City Engineer. The modifications may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Southern Sycamore Lane Driveway <ul style="list-style-type: none"> <li>○ Parking stalls along the Retail 6 frontage shall be eliminated; and</li> <li>○ Exclusive outbound left-turn and right-turn lanes shall be provided.</li> </ul> </li> <li>• Southern Anderson Road Driveway <ul style="list-style-type: none"> <li>○ Parking stalls along the Retail 1, 2, and 3 frontages shall be eliminated.</li> </ul> </li> <li>• Western Russell Boulevard Driveway <ul style="list-style-type: none"> <li>○ The drive aisle shall be aligned north into the parking garage, shifted further east into the project site to provide additional throat depth for the southern Sycamore Lane driveway, and access for the southernmost east-west drive aisle shall be closed off to/from the west (opposite the Trader Joe's loading dock).</li> </ul> </li> </ul>	
<b>4.6-9 Impacts to study intersections under Cumulative Plus Project conditions.</b>	CC	<p>4.6-9 Modifications to Russell Boulevard shall be implemented to reduce peak hour vehicle delay at the Russell Boulevard/Orchard Park Drive, Russell</p>	SU

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>Boulevard/Anderson Road/La Rue Road, and Russell Boulevard/California Avenue intersections:</i></p> <ul style="list-style-type: none"> <li>• <i>Prior to issuance of certificates of occupancy, the project applicant shall construct the pedestrian bulbouts at Russell Boulevard/Sycamore Lane, to the satisfaction of the City Engineer, as follows:</i> <ul style="list-style-type: none"> <li>◦ <i>At the Russell Boulevard/Sycamore Lane intersection, construct pedestrian bulbouts at the northwest and northeast corners of the intersection to reduce pedestrian crossing distances. The resulting excess green time shall be reallocated to the major east-west through movements to improve overall corridor operations. The pedestrian bulbouts shall be integrated with the design of the bike lane modification described in Mitigation Measure 4.6-2(a) (at the northwest corner) and the shared-use path described in Mitigation Measure 4.6-2(c) (at the northeast corner).</i></li> </ul> </li> <li>• <i>Implement Mitigation Measure 4.6-8.</i></li> <li>• <i>Prior to issuance of certificates of occupancy, the project applicant shall contribute funding, to the satisfaction of the City Engineer, to cover the proportionate cost of improvements</i></li> </ul>	

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Summary of Impacts and Mitigation Measures**

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		<p><i>described in Alternatives 1, 4, 5, 6, and 7 above, the requirements of which are listed below.<sup>1</sup> The funding shall be submitted to the City of Davis:</i></p> <ul style="list-style-type: none"> <li>○ <i>At the Russell Boulevard/Orchard Park Drive intersection, either:</i> <ul style="list-style-type: none"> <li>a. <i>Prohibit northbound left-turns, or</i></li> <li>b. <i>Prohibit northbound left-turns and westbound left-turns (i.e., right-in/right-out only).</i></li> </ul> </li> <li>○ <i>At the Russell Boulevard/Anderson Road/La Rue Road intersection, either</i> <ul style="list-style-type: none"> <li>a. <i>Install five-section traffic signal for the northbound right-turn lane and an accompanying bicycle/pedestrian signal to control crossing movements across the northbound channelized right-turn lane, or</i></li> <li>b. <i>Implement Alternative 2 described in Mitigation Measure 4.6-2(d) (conversion of the Russell Boulevard/Anderson Road/La Rue Road intersection to a protected intersection).</i></li> </ul> </li> </ul>	

<sup>1</sup> Consistent with *Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912, contribution of mitigation funds is not required for impacts where the City does not have full jurisdiction, nor a plan in place to ensure implementation of mitigation measures. Nevertheless, the applicant has agreed to contribute mitigation funds to the City for Alternatives 1, 4, 5, 6, and 7.

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		<ul style="list-style-type: none"> <li>At the Russell Boulevard/Oak Avenue intersection, prohibit eastbound U-turn movements and convert the eastbound left-turn movement from a permitted to a protected left-turn signal phase.</li> <li>At the Russell Boulevard/College Park/Howard Way intersection, convert the northbound and southbound approaches to split phase operations and eliminate the west leg crossing.</li> <li>At all signalized intersections on Russell Boulevard, increase the PM peak hour cycle length from 90 to 100 seconds to match the existing AM peak hour cycle length. The signal timing adjustment shall be applied to all coordinated signals along the corridor between and inclusive of Sycamore Lane and G Street.</li> </ul> <p>The ultimate modifications constructed along Russell Boulevard shall be consistent with the preferred improvements identified in the Russell Boulevard Corridor Plan currently being prepared by the City.</p>	
<b>4.6-10 Result in cumulative conflicts or inconsistencies with CEQA Guidelines Section 15064.3, subdivision (b).</b>	LS	None required.	N/A
<b>4.6-11 Substantially increase hazards due to a geometric design</b>	S	4.6-11 Implement Mitigation Measure 4.6-8.	LS

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feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).			
<b>Initial Study</b>			
<b>IVa.</b> Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	S	<p>Swainson's Hawk</p> <p>IV-1      The project proponent shall retain a qualified biologist to conduct planning-level surveys and identify any nesting habitat present within 1,320 feet of the project footprint. Adjacent parcels under different land ownership shall be surveyed only if access is granted or if the parcels are visible from authorized areas.</p> <p>If a construction project cannot avoid potential nest trees (as determined by the qualified biologist) within 1,320 feet, the project proponent shall retain a qualified biologist to conduct a preconstruction survey for active nests consistent with the recommended methodology of the Swainson's Hawk Technical Advisory Committee (2000), between March 20 and July 30, within 15 days prior to the beginning of the construction activity. The results of the survey shall be submitted to the Conservancy and CDFW. If active nests are found during the preconstruction survey, a 1,320-foot initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary</p>	LS

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		<p>during the nesting season, then the qualified biologist shall monitor the nest and shall, along with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities, including tree pruning or removal, are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. Up to 20 Swainson's hawk nest trees (documented nesting within the last 5 years) may be removed during the permit term, but they must be removed when not occupied by Swainson's hawks.</p> <p>If this project involves pruning or removal of a potential Swainson's hawk or white-tailed kite nest tree, the project proponent shall conduct a preconstruction survey that is consistent with the guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000). If active nests are found during the preconstruction survey, no tree pruning or removal of the nest tree shall occur during</p>	

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		<p><i>the period between March 1 and August 30, unless a qualified biologist determines that the young have fledged and the nest is no longer active.</i></p> <p><i>Raptors and Nesting Migratory Birds</i></p> <p>IV-2      <i>The project applicant shall implement the following measures to avoid or minimize impacts to raptors and federally-protected nesting migratory birds:</i></p> <ul style="list-style-type: none"> <li><i>• If any site disturbance or construction activity for any phase of development begins outside the February 1 to August 31 breeding season, a preconstruction survey for active nests shall not be required.</i></li> <li><i>• If any site disturbance or construction activity for any phase of development is scheduled to begin between February 1 and August 31, a qualified biologist shall conduct a preconstruction survey for active nests from publicly accessible areas within 14 days prior to site disturbance or construction activity for any phase of development. The survey area shall cover the construction site and the area surrounding the construction site, including a 100-foot radius for MBTA birds, and a 500-foot radius for birds of prey. If an active nest of a bird of prey, MBTA bird, or other protected bird is not found, then further mitigation measures</i></li> </ul>	

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		<p>are not necessary. The preconstruction survey shall be submitted to the City of Davis Department of Community Development and Sustainability for review.</p> <ul style="list-style-type: none"> <li>If an active nest of a bird of prey, MBTA bird, or other protected bird is discovered that may be adversely affected by any site disturbance or construction or an injured or killed bird is found, the project applicant shall immediately: <ul style="list-style-type: none"> <li>Stop all work within a 100-foot radius of the discovery.</li> <li>Notify the City of Davis Department of Community Development and Sustainability.</li> <li>Do not resume work within the 100-foot radius until authorized by the biologist.</li> <li>The biologist shall establish a minimum 500-foot Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-foot ESA around the nest if the nest is of an MBTA bird other than a bird of prey. The ESA may be reduced if the biologist determines that a smaller ESA would still adequately protect the active nest. Further work may not occur within the ESA until the biologist determines that the nest is no longer active.</li> </ul> </li> </ul>	

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<b>IVe. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</b>	S	<p><i>IV-3 The project applicant shall implement the following tree preservation measures prior to and during construction for the 16 on-site and eight off-site trees to be preserved.</i></p> <ul style="list-style-type: none"> <li><i>Tree Protection Zones (TPZs): The surveyed trunk locations and TPZs / tree protection fencing shall be indicated on all construction plans for trees to be preserved;</i></li> <li><i>Modified TPZs: Modified TPZs are areas where proposed infrastructure is located within protection zones. These Modified TPZs and fencing shall be indicated as close to infrastructure as possible (minimize overbuild);</i></li> <li><i>The Consulting Arborist shall revise development impact assessment (as needed) for trees to be preserved once construction plans are drafted;</i></li> <li><i>Grading, compaction, trenching, rototilling, vehicle traffic, material storage, spoil, waste, or washout, or any other disturbance within TPZs shall be avoided to the maximum extent feasible;</i></li> <li><i>Any work that is to occur within the TPZs shall be monitored by the Consulting Arborist;</i></li> <li><i>A meeting shall be conducted to discuss tree preservation guidelines with the Consulting Arborist and all contractors, subcontractors,</i></li> </ul>	LS

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		<p>and project managers prior to the initiation of demolition and construction activities;</p> <ul style="list-style-type: none"> <li>• Prior to any demolition activity on-site, tree protection fencing shall be installed in a circle centered at the tree trunk with a radius equal to the defined TPZ as indicated in the Arborist Report;</li> <li>• Tree protection fences should be made of chain-link with posts sunk into the ground, and shall not be removed or moved until construction is complete;</li> <li>• Any pruning shall be performed per recommendations in the Arborist Report by an ISA Certified Arborist or Tree Worker. Pruning for necessary clearance should be the minimum required to build the project and performed prior to demolition by an ISA Certified Arborist;</li> <li>• If roots larger than 2 inches or limbs larger than 3 inches in diameter are cut or damaged during construction, the Consulting Arborist shall be contacted immediately to inspect and recommend appropriate remedial treatments; and</li> <li>• All trees to be preserved shall be irrigated once every two weeks, spring through fall, to uniformly wet the soil to a depth of at least 18 inches under and beyond the canopies of the trees.</li> </ul>	

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		<i>The tree preservation measures shall be included in the notes on construction drawings.</i>	
<b>Vb-d. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5.</b>  <b>Directly or indirectly destroy a unique paleontological resource on site or unique geologic features.</b>  <b>Disturb any human remains, including those interred outside of formal cemeteries.</b>	S	V-1 <i>If any subsurface historic remains, prehistoric or historic artifacts, other indications of archaeological resources, or cultural and/or tribal resources are found during grading and construction activities, all work within 100 feet of the find shall cease, the City of Davis Department of Community Development and Sustainability shall be notified, and the applicant shall retain an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, to evaluate the significance of the find(s). The archaeologist shall have the authority to modify the no-work radius as appropriate, using professional judgement. If tribal resources are found during grading and construction activities, the applicant shall notify the Yocha Dehe Wintun Nation. If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City and landowner.</i>  <i>The archaeologist shall define the physical extent and the nature of any built features or artifact-bearing deposits. The investigation shall proceed immediately into a formal evaluation to determine the eligibility of the feature(s) for inclusion in the National Register of Historic Places or California Register of</i>	LS

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		<p><i>Historical Resources. The formal evaluation shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the feature(s) and artifact(s) do not have sufficient data potential to be eligible for the National or California Register, additional work shall not be required. However, if data potential exists (e.g., an intact feature is identified with a large and varied artifact assemblage), the City shall consult on a finding of eligibility and implement appropriate treatment measures. Further measures might include avoidance of further disturbance to the resource(s) through project redesign. If avoidance is determined to be infeasible, additional data recovery excavations shall be conducted for the resource(s), to collect enough information to exhaust the data potential of those resources.</i></p> <p><i>Pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Data recovery efforts can range from rapid photographic documentation to</i></p>	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>extensive excavation depending upon the physical nature of the resource. The degree of effort shall be determined at the discretion of a qualified archaeologist and should be sufficient to recover data considered important to the area's history and/or prehistory.</i></p> <p><i>Significance determinations for tribal cultural resources shall be measured in terms of criteria for inclusion on the California Register of Historical Resources (Title 14 CCR, §4852[a]), and the definition of tribal cultural resources set forth in PRC Section 21074 and 5020.1 (k). The evaluation of the tribal cultural resource(s) shall include culturally appropriate temporary and permanent treatment, which may include avoidance of tribal cultural resources, in-place preservation, and/or re-burial on project property so the resource(s) are not subject to further disturbance in perpetuity. Any re-burial shall occur at a location predetermined between the landowner and the Yocha Dehe Wintun Nation. The landowner shall relinquish ownership of all sacred items, burial goods, and all archaeological artifacts that are found on the project area to the Yocha Dehe Wintun Nation for proper treatment and disposition. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.</i></p>	

NI = No Impact; N/A = Not Applicable; LS = Less Than Significant; LCC = Less Than Cumulatively Considerable; S = Significant; CC = Cumulatively Considerable; SU = Significant and Unavoidable



**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>Work may not resume within the no-work radius until the City, through consultation as appropriate, determines that the find(s) either: 1) is not eligible for the National or California Register; or 2) that treatment measures have been completed to the City's satisfaction.</i></p> <p><i>The language of this mitigation measure shall be included on any future grading plans, utility plans, and subdivision improvement drawings approved by the City for the development of the proposed project site.</i></p> <p><b>V-2</b></p> <p><i>If any vertebrate bones or teeth are found by the construction crew, the City of Davis Department of Community Development and Sustainability shall be notified and the contractor shall cease all work within 100 feet of the discovery until an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, inspects the discovery. If deemed significant with respect to authenticity, completeness, preservation, and identification, the resource(s) shall then be salvaged and deposited in an accredited and permanent scientific institution (e.g., the University of California Museum of Paleontology), where it shall be properly curated and preserved for the benefit of current and future generations. The language of this mitigation measure</i></p>	

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>shall be included on any future grading plans, utility plans, and subdivision improvement drawings approved for the proposed project site, where excavation work would be required.</i></p> <p>V-3 <i>If human remains are discovered during project construction, further disturbance shall not occur within 100 feet of the vicinity of the find(s) until the Yolo County Coroner has made the necessary findings as to origin. (California Health and Safety Code Section 7050.5) Further, pursuant to California PRC Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Yolo County Coroner determines the remains to be Native American and not the result of a crime scene, the Coroner shall notify the Native American Heritage Commission (NAHC) and the Yocha Dehe Wintun Nation within 24 hours. The NAHC and Yocha Dehe Wintun Nation must then identify the “most likely descendant(s)” (MLD). The landowner shall engage in consultations with the MLD. The MLD shall make recommendations concerning the treatment of the remains within 48 hours, as provided in PRC 5097.98. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (PRC 5097.94). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (PRC 5097.98). This will</i></p>	

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the County in which the property is located (AB 2641). Work may not resume within the no-work radius until the City, through consultation as appropriate, determines that the treatment measures have been completed to their satisfaction.</i>	
<b>VIIIb. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.</b>	S	<p><b>VIII-1</b> Prior to issuance of a demolition permit by the City for the existing on-site structure, the project applicant shall provide a site assessment that determines whether the structure contains asbestos. If the structure does not contain asbestos, further mitigation is not required. If asbestos-containing materials are detected, the applicant shall prepare and implement an asbestos abatement plan consistent with federal, State, and local standards, subject to approval by the City Engineer, City Building Official, and the Yolo-Solano Air Quality Management District.</p> <p>Implementation of the asbestos abatement plan shall include the removal and disposal of the asbestos-containing materials by a licensed and certified asbestos removal contractor, in accordance with local, State, and federal regulations. In addition, the demolition contractor shall be informed that all building materials shall be considered as containing</p>	LS

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><i>asbestos. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing asbestos in accordance with local, State, and federal regulations subject to approval by the City Engineer, City Building Official, and the Yolo-Solano Air Quality Management District.</i></p> <p>VIII-2 <i>Prior to issuance of a demolition permit by the City for the existing on-site structure, the project applicant shall provide a site assessment that determines whether the structure contains lead-based paint. If the structure does not contain lead-based paint, further mitigation is not required. If lead-based paint is found, all loose and peeling paint shall be removed and disposed of by a licensed and certified lead paint removal contractor, in accordance with federal, State, and local regulations. The demolition contractor shall be informed that all paint on the buildings shall be considered as containing lead. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing lead paint in accordance with federal, State, and local regulations subject to approval by the City Engineer.</i></p>	
<b>IXa,e,f. Violate any water quality standards or waste discharge requirements.</b>	S	IX-1 <i>Prior to issuance of grading permits, the applicant shall submit to the City a plan, identifying permanent stormwater TCMs, SDMs, and Hydromodification</i>	LS

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p><i>Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.</i></p> <p><i>Otherwise substantially degrade water quality.</i></p>		<p><i>Measures, for each DMA to be implemented on the project, as well as a copy of a stormwater maintenance agreement and corresponding maintenance plan signed and recorded by the County of Yolo Clerk's Office. The plan shall include LID measures consistent with the Preliminary Utility Study prepared for the project and shall be subject to review and approval by the Public Works Department.</i></p>	
<p><b>XVIIa-b. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:</b></p> <p><b>Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in</b></p>	S	<p><b>XVII-1. Implement Mitigation Measures V-1, V-2, and V-3.</b></p>	LS

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**Table 2-1  
Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Public Resources Code section 5020.1(k).</p> <p>A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>			

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## 3. Project Description

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## 3 PROJECT DESCRIPTION

### 3.1 INTRODUCTION

Consistent with the California Environmental Quality Act (CEQA) Guidelines, Section 15124, the Project Description chapter of this EIR contains details regarding the precise location and boundaries of the proposed project; a list of project objectives; a general description of the project's technical characteristics; a list of the agencies expected to use this EIR in their decision-making; and a list of permits and other approvals required for the University Commons Project, previously referred to as the University Mall Redevelopment project.

### 3.2 PROJECT LOCATION

The 8.25-acre project site is located in the City of Davis, California, north of Russell Boulevard, east of Sycamore Lane, and west of Anderson Boulevard (see Figure 3-1 and Figure 3-2). Regional access to the site is provided by State Route (SR) 113, located approximately 0.3-mile west of the site. The site is identified by Yolo County Assessor's Parcel Number (APN) 034-253-007.

### 3.3 PROJECT SETTING AND SURROUNDING USES

The following sections provide discussions of the project site's setting and surrounding land uses.

#### Project Site Setting

The project site consists of the existing University Mall, a community shopping center that includes a variety of commercial uses and restaurants. Current tenants of the University Mall include Cost Plus World Market, Starbucks, Fluffy Donuts, and smaller shops and services. Professional offices are located on a partial second floor. A Trader Joe's grocery store is situated on a stand-alone pad in the southwest portion of the site that fronts onto Russell Boulevard, at the northeast corner of the intersection of Russell Boulevard and Sycamore Lane. While the project site contains the existing 13,200-square-foot Trader Joe's building, the building would not be altered or redeveloped as part of the project.

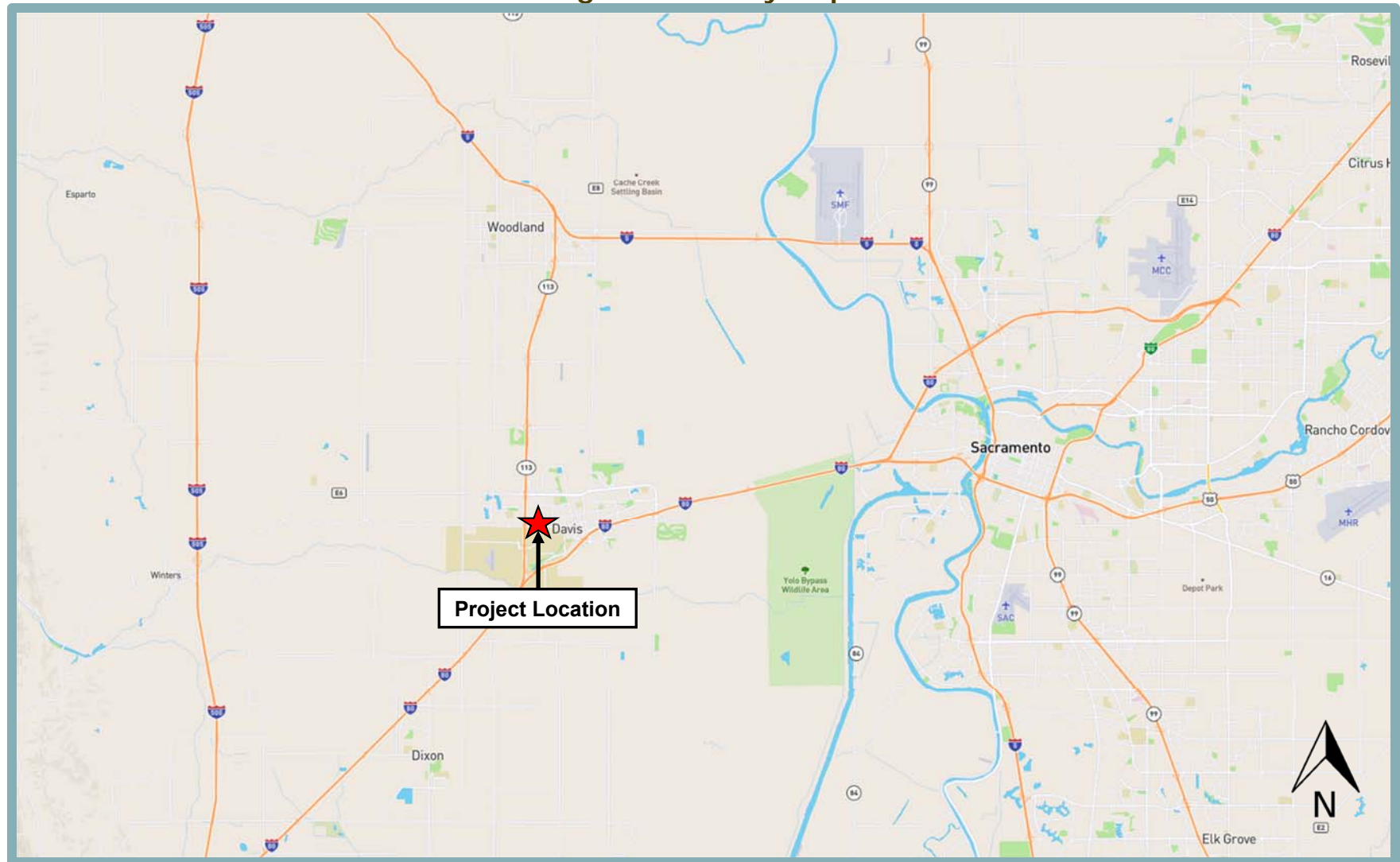
The original University Mall buildings are located on the northern portion of the roughly rectangular site. In addition to the existing structures, the project site contains a paved parking lot that provides approximately 427 parking spaces and extends throughout the south, east, and west portions of the site. Mature trees are located in parking lot landscape islands. Access to the project site is provided by a main access point at Russell Boulevard and several driveways along Sycamore Lane and Anderson Road.

#### Surrounding Land Uses

Land uses surrounding the project site include an ARCO service station with a mini-mart located adjacent to the southeast border of the site at the northwest corner of the intersection of Russell Boulevard and Anderson Road, the Davis Chinese Christian Church and Rite Aid pharmacy located east of the site across Anderson Road, and the University of California, Davis, (UC Davis) campus to the south of the site across Russell Boulevard.



**Figure 3-1  
Regional Vicinity Map**





**Figure 3-2  
Project Location Map**



Uses on the UC Davis campus in the project vicinity include a softball field (La Rue Field) and student housing (The Atriums Apartments/Russel Park Apartments). A three-story apartment complex (University Court) is located west of the project site, across Sycamore Lane. The site is bounded to the north by the two-story Sycamore Lane Apartments complex.

The drive aisle associated with the Sycamore Lane Apartments is separated from the project site by a masonry and steel fence along the northern site boundary. The north side of the fence is lined with trees and shrubs.

### **3.4 PROJECT SITE BACKGROUND**

The University Mall originally opened in 1966. In 1970, 20,000 sf of commercial space was added to the mall to accommodate the Lawrence's department store. The Davis Graduate restaurant and sports bar was built in the 1970s and became the anchor restaurant for the University Mall. In 1984, the west portion of the University Mall building was added to house a Safeway grocery store and in 1999, the University Mall was renovated and some tenants were relocated within the site. In 2004, the University Mall property was acquired by Centro Watt (now known as Brixmor Property Group, Inc.), the second-largest owner of community and neighborhood shopping centers in the United States. In 2010, Trader Joe's market was constructed within the southwestern portion of the site. Over the years, many tenants have occupied spaces in the University Mall, including Pay n' Save, Payless, Rite Aid, Gottschalk's department store, Harvest Market, The Warehouse, and several restaurants. The University Mall was one of the first retail centers in Davis, serving residents and students.

Per the City's General Plan, the proposed project site is designated Community Retail. The Community Retail designation allows for retail uses at a maximum floor-to-area ratio (FAR) of 0.50. Residential uses are permitted with approval of a Conditional Use Permit at a FAR of 0.15. The site is zoned PD #2-97B (Neighborhood Commercial Center). The Planned Development (PD #2-97B) applicable to the property was approved by the City in 2006 and establishes a building height limitation of 50 feet and allows residential uses above the ground floor.

### **3.5 PROJECT OBJECTIVES**

The following objectives have been developed by the City of Davis and the project applicant for the proposed project:

1. Develop a vibrant mixed-use center that maintains and enhances the community and neighborhood retail uses and services and incorporates complementary residential uses.
2. Increase the supply and variety of housing options close to employment centers and convenient for daily needs.
3. Create a diverse community that utilizes the site's proximity to the UC Davis campus and provides housing for students, employees, and university-related personnel.
4. Foster a sustainable community that addresses building efficiency, transportation, efficient use of land, and reduces the community's carbon footprint and vehicle miles travelled.
5. Redevelop and revitalize an aged, existing shopping center with a financially feasible, vertical mixed-use project consistent with SACOG's sustainable community strategies.
6. Increase the variety of retail providers and uses in the City.
7. Increase the capture of local sales tax through increased retail activity within City limits.





8. Increase the opportunity for vehicle trip reduction through the provision of additional housing within close proximity to the UC Davis campus, additional employment and new retail uses.
9. Develop a vertical mixed-use infill project that balances adequate parking needs between commercial and residential uses.

### **3.6 PROJECT COMPONENTS**

The proposed project is an infill project that would include the demolition of approximately 90,563 sf of the existing University Mall building to create a mixed-use development (see Figure 3-3). Generally, buildout of the proposed project would result in the addition of 264 new multi-family residential units and approximately 136,800 sf of retail space. As noted above, the existing 13,200-sf Trader Joe's building is not part of the redevelopment area and will remain at the current location.

As shown in Table 3-1 below, the proposed project would result in development of a total of 795,300 sf.

<b>Table 3-1 University Commons Square Footage</b>		
<b>Proposed Building Area</b>	<b>Square Feet</b>	<b>Residential Units</b>
Residential Area	412,500	264
Retail Area	136,800	-
Parking Garage	246,000	-
<b>Total Project</b>	<b>795,300</b>	<b>264</b>
Note: The square footage for 'Retail Area' does not include the Trader Joe's building as it will not be redeveloped as part of the proposed project, but will remain in its current form.		

The following sections provide details related to the project components, which include retail development, residential development, parking and access, and retail loading docks.

#### **Retail Development**

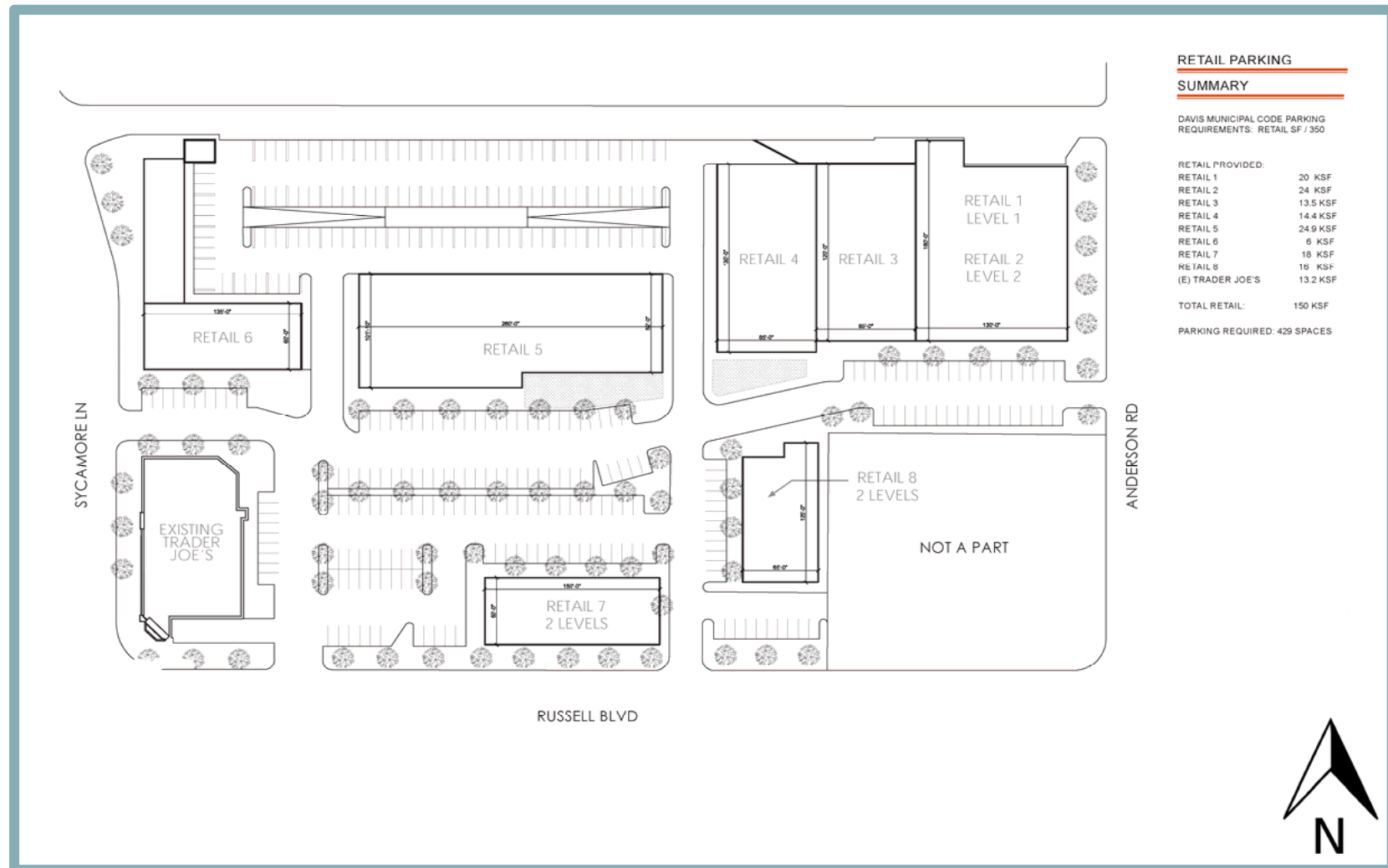
As stated above, the proposed project would include the demolition of approximately 90,563 sf of the existing University Mall building and construction of approximately 136,800 sf of retail space. This would result in an increase of approximately 46,237 sf of retail space (136,800 sf to 90,563 sf) compared to the existing shopping center. Figure 3-4 shows the ground-level retail plan for the proposed project. The development of 136,800 sf of retail space would accommodate shops, restaurants, and other associated uses. A total of eight retail areas, identified as Retail 1 through Retail 8 in Figure 3-4, are proposed. As shown in Figure 3-4, Retail 1 through Retail 6 would be constructed generally within the footprint of the existing University Mall and underneath the proposed residential units, while Retail 7 and Retail 8 would be new, free-standing buildings added to the site adjacent, or in proximity to, Russell Boulevard. Table 3-2 below, provides a summary of the square footage for the proposed retail structures.



**Figure 3-3**  
**University Commons Illustrative Site Plan**



**Figure 3-4  
Ground-Level Retail Plan**



**Table 3-2**  
**Retail Square Footage Summary**

<b>Building</b>	<b>Square Feet</b>
Retail 1	20,000
Retail 2	24,000
Retail 3	13,500
Retail 4	14,400
Retail 5	24,900
Retail 6	6,000
Retail 7	18,000
Retail 8	16,000
<b>Total</b>	<b>136,800</b>

Note: The square footage does not include the Trader Joe's building as it will not be redeveloped as part of the proposed project, but will remain in its current form.

### **Residential Development**

In addition to the retail development discussed above, the proposed project would include development of 264 multi-family residential units. The layout of the residential portion of the proposed project would consist of four levels of residential uses over three levels of parking and four levels of residential uses over retail uses (see Figure 3-5). The residential portion of the project would be arranged around three separate courtyards, one of which would contain an outdoor lounge area, which may potentially include a pool, as well as additional amenities such as a fitness room, bicycle storage, a bike repair station, and a rooftop terrace.

The 264 multi-family residential units would include a mix of unit types with a total of 622 bedrooms and 894 beds. The final mix of unit types will be determined with the final project plans. Upon project completion, the residential portion of the proposed project would include approximately 412,500 sf of building space and have a density of approximately 32 units per acre. Due to the immediate proximity of the project site to the UC Davis campus and the demand for student housing, the proposed residential development would be focused on student use, but would be available for non-students as well.

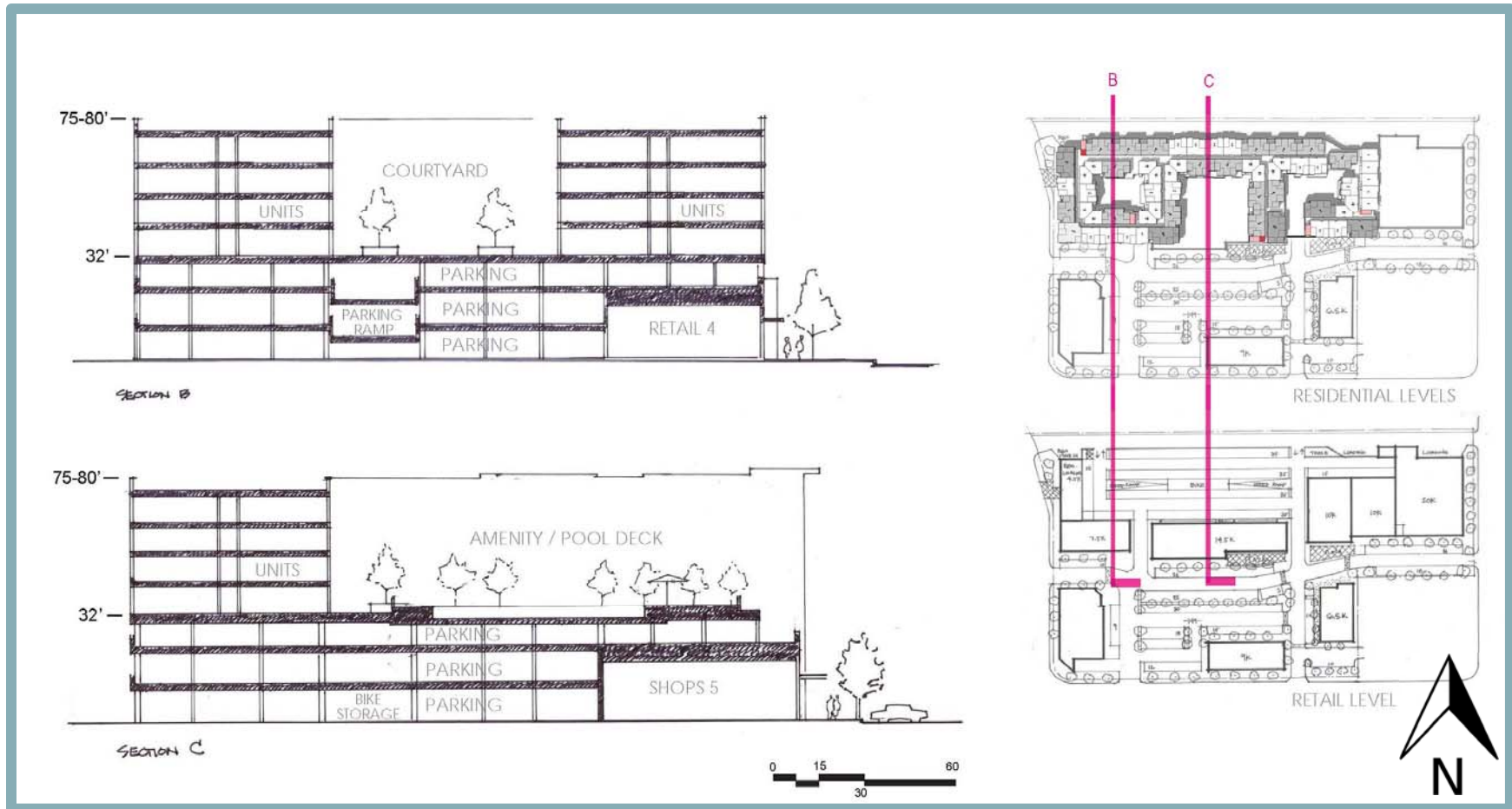
### **Building Heights**

The proposed project structures would range in height, as show in Figure 3-6. At buildout, the redeveloped University Commons building would be seven stories and approximately 80 feet in height (see green outline in Figure 3-6), with the northeast portion along Anderson Road stepping down to three stories and 44 feet in height (see blue outline in Figure 3-6). It is important to note that the front façade of the seven-story building, as viewed from Russell Boulevard, would have articulation to help soften the appearance of the building. For example, the central portion of the building façade would consist of the amenity deck at a height of approximately 32 feet. The free-standing Retail 7 and 8 buildings would be approximately 32 feet in height.

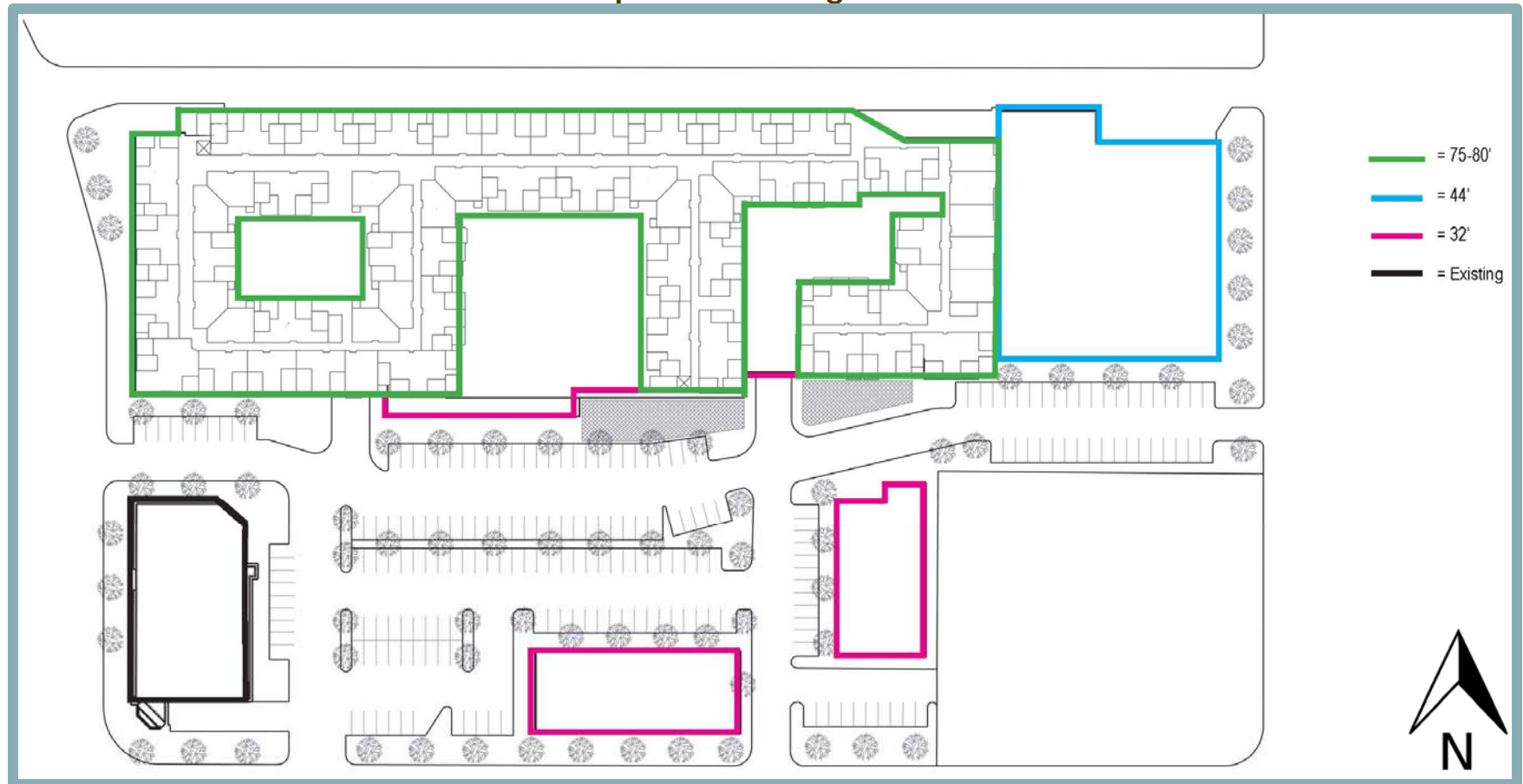




**Figure 3-5**  
**Site Amenities Cross-Section**



**Figure 3-6  
Proposed Building Levels**



## **Parking, Access, and Circulation**

Parking for the proposed project would be provided by 693 total parking spaces, which would consist of 264 spaces designated for residential use and 429 spaces designated for retail use.

According to Davis Municipal Code, the City parking requirement for community shopping centers is one space per 350 square feet of non-residential use plus one space per dwelling unit. Therefore, with a proposed 150,000 square feet of retail space and 264 dwelling units, the project would comply with the established City parking requirements, as calculated below:

<i>Retail space</i>	<i>150,000 square feet @ one space per 350 square feet</i>	<i>429 spaces</i>
<i>Residential space</i>	<i>264 dwelling units @ one space per dwelling unit</i>	<i>+ 264 spaces</i>
<b>Total</b>		<b>693 spaces</b>

Moreover, the project site is currently within a Planned Development zone and the proposed project would include a rezone to a new Planned Development zone. According to the City's Municipal Code, Planned Development zoning is intended to allow for flexibility in development standards in order to promote creative development approaches, efficient use of land, a variety of development styles, and responsiveness to new technologies. The Planned Development zoning for the project would allow the City to evaluate the specific project proposal, including the proposed parking supply and anticipated parking demand, and adjust the parking requirement as appropriate in the project entitlements.

On-site electric vehicle and car-sharing spaces would be provided in compliance with City requirements; and an electric vehicle charging parking plan would be developed to accommodate future growth for additional electric vehicles.

Vehicle parking would be provided both by an above-ground parking structure and surface parking. Parking management for the structured parking and surface level parking would be actively supervised by on-site property management and regulated by access control technology.

## **Vehicle Parking**

### **Parking Structure**

Retail and residential parking spaces would be provided by a new, three-story parking garage with 518 total spaces. The first and second levels of the parking garage would be dedicated to retail parking. The third level of the parking garage would be dedicated parking spaces for the proposed residential units. Entrance to the structured parking would be regulated by access controls to restrict retail parking to the first and second levels and residential parking to the third level. Garage parking for retail customers would be free, while residential parking stalls would be billed to residential tenants on a monthly basis. A time limited visitors parking area would be provided for guests visiting residents. Limited overnight resident guest parking would be allowed by permit only. Parking management and permits would be issued, monitored, and enforced by on-site management.

Each level of the proposed parking structure would incorporate green wall screens to minimize the amount of light trespass and glare from vehicle headlights on the adjacent apartments to the north.



### **Surface Parking**

An additional 175 retail parking spaces would be provided within the surface-level parking lot. Surface level parking would be free to retail customers only and would not be permitted for residential parking, residential guest parking, or student parking during business hours.

### **Bicycle Parking**

A total of 1,018 bicycle parking spaces would be included as part of the proposed project, including on each level of the proposed parking structure. More specifically, bicycle parking would include 335 short-term spaces (32 percent of total) and 683 long-term spaces (68 percent of total). The majority of long-term bicycle parking (536 long-term spaces) would be provided on various levels within the proposed parking structure, with access provided via elevator. These spaces would be primarily utilized by project residents. An enclosed 80-space short-term bicycle storage area on the first floor of the parking structure would include benches and lockers and would be ideally suited for project employees. The remaining short-term bicycle parking would be scattered throughout the site near driveways or retail entry/exit points. These would include some covered parking spaces, including a large cluster of covered short-term bicycle parking at the southeast corner of the project site along Russell Boulevard. Separate bicycle and vehicle entrances would be provided on the north elevation of the parking garage.

City Code would require 802 total bicycle parking spaces, including 291 short-term spaces and 511 long-term spaces. Therefore, the proposed bicycle parking supply would exceed the minimum City requirements by 216 spaces.

### **Access**

The existing University Mall site consists of two vehicular accesses on Sycamore Lane (both full access), three vehicular accesses on Anderson Road (two full access, one right-in/right-out only), and two vehicular accesses on Russell Boulevard (no full access, both right-in/right-out only). The proposed project would eliminate one of the full access driveways on Anderson Road, but would not materially alter the remaining vehicular access points.

### **Retail Loading Docks**

Access to loading docks for the proposed ground-level retail development, as well as the proposed parking garage, would be provided by a 24-foot-wide drive aisle situated along the northern elevation of the proposed structure. As shown in Figure 3-7 and Figure 3-8, truck loading docks for the proposed retail development would be sealed and partially enclosed by a wall for noise abatement during loading and unloading activities.

### **Alternative Transportation**

The proposed project is located within a Transit Priority Area, as defined by the Sacramento Area Council of Governments (SACOG). Transit Priority Areas are typically defined as areas within 0.5-mile of a major transit stop, including existing or planned light rail, street car, train station, or the intersection of two or more bus routes, or an existing or planned high-quality transit corridor.

The project site is located directly adjacent to the Russell Boulevard high quality transit corridor, which is served by Unitrans bus line routes B, C, G, J, K, P, and Q. In addition, Russell Boulevard is served by Yolobus Route 220, which provides commuter transit to and from Winters and Vacaville. Nearby Yolobus stops located on F Street and the UC Davis Memorial Union provide commuter transit to Sacramento. Yolobus Route 42, which provides service to the Sacramento





International Airport, includes a bus stop located north of the project site at the intersection of Anderson Lane and Hanover Drive.

The primary bus stops serving the project site are located on Anderson Road north of Russell Boulevard, Sycamore Lane north of Russell Boulevard, and Russell Boulevard west of Sycamore Lane. All stops are equipped with bus stop signs. Shelters are provided at the northbound stop on Anderson Road and the southbound stop on Sycamore Lane. The southbound Anderson Road bus stop, located immediately on the eastern project site limits, is heavily utilized during the AM peak hour, particularly by UC Davis students commuting into campus.

The proposed project would include the provision of pedestrian walkways throughout the property, as well as access to existing off-street bikeways adjacent to the site. Surrounding roadways, including Sycamore Lane and Anderson Road, include marked bike lanes and Russell Boulevard provides access to the City's off-street bicycle loop path.

### **Landscaping**

The proposed project would retain the majority of existing landscaped areas and separated sidewalks along the project site frontages at Sycamore Lane, Russell Boulevard, and Anderson Road. Of the 98 on-site trees, 49 trees were deemed by the project arborist to be in poor to fair-poor structural condition. The arborist recommended 42 of these trees be removed due to their poor condition and suitability for preservation. An additional 40 trees would be removed due to conflicts with the proposed site layout.



**Figure 3-7**  
**University Commons North Elevation – Site Features**



**NORTH ELEVATION** CONCEPTUAL BUILDING DESIGN



**Figure 3-8**  
**University Commons North Elevation**



The proposed project would result in the removal of 82 on-site trees. The remaining 16 on-site trees would be preserved. An additional 11 trees nearby in the roadway median that would be retained.

### **Utilities and Service Systems**

The proposed project would include new fire water and domestic water connections to the City's existing 12-inch water line located within Sycamore Lane to the west of the site and the 10-inch water line located in Anderson Road to the east of the site. The new 10-inch diameter loop created by the proposed fire water line would include backflow preventers that would prohibit water from flowing through the site (through private water lines) back into the public water system.

With regard to wastewater collection infrastructure, an eight-inch sewer main is located in Sycamore Lane to the west of the site and a six-inch sewer main is located in Anderson Road to the east of the site. A six-inch lateral extends eastward from the Sycamore Lane sewer main into the project site adjacent to the existing Trader Joe's grocery store. The proposed project would include a new six-inch sanitary sewer line extending westward into the site from the existing sewer main in Anderson Road. In addition, the project would include a new sewer line and manhole connecting to an existing six-inch sewer stub located within the site near the northern site boundary.

### **Sustainability**

The proposed project would be designed in compliance with the City's Municipal Code, including Sections 8.01.090 and 8.01.060. The proposed building design would implement energy-efficient lighting and HVAC systems. As mentioned above, electric vehicle, car-sharing spaces, and bicycle parking spaces would be provided on-site. Pedestrian walkways would be added throughout the property to enhance walkability and the project site allows for connections to existing pedestrian, bicycle, ride share, and public transportation facilities. Efficient water-wise fixtures and water metering would be used to assist in water conservation. Project landscaping would be designed with limited turf areas, incorporation of drought-tolerant vegetation, smart irrigation controllers, high-efficiency drip irrigation systems, and mulch dressing to provide soil moisture evaporation protection. Eco-friendly/sustainable construction materials and energy-efficient windows would be selected for design purposes to further improve building sustainability. During construction, approximately 65 percent of the construction waste would be diverted from disposal at a landfill.

### **General Plan Land Use Amendment**

The site has a current General Plan designation of Community Retail. Under the Community Retail designation, residential uses are allowed with approval of a Conditional Use Permit. The maximum floor area ratio (FAR) for retail is 0.50 with an additional 0.15 allowed for the residential component in a mixed-use project. The proposed project would require an amendment to the City's General Plan text to create a new land use designation of Mixed Use Urban Retail, as described below, to allow for the mix of retail, office, research, and residential uses at the proposed density of 32 units per acre. The General Plan Amendment entitlements for the proposed project would consist of a text amendment to create the new Mixed Use Urban Retail land use designation and a map amendment to apply the new designation only to the project site. In order for the new Mixed Use Urban Retail land use designation to be applied to other properties in the City, a General Plan map amendment would be required, subject to separate environmental review and discretionary approval.





The following description is the currently proposed language for the new Mixed Use Urban Retail General Plan land use designation.

### **Mixed Use Urban Retail**

**Intent:** To provide opportunities for large-scale, multi-story mixed-use development that allows moderate-size community and/or neighborhood-serving retail stores with high density, residential uses mixed with office uses and creative high-tech and research uses. The Mixed Use Urban Retail is intended to create healthy and active retail centers, with housing options, a mix of unit types and sizes, innovative design, neighborhood connections, compatible knowledge-based employment spaces and convenient transportation alternatives.

**Allowable Uses:** Allowable uses in this designation includes retail shopping centers and freestanding retail buildings, high density residential uses, and compatible offices, business services, lab and high tech research space. Commercial uses, predominantly retail stores and restaurants, shall be located on the ground floor. Residential units shall be located above the ground floor. Commercial and office uses may also be located above the ground floor.

**Maximum Floor Area Ratio:** 125 percent for a mixed use project, with a potential total of 175 percent through the following:

- Additional 50 percent FAR with provision of structured parking or below-grade parking provided that a minimum of 50 percent of the parking is located in structured or below-grade parking. Parking structures and below-grade parking are excluded from the FAR calculation.
- In no case shall the residential portion of the mixed use project exceed three-quarters of the project's total FAR square footage.

### **Special Considerations for Mixed Use Urban Retail Developments.**

- Include a mix of high density residential uses with convenient retail and services for daily needs and opportunities for community retail uses that are not currently adequately available in the City.
- Support opportunities and spaces for a flexible mix of high tech employment uses which are compatible with the retail and residential environment.
- Have unified and high quality design that provides an appropriate urban scale and enhances the City's character.
- Provide site amenities and outdoor gathering spaces for customers, residents, and employees.
- Incorporate parking and transportation demand management to reduce the reliance on vehicle ownership and use.
- Provide site improvements, access, and on-site facilities and design that encourage and facilitate pedestrians, bicycles, transit, other alternative transportation options, and emerging mobility technologies.

### **Rezone**

The site has a current zoning designation of PD #2-97B, which was approved by the City in 2006. The PD #2-97B zoning designation establishes a building height limitation of 50 feet and allows residential uses above the ground floor. The proposed project would require the amendment of the City's zoning map (Section 40.01.090 of the City's Municipal Code) to establish a new Planned Development zoning designation (PD #03-18) for the project site. The proposed PD #03-18 would specify permitted, accessory, and conditional uses for the property, and project-specific



development standards. In addition to the range of retail commercial and office uses currently allowed, the proposed PD would allow a greater intensity of residential uses, as well as additional office uses and limited research, development, and lab uses.

### **CEQA Streamlining**

The California State Legislature has adopted several statutory provisions to incentivize infill development within the project region that is consistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) adopted by the SACOG, including but not limited to Public Resources Code (PRC) sections 21155-21155.4, 21159.28, and 21099. SACOG has provided a letter to the City of Davis, included as Appendix A to the EIR, indicating that the proposed project is consistent with SACOG's MTP/SCS.<sup>1</sup> Streamlining benefits applicable to qualifying in-fill projects that are consistent with SACOG's MTP/SCS include the following:

1. The EIR is not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network. (PRC, § 21159.28, subd. (a).)
2. Alternative locations, densities, and building intensities to the proposed project need not be considered. (PRC, § 21159.28, subd. (b).)
3. Aesthetic and parking impacts should not be considered significant impacts on the environment. (PRC, § 21099, subd. (d)(1).)

Transit Priority Areas are areas of the region within one-half mile of a major transit stop or an existing or planned high-quality transit corridor included in the MTP/SCS. Per the letter provided by SACOG, the project qualifies as a Transit Priority Project, as the proposed project would involve greater than 50 percent residential uses, has a minimum density of 20 units per acre, and is located within 0.5-mile of a high-quality transit corridor (i.e., the Russell Boulevard high-quality transit corridor). Furthermore, the proposed project is an infill project within the Established Community designation of the MTP/SCS for the City of Davis. Within the Established Community, the MTP/SCS forecasts a range of low- to high-density residential, commercial, office, and industrial uses. The proposed project's land uses fall within this range of general uses, densities, and building intensities.

Because the project qualifies as a Transit Priority Project, the City has streamlined the analysis provided within this University Commons EIR, pursuant to CEQA.

### **3.7 REQUESTED ENTITLEMENTS**

The following section presents the discretionary and ministerial actions that would be required to implement the proposed project.

#### **City of Davis Discretionary Approvals**

Implementation of the proposed project would require the following entitlements from the City of Davis:

1. Certification of the EIR and adoption of the Mitigation Monitoring Plan. Before the City can approve the proposed project, the City must certify that the EIR was completed in

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<sup>1</sup> Sacramento Area Council of Governments. *University Mall Redevelopment project consistency with the Metropolitan Transportation Plan/Sustainable Communities Strategy for 2036*. June 19, 2018.



compliance with the requirements of CEQA, that the decision-making body has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the City of Davis. Approval of the EIR also requires adoption of a Mitigation Monitoring Plan (MMP), which specifies the methods for monitoring mitigation measures required to eliminate or reduce the project's significant effects on the environment. The City would also be required to adopt Findings of Fact, and for any impacts determined to be significant and unavoidable, a Statement of Overriding Considerations, as part of project approval.

2. General Plan Amendment. The proposed project would require a General Plan Amendment to create a new land use designation of Mixed-Use Urban Retail that allows for large-scale, multi-story mixed-use development and a land use map amendment to apply the designation to the site.
3. Rezone/Preliminary Planned Development. The proposed project would require a rezoning to establish a new Preliminary Planned Development (PD #03-18) for the project site, consisting of development standards for the proposed project and allowable mix of uses.
4. Development Agreement. The proposed project includes a request for approval of a Development Agreement for the proposed mixed-use development. The agreement would be between the City of Davis and Brixmor Property Group, Inc.

In addition, the proposed project would require a separate application for a Final Planned Development and Site Plan and Architectural Review when building design and final site details have been determined.

### **Other City of Davis Ministerial Permits**

Implementation of the proposed project would require ministerial permits from the City of Davis, which would include, but would not be limited to, the following:

1. Demolition permit for demolition of 90,563 sf of the existing University Mall building;
2. Tree modification or removal permits for any trimming, modification, or removal of trees protected under Chapter 37 of the City of Davis' Municipal Code;
3. Encroachment Permit for any construction within the public rights-of-way; and
4. Building Permits for demolition of the existing buildings and construction of the new buildings.

### **Other Agency Permits and Approvals**

Implementation of the proposed project would require permits or approvals from other agencies, including, but not limited to, the following:

1. Central Valley Regional Water Quality Control Board (CVRWQCB) – The proposed project would disturb more than one acre of land; therefore, the project would be required to obtain coverage under the National Pollution Discharge Elimination System through the Storm Water Pollution Prevention permitting program of the CVRWQCB.



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## **4. Existing Environmental Setting, Impacts, and Mitigation**

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## **4.0 Introduction to the Analysis**

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## **4.0 INTRODUCTION TO THE ANALYSIS**

### **4.0.1 Introduction**

The technical chapters of the EIR analyze the potential impacts of buildout of the proposed project on a range of environmental issue areas. Sections 4.1 through 4.6 of the EIR include the following: the environmental setting as the setting relates to the specific issue; standards of significance; method of analysis; and project-specific impacts and mitigation measures. Additionally, Sections 4.1 through 4.6 describe the cumulative impacts of the project combined with past, present and reasonably probable future projects for each issue area. The format of each of the technical chapters is described at the end of this chapter. It should be noted that all technical reports are either attached to this EIR or available at the City by request.

### **4.0.2 Determination of Significance**

Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the environment (Public Resources Code § 21068). The Guidelines implementing CEQA direct that this determination be based on scientific and factual data. The specific criteria for determining the significance of a particular impact are identified within the impact discussion in each section and are consistent with significance criteria set forth in the CEQA Guidelines.

### **4.0.3 Environmental Issues Addressed in this EIR**

The EIR provides the analysis necessary to address the technical environmental impacts of the proposed project. The following environmental issues are addressed in this EIR:

- Air Quality;
- Greenhouse Gas Emissions and Energy;
- Land Use and Planning;
- Noise;
- Public Services and Utilities; and
- Transportation and Circulation.

See Chapter 5, Section 5.4, for additional information on the scope of the cumulative impact analysis for each environmental issue addressed in the EIR.

As discussed in the Introduction chapter of this EIR, the proposed project is consistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) adopted by the Sacramento Area Council of Governments (SACOG). Qualifying in-fill projects that are consistent with SACOG's MTP/SCS are granted CEQA streamlining benefits, including the following:

1. The EIR is not required to reference, describe, or discuss (1) growth-inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network. (Pub. Resources Code, §21159.28, subd. (a).)



2. Alternative locations, densities, and building intensities to the proposed project need not be considered. (Pub. Resources Code, §21159.28, subd. (b) and 21155.2, subd. (c)(2).)
3. Aesthetic and parking impacts should not be considered significant impacts on the environment. (Pub. Resources Code, § 21099, subd. (d)(1).)

Considering the project's consistency with SACOG's MTP/SCS, the environmental analysis within this EIR need not and shall not address the foregoing issue areas.

#### 4.0.4 Section Format

Each technical chapter addressing a specific environmental issue begins with an **introduction** describing the purpose of the section. The introduction is followed by a description of the project's **existing environmental setting** as the setting pertains to that particular issue. The setting description is followed by the **regulatory context** and the **impacts and mitigation measures** discussion, which contains the **standards of significance**, followed by the **method of analysis**. The **impact and mitigation** discussion includes impact statements prefaced by a number in bold-faced type (for both project-level and cumulative analyses). An explanation of each impact and an analysis of the impact's significance follow each impact statement. All mitigation measures pertinent to each individual impact follow directly after the impact statement (see below). The degree of relief provided by identified mitigation measures is also evaluated. An example of the format is shown below.

#### Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the proposed project in comparison with the standards of significance.

#### 4.x-1 Statement of Project-Specific Impact

Discussion of impact for the proposed project in paragraph format.

Statement of **level of significance** of impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR: less than significant, significant, or significant and unavoidable. If an impact is determined to be significant, mitigation will be included in order to reduce the specific impact to the maximum extent feasible.

##### Mitigation Measure(s)

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.x-1(a)      *Required mitigation measure(s) presented in italics and listed in consecutive order.*

4.x-1(b)      *Required additional mitigation measure, if necessary.*



### **Cumulative Impacts and Mitigation Measures**

The following discussion of cumulative impacts is based on implementation of the proposed project in combination with cumulative development within the applicable area or region.

#### **4.x-2 Statement of Cumulative Impact**

Discussion of cumulative impacts for the proposed project in paragraph format.

As discussed in detail in Chapter 5, Statutorily Required Sections, of the EIR, the cumulative setting for the proposed project is generally considered to be development anticipated to occur upon buildout of the Davis General Plan (i.e., Davis city limits), as well as buildout of a number of approved or reasonably foreseeable projects within the project region.

Statement of **level of significance** of cumulative impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR for cumulative impacts: less than significant, less than cumulatively considerable, cumulatively considerable, or significant and unavoidable. If an impact is determined to be cumulatively considerable, mitigation will be included in order to reduce the specific impact to the maximum extent feasible.

#### **Mitigation Measure(s)**

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.x-2(a)      *Required mitigation measure(s) presented in italics and listed in consecutive order.*

4.x-2(b)      *Required additional mitigation measure, if necessary.*



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## **4.1 Air Quality**

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## 4.1 AIR QUALITY

### 4.1.1 INTRODUCTION

The Air Quality section of the EIR describes the effects of the proposed project on local and regional air quality. The section includes a discussion of the existing air quality setting and applicable regulations, estimation of emissions that would be generated during the construction and operational phases of the proposed project, comparison of the project's emissions with relevant thresholds of significance, and identification of impacts and mitigation measures intended to reduce all impacts to the maximum extent feasible. The Air Quality section is primarily based on information, guidance, and analysis protocol provided by the Yolo-Solano Air Quality Management District (YSAQMD) per the *Handbook for Assessing and Mitigating Air Quality Impacts*,<sup>1</sup> as well as emissions projections obtained by means of the California Emissions Estimator Model (CalEEMod) version 2016.3.2.<sup>2</sup> In addition, the section uses information obtained from the *Davis General Plan*<sup>3</sup> and associated EIR.<sup>4</sup>

It should be noted that an analysis of the proposed project's potential impacts related to Greenhouse Gas Emissions and Energy is included in Section 4.2, of this EIR.

### 4.1.2 EXISTING ENVIRONMENTAL SETTING

The following information provides an overview of the existing environmental setting in relation to air quality within the proposed project area. The air basin characteristics, ambient air quality standards (AAQS), attainment status and regional air quality plans, local air quality monitoring, and sensitive receptors are discussed below.

#### Air Basin Characteristics

The City of Davis is located in Yolo County, within the Yolo-Solano portion of the Sacramento Valley Air Basin (SVAB), which is under the jurisdiction of the YSAQMD. Air quality in the SVAB is largely the result of the following factors: emissions, geography, and meteorology (wind, atmospheric stability, and sunlight). The Sacramento Valley is often described as a bowl-shaped valley, with the SVAB being bounded by the North Coast Ranges on the west, the northern Sierra Nevada Mountains on the east, and the intervening terrain being flat.

The Sacramento Valley has a Mediterranean climate, characterized by hot, dry summers and mild, rainy winters. During the year, the temperature may range from 20 to 115 degrees Fahrenheit, with summer highs usually in the 90-degree Fahrenheit range and winter lows occasionally below freezing. Average annual rainfall is approximately 20 inches, with snowfall being very rare. The winds in the area are moderate in strength and vary from moist, clean

<sup>1</sup> Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts*. July 11, 2007. Available at: <http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf>. Accessed July 2019.

<sup>2</sup> BREEZE Software, A Division of Trinity Consultants, in collaboration with South Coast Air Quality Management District and the California Air Districts. *California Emissions Estimator Model User's Guide Version 2016.3.2*. November 2017.

<sup>3</sup> City of Davis. *Davis General Plan*. Adopted May 2001. Amended through January 2007.

<sup>4</sup> City of Davis. *Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School*. January 2000.



breezes from the south to dry land flows from the north.<sup>5</sup> According to the Western Regional Climate Center, the prevailing wind direction throughout the year in the project area is from the south.<sup>6</sup>

The mountains surrounding the Sacramento Valley create a barrier to airflow, which can trap air pollutants in the valley when meteorological conditions are right and a temperature inversion exists. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during autumn and early winter and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in the air. The surface concentrations of pollutants are highest when these conditions are combined with smoke from agricultural burning, which is regulated through YSAQMD permits, or when temperature inversions trap cool air, fog, and pollutants near the ground.

The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds, with the Delta sea breeze arriving in the afternoon out of the southwest. Usually the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. However, during approximately half of the days from July to September, a phenomenon called the “Schultz Eddy” prevents the transport from occurring. Instead of allowing for the prevailing wind patterns to move north, carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern and pollutants to circle back southward. The Schultz Eddy effect exacerbates the pollution levels in the area and increases the likelihood of violating the federal and State air quality standards.

### **Ambient Air Quality Standards**

The federal Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (USEPA) to set National Ambient Air Quality Standards (NAAQS) for six common air pollutants, known as criteria pollutants, because the criteria air pollutants could be detrimental to human health and the environment. The criteria pollutants include particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. Primary standards are the set of limits based on human health; and secondary standards are the set of limits intended to prevent environmental and property damage. States may also establish their own ambient air quality standards, provided the State standards are at least as stringent as the NAAQS. California has established California Ambient Air Quality Standards (CAAQS) pursuant to Health and Safety Code Section 39606(b) and its predecessor statutes. The State of California has established air quality standards for some pollutants not addressed by federal standards, including hydrogen sulfide, sulfates, vinyl chloride, and visibility-reducing particles. The NAAQS and CAAQS summarized in Table 4.1-1 below, represent the maximum amount of a pollutant that can be present in outdoor air without harm to public health.<sup>7</sup> As shown in the table, in general, the CAAQS are more stringent, particularly for ozone and particulate matter, than the NAAQS.

<sup>5</sup> Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts*. July 11, 2007. Available at: <http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf>. Accessed September 2016.

<sup>6</sup> Western Regional Climate Center. *Prevailing Wind Direction*. Available at: <http://www.wrcc.dri.edu/htmlfiles/westwinddir.html>. Accessed September 2016.

<sup>7</sup> California Air Resources Board. *Ambient Air Quality Standards (AAQS)*. July 2, 2013. Available at: <http://www.arb.ca.gov/research/aaqs/aaqs.htm>. Accessed September 2016.



**Table 4.1-1  
Ambient Air Quality Standards**

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone	1 Hour	0.09 ppm	-	Same as primary
	8 Hour	0.070 ppm	0.070 ppm	
Carbon Monoxide	8 Hour	9 ppm	9 ppm	-
	1 Hour	20 ppm	35 ppm	
Nitrogen Dioxide	Annual Mean	0.030 ppm	53 ppb	Same as primary
	1 Hour	0.18 ppm	100 ppb	-
Sulfur Dioxide	24 Hour	0.04 ppm	-	-
	3 Hour	-	-	0.5 ppm
	1 Hour	0.25 ppm	75 ppb	-
Respirable Particulate Matter (PM <sub>10</sub> )	Annual Mean	20 ug/m <sup>3</sup>	-	Same as primary
	24 Hour	50 ug/m <sup>3</sup>	150 ug/m <sup>3</sup>	
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual Mean	12 ug/m <sup>3</sup>	12 ug/m <sup>3</sup>	15 ug/m <sup>3</sup>
	24 Hour	-	35 ug/m <sup>3</sup>	Same as primary
Lead	30 Day Average	1.5 ug/m <sup>3</sup>	-	-
	Calendar Quarter	-	1.5 ug/m <sup>3</sup>	Same as primary
Sulfates	24 Hour	25 ug/m <sup>3</sup>	-	-
Hydrogen Sulfide	1 Hour	0.03 ppm	-	-
Vinyl Chloride	24 Hour	0.010 ppm	-	-
Visibility Reducing Particles	8 Hour	see note below	-	-

ppm = parts per million

ppb = parts per billion

ug/m<sup>3</sup> = micrograms per cubic meter

Note: Statewide Visibility Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

**Source: California Air Resources Board. Ambient Air Quality Standards. May 4, 2016. Available at: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed May 2019.**

A summary of the pollutants, their characteristics, health effects, and typical sources is provided in Table 4.1-2 below. Of the pollutants, particle pollution and ground-level ozone are the most widespread health threats.

### **Toxic Air Contaminants**

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are also a category of environmental concern. TACs are present in many types of emissions with varying degrees of toxicity. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Common stationary sources of TACs include gasoline stations, dry cleaners, and diesel backup generators, which are subject to YSAQMD stationary source permit requirements. The other common source type is on-road motor vehicles, such as cars and trucks, on freeways and roads, and off-road sources such as construction equipment, ships, and trains. In addition to manmade TACs, natural occurring TACs also exist, such as asbestos.





**Table 4.1-2  
Summary of Criteria Air Pollutants**

<b>Pollutant</b>	<b>Characteristics</b>	<b>Health Effects</b>	<b>Major Sources</b>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• A highly reactive gas consisting of three oxygen atoms</li> <li>• Often called photochemical smog</li> <li>• Produced by photochemical process involving the sun's energy</li> <li>• A secondary pollutant formed from a chemical reaction between ROG and NO<sub>x</sub> emissions in the presence of sunlight</li> <li>• Levels are highest during summer and during the afternoon and early evening hours</li> </ul>	<ul style="list-style-type: none"> <li>• Eye irritation</li> <li>• Wheezing, chest pain, dry throat, headache, or nausea</li> <li>• Aggravated respiratory disease such as emphysema, bronchitis, and asthma</li> </ul>	Combustion sources such as factories, automobiles, and evaporation of solvents and fuels.
Reactive Organic Gas (ROG)	<ul style="list-style-type: none"> <li>• Reactive chemical gas composed of hydrocarbon compounds</li> <li>• Contributes to formation of smog and ozone through atmospheric chemical reactions</li> </ul>	<ul style="list-style-type: none"> <li>• Some compounds that make up ROG are toxic, such as the carcinogen benzene</li> </ul>	Paints and solvents.
Oxides of Nitrogen (NO <sub>x</sub> )	<ul style="list-style-type: none"> <li>• Gaseous nitrogen compounds</li> <li>• Precursors to the formation of ozone and particulate matter</li> <li>• Nitrogen dioxide is major component</li> <li>• NO<sub>x</sub> reacts with ROG to form smog</li> </ul>	<ul style="list-style-type: none"> <li>• Component of acid rain</li> <li>• Lung irritation</li> <li>• Lung damage</li> <li>• Chronic respiratory disease</li> </ul>	Combustion of fossil fuels under high temperature and pressure, and motor vehicles.
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>• An odorless, colorless, highly toxic gas formed by the incomplete combustion of fuels</li> <li>• Emitted directly into the air</li> <li>• Primarily a winter pollution problem due to cold stagnant weather conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Impairment of oxygen transport in the bloodstream</li> <li>• Impaired vision, reduced alertness, chest pain, and headaches</li> <li>• Reduction in mental and physical functions</li> <li>• Can be fatal in the case of very high concentrations</li> </ul>	Automobile exhaust, combustion of fuels, and combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• A reddish-brown gas that discolors the air and is formed during combustion of fossil fuels under high temperature and pressure.</li> </ul>	<ul style="list-style-type: none"> <li>• Lung irritation and damage</li> <li>• Increased risk of acute and chronic respiratory disease</li> </ul>	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• A colorless, irritating gas</li> <li>• Has a rotten egg odor</li> <li>• Particles are a component of PM<sub>10</sub></li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of chronic obstruction lung disease</li> <li>• Increased risk of acute and chronic respiratory disease</li> </ul>	Combustion of sulfur-containing fossil fuels from mobile sources, such as locomotives,

(Continued on next page)



			shops, and off-road diesel equipment, and industrial processes, such as petroleum refining and metal processing.
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	<ul style="list-style-type: none"> <li>• A complex mixture of extremely small particles and liquid droplets</li> <li>• Made up of a number of components, including acids, organic chemicals, metals and soil or dust particles</li> <li>• Size of particles directly linked to potential for causing health impacts</li> <li>• Particles 10 micrometers in diameter or smaller (PM<sub>10</sub>) can pass through the throat and nose and enter the lungs</li> <li>• USEPA groups particle pollution into three categories based on the size of the particles and where they are deposited:               <ul style="list-style-type: none"> <li>○ "Inhalable coarse particles (PM<sub>2.5-10</sub>)," which are found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. PM<sub>2.5-10</sub> is deposited in the thoracic region of the lungs.</li> <li>○ "Fine particles (PM<sub>2.5</sub>)," which are found in smoke and haze, are 2.5 micrometers in diameter and smaller. PM<sub>2.5</sub> particles could be directly emitted from sources such as forest fires, or could form when gases emitted from power plants, industries, and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.</li> <li>○ "Ultrafine particles (UFP)," which are very, very small particles (less than 0.1 micrometers in diameter) largely resulting from the combustion of fossil fuels, meat, wood, and other hydrocarbons. While UFP mass is a small portion of PM<sub>2.5</sub>, their high surface area, deep lung penetration, and transfer into the bloodstream could result in disproportionate health impacts relative to their mass. UFP is not currently regulated separately, but is analyzed as part of PM<sub>2.5</sub>.</li> </ul> </li> <li>• PM<sub>10</sub>, PM<sub>2.5-10</sub>, and UFP include primary pollutants (emitted directly to the atmosphere) as well as secondary pollutants</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of chronic respiratory disease</li> <li>• Heart and lung disease</li> <li>• Coughing or difficulty breathing</li> <li>• Bronchitis</li> <li>• Chronic respiratory disease in children</li> <li>• Irregular heartbeat</li> <li>• Nonfatal heart attacks</li> <li>• Increased blood pressure</li> </ul>	Combustion sources such as automobiles, power generation, industrial processes, and wood burning. Also from unpaved roads, farming activities, and fugitive windblown dust.

(Continued on next page)



	(formed in the atmosphere by chemical reactions among precursors)		
Lead	<ul style="list-style-type: none"> <li>• A soft and chemically resistant metal</li> <li>• A natural constituent of air, water, and the biosphere</li> <li>• Is not created nor destroyed in the environment</li> <li>• As an air pollutant, lead is present in small particles</li> <li>• Present in many soils and could become re-suspended into the air</li> </ul>	<ul style="list-style-type: none"> <li>• Impaired blood formation and nerve conduction</li> <li>• Fatigue, anxiety, short-term memory loss, depression, loss of appetite, weakness, apathy, and miscarriage</li> <li>• Lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract</li> <li>• Learning disabilities in children</li> <li>• Cancer</li> </ul>	Industrial sources combustion of leaded gasoline, and contaminated soils.
Sulfates (SO <sub>4</sub> <sup>2-</sup> )	<ul style="list-style-type: none"> <li>• The fully oxidized ionic form of sulfur</li> <li>• Colorless gas</li> <li>• Occur in combination with metal and/or hydrogen ions</li> <li>• Sulfur compounds occur from combustion of petroleum fuels containing sulfur, where the sulfur is oxidized to SO<sub>2</sub> during the combustion process and converted to sulfate compounds in the atmosphere</li> <li>• Conversion of SO<sub>2</sub> to sulfates occurs rapidly and completely in urban areas</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory symptoms</li> <li>• Decrease in ventilatory function</li> <li>• Aggravation of asthmatic symptoms</li> <li>• Increased risk of cardio-pulmonary disease</li> </ul>	Combustion of petroleum-derived fuels that contain sulfur.
Hydrogen Sulfide (H <sub>2</sub> S)	<ul style="list-style-type: none"> <li>• A colorless, flammable gas with a rotten egg odor</li> <li>• Extremely hazardous in high concentrations, especially in enclosed spaces</li> <li>• Occurs naturally in crude petroleum, natural gas, and hot springs</li> <li>• Produced by bacterial breakdown of organic materials and human and animal wastes</li> </ul>	<ul style="list-style-type: none"> <li>• Irritation of the eyes, nose, throat, and respiratory system</li> <li>• Aggravation of asthmatic symptoms</li> <li>• Headaches, fatigue, irritability, insomnia, digestive disturbances, and weight loss</li> <li>• Nausea, vomiting, staggering, and excitability</li> <li>• High concentrations can cause shock, convulsions, inability to breathe, extremely rapid unconsciousness, coma, and death</li> </ul>	Geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations.

(Continued on next page)



Vinyl Chloride (C <sub>2</sub> H <sub>3</sub> Cl, or VCM)	<ul style="list-style-type: none"> <li>A colorless gas that does not occur naturally, but is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down</li> <li>Used to make polyvinyl chloride (PVC), which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials</li> </ul>	<ul style="list-style-type: none"> <li>Central nervous system effects, such as dizziness, drowsiness, and headaches</li> <li>Liver damage</li> <li>Cancer</li> </ul>	Exhaust gases from factories that manufacture or process vinyl chloride, or evaporation from chemical waste storage areas.
<b>Sources:</b> <ul style="list-style-type: none"> <li>California Air Resources Board. California Ambient Air Quality Standards (CAAQS). Available at: <a href="http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm">http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm</a>. Accessed June 2019.</li> <li>Sacramento Metropolitan, El Dorado, Feather River, Placer, and Yolo-Solano Air Districts, Spare the Air website. Air Quality Information for the Sacramento Region. Available at: <a href="http://www.sparetheair.com/health.cfm?page=healthoverall">http://www.sparetheair.com/health.cfm?page=healthoverall</a>. Accessed June 201-.</li> <li>California Air Resources Board. Glossary of Air Pollution Terms. Available at: <a href="http://www.arb.ca.gov/html/gloss.htm">http://www.arb.ca.gov/html/gloss.htm</a>. Accessed June 2019.</li> </ul>			



Health risks from TACs are a function of both the concentration of emissions and the duration of exposure, which typically are associated with long-term exposure and the associated risk of contracting cancer. Health effects of exposure to TACs other than cancer include birth defects, neurological damage, and death. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to that for criteria air pollutants that have established AAQS. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an AAQS or emission-based threshold.

TACs related to on-road and off-road sources, as well as emissions from gasoline stations and asbestos, are discussed in further depth below.

### On-Road and Off-Road Sources

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. In terms of health risks, the most volatile contaminants from diesel engines are diesel particulate matter (DPM), benzene, formaldehyde, 1,3-butadiene, toluene, xylenes, and acetaldehyde. Gasoline vapors and exhaust from gasoline combustion also contain several TACs, including benzene, toluene, and xylenes.

During the combustion and emission of diesel gas, small carbon particles or “soot” are created and emitted along with over 40 cancer-causing substances. The small carbon soot particles become coated by and absorb many of the other 40 cancer-causing substances within the exhaust. The resulting combination of small carbon particles and chemicals is collectively referred to as DPM.<sup>8</sup> Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and NO<sub>x</sub>. Due to the published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects, the California Air Resources Board (CARB) has identified DPM from diesel-fueled engines as a TAC. Although a variety of TACs are emitted by fossil fueled combustion engines, the cancer risk due to DPM exposure represents a more significant risk than the other TACs discussed above.<sup>9</sup>

More than 90 percent of DPM is less than one micrometer in diameter, and, thus, DPM is a subset of PM<sub>2.5</sub>. As a California statewide average, DPM comprises about eight percent of PM<sub>2.5</sub> in outdoor air, although DPM levels vary regionally due to the non-uniform distribution of sources throughout the State. Most major sources of diesel emissions, such as ships, trains, and trucks, operate in and around ports, rail yards, and heavily-traveled roadways. Areas with elevated DPM concentrations are often located near highly populated areas. Thus, elevated DPM levels are mainly an urban problem, with large numbers of people exposed to higher DPM concentrations, resulting in greater health consequences compared to rural areas.

Due to the high levels of diesel activity, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Construction-related activities also have the potential to generate concentrations of DPM from on-road haul trucks and off-road equipment exhaust emissions.

<sup>8</sup> California Air Resources Board. *Summary: Diesel Particulate Matter Health Impacts*. Accessible at: <https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts>. Accessed February 2019.

California Air Resources Board and Office of Environmental Health Hazard Assessment. *Executive Summary For the “Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant”*. April 22, 1998.

<sup>9</sup> California Air Resources Board. *Reducing Toxic Air Pollutants in California’s Communities*. February 6, 2002.



The size of diesel particulates that are of the greatest health concern are fine particles (i.e., PM<sub>2.5</sub>) and ultrafine particles (UFPs), which are a subset of PM<sub>2.5</sub>. UFPs have a small diameter (on the order of 0.1 micrometers).<sup>10</sup> The small diameter of UFPs imparts the particulates with unique attributes, such as high surface areas and the ability to penetrate deeply into lungs. Once UFPs have been deposited in lungs, the small diameter allows the UFPs to be transferred to the bloodstream. The high surface area of the UFPs also allows for a greater adsorption of other chemicals, which are transported along with the UFPs into the bloodstream of the inhaler, where the chemicals can eventually reach critical organs.<sup>11</sup> The penetration capability of UFPs may contribute to adverse health effects related to heart, lung, and other organ health.<sup>12</sup> UFPs are a subset of DPM and activities that create large amounts of DPM, such as the operations involving heavy diesel-powered engines, also release UFPs. Considering that UFPs are a subset of DPM, and DPM is considered a subset of PM<sub>2.5</sub>, estimations of either concentrations or emissions of PM<sub>2.5</sub> or DPM include UFPs.

The project site is not located near high volume freeways or any land uses that involve the frequent or heavy use of diesel-powered engines.

### Gasoline Dispensing Facilities

Operation of gasoline dispensing facilities (GDFs) releases TACs into the air including benzene. Benzene is a potent carcinogen and is identified by the CARB as one of the highest risk air pollutants under CARB regulation. The majority of benzene in the environment is released through motor vehicle related activity, and GDFs represent a small portion of total benzene emissions. Nevertheless, benzene emissions and concentrations are elevated in proximity to facilities that handle large amounts of gasoline such as GDFs.

Significant progress has been made in reducing benzene emissions within the state, with statewide emissions being reduced by over 75 percent between 1990 and 2005. The majority of the reductions are attributable to motor vehicle vapor recovery equipment at gas stations and regulation of the benzene content in gasoline. In fact, vapor recovery systems can decrease emissions of benzene by more than 90 percent compared to uncontrolled facilities. Risks of benzene exposure due to GDF operations are proportional to the throughput of gasoline at GDFs, where GDFs experiencing higher gasoline throughputs emit larger amounts of benzene as compared to GDFs experiencing lower gasoline throughputs. It should be noted that health impacts related to GDF operations are distance dependent and rapidly decline as the distance from the GDF increases.

A GDF exists adjacent to the southeast corner of the project site, at the corner of the Anderson Road and Russell Boulevard intersection.

### Naturally Occurring Asbestos

Another concern related to air quality is naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity),

<sup>10</sup> South Coast Air Quality Management District. *Final 2012 Air Quality Management Plan*. December 2012.

<sup>11</sup> Health Effects Institute. *Understanding the Health Effects of Ambient Ultrafine Particles*. January 2013.

<sup>12</sup> South Coast Air Quality Management District. *Final 2012 Air Quality Management Plan*. December 2012.





and asbestosis (a non-cancerous lung disease which causes scarring of the lungs). Because asbestos is a known carcinogen, NOA is considered a TAC. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock; construction activities in ultramafic rock deposits; or rock quarrying activities where ultramafic rock is present.

According to mapping prepared by the California Geological Survey, Yolo County is not in an area likely to contain NOA.<sup>13</sup> In addition, the project site is located in a developed area of the City and currently contains existing development. For the aforementioned reasons, NOA is not expected to be present at the project site.

For a discussion of the potential presence of asbestos within the existing structures at the project site, refer to Section VIII of the Initial Study prepared for the proposed project, included as Appendix C to this EIR.

### **Attainment Status and Regional Air Quality Plans**

Areas not meeting the NAAQS presented in Table 4.1-1, above, are designated by the USEPA as nonattainment. Further classifications of nonattainment areas are based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious. The CAA requires areas violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures for states to use to attain the NAAQS. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA reviews SIPs to determine if they conform to the mandates of the federal CAA amendments and would achieve air quality goals when implemented.

The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) of 1988. The CCAA classifies ozone nonattainment areas as moderate, serious, severe, and extreme based on severity of violations of CAAQS. For each nonattainment area classification, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment areas, attainment plans are required to demonstrate a five-percent-per-year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. Air districts with air quality that is in violation of CAAQS are required to prepare an air quality attainment plan that lays out a program to attain the CCAA mandates.

Table 4.1-3 below presents the current attainment status of the jurisdictional area of the YSAQMD. As shown in the table, Yolo County is in attainment for all State and federal AAQS, with the exception of ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. At the federal level, the area is designated as severe nonattainment for the 8-hour ozone standard, nonattainment for the 24-hour PM<sub>2.5</sub> standard, unclassified/nonattainment for annual PM<sub>2.5</sub>, and attainment or unclassified for all other criteria pollutants.

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<sup>13</sup> California Department of Conservation, Division of Mines and Geology. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos*. August 2000.





**Table 4.1-3  
Attainment Status**

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – 1-Hour	Revoked in 2005	<b>Nonattainment</b>
Ozone – 8-Hour	<b>Nonattainment</b>	<b>Nonattainment</b>
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Attainment (Pending)	Attainment
PM <sub>10</sub>	Attainment	<b>Nonattainment</b>
PM <sub>2.5</sub> – 24-Hour	<b>Nonattainment</b>	No State Standard
PM <sub>2.5</sub> – Annual	<b>Unclassified/Nonattainment</b>	<b>Nonattainment</b>
Lead	Unclassified/Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified
<b>Sources:</b> <ul style="list-style-type: none"> <li>• <b>YSAQMD. Ambient Air Quality Standards. Available at: <a href="https://www.ysaqmd.org/wp-content/uploads/2016/06/Attainment_Detailed.jpg">https://www.ysaqmd.org/wp-content/uploads/2016/06/Attainment_Detailed.jpg</a>. Accessed May 2019.</b></li> <li>• <b>California Air Resources Board. Air Quality Standards and Area Designations. Available at: <a href="https://www.arb.ca.gov/desig/desig.htm">https://www.arb.ca.gov/desig/desig.htm</a>. Accessed May 2019.</b></li> </ul>		

At the State level, the area is designated as a nonattainment area for the 1-hour ozone standard, nonattainment for the 8-hour ozone standard, nonattainment for the PM<sub>10</sub> and PM<sub>2.5</sub> standards, and attainment or unclassified for all other State standards. Although the 1-Hour federal ozone standard has been revoked, on October 18, 2012, the USEPA officially determined that the Sacramento Federal Nonattainment Area (SFNA), which includes Sacramento and Yolo counties, Placer and El Dorado counties (except Lake Tahoe Basin portions), Solano County (eastern portion), and Sutter County (southern portion), attained the revoked 1-hour ozone NAAQS. The determination became effective November 19, 2012.<sup>14</sup>

Due to the nonattainment designations, the YSAQMD, along with the other air districts in the SVAB region, is required to develop plans to attain the federal and State standards for ozone and particulate matter. The air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control measures have worked, and show how air pollution would be reduced. In addition, the plans include the estimated future levels of pollution to ensure that the area would meet air quality goals. Each of the attainment plans currently in effect are discussed in further detail in the Regulatory Context discussion of this section.

### **Local Air Quality Monitoring**

Air quality is monitored by CARB at various locations to determine which air quality standards are being violated, and to direct emission reduction efforts, such as developing attainment plans and rules, incentive programs, etc. The nearest local air quality monitoring station to the project site is the Davis-UCD Campus station, located along Campbell Road between Hutchinson Drive and Garrod Road in Davis, approximately 1.3 miles from the project site. The Davis-UCD Campus station does not have data available for PM<sub>2.5</sub> and PM<sub>10</sub>; thus, the nearest station with PM<sub>2.5</sub> and PM<sub>10</sub> data was used, which was the Woodland-Gibson Road station located at 41929 Gibson Road in Woodland, approximately eight miles north of the project site. Table 4.1-4 presents the

<sup>14</sup> U.S. Environmental Protection Agency. *Air Actions in the Sacramento Metro Area*. October 3, 2012. Available at: <http://www.epa.gov/region9/air/actions/sacto/index.html>. Accessed March 2018.



number of days that each criteria air pollutant standard was exceeded and/or the annual average mean concentrations for the years 2014 through 2016 for those pollutants for which monitoring data is available from the Davis-UCD Campus and Woodland-Gibson Road monitoring stations. The USEPA uses the data (air quality monitoring data for the most recent three-year period), as well as a number of other factors, in making final determinations regarding area designations.

<b>Table 4.1-4 Air Quality Monitoring Data Summary for Project Area</b>				
<b>Pollutant</b>	<b>Standard</b>	<b>Days Standard Exceeded During:</b>		
		<b>2015</b>	<b>2016</b>	<b>2017</b>
Ozone	1-Hour State	0	0	0
	8-Hour State	1	1	1
	8-Hour Federal	1	1	1
PM <sub>10</sub> <sup>1</sup>	24 Hour State	2	2	3
	Annual Mean State	21.8	19.7	22.0
	24 Hour Federal	0	0	0
PM <sub>2.5</sub> <sup>1</sup>	Annual Mean State	7.6	6.4	8.7
	Annual Mean Federal	7.5	6.3	8.6
	24 Hour Federal	0	0	2
Nitrogen Dioxide	Annual Mean State	5	*	*
	1-Hour State	0	0	0
	1-Hour Federal	0	0	0
<sup>1</sup> Obtained from the Woodland-Gibson Road monitoring station. * Data not available.				
<b>Source: California Air Resources Board. Aerometric Data Analysis and Management (ADAM): Top Four Summary. Available at: <a href="http://www.arb.ca.gov/adam/topfour/topfour1.php">http://www.arb.ca.gov/adam/topfour/topfour1.php</a>. Accessed May 2019.</b>				

### **Existing Criteria Air Pollutant Emissions Associated with the Project Site**

Operation of the existing University Mall within the project site currently results in emissions of criteria pollutants. As discussed in further detail in the Method of Analysis section below, existing emissions associated with the current operation of the University Mall have been estimated. The estimated existing criteria pollutant emissions levels are presented in Table 4.1-5 in tons per year (tons/yr). As shown in Table 4.1-5, the majority of criteria pollutant emissions related to existing operations of the University Mall are associated with mobile emission sources.

<b>Table 4.1-5 Existing University Mall Emissions (tons/yr)</b>			
<b>Emission Source</b>	<b>Existing University Mall Annual GHG Emissions</b>		
	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>
Area	0.38	0.00	0.00
Energy	0.00	0.01	0.00
Mobile	1.61	11.53	6.32
<b>Total Emissions</b>	<b>1.99</b>	<b>11.54</b>	<b>6.32</b>
<b>Source: CalEEMod, June 2019 (see Appendix F).</b>			



### **Sensitive Receptors**

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. Residential developments exist to the north, east, and west of the project site as well as to the south, across Russell Boulevard. Additionally, the Davis Parent Nursery School is located 0.4-mile northeast of the project site. For analysis purposes the aforementioned residences and elementary school would be considered sensitive receptors, with the residences to the north being the closest receptors, approximately 100 feet from the project site.

### **4.1.3 REGULATORY CONTEXT**

Air quality is monitored and regulated through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and individually to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for regulating and improving the air quality within the project area are discussed below.

#### **Federal Regulations**

The most prominent federal regulation is the FCAA, which is implemented and enforced by the USEPA.

#### **FCAA and USEPA**

The FCAA requires the USEPA to set NAAQS and designate areas with air quality not meeting NAAQS as nonattainment. The USEPA is responsible for enforcement of NAAQS for atmospheric pollutants and regulates emission sources that are under the exclusive authority of the federal government including emissions of greenhouse gases (GHGs). The USEPA's air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990. The USEPA has adopted policies consistent with FCAA requirements demanding states to prepare SIPs that demonstrate attainment and maintenance of the NAAQS.

#### **State Regulations**

California has adopted a variety of regulations aimed at reducing air pollution emissions. Only the most prominent and applicable California air quality-related legislation is included below; however, an exhaustive list and extensive details of California air quality legislation can be found at the CARB website (<http://www.arb.ca.gov/html/lawsregs.htm>).

#### **CCAA and CARB**

The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the CCAA. The CCAA requires that air quality plans be prepared for areas of the State that have not met the CAAQS for ozone, CO, NO<sub>x</sub>, and SO<sub>2</sub>. Among other requirements of the CCAA, the plans must include a wide range of implementable control measures, which often include transportation control measures and performance standards. In order to implement the transportation-related provisions of the CCAA, local air pollution control districts have been granted explicit authority to adopt and implement transportation controls. The CARB, California's air quality management agency, regulates and oversees the activities of county air pollution control districts and regional air quality management



districts. The CARB regulates local air quality indirectly using State standards and vehicle emission standards, by conducting research activities, and through planning and coordinating activities. In addition, the CARB has primary responsibility in California to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the USEPA. Furthermore, the CARB is charged with developing rules and regulations to cap and reduce GHG emissions.

### Air Quality and Land Use Handbook

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Handbook) addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, in the vicinity of intensive air pollutant emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities.<sup>15</sup> The CARB Handbook draws upon studies evaluating the health effects of traffic traveling on major interstate highways in metropolitan California centers within Los Angeles (I-405 and I-710), the San Francisco Bay, and San Diego areas. The recommendations identified by CARB, including siting residential uses a minimum distance of 500 feet from freeways or other high-traffic roadways, are consistent with those adopted by the State of California for location of new schools. Specifically, the CARB Handbook recommends, "Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day" (CARB 2005).

Importantly, the Introduction chapter of the CARB Handbook clarifies that the guidelines are strictly advisory, recognizing that: "[I]and use decisions are a local government responsibility. The Air Resources Board Handbook is advisory and these recommendations do not establish regulatory standards of any kind." CARB recognizes that there may be land use objectives as well as meteorological and other site-specific conditions that need to be considered by a governmental jurisdiction relative to the general recommended setbacks, specifically stating, "[t]hese recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues" (CARB 2005).

### **Assembly Bill 1807**

Assembly Bill (AB) 1807, enacted in September 1983, sets forth a procedure for the identification and control of TACs in California. CARB is responsible for the identification and control of TACs, except pesticide use, which is regulated by the California Department of Pesticide Regulation.

### **AB 2588**

The Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588), California Health and Safety Code Section 44300 et seq., provides for the regulation of over 200 TACs, including DPM, and is the primary air contaminant legislation in California. Under the act, local air districts may request that a facility account for its TAC emissions. Local air districts then prioritize facilities on the basis of emissions, and high priority designated facilities are required to submit a health risk assessment and communicate the results to the affected public.

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<sup>15</sup> California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.



## **Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations**

In 2002, the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (Title 17, Section 93105, of the California Code of Regulations) went into effect, which requires each air pollution control and air quality management district to implement and enforce the requirements of Section 93105 and propose their own asbestos ATCM as provided in Health and Safety Code section 39666(d).<sup>16</sup>

## **Senate Bill 656**

In 2003, the Legislature passed Senate Bill (SB) 656 to reduce public exposure to PM<sub>10</sub> and PM<sub>2.5</sub> above the State CAAQS. The legislation requires the CARB, in consultation with local air pollution control and air quality management districts, to adopt a list of the most readily available, feasible, and cost-effective control measures that could be implemented by air districts to reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The CARB list is based on California rules and regulations existing as of January 1, 2004, and was adopted by CARB in November 2004. Categories addressed by SB 656 include measures for reduction of emissions associated with residential wood combustion and outdoor greenwaste burning, fugitive dust sources such as paved and unpaved roads and construction, combustion sources such as boilers, heaters, and charbroiling, solvents and coatings, and product manufacturing. Some of the measures include, but are not limited to, the following:

- Reduce or eliminate wood-burning devices allowed;
- Prohibit residential open burning;
- Permit and provide performance standards for controlled burns;
- Require water or chemical stabilizers/dust suppressants during grading activities;
- Limit visible dust emissions beyond the project boundary during construction;
- Require paving/curbing of roadway shoulder areas; and
- Require street sweeping.

Under SB 656, each air district is required to prioritize the measures identified by CARB, based on the cost effectiveness of the measures and their effect on public health, air quality, and emission reductions. On July 13, 2005, the YSAQMD adopted an implementation schedule for SB 656.

## **Heavy-Duty Vehicle Idling Emission Reduction Program**

On October 20, 2005, CARB approved a regulatory measure to reduce emissions of toxics and criteria pollutants by limiting idling of new and in-use sleeper berth equipped diesel trucks.<sup>17</sup> The regulation consists of new engine and in-use truck requirements and emission performance requirements for technologies used as alternatives to idling the truck's main engine. For example, the regulation requires 2008 and newer model year heavy-duty diesel engines to be equipped with a non-programmable engine shutdown system that automatically shuts down the engine after five minutes of idling, or optionally meet a stringent NO<sub>x</sub> emission standard. The regulation also requires operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engine when idling more than five minutes at any location within California beginning in

<sup>16</sup> California Air Resources Board. *2002-07-29 Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations*. June 3, 2015. Available at: <http://www.arb.ca.gov/toxics/atcm/asb2atcm.htm>. Accessed July 2019.

<sup>17</sup> California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. October 24, 2013. Available at: <http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm>. Accessed May 2019.





2008. Emission producing alternative technologies such as diesel-fueled auxiliary power systems and fuel-fired heaters are also required to meet emission performance requirements that ensure emissions are not exceeding the emissions of a truck engine operating at idle.

### **In-Use Off-Road Diesel Vehicle Regulation**

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO<sub>x</sub> emissions from in-use (existing), off-road, heavy-duty diesel vehicles in California.<sup>18</sup> Off-road, heavy-duty diesel vehicles are used in construction, mining, and industrial operations. The regulation is designed to reduce harmful emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The idling limits require operators of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to less than five minutes. The idling requirements are specified in Title 13 of the California Code of Regulations.

### **Local**

The most prominent local regulations related to air quality are established by the YSAQMD and the City of Davis General Plan.

### **YSAQMD**

Various local, regional, State and federal agencies share the responsibility for air quality management in Yolo County. The YSAQMD operates at the local level with primary responsibility for attaining and maintaining the federal and State AAQS in Yolo County. The YSAQMD is tasked with implementing programs and regulations required by the FCAA and the CCAA, including preparing plans to attain federal and State AAQS. The YSAQMD works jointly with the USEPA, CARB, Sacramento Area Council of Governments (SACOG), other air districts in the region, county and city transportation and planning departments, and various non-governmental organizations to improve air quality through a variety of programs. Programs include the adoption of regulations, policies and guidance, extensive education and public outreach programs, as well as emission reducing incentive programs.

Nearly all development projects in the region have the potential to generate air pollutants that may increase the difficulty of attaining federal and State AAQS. Therefore, for most projects, evaluation of air quality impacts is required to comply with CEQA. In order to help public agencies evaluate air quality impacts, the YSAQMD has developed the *Handbook for Assessing and Mitigating Air Quality Impacts*.<sup>19</sup> The YSAQMD's handbook includes screening methodology and recommended thresholds of significance, including mass emission thresholds for construction-related and operational ozone precursors (ROG and NO<sub>x</sub>) and PM<sub>10</sub>. The YSAQMD's handbook also includes screening criteria for localized CO emissions and thresholds for new stationary sources of TACs. The YSAQMD's recommended thresholds of significance, as well as screening criteria and methodology, are discussed in further detail in the Standards of Significance section below.

<sup>18</sup> California Air Resources Board. *In-Use Off-Road Diesel Vehicle Regulation*. December 10, 2014. Available at: <http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>. Accessed May 2019.

<sup>19</sup> Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts*. July 11, 2007.



### YSAQMD Rules and Regulations

All projects under the jurisdiction of the YSAQMD are required to comply with all applicable YSAQMD rules and regulations. In addition, YSAQMD permit requirements apply to most industrial processes (e.g., manufacturing facilities, food processing), many commercial activities (e.g., print shops, drycleaners, gasoline stations), and other miscellaneous activities (e.g., demolition of buildings containing asbestos and aeration of contaminated soils). The YSAQMD regulations and rules include, but are not limited to, the following:

#### *Regulation II – Prohibition, Exceptions - Requirements*

Regulation II is comprised of prohibitory rules that are written to achieve emission reductions from specific source categories. The rules are applicable to existing sources as well as new sources. Examples of prohibitory rules include Rule 2.1 (Control of Emissions), Rule 2.28 (Cutback and Emulsified Asphalts), Rule 2.5 (Nuisance), Rule 2.11 (Particulate Matter Concentration), Rule 2.14 (Architectural Coatings), and Rule 2.40 (Wood Burning Appliances).

### Air Quality Attainment Plans

Each of the attainment plans currently in effect for the SVAB are discussed in further detail below.

#### *2013 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan*

The most recent attainment plan for the ozone NAAQS is the *2013 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (2013 Ozone Attainment Plan),<sup>20</sup> which demonstrates how existing and new control strategies would provide the necessary future emission reductions to meet the federal NAAQS. The SVAB's attainment deadline is 2027. Because the project site is located within the nonattainment area for ozone, the project would be subject to the requirements set forth in the 2013 Ozone Attainment Plan, as enforced by YSAQMD through rules and regulations.

#### *PM<sub>2.5</sub> Implementation/Maintenance Plan and Re-designation Request for Sacramento PM<sub>2.5</sub> Nonattainment Area*

The Sacramento federal PM<sub>2.5</sub> Nonattainment Area attained the federal PM<sub>2.5</sub> health standards on December 31, 2011. The *PM<sub>2.5</sub> Implementation/Maintenance Plan and Re-designation Request for Sacramento PM<sub>2.5</sub> Nonattainment Area* (PM<sub>2.5</sub> Implementation/Maintenance Plan)<sup>21</sup> was prepared to show that the region has met the requirements and requests that the USEPA re-designate the area to attainment. The USEPA issued a final rule for Determination of Attainment for the Sacramento Nonattainment Area effective August 14, 2013. The PM<sub>2.5</sub> Implementation/Maintenance Plan would be adopted by the air districts within the nonattainment area, as well as the CARB, as a revision to the SIP. Contents of the PM<sub>2.5</sub> Implementation/Maintenance Plan include demonstration that the NAAQS was met and that all requirements have been met for a re-designation to attainment, specification of actions to be taken if the standards are violated in the future, and establishment of regional motor vehicle emission budgets.

<sup>20</sup> Sacramento Metropolitan Air Quality Management District. *2013 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan*. September 26, 2013.

<sup>21</sup> Sacramento Metropolitan Air Quality Management District. *PM<sub>2.5</sub> Implementation/Maintenance Plan and Re-designation Request for Sacramento PM<sub>2.5</sub> Nonattainment Area*. October 24, 2013.





Because the project site is located within the nonattainment area for PM<sub>2.5</sub>, the proposed project would be subject to the requirements set forth in the PM<sub>2.5</sub> Implementation/Maintenance Plan, as enforced by YSAQMD through rules and regulations.

### *2016 Triennial Assessment and Plan Update*

In addition to the federal attainment plans discussed above for meeting NAAQS, the CCAA requires air districts to endeavor to achieve and maintain the CAAQS and develop plans for attainment. Yolo County meets the CAAQS for sulfur dioxide, nitrogen dioxide, and carbon monoxide, but is designated nonattainment for the State ozone and particulate matter standards. The CCAA requires districts that do not meet the State ozone standard to adopt an Air Quality Attainment Plan and to submit progress reports to the CARB every three years.<sup>22</sup> In July 2016, the YSAQMD adopted the 2016 Triennial Assessment and Plan Update.<sup>23</sup> The 2016 Triennial Assessment and Plan Update analyzes and summarizes data from the years 2012 through 2014, while also forecasting future emissions and reviewing efforts made by YSAQMD to improve air quality.

The YSAQMD is not required to prepare an attainment plan for PM<sub>10</sub> or PM<sub>2.5</sub>; however, the YSAQMD continues to work to reduce particulate emissions through rules affecting stationary sources, the construction industry, and the YSAQMD's agricultural burning program. The YSAQMD also works with the CARB to identify measures that can, where possible, reduce both ozone and particulate emissions. The YSAQMD has been proactive in attempts to implement the most readily available, feasible, and cost-effective measures that can be employed to reduce emissions of PM.

Because the proposed project site is located within the nonattainment area for State ozone and PM standards, the project would be subject to any requirements set forth in the 2016 Triennial Assessment and Plan Update or YSAQMD efforts related to PM emissions, as enforced by YSAQMD through rules and regulations.

### **City of Davis General Plan**

The following applicable goals and policies related to air quality are from the Air Quality chapter of the City's General Plan:

Goal AIR 1. Maintain and strive to improve air quality.

Policy AIR 1.1 Take appropriate measures to meet the AQMD's goal for improved air quality.

In addition, the Transportation Element of the City's General Plan includes the following applicable goals, performance objectives, and policies related to air quality emissions.

Goal #2 The Davis transportation system will evolve to improve air quality, reduce carbon emissions, and improve public health by encouraging usage of clean, energy-efficient, active (i.e. human powered), and economically sustainable means of travel.

<sup>22</sup> Yolo-Solano Air Quality Management District. *Planning for Ozone Standards*. Available at: <https://www.ysaqmd.org/plans-data/ozone/>. Accessed May 2018.

<sup>23</sup> Yolo-Solano Air Quality Management District. *Triennial Assessment and Plan Update*. March 11, 2016.



Performance Objective #2.2 Reduce vehicle miles traveled (VMT) 39 percent by 2035.

- |                  |  |
|------------------|--|
| Policy TRANS 1.6 | Reduce carbon emissions from the transportation system in Davis by encouraging the use of non-motorized and low carbon transportation modes. |
| Policy TRANS 1.7 | Promote the use of electric vehicles and other low-polluting vehicles, including Neighborhood Electric Vehicles (NEV).                       |
| Policy TRANS 1.8 | Develop and maintain a work trip-reduction program designed to reduce carbon emissions, criteria pollutants, and local traffic congestion.   |
| Policy TRANS 3.3 | Require new development to be designed to maximize transit potential.  |
| Policy TRANS 4.4 | Provide pedestrian and bicycle amenities.  |
| Policy TRANS 4.5 | Establish and implement bicycle parking standards for new developments and significant redevelopment.  |

#### City of Davis Municipal Code

Section 8.01.090 of the Municipal Code requires mandatory compliance with Tier 1 standards of the CALGreen Code, which would otherwise be voluntary under the California Building Standards Code (CBSC). Furthermore, Section 8.01.060 of the Davis Municipal Code was recently updated by Ordinance Number 2554. Section 8.01.060 now includes updated requirements related to energy efficient water heating systems, electric vehicle charging infrastructure, and on-site photovoltaic systems in high-rise residential developments. In particular, Section 8.01.060 now requires that new non-residential and high-rise multi-family structures include photovoltaic systems sized to provide the lesser of approximately 80 percent offset of the building's modelled annual electric load or 15 direct current watts per square foot of solar zone.

#### **4.1.4 IMPACTS AND MITIGATION MEASURES**

The standards of significance and methodology used to analyze and determine the proposed project's potential project-specific impacts related to air quality are described below. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

##### Standards of Significance

Based on the recommendations of YSAQMD and in coordination with the City, consistent with Appendix G of the CEQA Guidelines, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality



standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

- Expose sensitive receptors to substantial pollutant concentrations (including localized CO concentrations and TAC emissions); or
- Result in other emissions (such as those leading to odors) affecting a substantial number of people.

### Issues Not Discussed Further

The Initial Study prepared for the proposed project (see Appendix C) determined that development of the proposed project would result in a less-than-significant impact with mitigation incorporated related to the following:

- Create objectionable odors affecting a substantial number of people;

For the reasons cited in the Initial Study, the potential impacts associated with odors are not analyzed further in this EIR.

### Criteria Pollutant Emissions and TAC Emissions

In order to evaluate air pollutant emissions from development projects, the YSAQMD established significance thresholds for emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub>. Table 4.1-6 below presents the YSAQMD's recommended thresholds of significance, which are expressed in tons/yr for ROG and NO<sub>x</sub> and pounds per day (lbs/day) for PM<sub>10</sub>. If the proposed project's emissions exceed the pollutant thresholds presented in Table 4.1-6, the project could have a significant effect on air quality, the attainment of federal and State AAQS, and could conflict with or obstruct implementation of the applicable air quality plan.

<b>Table 4.1-6 YSAQMD Thresholds of Significance</b>		
<b>Pollutant</b>	<b>Construction Threshold</b>	<b>Operational/Cumulative Threshold</b>
ROG	10 tons/yr	10 tons/yr
NO <sub>x</sub>	10 tons/yr	10 tons/yr
PM <sub>10</sub>	80 lbs/day	80 lbs/day
<i>Source: YSAQMD. Handbook for Assessing and Mitigating Air Quality Impacts. July 11, 2007.</i>		

In addition to the thresholds of significance presented above for criteria air pollutants, YSAQMD has also developed thresholds for potential exposure of the public to TACs from new stationary sources. Exposure of the public to TACs from new stationary sources in excess of the following thresholds would be considered a significant impact:

- Probability of contracting cancer for the Maximally Exposed Individual (MEI) equals to 10 in one million or more; and
- Ground-level concentrations of non-carcinogenic TACs would result in a Hazard Index equal to 1 for the MEI or greater.

The nearby Sacramento Metropolitan Air Quality Management District (SMAQMD) and Bay Area Air Quality Management District (BAAQMD) also recommend the industry standard thresholds of an increased cancer risk of 10 in one million and a Hazard Index greater than 1 for project-level TAC impacts from stationary sources. Although the YSAQMD has established thresholds for exposure to TACs from new stationary sources, a threshold for exposure of the public to mobile



TAC emissions does not currently exist. In the absence of a specified threshold for assessing impacts of mobile sources of TACs on a sensitive land use, the industry standard is to use the stationary source threshold of an increase in cancer risk of 10 in one million and a Hazard Index greater than 1, which is the standard that has been used throughout the State for similar health risk analyses. Off-road construction equipment used during project-related construction activities would be considered a potential mobile source of TAC emissions. Accordingly, the City, as lead agency, has selected to use the YSAQMD's stationary source TAC emissions thresholds listed above for the purposes of determining cancer risk of exposing sensitive receptors to construction-related mobile source TAC emissions.

In addition to a project-level TAC emissions analysis, cumulative cancer risks are analyzed in this EIR as well. The YSAQMD does not maintain a cumulative threshold that is applicable to cumulative TAC emissions. However, the nearby BAAQMD has an established cumulative threshold of significance for TAC emissions of an excess cancer risk level of more than 100 persons in one million or a Hazard Index greater than 10.0.<sup>24</sup> In the recent court case *Mission Bay Alliance et al. v. Office of Community Investment and Infrastructure et al., GSW Arena LLC et al.*, the Superior Court of the City and County of San Francisco upheld the validity of the use of the 100 in one million threshold for use in cumulative analyses of TACs.<sup>25</sup> Thus, the City, as lead agency, has selected BAAQMD's cumulative cancer risk standard for use in the analysis of the cumulative TAC emissions, associated with project-related TAC emissions in combination with existing cumulative TAC emissions, on nearby sensitive receptors.

The CARB Handbook provides recommendations for siting new sensitive land uses near existing sources typically associated with significant levels of TAC emissions. However, the California Supreme Court decision in the case of *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369 clarified that CEQA does not require lead agencies to analyze the impact of existing environmental conditions on a project's future users or residents unless the project will exacerbate the existing environmental hazards or conditions. This limits the CEQA analysis of impacts from existing sources that emit odors and TACs on new receptors from a proposed development project, unless the situation is specifically required to be analyzed by statute (such as a school). While existing sources that emit odors and TACs may not be considered a CEQA impact, local jurisdictions have the authority to protect the public health, safety, and welfare of their communities through their police powers.<sup>26</sup> While not required pursuant to CEQA, in order to address potential public health impacts, a discussion of the nearby gas station has been included in Impact 4.1-3 and Impact 4.1-5 for informational purposes.

The YSAQMD recommends the use of screening thresholds to assess a project's potential to create an impact through the creation of CO hotspots. A violation of the CO standard could occur if either of the following criteria is true of any street or intersection affected by the mitigated project:<sup>27</sup>

<sup>24</sup> Bay Area Air Quality Management District. *California Environmental Quality Act: Air Quality Guidelines*. June 2010.

<sup>25</sup> City and County of San Francisco Superior Court. *Mission Bay Alliance et al. v. Office of Community Investment and Infrastructure et al., GSW Arena LLC et al.* Filed November 29, 2016.

<sup>26</sup> California Constitution, Article XI, Section 7. Available at: [http://leginfo.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=CONS&sectionNum=SEC.%207.&article=XI](http://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=CONS&sectionNum=SEC.%207.&article=XI). Accessed May 2018.

<sup>27</sup> Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts* [p. 21]. July 11, 2007.



- The project would reduce peak-hour level of service (LOS) on one or more streets or at one or more intersections to an unacceptable LOS (typically LOS E or F); or
- The project would increase a traffic delay by 10 or more seconds on one or more streets or at one or more intersections in the project vicinity where a peak hour LOS of F currently exists.

If either or both of the above criteria are met by the mitigated project, YSAQMD recommends performing a full CO Protocol Analysis. If the results of the CO Protocol Analysis indicate a potential impact related to CO could occur, such as in instances where a project would worsen operations at a signalized intersection operating at LOS E or LOS F, YSAQMD directs Lead Agencies to perform CO dispersion modeling analysis using a modeling program such as CALINE-4. The CALINE-4 dispersion model can estimate local CO concentrations at intersections based on traffic estimates and lane configurations. Once the CO concentrations at affected intersections are estimated, the CO concentration must then be compared to the one hour and eight hour AAQS for CO. If the local CO concentration estimated using CALINE-4 exceeds either the one or eight hour AAQS for the affected intersection, then a significant impact would result; however, if the localized CO concentrations are shown to be below the applicable AAQS, the project would not result in an impact related to localized CO concentrations.

### **GHG Emissions and Other Cumulative Emissions**

The project's impacts related to GHG emissions, global climate change, and energy are addressed in Section 4.2, Greenhouse Gas Emissions and Energy, of this EIR.

### **Method of Analysis**

The analysis protocol and guidance provided by the YSAQMD's *Handbook for Assessing and Mitigating Air Quality Impacts* was used to analyze the proposed project's air quality impacts, including screening criteria and pollutant thresholds of significance. Details regarding the methodology and assumptions used for the proposed project's air quality impact analysis are provided below.

### **Construction Emissions**

The proposed project's short-term construction emissions were estimated using the CalEEMod version 2016.3.2 software, which is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the ITE Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data was available, such data was input into the model.

The proposed project is expected to be built in one phase over 27 months. Based on project information, the following assumptions were made for the construction modeling for the proposed project:

- Demolition would involve removal of approximately 90,563 sf of material from the project site, which would include debris from the demolition of existing structures within the project site;
- Approximately 3,000 cubic yards of material may be exported during site preparation;





- Approximately 1,500 cubic yards of material may be imported and an additional 3,000 cubic yards may be exported during site grading; and
- A total of approximately eight acres would be disturbed during the grading phase.

The results of emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All CalEEMod modeling results are included in Appendix F to this EIR.

### Construction-Related DPM Emissions

Because the project site is in proximity to existing residential receptors, the City has conducted a health risk assessment to determine if construction activity related to implementation of the proposed project could result in health risks to the nearby existing receptors.

As discussed in the Existing Environmental Setting section above, fossil fueled combustion engines, including those used in some pieces of construction equipment release various TACs, including DPM, benzene, formaldehyde, 1,3-butadiene, toluene, xylenes, and acetaldehyde. Although a variety of TACs are emitted by fossil fueled combustion engines, the cancer risk due to DPM exposure represents a more significant risk than the other TACs discussed above.<sup>28</sup> Therefore, the potential health effects resulting from construction activities related to implementation of the proposed project were estimated based on emissions of the TAC with the most significant health risk, DPM, which includes UFPs and is considered a subset of PM<sub>2.5</sub>.

The PM<sub>2.5</sub> (assumed to encompass both DPM and UFP) concentration associated with short-term construction activities resulting from implementation of the proposed project under the aforementioned construction assumptions, at the maximally exposed sensitive receptor nearest to the site, has been estimated using the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD) dispersion model. The associated cancer risk and non-cancer hazard index were calculated using the CARB's Hotspot Analysis Reporting Program Version 2 (HARP 2) Risk Assessment Standalone Tool (RAST), which calculates the cancer and non-cancer health impacts using the risk assessment guidelines of the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments.<sup>29</sup> The modeling was performed in accordance with the USEPA's User's Guide for the AMS/EPA Regulatory Model – AERMOD<sup>30</sup> and the 2015 OEHHA Guidance Manual.

The CalEEMod results for average annual unmitigated construction exhaust PM<sub>2.5</sub> emissions from the proposed project were used to calculate the emission rate applied in AERMOD. Construction activities were assumed to occur seven days per week and restricted to the hours between 7:00 AM and 7:00 PM Monday through Friday and between the hours of 8:00 AM and 8:00 PM Saturdays and Sundays per Chapter 24 of the City's Municipal Code, Noise Regulations. The construction exhaust emissions were modeled in AERMOD as a series of volume sources located throughout the site where improvements are proposed. A receptor grid using flagpole receptors was applied to AERMOD at the surrounding sensitive receptor locations (i.e., residences to the north, east, and west, as well as the residences south across Russell Boulevard). The AERMOD

<sup>28</sup> California Air Resources Board. *Reducing Toxic Air Pollutants in California's Communities*. February 06, 2002.

<sup>29</sup> Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments* [pg. 8-18]. February 2015.

<sup>30</sup> U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.



analysis relied on data from the meteorological station at the Sacramento International Airport, approximately 12 miles northeast of the project site.

The maximum annual average and maximum one-hour average concentrations from AERMOD were applied to HARP 2 RAST to calculate the cancer risk and non-cancer hazard index, respectively, to the maximally exposed resident in the area surrounding the project site (based on the AERMOD outputs, the maximally exposed resident would be located to the west of the site, across Sycamore Lane). The 2015 OEHHA Guidance Manual recommends that the exposure period for short-term activities involving TAC emissions (i.e., construction activities) lasting more than six months be evaluated for the duration of the project. Construction activities related to the proposed project are assumed to occur over 27 months. Considering OEHHA's guidance for exposure periods resulting from short-term activities involving TAC emissions, the exposure period within HARP 2 RAST was set to 2.25 years, with exposure conservatively assumed to occur for 365 days per year. The 2015 OEHHA Guidance Manual recommends that the fraction of time spent at home be used for a residential receptor based on the assumption that exposure at nearby residences is not occurring away from home. However, in addition to residences near the proposed project site, schools and daycares exist within one-mile of the project site. Therefore, the possibility exists that school children residing in nearby residences could attend school in proximity to the project site, which would result in exposure to pollutants from construction both at the nearby residences and at the nearby school. Considering the proximity of the project site to the aforementioned uses, the HARP 2 RAST modeling was adjusted to conservatively assume that school children would be exposed to construction related emissions during the entire 12-hour per day work period. The 12-hour work period is assumed based on compliance with Chapter 24 of the City's Municipal Code, Noise Regulations.

The resultant cancer and non-cancer health risks associated with construction-related DPM emissions were compared to the standards of significance discussed above in order to determine the associated level of impact. The AERMOD and HARP 2 RAST modeling results are included in Appendix E to this EIR.

### **Operational Emissions**

Operations of the existing University Mall development within the project site currently involve emissions of criteria pollutants. In the absence of the proposed project, existing operations of the University Mall would be anticipated to continue, which would continue to result in emissions of criteria pollutants. As discussed throughout this EIR, the proposed project would involve replacement of the existing commercial development with commercial and residential uses. Considering that the existing operations of the University Mall involve criteria air pollutant emissions, and the emissions would continue in the absence of the proposed project, the analysis of operational emissions presented in this chapter focuses on the net change in emissions that would occur when emissions resulting from existing operations are compared to emissions estimated for operation of the proposed project.

#### **Existing University Mall Development**

Operational emissions of criteria pollutants related to the existing University Mall development were estimated using CalEEMod. To provide a direct comparison of emissions against that of the proposed project, operational emissions of the existing University Mall were modeled assuming an operational year of 2024, which is the same operational year as assumed for the proposed project. Considering the age of the existing structure, the energy use assumptions within CalEEMod were adjusted to reflect historical energy use assumptions. Although the existing





structures were built as early as 1966, CalEEMod does not include energy use data for buildings constructed before 2005. Buildings constructed prior to 2005, such as the existing University Mall structures, consume more energy than those built in 2005; consequently, emissions related to energy consumption of the existing University Mall structures likely represent an underestimate.

In addition to adjusting the energy use assumptions, emissions modeling of the existing University Mall development was adjusted to reflect the trip generation and vehicle miles travelled (VMT) resulting from existing operations. The trip generation and VMT were determined by Fehr and Peers through driveway counts and mode split observations, and adjustments were applied based on the existing level of occupancy at the project site.

### Proposed Project

The proposed project's operational emissions of criteria pollutants were estimated using CalEEMod. Based on the construction information provided by the project applicant, the proposed project is anticipated to be fully operational by 2024. The modeling performed for the proposed project included compliance with YSAQMD rules and regulations (i.e., low-VOC cleaning supplies). As further discussed in Chapter 4.2, Greenhouse Gas Emissions and Energy, of this EIR, adjustments to the model were applied to reflect the City's requirements that new high-rise residential structures include the installation of on-site photovoltaic energy systems.

The project-specific trip generation and VMT data provided by Fehr and Peers for full buildout of the proposed project was applied to the project modeling.<sup>31</sup>

The results of emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All CalEEMod modeling results are included in Appendix F to this EIR.

### Localized CO Emissions

Concentrations of CO were estimated using the California Department of Transportation (Caltrans) CALINE4, version 2.1, modeling software for intersections that could cause a potential CO hotspot per YSAQMD screening criteria. The CALINE4 model is a dispersion model for predicting air pollutant concentrations near roadways.<sup>32</sup> The YSAQMD's preliminary screening methodology for localized CO emissions provides a conservative indication of whether project-generated vehicle trips would result in the generation of CO emissions that would contribute to an exceedance of AAQS. Per the YSAQMD screening methodology, if either of the following occurs associated with any intersection affected by a project, then that project has the potential to result in localized CO emissions that could violate CO standards:

- A traffic study for the project indicates that the peak-hour LOS on one or more streets or at one or more intersections in the project vicinity will be reduced to an unacceptable LOS (typically LOS E or F); or
- A traffic study indicates that the project will substantially worsen an already existing peak-hour LOS F on one or more streets or at one or more intersections in the project vicinity. "Substantially worsen" includes situations where delay would increase by 10 seconds or more when project-generated traffic is included.

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<sup>31</sup> Fehr & Peers. *University Commons, Transportation Impact Study*. July 2019.

<sup>32</sup> California Department of Transportation. *User's Guide for CL4: A User-Friendly Interface for the CALINE4 Model for Transportation Project Impact Assessments*. June 1998.



The analysis within Section 4.6, Transportation and Circulation, of this EIR was used in comparison to the screening criteria above in order to determine which intersections, if any, would be degraded by the proposed project and could generate CO emissions that would contribute to an exceedance of the applicable AAQS. The only intersection that would exceed the YSAQMD's screening thresholds would be the intersection of Russell Boulevard, Anderson Road, and La Rue Road under the Cumulative Plus Project condition. Thus, all other intersections that would be potentially affected by the proposed project would not be expected to experience CO concentrations in excess of the CO concentrations estimated for the intersection of Russell Boulevard, Anderson Road, and La Rue Road. The nearest sensitive receptors to the intersection are the UC Davis dormitories, located to the southeast of the intersection. The results of the model were compared to the threshold established by the YSAQMD, which refers to the CAAQS for CO.

### **Project-Specific Impacts and Mitigation Measures**

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above.

#### **4.1-1 Conflict with or obstruct implementation of the applicable air quality plan during project construction. Based on the analysis below, the impact is *less than significant*.**

During construction of the project, various types of equipment and vehicles would temporarily operate on the project site. Construction-related emissions would be generated from demolition activity, construction equipment, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes PM emissions. As construction of the proposed project would generate emissions of criteria air pollutants, including ROG, NO<sub>x</sub>, and PM<sub>10</sub>, intermittently within the site and in the vicinity of the site, until all construction has been completed, construction is a potential concern, as the proposed project is located in a nonattainment area for ozone and PM.

The maximum unmitigated construction emissions have been estimated using CalEEMod for the proposed project. The construction modeling assumptions are described in the Method of Analysis section above. The estimated construction-related emissions for the proposed project are presented in Table 4.1-7.

<b>Table 4.1-7 Maximum Unmitigated Project Construction-Related Emissions</b>			
	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>
Project Emissions	2.25 tons/yr	5.17 tons/yr	20.51 lbs/day
YSAQMD Significance Threshold	10 tons/yr	10 tons/yr	80 lbs/day
<b>Exceeds Threshold?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>Source: CalEEMod, June 2019 (see Appendix F).</b>			

As shown in the table, the project's associated short-term construction-related emissions would be below the applicable YSAQMD thresholds of significance.



Therefore, the construction-related emissions resulting from implementation of the proposed project would not result in a contribution to the region's nonattainment status of ozone or PM and would not violate an air quality standard or contribute substantially to an existing or projected air quality violation.

All projects within the YSAQMD, including the proposed project, are required to comply with all YSAQMD rules and regulations for construction, including Rule 2.1 (Control of Emissions), Rule 2.28 (Cutback and Emulsified Asphalts), Rule 2.5 (Nuisance), Rule 2.14 (Architectural Coatings), and Rule 2.11 (Particulate Matter Concentration). The aforementioned rules and regulations are not readily applicable in CalEEMod and are, therefore, not included in the project-specific modeling. Because compliance with the rules and regulations would likely result in some additional reduction in emissions, the proposed project construction emissions would likely be slightly reduced from what is presented in Table 4.1-7 through compliance with the rules and regulations. In addition, YSAQMD encourages all projects to implement best management practices to reduce dust emissions and avoid localized health impacts. The YSAQMD's best management practices for dust could include, but are not necessarily limited to, the following:

- Watering of all active construction sites at least twice daily;
- Maintenance of at least two feet of freeboard in haul trucks;
- Covering of all trucks hauling dirt, sand, or loose materials;
- Application of non-toxic binders to exposed areas after cut and fill operations and hydroseeding of area, as applicable and/or necessary;
- Application of chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days), as applicable and/or necessary;
- Planting of vegetative ground cover in disturbed areas as soon as possible;
- Covering of inactive storage piles;
- Sweeping of streets if visible soil material is carried out from the construction site; and
- Treatment of accesses to distance of 100 feet from the paved road with a six-to 12-inch layer of wood chips, mulch, or gravel.

Compliance with the aforementioned rules and regulations related to construction, as well as implementation of best management practices for dust, would help to minimize emissions generated during construction activities.

### Conclusion

Because implementation of the proposed project would result in construction-related emissions below the applicable thresholds of significance and would comply with applicable YSAQMD rules, regulations, and best management practices for dust, construction activities associated with development of the proposed project would result in a ***less-than-significant*** impact to air quality.

### Mitigation Measure(s)

*None required.*



**4.1-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation. Based on the analysis below, the impact is *less than significant*.**

As discussed above, due to the nonattainment designations of the area, the YSAQMD has developed plans to attain the State and federal standards for ozone and particulate matter. The currently applicable air quality plan is the 2013 Ozone Attainment Plan. Adopted YSAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with the applicable air quality plan. Thus, if a project's operational emissions exceed the YSAQMD's mass emission thresholds for operational emissions of ROG, NO<sub>x</sub>, or PM<sub>10</sub>, a project would be considered to conflict with or obstruct implementation of the YSAQMD's air quality planning efforts.

The project site is currently developed with commercial uses, operations of which generate ROG, NO<sub>x</sub>, and PM<sub>10</sub> from both mobile and stationary sources. Implementation of the proposed project would include replacement of the existing sources of emissions as well as introduction of additional sources related to the proposed residential uses and additional commercial uses. Emissions related to operation of the proposed project and the existing development would include sources such as architectural coatings, landscape maintenance equipment exhaust, and consumer products (e.g., deodorants, detergents, hair spray, cleaning products, spray paint, insecticides, floor finishes, polishes, etc.). However, the most significant source of emissions related to both the proposed project and the existing development would be from mobile sources. As discussed in the Method of Analysis section above, to capture the potential emissions related to mobile sources from the proposed project and the existing development, Fehr and Peers prepared an estimate of annual VMT and project-specific trip generation rates.

Because operations of the existing on-site commercial development currently result in ROG, NO<sub>x</sub>, and PM<sub>10</sub> emissions, and the proposed project would involve redevelopment of the project site with similar and expanded uses, it is appropriate to consider the level of existing emissions as a baseline for the environmental analysis of the proposed project. Therefore, the analysis included in this EIR will focus on the net new emissions that would result from implementation of the proposed project. In order to determine the net new emissions, operational emissions from the existing development as well as the proposed project are presented and compared in Table 4.1-8 below. In addition, Table 4.1-8 compares the net new emissions resulting from project operations to the YSAQMD's thresholds of significance.

As shown in the table above, the proposed project's maximum unmitigated operational emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub> would be below the YSAQMD's thresholds of significance. Accordingly, the proposed project would not violate an air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, the proposed project would be considered to result in a ***less-than-significant*** impact related to air quality.



<b>Table 4.1-8 Maximum Unmitigated Net New Operational Emissions</b>			
	<b>ROG (tons/yr)</b>	<b>NO<sub>x</sub> (tons/yr)</b>	<b>PM<sub>10</sub> (lbs/day)</b>
Proposed Project	4.13	16.80	49.27
Existing University Mall	1.99	11.54	35.88
<b>Net New Emissions</b>	<b>2.15</b>	<b>5.27</b>	<b>13.22</b>
<i>YSAQMD Significance Threshold</i>	<i>10</i>	<i>10</i>	<i>80.0</i>
<b>Exceeds Threshold?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<i>Source: CalEEMod 2019 (see Appendix F).</i>			

Mitigation Measure(s)  
None required.

**4.1-3 Expose sensitive receptors to substantial pollutant concentrations. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.**

The major pollutants of concern are localized CO emissions and TAC emissions, which are addressed below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the proposed project would increase traffic volumes on streets near the project site; therefore, the project would be expected to increase local CO concentrations. Concentrations of CO approaching the ambient air quality standards are only expected where background levels are high, and traffic congestion levels are high. The YSAQMD's preliminary screening methodology for localized CO emissions provides a conservative indication of whether project-generated vehicle trips would result in the generation of CO emissions that would contribute to an exceedance of AAQS. Per the YSAQMD screening methodology, if either of the following results at any street or intersection affected by a project, after implementation of mitigation,<sup>33</sup> the project has the potential to result in localized CO emissions that could violate CO standards:

- Degrade the peak hour LOS on one or more streets or at one or more intersections in the project vicinity from an acceptable LOS (i.e., LOS A, B, C, or D) to an unacceptable LOS (i.e., LOS E or F); or
- Increase a traffic delay by 10 or more seconds on one or more streets or at one or more intersections in the project vicinity where a peak hour LOS of F already exists.

As discussed in the Method of Analysis section above, anticipated operations of the intersection of Russell Boulevard, Anderson Road, and La Rue Road would exceed the YSAQMD's screening thresholds under the Cumulative Plus Project Condition.

<sup>33</sup> Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts* [p. 21]. July 11, 2007. Available at: <http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf>. Accessed June 2019.





Consequently, CO concentrations resulting from operations of the intersection of Russell Boulevard, Anderson Road, and La Rue Road under the Cumulative Plus Project condition were estimated using the CALINE4 roadway dispersion model. CO concentrations were modeled during both 1-hour and 8-hour scenarios for the nearest sensitive receptor. As shown in Table 4.1-9, the highest predicted concentrations of CO associated with the intersection of Russell Boulevard, Anderson Road, and La Rue Road under Cumulative Plus Project conditions would be well below the 1-hour and 8-hour CAAQS for CO at the nearest sensitive receptor. It should be noted that the 8-hour CO concentrations were modeled under the very conservative assumptions that traffic levels throughout the entire 8-hour modeling period equaled the traffic levels at the PM peak hour. Despite this conservative approach, as demonstrated in Table 4.1-9, operations of the intersection of Russell Boulevard, Anderson Road, and La Rue Road under the Cumulative Plus Project condition would not be expected to generate localized CO emissions that would contribute to an exceedance of CAAQS. The intersection of Russell Boulevard, Anderson Road, and La Rue Road under the Cumulative Plus Project condition is considered to experience the most severe operating condition, from a CO emissions standpoint. Operations at all other intersections would result in lower concentrations of CO emissions, and analysis of the CO emissions from operations of the Russell Boulevard, Anderson Road, and La Rue Road intersection under the Cumulative Plus Project condition represent a worst-case scenario. Because the worst-case intersection of Russell Boulevard, Anderson Road, and La Rue Road would not result in impacts related to CO concentrations, the proposed project would not expose sensitive receptors to substantial concentrations of localized CO.

<b>Table 4.1-9</b>			
<b>Maximum Predicted CO Concentrations (parts per million)</b>			
<b>Averaging Period</b>	<b>CO Concentration</b>	<b>CAAQS</b>	<b>Exceeds Threshold?</b>
1-Hour Average	1.2	20.0	<b>NO</b>
8-Hour Average	1.2	9.0	<b>NO</b>
<b>Source: CALINE4, July 2019 (see Appendix E).</b>			

### TAC Emissions

The proposed project construction could involve new emissions of TACs. Potential sources of TAC emissions associated with the proposed project are further addressed below.

The CARB Handbook provides recommendations on siting new sources of TACs near existing sensitive receptors. Operational-related emissions of TACs are typically associated with stationary diesel engines or land uses that involve heavy truck traffic or idling. The residential development included as part of the proposed project would not involve long-term operation of any stationary diesel engines or other major on-site stationary source of TACs, and a small number of heavy-duty trucks would occur as a result of the retail development included as part of the proposed project. The CARB considers land uses that experience 100 daily heavy-duty truck trips or more to be a significant source of DPM.<sup>34</sup> Because the proposed project would not result in 100 or more heavy-duty truck per day at the site, operation of the retail portion of the proposed

<sup>34</sup> California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.



project would not be considered a substantial source of DPM. However, given the proximity of the project site to residences and schools, construction-related activities have the potential to generate concentration of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions near existing sensitive receptors.

### *Construction-Related DPM Emissions*

While the proposed project could create new sources of TACs near existing sensitive receptors during construction activities, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. While methodologies for conducting health risk assessments are associated with long-term exposure periods (e.g., over a 30-year period), construction activities associated with the proposed project would occur over an approximately 27-month period. Nonetheless, given the project's proximity to existing sensitive receptors, the potential impacts on nearby sensitive receptors associated with DPM from construction activities at the project site has been evaluated.

Details regarding the construction DPM analysis assumptions are described in the Method of Analysis section above. As described, the increase in cancer risk and non-cancer hazard index was calculated for the maximally exposed receptor. The AERMOD results indicate that the maximally exposed receptor (i.e., the receptor exposed to the highest pollutant concentrations) associated with construction of the proposed project would be located within the residential development to the west of the project site, across Sycamore Lane. The maximally exposed receptor would experience the highest level of cancer risk and non-cancer hazard index. All other sensitive receptors in proximity to the project site, including the schools in the project area, as well as the other surrounding residential areas, would be exposed to lower pollutant concentrations and, subsequently, lower levels of cancer risk and non-cancer hazard index.

Considering that the project site is in proximity to existing residences, preschools, and existing commercial developments, the possibility exists that a receptor could reside in proximity to the project site and attend one of the nearby schools. Should a receptor both reside and attend school in proximity to the project site, the receptor would be exposed to emissions throughout the entire construction period, both at the receptor's residence and at school. To provide a worst-case analysis, the maximally exposed receptor was assumed to be exposed to the maximum pollutant concentration both at home and at school. The approach is considered a worst-case analysis because actual emissions concentrations would vary within the vicinity of the project site. For example, if an individual receptor resided at a residence located west of the site, where the highest pollutant concentrations are expected to occur, also attended one of the schools in the project vicinity, the receptor would be exposed to a relatively lower concentration of emissions while at the school compared to the concentrations experienced while at the residence. In such a situation, the actual exposure of the receptor to DPM and UFPs would be less than the levels analyzed within this EIR. Consequently, the analysis within this EIR presents an environmental worst-case scenario, and actual cancer risk and non-cancer hazard indices experienced by the maximally exposed receptor and all other receptors in the project vicinity would be lower than those presented within this EIR.





The increases in cancer risk and non-cancer hazard index at the maximally exposed resident resulting from exposure to the maximum quantified concentration of DPM over the entire work period are shown in Table 4.1-10.

<b>Table 4.1-10 Maximum Cancer Risk and Hazard Index Associated With Unmitigated Project Construction DPM</b>		
	<b>Cancer Risk (per million persons)</b>	<b>Non-Cancer Hazard Index</b>
At Maximally Exposed Receptor	49.82	0.17
<i>Thresholds of Significance</i>	<i>10</i>	<i>1.0</i>
<b>Exceeds Thresholds?</b>	<b>YES</b>	<b>NO</b>
<i>Sources: CalEEMod, AERMOD, and HARP 2 RAST, June 2019 (see Appendix E).</i>		

As shown in Table 4.1-10, the proposed project would result in a hazard index for the maximally exposed resident below the applicable YSAQMD threshold of significance. However, the anticipated concentration of DPM due to unmitigated construction of the proposed project would result in an increased risk of cancer for the maximally exposed resident of 49.82 cases per one million persons. It should be noted that in order to provide a worst-case scenario for project analysis, the Health Risk Assessment prepared for the proposed project assumed that the maximally exposed resident would be exposed to the maximum concentration of DPM for the entire construction period. In reality, the exposure of nearby receptors to construction-related DPM would vary as residents or students would travel to and from the project area for various reasons. Should the maximally exposed receptor be exposed to concentrations of DPM lower than the concentration assumed in the health risk assessment prepared for this analysis, the maximally exposed resident would experience a cancer risk and non-cancer hazard risk less than that which is presented in Table 4.1-10.

Nevertheless, construction-activity related to implementation of the proposed project would exceed the YSAQMD's threshold for increased cancer risk being used for this analysis. Thus, a potentially significant impact related to TAC emissions would occur during construction.

#### *Operational-Related TAC Emissions*

Operational-related emissions of TACs are typically associated with stationary diesel engines or land uses that involve heavy truck traffic or idling. The CARB's Handbook includes facilities (distribution centers) associated with 100 or more heavy-duty diesel trucks per day as a source of substantial DPM emissions. The project is not a distribution center, and, while heavy-duty diesel trucks may transport goods to the project site, the use of heavy-duty truck trips would be well below the CARB's Handbook 100 trips per day screening level. Furthermore, State regulations prohibit idling of diesel trucks for more than five minutes. Trucks operating within the site would be subject to State regulations, which would ensure that emissions from trucks operating in the northernmost drive aisle would be limited to the extent feasible. Accordingly, the proposed project would not be anticipated to represent a significant source of DPM from mobile sources.



Considering the above, the proposed project would not be considered a significant source of mobile or stationary DPM emissions, and operation of the proposed project would not result in an increase in cancer risk levels of more than 10 in one million persons or a non-cancer hazard index greater than 1.0, and existing nearby sensitive receptors would not be exposed to substantial pollutant concentrations.

### *Gasoline Dispensing Facility*

The proposed project would place residences within the vicinity of an existing GDF, located adjacent to the southeast corner of the project site, at the intersection of Russell Boulevard and Anderson Road. The CARB Handbook provides recommendations for siting new sensitive land uses near existing sources typically associated with significant levels of TAC emissions, such as GDFs. However, the California Supreme Court decision in the case of *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369 clarified that CEQA does not require lead agencies to analyze the impact of existing environmental conditions on a project's future users or residents unless the project will exacerbate the existing environmental hazards or conditions. This limits the CEQA analysis of impacts from existing sources that emit odors and TACs on new receptors from a proposed development project, unless the situation is specifically required to be analyzed by statute (such as a school). While existing sources that emit odors and TACs may not be considered a CEQA impact, local jurisdictions have the authority to protect the public health, safety, and welfare of their communities through their police powers.<sup>35</sup> While not required pursuant to CEQA, in order to address potential public health concerns, the City has chosen to address potential impacts related to the existing GDF on future residential receptors.

The CARB Handbook recommends a setback of 300 feet from a sensitive receptor to a large GDF (defined as a facility with a throughput of 3.6 million gallons per year or greater) or a setback of 50 feet from a typical GDF (defined as a facility with a throughput of less than 3.6 million gallons per year).<sup>36</sup> The current gas station permit limits the annual throughput of the gas station to 3.6 million gallons or less;<sup>37</sup> thus, the applicable setback distance as recommended by the CARB would be 50 feet from the nearest sensitive receptor.

As shown in Figure 4.1-1, the nearest proposed residential unit would be approximately 195 feet away from the GDF, and thus, would be beyond the CARB's recommended setback zone. Furthermore, based on a Health Risk Assessment conducted prior to issuance of the gas station permit by YSAQMD, the cancer risk was determined to be below 10 in one million cases at a reference distance of 105 feet.<sup>38</sup> Accordingly, development of the residences 195 feet away from the gas station would not put sensitive receptors at risk of health hazards associated with TACs from the gas station.

<sup>35</sup> California Constitution, Article XI, Section 7. Available at: [http://leginfo.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=CONS&sectionNum=SEC.%207.&article=XI](http://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=CONS&sectionNum=SEC.%207.&article=XI). Accessed May 2018.

<sup>36</sup> California Environmental Protection Agency California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective* [pg. 32]. April 2005.

<sup>37</sup> Yolo-Solano Air Quality Management District. *Permit to Operate P-12-91(a3)*. February 15, 2019.

<sup>38</sup> Yolo-Solano Air Quality Management District. *Authority to Construct C-09-45*. March 11, 2009.



**Figure 4.1-1**  
**Distance Between Nearest Residential Area and Existing GDF**





In addition to the proposed residences, the project would include construction of new commercial structures approximately 70 feet away from the existing GDF. The CARB does not consider commercial uses to be sensitive receptors, as children, seniors, and/or individuals with health conditions are not expected to be present at commercial uses for extended periods of time. Furthermore, the commercial structures would be outside of the CARB's recommended 50-foot setback distance.

Considering the above, the proposed project would not result in exposure of sensitive receptors to excess pollutant concentrations from the existing GDF operations.

### Conclusion

Based on the above analysis, the operation of the proposed project would not be anticipated to result in the production of substantial concentrations of DPM or localized CO that would expose sensitive receptors to substantial pollutant concentrations. However, construction activities related to the proposed project would have the potential to result in DPM concentrations that could result in an increased cancer risk for nearby receptors in excess of the applicable threshold of significance. Therefore, the proposed project would have the potential to result in the exposure of sensitive receptors to substantial concentrations of DPM, and a **significant** impact would result.

### Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the construction-related exhaust emissions of PM<sub>2.5</sub>. Because emissions of PM<sub>2.5</sub> is a metric for DPM emissions, and DPM emissions are the TAC of concern, by reducing PM<sub>2.5</sub> emissions, the mitigation below would reduce the anticipated DPM concentration and the associated cancer risk at the maximally exposed receptor. The cancer risk at the maximally exposed receptor would be reduced as shown in Table 4.1-11.

<b>Table 4.1-11 Maximum Mitigated Cancer Risk Associated with Project Construction DPM</b>	
	<b>Cancer Risk (per million persons)</b>
Unmitigated	49.82
Mitigated	3.88
Note: The use of CARB Tier 4 engines was applied to all construction equipment used on the project site in this modeling scenario. Tier 4 engines reduce the amount of PM emissions, including DPM, from equipment.	
<b>Sources: CalEEMod, AERMOD, and HARP 2 RAST, June 2019 (see Appendix E).</b>	

As shown in Table 4.1-11, with implementation of the following mitigation measure, the cancer risk at the maximally exposed receptor associated with the proposed project's construction activity would be reduced from an increase of 49.82 cases in one million persons to an increase of 3.88 cases in one million persons, which would be below the threshold of significance of an increase of 10 cases in one million persons being applied in this analysis. Therefore, implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

- 4.1-3      *Prior to approval of any grading or demolition plans, the project applicant shall show on the plans via notation that the contractor shall ensure that all*



*off-road diesel-powered equipment over 25 horsepower to be used in the construction of the project (including owned, leased, and subcontractor equipment) shall meet California Air Resources Board (CARB) Tier 4 emissions standards or cleaner. The plans shall be submitted for review and approval to the Department of Community Development and Sustainability. In addition, all off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to 5 minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB.*

*Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.*

*Idling shall be limited to five minutes or less for all on-road related and/or delivery trucks in accordance with CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation. Clear Signage regarding idling restrictions should be placed at the entrances to the construction site.*

### **Cumulative Impacts and Mitigation Measures**

A project's criteria pollutant emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The geographic context for the proposed project's cumulative air quality analysis includes the City of Davis and surrounding areas within the SVAB.

#### **4.1-4 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.**

The proposed project is within an area currently designated as nonattainment for Ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. By nature, air pollution is largely a cumulative impact. Thus, the proposed project, in combination with other proposed and pending projects in the region would significantly contribute to air quality effects within the SVAB, resulting in an overall significant cumulative impact. However, any single project is not sufficient enough in size to, alone, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's incremental impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, YSAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the significance thresholds, as identified by the YSAQMD and shown in Table 4.1-6 above, that project's emissions would be



cumulatively considerable, resulting in a significant adverse air quality impact to the region's existing air quality conditions.<sup>39</sup> As discussed above, under Impacts 4.1-1 and 4.1-2, the construction and operational emissions of the proposed project would be below the applicable thresholds of significance. Therefore, the proposed project's emissions would not be considered cumulatively considerable.

The YSAQMD is part of the Sacramento Federal Nonattainment Area (SFNA) for ozone. The YSAQMD, in concert with other air districts within the SFNA, has adopted a regional 8-hour Ozone Attainment and Regional Further Progress Plan to demonstrate the region's attainment of the 2008 federal ozone standard. The plan relies on growth estimates provided by SACOG and included in the Metropolitan Transportation Plan/Sustainable Communities Strategies (MTP/SCS). Growth forecasts within the MTP/SCS are based on growth estimates from general plans for cities and counties within the SACOG area. Using general plan estimates, the MTP/SCS identified growth forecasts for the SACOG region, and identified the project site as within an Established Community that would experience a range of low to high density residential, commercial, office, and industrial uses.<sup>40</sup> The site has a current General Plan designation of Community Retail. Under the Community Retail designation, residential uses are allowed with approval of a Conditional Use Permit. However, the proposed project would require an amendment to the City's General Plan text to create a new land use designation of Mixed Use Urban Retail to allow for the mix of retail and residential uses at the proposed density. Although the proposed project includes a request for redesignation of the project site, the proposed development would fall within one of SACOG's Transit Priority Areas. Per the letter provided by SACOG (see Appendix A), the proposed project qualifies as a Transit Priority Area because the project would involve greater than 50 percent residential uses, has a minimum density of 20 units per acre, and is located within 0.5-mile of a high-quality transit corridor. Furthermore, the proposed project is an infill project within an Established Community designation of the MTP/SCS for the City of Davis. Within the Established Community, the MTP/SCS forecasts a range of low- to high-density residential, commercial, office, and industrial uses. The proposed project's land uses fall within the range of general uses, densities, and building intensities. Thus, development of the proposed project would be considered consistent with the overall goals within SACOG's MTP/SCS.

The MTP/SCS integrates land use and transportation planning to achieve improvements in air quality through a reduction in the use of single-passenger vehicles. Thus, the proposed project would result in operational emissions below YSAQMD's thresholds, while also contributing to regional air quality emission reductions related to implementation of the MTP/SCS. Therefore, the proposed project's incremental contribution to cumulative regional air quality impacts would be ***less than cumulatively considerable***.

#### Mitigation Measure(s)

*None required.*

<sup>39</sup> Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts* [pg. 7]. July 11, 2007. Available at: <http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf>. Accessed July 2019.

<sup>40</sup> Sacramento Area Council of Governments. *2016 Metropolitan Transportation Plan Sustainable Communities Strategy* [Appendix E-3, pg. 148]. February 18, 2016.





**4.1-5 Expose sensitive receptors to cumulatively substantial pollutant concentrations. Based on the analysis below the cumulative impact is *less than significant*.**

With regard to TAC emissions, cumulative impacts from TAC exposure may occur when receptors are exposed to multiple sources of TAC emissions, which collectively increase health risks for individual receptors. As discussed in Impact 4.1-3, the only substantial source of TAC emissions related to project implementation would be DPM emissions resulting from project construction. However, implementation of Mitigation Measure 4.1-3 would ensure that project construction would not result in significant exposure of nearby receptors to DPM. The proposed project would not involve any other sources of TACs that could act cumulatively with construction-related DPM to increase health risks to nearby receptors. On-site construction activity would occur prior to occupancy of the proposed residential units; therefore, future residents would not be exposed to health risks from construction of the proposed project. However, construction-related DPM emissions at the maximally exposed receptor could act cumulatively with other existing sources of TACs to result in cumulatively considerable risks. Due to the potential for project-related construction activity to act cumulatively with existing sources of TACs to expose nearby receptors to substantial pollutant concentrations, nearby existing sources of TACs are considered in combination with DPM from project construction activity.

Health risks from TAC exposures are generally localized to the area surrounding the source of TACs; thus, cumulative health risk analyses typically consider only those sources of TACs within 1,000 feet of a receptor. In the case of the proposed project, the only source of TACs within 1,000 feet is the GDF located at the southwestern corner of the project site. Although other substantial sources of TACs are not located within 1,000 feet of the project site, State Route (SR) 113 is located approximately 1,700 feet to the west of the project site. The City recently conducted a health risk analysis for the Davis Live project site, which analyzed the health risks to residents of the Davis Live project site from operations of SR 113. Although SR 113 is outside of the 1,000-foot radius from the project site, because recent data is available for analysis, health risks from SR 113 are considered in this cumulative analysis.

Considering the disparate nature of the foregoing sources of TACs, no one receptor would be exposed to the maximum health risks from all three sources. For instance, while the maximum health risks from operations of the GDF occur 105 feet away from the GDF, the maximum health risk from construction of the proposed project occurs to the west of the project site, at a location that is approximately 740 feet west of the GDF. Thus, the receptor exposed to the maximum health risks from construction of the proposed project would experience health risks from the GDF far below those estimated for the receptor exposed to the maximum GDF health risks. Similarly, the receptor exposed to the maximum health risks from construction of the proposed project is located approximately 670 feet further east of SR 113 than the Davis Live project site. Thus, the receptor exposed to the maximum health risks from construction would experience a much lower health risk from SR 113 than receptors at the Davis Live project site, because the receptor exposed to the maximum health risks from construction is almost twice as far from SR 113 as the Davis Live project site.



Nevertheless, to provide a conservative analysis, this analysis considers that the maximally exposed receptor in the project area is exposed the maximum health risk from project construction-related DPM, GDF emissions, and the same health risk as residents at the Davis Live project site. Under the conservative assumptions, the maximum cumulative health risk is presented in Table 4.1-12 below.

<b>Table 4.1-12 Cumulative Cancer Risk</b>	
	<b>Cancer Risk (per million persons)</b>
Construction-Related DPM <sup>1</sup>	3.88
GDF Operations	9.9
SR 113	0.00
<b>Cumulative Health Risk</b>	<b>13.78</b>
<i>Threshold of Significance</i> <sup>2</sup>	100
<b>Exceeds Thresholds?</b>	<b>NO</b>
<sup>1</sup> Cancer risk from construction-related DPM reflects mitigated cancer risk presented in Table 4.1-11. <sup>2</sup> The City, as lead agency, has selected BAAQMD's cumulative cancer risk standard for use in the analysis of the cumulative TAC emissions, associated with project-related TAC emissions in combination with existing cumulative TAC emissions, on nearby sensitive receptors.  <b>Sources:</b> <ul style="list-style-type: none"> <li>• <i>CalEEMod, AERMOD, and HARP 2 RAST, June 2019; (see Appendix E).</i></li> <li>• <i>Yolo-Solano Air Quality Management District. Authority to Construct C-09-45. March 11, 2009.</i></li> <li>• <i>City of Davis Department of Community Development and Sustainability. Davis Live Project Appendix N Infill Environmental Checklist. July 2018.</i></li> </ul>	

As shown in Table 4.1-12, even if a single receptor was exposed to the maximum health risks from all TACs in the vicinity, the maximally exposed receptor would experience a cumulative cancer risk far below the cumulative risk threshold being applied. Thus, cumulative impacts in the project area related to substantial concentrations of TACs would be less than significant.

Because the proposed project would only contribute to cumulative TAC concentrations in the project area during construction activities, which have been included in the health risk analysis presented above, the proposed project's contribution to cumulative concentrations of TACs would not result in the exposure of sensitive receptors to cumulatively substantial concentrations of TACs. The cumulative impact of the proposed project would, therefore, be considered ***less than significant***.

Mitigation Measure(s)  
*None required.*



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## **4.2 Greenhouse Gas Emissions and Energy**

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## 4.2 GREENHOUSE GAS EMISSIONS AND ENERGY

### 4.2.1 INTRODUCTION

The Greenhouse Gas Emissions and Energy Section of the EIR describes the effects of the proposed project on the emission of greenhouse gases (GHGs) and the consumption of energy. With regard to GHGs, the section includes a discussion of the existing GHG setting and applicable regulations, as well as estimation of the GHG emissions that would be generated during both the construction and operational phases of the proposed project in comparison to the relevant thresholds of significance. In addition, the section provides a discussion of energy conservation, including estimation of the amount of energy that would be consumed during project operations. Potential impacts related to GHG emissions and energy consumption are identified and mitigation measures intended to reduce impacts to the maximum extent feasible are presented. The Greenhouse Gas Emissions and Energy Chapter is primarily based on information, guidance, and analysis protocol provided by the Yolo-Solano Air Quality Management District (YSAQMD) per the *Handbook for Assessing and Mitigating Air Quality Impacts*,<sup>1</sup> as well as emissions projections obtained by means of the California Emissions Estimator Model (CalEEMod) version 2016.3.2.<sup>2</sup> In addition, the section uses information obtained from the *Davis General Plan*<sup>3</sup> associated EIR,<sup>4</sup> the City of Davis' Climate Action and Adaptation Plan,<sup>5</sup> and various City Council adopted resolutions.

### 4.2.2 EXISTING ENVIRONMENTAL SETTING

The following information provides an overview of the existing environmental setting in relation to GHG emissions, global climate change, and energy consumption within the project area. Existing sources of GHG emissions, potential effects of global climate change, as well as energy consumption and supply in the project region are discussed below.

#### **Greenhouse Gas Emissions**

GHGs are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the Earth's atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through both natural processes and human activities. Other GHGs are created and emitted predominantly through human activities. The principal GHGs that enter the atmosphere due to human activities are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated carbons. Other common GHGs include water vapor, ozone, and aerosols. The increase in atmospheric concentrations of GHG due to human activities has resulted in more heat being held within the atmosphere, which is the accepted explanation for global climate change.

<sup>1</sup> Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts*. July 11, 2007. Available at: <http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf>. Accessed September 2016.

<sup>2</sup> BREEZE Software, A Division of Trinity Consultants, in collaboration with South Coast Air Quality Management District and the California Air Districts. *California Emissions Estimator Model User's Guide Version 2016.3.2*. November 2017.

<sup>3</sup> City of Davis. *Davis General Plan*. Adopted May 2001. Amended through January 2007.

<sup>4</sup> City of Davis. *Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School*. January 2000.

<sup>5</sup> City of Davis. *Climate Action and Adaptation Plan*. June 1, 2010.



The primary GHG emitted by human activities is CO<sub>2</sub>, with the next largest components being CH<sub>4</sub> and N<sub>2</sub>O. A wide variety of human activities result in the emission of CO<sub>2</sub>. Some of the largest sources of CO<sub>2</sub> include the burning of fossil fuels for transportation and electricity, industrial processes including fertilizer production, agricultural processing, and cement production. The primary sources of CH<sub>4</sub> emissions include domestic livestock sources, decomposition of wastes in landfills, releases from natural gas systems, coal mine seepage, and manure management. The main human activities producing N<sub>2</sub>O are agricultural soil management, fuel combustion in motor vehicles, nitric acid production, manure management, and stationary fuel combustion. Emissions of GHG by economic sector indicate that energy-related activities account for the majority of U.S. emissions. Electricity generation is the largest single-source of GHG emissions, and transportation is the second largest source, followed by industrial activities. The agricultural, commercial, and residential sectors account for the remainder of GHG emission sources.<sup>6</sup>

Emissions of GHG are partially offset by uptake of carbon and sequestration in trees, agricultural soils, landfilled yard trimmings and food scraps, and absorption of CO<sub>2</sub> by the earth's oceans. Additional emission reduction measures for GHG could include, but are not limited to, compliance with local, State, or federal plans or strategies for GHG reductions, on-site and off-site mitigation, and project design features. Attainment concentration standards for GHGs have not been established by the federal or State government.

### Global Warming Potential

Global Warming Potential (GWP) is one type of simplified index (based upon radiative properties) that can be used to estimate the potential future impacts of emissions of various gases. According to the United States Environmental Protection Agency (USEPA), the global warming potential of a gas, or aerosol, to trap heat in the atmosphere is the “cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas.” The reference gas for comparison is CO<sub>2</sub>. GWP is based on a number of factors, including the heat-absorbing ability of each gas relative to that of CO<sub>2</sub>, as well as the decay rate of each gas relative to that of CO<sub>2</sub>. Each gas's GWP is determined by comparing the radiative forcing associated with emissions of that gas versus the radiative forcing associated with emissions of the same mass of CO<sub>2</sub>, for which the GWP is set at one. Methane gas, for example, is estimated by the USEPA to have a comparative global warming potential 21 times greater than that of CO<sub>2</sub>, as shown in Table 4.2-1.

As shown in the table, at the extreme end of the scale, sulfur hexafluoride is estimated to have a comparative GWP 22,800 times that of CO<sub>2</sub>. The “specified time horizon” is related to the atmospheric lifetimes of GHGs, which are estimated by the USEPA to vary from 50 to 200 years for CO<sub>2</sub>, to 50,000 years for tetrafluoromethane. Longer atmospheric lifetimes allow GHG to buildup in the atmosphere; therefore, longer lifetimes correlate with the global warming potential of a gas. The common indicator for GHG is expressed in terms of metric tons of CO<sub>2</sub> equivalents (MTCO<sub>2</sub>e), which is calculated based on the global warming potential for each pollutant.

<sup>6</sup> U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions*. Available at: [https://19january2017snapshot.epa.gov/ghgemissions/sources-greenhouse-gas-emissions\\_.html](https://19january2017snapshot.epa.gov/ghgemissions/sources-greenhouse-gas-emissions_.html). Accessed June 2019.



**Table 4.2-1  
Global Warming Potentials and Atmospheric Lifetimes of Select  
GHGs**

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO <sub>2</sub> )	50-200 <sup>1</sup>	1
Methane (CH <sub>4</sub> )	12	25
Nitrous Oxide (N <sub>2</sub> O)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50,000	7,390
PFC: Hexafluoroethane (C <sub>2</sub> F <sub>6</sub> )	10,000	12,200
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	22,800

<sup>1</sup> For a given amount of carbon dioxide emitted, some fraction of the atmospheric increase in concentration is quickly absorbed by the oceans and terrestrial vegetation, some fraction of the atmospheric increase will only slowly decrease over a number of years, and a small portion of the increase will remain for many centuries or more.

**Source: USEPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013, April 15, 2015.**

### Effects of Global Climate Change

Uncertainties exist as to exactly what the climate changes will be in various areas of the Earth. According to the Intergovernmental Panel on Climate Change's Working Group II Report, *Climate Change 2007: Impacts, Adaptation and Vulnerability*,<sup>7</sup> climate change impacts to North America may include:

- Diminishing snowpack;
- Increasing evaporation;
- Exacerbated shoreline erosion;
- Exacerbated inundation from sea level rising;
- Increased risk and frequency of wildfire;
- Increased risk of insect outbreaks;
- Increased experiences of heat waves; and
- Rearrangement of ecosystems as species and ecosystems shift northward and to higher elevations.

For California, climate change has the potential to cause/exacerbate the following environmental impacts:

- Increased frequency, duration, and intensity of conditions conducive to air pollution formation (particularly ozone);

<sup>7</sup> Intergovernmental Panel on Climate Change, 2014: Summary for policymakers. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1-32.





- Reduced precipitation, changes to precipitation and runoff patterns, reduced snowfall (precipitation occurring as rain instead of snow), earlier snowmelt, decreased snowpack, and increased agricultural demand for water;
- Increased growing season and increased growth rates of weeds, insect pests and pathogens;
- Inundation by sea level rise;
- Increased incidents and severity of wildfire events; and
- Expansion of the range and increased frequency of pest outbreaks.

### Existing Greenhouse Gas Emissions Associated with the Project Site

Operation of the existing University Mall development within the project site currently results in associated GHG emissions. As discussed in further detail in the Method of Analysis section below, existing emissions associated with operation of the University Mall have been estimated. The estimated existing GHG emissions levels are presented in Table 4.2-2. As shown in Table 4.2-2, the majority of GHG emissions related to existing operations of the University Mall are associated with mobile emissions sources.

<b>Table 4.2-2</b>	
<b>Existing University Mall Emissions (MTCO<sub>2</sub>e/yr)</b>	
<b>Emission Source</b>	<b>Existing University Mall Annual GHG Emissions</b>
Area	0.00
Mobile	7,678.80
Energy	127.93
Solid Waste	43.95
Water	13.64
<b>Total Annual GHG Emissions</b>	<b>7,864.33</b>
<i>Source: CalEEMod, June 2019 (see Appendix F).</i>	

### Energy Consumption

California is one of the highest energy demanding states within the nation. Activities such as heating and cooling structures, lighting, the movement of goods, agricultural production, and countless other facets of daily life consume a variety of energy sources. Energy within the state is provided primarily by the combustion of fossil fuels such as natural gas, motor gasoline, diesel, jet fuel, and, to a lesser extent, coal. In addition to the fossil fuel-based energy sources, the state is ranked second in the nation in renewable energy generation, which includes solar, geothermal, wind, and biomass resources. In fact, California leads the nation in solar thermal electricity capacity, with 73 percent of the nation's total solar thermal capacity installed within the state.<sup>8</sup>

As shown in Figure 4.2-1, transportation-related activity consumes the largest share of energy within the State. Within the transportation sector, motor gasoline is the dominate form of energy, with jet fuel, diesel, natural gas, and electricity supplying the remaining portions of California's transportation sector energy demand.

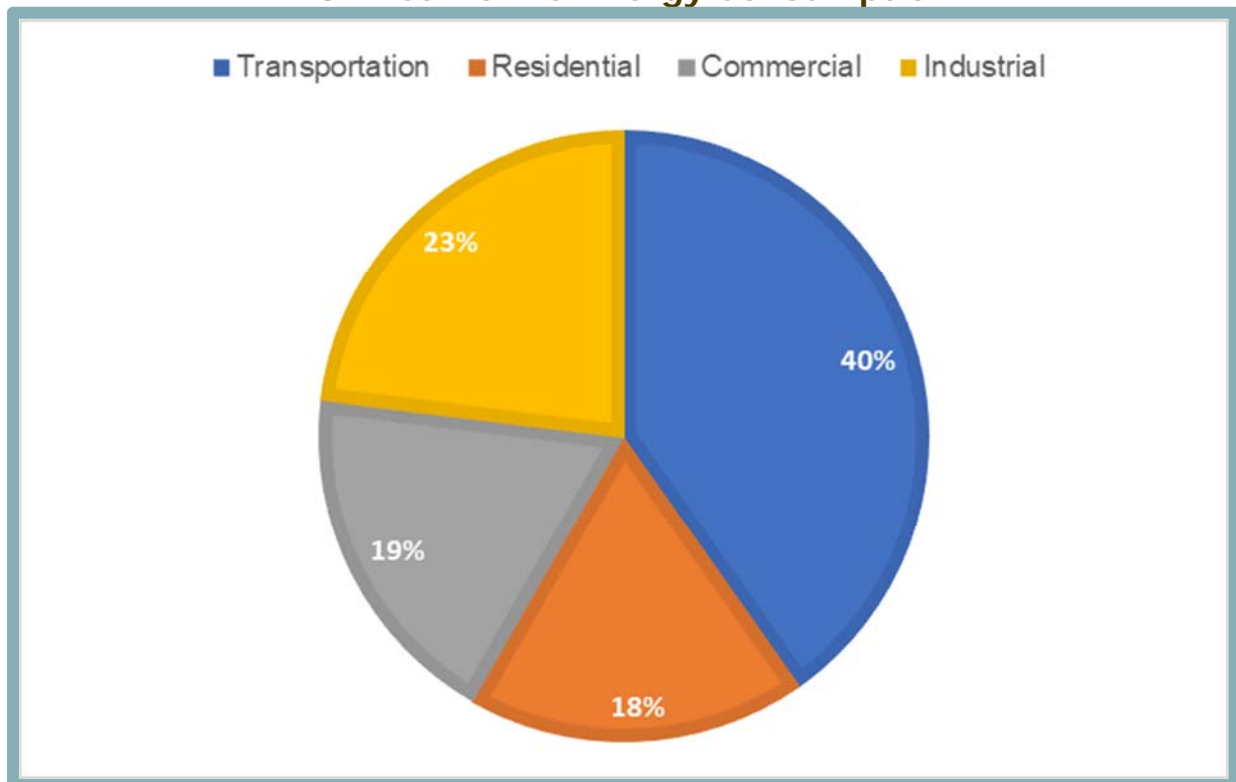
Electricity is provided to California consumers through a mix of sources including natural gas, hydroelectric, non-hydroelectric renewable sources, nuclear, coal, and petroleum. Of the foregoing sources of electricity, natural gas provided the greatest amount of electricity at

<sup>8</sup> U.S. Energy Information Administration. *California: State Profile and Energy Estimates*. Available at: <https://www.eia.gov/state/index.php?sid=CA>. Accessed June 2019.



approximately 50 percent of California's statewide supply in 2017. Meanwhile, non-hydroelectric based sources of renewable energy provided an additional 28 percent of the state's energy, with hydroelectric and nuclear providing 15 and seven percent respectively. Coal and petroleum contributed less than 0.2 percent of the State's total electricity supply. The foregoing sources of electricity supply provided for the consumption of a statewide total of 14,677 gigawatt hours (GWh) in the year 2017.<sup>9</sup> Of the total electricity supplied to the State, Yolo County consumed approximately 1,749.2 GWh, which constitutes approximately 12 percent of the total energy consumed within the State.<sup>10</sup>

**Figure 4.2-1  
2017 California Energy Consumption**



**Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: <https://www.eia.gov/state/index.php?sid=CA>. Accessed June 2019.**

In addition to the natural gas combusted to produce electricity within California, natural gas is provided to developments for a variety of uses including industrial, commercial, and residential applications. Natural gas is extracted from underground deposits throughout California and the United States and is distributed through transmission lines. The Pacific Gas and Electric Company (PG&E) provides natural gas service to the City of Davis. Within PG&E's 70,000 square mile service area, PG&E maintains approximately 48,700 miles of gas pipelines, which service 15 million people. A total of 21.89 billion Therms (approximately 209,327 million cubic feet of natural

<sup>9</sup> U.S. Energy Information Administration. *California Net Electricity Generation by Source*. Available at: <https://www.eia.gov/state/index.php?sid=CA#tabs-4>. Accessed June 2019.

<sup>10</sup> California Energy Commission. *Electricity Consumption by County*. Available at: <http://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed June 2019



gas or 218,900 kBTU/yr ) of natural gas was consumed in California in 2017 for all uses including electricity generation.<sup>11</sup> In 2017, direct natural gas consumption within Yolo County equaled 59.80 million Therms, which represents approximately 0.27 percent of the State's total natural gas consumption.<sup>12</sup>

### Existing On-Site Energy Consumption

Operation of the existing University Mall development within the project site currently results in the consumption of energy. Energy consumed on-site is primarily related to the existing structures and commercial activities. For instance, on-site indoor and outdoor lighting, existing climate control systems, and food preparation facilities all result in the consumption of energy within the project site. The existing University Mall structures were built as early as 1966. Buildings constructed in 1966 were not subject to the more stringent energy efficiency standards that have been mandated in the intervening period. Therefore, energy consumption related to operations of the existing structures would be higher as compared to a similarly sized commercial development that was built more recently.

Using the methods and assumptions described in the Method of Analysis section below, energy consumed through operations of the existing University Mall have been estimated and are shown in Table 4.2-3 below.

<b>Table 4.2-3</b>		
<b>Estimated University Mall Electricity and Natural Gas Consumption</b>		
	<b>Electricity (kWh/yr)</b>	<b>Natural Gas (kBTU/yr)</b>
Existing University Mall	1,019,640	243,049
<i>Source: CalEEMod June 2019 (Appendix F).</i>		

### City of Davis Electricity Providers

Historically, electricity and natural gas supplies to the City of Davis have been supplied by PG&E. However, on October 25, 2016, the Davis City Council adopted Resolution Number 16-153, Series 2016, which approved the Joint Exercise of Powers Agreement with Yolo County to form the Valley Clean Energy Alliance, now referred to as Valley Clean Energy (VCE). The resolution adopted by the City, along with similar resolutions adopted by the City of Woodland and Yolo County, led to the formation of the VCE Joint Powers Authority. Beginning in June 2018, the VCE started serving the electricity needs of the cities of Woodland and Davis, as well as unincorporated areas of Yolo County. Customers within the participating areas have the opportunity to continue receiving service from PG&E or to receive energy from VCE. VCE plans to provide energy with a higher renewable content and lower associated GHG emissions than PG&E. While VCE supplies the energy for customers enrolled in the VCE program, VCE electricity is transmitted through PG&E owned and operated distribution and power lines. PG&E will continue to provide natural gas supplies to the City.

## 4.2.3 REGULATORY CONTEXT

GHG emissions and energy consumption are monitored and regulated through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and

<sup>11</sup> U.S. Energy Information Administration. *Natural Gas: Natural Gas Consumption by End Use*. Available at: <https://www.eia.gov/electricity/state/california/>. Accessed June 2019.

<sup>12</sup> California Energy Commission. *Gas Consumption By County*. Available at: <http://ecdms.energy.ca.gov/gasbycounty.aspx>. Accessed June 2019.



individually to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for regulating GHG emissions within the City of Davis area are discussed below.

### **Federal Regulations**

The most prominent federal regulation related to GHG emissions is the Federal Clean Air Act (FCAA), which is implemented and enforced by the USEPA.

### **FCAA and USEPA**

The FCAA requires the USEPA to set National Ambient Air Quality Standards (NAAQS) and designate areas with air quality not meeting NAAQS as nonattainment. The USEPA is responsible for enforcement of NAAQS for atmospheric pollutants and regulates emission sources that are under the exclusive authority of the federal government including emissions of GHGs. The USEPA's air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990. The USEPA has adopted policies consistent with FCAA requirements demanding states to prepare State Implementation Plans that demonstrate attainment and maintenance of the NAAQS.

On December 7, 2009, USEPA issued findings under Section 202(a) of the FCAA concluding that GHGs are pollutants that could endanger public health. Under the so-called Endangerment Finding, USEPA found that the current and projected concentrations of the six key, well-mixed GHGs – CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, SF<sub>6</sub>, and HFCs – in the atmosphere threaten the public health and welfare of current and future generations. These findings do not, by themselves, impose any requirements on industry or other entities.

### **Energy Star Program**

Enacted under the FCAA, the Energy Star Program was launched by the USEPA in 1992. The program, which is now jointly managed by the USEPA and the U.S. Department of Energy, provides consumers and businesses with information regarding the energy efficiency of a wide variety of appliances and products. The Energy Star Program includes partnerships with public and private entities to disseminate information and encourage the efficient use of energy throughout the nation.

### **Energy Policy and Conservation Act**

The Energy Policy and Conservation Act was originally enacted in 1975 with the intention of ensuring that all vehicles sold in the U.S. meet established fuel economy standards. Following congressional establishment of the original set of fuel economy standards the U.S. Department of Transportation was tasked with establishing additional on-road vehicle standards and making revisions to standards as necessary. Compliance with established standards is based on manufacturer fleet average fuel economy, which originally applied to both passenger cars and light trucks but did not apply to heavy-duty vehicles exceeding 8,500 pounds in gross vehicle weight. The fuel economy program implemented under the Energy Policy and Conservation Act is known as the Corporate Average Fuel Economy (CAFE) Standards. Updates to the CAFE standards since original implementation have increased fuel economy requirements and begun regulation of medium- and heavy-duty vehicles.

### **Energy Policy Act of 2005**

The Energy Policy Act of 2005 addressed energy production in the U.S. from various sources. In particular, the Energy Policy Act of 2005 included tax credits, loans, and grants for the



implementation of energy systems that would reduce GHG emissions related to energy production.

### **State Regulations**

California has adopted a variety of regulations aimed at reducing GHG emissions. The adoption and implementation of the key State legislation described in further detail below demonstrates California's leadership in addressing global climate change. Only the most prominent and applicable California GHG-related legislation are included below; however, an exhaustive list and extensive details of California air quality legislation can be found at the California Air Resources Board (CARB) website.<sup>13</sup>

### **Executive Order S-03-05**

On June 1, 2005, then-Governor Schwarzenegger signed Executive Order S-03-05, which established total GHG emission targets. Specifically, emissions are to be reduced to year 2000 levels by 2010, 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (Cal-EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is also directed to submit biannual reports to the governor and state legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts.

To comply with the Executive Order, the Secretary of the Cal-EPA created a Climate Act Team (CAT) made up of members from various State agencies and commissions. In March 2006, CAT released their first report. In addition, the CAT has released several "white papers" addressing issues pertaining to the potential impacts of climate change on California.

### **Assembly Bill 32**

In September 2006, Assembly Bill (AB) 32, the California Climate Solutions Act of 2006, was enacted (Stats. 2006, ch. 488) (Health & Saf. Code, §38500 et seq.). AB 32 delegated the authority for its implementation to the CARB and directs CARB to enforce the State-wide cap. Among other requirements, AB 32 required CARB to (1) identify the State-wide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020, and (2) develop and implement a Scoping Plan. Accordingly, the CARB has prepared the *Climate Change Scoping Plan* (Scoping Plan) for California, which was approved in 2008 and updated in 2014 and 2017.<sup>14</sup> The following sections present further information regarding plans and programs that have been introduced in order to meet the statutory requirements of AB 32.

### **California Scoping Plan**

The 2008 Scoping Plan identified GHG reduction measures that would be necessary to reduce statewide emissions as required by AB 32. Many of the GHG reduction measures identified in the 2008 Scoping Plan have been adopted, such as the Low Carbon Fuel Standard, Pavley, Advanced Clean Car standards, RPS, and the State's Cap-and-Trade system.

Building upon the 2008 Scoping Plan, the 2013 and 2017 Scoping Plan Updates introduced new strategies and recommendations to continue GHG emissions reductions. The 2013 Scoping Plan

<sup>13</sup> California Air Resources Board. *Laws and Regulations*. Available at: <http://www.arb.ca.gov/html/lawsregs.htm>. Accessed June 2019.

<sup>14</sup> California Air Resources Board. *AB 32 Scoping Plan*. Accessible at: <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed February 2018.





Update created a framework for achievement of 2020 GHG reduction goals and identified actions that may be built upon to continue GHG reductions past 2020, as required by AB 32. Following the 2013 Scoping Plan, the 2017 Scoping Plan sets a path for the achievement of California's year 2030 GHG reduction goals.

### **California GHG Cap-and-Trade Program**

California's GHG Cap-and-Trade Program was originally envisioned in the 2008 Scoping Plan as a key strategy to achieve GHG emissions reductions mandated by AB 32. The Cap-and-Trade Program is intended to put California on the path to meet the GHG emission reduction goal of 1990 levels by the year 2020, and ultimately achieving an 80 percent reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors has been established and facilities or industries subject to the cap are able to trade permits (allowances) to emit GHGs. The CARB designed the California Cap-and-Trade Program to be enforceable and to meet the requirements of AB 32.<sup>15</sup> The Program started on January 1, 2012, with an enforceable compliance obligation beginning with the 2013 GHG emissions. On January 1, 2014 California linked the state's cap-and-trade plan with Quebec's, and on January 1, 2015 the program expanded to include transportation and natural gas fuel suppliers.<sup>16</sup> AB 398 was adopted by the State's legislature in July 2017, which reauthorized the Cap-and-Trade program through December 31, 2030. The reauthorization and continued operation of the Cap-and-Trade program represents a key strategy within the State's 2017 Scoping Plan Update for the achievement of California's year 2030 GHG reduction goals.

### **AB 197 and Senate Bill 32**

On September 8, 2016, AB 197 and Senate Bill (SB) 32 were enacted with the goal of providing further control over GHG emissions in the State. SB 32 built on previous GHG reduction goals by requiring that the CARB ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by the year 2030. Additionally, SB 32 emphasized the critical role that reducing GHG emissions would play in protecting disadvantaged communities and the public health from adverse impacts of climate change. Enactment of SB 32 was predicated on the enactment of AB 197, which seeks to make the achievement of SB 32's mandated GHG emission reductions more transparent to the public and responsive to the Legislature. Transparency to the public is achieved by AB 197 through the publication of an online inventory of GHG and TAC emissions from facilities required to report their emissions pursuant to Section 38530 of California's Health and Safety Code. AB 197 further established a six-member Joint Legislative Committee on Climate Change Policies, which is intended to provide oversight and accountability of the CARB, while also adding two new legislatively-appointed, non-voting members to the CARB. Additionally, AB 197 directs the CARB to consider the "social costs" of emission reduction rules and regulations, with particular focus on how reduction measures may impact disadvantaged communities.

### **Executive Order B-55-18**

On September 10, 2018, then-Governor Brown established a statewide goal of carbon neutrality as soon as possible, and no later than 2045. Following achievement of carbon neutrality, net negative emissions should be pursued as the new emissions goal. The executive order directed the CARB to work with relevant state agencies to develop frameworks for implementation and

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<sup>15</sup> California Air Resources Board. *Overview of ARB Emissions Trading Program*. Available at: [https://www.arb.ca.gov/cc/capandtrade/guidance/cap\\_trade\\_overview.pdf](https://www.arb.ca.gov/cc/capandtrade/guidance/cap_trade_overview.pdf). Accessed February 2018.

<sup>16</sup> California Air Resources Board. *Overview of ARB Emissions Trading Program*. Available at: [https://www.arb.ca.gov/cc/capandtrade/guidance/cap\\_trade\\_overview.pdf](https://www.arb.ca.gov/cc/capandtrade/guidance/cap_trade_overview.pdf). Accessed February 2018.





tracking of the new goal, and further directed the CARB to support the carbon neutrality goal through future updates to the State Scoping Plan.

### **SB 375**

In September 2008, SB 375, known as the Sustainable Communities and Climate Protection Act of 2008, was enacted. The intent of SB 375 was to build on AB 32 by attempting to control GHG emissions by curbing sprawl. SB 375 enhances CARB's ability to reach goals set by AB 32 by directing CARB to develop regional GHG emission reduction targets to be achieved by the State's 18 metropolitan planning organizations (MPOs), including the Sacramento Area Council of Governments (SACOG). Under SB 375, MPOs must align regional transportation, housing, and land-use plans and prepare a "Sustainable Communities Strategy" (SCS) to reduce the amount of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its greenhouse gas reduction targets. SB 375 provides incentives for creating walkable and sustainable communities and revitalizing existing communities, and allows home builders to get relief from certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Furthermore, SB 375 encourages the development of alternative transportation options, which will reduce traffic congestion.

### CEQA Streamlining under SB 375

Under SB 375, residential or mixed-use projects that are deemed consistent with the applicable SCS are eligible for streamlined environmental review under CEQA. SACOG defines three tiers of streamlining available to projects deemed consistent with SACOG's SCS. The first tier of streamlining available to projects within SACOG's jurisdiction is available to any mixed-use residential project where at least 75 percent of the building square footage is used for residential uses, and either the project is consistent with the use designation, density, building intensity, and applicable policies for the project area of an SCS, or is deemed a Transit Priority Project (TPP). The qualifications for designation of a project as a TPP are further discussed below. Projects undergoing environmental review under the first tier of streamlining are not required to reference, describe, or discuss 1) growth inducing impacts, 2) impacts from car and light-duty truck trips on global warming or regional transportation network, or 3) reduced density alternatives to the project.

In order for a project to be deemed a TPP, the project must meet stringent SACOG standards related to proposed land use distribution between residential and non-residential uses, minimum floor to area ratios, minimum net residential unit densities, maximum distances to major transit stops or high-quality transit corridors, and the project must be consistent with the use designation, density, building intensity, and applicable policies of an SCS. Projects deemed to be TPPs are eligible for the second tier of streamlining, which incorporates all streamlining benefits from the first tier while also allowing TPP projects to be reviewed under a Sustainable Communities Environmental Assessment, rather than a standard Initial Study under CEQA. Furthermore, the analysis of cumulative impacts resulting from the TPP may rely on previous analysis conducted under the SCS, the analysis of the TPP need not include consideration of an off-site alternative, and a higher standard for any legal challenges to the analysis applies. Aesthetic and parking effects resulting from a TPP are categorically considered not to represent significant impacts.

Finally, a project may be deemed a Sustainable Communities Project if the project meets all of the requirements of a TPP as well as extra requirements. Additional requirements include more stringent standards for distances from major transit stops or high-quality transit corridors, and requirements related to existing site conditions, such as the absence of biological resources and



hazardous materials contamination on-site. Sustainable Communities Projects must be designed so as to exceed existing California energy standards, while limitations are placed on the total site size, and number of allowable units. In addition, Sustainable Communities Projects must meet requirements related to affordable housing. Projects demonstrating compliance with all requirements for a Sustainable Communities Project are deemed exempt from CEQA.<sup>17</sup>

As discussed in the Introduction Chapter of this EIR, the project qualifies as a Transit Priority Project and is eligible for CEQA streamlining under SB 375. Therefore, the following streamlining benefits apply to the proposed project:

1. The EIR is not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network. (Pub. Resources Code, § 21159.28, subd. (a).)
2. Alternative locations, densities, and building intensities to the proposed project need not be considered. (Pub. Resources Code, § 21159.28, subd. (b).)
3. Aesthetic and parking impacts should not be considered significant impacts on the environment. (Pub. Resources Code, § 21099, subd. (d)(1).)

### **California Energy Commission (CEC)**

The CEC is the State's primary energy policy and planning agency. Created by the Legislature in 1974, the Commission has seven major responsibilities: forecasting future energy needs; promoting energy efficiency and conservation by setting the State's appliance and building energy efficiency standards; supporting energy research that advances energy science and technology through research, development, and demonstration projects; developing renewable energy resources; advancing alternative and renewable transportation fuels and technologies; certifying thermal power plants 50 MW and larger; and planning for and directing State response to energy emergencies.<sup>18</sup>

### **California Building Standards Code**

California's building codes (California Code of Regulations [CCR], Title 24) are published on a triennial basis, and contain standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The California Building Standards Code (CBSC) is responsible for the administration and implementation of each code cycle, which includes the proposal, review, and adoption process. Supplements and errata are issued throughout the cycle to make necessary mid-term corrections. The 2019 code has been prepared and will become effective January 1, 2020. The California building code standards apply State-wide; however, a local jurisdiction may amend a building code standard if the jurisdiction makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

### **California Green Building Standards Code**

The 2019 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the CBSC, which will become effective with the rest of the CBSC on January 1, 2020. The purpose of the CALGreen Code is to improve public health, safety,

<sup>17</sup> Sacramento Area Council of Governments. *SB 375 CEQA Streamlining*. Available at: <https://www.sacog.org/sb-375-ceqa-streamlining>. Accessed July 2019.

<sup>18</sup> California Energy Commission. *About the California Energy Commission*. Available at: <http://www.energy.ca.gov/commission/index.html>. Accessed January 2015.



and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California.

The CALGreen Code encourages local governments to adopt more stringent voluntary provisions, known as Tier 1 and Tier 2 provisions, to further reduce emissions, improve energy efficiency, and conserve natural resources. If a local government adopts one of the tiers, the provisions become mandates for all new construction within that jurisdiction. The City of Davis has adopted Tier 1 standards as mandatory for all new construction within the City.

### **Building Energy Efficiency Standards**

The 2019 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy efficiency measures from the 2016 Building Energy Efficiency Standards resulting in a seven percent reduction in energy consumption from the 2016 standards for residential structures and a 30 percent reduction in energy consumption from the 2016 standards for commercial structures. Energy reductions relative to previous Building Energy Efficiency Standards would be achieved through various regulations including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

One of the improvements included within the 2019 Building Energy Efficiency Standards will be the requirement that certain residential developments, including some single-family and low-rise residential developments (i.e., residential developments featuring three stories or less), include on-site solar energy systems capable of producing 100 percent of the electricity demanded by the residences. Certain residential developments, including developments that are subject to substantial shading, rendering the use of on-site solar photovoltaic systems infeasible, are exempted from the foregoing requirement; however, such developments would continue to be subject to all other applicable portions of the 2019 Building Energy Efficiency Standards.

### **California Public Utilities Commission**

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC is responsible for ensuring that customers have safe, reliable utility service and infrastructure at reasonable rates, regulating utility services, stimulating innovation, and promoting competitive markets.<sup>19</sup>

### **Renewable Portfolio Standard (RPS)**

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

Since the inception of the RPS program, the program has been extended and enhanced multiple times. In 2015, SB 350 extended the State's RPS program by requiring that publicly owned utilities procure 50 percent of their electricity from renewable energy sources by 2030. The requirements

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<sup>19</sup> California Public Utilities Commission. *California Public Utilities Commission*. Available at: <http://www.cpuc.ca.gov/puc/>. Accessed January 2015.



of SB 350 were expanded and intensified in 2018 through the adoption of SB 100, which mandated that all electricity generated within the State by publicly owned utilities be generated through carbon-free sources by 2045. In addition, SB 100 increased the previous renewable energy requirement for the year 2030 by 10 percent; thus requiring that 60 percent of electricity generated by publicly owned utilities originate from renewable sources by 2030.

### **Executive Order S-01-07**

On January 18, 2007, then-Governor Schwarzenegger signed Executive Order S-01-07, which mandates that a State-wide goal be established to reduce carbon intensity of California's transportation fuels by at least 10 percent by 2020. The Order also requires that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California.

### **AB 1007**

AB 1007, State Alternative Fuels Plan (Pavley, Chapter 371, Statutes of 2005), required development and adoption of a State plan to increase the use of alternative fuels. The final *State Alternative Fuels Plan* was adopted on December 5, 2007 and presented strategies and actions California must take to increase the use of alternative, non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. Examples of strategies include establishment of government incentive programs for alternative fuels, creation of a LCFS to reduce the carbon intensity of transportation fuels, and the allowance of GHG emissions credits to entities using alternatively fueled vehicles. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality. The Plan recommended goals for alternative fuel use as well as reductions in the carbon intensities of fuels such as gasoline and diesel, and lays a foundation for building a multi-fuel transportation energy future for California by 2050. As of 2017, decreases in the carbon intensity of conventional fuels have met or exceeded the compliance targets, and the use of alternative fuels has increased by approximately 800 million gallons of gas equivalence units.<sup>20</sup>

### **AB 1493**

California AB 1493 (Stats. 2002, ch. 200) (Health & Safety Code, §42823, 43018.5), known as Pavley I, was enacted on July 22, 2002. AB 1493 requires that the CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by the CARB to be vehicles whose primary use is noncommercial personal transportation in the state." On June 30, 2009, the USEPA granted a waiver of CAA preemption to California for the State's GHG emission standards for motor vehicles, beginning with the 2009 model year. Pursuant to the CAA, the waiver allows for the State to have special authority to enact stricter air pollution standards for motor vehicles than the federal government's. On September 24, 2009, the CARB adopted amendments to the Pavley regulations (Pavley I) that reduce GHG emissions in new passenger vehicles from 2009 through 2016. The second phase of the Pavley regulations (Pavley II) is expected to affect model year vehicles from 2016 through 2020. The CARB estimates that the regulation would reduce GHG emissions from the light-duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.

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<sup>20</sup> California Air Resources Board. *Low Carbon Fuel Standard Data Dashboard*. Available at: <https://www.arb.ca.gov/fuels/lcfs/dashboard/dashboard.htm>. Accessed June 2019.



## **SB 97**

As amended, SB 97, signed in August 2007, acknowledges that climate change is an important environmental issue that requires analysis under CEQA. The bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. As directed by SB 97, the OPR amended the CEQA Guidelines to provide guidance to public agencies regarding the analysis and mitigation of GHG emissions and the effects of GHG emissions in CEQA documents. The amendments included revisions to the *Appendix G Initial Study Checklist* that incorporated a new subdivision to address project-generated GHG emissions and contribution to climate change. The new subdivision emphasizes that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. Under the revised CEQA Appendix G checklist, an agency should consider whether a project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and whether a project conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing emission of GHGs.

Further guidance based on SB 97 suggests that the lead agency make a good-faith effort, based on available information, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. When assessing the significance of impacts from GHG emissions on the environment, lead agencies should consider the extent to which the project may increase or reduce GHG, as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance determined applicable to the project, and/or the extent to which the project complies with adopted regulations or requirements to implement a state wide, regional, or local plan for the reduction or mitigation of GHG emissions. Feasible mitigation under SB 97 includes on-site and off-site measures, such as GHG emission-reducing design features and GHG sequestration.

## **Executive Order S-13-08**

Then-Governor Arnold Schwarzenegger issued Executive Order S-13-08 on November 14, 2008. The Executive Order is intended to hasten California's response to the impacts of global climate change, particularly sea level rise, and directs state agencies to take specified actions to assess and plan for global climate change impacts, including requesting the National Academy of Sciences to prepare a Sea Level Rise Assessment Report, directing the Business, Transportation, and Housing Agency to assess the vulnerability of the State's transportation systems to sea level rise, and requiring the Office of Planning and Research and the Natural Resources Agency to provide land use planning guidance related to sea level rise and other climate change impacts.

The order also required State agencies to develop adaptation strategies to respond to the impacts of global climate change that are predicted to occur over the next 50 to 100 years. The adaption strategies report summarizes key climate change impacts to the State for the following areas: public health; ocean and coastal resources; water supply and flood protection; agriculture; forestry; biodiversity and habitat; and transportation and energy infrastructure. The report recommends strategies and specific responsibilities related to water supply, planning and land use, public health, fire protection, and energy conservation.

## **Local Regulations**

The following are the regulatory agencies and regulations pertinent to the proposed project on a local level.





## YSAQMD

Various local, regional, State and federal agencies share the responsibility for air quality management in Yolo County. The YSAQMD operates at the local level with primary responsibility for attaining and maintaining the federal and State AAQS in Yolo County. The YSAQMD is tasked with implementing programs and regulations required by the FCAA and the CCAA, including preparing plans to attain federal and State AAQS. The YSAQMD works jointly with the USEPA, CARB, SACOG, other air districts in the region, county and city transportation and planning departments, and various non-governmental organizations to improve air quality through a variety of programs. Programs include the adoption of regulations, policies and guidance, extensive education and public outreach programs, as well as emission reducing incentive programs.

Nearly all development projects in the region have the potential to generate air pollutants that may increase the difficulty of attaining federal and State AAQS. Therefore, for most projects, evaluation of air quality impacts is required to comply with CEQA. In order to help public agencies evaluate air quality impacts, the YSAQMD has developed the *Handbook for Assessing and Mitigating Air Quality Impacts*.<sup>21</sup> The YSAQMD's handbook includes screening methodology and recommended thresholds of significance, including mass emission thresholds for construction-related and operational criteria pollutants. Although the YSAQMD's handbook includes emissions thresholds and analysis methodology for criteria pollutants, the YSAQMD has not yet established or adopted methodology or thresholds for the assessment of impacts related to GHG emissions. In the absence of District-adopted methodology or thresholds for assessing GHG emissions, the YSAQMD is currently recommending GHG analysis consistent with the SMAQMD adopted thresholds of significance.

## City of Davis

In addition to the City's General Plan goals and policies, the City of Davis has various strategies for reducing the City's GHG emissions. In 1999, Davis joined a small group of cities calling for local action and a national policy on climate change. In 2006, the City joined the U.S. Conference of Mayors Climate Protection Agreement that called for local and national action to reduce GHG emissions. In a follow-up action in spring 2007, the Davis City Council unanimously adopted a strategy to reduce the City's GHG emissions. Based on the City Council action, the City joined the *Cities for Climate Protection* (CCP) program along with hundreds of other communities across the globe to reduce GHG emissions at the local level. The program is designed to educate and empower local governments to take action on climate change. The CCP is a performance-oriented campaign that offers a framework for local governments to reduce greenhouse gas emissions and improve livability within their municipalities. As part of this effort, the City of Davis has undertaken various actions to reduce GHG emissions within the City of Davis, including the adoption of the *Davis Climate Action and Adaptation Plan* (CAAP), as well as adoption of local GHG reduction targets, carbon budgets, and carbon allowances for residential land uses.

On March 5, 2019, the Davis City Council adopted a resolution declaring a climate emergency, which proposed a regional mobilization effort to reduce the effects of climate change. As part of the regional mobilization effort, the resolution accelerated the City's previously stated goal of achieving carbon neutrality by the year 2050 to a new carbon neutrality target date of 2040.

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<sup>21</sup> Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts*. July 11, 2007. Available at: <http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf>. Accessed September 2016.





### City of Davis General Plan

The Transportation Element of the City's General Plan includes the following applicable goals, performance objectives, and policies related to GHG emissions.

**Goal #2**                The Davis transportation system will evolve to improve air quality, reduce carbon emissions, and improve public health by encouraging usage of clean, energy-efficient, active (i.e. human powered), and economically sustainable means of travel.

Performance Objective #2.1    Reduce carbon emissions from the transportation sector by 61 percent by 2035.

Performance Objective #2.2    Reduce vehicle miles traveled (VMT) 39 percent by 2035.

Policy TRANS 1.5            Strive for carbon-neutrality or better from the transportation component of new residential development.

Policy TRANS 1.6            Reduce carbon emissions from the transportation system in Davis by encouraging the use of non-motorized and low carbon transportation modes.

Policy TRANS 1.7            Promote the use of electric vehicles and other low-polluting vehicles, including Neighborhood Electric Vehicles (NEV).

Policy TRANS 1.8            Develop and maintain a work trip-reduction program designed to reduce carbon emissions, criteria pollutants, and local traffic congestion.

Policy TRANS 3.3            Require new development to be designed to maximize transit potential.

Policy TRANS 4.4            Provide pedestrian and bicycle amenities.

Policy TRANS 4.5            Establish and implement bicycle parking standards for new developments and significant redevelopment.

The Energy Section of the City's General Plan includes the following applicable goals and policies:

**Goal ENERGY 1.** Reduce per capita energy consumption in Davis.

Policy ENERGY 1.3        Promote the development and use of advanced energy technology and building materials in Davis.

Policy ENERGY 1.5        Encourage the development of energy-efficient subdivisions and buildings.



### *Davis Climate Action and Adaptation Plan*

The CAAP is designed to place the community on a path to achieve the GHG emission reduction targets adopted by the City Council in November 2008. The targets were based on a range that uses the State of California targets as a minimum goal and deeper reductions as the desired outcome. The City adopted this range in recognition that emission reductions are not precise and that many scientists believe that a reduction of 80 percent below 1990 levels by 2050 may not be adequate. The City's GHG emission reduction targets per the CAAP are summarized in Table 4.2-4 below.<sup>22</sup>

<b>Table 4.2-4 City of Davis and State GHG Reduction Targets</b>		
<b>Year</b>	<b>Target Range<sup>1</sup></b>	
	<b>State (City minimum target)</b>	<b>City of Davis (desired target)<sup>2</sup></b>
2010	2000 levels <sup>3</sup>	1990 levels
2020	1990 levels <sup>4</sup>	28% below 1990 levels
2030	40% below 1990 levels <sup>5</sup>	N/A
2040	N/A <sup>6</sup>	80% below 1990 levels
2050	80% below 1990 levels <sup>7</sup>	Carbon neutral <sup>8</sup>

Notes:

<sup>1</sup> Davis anticipates to achieve reductions within the range of the State targets (minimum) and local targets (desired).

<sup>2</sup> Due to residency time of GHGs in the atmosphere, early GHG reduction is generally more beneficial for mitigation of the most severe impacts of climate change.

<sup>3</sup> EO S-03-05, June 1, 2005.

<sup>4</sup> EO S-03-05, June 1, 2005, and AB 32, September 2006.

<sup>5</sup> SB 32, September 08, 2016.

<sup>6</sup> A formal State target for 2040 does not exist; however, an average reduction of 2.66 percent per year from 2020 to 2050 (assuming the State target of 1990 levels by 2020 has been met) would be required in order to achieve 80 percent below 1990 levels by 2050 (Davis CAAP, June, 2010).

<sup>7</sup> EO S-03-05, June 1, 2005.

<sup>8</sup> i.e., net zero GHG emissions.

**Source: City of Davis. Staff Report: "Adoption Davis Climate Action and Adaptation Plan." June 1, 2010.**

It should be noted that the recent adoption of the City resolution declaring a climate emergency supersedes the emissions reductions targets included in the City's CAAP and presented in Table 4.2-4. Thus, while Table 4.2-4 shows the City's desired target of carbon neutrality by the year 2050, with a minimum reduction of emissions to 80 percent below 1990 levels by 2050, the City's recent resolution would accelerate these goals with a minimum reduction target of carbon neutrality by the year 2040.

Preparation of the CAAP was guided by a community-based public input process executed by the Davis Climate Action Team, the Natural Resources Commission, and staff. Based on community input, analysis of best practices adopted by other communities, and contributions from subject matter experts, the plan utilizes a systems-based approach to address local GHG emissions. The plan identifies objectives and actions for the first five years after adoption in 2010 that were intended to reverse local GHG emission growth and establish a foundation for deeper, longer-term reductions beyond 2015. The plan includes objectives and actions in nine sectors, including: (1) Mobility; (2) Energy; (3) Land use and buildings; (4) Consumption and waste; (5) Food and agriculture; (6) Community engagement; (7) Government operations; (8) Advocacy; and (9) Climate change preparation (adaptation).

<sup>22</sup> City of Davis. Staff Report: "Adoption Davis Climate Action and Adaptation Plan." June 1, 2010.



Adoption of the Davis CAAP addresses the City's goal of conserving natural resources and protecting the environment. Specifically, plan adoption implements the City Council's objective of addressing global warming and reducing the carbon footprint of Davis.

#### *City of Davis Municipal Code*

Section 8.01.090 of the Municipal Code requires mandatory compliance with Tier 1 standards of the CALGreen Code, which would otherwise be voluntary under the CBSC. Furthermore, Section 8.01.060 of the Davis Municipal Code was recently updated by Ordinance Number 2554. Section 8.01.060 now includes updated requirements related to energy efficient water heating systems, electric vehicle charging infrastructure, and on-site photovoltaic systems in high-rise residential developments. In particular, Section 8.01.060 now requires that new non-residential and high-rise multifamily structures include photovoltaic systems sized to provide the lesser of approximately 80 percent offset of the building's modelled annual electric load or 15 direct current watts per square foot of solar zone.

### **4.2.4 IMPACTS AND MITIGATION MEASURES**

The standards of significance and methodology used to analyze and determine the proposed project's potential project-specific and cumulative impacts related to GHG emissions and energy are described below. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

#### **Standards of Significance**

Based on the recommendations of YSAQMD, City of Davis standards, and consistent with Appendix G of the CEQA Guidelines, the proposed project would result in a significant impact related to GHG emissions and energy if the project would result in any of the following:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; and
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Further discussion of the above thresholds is provided below.

#### **GHG Emissions**

With respect to establishing significance thresholds for GHG emissions, CEQA Guidelines Section 15064.4 states:

- (a) The determination of the significance of GHG emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project.
- (b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment:



- (1) The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Thus, one threshold that is commonly used to analyze a project's GHG emissions is whether the project would conflict with or obstruct the goals, strategies, or governing regulation (Health & Safety Code, § 38500-38599) of the California Global Warming Solutions Act of 2006 (AB 32) or the GHG reduction targets in SB 32.

The YSAQMD, in their *Handbook for Assessing and Mitigating Air Quality Impacts*, acknowledges that new emissions generated by development projects could potentially conflict with existing GHG emissions reductions targets, and thus, a need for development of GHG emissions thresholds exists. However, the YSAQMD has not yet established or adopted any GHG emissions thresholds. The YSAQMD is currently recommending GHG analysis consistent with the Sacramento Metropolitan Air Quality Management District (SMAQMD) adopted thresholds of significance. While SMAQMD recognizes that emissions from a single project cannot be determined to substantially impact overall GHG emissions levels in the atmosphere, an emissions threshold is useful to trigger further project review and assess mitigation. As such, SMAQMD designed thresholds for project operations and construction, which allow for review of proposed projects for consistency with the emissions reductions goals of AB 32, SB 32, the Scoping Plan, and relevant Executive Orders. SMAQMD has established a threshold for both construction and operational GHG emissions. Although SMAQMD has designed thresholds for project review, SMAQMD further specified that where cities have adopted city-specific Climate Action Plans or GHG Reduction Plans, proposed projects should be assessed in relation to the city-specific plans, rather than SMAQMD's thresholds. As discussed in further depth below, the City of Davis has adopted a citywide GHG reduction program for operational GHG emissions of existing and proposed developments in the City.

The 2008 document, *City of Davis Greenhouse Gas Emissions Inventory & Forecast Update*, includes an estimation of citywide 2010 emissions levels, which was previously used as the basis of the City of Davis's citywide GHG reduction target thresholds.<sup>23</sup> The 2010 emissions levels were then used to generate emissions reduction targets, which were adopted by the City on November 18, 2008. The emissions reductions goals adopted in 2008 provided a desired rate of reduction, which were more ambitious than AB 32 or SB 32, and included achievement of citywide carbon neutrality by 2050. In addition to the aggressive, desired reduction targets, the City also adopted minimum reduction targets equal to the State mandated reductions levels. By adopting two reductions targets, the City created a range of acceptable emissions reductions, where the

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<sup>23</sup> City of Davis Department of Community Development and Sustainability. *City of Davis Greenhouse Gas Emissions Inventory & Forecast Update*. June 2008.



minimum reductions target would achieve statewide reductions goals based on AB 32, while the desired reduction level would surpass the state minimum. To ensure that new developments within the City would not impede the City's progress towards the City's adopted emissions reductions targets, the City identified carbon allowances for new developments. The carbon allowances set a maximum emissions level for the operation of new developments,<sup>24</sup> while maintaining the City's emissions reductions goals.<sup>25</sup>

In March 5, 2019, the City Council adopted a resolution declaring a climate emergency. As part of the resolution, the City's adopted goal of net carbon neutrality by the year 2050 was accelerated to the year 2040. Achievement of carbon neutrality by the year 2040 would place the City on an emissions reductions trajectory that surpasses the minimum reduction targets previously established by the City, which were based on AB 32, as well as the City's previously adopted desired reductions levels, thus surpassing the emissions reductions goals of the City's CAAP.

Despite the acceleration of the desired date for carbon neutrality, the resolution declaring a climate emergency did not include any updates regarding the anticipated means of achieving carbon neutrality. Consequently, while the City's climate emergency resolution accelerated the City's net carbon neutrality target year from 2050 to 2040, the City's CAAP continues to provide the planning level approach to meeting the City's emissions goals. As stated in Table 1 of the City's CAAP, carbon neutrality by 2050 is a "desired" goal and was anticipated to be achieved by a "combination of actions at the local, regional, national, and international levels and carbon offsets."

Based on the City's understanding of Table 1 of the CAAP, and the City Council's recent actions, the desired goal of carbon neutrality is anticipated to be met through a combination of efforts by developers, the City, regional organizations, the State government, the federal government, and international institutions. Thus, emissions from existing development within the City that were operable at the time the City conducted its GHG inventory in 2008 for the CAAP, can be addressed through actions previously planned by the City's CAAP (i.e., actions taken by the City to encourage citywide reductions of VMT, increased generation of renewable energy within the City, and increased use of alternative vehicle fuels, as well as actions taken by regional organizations, the State government, the federal government, and international institutions). In order to maintain the emissions reductions trajectory anticipated by the CAAP and mandated by the City's climate emergency declaration, redevelopment projects would be required to demonstrate that operations on redeveloped sites would not exceed existing emissions levels associated with the same site. Should redevelopment projects result in increased on-site emissions relative to existing levels, the redevelopment project would be responsible for reducing post-project emissions to a level equal to the existing level of emissions. By ensuring that emissions from redevelopment projects remain at or below existing levels, redevelopment projects would provide a proportionate share of emissions reductions and would not inhibit attainment of citywide net carbon neutrality by the year 2040, nor would the project conflict with the City's CAAP.

Therefore, the proposed project would be considered to conflict with the City's GHG reduction targets, if the project would result in net positive operational GHG emissions by the year 2040. It should be noted that conformance with the City's goal of net carbon neutrality by 2040 would

<sup>24</sup> City of Davis. *Staff Report: Adoption Davis Climate Action and Adaptation Plan*. June 2, 2010.

<sup>25</sup> Niemeier, Deb. *Carbon Development Allowances*. September 2008.





demonstrate compliance with the City's CAAP and consistency with the statewide reduction targets of AB 32 and SB 32.

Although the City has adopted clear GHG reductions goals, which the City has elected to use as operational thresholds for the proposed project in this EIR, the City has not specifically adopted goals or thresholds to analyze GHG emissions from construction of proposed projects. Accordingly, the City has elected to consider construction-related GHG emissions in the context of operational emissions and citywide reduction goals by amortizing construction-related emissions over the lifetime of the project. Amortizing construction emissions over the operational lifespan of the proposed project allows for consideration of construction emissions in terms of the City's goal of net carbon neutrality by 2040. For the purposes of this analysis, the operational lifespan of the proposed structure is assumed to be 25 years.

As discussed in the Project Description chapter of this EIR, the proposed project is consistent with SACOG's Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and is eligible for CEQA streamlining. One benefit of the CEQA streamlining process is that projects that are consistent with the MTP/SCS do not have to consider project specific or cumulative impacts involving vehicle emissions related to the project on global warming.<sup>26</sup> Therefore, this EIR does not include analysis of mobile source GHG emissions. GHG emissions from all other sources, such as energy consumption, wastewater treatment, water consumption, and area sources, have been considered throughout this analysis.

### **Method of Analysis**

The GHG emissions and energy consumption were estimated using CalEEMod version 2016.3.2 software - a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. Furthermore, guidance from YSAQMD, SMAQMD, and the City of Davis was used to analyze the proposed project's GHG emissions. Details regarding the methodology and assumptions used for the proposed project's GHG and energy impact analysis are provided below.

### **Construction Emissions**

Short-term construction emissions resulting from implementation of the proposed project were estimated using CalEEMod. The model applies inherent default values for various land uses, including trip generation rates based on the ITE Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data was available, the data was input into the model.

The proposed project is expected to be built in one phase over 27 months. Based on project information, the following assumptions were made for the construction modeling for the proposed project:

- Demolition would involve removal of approximately 90,563 square feet of building space from the project site, which would include debris from the demolition of existing structures within the project site;
- Approximately 3,000 cubic yards of material may be exported during site preparation;

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<sup>26</sup> Sacramento Area Council of Governments. *SB 375 CEQA Streamlining*. Available at: <http://www.sacog.org/sb-375-ceqa-streamlining>. Accessed May 2018.





- Approximately 1,500 cubic yards of material may be imported and 3,000 cubic yards may be exported during site grading; and
- A total of approximately eight acres would be disturbed during the grading phase.

The results of emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All CalEEMod modeling results are included in Appendix F to this EIR.

### **Operational Emissions**

Operation of the existing University Mall development results in GHG emissions, as discussed and presented above. In the absence of the proposed project, operation of the University Mall would continue to result in GHG emissions. As discussed throughout this EIR, the proposed project would involve replacement of the existing commercial development with commercial and residential uses. Considering that the existing GHG emissions associated with the site would continue to occur in the absence of the proposed project, the analysis of operational GHG emissions presented in this chapter focuses on the net change in GHG emissions that would occur from the existing operations in comparison to operation of the proposed project.

The following sections present the methodology used to estimate operational emissions from the existing University Mall and the proposed project, separately.

#### Existing University Mall Development

Operational emissions of GHGs related to the existing University Mall development were estimated using CalEEMod. In keeping with the methodology employed in the Transportation Impact Study prepared for the proposed project, the estimation of existing emissions was limited to the spaces within the existing University Mall that are currently occupied. To provide a direct comparison of emissions against that of the proposed project, operational emissions of the existing University Mall were modeled assuming an operational year of 2024, which is the same operational year assumed for the proposed project. Regulations related to energy efficiency have become increasingly stringent, while appliances and fixtures have become increasing more efficient in turn. Considering the age of the existing structure, the energy use assumptions within CalEEMod were adjusted to reflect the less efficient energy use of older structures. Although the existing structures were built as early as 1966, CalEEMod does not include energy use data for buildings constructed before 2005. Due to increased energy efficiency regulations and improved efficiency of appliances and fixtures, buildings constructed prior to 2005, such as the existing University Mall structures, consume more energy than those built in 2005; consequently, emissions related to energy consumption of the existing University Mall structures likely present an underestimate.

#### Proposed Project

The proposed project's operational emissions of GHGs were estimated using CalEEMod. Based on the construction information provided by the project applicant, the proposed project is anticipated to be fully operational by 2024. The modeling performed for the proposed project included compliance with YSAQMD rules and regulations (i.e., low-VOC cleaning supplies), as well as with the 2019 California Building Energy Efficiency Standards Code. All buildings within the State of California are required to comply with the mandatory standards within the 2019 California Building Energy Efficiency Standards Code starting on January 1, 2020. The proposed project's compliance with the 2019 California Building Energy Efficiency Standards Code would be verified as part of the City's building approval review process.



Adoption of Ordinance Number 2554 by the City Council updated Section 8.01.060 of the City's Municipal Code to include requirements related to electric vehicle charging infrastructure and on-site photovoltaic systems. Specifically, for on-site photovoltaic systems, high-rise residential developments and nonresidential structures are required to provide the lesser of approximately 80 percent offset of the building's modelled annual electric load or 15 direct current watts per square foot of solar zone. Emissions modeling for the proposed project included the assumption that the proposed project would include photovoltaic energy systems sufficient to meet the City's 80 percent standard for on-site electricity generation.

In addition, the City has adopted Tier 1 provisions of the CALGreen Code as mandatory for all buildings subject to the CALGreen Code. Therefore, compliance with the Tier 1 provisions of the 2019 CALGreen Code has been assumed for analysis purposes within this EIR. The project's compliance with the Tier 1 provisions would result in reductions in indoor water use. In addition to water efficiency improvements, Tier 1 standards include various measures that reduce energy consumption through increased energy efficiency. While all structures included in the proposed project would be subject to the additional energy efficiency requirements within CALGreen Tier 1 standards, the improvement of the Tier 1 standards beyond the existing requirements of the Building Energy Efficiency Standards is currently unknown. Therefore, while a reduction in indoor water use was applied to CalEEMod to capture the project's compliance with the Tier 1 standards, the project's increased energy efficiency due to compliance with the Tier 1 standards was not included in CalEEMod emissions estimations. Considering that Tier 1 energy efficiency measures were not included in CalEEMod emissions estimations for the project, the analysis presented within this chapter likely overestimates the energy that would be consumed during operation of the proposed project and the resulting GHG emissions, thereby providing a conservative analysis.

As discussed previously, the City of Davis has recently joined the VCE along with the City of Woodland and Yolo County. As of June 2018, the VCE has begun serving the electricity needs of the Cities of Woodland, Davis, and unincorporated areas of Yolo County. VCE plans to provide energy with a higher renewable content and lower resulting GHG emissions than PG&E. Should VCE electricity be produced through a greater proportion of renewable energy sources than PG&E, energy consumed under the VCE program would result in fewer GHG emissions than an equivalent amount of energy provided by PG&E. Although VCE is providing energy for the City of Davis, individual properties and customers may opt-out of the VCE program, which would return the customer to service from PG&E. Considering that future residents of the proposed project may opt-out of the VCE program, and PG&E provided electricity would be more GHG intensive (i.e., consumption of electricity provided by PG&E would result in greater emissions than consumption of an equivalent amount of electricity provided by VCE), the energy provider for electricity not produced on-site was assumed to be PG&E. Thus, the analysis within this chapter presents a conservative approach to estimating potential GHG emissions related to energy demand from the proposed project.

The results of emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact.

## **Energy Demand**

As discussed for the estimation of GHG emissions above, existing operations of the University Mall involve the consumption of energy on-site. The proposed project would involve replacement of the existing commercial development with commercial and residential uses. Considering that existing operations of the University Mall involve energy consumption, and consumption would be



anticipated to continue in the absence of the proposed project, this chapter focuses on the net change in energy consumption that would occur with implementation of the proposed project.

The CalEEMod modeling results include estimations for annual electricity and natural gas consumption, which were used for the energy analysis. Annual electricity and natural gas consumption for both the existing University Mall and the proposed project were prepared separately using CalEEMod.

All CalEEMod modeling results are included in Appendix F to this EIR.

### **Project-Specific Impacts and Mitigation Measures**

Global climate change is, by nature, a cumulative impact. Emissions of GHG contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts). While GHG emissions from a project in combination with other past, present, and future projects contribute to the world-wide phenomenon of global climate change and the associated environmental impacts, a single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature. Because the effects of GHG emissions are cumulative by nature, separate discussions for project-level and cumulative-level impacts for the proposed project are not necessary for this section of the EIR.

However, potential impacts related to energy may occur on both a project-level and a cumulative basis. Accordingly, a project-level analysis of potential energy-related impacts is presented below.

#### **4.2-1 Result in the inefficient or wasteful use of energy associated with construction. Based on the analysis below, the impact is *less than significant*.**

Construction of the proposed project would result in a temporary increase in energy consumption in the area.

For analysis purposes, construction of the proposed project would occur over approximately 27 months. All construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation, which includes measures to reduce emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, and imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. Project construction would also be required to comply with all applicable YSAQMD rules and regulations, such as Rule 2.16 related to operation of stationary generators. The regulations promote the use of efficient, modern equipment, which often results in the consumption of less fuel. As a result, construction equipment operating at the project site would be subject to relevant CARB and YSAQMD regulations promoting efficient energy use and would occur over a relatively short duration in comparison to the operational lifetime of the proposed project.



The CARB prepared the *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan),<sup>27</sup> which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulations described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan. Furthermore, compliance with idling restrictions is required by Mitigation Measure 4.1-3, implementation of which would ensure the efficient use of fuel for construction vehicles by reducing unnecessary vehicle idling and reducing fuel consumption by five percent.

### Electricity Demand

Typically, at construction sites, electricity from the existing grid is used to power portable and temporary lights or office trailers. Because grid electricity would be used primarily for steady sources such as lighting, not sudden, intermittent sources such as welding or other hand-held tools, the increase in electricity usage at the site during construction would not be expected to cause any substantial peaks in demand. Furthermore, the project site is currently developed with an existing commercial development and construction activity would likely consume less electricity than is currently consumed by existing commercial operations at the site. Considering the existing energy demand at the project site, project construction may temporarily reduce on-site energy demand during demolition of the existing structures and prior to full operation of the proposed structures. Construction of the project would occur over a relatively short duration in comparison to the operational lifetime of the proposed project and electricity demand from the site would occur intermittently throughout the buildout period of the project. As the site develops, operational electricity demand would become the dominant demand source. Operational electricity demand would be much greater than construction and is discussed in Impact 4.2-2 below. It should be noted that standards or regulations specific to construction-related electricity usage do not currently exist.

VCE currently supplies electricity to the City of Davis. However, as discussed in the Method of Analysis section above, individual customers may opt-out of VCE service and continue to receive power from PG&E. Under PG&E electricity is provided from a variety of PG&E-owned sources including hydropower, natural-gas-fired generators, and renewable energy sources.<sup>28</sup> VCE has begun to provide energy through renewable and non-RPS carbon free energy sources; however, during the initial stages of VCE implementation, some power is anticipated to originate from fossil fueled sources. Construction of the proposed project, would not cause a permanent or substantial increase in demand that would exceed PG&E's or VCE's demand projections, and the temporary increase in electricity demand would not exceed the

<sup>27</sup> California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.

<sup>28</sup> California Energy Commission. *Power Source Disclosure*. Available at: <http://www.energy.ca.gov/pcl/>. Accessed January 2018.



ability of PG&E's existing infrastructure to handle the increase. Therefore, project construction would not result in any significant impacts on local or regional electricity supplies, the need for additional capacity, or on peak or base period electricity demands. As such, the temporary increase in electricity demand due to project construction activities would not be considered an inefficient, wasteful, and unnecessary consumption of energy, and significant adverse impacts on electricity resources would not occur.

### Oil Demand

Construction of the proposed project would involve vehicle trips to and from the project site by workers, delivery vehicles, and hauling trucks. Worker vehicle trips are assumed to utilize gasoline, and delivery and hauling trucks are assumed to utilize diesel fuel. Diesel fuel would also be used to power the construction and off-road equipment necessary for construction activities, including rubber-tired dozers, tractors, excavators, cranes, and other types of equipment. In addition, diesel-fueled portable generators may be used where electricity from the grid cannot be provided or where more immediate electricity is needed, such as for welding or other hand tools. Overall, operation of construction equipment at the project site would occur over a relatively short duration in comparison to the operational lifetime of the proposed project and would be intermittent over the period of construction for the project. Operational oil demand would be much greater than construction and is discussed in Impact 4.2-2 below.

A number of federal, State, and local standards and regulations exist that require improvements in vehicle efficiency, fuel economy, cleaner-burning engines, and emissions reductions. For example, as noted above, CARB has adopted the In-Use Off-Road Diesel Vehicle Regulation, which is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. Implementation of the In-Use Off-Road Diesel Vehicle Regulation will help to improve fuel efficiency and reduce fuel consumption on a statewide basis. Any licensed contractor for the project and equipment would have to be in compliance with all applicable regulations, such as the in-use, off-road, heavy-duty vehicle regulation. Thus, the proposed project would comply with existing standards related to construction fuel efficiency. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid-fueled equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction. Moreover, as discussed in Impact 4.2-3 below, implementation of Mitigation Measure 4.1-3 is anticipated to result in a five percent reduction in fuel consumption. The Tier 4 compliant construction equipment required by Mitigation Measure 4.1-3 represents the state-of-the-art in construction equipment efficiency, and more fuel-efficient systems are not currently in common use.

Therefore, the temporary increase in gasoline and diesel consumption due to project construction activities would not be an inefficient, wasteful, and unnecessary consumption of energy, and a significant adverse impact on oil resources would not occur.





### Conclusion

Construction of the proposed project would result in a temporary increase in demand for energy resources. However, the temporary increase would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand. As such, the project would not result in an inefficient, wasteful, and unnecessary consumption of energy, and, the proposed project would result in a ***less-than-significant*** impact on energy resources during construction.

### Mitigation Measure(s)

*None required.*

#### **4.2-2 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency, associated with project operations. Based on the analysis below, the impact is *less than significant*.**

The following analysis considers project-related impacts on multiple types of energy resources, including electricity, natural gas, and vehicle fuels such as gasoline and diesel.

### Building Energy

The project site is currently developed with 90,563 square feet of commercial space, 83,240 square feet of which is occupied. Portions of the existing commercial space were originally built as early as 1966. It should be noted that the analysis provided in this section focuses on the energy consumed by only the occupied areas of the existing University Mall development.

Electricity in the project area is provided by either PG&E or VCE and natural gas in the project area is currently provided by PG&E. PG&E relies on a variety of electricity sources including hydropower, natural-gas-fired generators, and renewable energy sources to provide electricity to customers,<sup>29</sup> while VCE intends on providing the majority of electricity from renewable and carbon free sources.<sup>30</sup> Following implementation of the proposed project, PG&E or VCE would represent the source of electricity provided to the project site and PG&E would continue to provide natural gas to the project site. Energy use associated with operation of the proposed project would be typical of a mixed use development, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, refrigeration, appliances, food preparation activities, security systems, and more. In addition, maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment.

<sup>29</sup> California Energy Commission. *Power Source Disclosure*. Accessible at <http://www.energy.ca.gov/pcl/>. Accessed January 2018.

<sup>30</sup> Valley Clean Energy Alliance. *Community Choice Aggregation Implementation Plan and Statement of Intent*. October 12, 2017.





The potential project demand for electricity and natural gas, as well as the existing demand for electricity and natural gas, were estimated using CalEEMod and are presented in Table 4.2-5. It should be noted that the electricity demand for the proposed project presented in the table below assumes operation of on-site photovoltaic systems sufficient to provide 80 percent of the energy required for the proposed project in compliance with Section 8.01.060 of the Davis Municipal Code. Thus, the electricity demand presented below represents the remaining electricity demand that would be met through grid supplied electricity.

<b>Table 4.2-5</b>		
<b>Estimated Electricity and Natural Gas Consumption</b>		
	<b>Electricity (kWh/yr)</b>	<b>Natural Gas (kBTU/yr)</b>
Proposed Project	780,974	2,406,411
Existing University Mall	1,019,640	243,049
<i>Net Energy Consumption</i>	-238,666	2,163,362
<b>Source: CalEEMod June 2019 (Appendix F).</b>		

The proposed project would increase the intensity of development within the project site; despite the increase in development intensity proposed for the site, implementation of the proposed project is anticipated to reduce the total amount of grid-supplied electricity consumed on-site. A reduction in grid-supplied electricity consumption on-site would occur due to the incorporation of on-site photovoltaic systems as well as improved energy efficiency of modern structures as compared to the existing structures. It should be noted that the CalEEMod energy consumption estimates were based on the earliest available energy use information provided in CalEEMod, which is for the year 2005. Considering that the existing University Mall structures within the project site were developed as early as 1966, the actual energy use resulting from existing operations may be substantially higher than the levels presented in Table 4.2-5. Considering that despite the proposed increase in building intensity within the project site, the proposed project would result in a net decrease in grid-supplied electricity consumption within the project site, implementation of the proposed project would not result in the inefficient or wasteful use of electricity.

Although implementation of the proposed project would result in a reduction in the amount of electricity consumed at the project site, as shown in Table 4.2-5, the project would result in an increase in the consumption of natural gas at the project site. Of the total amount of natural gas consumed during operation of the proposed project, approximately 226,951 kBTU/yr of the total consumption would be attributable to the proposed commercial uses within the site, while the remaining 2,179,460 kBTU/yr of natural gas consumption would be attributable to the residential portion of the project. With regard to natural gas consumption of the commercial uses, the existing 83,240 sf of occupied commercial space consumes 243,049 kBTU/yr, while the proposed 136,800 sf of commercial uses would consume 226,951 kBTU/yr. Thus, implementation of the proposed project would result in a reduction in natural gas consumption related to on-site commercial uses, despite the overall increase in total commercial area under the proposed project.



The proposed residential uses would increase the total amount of natural gas consumed at the project site; however, the increased consumption would be standard for typical residential developments. Furthermore, design of the proposed structures in compliance with existing CBSC and CalGreen Tier 1 standards would ensure that natural gas is consumed efficiently, and wasteful use of natural gas is minimized. Mitigation Measure 4.2-3(b) requires that the project applicant demonstrate GHG reductions to net carbon neutrality by 2040. One of the options for achieving GHG reductions would be the use of all-electric appliances or other means of reducing natural gas consumption within the project site. Therefore, actual operational consumption of natural gas may be lower than the levels presented in Table 4.2-5.

The net increase in natural gas consumption at the project site of 2,163,362 kBtu/yr equates to 21,633.62 Therms. Natural gas consumption within Yolo County equated to 59.80 million Therms in 2017; consequently, the projected natural gas consumption at the project site equates to less than 0.04 percent of the total natural gas consumption in Yolo County. The aforementioned energy demand would represent a small proportion of total energy demand within the County and would not be considered a substantial increase in demand for natural gas.

Considering the above, operation of the proposed project would represent a relatively minor increase in natural gas demand within the County, and would result in a net reduction in grid-supplied electricity demand from the project site. Implementation of the existing CBSC and the Tier 1 standards of CalGreen would ensure that the proposed structures consume energy efficiently and energy waste is reduced to the extent feasible. Therefore, operation of the proposed project would not result in the inefficient or wasteful consumption of energy.

It should be noted that the CBSC and CalGreen serve to implement the State's energy efficiency goals; thus, compliance with the foregoing standards would ensure that the proposed project would comply with all relevant State programs related to energy efficiency. The CVSC and CalGreen do not currently require high-rise residential, commercial, or mixed use structures, to incorporate on-site renewable energy systems. However, the City of Davis has identified renewable energy generation as an important step towards net carbon neutrality by 2040, and Section 8.01.060 of the City's Municipal Code includes requirements for on-site renewable energy systems in some developments. The proposed project would include on-site renewable energy systems sufficient to meet the City's Municipal Code standards. As such, the proposed project would not conflict or obstruct a state or local plan for renewable energy or energy efficiency.

#### Transportation Energy

The Davis CAAP includes objectives for mobility within the City with priorities to reduce VMT, improve efficiency of the transportation network, improve energy efficiency of the vehicle fleet by implementing more advanced technologies, and reduce the carbon content of fuels through the use of alternative fuels. As the City implements the CAAP objectives, the City's overall dependence on oil would be expected to be reduced, including project-related consumption of gasoline.



Project-specific VMT was provided for the proposed project by Fehr and Peers.<sup>31</sup> VMT corresponds directly with transportation energy use, primarily in the form of gasoline, and, thus, represents an appropriate measure for the efficiency of energy demand related to transportation.

Based on the analysis prepared by Fehr and Peers, the operations of the existing University Mall result in daily weekday VMT of 40,275 and a per service population rate of 175.1 VMT per capita (the service population for the existing University Mall is based on the number of employees at the occupied commercial areas of the site, which Fehr and Peers estimated to be 230). With implementation of the proposed project, the daily weekday VMT from both the residential and commercial components of the project would equal 56,770. Although the total VMT would increase with implementation of the project, the per service population rate would equal 45.5 VMT per capita (the service population for the proposed project includes an estimated 355 employees and 894 residents).<sup>32</sup> Consequently, the proposed project would increase the total amount of VMT generated by on-site operations; however, the per capita VMT would decrease dramatically. A lower per capita VMT rate equates to a more efficient use of transportation systems and fuels. Because the per capita VMT rate would decrease, the project's increase in total VMT would be considered an unavoidable result of an increased development density within the site, rather than an inefficient or wasteful increase in transportation energy demand. Further discussion of VMT in relation to citywide and regional averages is presented in Section 4.6, Transportation and Circulation, of this EIR.

In addition, the State of California has committed to increasing the efficiency of vehicles within the State through efforts such as the Advanced Clean Cars Program (AACP). The AACP encourages the control of emissions from passenger vehicles, such as cars and trucks, through the use of low emissions or zero emissions vehicles. Vehicles promoted by the AACP include hybrid and electric vehicles that either augment the efficient use of gasoline through the use of electric motors or forego the use of fossil fuels and solely rely on electric motors. Hydrogen-fueled vehicles also qualify for the AACP. The use of hybrid, electric, and hydrogen-fueled vehicles not only transfers vehicle use away from fossil fuels, but also ensures that the most efficient, least polluting technologies are implemented, as such vehicles are typically more efficient than standard fossil fuel powered vehicles. Therefore, while the increased use of electric vehicles may increase demand for electricity supplies, energy would be more efficiently used than the energy used by traditional fossil fueled vehicles. Ordinance Number 2554 updated Section 8.01.090 of the City's Municipal Code to require that new nonresidential and high-rise residential structures include electric vehicle charging stations. As further discussed in Chapter 3, Project Description, of this EIR, the proposed project would incorporate electric vehicle parking infrastructure. Demand for electric vehicle charging and parking is anticipated to increase, and, as such, an electric vehicle charging parking plan will be developed to accommodate future increases in demand for electric vehicle infrastructure. Provision of electric vehicle infrastructure to meet current and future parking and charging demand would ensure that the proposed project supports increased electric

<sup>31</sup> Fehr & Peers. *University Commons, Transportation Impact Study*. July 2019.

<sup>32</sup> *Ibid.*



vehicle usage, which would decrease the local dependence on fossil fuels and increase overall energy efficiency.

Considering the above, the proposed project would contribute to the City's CAAP objective of reducing overall VMT. By resulting in lower than average VMT, the proposed project would result in a reduced overall demand for transportation energy.

It should be further noted that the SACOG MTP/SCS anticipates a certain amount of growth in the region and includes the associated vehicle trips. The proposed project would fulfill a portion of the anticipated growth in the region. Thus, the vehicle trips associated with the proposed project were included in the MTP/SCS. Therefore, the proposed project would not be considered to result in a substantial increase in demand for regional fuel supplies, or a requirement for substantial additional fuel capacity, and a less-than-significant impact related to transportation energy use would occur.

### Conclusion

As discussed above, the proposed project operations would involve an increase in energy consumption. However, the proposed project would comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, which would ensure that the future uses would be designed to be energy efficient to the maximum extent practicable. Accordingly, the proposed project would not be considered to result in a wasteful, inefficient, or unnecessary usage of energy. Furthermore, implementation of the proposed project would not conflict or obstruct a state or local plan for renewable energy or energy efficiency. Given the above, impacts related to operational energy would be considered ***less than significant***.

### Mitigation Measure(s)

*None required.*

## **Cumulative Impacts and Mitigation Measures**

Although the geographical context for global climate change is the Earth, for analysis purposes under CEQA and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the proposed project, the geographical context for global climate change in this EIR is limited to the State of California.

The following discussion of GHG emissions and energy impacts is based on implementation of the proposed project in comparison to the standards of significance presented above.

- 4.2-3 Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Based on the analysis below and with implementation of all feasible mitigation measures, the proposed project's incremental contribution to this significant cumulative impact is ***less than cumulatively considerable***.**



An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Operation of either the existing University Mall or the proposed project, in combination with other proposed and pending projects in the region would significantly contribute to the State of California GHG emissions and effects of global climate change, resulting in an overall significant cumulative impact. Implementation of the proposed project would contribute to the cumulative increase in GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to the existing University Mall and the proposed project would be primarily associated with increases of CO<sub>2</sub> and, to a lesser extent, other GHG pollutants, such as CH<sub>4</sub> and N<sub>2</sub>O. Sources of GHG emissions include area sources, utilities (electricity and propane), water usage, wastewater generation, and the generation of solid waste.

As discussed earlier in this section, although the City of Davis has adopted operational reduction targets for GHG emissions that can be used as thresholds of significance, neither the City nor YSAQMD has officially adopted any thresholds of significance for construction-related GHG emissions. Consequently, the City of Davis has elected to amortize the estimated construction-related GHG emissions over the anticipated lifespan of the project and add the amortized construction emissions to the estimated operational emissions. By considering the construction-related and operational emissions together, the sum of project-related emissions can be compared to the City's recently adopted goal of carbon neutrality by the year 2040.

The short-term construction-related and long-term operational GHG emissions resulting from implementation of the proposed project are described in further detail below.

#### Construction-Related GHG Emissions

Construction-related GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. Nevertheless, unmitigated construction-related GHG emissions have been estimated for development of the proposed project, as presented below in Table 4.2-6. Construction-related emissions were modeled using CalEEMod under the assumptions described in the Method of Analysis section above.

As shown in Table 4.2-6, total amortized unmitigated construction emissions would equate to 114.77 MTCO<sub>2</sub>e/yr over the assumed 25-year lifespan of the project. However, as further discussed in Chapter 4.1, Air Quality, of this EIR, project construction equipment would be required to meet or exceed the CARB Tier 4 emissions standards. In addition to resulting in reduced particulate matter emissions, operation of Tier 4 engines consumes approximately five percent less fuel than



standard construction equipment.<sup>33</sup> Increased fuel efficiency and decreased total fuel consumption would directly reduce construction-related GHG emissions. Consequently, following implementation of Mitigation Measure 4.1-3, construction emissions associated with the proposed project would occur as shown in Table 4.2-7.

<b>Table 4.2-6</b> <b>Unmitigated Construction-Related GHG Emissions</b> <b>(MTCO<sub>2</sub>e/yr)</b>	
<b>Construction Year</b>	<b>Proposed Project Annual Emissions</b>
2021	846.80
2022	1,483.78
2023	538.69
<b>Total Construction Emissions</b>	<b>2,869.27</b>
<b>Amortized Annual Construction Emissions</b>	<b>114.77</b>
Note: Total construction emissions amortized over 25 years (2,869.27 MTCO <sub>2</sub> e / 25 yr = 114.77 MTCO <sub>2</sub> e/yr).	
<b>Source: CalEEMod, June 2019 (see Appendix F).</b>	

As shown in Table 4.2-7, total amortized mitigated construction emissions would equate to 109.03 MTCO<sub>2</sub>e/yr over the assumed 25-year lifespan of the project. The amortized construction-related GHG emissions were added to the operational emissions presented below.

<b>Table 4.2-7</b> <b>Mitigated Construction-Related GHG Emissions</b> <b>(MTCO<sub>2</sub>e/yr)</b>	
<b>Construction Year</b>	<b>Proposed Project Annual Emissions</b>
2021	804.46
2022	1,409.59
2023	511.76
<b>Total Construction Emissions</b>	<b>2,725.81</b>
<b>Amortized Annual Construction Emissions</b>	<b>109.03</b>
Note: Total construction emissions amortized over 25 years (2,725.81 MTCO <sub>2</sub> e / 25 yr = 109.03 MTCO <sub>2</sub> e/yr).	
<b>Source: CalEEMod, June 2019 (see Appendix F).</b>	

### Comparison to Citywide Carbon Neutrality Goal

As discussed above, the City of Davis previously adopted a CAAP as well as emissions reductions targets and emissions allowances for projects within the City. In March of 2019, the City adopted a resolution declaring a climate change emergency and accelerating the City's previously identified emissions reductions goal to a new

<sup>33</sup> Empire Cat. Tier 4 Emissions Technology. Available at: [http://www.empire-cat.com/Power\\_Systems/Emissions\\_Solutions/Tier\\_4\\_Technology.aspx](http://www.empire-cat.com/Power_Systems/Emissions_Solutions/Tier_4_Technology.aspx). Accessed June 2019.





goal of carbon neutrality by the year 2040. In recognition of the City Council's recent actions and previous emissions reductions efforts and policies enacted by the City's CAAP, for the purposes of this EIR, the proposed project would be considered to have an impact if combined emissions from amortized construction activity and project operations would result in net positive operational emissions in the year 2040. Should the project be shown to reach net neutrality compared to existing emissions levels, the project would be considered to provide a proportional share of emissions reductions and would not inhibit attainment of citywide net carbon neutrality by the year 2040, nor would the project conflict with the City's CAAP.

Construction-related emissions were modeled and amortized as discussed above. Project operational emissions were modeled using CalEEMod under the assumptions described above in the Method of Analysis section. As discussed in the Method of Analysis section of this chapter, considering the project's compliance with the MTP/SCS and SB 375, the proposed project is within an MTP/SCS identified Transit Priority Area and is considered a TPP, and, as such, is eligible for CEQA streamlining. Projects eligible for CEQA streamlining do not need to analyze mobile source GHG emissions.

Furthermore, current operations of the existing University Mall development result in GHG emissions. In the absence of the proposed project, the emissions would continue unabated. Considering that existing GHG emissions resulting from the current operations at the University Mall would continue in the absence of the proposed project, the analysis of operational GHG emissions presented in this EIR focuses on the net change in emissions from existing University Mall operations and the proposed project operations. It should be noted that only the occupied portions of the existing University Mall were considered, which is considered a conservative approach to the emissions analysis, as consideration of the unoccupied spaces would likely overestimate the actual GHG emissions currently associated with the site.

Thus, in compliance with CEQA streamlining provisions, SB 375, and with consideration of the existing sources of GHG emissions within the project site, Table 4.2-8 presents net new GHG emissions related to operation of the proposed project from all emissions sources excluding mobile emissions.

As shown in Table 4.2-8, net new annual emissions resulting from project operations and amortized construction in the year 2024 would equal 326.69 MTCO<sub>2</sub>e/yr. Between 2024 and 2040 existing state regulations would act to further reduce emissions from the levels shown in Table 4.2-8. For instance, based on the State's existing RPS requirements, PG&E, or VCE as applicable, would be required to increase the renewable energy content of electricity delivered to the project site from 43.8 percent in 2024 to 86.7 percent in 2040. The aforementioned increase would reduce emissions related to energy consumption, as well as water consumption, because the treatment and conveyance of water requires energy. Nevertheless, project-specific features sufficient to reduce the anticipated net new emissions of 326.69 MTCO<sub>2</sub>e/yr in the year 2024 to net carbon neutrality by the year 2040 are not currently included in the proposed project.



**Table 4.2-8  
Unmitigated Operational GHG Emissions Year 2024<sup>1</sup>  
(MTCO<sub>2</sub>e/yr)**

<b>Emission Source</b>	<b>Proposed Project Annual GHG Emissions</b>	<b>Existing University Mall Annual GHG Emissions</b>	<b>Net New Annual GHG Emissions</b>
Area	3.29	0.00	3.29
Energy	217.17	127.93	89.24
Solid Waste	133.31	43.95	89.36
Water	49.41	13.64	35.77
Amortized Construction Emissions <sup>2</sup>	109.03	-	109.03
<b>Total Annual GHG Emissions</b>	<b>512.21</b>	<b>185.53</b>	<b>326.69</b>

1 First operational year of the proposed project.

2 See Table 4.2-7.

**Source: CalEEMod, June 2019 (see Appendix F).**

Because project emissions could exceed net carbon neutrality in the year 2040, implementation of the proposed project would conflict with the City's recently adopted goal of carbon neutrality by the year 2040.

### Conclusion

As discussed above, net new emissions resulting from project operations and amortized construction emissions are anticipated to exceed the City's adopted goal of carbon neutrality by the year 2040. As a result, implementation of the proposed project could generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. Thus, the proposed project's incremental contribution to this significant cumulative impact would be **cumulatively considerable**.

### Mitigation Measure(s)

Based on Table 1 of the City's CAAP, as well as the City Council's recent declaration of a climate emergency, carbon neutrality by 2040 is anticipated to be achieved by a "combination of actions at the local, regional, national, and international levels and carbon offsets." In order to demonstrate compliance with the City's adopted GHG emissions reduction goal, project related non-mobile operational emissions must be reduced to carbon neutrality by the year 2040. By demonstrating that the project reaches net neutrality compared to existing emissions levels, the project would provide a proportional share of emissions reductions and would not inhibit attainment of citywide net carbon neutrality by the year 2040, nor would the project conflict with the City's CAAP. Should project emissions be shown to achieve a downward trajectory from the anticipated emissions level of 326.69 MTCO<sub>2</sub>e/yr in the year 2024 to carbon neutrality (zero MTCO<sub>2</sub>e/yr) by the year 2040, project operations would be considered in compliance with the City's adopted GHG emissions reduction goal and the City's CAAP.



A downward trajectory to carbon neutrality could be achieved through various means. For instance, design features could be incorporated into the project design to reduce operational emissions. Design features could include natural ventilation systems to reduce energy use or all electric appliances to reduce the consumption of natural gas on-site. The project applicant would be able to demonstrate the on-site emissions reductions achieved through design features, which would continue to reduce emissions throughout the lifespan of the project. Should project design features be insufficient to reduce emissions on-site, the project applicant would be required to show off-site reductions sufficient to meet the reduction requirements for net carbon neutrality by 2040 presented in Mitigation Measure 4.2-3(a). Off-site measures could be implemented within the City of Davis, for instance through funding of tree-planting programs, or through the purchase of off-set credits through CARB or YSAQMD verified off-set programs. Furthermore, the project applicant could participate in any future off-set programs established by the City. Mitigation Measure 4.2-3(a) allows for demonstration of emissions reductions for either one year at a time or additional reductions sufficient to achieve compliance for multiple years at once. Flexibility would increase the feasibility of achieving the emissions reductions by allowing the project applicant to reduce emissions in advance of future years as off-set projects and funding becomes available.

Thus, implementation of Mitigation Measures 4.2-3(a) and 4.2-3(b) would achieve a downward trajectory of operational emissions, assuring that project implementation would not result in long-term operational impacts related to GHG emissions or the creation of conflicts with an applicable regulation. Therefore, implementation of the following mitigation would reduce the proposed project's incremental contribution to the significant cumulative impact of climate change to a *less than cumulatively considerable* level.

4.2-3(a) *The project proponent shall prepare and implement a GHG Reduction Plan, to the satisfaction of the City, to demonstrate a downward trajectory in GHG emissions, towards the goal of zero net GHG emissions by the year 2040. Prior to the issuance of a building permit for the proposed project. The project proponent shall implement the following steps:*

1. *Model net non-mobile operational GHG emissions using CalEEMod, or another method accepted for the purpose of modeling GHG emissions for the proposed project, taking into account applicable building standards and other regulatory requirements, as well as building design, use of renewable energy, etc. The updated modeling shall take into account any updated project design measures incorporated in compliance with this mitigation measure or as proposed in future project design details.*
2. *Based on the construction and operational schedules proposed at the time of building permitting, the modeled emissions shall be compared to the maximum permitted emissions for the first year of occupancy, based on the Table below:*



<b>Year</b>	<b>Maximum Permitted Net Project Emissions (MTCO<sub>2</sub>e)</b>	<b>Emissions Reductions Achieved (MTCO<sub>2</sub>e)</b>
2024	326.69	0.00
2025	306.27	20.42
2026	285.85	40.84
2027	265.44	61.25
2028	245.02	81.67
2029	224.60	102.09
2030	204.18	122.51
2031	183.76	142.93
2032	163.35	163.35
2033	142.93	183.76
2034	122.51	204.18
2035	102.09	224.60
2036	81.67	245.02
2037	61.25	265.44
2038	40.84	285.85
2039	20.42	306.27
2040	0	326.69
<i>Total Emissions Reductions</i>		<i>2,776.87</i>

3. *Should net operational emissions be shown to exceed the maximum emissions levels presented in the table above, the project applicant shall identify feasible actions to achieve sufficient emissions reductions for the year or years being modeled. Reduction measures may include, but are not limited to:*

- *Use of all-electric, energy-star appliances in all or part of the project;*
- *Installation of on-site photovoltaic systems in excess of the City's standards in place at the time of this environmental analysis;*
- *Use of LED lights in proposed parking areas and other outdoor areas;*
- *Construct on-site or fund off-site carbon sequestration projects (such as tree plantings or reforestation projects);*
- *Implement a Transportation Demand Management Program in accordance with Section 22.15 of the City of Davis Municipal Code;*
- *Provide electric vehicle charging infrastructure in excess of existing CBSC requirements; and/or*
- *Purchase carbon credits to offset Project annual emissions. Carbon offset credits shall be verified and registered with The Climate Registry, the Climate Action Reserve, or another source*



approved by CARB, YSAQMD, or the City of Davis.

4. The emissions reductions resulting from implementation of the above measures shall be calculated, using methods acceptable to the City.
5. Proof of compliance with the maximum annual net emissions targets and the steps above shall be verified through the submittal of a Technical Memorandum of Compliance (TMC) to the City of Davis Department of Community Development and Sustainability. The TMC shall document the following minimum items: modeling (step 1); comparison of modeled emissions to maximum emissions levels identified in step 2; chosen feasible actions to achieve required reductions (step 3); and measurable GHG reduction value of each action (step 4). TMCs prepared in compliance with the foregoing steps may cover individual operational years or multiple operational years. Should a TMC be prepared for multiple operational years, the TMC shall demonstrate compliance with the maximum emissions levels for each year included in the TMC.
6. Implement the authorized actions and provide evidence of this to the City of Davis Department of Community Development and Sustainability. The City upon review and acceptance of implementation, shall issue the certificate of occupancy.

4.2-3(b)

The owner of the project shall submit a GHG Emissions Reduction Accounting and Program Effectiveness Report for the project to demonstrate the project's compliance with the GHG emissions targets established by Mitigation Measure 4.2-3(a). The Report shall be submitted prior to the issuance of a certificate of occupancy for the first residential unit leased or sold. The Report shall identify the following minimum items. Other documentation requirements may be added by the City if found to be necessary to satisfy this mitigation measure.

1. Projected annual net GHG emissions from the initial date of operations through the year 2040.
2. Running total of project emissions reductions and reduction credits.
3. Comprehensive database and summary of implemented reduction actions.

Should the initial Report demonstrate that measures have been incorporated into the project sufficient to achieve the GHG emissions targets established by Mitigation Measure 4.2-3(a), further Reports are not required.

If the initial Report does not demonstrate that measures have been incorporated into the project sufficient to achieve the





*aforementioned emissions targets at the time of initial occupancy, the owner shall be required to submit subsequent Reports every five years until such time that demonstration is made that the project has achieved the required emissions reductions. Subsequent Reports shall contain the same content as required of the initial Report, and demonstrate the implementation of additional measures sufficient to reduce project GHG emissions in compliance with Mitigation Measure 4.2-3(a). Upon demonstration that the project has achieved the required emissions reductions, further Reports are not required.*

**4.2-4 Result in cumulative impacts related to the inefficient or wasteful consumption of energy, or cumulatively contribute to a conflict with State or local plan for renewable energy or energy efficiency associated with project operations. Based on the analysis below, the cumulative impact is *less than significant*.**

Implementation of the proposed project, in combination with other cumulative development within the City, would result in the consumption of energy during both construction and operation of the proposed project and other projects within the City. However, because construction of the proposed project would occur over a limited period of time, and, as discussed in further depth in Impact 4.2-1, construction would not result in impacts related to energy consumption, construction activity would not be considered to result in any cumulative impacts related to energy consumption or the creation of conflicts with renewable energy or energy efficiency plans.

The proposed mixed-use structure would replace an existing commercial structure, portions of which were built as early as 1966. Modern structures built to existing energy efficiency regulations, such as those contained within the CBSC, are substantially more energy efficient than older structures. Therefore, the proposed project would result in the replacement of a relatively inefficient structure with a more modern, energy-efficient structure. The proposed stand-alone commercial structures would also be built in accordance with the CBSC. As shown in Table 4.2-5, the increased energy-efficiency requirements of the most recent CBSC, as well as the Tier 1 provisions of the CALGreen Code and the City of Davis' requirements related to renewable energy standards for new structures, would result in a net decrease in grid electricity consumption within the project site with implementation of the proposed project. A net decrease would occur despite the increase in total building area within the site. Although total on-site natural gas consumption would increase with implementation of the project, natural gas consumption on-site would be minimized to the extent feasible through application of the energy-efficiency requirements of the CBSC and the Tier 1 provisions of the CalGreen Code. Cumulative development within the City would be subject to similar if not more stringent energy efficiency standards. For instance, all development within the City is subject to the City's CalGreen Tier 1 standards as well as standards related to the incorporation of renewable energy systems. Moreover, the CBSC applies to all development within the State, and would therefore apply to all future development within the City. The State has articulated the goal that all new development should meet zero net energy standards by the year





2030. Therefore, the CBSC and other energy efficiency standards are anticipated to get increasingly more stringent into the future. Compliance with existing and future energy efficiency requirements would ensure that cumulative development within the City, when combined with project-related energy demand would not result in a cumulatively significant amount of energy consumption, nor would cumulative development result in the inefficient consumption of energy.

With regard to energy demand related to transportation, Fehr and Peers provided project-specific VMT in the cumulative project setting. Based on the analysis prepared by Fehr and Peers, continued operations of the University Mall in the cumulative setting would result in daily weekday VMT of 45,540 and a per service population rate of 198.0 VMT per capita (the cumulative service population for University Mall operations is identical to the existing setting, which is 230 employees). With implementation of the proposed project, the daily weekday VMT in the cumulative setting from both the residential and commercial components of the project would equal 62,250. Although the total VMT would increase with implementation of the project, the per service population rate would equal 49.8 VMT per capita (the service population for the proposed project includes an estimated 355 employees and 894 residents).<sup>34</sup> Consequently, the proposed project would increase the total amount of VMT generated by on-site operations; however, the per capita VMT would decrease dramatically. A lower per capita VMT rate equates to a more efficient use of transportation systems and fuels. Because the per capita VMT rate would decrease under cumulative conditions, the project's increase in total VMT would be considered an unavoidable result of an increased development density within the site, rather than an inefficient or wasteful increase in transportation energy demand.

Considering the above, implementation of the proposed project would not result in the inefficient or wasteful consumption of energy. Because the proposed project and all future projects within the City would include renewable energy systems in compliance with the City of Davis' standards and would be constructed in compliance with the Tier 1 provisions of the CalGreen Code, the project and all cumulative development within the City would comply with all State and local plans for renewable energy or energy efficiency. Accordingly, implementation of the proposed project would result in a **less-than-significant** cumulative impact.

#### Mitigation Measure(s)

*None required.*

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<sup>34</sup> Fehr & Peers. *University Commons, Transportation Impact Study*. July 2019.



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## **4.3 Land Use and Planning**

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## 4.3 LAND USE AND PLANNING

### 4.3.1 INTRODUCTION

The purpose of the Land Use and Planning section of the EIR is to examine the proposed project's compatibility with existing and planned land uses in the area and assess any inconsistency with applicable planning documents. This chapter includes a description of the existing land use setting of the project site and the adjacent area, including the identification of existing land uses and current Davis General Plan policies and zoning designations. The information contained in this analysis is primarily based on the *Davis General Plan*<sup>1</sup> and associated EIR,<sup>2</sup> and the Davis Municipal Code.<sup>3</sup>

In addition, the reader is referred to the various environmental resource evaluations presented in the other technical chapters of this EIR for a discussion of potential physical/environmental effects that may result from land use changes.

### 4.3.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing land uses on the project site, at the time the NOP was published on November 16, 2018, as well as the existing plans and policies that guide the development of the project site.

#### **Project Site Characteristics**

The 8.25-acre project site is located in the City of Davis, California, north of Russell Boulevard, east of Sycamore Lane, and west of Anderson Boulevard. Regional access to the site is provided by State Route (SR) 113, located approximately 0.3-mile west of the site. Currently, the project site is developed with the existing University Mall, a community shopping center that includes a variety of commercial uses and restaurants. Current tenants include a Cost Plus World Market and smaller shops and services. Professional offices are located on a partial second floor. A Trader Joe's grocery store is situated on a stand-alone pad in the southwest portion of the site that fronts onto Russell Boulevard, at the northeast corner of the intersection of Russell Boulevard and Sycamore Lane. While the project site contains the existing Trader Joe's building, the building would not be altered or redeveloped as part of the project.

Surrounding uses include an ARCO service station with a mini-mart located southeast of the site, at the northwest corner of Russell Boulevard and Anderson Road, the Davis Chinese Christian Church and Rite Aid pharmacy located east of the site across Anderson Road, and the University of California, Davis, (UC Davis) campus to the south of the site across Russell Boulevard. Uses on the UC Davis campus in the project vicinity include a baseball field (La Rue Field) and student housing (The Atriums Apartments/Russel Park Apartments). A three-story apartment complex (University Court) is located west of the project site, across Sycamore Lane. The site is bounded

<sup>1</sup> City of Davis. *Davis General Plan*. Adopted May 2001. Amended through January 2007.

<sup>2</sup> City of Davis. *Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School*. January 2000.

<sup>3</sup> City of Davis. *Davis Municipal Code*. November 23, 2014.



to the north by a two-story apartment complex (Sycamore Lane Apartments) with a perimeter parking lot.

### **Project Site Land Use and Zoning Designations**

Per the City's General Plan, the proposed project site is designated Community Retail (described below). The Community Retail designation allows for retail uses at a maximum floor-to-area ratio (FAR) of 0.50. Residential uses are permitted with approval of a Conditional Use Permit at an FAR of 0.15. The site is zoned Planned Development (PD) 2-97B (Neighborhood Commercial Center). The Planned Development (PD 2-97B) applicable to the property was approved by the City in 2006 and establishes a building height limitation of 50 feet and allows residential uses above the ground floor.

### **Surrounding Land Use and Zoning Designations**

The existing General Plan land use and zoning designations of each of the surrounding areas is summarized in Table 4.3-1 below. Each of the General Plan land use and zoning designations are described in the following sections. It should be noted that the area to the south of the project site on the UC Davis campus is located within unincorporated Yolo County.

<b>Table 4.3-1 Summary of Adjacent Land Use and Zoning Designations</b>			
<b>Relationship to Project Site</b>	<b>Existing Use</b>	<b>General Plan Land Use Designation</b>	<b>Zoning Designation</b>
North	Multi-Family Residential	Medium High Density Residential	Residential Garden Apartment (R-3-M)
South	Multi-Family Residential	Public/Quasi-Public (Yolo County)	Public/Quasi-Public (Yolo County)
West	Multi-Family Residential	Medium High Density Residential	Residential High Density Apartment (R-HD)
East	Church	Low Density Residential	Residential One-Family (R-1-6)
	Commercial	Community Retail	PD 12-78

### **City of Davis General Plan Land Use Categories**

The City of Davis General Plan defines the above Community Retail, Medium High Density Residential, and Low Density Residential land use designations as follows:

#### **Community Retail**

The intent of the Community Retail land use designation is to provide opportunities for moderate-sized retail stores in existing retail clusters selling retail goods such as, appliances, electronics, furniture, clothing, soft goods, and similar types of products. Allowable uses include retail shopping centers and freestanding buildings selling the goods listed above, as well as ancillary retail uses and restaurants. Community Retail-designated areas may include some neighborhood-serving uses such as food stores. Residential uses are conditionally allowable.

The maximum allowable FAR is 50 percent, with an additional 10 percent allowed for development of shared parking facilities with neighboring uses. An additional 15 percent is allowed for the housing component of a mixed-use project. In addition, the General Plan specifies the following special considerations for "moderate size" community retail stores:



- a. Must be designed and located to maximize accessibility and safety for pedestrians.
- b. Have a unified design that is consistent with and complementary to the City's small-town ambience and neighborhood preservation goals.
- c. Incorporate state-of-the-art energy conservation in its planning and design.
- d. If located near a freeway, orient toward the community and away from the freeway.
- e. Favor retail types that are not likely to be able to locate in the downtown area and that are not currently adequately available in Davis (such as apparel and soft goods, appliances, home furnishings and electronics).
- f. Shall be allowed only if:
  - a. The downtown or neighborhood centers cannot accommodate the retail type; and
  - b. The retail type in question is not adequately available in Davis. Under this provision, the size and type (for example, appliances, electronics) of the conditionally allowed retail use shall be strictly limited to the maximum size (up to 50,000 square feet) and to the specific type(s) of retail uses necessary to address the community's need(s).

## **Residential**

The Residential land use categories presented in the General Plan are intended to allow for residential development emphasizing compact clustered development in new areas and infill in existing neighborhoods, together with a mixture of local-serving retail and institutional uses, to meet housing demands, reduce pressure for peripheral growth and facilitate transit and bicycle/pedestrian travel. Allowable uses for the Residential land use designations include single-family housing, mobile homes, split lots, and multi-family units.

### **Medium High Density Residential**

Allowable densities for the Medium High Density Residential category range from 14.00 to 24.99 units per gross acre, accounting for a 25 percent density bonus. Without a density bonus, the maximum allowable density is 19.99 units per gross acre.

### **Low Density Residential**

Allowable densities for the Low Density Residential category range from 3.00 to 5.99 units per gross acre, accounting for a 25 percent density bonus. Without a density bonus, allowable densities range from 2.40 to 4.79 units per gross acre.

## **City of Davis Zoning Designations**

The City of Davis Municipal Code defines the PD, R-3-M, R-HD, and R-1-6 zoning designations as follows:

### **PD**

The PD district is intended to allow diversification in the relationship of various buildings, structures and open spaces in order to be relieved from the rigid standards of conventional zoning.

### **R-3-M**

The purpose of the R-3 zoning district is to stabilize and protect the residential character of the district, and to promote, insofar as is compatible with the intensity of land use, a suitable environment for family life. Permitted uses of land within the R-3 zoning district include, but are not limited to, single- and multi-family residential uses, family and group day care homes, group care homes with six or fewer clients, cooperative housing, supportive housing, and transitional



housing. Within the R-3-M district, medical clinics and professional and administrative offices are conditionally permitted.

### **R-HD**

The purpose of the R-HD district is to stabilize and protect the residential character of the district, and to promote, insofar as is compatible with the intensity of land use, a suitable environment for family life. This district is to be established in areas in close proximity to the central commercial area of the City or the University.

### **R-1-6**

The purpose of the R-I district is to stabilize and protect the residential characteristics of the district and to promote and encourage a suitable environment for family life. The R-1 district is intended for single-family homes and services appurtenant thereto. Area, lot width, yard, and open space requirements for the R-1-6 designation are specified in Section 40.03.06 of the City's Municipal Code.

### **Yolo County General Plan Land Use and Zoning Designations**

Per the Yolo County General Plan and Code of Ordinances, the Public/Quasi-Public land use and zoning designations both are intended for uses such as schools, museums, libraries, fraternal organizations, and private uses that attract large numbers of customers, such as theaters and sports event venues. Other allowable uses include public airports, including related visitor services, and infrastructure including wastewater treatment facilities, municipal wells, landfills, and stormwater detention basins.

### **4.3.3 REGULATORY CONTEXT**

The following is a description of the regulatory context under which land use and planning is managed at a local level.

#### **Local Regulations**

The following are local regulations applicable to the proposed project.

#### **Sacramento Area Council of Governments**

The Sacramento Area Council of Governments (SACOG) is an association of local governments from six counties and 22 cities within the Sacramento Region. The counties include El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba. SACOG is responsible for the preparation of, and updates to, the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for the region and the corresponding Metropolitan Transportation Improvement Program (MTIP). The MTP/SCS provides a 20-year transportation vision and corresponding list of projects. The MTIP identifies short-term projects within a seven-year horizon in more detail. The 2016 MTP/SCS was adopted by the SACOG board on February 18, 2016.

#### **Metropolitan Transportation Plan/Sustainable Communities Strategy**

The 2035 MTP/SCS is a long-range plan for transportation improvements in the region. The 2035 MTP/SCS is based on projections for growth in population, housing, and jobs. SACOG determines the regional growth projections by evaluating baseline data, historic reference data, capacity data, and current MTP data about assumptions used in the most recent MTP/SCS. Baseline data includes existing housing units and employees, the jobs-to-housing ratio, and the percent of regional growth share for housing units and employees. The historic reference data is based upon





five- and ten-year residential building permit averages and historic county-level employment statistics. The capacity data includes the General Plan data for each jurisdiction. SACOG staff meets with each jurisdiction to discuss and incorporate more subjective considerations about planned growth for each area. Finally, SACOG makes a regional growth forecast for new homes and new jobs, based upon an economic analysis provided by a recognized expert in order to estimate regional growth potential based on market analysis and related economic data. The growth forecast is then incorporated into the MTP/SCS.

### **City of Davis General Plan**

The applicable Davis General Plan policies and standards adopted for the purpose of avoiding or mitigating an environmental effect are presented below in Table 4.3-2.

## **4.3.4 IMPACTS AND MITIGATION MEASURES**

The following section describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential impacts related to land use and planning. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

### **Standards of Significance**

Consistent with Appendix G of the CEQA Guidelines, a land use and planning impact may be considered significant if any potential effects of the following conditions, or potential thereof, would result with the proposed project's implementation:

- Physically divide an established community; or
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

### **Issues Not Discussed Further**

The Initial Study prepared for the proposed project (see Appendix C) determined that because the project would be considered infill development and would involve improvements only on the already developed University Mall site, a less-than-significant impact would occur related to physical division of an established community. Accordingly, impacts related to a physical division of an established community are not further analyzed or discussed in this chapter of the EIR.

### **Method of Analysis**

The section below evaluates the proposed project for compatibility with existing and planned adjacent land uses and for consistency with the City's adopted plans, policies, and zoning regulations. Physical environmental impacts resulting from implementation of the proposed project are discussed in the environmental resource sections of the various technical chapters within this EIR. The following discussion complies with section 15125(d) of the CEQA Guidelines, which requires EIRs to discuss inconsistencies with general plans and regional plans as part of the environmental setting. The ultimate determination of consistency rests with the City Council.

### **Project-Specific Impacts and Mitigation Measures**

The following discussion of land use and planning impacts is based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above.



**4.3-1 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Based on the analysis below, the impact is *less than significant*.**

As noted previously, the site is designated in the General Plan as Community Retail and zoned PD 2-97B. Under the Community Retail designation, residential uses are allowed with approval of a Conditional Use Permit. In addition, the maximum floor area ratio for retail is 0.50, with an additional 0.15 allowed for the residential component in a mixed-use project. As described in the sections below, the proposed project would require a General Plan Amendment and a Rezone.

General Plan Amendment

The proposed project would require an amendment to the City's General Plan text to create a new land use designation, Mixed Use Urban Retail, as described below, to allow for the mix of retail, office, research, and residential uses at the proposed density. The General Plan Amendment would consist of a text amendment to create the new Mixed Use Urban Retail land use designation and a map amendment to apply the new designation only to the project site.

*Mixed Use Urban Retail*

**Intent:** To provide opportunities for large-scale, multi-story mixed-use development that allows moderate-size community and/or neighborhood-serving retail stores with high density, residential uses mixed with office uses and creative high-tech and research uses. The Mixed Use Urban Retail is intended to create healthy and active retail centers, with housing options, a mix of unit types and sizes, innovative design, neighborhood connections, compatible knowledge-based employment spaces and convenient transportation alternatives.

**Allowable Uses:** Allowable uses in this designation includes retail shopping centers and freestanding retail buildings, high density residential uses, and compatible offices, business services, lab and high tech research space. Commercial uses, predominantly retail stores and restaurants, shall be located on the ground floor. Residential units shall be located above the ground floor. Commercial and office uses may also be located above the ground floor.

**Maximum Floor Area Ratio:** 125 percent for a mixed use project, with a potential total of 175 percent through the following:

- Additional 50 percent FAR with provision of structured parking or below-grade parking provided that a minimum of 50 percent of the parking is located in structured or below-grade parking. Parking structures and below-grade parking are excluded from the FAR calculation.
- In no case shall the residential portion of the mixed use project exceed three-quarters of the project's total FAR square footage.



**Special Considerations for Mixed Use Urban Retail Developments.**

- Include a mix of high density residential uses with convenient retail and services for daily needs and opportunities for community retail uses that are not currently adequately available in the City.
- Support opportunities and spaces for a flexible mix of high tech employment uses which are compatible with the retail and residential environment.
- Have unified and high quality design that provides an appropriate urban scale and enhances the City's character.
- Provide site amenities and outdoor gathering spaces for customers, residents, and employees.
- Incorporate parking and transportation demand management to reduce the reliance on vehicle ownership and use.
- Provide site improvements, access, and on-site facilities and design that encourage and facilitate pedestrians, bicycles, transit, other alternative transportation options, and emerging mobility technologies.

With approval of the requested General Plan Amendment, the proposed project would be consistent with the City's General Plan. Furthermore, in order for the new Mixed Use Urban Retail land use designation to be applied to other properties in the City, a General Plan map amendment would be required, subject to separate environmental review and discretionary approval. Thus, the requested General Plan Amendment would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Rezone

The site's zoning designation of PD 2-97B, approved by the City in 2006, establishes a building height limitation of 50 feet and allows residential uses above the ground floor. The project would require an amendment to the City's zoning map (Section 40.01.090 of the City's Municipal Code) to establish a new Planned Development zoning designation (PD #03-18) for the project site. The proposed PD #03-18 would specify permitted, accessory, and conditional uses for the property, and project-specific development standards. In addition to the range of retail commercial and office uses currently allowed, the proposed PD would allow a greater intensity of residential uses as well as additional office uses and limited research, development, and lab uses. With approval of the requested Rezone, the proposed project would be consistent with the City's Zoning Ordinance. Thus, the requested Rezone would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Conclusion

Approval of the General Plan Amendment and Rezone are discretionary actions subject to approval by the City Council. Should the City approve the requested entitlements, the project would be rendered consistent with the City's General Plan and Zoning Ordinance. From a policy perspective, Table 4.3-2 at the end of this chapter demonstrates that the proposed project would be generally consistent with the policies in the City of Davis General Plan adopted for the purpose of avoiding or mitigating an environmental effect.



Based on the above, the proposed project would not cause a significant environmental impact due to conflicts with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (including the policies discussed in Table 4.3-2), and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

*None required.*

**Cumulative Impacts and Mitigation Measures**

The following section provides an analysis of cumulative impacts associated with the proposed project.

**4.3-2 Cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Based on the analysis below, the cumulative impact is *less than significant*.**

A cumulative analysis of land use is not included because land use plans or policies and zoning generally do not combine to result in cumulative impacts. The determination of significance for impacts is whether the project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Conflicts are site-specific, and, thus, are only addressed on a project-by-project basis. As shown in Table 4.3-2 of this chapter, the proposed project would be generally consistent with relevant policies in the City's General Plan.

Therefore, the proposed project would not cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and the cumulative impact would be ***less-than-significant***.

Mitigation Measure(s)

*None required.*



**Table 4.3-2**  
**City of Davis General Plan Consistency Discussion**

Policy	Project Consistency
<p>Policy TRANS 1.6 Reduce carbon emissions from the transportation system in Davis by encouraging the use of non-motorized and low carbon transportation modes.</p>	<p>Section 4.2, Greenhouse Gas Emissions and Energy, of this EIR includes various measures to reduce emissions of greenhouse gasses (GHGs) associated with project operations. Mitigation Measure 4.2-3(a) requires the project proponent to prepare and implement a GHG Reduction Plan to demonstrate a downward trajectory in GHG emissions, towards the goal of zero net GHG emissions by the year 2040. Per Mitigation Measure 4.2-3(a), in the event that operational emissions are determined to exceed established thresholds, the project would be required to implement reduction measures to further reduce operational emissions. Reduction measures could include preparation of a Transportation Demand Management Program, prepared in accordance with the City's Municipal Code. The Transportation Demand Management Program would reduce single-passenger vehicle use and increase use of non-motorized and low-carbon transportation modes. Furthermore, Mitigation Measure 4.2-3(c) requires the owner of the project site to submit a GHG Emissions Reduction Accounting and Program Effectiveness Report for the project every five years.</p> <p>Furthermore, the proposed project would provide for high density mixed-use development within close proximity to the UC Davis campus. Existing and planned bicycle lanes and pedestrian walkways in the project vicinity would allow for high pedestrian and bicycle connectivity between the project site and the campus. Thus, the project encourages non-motorized transportation.</p>
<p>Policy TRANS 2.4 As part of the initial project review for any new project, a project-specific traffic study may be required. Studies shall identify impacted transportation modes and recommend mitigation measures designed to reduce these impacts to acceptable levels.</p>	<p>As discussed in Section 4.6, a Transportation Impact Study has been prepared for the proposed project by Fehr &amp; Peers, and the findings therein have been incorporated into this EIR. The Transportation Impact Study includes recommended mitigation measures to reduce all identified transportation impacts to the maximum extent feasible.</p>
<p>Policy UD 2.1. Preserve and protect scenic resources and elements in and around Davis, including natural habitat and scenery and resources reflective of place and history.</p>	<p>As discussed in the Initial Study prepared for the proposed project, the project would not substantially degrade the existing visual character or quality of the built site and its surroundings. In addition, the proposed project is located in an area identified as a Transit Priority Area by the MTP/SCS, and would be considered an urban infill project. Aesthetic impacts of infill projects within Transit Priority Areas are not considered significant physical effects on the environment (California PRC Section 21099[d]).</p>



**Table 4.3-2**  
**City of Davis General Plan Consistency Discussion**

Policy	Project Consistency
Policy UD 3.2 Provide exterior lighting that enhances safety and night use in public spaces, but minimizes impacts on surrounding land uses.	The proposed project would be required to comply with the City's Outdoor Lighting Control policies and the goals and policies of the General Plan. Consistency with the City's Municipal Code would be ensured during the site plan and architectural review process. Section 8.17.030 of the City's Municipal Code includes general requirements for outdoor lighting. For example, the Municipal Code requires all outdoor lighting to be fully shielded and the direction of lighting be considered to avoid light trespass and glare onto surrounding properties. The aforementioned regulations would prevent the proposed project from creating new sources of light that would create a nuisance for the nearby residences in the project vicinity.
Policy WATER 1.2. Require water conserving landscaping.	The project would be required to comply with Article 40.42, Water Efficient Landscaping, of the City's Municipal Code, which includes specific provisions to reduce landscaping water use in new developments. The standards included in Article 40.42 are consistent with the State's Water Conservation in Landscaping Act of 2006.
Policy WATER 1.3. Do not approve future development within the City unless an adequate supply of water is available or will be provided prior to occupancy.	As discussed in Section 4.5, Public Services and Utilities, of this EIR, sufficient water supply is available to serve the proposed project's operational water demand and reasonably foreseeable future development during normal, dry, and multiple dry years.
Policy WATER 2.3 Maintain surface water quality.	Please refer to the Project Consistency discussion for Policy HAZ 5.1 regarding the treatment of stormwater runoff and wastewater prior to discharge. The proposed project would include LID features and treatments that would reduce the potential for the proposed project to result in a degradation of surface water quality.
Policy WATER 3.2 Coordinate and integrate design, construction, and operation of proposed stormwater retention and detention facilities City-wide, to minimize flood damage and improve water quality.	Mitigation Measure IX-1 in the Initial Study prepared for the project requires the project applicant to submit to the City a plan, identifying permanent stormwater treatment control measures, Site Design Measures, and Hydromodification Measures, for each drainage management area, to be implemented on the project site.
Policy WATER 5.1 Evaluate the wastewater production of new large-scale development prior to approval to ensure that it will fall within the capacity of the plant.	As discussed in Section 4.5, Public Services and Utilities, of this EIR, adequate capacity exists at the City's wastewater treatment plant (WWTP) to treat the wastewater that would be generated by the proposed project. Furthermore, the project applicant would be required to pay sewer impact fees to the City, which would contribute towards the cost of future upgrades of the City's wastewater collection system and WWTP.





**Table 4.3-2  
City of Davis General Plan Consistency Discussion**

<b>Policy</b>		<b>Project Consistency</b>
Policy Y&E 8.1	Require full mitigation of school impacts resulting from new residential development within the boundaries of the City, to the extent legally permissible.	The project would be required to pay school impact fees to the Davis Joint Unified School District (DJUSD) in accordance with the requirements of Senate Bill 50.
Policy HIS 1.2	Incorporate measures to protect and preserve historic and archaeological resources into all planning and development.	Mitigation Measures V-1 and V2, as detailed in the Initial Study prepared for the proposed project, include specific requirements related to the protection of cultural resources during construction of the project.
Policy HAZ 1.1	Site and design developments to prevent flood damage.	As noted in the Initial Study prepared for the proposed project, the project site is located within Flood Hazard Zone X, which is described by FEMA as an area of minimal flood hazard.
Policy HAZ 2.1	Take necessary precautions to minimize risks associated with soils, geology, and seismicity.	As noted in the Initial Study prepared for the proposed project, the project would be designed to comply with all applicable State and local regulations, including the California Building Code (CBC). The aforementioned regulations provide minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground shaking with specified probability of occurring at a site. Structures built according to the seismic design provisions of the CBC should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some nonstructural damage; and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage.
Policy NOI 1.1	Minimize vehicular and stationary noise sources, and noise emanating from temporary activities.	Issues related to noise are analyzed in Section 4.4 of this EIR. As noted therein, Mitigation Measure 4.4-5 would ensure that impacts related to on-site truck circulation during project operations would be reduced to less-than-significant levels. In addition, Mitigation Measure 4.4-1 would ensure that the project would result in a less-than-significant impact related to temporary construction noise. Section 4.4 of this EIR does not identify any significant impacts related to operational traffic noise.
Policy NOI 2.1	Take all feasible steps to ensure that interior noise levels can be maintained at the levels shown in Table 20.	As discussed in Section 4.4, Noise, of this EIR, the predicted future traffic noise levels at the proposed buildings would comply with the applicable interior noise level standard, and a less-than-significant impact would occur.



**Table 4.3-2**  
**City of Davis General Plan Consistency Discussion**

<b>Policy</b>		<b>Project Consistency</b>
Policy HAB 1.1	Protect existing natural habitat areas, including designated Natural Habitat Areas.	As noted in the Initial Study prepared for the proposed project, the project site is currently fully developed with the existing University Mall building and associated parking lots. The only vegetation on the project site consists of ornamental landscaping and associated trees located throughout the parking areas and along roadway frontages. Therefore, natural habitat areas do not exist on the project site, and the project would not impact any natural habitat areas.
Policy HAZ 4.1	Reduce and manage toxics within the planning area.	<p>The proposed Mixed Use Urban Retail designation would allow for office and research uses at the project site, including lab and high tech research space. Examples of research and development and associated laboratory uses that could occur on the site include biotechnology (applied molecular biology), computer-component manufacturers, distributed computing and telecommunications (information technology), and transportation research. Based on the allowable uses, the routine transport, use, or disposal of hazardous materials could occur at the project site. However, all proposed uses would be required to comply with all applicable State and local regulations, including those related to the handling of hazardous materials.</p> <p>For example, any uses involving hazardous materials at the project site would likely be regulated based on the California Fire Code occupancy classifications for Business Group B, which set forth maximum allowable quantity standards for hazardous materials. The maximum allowable quantities set forth within the California Fire Code are understood to represent the maximum quantities of hazardous materials that may safely be used within fire control areas. Thus, hazardous materials within the project site would be within the levels deemed safe for Occupancy Business Group B fire control areas.</p> <p>During operation of any future research and development businesses within the project site, any hazardous materials used on-site would be stored indoors with appropriate containment and ventilation, as required, and such hazardous materials would be used in limited quantities by experienced personnel. Where hazardous materials would be stored outdoors, storage must comply with the building setback requirements set forth in the California Fire Code and applicable regulations related to avoidance of accidental upset or release of stored materials.</p>
Action HAZ 4.1c	Continue to cooperate with Yolo County agencies in implementing State laws relating to the use of hazardous materials, including the review of “business plans” for businesses using hazardous materials.	
Action HAZ 4.1d	Create and enforce zoning regulations regarding siting and permitting of businesses that handle hazardous materials.	



**Table 4.3-2**  
**City of Davis General Plan Consistency Discussion**

Policy	Project Consistency
	Overall, compliance with the regulations described above would ensure that the proposed project would comply with General Plan Policy HAZ 4.1 and Actions HAZ 4.1c and d.



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## 4.4 Noise

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## 4.4 NOISE

### 4.4.1 INTRODUCTION

The Noise section of the EIR describes the existing noise environment in the project vicinity and identifies potential impacts and mitigation measures related to the noise associated with construction and operation of the proposed project. The method by which the potential impacts are analyzed is discussed, followed by the identification of impacts and recommended mitigation measures designed to reduce significant noise impacts to less-than-significant levels, if required. The Noise section is primarily based on the Environmental Noise Assessment prepared for the proposed project by j.c. brennan & associates, Inc. (see Appendix G),<sup>1</sup> as well as the Davis General Plan<sup>2</sup> and associated EIR.<sup>3</sup>

### 4.4.2 EXISTING ENVIRONMENTAL SETTING

The Existing Environmental Setting section provides background information on noise and vibration, a discussion of acoustical terminology and the effects of noise on people, existing sensitive receptors in the project vicinity, existing sources and noise levels in the project vicinity, and groundborne vibration.

#### **Fundamentals of Acoustics**

Acoustics is the science of sound. Sound is a mechanical energy of vibration transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough, 20 times per second, they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel (dB) scale uses the hearing threshold (20 micropascals or vibrations per second), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels,

<sup>1</sup> j.c. brennan & associates, Inc. *Environmental Noise Assessment University Commons DEIR*. May 10, 2019.

<sup>2</sup> City of Davis. *Davis General Plan*. Adopted May 2001. Amended through January 2007.

<sup>3</sup> City of Davis. *Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School*. January 2000.



perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. A strong correlation exists between A-weighted sound levels and the way the human ear perceives sound. Accordingly, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound. In addition, because of the logarithmic nature of the decibel scale, provided two sources of noise differ in intensity by at least 10 dB, their noise would not be additive. Two noise levels differing by 10 dB, which are added together, essentially equal the higher of the two noise levels.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level ( $L_{eq}$ ), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The  $L_{eq}$  is the foundation of the composite noise descriptor,  $L_{dn}$ , and shows very good correlation with community response to noise.

The day/night average noise level ( $L_{dn}$ ) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because  $L_{dn}$  represents a 24-hour average,  $L_{dn}$  tends to disguise short-term variations in the noise environment. Figure 4.4-1 presents a list of several examples of the noise levels associated with common activities.

### **Effects of Noise on People**

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; or
- Physiological effects such as hearing loss or sudden startling.

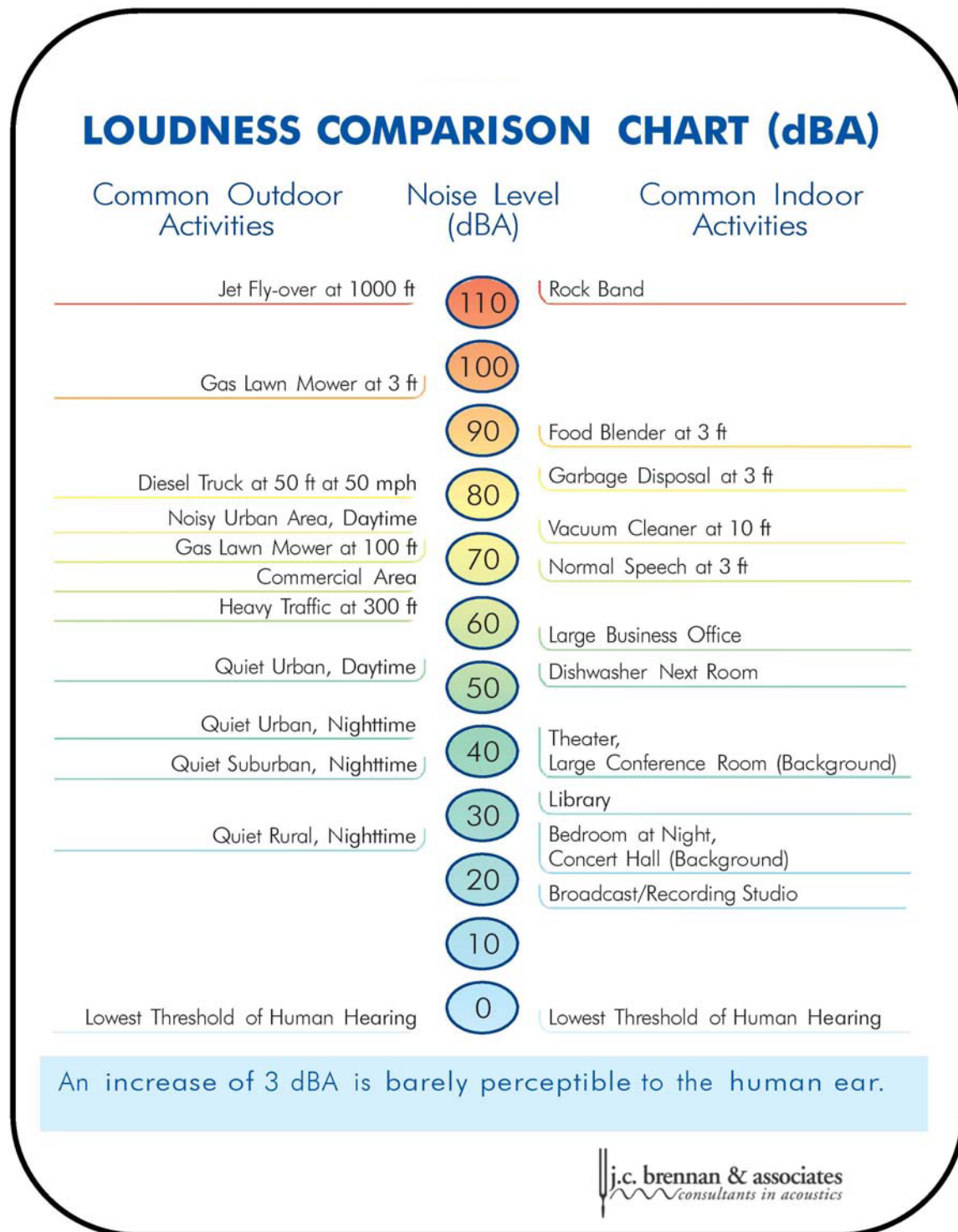
Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. A satisfactory way of measuring the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction does not exist. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way the new noise compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise would be judged by those hearing the new noise.





**Figure 4.4-1  
Loudness Comparison Chart**



With regard to increases in A-weighted noise levels, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1.0 dB cannot be perceived;
- Outside of the laboratory, a 3.0 dB change is considered a barely perceivable difference;
- A change in level of at least 5.0 dB is required before any noticeable change in human response would be expected; and
- A 10 dB change is subjectively heard as approximately a doubling in loudness, and would typically cause an adverse response.

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of approximately six dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

### **Existing Sensitive Receptors**

Certain land uses are more sensitive to ambient noise levels than others due to the amount of noise exposure (in terms of both exposure time and shielding from noise sources) and the type of activities typically involved. Noise sensitive land uses typically include residences, schools, churches, child care centers, hospitals, long-term health care facilities, convalescent centers, retirement homes, and recreation areas.

In the immediate vicinity of the project site, sensitive land uses include the Sycamore Lane Apartments, located approximately 50 feet north of the site, single-family residences located east of the site, across Anderson Road, the University Court Apartments located across Sycamore Lane to the west of the site, and the Davis Chinese Christian Church located across Anderson Road to the east of the site.

### **Existing Noise Sources and Ambient Noise Levels**

To quantify existing ambient noise levels in the immediate project vicinity, j.c. brennan & associates, Inc. conducted five short-term noise level measurements and one continuous 24-hour noise level measurement on the project site. The locations of the noise measurement sites are shown in Figure 4.4-2. The ambient noise levels are presented in Table 4.4-1. The maximum value ( $L_{max}$ ) represents the highest noise level measured during an interval. The average value ( $L_{eq}$ ) represents the energy average of all of the noise measured during an interval. The median value ( $L_{50}$ ) represents the sound level exceeded 50 percent of the time during an interval.

Based on field observations and noise measurement data described above, the existing noise environment at the project site is defined by roadway traffic and noise sources associated with the existing commercial uses.



**Figure 4.4-2  
Noise Measurement Locations**



Source: j.c. brennan & associates, Inc., 2019.





**Table 4.4-1  
Measured Ambient Noise Levels**

Site	Location	L <sub>dn</sub>	Average Measured Hourly Noise Levels (dBA)					
			Daytime (7AM–10PM)			Nighttime (10PM–7AM)		
			L <sub>eq</sub>	L <sub>50</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>50</sub>	L <sub>max</sub>
Long-Term Noise Level Measurements								
A	West portion of the Project Site	60.8	57.6	53.1	79.6	53.5	47.4	69.6
Short-Term Noise Level Measurements								
Site	Location	Time	L <sub>eq</sub>	L <sub>50</sub>	L <sub>max</sub>	Notes		
1	Southwest on-site	12:00 PM	63.3	58.7	77.2	Roadway Traffic/Parking Lot Activity		
2	South-central on-site	12:20 PM	58.6	55.1	70.8	Some Roadway Traffic/Parking Lot Activity		
3	Eastern on-site	12:50 PM	56.7	55.0	68.6	Anderson Road Traffic		
4	Northeastern on-site	1:20 PM	50.4	49.7	60.8	Roadway Traffic		
5	Northwestern on-site	2:00 PM	53.2	51.2	64.0	Traffic on Sycamore		
Source: j.c. brennan & associates, Inc., 2019.								

### Existing Traffic Noise Levels

Traffic volumes for existing conditions were obtained from the project traffic consultant. Truck percentages and vehicle speeds on the local area roadways were estimated from field observations. Traffic noise levels are generally predicted at 75 feet from the centerline along each project-area roadway segment. Sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in the Environmental Noise Assessment.

Table 4.4-2 presents the existing traffic noise levels in terms of L<sub>dn</sub> along each roadway segment, as well as the distances to existing traffic noise contours. Appendix G to this EIR provides details regarding the Federal Highway Administration (FHWA) modeling, including the complete inputs and results. The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers. The distances reported are generally considered to be conservative estimates of noise exposure along the project-area roadways.

### Vibration

While vibration is similar to noise, both involving a source, a transmission path, and a receiver, vibration differs from noise because noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.



**Table 4.4-2  
Existing Traffic Noise Levels and Distances to Contours**

Roadway	Segment	L <sub>dn</sub> , dBA <sup>1</sup>	Contour Noise Levels (L <sub>dn</sub> , dBA) <sup>1</sup>			
			Distance (feet) <sup>1</sup>	Distance to Contours (feet) <sup>2</sup>		
				70 dB	65 dB	60 dB
Russell Boulevard	West of Arthur Street	66	75	39	83	179
Russell Boulevard	Arthur Street to SR 113	67	75	46	100	215
Russell Boulevard	SR 113 to Orchard Park	67	75	51	109	236
Russell Boulevard	Orchard Park to Sycamore Lane	68	75	51	111	238
Russell Boulevard	Sycamore Lane to Project Driveways	67	75	45	97	209
Russell Boulevard	Project Driveways to Anderson Road	68	75	54	117	252
Russell Boulevard	Anderson Road to College Park	68	75	53	115	247
Russell Boulevard	College Park to A Street	68	75	55	119	256
Russell Boulevard	A Street to B Street	68	75	54	116	250
Arthur Street	North of Russell Boulevard	61	75	19	42	90
Orchard Park	South of Russell Boulevard	60	75	15	32	70
Sycamore Lane	Russell Boulevard to S. University Mall Driveway	63	75	27	58	125
Sycamore Lane	S. University Mall Driveway to N. University Mall Driveway	62	75	23	50	107
Sycamore Lane	North of Project Site	62	75	23	50	108
La Rue Road	South of Russell Boulevard	66	75	42	91	197
Anderson Road	Russell Boulevard to Central University Mall Driveways	65	75	35	75	162
Anderson Road	Central University Mall Driveways to N. University Mall Drive	65	75	34	72	156
Anderson Road	North of Project Site	65	75	34	73	156
California Avenue	South of Russell Boulevard	61	75	18	40	85
Oak Avenue	North of Russell Boulevard	58	75	13	27	58
Howard Way	South of Russell Boulevard	63	75	26	56	121
College Park	North of Russell Boulevard	56	75	8	18	39
A Street	South of Russell Boulevard	58	75	12	26	55
A Street	North of Russell Boulevard	55	75	8	17	36
B Street	North of Russell Boulevard	62	75	22	46	100
B Street	South of Russell Boulevard	65	75	37	79	170

Notes:

<sup>1</sup> All calculations of traffic noise levels and distances to contours are relative to the roadway centerlines.

<sup>2</sup> Traffic noise levels do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding

Source: j.c. brendan & associates, Inc., 2019.



Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration levels in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 4.4-3 indicates that the threshold for architectural damage to structures is 0.2 peak particle velocity in inches per second (in/sec p.p.v.) and continuous vibrations of 0.1 in/sec p.p.v., or greater, would likely cause annoyance to sensitive receptors.

<b>Table 4.4-3 Effects of Vibration on People and Buildings</b>			
<b>Peak Particle Velocity</b>		<b>Human Reaction</b>	<b>Effect on Buildings</b>
<b>mm/sec</b>	<b>in/sec</b>		
0.15 - 0.30	0.006 - 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of “architectural” damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of “architectural” damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize “architectural” damage
10 - 15	0.4 - 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage
<b>Source: Caltrans. <i>Transportation Related Earthborne Vibrations(Caltrans Experiences) Technical Advisory, Vibration, TAV-04-01-R0201</i>. January 23, 2004.</b>			

#### **4.4.3 REGULATORY CONTEXT**

In order to limit exposure to physically and/or psychologically damaging noise levels, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. The following provides a general overview of the existing regulations that are relevant to the proposed project.

##### **State Regulations**

The following are the State environmental laws and policies relevant to noise.





## California State Building Codes

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations, establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings.

Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB  $L_{dn}$  or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the  $L_{dn}$  or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

## Local Regulations

The following are the local environmental goals and policies relevant to noise.

### City of Davis General Plan

The applicable goals, policies, and standards from the Noise Element of the Davis General Plan are presented below.

Goal NOISE 1      Maintain community noise levels that meet health guidelines and allow for a high quality of life.

Policy NOISE 1.1      Minimize vehicular and stationary noise sources, and noise emanating from temporary activities.

Standard NOISE 1.1a: The City shall strive to achieve the “normally acceptable” exterior noise levels shown in Table 4.4-4 (Table 19 of the General Plan) and the target interior noise levels in Table 4.4-5 (Table 20 of the General Plan) in future development areas and in currently developed areas.

Standard NOISE 1.1b: New development shall generally be allowed only in areas where exterior and interior noise levels consistent with Table 4.4-4 (Table 19 of the General Plan) and Table 4.4-5 (Table 20 of the General Plan) can be achieved.

Standard NOISE 1.1c: New development and changes in use shall generally be allowed only if they will not adversely impact attainment within the community of the exterior and interior noise standards shown in Table 4.4-4 (Table 19 of the General Plan) and Table 4.4-5 (Table 20 of the General Plan). Cumulative and project specific impacts by new development on existing residential land uses shall be mitigated consistent with the standards in



Table 4.4-4 (Table 19 of the General Plan) and Table 4.4-5 (Table 20 of the General Plan).

<b>Table 4.4-4</b> <b>Exterior Noise Level Standards</b>				
Land Use Category	Community Noise Exposure L <sub>dn</sub> or CNEL, dBA			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential	Under 60	60-70 <sup>1</sup>	70-75	Above 75
Transient Lodging - Motels, Hotels	Under 60	65-75	75-80	Above 80
Schools, Libraries, Churches, Hospitals, Nursing Homes	Under 60	60-70	70-80	Above 80
Auditoriums, Concert Halls, Amphitheaters	Under 50	50-70	N/A	Above 70
Sports Arenas, Outdoor Spectator Sports	NA	Under 75	N/A	Above 75
Playgrounds, Neighborhood Parks	Under 70	N/A	70-75	Above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Under 70	N/A	70-80	Above 80
Office Buildings, Business Commercial and Professional	Under 65	65-75	Above 75	N/A
Industrial, Manufacturing, Utilities, Agriculture	Under 65	70-80	Above 80	N/A
Notes: <ul style="list-style-type: none"> <li>• <i>Normally Acceptable</i>: Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without special noise insulation requirements.</li> <li>• <i>Conditionally Acceptable</i>: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is conducted, and needed noise attenuation features are included in the construction or development.</li> <li>• <i>Normally Unacceptable</i>: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be conducted and needed noise attenuation features shall be included in the construction or development.</li> <li>• <i>Clearly Unacceptable</i>: New construction or development shall not be undertaken.</li> <li>• <i>N/A</i>: Not applicable.</li> <li>• The City Council shall have discretion within the "conditionally acceptable" range for residential use to allow levels in outdoor spaces to go up to 65 dBA if cost effective or aesthetically acceptable measures are not available to reduce noise levels in outdoor spaces to the "normally acceptable" levels. Outdoor spaces which are designed for visual use only (for example, street-side landscaping in an apartment project), rather than outdoor use space may be considered acceptable up to 70 dBA.</li> </ul>				
Source: City of Davis, January 2007.				

<b>Table 4.4-5</b> <b>Interior Noise Level Standards</b>	
Use	Noise Level (dBA)
Residences, schools through grade 12, hospitals and churches	45
Offices	55
Source: City of Davis, January 2007.	



Standard NOISE 1.1d Required noise mitigation measures for new and existing housing shall be provided with the first stage and prior to completion of new developments or the completion of capacity-enhancing roadway changes wherever noise levels currently exceed or are projected within 5 years to exceed the normally acceptable exterior noise levels in Table 4.4-4 (Table 19 of the General Plan).

Policy NOISE 1.2 Discourage the use of sound walls whenever alternative mitigation measures are feasible, while also facilitating the construction of sound walls where desired by the neighborhood and there is no other way to reduce noise to acceptable exterior levels shown in Table 4.4-4 (Table 19 of the General Plan).

Standard NOISE 1.2a Where sound walls are built, they should include dense landscaping along them to mitigate their visual impact, as illustrated in Figure 38 of the General Plan.

Standard NOISE 1.2b Where sound walls are built, they should provide adequate openings and visibility from surrounding areas to increase safety and access, as illustrated in Figure 38 of the General Plan. Openings should be designed so as to maintain necessary noise attenuation.

Standard NOISE 1.2c Review sound walls and other noise mitigations through the design review process.

Goal NOISE 2 Provide for indoor noise environments that are conducive to living and working.

Policy NOISE 2.1 Take all technically feasible steps to ensure that interior noise levels can be maintained at the levels shown in Table 4.4-5 (Table 20 of the General Plan).

Standard NOISE 2.1a New residential development or construction shall include noise attenuation measures necessary to achieve acceptable interior noise levels shown in Table 4.4-5 (Table 20 of the General Plan).

Standard NOISE 2.1b Existing areas that will be subjected to noise levels greater than the acceptable noise levels shown in Table 4.4-5 (Table 20 of the General Plan) as a result of increased traffic on existing city streets (including streets remaining in existing configurations and streets being widened) shall be mitigated to the acceptable levels in Table 4.4-5 (Table



20 of the General Plan). If traffic increases are caused by specific projects, then the City shall be the lead agency in implementing cumulative noise mitigation projects. Project applicants shall pay their fair share for any mitigation.

### City of Davis Noise Ordinance

Section 24 of the City of Davis Municipal Code establishes a maximum noise level standard of 55 dB during the hours of 7:00 AM to 9:00 PM, and 50 dB during the hours of 9:00 PM to 7:00 AM for stationary noise sources. The ordinance defines maximum noise level as the “maximum continuous sound level or repetitive peak level produced by a sound source or group of sources.” For the purposes of this analysis, j.c. brennan & associates, Inc. interprets this definition to be equivalent to the average noise level descriptor,  $L_{eq}$ . The Municipal Code makes exemptions for certain typical activities which may occur within the City. The exemptions are listed in Article 24.02.040, Special Provisions, and are summarized below:

- a) Normal operation of power tools for non-commercial purposes are typically exempted between the hours of 8 AM and 8 PM unless the operation unreasonably disturbs the peace and quiet of any neighborhood.
- b) Construction or landscape operations would be exempt during the hours of 7 AM to 7 PM Mondays through Fridays and between the hours of 8 AM to 8 PM Saturdays and Sundays assuming that the operations are authorized by valid city permit or business license, or carried out by employees or contractors of the city and one of the following conditions apply (conditions summarized, please see section 24.02.040 of the City Code for the full text):
  - 1) No piece of equipment produces a noise level exceeding 83 dBA at 25-feet.
  - 2) The noise level at any point outside the property plane of the project shall not exceed 86 dBA.
  - 3) Requires that impact equipment and tools be fitted with the best available silencing equipment.
  - 4) Limits individual powered blowers to a noise level of 70 dBA at 50 feet.
  - 5) Prohibits more than one blower from simultaneously operating within 100 feet of another blower.
  - 6) On single-family residential property, the 70 dBA at 50 feet requirement would not apply to blowers operated on single-family residential property.
- c) The City Code also exempts air conditioners, pool pumps, and similar equipment from the noise regulations, provided that they are in good working order.
- d) Work related to public health and safety is exempt from the noise requirements.
- e) Safety devices are exempt from the noise requirements.
- f) Emergencies are exempt from the noise requirements.

In addition, Section 24 of the City of Davis Municipal Code establishes the noise violations which can be issued by the Davis Police Department. A Sound (Noise) Permit from the Police Department is required for the following uses:

- Amplified sound at any indoor or outdoor event and more than 100 people will attend; and



- Install, use or operate within the City a loudspeaker or other amplifying equipment in a fixed or moveable position or mounted upon any sound truck for purposes of giving instruction, directions, talks, addresses, lectures or transmitting music to any persons upon a street, alley, sidewalk, park, place or other outdoor property.

The Sound (Noise) Permit outlines the noise limits allowable under the permit as well as the requirements for a noise permit.

#### **4.4.4 Impacts and Mitigation Measures**

Existing literature, noise and vibration measurements, and application of accepted noise and vibration prediction and propagation algorithms were used to predict impacts due to and upon development of the proposed project. More specific detail on methodology is provided below.

Impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required California Environmental Quality Act (CEQA) review. “[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project.” (*Ballona Wetlands Land Trust v. City of Los Angeles*, (2011) 201 Cal.App.4th 455, 473 (*Ballona*).) The impacts discussed in this section of the EIR relate both to noise that may be caused by the proposed project (e.g. construction noise and operational traffic added to surrounding streets) as well as effects of existing environmental noise sources on residents and users of the project (e.g. background traffic on surrounding streets). The California Supreme Court recently held that “CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project’s future users or residents. What CEQA does mandate... is an analysis of how a project might exacerbate existing environmental hazards.” (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 392; see also *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 197 [“identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA’s legislative purpose nor required by the CEQA statutes”], quoting *Ballona*, *supra*, 201 Cal.App.4th at p. 474.) Therefore, for the purposes of the CEQA analysis, the relevant inquiry is not whether the proposed project’s future users or residents will be exposed to preexisting environmental noise-related hazards, but instead whether project-generated noise will exacerbate the pre-existing conditions. Nonetheless, for informational purposes, this section considers both the proposed project’s contribution to on- and off-site noise levels as well as exposure of future users or residents of the proposed project to potential hazards associated with the preexisting noise environment.

#### **Standards of Significance**

Consistent with Appendix G of the CEQA Guidelines, the City’s General Plan, and professional judgment, a significant impact would occur if the proposed project would result in the following:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels; or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use



airport, would the project expose people residing or working in the project area to excessive noise levels.

The first two thresholds listed above, taken from Appendix G of the CEQA Guidelines, are hereby defined more specifically for the City of Davis based upon General Plan and Noise Ordinance requirements, as well as previous EIRs prepared and certified by the Davis City Council:

- **Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies**

Section 24.02.240 of the City's Noise Ordinance is used, specifically,

- b) Construction or landscape operations would be exempt during the hours of 7 AM to 7 PM Mondays through Fridays and between the hours of 8 AM to 8 PM Saturdays and Sundays assuming that the operations are authorized by valid city permit or business license, or carried out by employees or contractors of the city and one of the following conditions apply:
    - 1) No individual piece of equipment shall produce a noise level exceeding eighty-three dBA at a distance of twenty-five feet. If the device is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close to twenty feet from the equipment as possible.
    - 2) The noise level at any point outside of the property plane of the project shall not exceed eighty-six dBA.
- **Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies**

#### Transportation Noise Standards

The General Plan establishes a threshold of 60 to 70 dB  $L_{dn}$  for transportation noise sources at existing residential uses and churches. The standards are used in conjunction with the substantial increase in noise levels described below.

Table 4.4-6 is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, the recommendations are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the  $L_{dn}$ . Use of the standards is considered an industry-standard approach.





Based on Table 4.4-6, an increase in the traffic noise level of 5.0 dB or more would be significant where the pre-project noise level is below 60 dB  $L_{dn}$ . Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB  $L_{dn}$ . The rationale for the Table 4.4-6 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

<b>Table 4.4-6 Significance of Changes in Noise Exposure</b>	
<b>Ambient Noise Level Without Project, <math>L_{dn}</math></b>	<b>Increase Required for Significant Impact</b>
< 60 dB	+ 5.0 dB or more
60 to 65 dB	+ 3.0 dB or more
> 65 dB	+ 1.5 dB or more
<i>Source: FICON, 1992.</i>	

For the purposes of this project, the FICON criteria shown in Table 4.4-6 are applied for transportation-related noise levels.

The test of significance for increases in off-site traffic noise is two-fold. First, traffic noise levels are reviewed to see if the project's contribution to traffic noise would exceed the FICON levels identified in Table 4.4-6. If the project's increase in traffic noise levels along surrounding roadways would exceed the FICON criteria shown in Table 4.4-6, the proposed project would be considered to have a significant noise impact along that roadway segment.

The second part of the significance test would be applied if the project does not result in the traffic noise level increases shown in Table 4.4-6 (i.e., the project does not exceed the FICON criteria). In this case, each roadway segment is assessed to determine:

- 1 Whether the project's traffic noise contribution would cause any new receptors along the roadway to be exposed to exterior noise levels exceeding the Table 4.4-4 and Table 4.4-5 standards (i.e., the City's General Plan Noise Element standards); and
- 2 Whether the project's traffic would cause any receptor locations already exceeding the values in Table 4.4-4 and Table 4.4-5 to experience a perceivable increase in noise at these locations, defined as 1.5 dB.

#### Non-Transportation Noise Standards

Non-transportation noise sources are determined by the standards of the City of Davis Municipal Code, Section 24.02.020. See Table 4.4-4 and Table 4.4-5 above.

For the purposes of analysis, an increase in noise levels of a 5-dB hourly  $L_{eq}$  level is used for determining a substantial permanent increase in ambient noise levels. The rationale for the 5 dB increase is based upon the fact that, as discussed earlier, 5 dB is the threshold where noise is "clearly perceptible", and for the proposed project, the stationary noise sources generally only occur a few hours out of each day, and are not a continuous noise source such as roadway traffic.



### Interior Noise Standards

With regard to interior noise levels, modern construction typically provides a 25-dB exterior-to-interior noise level reduction with windows closed. Accordingly, sensitive receptors exposed to exterior noise levels of 70 dB  $L_{dn}$ , or less, would typically comply with the City's 45 dB  $L_{dn}$  interior noise level standard.

- **Generation of excessive groundborne vibration or groundborne noise levels**

A limit of 0.2 in/sec p.p.v. is considered a safe criterion that would protect against architectural or structural damage.

### **Issues Not Discussed Further**

The project site is located within a two-mile radius of the UC Davis Airport. However, the project site is located outside of the 55 dB CNEL noise level contour, which extends approximately 4,500 feet from either terminus of the airport's runway. Therefore, the Initial Study prepared for the proposed project (see Appendix C) determined that development of the proposed project would result in a less-than-significant impact related to the following noise-related issues:

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Accordingly, the above impacts are not analyzed further in this EIR.

### **Method of Analysis**

The analysis and conclusions in this Section of the EIR are based on the Environmental Noise Assessment prepared for the proposed project. All modeling details and calculations are provided in Appendix G. The results of the noise and vibration impact analyses were compared to the standards of significance discussed above in order to determine the associated level of impact.

j.c. brennan & associates, Inc. conducted noise level measurements to determine typical background noise levels for comparison to the project-related noise levels. On November 5 and 6, 2018, j.c. brennan & associates, Inc. staff conducted short-term noise level measurements and 24-hour noise level measurements on the project site to quantify the existing ambient noise environment in the project vicinity. Larson Davis Laboratories (LDL) Model 820 and Model 824 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

The sound-level meters were programmed to record the hourly maximum, median, and average noise levels at each site during the survey. The maximum value, denoted  $L_{max}$ , represents the highest noise level measured during each hour. The average value, denoted  $L_{eq}$ , represents the energy average of all of the noise received by the sound level meter microphone. The median



value, denoted  $L_{50}$ , represents the sound level exceeded 50 percent of the time during the monitoring period.

Traffic volumes for existing conditions were obtained from the project traffic consultant, Fehr & Peers. A detailed summary of traffic volumes is provided in Section 4.6, Transportation and Circulation, of this EIR. All traffic calculations and data are listed in Appendix J of this EIR. All traffic noise calculations are also included in Environmental Noise Assessment in Appendix G to this EIR. Truck percentages and vehicle speeds on the local area roadways were estimated from field observations and Caltrans counts. Traffic noise levels were predicted at 75 feet from the centerline along each project-area roadway segment. The FHWA model was used to estimate traffic noise levels.

In addition to the traffic volumes obtained for existing conditions, traffic volumes were also provided by the traffic consultant for an Existing Plus Project and Cumulative Plus Project scenario. The cumulative context for noise impacts associated with the proposed project consists of the existing and future noise sources that could affect the project or surrounding uses. The scenarios are discussed in further detail in Section 4.6, Transportation and Circulation, of this EIR.

Construction noise and vibration was analyzed using data compiled for various pieces of construction equipment at a representative distance of 50 feet. Construction activities are discussed relative to the applicable City of Davis noise policies.

### **Project-Specific Impacts and Mitigation Measures**

The following discussion of impacts is based on implementation of the proposed project in comparison with the baseline and standards of significance identified above.

#### **4.4-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.**

Construction activities associated with the proposed project, including demolition, improvements to parking lots, water and sewer lines, and related infrastructure, would require the use of numerous pieces of noise-generating equipment, such as excavating machinery (e.g., backhoes, bulldozers, excavators, front loaders) and other construction equipment (e.g., compactors, scrapers, graders). Construction worker traffic and construction-related material haul trips would raise ambient noise levels along local haul routes, depending on the number of haul trips made and types of vehicles used.

Table 4.4-7 presents the typical noise levels associated with various pieces of equipment that may be used during project demolition and construction activities. As shown in the table, activities involved in project construction could be expected to generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet. The nearest sensitive receptor would be located within 50 feet to the north. As a result,



construction would result in periods of elevated ambient noise levels and the potential for annoyance.

<b>Table 4.4-7</b> <b>Construction and Demolition Equipment Noise</b>						
Type of Equipment	Predicted Noise Levels, L <sub>max</sub> dB				Distances to Noise Contours (feet)	
	Noise Level at 20'	Noise Level at 50'	Noise Level at 100'	Noise Level at 200'	70 dB L <sub>max</sub> contour	65 dB L <sub>max</sub> contour
Backhoe	86	78	72	66	126	223
Compactor	91	83	77	71	223	397
Compressor (air)	86	78	72	66	126	223
Concrete Saw	98	90	84	78	500	889
Dozer	90	82	76	70	199	354
Dump Truck	84	76	70	64	100	177
Excavator	89	81	75	69	177	315
Generator	89	81	75	69	177	315
Jackhammer	97	89	83	77	446	792
Pneumatic Tools	93	85	79	73	281	500
<b>Source: j.c. brennan &amp; associates, Inc., 2019.</b>						

Based upon measured background noise levels, the existing maximum noise levels can be as high as 79 dBA. Assuming ambient maximum noise levels would occur during the same time when noise levels from construction would be 86 dBA (assuming compliance with the requirement of 86 dBA at the property plane as required in the Noise Ordinance [see Mitigation Measure 4.4-1]), the overall combined noise level could be as high as 86.8 dBA L<sub>max</sub>. An increase in noise levels of 0.8 dB would not be perceptible to the human ear.

It should be noted that the proposed residential uses could result in short-term noise level increases associated with use of outdoor activity areas and other standard residential noise sources. However, outdoor activities would take place in interior courtyards shielded by the proposed buildings, and, thus, noise level increases would not be substantial. Additionally, short-term noise associated with the proposed residences would be consistent and compatible with existing residential uses in the project area. Any temporary noise-generating activities would be subject to applicable regulations within the City's Noise Ordinance. As such, short-term noise level increases associated with the proposed residential uses would be less than significant.

Nonetheless, based on the above, project construction activities could result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and a **significant** impact could occur.



Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.4-1 *Prior to issuance of any grading permit, the applicant shall submit proposed noise-reduction practices (to ensure individual piece of equipment shall not produce a noise level exceeding 83 dBA at a distance of 25 feet and the noise level at any point outside the property plane of the project shall not exceed 86 dBA), for review and approval by the Department of Community Development and Sustainability. The following measures shall be utilized to reduce the impact of construction noise (below the above stated single-source and property boundary standards):*

- *Comply with the hours of operations between 7:00 AM and 7:00 PM on Mondays through Fridays, and between the hours of 8:00 AM and 8:00 PM on Saturdays and Sundays;*
- *Impact tools and equipment shall have intake and exhaust mufflers recommended by manufacturers;*
- *All equipment shall not exceed 86 dBA outside of the property line. Based upon Table 4.4-7, compactors, dozers and excavators shall maintain a distance of 50-feet from the north property line. Concrete saws and jackhammers shall maintain a distance of 100-feet from the nearest property line. If any equipment listed cannot provide either a housing or muffler, or other type of noise suppression equipment to reduce noise levels to 86 dBA or less outside of the property line, then approval by the Director of Public Works shall be required;*
- *If equipment such as compactors, dozers and excavators need to be within 50 feet of the north property line, temporary barriers such as "Noise Soaker" curtains shall be applied at the construction site fence. The barriers shall be eight feet in height along the north property line.*

4.4-2 **Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.**

The primary source of noise associated with the proposed residential and commercial development would be vehicle noise associated with traffic on local roadways. It should be noted that CEQA does not require an analysis of the existing environment's impact on the project; however, impacts to future residents of the proposed project due to traffic noise along local roadways is evaluated for the purposes of considering the project's consistency with policies in the City's General Plan.



### Traffic Noise at Existing Sensitive Receptors

Vehicle trips associated with operation of the proposed project would result in changes to traffic on the existing roadway network within the project vicinity. As a result, project buildout would cause an increase in traffic noise levels on local roadways. To assess noise impacts due to project-related traffic increases on the existing local roadway network, noise levels have been calculated for the Existing and Existing Plus Project traffic conditions.

Table 4.4-8 shows the comparison between the existing and projected traffic noise levels with implementation of the proposed project. Traffic noise levels are predicted at locations that are assumed to be typical residential outdoor use areas along each project-area roadway segment. The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers. The distances reported in Table 4.4-8 are generally considered by j.c. brennan & associates, Inc. to be conservative estimates of noise exposure along the project-area roadways.

<b>Table 4.4-8 Existing and Existing Plus Project Traffic Noise Levels</b>					
<b>Roadway</b>	<b>Segment</b>	<b>Traffic Noise Levels (L<sub>dn</sub>, dB)</b>			
		<b>Distance (feet)</b>	<b>Existing</b>	<b>Existing plus Project</b>	<b>Change</b>
Russell Boulevard	West of Arthur Street	75	66	66	0
Russell Boulevard	Arthur Street to SR 113	75	67	67	0
Russell Boulevard	SR 113 to Orchard Park	75	67	68	+1
Russell Boulevard	Orchard Park to Sycamore Lane	75	68	68	0
Russell Boulevard	Sycamore to Project Driveways	75	67	67	0
Russell Boulevard	Project Driveways to Anderson Road	75	68	68	0
Russell Boulevard	Anderson Road to College Park	75	68	68	0
Russell Boulevard	College Park to A Street	75	68	68	0
Russell Boulevard	A Street to B Street	75	68	68	0
Arthur Street	North of Russell Boulevard	75	61	61	0
Orchard Park	South of Russell Boulevard	75	60	60	0
Sycamore Lane	Russell Boulevard to S. University Mall Driveway	75	63	64	+1

(Continued on next page)





<b>Table 4.4-8 Existing and Existing Plus Project Traffic Noise Levels</b>					
Roadway	Segment	Traffic Noise Levels ( $L_{dn}$ , dB)			
		Distance (feet)	Existing	Existing plus Project	Change
Sycamore Lane	S. University Mall Driveway to N. University Mall Driveway	75	62	63	+1
Sycamore Lane	North of Project Site	75	62	63	+1
La Rue Road	South of Russell Boulevard	75	66	66	0
Anderson Road	Russell Boulevard to Central University Mall Driveways	75	65	65	0
Anderson Road	Central University Mall Driveways to N. University Mall Drive	75	65	65	0
Anderson Road	North of Project Site	75	65	65	0
California Avenue	South of Russell Boulevard	75	61	61	0
Oak Avenue	North of Russell Boulevard	75	58	58	0
Howard Way	South of Russell Boulevard	75	63	63	0
College Park	North of Russell Boulevard	75	56	56	0
A Street	South of Russell Boulevard	75	58	58	0
A Street	North of Russell Boulevard	75	55	55	0
B Street	North of Russell Boulevard	75	62	62	0
B Street	South of Russell Boulevard	75	65	65	0
Notes: Distances to predicted traffic noise levels and traffic noise contours are measured in feet from the centerlines of the roadways.					
<b>Source: j.c. brennan &amp; associates, Inc., 2018.</b>					

As shown in the table, noise along the roadway segments would not exceed the FICON criteria set forth in Table 4.4-6. An evaluation was also conducted as to whether the project's traffic noise contribution would cause any new receptors along roadways to be exposed to exterior noise levels exceeding the City's standards, and whether the project's traffic would cause any receptor locations already exceeding the City's standards to experience an increase of 1.5 dB of noise. Based on Table 4.4-8, the maximum expected noise level increase associated with a roadway segment would be 1 dB, which would not exceed the 1.5 dB increase standard.

As noted previously, sensitive receptors exposed to exterior noise levels of 70 dB  $L_{dn}$ , or less, will typically comply with the City's 45 dB  $L_{dn}$  interior noise level standard due to the noise attenuation provided by standard construction materials. As shown in the table, exterior traffic noise levels at the outdoor activity areas of the existing residences would be 68 dB  $L_{dn}$  or less, and the proposed project would not result in conflicts with



the City's 45 dB  $L_{dn}$  at existing residences under Existing Plus Project conditions. Therefore, transportation noise impacts at existing sensitive receptors in the project vicinity would not generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance.

#### Traffic Noise at New Sensitive Receptors

The proposed residential uses would be considered sensitive receptors and would be located approximately 345 feet from the Russell Boulevard centerline. The Cumulative Plus Project traffic scenario is used in order to accurately determine future noise levels at the proposed residences in conjunction with future development within the City. Under the Cumulative Plus Project scenario, listed in Table 4.4-10 below, the 60 dB  $L_{dn}$ /CNEL contour is located at a distance of 336 feet from the Russell Boulevard centerline. The nearest facade of the residential portion of the site would be located approximately 75 feet from the Sycamore Lane centerline. Under the Cumulative Plus Project scenario, the traffic noise levels from Sycamore Lane would be 63 dB  $L_{dn}$ /CNEL at the nearest on-site residential unit facades.

The proposed project would include a large common outdoor activity area with a potential pool and areas for relaxation at the interior of the residential portion of the site. The building facades would reduce traffic noise levels by a minimum of 10 dB. Thus, the overall traffic noise levels would be less than 55 dB  $L_{dn}$ /CNEL at the common outdoor area, which would be consistent with the City's 60 dB  $L_{dn}$ /CNEL exterior noise level standard.

Modern construction typically provides a 25-dB exterior-to-interior noise level reduction with windows closed. Therefore, sensitive receptors exposed to exterior noise levels of 70 dB  $L_{dn}$ , or less, would be exposed to interior noise levels of 45 dB, which would comply with the City's 45 dB CNEL/ $L_{dn}$  interior noise level standard. Exterior noise levels over 70 dB  $L_{dn}$  generally require specific upgrades to the building facades, such as upgraded STC rated windows, or details on wall construction improvements.

The predicted future traffic noise levels do not exceed 65 dB CNEL/ $L_{dn}$  at the lower floors of the nearest residential buildings. The upper floors are expected to be exposed to traffic noise levels of approximately 68 dB  $L_{dn}$ /CNEL. Therefore, the residential portion of the project would comply with the interior noise level standard of 45 dB  $L_{dn}$ /CNEL.

Based on the above, the proposed project would not exceed the applicable standards for exterior or interior noise levels, and, thus, would not generate a substantial permanent increase in ambient noise levels in the vicinity of the project site in excess of standards established in the local general plan or noise ordinance.

#### Operational Noise at Existing Sensitive Receptors

The proposed project includes a loading and receiving area with two loading docks at the north side of the project site, adjacent to existing residential uses. The proposed project is anticipated to have a maximum of 20 to 28 large truck deliveries over a



seven-day period. Given that there are two proposed loading docks, it is assumed that up to two large eighteen-wheeler truck deliveries could occur per hour. A total of four retail spaces are located along the rear loading dock drive aisle, only two of which could receive deliveries along the north side of the project site. All other tenants would receive deliveries to the front of the stores.

Large 18-wheeler truck passbys and loading dock operations produce an average Sound Exposure Level (SEL) of 88 dBA at a distance of 50 feet. The estimate is based on j.c. brennan & associates, Inc. file data for truck deliveries at large super markets and includes deliveries, loading and unloading of trucks, and departures, as well as the use of back-up beepers, revving of engines, and air brake use, which may be used during arrivals/departures. It should be noted that the north elevations for the proposed loading dock include sealed loading pads. As a result, loading/unloading would be contained within the loading docks and the interior of the trucks. Additionally, the project includes a partial enclosure wall along the loading docks. The resulting truck circulation noise levels associated with large, 18-wheeler truck deliveries at a distance of 50 feet was estimated for the project to be 55 dBA  $L_{eq}$ .

In addition to the 18-wheeler truck deliveries, a maximum of four medium trucks, such as bread trucks, UPS, Federal Express, or similar, are assumed to occur per hour at the rear of the building in the loading areas. Medium truck deliveries generally result in an SEL of approximately 84 dBA at a distance of 50 feet. The four medium truck deliveries would result in an hourly  $L_{eq}$  of 54 dBA.

Pallet or baling equipment could be used in the loading area, but is anticipated to occur during daytime hours only.

All HVAC equipment would be located on the roof level of the proposed residential uses and would be shielded by parapets. The HVAC equipment could produce noise levels of 50 dBA at a distance of 50 feet. However, shielding from the roof-line and parapets would result in levels of less than 45 dBA at the nearest residences.

### Conclusion

Based on the above, traffic noise at existing/proposed receptors would not exceed any of the applicable noise level standards. However, the total cumulative hourly noise level from all operational sources discussed above is anticipated to be 58 dB  $L_{eq}$  at the nearest sensitive receptors, which would exceed the daytime (7:00 AM to 9:00 PM) hourly noise level criterion of 55 dBA  $L_{eq}$  and the nighttime (9:00 PM to 7:00 AM) noise level criterion of 50 dBA  $L_{eq}$ . Therefore, a **significant** impact could occur related to the generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

It is important to note that, with respect to the threshold related to a substantial permanent increase in ambient noise levels, stationary loading dock noises are not expected to increase substantially from the baseline. Based upon discussions with the project applicant and the City staff, the current on-site uses have regular truck deliveries in the rear area, similar to the proposed operations. Thus, the CEQA baseline, which, for the purposes of this EIR, is the time the notice of preparation



(NOP) was published by the City, pursuant to CEQA Guidelines Section 15125(a)(1), included loading dock operations similar to that which would occur under the proposed project. Therefore, this analysis reasonably concludes that the proposed project will not result in a significant increase in loading dock noise levels.

#### Mitigation Measure(s)

As part of the Environmental Noise Assessment, j.c. brennan & associates, Inc. conducted a barrier analysis. According to the analysis, a barrier of eight feet in height would be required to reduce overall noise levels associated with loading docks, truck circulation, and other outdoor noise sources to the daytime (7:00 AM to 9:00 PM) standard of 55 dBA  $L_{eq}$ , and a 10-foot barrier would be required to reduce noise levels to the nighttime (9:00 PM to 7:00 AM) standard of 50 dB  $L_{eq}$ . Therefore, implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

4.4-2(a) *Prior to building permit issuance, the construction drawings shall include a noise barrier located along the north property line of the project site where trucks circulate for the loading docks. The partial loading dock walls may be eliminated, if desired. Based upon the Environmental Noise Assessment (October 2, 2019) prepared for this EIR, the noise barrier height requirements would be different depending upon the delivery hours, as follows:*

- *Daytime deliveries only (7:00 AM to 9:00 PM): An eight-foot wall shall be required along the north property line of the project site to meet the City's 55 dB  $L_{eq}$  daytime noise standard.*
- *Daytime AND Nighttime (9:00 PM to 7:00 AM): A 10-foot wall shall be required along the north property line of the project site to meet the City's daytime (55 dB  $L_{eq}$ ) and nighttime 50 dB  $L_{eq}$  noise standards.*

*The delivery truck hours and sound wall height shall be finalized prior to City approval of the Final Planned Development for the project. Final design and height of the barrier shall be approved by the City of Davis Department of Community Development and Sustainability.*

4.4-2(b) *Alternatively, the applicant may submit a subsequent acoustical report in conjunction with the submittal of the Final Planned Development to the City. The subsequent acoustical report, using additional design-level details developed during the Final Planned Development process, shall estimate the delivery truck/loading dock noise levels at the nearest sensitive receptors to verify the height of the wall needed to meet the City's stationary noise level standards (55 dB  $L_{eq}$  daytime and 50 dB  $L_{eq}$  nighttime). If the report determines that a reduced sound wall height, compared to the heights identified in MM 4.4-2(a), could achieve the City's noise standards at the nearest sensitive receptors, then the reduced height should be considered acceptable.*



*The subsequent acoustical report could also consider the feasibility of relocating or eliminating the loading dock. Any proposed relocation would require analysis within the acoustical report to ensure that those sensitive receptors located closest to the relocated loading dock would not be subject to noise levels in excess of the City's noise level standards. Final loading dock design and barrier height shall be approved by the City of Davis Department of Community Development and Sustainability.*

**4.4-3 Generation of excessive groundborne vibration or groundborne noise levels. Based on the analysis below, the impact is *less than significant*.**

The primary vibration-generating activities associated with the proposed project would occur during demolition and construction, when activities such as grading, utilities placement, and parking lot construction occur. Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural. Table 4.4-9 shows the typical vibration levels produced by demolition and construction equipment.

The most significant source of groundborne vibrations during the project demolition and construction would occur from the use of vibratory compactors, which may be used for compacting fill-soil where new foundations or footings may be required. Vibratory compactors would generate typical vibration levels of 0.21 in/sec p.p.v. at 25 feet, and 0.070 in/sec p.p.v. at a distance of 50 feet. The closest residential buildings to the project site where construction activities could include vibratory compactors are at a distance of approximately 50 feet. At a distance of 50 feet, groundborne vibration at the buildings would not exceed the Caltrans standard of 0.20 in/sec p.p.v. at which vibrations cause damage to buildings or the 0.10 in/sec threshold at which vibrations may cause annoyance to sensitive receptors.

<b>Table 4.4-9 Vibration Levels for Various Construction Equipment</b>		
<b>Type of Equipment</b>	<b>Peak Particle Velocity @ 25 feet (in/sec)</b>	<b>Peak Particle Velocity @ 50 feet (in/sec)</b>
Large Bulldozer	0.089	0.029
Loaded Trucks	0.076	0.025
Pile Driving (Sonic)	0.734	0.50
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.029
Jackhammer	0.035	0.011
Vibratory Hammer	0.070	0.023
Vibratory Compactor/roller	0.210	0.070
<b>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.</b>		

Therefore, construction vibrations associated with project construction are not predicted to cause damage to existing buildings or cause annoyance to sensitive



receptors. In addition, construction activities would be temporary in nature and, per Mitigation Measure 4.4-1, would be limited to normal daytime working hours.

Based on the above, implementation of the proposed project would not generate excessive groundborne vibration or groundborne noise levels, and impacts would be considered *less than significant*.

Mitigation Measure(s)  
*None required.*

### **Cumulative Impacts and Mitigation Measures**

The following discussion of impacts is based on the implementation of the proposed project in combination with other cumulative development within the region. Refer to Chapter 5, Statutorily Required Sections, of this EIR for more detail regarding the cumulative setting.

#### **4.4-4 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout of the City's Planning Area. Based on the analysis below, the cumulative impact is *less than significant*.**

Future development projects within the City's Planning area, including the proposed project, would incrementally affect the future cumulative ambient noise environment. To assess noise impacts due to project-related traffic increases on the existing local roadway network, noise levels have been calculated for the Cumulative Plus Project Condition at the proposed residences and at existing sensitive receptors located along area roadways.

#### **Cumulative Traffic Noise at Existing Sensitive Receptors**

Traffic noise occurring under the Cumulative Plus Project condition was modeled with the FHWA model using the assumptions discussed under the Method of Analysis section above. Table 4.4-10 displays the predicted noise level estimates at the exterior of the closest existing residents for Cumulative No Project and Cumulative Plus Project conditions.

Noise levels at existing sensitive receptors would continue to exceed the City's 60 dB exterior noise level threshold along a majority of the study roadway segments. However, the proposed project would result in a 1 dB increase or less on all traffic segments, which is below the 1.5 dB FICON threshold used to evaluate the significance of traffic noise increase along roadways. Based on the FICON noise level increase criteria shown in Table 4.4-6, none of the study roadway segments would experience a significant cumulative noise level increase as a result of project traffic. Therefore, the project's incremental contribution to cumulative traffic noise at existing sensitive receptors would not generate a substantial permanent increase in ambient noise levels associated with cumulative development of the City.

Sensitive receptors exposed to exterior noise levels of 70 dB  $L_{dn}$ , or less, will typically comply with the City's 45 dB  $L_{dn}$  interior noise level standard, due to 25-dB exterior-to-





interior noise reductions with windows closed. As shown in the table, exterior traffic noise levels at the outdoor activity areas of the existing residences would be 70 dB L<sub>dn</sub> or less for the roadway segments analyzed. Therefore, the proposed project would not result in conflicts with the City's 45 dB L<sub>dn</sub> at existing residences under Cumulative Plus Project conditions.

#### Cumulative Traffic Noise at New Sensitive Receptors

As discussed above in Section 4.4.2 above, cumulative growth within the City would not expose new sensitive receptors at the project site to noise levels exceeding any standards set forth in the City's general plan, noise ordinance, or applicable standards set forth by other agencies.

#### Cumulative Operational Noise at Existing Sensitive Receptors

As discussed above, the proposed project would operate a loading dock and truck circulation area at the north end of the project site, approximately 50 feet from existing residences. The aforementioned operations would include noise sources from back up beepers, fork lifts, pallet and baling operations, and HVAC equipment. As concluded above, operation of all external equipment in the loading and truck circulation area could expose the nearest sensitive receptors to noise levels above the acceptable threshold of 55 dB in the loading area during the daytime hours of 7:00 AM to 9:00 PM. However, Mitigation Measure 4.4-2(a) would be implemented which would require development of a noise barrier between the loading area and the existing residences to the north. Upon construction of the sound barrier, noise levels would be reduced below the acceptable 55 dB threshold for residences.

<b>Table 4.4-10</b>					
<b>Cumulative and Cumulative Plus Project Traffic Noise Levels</b>					
<b>Roadway</b>	<b>Segment</b>	<b>Traffic Noise Levels (L<sub>dn</sub>, dB)</b>			
		<b>Distance (feet)</b>	<b>Cumulative</b>	<b>Cumulative plus Project</b>	<b>Change</b>
Russell Boulevard	West of Arthur Street	75	67	67	0
Russell Boulevard	Arthur Street to SR 113	75	68	68	0
Russell Boulevard	SR 113 to Orchard Park	75	69	69	0
Russell Boulevard	Orchard Park to Sycamore Lane	75	69	69	0
Russell Boulevard	Sycamore to Project Driveways	75	68	68	0
Russell Boulevard	Project Driveways to Anderson Road	75	70	70	0
Russell Boulevard	Anderson Road to College Park	75	70	70	0
Russell Boulevard	College Park to A Street	75	70	70	0

(Continued on next page)



<b>Table 4.4-10</b> <b>Cumulative and Cumulative Plus Project Traffic Noise Levels</b>					
Roadway	Segment	Traffic Noise Levels (L <sub>dn</sub> , dB)			
		Distance (feet)	Cumulative	Cumulative plus Project	Change
Russell Boulevard	A Street to B Street	75	70	70	0
Arthur Street	North of Russell Boulevard	75	62	62	0
Orchard Park	South of Russell Boulevard	75	62	62	0
Sycamore Lane	Russell Boulevard to S. University Mall Driveway	75	64	64	0
Sycamore Lane	S. University Mall Driveway to N. University Mall Driveway	75	63	63	0
Sycamore Lane	North of Project Site	75	63	63	0
La Rue Road	South of Russell Boulevard	75	68	68	0
Anderson Road	Russell Boulevard to Central U Mall Driveways	75	66	66	0
Anderson Road	Central University Mall Driveways to N. University Mall Drive	75	65	66	+1
Anderson Road	North of Project Site	75	65	65	0
California Avenue	South of Russell Boulevard	75	62	62	0
Oak Avenue	North of Russell Boulevard	75	59	59	0
Howard Way	South of Russell Boulevard	75	63	63	0
College Park	North of Russell Boulevard	75	57	57	0
A Street	South of Russell Boulevard	75	60	60	0
A Street	North of Russell Boulevard	75	56	56	0
B Street	North of Russell Boulevard	75	64	64	0
B Street	South of Russell Boulevard	75	66	66	0
Notes: Distances to predicted traffic noise levels and traffic noise contours are measured in feet from the centerlines of the roadways.					
Source: j.c. brennan & associates, Inc., 2019.					

Future development of projects within the City's Planning Area would be required to comply with the same standards and regulations as the proposed project. Additionally, because the area surrounding the project site is predominately developed, unforeseeable development in the vicinity that could combine with the project would not be likely to occur. Thus, in combination with other cumulative development within



the City's Planning Area, the proposed project would not generate a substantial permanent increase in ambient noise levels associated.

#### Conclusion

Based on the above, both existing and proposed residences would not experience exterior or interior noise levels in excess of the City's 60 dB L<sub>dn</sub> and 45 dB L<sub>dn</sub> noise level standard from traffic in the vicinity. In addition, with construction of a noise barrier along the truck circulation drive for loading docks, Cumulative Plus Project operational noise levels at existing sensitive receptors would not conflict with the City's applicable exterior noise level standards.

Therefore, under Cumulative Plus Project Conditions, the proposed project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The proposed project would not result in the generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future development of the City's Planning Area, and the impact would be ***less than significant***.

#### Mitigation Measure(s)

*None required.*



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## **4.5 Public Services and Utilities**

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## 4.5 PUBLIC SERVICES AND UTILITIES

### 4.5.1 Introduction

The Public Services and Utilities chapter summarizes the existing setting related to public services and utilities and identifies potential new demands resulting from the proposed project on fire and police protection services, water supply, wastewater systems, solid waste disposal, and gas, electric, and telecommunications infrastructure. Information for this section was drawn primarily from the Davis General Plan<sup>1</sup> and associated EIR,<sup>2</sup> the City of Davis Final 2015 Urban Water Management Plan (UWMP),<sup>3</sup> and the Davis Integrated Waste Management Plan.<sup>4</sup> Additional information was sourced from a Domestic Water System Design Report and a Sewer System Design Report prepared for the project by BKF Engineers,<sup>5</sup> as well as technical memorandums regarding water and sewer demands prepared for the project by West Yost Associates (referred to as the Water Evaluation and Sewer Evaluation throughout this section of the EIR) (see Appendices H and I).<sup>6</sup>

### 4.5.2 Existing Environmental Setting

The following section describes the existing fire and police protection services, and other public facilities in the area, as well as existing utilities, including water supply, wastewater conveyance and treatment, solid waste, and gas, electric, and telecommunications infrastructure.

#### Fire Protection

The project site is currently located within the jurisdiction of the Davis Fire Department. The City of Davis Fire Department responds to incidents including, but not limited to, medical emergencies, fires, hazardous materials conditions, technical rescues, and public assistance.

The Department has contractual agreements with the East Davis County Fire Protection District, the Springlake Fire Protection District, and the No Man's Land Fire Protection District to provide emergency response to these areas. The City is divided into three emergency first-response areas, which provide clearly defined territories for dispatching the nearest fire and EMS personnel and equipment to an emergency. In addition, the Department has an automatic aid agreement with UC Davis, the cities of Woodland, West Sacramento, and Dixon and a mutual aid agreement with all other fire protection agencies in Yolo County and in the State of California.<sup>7</sup>

<sup>1</sup> City of Davis. *Davis General Plan*. Adopted May 2001. Amended through January 2007.

<sup>2</sup> City of Davis. *Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School*. January 2000.

<sup>3</sup> City of Davis. *Final 2015 Urban Water Management Plan*. June 2016.

<sup>4</sup> City of Davis. *Davis Integrated Waste Management Plan*. July 2013.

<sup>5</sup> BKF Engineers. *Domestic Water System Design Report*. September 11, 2018.

BKF Engineers. *Sewer System Design Report*. September 11, 2018.

<sup>6</sup> West Yost Associates. *Evaluation of University Mall Development Water Demands*. May 7, 2019.

West Yost Associates. *Evaluation of University Mall Development Sewer Flows and Resulting Infrastructure Needs*. April 23, 2019.

<sup>7</sup> City of Davis, Fire Department. *About DFD*. Available at: <https://cityofdavis.org/city-hall/fire-department/about-dfd>. Accessed May 2019.



The Davis Fire Department currently operates three fire stations within the City of Davis:

- Station 31, located at 530 Fifth Street;
- Station 32, located at 1350 Arlington Boulevard; and
- Station 33, located at 425 Mace Boulevard.

Station 31, located approximately one mile east of the project site, is known as the Headquarters Station, or the Downtown Station. Station 31 experiences the highest call volume in the City of Davis. Over 50 percent of the emergency calls occurring in the City of Davis are responded to by the staff at Station 31. The Davis Fire Department business office is also located at Station 31. In 2018, the total number of emergency incidents responded to by the Davis Fire Department was 5447.

Currently, the City of Davis Fire Department is staffed by 36 shift personnel (nine captains and 27 firefighters). The shift personnel are divided into three shifts, with each shift working a 24-hour workday. Department apparatus inventory consists of three engines, two squads, two grass/wildland units, one water tender, two reserve engines, three command vehicles, two fire prevention staff vehicles, and two antique fire apparatus.<sup>8</sup> The Davis Fire Department does not have a ladder truck. For all incidents in the City of Davis requiring the response of a ladder truck, Truck 34 from the UC Davis Fire Department is dispatched to assist.

The City relies on a total response time goal of responding to calls for service within 6:00 minutes for EMS calls and 6:20 minutes for fire calls, 90 percent of the time, consistent with the National Fire Protection Agency (NFPA) 1710. The 6:20 minute response time goal for fire calls and NFPA 1710 were adopted by City Council in January 2013.<sup>9</sup>

### **Police Protection**

The Davis Police Department (DPD) is located at 2600 Fifth Street, approximately 2.3 miles east of the project site. The DPD is a municipal law enforcement agency, currently staffed with 61 sworn police officers, 34 civilian support professionals, and over 40 volunteers.<sup>10</sup> The DPD provides professional law enforcement, maintenance of public order and safety, crime prevention planning, and coordination services that contribute to discouraging criminal behavior and enhancing community livability and sustainability.

The DPD is organized into the following four Divisions:

- *Administration Division:* The Administration Division provides overall management, planning, coordination and evaluation of department functions.
- *Patrol Division:* The Patrol Division provides first-line emergency response to crimes in progress, accidents, and tactical situations.
- *Investigations Division:* The Investigations Division handles major criminal investigations of all types involving adult and juvenile offenders, as well as missing persons of all ages.
- *Records & Communications Division:* The Records & Communications Division is the hub of the department, which receives all Emergency 911 and nonemergency calls for service and ensures that appropriate resources are dispatched in a timely manner.

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<sup>8</sup> City of Davis, Fire Department. *About DFD*. Available at: <https://cityofdavis.org/city-hall/fire-department/about-dfd>. Accessed May 2019.

<sup>9</sup> City of Davis. *Davis City Council Hearing Minutes*. January 29, 2013.

<sup>10</sup> Davis Police Department. *2017 Annual Report*. 2017.





Sworn officers perform law enforcement tasks, as well as administration and supervision, and civilian personnel are involved in administration, support services, supervision, dispatch, parking enforcement, and community service duties. UC Davis also maintains an on-campus police department that has a mutual aid agreement with the City for major incidents.

### **Water Supply**

The City of Davis is responsible for providing water service to all residential, commercial, industrial, institutional, and irrigation customers, as well as open space and fire protection uses within the City. The City of Davis's water system service area coincides with the Davis City Limits and additionally serves areas located outside the City's boundary, including the El Macero area, the Willowbank area, and the Royal Oak Manufactured Home Community area south of Interstate 80 (I-80) (see Figure 4.5-1). It should be noted that the City's water system service area does not include UC Davis. The City's water system currently serves a population of approximately 69,280, which includes residents from the El Macero, Royal Oaks Mobile Home Park, and Willowbank areas.

Water supplies in the City of Davis were historically provided solely by groundwater. However, in June 2016, the City began using treated wholesale surface water from the Woodland – Davis Clean Water Agency's (WDCWA) Regional Water Treatment Facility.<sup>10</sup> The following section provides a discussion of both sources of water.

### **Groundwater**

The following section provides the legislative background on groundwater within the State of California and City of Davis, as well as a description of the characteristics of the groundwater aquifers in Davis.

#### ***Background on Legislation***

Despite the City's recent transition to surface water from the WDCWA as the main source of water supply, the City will continue to rely on groundwater during a transitional period, and as needed during high demand periods.<sup>11</sup>

The City pumps groundwater from the Yolo Basin, which is a portion of the larger Sacramento Valley groundwater basin. The Yolo Basin is subject to the 2014 Sustainable Groundwater Management Act (SGMA), which became effective January 31, 2015. The SGMA applies to the 127 High and Medium Priority groundwater basins, which account for approximately 96 percent of groundwater use in California. The Yolo subbasin is designated as High Priority under the SGMA. The SGMA requires High and Medium Priority basins under the California Statewide Groundwater Elevation Monitoring (CASGEM) program subject to critical conditions of overdraft to be managed under a groundwater sustainability plan by January 31, 2020 (Water Code § 10720.7(a) (1)), and requires all other groundwater basins designated as High or Medium Priority basins to be managed under a groundwater sustainability plan by January 31, 2022 (Water Code § 10720.7 (a) (2)). According to Bulletin 118<sup>12</sup> and the UWMP<sup>13</sup>, the Yolo subbasin is not subject to critical conditions of overdraft.

<sup>10</sup> Woodland – Davis Clean Water Agency. *Project Overview*. Available at: <https://www.wdcwa.com/project-overview/>. Accessed May 2019.

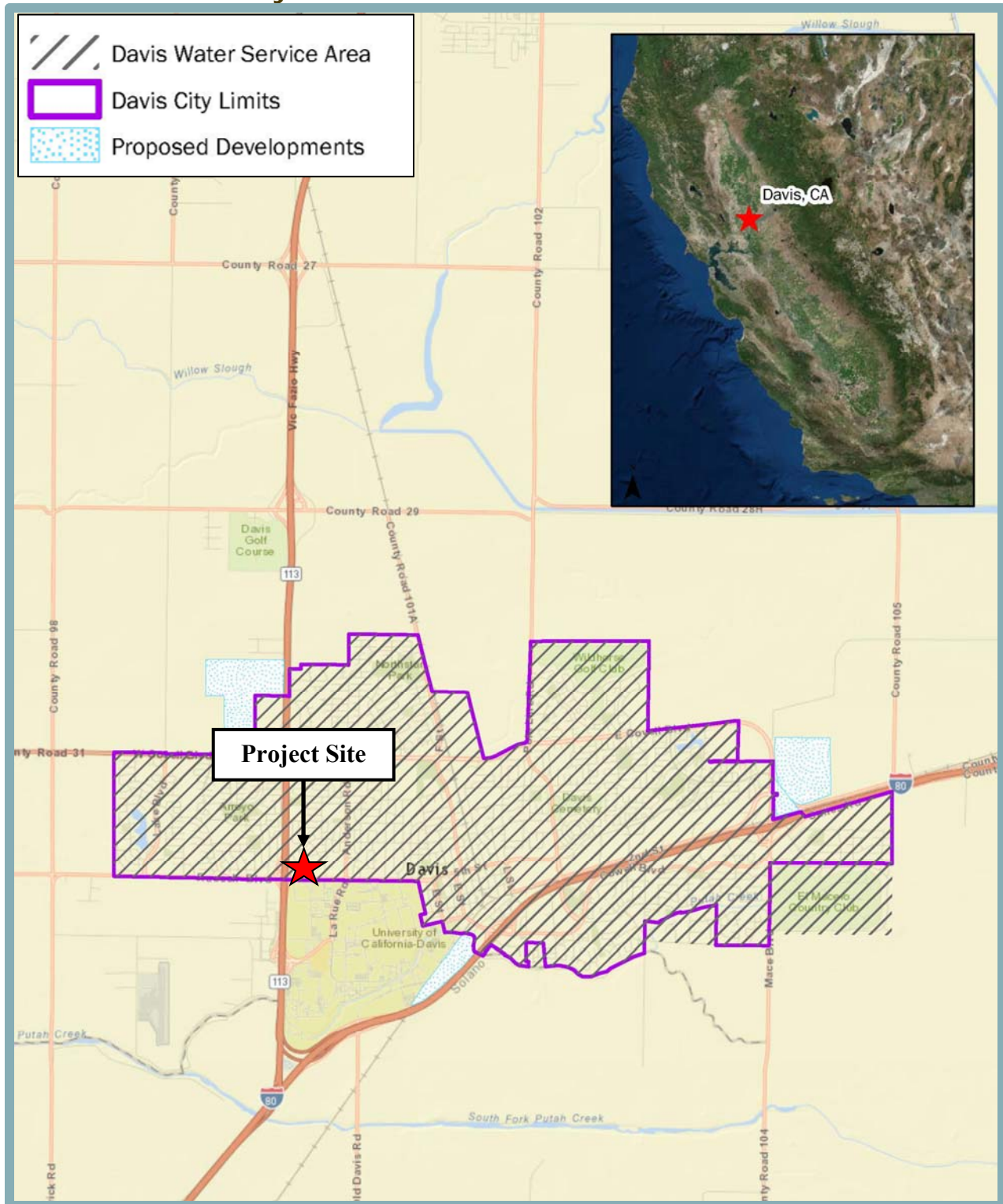
<sup>11</sup> Woodland – Davis Clean Water Agency. *Introduction to Surface Water*. March 2016.

<sup>12</sup> Department of Water Resources. *Bulletin 118* [pg. 98]. Update 2003.

<sup>13</sup> City of Davis. *Final 2015 Urban Water Management Plan*. June 2016.



**Figure 4.5-1  
City of Davis Water Distribution Area**



Source: City of Davis, Final 2015 Urban Water Management Plan, 2016.



The SGMA requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally-based management plans. The SGMA provides substantial time (20 years) for GSAs to implement plans and achieve long-term groundwater sustainability. The SGMA protects existing surface water and groundwater rights and does not impact current drought response measures. The City has partnered with various other local agencies to form the Yolo Subbasin Groundwater Agency (YSGA), which is currently in the process of preparing the Yolo Subbasin Groundwater Sustainability Plan in compliance with the SGMA.<sup>14</sup>

### *Local Groundwater Aquifer Characteristics*

The City has historically obtained groundwater from both the deep and intermediate depth aquifers. The City's deep aquifer zone exists throughout the service area, and is more predominant to the north and west. The deep aquifer zone slopes downward from the west of the service area, with gradual flattening towards the east. Both the City and UC Davis primarily relied on the deep aquifer due to its generally better quality in terms of hardness and total dissolved solids compared to water produced from the intermediate depth aquifer. With the operation of the Regional Water Treatment Facility, intermediate groundwater wells will only be used as emergency supplies or as raw water for park irrigation.

The productive aquifers in the Davis area of Yolo County occur in the Tehama and younger formations. In most areas of Yolo County, the sands and gravel of the Tehama Formation are thin, discontinuous layers between silt and clay deposits. In much of the eastern portion of Yolo County, productive aquifers are found up to 700 feet below ground surface with few productive aquifers in the 700-foot to 1,000-foot depth range. In the area (especially to the west), good quality water is also found in the Tehama Formation at depths of approximately 1,200 feet to 1,500 feet.

Aquifers in the Davis area are recharged by percolation of rainfall and to a lesser extent irrigation water. Other significant sources include infiltration in streambeds, channels, and the Yolo Bypass. Relatively coarse-grained deposits line both Putah and Cache Creeks, allowing substantial infiltration. The deep aquifer has a much longer recharge period as compared to the intermediate depth aquifer, on the order of thousands of years versus hundreds of years, respectively.<sup>15</sup>

Bulletin 118 states that the Yolo Basin does not exhibit any significant declines in groundwater levels, with the exception of localized pumping depressions in several areas, including in the vicinity of Davis. Historical groundwater elevation measurements show that groundwater elevations declined through the 1950s and 1960s and then increased as a result of the implementation of the Lake Berryessa and Indian Valley Reservoir regional surface water supply projects. In addition to the groundwater elevation changes resulting from variation in land and water use practices over time, groundwater elevations have fluctuated in response to changes in precipitation. Groundwater elevations in the falls of 1977 and 1992 were near the historical lows recorded in the mid-1960s. The maximum groundwater elevation measurements were recorded in spring 1983, the same year that the maximum annual precipitation was recorded.<sup>16</sup>

In the vicinity of Davis and UC Davis, the base of fresh groundwater occurs at a depth of approximately 2,800 feet below mean sea level, implying that the fresh water aquifer is about

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<sup>14</sup> Yolo Subbasin Groundwater Agency. *Yolo Subbasin Groundwater Sustainability Plan*. Available at: <https://yologroundwater.org/index.php/yolo-subbasin-groundwater-sustainability-plan/>. Accessed July 2019.

<sup>15</sup> City of Davis. *Final 2015 Urban Water Management Plan*. June 2016.

<sup>16</sup> City of Davis/UC Davis. *Groundwater Management Plan*. April 2006.



2,800 feet thick. The total amount of water contained to a depth of 2,000 feet in the 11,600-acre groundwater management plan area is estimated to be over 2 million acre feet (ac-ft). The amount of water in storage is estimated to be approximately 120,000 ac-ft, assuming a specific yield of 10 percent.

Until the recent transition to the use of surface water, the City's groundwater supply was provided by 20 active wells located within the City's water system service area. The City's historic annual groundwater production for the potable water system, presented in units of acre feet per year (afy) is depicted in Table 4.5-1.

<b>Table 4.5-1</b>					
<b>Groundwater Production</b>					
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Volume Pumped (afy)	11,531	12,217	12,339	10,903	9,212
<i>Source: City of Davis. Final 2015 Urban Water Management Plan. June 2016.</i>					

With the recent availability of surface water, the City of Davis has started to reduce the total amount of groundwater used. The City has begun to retire, place on standby, and/or convert intermediate wells to non-potable service. The sharp drop of projected groundwater supply coincides with the phase-in of wholesale surface water deliveries from the WDCWA.

The quantity of the City's water supply available from groundwater is not impacted by dry, average, or wet years.<sup>17</sup> In dry years the groundwater levels may decline, but this does not reduce the pumping capacity of the City's wells until the groundwater levels drop significantly. The City has an agreement with UC Davis to limit the maximum daily groundwater pumping capacity of the deep aquifer wells. Treatment facilities may be needed on some of the existing deep wells in the future depending on changes in groundwater quality and drinking water standards. Currently, all of the wells meet the drinking water standards.

### Wholesale Water Supply

The City of Davis is now under contract to purchase wholesale surface water from the WDCWA to use in combination with groundwater from the deep wells. The project participants consist of the City of Davis, City of Woodland, and UC Davis. The Regional Water Treatment Facility began operation in June 2016. Per the WDCWA, the Regional Water Treatment Facility is capable of supplying up to 30 million gallons per day (mgd) of water, with an option for future expansion to 34 mgd. Of the 34 mgd of water supplied, the City of Davis is allocated approximately 10.2 mgd.<sup>18</sup>

The WDCWA has two Sacramento River water rights, consisting of a primary water right of 45,000 afy and a secondary right of 10,000 afy. The primary water right is subject to Term 91, which can result in a curtailment of that supply. In the event of a Term 91 curtailment, the secondary water right could be used for the April to October period. When the US Bureau of Reclamation declares a Lake Shasta critical year, the secondary water right is reduced to 7,500 afy.

Historically, the majority of Term 91 curtailments have been 3 months or less in duration. 2014 was unique in that it is the first year since the Term 91 regulations went into effect in 1984 that the curtailments had been in effect for most of the year. A Lake Shasta critical year has been

<sup>17</sup> Brown and Caldwell. *Water Supply Assessment for the City of Davis* [pg. 4-3]. February 2015.

<sup>18</sup> Woodland-Davis Clean Water Agency. *Project Overview*. Available at: <https://www.wdcwa.com/project-overview/>. Accessed May 2019.





declared in 2012, 2013, 2014, and 2015 which are four of the eight years of the occurrence of this declaration over the last 40 years.

According to the WSA,<sup>19</sup> the ability of the WDCWA to supply water during drought conditions concludes that 64 and 42 percent of the annual water demands of the project participants would have been met in 2013 and 2014, respectively. 2013 and 2014 represent the two most severe water right curtailment years since Term 91 went into effect in 1984. The WDCWA has the option of purchasing supplemental Sacramento River water from water rights holders not covered by Term 91. The WSA states that the two existing water rights, in combination with deep aquifer groundwater pumping by the City of Davis, an aquifer storage and recovery (ASR) program by the City of Woodland, and the option to purchase supplemental Sacramento River water, are expected to meet the anticipated water demands of all of the project participants. If implemented, an ASR program could counteract the wholesale supply reduction impacts of Term 91 curtailments.<sup>20</sup>

### Summary of Water Supplies

The City Council decided in 2013 that the City's long-range water portfolio would consist of surface water and groundwater supplemented by well conversion/irrigation, ASR, rainwater catchment, grey water, and storm water, with water conservation to reduce demands.<sup>21</sup> Some of the supplies would not be implemented until sometime in the future, although the ASR option is currently being evaluated by the City and might be implemented sooner. Surface water and deep aquifer groundwater combined with water conservation comprise the majority of the supply. The analysis assumes that the City would utilize the wholesale surface water supply and the deep aquifer groundwater. The other water portfolio elements would result in very small amounts of water and is assumed that they would not be extensively used to provide more potable water supply.

The maximum annual amount of each water supply available to the City is presented in Table 4.5-2, which does not consider any limitations due to the capacities of existing water system supply facilities and infrastructure.

<b>Table 4.5-2 Annual Amount Under Each Water Supply Source</b>			
<b>Supply</b>	<b>Contract Amount (afy)</b>	<b>Right</b>	<b>Contract</b>
Groundwater	No Limit <sup>1</sup>	X	
Wholesale Surface Water	18,700 <sup>2</sup>		X
<b>Notes:</b> <sup>1</sup> While a legal limit on annual pumping does not exist, the City has agreed with UC Davis to limit total groundwater pumping capacity. <sup>2</sup> Assume proportional to treatment plant capacity share. The actual amount available to the City is limited by the capacities of the supply facilities and intermittent Term 91 curtailments.			
<b>Source: Brown and Caldwell, Water Supply Assessment for the City of Davis, 2015.</b>			

The annual amounts of groundwater and wholesale surface water available to the City are limited by the capacities of the water supply infrastructure. The water supply infrastructure is sized to serve the maximum day demand. With the recent availability of the wholesale surface water, the City has a maximum day supply capacity of 23.4 mgd, which consists of 13.2 mgd of well capacity

<sup>19</sup> Brown and Caldwell. *Water Supply Assessment for the City of Davis* [pg. 4-5]. February 2015.

<sup>20</sup> Brown and Caldwell. *Water Supply Assessment for the City of Davis* [pg. 4-5]. February 2015.

<sup>21</sup> Brown and Caldwell. *Water Supply Assessment for the City of Davis* [pg. 4-5]. February 2015.



and 10.2 mgd wholesale supply. The City would have additional groundwater supply capacity from some of the intermediate depth wells that would be kept for emergency standby purposes. The other wells are assumed not to be normally operational.

The City plans to maximize surface water use by routinely using the surface water supply as a base load and using the deep aquifer wells as a supplemental supply during the summer when demands would exceed the surface water supply capacity. The total supply that would be available from both wholesale surface water and groundwater is shown in Table 4.5-3.

<b>Table 4.5-3 Water Supply Capacity</b>	
<b>Water Supply</b>	<b>Reasonably Available Volume (afy)</b>
Surface Water	11,246
Groundwater	14,834
<b>Total Supply</b>	<b>26,080</b>
Note: Reasonably Available Volume is based on years 2020, 2025, 2030, 2035, and 2040.	
<i>Source: City of Davis, Final 2015 Urban Water Management Plan, 2016.</i>	

### Projected Water Demand

The projected water demands through 2035 include the buildout demand of the City's existing water system's service area. Table 4.5-4 presents the projected future demand for water in the City. While single- and multi-family water demand is separated, the commercial, institutional, industrial and governmental water demand is presented together in the "Other" Land Use type category. As shown in Table 4.5-4, the demand for the City is anticipated to grow between 2020 and 2025 as buildout of the City progresses. However, water demand is then expected to decline between 2025 and 2030, as water saving ordinances, codes, and standards take effect.

For instance, regulations within the Model Water Efficient Landscape Ordinance, which became effective on December 1, 2015, are anticipated to reduce outdoor landscape demand in new residential projects by 20 percent, and in commercial projects by 35 percent over the previous ordinance.

<b>Table 4.5-4 Projected Water Demand</b>				
<b>Land Use</b>	<b>Projected Water Use by Year (afy)</b>			
	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
Single-Family	6,420	6,374	6,169	6,169
Multi-Family	2,766	2,782	2,695	2,695
Other	2,065	2,362	2,307	2,307
Landscape	496	655	644	644
Losses	1,745	1,798	1,745	1,745
<b>Total</b>	<b>13,492</b>	<b>13,971</b>	<b>13,560</b>	<b>13,560</b>
<i>Source: City of Davis, Final 2015 Urban Water Management Plan, 2016.</i>				

The WSA prepared for the City concluded that the City's water supply would be sufficient to serve the City's water demand, during normal water years, under buildout conditions.<sup>22</sup> In the event of drought conditions, the City may experience reduced amounts of surface water availability.

<sup>22</sup> Brown and Caldwell. *Water Supply Assessment for the City of Davis* [p. 5-2]. February 2015.





However, because the City will maintain deep ground water wells and emergency supply intermediate wells, the City would maintain adequate water supply to meet the maximum day demand at buildout during dry years, as shown in Table 4.5-5 below. Citywide growth assumptions conservatively included specific large projects such as the Mace Ranch Innovation Center, the formerly proposed Davis Innovation Center, and the originally proposed Nishi project.

<b>Table 4.5-5</b>					
<b>Projected Dry Year Supply Availability (afy)</b>					
		<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
Water Supply	Surface Water Supply	11,246	11,246	11,246	11,246
	Groundwater Supply	14,834	14,834	14,834	14,834
Total Supply		26,080	26,080	26,080	26,080
Total Demand		13,492	13,971	13,560	13,560
<b>Surplus</b>		<b>12,588</b>	<b>12,109</b>	<b>12,520</b>	<b>12,520</b>
<i>Source: City of Davis, Final 2015 Urban Water Management Plan, 2016.</i>					

### Gallons per Capita per Day Target

New requirements regarding per capita water use targets are defined in the Water Conservation Act of 2009, which was signed into law in November 2009 as part of a comprehensive water legislation package. Known as Senate Bill (SB) X7-7, the legislation sets a goal of achieving a 20 percent reduction in urban per capita water use statewide by 2020. SB X7-7 requires that retail water suppliers define in their urban water management plans the gallons per capita per day (gpcd) targets for 2020, with an interim 2015 target.

Water purveyors are required to select one of the four methods that the legislation defines for establishing a gpcd target. Although the City's 2010 UWMP used Method 3 to calculate the gpcd targets, the City's 2015 UWMP used Method 1. Recalculation using Method 1 identified an interim target of 194 gpcd and a 2020 target of 172 gpcd. As of 2015, the City was in compliance with both stated targets with an actual gpcd of 119.<sup>23</sup>

### **Water Shortage Contingency Planning**

On April 1, 2015, the Governor proclaimed a continued state of emergency directing the State Water Resources Control Board (SWRCB) to enhance emergency regulations adopted in 2014 and reaffirmed on March 17, 2015. The Governor's Executive Order B-29-15 sets 2013 as a base year and directed the SWRCB to impose restrictions to achieve a statewide 28 percent water reduction through February 28, 2016. Under the emergency regulations, the City was required to meet a mandatory reduction goal of 28 percent as compared to the base year of 2013.

In response, the City enacted Stage 2.5 water restrictions through an Urgency Ordinance, adopted by the City on June 2, 2015. The Urgency Ordinance was designed to implement the State mandates and to provide for penalties and enforcement of the regulations. The regulations correspond to Davis' 2010 Urban Water Management Plan's Stage 2/Stage 3 Water Shortage Contingency Plan and is consistent with the SWRCB's regulations previously adopted on July 15, 2014 and reaffirmed March 17, 2015.

In March 2016, the SWRCB lowered the mandatory reduction target from 28 percent to 25 percent. The City achieved a cumulative water reduction of 27.7 percent between June 2015 and

<sup>23</sup> City of Davis. *Final 2015 Urban Water Management Plan*. June 2016.



March 2016, as compared to the same months in 2013. On April 7, 2017, Governor Edmund Brown Jr. issued Executive Order B-40-17, ending the drought state of emergency in most of California, including Yolo County. In addition to lifting the drought state of emergency, Executive Order B-40-17 rescinds various drought related proclamations and executive orders made in 2014 and 2015. However, to encourage continued water conservation throughout California, Executive Order B-40-17 left in place some specific requirements such as prohibiting certain wasteful water use practices and urban water use reporting requirements.

Although the City of Davis adequately responded to the most recent drought related state of emergency, in order to ensure that the City can adequately respond to future declared water shortages, the City has adopted a Water Shortage Contingency Plan (WSCP). During water shortage conditions, the City Council may authorize the activation of the WSCP based on actual water supply and demand information. The WSCP includes one normal operation stage and four stages of water shortage. Each stage of shortage is defined through specific Triggering Conditions, which correspond to percent reductions in water supply. Drought stages also correspond with restriction, demand reduction measures and enforcement.<sup>24</sup> The restriction measures of each water shortage stage are designed to ensure that the City maintains adequate water supply to meet a minimum of 50 percent of normal supply during a severe or extended water shortage.

Water demands associated with existing development on the project site were calculated as part of the Domestic Water System Design Report prepared for the proposed project. The water demands are summarized in Table 4.5-6.

### **Water Delivery**

The City of Davis' water distribution system includes three water storage tanks, 16,292 water meters, and 178 miles of water lines. The hydraulic grade in the system is based on the level in an elevated water storage tank.<sup>25</sup>

<b>Table 4.5-6 Existing Water Demand at Project Site</b>		
<b>Land Use</b>	<b>Size</b>	<b>Employees/Residents</b>
<b>Existing</b>		
Retail (383 sf/employee)	60,932 sf	160
Grocery (938 sf/employee)	13,200 sf	14
Restaurant Sit Down (100 sf/employee)	28,006 sf	280
Medical (207 sf/employee)	4,949 sf	24
Total Employees:		478
Commercial Water Use per Employee:		15 gpd
Total Average Day Demand:		7,170 gpd
Peaking Factor:		2.0
<b>Existing Maximum Day Demand:</b>		<b>14,340 gpd (9.96 gpm)</b>
<i>Source: BKF Engineers, 2019.</i>		

### **Storage Facilities/Booster Pump Stations**

The City's water system has three storage tanks: the existing Elevated Tank, West Area Tank (WAT), and the East Area Tank (EAT). The three tanks have a combined storage of 8.2 million

<sup>24</sup> City of Davis. *Final 2015 Urban Water Management Plan*. June 2016.

<sup>25</sup> City of Davis. *Public Works*. Available at: <http://cityofdavis.org/city-hall/public-works>. Accessed May 2019.



gallons (MG). The WAT has a booster pumping capacity of 4,200 gallons per minute (gpm) and the EAT has a total pumping capacity of 8,000 gpm. The WAT and EAT fill during off-peak demand periods, and then the booster station pumps send water back into the system during peak periods based on time and system pressure. The Elevated Tank is located less than 0.5-mile to the northeast of the project site.

### **Pipelines**

The City's water system consists of piping ranging from two to 14 inches in diameter. Approximately 90 percent of the distribution system consists of six- to 10-inch diameter pipelines. The City's pipeline system was originally constructed to support localized supply, with wells spread throughout the City, which did not require large diameter transmission mains. However, as a result of the recent changes to the City's water supply system, treated surface water from the WDCWA's Regional Water Treatment Facility is distributed to the City by way of a six-mile, 30-inch pipeline along Pole Line Road.

### **Water Supply Utilities within Project Site Vicinity**

Currently, the City of Davis maintains a 12-inch domestic water main in Sycamore Lane to the west of the site and a 10-inch water main in Anderson Road to the east of the site.

### **Wastewater Collection and Treatment**

The City of Davis provides wastewater conveyance and treatment for all residents and businesses within the City of Davis and two unincorporated areas: North Davis Meadows (north of Davis at State Route [SR] 113 and County Road [CR] 29), and El Macero (south of Davis adjacent to the southern City boundary).

### **Wastewater Treatment Plant Capacity**

The City of Davis was authorized by the California Regional Water Quality Board in October 2013 to discharge pursuant to Order R5-2007-0132-02 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0079049. The City of Davis submitted a Report of Waste Discharge, dated 4 April 2012, and applied for a NPDES permit renewal to discharge up to 7.5 mgd of treated wastewater from the City of Davis Wastewater Treatment Plant (WWTP). The Order expired on November 1, 2018. On December 7, 2018, the Central Valley Regional Water Quality Control Board (CVRWQCB) adopted renewed waste discharge requirements for the facility under Order R5-2018-0086.<sup>26</sup>

Under the Permit Order, the City has the ability to discharge treated wastewater from two different discharge points (Discharge Point Nos. 001 and 002). The treatment system for both discharge points consists of a mechanical bar screen, aerated grit tank, three primary sedimentation tanks, three facultative oxidation ponds, two aerated ponds, a polishing pond, an overland flow system, disinfection, and dechlorination. However, prior to the discharge at Discharge Point No. 002, the disinfected effluent passes through treatment wetlands. Each discharge point is located in a different receiving water. Treated wastewater is discharged from Discharge Point No. 001 to the Willow Slough Bypass, a water of the United States, and part of the Yolo Bypass flood protection structure within the Sacramento River Watershed. Treated wastewater is discharged from Discharge Point No. 002 to the Conaway Ranch Toe Drain, a water of the United States, and a part of the Yolo Bypass within the Sacramento River Watershed.

<sup>26</sup> Central Valley Regional Water Quality Control Board. Order R5-2018-0086, NPDES No. CA0079049, Waste Discharge Requirements for the City of Davis Wastewater Treatment Plant, Yolo County. Adopted December 2018.



The City's WWTP has recently been upgraded to ensure compliance with all existing and anticipated wastewater discharge standards. The City's WWTP upgrade project included design and construction of improvements to the City's WWTP in order to meet State and federal regulatory discharge requirements contained in the City's adopted 2013 NPDES permit. With completion of the upgrade, the WWTP has been sized to accommodate 6.0 mgd of average dry weather flow (ADWF). ADWF is defined as the average of the three consecutive lowest-flow calendar months, which for the City usually coincides with the period of July through September. A summary of the ADWF values for the years 2010 through 2014, along with biological oxygen demand (BOD), is presented in Table 4.5-7.

<b>Table 4.5-7 Davis WWTP Influent ADWF and BOD Values, 2010-2014</b>				
<b>Year</b>	<b>ADWF (mgd)<sup>1</sup></b>	<b>BOD (mg/L)<sup>2</sup></b>	<b>BOD (lbs/day)<sup>3</sup></b>	<b>Months</b>
2010	4.55	198	7,500	July–September
2011	4.71	205	8,100	August–October
2012	4.26	230	8,200	July–September
2013	4.42	205	7,600	July–September
2014	3.78	258	8,100	July–September
<b>5-Year Average</b>	<b>4.34</b>	<b>219</b>	<b>7,900</b>	-
<b>Coefficient of variation<sup>4</sup></b>	<b>8.2%</b>	<b>11.4%</b>	<b>4.1%</b>	-
Notes: <sup>1</sup> mgd = million gallons per day <sup>2</sup> mg/L = milligrams per liter <sup>3</sup> lbs/day = pounds per day <sup>4</sup> Defined as the standard deviation divided by the arithmetic mean; indicates the degree of variability in the data.				
Source: West Yost Associates, <i>Impacts of Innovation Center/Nishi Property Development on Wastewater Treatment Plant Capacity, Technical Memorandum (Final)</i> , 2015.				

As indicated in Table 4.5-7, the five-year average of ADWF values for the period of 2010–2014 is 4.34 mgd. The lowest ADWF value during that period was 3.78 mgd, measured in 2014, which is reflective of the strict water conservation measures implemented throughout the City during the severe 2014 drought conditions.

Given the relatively high variability in ADWF measurements, there is some question as to what actually represents the “current” ADWF value. Because the 2014 value was unusually low as compared to previous years, the use of the 2014 ADWF may be inappropriately low for assessing available WWTP capacity. Conversely, the inclusion of the 2014 value in a five-year average is reasonable in calculating a sufficiently robust ADWF value, given the potential for periodic drought-related water use reductions.

Based on the above considerations, the five-year average ADWF value for the period of 2010–2014 (i.e., 4.34 mgd) is assumed to represent current ADWF conditions. Growth within the City has been minor over that span, so the flow-generating land uses within the City have remained relatively constant during that period. Given an ADWF of 4.34 mgd and a WWTP capacity of 6.0 mgd, West Yost has estimated that the available ADWF capacity of the WWTP is 1.66 mgd, or 28 percent of design capacity.<sup>27</sup>

<sup>27</sup> West Yost Associates. *Impacts of Innovation Center/Nishi Property Development on Wastewater Treatment Plant Capacity* [pg. 4]. Technical Memorandum (Final). April 2, 2015.



## Wastewater Collection System

The City of Davis wastewater collection system conveys wastewater for the area within the City limits to the WWTP, located at 45400 County Road (CR) 28H. The collection system includes 160 miles of gravity sewers, 2,700 manholes, six pump stations, and 2.63 miles of force mains ranging in size from four to 14 inches. The sewer mains range in size from six to 66 inches in diameter.<sup>28</sup>

### Pipelines

Currently, the City maintains an existing eight-inch sewer main in Sycamore Lane to the west of the site and a six-inch sewer main in Anderson Road to the east of the site. A six-inch lateral extends eastward from the Sycamore Lane sewer main into the project site, adjacent to the existing Trader Joe's grocery store. In addition, a six-inch sewer stub is located within the site near the northern site boundary.

The capacity of the wastewater conveyance system within the project area was previously evaluated in the City's 2018 System Evaluation and Capacity Assurance Plan (SECAP). The model developed for the SECAP includes flow projections for buildout conditions on the City of Davis, with flows divided between specific sewershed areas. The project site is located within the Area C Sewershed Area. For the SECAP project, within Area C, ADWF values for commercial areas were calculated using a unit flow factor of 1,500 gpd per acre.

Currently, the project site is developed with an existing community shopping center that includes a variety of commercial uses and restaurants. The wastewater generation associated with existing on-site uses have been accounted for in the SECAP project. Applying the 1,500 gpd per acre SECAP unit flow factor to the project site results in a calculated ADWF of 12,240 gpd, or 0.012 mgd.

## Solid Waste Disposal

Solid waste collection and disposal in the City of Davis is provided by Recology Davis, which was recently renamed from Davis Waste Removal (DWR). Recology Davis has a drop-off and buy-back center and provides residential curbside, apartment, and business collection services. In addition to the weekly garbage service, Recology Davis provides green waste and recycling pickup and street sweeping service. Recoverable items include mixed paper, glass, aluminum cans, steel and tin cans, some plastics, corrugated cardboard, yard waste, and used motor oil. In July of 2016, Recology Davis began an organics collection program to allow for collection of organic material and food waste. The program will help achieve the City's goal of diverting waste sufficient to reduce City-wide waste disposal to 1.9 pounds per person per day by the year 2020 and close to zero pounds per person per day by year 2025.

All non-recyclable, non-organic waste generated by the City of Davis is disposed of at the 770-acre Yolo County Central Landfill, which is located off CR 28H, near its intersection with CR 104. The landfill is owned and operated by the Yolo County Department of Public Works and Transportation. According to the City of Davis Integrated Waste Management Plan, the landfill is not operating at capacity and has a current anticipated closure date of 2124.<sup>29</sup> Under the landfill's existing permit, the facility is allowed to receive up to 1,800 tons per day, 299 days a year. The landfill also includes a recycling drop-off facility, a wood processing facility, and a methane gas

<sup>28</sup> City of Davis. *Sewer System Management Plan*. March 2017.

<sup>29</sup> CalRecycle. *Solid Waste Facility Permit; Facility Number: 57-AA-001*. May 31, 2018.





collection facility, and accepts drop-offs of household hazardous waste at no charge to County residents on designated Saturdays throughout the year.

### **Electricity and Natural Gas**

Gas and electric service in the City of Davis, including the project site, has been historically provided by Pacific Gas & Electric (PG&E) under a franchise granted to PG&E by the City. Based in San Francisco, PG&E is the largest provider of gas and electric services in northern and central California. PG&E provides electricity to roughly 5.1 million customers and provides natural gas to nearly 4.2 million customers. A mix of generating sources, including hydropower, gas-fired steam, and nuclear energy, powers the electric system.

On October 25, 2016, the Davis City Council adopted Resolution Number 16-153, Series 2016, which approved the Joint Exercise of Powers Agreement with Yolo County to form the Valley Clean Energy Alliance, which is now referred to as simply Valley Clean Energy (VCE). The resolution adopted by the City, along with similar resolutions adopted by the City of Woodland and Yolo County led to the formation of the VCE joint powers authority. Beginning in June 2018, the VCE began serving the electricity needs of the cities of Woodland, Davis, and unincorporated areas of Yolo County. Customers within the participating areas have the opportunity to continue receiving service from PG&E or receive energy from VCE. While VCE supplies the energy for customers enrolled in the VCE program, VCE electricity is transmitted through PG&E-owned and operated distribution and power lines.

### **Telecommunications**

Residents in Davis subscribe to a mix of wireline providers and resellers including AT&T of California, Comcast, Omsoft, and Davis Community Network. A few businesses also utilize fixed wireless providers, including DigitalPath, Inc. and Winters Broadband. Currently, the City of Davis is evaluating the feasibility of installing new fiber optic telecommunications infrastructure throughout the City.<sup>30</sup>

Comcast has provided six-strands of fiber to 22 “Major Facilities” throughout the City. It also connects three Yolo County facilities that are within the City of Davis, which provides interconnection with the greater Yolo County fiber network. The Comcast network, known as the “I-Net” or Institutional Network, enables the City to provide connectivity for municipal operations, utilities, public safety, and general administration.<sup>31</sup>

## **4.5.3 Regulatory Context**

The following discussion contains a summary review of regulatory controls pertaining to public services and utilities, including federal, State, and local laws and ordinances.

### **Federal Regulations**

The following are the federal environmental laws and policies relevant to public services and utilities.

### **Safe Drinking Water Act (SDWA)**

The federal SDWA, which was enacted in 1974, gives the United States Environmental Protection Agency (EPA) the authority to set standards for contaminants in drinking water supplies. The EPA

<sup>30</sup> City of Davis. *Davis California, Broadband Feasibility Study Final Report*. April 3, 2018.

<sup>31</sup> Magellan Advisors, LLC. *Final Yolo Broadband Strategic Plan*. March 26, 2015.





was required to establish primary regulations for the control of contaminants that affected public health and secondary regulations for compounds that affect the taste, odor, and aesthetics of drinking water. Accordingly, the EPA set a maximum contaminant level or treatment technique for each of the 83 contaminants in drinking water listed in the SDWA. Under the provisions of SDWA, the California Department of Health Services (DHS) has the primary enforcement responsibility. Title 22 of the California Administrative Code establishes DHS authority, and stipulates State drinking water quality and monitoring standards.

### **State Regulations**

The following are the State environmental laws and policies relevant to public services and utilities.

#### **Uniform Fire Code**

The Uniform Fire Code with the State of California Amendments contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

#### **California Health and Safety Code**

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, include regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

#### **Senate Bill 7**

On September 25, 2016, SB 7 was signed into law. The purpose of SB 7 is to further the State's water conservation efforts by requiring that new apartment buildings constructed after January 1, 2018 include submeters for every rental unit. Specifically, the bill authorizes the Department of Housing and Community Development to develop, and propose for adoption, building standards that require the installation of water meters or submeters in multi-family residential buildings. In addition, if submeters are used to charge tenants separately for water use, SB 7 imposes requirements on landlords relating to submetered water service to individual dwelling units.

#### **Senate Bill 610**

The California Water Code requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted and that planned water supplies are adequate to meet both existing demands and the demands of planned development.

Water Code Sections 10910 – 10915 (inclusive), sometimes referred to as SB 610, require land use lead agencies: 1) to identify the responsible public water purveyor for a proposed development project, and 2) to request from the responsible purveyor, a "Water Supply Assessment" (WSA). The purposes of the WSA are (a) to describe the sufficiency of the purveyors' water supplies to satisfy the water demands of the proposed development project, while still meeting the current and projected water demands of customers, and, (b) in the absence of a currently sufficient supply to describe the purveyor's plans for acquiring additional water.



Water Code Sections 10910 - 10915 delineate the specific information that must be included in the WSA.

As stated in CEQA Guidelines Section 15155, which reflects SB 610 requirements, any development with water demand exceeding the equivalent demand associated with 500 dwelling units is considered a “water-demand project” and is required to prepare a WSA. The proposed project includes up to 264 dwelling units and an increase of 46,237 sf of commercial space. As discussed under Impact 4.5-3 below, the project would result in a net increase in average water demand of 56,208 gpd relative to existing conditions. By comparison, a 500-unit single-family residential development would result in an average water demand of approximately 306,000 gpd, based on the City’s standard water demand rate included in the 1989 Water Master Plan (612 gpd per dwelling unit). Thus, a WSA is not required to be prepared for the proposed project.

### **Water Conservation in Landscaping Act of 2006**

The Water Conservation in Landscaping Act of 2006 (Assembly Bill [AB] 1881) enacts many, but not all of the recommendations reported to the Governor and Legislature in December 2005 by the CUWCC Landscape Task Force. AB 1881 requires DWR, not later than January 1, 2009, by regulation, to update the model ordinance in accordance with specified requirements, reflecting the provisions of AB 2717. AB 1881 requires local agencies, not later January 1, 2010, to adopt the updated model ordinance or equivalent or it will be automatically adopted by statute. The bill also requires the Energy Commission, in consultation with the department, to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

### **Sustainable Groundwater Management Act**

The DWR has developed a Strategic Plan for its Sustainable Groundwater Management (SGM) Program. DWR’s SGM Program will implement the new and expanded responsibilities identified in the 2014 Sustainable Groundwater Management Act (SGMA). The expanded responsibilities include the following:

- 1) Developing regulations to revise groundwater basin boundaries;
- 2) Adopting regulations for evaluating and implementing Groundwater Sustainability Plans (GSPs) and coordination agreements;
- 3) Identifying basins subject to critical conditions of overdraft;
- 4) Identifying water available for groundwater replenishment; and
- 5) Publishing best management practices for the sustainable management of groundwater.

### **California Integrated Waste Management Act—Assembly Bill 939**

To minimize the amount of solid waste that must be disposed of by transformation (i.e., recycling) and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city’s AB 939 plan will be integrated within the respective county plan. The plans must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to \$10,000-per-day fines.



### Senate Bill 1016

In 2007, SB 1016 amended portions of AB 939, which allows the California Integrated Waste Management Board (CIWMB) to use per capita disposal as an indicator in evaluating compliance with the requirements of AB 939. Jurisdictions track and report their per capita disposal rates to CalRecycle.

### **Solid Waste Reuse and Recycling Access Act – Assembly Bill 1327**

The Solid Waste Reuse and Recycling Access Act (AB 1327) requires jurisdictions to adopt ordinances requiring development projects to provide adequate storage area for collection and removal of recyclable materials.

### **Local Regulations and Policies**

The following are applicable local regulations relevant to public services and utilities.

#### **City of Davis General Plan**

The applicable Davis General Plan policies and standards related to public services and utilities are presented below.

Goal POLFIRE 1 Provide high quality police and fire protection services to all areas of the City.

Policy POLFIRE 1.2 Develop and maintain the capacity to reach all areas of the City with emergency police and fire service within a five-minute emergency response time, 90% of the time. Response time included alarm processing, turnout time, and travel time.

Goal POLFIRE 2 Provide for an emotionally and physically safe environment where the people of Davis are able to live without fear of violence or other forms of abuse.

Policy

Policy POLFIRE 2.1 Reduce crime through community policing, public education, crime prevention, neighborhood watch, and outreach programs.

Goal POLFIRE 3 Increase fire safety through provision of adequate fire protection infrastructure, public education, and outreach programs.

Policy POLFIRE 3.1 Provide adequate infrastructure to fight fires in Davis.

Policy POLFIRE 3.2 Ensure that all new development includes adequate provision for fire safety.

Goal WATER 1 Minimize increases in water use. Reduce per capita water consumption by 20 percent as compared to historic use through programs encouraging water conservation.

Policy WATER 1.1 Give Priority to demand reduction and conservation over additional water resource development.



Standard 1.1a: Water conserving plumbing is required in all new residential construction as required per state legislation.

Policy WATER 1.2     Require water conserving landscaping.

Standard 1.2b: Developers and builders shall install water-conserving landscaping and irrigation systems in accordance with the City's water conservation in landscaping requirements. Provide homeowners information on water conserving landscaping and irrigation systems, if not provided in construction.

Policy WATER 1.3     Do not approve future development within the City unless an adequate supply of quality water is available or will be developed prior to occupancy.

Goal WATER 5     Remain within the capacity of the City wastewater treatment plant.

Policy WATER 5.1     Evaluate the wastewater production of new large scale development prior to approval to ensure that it will fall within the capacity of the plant.

Policy WATER 5.2     Provided that the existing plant capacity is not exceeded, require new large scale development to pay its fair share of the cost of extending sewer service to the site.

Goal MAT 1     Enhance the quality of the environment by conserving resources and minimizing waste by reducing, reusing, recycling, and re-buying.

Policy MAT 1.1     Promote reduced consumption of non-renewable resource.

Standard 1.1a: Coordinate with Yolo County Central Landfill to encourage the reuse of materials deposited at the landfill.

Standard 1.1b: Encourage reuse of refillable bottles.

Goal C&T 1     Encourage development of infrastructure and service to allow all who live, work and study in Davis to utilize new technologies to communicate with individuals and institutions, regionally, nationally, and globally.

Standard 1.1a: New residential and commercial development projects should include the infrastructure components necessary to support modern communication technologies such as conduit space within joint utility trenches for future high speed data



equipment and flexible telephone conduit to allow for easy retrofit for high speed data systems.

### **City of Davis 2015 Urban Water Management Plan**

In June 2016, the City of Davis prepared the UWMP, as required by the Urban Water Management Planning Act of 1983. The focus of the 2015 UWMP is the conversion of City water supply from historic use of groundwater to the recently available surface water from the Woodland Davis Water Project. The UWMP also discusses the conservation and efficient use of water in the Davis service area, and the development and implementation of plans to assure reliable water service in the future. The UWMP contains projections for future water use, discusses the reliability of the City's water supply, describes the City's water treatment system, and contains a water shortage contingency plan. In addition, the UWMP contains best management practices for efficient water use.

### **Davis Municipal Code**

The Davis Municipal Code ordinances related to public services and utilities that are applicable to the proposed project are presented below.

#### Article 40.42 Water Efficient Landscaping

The purpose of the landscaping standards contained in this article is to comply with the Water Conservation in Landscaping Act of 2006, Government Code Sections 65591 et. seq. and to establish standards and procedures that promote the design, installation and management of water efficient landscaping.

#### Chapter 32 Management of Garbage, Other Wastes, Recyclables, and Fees Therefor

City of Davis' Municipal Code contains various requirements and standards for existing developments and proposed projects in regards to solid waste. Chapter 32 includes specific regulations for the provision of garbage, waste, organics and recyclable collection in communally serviced residential developments of more than ten units. Additionally, Chapter 32 establishes requirements for the diversion of construction and demolition debris, which includes requiring construction projects to provide proof of diversions.

### **4.5.4 Impacts and Mitigation Measures**

The section below describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential project-specific impacts related to public services and utilities. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

#### **Standards of Significance**

In accordance with Appendix G of the CEQA Guidelines, impact determinations regarding public services and utilities require consideration as to whether the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:



- Fire protection;
  - Sheriff protection;
  - Schools;
  - Parks; or
  - Other public facilities.
- Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

It should be noted that the Initial Study prepared for the proposed project (see Appendix C) determined that development of the proposed project would result in no impact or a less-than-significant impact related to resulting in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- Schools;
- Parks; and
- Other public facilities.

In addition, the Initial Study concluded that a less-than-significant impact would occur related to requiring or resulting in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Accordingly, the aforementioned impacts are not analyzed further in this EIR.

### **Method of Analysis**

The following sections describe the methodologies employed in the Water Evaluation and Sewer Evaluation prepared for the proposed project by West Yost Associates, as well as the methods used to analyze impacts related to electricity, natural gas, telecommunications facilities, and solid waste.

### **Water Supplies**

The Water Evaluation prepared for the proposed project evaluated the availability of existing water supply conveyance infrastructure in the project area to serve the proposed project. Estimated water demands associated with the project were sourced from the Domestic Water System Design Report prepared for the project by BKF Engineers.





Water demand calculations included in the Domestic Water System Design Report were based on the City of Davis Design Procedures Manual and the U.S. Green Building Council's Building Area per Employee by Business Type, dated May 2008. Existing fire flows were based on a City fire flow test completed at Russell Boulevard on April 21, 2018.

The design and performance criteria used to evaluate the potable water distribution system capacity to serve the proposed development were taken from the City's Water Distribution System Optimization Plan, dated May 2011, and the City's Public Works Design Standards. The City's potable water performance criteria governing West Yost's potable water hydraulic evaluation are listed below:

- Fire flow requirements indicate that 3,500 gpm must be supplied to High-Density Residential land uses during maximum day demand conditions with a minimum residual pressure of 20 psi. Sprinklered buildings allow for a 50 percent reduction in the required total fire flow, at the Fire Marshal's discretion.
- Maximum allowed water velocity in pipelines is 10 feet per second (fps).
- Maximum day demand peaking factor equals 2.0 times average day demand.
- Peak hour demand peaking factor equals 1.88 times maximum day demand.
- Minimum pressure allowed during peak hour demand is 35 psi.

The revised future (2030) demand conditions and system operations were assumed based on: the existing conditions provided in the hydraulic modeling for the Water Distribution System Optimization Plan (WDSOP); feedback from the City; and West Yost's 2018 hydraulic evaluation of the proposed North Davis Meadows service. The assumed operations governing West Yost's potable water hydraulic evaluation of the proposed redevelopment are listed below:

- Surface water supply is fixed at 10.2 mgd.
- Demands are set to the 2030 maximum day demands, as provided in the WDSOP model, which represents buildout conditions.
- Davis Deep Wells are energized to balance the maximum day demand. Though well 30 is not intended to be energized in all instances under existing operations, all deep wells except 28 and 29 would be needed to supply the 2030 maximum day demand conditions.
- Fire flow is initially provided by the elevated tank. Once the water level in the elevated tank declines or local pressures in the system fall below a set point, the East Area Tank pumps and the West Area Tank pumps energize to supplement flows from the elevated tank.
- North Davis Meadows is served by the City potable water system. The North Davis Meadows maximum day demand is approximately 424 gpm.

To simulate the higher water demands associated with the proposed redevelopment, the existing maximum day demand was replaced by the proposed maximum day demand at the site location. Existing maximum day demand in the WDSOP model was globally scaled to peak hour demand by applying the peaking factor of 1.88 times the maximum day demand, resulting in a proposed peak hour demand of 165.4 gpm at the project site.

## **Wastewater**

The Sewer Evaluation prepared for the proposed project evaluated the wastewater generation associated with the project, as well as the capacity of downstream wastewater conveyance infrastructure.



As noted previously, the capacity of the wastewater conveyance system within the project area was previously evaluated in the City's 2018 SECAP. As part of the Sewer Evaluation, West Yost Associates updated the model developed for the SECAP to reflect wastewater flows associated with buildout of the proposed project.

The following planning/modeling criteria were used to analyze the collection system capacity for the proposed project:

- Gravity mains were determined to have sufficient capacity when Peak Wet Weather Flows (PWWF) did not cause the maximum flow depth (d) to pipe diameter (D) ratio (d/D ratio) to exceed 0.6.
- A design storm establishes the volume and distribution of rainfall that the collection system will experience during a single rainfall event. A synthetic design storm with a 10-year recurrence interval and 24-hour duration is commonly used to evaluate wastewater collection systems in Northern California and was used for the evaluation in this analysis. According to the National Oceanographic and Atmospheric Administration rainfall atlas the 10-year/24-hour storm used for the PWWF analysis totals 3.40-inches of rainfall.

The above criteria were established based on the City's 2018 SECAP and the City Public Works Design Standards.

### **Solid Waste**

Solid waste generated by the proposed project was estimated and considered with respect to the anticipated capacity at the solid waste facilities that would serve the proposed project. Sources of solid waste generation for the proposed project include demolition waste, construction material waste, and waste associated with long-term operations of the proposed project.

### **Gas and Electric Facilities**

The gas and electric discussion considers the ability for existing infrastructure to be extended to the project site. Gas and electricity demands for the project are estimated and provided separately in Section 4.2, Greenhouse Gas Emissions and Energy, of this EIR.

### **Project-Specific Impacts and Mitigation Measures**

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above.

#### **4.5-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. Based on the analysis below, the impact is *less than significant*.**

The proposed project would include demolition of approximately 90,563 sf of the existing University Mall building to create a mixed-use development that would consist of four levels of residential over ground-floor retail development. Buildout of the proposed project would result in the addition of 264 new multi-family residential units



and approximately 136,800 sf of retail space, not including the existing Trader Joe's building. By intensifying the use of the site, the proposed project would incrementally increase the demand for fire protection services within the City.

The relevant CEQA threshold is whether new or physically altered stations are needed to meet response times or other performance objectives, the construction of which could cause environmental impacts. As noted previously, the project site is currently served by the Davis Fire Department. The nearest station is the Downtown Station, located approximately one mile east of the project site. The City relies on a response time goal of responding to calls for service within 6:00 minutes for EMS calls and 6:20 minutes for fire calls, 90 percent of the time. According to the Davis Fire Department, the response time goal can be met at the project site given the proximity of the nearest fire stations.<sup>32</sup>

The multi-story project would likely necessitate use of a ladder truck in the event of a fire emergency on the upper floors. The UC Davis Fire Department currently operates Truck 34, which has a 100-foot ladder. Pursuant to the City's automatic aid agreement with UC Davis, Truck 34 would be dispatched, as needed, to incidents at the project site. The proposed maximum building height would be approximately 80 feet; thus, with sufficient access, the 100-foot ladder could safely reach all floors of the proposed buildings.

Fire protection service is evaluated and addressed annually on a city-wide level by the Davis City Council and Fire Chief. The City Council adopts an annual budget allocating resources to fire protection services, which effectively establishes the service ratio for that particular year. The annual budget is based on community needs and available resources as determined by the City Council and the Fire Chief. Additionally, the City of Davis has adopted citywide development impact fees, which include Public Safety Impact Fees. In accordance with existing law, prior to issuance of any building permits for any phase of development, the project applicant shall pay the City's Public Safety Impact Fees. Development impact fees can be adjusted by the City, as needed.

In addition, the proposed structures would be designed in compliance with all applicable provisions of the California Fire Code and would include features such as fire sprinklers and smoke alarms to reduce potential fire hazards. Fire Code consistency review would be performed as part of the construction and development review process for the proposed project, which would include the payment of any necessary development impact fees related to Fire safety services and facilities.<sup>33</sup> For the above-discussed reasons, the proposed project would not result in a need for new facilities or improvements to existing fire protection facilities and as a result, the proposed project would have a ***less-than-significant*** impact.

#### Mitigation Measure(s)

*None required.*

<sup>32</sup> Patrick Sandholdt, Fire Marshal, Davis Fire Department. Personal communication [phone] with Nick Pappani, Vice President, Raney Planning and Management, Inc. September 4, 2018.

<sup>33</sup> City of Davis. *Fee Schedule*. Available at <http://cityofdavis.org/city-hall/finance/fee-schedules>. Accessed August 2018.



**4.5-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services. Based on the analysis below, the impact is *less than significant*.**

Police protection for the project site is currently provided by the DPD, which is headquartered approximately 2.3 miles east of the project site. The current headquarters is considered sufficient to serve the current and projected police service demands for the City, including development of the proposed project.

The proposed project would be designed in accordance with the City's Security Ordinance, which is contained in the City's Municipal Code as Article 8.14. Article 8.14 includes various minimum requirements for security measures to be included in new non-residential and multi-family residential structures and are reviewed as part of the construction documents. Features required for multi-family dwellings include self-locking devices on exterior doors, proper unit identification, properly secured windows, and minimum security standards for doors. For non-residential structures, required features include silent intrusion alarm systems and use of burglar resistant glass. Furthermore, Article 8.14 includes regulations to ensure that proper lighting is provided in stairwells, walkways, public areas, and parking lots. The inclusion of the aforementioned design features would increase the proposed structure's security, which would help to minimize security risks related to the proposed project, and reduce the project's demand on police services.

In addition, the City of Davis maintains Development Impact Fees for various types of new development within the City, including residential and commercial uses. The fees are based on the anticipated demand, and are periodically reviewed by the City. The proposed project would be required to pay applicable development impact fees to fund police protection services.

Because the proposed multi-family structures would be designed in compliance with Article 8.14, Minimum Security Building Standards, and the proposed project would include payment of the applicable development impact fees, the proposed project would not result in a need for new or expanded police protection facilities, the construction of which could cause significant environmental impacts. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

*None required.*



**4.5-3 Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Based on the analysis below, the impact is *less than significant*.**

The following sections describe the water, wastewater treatment, stormwater drainage, electric power, natural gas, and telecommunications facilities improvements that would be necessary to serve the proposed project.

Water Conveyance Infrastructure

The proposed project would include new fire water and domestic water connections to the City's existing 12-inch water line located within Sycamore Lane to the west of the site and the 10-inch water line located in Anderson Road to the east of the site (see Figure 4.5-2). Thus, the project would not necessitate substantial off-site extension of water supply infrastructure. The new 10-inch diameter loop created by the proposed fire water line would include backflow preventers that would prohibit water from flowing through the site (through private water lines) back into the public water system.

As part of the Domestic Water System Design Report, water demands associated with existing development on the project site were compared to demands anticipated to occur with development of the proposed project. The demands are summarized in Table 4.5-8. As shown in the table, development of the proposed project would increase the overall maximum day domestic water demand associated with the project site from 14,340 gpd to 126,756 gpd, or a net change of 101,916 gpd (46.3 mgd). The proposed peak hour demand associated with the project was calculated to be 165.4 gpm. The following sections describe the ability of existing water supply infrastructure to accommodate maximum day and peak hour demands associated with the proposed project in addition to 2030 maximum day demands associated with other development in the project area.

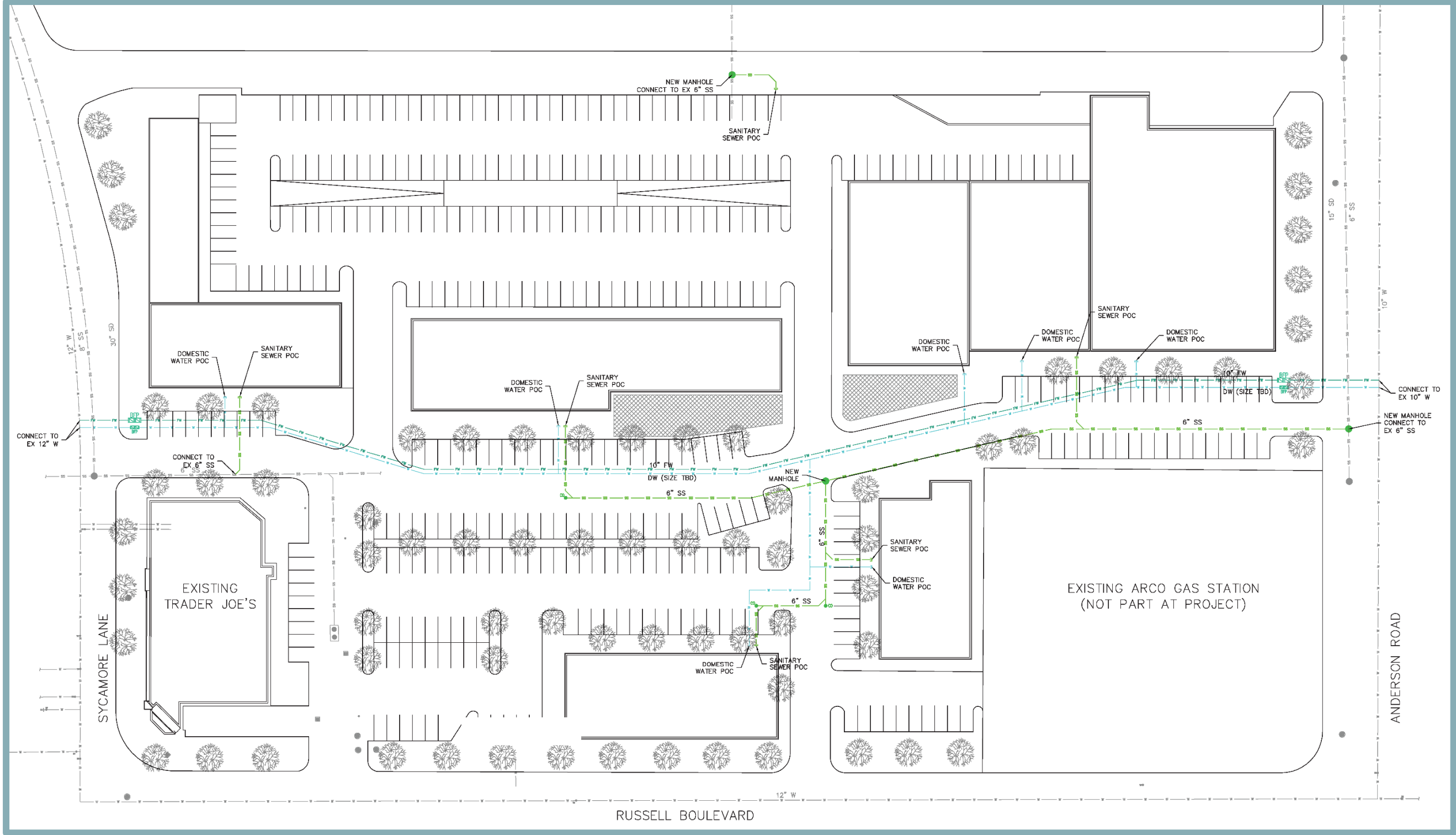
Maximum Day Demand Plus Fire Flow

As noted in the Water Evaluation prepared for the project by West Yost Associates, fire flow for the proposed project would be provided by the City's 200,000-gallon potable water storage tank located less than 0.5-mile northeast of the project site, which regulates pressure in the City's water supply system. Once the water level in the tank declines or local pressures in the system fall below a set point, the East Area Tank pumps and the West Area Tank pumps are energized to supplement flows from the elevated tank and raise pressures in the system.





Figure 4.5-2  
Preliminary Utility Plan



Source: West Yost Associates, 2019.





<b>Table 4.5-8 Existing and Proposed Water Demand at Project Site</b>		
<b>Land Use</b>	<b>Size</b>	<b>Employees/Residents</b>
<b>Existing</b>		
Retail (383 sf/employee)	60,932 sf	160
Grocery (938 sf/employee)	13,200 sf	14
Restaurant Sit Down (100 sf/employee)	28,006 sf	280
Medical (207 sf/employee)	4,949 sf	24
Total Employees:		478
Commercial Water Use per Employee:		15 gpd
Total Average Day Demand:		7,170 gpd
Peaking Factor:		2.0
<b>Existing Maximum Day Demand:</b>		<b>14,340 gpd (9.96 gpm)</b>
<b>Proposed</b>		
Multi-Family Residential	894 beds	894
Residential Water Use per Resident:		57 gpd
Average Day Water Demand:		50,958 gpd
Peaking Factor:		2.0
<b>Proposed Maximum Day Residential Demand:</b>		<b>101,916 gpd (70.8 gpm)</b>
Grocery (938 sf/employee)	13,200 sf	14
Restaurant Sit Down (100 sf/employee)	61,670 sf	617
Retail/Service (383 sf/employee)	75,129 sf	197
Total Employees:		828
Commercial Water Use per Employee:		15 gpd
Total Average Day Demand:		12,420 gpd
Peaking Factor:		2.0
<b>Proposed Maximum Day Commercial Demand:</b>		<b>24,840 gpd (17.25 gpm)</b>
<b>Overall Proposed Maximum Day Demand:</b>		<b>126,756 gpd (88 gpm)</b>
<i>Source: BKF Engineers, 2019.</i>		

The City's Public Works Design Standards recommend a fire flow of 3,500 gpm for high-density residential land uses. For sprinklered buildings, a 50 percent reduction in the total required fire flow may be allowed at the Fire Marshal's discretion. In order to evaluate the ability of the project to meet fire flow requirements, West Yost Associates modeled the following conditions: fire flow provided exclusively by the elevated tank; and fire flow provided by a combination of the elevated tank and the East Area Tank and West Area Tank pumps.

Under the first condition, West Yost Associates modeled the elevated tank at a water level of 28.7 feet, which is 0.2 feet above the set point that turns on Pump 1 at the West Area Tank. In this condition, fire flows would be provided exclusively by the elevated tank, and system pressures and supply were shown to be capable of serving the required fire flow. The modeled available fire flow at the project site under the first condition is 4,867 gpm, which is above the required fire flow of 3,500 gpm.

Under the second condition, West Yost Associates modeled the elevated tank at a water level of 25.5 feet. A water level of 25.5 feet would trigger Pump 1 at the West Area Tank and Pump 1 and the East Area Tank to supplement the supply, which raises pressures in the system. Additional lower elevated tank levels were modeled, but elevated tank levels less than 25.5 feet triggers additional pumps to turn on at the West Area Tank and East Area Tank, which boosts the system pressures such that an



elevated tank level of 25.5 feet is the limiting condition. The modeled available fire flow at the project site under the second condition is 4,805 gpm (see Figure 4.5-3), which is still above the required fire flow of 3,500 gpm.

Based on the above, under maximum day demands plus fire flow, the existing water conveyance infrastructure in the project vicinity would be sufficient to accommodate the proposed project without requiring upsizing or other improvements.

#### *Peak Hour Demand*

Under peak hour demand, the system draws from storage and begins draining the elevated storage tank. To model peak hour conditions, West Yost Associates set the elevated tank water level at 21.5 feet. The elevated tank water level triggers on Pumps 1 through 3 at the West Area Tank and Pumps 1 through 3 at the East Area Tank.

The increase in demands during peak hour conditions would decrease pressures systemwide by less than 0.5 psi. System pressures in the vicinity of the project site would remain above the City's 35 psi minimum standard during peak hour demand conditions. Peak hour demand pressure at the project site would be 39.4 psi (see Figure 4.5-3). Thus, under peak hour demands, sufficient water pressure would be available at the project site, and improvements to existing water conveyance infrastructure in the project vicinity would not be required.

#### Wastewater Conveyance Infrastructure

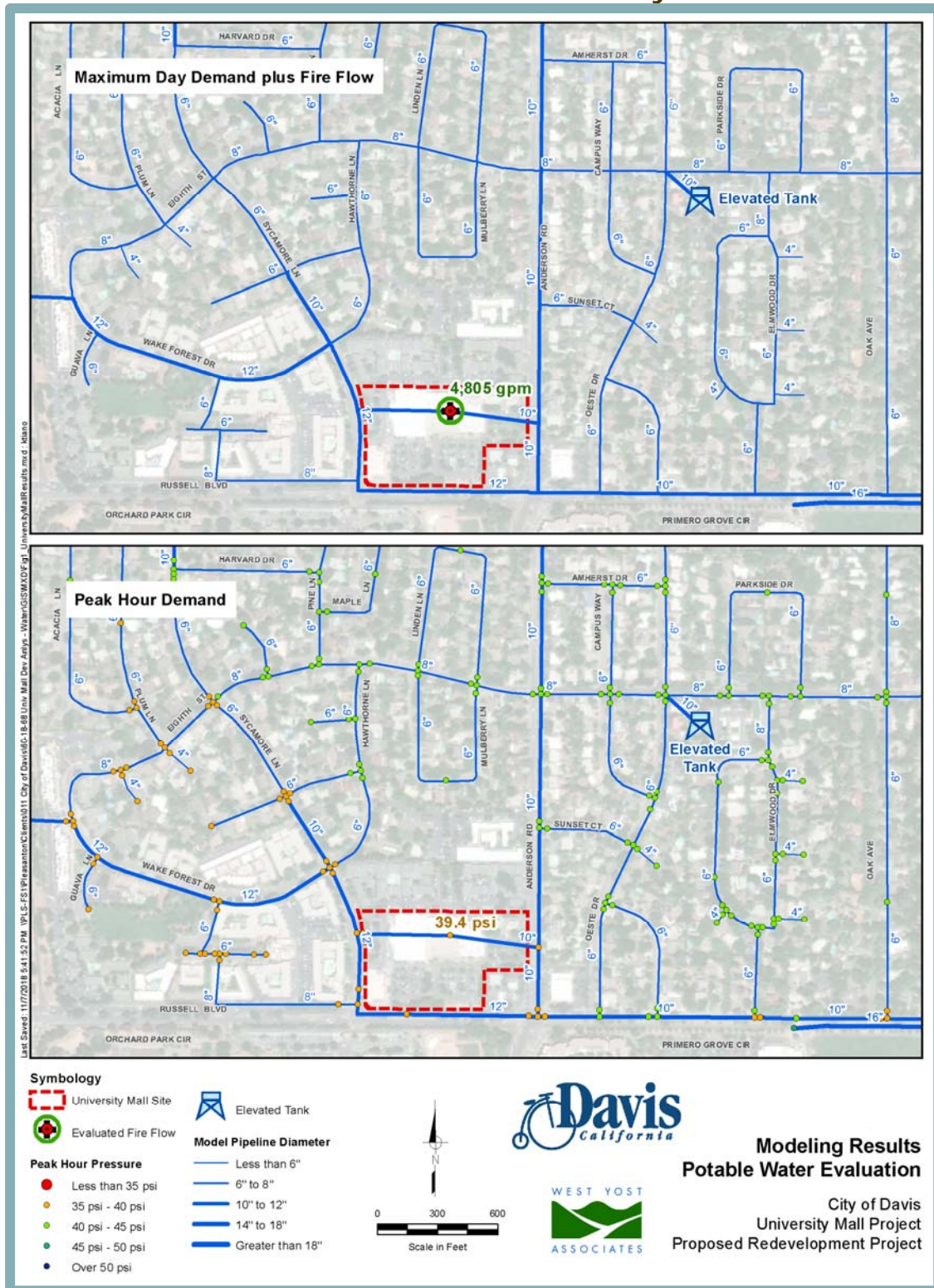
As noted previously, the City of Davis maintains an existing eight-inch sewer main in Sycamore Lane to the west of the site and a six-inch sewer main in Anderson Road to the east of the site. A six-inch lateral extends eastward from the Sycamore Lane sewer main into the project site adjacent to the existing Trader Joe's grocery store. In addition, a six-inch sewer stub is located within the site near the northern site boundary. The proposed project would include a new six-inch sanitary sewer line extending westward into the site from the existing sewer main in Anderson Road. In addition, the project would include a new connection to the existing sewer stub near Trader Joe's.

As noted in the Sewer Evaluation prepared by West Yost Associates, the ADWF associated with the proposed project would be 63,378 gpd, or 0.063 mgd, which conservatively includes the existing development at the site that would remain in service as part of the project (i.e., Trader Joe's). As noted previously, the SECAP previously estimated an ADWF for the site of 12,240, or 0.012 mgd. Thus, the project would increase wastewater generation at the site by approximately 0.051 mgd relative to what was previously considered by the City.

As part of the Sewer Evaluation, the model developed for the SECAP was updated to reflect the updated project ADWF of 0.063 mgd in order to determine whether sufficient capacity exists within the downstream sewer trunks to accommodate flows from the proposed project, combined with other cumulative development anticipated to occur under General Plan buildout conditions. Based on the results of the updated hydraulic modeling, West Yost Associates concluded that the additional wastewater generation associated with the proposed project would not result in new exceedances of the City's



**Figure 4.5-3  
Potable Water Availability**



Source: West Yost Associates, 2019.



0.6 d/D maximum design criterion within any of the downstream sewer conveyance infrastructure and would have not have a substantial effect on the downstream infrastructure.

Thus, sewer flows from the proposed project and other cumulative development could be accommodated by the City's existing collection system infrastructure without requiring any upsizing or other improvements,<sup>34</sup> and a less-than-significant impact would occur.

#### Electricity, Natural Gas, and Telecommunications Infrastructure

The project site currently receives gas and electric service from PG&E, and would continue to be served by PG&E upon development of the proposed project. In addition, future residents would have the option to receive electricity through the City's new VCE program, under which electricity generated by VCE would be distributed to the project site through PG&E-owned and operated distribution and power lines. The proposed project would connect to existing electrical, natural gas, and telecommunications infrastructure located in the project vicinity. Given that the project site currently contains commercial structures and is surrounded by existing development, the proposed project would not require major infrastructure improvements related to existing electrical, natural gas, and telecommunications utilities.

Electricity and natural gas demands associated with development of the proposed project are discussed in Section 4.2, Greenhouse Gas Emissions and Energy, of this EIR. As noted therein, although the proposed project would increase the demand for energy and natural gas service on the project site, the increase in demand from the project would be relatively small in comparison to overall demand within the City of Davis, and PG&E and VCE are anticipated to have adequate capacity to handle the increase in energy and natural gas service demand from the proposed project.

Based on the above, the proposed project would result in a less-than-significant impact related to electricity, natural gas, and telecommunications facilities.

#### Conclusion

Based on the above, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Thus, a **less-than-significant** impact would occur.

#### Mitigation Measure(s)

*None required.*

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<sup>34</sup> Stan Gryczko, Assistant Director of Public Works, City of Davis. Personal communication [phone] with Nick Pappani, Vice President, Raney Planning & Management, Inc. July 17, 2019.





**4.5-4 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Based on the analysis below, the impact is *less than significant*.**

The proposed project would increase the overall maximum day domestic water demand associated with the project site from 13,920 gpd to 126,756 gpd, or a net change of 101,496 gpd (37.05 mgd) relative to existing conditions. It should be noted that the aforementioned demands do not account for the estimated 420 gpd of water demand associated with the existing Trader Joe's grocery store, which is not a part of the proposed project.

The City's existing water supplies and projected water demands are anticipated to result in annual water surpluses as shown in Table 4.5-9 below.

<b>Table 4.5-9 Projected Normal Year Supply Availability (mgd)</b>				
	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
Total Supply	7,296	7,296	7,296	7,296
Total Demand	4,396	4,552	4,419	4,419
<b>Surplus</b>	<b>2,900</b>	<b>2,744</b>	<b>2,877</b>	<b>2,877</b>
<i>Source: City of Davis, Final 2015 Urban Water Management Plan, 2016.</i>				

The demand figures included in the table above were generated using buildout information for the City, which includes general development within the City, as well as potential development of the Mace Ranch Innovation Center and Nishi projects.<sup>35</sup> The buildout demand also includes the formerly proposed Davis Innovation Center. Operation of the proposed project would increase average yearly water demand by up to 46.3 mgd relative to existing conditions. Given the City's surplus of at least 2,744 mgd, the City's current water supply could accommodate the proposed project's operational water demand. In addition, as shown in Table 4.5-10 below, sufficient water supply would exist to serve the proposed project's operational water demand and reasonably foreseeable future development during normal, dry, and multiple dry years. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

*None required.*

<sup>35</sup> City of Davis. *Final 2015 Urban Water Management Plan* [p. 3-1]. June 2016.



<b>Table 4.5-10 Projected Multiple Dry Year Supply Availability (mgd)</b>				
	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>First Dry Year</b>				
Total Supply	7,602	7,602	7,602	7,602
Total Demand	4,396	4,552	4,419	4,419
<b>Supply Minus Demand</b>	<b>2,900</b>	<b>3,050</b>	<b>3,183</b>	<b>3,183</b>
<b>Second Dry Year</b>				
Total Supply	7,266	7,266	7,266	7,266
Total Demand	4,396	4,552	4,419	4,419
<b>Supply Minus Demand</b>	<b>2,870</b>	<b>2,714</b>	<b>2,847</b>	<b>2,847</b>
<b>Third Dry Year</b>				
Total Supply	7,296	7,296	7,296	7,296
Total Demand	4,396	4,552	4,419	4,419
<b>Supply Minus Demand</b>	<b>2,900</b>	<b>2,744</b>	<b>2,877</b>	<b>2,877</b>
<i>Source: City of Davis, Final 2015 Urban Water Management Plan, 2016.</i>				

**4.5-5 Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Based on the analysis below, the impact is *less than significant*.**

As noted previously, per the Sewer Evaluation prepared by West Yost Associates,<sup>36</sup> the proposed project would result in an overall ADWF at the project site of 0.063 mgd, an increase of 0.051 mgd relative to what was previously considered for the site by the City per the SECAP.

Wastewater treatment for the proposed project would continue to be provided by the City's WWTP. As discussed previously, given an existing ADWF of 4.34 mgd and a WWTP capacity of 6.0 mgd, West Yost has estimated that the available ADWF capacity of the WWTP is 1.66 mgd, or 28 percent of design capacity.<sup>37</sup> Therefore, adequate capacity exists to treat the additional 0.063 mgd of wastewater that would be generated by the proposed project. Furthermore, the project applicant would be required to pay sewer impact fees to the City, which would contribute towards the cost of future upgrades of the City's wastewater collection system and WWTP.

Based on the above, the proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Thus, a ***less-than-significant*** impact would occur.

<sup>36</sup> West Yost Associates. *Evaluation of University Mall Development Sewer Flows and Resulting Infrastructure Needs*. April 23, 2019.

<sup>37</sup> West Yost Associates. *Impacts of Innovation Center/Nishi Property Development on Wastewater Treatment Plant Capacity [pg. 4]*. Technical Memorandum (Final). April 2, 2015.





Mitigation Measure(s)

*None required.*

**4.5-6 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, state, and local management and reduction statutes and regulations related to solid waste. Based on the analysis below, the impact is *less than significant*.**

Solid waste services (collection and recycling) are provided to the City of Davis by Recology Davis, a private firm under contract with the City. All non-recyclable wastes collected from the City are disposed of at the 770-acre Yolo County Central Landfill in the northeast portion of the Davis Planning Area. The City does not contain any special landfill sites.

According to the Davis Integrated Waste Management Plan, the Yolo County Central Landfill is not operating at capacity and has a current anticipated closure date of 2124. The Yolo County Central Landfill is permitted to accept a maximum of 1,800 tons of waste per day; in 2013 the landfill was averaging about 1,000 tons of waste per day.<sup>38</sup> Extrapolated to a 299-day service year, the landfill is authorized to accept 538,200 tons of waste per year, while receiving an average of 299,000 tons of waste per year, or approximately 56 percent of the available permitted throughput. As a result, the Yolo County Central Landfill has a remaining daily capacity of 800 tons per day and 239,200 tons per year.

The proposed redevelopment project would require demolition of approximately 90,563 sf of building space and construction of 412,500 sf of multi-family residential uses and approximately 136,800 sf of retail space. The U.S. EPA's report, *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*, was used to estimate the amount of waste that would be generated by construction activities. Per the report, non-residential demolition generates an average of 158 lbs/sf of solid waste. Non-residential and residential construction activities generate an average of 4.34 lbs/sf and 4.39 lbs/sf of waste, respectively.<sup>39</sup> As such, the proposed demolition and construction activities would produce approximately 16,727,761 lbs (8,364 tons) of waste.

The construction and demolition debris estimate presented above represents a conservative analysis of the maximum potential waste production from the construction and demolition process. The City of Davis has adopted Tier 1 of the California Green Building Standards Code, which requires applicable projects to divert at least 65 percent of all construction and demolition debris through recycling, reuse and/or waste reduction. As such, a minimum of 5,437 tons of waste would be diverted away from landfill disposal during construction and demolition. Considering the

<sup>38</sup> City of Davis. *Davis Integrated Waste Management Plan*. July 2013.

<sup>39</sup> U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*. 2009.



applicable CALGreen Code requirements, buildout of the proposed project would be anticipated to produce 2,927 tons of construction waste.

Waste generated by the demolition and construction phase of the proposed project would be spread over the anticipated 27-month construction phase. However, in order to provide a conservative analysis, the total estimated waste that would be generated by construction and demolition activities was assumed to occur during only one year. Therefore, the project's anticipated total construction waste of 2,927 tons was compared to the Yolo County Central Landfill's total yearly capacity and remaining yearly capacity. With the conservative assumption that construction waste occurs in a single year, the estimated waste generation would equal approximately 1.22 percent of the Landfill's total remaining yearly capacity. Thus, construction waste associated with the proposed project could be accommodated by the Yolo County Central Landfill.

Once constructed, the proposed residential and commercial uses would generate solid waste. The City of Davis estimates that residents of the City produced approximately 2.6 pounds of waste per resident per day in 2013.<sup>40</sup> In addition, per CalRecycle, commercial uses are conservatively estimated to generate approximately 0.046 lbs/sf/day.

Given that the project would house approximately 894 future residents, operation of the residential portion of proposed project would generate approximately 2,324 lbs of waste per day (1.16 tons). The commercial portion of the project would generate approximately 6,293 lbs per day (3.15 tons). Overall, the project would generate approximately 4.31 tons per day, or 1,573 tons per year.

Operational waste generation of 4.31 tons per day would equal approximately 0.54 percent of the Yolo County Central Landfill's remaining daily capacity. Over the course of an operational year, 1,573 tons would represent 0.66 percent of the Landfill's total annual remaining capacity. Therefore, the proposed project's operational waste generation could be accommodated by the existing capacity of the Yolo County Central Landfill.

It should be noted that in 2016, California achieved a Statewide residential waste diversion rate of 61 percent.<sup>41</sup> The diversion rate represents the percentage of the State's solid waste stream that is diverted from landfills and recycled or composted. Assuming a similar diversion rate for the City of Davis, approximately 1,022 tons of waste generated by operation of the proposed project would be diverted from the Yolo County Central Landfill annually.

Moreover, in 2011 the City of Davis adopted Resolution Number 11-185, which established a goal of reducing per resident waste generation to 1.9 pounds per resident per day by 2020. Such a reduction would represent a 0.7 pounds per resident per day reduction in solid waste production from the 2013 level assumed for this analysis. To achieve the aforementioned waste reduction, the City implemented an

<sup>40</sup> City of Davis. *Davis Integrated Waste Management Plan*. July 2013.

<sup>41</sup> California Department of Resources Recycling and Recovery (CalRecycle). *California's Estimated Statewide Diversion Rates Since 1989*. Available at: <http://www.calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/Graphs/EstDiversion.htm>. Accessed July 2019.



organics program to collect yard waste, food scraps, and food soiled paper for composting. Food scraps, food soiled paper and non-recyclable organic materials comprise over 30 percent of the City's existing waste stream; therefore, the operational waste presented above could be reduced by as much as 30 percent due to the project's operational participation in the City's organics program. Thus, the waste estimations presented above should be considered conservative, and the actual waste produced by construction and operation of the proposed project would likely be less than what is presented in this EIR.

Based on the above, the proposed project would not exceed the permitted capacity of the Yolo County Central Landfill in the project's construction and/or operational phases. Additionally, the proposed project would be required to abide by all aforementioned local, State, and federal regulations. As a result, the proposed project would be serviced by a landfill with adequate capacity and would not violate any relevant statutes related to solid waste disposal. Therefore, a ***less-than-significant*** impact related to solid waste would occur.

Mitigation Measure(s)

*None required.*

**Cumulative Impacts and Mitigation Measures**

The following discussion of impacts is based on the implementation of the proposed project in combination with other proposed and pending projects in the region. Refer to Chapter 5, Statutorily Required Sections, of this EIR for more detail.

**4.5-7 Development of the proposed project, in combination with future buildout in the City of Davis, would increase demand on fire and police protection services. Based on the analysis below, the cumulative impact is *less than significant*.**

The existing structures on the project site are currently provided police protection services by the DPD. Fire protection services are provided by the Davis Fire Department. The General Plan EIR concluded that buildout of the City of Davis would result in a less-than-significant impact related to increased demand on fire protection services, provided that development is located within a five-minute response radius of existing fire stations, as is the case for the proposed project. With regard to police protection services, impacts were similarly determined to be less than significant.

The proposed redevelopment project would have the potential to result in increased demands for fire and police protection services at the project site. However, as discussed under Impacts 4.5-1 and 4.5-2 above, the Davis Fire Department has indicated that new or physically altered fire station facilities would not be needed to adequately serve the proposed project.<sup>42</sup> The proposed structures would be designed in compliance with all applicable provisions of the California Fire Code and would include features such as fire sprinklers and smoke alarms to reduce potential fire hazards. In addition, the proposed project would be designed in accordance with the

<sup>42</sup> Patrick Sandholdt, Acting Fire Marshal, Davis Fire Department. Personal communication [phone] with Nick Pappani, Vice President, Raney Planning and Management, Inc. September 4, 2018.



City's Security Ordinance, which is contained in the City's Municipal Code as Article 8.14. Article 8.14 includes various minimum requirements for security measures to be included in new non-residential and multi-family residential structures. Furthermore, the proposed project would be subject to payment of development impacts fees for public safety impacts to support adequate provisions for fire and police facilities and equipment. Similar to the proposed project, other future development projects within the City would be required by the City to pay their fair-share fees toward the provision of adequate public services and facilities, including towards the necessary upgrades and expansions of facilities and equipment.

Based on the above, a ***less than significant*** cumulative impact would occur related to resulting in a need for new or expanded fire and police protection facilities, the construction of which could cause significant environmental impacts.

Mitigation Measure(s)

*None required.*

**4.5-8 Development of the proposed project, in combination with future buildout in the City of Davis, would increase demand on utilities and service systems. Based on the analysis below, the project's incremental contribution to this cumulative impact would be *less than cumulatively considerable*.**

A discussion of potential cumulative impacts on utility systems is provided below.

Water Supply

Water supplies for the proposed project would be provided by the City of Davis. As discussed under Impact 4.5-3 above, the proposed project would increase the overall maximum day domestic water demand associated with the project site from 13,920 gpd to 126,756 gpd, or a net change of 101,496 gpd (37.05 mgy) relative to existing conditions. The aforementioned increase in demand can be accommodated without the need for new or expanded water entitlements. As shown in Table 4.5-9 and Table 4.5-10, the City's overall water demand is anticipated to peak in 2025. The anticipated water demand for 2025 and beyond includes cumulative growth assumptions from buildout of the City's General Plan, relevant Specific Plans, and development of the Nishi, Mace Ranch Innovation Center, and formerly proposed Davis Innovation Center project. Thus, the project-level impact discussion for water supply and delivery considers the project's water demand in conjunction with demand from other cumulative buildout until 2035. As shown in Table 4.5-9 and Table 4.5-10, sufficient water supplies are available to serve the proposed project, other proposed projects, and cumulative growth within the City until at least 2035 during normal-year, single-dry year, and multiple dry-year scenarios.

As such, the water supply system is adequately sized to accommodate cumulative water demand within the City service area, including the proposed project, and the project's incremental contribution to cumulative impacts related to water supplies would be less than cumulatively considerable.



### Wastewater

As discussed under Impact 4.5-3 above, wastewater generation associated with buildout of the General Plan, including the project site, was previously modeled for the City's 2018 SECAP. As part of the Sewer Evaluation prepared for the project, the SECAP modeling was updated to reflect increased wastewater generation associated with the proposed redevelopment project.

Based on the results of the modeling conducted for the Sewer Evaluation, a number of the downstream sewer main segments are projected to exceed the City's 0.6 d/D maximum design criterion under buildout of the General Plan, including the proposed project. However, the project would not result in any new exceedances and would not contribute substantially to the segments that were already projected to be deficient in the 2018 SECAP. Thus, the project's contribution to the cumulative impact would be less than cumulatively considerable. The project's required payment of applicable sewer impact fees would also contribute towards future sewer conveyance system improvements carried out by the City.

Wastewater treatment for the City of Davis is provided by the City's WWTP, which has a permitted capacity of 6.0 mgd. Current inflow to the WWTP is 4.34 mgd, leaving 1.66 mgd of capacity. The existing and future capacity of the WWTP is presented in Table 4.5-11 below, along with the estimated demand for buildout of the General Plan and large proposed developments such as Mace Ranch Innovation Center/Triangle, and the Nishi project. As shown in Table 4.5-11, the WWTP is anticipated to have a remaining capacity of 0.95 mgd with buildout of the City's General Plan. Projects not included in the City's General Plan, such as the Mace Ranch Innovation Center, the Triangle, the Nishi Project, and Lincoln40 would result in a cumulative ADWF demand of 0.33 mgd.<sup>43</sup>

<b>Table 4.5-11</b>	
<b>Summary of Existing and Future WWTP Capacity</b>	
<b>Condition</b>	<b>ADWF (mgd)</b>
WWTP Capacity	6.0
Existing Conditions	4.34
General Plan Buildout	5.05
Remaining Capacity	0.95
<b>Cumulative Development Contribution</b>	
Mace Ranch Innovation Center/Triangle	0.11
Nishi Project	0.18
Lincoln40	0.04
West Davis Active Adult	0.13
3820 Chiles Road	0.03
Proposed Project	0.05
<b>Source: West Yost Associates. Technical Memorandum: Impacts of Innovation Center/Nishi Property Development on Wastewater Treatment Plant Capacity. April 2, 2015.</b>	

Per the Sewer Evaluation prepared by West Yost Associates, the proposed project would result in an overall ADWF at the project site of 0.063 mgd, an increase of 0.051

<sup>43</sup> West Yost Associates. *Technical Memorandum: Impacts of Innovation Center/Nishi Property Development on Wastewater Treatment Plant Capacity*. April 2, 2015.





mgd relative to what was previously considered for the site by the City per the SECAP. Accounting for wastewater demand from the aforementioned development projects, as well as the proposed project, the WWTP would have a remaining capacity of approximately 0.41 mgd. As such, the WWTP would have adequate capacity to serve the proposed project as well as buildout of the General Plan and the aforementioned development projects, and a less-than-significant cumulative impact would occur.

### Solid Waste

The proposed project would contribute construction, demolition, and operational waste to the Yolo County Central Landfill. As discussed above, numerous State and federal regulations exist regarding the composition and volume of solid waste being directed to landfills, as well as the amount of solid waste being diverted for recycling or reuse programs. The proposed project would be required by Tier 1 of CALGreen to divert at least 65 percent of construction and demolition waste generated during construction and demolition activities. Additionally, the City has recently implemented an organic waste program, which is estimated to result in a maximum diversion rate of 30 percent. As discussed previously, the Yolo County Landfill currently has permitted capacity to accept an additional 800 tons per day or 239,200 tons per year. The current permitted capacity is anticipated to allow operation of the landfill to continue until the year 2124. The solid waste attributable to the proposed project would not be considered substantial in light of the landfill's existing capacity of 800 tons per day. Therefore, the proposed project in combination with future buildout in the region would not result in a significant cumulative impact related to solid waste.

### Energy, Natural Gas, and Telecommunications

As discussed previously, the proposed project would not require major extensions of energy or natural gas infrastructure, as such infrastructure currently exists on-site. Additionally, PG&E services are provided on-demand, and PG&E expands the distribution system as needed to accommodate growth. Cumulative projects would increase demand for electricity and natural gas services, but would be accommodated by PG&E's infrastructure. Similarly, while cumulative development within the City of Davis would increase demand on the City's telecommunications service providers (i.e., Comcast, AT&T, Omsoft, etc.), services are readily scalable and would be expanded as necessary to accommodate future growth. Thus, cumulative impacts related to energy, natural gas, and telecommunications would be less than significant.

### Conclusion

The proposed project, in conjunction with regional development, would increase demand on utilities in the area and have the potential to result in a significant cumulative impact. However, this analysis has demonstrated that the proposed project's incremental contribution to this cumulative impact would be considered **less than cumulatively considerable**.

### Mitigation Measure(s)

*None required.*





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## **4.6 Transportation and Circulation**

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## 4.6 TRANSPORTATION AND CIRCULATION

### 4.6.1 INTRODUCTION

The Transportation and Circulation section of the EIR analyzes the potential impacts of the proposed project on the surrounding transportation system, including roadways, bicycle, pedestrian, and transit facilities and services under existing and cumulative scenarios. The information contained within this section of the EIR is primarily based on the Transportation Impact Study prepared for the proposed project by Fehr & Peers (see Appendix J).<sup>1</sup> Information from the Davis General Plan<sup>2</sup> and associated EIR<sup>3</sup> has also been referenced.

The proposed project is consistent with Sacramento Area Council of Governments' (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and, thus, the proposed project is eligible for streamlining under Public Resources Code (PRC) 21159.28. Accordingly, this EIR is not required to include an analysis of project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on the regional transportation network. Although parking is not required to be analyzed in this EIR pursuant to the project's eligibility for CEQA streamlining, and is not considered a CEQA issue nor required to be analyzed in this EIR per CEQA Guidelines, because parking is an important planning consideration, the Transportation Impact Study (Appendix J) includes a parking analysis. See the "CEQA Streamlining" section below for more detail.

### 4.6.2 EXISTING ENVIRONMENTAL SETTING

The sections below describe the physical and operational characteristics of the existing transportation system within the project vicinity, including the surrounding roadway network and, transit, bicycle, and pedestrian facilities.

#### Local Roadways

Vehicular access to the project site is currently available by way of nine existing driveways, including two along Sycamore Lane, three along Anderson Road, two along Russell Boulevard, and two connecting with the adjoining ARCO gas station (which can be used for vehicular access to/from Anderson Road and Russell Boulevard). Other key roadways in the project vicinity include La Rue Road, West Eighth Street, and State Route 113 (SR 113). These roadways are described as follows:

- Russell Boulevard – Russell Boulevard is a four-lane, east-west roadway that borders the southern edge of the project site. Russell Boulevard connects West Davis with Central Davis, Downtown Davis, and East Davis. The City of Davis General Plan classifies Russell Boulevard as a major arterial. Within the vicinity of the project site, traffic signals along Russell Boulevard operate in coordination during peak periods. The posted speed limit is 30 miles per hour (mph) between SR 113 and B Street. West of SR 113, the posted speed

<sup>1</sup> Fehr & Peers. *University Commons, Transportation Impact Study*. July 2019.

<sup>2</sup> City of Davis. *Davis General Plan*. Adopted May 2001. Amended through January 2007.

<sup>3</sup> City of Davis. Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School. January 2000.



limit is 35 mph. Unrestricted on-street parking is available on the north side of Russell Boulevard within the vicinity of the project site (including along its frontage). Russell Boulevard continues east until B Street where it becomes Fifth Street. The segment of Russell Boulevard and Fifth Street from SR 113 to Pole Line Road is classified as a truck route in the City of Davis General Plan.

- Anderson Road – Anderson Road is a two-lane, north-south roadway that borders the eastern edge of the project site. Anderson Road connects to Central Davis and North Davis and the UC Davis campus to the south, where the roadway transitions to La Rue Road south of Russell Boulevard on the UC Davis campus. The City of Davis General Plan classifies Anderson Road as a minor arterial. The posted speed limit is 25 mph between Russell Boulevard and West Eighth Street and 30 mph north of West Eighth Street.
- Sycamore Lane – Sycamore Lane is a two-lane, north-south roadway that extends from Russell Boulevard north towards North Davis and borders the project on the west. The City of Davis General Plan classifies Sycamore Lane as a collector. The posted speed limit is 25 mph between Russell Boulevard and Covell Boulevard.
- West Eighth Street – West Eighth Street is a two-lane, east-west roadway that extends from Sycamore Lane east towards Central Davis and East Davis. The City of Davis General Plan classifies West Eighth Street as a collector between Sycamore Lane and Anderson Road and a minor arterial east of Anderson Road. The posted speed limit is 25 mph within the vicinity of the project site.
- SR 113 – SR 113 is a four-lane, north-south freeway that extends from Interstate 80 (I-80) at the Yolo/Solano County line north to Interstate 5 (I-5) in Woodland. SR 113 would serve as the primary regional roadway providing vehicular access to the project site.

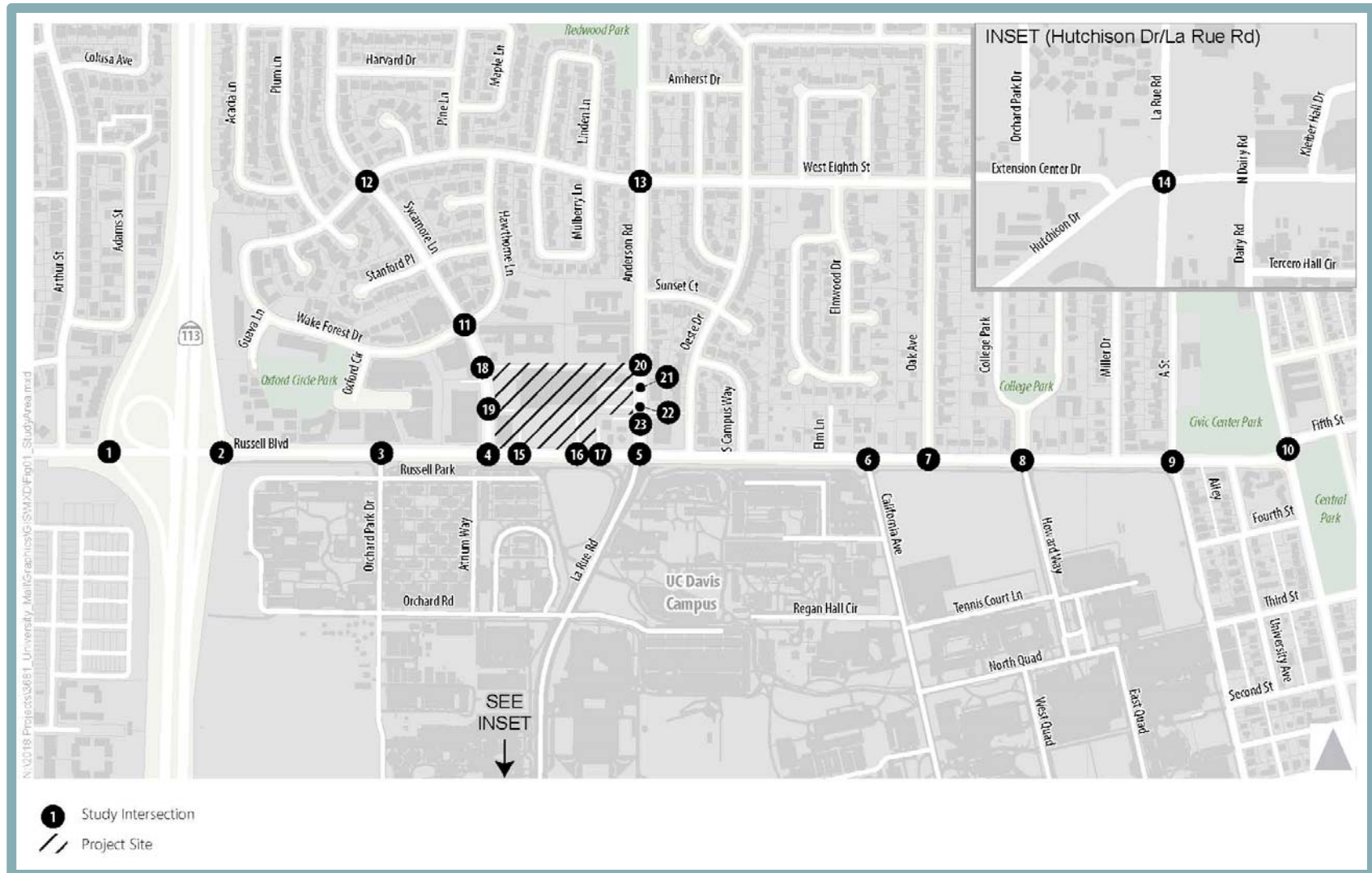
### **Study Intersections**

Study intersections evaluated in the Transportation Impact Study were selected in consultation with City of Davis staff and based on the project's expected travel characteristics (i.e., project location and amount of project trips) as well as facilities susceptible to being impacted by the project. The following 23 intersections were selected for study (see Figure 4.6-1):

1. Russell Boulevard/SR 113 Southbound Ramps;
2. Russell Boulevard/SR 113 Northbound Ramps;
3. Russell Boulevard/Orchard Park Drive;
4. Russell Boulevard/Sycamore Lane;
5. Russell Boulevard/Anderson Road/La Rue Road;
6. Russell Boulevard/California Avenue;
7. Russell Boulevard/Oak Avenue;
8. Russell Boulevard/College Park/Howard Way;
9. Russell Boulevard/A Street;
10. Russell Boulevard/Fifth Street/B Street;
11. Sycamore Lane/Wake Forest Drive;
12. Sycamore Lane/West Eighth Street;
13. Anderson Road/West Eighth Street;
14. La Rue Road/Hutchison Drive;
15. Russell Boulevard/West University Mall Driveway;
16. Russell Boulevard/East University Mall Driveway;
17. Russell Boulevard/West ARCO Driveway;
18. Sycamore Lane/North University Mall Driveway;



**Figure 4.6-1  
Study Intersection Locations**



Source: Fehr & Peers, 2019.



19. Sycamore Lane/South University Mall Driveway;
20. Anderson Road/North University Mall Driveway;
21. Anderson Road/Central University Mall Driveway;
22. Anderson Road/South University Mall Driveway; and
23. Anderson Road/North ARCO Driveway.

Intersections 15 through 23 are private driveways and were included for the purposes of understanding traffic volumes between study intersections and vehicle ingress/egress and queueing at the project site driveways. Unlike intersections 1 through 14, the private driveway intersections were not studied for the purposes of identifying transportation impacts on the basis of intersection operations alone. Therefore, peak hour delay and level of service (LOS) results are not reported for intersections 15 through 23.

### **Common Traffic Analysis Terms**

The Transportation Impact Study analyzes roadway operating conditions using intersection LOS as a primary measure of operational performance. Motorized vehicle LOS is a qualitative measure of traffic flow from the perspective of motorists and is an indication of the comfort and convenience associated with driving. Typical factors that affect motorized vehicle LOS include speed, travel time, traffic interruptions, and freedom to maneuver. The *Highway Capacity Manual, 6<sup>th</sup> Edition* (HCM) published by the Transportation Research Board of the National Academies of Science defines six levels of service ranging from LOS A (representing free-flow vehicular traffic conditions with little to no congestion) to LOS F (oversaturated conditions where traffic demand exceeds capacity resulting in long queues and delays).

The LOS at signalized intersections is based on the average control delay (i.e., delay resulting from initial deceleration, queue move-up time, time stopped on an intersection approach, and final acceleration) experienced per vehicle traveling through the intersection. Table 4.6-1 summarizes the relationship between delay and LOS for signalized intersections.

<b>Table 4.6-1 Signalized Intersection LOS Criteria</b>		
<b>LOS</b>	<b>Description</b>	<b>Average Control Delay</b>
A	Volume-to-capacity ratio is low and either progression is exceptionally favorable or cycle length is very short.	≤ 10
B	Volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	> 10 to 20
C	Progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 20 to 35
D	Volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	> 35 to 55
E	Volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	> 55 to 80
F	Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 80
Note: Average control delay is presented in seconds per vehicle.		
Source: Fehr & Peers, 2019.		



Similar to signalized intersections, the HCM methodology for stop-controlled intersections reports the LOS based on the control delay experienced by motorists traveling through the intersection. As shown in Table 4.6-2 below, the delay ranges for stop-controlled intersections are lower than for signalized intersections. The HCM anticipates that motorists expect signalized intersections to carry higher traffic volume that results in greater delay than a stop-controlled intersection. Stop controls are associated with more uncertainty, as delays are less predictable, which can reduce users' delay tolerance.

<b>Table 4.6-2 Stop-Controlled Intersection LOS Criteria</b>	
<b>LOS</b>	<b>Average Control Delay<sup>1</sup></b>
A	≤ 10
B	> 10 to 15
C	> 15 to 25
D	> 25 to 35
E	> 35 to 50
F	> 50
Note: Average control delay is presented in seconds per vehicle.	
Source: Fehr & Peers, 2019.	

To be consistent with both the HCM and recent City of Davis studies, this analysis shows the LOS for side-street stop-controlled intersections in two forms, as follows:

- Intersection LOS: Based on the weighted average of the control delay experienced by each movement of the intersection. Note that this is not a recognized LOS metric for side-street stop-controlled intersections per the HCM 6<sup>th</sup> Edition. However, the City of Davis has previously expressed side-street stop-controlled intersection delay using this measure.
- Worst-case LOS: Based on the movement (or shared movement) with the greatest control delay at the intersection, which may consist of minor-street stop-controlled movements or major street left-turns.

### **Existing Traffic Conditions**

In order to determine existing operations at study intersections, intersection turning movement counts were conducted by Fehr & Peers during the morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak periods at the 23 study intersections on Tuesday, May 10, 2018. Intersection counts included volumes for vehicles, bicyclists, and pedestrians. Based on the traffic data collection, the AM peak hour within the study area occurred from 8:00 to 9:00 AM and the PM peak hour occurred from 4:30 to 5:30 PM.

### **Study Intersection Operations – Existing Conditions**

Table 4.6-3 and Figure 4.6-2 present the AM and PM peak hour LOS for each study intersection under Existing Conditions. As shown in the table, all study intersections operate at or above the applicable LOS standard set by the jurisdiction controlling the intersection (see “Significance Criteria” discussion below).





**Table 4.6-3  
Peak Hour Intersection Operations – Existing Conditions**

Intersection	Traffic Control	Jurisdiction	Peak Hour	Existing Conditions	
				Delay	LOS
1. Russell Blvd./SR 113 SB Ramps	Signal	Caltrans	AM	8	A
			PM	7	A
2. Russell Blvd./SR 113 NB Ramps	Signal	Caltrans	AM	17	B
			PM	25	C
3. Russell Blvd./Orchard Park Dr.	SSSC	City of Davis	AM	3 (31)	A (D)
			PM	5 (41)	A (E)
4. Russell Blvd./Sycamore Ln.	Signal	City of Davis	AM	21	C
			PM	24	C
5. Russell Blvd./Anderson Rd./La Rue Rd.	Signal	City of Davis	AM	28	C
			PM	26	C
6. Russell Blvd./California Ave.	SSSC	City of Davis	AM	5 (17)	A (C)
			PM	5 (20)	A (C)
7. Russell Blvd./Oak Ave.	Signal	City of Davis	AM	12	B
			PM	10	A
8. Russell Blvd./College Park/Howard Way	Signal	City of Davis	AM	17	B
			PM	39	D
9. Russell Blvd./A St.	Signal	City of Davis	AM	21	B
			PM	24	C
10. Russell Blvd./Fifth St./B St.	Signal	City of Davis	AM	27	C
			PM	19	B
11. Sycamore Ln./Wake Forest Dr.	SSSC	City of Davis	AM	3 (18)	A (C)
			PM	3 (17)	A (C)
12. Sycamore Ln./West Eighth St.	AWSC	City of Davis	AM	10 (10)	A (B)
			PM	9 (9)	A (A)
13. Anderson Rd./West Eighth St.	Signal	City of Davis	AM	22	C
			PM	19	B
14. La Rue Rd./Hutchison Dr.	Signal	UC Davis	AM	17	B
			PM	22	C

Note: For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop-controlled intersections, average intersection delay is reported in seconds per vehicle for all approaches with the delay and LOS for the worst-case movement reported in parentheses.

**Source: Fehr & Peers, 2019.**

During the AM peak hour, vehicle traffic on the Russell Boulevard corridor generally progresses smoothly. Queues generally do not extend to the adjacent upstream intersection and clear within one cycle at signalized intersections, with the following exceptions:

- Eastbound left-turn pocket at the Russell Boulevard/Sycamore Lane intersection, where AM peak hour vehicle queues spill back beyond the available turn pocket storage capacity (300 feet) and frequently block the adjacent eastbound through travel lane.
- Southbound approach at the Russell Boulevard/Sycamore Lane intersection, where AM peak hour vehicle queues spill back beyond the northern project site driveway on Sycamore Lane. Queues frequently block the bicycle-vehicle mixing zone provided where the southbound bike lane transitions from the curb to in between the left- and right-turn lanes.



**Figure 4.6-2  
Intersection LOS – Existing Conditions**



Source: Fehr & Peers, 2019.



- Southbound approach at the Russell Boulevard/Anderson Road/La Rue Road intersection, where AM peak hour vehicle queues spill back beyond the northern project site driveway on Anderson Road. Queues frequently block the bicycle-vehicle mixing zone provided where the southbound bike lane transitions from the curb to in between the left-turn and through lanes.

During the PM peak hour, eastbound and westbound vehicle traffic on Russell Boulevard experiences increased delay, particularly on the segment between Sycamore Lane and A Street. During a 15- to 20-minute timeframe, queues frequently extend through adjacent upstream intersections and fail to clear within one cycle at signalized intersections. Concentrations of congested conditions are the result of several factors. First, the signals along Russell Boulevard, although interconnected, do not currently operate in a manner that facilitates efficient through movement of vehicles. Second, very high northbound side-street demand (i.e., from the UC Davis campus) requires allocation of green time at signals that would otherwise be utilized to progress eastbound and westbound traffic. Third, frequent pedestrian calls for service across Russell Boulevard contribute to more lengthy queues in the east and west directions, which causes corridor operations to frequently “fall out of coordination”. The congested conditions described above can also block vehicular ingress/egress at project driveways, particularly the western driveway on Russell Boulevard. It should be noted that the congested conditions are typically concentrated within a 15- to 20-minute window and do not persist for the duration of the peak hour (as reflected in the peak hour delay and LOS results in Table 4.6-3).

The four unsignalized study intersections were evaluated to determine if the intersections satisfy the peak hour warrant for consideration of a traffic signal. The Russell Boulevard/Orchard Park Drive and Russell Boulevard/California Avenue intersections currently meet the peak hour warrant during the PM peak hour. The Sycamore Lane/Wake Forest Drive and Sycamore Lane/West Eighth Street intersections do not meet the peak hour warrant for a traffic signal.

### **Collision History**

According to the Statewide Integrated Traffic Records System (SWITRS), 22 collisions were reported on public streets within the immediate vicinity of the project site (within 300 feet) between 2013 and 2018). Table 4.6-4 provides a summary of the collisions, including the location of each collision, the parties involved, and the primary collision factor. As shown, 19 of the 22 collisions reported involved a bicycle. The Russell Boulevard/Anderson Road/La Rue Road intersection experienced the greatest number of collisions, followed by the Russell Boulevard/Sycamore Lane intersection. As described above, both intersections experience very high levels of bicycle activity.

### **Bicycle Facilities**

Bicycle facilities are typically categorized in the following classifications:

- Class I Multi-Use Off-Street Paths (also known as shared-use paths) are paved trails that are separated from roadways, and allow for shared use by both cyclists and pedestrians.
- Class II On-Street Bike Lanes are designated for use by bicycles by striping, pavement legends, and signs.
- Class III On-Street Bike Routes are designated by signage for shared bicycle use with vehicles but do not necessarily include any additional pavement width for bicyclists.
- Class IV Separated Bikeways, also known as protected bikeways or cycle tracks, are separated bikeways designed to improve upon buffered bike lanes by providing vertical



separation between bike lanes and the adjacent travel lanes. Vertical separation can be provided with concrete curb and gutter, bollards, or on-street parking.

**Table 4.6-4  
Six-Year Collision History Near Project Site**

Location	Parties <sup>2</sup>	Type	Primary Collision Factor	Year
Sycamore Ln at Wake Forest Dr	Bicycle, Vehicle	Head-On	Unknown	2013
Sycamore Ln north of Russell Blvd	Bicycle, <b>Vehicle</b>	Other	Automobile Right-of-Way	2016
Sycamore Ln north of Russell Blvd	Bicycle, <b>Vehicle</b>	Other	Improper Turning	2017
Russell Blvd at Sycamore Ln	Bicycle, <b>Vehicle</b>	Other	Automobile Right-of-Way	2017
Russell Blvd at Sycamore Ln	Bicycle, <b>Vehicle</b>	Broadside	Other Hazardous Violation	2015
Russell Blvd at Sycamore Ln	Bicycle, Bicycle	Other	Unknown	2014
Anderson Rd north of Russell Blvd	<b>Bicycle</b> , Vehicle	Head-On	Automobile Right-of-Way	2016
Anderson Rd north of Russell Blvd	<b>Bicycle</b> , Bicycle	Other	Improper Turning	2017
Anderson Rd at Russell Blvd	Bicycle, <b>Vehicle</b>	Other	Automobile Right-of-Way	2015
Anderson Rd at Russell Blvd	Bicycle, <b>Vehicle</b>	Other	Other Hazardous Violation	2018
Anderson Rd at Russell Blvd	Bicycle	Hit Object	N/A	2014
Anderson Rd at Russell Blvd	<b>Vehicle</b> , Vehicle	Head-On	Automobile Right-of-Way	2014
Anderson Rd at Russell Blvd	<b>Bicycle</b> , Vehicle	Other	Traffic Signals and Signs	2014
Anderson Rd at Russell Blvd	<b>Bicycle</b> , Vehicle	Broadside	Traffic Signals and Signs	2014
La Rue Rd at Russell Blvd	<b>Vehicle</b> , Motorcycle	Sideswipe	Improper Turning	2017
La Rue Rd at Russell Blvd	Bicycle, <b>Vehicle</b>	Other	Other Hazardous Violation	2017
La Rue Rd at Russell Blvd	<b>Vehicle</b> , Vehicle	Rear End	Unsafe Speed	2013
La Rue Rd at Russell Blvd	Bicycle, <b>Vehicle</b>	Broadside	Unsafe Speed	2013
La Rue Rd at Russell Blvd	<b>Bicycle</b> , Vehicle	Broadside	Automobile Right-of-Way	2013
La Rue Rd at Russell Blvd	Bicycle, <b>Vehicle</b>	Broadside	Automobile Right-of-Way	2018
La Rue Rd at Russell Blvd	<b>Bicycle</b> , Vehicle	Broadside	Automobile Right-of-Way	2014
La Rue Rd at Russell Blvd	<b>Bicycle</b> , Vehicle	Broadside	Automobile Right-of-Way	2018

**Source: Fehr & Peers, 2019.**

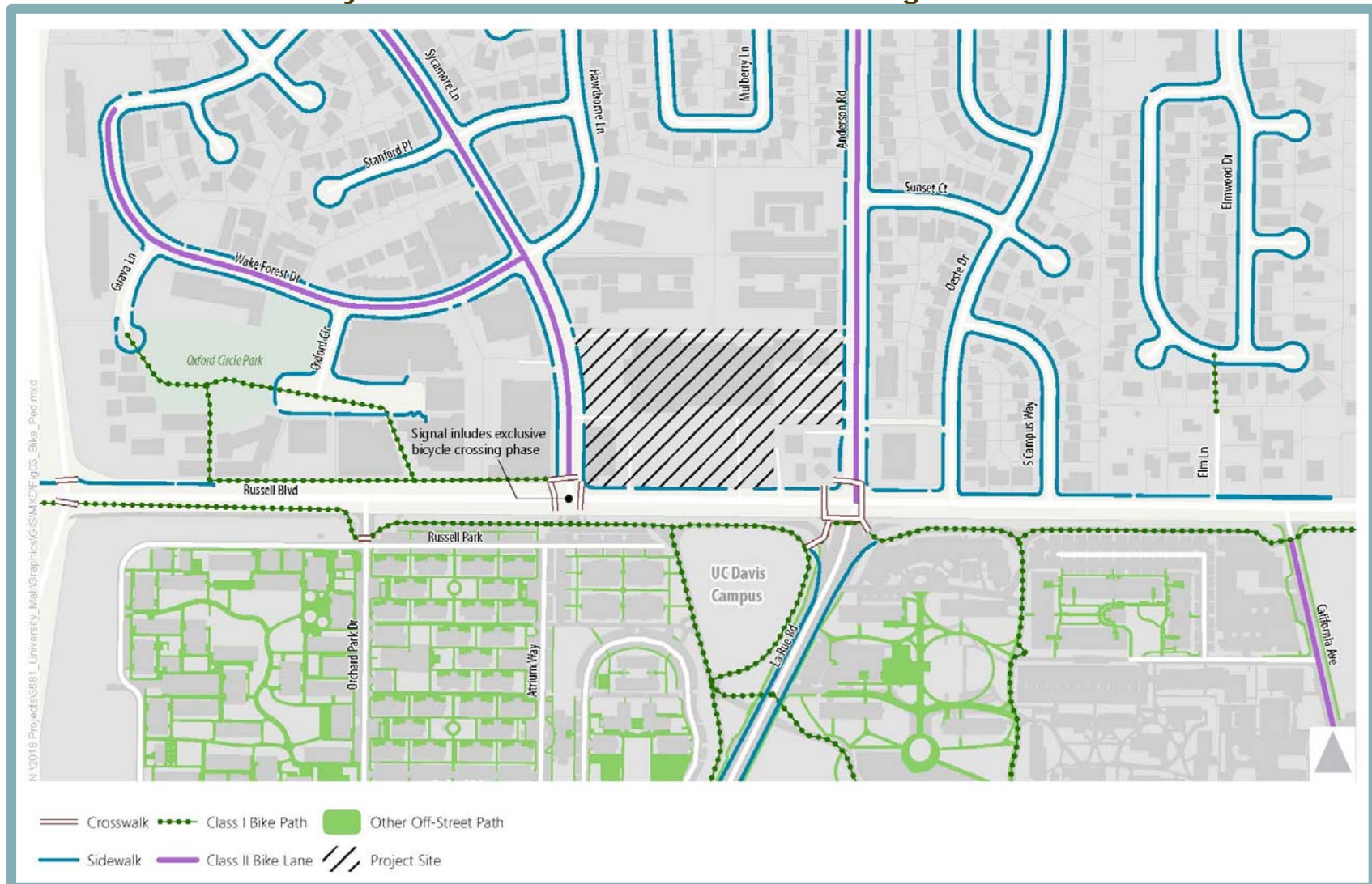
Figure 4.6-3 displays existing bicycle facilities within the project vicinity. As shown in the figure, a Class I shared-use path (typically 14 feet wide) is present on the south side of Russell Boulevard on the UC Davis campus throughout the study area, providing connections between West Davis, Central Davis, UC Davis, and Downtown Davis. Between SR 113 and A Street, the Russell Boulevard shared-use path provides several connections south into the UC Davis campus off-street path network.

Two of the path connections are located immediately across Russell Boulevard from the project site on either side of the UC Davis softball field (between Sycamore Lane and Anderson Road), including a path on the west side of La Rue Road. A Class I shared-use path is also present on the north side of Russell Boulevard between Sycamore Lane and SR 113, providing bicycle connections north to the apartment complexes within the Oxford Circle vicinity. A Class I shared-use path is also present between the project site and Mulberry Lane, bisecting the Sycamore Lane Apartments immediately north of the project site.





**Figure 4.6-3  
Bicycle and Pedestrian Facilities – Existing Conditions**



Source: Fehr & Peers, 2019.



Class II bike lanes are present on Sycamore Lane and Anderson Road along the project site frontage, providing bicycle connectivity north into Central and North Davis and south into the UC Davis campus. Several crossing treatments facilitate bicycle movements across Russell Boulevard to/from these bike lanes. A dedicated bicycle signal phase serves bicyclists utilizing the Russell Boulevard/Sycamore Lane intersection. The Russell Boulevard/Anderson Road/La Rue Road intersection has a dedicated southbound left turn lane for bicyclists that connects to the southeast corner of the intersection, allowing access to the shared-use path on the south side of Russell Boulevard. Southbound left-turning bicyclists at this location are funneled through an eight-foot wide receiving area at the southeast corner of the intersection, which also serves as a staging area for bicyclists and pedestrians waiting to cross other intersection legs. The majority of the remaining bicycle crossing movements at the Russell Boulevard/Anderson Road/La Rue Road intersection are accommodated within the marked crosswalks during pedestrian crossing phases. Crosswalks vary in width from as narrow as five feet at pinch points (e.g., the north leg crosswalk) to as wide as 11 feet.

Within the project vicinity, on-street bicycle facilities are not currently provided on either Russell Boulevard or La Rue Road. Moreover, bicycle facilities do not exist along the immediate project site frontage on Russell Boulevard.

#### Bicycle Facility Operations – Existing Conditions

Figure 4.6-4 displays the peak hour bicycle volumes at the Sycamore Lane and Anderson Road intersections with Russell Boulevard. The intersections serve as primary bicycle gateways for the UC Davis campus, resulting in very high bicycle crossing volumes during peak hours (measuring over 500 peak hour bicyclists at each intersection) as students travel between the UC Davis campus and their residences along the Sycamore Lane and Anderson Road corridors. Moreover, peak hour factors for bicycle demand at these intersections are low, resulting in surges in bicycle demand within concentrated periods of time. For example, at the Russell Boulevard/Anderson Road/La Rue Road intersection, the AM peak hour has a bicycle demand peak hour factor of 0.59, resulting in 75 percent of peak hour bicyclists passing through the intersection during 50 percent (i.e., 30 minutes) of the peak hour.

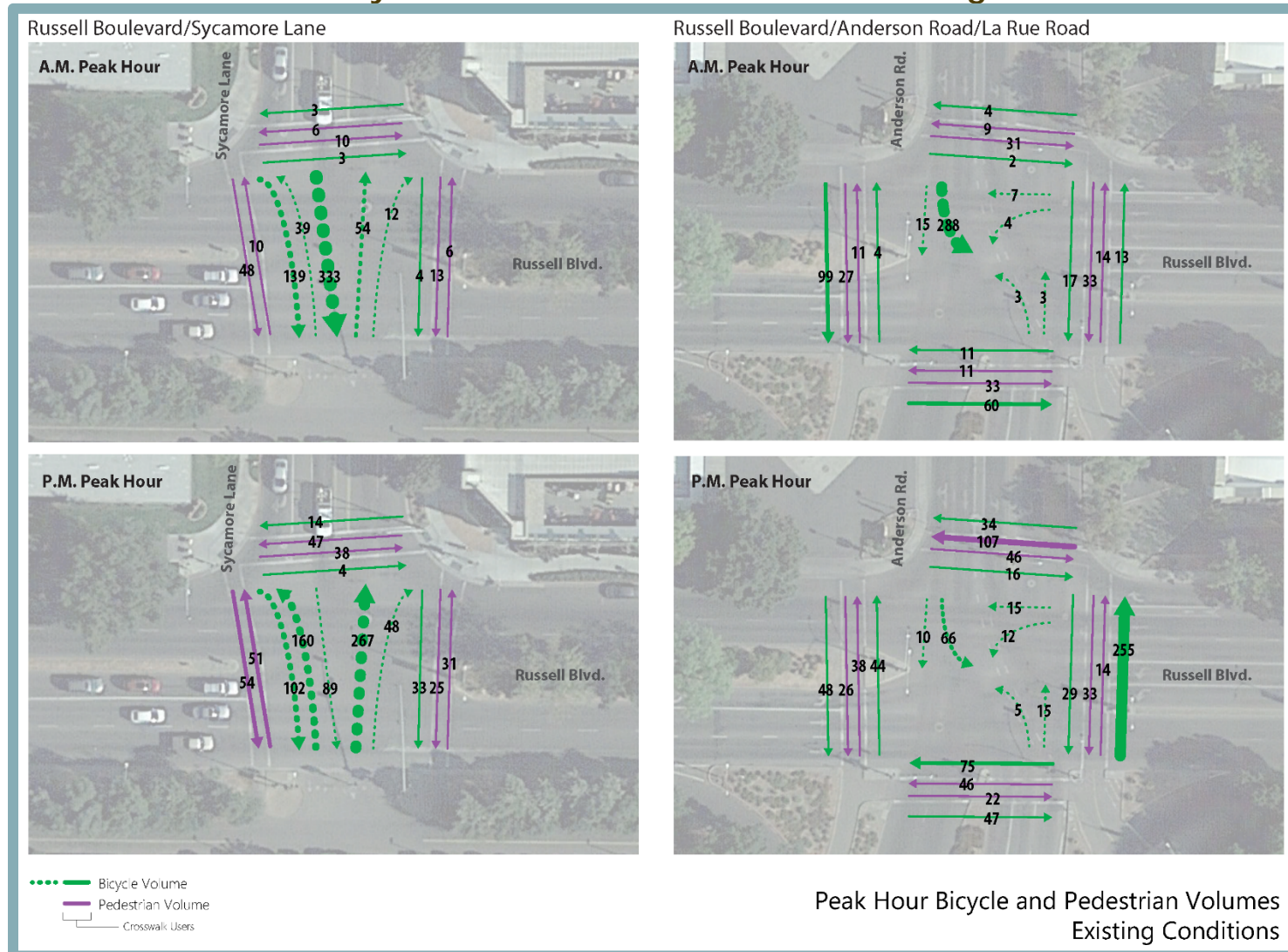
High bicycle crossing volumes combined with a low peak hour factor for bicycle demand result in the following effects on multi-modal operations at these intersections:

- Lengthy bicycle queues in the southbound bike lanes at Sycamore Lane and Anderson Road, measuring as high as 25 bicyclists during the AM peak hour.
- Large groups of bicyclists gathered at bicycle crossing staging areas, which can impede the path of travel for other users. For instance, at the southeast corner of the Russell Boulevard/Anderson Road/La Rue Road intersection, large groups of bicyclists waiting to cross the east leg can impede the path of travel for southbound left-turning bicyclists attempting to occupy the same space.
- Mixing of high volumes of bicyclists and pedestrians on shared-use paths and within marked crosswalks during pedestrian crossing phases, resulting in crowding and frequent meeting events (users passing each other while traveling in opposite directions) and passing events (users passing each other while traveling in the same direction).





**Figure 4.6-4  
Peak Hour Bicycle and Pedestrian Volumes – Existing Conditions**



Source: Fehr & Peers, 2019.



Figure 4.6-5 shows the level of traffic stress (LTS) for key bicycle corridors and intersection approaches near the project site. The LTS rating is based on the average score of all factors. Generally, based on the LTS methodology, bicyclists experience lower levels of stress on shared-use paths (e.g., the Russell Boulevard shared-use path) and on roadways with bike lanes (e.g., Sycamore Lane and Anderson Road). Stress levels increase for bicyclists on roadways without on-street bicycle facilities (e.g., Russell Boulevard and La Rue Road) and at intersection approaches where bicyclists mix with vehicles, particularly the eastbound and northbound channelized right-turn lanes at the Russell Boulevard/Anderson Road/La Rue Road intersection. It should be noted that the LTS methodology does not account for demand associated with other bicycle facility users (e.g., bicycle and pedestrian volumes on a shared-use path or shared crossing), which can also affect the quality and comfort of a bicycle facility.

### **Pedestrian Facilities**

The study area has an extensive system of shared-use pathways, sidewalks, and crosswalks available for use by pedestrians. The following pedestrian facilities are located near the project site (see Figure 4.6-3):

- Sidewalks (typically five feet wide) along the Russell Boulevard, Anderson Road, and Sycamore Lane project site frontages.
- Shared-use paths (typically 14 feet wide) on the south side of Russell Boulevard from West Davis to Downtown Davis and on the north side of Russell Boulevard from SR 113 to Sycamore Lane.
- Marked crosswalks and push-button pedestrian actuation are provided on all legs of the Russell Boulevard intersections at Sycamore Lane and Anderson Road. The west and east legs of the Russell Boulevard/Sycamore Lane intersection operate with an exclusive pedestrian crossing phase.
- The eastbound and northbound right-turn movements at the Russell Boulevard/Anderson Road/La Rue Road intersection include channelized right-turn triangular medians. Crosswalks are provided in these right-turn lanes with posted yield signs for motorists.

Similar to peak hour bicycle volumes, high peak hour pedestrian volumes occur at the Russell Boulevard intersections at Sycamore Lane and Anderson Road as UC Davis students travel between the UC Davis campus and off-campus residences/destinations, including University Mall. High pedestrian volumes can result in peak hour crowding within shared facilities, particularly shared-use paths and marked crosswalks utilized by both pedestrians and bicyclists.

Figure 4.6-6 shows the StreetScore+ for key sidewalk corridors and intersection crossings near the project site. The StreetScore+ rating is based on the average score of all factors. Generally, according to the StreetScore+ methodology, study area sidewalks and paths are comfortable for pedestrians. Pedestrian crossings at the Russell Boulevard/Sycamore Lane intersection are also considered comfortable, largely due to the presence of exclusive pedestrian crossing phases for the west and east leg crosswalks.

However, the west, south, and east leg crossings at the Russell Boulevard/Anderson Road/La Rue Road intersection are considered uncomfortable for pedestrians, largely due to the long crossing distances and presence of triangular right-turn medians, which results in an uncontrolled pedestrian crossing across a “free-flow” right-turn movement.



**Figure 4.6-5  
Bicycle LTS – Existing Conditions**

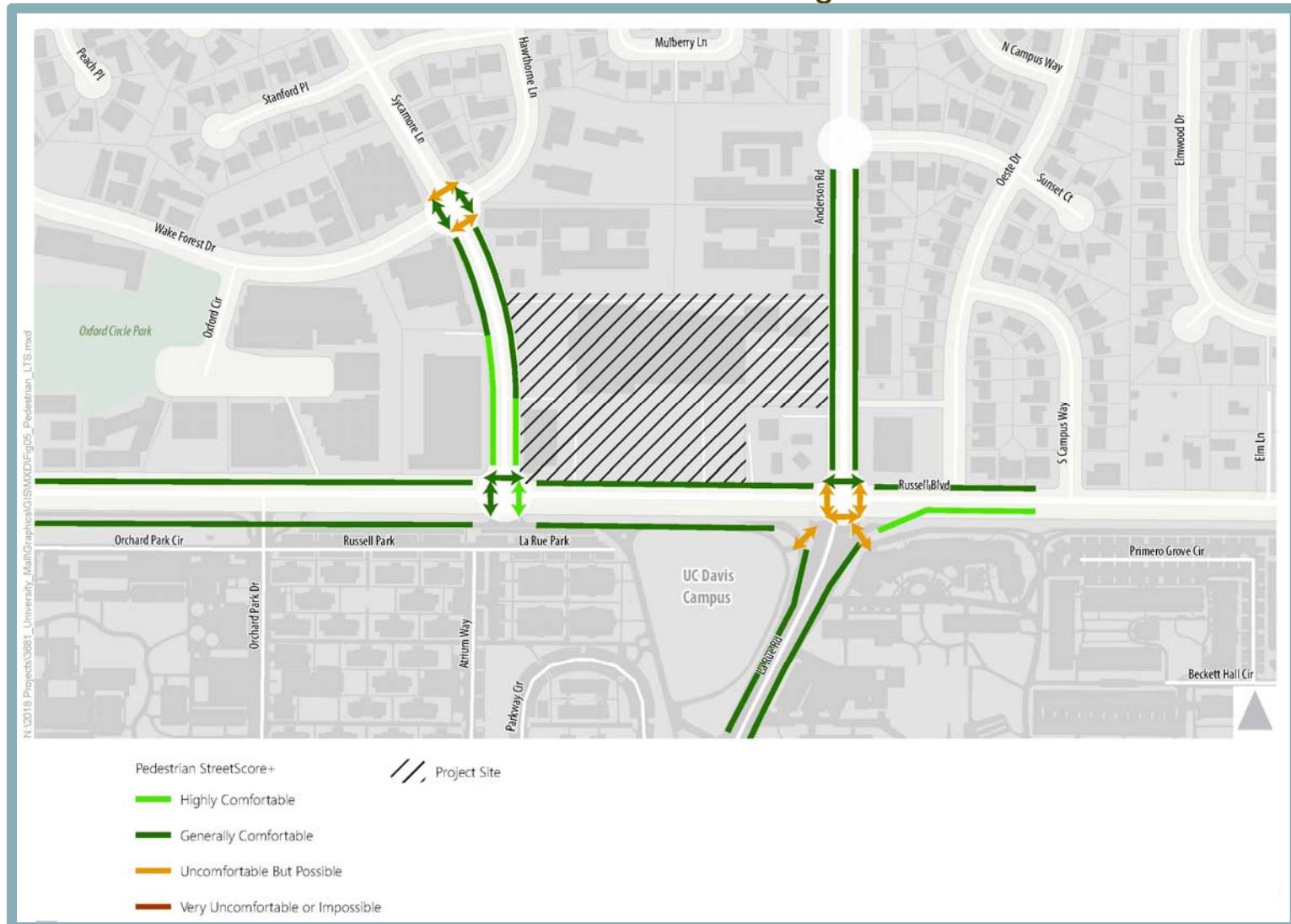


Source: Fehr & Peers, 2019.





**Figure 4.6-6  
Pedestrian StreetScore+ – Existing Conditions**



Source: Fehr & Peers, 2019.



It should be noted that the StreetScore+ methodology does not account for demand associated with other pedestrian facility users (e.g., bicycle and pedestrian volumes on a shared-use path or shared crossing), which can also affect the quality and comfort of a pedestrian facility.

## Transit Systems

Transit service in the City of Davis is provided by Unitrans (local bus), Yolobus (intercity bus), Amtrak (intercity rail), and Davis Community Transit (local paratransit).

- **Unitrans:** Unitrans provides local fixed route bus service to the project site. Jointly operated between the Associated Students, UC Davis (ASUCD) and the City of Davis, Unitrans offers 19 routes serving the UC Davis campus and City of Davis neighborhoods, shopping centers, schools, and medical centers. Unitrans operates as a radial bus system with the UC Davis campus serving as the central hub. The main terminals on the UC Davis campus are at the Memorial Union (MU) on Howard Way and at the Silo along Hutchison Drive.

Specific service spans and frequencies vary by route. Generally, Unitrans operates from 6:30 AM to 11:30 PM Monday through Thursday and until 9:00 PM on Fridays. Weekend service is available from 8:30 AM to 7:00 PM; Unitrans routes operate every 15 or 30 minutes during weekdays and every 60 minutes during weekends and evenings. Table 4.6-5 summarizes the weekday and weekend frequency and span for Unitrans bus routes serving the project site.

<b>Table 4.6-5 Unitrans Route Summary – Project Site Vicinity</b>						
Route	Weekday		Friday		Weekend	
	Peak Frequency (min)	Span	Peak Frequency (min)	Span	Peak Frequency (min)	Span
B – MU/Sycamore/Drake	30	7 AM to 9 PM	30	7 AM to 9 PM	--	--
C – Silo/Sycamore/Wake Forest	30	7 AM to 10 PM	30	7 AM to 9 PM	--	--
G – Anderson/Alvarado/Sycamore	10	7 AM to 11 PM	10	7 AM to 9 PM	60	9 AM to 6 PM
J – Anders/Alvarado/Sycamore	10	7 AM to 11 PM	10	7 AM to 9 PM	--	--
K – MU/Lake Blvd./Arlington	30	7 AM to 10 PM	30	7 AM to 10 PM	60	9 AM to 7 PM
P – MU/Davis Perimeter CCW	30	6 AM to 11 PM	30	6 AM to 9 PM	60	8 AM to 7 PM
Q – MU/Davis Perimeter CW	30	6 AM to 11 PM	30	6 AM to 9 PM	60	8 AM to 7 PM
Notes: CCW = counterclockwise; CW = clockwise.						
<b>Source: Fehr &amp; Peers, 2019.</b>						

The current Unitrans one-way fare is \$1.25, with monthly, quarterly, and annual passes available at a discounted price. Free rides are available to UC Davis undergraduate students (fee assessed quarterly with registration), seniors, disabled passengers, City of



Davis employees, and transferring Sacramento Regional Transit, YoloBus, Capitol Corridor, and Fairfield Transit passengers.

- YoloBus: YoloBus provides extensive fixed route bus and paratransit service throughout Yolo County, as well as commuter bus service to downtown Sacramento. Single rides are available for \$2.25 and \$3.25 for local and express services, respectively. Discounted daily and monthly passes are also available. Local bus routes serving the project site include Routes 42A, 42B, and 220. Commute bus routes serving the project site include Routes 220C (from Winters) and 242 (from Woodland).
- Amtrak: Amtrak serves the Davis Transit Depot near Second and G Streets in Downtown Davis, approximately one mile east of the project site. Amtrak Capitol Corridor service is available at the depot, connecting passengers to Sacramento and Roseville to the east and the Bay Area to the west. Currently, 15 daily Capitol Corridor round-trips are available at the station during regular weekday service. In addition to regular Capitol Corridor service, Amtrak serves the Davis Transit Depot with daily Coast Starlight service (to Los Angeles and Seattle) and intercity bus connections to other Amtrak rail lines (e.g., the Amtrak San Joaquin lines at Sacramento Valley Station).

Figure 4.6-7 displays the bus stops and Unitrans routes serving the project site vicinity. The primary bus stops serving the project site are located on Anderson Road north of Russell Boulevard, Sycamore Lane north of Russell Boulevard, and Russell Boulevard west of Sycamore Lane. All stops are equipped with bus stop signs. Shelters are provided at the northbound stop on Anderson Road and the southbound stop on Sycamore Lane. The southbound Anderson Road bus stop, located immediately on the eastern project site limits, is heavily utilized during the AM peak hour, particularly by UC Davis students commuting into campus. The Anderson Road stop is equipped with a bus stop sign, but lacks a shelter, seating, and a dedicated passenger waiting area. The aforementioned conditions result in passengers waiting in the sidewalk or the adjacent landscaped area.

#### **4.6.3 REGULATORY CONTEXT**

The following is a description of the regulatory context under which transportation issues are managed at the State and local levels.

##### **State Regulations**

The following are the State environmental laws and policies relevant to transportation.

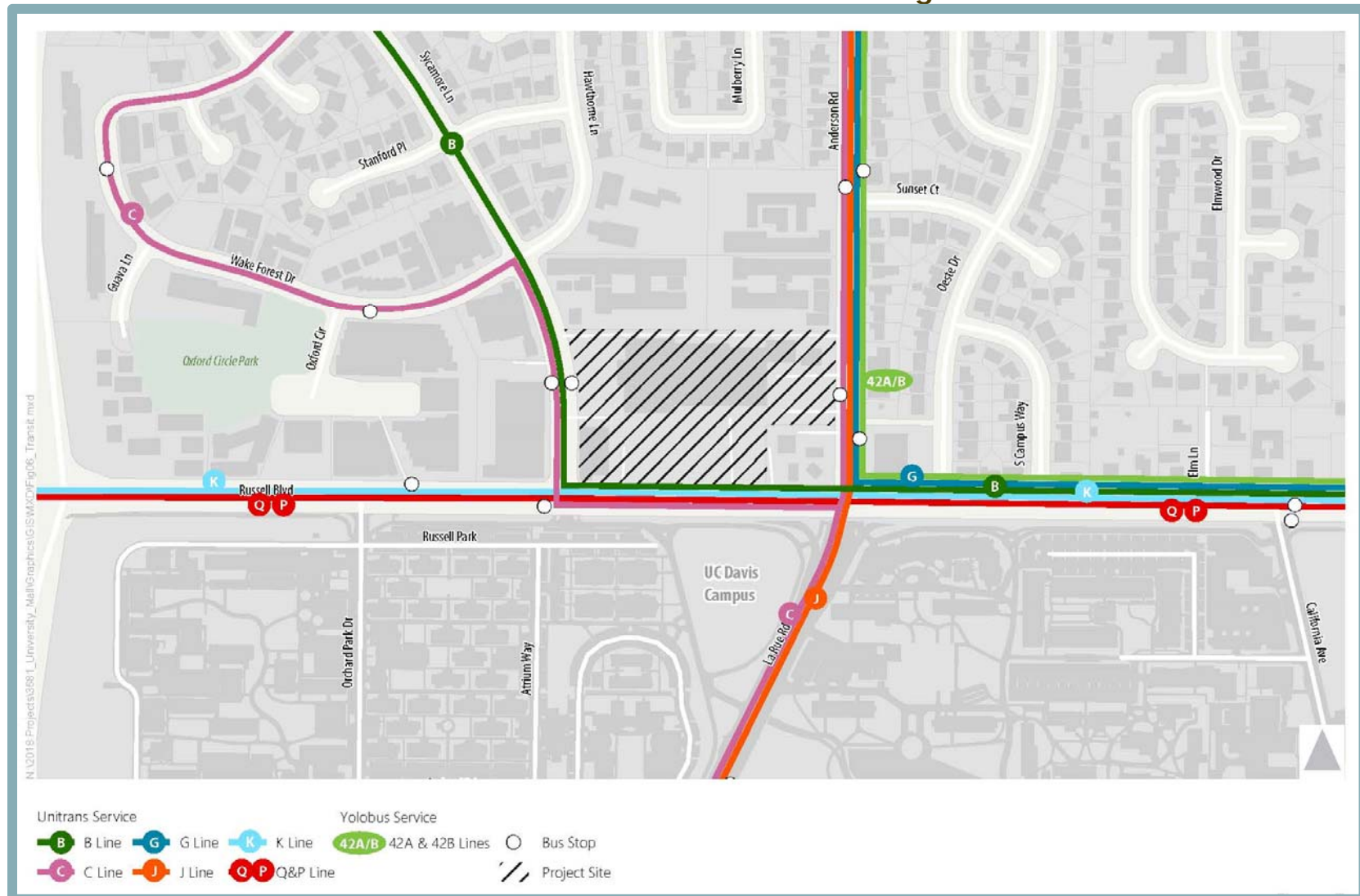
##### **California Department of Transportation**

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining all State-owned roadways in Yolo County. Federal highway standards are implemented in California by Caltrans. Any improvements or modifications to the State highway system within the City of Davis need to be approved by Caltrans. The City of Davis does not have the ability to unilaterally make improvements to the State highway system. Caltrans' *Guide for the Preparation of Traffic Impact Studies* (December 2002) provides guidance on the evaluation of traffic impacts to State highway facilities. The document outlines when a traffic impact study is needed and what should be included in the scope of the study.





**Figure 4.6-7  
Transit Service and Facilities – Existing Conditions**



Source: Fehr & Peers, 2019.



Caltrans has produced a Transportation Corridor Concept Report (TCCR) for both I-80 and SR 113 in the project region. A TCCR is a long-term planning document that the District Transportation Planning Office prepares for each State highway, or portion thereof, in its jurisdiction. The purpose of a TCCR is to plan how a highway would be developed and managed so that the highway operates at the targeted LOS over a twenty-year period. In addition, Caltrans has developed a District System Management and Development Plan for SR 113.

### **Senate Bill 743**

Senate Bill (SB) 743 (Stats. 2013, ch. 386) (SB 743) requires the Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the metric beyond TPAs. In response, OPR selected vehicle miles of travel (VMT) as the preferred transportation impact metric and applied their discretion to require its use statewide. In addition, SB 743 establishes that aesthetic and parking impacts of a residential, mixed-use residential, or employment center projects on an infill site within a TPA shall not be considered significant impacts on the environment. Furthermore, SB 743 requires that as of April 27, 2019, vehicle LOS and similar measures related to delay shall not be used as the sole basis for determining the significance of transportation impacts.

Finally, SB 743 establishes a CEQA exemption for residential, mixed-use, and employment center projects a) within transit priority areas, b) consistent with a specific plan for which an EIR has been certified, and c) consistent with a Sustainable Communities Strategy (SCS). The exemption requires further review if the project or circumstances changes significantly.

### **Local Regulations and Policies**

The following are applicable local regulations and policies relevant to transportation.

#### **Sacramento Area Council of Governments**

SACOG is an association of local governments from six counties and 22 cities within the Sacramento Region. The counties include El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba. SACOG is responsible for the preparation of, and updates to, the MTP/SCS for the region and the corresponding Metropolitan Transportation Improvement Program (MTIP). The MTP/SCS provides a 20-year transportation vision and corresponding list of projects. The MTIP identifies short-term projects (7-year horizon) in more detail. The 2016 MTP/SCS was adopted by the SACOG board in February 18, 2016.

The project site is located within the Yolo Transit Priority Area. Transit Priority Areas are areas of the region within one-half mile of a major transit stop (existing or planned light rail, street car, train station, or the intersection of two or more major bus routes) or an existing or planned high-quality transit corridor included in the MTP/SCS. The project site is entirely within one-half mile of Russell Boulevard, a high-quality transit corridor identified in the MTP/SCS.

#### **City of Davis General Plan**

The City of Davis General Plan Transportation Element was updated in 2013. The following goals, performance objectives, policies, and actions related to transportation and circulation are applicable to the project:

Goal #2      The Davis transportation system will evolve to improve air quality, reduce carbon emissions, and improve public health by encouraging usage of clean, energy-



efficient, active (i.e. human powered), and economically sustainable means of travel.

Performance Objective #2.1 Reduce carbon emissions from the transportation sector 61 percent by 2035.

Performance Objective #2.2 Reduce vehicle miles traveled (VMT) 39 percent by 2035.

Performance Objective #2.3 Annually increase funding for maintenance and operation needs of the transportation system, until fully funded.

Policy TRANS 1.6 Reduce carbon emissions from the transportation system in Davis by encouraging the use of non-motorized and low carbon transportation modes.

Policy TRANS 1.7 Promote the use of electric vehicles and other low-polluting vehicles, including Neighborhood Electric Vehicles (NEV).

Policy TRANS 1.3 Encourage higher intensity residential, commercial, and mixed-use development near existing activity centers and along corridors well served by non-motorized transportation infrastructure and public transportation (See Activity Centers, Map 2).

Policy TRANS 2.1 Provide Complete Streets to meet the needs of drivers, public transportation vehicles and riders, bicyclists, and pedestrians of all ages and abilities in all transportation planning, programming, design, construction, reconstruction, retrofit, operations, and maintenance activities and products. The City shall view all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in Davis, and recognizes bicycle, pedestrian, fixed-route transit, and demand-response para-transit modes as integral elements of the transportation system along with motor vehicles.

Policy TRANS 2.2 Implement state-of-the-art street design solutions to improve bicycle/pedestrian access, comfort, and safety that may include:

- Bicycle boxes at intersections
- Cycletracks
- Shared lane markings (sharrows)
- Contraflow bicycle lanes
- Improved bicycle detection at intersections



- Two-stage turn queue boxes
- Colored bicycle lanes
- Bicycle route wayfinding

Policy TRANS 2.3	Apply best practices in sustainability to new streets and redesigns of existing streets/corridors.
Policy TRANS 2.4	As part of the initial project review for any new project, a project-specific traffic study may be required. Studies shall identify impacted transportation modes and recommend mitigation measures designed to reduce these impacts to acceptable levels.
Policy TRANS 2.5	Create a network of street and bicycle facilities that provides for multiple routes between various origins and destinations.
Policy TRANS 2.6	Maintain existing bicycle facilities in good repair.
Policy TRANS 2.7	Minimize impacts of vehicle traffic on local streets to maintain or enhance livability of the neighborhoods. Consider traffic calming measures along collector and minor arterial streets, where appropriate and feasible, to slow speeds.
Policy TRANS 2.8	Improve the function, safety, and appearance of selected corridors as illustrated.
Action a.	<p>Develop “corridor plans” for selected streets which warrant special treatment because of existing impact problems or operational issues. Corridor plans should take into consideration adjacent land uses and result in streets that are both functional and aesthetic. The plans should utilize innovative means of slowing traffic, where appropriate, and provide safe access for pedestrians and bicyclists. Mitigation shall be incorporated to protect residences and sensitive receptors from noise, air pollution and other traffic related impacts. The corridor plans may deviate from the standards established in the General Plan, if deviations improve the livability of the area.</p> <p>The streets to consider for participation in this program are listed below. The identification and prioritization of corridors and/or segments will be established through the Davis Transportation Plan (DTP).</p>



1. Anderson Road – Russell Boulevard to Covell Boulevard
2. Chiles Road – Drummond Avenue to east city limit
3. Covell Boulevard – Pole Line Road to F Street
4. Covell Boulevard – F Street to State Route 113
5. Covell Boulevard – State Route 113 to west city limit
6. Cowell Boulevard – I-80 to Drummond Avenue
7. 8<sup>th</sup> Street – B Street to Pole Line Road
8. E Street – 1<sup>st</sup> Street to 3<sup>rd</sup> Street
9. F Street – 5<sup>th</sup> Street to Covell Boulevard
10. 5<sup>th</sup> Street - B Street to L Street and Russell Boulevard – A to B Street
11. 5<sup>th</sup> Street – L Street to Cantrill Drive
12. 1<sup>st</sup> Street and B Street – Richards Boulevard to Russell Boulevard
13. L Street – 2<sup>nd</sup> Street to Covell Boulevard
14. Lillard Drive – Cowell Boulevard to Drummond Avenue
15. Loyola Drive – Pole Line Road to Mace Ranch
16. Mace Boulevard – Harper Junior High to I-80
17. Mace Boulevard – I-80 to south city limit
18. Olive Drive – West end to east end
19. Pole Line Road – Covell Boulevard to north city limit
20. Pole Line Road – I-80 to Covell Boulevard (upgrades)
21. Richards Boulevard – 1<sup>st</sup> Street to I-80
22. Russell Boulevard – A Street to State Route 113
23. Russell Boulevard – State Route 113 to west city limit
24. Chiles Road – Drummond Avenue to east city limit

Policy TRANS 2.9

Enhance access to downtown, including from south Davis and I-80 by improving circulation and connectivity for all modes through and across the Richards Boulevard/1st Street corridor.

Policy TRANS 3.1

Facilitate the provision of convenient, reliable, safe, and attractive fixed route, commuter, and demand responsive public transportation that meets the needs of the Davis community, including exploring innovative methods to meet specialized transportation needs.



Policy TRANS 3.3	Require new development to be designed to maximize transit potential.
Goal #4	Davis will strengthen its status as a premier bicycling community in the nation by continuing to encourage bicycling as a healthy, affordable, efficient, and low-impact mode of transportation accessible to riders of all abilities, and by continuously improving the bicycling infrastructure.
Policy TRANS 4.5	Establish and implement bicycle parking standards for new developments and significant redevelopment.
Policy TRANS 4.10	Maintain existing bicycle paths in good repair.
Policy TRANS 5.1	Use parking management techniques to efficiently manage motor vehicle parking supply and promote sustainability.
Policy TRANS 5.2	Existing and future off-street parking lots in development should contribute to the quality of the urban environment and support the goals of this chapter to the greatest extent possible.

### **Beyond Platinum Bicycle Action Plan**

The City of Davis *Beyond Platinum Bicycle Action Plan* (Bicycle Action Plan), adopted in 2014, includes discussions regarding goals and objectives, bicycle facility guidelines, engineering standards, and implementation and funding.<sup>4</sup> Appendix C of the Bicycle Action Plan includes a variety of proposed bicycle facilities throughout the City, including the following proposed bicycle facility enhancements within the vicinity of the project site:

- Buffered bike lanes on Anderson Road and Sycamore Lane north of Russell Boulevard;
- Bike lanes on Russell Boulevard between SR 113 and A Street;
- Bicycle/pedestrian crossing markings at the Russell Boulevard/Anderson Road/La Rue Road intersection; and
- Bike lane conflict markings (green) at the Russell Boulevard/Anderson Road/La Rue Road and Russell Boulevard/Sycamore Lane intersections.

### **UC Davis 2018 Long Range Development Plan**

The 2018 UC Davis Long Range Development Plan (LRDP) includes the following relevant policies related to streetscapes, roadways, and parking resources on and surrounding the UC Davis campus.

- Foster A Healthier Transportation Ecosystem – Enhance and expand travel services and programs to meet the daily mobility needs of the campus community and create a healthier transportation ecosystem; promote more sustainable travel choices to improve health of the individual, the environment and the institution.

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<sup>4</sup> City of Davis. *Beyond Platinum Bicycle Action Plan*. February 2014.





- Expand Active Transportation Infrastructure – Expand campus infrastructure to support active transportation; improve safety for both bicyclists and pedestrians; consider roadway intersection reconfigurations to minimize distance of crosswalks; consider roadway reconfiguration to reduce vehicle speed; clearly articulate the transitional spaces between bicycle-oriented core campus and the public streets on the periphery.
- Enhance Transit Service – Preserve and enhance transit service; continue to prioritize and improve transit access to the core campus area; consider improvements to the Hutchison Drive corridor for Unitrans buses and for safely mixing buses, bikes and pedestrians.
- Preserve Future Roadway Corridors – Anticipate potential alignments for future campus roadways and bikeways beyond the life of the plan; keep buildings clear of potential roadway and bikeway corridors.
- Campus Vehicle Traffic Operations – Allow vehicle level of service (LOS) F conditions during typical weekday a.m. and p.m. peak hours as measured by the latest version of the Highway Capacity Manual (Transportation Research Board). The allowance of LOS F conditions recognizes that the campus does not plan to expand the roadway system with the exception of modifications for safety, way finding or to better accommodate bicycle, pedestrian, or transit use.
- Off-Campus Vehicle Traffic Operations – Use local, regional, and state agency expectations about performance of the roadway network when analyzing potential impacts caused by operation or expansion of the UC Davis campus. For environmental impact review purposes, specific performance metrics and thresholds for impact significance should be based on the plans and policies of the affected agency unless federal or state law requires otherwise. Similar to campus expectations, projects that increase delay by more than 10 percent at an intersection with unacceptable or LOS F operations may constitute significant impacts.
- Invest In Programs Before Parking – Invest in transportation programs before constructing additional parking infrastructure; offer programs and services that promote more sustainable travel choices and minimize impacts to overall parking supply; balance adequate parking supply with the campus objective to reduce greenhouse gas emissions.
- Promote Ride Sharing – Promote carpools and vanpools as viable transportation options that reduce parking demand for the campus community; monitor the utilization of ride-hailing services and proactively manage campus circulation network to promote walking, biking and busing as preferred travel modes.
- Park On The Periphery – Provide parking on the periphery of the core campus; consider a remote park and bike facility on Old Davis Road with secure bicycling parking; locate parking for large public events near SR 113 and I-80.
- Foster Flexibility – Foster a flexible and adaptive approach to the management of parking infrastructure; explore new and innovative technologies to aid in the management of parking; routinely evaluate and dynamically modify parking policy to align with sustainability goals; consider the formal designation of areas for ride-hailing pick up and drop off; build parking lots rather than parking structures.

#### **4.6.4 IMPACTS AND MITIGATION MEASURES**

The standards of significance to be used in identifying project-specific and cumulative impacts are presented below. The standards are based on policies of the City of Davis. In addition, the methods used to analyze the impacts of the project on the roadway, bicycle, pedestrian, and transit systems are provided in this section. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.



## **Standards of Significance**

Consistent with Appendix G of the CEQA Guidelines, the proposed project would be considered to result in a significant adverse impact on the environment in relation to transportation and circulation if the project would result in any of the following:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

## **Intersections**

The following significance criteria are used to identify operational deficiencies based on the intersection LOS analysis. Per the City of Davis General Plan Transportation Element, LOS E is the minimum acceptable LOS for the majority of intersections within the City, and for each City-operated study intersection in the study area. LOS F is acceptable for other areas (e.g., Downtown Davis and the Richards Boulevard corridor) as established in the General Plan and contingent on approval by the City Council. LOS E is the minimum acceptable LOS established by Caltrans for SR 113 within the study area. LOS F is acceptable for all roadway facilities on the UC Davis campus. For the purposes of this analysis, significant impacts at intersections are defined when the addition of project traffic would cause any of the following:

- For signalized intersections, deterioration of overall intersection operations from an acceptable level (LOS E or better in the AM or PM peak hour) to an unacceptable level (LOS F in the AM or PM peak hour);
- For signalized intersections, exacerbation of unacceptable (LOS F) operations by increasing an intersection's average delay by five seconds or more;
- For unsignalized intersections, deterioration of the worst-case movement (or average of all movements for all-way stop-controlled intersections) from an acceptable level (LOS E or better in the AM or PM peak hour) to an unacceptable level (LOS F in the AM or PM peak hour) and would meet the California Manual on Uniform Traffic Control Devices (MUTCD) peak hour signal warrant;
- For unsignalized intersections that operate unacceptably (LOS F in the AM or PM peak hour) and meet MUTCD's peak hour signal warrant without the project, exacerbation of operations by increasing the overall intersection's volume by more than one percent; or
- For unsignalized intersections that operate unacceptably, but do not meet MUTCD's peak hour signal warrant without the project, addition of sufficient volume to meet the MUTCD peak hour signal warrant.

## **VMT**

Per the OPR guidelines, lead agencies are recommended to set project-level thresholds for VMT analysis; however, thresholds have not yet been established by the City of Davis. At this time, the provisions of Section 15064.3 apply only prospectively; determination of impacts based on VMT is not required Statewide until July 1, 2020.

Per Section 15064.3(b)(3) of the CEQA Guidelines, a lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. Thus, a lead agency



may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc.

### **CEQA Streamlining**

The proposed project is consistent with SACOG's MTP/SCS.<sup>5</sup> Under SB 375, projects that are SCS consistent are granted certain CEQA streamlining benefits. The benefits include excluding an analysis of project impacts on the "regional transportation network" from CEQA's requirements for this EIR. (PRC, § 21159.28, subd. (a).) In this context, the "regional transportation network" means existing and proposed transportation system improvements, including, but not limited to, the State transportation system (e.g. I-80 freeway and SR 113), that were included in the transportation and air quality conformity modeling, including congestion modeling, for the final regional transportation plan adopted by SACOG, but not including "local streets and roads." (PRC, § 21159.28, subd. (c).)

SB 375 does not alter the City's discretion to impose "conditions, exactions, or fees for the mitigation of the project's impacts on the structure, safety, or operations of the regional transportation network or local streets and roads" as conditions of project approval. However, to comply with the requirements of CEQA, SB 375 provides that the City is not "required to reference, describe, or discuss...any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on...the regional transportation network." (PRC, § 21159.28, subds. (a), (c).)

As defined in the City of Davis General Plan, a local street is defined as "[a] street, other than a collector or arterial, providing access to abutting property and designed not to accommodate or encourage through trips." (City of Davis General Plan, Section IV.02 (Transportation), p.24.) The key roadways impacted by the proposed project, include Russell Boulevard (major arterial), Anderson Road (minor arterial), and Sycamore Lane (collector); roadways that are not classified as local roads pursuant to the City of Davis General Plan. (*Id.*, Map 3.) Similarly, SACOG's online mapping tool identifies these roadways as part of the regional network.<sup>6</sup>

While CEQA does not require this EIR to include an analysis of project specific or cumulative impacts from cars and light-duty truck trips generated by the project on the regional transportation network, based on consultation with the City of Davis, it was determined that potential impacts on the regional transportation network would be included in the Transportation and Circulation section of this EIR to provide additional information for the public and decisionmakers to consider in evaluating the proposed project.

### **Method of Analysis**

The analysis methodology provided in the Transportation Impact Study prepared for the proposed project by Fehr & Peers is discussed below.

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<sup>5</sup> Sacramento Area Council of Governments. University Mall Redevelopment project consistency with the Metropolitan Transportation Plan/Sustainable Communities Strategy for 2036. June 19, 2018.

<sup>6</sup> Sacramento Area Council of Governments. 2016 MTP/SCS Online Map. Available at: <http://www.arcgis.com/apps/webappviewer/index.html?id=456fc5ca2ae34385be97a9222c4c4914&extent=-13550124.5493,4645787.2569,-13476745.0022,4683012.0897,102100>. Accessed July 2019.



## Analysis Scenarios

The following analysis scenarios are included in this EIR:

- **Existing Conditions:** Establishes the existing setting, which is used to measure the significance of project impacts.
- **Existing Plus Project Conditions:** Adds changes to travel demand resulting from buildout of the proposed project to existing conditions.
- **Cumulative No Project Conditions:** Represents cumulative travel demand based on reasonably foreseeable local and regional land use and transportation system changes. For the purposes of this analysis, the cumulative year is 2036. This scenario assumes the project site remains as-is (i.e., University Mall as currently occupied).
- **Cumulative Plus Project Conditions:** Adds changes to travel demand resulting from buildout of the proposed project to Cumulative No Project conditions.

## Intersection Traffic Volumes

For the purposes of forecasting traffic volumes for the study intersections, Fehr & Peers relied on the local UC Davis/City of Davis travel demand model. The model has a base year of 2016 and forecast years of 2030 and 2036. The model was developed in close coordination with the City of Davis and UC Davis in order to incorporate planned land use and transportation system changes both within the City and its sphere of influence and on the UC Davis campus. The coordination effort included the following elements of model development:

- TAZ system: The traffic analysis zone (TAZ) development included review by City and UC Davis staff to ensure sufficient detail for both existing and new growth areas.
- Land use inputs: Inputs were initially obtained from the SACOG 2012 parcel database used in developing regional model inputs for the 2016 SACOG MTP/SCS. These inputs were reviewed for each TAZ with City and UC Davis staff to develop a complete inventory representing 2016 conditions, which is the model's base year. Similarly, land use forecasts for 2030 and 2036 conditions were developed in cooperation with City staff and UC Davis staff. Land use forecasts for 2030 and 2036 were based on future land use changes throughout the region projected in the 2016 SACOG MTP/SCS. The land use forecasts were refined based on input from City staff and UC Davis staff according to planned City of Davis General Plan growth, planned UC Davis 2018 LRDP growth, approved development projects, pipeline development projects, and other reasonably foreseeable land development activities.
- Roadway network inputs: The Local Model roadway network was developed from GIS data representing local, collector, arterial, and freeway functional classifications. Input data included the number of travel lanes and free-flow travel speeds based on the previous UC Davis/City of Davis Local Model developed for the 2003 LRDP update, plus new data from field observations and Google Maps imagery. Capacity inputs for each roadway classification were estimated from reference documents including the HCM 6<sup>th</sup> Edition and the *Travel Demand Forecasting: Parameters and Techniques, National Cooperative Highway Research Program, Report 716*, (Transportation Research Board, 2012). Changes to the roadway networks for future year scenarios were provided by City and UC Davis staff as noted above.
- Vehicle trip rates: The vehicle trip rates were derived from a variety of sources including the UC Davis Campus Travel Survey, the California Household Travel Survey, local residential trip generation estimates based on observed traffic counts, and the Trip



Generation Manual, 10<sup>th</sup> Edition (Institute of Transportation Engineers, 2017). The rates were estimated for the following trip purposes.

- Home-Based Work (HBW): trips between a residence and a workplace;
  - Home-Based Shop (HBS): trips between a residence and a retail destination;
  - Home-Based School (HBK): trips between a residence and a school (K-12);
  - Home-Based Other (HBO): trips between a residence and any other destination;
  - Non-Home-Based (OO): trips that do not begin or end at a residence, such as traveling from a workplace to a restaurant, or from a retail store to a bank;
  - College (COLL): trips to and from a Community College;
  - UC Davis (UCD): trips to and from UC Davis; and
  - Highway Commercial (HC): trips to and from highway commercial destinations.
- Vehicle trip lengths and external trip patterns: The vehicle trip lengths and the proportion of vehicle trips that occur exclusively within the model area versus those that have origins or destinations external to the model area were obtained from the UC Davis Campus Travel Survey, the California Household Travel Survey, and the American Community Survey. Information was extracted for each trip purpose above. Trips traveling through the model area without stopping such as those on I-80, were estimated from the regional SACOG SACSIM model developed for the 2016 SACOG MTP/SCS.
  - Trip assignment: Trip assignment relies on conventional algorithms that assign trips between origin and destination zones based on travel times that reflect the influence of roadway capacity and speeds. A unique aspect of the assignment process is that UC Davis generated trips had to be associated with parking areas on and off-campus since that is where trips start and end. These parking areas were mapped in collaboration with UC Davis staff and iterative testing of the assignment results was used to refine the association.

The UC Davis/City of Davis travel demand model was applied to generate study intersection traffic volume forecast inputs for the cumulative analysis scenarios described above, as well as to inform the distribution and assignment of project trips under all “plus project” analysis scenarios. Separate model runs were performed for each scenario and the model-produced volume forecasts were extracted for final adjustments to account for differences between the model’s base year volume estimates and observed traffic counts. The adjustment involves isolating the incremental change in volume between the base year model and the future year analysis scenario and adding that difference to the baseline (2018) traffic counts. This adjustment process helps to minimize potential errors in the model’s base year estimates and is based on the methodology contained in *Analytical Travel Forecasting Approaches for Project-Level Planning and Design, National Cooperative Highway Research Program (NCHRP) Report 765* (Transportation Research Board, 2014).

Traffic forecasts developed for Cumulative No Project conditions used the difference method procedure, which adds the growth in traffic between the base year and future year models to the Existing conditions volumes. The difference method procedure is commonly used in forecasting because the method accounts for errors in the base year model, which could potentially translate to the cumulative forecasts if not accounted for by this method. As already discussed, the travel demand model includes reasonably foreseeable land use and transportation system changes, including the 2016 SACOG MTP/SCS and City of Davis General Plan land use growth and transportation improvement projects, as well as student, employment, and on-campus housing growth associated with the UC Davis 2018 LRDP.





The following sections describe the methodology used to determine the vehicle trip generation, mode choice, trip distribution, and VMT associated with the proposed project.

### Project Trip Generation

The conventional approach for estimating travel characteristics for most proposed land development projects involves applying an industry-recommended trip generation rate (typically derived from the ITE Trip Generation Manual) to each relevant land use typology comprising the project. However, given that the proposed project would be mixed use, with a mix of land uses, located in close proximity to the UC Davis campus, a more site-specific approach is necessary to estimate the travel characteristics of the proposed project for the purposes of a CEQA-level transportation study.

Table 4.6-6 summarizes the steps completed to develop the project trip generation and mode choice estimates. The methodology relies primarily upon the local data collection efforts; however, in some instances, factoring was performed using trip rate data from the ITE Trip Generation Manual, 10<sup>th</sup> Edition.

<b>Table 4.6-6</b> <b>Project Travel Characteristics Methodology</b>	
<b>Step</b>	<b>Description</b>
1	Collect local data to establish peak hour vehicle trip rates to be used for project residential component.
2	Calculate peak hour and daily vehicle trip generation for project residential component.
3	Collect local data to develop peak hour vehicle trip rates to be used for project commercial component.
4	Calculate peak hour and daily vehicle trip generation for project commercial component.
5	Calculate total vehicle trip generation for the project.
6	Utilize local data to estimate peak hour mode choice for the project.
<b>Source: Fehr &amp; Peers, 2019.</b>	

### *Project Vehicle Trip Generation – Residential Component*

Peak hour vehicle trip rates for the residential component of the project were derived from the peak period vehicle trip counts collected at the adjacent, fully leased, 282-bedroom Sycamore Lane Apartments on Thursday, October 11, 2018. A review of the website for the Sycamore Lane Apartments indicated that the apartment complex did not include any vacant units at the time of the data collection. The data collected included person trips entering and exiting the Sycamore Lane Apartments site, as well as mode choice and vehicle occupancy observations. The data collection occurred on a mid-week day in October 2018 while UC Davis and local schools were in regular session, and weather conditions were clear. Given the close proximity between the Sycamore Lane Apartments and the UC Davis campus, a high percentage of apartment residents are UC Davis students.

Based on these counts, the observed AM and PM peak hours for vehicle trip generation occurred from 8:00 AM to 9:00 AM and 5:00 PM to 6:00 PM, respectively. Table 4.6-7 summarizes the observed peak hour vehicle trip rates per bedroom at the Sycamore Lane Apartments. By definition, these rates already consider travel made by non-vehicle modes such as walking, bicycling, and transit. For instance, during the PM peak hour, vehicle trips represented only 30 percent of all person trips made by this apartment complex.





Table 4.6-7 Sycamore Lane Apartments – Peak Hour Vehicle Trip Generation							
Category	Bedrooms	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out
Vehicle Trips	282	31	9	22	43	18	25
Vehicle Trip Rate		0.11	29%	71%	0.15	42%	58%
Note: Observed AM and PM peak hours for the Sycamore Lane Apartments were 8:00 AM to 9:00 AM and 5:00 PM to 6:00 PM, respectively.							
Source: Fehr & Peers, 2019.							

During the AM peak hour, the Sycamore Lane Apartments generated 31 vehicle trips, equivalent to an average rate of 0.11 vehicle trips per bedroom. During the PM peak hour, the Sycamore Lane Apartments generated 43 vehicle trips, equivalent to an average rate of 0.15 vehicle trips per bedroom. Vehicle trip rates reflect vehicle trips generated by apartment resident and visitor drive alone and park, carpool and park, and pick-up/drop-off activity, including use of transportation network company (TNC) services (e.g., Uber and Lyft).

Table 4.6-8 summarizes the estimated number of peak hour vehicle trips that would be generated by the residential component of the proposed project using the observed trip rates for the Sycamore Apartments. As shown in the table, the residential component of the project would generate an estimated 69 AM peak hour and 93 PM peak hour vehicle trips. The peak hour vehicle trip generation calculation for the project residential component utilized the project's total number of bedrooms as the independent variable for size. This approach allows for use of the trip generation rates established from observed data collected at the Sycamore Lane Apartments, which similarly used the total number of bedrooms for the apartment complex as the independent variable for size.

Table 4.6-8 Project Residential Component – Peak Hour Vehicle Trip Generation							
Category	Bedrooms	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out
Project Residential Component <sup>1</sup>	622	69	20	49	93	39	54
<sup>1</sup> Calculated as follows based on the Sycamore Lane Apartments peak hour vehicle trip generation rates: <ul style="list-style-type: none"> <li>• AM Peak Hour: <math>T = 0.11(X)</math>, with 29% inbound and 71% outbound.</li> <li>• PM Peak Hour: <math>T = 0.15(X)</math>, with 42% inbound and 58% outbound.</li> </ul> $T$ = trip ends and $X$ = bedrooms.							
Source: Fehr & Peers, 2019.							

The ITE Trip Generation Manual, 10<sup>th</sup> Edition can be utilized to derive the daily vehicle trips that would be generated by the residential component of the proposed project. The process entails applying a factor to the observed peak hour trip rates from the Sycamore Lane Apartments to estimate the daily trip rate. Hourly-to-daily factors are provided in Appendix A of the ITE Trip Generation Manual for ITE Land Use Category 225 – Off-Campus Student Apartment (Adjacent to Campus). Using the factoring process, the estimated daily vehicle trip rate associated with the proposed project would be 2.72 daily vehicle trips per bedroom, equivalent to 1,690 daily vehicle trips generated by the 622-bedroom residential component of the project.



### *Project Vehicle Trip Generation – Commercial Component*

Peak hour vehicle trip rates for the commercial component of the project were derived from the weekday peak period vehicle trip counts collected at the existing University Mall in 2018. The data included vehicle and bicycle trips entering and exiting the project site at each of the existing University Mall driveways, as well as person trips entering and exiting the existing Trader Joe's and Starbucks located on the project site. Trip generation data for the existing Trader Joe's and Starbucks was collected in order to quantify their trips versus trips generated by the other retail uses at the University Mall. The data collection occurred in May and November 2018 while UC Davis and local schools were in regular session.

Based on the counts conducted by Fehr & Peers, the observed AM and PM peak hours for vehicle trip generation occurred from 8:00 AM to 9:00 AM and 4:30 PM to 5:30 PM, respectively. Table 4.6-9 summarizes the observed peak hour vehicle trip rates per occupied 1,000 square feet (ksf) for the existing University Mall. At the time of the trip counts, 96.436 ksf of the 103.853 KSF mall was occupied, equivalent to approximately 93 percent occupancy.

Table 4.6-9							
Existing University Mall – Peak Hour Vehicle Trip Generation							
Category	Occupied Area	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out
Vehicle Trips	96.436 ksf	425	244	181	948	495	456
Vehicle Trip Rate		4.41	57%	43%	9.83	52%	48%
Note: Observed AM and PM peak hours for the existing University Mall were 8:00 AM to 9:00 AM and 4:30 PM to 5:30 PM, respectively. University Mall was approximately 93 percent occupied at the time of the trip counts, equivalent to a total occupied area of 96.436 ksf.							
Source: Fehr & Peers. 2019.							

During the AM peak hour, the existing University Mall generated 425 vehicle trips, equivalent to an average rate of 4.41 vehicle trips per occupied ksf. During the PM peak hour, the existing University Mall generated 948 vehicle trips, equivalent to an average rate of 9.83 vehicle trips per occupied ksf. Vehicle trip rates reflect vehicle trips generated by mall employee, delivery, and visitor drive alone and park, carpool and park, and pick-up/drop-off activity, including use of TNC services.

The vehicle trip rates shown in Table 4.6-9 are substantially higher than trip rates typically observed at comparable shopping centers per ITE's Trip Generation Manual. Field observations suggested that the Trader Joe's and Starbucks located on-site may have contributed to such unusually high trip rates due to their large number of customers and high rate of customer turnover. Consequently, vehicle trips generated by the existing Trader Joe's and Starbucks were isolated in order to determine the trip generation characteristics for the remaining retail uses at the existing University Mall. Vehicle trip rates for the remaining retail uses at the existing University Mall were subsequently used for estimating peak hour vehicle trip generation for the expanded University Mall retail space proposed by the project. The proposed project cannot be assumed to consist entirely of future land uses that generate trips at the rates of Trader Joe's and Starbucks.

Trip counts and field observations were conducted at the existing University Mall Trader Joe's and Starbucks on Wednesday, November 28, 2018 and Thursday, November 29, 2018 (i.e., one week after the Thanksgiving Holiday). Data collection included peak hour person trip generation counts at the entrance/exit to each use, as well as observations related to mode choice and



vehicle occupancy (e.g. recording the size of groups entering/exiting the use from adjacent parking spaces, bike racks, and transit stops).

Table 4.6-10 summarizes the observed peak hour vehicle trip rates per occupied ksf for the Trader Joe's and Starbucks. After excluding such high trip generators, the remaining retail uses at the existing University Mall generate 1.28 vehicle trips per occupied ksf during the AM peak hour and 4.36 vehicle trips per occupied ksf during the PM peak hour. The rates are much more consistent with what is typically expected from a retail center, particularly a retail center located in a university setting where travel by non-vehicle modes is common.<sup>7</sup>

<b>Table 4.6-10 Existing University Mall Remaining Retail – Peak Hour Vehicle Trip Generation</b>							
<b>Category</b>	<b>Occupied ksf</b>	<b>AM Peak Hour</b>			<b>PM Peak Hour</b>		
		<b>Total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>	<b>In</b>	<b>Out</b>
Existing University Mall (All uses)	96.436	425	244	181	948	495	456
<i>Trader Joe's</i>	13.200	179	92	87	505	255	250
<i>Starbucks</i>	1.435	141	73	68	86	41	45
High Trip Generators Subtotal (Trader Joe's + Starbucks)	14.635	320	165	155	591	296	295
Remaining Retail Uses Subtotal (Existing Mall – High Trip Generators)	81.801	105	79	26	357	199	158
<b>Remaining Retail Uses Vehicle Trip Rate</b>	<b>81.801</b>	<b>1.28</b>	<b>75%</b>	<b>25%</b>	<b>4.36</b>	<b>56%</b>	<b>44%</b>
<b>Remaining Retail Uses Vehicle Trip Rate Adjusted for Increased Shopping Center Size</b>		<b>1.03</b>			<b>3.93</b>		
<i>Source: Fehr &amp; Peers, 2019.</i>							

Trip generation data from the ITE Trip Generation Manual indicates that vehicle trip rates gradually decrease as the size of a shopping center increases, due to more complementary uses being present on-site. Thus, because the proposed project would increase the amount of total retail space on-site, the preliminary trip rates shown in Table 4.6-10 (i.e., 1.28 and 4.36 vehicle trips per peak hour) were adjusted to reflect the marginal increase in internalized retail-to-retail trips. With adjustments for internalization, the AM and PM peak hour vehicle trip rates for the project's remaining retail uses would be 1.03 and 3.93 vehicle trips per hour, respectively. Vehicle trip rates observed for Trader Joe's and Starbucks (or an equivalent coffee shop assumed as part of the project) are maintained separate from the internalization process.

Additional adjustments for internalization due to the proposed co-location of residential and commercial uses are not warranted because the base vehicle trip rates were derived from observed data collected from the existing University Mall and neighboring Sycamore Lane Apartments, and therefore already capture travel behavior that approximate internalization activity (e.g., shift to non-motorized modes).

<sup>7</sup> For comparison, according to the ITE Trip Generation Manual, 10<sup>th</sup> Edition published rates for Land Use Category 820 (Shopping Center), a shopping center with 81.801 occupied ksf would generate 2.36 vehicle trips per occupied ksf during the AM peak hour and 5.72 vehicle trips per occupied ksf during the PM peak hour (fitted curve equivalents). It should be noted that such ITE rates were derived from shopping center sites surveyed in general urban/suburban settings nationwide and would therefore be expected to exhibit greater use of vehicle modes compared to the University Mall site.



Table 4.6-11 summarizes the estimated number of peak hour vehicle trips that would be generated by the commercial component of the proposed project. As shown in the table, the commercial component of the project would generate an estimated 459 AM peak hour and 1,122 PM peak hour vehicle trips.

<b>Table 4.6-11</b>							
<b>Project Retail Component – Peak Hour Vehicle Trip Generation</b>							
<b>Category</b>	<b>Occupied ksf</b>	<b>AM Peak Hour</b>			<b>PM Peak Hour</b>		
		<b>Total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>	<b>In</b>	<b>Out</b>
Trader Joe's <sup>1</sup>	13.200	179	92	87	505	255	250
Starbucks or Equivalent <sup>2</sup>	1.435	141	73	68	86	41	45
Remaining Retail Uses <sup>3</sup>	135.365	139	105	34	531	296	235
<b>Project Commercial Component</b>	<b>150.000</b>	<b>459</b>	<b>270</b>	<b>189</b>	<b>1,122</b>	<b>592</b>	<b>530</b>

<sup>1</sup> Derived from existing University Mall Trader Joe's observed peak hour vehicle trip generation.  
<sup>2</sup> Derived from existing University Mall Starbucks observed peak hour vehicle trip generation. While the proposed project does not explicitly include a Starbucks, the existing University Mall Starbucks is successful, and it or an equivalent coffee shop use would likely be included as an element of the proposed redevelopment.  
<sup>3</sup> Calculated as follows based on the adjusted vehicle trip rates to reflect increased internal trips associated with larger shopping center size:  
 • AM Peak Hour:  $T = 1.03(X)$ , with 75% inbound and 25% outbound.  
 • PM Peak Hour:  $T = 3.93(X)$ , with 56% inbound and 44% outbound.  
 T = trip ends and X = occupied ksf.

**Source: Fehr & Peers, 2019.**

The ITE Trip Generation Manual, 10<sup>th</sup> Edition, can be utilized to estimate the daily vehicle trips that would be generated by the commercial component of the proposed project. Similar to the methodology utilized for the project residential component, this process entails applying a factor to the observed peak hour trip rates from the existing University Mall to estimate the daily trip rate. Hourly-to-daily factors are provided in Appendix A of the ITE Trip Generation Manual for comparable land use categories. The following ITE land use categories were used for this analysis because the categories most closely correspond with the individual elements of the commercial component of the proposed project, including the Trader Joe's, Starbucks, and remaining retail uses:

- ITE Land Use Category 850 – Supermarket (Trader Joe's);
- ITE Land Use Category 936 – Coffee/Donut Shop without Drive-Through Window (Starbucks); and
- ITE Land Use Category 820 – Shopping Center (Remaining Retail Uses).

Using the factoring process, the 150 occupied ksf commercial component of the project would generate an estimated 14,387 daily gross vehicle trips. It should be noted that the factoring process does not rely directly on ITE trip rates; rather, the process applies the hourly to daily ratios for these land use categories from the Trip Generation Manual to the empirically observed trip data at University Mall to more accurately reflect observed conditions from the project site.

### *Project Trip Generation Summary*

Table 4.6-12 summarizes the proposed project's estimated AM peak hour, PM peak hour, and daily vehicle trip generation based on the procedures described above. The project would generate an estimated 528 AM peak hour, 1,215 PM peak hour, and 16,077 daily gross vehicle trips. When accounting for vehicle trips currently generated by the existing University Mall, the



proposed project would generate an estimated 103 AM peak hour, 267 PM peak hour, and 3,642 daily gross vehicle trips beyond what the University Mall currently generates.

<b>Table 4.6-12 Project Vehicle Trip Generation</b>								
Category	Units	Daily	AM Peak Hour			PM Peak Hour		
		Total	Total	In	Out	Total	In	Out
Residential Component	622 bedrooms	1,690	69	20	49	93	39	54
Commercial Component	150,000 occ. ksf	14,387	459	270	189	1,122	592	530
<b>Project Total (Gross)</b>		<b>16,077</b>	<b>528</b>	<b>290</b>	<b>238</b>	<b>1,215</b>	<b>631</b>	<b>584</b>
Existing University Mall	96,436 occ. ksf <sup>1</sup>	-12,435	-425	-244	-181	-948	-495	-453
<b>Project Total (Gross Increase)</b>		<b>3,642</b>	<b>103</b>	<b>46</b>	<b>57</b>	<b>267</b>	<b>136</b>	<b>131</b>

<sup>1</sup> Includes existing Trader Joe's and all other occupied space at the existing University Mall.

**Source: Fehr & Peers, 2019.**

Table 4.6-13 summarizes the estimated project AM peak hour, PM peak hour, and daily net new vehicle trip generation resulting from pass-by trip adjustments. Pass-by trips are trips already on the network that are diverted to and from a commercial or retail land use, and therefore would not be considered as new trips generated by the project. The pass-by trip adjustments represent 34 percent of the gross increase in project vehicle trips attributed to the proposed commercial component only. The adjustment factor is based on data provided in the ITE Trip Generation Handbook for shopping center land uses. After accounting for pass-by trips, the proposed project would generate an estimated 91 AM peak hour, 208 PM peak hour, and 2,978 daily net new vehicle trips. The aforementioned figures represent the total new vehicle trips generated by the project that would be added to the surrounding roadway network.

<b>Table 4.6-13 Project Pass-By Trip Adjustment</b>								
Category	Occupied KSF	AM Peak Hour			PM Peak Hour			
		Total	In	Out	Total	In	Out	
Project Total (Gross Increase)	3,642	103	46	57	267	136	131	
Project Total (Pass-By) <sup>1</sup>	-664	-12	-9	-3	-59	-33	-26	
<b>Project Total (Net Increase in New Trips)<sup>2</sup></b>	<b>2,978</b>	<b>91</b>	<b>37</b>	<b>54</b>	<b>208</b>	<b>103</b>	<b>105</b>	

<sup>1</sup> Calculated as 34 percent of the gross increase in project vehicle trips attributed to the project commercial component only.

<sup>2</sup> Represents the total new vehicle trips generated by the project that would be added to the surrounding roadway network.

**Source: Fehr & Peers, 2019.**

### Project Mode Choice

Project travel mode choice during the AM and PM peak hours was estimated based on peak period field observations and person trip generation counts conducted at the Sycamore Lane Apartments and existing University Mall. Table 4.6-14 summarizes the estimated mode choice for peak hour person trips generated by the proposed project.



**Table 4.6-14  
Project Peak Hour Mode Choice**

Travel Mode	Residential Component		Commercial Component	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Walk	18%	28%	10%	13%
Bike	48%	36%	9%	9%
Transit	13%	6%	3%	2%
Drive (Self-Park)	19%	29%	76%	75%
Drive (Ridehail)	2%	1%	2%	1%

**Source: Fehr & Peers, 2019.**

### Project Trip Distribution and Assignment

Trip distribution refers to the routing of vehicle trips throughout the roadway system serving the project site. Figure 4.6-8 through Figure 4.6-11 show the expected distribution of external vehicle trips to and from the project site. Trip distribution patterns were developed separately for the project residential and commercial components of the project in order to capture variations in route choices associated with project site visitors, employees, and residents. The trip distribution was developed based on the following sources:

- Separate “project-only” traffic assignments for the residential and commercial components of the project from the UC Davis/City of Davis travel demand model.
- Review of existing directional travel patterns to and from the University Mall and the Sycamore Lane Apartments apartment complex.

The majority of project vehicle trips would be routed through Russell Boulevard east and west of the project site. Other roadways that would be expected to accommodate project vehicle trips include SR 113, Sycamore Lane, Anderson Road, La Rue Road, and West Eighth Street.

### Project Vehicle Miles Travelled

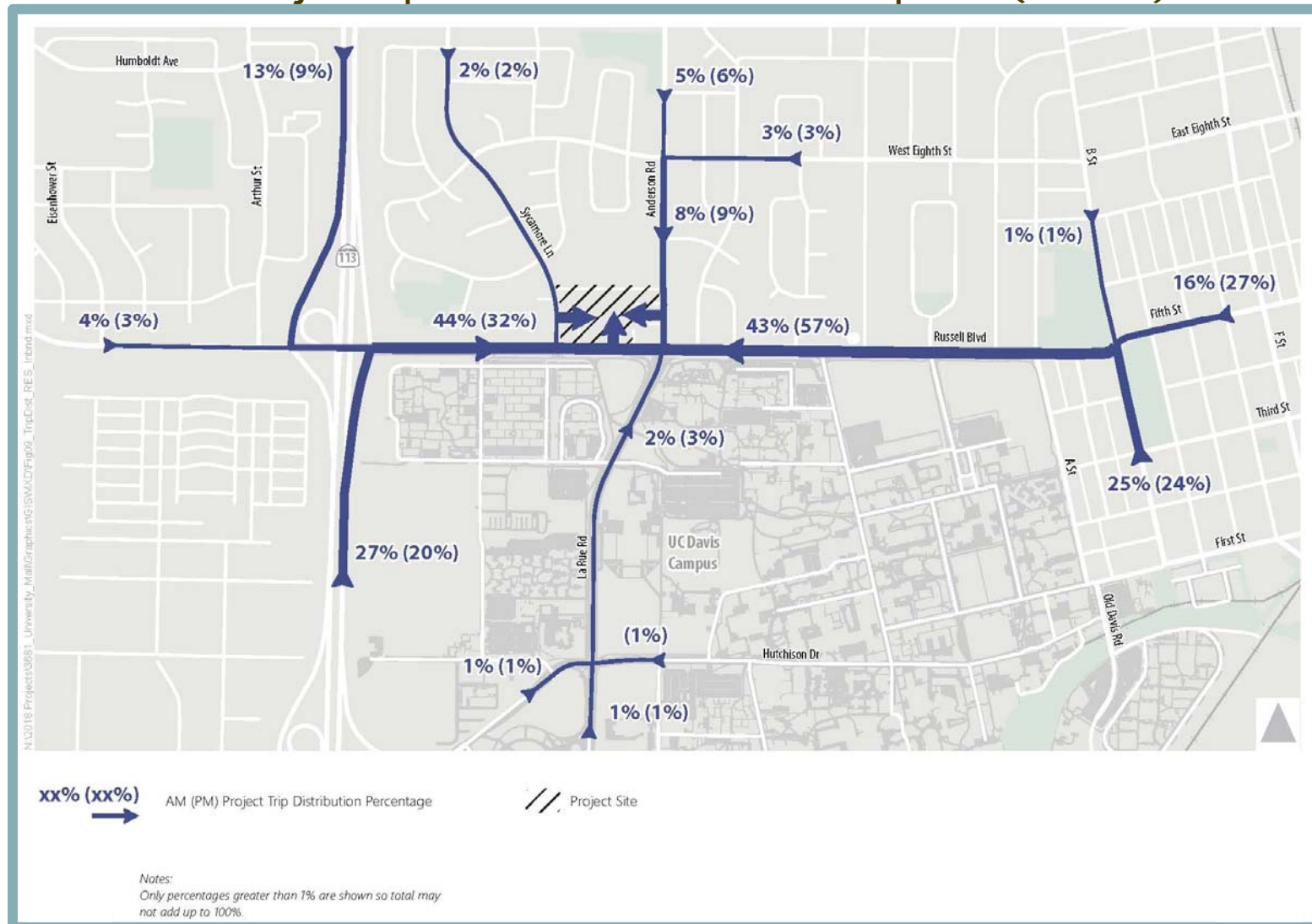
Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project’s transportation impacts. Per Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. While changes to driving conditions that increase intersection delay are an important consideration for traffic operations and management, the method of analysis does not fully describe environmental effects associated with fuel consumption, emissions, and public health. Section 15064.3(3) changes the focus of transportation impact analysis in CEQA from measuring impact to drivers to measuring the impact of driving. It should be noted that as discussed previously, the provisions of Section 15064.3 currently apply only prospectively; determination of impacts based on VTM is not required Statewide until July 1, 2020.

For this analysis, the potential impact to VMT was evaluated by comparing the estimated VMT per capita that would be generated by the project to the local and regional VMT per capita averages. Local and regional averages included the City of Davis, UC Davis, and the SACOG region. Local VMT estimates for the proposed project were prepared by Fehr & Peers using the UC Davis/City of Davis travel demand model, the SACMET travel demand model, and the California Household Travel Survey. For project-generated VMT calculations, the estimated





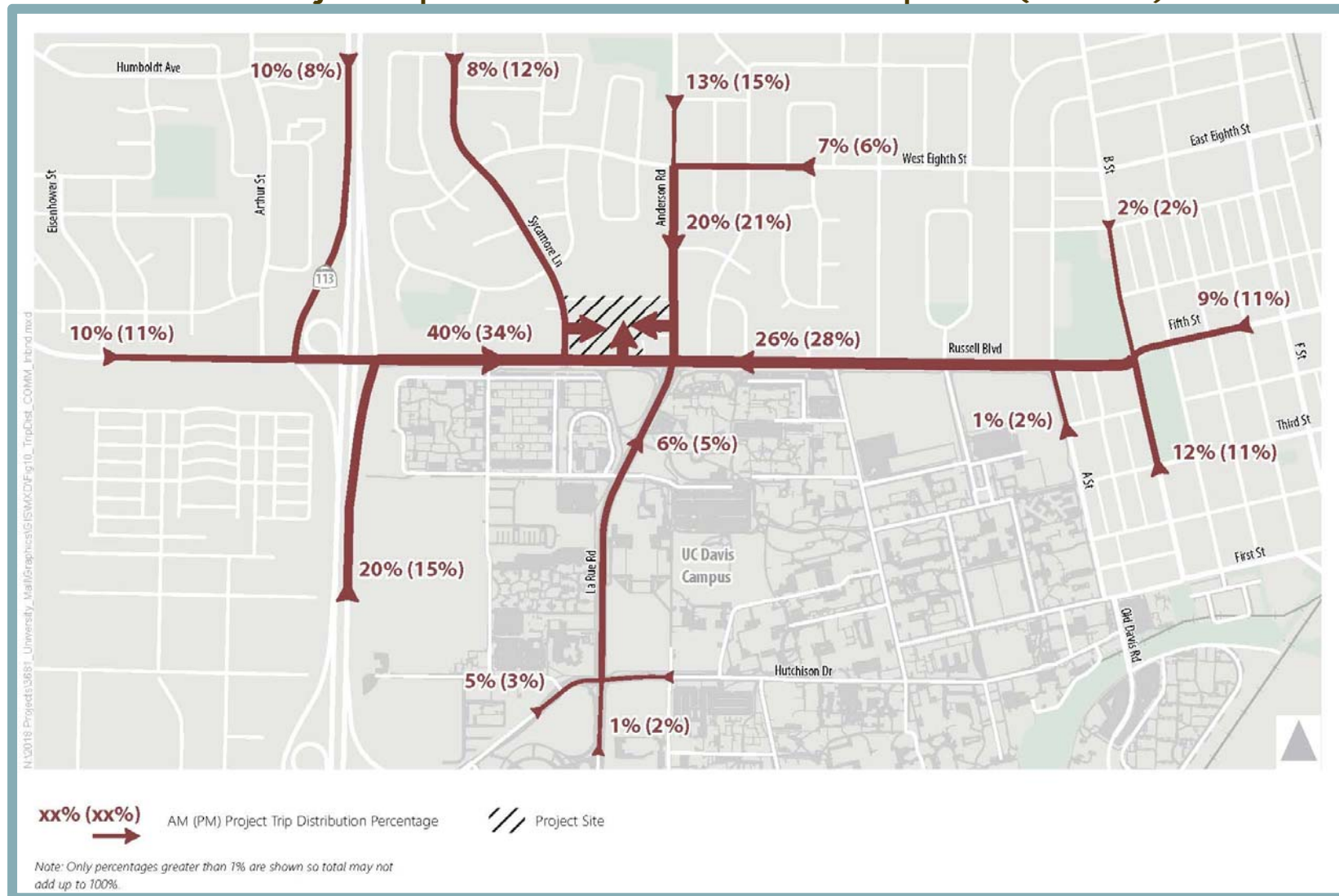
**Figure 4.6-8  
Project Trip Distribution – Residential Component (Inbound)**



Source: Fehr & Peers, 2019.



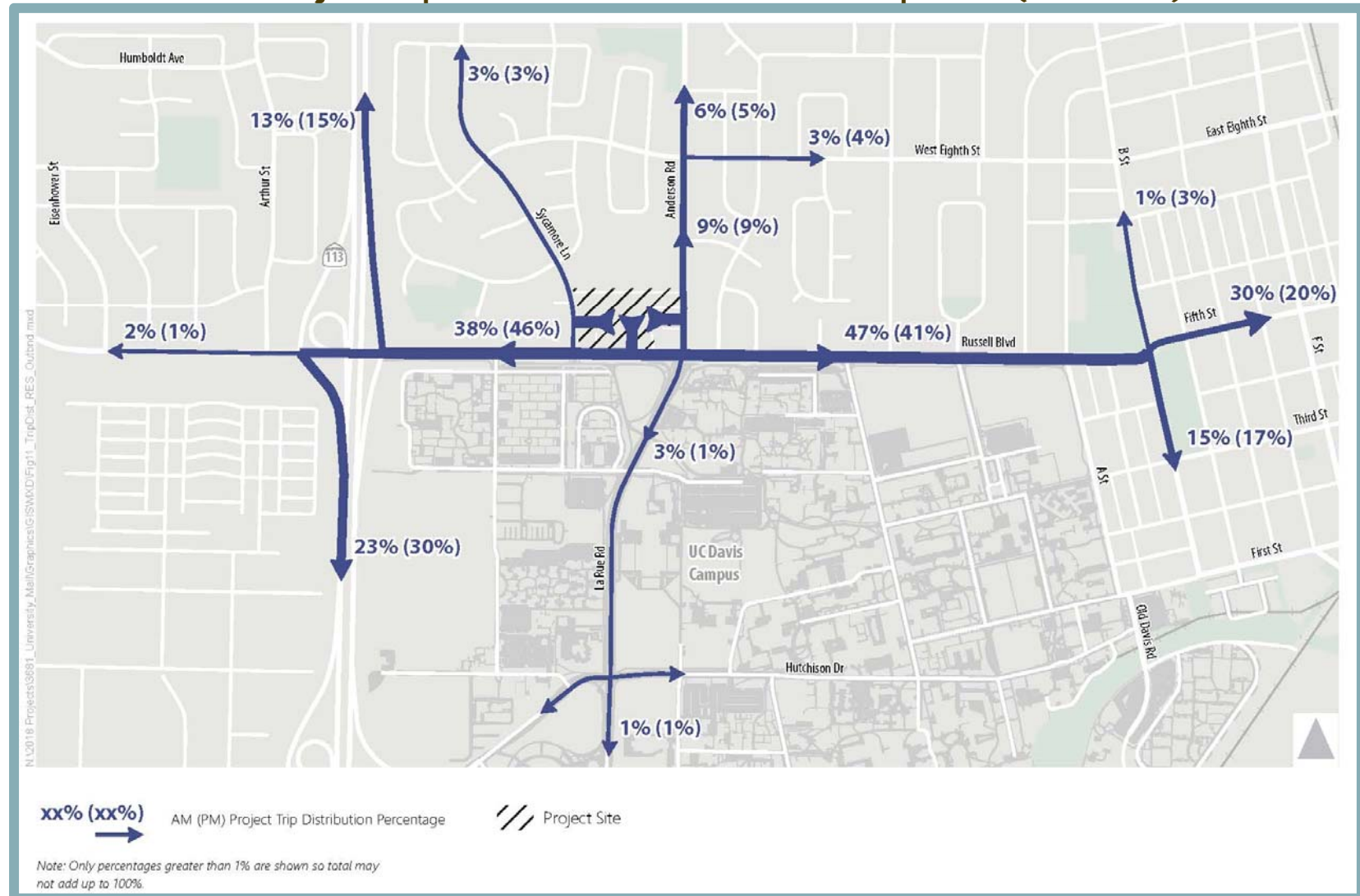
**Figure 4.6-9  
Project Trip Distribution – Commercial Component (Inbound)**



Source: Fehr & Peers, 2019.



**Figure 4.6-10**  
**Project Trip Distribution – Residential Component (Outbound)**

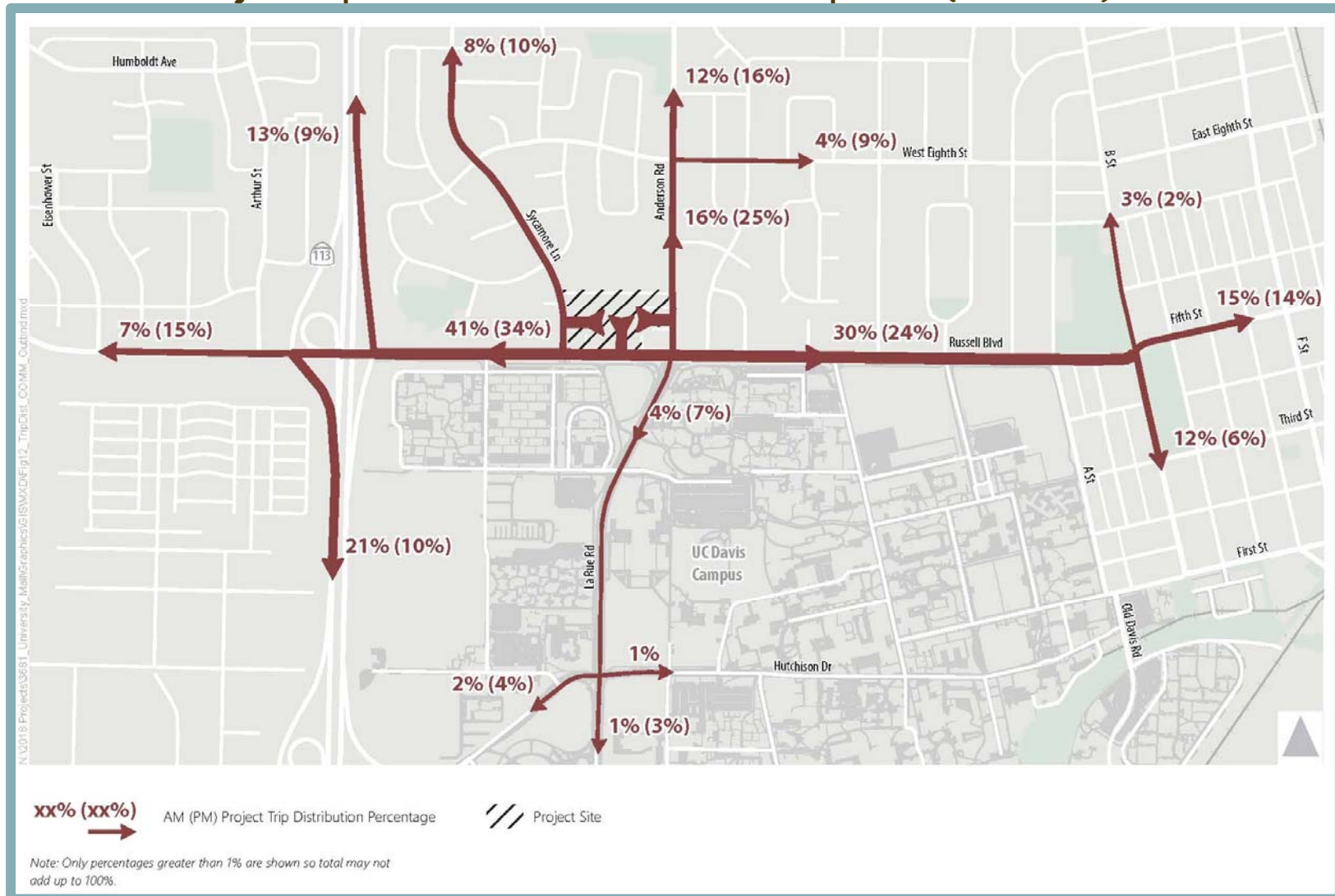


Source: Fehr & Peers, 2019.





**Figure 4.6-11**  
**Project Trip Distribution – Commercial Component (Outbound)**



Source: Fehr & Peers, 2019.



project weekday vehicle trip generation was multiplied by average trip lengths derived from the UC Davis/City of Davis travel demand model, with extra distance appended to project trips with trip ends outside of the local model boundaries using the SACMET travel demand model and the California Household Travel survey (e.g., to capture longer trips to/from the Bay Area that would not otherwise be reflected in the local model). The process was completed separately for the residential and commercial components of the proposed project to reflect the unique travel characteristics of project site visitors, employees, and residents.

The following process was employed to prepare estimates for VMT generated at the local and regional level:

- Local VMT generated by the City of Davis and UC Davis: The UC Davis/City of Davis travel demand model was used to estimate VMT associated with trips with trip ends within the model boundaries (i.e., the City of Davis sphere of influence and the UC Davis campus). The model was selected for this purpose due to the model's smaller TAZ structure relative to other available travel demand models, which allows for a more granular evaluation of trips internal to the model boundaries (i.e., to avoid underreporting VMT associated with internal-internal trips associated with a given TAZ). Extra distance was appended to trips with trip ends outside of the local model boundaries using the SACMET travel demand model and the California Household Travel survey. Land use inputs for the TAZ containing the project site were calibrated to match the observed (for Existing and Cumulative No Project conditions) and estimated (for Existing Plus Project and Cumulative Plus Project conditions) daily trip generation associated with the project site based on driveway traffic counts and the project trip generation, respectively.
- Regional VMT generated by the SACOG region: The SACMET travel demand model, prepared by SACOG for regional travel demand forecasting purposes, was used to estimate VMT associated with trips with trip ends within the model boundaries (i.e., the SACOG region). Extra distance was appended to trips with trip ends outside of the model boundaries using the California Household Travel survey. VMT associated with SACMET trips with trip ends within the City of Davis sphere of influence or the UC Davis campus were deleted and replaced with the VMT calculated from the UC Davis/City of Davis travel demand model as described in the previous step.

### **Project-Specific Impacts and Mitigation Measures**

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above.

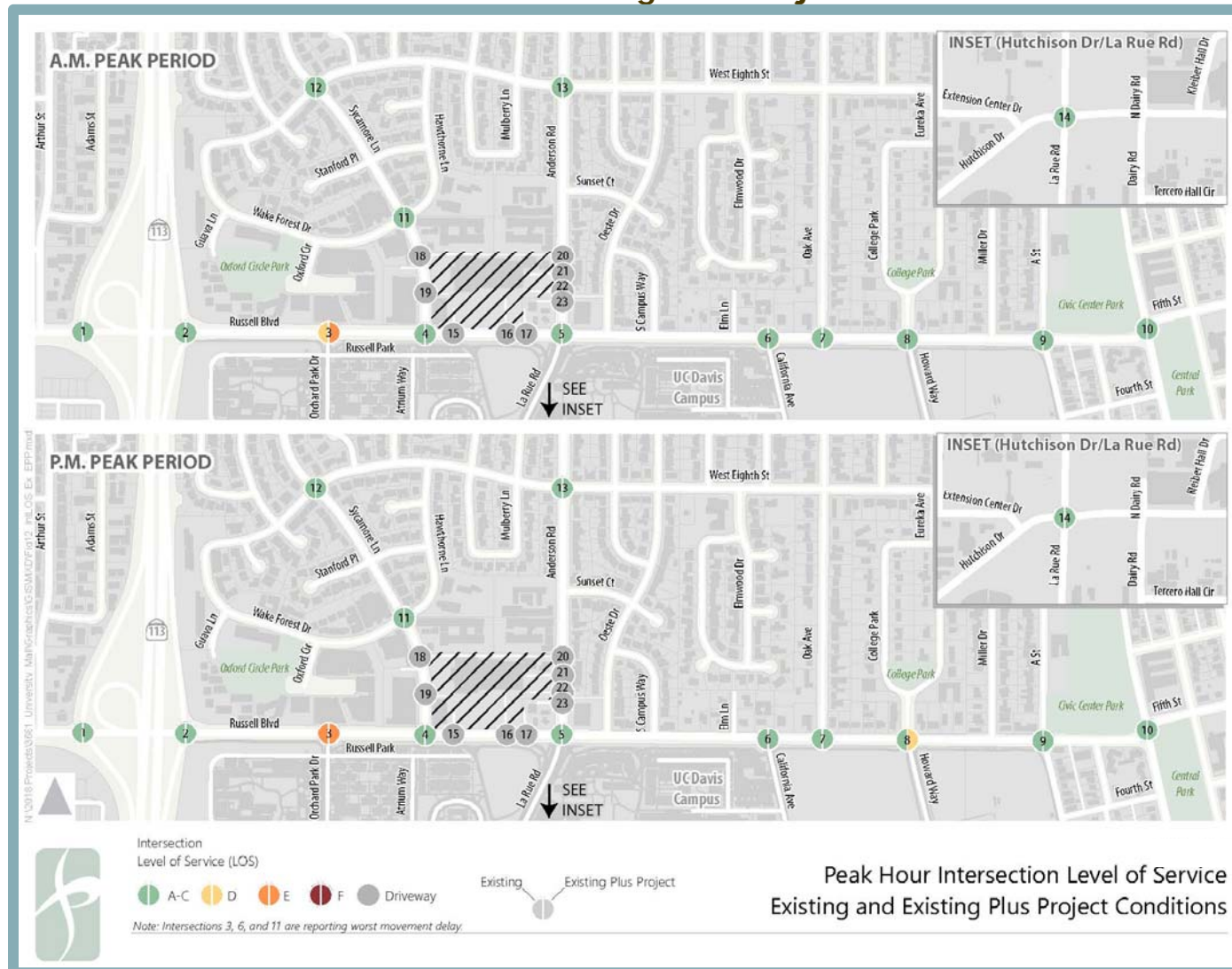
#### **4.6-1 Impacts to study intersections under Existing Plus Project conditions. Based on the analysis below, the impact is *less than significant*.**

For Existing Plus Project conditions, project-generated peak hour traffic volumes were layered on top of observed existing peak hour traffic volumes at each study intersection. The resulting intersection LOS for each study intersection is shown in Figure 4.6-12 below.

As shown in Table 4.6-15, the addition of traffic associated with the proposed project would cause increases in intersection delay at the study intersections. However, all study intersections would operate within acceptable LOS thresholds.



**Figure 4.6-12**  
**Intersection LOS – Existing Plus Project Conditions**



Source: Fehr & Peers, 2019.





**Table 4.6-15  
Peak Hour Intersection Operations – Existing Plus Project  
Conditions**

Intersection	Traffic Control	Jurisdiction	Peak Hour	Existing Conditions		Existing Plus Project Conditions	
				Delay	LOS	Delay	LOS
1. Russell Blvd./SR 113 SB Ramps	Signal	Caltrans	AM	8	A	8	A
			PM	7	A	6	A
2. Russell Blvd./SR 113 NB Ramps	Signal	Caltrans	AM	17	B	17	B
			PM	25	C	25	C
3. Russell Blvd./Orchard Park Dr.	SSSC	City of Davis	AM	3 (31)	A (D)	3 (35)	A (E)
			PM	5 (41)	A (E)	5 (36)	A (E)
4. Russell Blvd./Sycamore Ln.	Signal	City of Davis	AM	21	C	22	C
			PM	24	C	30	C
5. Russell Blvd./Anderson Rd./La Rue Rd.	Signal	City of Davis	AM	28	C	28	C
			PM	26	C	32	C
6. Russell Blvd./California Ave.	SSSC	City of Davis	AM	5 (17)	A (C)	5 (17)	A (C)
			PM	5 (20)	A (C)	5 (19)	A (C)
7. Russell Blvd./Oak Ave.	Signal	City of Davis	AM	12	B	11	B
			PM	10	A	10	B
8. Russell Blvd./College Park/Howard Way	Signal	City of Davis	AM	17	B	23	C
			PM	39	D	37	D
9. Russell Blvd./A St.	Signal	City of Davis	AM	21	B	18	B
			PM	24	C	29	C
10. Russell Blvd./Fifth St./B St.	Signal	City of Davis	AM	27	C	27	C
			PM	19	B	20	C
11. Sycamore Ln./Wake Forest Dr.	SSSC	City of Davis	AM	3 (18)	A (C)	3 (18)	A (C)
			PM	3 (17)	A (C)	3 (18)	A (C)
12. Sycamore Ln./West Eighth St.	AWSC	City of Davis	AM	10 (10)	A (B)	10 (10)	A (B)
			PM	9 (9)	A (A)	9 (9)	A (C)
13. Anderson Rd./West Eighth St.	Signal	City of Davis	AM	22	C	22	C
			PM	19	B	19	B
14. La Rue Rd./Hutchison Dr.	Signal	UC Davis	AM	17	B	17	B
			PM	22	C	22	C

Notes: For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop-controlled intersections, average intersection delay is reported in seconds per vehicle for all approaches with the delay and LOS for the worst-case movement reported in parentheses.

**Source: Fehr & Peers, 2019.**

At most intersections, peak hour delay would increase by six seconds or less. On average, signalized intersections would experience a 0.3 and 1.5 second increase during the AM and PM peak hours, respectively. The Russell Boulevard/Orchard Park Drive and Russell Boulevard/California Avenue intersections would continue to meet the peak hour warrant for a traffic signal. However, this is not considered an impact because the applicable threshold is whether the project would degrade operations from an acceptable level to an unacceptable level, which is not the case. The



Sycamore Lane/Wake Forest Drive and Sycamore Lane/West Eighth Street intersections would continue to not meet the peak hour warrant for a traffic signal.

Because all study intersections would operate at acceptable levels with implementation of the project, the proposed project would have a ***less-than-significant*** impact to study intersections under Existing Plus Project conditions.

Mitigation Measure(s)  
*None required.*

**4.6-2 Impacts to bicycle facilities under Existing Plus Project conditions. Based on the analysis below, even with mitigation, the impact is *significant and unavoidable*.**

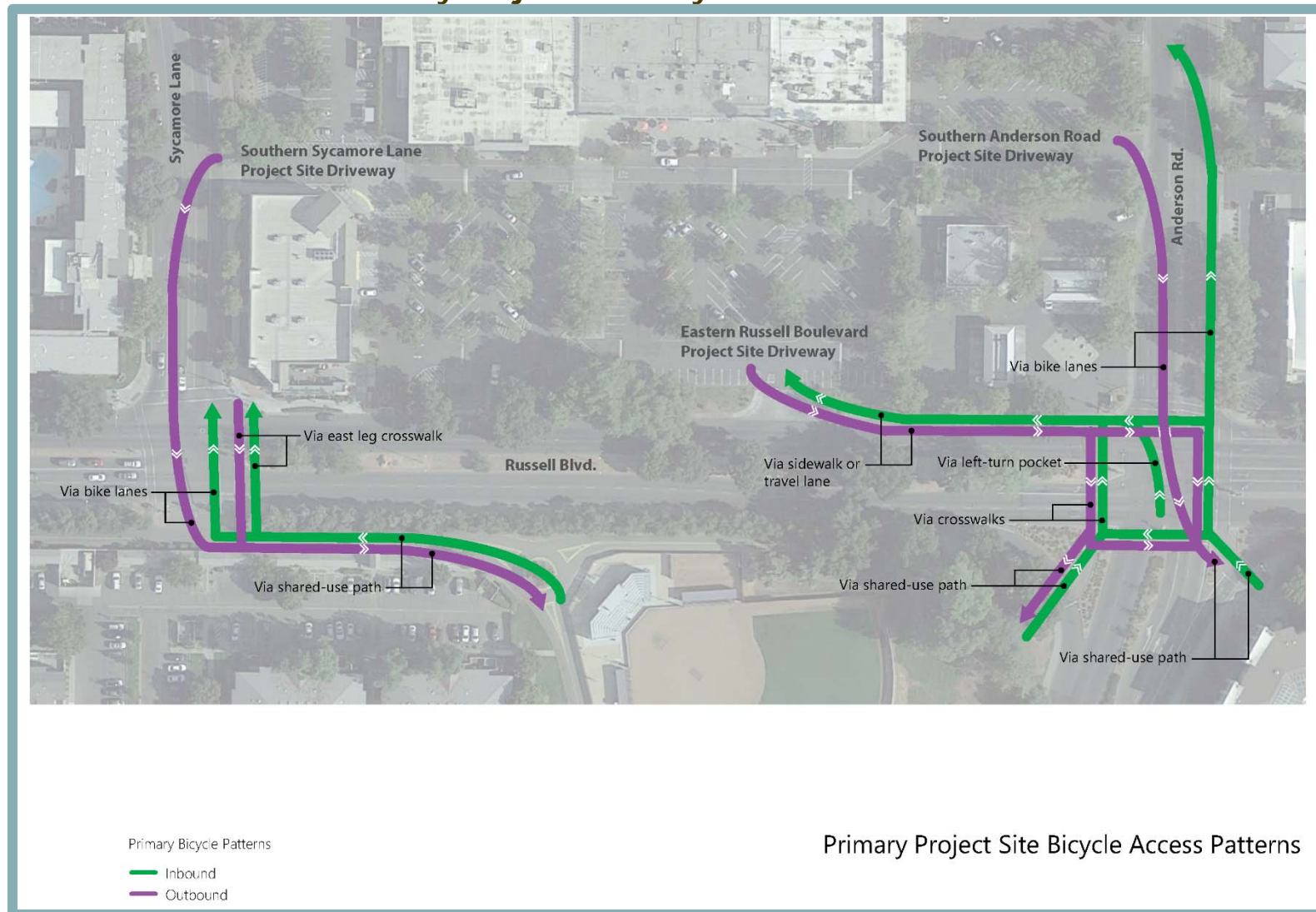
As part of the Transportation Impact Study, the potential for the proposed project impact to bicycle facilities was evaluated based on whether the project would physically disrupt an existing facility or interfere with the implementation of a planned facility. This standard reflects the goals and policies of the City's General Plan (see, for example, Goal #4 and Policy TRANS 4.10). In addition, the project was evaluated to determine if implementation would otherwise decrease the performance or safety of bicycle facilities. With the exception of new bicycle parking, the proposed project would not include any new or modified on- or off-site bicycle facilities (e.g., bike lanes).

Project bicycle travel was estimated based on bicycle counts and observations conducted at the existing University Mall and Sycamore Lane Apartments complex. Per the Transportation Impact Study, the proposed project would generate an estimated 170 new bicycle trips during both the AM and PM peak hours. Most project bicycle demand would rely on the movements and facilities illustrated in Figure 4.6-13 to travel to/from the project site. The majority of project bicycle trips would travel between the project site and the UC Davis campus to the south, as well as east-west along the Russell Boulevard corridor (to local destinations such as Downtown Davis). Project bicycle trips would be routed through nearby existing bicycle facilities, particularly the bike lanes on Sycamore Lane and Anderson Road, the shared-use paths on the south side of Russell Boulevard and the west side of La Rue Road, and crossing facilities at the Russell Boulevard/Sycamore Lane and Russell Boulevard/Anderson Road/La Rue Road intersections. As noted previously, the aforementioned facilities currently experience very high levels of peak hour bicycle and pedestrian volumes which, when combined with the dimensions of path and crossing facilities (e.g., the south leg crosswalk at the Russell Boulevard/Anderson Road/La Rue Road intersection), can degrade the performance of the facilities for both bicyclists and pedestrians.

Figure 4.6-14 illustrates peak hour bicycle volumes at the Russell Boulevard/Sycamore Lane and Russell Boulevard/Anderson Road/La Rue Road intersection under Existing Plus Project conditions.



**Figure 4.6-13**  
**Primary Project Site Bicycle Access Patterns**

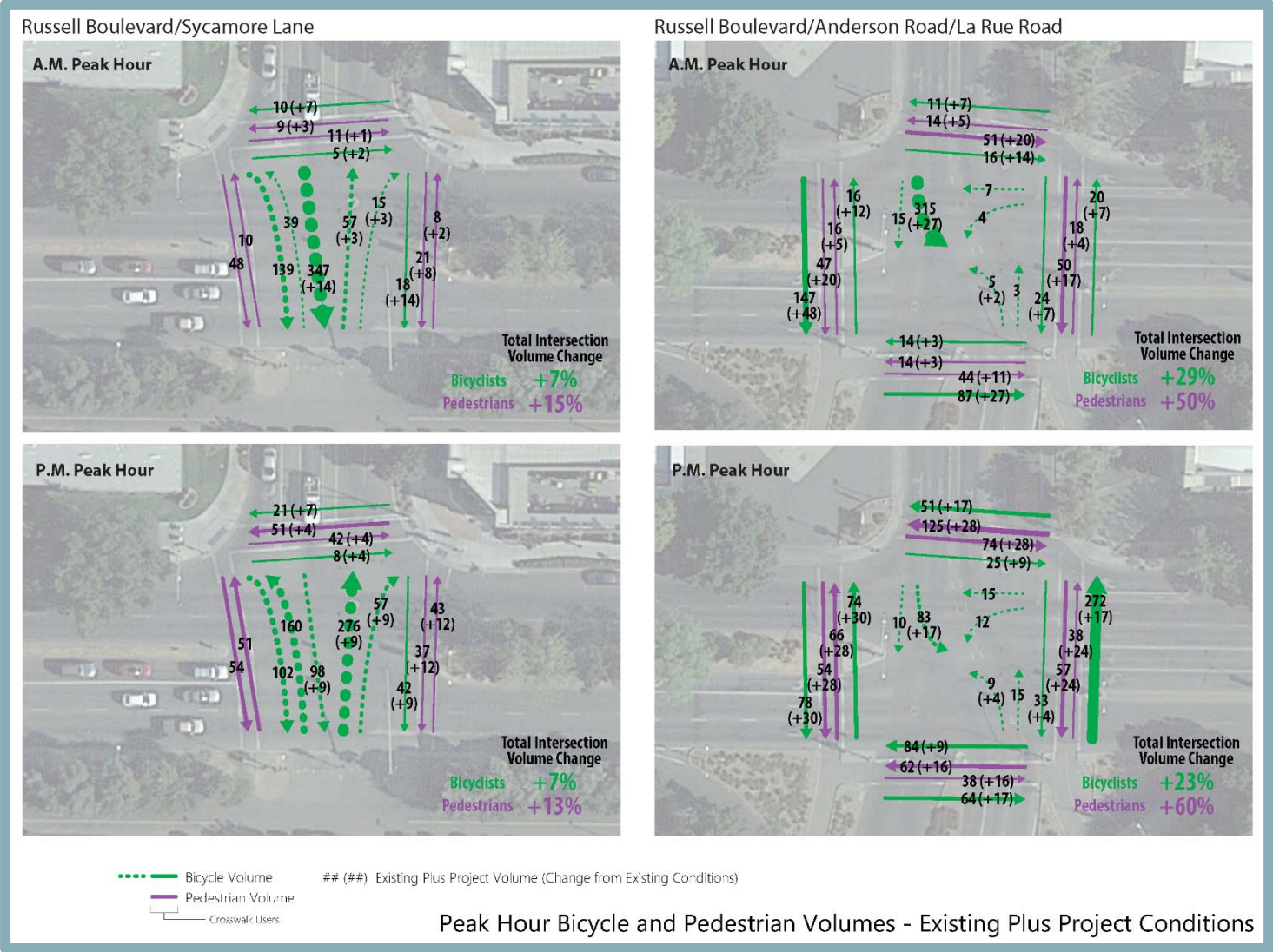


Source: Fehr & Peers, 2019.





**Figure 4.6-14**  
**Peak Hour Bicycle and Pedestrian Volumes – Existing Plus Project Conditions**



Source: Fehr & Peers, 2019.



At the Russell Boulevard/Sycamore Lane intersection, the proposed project would increase total intersection bicycle volume by seven percent during both the AM and PM peak hours. At the Russell Boulevard/Anderson Road/La Rue Road intersection, the project would increase total intersection bicycle volume by 29 percent and 23 percent during the AM and PM peak hours, respectively.

Additional bicycle trips generated by the project, together with increased vehicle and pedestrian trips, could exacerbate crowding on existing bicycle facilities and in shared right-of-way environments, particularly during the peak travel periods such as the morning and evening commutes to/from the UC Davis campus.

Worsened crowding could result in increased competition for physical space between the modes, which in turn could increase the potential for conflicts, including conflicts involving bicyclists, and degrade the performance of bicycle facilities. Crowding conditions would exist at the locations shown in Figure 4.6-15, as follows:

- The Russell Boulevard/Sycamore Lane intersection, at the southbound approach bike lane and upstream bicycle-vehicle mixing zone (bicycle-vehicle conflicts).
- The Russell Boulevard/Anderson Road/La Rue Road intersection, at the southbound approach left-turn bike lane and upstream bicycle-vehicle mixing zone (bicycle-vehicle conflicts), the crosswalks on all legs (bicycle-bicycle and bicycle-pedestrian conflicts), the crosswalks at the eastbound and northbound channelized right-turn lanes (bicycle-vehicle conflicts), and the bicycle and pedestrian crossing staging areas at all corners of the intersection (bicycle-bicycle and bicycle-pedestrian conflicts).
- The shared-use path on the south side of Russell Boulevard on the UC Davis campus on the segments between Sycamore Lane and the UC Davis softball field and between Anderson Road and the bicycle roundabout near Primero Grove (bicycle-bicycle and bicycle-pedestrian conflicts).

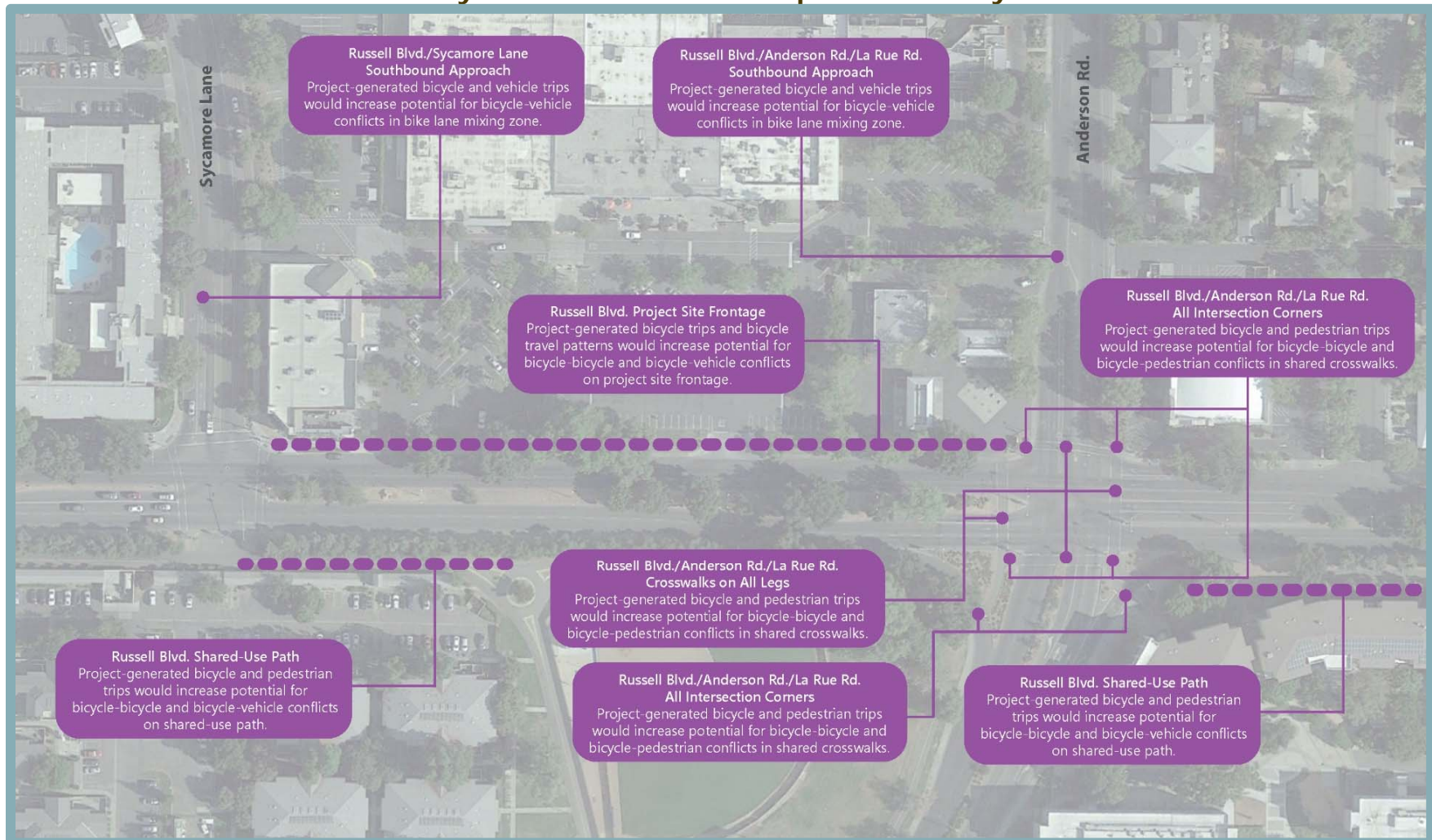
Under existing conditions, southbound vehicle queues at the Russell Boulevard/Sycamore Lane and Russell Boulevard/Anderson Road/La Rue Road intersection frequently block the bicycle-vehicle mixing zones for the southbound bike lanes. With the addition of project bicycle trips, a greater number of bicyclists would be exposed to the bicycle-vehicle conflicts that emerge at the intersections.

Moreover, one of the dominant inbound bicycle movements from the UC Davis campus into the project site – the north to west movement from the southeast to the northwest corner of the Russell Boulevard/Anderson Road/La Rue Road intersection – would not be accommodated within a formal bicycle facility at the northwest corner of the intersection. The lack of a receiving bicycle facility would require project bicycle trips to utilize the westbound vehicle travel lane, the sidewalk, or the internal driveways at the ARCO gas station in order to access the project site via the Russell Boulevard/Anderson Road/La Rue Road intersection, increasing the potential for bicycle-vehicle or bicycle-pedestrian conflicts.





**Figure 4.6-15**  
**Bicycle and Pedestrian Impact Summary**



Source: Fehr & Peers, 2019.





The history of collisions involving bicyclists recorded at the Russell Boulevard/Sycamore Lane and Russell Boulevard/Anderson Road/La Rue Road intersections, and on Sycamore Lane and Anderson Road north of Russell Boulevard, underscores the conflict potential at the locations described above based on the high bicycle volumes and existing roadway and intersection configurations.

As noted previously, Appendix C of the Bicycle Action Plan includes a variety of proposed bicycle facilities throughout the City, including the following proposed bicycle facility enhancements within the vicinity of the project site:

- Buffered bike lanes on Anderson Road and Sycamore Lane north of Russell Boulevard;
- Bike lanes on Russell Boulevard between SR 113 and A Street;
- Bicycle/pedestrian crossing markings at the Russell Boulevard/Anderson Road/La Rue Road intersection; and
- Bike lane conflict markings (green) at the Russell Boulevard/Anderson Road/La Rue Road and Russell Boulevard/Sycamore Lane intersections.

The proposed project would not conflict with any the above planned improvements. In addition, the planned improvements would be generally consistent with Mitigation Measures 4.6-2(a) through 4.6-2(f) listed below; the first two listed improvements do not overlap with the mitigation measures, and would not conflict, while the second two listed improvements are consistent with the mitigation measures provided herein.

### Conclusion

While the project would not include the implementation of any planned bicycle facilities within the site vicinity, the project would not interfere with the implementation of planned bicycle facilities identified in the City of Davis General Plan or the Bicycle Action Plan. Planned improvements include new bike lanes on Russell Boulevard, as well as bicycle crossing improvements at the Russell Boulevard/Sycamore Lane and Russell Boulevard/Anderson Road/La Rue Road intersection. In addition, the project would not interfere with planned regional bicycle projects identified in the SACOG MTP/SCS. Nonetheless, given that the additional bicycle traffic associated with the project would increase the potential for bicycle-vehicle or bicycle-pedestrian conflicts, a **significant** impact could occur.

### Mitigation Measure(s)

Implementation of Mitigation Measures 4.6-2(a) through 4.6-2(f) would reduce significant impacts associated with bicycle facilities to a less-than-significant level by supporting bicycling to and from the project site and minimizing conflicts between bicycles and other travel modes. However, elements of Mitigation Measures 4.6-2(d), 4.6-2(e), and 4.6-2(f) would occur within UC Davis right-of-way and would be subject to final approval and actions by UC Davis. Given that the required improvements are outside of the City's jurisdiction, the City, as lead agency, cannot legally impose the mitigation measures. In addition, for Mitigation Measures 4.6-2(d) through (f), the final improvements will be subject to the Russell Boulevard Corridor Plan, which is identified in General Plan Policy TRANS 2.8, Action a. The City has held initial discussions with UC Davis with the intent to proceed on developing a Russell Boulevard Corridor Plan. A Corridor Plan will be prepared by the City and the formal process is expected to



begin in the near future, but a Corridor Plan has not yet been adopted. Therefore, implementation of Mitigation Measures 4.6-2(d) through (f) cannot be guaranteed. Consistent with *Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912, contribution of mitigation funds is not required for impacts where the City does not have full jurisdiction nor a plan in place to ensure implementation of mitigation measures. Nevertheless, the applicant has agreed to contribute mitigation funds to the City, as described in Mitigation Measures 4.6-2(d) through (f).

Due to uncertainties regarding the ability for the aforementioned mitigation measures to reduce impacts to bicycle facilities, bicycle facility impacts on the Russell Boulevard shared-use path and at the Russell Boulevard/Anderson Road/La Rue Road intersection would be considered to remain *significant and unavoidable*.

*Improve the Southbound Bike Lane Approach at the Russell Boulevard/Sycamore Lane Intersection*

Implementation of either alternative 1 or 2 listed under Mitigation Measure 4.6-2(a) below, or an improvement of equal effectiveness, would enhance the southbound bike lane approach at the Russell Boulevard/Sycamore Lane intersection and reduce the potential for conflicts between bicyclists and vehicles.

4.6-2(a) *Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall implement modifications to improve the southbound bike lane approach at the Russell Boulevard/Sycamore Lane intersection to reduce the potential for bicycle-vehicle conflicts, to the satisfaction of the City Engineer. Improvements shall either physically separate bicyclists and vehicles, or more clearly demarcate the existing bicycle-vehicle mixing zone if the City is unable to physically separate bicyclists and vehicles. Potential improvement alternatives include (but shall not be limited to):*

1. *Switch the placement of the southbound right-turn lane and the bike lane. Consistent with CAMUTCD standards (for a bicycle facility adjacent to a right-turn lane), such a configuration would place a Class IV separated bikeway immediately against the curb, enabling bicyclists to queue against the curb prior to crossing during the exclusive bicycle crossing signal phase (during which southbound right-turns for vehicles are prohibited). This configuration would eliminate the need for southbound bicyclists to weave across vehicular traffic at the intersection approach. The configuration shall include vertical separation between the bikeway and the right-turn lane, consistent with standard Class IV separated bikeway design.*
2. *Highlight the existing bicycle-vehicle mixing zone with additional pavement markings (e.g., green skip pavement markings) and warning signage.*

*Improve the Southbound Bike Lane Approach at the Russell Boulevard/Anderson Road/La Rue Road Intersection*

4.6-2(b) *Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall implement modifications to improve the southbound bike lane approach at the Russell Boulevard/Anderson Road/La Rue Road*



intersection to reduce the potential for bicycle-vehicle conflicts, to the satisfaction of the City Engineer. Improvements shall more clearly demarcate the existing bicycle-vehicle mixing zone. Potential improvement alternatives include highlighting the existing bicycle-vehicle mixing zone with additional pavement markings (e.g., green skip pavement markings) and warning signage. Implementation of such improvements, or an improvement of equal effectiveness, would enhance the southbound bike lane approach at the Russell Boulevard/Anderson Road/La Rue Road intersection and reduce the potential for conflicts between bicyclists and vehicles.

*Construct an enhanced Bicycle/Pedestrian Facility on the Russell Boulevard Project Site Frontage*

Construction of an enhanced facility such as an off-street shared-use path, or an improvement of equal effectiveness, would improve bicycle and pedestrian access between the project site and the Russell Boulevard/Anderson Road/La Rue Road intersection and reduce the potential for bicycle-vehicle and bicycle-pedestrian conflicts.

- 4.6-2(c) *The project applicant shall implement one of the following options prior to issuance of certificates of occupancy, with the bicycle facility and final design to be determined by the City Engineer and the City Traffic Engineer as follows:*

*Option A: Off-Street Shared-use Path.* Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall construct an off-street shared-use path on the north side of Russell Boulevard between Sycamore Lane and Anderson Road along the project site frontage, generally along the alignment of the existing sidewalk. The path may need to be widened into the existing roadway (i.e., into the parking lane) due to right-of-way constraints such as existing trees and driveways (e.g., along the ARCO gas station frontage). The new path shall be sufficiently sized to prevent crowding and minimize the potential for conflicts between bicyclists and pedestrians. The City of Davis 2016 Street Design Standards specifies a shared-use path width of 12 feet for arterial roadways, with two-foot wide all-weather shoulders on either side of the path where sufficient space exists to accommodate the standard. The City may determine that a narrower shared path, split path, combination, or alternative path design is acceptable in instances where right-of-way or design constraints, preservation of existing trees, or other considerations would limit the ability to implement the standard path width and design.

*Option B: Protected Bike Lane/Cycle Track.* Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall construct a protected bike lane on the north side of Russell Boulevard, between Sycamore Lane and Anderson Road along the project site frontage.

*It should be noted that, if the off-street shared-use path identified in MM 4.6-2(c) as Option A is not extended into the existing roadway or designed to avoid the existing*



trees, then widening the existing sidewalk along the project's Russell Boulevard frontage would likely require removal of five trees within the existing landscape strip. These trees are identified in the project arborist report as trees #560, 561, 562, 575, and 587.<sup>8</sup> Removal of these trees would require the applicant to obtain a tree removal permit and provide for the following: (1) on-site replacement; (2) off-site replacement; and/or (3) payment of in-lieu fees. However, all reasonable efforts shall be made to avoid impacting the trees.

In addition, widening improvements to accommodate a shared use path or cycle track into the parking shoulder would eliminate up to 18 on-street parking spaces. However, the on-street parking is not needed to serve the project's parking requirements.

#### *Improve Crossings at the Russell Boulevard/Anderson Road/La Rue Road Intersection*

Implementation of either alternative 1 or 2 listed under Mitigation Measure 4.6-2(d) below, or a set of improvements of equal effectiveness, would improve bicycle crossings at the Russell Boulevard/Anderson Road/La Rue Road intersection by reducing the potential for bicycle-bicycle, bicycle-pedestrian, and bicycle-vehicle conflicts.

By reconfiguring the channelized right-turn lanes and modifying signal timing, alternative 2 would alter the intersection in a manner that would reduce capacity for vehicle demand. The resulting PM peak hour intersection operations would degrade from LOS D (under Existing Plus Project conditions) to LOS E. Therefore, alternative 2 would maintain acceptable operations at this intersection after mitigation under Existing Plus Project conditions.

Consistent with General Plan Policy TRANS 2.8, Action a, two current City-led corridor planning efforts will identify future complete streets modifications at this intersection and the adjoining Anderson Road and Russell Boulevard corridors (the on-going Anderson Road Streetscape Improvement Project and the soon-to-begin Russell Boulevard Corridor Plan). Therefore, the ultimate improvements constructed at this intersection should be consistent with the preferred intersection configuration identified in these plans. However, because implementation of this mitigation measure would require UC Davis approval, the City of Davis cannot legally impose these improvements, as they are outside of the City's control. In addition, the preferred improvements cannot be determined at this time, as they will be determined through the City's Corridor Plan process. For these reasons, the impact remains significant and unavoidable.

It should be noted that this intersection is also impacted under the Cumulative Plus Project scenario as a result of the project's incremental contribution of vehicle trips (see Impact 4.6-9).

*4.6-2(d) Consistent with cumulative Mitigation Measure 4.6-9, prior to the occupancy of the project, the project applicant shall contribute funding to*

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<sup>8</sup> Per the Arborist Report, Tree #560 is a 37-inch (dbh) cork oak in fair health; Tree #561 is a 41-inch (dbh) Aleppo pine in fair-good health; Tree #562 is a 35-inch (dbh) Aleppo pine in fair health; Tree #575 is a 42-inch (dbh) cork oak in good health; and Tree #587 is a 27-inch (dbh) cork oak in fair-good health.



cover their proportionate cost of bicycle improvements to the Russell Boulevard/Anderson Road/La Rue Road intersection as determined in the Development Agreement. The funding shall be submitted to the City of Davis. Given the multi-modal nature of the intersection and future improvements, fair share calculations should consider all modes of transportation utilizing the intersection.

Modifications to improve crossings at the Russell Boulevard/Anderson Road/La Rue Road intersection shall be implemented to reduce the potential for bicycle-bicycle, bicycle-pedestrian, and bicycle-vehicle conflicts. Because intersection modifications would affect right-of-way on the UC Davis campus, the City shall coordinate with UC Davis to identify the ultimate modifications. Improvements shall, to the extent feasible, physically separate bicyclists, pedestrians, and vehicles and reduce bicycle crossing distances and exposure time. Potential improvement alternatives include (but are not limited to):

1. For all intersection crosswalks, widen crosswalks to increase the capacity for crossing bicyclists and pedestrians and reduce the frequency of meeting and passing events that diminish the performance of the crosswalks.
2. Reconfigure the intersection into a protected intersection with corner refuge islands, setback crossings, and exclusive bicycle and pedestrian crossing phases (i.e., vehicles would not be permitted to turn on red during this phase). For all intersection crosswalks, physically separate bicyclists and pedestrians by installing special pavement treatment or striping to clearly demarcate pedestrian and bicycle crossing zones, increase the capacity for crossing bicyclists and pedestrians, and reduce the frequency of meeting and passing events that diminish the performance of the crossings. This alternative would also include the removal of the eastbound and northbound channelized right-turn lanes.

#### *Improve the Russell Boulevard Shared-Use Path Between Sycamore Lane and the UC Davis Softball Field*

Implementation of any one of alternatives 1 through 3 listed under Mitigation Measure 4.6-2(e) below, would enhance the Russell Boulevard shared-use path between Sycamore Lane and the UC Davis softball field. New shared-use paths should be sufficiently sized to prevent crowding and minimize the potential for conflicts between bicyclists and pedestrians. However, because implementation of this mitigation measure would require UC Davis approval, the City of Davis cannot legally impose these improvements, as they are outside of the City's control. In addition, the preferred improvements cannot be determined at this time, as they will be determined through the City's Corridor Plan process. For these reasons, the impact remains significant and unavoidable.

- 4.6-2(e) *Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall contribute funding to cover their proportionate cost of improvements to the shared-use path on the south side of Russell*





*Boulevard between Sycamore Lane and the UC Davis softball field; the project's proportionate cost shall be determined in the Development Agreement. The funding shall be submitted to the City of Davis. The City shall negotiate funding contributions with UC Davis as part of the City's Corridor Plan process. Path improvements shall reduce the potential for bicycle-bicycle and bicycle-pedestrian conflicts, to the satisfaction of the City Engineer. Potential improvement alternatives include (but are not limited to):*

- 1. Widen the existing shared-use path to accommodate bicyclists and pedestrians within a shared facility. Consider installing special pavement treatment or striping to clearly demarcate pedestrian and bicycle zones.*
- 2. Physically separate bicyclists and pedestrians by constructing a new pedestrian pathway parallel to the existing shared-use path.*
- 3. Install pedestrian-scale lighting to improve visibility.*

*Improve the Russell Boulevard Shared-Use Path Between Anderson Road and the Bicycle Roundabout Near Primero Grove*

Implementation of any one of alternatives 1 through 3 listed under Mitigation Measure 4.6-2(f) below, would enhance the Russell Boulevard shared-use path between Anderson Road and the bicycle roundabout near Primero Grove. New shared-use paths should be sufficiently sized to prevent crowding and minimize the potential for conflicts between bicyclists and pedestrians. However, because implementation of this mitigation measure would require UC Davis approval, the City of Davis cannot legally impose these improvements, as they are outside of the City's control. In addition, the preferred improvements cannot be determined at this time, as they will be determined through the City's Corridor Plan process. For these reasons, the impact remains significant and unavoidable.

*4.6-2(f) Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall contribute funding to cover their proportionate cost of improvements to the shared-use path on the south side of Russell Boulevard between Anderson Road and the bicycle roundabout near Primero Grove; the project's proportionate cost shall be determined in the Development Agreement. The funding shall be submitted to the City of Davis. The City shall negotiate funding contributions with UC Davis as part of the City's Corridor Plan process. Path improvements should reduce the potential for bicycle-bicycle and bicycle-pedestrian conflicts, to the satisfaction of the City Engineer. Potential improvement alternatives include (but are not limited to):*

- 1. Widen the existing shared-use path to accommodate bicyclists and pedestrians within a shared facility. Consider installing special pavement treatment or striping to clearly demarcate pedestrian and bicycle zones.*
- 2. Physically separate bicyclists and pedestrians by constructing a new pedestrian pathway parallel to the existing shared-use path.*
- 3. Install pedestrian-scale lighting to improve visibility.*





**4.6-3 Impacts to pedestrian facilities under Existing Plus Project conditions. Based on the analysis below, even with mitigation, the impact is *significant and unavoidable*.**

As part of the Transportation Impact Study, the potential for the proposed project to result in impacts to pedestrian facilities was evaluated based on whether the project would physically disrupt an existing facility or interfere with the implementation of a planned facility. In addition, the proposed project was evaluated to determine if the project would otherwise decrease the performance or safety of pedestrian facilities.

The proposed project would include reconfigured on-site pedestrian facilities, including new sidewalks and crosswalks serving on-site structures and parking facilities. The project would not include any new or modified off-site pedestrian facilities. Given that existing planning documents do not identify any planned pedestrian facilities within the project vicinity, the project would not interfere with the future implementation of any planned pedestrian facilities, including facilities identified in the City of Davis General Plan and regional pedestrian projects identified in the SACOG MTP/SCS.

Project pedestrian travel was estimated based on pedestrian counts and observations conducted at the existing University Mall and Sycamore Lane Apartments complex. Per the Transportation Impact Study, the proposed project would generate an estimated 70 AM peak hour and 160 PM peak hour new pedestrian trips. The majority of project pedestrian trips would travel between the project site and the UC Davis campus to the south, as well as east-west along the Russell Boulevard corridor.

Most project pedestrian demand would utilize the surrounding sidewalk and shared-use path facilities on Sycamore Lane, Anderson Road, and Russell Boulevard, as well as the crossing facilities provided at the Russell Boulevard/Sycamore Lane and Russell Boulevard/Anderson Road/La Rue Road intersections. Specific crossing facilities that would accommodate high levels of project pedestrian trips include the east leg crosswalk at the Russell Boulevard/Sycamore Lane intersection and all legs at the Russell Boulevard/Anderson Road/La Rue Road intersection (including the eastbound and northbound channelized right-turn lane crosswalks). As noted previously, the aforementioned facilities currently experience very high levels of peak hour bicycle and pedestrian volumes which, when combined with the dimensions of path and crossing facilities, can degrade the performance of the facilities for both bicyclists and pedestrians.

Figure 4.6-14 illustrates the peak hour pedestrian volumes at the Russell Boulevard/Sycamore Lane and Russell Boulevard/Anderson Road/La Rue Road intersection under Existing Plus Project conditions. At the Russell Boulevard/Sycamore Lane intersection, the project would increase total intersection pedestrian volume by 15 percent and 13 percent during the AM and PM peak hours, respectively. At the Russell Boulevard/Anderson Road/La Rue Road intersection, the project would increase total intersection pedestrian volume by 50 percent and 60 percent during the AM and PM peak hours, respectively.

Additional pedestrian trips generated by the project, together with increased vehicle and bicycle trips, could exacerbate crowding on existing pedestrian facilities and in



shared right-of-way environments, particularly during the peak travel periods such as the morning and evening commutes to/from the UC Davis campus. Worsened crowding could result in the increased competition for physical space between the modes, which in turn could increase the potential for conflicts, including those involving pedestrians, and degrade the performance of pedestrian facilities. Crowding conditions would exist at the locations shown in Figure 4.6-15, as follows:

- The Russell Boulevard/Anderson Road/La Rue Road intersection, at the crosswalks on all legs (bicycle-pedestrian conflicts), the crosswalks at the eastbound and northbound channelized right-turn lanes (pedestrian-vehicle conflicts), and the bicycle and pedestrian crossing staging areas at all corners of the intersection (bicycle-pedestrian conflicts).
- The shared-use path on the south side of Russell Boulevard on the UC Davis campus on the segments between Sycamore Lane and the UC Davis softball field and between Anderson Road and the bicycle roundabout near Primero Grove (bicycle-pedestrian conflicts).

### Conclusion

Based on the above, the proposed project would not conflict with planned pedestrian facilities identified in the City of Davis General Plan or regional pedestrian projects identified in the SACOG MTP/SCS. However, given that the additional pedestrian traffic associated with the project would increase the potential for bicycle-vehicle or bicycle-pedestrian conflicts, a **significant** impact could occur.

### Mitigation Measure(s)

Implementation of Mitigation Measures 4.6-2(d), 4.6-2(e), and 4.6-2(f) would reduce potential significant impacts associated with pedestrian facilities to a less-than-significant level by supporting walking to and from the project site and minimizing conflicts between pedestrians and other travel modes. However, elements of Mitigation Measures 4.6-2(d), 4.6-2(e), and 4.6-2(f) would occur within UC Davis right-of-way and would be subject to final approval and actions by UC Davis. Because implementation of the measures would require UC Davis approval, the City of Davis cannot legally impose these improvements, as they are outside of the City's control. Therefore, the implementation of the mitigation measures cannot be guaranteed. In addition, the preferred improvements cannot be determined at this time, as they will be determined through the City's Corridor Plan process.

Due to uncertainties regarding the ability for the aforementioned mitigation measures to reduce impacts to pedestrian facilities, pedestrian facility impacts on the Russell Boulevard shared-use path and at the Russell Boulevard/Anderson Road/La Rue Road intersection would be considered *significant and unavoidable*.

4.6-3      *Implement Mitigation Measures 4.6-2(d), 4.6-2(e), and 4.6-2(f).*



**4.6-4 Impacts to transit facilities and services under Existing Plus Project conditions. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.**

The potential for the proposed project to result in impacts to transit service or facilities was evaluated based on whether the project would physically disrupt an existing service/facility or interfere with the implementation of a planned service/facility. In addition, the proposed project was evaluated to determine if the project would otherwise decrease the performance or safety of transit service/facilities.

The project would not include any new or modified on- or off-site transit service or facilities. Existing planning documents do not identify any planned transit facilities within the project vicinity. Therefore, the project would not interfere with the implementation of planned transit service or facilities identified in the City of Davis General Plan or the Unitrans Short Range Transit Plan. In addition, the project would not interfere with planned regional transit projects identified in the SACOG MTP/SCS.

Project transit travel was estimated based on transit passenger counts and observations conducted at the existing University Mall and Sycamore Lane Apartments complex. Per the Transportation Impact Study, the proposed project would generate an estimated 50 AM peak hour and 30 PM peak hour new transit passenger trips. The majority of project transit passenger trips would travel on existing Unitrans service between the project site and the UC Davis campus to the south.

Most outbound passengers (boarding the bus) would use the southbound bus stop on Anderson Road located on the eastern project site boundary, as well as the southbound bus stop on Sycamore Lane north of Russell Boulevard (across Sycamore Lane from the project site). Most inbound passengers (getting off the bus) would use the northbound bus stops on Anderson Road and Sycamore Lane north of Russell Boulevard. Inbound passengers getting off at the Sycamore Lane bus stop would access the project site immediately from the bus stop, while those using the Anderson Road bus stop would be required to cross the north leg crosswalk at the Russell Boulevard/Anderson Road/La Rue Road intersection before accessing the project site.

The existing southbound bus stop on Anderson Road is currently outfitted with a bus stop sign, but lacks a shelter, seating, or dedicated passenger waiting area, which results in dwelling passengers waiting in the sidewalk or in the adjacent landscaped area. The addition of project-generated transit passenger demand would exacerbate the existing conditions, which could lead to more substantial blocking of the sidewalk by dwelling passengers, as well as dwelling passengers physically blocking passengers who wish to deboard buses as passengers arrive at the stop. Worsened conditions would be detrimental to transit access and operations.

Conclusion

Based on the above, the proposed project would not conflict with planned transit facilities or services identified in the City of Davis General Plan, the Unitrans Short Range Transit Plan, or regional transit projects identified in the SACOG MTP/SCS. However, given that the additional transit use associated with the project would conflict



with operations at the southbound bus stop on Anderson Road, located on the eastern project site boundary, a **significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.6-4 *Prior to issuance of certificates of occupancy for the proposed project, the project applicant shall enhance the existing bus stop on southbound Anderson Road north of Russell Boulevard, to the satisfaction of the City Engineer. Bus stop enhancements shall include the addition of a shelter, seating, waste receptacle, as well as an expanded dedicated passenger waiting area that can sufficiently accommodate dwelling passenger without impeding the adjacent sidewalk. Bus stop enhancements shall be developed in consultation with Unitrans staff.*

**4.6-5 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below, the impact is *less than significant*.**

As part of the Transportation Impact Analysis, the potential for the proposed project to result in impacts related to VMT was evaluated by comparing the estimated VMT per capita that would be generated by the project to the local and regional VMT per capita averages. Project-generated, local, and regional VMT estimates were derived using the techniques discussed in the Methods of Analysis section above. Given the mixed-use nature of the proposed project, VMT per capita figures are expressed in terms of service population (i.e., residents plus employees).

Per the Transportation Impact Analysis, the proposed project is estimated to generate a net increase of 16,495 VMT under Existing conditions on a typical weekday (see Table 4.6-16). As shown in Table 4.6-17, the VMT associated with the project would equate to an estimated 16.2 VMT per capita, which is lower than the local and regional VMT per capita averages. Factors that contribute to a lower VMT include the project's proximity to UC Davis, the complementary on-site retail and residential land uses, and the availability of nearby high-quality bicycle facilities and transit services.

**Table 4.6-16**  
**Weekday Project-Generated VMT – Existing Plus Project**  
**Conditions**

Weekday VMT	Existing Conditions	Existing Plus Project Conditions	Difference (Project-Generated)
Residential Component	--	10,010	+10,010
Commercial Component <sup>1</sup>	40,275	46,760	+6,485
<b>Project Site Total</b>	<b>40,275</b>	<b>56,770</b>	<b>+16,495</b>

<sup>1</sup> Estimate includes a pass-by trip reduction of 34 percent for trips attributed to on-site commercial uses, per the ITE Trip Generation Handbook.

Source: Fehr & Peers, 2019.



**Table 4.6-17**  
**Weekday VMT per Capita Summary – Existing Plus Project Conditions**

<b>Metric</b>	<b>Project-Generated VMT per Capita<sup>1</sup></b>	<b>City of Davis VMT per Capita</b>	<b>City of Davis &amp; UC Davis VMT per Capita<sup>2</sup></b>	<b>SACOG Region VMT per Capita</b>
Total VMT	16,495	3,002,103	3,811,683	73,397,949
Residents	894	68,243	76,914	2,051,914
Employees	125	13,346	24,728	875,701
Capita <sup>3</sup>	1,019	81,589	101,642	2,927,615
<b>Total VMT per Capita</b>	<b>16.2</b>	<b>36.8</b>	<b>37.5</b>	<b>25.1</b>

<sup>1</sup> Project residents estimated based on the proposed number of beds that would comprise the residential component of the project, at one resident per bed. The project employment figure is estimated according to the typical amount of retail space occupied per employee, or 275 square feet.

<sup>2</sup> Includes both City of Davis residents and employees and UC Davis on-campus residents and employees

<sup>3</sup> For the purposes of this analysis, “capita” represents service population (i.e., residents plus employees).

**Source: Fehr & Peers, 2019.**

Based on the above, the proposed project would result in a ***less-than-significant*** impact with respect to conflicting with or being inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

#### Mitigation Measure(s)

*None required.*

#### **4.6-6 Impacts related to emergency access. Based on the analysis below, the impact is *less than significant*.**

The existing University Mall site consists of two vehicular accesses on Sycamore Lane (both full access), three vehicular accesses on Anderson Road (two full access, one right-in/right-out only), and two vehicular accesses on Russell Boulevard (no full access, both right-in/right-out only). The proposed project would eliminate one of the full access driveways on Anderson Road, but would not materially alter the remaining vehicular access points. Altogether, the connections would provide multiple opportunities and routes for emergency vehicles to access the site.

Emergency vehicle access to the project site would not change substantially from existing conditions. Fire access from the Downtown Davis fire station (located one mile east of the project site) would be available by way of westbound Russell Boulevard, or southbound Anderson Road if Russell Boulevard is otherwise blocked or inoperable. Fire access from the West Davis fire station (located 1.75 miles northwest of the project site) would be available by way of eastbound Russell Boulevard, or southbound Sycamore Lane if Russell Boulevard is otherwise blocked or inoperable. Medical emergency service access from Sutter Davis Hospital (located two miles northwest of the project site) would be available from northbound Sycamore Lane, by way of SR 113, and southbound Sycamore Lane, by way of Covell Boulevard.



By providing multiple access and egress points, the proposed project would meet City of Davis standards for providing emergency vehicle access to the site. Therefore, the Transportation Impact Study concluded that the proposed project would provide adequate emergency access and a ***less-than-significant*** impact could occur.

Mitigation Measure(s)

*None required.*

**4.6-7 Impacts related to construction vehicle traffic. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.**

Construction of the project, including site preparation and construction, and delivery activities, would generate contractor employee trips and a variety of other construction-related vehicle trips. The volume of construction-related traffic would not be expected to exceed the project's operational AM and PM peak hour vehicle trip generation. As such, construction traffic would not cause unacceptable operating conditions at any of the study intersections in the project area.

However, project construction activities would disrupt vehicle, pedestrian, bicycle, and emergency vehicle access to and from on-site and adjacent uses active during construction, particularly Trader Joe's and the ARCO gas station. Moreover, project construction activities would disrupt pedestrian, bicycle, and transit stop access on highly-utilized facilities on the east side of Sycamore Lane and the west side of Anderson Road. As such, construction vehicle staging, construction vehicle ingress/egress, and any potential temporary street, sidewalk, bikeway, or transit stop closures related to project construction would block or impede access for adjacent users. Therefore, construction activities associated with the proposed project would cause a ***significant*** impact to the surrounding transportation system.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a ***less-than-significant*** level.

4.6-7 *Before commencement of any construction activities for the project site, the project applicant shall prepare a detailed Construction Traffic Control Plan and submit it for review and approval by the City Department of Public Works. The applicant and the City shall consult with Unitrans, Yolobus, and local emergency service providers for their input before approving the Plan. The Plan shall ensure that acceptable operating conditions on local roadways and freeway facilities are maintained during construction. At a minimum, the Plan shall include:*

- *The number of truck trips, time, and day of street closures;*
- *Time of day of arrival and departure of trucks;*
- *Limitations on the size and type of trucks, provision of a staging area with a limitation on the number of trucks that can be waiting;*
- *Provision of a truck circulation pattern;*





- Provision of driveway access plan so that safe vehicular, pedestrian, and bicycle movements are maintained (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas);
- Maintain safe and efficient access routes for emergency vehicles;
- Manual traffic control when necessary;
- Proper advance warning and posted signage concerning street closures; and
- Provisions for bicycle, pedestrian, and transit access and safety.

*A copy of the Construction Traffic Control Plan shall be submitted to local emergency response agencies and these agencies shall be notified at least 14 days before the commencement of construction that would partially or fully obstruct roadways.*

**4.6-8 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.**

The following sections provide a discussion of potential hazards related to vehicle queuing and site access/circulation, including pedestrian conflicts and bicycle, pedestrian, and transit access. It should be noted that while on-site circulation is not typically evaluated as part of CEQA review, such issues are addressed herein given the potential result in spillover effects onto off-site roadways.

Vehicle Queuing

The proposed project would increase AM and PM peak hour vehicle traffic at local intersections throughout the study area under Existing Plus Project conditions. As shown in Table 4.6-18, the project would increase vehicle demand for the eastbound left-turn at the Russell Boulevard/Sycamore Lane intersection. The increase would primarily be attributed to growth in peak hour traffic volumes from SR 113 to the project site.

Under Existing Plus Project conditions, peak hour maximum queues for the eastbound left-turn at the Russell Boulevard/Sycamore Lane intersection would spill back to a distance of 325 feet, 25 feet (one car length) beyond the 300 feet of available left-turn pocket storage capacity, and block the adjacent eastbound through travel lane on Russell Boulevard.

Driveway Throat Depths

Adequate driveway throat depths are necessary to minimize conflicting movements that disrupt on- and off-site circulation. Conflicting movements located within the driveway throat area can cause undesirable circulation effects, including vehicles that queue back into the adjacent public roadway, vehicle conflicts with pedestrians and bicyclists, and congestion within the project site. Common site design features that



cause conflicting movements include poorly placed parking stalls, internal intersections, and bicycle and pedestrian pathways.

<b>Table 4.6-18</b> <b>Maximum Queue Length Estimates – Existing Plus Project Conditions</b>						
Intersection	Movement	Available Storage	Existing Maximum Vehicle Queue		Existing Plus Project Maximum Vehicle Queue	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Russell Blvd./SR 113 SB Ramps	SB LT	1,500 feet	275 feet	200 feet	300 feet	200 feet
Russell Blvd./SR 113 NB Ramps	NB RT	1,100 feet	250 feet	400 feet	275 feet	425 feet
Russell Blvd./Sycamore Ln.	EB LT	300 feet	300 feet	300 feet	<b>325 feet</b>	<b>325 feet</b>
	WB TH	750 feet	125 feet	275 feet	125 feet	350 feet
	SB LT	125 feet	<b>175 feet</b>	<b>175 feet</b>	<b>175 feet</b>	<b>175 feet</b>
	SB RT	125 feet	<b>250 feet</b>	<b>200 feet</b>	<b>275 feet</b>	<b>225 feet</b>
Russell Blvd./Anderson Rd./La Rue Rd.	EB LT	100 feet	<b>125 feet</b>	<b>125 feet</b>	<b>125 feet</b>	<b>150 feet</b>
	EB TH	750 feet	200 feet	150 feet	250 feet	200 feet
	WB LT	225 feet	175 feet	<b>250 feet</b>	175 feet	225 feet
	WB TH	1,600 feet	175 feet	400 feet	175 feet	475 feet
	NB LT	125 feet	100 feet	<b>175 feet</b>	100 feet	<b>175 feet</b>
	NB TH	975 feet	100 feet	275 feet	100 feet	250 feet
	NB RT	225 feet	75 feet	150 feet	100 feet	175 feet
	SB LT	150 feet	150 feet	150 feet	150 feet	150 feet
	SB TH	1,525 feet	400 feet	325 feet	400 feet	450 feet
Notes: <ul style="list-style-type: none"> <li>Estimates derived from SimTraffic micro-simulation software.</li> <li>Storage values measured from stop bar to adjacent upstream intersection.</li> <li>All values rounded to the nearest 25 feet.</li> <li>NB = northbound, SB = southbound, EB = eastbound, and WB = westbound.</li> <li>LT = left-turn, RT = right-turn, and TH = through.</li> <li><b>Bold</b> text indicates queues that exceed available storage.</li> </ul>						
<b>Source: Fehr &amp; Peers, 2019.</b>						

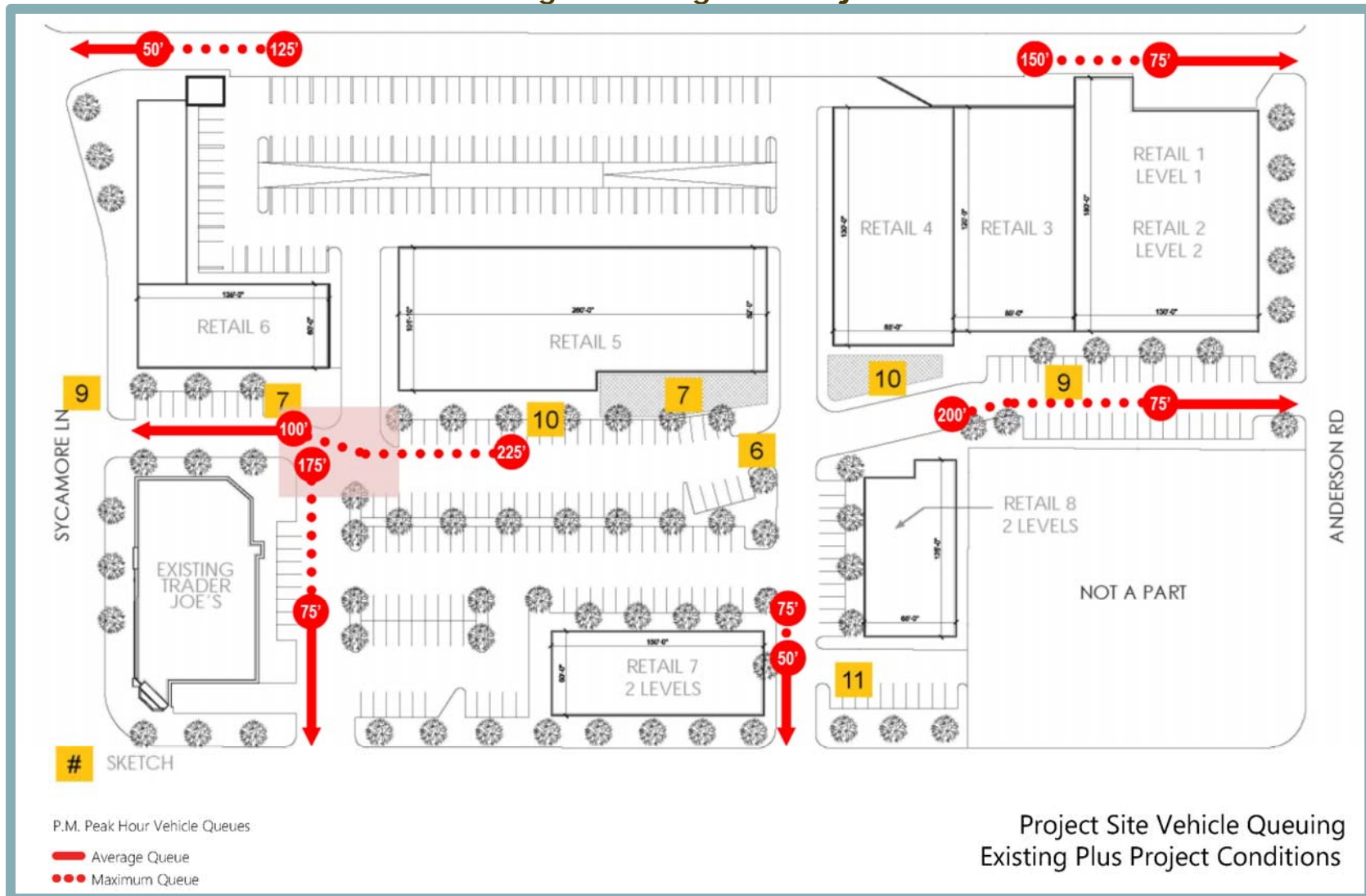
Per the Transportation Impact Analysis, as shown in Figure 4.6-16, the maximum outbound queues during the PM peak hour would exceed the driveway throat depth at several locations on the project site under Existing Plus Project conditions. In addition, inbound queues could spill into the adjacent public roadway at the following locations:

- Southern Sycamore Lane driveway;
- Southern Anderson Road driveway; and
- Western Russell Boulevard driveway.

Queue spillback would be particularly problematic at the southern Sycamore Lane driveway and the western Russell Boulevard driveway, because both driveways serve highly desirable parking stalls in close proximity to the Trader Joe's entrance (i.e., motorists would be willing to wait longer to access a convenient parking location).



**Figure 4.6-16**  
**Vehicle Queuing – Existing Plus Project Conditions**



Source: Fehr & Peers, 2019.



Given that queue spillback could result in conflicts with vehicle circulation on the public roadways fronting the project site, a significant impact could occur.

### Conclusion

Given that the proposed project could result in detrimental effects related to vehicle queuing at the Russell Boulevard/Sycamore Lane intersection, as well as spillback of vehicle queues at the site access points, the project would result in hazards due to a geometric design feature or incompatible uses, and a **significant** impact could occur.

### Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

#### *Extend the Eastbound Left-Turn Pocket at the Russell Boulevard/Sycamore Lane Intersection*

4.6-8(a) *Prior to the issuance of demolition permits, the project applicant shall extend the eastbound left-turn pocket at the Russell Boulevard/Sycamore Lane intersection from 300 to 375 feet, which is the maximum distance feasible without affecting the adjacent westbound left-turn pocket at the Russell Boulevard/Orchard Park Drive intersection. The extension will enable the eastbound left-turn pocket to accommodate the maximum queue of 325 feet under Existing Plus Project conditions. The timing of this modification is necessary to accommodate the considerable number of truck trips related to the project's demolition and construction.*

#### *On-Site Circulation Improvements*

4.6-8(b) *Prior to issuance of grading plans, the project improvement plans shall reflect the modifications listed below, or equivalent measures, based on the final site design, to reduce vehicle queuing spillback at the project driveways, to the satisfaction of the City Engineer. The modifications may include, but are not limited to, the following:*

- *Southern Sycamore Lane Driveway*
  - *Parking stalls along the Retail 6 frontage shall be eliminated; and*
  - *Exclusive outbound left-turn and right-turn lanes shall be provided.*
- *Southern Anderson Road Driveway*
  - *Parking stalls along the Retail 1, 2, and 3 frontages shall be eliminated.*
- *Western Russell Boulevard Driveway*
  - *The drive aisle shall be aligned north into the parking garage, shifted further east into the project site to provide additional throat depth for the southern Sycamore Lane driveway, and access for the southernmost east-west drive aisle shall be closed off to/from the west (opposite the Trader Joe's loading dock).*



### **Cumulative Impacts and Mitigation Measures**

The following discussion of impacts is based on the implementation of the proposed project in combination with other proposed and pending projects in the region. Refer to Chapter 5, Statutorily Required Sections, of this EIR for more detail.

As discussed in the Transportation Impact Study, between Existing Plus Project and Cumulative Plus Project conditions, travel characteristics associated with the proposed project would not materially alter the project's effect on surrounding transportation system operating conditions or performance related to bicycle facilities, pedestrian facilities, transit facilities and services, and emergency vehicle access. In addition, construction activities associated with the project would be complete prior to the 2036 cumulative analysis year. Therefore, the proposed project would not result in a considerable contribution to cumulative impacts on the topics listed above beyond the impacts discussed above. The aforementioned topics are not discussed further in this EIR.

#### **4.6-9 Impacts to study intersections under Cumulative Plus Project conditions. Based on the analysis below, even with mitigation, the impact is *cumulatively considerable and significant and unavoidable*.**

For Cumulative Plus Project conditions, project-generated peak hour traffic volumes were layered on top of estimated Cumulative No Project peak hour traffic volumes at each study intersection. The number of peak hour project vehicle trips added to the Russell Boulevard corridor would be identical to those generated under Existing Plus Project conditions, as described previously. The resulting intersection LOS for each study intersection is shown in Figure 4.6-17 below.

As shown in Table 4.6-19 below, at most intersections, the addition of the project would increase peak hour delay by five seconds or less.

At the two intersections nearest to the project site – Russell Boulevard/Sycamore Lane and Russell Boulevard/Anderson Road/La Rue Road – the addition of project traffic would increase peak hour delay by between 15 and 20 seconds. Between Cumulative No Project and Cumulative Plus Project conditions, on average, signalized intersections would experience a 2.2 and 3.9 second increase during the AM and PM peak hours, respectively.

The following intersections would fail to meet acceptable LOS thresholds under both the Cumulative No Project and Cumulative Plus Project condition:

3. Russell Boulevard/Orchard Park Drive – LOS F (worst-case movement) during the AM and PM peak hours;
5. Russell Boulevard/Anderson Road/La Rue Road – LOS F (intersection average) during the PM peak hour; and
6. Russell Boulevard/California Avenue – LOS F (worst-case movement) during the AM and PM peak hours.





**Figure 4.6-17**  
**Intersection LOS – Cumulative Plus Project Conditions**



Source: Fehr & Peers, 2019.





**Table 4.6-19  
Peak Hour Intersection Operations – Cumulative Plus Project  
Conditions**

Intersection	Traffic Control	Jurisdiction	Peak Hour	Cumulative No Project Conditions		Cumulative Plus Project Conditions	
				Delay	LOS	Delay	LOS
1. Russell Blvd./SR 113 SB Ramps	Signal	Caltrans	AM	12	B	12	B
			PM	9	A	10	A
2. Russell Blvd./SR 113 NB Ramps	Signal	Caltrans	AM	21	C	23	C
			PM	36	D	34	C
3. Russell Blvd./Orchard Park Dr.	SSSC	City of Davis	AM	<b>9 (&gt;120)</b>	<b>A (F)</b>	<b>12 (&gt;120)</b>	<b>B (F)</b>
			PM	<b>16 (53)</b>	<b>C (F)</b>	<b>18 (91)</b>	<b>C (F)</b>
4. Russell Blvd./Sycamore Ln.	Signal	City of Davis	AM	22	C	25	C
			PM	41	D	57	E
5. Russell Blvd./Anderson Rd./La Rue Rd.	Signal	City of Davis	AM	43	D	58	E
			PM	<b>100</b>	<b>F</b>	<b>120</b>	<b>F</b>
6. Russell Blvd./California Ave.	SSSC	City of Davis	AM	8 (37)	A (E)	9 (42)	A (E)
			PM	<b>87 (&gt;120)</b>	<b>F (F)</b>	<b>86 (&gt;120)</b>	<b>F (F)</b>
7. Russell Blvd./Oak Ave.	Signal	City of Davis	AM	13	B	10	A
			PM	41	D	42	D
8. Russell Blvd./College Park/Howard Way	Signal	City of Davis	AM	22	C	22	C
			PM	62	E	62	E
9. Russell Blvd./A St.	Signal	City of Davis	AM	28	C	29	C
			PM	58	E	58	E
10. Russell Blvd./Fifth St./B St.	Signal	City of Davis	AM	34	C	38	D
			PM	36	D	41	D
11. Sycamore Ln./Wake Forest Dr.	SSSC	City of Davis	AM	3 (20)	A (C)	4 (20)	A (C)
			PM	3 (20)	A (C)	3 (21)	A (C)
12. Sycamore Ln./West Eighth St.	AWSC	City of Davis	AM	10 (11)	A (B)	10 (11)	B (B)
			PM	9 (10)	A (A)	9 (10)	A (A)
13. Anderson Rd./West Eighth St.	Signal	City of Davis	AM	24	C	24	C
			PM	23	C	23	C
14. La Rue Rd./Hutchison Dr.	Signal	UC Davis	AM	23	C	23	C
			PM	54	D	54	D

Notes: For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop-controlled intersections, average intersection delay is reported in seconds per vehicle for all approaches with the delay and LOS for the worst-case movement reported in parentheses.

**Source: Fehr & Peers, 2019.**

At the Russell Boulevard/Anderson Road/La Rue Road intersection, the increase in delay attributable to the proposed project would exceed the applicable five-second standard established by the City of Davis. At the two unsignalized intersections, the increase in volume attributable to the project would exceed the City's one percent increase threshold. Therefore, the proposed project would result in a cumulatively considerable increase in peak hour delay under Cumulative Plus Project conditions.



The Russell Boulevard/Orchard Park Drive and Russell Boulevard/California Avenue intersections would continue to meet the peak hour warrant for a traffic signal under Cumulative Plus Project conditions. The Sycamore Lane/Wake Forest Drive and Sycamore Lane/West Eighth Street intersections would continue to not meet the peak hour warrant for a traffic signal.

Based on the above, the study intersections within the project vicinity would continue to operate acceptably under Cumulative Plus Project conditions, with the exception of Intersections #3, #5, and #6, as listed above. Given that the increase in peak hour delay at the three intersections would exceed the applicable peak hour delay and traffic volume standards established by the City of Davis, and both unsignalized intersections would continue to meet peak hour warrants, the project's incremental contribution to the significant cumulative impact would be ***cumulatively considerable***.

#### Mitigation Measure(s)

As noted in the Transportation Impact Study, the Russell Boulevard corridor is currently limited in terms of physical modification or expansion due to right-of-way constraints. Moreover, any substantial widening of Russell Boulevard that would result in increased capacity for peak hour vehicle demand would be inconsistent with City policies related to non-motorized transportation prioritization (e.g., by creating longer bicycle and pedestrian crossing distances at intersections) and limits on the number of allowable arterial vehicular travel lanes. Therefore, potential modifications to Russell Boulevard may not include the addition of through vehicular travel lanes, and must instead focus on intersection and/or traffic signal modifications to increase vehicle capacity without compromising bicycle, pedestrian, or transit facilities, thereby ensuring that the modifications address any potential cumulative effects associated with alternative modes of transit. In addition, the preferred improvements cannot be determined at this time, as they will be determined through development of the Russell Boulevard Corridor Plan currently being prepared by the City.

Potential improvement alternatives include, but are not limited to, the following:

- 1) At the Russell Boulevard/Orchard Park Drive intersection, either:
  - a. Prohibit northbound left-turns, or
  - b. Prohibit northbound left-turns and westbound left-turns (i.e., right-in/right-out only).

The turn prohibitions would eliminate side-street movements and/or major street left-turn movements that contribute to the cumulatively considerable impact at the intersection. The City has also considered converting the intersection from a side-street stop-controlled intersection to a signalized intersection. While a traffic signal would reduce delay for side-street movements that contribute to the cumulatively considerable impact at this intersection, the City has determined that a traffic signal at the Russell Boulevard/Orchard Park Drive intersection would be undesirable due to the resulting increase in eastbound and westbound major street delay on Russell Boulevard.

- 2) At the Russell Boulevard/Sycamore Lane intersection, construct pedestrian bulbouts at the northwest and northeast corners of the intersection to reduce pedestrian crossing distances, which in turn would allow for reduced "walk" and



“flash don’t walk” times for the north, west, and east leg crossings. The resulting excess green time would be reallocated to the major east-west through movements to improve overall corridor operations. The pedestrian bulbouts would be integrated with the design of the bike lane modification described in Mitigation Measure 4.6-2(a) (at the northwest corner) and the shared-use path described in Mitigation Measure 4.6-2(c) (at the northeast corner).

- 3) At the Russell Boulevard/Sycamore Lane intersection, lengthen the eastbound left-turn pocket from 300 to 375 feet, as required by Mitigation Measure 4.6-8.
- 4) At the Russell Boulevard/Anderson Road/La Rue Road intersection, either
  - a. Install five-section traffic signal for the northbound right-turn lane and an accompanying bicycle/pedestrian signal to control crossing movements across the northbound channelized right-turn lane, or
  - b. Implement Alternative 2 described in Mitigation Measure 4.6-2(d) (conversion of the Russell Boulevard/Anderson Road/La Rue Road intersection to a protected intersection).

The options would eliminate the conflict caused by northbound right-turn vehicular movements and crossing bicycle and pedestrian movements (utilizing the Russell Boulevard shared-use path), which is a source of vehicle delay at the intersection.

- 5) At the Russell Boulevard/Oak Avenue intersection, prohibit eastbound U-turn movements and convert the eastbound left-turn movement from a permitted to a protected left-turn signal phase. The modifications would reduce peak hour delay associated with eastbound left-turn/U-turn vehicle demand at this intersection, which would otherwise cause queueing that spills back beyond the available turn pocket storage capacity, block the adjacent eastbound through lane, and reduce the functional capacity of eastbound Russell Boulevard at this segment to a single lane. The eastbound/left-turn movement at Oak Avenue would experience high PM peak hour delay under Cumulative Plus Project conditions due to the desire for motorists departing the UC Davis campus at California Avenue (turning north-to-east onto Russell Boulevard) to complete a U-turn at Oak Avenue to proceed westbound on Russell Boulevard towards SR 113.
- 6) At the Russell Boulevard/College Park/Howard Way intersection, convert the northbound and southbound approaches to split phase operations and eliminate the west leg crossing. The elimination of the west leg crossing would allow for additional green time (resulting from the elimination of the “walk” and “flash don’t walk” phases associated with the west leg crossing) to be reallocated to the major east-west through movements to improve overall corridor operations. The modification would increase the capacity for high side-street vehicle demand at northbound Howard Way generated by the UC Davis campus during the PM peak hour.
- 7) At all signalized intersections on Russell Boulevard, increase the PM peak hour cycle length from 90 to 100 seconds, which would match the AM peak hour cycle length under existing conditions. This signal timing adjustment should be applied to all coordinated signals along the corridor between and inclusive of Sycamore Lane and G Street.

Implementation of Mitigation Measure 4.6-9 would reduce peak hour delay for select vehicular movements at intersections along Russell Boulevard under Cumulative Plus



Project conditions. However, overall Russell Boulevard corridor vehicle demand would remain high under Cumulative Plus Project conditions, which would limit the effectiveness of potential mitigation actions with regards to reducing peak hour vehicle delay at study intersections (see Table 4.6-20). Overall, the delay reductions would not be sufficient to restore acceptable intersection operating conditions at impacted study intersections, or to reduce the project's cumulatively considerable contribution to unacceptable operating conditions.

<b>Table 4.6-20 Study Intersection LOS – Cumulative Plus Project Conditions with Mitigation</b>						
Intersection	Traffic Control	Jurisdiction	Relevant Improvement Alternatives	Peak Hour	Cumulative Plus Project Conditions with Mitigation	
					Delay	LOS
3. Russell Blvd./Orchard Park Dr.	SSSC	City of Davis	1a, 2, 3, 7	AM	2 (16)	A (C)
				PM	6 (15)	A (B)
			1b, 2, 3, 7	AM	2 (11)	A (B)
				PM	5 (11)	A (B)
5. Russell Blvd./Anderson Rd./La Rue Rd.	Signal	City of Davis	4a, 7	PM	114	F
			4b, 7	PM	>120	F
6. Russell Blvd./California Ave.	SSSC	City of Davis	5, 6, 7	PM	95 (>120)	F (F)
Notes: For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop-controlled intersections, average intersection delay is reported in seconds per vehicle for all approaches with the delay and LOS for the worst-case movement reported in parentheses.						
Source: Fehr & Peers, 2019.						

Furthermore, elements of Mitigation Measure 4.6-9 would occur within UC Davis right-of-way (e.g., modifications to the Russell Boulevard/Anderson Road/La Rue Road intersection) and would be subject to final approval and actions by UC Davis. Moreover, because the remaining fair share contributions needed for the construction of Alternatives 1, 4, 5, 6, and 7 have not been identified by the City of Davis, fair share payment by the project applicant would not ensure construction. In addition, the preferred improvements cannot be determined at this time, as they will be determined through the City's Corridor Plan process. Therefore, full implementation of Mitigation Measure 4.6-9 cannot be guaranteed. Thus, the project's incremental contribution to the cumulative impact would remain *cumulatively considerable* and *significant and unavoidable*.

### *Modify Russell Boulevard Intersections to Reduce Peak Hour Vehicle Delay*

4.6-9 Modifications to Russell Boulevard shall be implemented to reduce peak hour vehicle delay at the Russell Boulevard/Orchard Park Drive, Russell Boulevard/Anderson Road/La Rue Road, and Russell Boulevard/California Avenue intersections:



- *Prior to issuance of certificates of occupancy, the project applicant shall construct the pedestrian bulbouts at Russell Boulevard/Sycamore Lane, to the satisfaction of the City Engineer, as follows:*
  - *At the Russell Boulevard/Sycamore Lane intersection, construct pedestrian bulbouts at the northwest and northeast corners of the intersection to reduce pedestrian crossing distances. The resulting excess green time shall be reallocated to the major east-west through movements to improve overall corridor operations. The pedestrian bulbouts shall be integrated with the design of the bike lane modification described in Mitigation Measure 4.6-2(a) (at the northwest corner) and the shared-use path described in Mitigation Measure 4.6-2(c) (at the northeast corner).*
- *Implement Mitigation Measure 4.6-8.*
- *Prior to issuance of certificates of occupancy, the project applicant shall contribute funding, to the satisfaction of the City Engineer, to cover the proportionate cost of improvements described in Alternatives 1, 4, 5, 6, and 7 above, the requirements of which are listed below.<sup>9</sup> The funding shall be submitted to the City of Davis:*
  - *At the Russell Boulevard/Orchard Park Drive intersection, either:*
    - a. *Prohibit northbound left-turns, or*
    - b. *Prohibit northbound left-turns and westbound left-turns (i.e., right-in/right-out only).*
  - *At the Russell Boulevard/Anderson Road/La Rue Road intersection, either*
    - a. *Install five-section traffic signal for the northbound right-turn lane and an accompanying bicycle/pedestrian signal to control crossing movements across the northbound channelized right-turn lane, or*
    - b. *Implement Alternative 2 described in Mitigation Measure 4.6-2(d) (conversion of the Russell Boulevard/Anderson Road/La Rue Road intersection to a protected intersection).*
  - *At the Russell Boulevard/Oak Avenue intersection, prohibit eastbound U-turn movements and convert the eastbound left-turn movement from a permitted to a protected left-turn signal phase.*
  - *At the Russell Boulevard/College Park/Howard Way intersection, convert the northbound and southbound approaches to split phase operations and eliminate the west leg crossing.*

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<sup>9</sup> Consistent with *Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912, contribution of mitigation funds is not required for impacts where the City does not have full jurisdiction, nor a plan in place to ensure implementation of mitigation measures. Nevertheless, the applicant has agreed to contribute mitigation funds to the City for Alternatives 1, 4, 5, 6, and 7.



- At all signalized intersections on Russell Boulevard, increase the PM peak hour cycle length from 90 to 100 seconds to match the existing AM peak hour cycle length. The signal timing adjustment shall be applied to all coordinated signals along the corridor between and inclusive of Sycamore Lane and G Street.

The ultimate modifications constructed along Russell Boulevard shall be consistent with the preferred improvements identified in the Russell Boulevard Corridor Plan currently being prepared by the City.

**4.6-10 Result in cumulative conflicts or inconsistencies with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below, the cumulative impact is *less than significant*.**

Per the Transportation Impact Analysis, the proposed project is estimated to generate a net increase of 16,710 VMT under Cumulative Plus Project conditions on a typical weekday (see Table 4.6-21).

As shown in Table 4.6-22, the VMT associated with the project would equate to an estimated 16.4 VMT per capita, which is lower than the local and regional VMT per capita averages. Changes to project-generated VMT estimates between Existing Plus Project and Cumulative Plus Project can be attributed to changes to project trip distances, as opposed to project trip generation. Changes to trip distances would result from local and regional land use patterns that would alter travel behavior within and between the City of Davis and neighboring jurisdictions (e.g., a constrained local housing supply would result in a greater number of project employees residing outside of Davis and commuting longer distances for work).

**Table 4.6-21  
Weekday Project-Generated VMT – Cumulative Plus Project  
Conditions**

Weekday VMT	Cumulative No Project Conditions	Cumulative Plus Project Conditions	Difference (Project-Generated)
Residential Component	--	8,630	+8,630
Commercial Component <sup>1</sup>	45,540	53,620	+8,080
<b>Project Site Total</b>	<b>45,540</b>	<b>62,250</b>	<b>+16,710</b>

<sup>1</sup> Estimate includes a pass-by trip reduction of 34 percent for trips attributed to on-site commercial uses, per the ITE Trip Generation Handbook.

**Source: Fehr & Peers, 2019.**





**Table 4.6-22  
Weekday VMT per Capita Summary – Cumulative Plus  
Project Conditions**

<b>Metric</b>	<b>Project-Generated VMT per Capita<sup>1</sup></b>	<b>City of Davis VMT per Capita</b>	<b>City of Davis &amp; UC Davis VMT per Capita<sup>2</sup></b>	<b>SACOG Region VMT per Capita</b>
Total VMT	16,710	3,969,395	4,986,251	96,131,317
Residents	894	77,993	95,255	2,823,598
Employees	125	24,780	39,137	1,322,077
Capita <sup>3</sup>	1,019	102,773	134,392	4,145,675
<b>Total VMT per Capita</b>	<b>16.4</b>	<b>38.6</b>	<b>37.1</b>	<b>23.2</b>
<sup>1</sup> Project residents estimated based on the proposed number of beds that would comprise the residential component of the project, at one resident per bed. The project employment figure is estimated according to the typical amount of retail space occupied per employee, or 275 square feet. <sup>2</sup> Includes both City of Davis residents and employees and UC Davis on-campus residents and employees <sup>3</sup> For the purposes of this analysis, “capita” represents service population (i.e., residents plus employees).				
<b>Source: Fehr &amp; Peers, 2019.</b>				

Based on the above, the proposed project would result in a ***less-than-significant*** cumulative impact with respect to conflicting with or being inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Mitigation Measure(s)

*None required.*

**4.6-11 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Based on the analysis below and with implementation of mitigation, the cumulative impact is *less than significant*.**

The proposed project would increase AM and PM peak hour vehicle traffic at local intersections throughout the study area under Cumulative Plus Project conditions. Consequently, as noted in the Transportation Impact Study, the project would increase vehicle demand for the eastbound left-turn at the Russell Boulevard/Sycamore Lane intersection. The increase would primarily be attributed to growth in peak hour traffic volumes from SR 113 to the project site. Under Cumulative Plus Project conditions, peak hour maximum queues for this movement would spill back to a distance of 350 feet and 375 feet during the AM and PM peak hours, respectively, beyond the 300 feet of available left-turn pocket storage capacity, and block the adjacent eastbound through travel lane on Russell Boulevard. Implementation of Mitigation Measure 4.6-8, which would extend the eastbound left-turn pocket at the Russell Boulevard/Sycamore Lane intersection to a length of 375 feet, would be necessary to avoid design hazards.



Given the detrimental effects driven by demand to access the project site, the proposed project could substantially increase cumulative hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), thereby resulting in a **significant** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.6-11      *Implement Mitigation Measure 4.6-8.*



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## **5. Statutorily Required Sections**

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## **5 STATUTORILY REQUIRED SECTIONS**

### **5.1 INTRODUCTION**

The Statutorily Required Sections chapter of the EIR includes brief discussions regarding those topics that are required to be included in an EIR, pursuant to CEQA Guidelines, Section 15126.2.

### **5.2 ANALYSIS OF GROWTH-INDUCEMENT**

State CEQA Guidelines Section 15126.2(d) requires an EIR to evaluate the potential growth-inducing impacts of a proposed project. Specifically, an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, including the elimination of obstacles to growth, or by encouraging and/or facilitating other activities that could induce growth. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped.

As discussed throughout this EIR, the proposed project would be consistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) adopted by the Sacramento Area Council of Governments (SACOG). One benefit of the CEQA streamlining process is that projects that are consistent with SACOG's MTP/SCS are granted CEQA streamlining benefits, including that the EIR is not required to reference, describe, or discuss growth-inducing impacts (Public Resources Code, § 21159.28, subd. [a]). Therefore, in accordance with Public Resources Code 21159.28, this EIR does not include an analysis of growth-inducing impacts.

### **5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES**

Pursuant to § 15126.2(c) of the CEQA Guidelines, an EIR must identify any significant irreversible environmental outcomes that could result from the implementation of a proposed project. These may include current or future uses of nonrenewable resources. CEQA requires that irretrievable commitments of resources should be evaluated to ensure that such current consumption is justified.

For the purposes of this analysis, the required evaluation of this topic is addressed from three perspectives:

1. Use of nonrenewable resources that would commit future generations;
2. Irreversible damage from environmental accidents; and
3. Irretrievable commitments of nonrenewable resources to justify current consumption.

Each of the perspectives is discussed below.



### **5.3.1 Use of Nonrenewable Resources that would Commit Future Generations**

The proposed project constitutes an infill development in an urban area. The project would include a mixed-use development consisting of retail and residential components and, thus, would result in a commitment of energy resources associated with maintaining the proposed development over the lifetime of the buildings. A portion of the energy demand required of the project would be supplied by non-renewable resources such as fossil fuels. Energy demands associated with operation of the proposed project are discussed in greater detail in Section 4.2, Greenhouse Gas Emissions and Energy, of this EIR. Section 4.2 of the EIR concludes that, although the proposed project operations would involve an increase in energy consumption, the proposed project would comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, which would ensure that the future uses would be designed to be energy efficient. In addition, Mitigation Measures 4.2-3(a) and 4.2-3(b) would ensure that the project would achieve carbon neutrality (zero MTCO<sub>2</sub>e/yr) by the year 2040. Accordingly, the proposed project would not be considered to result in a wasteful, inefficient, or unnecessary usage of energy. Therefore, while the proposed project would involve the use of nonrenewable resources, the proposed project's use of nonrenewable resources would not place an unreasonable burden on future generations.

### **5.3.2 Irreversible Damage from Environmental Accidents**

The proposed project would not involve uses in which irreversible damage could result from potential environmental accidents. As discussed in the Initial Study prepared for the proposed project (see Appendix C), the project could potentially expose construction workers during demolition of the existing on-site structure to lead-based paints and asbestos-containing materials due to the age of the structure. However, mitigation measures required would ensure that the appropriate safety measures are implemented to reduce any potential risks. Because the proposed project consists of a mixed-use residential and retail development, which is not typically associated with environmental hazards, the occurrence of environmental accidents following completion of construction activities and operation of the project is not anticipated.

### **5.3.3 Irretrievable Commitments of Nonrenewable Resources**

Construction of the proposed project would involve consumption of building materials and energy, some of which are nonrenewable or locally limited natural resources (e.g., fossil fuels). Nonrenewable resources used for the proposed project could no longer be used for other purposes. Consumption of building materials and energy is common to most other development in the region, and commitments of resources are not unique or unusual to the proposed project. The main resource consumption of the proposed project would be of energy, fuel, and wood and metal building materials that would be used for construction of the buildings. Development would not be expected to involve an unusual commitment of nonrenewable resources, nor be expected to consume any resources in a wasteful manner.

## **5.4 CUMULATIVE IMPACTS**

The following section describes the CEQA requirements related to cumulative analyses and the scope of the cumulative analyses conducted in this EIR for the proposed project.



#### **5.4.1 CEQA Requirements**

CEQA Guidelines Section 15130 requires that an EIR discuss the proposed project's cumulative and long-term effects on the environment. "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines, § 15355; see also Pub. Resources Code, § 21083, subd. (b).) Stated another way, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (CEQA Guidelines, § 15130, subd. (a)(1).)

"[I]ndividual effects may be changes resulting from a single project or a number of separate projects." (CEQA Guidelines, § 15355, subd. (a).) "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." (CEQA Guidelines, § 15355, subd. (b).)

The need for cumulative impact assessment reflects the fact that, although a project may cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the increment may be "cumulatively considerable," and thus significant, when viewed together with environmental changes anticipated from past, present, and probable future projects. (CEQA Guidelines, §§ 15064, subd. (h)(1), 15065, subd. (c), 15355, subd. (b).) This formulation indicates that particular impacts may be less-than-significant on a project-specific basis but significant on a cumulative basis, because their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable.

The lead agency defines the relevant geographic area of inquiry for each impact category (id., § 15130, subd. (b)(3)), and also identifies the universe of "past, present, and probable future projects producing related or cumulative impacts" relevant to the various categories, either through the preparation of a "list" of such projects or through the use of "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact" (id., subd. (b)(1)).

The possibility exists that the "cumulative impact" of multiple projects will be significant, but that the incremental contribution to that impact from a particular project may not itself be "cumulatively considerable." Thus, CEQA Guidelines section 15064, subdivision (h)(4), states that "[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, it is not necessarily true that, even where cumulative impacts are significant, any level of incremental contribution must be deemed cumulatively considerable.

In accordance with CEQA Guidelines Section 15130(b), "the discussion of cumulative impacts must reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone."

#### **5.4.2 Scope of the Cumulative Analysis**

As discussed above, there are two approaches to identifying cumulative projects and their associated impacts. The "list" approach identifies individual projects known to be occurring or





proposed in the surrounding area in order to identify potential cumulative impacts. The “projection” approach uses a summary of projections in adopted General Plans or related planning documents to identify potential cumulative impacts. This EIR uses the projection approach for the cumulative analysis and considers the development anticipated to occur upon buildout of the Davis General Plan (i.e., Davis city limits). For the quantifiable CEQA topics of traffic and noise, buildout of the Davis city limits is considered in addition to land use and transportation system changes included in the 2016 SACOG MTP/SCS and student, employment, and on-campus housing growth associated with the 2018 UC Davis Long Range Development Plan.

Limited situations exist where the geographic setting differs for the various resource areas. For example, the cumulative geographic setting for air quality is the Sacramento Valley Air Basin (SVAB), which is the air basin that the proposed project is located within. Global climate change is, by nature, a cumulative impact. A single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature; however, the combination of GHG emissions from a project in conjunction with other past, present, and future projects could contribute substantially to the world-wide phenomenon of global climate change and the associated environmental impacts. Although the geographical context for global climate change is the Earth, for analysis purposes under CEQA, and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the proposed project, the geographical context for global climate change in this EIR is limited to the State of California.

Cumulative impacts are analyzed in each of the technical sections of this EIR (Sections 4.1 through 4.6). For those environmental resource areas that have a different cumulative setting from the general projection cumulative setting described above, the specific cumulative setting for that resource area is presented along with the cumulative impact discussion in the relevant resource area section of the EIR.

## **5.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS**

According to CEQA Guidelines, an EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented (CEQA Guidelines §15126.2[b]). Impacts would be considered unavoidable when the determination is made that either mitigation is not feasible or only partial mitigation is feasible such that the impact is not reduced to a level that is less-than-significant.

Based on the analysis provided in Sections 4.1 through 4.6 of this EIR, the below listed impacts were determined to be significant and unavoidable. All other impacts identified in this EIR could be eliminated or reduced to a less-than-significant level by mitigations imposed by the City. The final determination of the significance of impacts and the feasibility of mitigation measures would be made by the City as part of the City’s certification action.

### **4.6-2 Impacts to bicycle facilities under Existing Plus Project conditions.**

### **4.6-3 Impacts to pedestrian facilities under Existing Plus Project conditions.**

### **4.6-9 Impacts to study intersections under Cumulative Plus Project conditions.**



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## **6. Alternatives Analysis**

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## 6 ALTERNATIVES ANALYSIS

### 6.1 INTRODUCTION

The Alternatives Analysis chapter of the EIR includes consideration and discussion of a range of reasonable alternatives to the proposed project, as required per CEQA Guidelines Section 15126.6. Generally, the chapter includes discussions of the following: the purpose of an alternatives analysis; alternatives considered but dismissed; reasonable range of project alternatives and their associated impacts in comparison to the proposed project's impacts; and the environmentally superior alternative.

### 6.2 PURPOSE OF ALTERNATIVES

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to "[...] describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Section 15126.6(f) of CEQA Guidelines states, "The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." Section 15126.6(f) of CEQA Guidelines further states:

The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

In addition, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

The CEQA Guidelines provide the following guidance for discussing alternatives to a proposed project:

- An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6[a]).
- Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these



alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CEQA Guidelines Section 15126.6[b]).

- The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination [...] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6[c]).
- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison (CEQA Guidelines Section 15126.6[d]).
- If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines Section 15126.6[d]).
- The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (CEQA Guidelines Section 15126.6[e][1]).
- If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

### **Project Objectives**

Based on the above, reasonable alternatives to the project must be capable of feasibly attaining most of the basic objectives of the project. As discussed in Chapter 3, Project Description, of this EIR, the following objectives have been developed for the proposed project by the City of Davis and the project applicant:

1. Develop a vibrant mixed-use center that maintains and enhances the community and neighborhood retail uses and services and incorporates complementary residential uses.
2. Increase the supply and variety of housing options close to employment centers and convenient for daily needs.
3. Create a diverse community that utilizes the site's proximity to the UC Davis campus and provides housing for students, employees, and university-related personnel.
4. Foster a sustainable community that addresses building efficiency, transportation, efficient use of land, and reduces the community's carbon footprint and vehicle miles travelled.
5. Redevelop and revitalize an aged, existing shopping center with a financially feasible, vertical mixed-use project consistent with SACOG's sustainable community strategies.
6. Increase the variety of retail providers and uses in the City.
7. Increase the capture of local sales tax through increased retail activity within City limits.
8. Increase the opportunity for vehicle trip reduction through the provision of additional housing within close proximity to the UC Davis campus, additional employment and new retail uses.



9. Develop a vertical mixed-use infill project that balances adequate parking needs between commercial and residential uses.

### **Impacts Identified in the EIR**

In addition to attaining the majority of project objectives, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. A summary of the environmental impacts identified for the proposed project are provide below.

### **Significant and Unavoidable**

Impacts of the proposed project that have been determined to remain significant and unavoidable, even after implementation of the feasible mitigation measures set forth in this EIR, include the following:

- **Transportation and Circulation:** The EIR determined that even with mitigation, the proposed project could result in significant and unavoidable impacts to bicycle and pedestrian facilities. In addition, impacts to study intersections under Cumulative Plus Project conditions were determined to remain significant and unavoidable, even with mitigation, as elements of the required mitigation measure would be subject to final approval and actions by UC Davis, and the preferred intersection improvements cannot be determined at this time, as they will be determined through the City's Corridor Plan process.

### **Less Than Significant with Mitigation**

Significant environmental impacts of the proposed project that have been identified as requiring mitigation measures to ensure that the level of significance is ultimately less than significant include the following:

- **Air Quality:** The EIR determined that implementation of the proposed project could result in a significant impact related to exposure of sensitive receptors to substantial pollutant concentrations, specifically associated with construction diesel particulate matter (DPM). The EIR requires mitigation in order to ensure that the impact is reduced to a less-than-significant level.
- **Greenhouse Gas Emissions and Energy:** The EIR determined that implementation of the proposed project could generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The EIR requires mitigation in order to ensure that the impact is reduced to a less-than-significant level.
- **Noise:** The EIR determined that implementation of the proposed project could result in significant impacts related to the following: generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the City's Noise Ordinance and stationary noise at existing sensitive receptors in the project vicinity. The EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels.
- **Transportation and Circulation:** The EIR determined that implementation of the proposed project could result in significant impacts related to the following: transit facilities



and services under Existing Plus Project conditions; construction vehicle traffic; project-related hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The EIR requires mitigation in order to ensure that the impacts are reduced to less-than-significant levels.

### **Less Than Significant or No Impact**

As discussed in each respective section of Chapter 4 within this EIR, the proposed project would result in no impact or a less-than-significant impact related to the following topics associated with the resource areas indicated:

- **Air Quality**
  - Conflict with or obstruct implementation of the applicable air quality plan during project construction.
  - Conflict with or obstruct implementation of the applicable air quality plan during project operation.
  - Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- **Greenhouse Gas Emissions and Energy**
  - Result in the inefficient or wasteful use of energy associated with construction.
  - Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency, associated with project operations.
  - Result in cumulative impacts related to the inefficient or wasteful consumption of energy, or cumulatively contribute to a conflict with State or local plan for renewable energy or energy efficiency associated with project operations.
- **Land Use and Planning**
  - Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
  - Cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
- **Noise**
  - Transportation noise impacts to existing sensitive receptors in the project vicinity.
  - Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
  - Cumulative traffic noise impacts on sensitive receptors.
- **Public Services and Utilities**
  - Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.





- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.
  - Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
  - Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
  - Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
  - Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.
  - Development of the proposed project, in combination with future buildout in the City of Davis, would increase demand on fire and police protection services.
  - Development of the proposed project, in combination with future buildout in the City of Davis, would increase demand on utilities and service systems.
- **Transportation and Circulation**
    - Impacts to study intersections under Existing Plus Project conditions.
    - Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).
    - Impacts related to emergency access.
    - Result in cumulative conflicts or inconsistencies with CEQA Guidelines Section 15064.3, subdivision (b).

The Initial Study prepared for the proposed project during the scoping period (see Appendix C) includes a detailed environmental checklist addressing a range of technical environmental issues. For each technical environmental issue, the Initial Study identifies the level of impact for the proposed project. The Initial Study identifies the environmental effects as either “no impact,” “less-than-significant,” “less-than-significant with mitigation incorporated,” or “potentially significant.” Impacts identified for the proposed project in the Initial Study as “no impact,” “less-than-significant,” or “less-than-significant with mitigation incorporated” are listed below, and summarized further in Chapter 1, Introduction, of this EIR.

- Aesthetics (All Items);
- Agriculture and Forest Resources (All Items);
- Air Quality (e);
- Biological Resources (All Items);
- Cultural Resources (All items);
- Geology and Soils (All Items);
- Hazards and Hazardous Materials (All Items);
- Hydrology and Water Quality (All items);
- Land Use and Planning (a and c);
- Mineral Resources (All Items);



- Noise (e and f);
- Population and Housing (All Items);
- Public Services (c through e);
- Recreation (All Items);
- Transportation and Circulation (c); and
- Tribal and Cultural Resources (All Items).

The alternatives discussed herein have been chosen based on feasibility to meet project objectives, as well as the ability to reduce potential impacts analyzed within this EIR. Impacts identified and fully-mitigated in the Initial Study prepared for the proposed project would be similar or fewer for all of the alternatives included in this chapter. Accordingly, topics dismissed within the Initial Study prepared for the proposed project are not specifically addressed within the sections below.

### **6.3 ALTERNATIVES CONSIDERED BUT DISMISSED**

As discussed throughout this EIR, the proposed project would be consistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) adopted by the Sacramento Area Council of Governments (SACOG). One benefit of the CEQA streamlining process is that projects that are consistent with SACOG's MTP/SCS requirements for Transportation Priority Projects (TPPs) are granted CEQA streamlining benefits. As noted in Chapter 1.0, Introduction, of this EIR, per CEQA streamlining benefits, the EIR is not required to reference, describe, or discuss project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network (Pub. Resources Code, §21159.28, subd. (a).); alternative locations, densities, and building intensities to the proposed project need not be considered (Pub. Resources Code, § 21159.28, subd. (b) and 21155.2, subd. (c)(2).); nor is this EIR required to consider potential impacts related to aesthetics or parking issues (Pub. Resources Code, § 21099, subd. (d)(1).).

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant impacts, while still meeting most of the basic project objectives.

As stated in Guidelines Section 15126.6(c), among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are:

- Failure to meet most of the basic project objectives;
- Infeasibility; or
- Inability to avoid significant environmental impacts.

Regarding infeasibility, among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). Not one of these factors establishes a fixed limit on the scope of reasonable alternatives.

The two alternatives that were considered but dismissed from detailed analysis in this EIR are discussed below, along with the reason(s) for dismissal, within the context of the three above-outlined permissible reasons.



### **Off-Site Alternative**

As noted previously, for projects consistent with an MTP/SCS, such as the proposed project, analysis of alternative locations to the project is not required (Pub. Resources Code, § 21159.28, subd. (b) and 21155.2, subd. (c)(2)). Furthermore, the purpose of an alternatives analysis is to develop alternatives to the proposed project that substantially lessen at least one of the significant environmental effects identified as a result of the project, while still meeting most, if not all, of the basic project objectives. Development of the proposed project at an off-site location would be capable of meeting the majority of project objectives. However, a number of the project objectives are specific to the existing University Mall operations and/or site. For example, Objective #3 directly relates to the site's proximity to the UC Davis campus and the availability of the site to provide housing for students, employees, and university-related personnel. Objective #5 relates to redevelopment of the project site and revitalization of an aged, existing shopping center. Furthermore, the City of Davis includes relatively few properties that are capable of accommodating multi-story mixed-use development close to existing employment centers. Thus, an off-site alternative would not be likely to meet Objectives #1 and #2.

Overall, an environmentally feasible off-site location that would meet the requirements of CEQA, as well as meet the basic objectives of the proposed project, does not exist. Therefore, an Off-Site Alternative was dismissed from detailed analysis within this EIR.

### **Conventional Apartments Alternative**

Development of the project site with conventional apartments, as opposed to the mixed-use development currently proposed, was briefly considered by the City. Under a Conventional Apartments Alternative, the site would be redeveloped with residential uses only, which would not be focused on student use. However, a Conventional Apartments Alternative would not reduce any significant impacts identified in this EIR or provide any new information or analysis. In addition, the Alternative would not meet Objectives #1, #4, #5, #6, or #7, and would only partially meet #8.

As noted above, per Section 15126.6(f) of CEQA Guidelines “the alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.” Therefore, a Conventional Apartments Alternative was dismissed from detailed analysis within this EIR.

## **6.4 ALTERNATIVES CONSIDERED IN THIS EIR**

A total of four alternatives were developed based on City of Davis staff input, input from the public during the NOP review period, and the technical analysis performed to identify the significant environmental effects of the proposed project. City staff also presented these recommended alternatives to City Council for informational purposes on May 1, 2018, when the EIR contract was approved. The following alternatives are considered potentially feasible alternatives to the project, and are evaluated in further detail in this section:

- No Project Alternative;
- Retail Project Only Alternative;
- Existing Zoning Mixed Use Build Out Alternative; and
- Low Parking Alternative.



Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative's impacts in comparison to the proposed project. While an effort has been made to include quantitative data for certain analytical topics, where possible, qualitative comparisons of the various alternatives to the project are primarily provided. Such an approach to the analysis is appropriate as evidenced by CEQA Guidelines Section 15126.6[d], which states that the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. The analysis evaluates impacts that would occur with the alternatives relative to the significant impacts identified for the proposed project. When comparing the potential impacts resulting from implementation of the foregoing alternatives, the following terminology is used:

- “Fewer” = Less than Proposed Project;
- “Similar” = Similar to Proposed Project; and
- “Greater” = Greater than Proposed Project.

When the term “fewer” is used, the reader should not necessarily equate this to elimination of significant impacts identified for the proposed project. For example, in many cases, an alternative would reduce the relative intensity of a significant impact identified for the proposed project, but the impact would still be expected to remain significant under the alternative, thereby requiring mitigation. In other cases, the use of the term “fewer” may mean the actual elimination of an impact identified for the proposed project altogether. Similarly, use of the term “greater” does not necessarily imply that an alternative would require additional mitigation beyond what has been required for the proposed project. To the extent possible, this analysis will distinguish between the two implications of the comparative words “fewer” and “greater”.

A comparison of the environmental impacts resulting from the considered alternatives and the proposed project is provided in Table 6-7.

### **No Project Alternative**

CEQA requires the evaluation of the comparative impacts of the “No Project” alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the no project alternative shall:

“... discuss [...] existing conditions [...] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” (*Id.*, subd. [e][2]) “If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the ‘no project’ alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in the property’s existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed. In certain instances, the no project alternative means ‘no build,’ wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project’s non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.” (*Id.*, subd. [e][3][B]).

Consistent with CEQA Guidelines, the City has evaluated a No Project Alternative, which assumes that the project site would remain in its existing state and additional development would not occur. As described in this EIR, the current condition of the site consists of a 90,653-square



foot (sf) portion of a community shopping center (University Mall) that includes a variety of commercial uses and restaurants. Current tenants of the University Mall include Cost Plus World Market, Starbucks, Forever 21, Fluffy Donuts, and smaller shops and services. Professional offices are located on a partial second floor. For the purpose of this analysis, the portion of the existing University Mall to be analyzed in the No Project Alternative does not include the existing 13,200-sf Trader Joe's.

The original University Mall buildings are located on the northern portion of the roughly rectangular site. In addition to the existing structures, the project site contains a paved parking lot that provides approximately 427 parking spaces and extends throughout the south, east, and west portions of the site. Mature trees are located in parking lot landscape islands. Access to the project site is provided by a main access point at Russell Boulevard and several driveways along Sycamore Lane and Anderson Road.

The analysis of this section assumes that under the No Project Alternative, the project site would remain in the current condition, and the existing on-site commercial uses would remain in operation. The No Project Alternative would not be considered to meet any of the project objectives.

### **Air Quality**

The No Project Alternative would involve the continuation of the existing conditions on the project site. Because the No Project Alternative would not involve construction, emissions associated with construction of the proposed project, including demolition, would not occur. Thus, construction-related air quality impacts would be eliminated under the No Project Alternative as compared to the proposed project, and Mitigation Measure 4.1-3 of this EIR would not be required. Overall, the No Project Alternative would result in fewer impacts related to air quality than the proposed project.

### **Greenhouse Gas Emissions and Energy**

As determined under the GHG Emissions and Energy section of this EIR, net new emissions resulting from project operations and amortized construction emissions are anticipated to exceed the City's adopted goal of carbon neutrality by the year 2040. As a result, implementation of the proposed project could generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. As demonstrated in Table 4.2-6 of this EIR, operations associated with the existing University Mall result in estimated annual GHG emissions of 185.53 MTCO<sub>2</sub>e/yr, or approximately 326.69 MTCO<sub>2</sub>e fewer than total annual GHG emissions associated with the proposed project. Because the No Project Alternative would not result in net positive operational emissions in the year 2040, Mitigation Measures 4.2-3(a) and 4.2-3(b) would not be required. Overall the No Project Alternative would result in fewer impacts related to GHG Emissions and Energy compared to the proposed project.

### **Noise**

As determine in the Noise section of this EIR, the proposed project could result in a temporary construction noise impact to nearby receptors. Because the No Project Alternative would not involve any construction activities, the significant impacts identified for the proposed project associated with temporary construction noise would not occur with the No Project Alternative and Mitigation Measure 4.4-1 would not be required. In addition, because the No Project Alternative would not introduce new stationary noise sources to the site, impacts associated with the





proposed loading dock area would not occur and Mitigation Measure 4.4-5 would not be required. Overall, due to the lack of new development on the site, the No Project Alternative would result in fewer impacts related to noise than the proposed project.

### **Transportation and Circulation**

Given that the No Project Alternative would not include the introduction of new bicycle or pedestrian traffic to the local transportation network, the significant and unavoidable impacts identified in the EIR for bicycle and pedestrian facilities would be avoided, and Mitigation Measures 4.6-2(a) through 4.6-2(f) would not be required. The existing southbound bus stop on Anderson Road would continue to lack a shelter, seating, or dedicated passenger waiting area, which results in dwelling passengers waiting in the sidewalk or in the adjacent landscaped area. Under the No Project Alternative, the deficiencies at the transit stop would continue to occur; however, because the No Project Alternative would not add additional transit passengers to the Unitrans route serving the bus stop, associated impacts would be reduced and Mitigation Measure 4.6-4 would not be required.

Construction activities would not occur under the No Project Alternative. Accordingly, the No Project Alternative would not result in impacts related to construction vehicle traffic. Accordingly, Mitigation Measure 4.6-7 requiring the preparation of a Construction Traffic Control Plan would not be required for the No Project Alternative. Because the project would not alter the existing on-site circulation layout or add additional vehicle trips to the site access driveways, Mitigation Measures 4.6-8(a) and 4.6-8(b) would not be required. Furthermore, because the Alternative would not add vehicle traffic to the local roadway network, the Alternative's incremental contribution to cumulative impacts at the Russel Boulevard/Anderson Road/La Rue Road, Russell Boulevard/Orchard Park Drive, and Russell Boulevard/California Avenue intersections would not occur, and Mitigation Measure 4.6-9 would not be required. The significant and unavoidable impact identified in the EIR for the three impacted intersections would not be required.

Overall, the No Project Alternative would result in fewer impacts related to transportation and circulation than the proposed project.

### **Retail Project Only Alternative**

Under the Retail Project Only Alternative, only the retail portion of the proposed project would be developed. The Alternative assumes demolition of 90,563-sf of the existing shopping center and redevelopment of the site with a total of 136,800 sf of retail uses, an increase of approximately 46,237 sf relative to the existing shopping center. The Retail Project Only Alternative does not include residential uses. Under the Alternative, the site would continue to operate as community retail center, albeit with additional square footage and possibly a smaller parking structure for additional required parking.

As noted previously, the proposed project is consistent with the MTP/SCS and is eligible for CEQA streamlining benefits. Pursuant to Senate Bill (SB) 375, streamlined CEQA review and analysis is available to Transit Priority Projects (TPPs) and residential or mixed-use residential projects that are consistent with the SCS. To be considered a qualifying TPP, the project must be located within a Transit Priority Area and at least 50 percent of the total building square footage must be residential. Given that the Retail Project Only would not include residential uses, the Alternative would not qualify as a TPP. In addition, the Alternative would not qualify as a residential or mixed-use residential project consistent with the SCS. Thus, SB 375 streamlining benefits would not apply to the Alternative.





The Retail Project Only Alternative would result in a floor-to-area ratio (FAR) of 0.38, which is permitted under the project site's existing zoning and land use designations, which allow for a maximum FAR of 0.50. Thus, a General Plan Amendment would not be required. In addition, because the Alternative would not include multiple stories of residential uses, the overall height of the proposed buildings would be substantially reduced compared to the proposed project, likely to a height of 32 feet or less. Therefore, unlike the proposed project, the Retail Project Only Alternative would not require amendment of the site's current PD #2-97B zoning designation, which establishes a building height limitation of 50 feet.

Because the Retail Project Only Alternative would not include any residential uses, the Alternative would not meet Objectives #1, #2, #3, #5, or #8. In addition, the Alternative would only partially meet Objective #4.

### **Air Quality**

Similar to the proposed project, the existing on-site retail uses within the project footprint would be demolished during implementation of the Retail Project Only Alternative. Emissions from the demolition of the existing on-site structure would be identical under the Alternative and the proposed project. However, because the Alternative would not include any residential uses and would include a smaller parking garage compared to the proposed project, the Alternative would include construction of far less building space compared to the proposed project. Therefore, implementation of the Retail Project Only Alternative would be anticipated to result in fewer emissions of criteria pollutants and toxic air contaminants (TACs), as compared to the emissions estimated for the proposed project and presented in Section 4.1, Air Quality, of this EIR.

As further discussed in Section 4.1, Air Quality, of this EIR, Mitigation Measure 4.1-3 would be required to reduce TAC emissions resulting from implementation of the proposed project. Because the Retail Project Only Alternative would involve far less construction activity than the proposed project, the Alternative would not be anticipated to have the potential to expose nearby sensitive receptors to excess concentrations of pollutants, and Mitigation Measure 4.1-3 may not be required under the Alternative.

Overall, the Retail Project Only Alternative would result in fewer impacts related to air quality compared to the proposed project.

### **Greenhouse Gas Emissions and Energy**

The Retail Project Only Alternative would include an increase of approximately 46,237 sf of retail space as compared to the existing University Mall. Increased retail operations within the project site would have the potential to increase operational emissions related to sources such as indoor climate control, building upkeep, food preparation, and others. However, portions of the existing University Mall structure were originally constructed as early as 1966, and, as such, the existing structures are less energy efficient than a modern retail structure would be, given the current Title 24 standards and the City of Davis CalGreen Code Tier 1 requirements. Table 6-1 below provides a comparison of natural gas and electricity use associated with the existing University Mall and the Retail Project Only Alternative. The Trader Joe's building is not included for either scenario.

As shown in the table, due to the age of the existing University Mall structure, implementation of the Retail Project Only Alternative would result in a reduction in on-site energy demand relative to existing conditions, as the older existing structures would be replaced by new more efficient structures. Reduced energy demand would reduce emissions from operations of the project site



associated with the off-site generation of electricity or on-site consumption of natural gas. Consequently, the Retail Project Only Alternative would not result in net positive operational GHG emissions in the year 2040, and Mitigation Measures 4.2-3(a) and 4.2-3(b) would not be required. In addition, overall operational emissions would likely be less under this Alternative as compared to the proposed project. Therefore, overall impacts under the Retail Project Only Alternative would be fewer than the proposed project.

<b>Table 6-1 Existing University Mall vs. Retail Project Only Alternative Natural Gas and Electricity Use</b>			
<b>Energy Type</b>	<b>Existing University Mall</b>	<b>Retail Project Only Alternative</b>	<b>Difference</b>
Natural Gas Use (kBtu/yr)	243,049	122,000	-121,049
Electricity Use (kWh/yr)	1,019,640	269,825	-749,815
Note: These numbers do not include any energy usage associated with parking areas.			
Source: CalEEMod June 2019 (Appendix F).			

It should be noted that the comparison of impacts presented above relies on the net zero carbon emissions thresholds used in this CEQA analysis. However, it is important to consider that mixed-use developments are typically considered a more efficient form of development from a GHG emissions perspective. In the case of the project site, a mixed-use development would place residents in closer proximity to existing transit and pedestrian facilities, as well as retail uses, all of which reduce per capita emissions. Nevertheless, because the CEQA threshold used within this analysis is based on the total net emissions of the proposed project, rather than emissions calculated per resident or per employee, any increase in net emissions is considered an impact. If instead impacts were considered per employee or per resident, emissions of a Retail Project Only Alternative would be much higher than the proposed project.

## Noise

Because the Retail Project Only Alternative would involve demolition of the existing on-site structure and a similar overall area of disturbance as the proposed project, construction-related noise would likely be similar to what would be expected for the proposed project. Accordingly, the impacts related to a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project identified for the proposed project would be similar under the Retail Project Only Alternative. Mitigation Measure 4.4-1 would still be required for the Alternative.

Similar to the proposed project, the Retail Project Only Alternative would include development of an on-site loading dock area on the north side of the proposed retail uses. The Alternative would include the same amount of retail development as the proposed project and, thus, would involve a similar amount of loading dock activity. Therefore, impacts related to stationary source noise would be similar under the Alternative compared to the proposed project, and Mitigation Measure 4.4-5 would still be required.

Overall, the Retail Project Only Alternative would result in similar impacts related to noise compared to the proposed project.



## Transportation and Circulation

The Retail Project Only Alternative would not include development of residential uses and, thus, would add a reduced number of pedestrians, bicyclists, and transit passengers to the existing transportation network compared to the proposed project. Pedestrian and bicycle trip generation estimates for the Retail Project Only Alternative were prepared by Fehr & Peers (see Table 6-2).<sup>1</sup> As shown in the table, the Alternative would result in substantially reduced AM and PM peak hour trips compared to the proposed project. However, because the Retail Project Only Alternative would include an increased amount of retail development relative to the existing University Mall, overall, the Alternative would still increase demands on pedestrian, bicycle, and transit infrastructure. Therefore, the significant and unavoidable impacts identified in the EIR for bicycle and pedestrian facilities would likely remain, and Mitigation Measures 4.6-2(a) through 4.6-2(f) and Mitigation Measure 4.6-4 may still be required.

<b>Table 6-2</b> <b>Proposed Project vs. Retail Project Only Alternative Pedestrian and Bicycle Trip Generation</b>			
Mode	Time Period	Proposed Project	Retail Project Only Alternative
Pedestrian Trips	AM Peak Hour	70	10
	PM Peak Hour	160	35
Bicycle Trips	AM Peak Hour	170	10
	PM Peak Hour	170	25

**Source: Fehr & Peers, 2019.**

Because the Retail Project Only Alternative would involve demolition of the existing on-site structure and new development and construction activities at the site, the significant impact identified for the proposed project related to construction vehicle traffic would still occur under the Alternative and Mitigation Measure 4.6-7 would be required.

Vehicle trip generation estimates for the Retail Project Only Alternative were prepared by Fehr & Peers (see Table 6-3).<sup>2</sup> As shown in the table, the Alternative would result in substantially reduced daily, AM peak hour, and PM peak hour trips compared to the proposed project. Consequently, the Alternative would result in decreased delay at nearby intersections compared the proposed project and would result in fewer impacts related to study intersections than the proposed project. However, because the Alternative would add traffic to the Russell Boulevard/Anderson Road/La Rue Road, Russell Boulevard/Orchard Park Drive, and Russell Boulevard/California Avenue intersections, Mitigation Measure 4.6-9 may still be required. Because full implementation of Mitigation Measure 4.6-9 cannot be guaranteed, the Alternative's incremental contribution to the cumulative impact would remain cumulatively considerable and significant and unavoidable.

<b>Table 6-3</b> <b>Proposed Project vs. Retail Project Only Alternative Trip Generation</b>		
Time Period	Proposed Project	Retail Project Only Alternative
Daily	2,978	1,288
AM Peak Hour	91	22

<sup>1</sup> Greg Behrens, AICP, Fehr & Peers. Personal communication [email] with Nick Pappani, Vice President, Raney Planning & Management, Inc. July 24, 2019.

<sup>2</sup> Greg Behrens, AICP, Fehr & Peers. Personal communication [email] with Nick Pappani, Vice President, Raney Planning & Management, Inc. July 18, 2019.



PM Peak Hour	208	115
<b>Source: Fehr &amp; Peers, 2019.</b>		

Overall, the Retail Project Only Alternative would result in fewer impacts related to transportation and circulation than the proposed project.

### **Existing Zoning Mixed Use Build Out Alternative**

Under the Existing Zoning Mixed Use Build Out Alternative, the majority of existing on-site retail uses would be demolished (e.g., not including Trader Joe's). The site would be redeveloped and the mixed uses, building heights, and floor area would be per the property's current Community Retail land use designation and PD 2-97B zoning district. The Community Retail designation allows a maximum floor area ratio of 0.50 with an additional 0.15 for the residential component of a mixed use project. Under the existing standards, the 8.25-acre parcel could accommodate up to 179,685 sf of retail uses and an additional 53,905 sf of residential uses, for a total allowable floor area of 233,590 sf.

The Existing Zoning Mixed Use Build Out Alternative assumes that the same amount of retail proposed for the proposed project (136,800 sf) is included on-site (not including the existing 13,200-sf Trader Joe's), with the remaining allowable space comprising residential uses (83,590 sf), resulting in 220,390 sf of retail and residential space. The existing PD 2-97B zoning district for the University Mall site permits residential uses above the first floor and a maximum building height of 50 feet. The total number of residential units included in the Alternative is assumed to be 53, with the mixed-use buildings anticipated to be between two and three stories. Similar to the proposed project, the Alternative would include a parking structure; however, the overall size of the structure would be reduced to accommodate the reduction in residential units.

With the exception of Objective #4, the Existing Zoning Mixed Use Build Out Alternative would generally meet all of the project objectives. Objective #4 would only be partially met, as the Alternative would include a reduced amount of development compared to the proposed project, but would include a similar building footprint, thereby resulting in a less efficient use of land compared to the proposed project and an increased per capita carbon footprint.

### **Air Quality**

Similar to the proposed project, the existing on-site retail uses would be demolished during implementation of the Existing Zoning Mixed Use Build Out Alternative. Emissions from the demolition of the existing on-site structure would be identical under the Alternative and the proposed project. However, the Alternative would include construction of a total of 220,390 sf of retail and residential space, a reduction of 328,910 sf compared to the 549,300-sf included in the proposed project. In addition, the parking structure would be smaller compared to the proposed project. Therefore, implementation of the Existing Zoning Mixed Use Build Out Alternative would be anticipated to result in fewer emissions of criteria pollutants and TACs, as compared to the emissions estimated for the proposed project and presented in Section 4.1, Air Quality, of this EIR.

As further discussed in Section 4.1, Air Quality, of this EIR, Mitigation Measure 4.1-3 would be required to reduce TAC emissions resulting from implementation of the proposed project. Because the Existing Zoning Mixed Use Build Out Alternative would involve less construction activity than the proposed project, construction related emissions would be reduced under this alternative. Despite the anticipated reduction in construction related emissions, because the site



is in close proximity to existing receptors, emissions related to building construction would still have the potential to expose nearby sensitive receptors to excess concentrations of pollutants, and Mitigation Measure 4.1-3 would likely still be required.

Overall, the Existing Zoning Mixed Use Build Out Alternative would result in fewer impacts related to air quality compared to the proposed project.

### Greenhouse Gas Emissions and Energy

The Existing Zoning Mixed Use Build Out Alternative would include a similar amount of retail development as the proposed project (136,800 sf), as well as construction of 53 residential units. The increase in building intensity of the project site relative to existing conditions would have the potential to result in a net increase in GHG emissions from site operations. However, as discussed under the Retail Only Project Alternative, replacement of the existing structures with modern more efficient structures could result in the more efficient consumption of energy within the project site. Table 6-4 below provides a comparison of natural gas and electricity use associated with the existing University Mall and the Existing Zoning Mixed Use Build Out Alternative. The Trader Joe's building is not included for either scenario.

<b>Table 6-4</b>			
<b>Existing University Mall vs. Existing Zoning Mixed Use Build Out Alternative Natural Gas and Electricity Use</b>			
<b>Energy Type</b>	<b>Existing University Mall</b>	<b>Existing Zoning Mixed Use Build Out Alternative</b>	<b>Difference</b>
Natural Gas Use (kBTU/yr)	243,049	386,177	+143,128
Electricity Use (kWh/yr)	1,019,640	296,097	-723,543
Note: These numbers do not include any energy usage associated with parking areas.			
Source: CalEEMod June 2019 (Appendix F).			

As shown in the table, due to the age of the existing University Mall structure, implementation of the Existing Zoning Mixed Use Build Out Alternative would result in a reduction in on-site electricity demand, as the older existing structures would be replaced by new more efficient structures. However, natural gas use would increase relative to the existing structure. Therefore, total net emissions from operations at the project site under the Existing Zoning Mixed Use Build Out Alternative would be expected to increase compared to existing conditions. Consequently, Mitigation Measures 4.2-3(a) and 4.2-3(b) would still be required for the Existing Zoning Mixed Use Build Out Alternative. Although Mitigation Measures 4.2-3(a) and 4.2-3(b) would continue to be required, the total emissions reductions required by Mitigation Measure 4.2-3(a) would likely be less under this alternative as compared to the mitigation requirement of the proposed project. Due to the decrease in net emissions that would result from implementation of the Retail Project Only Alternative, as compared to the proposed project, overall impacts would be fewer than the proposed project.

### Noise

Because the Existing Zoning Mixed Use Build Out Alternative would involve demolition of the existing on-site structure and a similar overall area of disturbance as the proposed project, construction-related noise would likely be similar to what would be expected for the proposed project. Accordingly, the impacts related to a substantial temporary or periodic increase in ambient





noise levels in the project vicinity above levels existing without the project identified for the proposed project would be similar under the Existing Zoning Mixed Use Build Out Alternative. Mitigation Measure 4.4-1 would still be required for the Alternative.

Similar to the proposed project, the Existing Zoning Mixed Use Build Out Alternative would include development of an on-site loading dock area on the north side of the proposed retail uses. The Alternative would include the same amount of retail development as the proposed project and, thus, would involve a similar amount of loading dock activity. Therefore, impacts related to stationary source noise would be similar under the Alternative compared to the proposed project, and Mitigation Measure 4.4-5 would still be required.

Overall, the Existing Zoning Mixed Use Build Out Alternative would result in similar impacts related to noise compared to the proposed project.

### **Transportation and Circulation**

The Existing Zoning Mixed Use Build Out Alternative would include a total of 53 residential units, a reduction of 211 units compared to the proposed project. Thus, the Alternative would add a reduced number of pedestrians, bicyclists, and transit passengers to the existing transportation network compared to the proposed project. However, because the Existing Zoning Mixed Use Build Out Alternative would include an increased amount of development relative to the existing University Mall, overall, the Alternative would still increase demands on pedestrian, bicycle, and transit infrastructure. Therefore, the significant and unavoidable impacts identified in the EIR for bicycle and pedestrian facilities would likely remain, and Mitigation Measures 4.6-2(a) through 4.6-2(f) and Mitigation Measure 4.6-4 may still be required.

Because the Existing Zoning Mixed Use Build Out Alternative would involve demolition of the existing on-site structure and new development and construction activities at the site, the significant impact identified for the proposed project related to construction vehicle traffic would still occur under the Alternative and Mitigation Measure 4.6-7 would be required.

Vehicle trip generation estimates for the Existing Zoning Mixed Use Build Out Alternative were prepared by Fehr & Peers (see Table 6-5). As shown in the table, the Alternative would result in slightly reduced daily, AM peak hour, and PM peak hour trips compared to the proposed project. Consequently, the Alternative would likely result in decreased delay at nearby intersections compared the proposed project and could result in fewer impacts related to study intersections than the proposed project. However, because the Alternative would add traffic to the Russell Boulevard/Anderson Road/La Rue Road, Russell Boulevard/Orchard Park Drive, and Russell Boulevard/California Avenue intersections, Mitigation Measure 4.6-9 may still be required. Because full implementation of Mitigation Measure 4.6-9 cannot be guaranteed, the Alternative's incremental contribution to the cumulative impact would remain cumulatively considerable and significant and unavoidable.

Overall, the Existing Zoning Mixed Use Build Out Alternative would result in fewer impacts related to transportation and circulation than the proposed project.





<b>Table 6-5 Proposed Project vs. Existing Zoning Mixed Use Build Out Alternative Trip Generation</b>		
<b>Time Period</b>	<b>Proposed Project</b>	<b>Existing Zoning Mixed Use Build Out Alternative</b>
Daily	2,978	2,640
AM Peak Hour	91	36
PM Peak Hour	208	134
<i>Source: Fehr &amp; Peers, 2019.</i>		

### **Low Parking Alternative**

Under the Low Parking Alternative, the project site would be redeveloped as a mixed use center of similar scale and intensity as the proposed project. However, the Alternative would include aggressive transportation demand strategies and parking demand management measures with incentives to encourage alternative transportation and disincentives to discourage car ownership by residents and vehicle trips by customers.

In order to discourage the use of single-occupancy vehicles at the project site, a maximum of 50 resident permit parking spaces would be provided on-site under the Low Parking Alternative, compared to 264 under the proposed project. The full retail parking requirement of 429 spaces would continue to be provided under this Alternative. The Low Parking Alternative could also include advanced bicycle and pedestrian facilities, connections, and improvements, bicycle- and car-sharing programs, shuttle services, monetary incentives, parking charges, and other similar measures. Similar to the proposed project, the Alternative would include a parking structure; however, the overall size of the structure would be reduced to accommodate the reduction in resident permit parking spaces.

With the exception of Objective #9, the Low Parking Alternative would generally meet all of the project objectives. Objective #9 would be only partially met, as the Alternative would include substantially reduced residential parking relative to the City's standard requirements.

### **Air Quality**

Similar to the proposed project, the existing on-site retail uses would be demolished during implementation of the Low Parking Alternative. Emissions from the demolition of the existing on-site structure would be identical under the Alternative and the proposed project. In addition, the Alternative would include construction of a similar amount of retail and residential building space. However, due to the reduced amount of residential parking required, the parking structure would be smaller compared to the proposed project. Therefore, implementation of the Low Parking Alternative would be anticipated to result in fewer emissions of criteria pollutants and TACs, as compared to the emissions estimated for the proposed project and presented in Section 4.1, Air Quality, of this EIR.

As further discussed in Section 4.1, Air Quality, of this EIR, Mitigation Measure 4.1-3 would be required to reduce TAC emissions resulting from implementation of the proposed project. Because the Low Parking Alternative would involve slightly less construction activity than the proposed project, construction related emissions would be slightly reduced under this alternative. Despite the anticipated reduction in construction-related emissions, because the site is in close proximity to existing receptors, emissions related to building construction would still have the



potential to expose nearby sensitive receptors to excess concentrations of pollutants, and Mitigation Measure 4.1-3 would still be required.

Overall, the Low Parking Alternative would result in fewer impacts related to air quality compared to the proposed project.

### **Greenhouse Gas Emissions and Energy**

Under the Low Parking Alternative, the intensity of development within the project site would be similar to that of the proposed project, albeit with slightly reduced development space due to the reduced need for residential parking space. Similar to the proposed project, the development of the site with a mixed use center would replace the less efficient existing structure with a modern structure built to more stringent energy efficiency requirements. Despite the increase in energy efficiency within the site, the increase in building intensity within the site and inclusion of residences on the site would result in an increase in total net emissions. Therefore, Mitigation Measures 4.2-3(a) and 4.2-3(b) would continue to be required. Although the foregoing mitigation measures would be anticipated to continue to be required, the overall operational emissions from the project would likely be somewhat reduced by the reduction in parking area within the project site. As a result, overall impacts would be fewer than the proposed project.

### **Noise**

Because the Low Parking Alternative would involve demolition of the existing on-site structure and a similar overall area of disturbance as the proposed project, construction-related noise would likely be similar to what would be expected for the proposed project. Accordingly, the Low Parking Alternative would result in similar impacts as the proposed project related to a substantial temporary or periodic increase in ambient noise levels. Mitigation Measure 4.4-1 would still be required for the Alternative.

Similar to the proposed project, the Low Parking Alternative would include development of an on-site loading dock area on the north side of the proposed retail uses. The Alternative would include the same amount of retail development as the proposed project and, thus, would involve a similar amount of loading dock activity. Therefore, impacts related to stationary source noise would be similar under the Alternative compared to the proposed project, and Mitigation Measure 4.4-5 would still be required.

Overall, the Low Parking Alternative would result in similar impacts related to noise compared to the proposed project.

### **Transportation and Circulation**

The Low Parking Alternative would include the same amount of residential development as the proposed project. However, due to the reduction in on-site residential parking spaces, the Alternative could potentially increase the number of pedestrians, bicyclists, and transit passengers added to the existing transportation network compared to the proposed project. Therefore, the significant and unavoidable impacts identified in the EIR for bicycle and pedestrian facilities would remain, and Mitigation Measures 4.6-2(a) through 4.6-2(f) and Mitigation Measure 4.6-4 would still be required. The increased amount of pedestrian and bicycle traffic and transit ridership associated with the Alternative would not be likely to necessitate additional mitigation measures.



Because the Low Parking Alternative would involve demolition of the existing on-site structure and new development and construction activities at the site, the significant impact identified for the proposed project related to construction vehicle traffic would still occur under the Alternative and Mitigation Measure 4.6-7 would be required.

Vehicle trip generation estimates for the Low Parking Alternative were prepared by Fehr & Peers (see Table 6-6). As shown in the table, the Alternative would result in slightly reduced daily, AM peak hour, and PM peak hour trips compared to the proposed project. Consequently, the Alternative would likely result in decreased delay at nearby intersections compared the proposed project and could result in fewer impacts related to study intersections than the proposed project. However, because the Alternative would add traffic to the Russell Boulevard/Anderson Road/La Rue Road, Russell Boulevard/Orchard Park Drive, and Russell Boulevard/California Avenue intersections, Mitigation Measure 4.6-9 may still be required. Because full implementation of Mitigation Measure 4.6-9 cannot be guaranteed, the Alternative's incremental contribution to the cumulative impact would remain cumulatively considerable and significant and unavoidable.

<b>Table 6-6 Proposed Project vs. Low Parking Alternative Trip Generation</b>		
<b>Time Period</b>	<b>Proposed Project</b>	<b>Low Parking Alternative</b>
Daily	2,978	2,725
AM Peak Hour	91	81
PM Peak Hour	208	194
<i>Source: Fehr &amp; Peers, 2019.</i>		

Based on the above, under the Low Parking Alternative, reductions in vehicle traffic impacts would generally be offset by increased impacts related to alternative transportation modes. Thus, overall, the Low Parking Alternative would result in similar impacts related to transportation and circulation compared to the proposed project.

### **Comparison of Alternatives**

Table 6-7 summarizes the level of significance of the identified impacts for the proposed project and a comparison of impacts under each of the project alternatives.

## **6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Designating a superior alternative depends in large part on what environmental effects one considers most important. This EIR does not presume to make this determination; rather, the determinations of which impacts are more important are left to the reader and the decision makers. Generally, the environmentally superior alternative is the one that would result in the fewest environmental impacts as a result of project implementation. However, it should be noted that the environmental considerations are one portion of the factors that must be considered by the public and the decision makers in deliberations on the proposed project and the alternatives. Other factors of importance include urban design, economics, social factors, and fiscal



considerations. In addition, the superior alternative would, ideally, still provide opportunities to achieve the project objectives.

The No Project Alternative would not be considered to meet any of the project objectives. The Retail Project Only Alternative would not meet Objectives #1, #2, #3, #5, or #8, and would only partially meet Objective #4. The Existing Zoning Mixed Use Build Out Alternative and the Low Parking Alternative would generally meet all of the project objectives, with the exception of Objectives #4 and #9, respectively, which would be only partially met.

A comparison of the impacts that would occur under each of the alternatives, as discussed in detail above, to those anticipated for the proposed project is illustrated in Table 6-7 below. As shown in Table 6-7, all of the significant impacts identified for the proposed project would not occur or would be fewer under the No Project Alternative. Compared to the proposed project, both the Retail Project Only Alternative and the Existing Zoning Build Out Alternative would both result in fewer impacts related to Air Quality, GHG Emissions and Energy, and Transportation and Circulation, with similar impacts related to noise. The Low Parking Alternative would result in fewer impacts related to Air Quality and GHG Emissions and Energy and similar impacts related to Noise and Transportation and Circulation. Of the alternatives considered, only the No Project Alternative would avoid the significant and unavoidable impacts identified for Transportation and Circulation issues.

Both the Retail Project Only Alternative and the Existing Zoning Mixed Use Build Out Alternative result in fewer impacts than the proposed project for three resource areas, as opposed to only two resource areas under the Low Parking Alternative. However, the Retail Project Only Alternative would result in a reduced number of pedestrian, bicycle, transit, and vehicle trips during operations relative to the Existing Zoning Mixed Use Build Out Alternative, thereby resulting in fewer traffic impacts. In addition, the Retail Project Only Alternative would not require implementation of Mitigation Measures 4.2-3(a) and 4.2-3(b) related to GHG emissions. As a result, the Retail Project Only Alternative would be considered the environmentally superior alternative to the proposed project.



**Table 6-7**  
**Environmental Impacts of the Proposed Project and Project Alternatives**

<b>Impact</b>	<b>Proposed Project</b>	<b>No Project Alternative</b>	<b>Retail Project Only Alternative</b>	<b>Existing Zoning Mixed Use Build Out Alternative</b>	<b>Low Parking Alternative</b>
Air Quality	Less-Than-Significant with Mitigation	Fewer	Fewer	Fewer	Fewer
Greenhouse Gas Emissions and Energy	Less-Than-Significant with Mitigation	Fewer	Fewer	Fewer	Fewer
Noise	Less-Than-Significant with Mitigation	Fewer	Similar	Similar	Similar
Transportation and Circulation	Significant and Unavoidable	Fewer	Fewer*	Fewer*	Similar*
Less than Proposed Project = "Fewer;" Similar to Proposed Project = "Similar;" and Greater than Proposed Project = "Greater."					
* Significant and Unavoidable impact(s) determined for the proposed project would still be expected to occur under the Alternative.					



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## **7. EIR Authors and Persons Consulted**

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## **Appendix A**

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June 19, 2018

Eric Lee  
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RE: University Mall Redevelopment project consistency with the Metropolitan  
Transportation Plan/Sustainable Communities Strategy for 2036

Dear Mr. Lee,

You requested SACOG's confirmation that the University Mall Redevelopment project is consistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy for 2036 (MTP/SCS). SACOG provides a consistency determination at the request of the lead agency. However, it is the responsibility of the lead agency to make the final determination on a project's consistency with the MTP/SCS. This letter concurs with the City's determination that the University Mall Redevelopment project is consistent with the MTP/SCS. SACOG reviewed the project description and SCS consistency worksheet that was provided by City staff and compared it to the MTP/SCS assumptions for the project area to make our determination.

The University Mall Redevelopment project is located at 737-885 Russell Boulevard in Davis. The project, as defined in the materials you provided, consists of a total of 174 apartment units and an increase of 11,861 square feet. The residential density of the project is 21 dwelling units per acre and 64 percent of the total building area square footage.

The University Mall Redevelopment project is an infill project within the Established Community designation of the MTP/SCS for the City of Davis (see attached Map 1). Within the Established Community, the MTP/SCS forecasts a range of low to high density residential, commercial, office, and industrial uses (MTP/SCS Appendix E-3, Land Use Forecast Background Documentation, pp. 147, February 19, 2016). The project's land uses fall within this range of general uses, densities, and building intensities. Therefore, development at the proposed densities is consistent with the build out assumptions for the area within this community type of the MTP/SCS.

With respect to consistency with the MTP/SCS policies, the applicable policies are embedded in the metrics and growth forecast assumptions of the MTP/SCS. For the purposes of determining SCS consistency, projects consistent with the growth forecast assumptions of the MTP/SCS are consistent with these policies. The MTP/SCS housing forecast for the Established Communities was based not only on the City's land use plans and policies, but also on the following: an assessment of past building activity, current project entitlement activity, and consideration of changing demographic and housing market demand. Infill development and redevelopment is a strategy essential to the success of the Blueprint Preferred Scenario and the MTP/SCS.

*Auburn*  
*Citrus Heights*  
*Colfax*  
*Davis*  
*El Dorado County*  
*Elk Grove*  
*Folsom*  
*Galt*  
*Isleton*  
*Lincoln*  
*Live Oak*  
*Loomis*  
*Marysville*  
*Placer County*  
*Placerville*  
*Rancho Cordova*  
*Rocklin*  
*Roseville*  
*Sacramento*  
*Sacramento County*  
*Sutter County*  
*West Sacramento*  
*Wheatland*  
*Winters*  
*Woodland*  
*Yolo County*  
*Yuba City*  
*Yuba County*

The project is also located within a Transit Priority Area. Transit Priority Areas are areas of the region within one-half mile of a major transit stop (existing or planned light rail, street car, train station, or the intersection of two or more major bus routes) or an existing or planned high-quality transit corridor included in the MTP/SCS. These are the areas that meet the transit requirements of a Transit Priority Project in SB 375. As shown in Map 2, the project is directly adjacent to the Russell Boulevard high quality transit corridor. The University Mall Redevelopment project qualifies as a Transit Priority Project because it is greater than fifty percent residential, has a minimum net density of 20 units per acre, is located within a half-mile of high-quality transit in the MTP/SCS, and is consistent with the land use, density, intensity and applicable policies of the MTP/SCS.

The Blueprint Preferred Scenario, the adopted MTP/SCS, and the draft MTP/SCS achieve transportation, air quality, and other quality of life benefits by relying in part on infill and redevelopment projects such as this one. The University Mall Redevelopment project is consistent with MTP/SCS growth forecast assumptions. Our confirmation of the project's consistency with the MTP/SCS is not intended to express any opinion on the site design or the appropriate conditions of approval of the project.

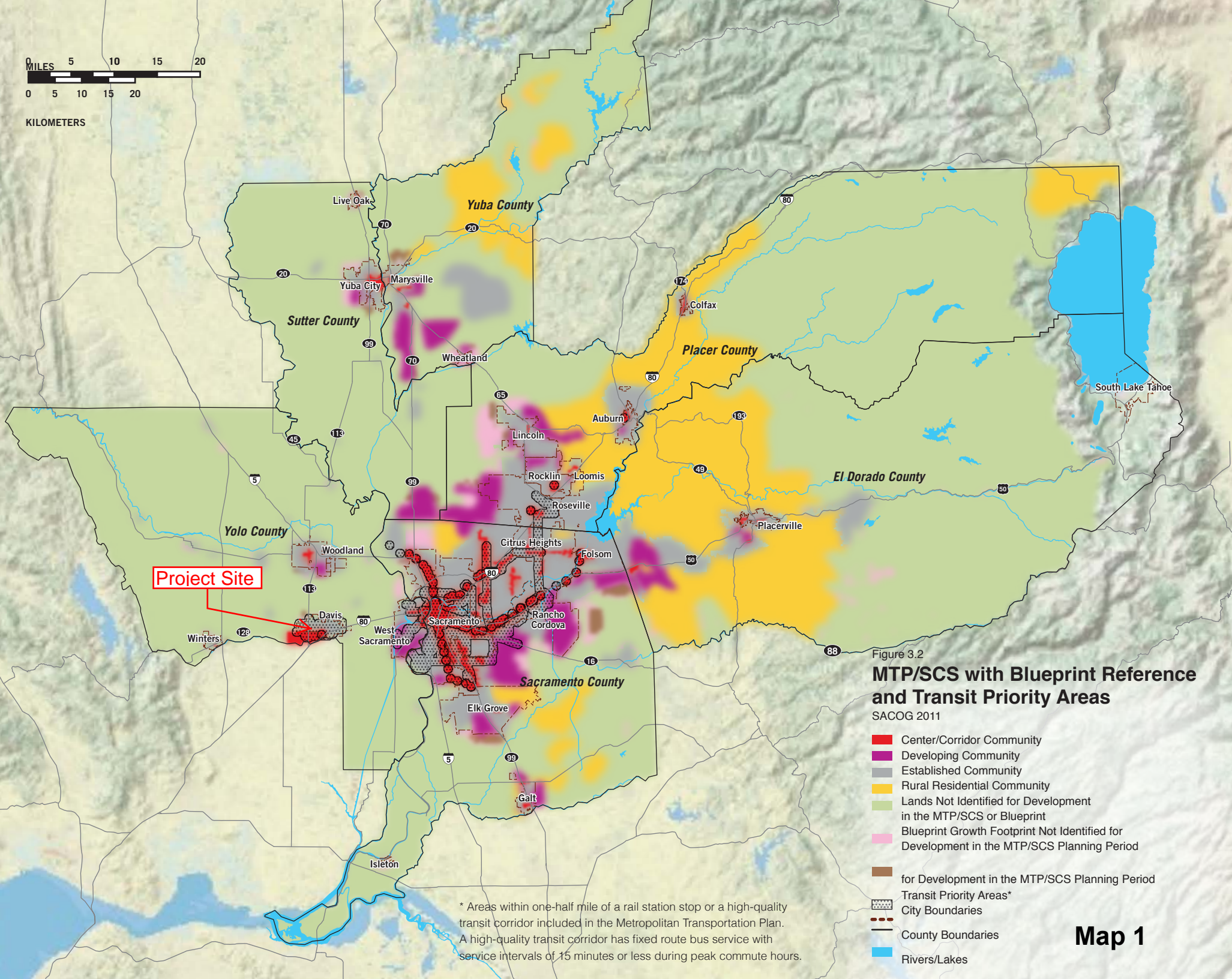
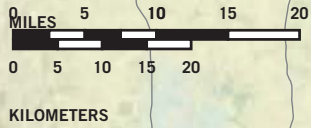
Thank you for inviting SACOG's input as to the consistency of the University Mall Redevelopment project with the MTP/SCS for 2036. If you have further questions or need further assistance, please don't hesitate to contact me at (916) 340-6265.

Sincerely,

A handwritten signature in blue ink, appearing to read 'K Lizon', with a stylized flourish extending from the end.

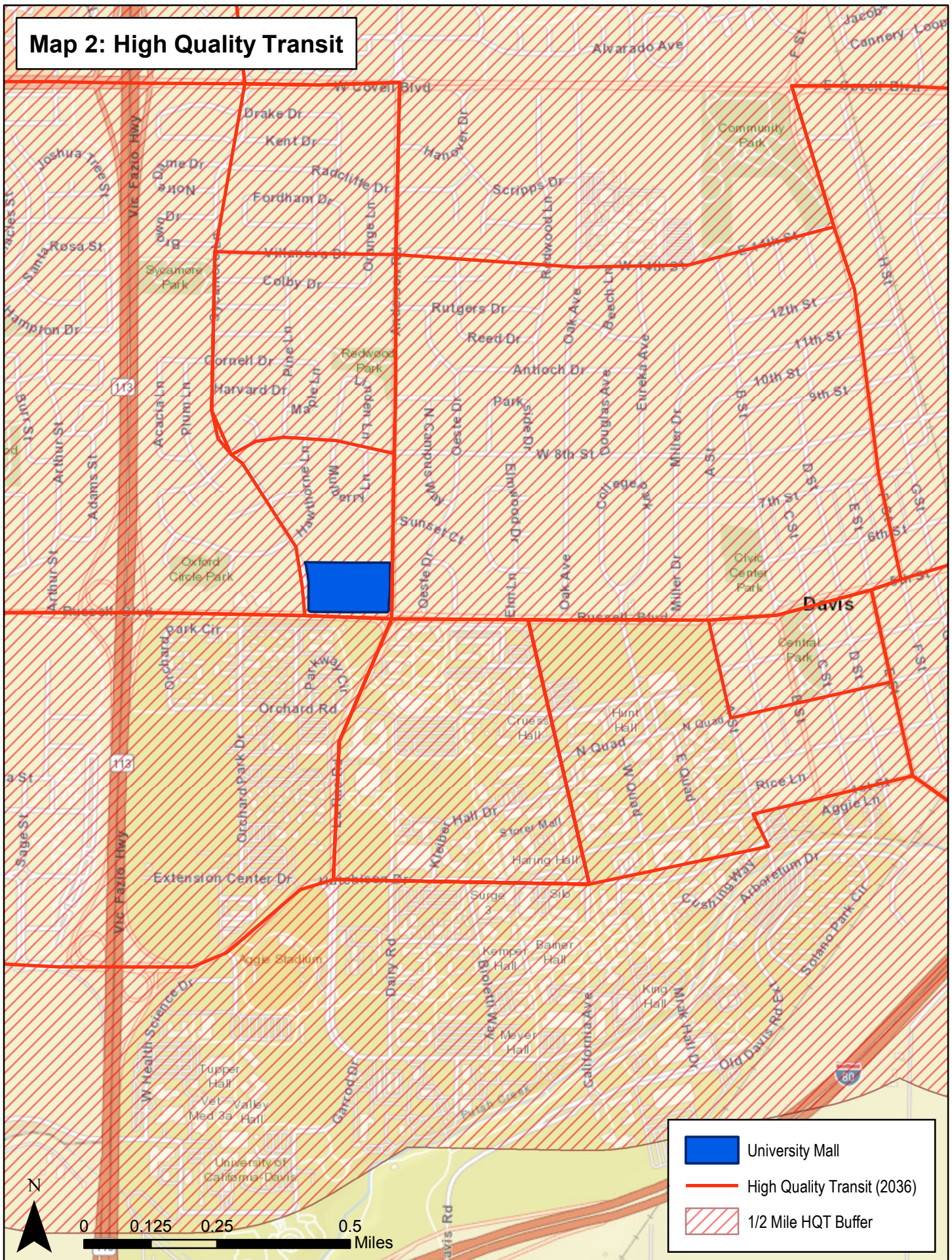
Kacey Lizon  
Planning Manager







Map 2: High Quality Transit





**DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET**  
**For Qualifying Transit Priority Projects and Residential/Mixed-Use**  
**Residential Projects**

*As of October 4, 2016<sup>1</sup>*

**Background:** Pursuant to SB 375, streamlined CEQA review and analysis is available to Transit Priority Projects (TPPs) and residential or mixed-use residential projects that are consistent with the SCS. The SCS was adopted by the Sacramento Area Council of Governments (SACOG) Board as part of the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy on February 18, 2016. The California Air Resources Board (CARB) provided an Acceptance of GHG Quantification Determination for the SACOG SCS in September 2016.

Streamlined CEQA review available to TPPs consists of one of the following: 1) a Sustainable Communities Environmental Assessment (SCEA) pursuant to Public Resources Code (PRC) § 21155.2(b) or 2) an EIR pursuant to PRC § 21155.2(c).<sup>11</sup>

Streamlined CEQA review available to residential or mixed-use residential projects consists of an EIR pursuant to PRC § 21159.28(a).

**Purpose:** The purpose of this worksheet is to provide lead agencies with assistance on three issues:

1. Whether a proposed project qualifies as a TPP;
2. Whether a proposed project qualifies as a residential or mixed-use residential project (at least 75 percent of the total building square footage is residential);
3. Whether the TPP or residential/mixed-use residential project is consistent with the general land use designation, density, intensity and applicable policies of the 2016 MTP/SCS adopted by the Sacramento Area Council of Governments (SACOG).

**The lead agency has responsibility to make the final determination on these matters and to determine the applicable and appropriate CEQA streamlining, if any.**

**Directions:** This worksheet should be completed by the lead agency, relying on the project description of the proposed project, MTP/SCS Chapters 3 and 4, and MTP/SCS Appendix E-3. Regardless of whether this worksheet is used, pursuant to PRC § 21155(a) and PRC § 21159.28(a), a project can only be consistent with the MTP/SCS if it is consistent with the general land use designation, density, building intensity, and applicable policies specified for the project area in the adopted SCS. This worksheet only applies to the 2016 MTP/SCS (adopted February 18, 2016); subsequent MTP/SCS adoptions may require updates to this form.

Lead agencies are welcome to contact SACOG for assistance in completing this worksheet. For assistance, contact Kacey Lizon at [klizon@sacog.org](mailto:klizon@sacog.org) or 916-340-6265.

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**Project Title:** University Mall Redevelopment

**Proposed project is located in (city/county name):** Davis, Yolo County

# DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

As of October 7, 2013

## 1. Transit Priority Project Designation (PRC § 21155(b))

A project must meet the requirements of items 1.A, 1.B, 1.C, and 1.D, below, to qualify as a Transit Priority Project. For items 1.C and 1.D, the definition of an MTP/SCS Transit Priority Area is: the area within one-half mile of a rail station stop or a high-quality transit corridor included in the MTP/SCS. A high-quality transit corridor has fixed route bus service with service intervals of 15 minutes or less during peak commute hours. See MTP/SCS Chapter 3 for the map of Transit Priority Areas.

- 1.A. ☒ The Project has a minimum net density<sup>III</sup> of 20 dwelling units per acre.

Calculation:

$$\begin{aligned} &\text{Total housing units proposed in Project } \underline{174} \div \text{Total Project parcel area (in net} \\ &\text{acres)} \underline{8.25} \\ &= \underline{21.0} \quad (\text{Should be } \geq 20 \text{ du/ac}) \end{aligned}$$

- 1.B. ☒ At least 50 percent of the Project's total building square footage is in residential use, **AND**,

☒ The total building square footage of the Project has 25 percent or less non-residential use, or, if it has between 26 and 50 percent in non-residential use, has a minimum FAR of 0.75.

Calculations:

$$\begin{aligned} &\text{Total Project residential square footage } \underline{208,606} \div \text{Total Project building square footage } \underline{324,162} \\ &= \underline{64.3\%} \quad (\text{Should be } \geq 50\%) \quad \text{(does not include parking garage)} \\ &\text{Total Project building square footage } \underline{324,162} \div \text{Total Project parcel(s) area square footage } \underline{359,370} \\ &= \underline{0.90} \quad (\text{Should be } \geq 0.75) \end{aligned}$$

- 1.C. ☒ The Project is located within an MTP/SCS Transit Priority Area and the qualifying transit service is (transit route name/applicable street name/number or light rail stop name as identified in the adopted MTP/SCS): Davis Transit Priority Area served by Unitrans. Adjacent to bus stops for Lines B, C, G, J, K, P, Q.

- 1.D. ☒ No more than 25 percent of the area of the Project parcels are farther than one-half mile from the TPA transit stop/corridor and no more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from the TPA transit stop/corridor.

## DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

As of October 7, 2013

Calculations:

Project area outside of ½ mile TPA 0 ÷ Total Project area 8.25 acres  
= 0 (Should be ≤ 25%)

Project residential units outside of ½ mile TPA 0 ÷ Total Project units  
174 = 0 (Should be ≤ 10% or less than 100 units)

### SECTION 1 CONCLUSION:

- ☒ The proposed project meets the requirements of 1.A, 1.B, 1.C, and 1.D and therefore qualifies as a Transit Priority Project.
- ☐ The proposed project does not meet all the requirements of 1.A, 1.B, 1.C, and 1.D and therefore does not qualify as a Transit Priority Project.

### 2. Residential or Mixed-Use Residential Project Designation for Projects Located Outside of an MTP/SCS TPA 21159.28(a)

A residential or mixed-use residential project using the streamlined CEQA review to complete an EIR pursuant to PRC § 21159.28(a) must meet the following requirement:

- 2.A. ☐ At least 75 percent of the total building square footage of the project consists of residential use.

Calculation:

Total Project residential square footage 208,606 ÷ Total Project building square footage 324,162  
= 64% (Should be ≥ 75%)

### SECTION 2 CONCLUSION:

- ☐ The proposed project meets the requirements of 2.A and therefore qualifies as a residential or mixed-use residential project.
- ☒ The proposed project does not meet the requirements of 2.A and therefore does not qualify as a residential or mixed-use residential project.

**IF A PROJECT DOES NOT QUALIFY AS EITHER A TRANSIT PRIORITY PROJECT (UNDER SECTION 1) OR A RESIDENTIAL OR MIXED-USE RESIDENTIAL PROJECT (UNDER SECTION**

## DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

As of October 7, 2013

2), THE PROJECT DOES NOT QUALIFY FOR SB 375 CEQA STREAMLINING. DO NOT PROCEED TO SECTION 3.

### 3. Required Consistency with the SCS: General Use Designation, Density and Intensity, and Applicable MTP/SCS Policies (PRC § 21155(a) and PRC § 21159.28(a))

**3.A. Applicable MTP/SCS Policies.** For the purposes of determining SCS consistency, the policies of the MTP/SCS are embedded in the metrics and growth forecast assumptions of the MTP/SCS. Projects consistent with the growth forecast assumptions of the MTP/SCS, as determined by application of items 3.B. and 3.C, are consistent with the MTP/SCS and its policies.

**3.B. Applicable Community Type.** The MTP/SCS land use forecast is illustrated using Community Types. In order to determine the general use designation, density and intensity of the Project area within the MTP/SCS, the Project must be located within a Community Type designated in the MTP/SCS. The MTP/SCS defines density/building intensity in terms of the amount of growth (residential and non-residential) forecasted and the amount of build out potential within each Community Type area. SACOG monitors development activity on an annual basis to check that the amount of development is consistent with the growth forecast of the MTP/SCS.

For the purposes of the lead agency's determination of SCS consistency, use MTP/SCS Appendix E-3 to identify the Community Type for the Project and fill in the applicable information, below for 3.B.1 and 3.B.2.

#### 3.B.1. The Project is located in the following Community Type:

☐ Center and Corridor Community

☒ Established Community

☐ Developing Community (*list the specific name of the Developing Community as identified in the jurisdiction narrative in Appendix E-3*): \_\_\_\_\_

☐ Rural Residential Community

**3.B.2** ☒ Development from the project when added to other entitled projects will not exceed the MTP/SCS build out assumptions for the area within this Community Type, which is 1,942 new housing units and 3,354 new employees<sup>iv</sup>.

## DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

*As of October 7, 2013*

**3.C. General Use Designation, Density and Building Intensity.** The foundation of the land use designations for the MTP/SCS is adopted and proposed local general plans, community plans, specific plans and other local policies and regulations. A project is consistent with the MTP/SCS if its uses are identified in the applicable MTP/SCS Community Type **and** its uses meet the general density and building intensity assumptions for the Community Type. The proposed project does not have to include all allowed uses in the MTP/SCS.

**3.C.1. Determine consistency of the Project using one of the methods below:**

**Option A:**

☐ The Project is located in a **Center and Corridor Community or an Established Community** and the Project uses are consistent with the allowed uses of the applicable adopted local land use plan as it existed in 2012 and are at least 80 percent of the maximum allowed density or intensity of the allowed uses of the applicable local land use plans. Therefore, the Project is consistent with the MTP/SCS.<sup>v</sup>

**OR**

**Option B:**

☒ The Project is located in a **Center and Corridor Community or an Established Community** and the Project uses have been reviewed in the context of, and are found to be consistent with, the general land use, density, and intensity information provided for this Community Type in Appendix E-3 of the MTP/SCS. Therefore, the Project is consistent with the MTP/SCS.

**OR**

**Option C:**

☐ The Project is located in a **Rural Residential Community** and the Project residential density does not exceed the maximum density of one unit per acre as specified in the MTP/SCS, and employment development in the Project is at least 80 percent of the maximum allowed density or intensity of the applicable local land use plans. Therefore, the Project is consistent with the MTP/SCS.

**OR**

**Option D:**

☐ The Project is located in a **Developing Community** and the Project's average net density meets or exceed the average net density described for this specific



# DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

As of October 7, 2013

Developing Community (as referenced by name of applicable specific plan, master plan, or special plan in MTP/SCS Appendix E-3) and employment development in the Project is consistent with the general employment land uses described for this specific Developing Community.<sup>vi</sup> Therefore, the Project is consistent with the MTP/SCS.

## SECTION 3 CONCLUSION:

The proposed project is consistent with the General Use Designation, Density and Intensity, and Applicable MTP/SCS Policies for the following reasons (*summarize findings on use designation, density and intensity for the Project evaluation completed in Section 3*):

The project is located within an Established Community type as defined in SACOG's MTP/SCS. In 2016, SACOG adopted the latest MTP/SCS which contemplated development of 1,872 housing units over the next 20 years in the Established Community of Davis. The 178 units in this proposed project would not exceed the additional 1,872 units projected.  
Project density of 21.0 du/acre as a high density infill project on a high quality transit corridor and immediately adjacent to U.C. Davis would be consistent with the requirements of a Transit Priority Project. Proposed Retail square footage of 115,556 sq. ft. would be an increase of approximately 11,861 sq. ft. above the existing 103,695 sq. ft. of retail and would not exceed the 2,944 new employees contemplated in the MTP/SCS for this community type. Project is consistent with the general land uses, densities + building intensities in the MTP/SCS.

<sup>i</sup> This document may be updated as users provide feedback on its utility.

<sup>ii</sup> If a TPP complies with an additional series of requirements set forth in PRC § 21155.1, it qualifies as a Sustainable Communities Project and becomes eligible for a complete exemption from CEQA. This worksheet does not address Sustainable Communities Projects.

<sup>iii</sup> Net density is not defined in PRC §2115(b). In the MTP/SCS, net density is defined as follows: Housing units divided by the acres on which housing is built, exclusive of public rights-of-ways, parks, schools and public areas (MTP/SCS Appendix E-3).

<sup>iv</sup> The MTP/SCS build out for each Community Type assumes development that is entitled as of January 1, 2012. SACOG monitors housing permits on an annual basis and will ensure that housing and employment projects relying on the SB 375 CEQA benefits will not exceed the capacity assumed in the MTP/SCS. SACOG undertakes this review generally every four years as part of the update of the MTP/SCS.

<sup>v</sup> The MTP/SCS general land use, density and intensity in Center and Corridor Communities and Established Communities is based on 80 percent of the maximum allowed density or intensity of the land use designations in applicable local land use plans as they existed in 2012, unless otherwise noted in Appendix E-3.

<sup>vi</sup> The MTP/SCS land use forecast in Developing Communities was modeled according to adopted and proposed specific plans, master plans, and special plans as they existed in 2012, and is based on the housing and employment totals and the average net density of these plans, as outlined in Appendix E-3.

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## **Appendix B**

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## **Notice of Preparation of a Draft Environmental Impact Report and Scoping Meeting**

**Date:** November 16, 2018

**Subject:** **Notice of Preparation of a Draft Environmental Impact Report and Scoping Meeting for the University Mall Redevelopment Project**

**To:** State Clearinghouse  
State Responsible Agencies  
State Trustee Agencies  
Other Public Agencies  
Organizations and Interested Persons

**Lead Agency:** City of Davis  
Department of Community Development and Sustainability  
23 Russell Boulevard, Suite 2  
Davis, CA 95616  
Phone: (530) 757-5610  
Contact: Eric Lee  
Email: Elee@cityofdavis.org

**NOTICE OF PREPARATION:** This is to notify public agencies and the general public that the City of Davis, as the Lead Agency, will prepare an EIR for the University Mall Redevelopment Project (proposed project). The City is interested in the input and/or comments of public agencies and the general public as to the scope and content of the environmental information that is germane to the agencies' statutory responsibilities in connection with the proposed project, and public input. Public agencies will need to use the EIR prepared by the City when considering applicable permits, or other approvals for the proposed project.

**Project Title:** University Mall Redevelopment Project

**Project Location:** 737-885 Russell Boulevard, Davis, CA 95616

**SCOPING MEETING: On Wednesday, December 5, 2018 starting at 5:00 PM,** the City of Davis Department of Community Development and Sustainability will conduct a public scoping meeting to solicit input and comments from public agencies and the general public on the proposed Draft Environmental Impact Report (EIR) for the University Mall Redevelopment Project. **This meeting will be held at the Senior Center Activity Room, 646 A Street, Davis, CA 95616.**

**This meeting will be an open house format and interested parties may drop in to review the proposed project exhibits and submit written comments at any time between 5:00 PM and 7:00 PM. Representatives from the City of Davis, the EIR consultant, and the Applicant will be available to address questions regarding the EIR process. Members of the public may provide written comments throughout the meeting.**

If you have any questions regarding this scoping meeting, contact Eric Lee at [elee@cityofdavis.org](mailto:elee@cityofdavis.org), or (530) 757-5610. Additional information about the proposed project is available at the following City webpage:

<http://cityofdavis.org/city-hall/community-development-and-sustainability/development-projects/university-mall-redevelopment>

**COMMENT PERIOD: Consistent with the time limits mandated by State law, your input, comments or responses must be received in writing and sent at the earliest possible date, but not later than 5:00 PM, December 17, 2018.**

**COMMENTS/INPUT:** Please send your input, comments or responses (including the name for a contact person in your agency) to:

Attn: Eric Lee, Planner  
City of Davis Department of Community Development and Sustainability  
23 Russell Boulevard  
Davis, CA 95616  
[elee@cityofdavis.org](mailto:elee@cityofdavis.org)

**INITIAL STUDY:** An Initial Study has been prepared for the proposed project and is attached to this document for public review. The EIR will address the CEQA-required environmental topics identified in Initial Study as having the potential to result in a significant impact.

## **PROJECT LOCATION AND EXISTING USES**

The 8.25-acre project site is located in the City of Davis, California, north of Russell Boulevard, east of Sycamore Lane, and west of Anderson Road (see Figure 1 and Figure 2). The site is 0.3-mile east of State Route (SR) 113 which provides regional access to the site. The site is identified by Assessor's Parcel Number (APN) 034-253-007.

The project site is currently developed with the University Mall, a 103,695-square-foot (sf) neighborhood shopping center that includes a variety of commercial uses and restaurants. Current tenants include a Trader Joe's grocery store, Forever 21, Cost Plus World Market, The Davis Graduate restaurant and bar, and smaller shops and services. Professional offices are located on a partial second floor.

The original mall buildings are located on the north portion of the rectangular site. Trader Joe's grocery store is a stand-alone pad in the southwestern portion of the site, at the northeast corner of Russell Boulevard and Sycamore Lane and will not be modified as part of the proposed project. Paved parking

areas, including approximately 427 spaces, are located on the south, east, and west portions of the site. The site is accessible by two driveways on Russell Boulevard and two driveways each on Sycamore Lane and Anderson Road, respectively.

## **SURROUNDING LAND USES**

Surrounding uses include an ARCO gas station with a mini-mart located southeast of the site at the northwest corner of Russell Boulevard and Anderson Road; the Davis Chinese Christian Church and Rite Aid pharmacy located east of the site, across Anderson Road; and the University of California, Davis, (UC Davis) campus to the south of the site, across Russell Boulevard. A three-story apartment complex (University Court) is located west of the project site, across Sycamore Lane. The site is bounded to the north by a two-story apartment complex (Sycamore Lane Apartments) with a perimeter parking lot. Existing single-family residences lie further north and east of the project site.

## **PROJECT SITE BACKGROUND**

The University Mall was constructed and opened in 1966 and, in 1970, 20,000 sf of space was added to the mall to accommodate Lawrence's department store. In the 1970s, The Davis Graduate restaurant and sports bar was built and became the anchor restaurant for the shopping center. In 1984, the west portion of the University Mall building was added to house a Safeway grocery store and in 1999, the University Mall was renovated and some tenants relocated within the site. In 2004, the University Mall property was acquired by Centro Watt (now known as Brixmor Property Group, Inc.), the second-largest owner of community and neighborhood shopping centers in the U.S., and in 2010, Trader Joe's grocery store was constructed within the southwestern portion of the site. The University Mall was one of the first retail centers in Davis to serve area resident students. However, according to the owner, the current state of the property does not meet today's rapidly changing retail environment and the University Mall buildings and facilities are dated and in need of revitalization.

## **PROJECT DESCRIPTION**

The proposed project would include demolition of approximately 90,653 sf of the existing University Mall building to create a mixed-use development that would consist of four levels of residential over ground-floor retail development. Buildout of the proposed project would result in the addition of 264 new multi-family residential units and approximately 136,800 sf of retail space, not including the existing Trader Joe's building. Figure 2 shows the ground-level retail plan which includes the attached retail and parking with residential above, as well as two free-standing buildings (shown as Retail 7 and Retail 8 on Figure 2). The addition of 136,800 sf of retail uses would accommodate shops, restaurants, and other uses. The proposed project would include a three-level parking structure that would be situated beneath a portion of the residential development and would provide parking for residential and retail uses. Figure 2 shows the retail parking summary and Figure 3, the residential parking summary.

The redeveloped University Mall building would include four levels of residential uses over three levels of parking and four levels of residential uses over retail uses. At buildout, the redeveloped University Mall building would be seven stories and approximately 80 feet in height, with the northeast portion along Anderson Road stepping down to three stories and 44 feet in height (see Figure 4). Two new buildings, identified as Retail 7 and Retail 8 in Figure 2, would be added to the site adjacent to Russell Boulevard and would consist of approximately 34,000 sf of new retail space. The existing 13,200-sf Trader Joe's grocery store building, located on the southwestern portion of the site, would remain unchanged at project buildout. At buildout, the proposed project would include approximately 795,300 sf, as shown in Table 1.



**Table 1**  
**University Mall Redevelopment Square Footage**

	<b>Square Feet</b>	<b>Units</b>
Residential Area	412,500 sf	264
Retail Area	136,800 <sup>1</sup> sf	-
Parking Garage	246,000 sf	-
Total Project	795,300	264
Note: The square footage for 'Retail Area' does not include the Trader Joe's building as it will not be redeveloped as part of the proposed project, but will remain in its current form.		

The proposed 264 multi-family residential units would consist of 66 one-bedroom units, 104 two-bedroom units, 28 three-bedroom units, and 66 four-bedroom units. Bedrooms would be comprised of 430 single-occupancy rooms and 232 double-occupancy rooms, resulting in a total bed count of 894. The residential portion of the proposed project would be approximately 412,500 sf and have a density of approximately 32 units per acre. Due to the immediate proximity of the project site to the UC Davis campus and the demand for student housing, the proposed residential development would be focused on student use, but would be available for non-students as well. The residential units would be arranged around a courtyard with a pool and outdoor lounge area (see Figure 5) and would include additional amenities such as a fitness room, bicycle storage, a bike repair station, and a rooftop terrace.

#### Parking, Access, and Circulation

Parking for the proposed project would be provided by 696 total parking spaces, which would consist of 265 spaces for residential use and 431 for retail use. Retail and residential parking spaces would be provided by a new, three-story parking garage with 551 total spaces. The first and second levels of the parking garage would each provide 128 retail parking spaces. The third level of the parking garage would provide 265 parking spaces for the proposed residential units, as well as 30 parking spaces for retail use, for a total of 295 spaces. An additional 145 retail parking spaces would be provided by the surface-level parking lot. Electric vehicle and car-sharing spaces would be provided, and an electric vehicle charging parking plan would be developed to accommodate future growth for additional electric vehicles. A total of 1,018 bicycle parking spaces would be provided as part of the proposed project, including on each level of the proposed parking structure.

Access to the project site is provided by two driveways each on Russell Boulevard, Sycamore Lane, and Anderson Road. Access to the proposed project site would remain primarily unchanged from existing conditions. The project would not include any improvements or modifications to roadways in the site vicinity. Pedestrian walkways would be added throughout the property to enhance walkability.

#### Alternative Transportation

The project site is located within a Transit Priority Area, as defined by the Sacramento Area Council of Governments (SACOG), and directly adjacent to the Russell Boulevard high quality transit corridor, which serves the B, C, G, J, K, P and Q Unitrans bus line routes. In addition, Russell Boulevard is served by Yolobus Route 220, which provides commuter transit to and from Winters and Vacaville. Nearby Yolobus stops located on F Street and the UC Davis Memorial Union provide commuter transit to Sacramento.

The proposed project would provide pedestrian walkways throughout the property, as well as access to existing off-street bikeways adjacent to the site. Surrounding roadways, including Sycamore Lane and Anderson Road, offer marked bike lanes and Russell Boulevard offers access to the City's off-street bicycle path.



## Landscaping

The proposed project would retain the existing landscaped areas and separated sidewalks along the project site frontages at Sycamore Avenue, Russel Boulevard, and Anderson Road. Within such areas, landscaping elements would be updated or replaced as necessary. It should be noted that development of the proposed project would require removal of 82 of the existing 98 on-site trees.

## Utilities and Service Systems

Domestic and fire water service would continue to be provided by the City by way of connections to existing infrastructure along adjacent roadways. The project site is located within Area 8 of the Davis Sewer System Management Plan and wastewater collection services to the site would continue to be provided by way of connections to existing eight-inch sewer mains located on Sycamore Lane and Anderson Road.

## Sustainability

The proposed project would be designed with contemporary architectural elements to meet a Gold designation in Leadership in Energy and Environmental Design (LEED) from the U.S. Green Building Council (USGBC) or equivalent. The proposed building design would use energy-efficient lighting and HVAC systems. As mentioned above, electric vehicle and car-sharing spaces would be provided on-site, as well as bicycle parking spaces. Pedestrian walkways would be added throughout the property to enhance walkability and the project site allows for connections to existing bicycle facilities. Efficient water-wise fixtures would be used to assist in water conservation. Eco-friendly/sustainable construction materials and energy-efficient windows would be selected for design purposes to further improve building sustainability.

## General Plan and Zoning Amendment

The site is designated in the General Plan as Community Retail. Under the Community Retail designation, residential uses are allowed with approval of a Conditional Use Permit. In addition, the maximum floor area ratio for retail is 0.50 with an additional 0.15 allowed for the residential component in a mixed-use project. The proposed project would require an amendment to the City's General Plan text to create a new land use designation to allow for the mix of retail and residential uses at the proposed density.

The site's zoning designation of PD #2-97B, approved by the City in 2006, establishes a building height limitation of 50 feet and allows residential uses above the ground floor. The project would require modification of the site's current PD #2-97B zoning designation or establishment of a new PD zone to reflect new development standards for the project and allow for the proposed project's building height.

## **REQUESTED ENTITLEMENTS**

The following section presents the discretionary and ministerial actions that would be required to implement the proposed project.

## City of Davis Discretionary Approvals

Implementation of the proposed project would require the following entitlements from the City of Davis:

1. Certification of the EIR and adoption of the Mitigation Monitoring Plan. Before the City can approve the proposed project, the City must certify that the EIR was completed in compliance with the requirements of CEQA, that the decision-making body has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the City of Davis. Approval of the EIR also requires adoption of a Mitigation Monitoring Plan (MMP), which specifies the methods for monitoring mitigation measures required to eliminate or reduce the project's significant effects on the environment. The City would also be required to adopt Findings of Fact, and for any impacts determined to be significant and unavoidable, a Statement of Overriding Considerations, as part of project approval.
2. General Plan Amendment. The proposed project would require a General Plan Amendment to create a new land use designation of Mixed-Use Community Retail that allows for large-scale, mixed-use development at the proposed density.
3. Zoning Amendment/Final Planned Development. The proposed project would require a zoning amendment to the PD #2-97 zoning designation or establishment of a new PD zone to reflect development standards for the proposed project and allow the mix of uses at the proposed density and building height.
4. Development Agreement.

In addition, the proposed project would require a separate application for Site Plan and Architectural Review when building design and final site details have been determined.

## Other City of Davis Ministerial Permits

Implementation of the proposed project would require the following ministerial permits from the City of Davis, which are included but not limited to the following:

1. Demolition permit for demolition of 90,653 sf of the existing University Mall building; and
2. Tree modification or removal permits for any trimming, modification, or removal of trees protected under Chapter 37 of the City of Davis' Municipal Code.
3. Encroachment Permit for any construction within the public rights-of-way.
4. Building Permits for construction of the new buildings.

## Other Agency Permits and Approvals

Implementation of the proposed project would require permits or approvals from the following agencies:

1. Central Valley Regional Water Quality Control Board (CVRWQCB) – The proposed project would disturb more than one acre of land; therefore, the project would be required to obtain coverage under the National Pollution Discharge Elimination System through the Storm Water Pollution Prevention permitting program of the CVRWQCB.

## **CEQA STREAMLINING**

The Legislature has adopted several statutory provisions to incentivize infill development within this region of the state that is consistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) adopted by the Sacramento Area Council of Governments (SACOG) including but not limited

to Public Resources Code (PRC) sections 21155-21155.4, 21159.28, and 21099. SACOG has provided a letter to the City of Davis, included as an appendix to this Initial Study, indicating that the proposed project is consistent with SACOG's MTP/SCS. Streamlining benefits applicable to qualifying in-fill projects that are consistent with SACOG's MTP/SCS include the following:

1. The EIR is not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network. (PRC, § 21159.28, subd. (a).)
2. Alternative locations, densities, and building intensities to the proposed project need not be considered. (PRC, § 21159.28, subd. (b).)
3. Aesthetic and parking impacts should not be considered significant impacts on the environment. (PRC, § 21099, subd. (d)(1).)

Transit Priority Areas are areas of the region within one-half mile of a major transit stop or an existing or planned high-quality transit corridor included in the MTP/SCS. Per the letter provided by SACOG, the project qualifies as a Transit Priority Project, as the proposed project would involve greater than 50 percent residential uses, has a minimum density of 20 units per acre, and is located within 0.5-mile of a high-quality transit corridor (i.e., the Russell Boulevard high-quality transit corridor). Furthermore, the proposed project is an infill project within the Established Community designation of the MTP/SCS for the City of Davis. Within the Established Community, the MTP/SCS forecasts a range of low- to high-density residential, commercial, office, and industrial uses. The proposed project's land uses fall within this range of general uses, densities, and building intensities.

According to SACOG, because the project is greater than 50 percent residential development, has a density of more than 20 units per acre, and is located within 0.5-mile of a high-quality transit corridor, the project qualifies as a Transit Priority Project and the City intends to streamline the University Mall Redevelopment EIR, as noted throughout the checklist section of the attached Initial Study, as appropriate.

## **AREAS OF POTENTIAL IMPACTS**

The Initial Study prepared for the proposed project identified resource areas where potential impacts may occur as a result of the proposed project. The EIR analysis will focus on such resource areas where a potential for impacts was identified by the Initial Study. Conversely, based upon the analysis contained in the attached Initial Study, it is anticipated that the EIR will not need to further address the CEQA topics of Aesthetics, Agriculture and Forest Resources, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, Population and Housing, Recreation, and Tribal Cultural Resources. The following paragraphs provide a general discussion of the anticipated topics that will be included in the technical sections of the EIR. Each technical section will include an analysis of the existing environmental setting, identification of the thresholds of significance, description of the methodology used for analysis, identification of impacts, and the development of mitigation measures and monitoring strategies, if necessary, to reduce impacts.

### Air Quality

The Air Quality section of the EIR will include an evaluation of the potential air pollutants that would be generated by the proposed project. The air quality analysis will be performed using the CalEEMod software package and following the Yolo-Solano Air Quality Management District's (YSAQMD) guidelines. A quantitative assessment of short-term (i.e., construction) and long-term (i.e., operational) increases of criteria air pollutant emissions of primary concern (i.e., reactive organic gases, oxides of nitrogen, and particulate matter) will be included. Traffic data from the project-specific traffic study will

be used to compute the projects emissions. For carbon monoxide, CALINE 4 modeling will be performed if one or more of the study intersections are degraded to a level of service specified by the YSAQMD. The projects cumulative contribution to regional air quality will be discussed, based in part on the modeling conducted at the project level. The significance of air quality impacts will be determined in comparison to City of Davis and YSAQMD-recommended significance thresholds. Mitigation measures will be incorporated, if necessary, to reduce any significant air quality impacts, and anticipated reductions in emissions associated with proposed mitigation measures will be quantified.

A Health Risk Assessment (HRA) will focus on the construction phase of the project, more specifically, the health effects to adjacent receptors (e.g., nearby residential development to the west and north) associated with the diesel emissions from heavy construction equipment. The results of the construction HRA will be included in the CEQA document, as this analysis appropriately evaluates the potential environmental effects of the proposed project on the environment.

The California Supreme Court decision in the case of *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369 clarified that CEQA does not require lead agencies to analyze the impact of existing environmental conditions on a project's future users or residents unless the project will exacerbate the existing environmental hazards or conditions. This limits the CEQA analysis of impacts from existing sources that emit toxic air contaminants (TACs) on new receptors from a proposed development project, unless the situation is specifically required to be analyzed by statute (such as a school). While the effects of existing sources of TACs on the proposed project may not be considered a CEQA impact and are not required to be analyzed in the EIR, local jurisdictions have the authority to protect the public health, safety, and welfare of their communities through their police powers. While not required pursuant to CEQA, in order to address potential public health impacts, the City may choose to have an HRA prepared to evaluate the potential health effects of existing sources of TACs, particularly the adjacent ARCO gas station, on future project residents, should the throughput of the gas station be confirmed to be in excess of the recommended levels set forth in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*. Depending on the confirmed annual throughput of the ARCO gas station, if an HRA is to be prepared, such an HRA would not be included in the EIR, but would be provided as an appendix for the City's use and for public disclosure in order to provide greater understanding of the public health considerations associated with placing residential uses at the proposed project site.

### Greenhouse Gas Emissions

Per CEQA streamlining provisions in section 21159.28 of the PRC, the EIR is not required to provide a discussion nor analysis of greenhouse gas emissions (GHG) from cars and light-duty truck trips generated by the project; however, an analysis of GHG emissions from non-mobile sources (e.g., electricity, water demand) will be performed using CalEEMod. The analysis will account for any energy efficiency measures identified by the applicant team as being proposed as part of the project design, as well as proximity to transit, bicycle, and pedestrian facilities. All emissions will be calculated as carbon dioxide equivalents to allow for emission comparisons over various sources. The non-mobile GHG emissions attributable to the project will be compared with GHG reduction thresholds adopted by the City of Davis and conformance to the Davis Climate Action and Adaptation Plan.

### Land Use and Planning

The Land Use and Planning section of the EIR will evaluate the consistency of the proposed project with the City of Davis's adopted land use plans and policies, as well as the project's compatibility with surrounding land uses, both existing and proposed. The section will include a detailed General Plan policy

analysis, which will be provided in table format, with a summary of the applicable policies and the proposed project's consistency with the policies.

### Noise

The Noise section of the EIR will be based on a project-specific noise analysis. The noise analysis will include an evaluation of the existing noise environment, prediction of project-generated noise levels, and development of noise control mitigation measures, as appropriate. Short-term and continuous noise-level measurements for a minimum of 24-hours would be conducted to quantify existing background noise levels. Existing traffic noise levels in the vicinity of the project site will be evaluated using the Federal Highway Administration (FHWA RD77-108) traffic noise prediction model.

An analysis of transportation noise impacts due to and upon the proposed project will be analyzed. Significant noise impacts will occur if the project-generated traffic results in a significant increase in traffic noise levels at existing noise sensitive land uses in the project vicinity. Analysis of future noise levels will be based on traffic volumes provided in the project-specific traffic study. On-site noise sources, such as commercial loading areas, parking lot activities, HVAC equipment, and any additional stationary noise sources adjacent to the project site, will also be evaluated. An analysis of the noise and vibration impacts associated with construction of the project and any infrastructure outside the site will be conducted.

### Public Services and Utilities

The Public Services and Utilities section of the EIR will summarize setting information and identify potential new demand for public services, including fire protection, police, schools, parks, and other public facilities. Information from the City of Davis General Plan, as appropriate, and up-to-date information received from appropriate City and other agencies will be used to address the project's potential to create impacts to public services. In addition, the Public Services and Utilities section of the EIR will address potential new demand for water supply, wastewater conveyance and treatment, and solid waste disposal. The type and extent of improvements, on- and off-site, necessary for the project to receive adequate water and sewer services will be identified. The need for any off-site utility improvements, as necessary, in order to adequately serve the proposed development will be addressed.

### Transportation and Circulation

The Transportation and Circulation section of the EIR will be based on a project-specific traffic study. The traffic study will conform to CEQA and the City of Davis requirements, while addressing all applicable transportation modes. The following traffic scenarios will be included in the traffic study:

- Existing Conditions;
- Existing Plus Project Conditions;
- Cumulative No Project Conditions; and
- Cumulative Plus Project Conditions.

The intersections and project driveways to be analyzed include the following:

1. Russell Boulevard/SR 113 Southbound Ramps;
2. Russell Boulevard/SR 113 Northbound Ramps;
3. Russell Boulevard/Orchard Park Drive;
4. Russell Boulevard/Sycamore Lane;
5. Russell Boulevard/Anderson Road/La Rue Road;

6. Russell Boulevard/California Avenue;
7. Russell Boulevard/Oak Avenue;
8. Russell Boulevard/College Park/Howard Way;
9. Russell Boulevard/A Street;
10. Russell Boulevard/Fifth Street/B Street;
11. Sycamore Lane/Wake Forest Drive;
12. Sycamore Lane/West Eighth Street;
13. Anderson Road/West Eighth Street;
14. La Rue Road/Hutchison Drive;
15. Russell Boulevard/West Project Driveway;
16. Russell Boulevard/East Project Driveway;
17. Russell Boulevard/West ARCO Driveway;
18. Sycamore Lane/North Project Driveway;
19. Sycamore Lane/South Project Driveway;
20. Anderson Road/North Project Driveway;
21. Anderson Road/Central Project Driveway;
22. Anderson Road/South Project Driveway; and
23. Anderson Road/North ARCO Driveway.

The locations selected for study are based on their proximity to the project site, anticipated use by project trips, and susceptibility for being impacted as a result of the proposed project. New intersection turning movement counts will not be conducted. Rather, counts previously conducted for the project locations in May 2018 will be used. Each count location will also include observation of bicycle and pedestrian activity.

Maximum queue lengths will be identified for the following critical intersection movements in the project vicinity:

- Russell Boulevard/Sycamore Lane: eastbound left-turn, westbound through and shared through/right movements, and southbound right-turn and left-turn.
- Russell Boulevard/Anderson Road: eastbound left-turn and through movement, northbound left-turn, right-turn, and through movement, westbound left-turn and through movement, and southbound left-turn and through movement.
- Sycamore Lane/North Project Driveway: westbound shared through/right/left movement.

Bicycle and pedestrian counts will be used to assess the quality and comfort of the bicycle and pedestrian environment on Russell Boulevard, Sycamore Lane, and Anderson Road within the vicinity of the project site. The quality of the bicycle environment will be evaluated for each approach at intersections surrounding the edge of the project site (i.e., Intersections 4, 5, 11, and 15 through 23).

Transit services, such as ridership levels, in the project vicinity, including Unitrans B, C, K, Q, and P routes, will be addressed. In addition, the site plan will be evaluated for adequacy of site access, emergency access, possible design hazards, and on-site vehicular circulation based on the City's design standards. Based on the above analysis, mitigation measures will be developed to eliminate safety problems and reduce any project impacts to a less-than-significant level, or to meet City standards.

#### Statutorily Required Sections

The Statutorily Required Sections chapter of the EIR will summarize significant and unavoidable and significant and irreversible impacts, to the extent that such impacts are identified in the EIR. The chapter



will also summarize the cumulative impact analyses, which will be provided in each technical section of the EIR. In addition, the Statutorily Required Sections chapter will include a discussion of potential energy impacts due to the project and any proposed energy efficiency and/or conservation measures in accordance with Section 15126.4(c) and Appendix F of the CEQA Guidelines, including applicable mitigation measures for reducing wasteful and inefficient energy consumption.

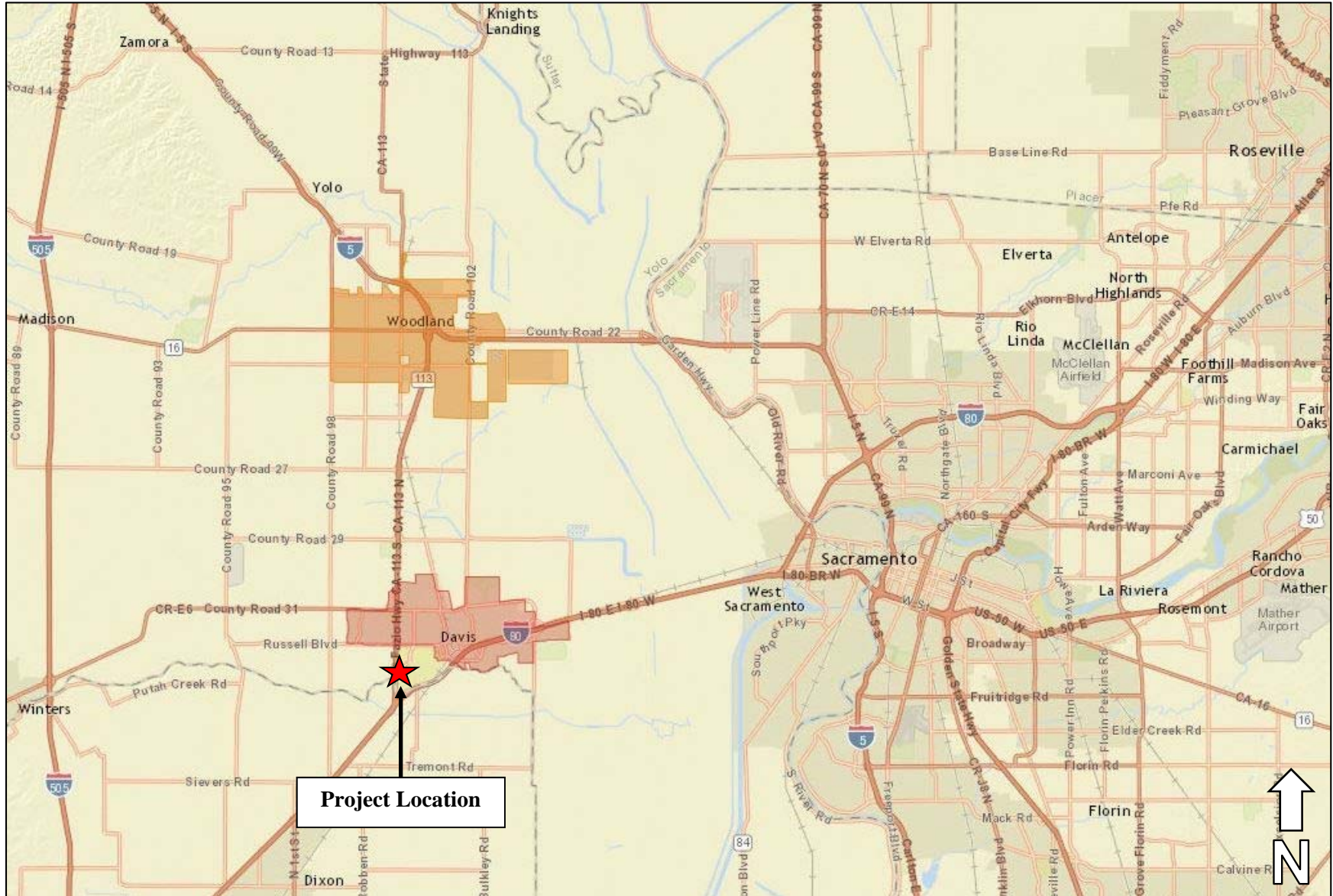
### Alternatives Analysis

The EIR will include an Alternatives Analysis chapter. The Alternatives Analysis chapter of the EIR will evaluate up to five alternatives. The alternatives will be selected when more information related to project impacts is available so the alternatives can be designed to reduce one or more significant project impacts. Based on a prospective list developed in consultation with City staff, the alternatives will likely include the following:

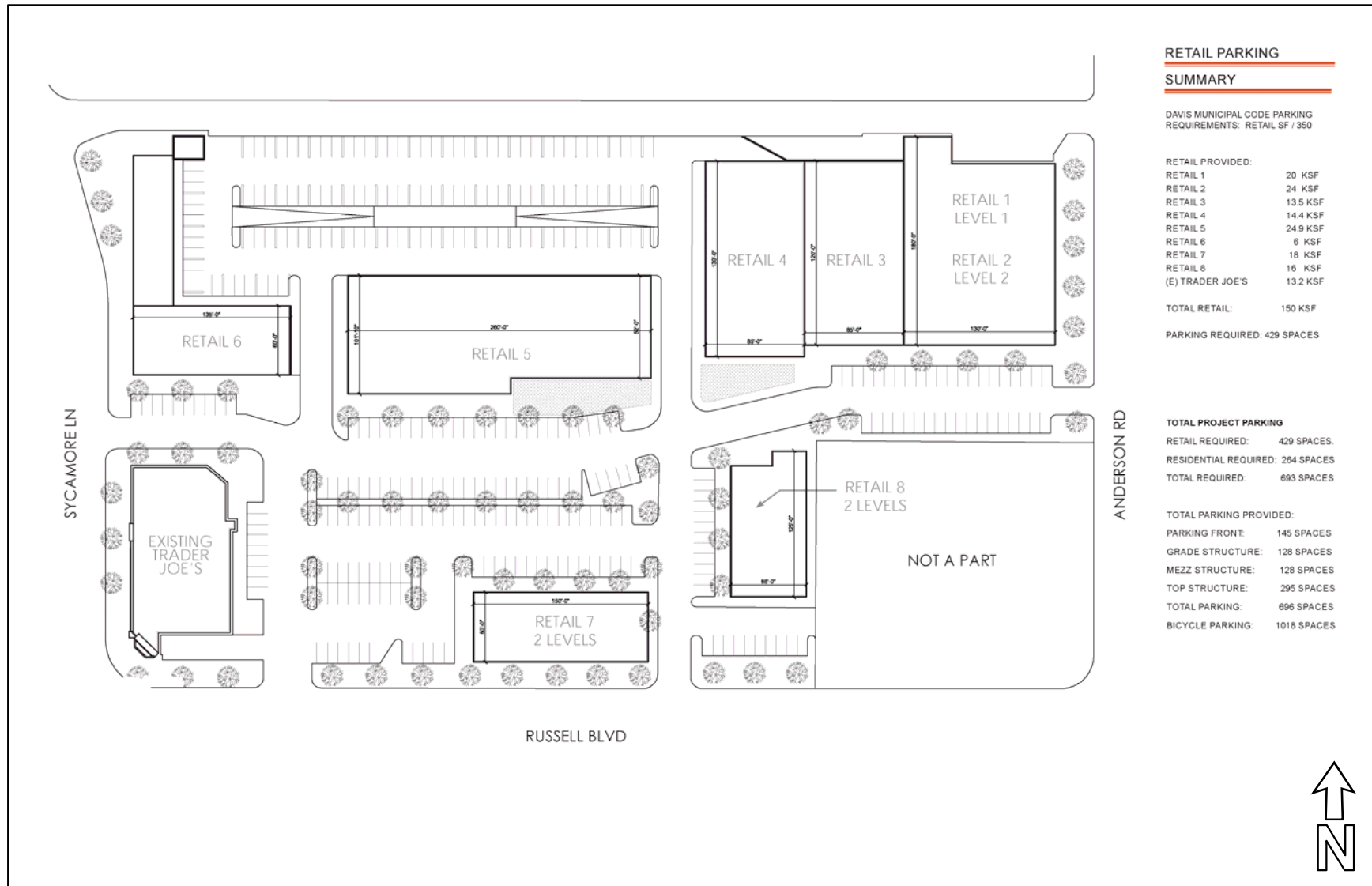
1. No Project (No Build) Alternative;
2. Retail Project Only Alternative;
3. Conventional Apartments with Retail Alternative;
4. Existing Zoning/Mixed-Use Buildout Alternative; and
5. No Parking/Low Parking Alternative.

The Alternatives Analysis chapter may also include the evaluation of an off-site alternative, if the City deems such necessary; however, such an alternative is not required to be analyzed in the EIR, pursuant to streamlining provisions (see PRC Section 21094.5). The Alternatives Analysis chapter will describe the alternatives and identify the environmentally superior alternative. The Alternatives Analysis chapter will include a semi-quantitative discussion for impacts associated with air quality, noise, and traffic (e.g., trip generation comparison) for comparison with the project. The remaining impact areas will be evaluated at a qualitative level for each alternative. The Alternatives Analysis chapter will also include a section of alternatives considered but dismissed. A matrix comparing the impacts of the proposed project to the alternatives will be included.

**FIGURE 1**  
**REGIONAL LOCATION MAP**



**FIGURE 2**  
**GROUND-LEVEL RETAIL PLAN**



**RETAIL PARKING**

**SUMMARY**

DAVIS MUNICIPAL CODE PARKING  
REQUIREMENTS: RETAIL SF / 350

RETAIL PROVIDED:	
RETAIL 1	20 KSF
RETAIL 2	24 KSF
RETAIL 3	13.5 KSF
RETAIL 4	14.4 KSF
RETAIL 5	24.9 KSF
RETAIL 6	6 KSF
RETAIL 7	18 KSF
RETAIL 8	16 KSF
(E) TRADER JOE'S	13.2 KSF

TOTAL RETAIL: 150 KSF

PARKING REQUIRED: 429 SPACES

**TOTAL PROJECT PARKING**

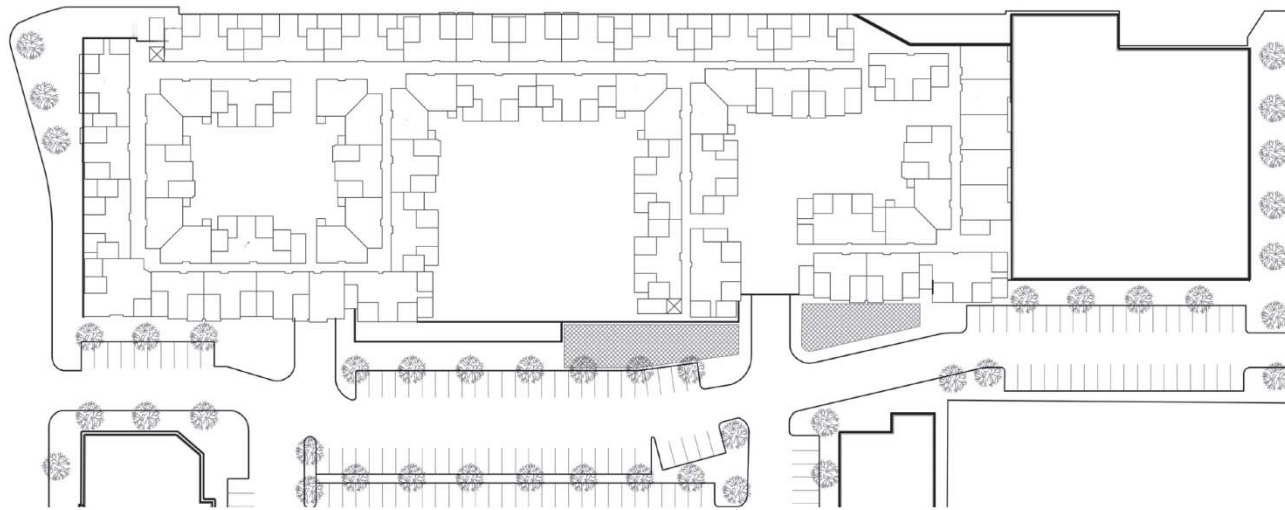
RETAIL REQUIRED:	429 SPACES
RESIDENTIAL REQUIRED:	264 SPACES
TOTAL REQUIRED:	693 SPACES

**TOTAL PARKING PROVIDED:**

PARKING FRONT:	145 SPACES
GRADE STRUCTURE:	128 SPACES
MEZZ STRUCTURE:	128 SPACES
TOP STRUCTURE:	295 SPACES
TOTAL PARKING:	696 SPACES
BICYCLE PARKING:	1018 SPACES



**FIGURE 3  
RESIDENTIAL PARKING SUMMARY**



**RESIDENTIAL PARKING  
SUMMARY**

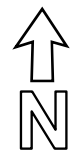
DAVIS MUNICIPAL CODE PARKING  
REQUIREMENTS: 1 STALL / UNIT  
RESIDENTIAL LEASABLE AREA:  
412,500 SF

RESIDENTIAL UNITS: 264  
BEDS: 894  
PARKING PROVIDED: 265 SPACES

UNIT MIX:  
1 BEDROOM UNITS: 66 25%  
2 BEDROOM UNITS: 104 40%  
3 BEDROOM UNITS: 28 10%  
4 BEDROOM UNITS: 66 25%

**TOTAL PROJECT PARKING**  
RETAIL REQUIRED: 429 SPACES  
RESIDENTIAL REQUIRED: 264 SPACES  
TOTAL REQUIRED: 693 SPACES

**TOTAL PARKING PROVIDED:**  
PARKING FRONT: 145 SPACES  
GRADE STRUCTURE: 128 SPACES  
MEZZ STRUCTURE: 128 SPACES  
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TOTAL PARKING: 696 SPACES  
BICYCLE PARKING: 1018 SPACES

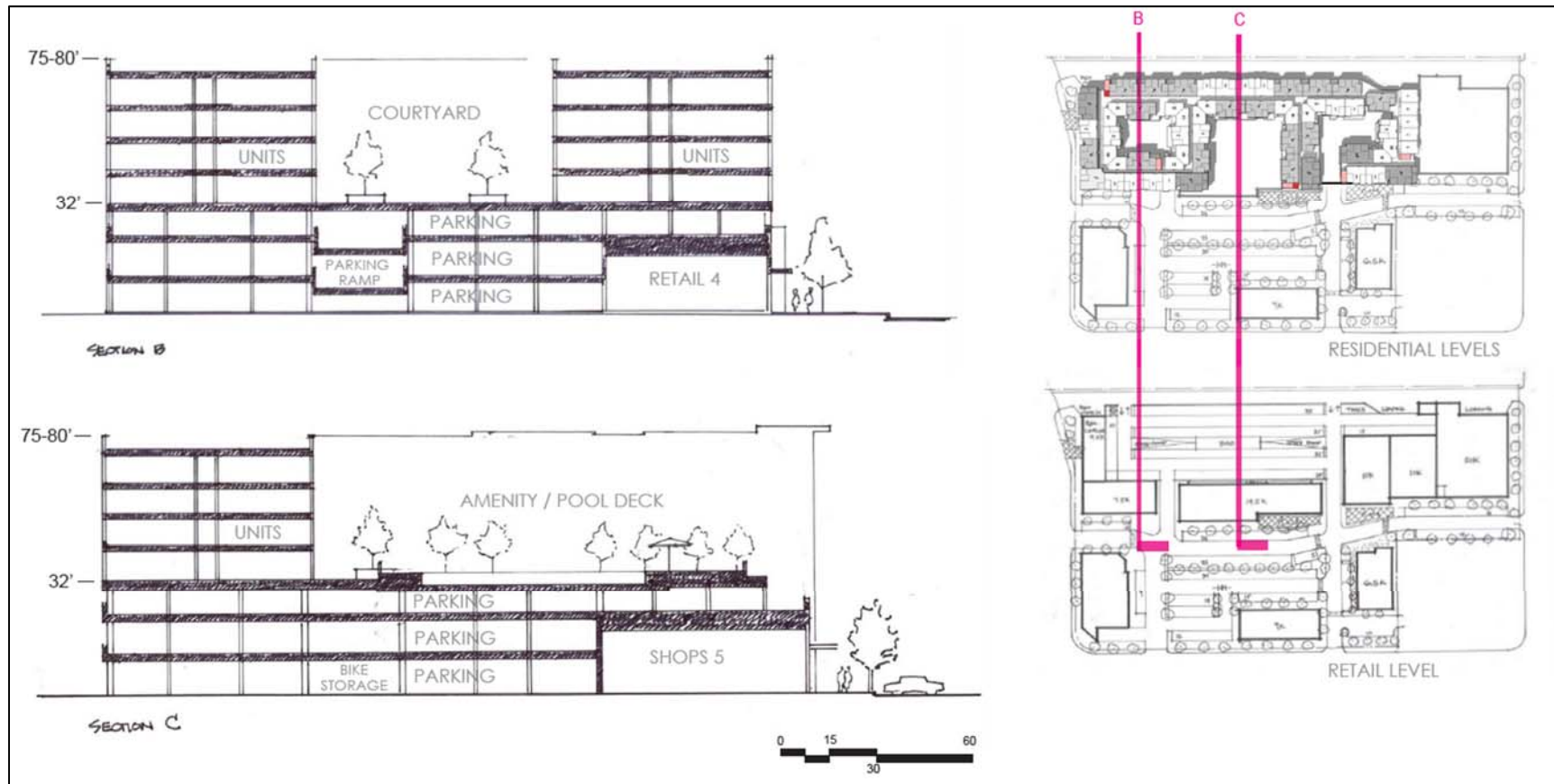


**FIGURE 4**  
**PROPOSED BUILDING LEVELS**





**FIGURE 5**  
**SITE AMENITIES CROSS-SECTION**





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## **Appendix C**

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## Draft Environmental Checklist and Initial Study

**Project Title:** University Mall Redevelopment

**Lead Agency Name and Address:** City of Davis  
Department of Community Development and Sustainability  
23 Russell Boulevard, Suite 2  
Davis, California 95616

**Contact Person and Phone Number:** Eric Lee, Planner  
City of Davis Department of Community Development and Sustainability  
(530) 757-5610  
elee@cityofdavis.org

**Project Sponsor's Name and Address:** Brixmor Property Group, Inc.  
1525 Faraday Avenue, Suite 350  
Carlsbad, CA 92008

### Project Location and Setting:

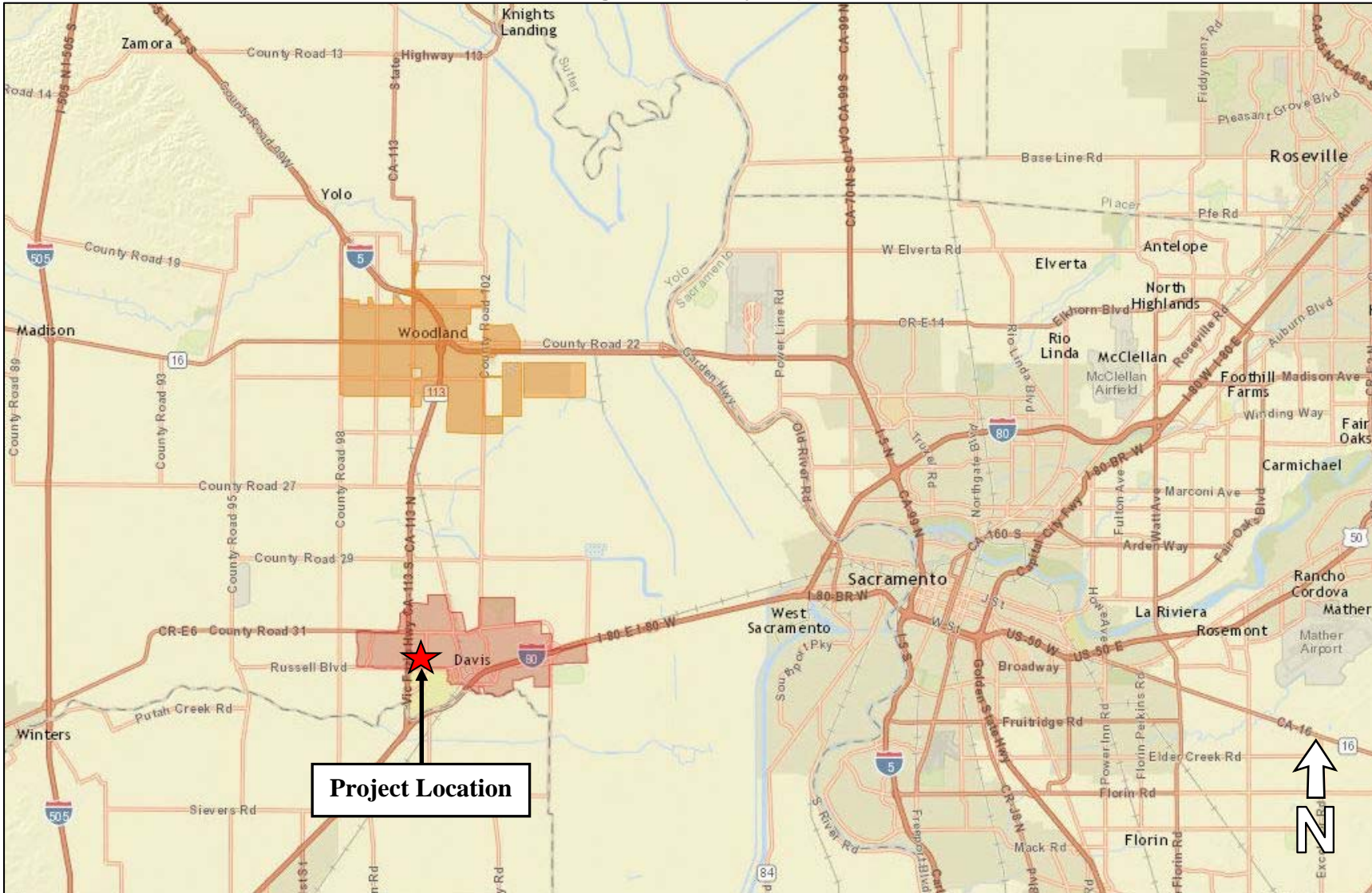
The 8.25-acre project site is located in the City of Davis, California, north of Russell Boulevard, east of Sycamore Lane, and west of Anderson Road (see Exhibit 1 and Exhibit 2). The site is 0.3-mile east of State Route (SR) 113 which provides regional access to the site. The site is identified by Assessor's Parcel Number (APN) 034-253-007.

The project site is currently developed with the University Mall, a 103,695-square-foot (sf) neighborhood shopping center that includes a variety of commercial uses and restaurants. Current tenants include a Trader Joe's grocery store, Forever 21, Cost Plus World Market, The Davis Graduate restaurant and bar, and smaller shops and services. Professional offices are located on a partial second floor.

The original mall buildings are located on the north portion of the rectangular site. Trader Joe's grocery store is a stand-alone pad in the southwestern portion of the site, at the northeast corner of Russell Boulevard and Sycamore Lane and would not be modified as part of the proposed project. Paved parking areas, including approximately 427 spaces, are located on the south, east, and west portions of the site. The site is accessible by two driveways on Russell Boulevard and two driveways each on Sycamore Lane and Anderson Road, respectively.

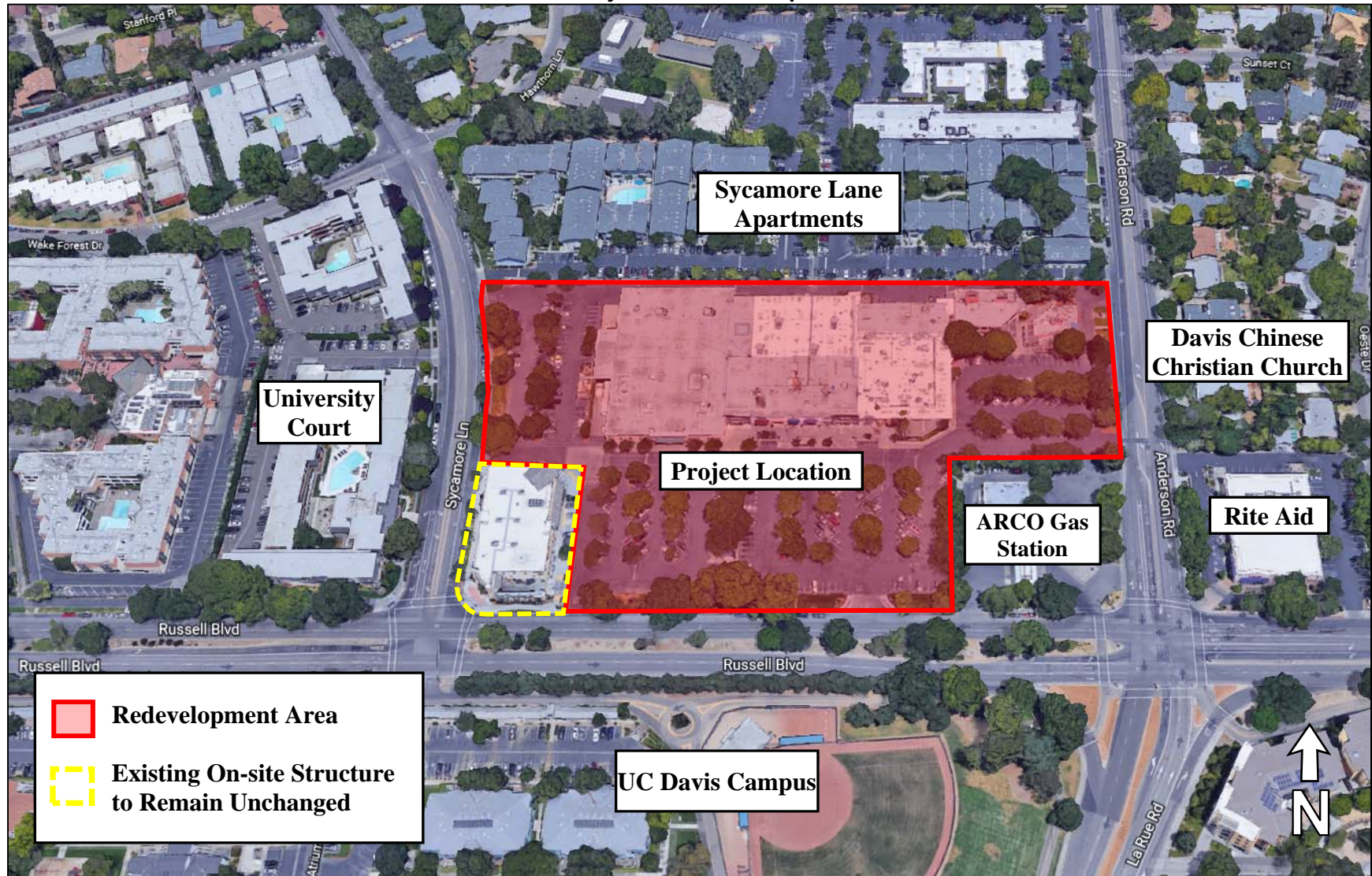
Surrounding uses include an ARCO gas station with a mini-mart located southeast of the site at the northwest corner of Russell Boulevard and Anderson Road; the Davis Chinese Christian Church and Rite Aid pharmacy located east of the site, across Anderson Road; and the University of California, Davis, (UC Davis) campus to the south of the site, across Russell Boulevard. A three-story apartment complex (University Court) is located west of the project site, across Sycamore Lane. The site is bounded to the north by a two-story apartment complex (Sycamore Lane Apartments) with a perimeter parking lot. Existing single-family residences lie further north and east of the project site.

## Exhibit 1 Regional Vicinity Map





**Exhibit 2  
Project Location Map**



### **Policy, Plan, and Zoning Consistency:**

Per the City's General Plan, the project site is currently designated Community Retail. The site is zoned PD# 2-97B (Neighborhood Commercial Center). As discussed in further detail below, the project would require a General Plan Amendment (GPA) and a zoning amendment.

### **Project Site Background:**

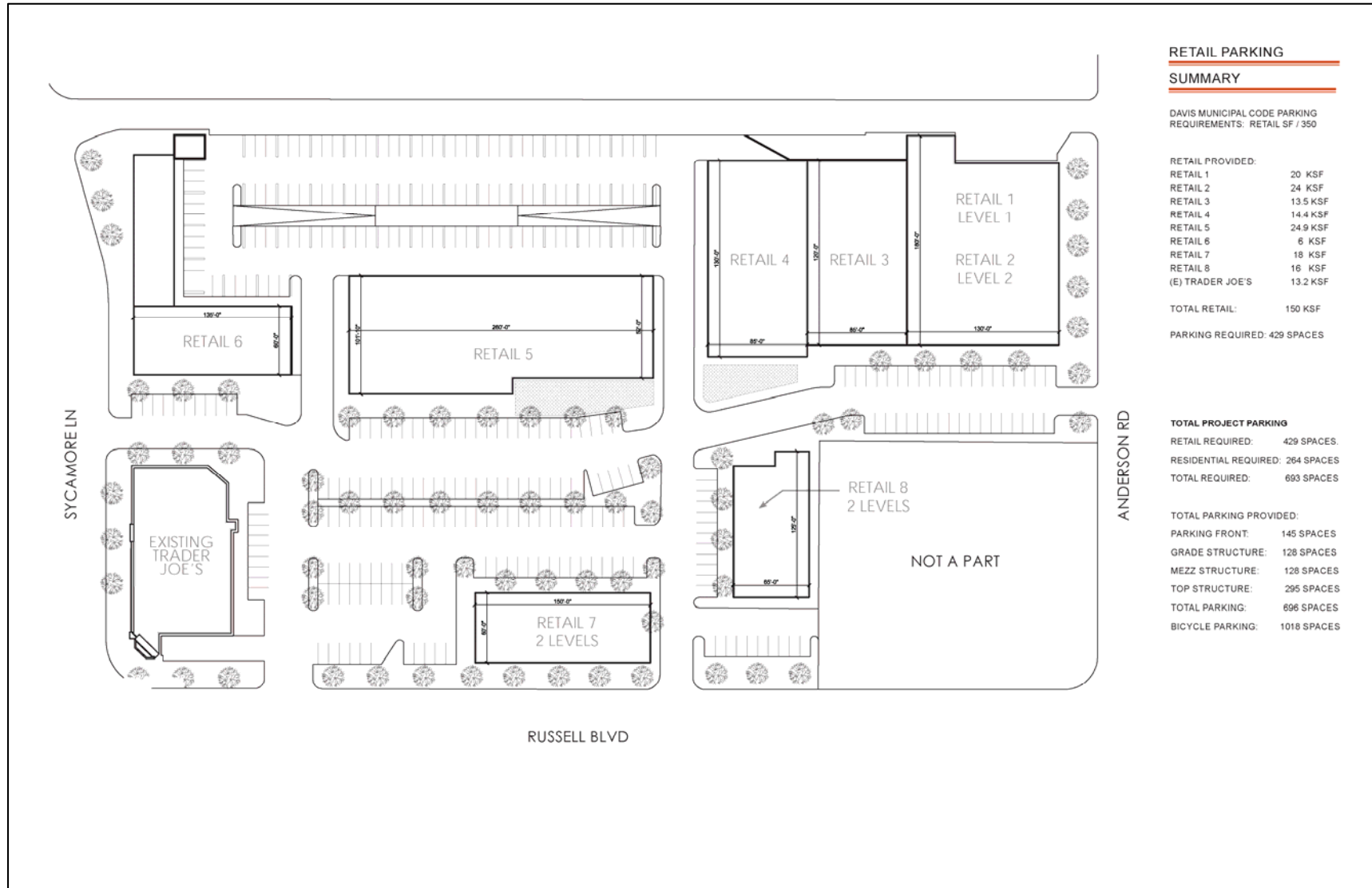
The University Mall was constructed and opened in 1966 and, in 1970, 20,000 sf of space was added to the mall to accommodate Lawrence's department store. In the 1970s, The Davis Graduate restaurant and sports bar was built and became the anchor restaurant for the shopping center. In 1984, the west portion of the University Mall building was added to house a Safeway grocery store and in 1999, the University Mall was renovated and some tenants relocated within the site. In 2004, the University Mall property was acquired by Centro Watt (now known as Brixmor Property Group, Inc.), the second-largest owner of community and neighborhood shopping centers in the U.S., and in 2010, Trader Joe's grocery store was constructed within the southwestern portion of the site. The University Mall was one of the first retail centers in Davis to serve area resident students. However, according to the owner, the current state of the property does not meet today's rapidly changing retail environment and the University Mall buildings and facilities are dated and in need of revitalization.

### **Description of Project:**

The proposed project would include demolition of approximately 90,653 sf of the existing University Mall building to create a mixed-use development that would consist of four levels of residential over ground-floor retail development. Buildout of the proposed project would result in the addition of 264 new multi-family residential units and approximately 136,800 sf of retail space, not including the existing Trader Joe's building. Exhibit 3 shows the ground-level retail plan, which includes the attached retail and parking with residential above, as well as two free-standing buildings (shown as Retail 7 and Retail 8 on Exhibit 3). The redevelopment of 136,800 sf of retail uses would accommodate shops, restaurants, and other uses. The proposed project would include a three-level parking structure that would be situated beneath a portion of the residential development and would provide parking for residential and retail uses. Exhibit 3 shows the retail parking summary and Exhibit 4 shows the residential parking summary.

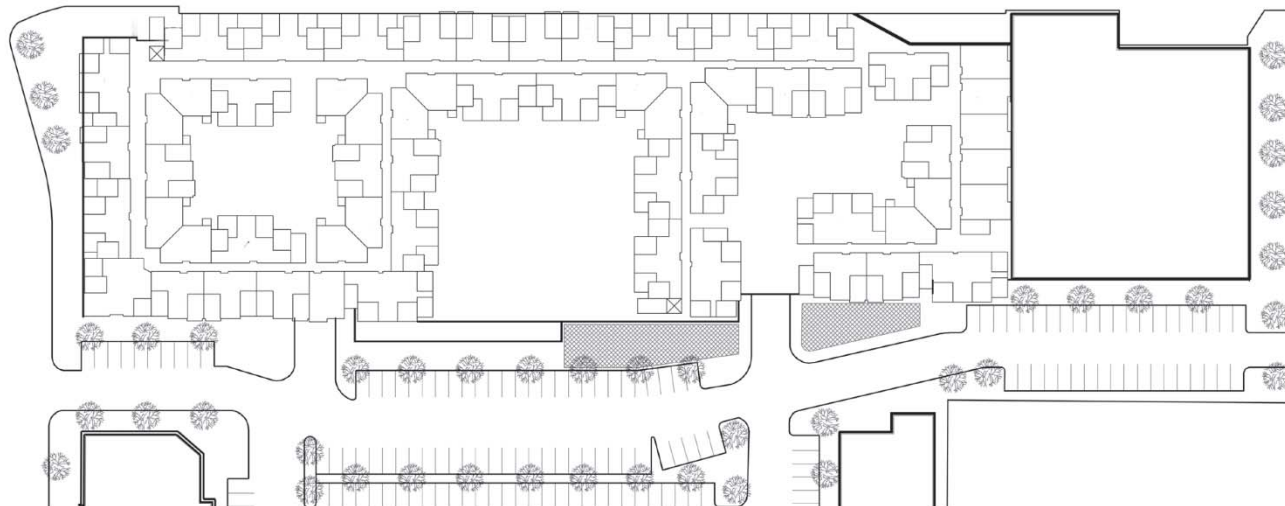
The redeveloped University Mall building would include four levels of residential uses over three levels of parking and four levels of residential uses over retail uses. At buildout, the redeveloped University Mall building would be seven stories and approximately 80 feet in height, with the northeast portion along Anderson Road stepping down to three stories and 44 feet in height (see Exhibit 5). Two new buildings, identified as Retail 7 and Retail 8 in Exhibit 3, would be added to the site adjacent to Russell Boulevard and would consist of approximately 34,000 sf of new retail space. The existing 13,200-sf Trader Joe's grocery store building, located on the southwestern portion of the site, would remain unchanged at project buildout. At buildout, the proposed project would include approximately 795,300 sf, as shown in Table 1.

### Exhibit 3 Ground-Level Retail Plan





## Exhibit 4 Residential Parking Summary



### RESIDENTIAL PARKING SUMMARY

DAVIS MUNICIPAL CODE PARKING  
REQUIREMENTS: 1 STALL / UNIT  
RESIDENTIAL LEASABLE AREA:  
412,500 SF

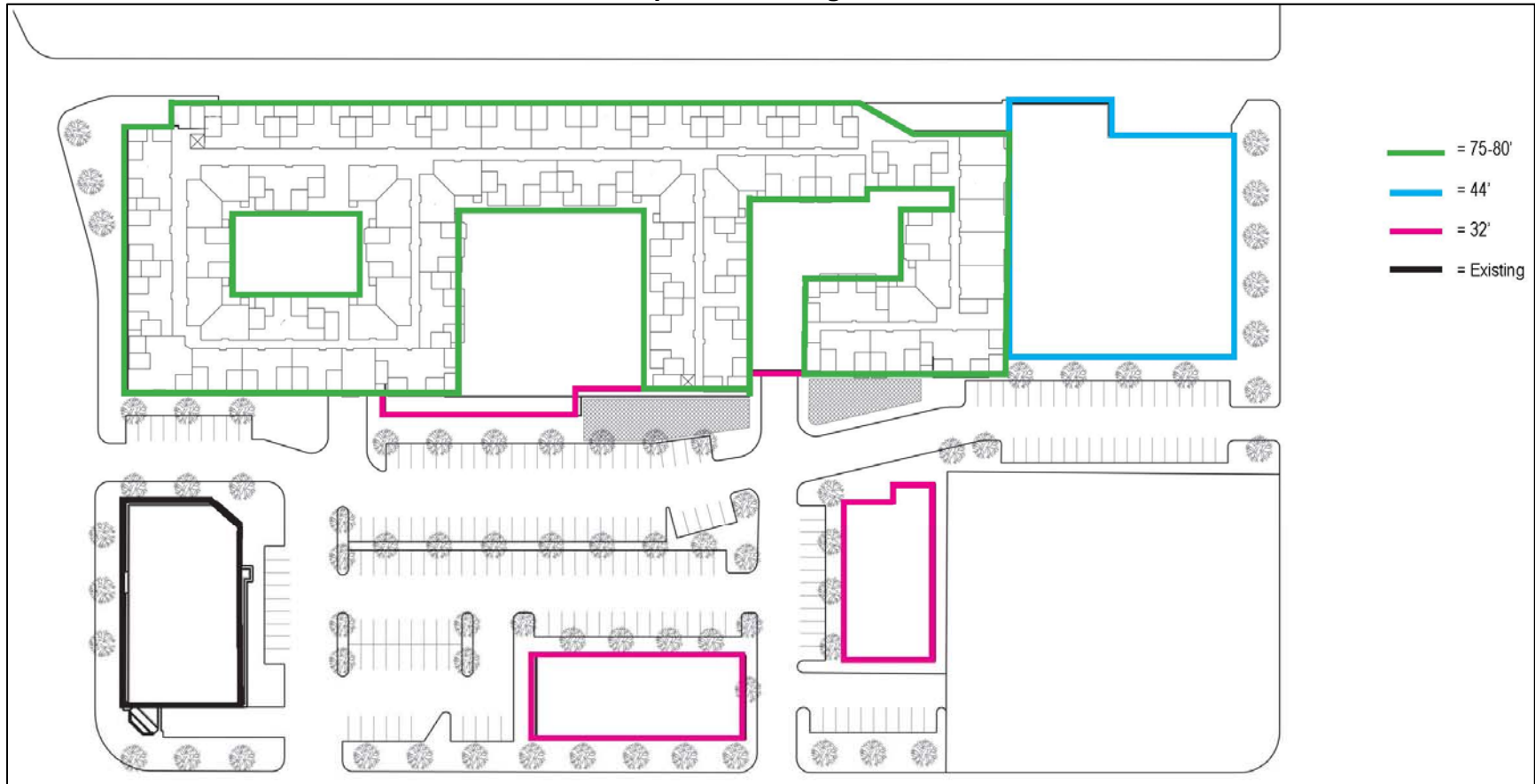
RESIDENTIAL UNITS: 284  
BEDS: 894  
PARKING PROVIDED: 265 SPACES

UNIT MIX:  
1 BEDROOM UNITS: 66 25%  
2 BEDROOM UNITS: 104 40%  
3 BEDROOM UNITS: 28 10%  
4 BEDROOM UNITS: 66 25%

**TOTAL PROJECT PARKING**  
RETAIL REQUIRED: 429 SPACES  
RESIDENTIAL REQUIRED: 264 SPACES  
TOTAL REQUIRED: 693 SPACES

**TOTAL PARKING PROVIDED:**  
PARKING FRONT: 145 SPACES  
GRADE STRUCTURE: 128 SPACES  
MEZZ STRUCTURE: 128 SPACES  
TOP STRUCTURE: 295 SPACES  
TOTAL PARKING: 696 SPACES  
BICYCLE PARKING: 1018 SPACES

**Exhibit 5  
Proposed Building Levels**



<b>Table 1</b>		
<b>University Mall Redevelopment Square Footage</b>		
	<b>Square Feet</b>	<b>Units</b>
Residential Area	412,500 sf	264
Retail Area	136,800 sf	-
Parking Garage	246,000 sf	-
Total Project	795,300	264
Note: The square footage for 'Retail Area' does not include the Trader Joe's building as it will not be redeveloped as part of the proposed project, but will remain in its current form.		

The proposed 264 multi-family residential units would consist of 66 one-bedroom, 104 two-bedroom, 28 three-bedroom, and 66 four-bedroom units. Bedrooms would be comprised of 430 single-occupancy rooms and 232 double-occupancy rooms, resulting in a total bed count of 894. The residential portion of the proposed project would be approximately 412,500 sf and have a density of approximately 32 units per acre. Due to the immediate proximity of the project site to the UC Davis campus and the demand for student housing, the proposed residential development would be focused on student use, but would be available for non-students as well. The residential units would be arranged around a courtyard with a pool and outdoor lounge area (see Exhibit 6) and would include additional amenities such as a fitness room, bicycle storage, a bike repair station, and a rooftop terrace.

#### Parking, Access, and Circulation

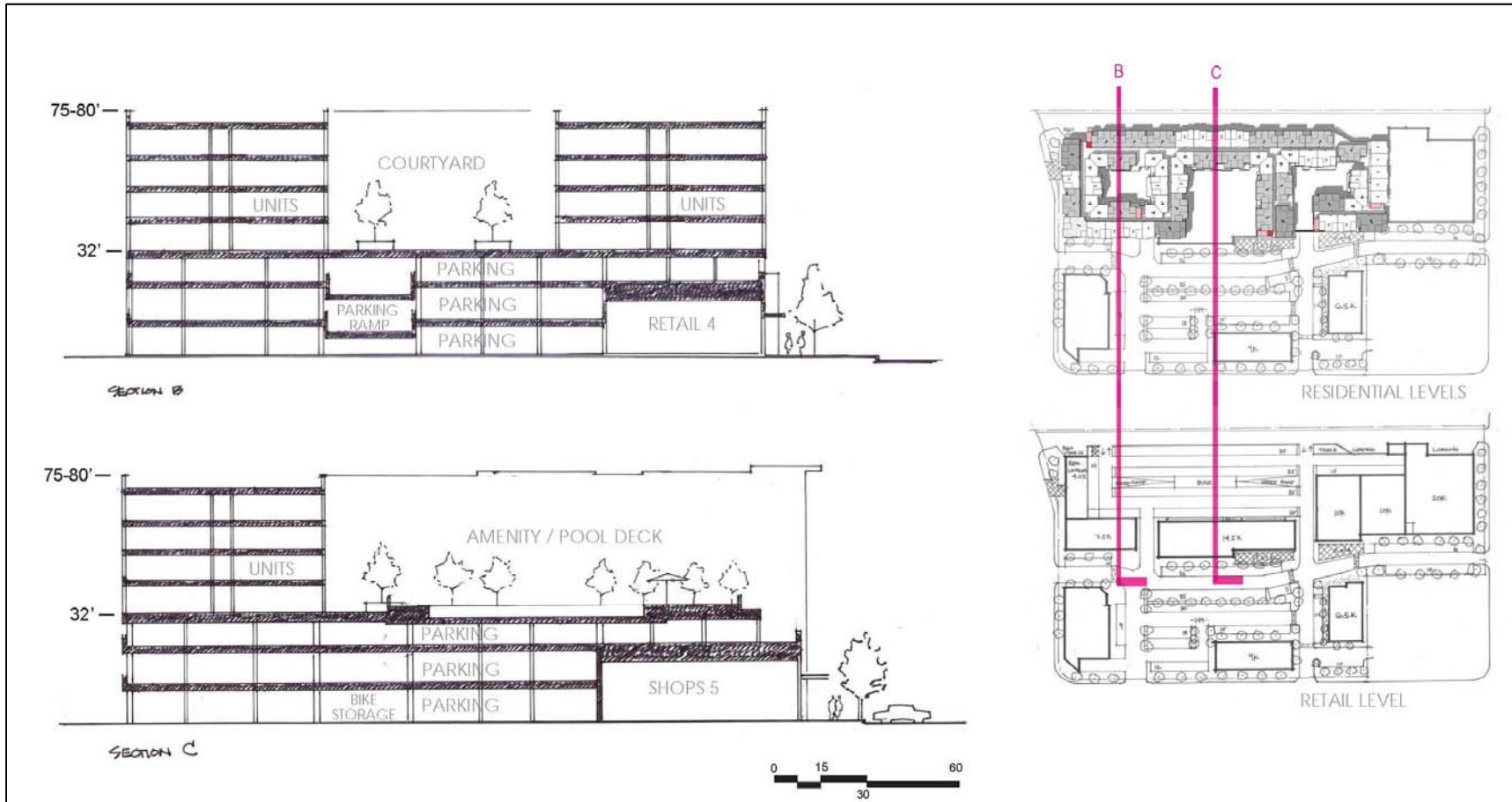
Parking for the proposed project would be provided by 696 total parking spaces, which would consist of 265 spaces for residential use and 431 for retail use. Retail and residential parking spaces would be provided by a new, three-story parking garage with 551 total spaces. The first and second levels of the parking garage would each provide 128 retail parking spaces. The third level of the parking garage would provide 265 parking spaces for the proposed residential units, as well as 30 parking spaces for retail use, for a total of 295 spaces. An additional 145 retail parking spaces would be provided by the surface-level parking lot. Numerous electric vehicle and car-sharing spaces would be provided, and an electric vehicle charging parking plan would be developed to accommodate future growth for additional electric vehicles. A total of 1,018 bicycle parking spaces would be included as part of the proposed project, including on each level of the proposed parking structure.

Access to the project site is provided by two driveways each on Russell Boulevard, Sycamore Lane, and Anderson Road. Access to the proposed project site would remain primarily unchanged from existing conditions. The project would not include any improvements or modifications to roadways in the site vicinity. Pedestrian walkways would be added throughout the property to enhance walkability.

#### Alternative Transportation

The project site is located within a Transit Priority Area, as defined by the Sacramento Area Council of Governments (SACOG), and directly adjacent to the Russell Boulevard high quality transit corridor, which serves the B, C, G, J, K, P and Q Unitrans bus line routes. In addition, Russell Boulevard is served by Yolobus Route 220, which provides commuter transit to and from Winters and Vacaville. Nearby Yolobus stops located on F Street and the UC Davis Memorial Union provide commuter transit to Sacramento.

## Exhibit 6 Site Amenities Cross-Section



The proposed project would provide pedestrian walkways throughout the property, as well as access to existing off-street bikeways adjacent to the site. Surrounding roadways, including Sycamore Lane and Anderson Road, offer marked bike lanes and Russell Boulevard offers access to the City's off-street bicycle loop path.

### Landscaping

The proposed project would retain the existing landscaped areas and separated sidewalks along the project site frontages at Sycamore Avenue, Russell Boulevard, and Anderson Road. Within such areas, landscaping elements would be updated or replaced as necessary. It should be noted that development of the proposed project would require removal of 82 of the existing 98 on-site trees. There are 11 additional trees nearby in the roadway median.

### Utilities and Service Systems

Domestic and fire water service would continue to be provided by the City by way of connections to existing infrastructure along adjacent roadways. The project site is located within Area 8 of the Davis Sewer System Management Plan and would connect into a 6-inch sewer main on Anderson Drive, an 8-inch sewer main on Sycamore Lane, and a 6-inch sewer main in the easement on the north side of the site.

### Sustainability

The proposed project would be designed with contemporary architectural elements to meet a Gold designation in Leadership in Energy and Environmental Design (LEED) from the U.S. Green Building Council (USGBC) or equivalent. The proposed building design would use energy-efficient lighting and HVAC systems. As mentioned above, electric vehicle and car-sharing spaces would be provided on-site, as well as bicycle parking spaces. Pedestrian walkways would be added throughout the property to enhance walkability and the project site allows for connections to existing bicycle facilities. Efficient water-wise fixtures would be used to assist in water conservation. Eco-friendly/sustainable construction materials and energy-efficient windows would be selected for design purposes to further improve building sustainability.

### General Plan and Zoning Amendment

The site is designated in the General Plan as Community Retail. Under the Community Retail designation, residential uses are allowed with approval of a Conditional Use Permit. In addition, the maximum floor area ratio for retail is 0.50 with an additional 0.15 allowed for the residential component in a mixed-use project. The proposed project would require an amendment to the City's General Plan text to create a new land use designation to allow for the mix of retail and residential uses at the proposed density.

The site's zoning designation of PD #2-97B, approved by the City in 2006, establishes a building height limitation of 50 feet and allows residential uses above the ground floor. The project would require modification of the site's current PD #2-97B zoning designation or establishment of a new PD zone to reflect new development standards for the project and allow for the proposed project's building height.

## **Requested Entitlements:**

The following section presents the discretionary and ministerial actions that would be required to implement the proposed project.

### City of Davis Discretionary Approvals

Implementation of the proposed project would require the following entitlements from the City of Davis:

1. Certification of the EIR and adoption of the Mitigation Monitoring Plan. Before the City can approve the proposed project, the City must certify that the EIR was completed in compliance with the requirements of CEQA, that the decision-making body has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the City of Davis. Approval of the EIR also requires adoption of a Mitigation Monitoring Plan (MMP), which specifies the methods for monitoring mitigation measures required to eliminate or reduce the project's significant effects on the environment. The City would also be required to adopt Findings of Fact, and for any impacts determined to be significant and unavoidable, a Statement of Overriding Considerations, as part of project approval.
2. General Plan Amendment. The proposed project would require a General Plan Amendment to create a new land use designation of Mixed-Use Community Retail that allows for large-scale, mixed-use development at the proposed density.
3. Zoning Amendment/Final Planned Development. The proposed project would require a zoning amendment to the PD #2-97 zoning designation or establishment of a new PD to reflect development standards for the proposed project and allow the mix of uses at the proposed density and building height.
4. Development Agreement.

In addition, the proposed project would require a separate application for Site Plan and Architectural Review when building design and final site details have been determined.

### Other City of Davis Ministerial Permits

Implementation of the proposed project would require ministerial permits from the City of Davis, which would include, but would not be limited to, the following:

1. Demolition permit for demolition of 90,653 sf of the existing University Mall building;
2. Tree modification or removal permits for any trimming, modification, or removal of trees protected under Chapter 37 of the City of Davis' Municipal Code;
3. Encroachment Permit for any construction within the public rights-of-way; and
4. Building Permits for construction of the new buildings.

### Other Agency Permits and Approvals

Implementation of the proposed project would require permits or approvals from other agencies, including, but not limited to, the following:

1. Central Valley Regional Water Quality Control Board (CVRWQCB) – The proposed project would disturb more than one acre of land; therefore, the project would be



required to obtain coverage under the National Pollution Discharge Elimination System through the Storm Water Pollution Prevention permitting program of the CVRWQCB.

## **CEQA Streamlining**

The Legislature has adopted several statutory provisions to incentivize infill development within this region of the state that is consistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) adopted by the SACOG including but not limited to Public Resources Code (PRC) sections 21155-21155.4, 21159.28, and 21099. SACOG has provided a letter to the City of Davis, included as Appendix A to this Initial Study, indicating that the proposed project is consistent with SACOG's MTP/SCS.<sup>1</sup> Streamlining benefits applicable to qualifying in-fill projects that are consistent with SACOG's MTP/SCS include the following:

1. The EIR is not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network. (PRC, § 21159.28, subd. (a).)
2. Alternative locations, densities, and building intensities to the proposed project need not be considered. (PRC, § 21159.28, subd. (b).)
3. Aesthetic and parking impacts should not be considered significant impacts on the environment. (PRC, § 21099, subd. (d)(1).)

Transit Priority Areas are areas of the region within one-half mile of a major transit stop or an existing or planned high-quality transit corridor included in the MTP/SCS. Per the letter provided by SACOG, the project qualifies as a Transit Priority Project, as the proposed project would involve greater than 50 percent residential uses, has a minimum density of 20 units per acre, and is located within 0.5-mile of a high-quality transit corridor (i.e., the Russell Boulevard high-quality transit corridor). Furthermore, the proposed project is an infill project within the Established Community designation of the MTP/SCS for the City of Davis. Within the Established Community, the MTP/SCS forecasts a range of low- to high-density residential, commercial, office, and industrial uses. The proposed project's land uses fall within this range of general uses, densities, and building intensities.

According to SACOG, because the project is greater than 50 percent residential development, has a density of more than 20 units per acre, and is located within 0.5-mile of a high-quality transit corridor, the project qualifies as a Transit Priority Project and the City intends to streamline the University Mall Redevelopment EIR, as noted throughout the checklist section of this Initial Study, as appropriate.

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<sup>1</sup> Sacramento Area Council of Governments. *University Mall Redevelopment project consistency with the Metropolitan Transportation Plan/Sustainable Communities Strategy for 2036*. June 19, 2018.

**Environmental Factors Potentially Affected:** The environmental factors checked below would be potentially affected by this proposed project, involving at least one impact that is a “Potentially Significant Impact” or as indicated by the checklist on the following pages.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                                    | <input type="checkbox"/> Agriculture and Forest Resources | <input checked="" type="checkbox"/> Air Quality                   |
| <input type="checkbox"/> Biological Resources                          | <input type="checkbox"/> Cultural Resources               | <input type="checkbox"/> Geology and Soils                        |
| <input checked="" type="checkbox"/> Greenhouse Gas Emissions           | <input type="checkbox"/> Hazards and Hazardous Materials  | <input type="checkbox"/> Hydrology and Water Quality              |
| <input checked="" type="checkbox"/> Land Use and Planning              | <input type="checkbox"/> Mineral Resources                | <input checked="" type="checkbox"/> Noise                         |
| <input type="checkbox"/> Population and Housing                        | <input checked="" type="checkbox"/> Public Services       | <input type="checkbox"/> Recreation                               |
| <input checked="" type="checkbox"/> Transportation and Traffic         | <input type="checkbox"/> Tribal Cultural Resources        | <input checked="" type="checkbox"/> Utilities and Service Systems |
| <input checked="" type="checkbox"/> Mandatory Findings of Significance |   |   |

**Determination:**

On the basis of this Initial Study:

- ☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☒ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report (EIR) pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Signature

Eric Lee, Planner  
\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

City of Davis  
\_\_\_\_\_  
For

## Evaluation of Environmental Impacts:

I. AESTHETICS. <i>Would the project:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

The proposed project is consistent with the MTP/SCS and CEQA streamlining provisions which state aesthetics cannot be considered a significant impact. Nevertheless, the following discussion is provided for informational purposes.

- a. A scenic vista is an area that is designated, signed, and accessible to the public for the express purposes of viewing and sightseeing, including any such areas designated by a federal, State, or local agency. Federal and State agencies have not designated any such locations within the City of Davis for viewing and sightseeing. Similarly, the City of Davis, according to the City's General Plan EIR, has determined that the Planning Area of the General Plan does not contain officially designated scenic corridors, vistas, or viewing areas.<sup>2</sup> Given that established scenic vistas are not located on or adjacent to the project site, the proposed project would result in **no impact** related to scenic vistas.
- b. The project site is not located within the vicinity of a State Scenic Highway and, thus, **no impact** related to damaging scenic resources within such would occur.
- c. Views of the proposed project site from Russell Boulevard, Sycamore Lane, and Anderson Road currently consist of the existing two-story, 103,695-sf University Mall building, Trader Joe's grocery store, and the adjacent ARCO gas station. Multi-family residential development is located to the west, across Sycamore Lane and bounds the site to the north. The Davis Chinese Christian Church and a Rite Aid pharmacy are located to the east of the site, across Anderson Road, and the UC Davis Campus is located south of the site, across Russell Boulevard.

The proposed project would include the re-development of the current University Mall building from a two-story retail development to a seven-story, mixed-use residential/commercial development. In addition, the proposed project would include construction of two new, two-story retail structures on the southern and southeastern portions of the site near the project frontage at Russell Boulevard. Construction of the proposed project would introduce buildings with heights of 80 feet to the site, which

<sup>2</sup> City of Davis. *Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School* [pg. 5-2]. January 2000.

would alter the visual character of the site by contrasting with surrounding one- to three-story developments. However, the proposed 80-foot-tall structures would be set back approximately 215 feet from the project frontage at Russell Boulevard. The proposed buildings closest to Russell Boulevard in the southern and southeastern portions of the project site would be limited to two stories and would, therefore, be consistent in height with the existing Trader Joe's grocery store located in the southwestern portion of the site, as well as other development in the area. The combined effect of proposed setbacks and the location of the two-story structures between Russell Boulevard and the taller University Mall building would reduce the potential for the project to significantly degrade the aesthetic character or quality of the site for motorists, pedestrians, and bicyclists along local roadways.

Along the Anderson Road portion of the site, the building steps down to 44 feet for retail uses with no residential above. Along Sycamore Road, the seven-story structure would face the two- and three-story apartment buildings to the west. Therefore, although the proposed University Mall building would be taller than the immediately surrounding development, the project would not substantially degrade the aesthetic quality of the site or the site's surroundings, as the project area currently consists of a developed environment lacking notable scenic features such as agricultural lands, open space, or extensive native vegetation.

As noted in the MTP/SCS EIR, Established Communities are already more dense and compact than other community types, and the visual landscape of Established Communities is, therefore, dominated by existing urban developments. Considering the existing condition of Established Communities, the MTP/SCS EIR concluded that further infill development in such areas would not have the potential to impact the visual character of Established Communities. The development of the project site for multi-story, mixed-use purposes is consistent with existing and proposed development trends for land uses to the west of the project site. The proposed Davis Live Student Housing Project, located approximately 1,000 feet west of the project site on Russell Boulevard, would include development of a seven-story, 440-bed, student-oriented housing complex with associated improvements including a covered parking garage, fitness center, club room, study lounge, indoor bicycle parking, and leasing office. Further development in the area includes the approved Webster Hall redevelopment associated with the UC Davis Cuarto housing area, which would involve construction of new, four-story, student-oriented housing with associated improvements such as a community kitchen, academic advising center, and computer center. Additionally, the Emerson Hall Redevelopment would result in the construction of three total buildings between four and five stories tall. Finally, UC Davis is in the process of replacing the Orchard Park housing area to the south of the project site, across Russell Boulevard. The Orchard Park housing area is anticipated to include approximately 2,775 beds for UC Davis students. The proposed project shares similarities in land use and intensity with such nearby developments. Thus, the visual character of the project site would be consistent with future urban development in the area.

Furthermore, prior to construction of the proposed structures, the project would be subject to Design Review by the City, as required by Section 40.31 of the City's Municipal Code. The City's Design Review would rely on existing City standards to analyze the proposed structure's architectural and landscape character in isolation and in consideration of the surrounding developments. The intent of the Design Review, as stated in Section 40.31.050 (a), is not to stifle design of proposed structures, but instead

to ensure suitable use of project sites, which allows for individual initiative and architectural character.

Based on the above, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. In addition, the proposed project is located in an area identified as a Transit Priority Area by the MTP/SCS, and would be considered an urban infill project. Aesthetic impacts of infill projects within Transit Priority Areas are not considered significant physical effects on the environment (California PRC Section 21099[d]). Therefore, a ***less-than-significant*** impact would occur.

- d. The project site is currently developed with the University Mall, a 103,695-sf neighborhood shopping center and associated parking lots. The site contains existing sources of light and glare associated with such, including, but not limited to, headlights on cars using the on-site driveways and within on-site parking areas, and exterior security lighting. The site is located adjacent to existing commercial and residential development that currently generates light and glare in the area. Because the proposed project would alter the type and intensity of development on the project site, an increase in the amount of light or glare on the project site as compared to existing conditions could occur.

However, the proposed project would be required to comply with the City's Outdoor Lighting Control policies and the goals and policies of the General Plan. In addition, consistency with the City's Municipal Code would be ensured during the site plan and architectural review process. Section 8.17.030 of the City's Municipal Code includes general requirements for outdoor lighting. For example, the Municipal Code requires all outdoor lighting to be fully shielded and the direction of lighting be considered to avoid light trespass and glare onto surrounding properties. Additionally, Standard "a" of General Plan Policy UD 3.2 states that outdoor lighting should not unreasonably interfere with the use and enjoyment of dark-sky activities and nearby residences. Such regulations would prevent the proposed project from creating new sources of light that would create a nuisance for the nearby residences in the project vicinity. Therefore, the proposed project would not introduce new sources of substantial light or glare to the site which would adversely affect day or nighttime views in the area, and implementation of the project would result in a ***less-than-significant*** impact.

II. AGRICULTURE AND FOREST RESOURCES. <i>Would the project:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
e.	Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
a,e.	The project site is currently built out with commercial uses. In addition, the site is identified as "Urban and Built-Up Land" in the Yolo County Important Farmland 2016 map. <sup>3</sup> As such, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. Therefore, <b>no impact</b> would occur and further analysis is not required.				
b.	The project area is not under any Williamson Act contract and the area is not designated or zoned for agricultural uses. In addition, the project area is bordered by existing commercial and residential development. Because buildout of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, <b>no impact</b> would occur and further analysis is not required.				
c,d.	The project area is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). The site is currently zoned PD# 2-97B. Therefore, the proposed project would have <b>no impact</b> with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning. Further analysis is not required.				

<sup>3</sup> California Department of Conservation. *Yolo County Important Farmland*. 2016.



### III. AIR QUALITY.

*Would the project:*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
a-c. The City of Davis is located within the Sacramento Valley Air Basin (SVAB) and under the jurisdiction of the Yolo-Solano Air Quality Management District (YSAQMD). The federal Clean Air Act (CAA) and the California Clean Air Act (CCAA) require that federal and State ambient air quality standards (AAQS) be established, respectively, for six common air pollutants, known as criteria pollutants. The SVAB is designated nonattainment for the federal particulate matter 2.5 microns in diameter (PM <sub>2.5</sub> ) and the State particulate matter 10 microns in diameter (PM <sub>10</sub> ) standards, as well as for both the federal and State ozone standards. Due to the nonattainment designations, the YSAQMD, along with the other air districts in the SVAB region, is required to develop plans to attain the federal and State standards for ozone and particulate matter. The applicable plans include the 2013 Ozone Attainment Plan, the PM <sub>2.5</sub> Implementation/Maintenance Plan, and the 2012 Triennial Assessment and Plan Update. Adopted YSAQMD rules and regulations, as well as thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans.				

The proposed project includes the development of up to 264 residential units as well as 136,800 sf of new commercial development and associated parking. It should be noted that this commercial square footage does not include the Trader Joe's grocery store because it is a stand-alone pad that would not be modified as part of the proposed project. While the project would be designed to promote alternative modes of transportation, the proposed project would still result in an increase in vehicle trips associated with the site. Long-term increases in vehicle trips in the City of Davis associated with operation of the proposed project would generate increased amounts of ozone precursors, as well as PM<sub>10</sub> and PM<sub>2.5</sub> emissions, that could exceed the applicable YSAQMD thresholds and conflict with applicable air quality plans. In addition, the construction phase of the proposed project would involve demolition, grading, excavation, and paving activities that would generate short-term emissions of criteria pollutants, including fugitive PM<sub>10</sub> and PM<sub>2.5</sub> emissions, which could exceed YSAQMD

thresholds. Fugitive PM<sub>10</sub> and PM<sub>2.5</sub> emissions include particulates from dust emissions from grading and other construction activities. Best Management Practices (BMPs) may be needed to minimize fugitive PM<sub>10</sub> and PM<sub>2.5</sub> emissions. Therefore, the proposed project could violate an AAQS, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase of a criteria pollutant during construction and operations, and a ***potentially significant*** impact related to air quality could occur.

#### Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- d. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. Existing sensitive receptors in the vicinity of the project site include the University Court apartments, located west of the project site across Sycamore Lane, and the Sycamore Lane apartments, located adjacent to the site's northern boundary.

The major pollutant concentrations of concern are localized CO emissions and toxic air contaminant (TAC) emissions, which are addressed in further detail below.

#### Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the proposed project would increase traffic volumes on streets near the project site; therefore, the project would increase local CO concentrations and could expose sensitive receptors to elevated concentrations of localized CO.

#### Toxic Air Contaminants

Another category of environmental concern is TACs. The California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

Construction of the proposed project would involve the short-term operation of heavy-duty diesel-powered construction equipment, which could potentially create health risks to nearby sensitive receptors, including the Sycamore Lane and University Court

apartments located to the north and west of the site, respectively. As such, a full HRA will be conducted to analyze the potential impacts related to the exposure of nearby sensitive receptors to project construction-related emissions. The results of the construction-related HRA will be presented in the University Mall Redevelopment EIR.

The CARB Handbook recommends a setback distance from sensitive receptors of 300 feet for a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot setback is recommended for typical gas dispensing facilities. Because the proposed project would include residential development, the residential portion of the proposed project would be considered a sensitive receptor. The southeastern portion of the project site is located within 300 feet of existing gas pumps associated with the ARCO gas station. Accordingly, depending on the throughput of the ARCO gas station, any proposed residences within 300 feet could be subject to substantial pollutant concentrations associated with operations at the gas station.

The California Supreme Court decision in the case of *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369 clarified that CEQA does not require lead agencies to analyze the impact of existing environmental conditions on a project's future users or residents unless the project will exacerbate the existing environmental hazards or conditions. This limits the CEQA analysis of impacts from existing sources that emit TACs on new receptors from a proposed development project, unless the situation is specifically required to be analyzed by statute (such as a school). While the effects of existing sources of TACs on the proposed project may not be considered a CEQA impact and are not required to be analyzed in the EIR, local jurisdictions have the authority to protect the public health, safety, and welfare of their communities through their police powers. While not required pursuant to CEQA, in order to address potential public health impacts, the City may choose to have an HRA prepared to evaluate the potential health effects of the adjacent ARCO gas station on future project residents, should the throughput of the gas station be confirmed to be in excess of 3.6 million gallons per year. Depending on the confirmed annual throughput of the ARCO gas station, if an HRA is to be prepared, such an HRA would not be included in the EIR, but would be provided as an appendix for the City's use and for public disclosure in order to provide greater understanding of the public health considerations associated with placing residential uses at the proposed project site.

### Conclusion

Based on the above, the proposed project could result in the exposure of sensitive receptors to substantial pollutant concentrations. Thus, a ***potentially significant*** impact could occur.

### Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- e. According to the YSAQMD, common types of facilities that are known to produce odors include, but are not limited to, wastewater treatment facilities, chemical or fiberglass manufacturing, landfills, composting facilities, food processing facilities, refineries,

dairies, and asphalt or rendering plants.<sup>4</sup> The proposed project would not involve any such uses. In addition, mixed-use land uses, such as the proposed project, are not typically associated with the creation of substantial objectionable odors. As a result, the proposed project operations would not create any objectionable odors that would affect a substantial number of people.

Diesel fumes from construction equipment are often found to be objectionable; however, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per Chapter 24 of the City's Municipal Code, and would likely only occur over portions of the improvement area at a time. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. Project construction would also be required to comply with all applicable YSAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions, as well as any associated odors related to operation of construction equipment. Considering the short-term nature of construction activities, as well as the regulated and intermittent nature of the operation of construction equipment, construction of the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

The YSAQMD regulates objectionable odors through Rule 2.5 (Nuisance), which prohibits any person or source from emitting air contaminants or other material that result in any of the following: cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; endanger the comfort, repose, health, or safety of any such persons or the public; or have a natural tendency to cause injury or damage to business or property. Rule 2.5 is enforced based on complaints. If complaints are received, the YSAQMD is required to investigate the complaint, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications. Thus, although not anticipated, if odor complaints are made during construction or operation of the project, the YSAQMD would ensure that such odors are addressed and any potential odor effects reduced to less than significant.

For the aforementioned reasons, construction and operation of the proposed project would not create objectionable odors that would affect a substantial number of people, and a **less-than-significant** impact related to objectionable odors would result.

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<sup>4</sup> Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts* [pg. 14]. July 11, 2007. Available at: <http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf>. Accessed September 2018.

#### IV. BIOLOGICAL RESOURCES.

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

- a. Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal and California Endangered Species Acts. Both acts afford protection to listed and proposed species. Although the California Department of Fish and Wildlife (CDFW) Species of Special Concern generally do not have special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the United States, including non-special-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. In addition, plant species on California Native Plant Society (CNPS) Lists 1 and 2 are considered special-status plant species and are protected under CEQA.

The proposed project site is currently fully developed with the existing University Mall building, a Trader Joe's grocery store, and associated parking lots. The only vegetation on the project site consists of ornamental landscaping and associated trees located

throughout the parking areas and along roadway frontages. As discussed in greater detail below, the site currently contains 98 trees, and 82 trees are proposed to be removed as part of the proposed project. Eleven (11) additional trees are located nearby in the roadway median and are not affected. In addition, the project site is surrounded on all sides by other existing development.

Due to the highly disturbed nature of the project site and surrounding area, the potential for any special-status plant or wildlife species to be present on the site is low. A CNDDDB search indicated several historic records of active Swainson's hawk nests within the project vicinity. While the project site does not provide significant value as wildlife foraging habitat, the mature trees located along the Russell Boulevard street frontage, as well as the mature trees along the site's perimeter and within the parking lot area could support nesting Swainson's hawk, as well as other migratory birds protected under the federal Migratory Bird Treaty Act. Based on recorded CNDDDB observations in the project vicinity and the existing site conditions, the only sensitive species with any potential to occur in or in the vicinity of the project site are Swainson's hawk (*Buteo swainsoni*).

Furthermore, the trees and shrubs present on the project site could provide suitable nesting habitat for migratory birds whose nests are afforded protection under the MBTA. Site construction activities, including tree removal during the active nesting season (February 1 to August 31) have the potential to cause the failure or abandonment of active nests of migratory birds. Impacts to nesting birds, their eggs, and/or young caused by implementation of the project would be regarded as a potentially significant impact.

In the absence of preconstruction surveys, development of the proposed project could have a **potentially significant** impact with respect to having an adverse effect, either directly or through habitat modifications, on a species identified as a special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS).

#### Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

#### *Swainson's Hawk*

*IV-1            The project proponent shall retain a qualified biologist to conduct planning-level surveys and identify any nesting habitat present within 1,320 feet of the project footprint. Adjacent parcels under different land ownership shall be surveyed only if access is granted or if the parcels are visible from authorized areas.*

*If a construction project cannot avoid potential nest trees (as determined by the qualified biologist) within 1,320 feet, the project proponent shall retain a qualified biologist to conduct a preconstruction survey for active nests consistent with the recommended methodology of the Swainson's Hawk Technical Advisory Committee (2000), between March 20 and July 30, within 15 days prior to the beginning of the construction activity. The results of the survey shall be submitted to the Conservancy and CDFW. If active nests are found during the preconstruction survey, a 1,320-foot*



*initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist shall monitor the nest and shall, along with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities, including tree pruning or removal, are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. Up to 20 Swainson's hawk nest trees (documented nesting within the last 5 years) may be removed during the permit term, but they must be removed when not occupied by Swainson's hawks.*

*If this project involves pruning or removal of a potential Swainson's hawk or white-tailed kite nest tree, the project proponent shall conduct a preconstruction survey that is consistent with the guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000). If active nests are found during the preconstruction survey, no tree pruning or removal of the nest tree shall occur during the period between March 1 and August 30, unless a qualified biologist determines that the young have fledged and the nest is no longer active.*

#### *Raptors and Nesting Migratory Birds*

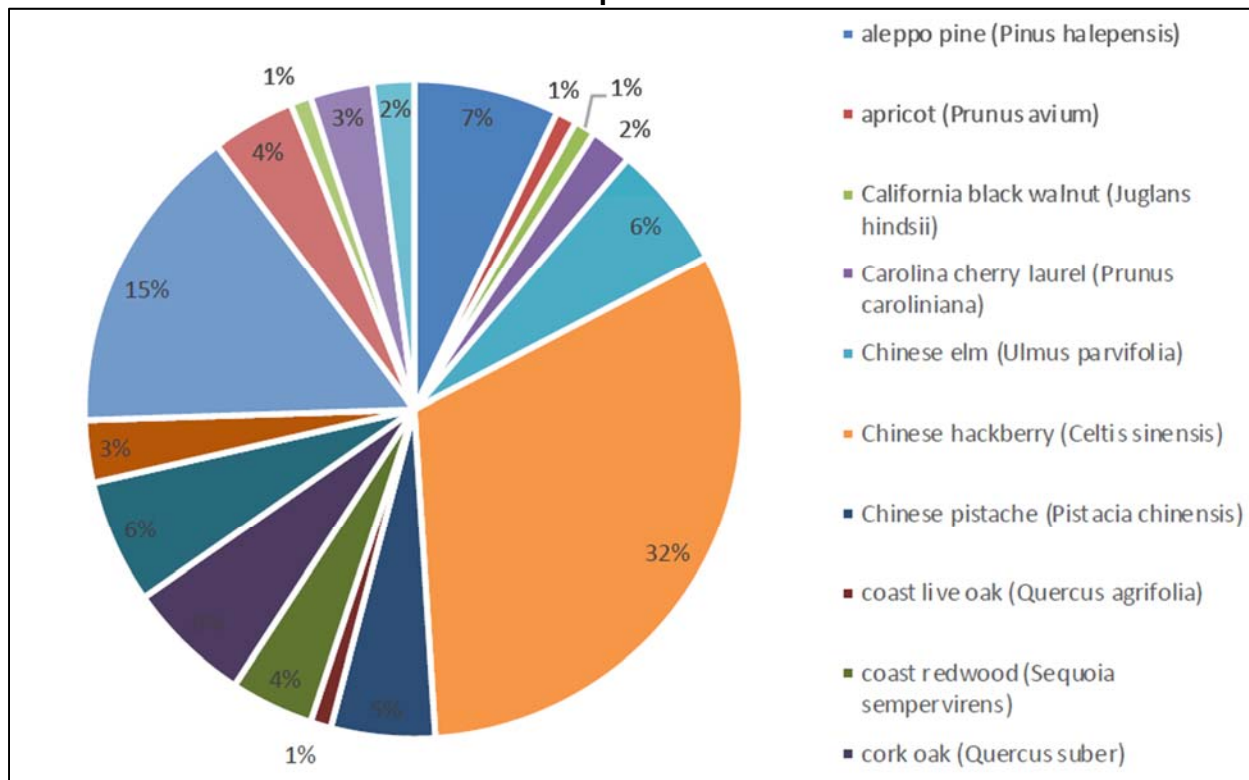
*IV-2 The project applicant shall implement the following measures to avoid or minimize impacts to raptors and federally-protected nesting migratory birds:*

- If any site disturbance or construction activity for any phase of development begins outside the February 1 to August 31 breeding season, a preconstruction survey for active nests shall not be required.*
- If any site disturbance or construction activity for any phase of development is scheduled to begin between February 1 and August 31, a qualified biologist shall conduct a preconstruction survey for active nests from publicly accessible areas within 14 days prior to site disturbance or construction activity for any phase of development. The survey area shall cover the construction site and the area surrounding the construction site, including a 100-foot radius for MBTA birds, and a 500-foot radius for birds of prey. If an active nest of a bird of prey, MBTA bird, or other protected bird is not found, then further mitigation measures are not necessary. The preconstruction survey shall be submitted to the City of Davis Department of Community Development and Sustainability for review.*

- *If an active nest of a bird of prey, MBTA bird, or other protected bird is discovered that may be adversely affected by any site disturbance or construction or an injured or killed bird is found, the project applicant shall immediately:*
  - *Stop all work within a 100-foot radius of the discovery.*
  - *Notify the City of Davis Department of Community Development and Sustainability.*
  - *Do not resume work within the 100-foot radius until authorized by the biologist.*
  - *The biologist shall establish a minimum 500-foot Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-foot ESA around the nest if the nest is of an MBTA bird other than a bird of prey. The ESA may be reduced if the biologist determines that a smaller ESA would still adequately protect the active nest. Further work may not occur within the ESA until the biologist determines that the nest is no longer active.*

- b,c. The project site is currently fully developed and does not contain any wetlands, riparian habitat, or other aquatic features or sensitive natural communities. As a result, development of the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS. In addition, the project would not have a substantial adverse effect on a federally protected wetland, as defined by Section 404 of the Clean Water Act. Therefore, **no impact** would occur and further analysis is not required.
- d. The project site is currently fully developed with commercial buildings and paved parking lots and is located on an infill lot surrounded by existing development. The only vegetation on the project site consists of ornamental landscaping and associated trees located throughout the parking areas and along roadway frontages. In addition, open space areas or riparian corridors do not exist in the vicinity of the project site. Thus, the potential for use of the site as a wildlife corridor or native wildlife nursery site is severely limited. The site does not contain any waterways that would provide habitat for native resident or migratory fish. Therefore, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and a **less-than-significant** impact would occur.
- e. Chapter 37 of the City Municipal Code defines “trees of significance” as trees greater than five inches in diameter. According to the Arborist Report (see Appendix B), the proposed project site contains 98 trees of significance and 11 more trees of significance could be affected by the proposed project due to their proximity to the site. Of the 109 total trees evaluated, 17 tree species, mostly comprised of Chinese hackberry and fruitless mulberry, were represented on-site. Exhibit 7 below shows the distribution of tree species within the project site.

### Exhibit 7 On-Site Tree Species Distribution



Of the 98 on-site trees evaluated, 49 trees were deemed by the arborist to be in poor to fair-poor structural condition. The arborist recommended 42 of these trees be removed due to their poor condition and suitability for preservation. An additional 40 trees would be removed due to conflicts with the proposed site layout. The proposed project would result in the removal of 82 on-site trees. The remaining 16 on-site trees would be preserved.

For the 16 trees to be preserved, effects related to implementation of the proposed project would result in a low impact on seven trees, a moderate impact on one tree, a high impact on two trees, and an extreme impact on six trees. Eight trees received an impact rating of either high or extreme, the result of which may require that those trees be removed or mitigated for if project plans cannot be modified to provide more undisturbed space for them. In addition, three of the 11 off-site trees would need to be removed due to conflicts with the proposed project site layout.

Article 37.03.060 of the City's Municipal Code requires approval of a valid tree removal request and/or tree modification permit prior to cutting down, pruning substantially, encroaching into the protection zone of, or topping or relocating any landmark tree or tree of significance. Furthermore, Article 37.05 contains protection procedures to be implemented during grading, construction, or other site-related work. Such procedures, include, but are not limited to, inclusion of tree protection measures on approved development plans and specifications, and inclusion of tree care practices, such as the cutting of roots, pruning, etc., in approved tree modification permits, tree preservation plans, or project conditions.

Development of the proposed project would require removal of a substantial portion (84 percent) of the existing on-site trees, including trees protected by the City's Municipal Code. Exhibit 8 provides an overview of tree removal activities associated with the proposed project. Considering the tree removal activity anticipated for the project, as shown in Exhibit 8, the project applicant would be required to obtain a tree removal permit and provide for the following: (1) on-site replacement; (2) off-site replacement; and/or (3) payment of in-lieu fees. Should the project fail to comply with protection measures identified for the trees that are being preserved on-site, the proposed project could result in a **potentially significant** impact with respect to conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

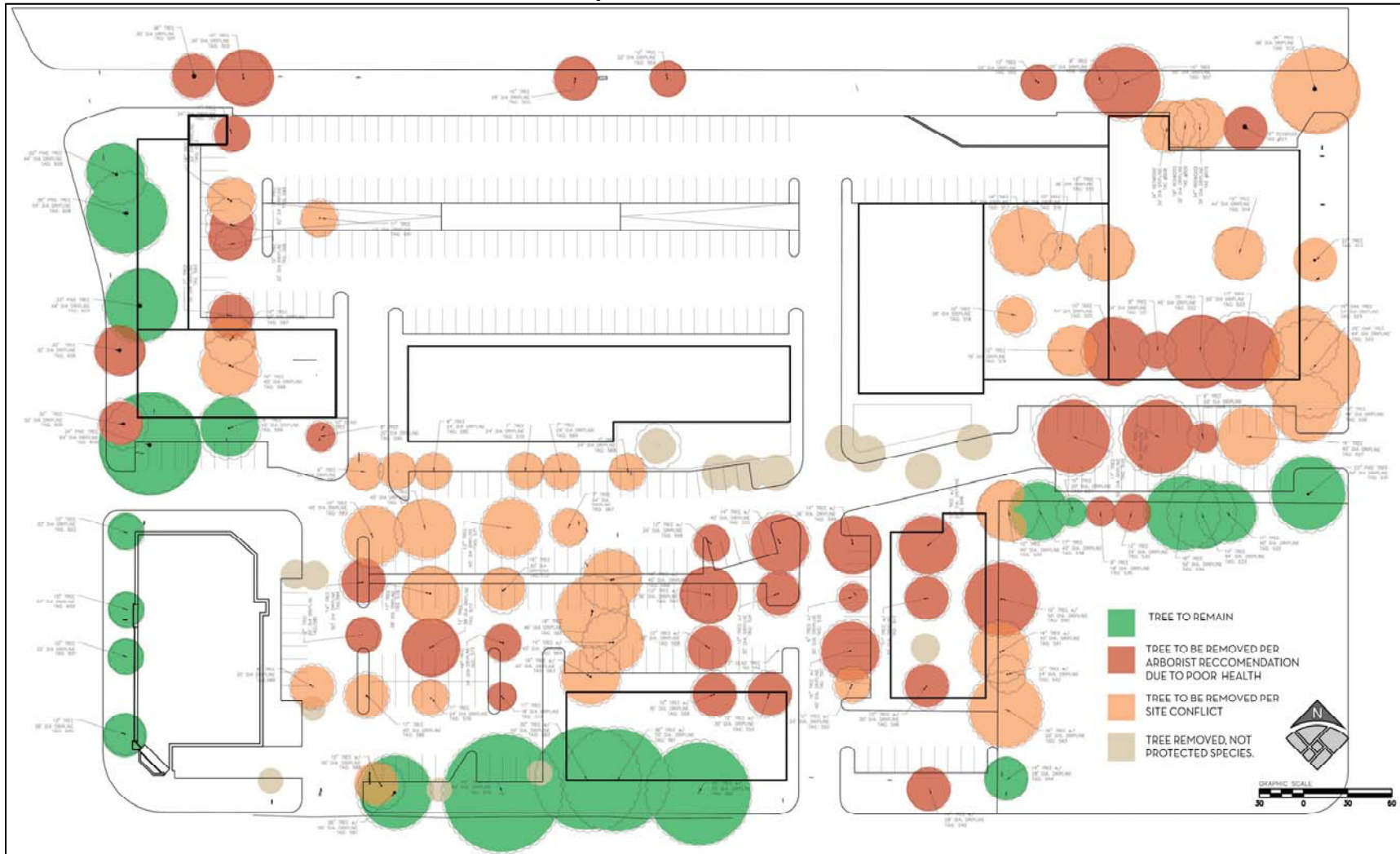
#### Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level by ensuring successful implementation of the tree preservation guidelines provided in the project-specific Arborist Report.

*IV-3                    The project applicant shall implement the following tree preservation measures prior to and during construction for the 16 on-site and eight off-site trees to be preserved.*

- *Tree Protection Zones (TPZs): The surveyed trunk locations and TPZs / tree protection fencing shall be indicated on all construction plans for trees to be preserved;*
- *Modified TPZs: Modified TPZs are areas where proposed infrastructure is located within protection zones. These Modified TPZs and fencing shall be indicated as close to infrastructure as possible (minimize overbuild);*
- *The Consulting Arborist shall revise development impact assessment (as needed) for trees to be preserved once construction plans are drafted;*
- *Grading, compaction, trenching, rototilling, vehicle traffic, material storage, spoil, waste, or washout, or any other disturbance within TPZs shall be avoided to the maximum extent feasible;*
- *Any work that is to occur within the TPZs shall be monitored by the Consulting Arborist;*
- *A meeting shall be conducted to discuss tree preservation guidelines with the Consulting Arborist and all contractors, subcontractors, and project managers prior to the initiation of demolition and construction activities*
- *be installed in a circle centered at the tree trunk with a radius equal to the defined TPZ as indicated in the Arborist Report;*
- *Tree protection fences should be made of chain-link with posts sunk into the ground, and shall not be removed or moved until construction is complete;*  
*Any pruning shall be performed per recommendations in the Arborist Report by an ISA Certified Arborist or Tree Worker. Pruning for necessary clearance should be the minimum required to build the project and performed prior to demolition by an ISA Certified Arborist;*

## Exhibit 8 Anticipated Tree Removal Plan



- *If roots larger than 2 inches or limbs larger than 3 inches in diameter are cut or damaged during construction, the Consulting Arborist shall be contacted immediately to inspect and recommend appropriate remedial treatments; and*
- *All trees to be preserved shall be irrigated once every two weeks, spring through fall, to uniformly wet the soil to a depth of at least 18 inches under and beyond the canopies of the trees.*

*The tree preservation measures shall be included in the notes on construction drawings.*

- f. The proposed project is located within the boundaries of the Yolo Habitat Conservation Plan/Natural Conservation Community Plan (HCP/NCCP). Per the HCP/NCCP, the land cover type on the project site is “Developed”. Developed areas are dominated by pavement and building structures. Vegetation in developed areas generally consists of vegetated corridors (e.g., vegetation maintained adjacent to highways) and patches of mostly ornamental vegetation, such as tree groves, street strips, shade trees, lawns, and shrubs that are typically supported by irrigation. Urban lands cover 45,700 acres, or seven percent, of the Yolo HCP/NCCP Area. This area includes urban vegetation and all areas with structures, graded lots, road and highway medians, anthropogenic drainage canal vegetation, rail rights-of-way, and sewage treatment ponds that do not provide habitat. Based on the Developed HCP/NCCP land cover type on the project site, the site does not contain high-quality habitat for covered species and the proposed project would not be subject to payment of habitat mitigation fees. Therefore, a ***less-than-significant*** impact would occur related to conflict with an adopted habitat conservation plan.



<b>V. CULTURAL RESOURCES.</b> <i>Would the project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	✘	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	<input type="checkbox"/>	✘	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries.	<input type="checkbox"/>	✘	<input type="checkbox"/>	<input type="checkbox"/>

The following discussion is based on a Cultural Resources Inventory and Architectural History Evaluation Report (Report) prepared for the proposed project by ECORP Consulting, Inc.<sup>5</sup> The Report included a records search, field survey, a search of the Native American Heritage Commission's (NAHC) Sacred Lands File, and an evaluation of the existing building relative to the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). Additionally, archeological site information and soils maps were reviewed to determine the potential for buried deposits.

- a. The proposed project site is currently developed with the 103,695 sf University Mall, a neighborhood shopping center that includes a variety of commercial uses and a Trader Joe's grocery store. The building was originally constructed in 1965 and opened in 1966. In 1970, 20,000 sf of space was added to the mall to accommodate Lawrence's, a department store. The Davis Graduate restaurant and sports bar was built in the 1970s and became the anchor restaurant for the University Mall. In 1985, the western portion of the building was added to house a Safeway grocery store.

In order to determine the historic significance of the existing on-site structures, the Report prepared for the proposed project included an evaluation of the existing buildings relative to the NRHP and the CRHR. The NRHP eligibility criteria include districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and:

- A. Is associated with events that have made a significant contribution to the broad patterns of history; or
- B. Is associated with the lives of persons significant in our past; or
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded or may likely yield information important in prehistory or history.

In addition, the resource must be at least 50 years old, except in exceptional circumstances.

<sup>5</sup> ECORP Consulting, Inc. *Cultural Resources Inventory and Architectural History Evaluation Report*. July 2018.

The CRHR eligibility criteria are similar to the NRHP criteria and include the following:

1. The resource is associated with events that have made a significant contribution to the broad patterns of California history; or
2. The resource is associated with the lives of important persons from our past; or
3. The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
4. The resource has yielded, or may be likely to yield, important information in prehistory or history.

In addition, the resource must retain integrity, which is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

The University Mall was previously recorded in 2012 by Michael Brandman Associates as a Mid-Century Modern styled suburban shopping center. Michael Brandman Associates evaluated the University Mall using the NRHP criteria and determined that the building was not eligible for listing under the NRHP. Whether that evaluation was reviewed or concurred with by an agency or the State Historic Preservation Officer (SHPO) is unknown. Regardless, the 2012 evaluations did not include consideration under the CRHR eligibility criteria, which is necessary for CEQA compliance. Therefore, ECORP Consulting, Inc. performed an evaluation of the University Mall for the CRHR criteria and verified the 2012 NRHP evaluation conducted by Michael Brandman Associates.

The results of the evaluation of the existing on-site buildings in comparison to the NRHP and CRHR criteria is provided below.

#### NRHP Criterion A/CRHR Criterion 1

The University Mall building was constructed to serve commercial needs and uses within Davis. The University Mall is not associated with any major or significant event in the history of Davis or the greater Yolo County area. In addition, major significant events in the City are not known to have taken place at the site and the University Mall building is not associated with any historic district. Therefore, the University Mall building is not related to the broad patterns of history or individually associated with the City of Davis or the nation and is not eligible under NRHP Criterion A or CRHR Criterion 1.

#### NRHP Criterion B/CRHR Criterion 2

Noted individuals are not associated with the University Mall Building. Current managers and store owners within the University Mall do not have any direct, significant association with the building and retail-use tenants throughout the existence of the building have not had any profound or historically significant impact. Therefore, the University Mall Building is not associated with the lives of persons significant in the past and is not eligible under NRHP Criterion B or CRHR Criterion 2.

#### NRHP Criterion C/CRHR Criterion 3

Although the design of the University Mall building takes influence from Mid-Century Modern architectural styles, the building does not contain many of the important

character-defining design features that are distinctive of the Mid-Century Modern style. The building is not a good representation of the Mid-Century Modern style of architecture in comparison to other local examples throughout Yolo County and the communities surrounding the City of Davis. In addition, the building is not a unique or important example of mall construction. The University Mall building was built and designed by an unknown architect. The building was clearly built with cost, function, and practical retail purposes in mind, more so than architectural distinctiveness. The architectural style was a product of the period of popularity with that style during the 1960s, but does not embody distinction among other buildings built during that period.

The techniques employed for construction and maintenance of the University Mall building were not unique and were in existence prior to construction of the building, and, therefore, are not historically significant. The design and function of the building is primarily for retail and commercial use and is not distinguishable from other community retail buildings already in existence in Davis and nearby communities, or constructed afterwards throughout California.

In addition, the University Mall has been substantially remodeled over time. By 1970, 20,000 sf of space was added and by 1984, the west wing of the building was constructed. Major renovations were performed in 1999, with many of the smaller original stores being replaced.

Based on the above, the University Mall building does not embody the distinctive characteristic of a type, period or method of construction, or represent the work of a master, or possess high artistic values or significant distinguishable components. Therefore, the University Mall building is not eligible under NRHP Criterion C or CRHR Criterion 3.

#### NRHP Criterion D/CRHR Criterion 4

The University Mall building does not have the potential to yield information important to prehistory or history. The history of the building is well-documented and archival research for the building has been exhausted and the building's history is fairly well-documented in the archival record. The potential to provide additional historically important information does not exist. As a result, the University Mall building is not eligible under NRHP Criterion D or CRHR Criterion 4.

#### Integrity

Based on the site visit conducted as part of the Report prepared for the proposed project, the University Mall building retains integrity of location, setting, and materials. The building has never moved location and remains within the original setting of Davis. The building remains intact structurally and has received minor to major maintenance over the years, thus retaining many original materials in parts of the building. The building still serves the City of Davis as a shopping center; accordingly, the feeling and association with the community and City would still exist. The building also fulfills the original purpose, as the building still serves the community as originally functioned. In addition, the southern elevation has been upgraded and does not retain the original workmanship.

Overall, despite the building retaining integrity of location, setting, materials, association, and feeling, the building does not retain integrity of workmanship and design, which are considered more important for the building. Therefore, the building fails to retain sufficient integrity. Nonetheless, regardless of integrity, the building is evaluated as not eligible for the NRHP and CRHR, as presented above.

Lastly, the University Mall is not listed in the local register of historical resources, as defined in PRC 5020.1(k), has not been identified as significant in an historical resources survey, as defined in PRC 5024.1(g), and has not been determined to be historically significant by the CEQA lead agency [CCR Title 14, § 15064.5(a)]. Therefore, the University Mall building is not a historical resource under CEQA and is not a historic property under Section 106 of the National Historic Preservation Act (NHPA).

### Conclusion

Based on the above, the University Mall is not considered a historical resource as defined in Section 15064.5, and implementation of the proposed project would result in a **less-than-significant** impact related to historical resources.

- b-d. The proposed project has been subject to past disturbance associated with development of the site with a commercial structure, parking lot, and associated improvements. In addition, the site is surrounded by multi-family residential and commercial development. A site field survey was conducted by ECORP on June 12, 2018 and did not reveal any indications of prehistoric resources. A search of the Sacred Lands File by the NAHC also failed to indicate the presence of Native American tribal cultural resources in the project area.

Per the Report prepared by ECORP, a review of historic maps and the results of database records searches by the NAHC and Northwest Information Center have determined that a low potential exists for the presence of buried archeological deposits to occur within the project site. However, the project site and surrounding areas may contain alluvium, a type of clay, silt, or sand deposit left by flowing streams in a river valley or delta, which suggests that the potential exists for deeply buried resources to be uncovered during ground disturbing activities associated with implementation of the proposed project.

Due to the disturbed nature of the site and the surrounding area, the discovery of underlying archeological, paleontological, and/or tribal cultural resources is not expected. However, given the prehistoric and historic activity that has occurred over time in the project area,<sup>6</sup> unknown archaeological resources, including human bone, have the potential to be uncovered during ground-disturbing construction activities at the proposed project site. Therefore, the project could result in a **potentially significant** impact with respect to causing a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5 and/or disturbing human remains.

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<sup>6</sup> City of Davis. *Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School*. January 2000.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

- V-1            *If any subsurface historic remains, prehistoric or historic artifacts, other indications of archaeological resources, or cultural and/or tribal resources are found during grading and construction activities, all work within 100 feet of the find shall cease, the City of Davis Department of Community Development and Sustainability shall be notified, and the applicant shall retain an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, to evaluate the find(s). If tribal resources are found during grading and construction activities, the applicant shall notify the Yocha Dehe Wintun Nation.*

*The archaeologist shall define the physical extent and the nature of any built features or artifact-bearing deposits. The investigation shall proceed immediately into a formal evaluation to determine the eligibility of the feature(s) for inclusion in the California Register of Historical Resources. The formal evaluation shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the feature(s) and artifact(s) do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists (e.g., an intact feature is identified with a large and varied artifact assemblage), further mitigation would be necessary, which might include avoidance of further disturbance to the resource(s) through project redesign. If avoidance is determined to be infeasible, additional data recovery excavations shall be conducted for the resource(s), to collect enough information to exhaust the data potential of those resources.*

*Pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Data recovery efforts can range from rapid photographic documentation to extensive excavation depending upon the physical nature of the resource. The degree of effort shall be determined at the discretion of a qualified archaeologist and should be sufficient to recover data considered important to the area's history and/or prehistory.*

*Significance determinations for tribal cultural resources shall be measured in terms of criteria for inclusion on the California Register of Historical Resources (Title 14 CCR, §4852[a]), and the definition of tribal cultural resources set forth in PRC Section 21074 and 5020.1 (k). The evaluation of the tribal cultural resource(s) shall include culturally appropriate temporary and permanent treatment, which may include avoidance of tribal cultural resources, in-place preservation, and/or re-burial on project property so the resource(s) are not subject to further*

*disturbance in perpetuity. Any re-burial shall occur at a location predetermined between the landowner and the Yocha Dehe Wintun Nation. The landowner shall relinquish ownership of all sacred items, burial goods, and all archaeological artifacts that are found on the project area to the Yocha Dehe Wintun Nation for proper treatment and disposition. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.*

*The language of this mitigation measure shall be included on any future grading plans, utility plans, and subdivision improvement drawings approved by the City for the development of the proposed project site.*

V-2 *If any vertebrate bones or teeth are found by the construction crew, the City of Davis Department of Community Development and Sustainability shall be notified and the contractor shall cease all work within 100 feet of the discovery until an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, inspects the discovery. If deemed significant with respect to authenticity, completeness, preservation, and identification, the resource(s) shall then be salvaged and deposited in an accredited and permanent scientific institution (e.g., the University of California Museum of Paleontology), where it shall be properly curated and preserved for the benefit of current and future generations. The language of this mitigation measure shall be included on any future grading plans, utility plans, and subdivision improvement drawings approved for the proposed project site, where excavation work would be required.*

V-3 *If human remains are discovered during project construction, further disturbance shall not occur within 100 feet of the vicinity of the find(s) until the Yolo County Coroner has made the necessary findings as to origin. (California Health and Safety Code Section 7050.5) Further, pursuant to California PRC Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Yolo County Coroner determines the remains to be Native American, the Native American Heritage Commission (NAHC) and the Yocha Dehe Wintun Nation must be contacted within 24 hours. The NAHC and Yocha Dehe Wintun Nation must then identify the "most likely descendant(s)" (MLD). The landowner shall engage in consultations with the MLD. The MLD shall make recommendations concerning the treatment of the remains within 48 hours, as provided in PRC 5097.98.*



<b>VI. GEOLOGY AND SOILS.</b> <i>Would the project:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
	ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
	iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
	iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b.	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>		✗	<input type="checkbox"/>
d.	Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code?	<input type="checkbox"/>		✗	<input type="checkbox"/>
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗

- a,c. According to the California Geological Survey Alquist-Priolo Earthquake Fault Zone Maps, the proposed project site is not located within the vicinity of an Alquist-Priolo Earthquake Fault Zone.<sup>7</sup> The City is surrounded by several faults in the San Andreas Fault system to the west, the Eastern Sierra fault system to the east, and a series of faults at the eastern base of the foothills west of the City. Faults, however, do not run directly through the City's planning area, although numerous earthquakes have been felt in the City. Major earthquakes occurred in 1833, 1868, 1892, 1906 and 1989; however, the City did not experience any damage. In addition, the project site is relatively flat and is not located within the vicinity of any steep slopes that would be subject to landslide risks.

Therefore, the proposed development would not be at risk for fault rupture impacts, seismic-related ground failure (including liquefaction, lateral spreading and subsidence), or landslides. In addition, the project would be designed to comply with all applicable State and local regulations, including the California Building Code (CBC). Such codes provide minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls,

<sup>7</sup> California Department of Conservation. *CGS Information Warehouse: Regulatory Maps*. Available at: <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>. Accessed September 2018.

and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground shaking with specified probability of occurring at a site. Structures built according to the seismic design provisions of the CBC should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some nonstructural damage; and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage.

Consequently, the proposed project would not expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, and/or liquefaction or landslides. Therefore, a **less-than-significant** impact would result.

- b. The project site is currently developed with the University Mall building, the Trader Joe's grocery store and the associated paved parking lot. The proposed project would include demolition and expansion of the existing University Mall building, as well as construction of additional structures on the southern and southeastern portions of the site. Construction associated with the redevelopment of the site would include removal of portions of the parking lot prior to overlaying the ground surface with structures. During such stages of construction, the potential exists for wind erosion to occur, which could affect the project area and potentially inadvertently transport eroded soils to downstream drainage facilities.

The City's General Plan identifies policies that provide explicit actions for reducing construction-related water quality impacts, including the erosion of topsoil.<sup>8</sup> The General Plan policies require the continued application and enforcement of National Pollutant Discharge Elimination System (NPDES) regulations for sites over one acre. Chapter 30.03.010 of City of Davis Municipal Code adopts by reference the standards of the State of California's NPDES General Permit for Stormwater Discharges Associated with Construction Activity (NPDES General Permit No. CAS000002). Given that the proposed project site includes approximately 8.25 acres, the project would be subject to NPDES regulations.

In accordance with NPDES regulations, in order to minimize the potential effects of construction runoff on receiving water quality, any construction activity affecting one acre or more must obtain a General Construction Permit. Permit applicants are required to prepare a Stormwater Pollution Prevention Plan (SWPPP) and implement best management practices (BMPs) to reduce construction effects on receiving water quality by implementing erosion control measures. Compliance with such would ensure that construction of the proposed project would have a **less-than-significant** impact with respect to causing substantial soil erosion.

- d. Expansive soils increase in volume when they absorb water and have the potential to crack or otherwise compromise the integrity of building foundations. Per the City's General Plan, soils within the City have predominantly moderate to high shrink-swell potential. As such, the project site could potentially contain expansive soils. However, the General Plan states that buildout of the City's planning area, including the proposed

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<sup>8</sup> City of Davis. *Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School* [pg. 51-2 to 51-8]. January 2000.

project site, would have a less-than-significant impact given compliance with applicable General Plan policies, compliance with the CBC, and implementation of standard development practices. Therefore, the proposed project would have a ***less-than-significant*** impact related to being located on expansive soil, as defined in Table 18-1B of the Uniform Building Code.

- e. Current on-site uses are connected to the City's existing sewer system. The proposed project would continue to use the City's existing sewer system and would not require the use of a septic tank or other alternative wastewater disposal method. Therefore, ***no impact*** would occur related to having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems and further analysis is not required.

VII. GREENHOUSE GAS EMISSIONS.		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
<i>Would the project:</i>					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	✘	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	✘	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a,b. Implementation of the proposed project would contribute to an increase in greenhouse gas (GHG) emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO<sub>2</sub>) and, to a lesser extent, other GHG pollutants, such as methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). Sources of GHG emissions include area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste.

As noted previously, the most recent MTP/SCS was adopted by SACOG in February of 2016. As required by Senate Bill (SB) 375, the adopted MTP/SCS promotes and encourages development in areas defined by SACOG as Transit Priority Areas (TPAs). TPAs are areas of the region within one-half mile of a major transit stop (existing or planned light rail, street car, or train station) or an existing or planned high-quality transit corridor included in the MTP/SCS.

SB 375 establishes CEQA streamlining incentives to assist and encourage residential and mixed-use housing projects consistent with the MTP/SCS, and in particular, projects within TPAs. Under SB 375, an EIR prepared for a project that is consistent with the SCS is not required to reference, describe, or discuss project-specific or cumulative impacts from cars and light-duty truck trips on global climate change, or the regional transportation network, if the project incorporates the mitigation measures required by an applicable prior environmental document. As discussed throughout this IS, the proposed project is consistent with the MTP/SCS; therefore, environmental review of the project does not include consideration of potential effects from cars and light-duty trucks trips generated by the project on global climate change. However, the proposed project would involve the generation of non-mobile source GHG emissions, such as emissions associated with energy and water consumption, which is still required to be evaluated. Because the proposed project would increase the amount of on-site development, including both commercial and residential uses, the project would increase the energy and water consumption associated with the site, which could result in the generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy, or regulation, including the Davis CAAP. Therefore, a **potentially significant** impact could occur.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

<b>VIII. HAZARDS AND HAZARDOUS MATERIALS.</b> <i>Would the project:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	<input type="checkbox"/>	✘	<input type="checkbox"/>	<input type="checkbox"/>
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
h.	Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘

The following discussion is primarily based on a Phase I Environmental Site Assessment (ESA) Report prepared for the proposed project by AEI Consultants (AEI).<sup>9</sup>

- a,d. Hazardous materials would be stored, used, and transported in varying amounts during construction of the proposed project. Construction activities associated with the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and

<sup>9</sup> AEI Consultants. *Phase I Environmental Site Assessment*. August 20, 2018.

transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local City and County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Compliance with such regulations would ensure that the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment during construction activities.

Operation of the proposed project would involve residential and commercial uses. Hazardous materials that would be stored, used, and transported to the project site to support the long-term uses would include limited amounts of commercial and household-type maintenance products, such as cleaning agents and degreasers, paints, and pesticides and herbicides. Proper handling and usage of the aforementioned materials in accordance with label instructions would ensure that adverse impacts to human health or the environment would not result. In addition, the Phase I ESA prepared for the project concluded that the project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Therefore, the project would have a ***less-than-significant*** impact with respect to creating a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous or acutely hazardous materials, or being located on a hazardous materials site.

- b. The Phase I ESA prepared for the project included a review of information available on GeoTracker and the Envirostor database for information regarding environmental assessment and cleanup at properties/facilities within 0.25-mile of the site. The adjacent ARCO site contains five 10,000-gallon underground storage tanks (USTs). In December 1990, the station was upgraded with double-walled fiberglass USTs. At the time of the upgrade, a release to surrounding soils and groundwater was discovered. Since 1991, eleven groundwater monitoring wells, eight vapor extraction wells, and eight air sparging wells have operated on the site. The groundwater contamination plume has been defined as extending north-northeast, following the groundwater gradient, off the ARCO site towards the project site. Three of the groundwater monitoring wells are located in the parking lot of the project site. Two of the wells were non-detect for all contaminants during testing performed in January 2009 and, thus, those wells were not tested further after that date. In 2003, 131 cubic yards of soil were removed during product line and fuel dispenser upgrades. Samples collected from the excavation were found to contain lead at only one analyte above detection. One of the wells was further tested in September 2010, during which detectable concentrations of ferrous iron, nitrate, phosphorous, sulfate, and total organic carbon were identified. Groundwater monitoring for the groundwater wells, soil vapor probes, and air sparging wells associated with the ARCO site continued to be monitored until late 2010 and 2011, until the case was granted regulatory closure by the CVRWQCB Central Valley Regional Water Quality Control Board in a No Further Action Required letter dated May 1, 2012. A follow-up closure review of the ARCO site was later performed by ARCADIS. Based on the April 27, 2012 letter from the CVRWQCB, ARCADIS recommended closure based on the following: The containment source has been removed; the containment plume is defined, not migrating, and decreasing in extent; remediation has been demonstrated to be effective; no receptors are affected or threatened; and no land use changes are planned or expected in the near future. The site was sufficiently delineated in the lateral and vertical extent for total petroleum hydrocarbons as gasoline (TPHg), benzene, and



methyl tertiary butyl ether (MtBE) in groundwater, and all contaminants appeared to be naturally degrading. Accordingly, based on the regulatory case closure, the remaining groundwater contamination off-site is not expected to pose a threat to the occupants of the proposed project.

In November 2010, ARCADIS performed a soil vapor survey at the ARCO site. Petroleum hydrocarbon-related volatile organic compounds (VOCs) were not detected above the applicable laboratory reporting limits in soil vapor samples collected downgradient of the UST area, near only the monitoring well in which VOCs were detected in groundwater above laboratory reporting limits in the most recent sampling event, and adjacent to the building on the ARCO site. The VOC laboratory reporting limits for the soil vapor samples were below the applicable environmental screening levels for evaluation of potential vapor intrusion concerns at residential and commercial/industrial properties and California Human Health Screening Levels for soil gas for residential land use. Such results indicate that VOCs in soil vapor, potentially associated with petroleum impacts to soil and/or groundwater, do not pose a significant health risk to current or future users of the ARCO site or to residents or commercial workers located on properties adjacent to the ACRO site<sup>10</sup>. Therefore, soil vapor migration is not expected to pose a threat to the occupants of the proposed project.

Five pad-mounted transformers were observed on the project site during a site inspection visit by AEI. Electrical transformers and certain equipment that contain hydraulic fluids are a potential source of environmental concern due to the presence of polychlorinated biphenyl (PCB), carcinogenic compounds used in some units. However, evidence of spills, staining, or leaks on or around the transformers was not observed and, overall, the Phase I ESA did not reveal any evidence of recognized environmental conditions (RECs) in connection with the transformers, and further investigation was not recommended.

Further on- or off-site RECs considered likely to impact the project site were not identified as part of the Phase I ESA. However, due to construction of the University Mall building occurring prior to 1978, the potential exists for asbestos containing materials (ACMs) and lead-based paint (LBP) to be present within the University Mall building. Further discussion of such potential hazards is provided below.

#### Asbestos-Containing Materials and Lead-Based Paint

Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be “fibrous” and, through processing, can be separated into smaller and smaller fibers. The fibers are strong, durable, chemical resistant, and resistant to heat and fire. They are also long, thin, and flexible, such that they can be woven into cloth. Because of the above qualities, asbestos was considered an ideal product and has been used in thousands of consumer, industrial, maritime, automotive, scientific, and building products. However, later discoveries found that, when inhaled, the material caused serious illness.

For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and

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<sup>10</sup> Central Valley Regional Water Quality Control Board. *No Further Action Required, ARCO # 05332, 705 Russell Boulevard, Davis, Yolo County*. May 1, 2012.

related materials) and surface materials must be designated as “presumed asbestos-containing material” unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. Because the existing on-site structure was built in 1964, the potential exists that ACMs were used in the construction of the building.

LBP is defined by federal guidelines as any paint, varnish, stain, or other applied coating that has one milligram of lead per square centimeter or greater. Lead is a highly toxic material that may cause a range of serious illnesses, and in some cases death. In buildings constructed after 1978, the presence of LBP is unlikely. Structures built prior to 1978, and especially prior to the 1960s, are expected to contain LBP. The existing on-site structure was constructed before the phase-out of LBP in the 1970s. Therefore, the potential exists that LBP is present in the building.

Based on the age of the existing on-site commercial building, ACMs and LBP are presumed to be present. The proposed project would include demolition of the structure. Therefore, without implementation of the appropriate safety measures, the proposed project could potentially expose construction workers during structure demolition to LBP and ACMs.

### Conclusion

Based on the above, the proposed infill project site is not located in the vicinity of any identified hazardous materials sites that could pose a risk to future residents of the proposed project and further on- or off-site RECs considered likely to impact the project site were not identified as part of the Phase I environmental analysis. However, development of the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, particularly associated with ACMs and LBP. Therefore, a **potentially significant** impact would occur.

### Mitigation Measures

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

*VIII-1 Prior to issuance of a demolition permit by the City for the existing on-site structure, the project applicant shall provide a site assessment that determines whether the structure contains asbestos. If the structure does not contain asbestos, further mitigation is not required. If asbestos-containing materials are detected, the applicant shall prepare and implement an asbestos abatement plan consistent with federal, State, and local standards, subject to approval by the City Engineer, City Building Official, and the Yolo-Solano Air Quality Management District.*

*Implementation of the asbestos abatement plan shall include the removal and disposal of the asbestos-containing materials by a licensed and certified asbestos removal contractor, in accordance with local, State, and federal regulations. In addition, the demolition contractor shall be informed that all building materials shall be considered as containing asbestos. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of*

*construction waste containing asbestos in accordance with local, State, and federal regulations subject to approval by the City Engineer, City Building Official, and the Yolo-Solano Air Quality Management District.*

*VIII-2 Prior to issuance of a demolition permit by the City for the existing on-site structure, the project applicant shall provide a site assessment that determines whether the structure contains lead-based paint. If the structure does not contain lead-based paint, further mitigation is not required. If lead-based paint is found, all loose and peeling paint shall be removed and disposed of by a licensed and certified lead paint removal contractor, in accordance with federal, State, and local regulations. The demolition contractor shall be informed that all paint on the buildings shall be considered as containing lead. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing lead paint in accordance with federal, State, and local regulations subject to approval by the City Engineer.*

c. The nearest school relative to the proposed project site is the Cesar Chavez Elementary School, located approximately 0.5-mile north of the site. Because the project site is not located within 0.25-mile of a school, **no impact** would occur.

e,f. The proposed project is located approximately 1.85 miles northeast of UC Davis's University Airport, which is operated as a general aviation airport and is open to the public. The University Airport does not have an airport land use plan. However, University Airport Rules and Regulations have been established to protect health, safety, and peace and to provide for the orderly conduct of activities on the Airport site. In addition, the Airport Layout Plan for the University Airport includes clearance heights necessary for operations at the airport. According to the Airport Layout Plan, a total clear space of approximately 240 vertical feet is needed at a distance of approximately one mile.<sup>11</sup>

Given that the project site is 1.85 miles away from the University Airport, the clearance height needed would be lower than 240 vertical feet. For every 20 horizontal feet a plane travels, one additional foot of vertical height is needed. Therefore, the clearance height at the project site would be 488 feet at a distance of 1.85 miles. The tallest building proposed on the project site would be 80 feet in height, which is below the necessary 240 vertical feet of clearance at one mile and 488 feet at 1.85 miles. As a result, the proposed project would not introduce any obstructions to the necessary airport clear space, and a safety hazard for people residing or working in the project area would not occur due to development of the proposed project. Therefore, impacts related to safety hazards associated with airport operations would be **less than significant**.

g. According to the City's General Plan, the City of Davis Multi-Hazard Functional Planning Guide states that all major roads are available for emergency evacuation routes in the event of a disaster, depending on the location and type of emergency that arises. Major roads identified for evacuation include Russell Boulevard, SR 113, Interstate-80, Richards Boulevard, County Road (CR) 102/Pole Line Road, Mace Boulevard

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<sup>11</sup> Wadell Engineering Corporation. *Airport Layout Plan University Airport, A University of California Aviation Facility, Davis, California, FAA AIP Project No. 3-06-0059-04*. December 2006.

southbound, CR 32A, Covell Boulevard/CR 31, “F” Street/CR 101A, and North Sycamore Frontage Road.

The proposed project does not involve any operations or changes to the existing roadway network that would impair implementation or physically interfere with the City’s Multi-Hazard Functional Planning Guide or the County’s Emergency Operations Plan or Multi-Hazard Mitigation Plan (MHMP). Construction activities affecting any of the identified evacuation routes would be both temporary and subject to traffic controls. Therefore, the project would have a ***less-than-significant*** impact with respect to impairing implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.

- h. The project site is located in an urban area and is bordered by existing residential and commercial development to the west, north, and east. The site is bounded to the south by Russell Boulevard and the UC Davis Campus. Furthermore, the site is currently developed with commercial buildings. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and ***no impact*** would occur. Further analysis is not required.

<b>IX. HYDROLOGY AND WATER QUALITY.</b> <i>Would the project:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
f.	Otherwise substantially degrade water quality?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
g.	Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
h.	Place within a 100-year floodplain structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
j.	Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
a,e,f.	Buildout of the proposed infill project would include construction-related activities involving demolition and redevelopment of the University Mall building, as well as the construction of two additional two-story buildings in the southern and southwestern portions of the project site. In accordance with the State's Construction General Permit NPDES regulations, the project applicant is required to have a Stormwater Pollution Prevention Plan (SWPPP) prepared by a Qualified SWPPP Developer (QSD) for review and approval by the City Engineer prior to soil disturbance. As discussed in Section VI of this IS, implementation of the SWPPP, as required by State and local regulations (see				

Chapter 30.03.010 of City of Davis Municipal Code), would ensure that construction water quality impacts would be less-than-significant.

With respect to water quality effects from operation of the proposed project, permanent stormwater quality treatment control measures (TCMs) for development in the City of Davis must be designed in accordance with the State's Phase II Small MS4 General Permit, the development standards of which have been adopted by reference in Chapter 30 of the City's Municipal Code. The Phase II Small MS4 General Permit requires that permanent stormwater control measures be incorporated into the proposed project to ensure that new development does not result in the discharge of polluted water or the increase in sources of polluted runoff. Regulated Projects, under the Phase II Small MS4 General Permit, are required to divide the project area into Drainage Management Areas (DMAs) and implement and direct water to appropriately-sized TCMs consistent with the sizing standards in Section E.12.e.(ii)(c). TCMs are designed after the inclusion of Site Design Measures (SDMs) consistent with the standards of Section E.12.b. and E.12.e.(ii)(d). Baseline Hydromodification Measures are implemented consistent with the prescriptive standards of Section E.12.e.(ii)(f) only in the event the project develops more impervious surfacing than the existing project and creates or replaces less than one acre of impervious surfacing. Because the proposed project would replace more than one acre of impervious surfacing, each DMA must be shown via calculations that all stormwater is treated consistent with the standards of Section E.12.e.(ii)(c) and detained consistent with Section E.12.f. Regulated Projects must additionally include Source Control Best Management Practices (BMPs) where possible. The City requires preliminary Stormwater Quality Plans at the discretionary phase to ensure that DMAs, TCMs and hydromodification measures are adequately designed into the conceptual development plan, demonstrating full compliance of the project's drainage system with the Phase II Small MS4 General Permit.

Per the State's Phase II Small MS4 General Permit, hydromodification management projects, such as the proposed project, are required to demonstrate hydromodification management of stormwater such that post-project runoff is maintained to equal or below pre-project flow rates for the 2-year, 24-hour storm event, generally by way of infiltration, rooftop, and impervious area disconnection, bio-retention, or other LID measures that result in post-project flows that mimic pre-project conditions. The proposed project would be required, as conditions of approval, to provide stormwater system sizing information, a Stormwater Quality Plan, stormwater calculations, a Stormwater Quality Maintenance Plan, and a Drainage Plan. Treatment and retention and/or detention of site stormwater flows prior to flowing to existing public stormwater conveyance facilities would ensure that the proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Without implementation of permanent stormwater control, treatment, and attenuation features, the proposed project could result in a ***potentially significant*** impact.

#### Mitigation Measure

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

*IX-1                      Prior to issuance of grading permits, the applicant shall submit to the City a plan, identifying permanent stormwater TCMs, SDMs, and*



*Hydromodification Measures, for each DMA to be implemented on the project, as well as a copy of a stormwater maintenance agreement and corresponding maintenance plan signed and recorded by the County of Yolo Clerk's Office. The plan shall include LID measures consistent with the Preliminary Utility Study prepared for the project and shall be subject to review and approval by the Public Works Department.*

- b. Domestic and fire water supply for the project would be provided by the City of Davis by way of existing connections to infrastructure along the surrounding roadways. In June 2016, the City of Davis began receiving treated surface water through the Woodland Davis Clean Water Agency (WDCWA) at an amount of approximately 10.2 million gallons per day (mgd) to reduce the City's reliance on groundwater and deep aquifer wells. The City plans to maximize surface water use by routinely using the surface water supply as a base load and using the deep aquifer wells as a supplemental supply during the summer when demands would exceed the surface water supply capacity.<sup>12</sup> Given that the majority of the City's water supplies are provided by surface water sources, increases in demand for water supplies associated with the proposed project would not be anticipated to substantially deplete groundwater supplies. It should be noted that the project's demand for surface water and any related potential impacts will be addressed in the Utilities and Service Systems chapter of the EIR.

The proposed project would involve the demolition and expansion of the existing University Mall building and the construction of two new buildings within the project site. Considering the site is currently fully developed with impervious surfaces, implementation of the proposed project would not result in the creation of new impervious surfaces with the potential to decrease the amount of groundwater recharge from the site. Therefore, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge and a **less-than-significant** impact would result.

- c,d. The General Plan EIR considered whether development under the general plan would generate substantial runoff or substantially modify existing drainage patterns. The General Plan EIR concluded that even with General Plan Policies WATER 3.1 and WATER 3.2 and associated standards and action, buildout of the General Plan would result in a significant impact. However, implementation of mitigation measures included in the General Plan EIR would reduce the potential for buildout of the General Plan to result in significant impacts to drainage patterns to a less-than-significant level. In particular, General Plan EIR Mitigation Measure HYD-2.1 ensured that buildout of the City would not result in development within flood-prone areas of the City. The proposed project site is currently developed with a 103,695-sf commercial building and associated parking lot, and, thus, impervious surfaces already occur on-site. Re-development of the site would not increase the total amount of on-site impervious surfaces. Therefore, future development would not alter the existing drainage pattern of the site or area, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. As a result, the project could have a **less-than-significant** impact.

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<sup>12</sup> Woodland – Davis Clean Water Agency. *The Project*. Available at: <https://www.wdcwa.com/project-overview/> Accessed September 2018.

- g-i. According to the Yolo County Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Map Number 06113C0592G, the proposed project site is located within Flood Hazard Zone X, which is described by FEMA as an area of minimal flood hazard, usually above the 500-year flood level.<sup>13</sup> Thus, development of the proposed project would not place housing within a 100-year flood hazard zone nor place structures within a 100-year floodplain that would impede or redirect flood flows, and restrictions on development or special requirements associated with flooding are not requisite for the project.

The City of Davis is at risk from dam failures, specifically from the Monticello Dam located on Putah Creek, approximately 20 miles from the City of Davis. The Monticello Dam is regulated by the California Dam Safety Act and thus is inspected and monitored by the Division of Safety of Dams. While the potential for inundation from dam failure exists at the project site, and the entire City, the proposed project would not exacerbate such potential or increase the likelihood of dam failure.

Therefore, the project would not expose people or structures to a risk of loss, injury, or death involving flooding within a 100-year floodplain, or as a result of a failure of a levee or dam. As a result, **less-than-significant** impact would occur and further analysis is not required.

- j. A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir, which has a destructive capacity that is lesser than that of tsunamis. Seiches are known to have occurred during earthquakes. Tsunamis are defined as sea waves created by undersea fault movement. A tsunami poses little danger away from shorelines; however, when a tsunami reaches a shoreline, a high swell of water breaks and washes inland with great force. Waves may reach fifty feet in height on unprotected coasts. Furthermore, mudflow typically occurs in mountainous or hilly terrain. As the City of Davis is not located near waters subject to tidal changes, closed bodies of water, or hilly or mountainous terrain, **no impact** related to seiches, tsunamis, or mudflows would occur and further analysis is not required.

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<sup>13</sup> Federal Emergency Management Agency. *Flood Insurance Rate Map Number 06113C0592G*. June 2010.

<b>X. LAND USE AND PLANNING.</b> <i>Would the project:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b.	Conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Conflict with any applicable habitat conservation plan or natural communities conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

- a. The project site is currently developed with the 103,695-sf University Mall building and associated site improvements, including a surface parking lot. The site is bordered by Sycamore Lane to the west, Russell Boulevard to the south, Anderson Road to the east, and Sycamore Lane Apartments to the north. The University Court apartments are located west of the site across Sycamore Lane and the Davis Chinese Christian Church and a Rite Aid pharmacy are located east of the site across Anderson Road.

The proposed project is considered an infill development and would involve improvements only on the already developed University Mall site. The redeveloped University Mall would have the same general footprint as the existing on-site development. The proposed project would not result in the addition of any roadways or structures with the potential to divide an existing community. Therefore, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.

- b. The project site has a General Plan designation of Community Retail. Under the Community Retail designation, residential uses are allowed with approval of a Conditional Use Permit. In addition, the maximum floor to area ratio (FAR) for retail uses is 0.50 with an additional 0.15 FAR allowed for the residential component in a mixed-use project. The proposed project would require a General Plan Amendment to allow for the mix of uses and proposed FAR.

The project site is zoned PD #2-97B, which allows for residential uses above the ground floor and a maximum building height of 50 feet. The proposed project would include construction of four stories of multi-family residential use over ground-floor retail, which would result in a building height of approximately 80 feet. Thus, a zoning amendment is required to accommodate the increase in building height and other related standards associated with the proposed project. Based on the above, a ***potentially significant*** impact could occur related to a conflict with applicable land use plans, policies, or regulations.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- c. As previously discussed in section IV Biological Resources, the proposed project is located within the boundaries of the Yolo Habitat Conservation Plan/Natural Conservation Community Plan (HCP/NCCP). Per the HCP/NCCP, the land cover type on the project site is “Developed”. “Developed” areas may include areas dominated by pavement and building structures, as well as urban vegetation and all areas with graded lots, road and highway medians, and various other disturbed areas. Based on the Developed HCP/NCCP land cover type on the project site, the site does not contain high-quality habitat for covered species and the proposed project would not be subject to payment of habitat mitigation fees. Therefore, a ***less-than-significant*** impact would occur.

<b>XI. MINERAL RESOURCES.</b> <i>Would the project:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
a,b.	<p>The most important mineral resources in the region are sand and gravel, which are mined on Cache Creek and other channels in Yolo County. A survey of aggregate resources by the State Division of Mines and Geology showed that significant deposits of aggregate resources are not located in the City of Davis Planning Area. The only mineral resource known to exist in the City's Planning area is natural gas; however, specific resource areas have not been identified. General Plan policies provide for minimizing resource exploitation. Because of the lack of mineral resources in the Planning Area, <b><i>no impact</i></b> to mineral resources would occur and further analysis is not required.</p>				

<b>XII. NOISE.</b> <i>Would the project result in:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

- a,c,d. The existing noise environment in the project vicinity is defined primarily by vehicle noise from surrounding streets including Russell Boulevard, Anderson Road, and Sycamore Lane. The proposed project would increase traffic noise levels on surrounding streets with the introduction of new residents to the project area. In addition, project operation would also result in an increase in stationary noise associated with outdoor activities, including pool activities. Increased commercial space could result in more parking lot noise and noise associated with HVAC systems, materials deliveries, and loading and unloading of delivery trucks. Temporary noise sources would also be produced on-site during project construction. Earthmoving activities, materials handling, stationary equipment, and construction vehicles would generate noise during demolition, site preparation, excavation, grading, and construction. Noise levels generated during construction and operation of the project may exceed levels deemed generally acceptable in the City's General Plan Noise Element and Noise Ordinance. Therefore, the proposed project could expose persons to or generate noise levels in excess of standards or result in permanent or temporary increases in ambient noise levels, and a **potentially significant** impact could occur.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- b. Groundborne vibration would be generated during construction of the proposed project. Project construction activities, such as drilling, the use of jackhammers, and



other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate groundborne vibration in the immediate vicinity. Residential development exists to the west and north of the project site and commercial development exists to the east. Construction activities associated with the proposed project could expose the nearby residents to excessive groundborne vibrations. Therefore, the proposed project could have a **potentially significant** impact related to the exposure of persons to excessive ground borne vibrations.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- e,f. The proposed project is located within a two-mile radius of the University Airport. However, the project site is located outside of the 55 dB Community Noise Equivalent Level (CNEL) noise level contour, which extends approximately 4,500 feet from either terminus of the airport's runway.<sup>14</sup> Therefore, a **less-than-significant** impact would occur.

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<sup>14</sup> Ascent Environmental, Inc. *UC Davis 2018 Long Range Development Plan EIR* [Figure 4.10-5]. July 2018.

XIII. POPULATION AND HOUSING. <i>Would the project:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b.	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
c.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
a.	As discussed previously, the Legislature has adopted several statutory provisions to incentivize infill development within this region of the State for projects that are consistent with the MTP/SCS adopted by SACOG. Specifically, PRC Section 21159.28, subdivision (a) provides that for qualifying residential infill projects, growth-inducing impacts are not required to be referenced, described, or discussed in the EIR. SACOG has provided a letter to the City of Davis, included as an appendix to this Initial Study, indicating that the proposed project is consistent with SACOG's MTP/SCS. As such, the project qualifies for streamlining benefits, and a discussion of potential impacts related to population growth is not required. Therefore, the proposed project would have a <b>less-than-significant</b> impact related to inducing substantial population growth in an area, either directly or indirectly.				
b,c.	The proposed project site is currently developed with the University Mall commercial building and does not include any housing. As such, the proposed project would not displace existing housing or people, necessitating the construction of replacement housing elsewhere. Furthermore, the project would add 264 residential units to the City's housing stock. Thus, <b>no impact</b> would occur and further analysis is not required.				

#### XIV. PUBLIC SERVICES.

*Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

- a. The project site is currently served by the Davis Fire Department. The two closest fire stations to the project site are Station 31, located approximately one mile east of the site at 530 Fifth Street, and Station 32, located approximately 1.5 miles northwest of the site at 1350 Arlington Boulevard. The proposed project would include redevelopment of the existing University Mall building, construction of two new buildings on the project site, introduction of residential uses to the site, and an increase in building height to 80 feet, which could result in the potential for fire incidents and EMT calls and create an increase in demand for fire protection services. Therefore, a **potentially significant** impact could occur.

##### Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- b. Police protection services for the project site are currently provided by the Davis Police Department, which maintains a staff of 61 sworn police officers and 34 civilian personnel. The Davis Police Department has been located at 2600 5<sup>th</sup> Street since 2001. The proposed project would result in the redevelopment of the University Mall building to add of 264 multi-family apartment units and 136,800 sf of retail space, which could result in an increase in demand for police protection services, and a **potentially significant** impact could occur.

##### Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- c. The City of Davis includes 27 public and private schools. The project site is located within the Davis Joint Unified School District and would be served by Willett Elementary School located at 1221 Anderson Road, Emerson Junior High School, located at 2121 Calaveras Ave, and Davis Senior High School at 315 West 14<sup>th</sup> Street.<sup>15</sup>

The proposed project would include residential development, and, thus, could increase the number of students attending local school facilities. Table 2 below provides a

<sup>15</sup> Davis Joint Unified School District. *Schoolsite Locator*. Available at: <http://apps.schoolsitelocator.com/?districtCode=92907>. Accessed August 2018.

summary of the anticipated number of students that would be generated by the proposed project. As shown in the table, the proposed project could generate approximately 123 students. However, the potential for the project to generate K-12 students may be relatively low because of the intended use of the residences as housing primarily for UC Davis students.

Table 2 Student Generation Estimates							
Housing Type	# of Units	Elementary Students		Junior High Students		High School Students	
		Rate	New Students	Rate	New Students	Rate	New Students
High Density	264	0.295	78	0.094	25	0.075	20
Total New Students							123
Source: Davis Joint Unified School District, Student Population Projections by Residence School Year 2014/2015 Report, February 13, 2015.							

Under the provisions of SB 50, a project's impacts on school facilities are fully mitigated via the payment of the requisite new school construction fees established pursuant to Government Code Section 65995. Through payment of applicable impact fees by the project applicant, the project's potential impact to school services would be **less than significant**.

- d. The proposed project would add 264 new, student-oriented apartment units and commercial uses to the area on an infill site. The project site is located near existing recreational facilities, Oxford Circle Park located approximately 1,500 feet west of the site, and Community Park located approximately one-mile northeast of the project site. The project would not substantially increase demand for parks or facilities and would not affect any recreational opportunities. The project would result in an increase in the use of existing recreational facilities in the area, but would not result in the need for additional facilities. The project would include an on-site outdoor courtyard, pool, and outdoor lounge area which would provide open space and recreational opportunities for future residents. Additionally, the project site is located across the street on Russell Boulevard from the U.C. Davis campus, which provides recreational facilities for its students. Although campus facilities are not specifically included in this discussion, the project units are intended primarily for U.C. Davis students, who would be expected to use recreational facilities on campus.

The City collects impact fees for parks from new development based upon projected impacts from the development. The City also reviews the adequacy of impact fees on an annual basis to ensure that the fee is commensurate with anticipated future facilities demands, assessed on a fair share basis for new development. Given that the proposed project does not include any parks, payment of in-lieu fees on a per-unit basis would be required.

Given that the proposed project would include on-site recreational amenities, and would be required to pay all applicable fees to the City related to recreational facilities, the proposed project would not substantially contribute to the need to alter existing parks or construct new parks within the City, the construction of which could cause significant environmental impacts in order to maintain performance objectives for park facilities. Therefore, a **less-than-significant** impact would occur.

- e. The City of Davis maintains public facilities such as City Hall and community buildings. The City has adopted citywide development impact fees, which include Roadways and General Facilities Impact Fees. The proposed project would be subject to such fees, which are based on factors related to the size or intensity of development. Thus, the proposed project would be required to pay fees proportional to potential impacts related to the demand for other public facilities induced by the proposed project's future residents. In addition to development fees, the proposed project would include various amenity features, which could be used by future residents to further reduce the demand on other City-owned public facilities.

Therefore, the proposed project would not result in a need for new, or improvements to existing, other public facilities, construction of which could cause significant environmental impacts. Thus, a ***less-than-significant*** impact would occur.

<b>XV. RECREATION.</b> <i>Would the project:</i>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
a,b.	<p>The proposed project would result in an increase in population in the area due to the creation of residential uses on the project site, which could result in an increase in the use of existing recreational facilities in the area. However, the proposed project would include an on-site outdoor courtyard, pool, and lounge area, which would provide recreational opportunities for future residents. The proposed project will pay impact fees calculated based upon projected impacts from the development. The City also reviews the adequacy of impact fees on an annual basis to ensure that the fee is commensurate with anticipated future facilities demands, assessed on a fair share basis for new development. The payment of applicable impact fees would constitute implementation of uniformly applicable standards that would serve to mitigate any potential impacts to park, recreation, and other governmental resources. Impacts related to construction of the proposed project, including that of the on-site recreational opportunities, are discussed throughout this Initial Study. Overall, the proposed project would have a <b><i>less-than-significant</i></b> impact related to substantial physical degradation of existing recreational facilities and construction or expansion of recreational facilities.</p>				



## XVI. TRANSPORTATION AND CIRCULATION.

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Result in inadequate emergency access?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a,b. The proposed project would introduce additional residents and new retail and commercial buildings to the area. As such, implementation of the proposed project would increase vehicle traffic within the City. A substantial increase in traffic on local roadways and intersections may be considered an adverse impact. A traffic study will be conducted for the proposed project to fully analyze the traffic impacts of the proposed project. It should be noted that based upon streamlining provisions afforded by PRC Section, 21159.28, the project's impacts to the regional transportation network will not be included in the traffic study.

Because the proposed project would contribute to increased traffic volumes, a **potentially significant** impact related to conflicts with applicable circulation system regulations or a congestion management program could occur.

### Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- c. The proposed project is located within two miles of the University Airport. The proposed project would involve residential development, which would result in an increase in population in the area and a potential increase in passengers using nearby airport facilities. However, the University Airport is used almost exclusively for flight training and infrequent, short-duration operations. Thus, an increase in air traffic at the University Airport would not be expected to occur as a direct result of the proposed project. In addition, the project site is currently developed with the University Mall building. While the proposed project would involve an increase in building height at the site to 80 feet, as discussed in Section VIII, Hazards and Hazardous Materials, of this Initial Study, the proposed project would be within the allowable height restrictions for the area associated with the University Airport. Furthermore, the proposed project would not involve any operations that would cause a change in location that could result in potential safety risks. Consequently, the proposed project would not result in any substantial changes in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks, and implementation of the proposed project would result in a **less-than-significant** impact.
- d,e. The project site is surrounded by existing residential and commercial developments and would not introduce incompatible uses to the area. While the proposed project would not include changes to site access or circulation in the project area, the increase in use of the site with the proposed retail and residential development could cause an increase in traffic-related hazards or affect emergency access in the project area. Therefore, the proposed project could result in a **potentially significant** impact related to an increase in hazards from design features or incompatible uses, or inadequate emergency access to the project.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- f. The proposed project would include dedicated bike and pedestrian access to the City's existing off-street bike path network located south of the site at Russell Boulevard. SACOG identifies the surrounding Sycamore Lane, Russell Boulevard, and Anderson Road as high-quality transit corridors and the project site is adjacent to bus stops for Unitrans lines B, C, G, J, K, P, and Q. In addition, the project site is served by YoloBus Route 220, which provides commuter transit to and from Winters and Vacaville. Nearby YoloBus stops located on F Street and the UC Davis Memorial Union provide commuter transit to Sacramento.

Development of the proposed project would increase demand for alternative transportation. A traffic study will be conducted for the proposed project and will address potential impacts related to transit service, as well as bicycle and pedestrian activity. Impacts could occur associated with the increase in demand and/or adequacy of existing transit, bicycle, pedestrian facilities. Therefore, the proposed project could conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and a **potentially significant** impact could occur.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

## XVII. TRIBAL CULTURAL RESOURCES.

*Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
a,b. As discussed in Section V, Cultural Resources, of this IS, per a records search of the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS), given the urbanized setting the potential for discovering prehistoric-period cultural resources on or in the vicinity of the proposed project site during project development is low. The NWIC did not recommend further study of archaeological resources. In addition, a records search of the NAHC Sacred Lands File for the project area yielded negative results. <sup>16</sup>				

In compliance with Assembly Bill (AB) 52 (PRC Section 21080.3.1) and Senate Bill (SB) 18, project notification letters were distributed to the Lone Band of Miwok Indians and the Yocha Dehe Wintun Nation on June 5, 2018. Requests for consultation were not received prior to closure of the mandatory AB 52 30-day response period for consultation. However, the Yocha Dehe Wintun Nation subsequently provided a letter to the City, requesting formal consultation. The City of Davis has initiated consultation with the Yocha Dehe Wintun Nation.

Based on the above, the potential for unrecorded Tribal Cultural Resources to exist within the project site is relatively low. Nevertheless, the possibility exists that future development occurring on the proposed project site could result in a substantial adverse change in the significance of Tribal Cultural Resources if previously unknown Tribal Cultural Resources are uncovered during grading or other ground-disturbing activities. Thus, a **potentially significant** impact to Tribal Cultural Resources could occur.

<sup>16</sup> Native American Heritage Commission. *University Mall Redevelopment Project, Davis, Yolo County*. June 21, 2018.

Mitigation Measure(s)

*Implementation of the following mitigation measures would reduce the above impact to a less-than-significant level.*

*XVII-1. Implement Mitigation Measures V-1, V-2, and V-3.*

<b>XVIII. UTILITIES AND SERVICE SYSTEMS.</b>		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
<i>Would the project:</i>					
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	✗	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a,e. The City of Davis Public Works Department provides sewer service to the Davis Planning Area. The City's Wastewater Treatment Plant is located approximately 5.8 miles northeast of the project site on County Road 28H, immediately east of the Yolo County Landfill. Sewer service is controlled through the use of connection fees and through requirements contained in the City's sewer ordinance.

The proposed project's increased retail intensity and introduction of 264 residential units would generate new sources of wastewater. The project site is located within Area 8 of the Davis Sewer System Management Plan and wastewater collection services for the site would continue to be provided by way of connections to existing eight-inch sewer mains located on Sycamore Lane and Anderson Road.

Because the proposed project would result in an increase in wastewater production, the potential exists for the proposed project to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board or the capacity of the City's sewer system. Thus, a ***potentially significant*** impact related to wastewater could occur.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- b,d. Domestic and fire water service would continue to be provided by the City by way of connections to existing infrastructure along adjacent roadways. The supply for fire water would extend throughout the site to serve the proposed structures.

The proposed project would include new residential and increased commercial development, and, thus, would increase demand for City water resources. In addition, as noted above, the project would increase wastewater generation associated with the site. Therefore, the project could require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Further analysis is also required to ensure that sufficient water supplies are available to serve the project from existing entitlements and resources without new or expanded entitlements needed. As a result, a **potentially significant** impact could occur.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- c. The proposed project would include demolition and expansion of the existing University Mall building to introduce 264 new residential units and increased commercial areas as well as construction of two new buildings in the south and southeastern portions of the site. The project site is currently comprised completely of impervious surfaces including the University Mall building, Trader Joe's grocery store building, and paved parking lot. Although implementation of the proposed project would include construction of new and additional structures on the project site, the level of impervious surfaces on-site would remain unchanged and, thus, would not result in an increase in runoff. As a result, the proposed project would not require or result in the construction of new or expansion of existing stormwater drainage facilities, the construction of which could cause significant environmental effects. Therefore, a **less-than-significant** impact would occur. Further analysis is not required.
- f,g. Solid waste services (collection and recycling) are provided to the City of Davis by Davis Waste Removal, a private firm under contract with the City. All non-recyclable wastes collected from the City are disposed of at the 770-acre Yolo County Central Landfill in the northeast portion of the Davis Planning Area. The proposed project would create new sources of solid waste associated with the introduction of 264 new residential units and increased commercial intensity. Therefore, a **potentially significant** impact related to solid waste could occur.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*



XIX. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	✘	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	✘	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	✘	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a. As discussed in Section IV, Biological Resources, of this Initial Study, the proposed project would be required to implement mitigation measures to minimize impacts to any potential special-status species associated with the site, as well as to protected trees. The site does not contain known historical or cultural resources. Although unlikely, the possibility exists that subsurface excavation of the site during grading and other construction activities could unearth deposits of cultural significance. However, this Initial Study includes mitigation measures sufficient to reduce any potential impacts related to such to less-than-significant levels. Nonetheless, as discussed throughout this Initial Study, the proposed project would have the potential to degrade the quality of the environment related to air quality and GHG emissions, noise, and traffic. Therefore, a **potentially significant** impact could occur.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- b. The proposed project's incremental contribution to cumulative impacts may in some cases be considered cumulatively considerable, including, but not limited to, impacts related to air quality, GHG emissions (non-mobile), noise, traffic, and utilities and service systems. Therefore, a **potentially significant** impact could occur.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

- c. As described in this Initial Study, implementation of the proposed project could potentially result in significant direct or indirect impacts to human beings, such as

impacts related to exposure to substantial air pollutant concentrations, ACMs, and LBP. Therefore, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

*Further analysis of this impact will be included in the University Mall Redevelopment EIR.*

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## **Appendix A**

### **SACOG MTP/SCS Consistency Letter**

June 19, 2018

Eric Lee  
Department of Community Development & Sustainability  
City of Davis  
23 Russell Blvd.  
Davis, CA 95616

RE: University Mall Redevelopment project consistency with the Metropolitan  
Transportation Plan/Sustainable Communities Strategy for 2036

Dear Mr. Lee,

You requested SACOG's confirmation that the University Mall Redevelopment project is consistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy for 2036 (MTP/SCS). SACOG provides a consistency determination at the request of the lead agency. However, it is the responsibility of the lead agency to make the final determination on a project's consistency with the MTP/SCS. This letter concurs with the City's determination that the University Mall Redevelopment project is consistent with the MTP/SCS. SACOG reviewed the project description and SCS consistency worksheet that was provided by City staff and compared it to the MTP/SCS assumptions for the project area to make our determination.

The University Mall Redevelopment project is located at 737-885 Russell Boulevard in Davis. The project, as defined in the materials you provided, consists of a total of 174 apartment units and an increase of 11,861 square feet. The residential density of the project is 21 dwelling units per acre and 64 percent of the total building area square footage.

The University Mall Redevelopment project is an infill project within the Established Community designation of the MTP/SCS for the City of Davis (see attached Map 1). Within the Established Community, the MTP/SCS forecasts a range of low to high density residential, commercial, office, and industrial uses (MTP/SCS Appendix E-3, Land Use Forecast Background Documentation, pp. 147, February 19, 2016). The project's land uses fall within this range of general uses, densities, and building intensities. Therefore, development at the proposed densities is consistent with the build out assumptions for the area within this community type of the MTP/SCS.

With respect to consistency with the MTP/SCS policies, the applicable policies are embedded in the metrics and growth forecast assumptions of the MTP/SCS. For the purposes of determining SCS consistency, projects consistent with the growth forecast assumptions of the MTP/SCS are consistent with these policies. The MTP/SCS housing forecast for the Established Communities was based not only on the City's land use plans and policies, but also on the following: an assessment of past building activity, current project entitlement activity, and consideration of changing demographic and housing market demand. Infill development and redevelopment is a strategy essential to the success of the Blueprint Preferred Scenario and the MTP/SCS.

*Auburn*  
*Citrus Heights*  
*Colfax*  
*Davis*  
*El Dorado County*  
*Elk Grove*  
*Folsom*  
*Galt*  
*Isleton*  
*Lincoln*  
*Live Oak*  
*Loomis*  
*Marysville*  
*Placer County*  
*Placerville*  
*Rancho Cordova*  
*Rocklin*  
*Roseville*  
*Sacramento*  
*Sacramento County*  
*Sutter County*  
*West Sacramento*  
*Wheatland*  
*Winters*  
*Woodland*  
*Yolo County*  
*Yuba City*  
*Yuba County*



The project is also located within a Transit Priority Area. Transit Priority Areas are areas of the region within one-half mile of a major transit stop (existing or planned light rail, street car, train station, or the intersection of two or more major bus routes) or an existing or planned high-quality transit corridor included in the MTP/SCS. These are the areas that meet the transit requirements of a Transit Priority Project in SB 375. As shown in Map 2, the project is directly adjacent to the Russell Boulevard high quality transit corridor. The University Mall Redevelopment project qualifies as a Transit Priority Project because it is greater than fifty percent residential, has a minimum net density of 20 units per acre, is located within a half-mile of high-quality transit in the MTP/SCS, and is consistent with the land use, density, intensity and applicable policies of the MTP/SCS.

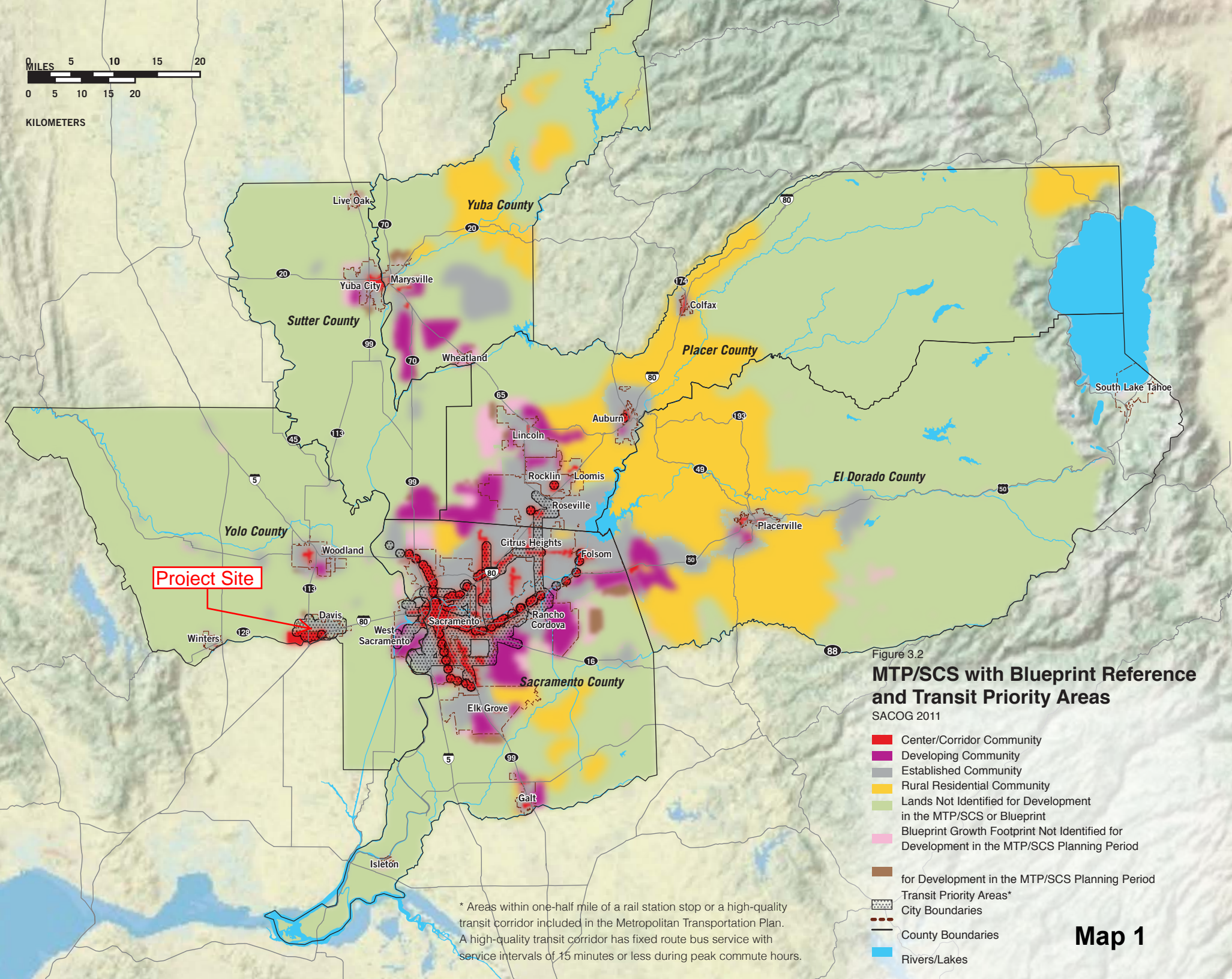
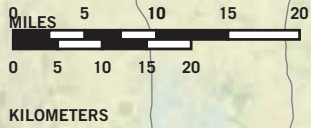
The Blueprint Preferred Scenario, the adopted MTP/SCS, and the draft MTP/SCS achieve transportation, air quality, and other quality of life benefits by relying in part on infill and redevelopment projects such as this one. The University Mall Redevelopment project is consistent with MTP/SCS growth forecast assumptions. Our confirmation of the project's consistency with the MTP/SCS is not intended to express any opinion on the site design or the appropriate conditions of approval of the project.

Thank you for inviting SACOG's input as to the consistency of the University Mall Redevelopment project with the MTP/SCS for 2036. If you have further questions or need further assistance, please don't hesitate to contact me at (916) 340-6265.

Sincerely,

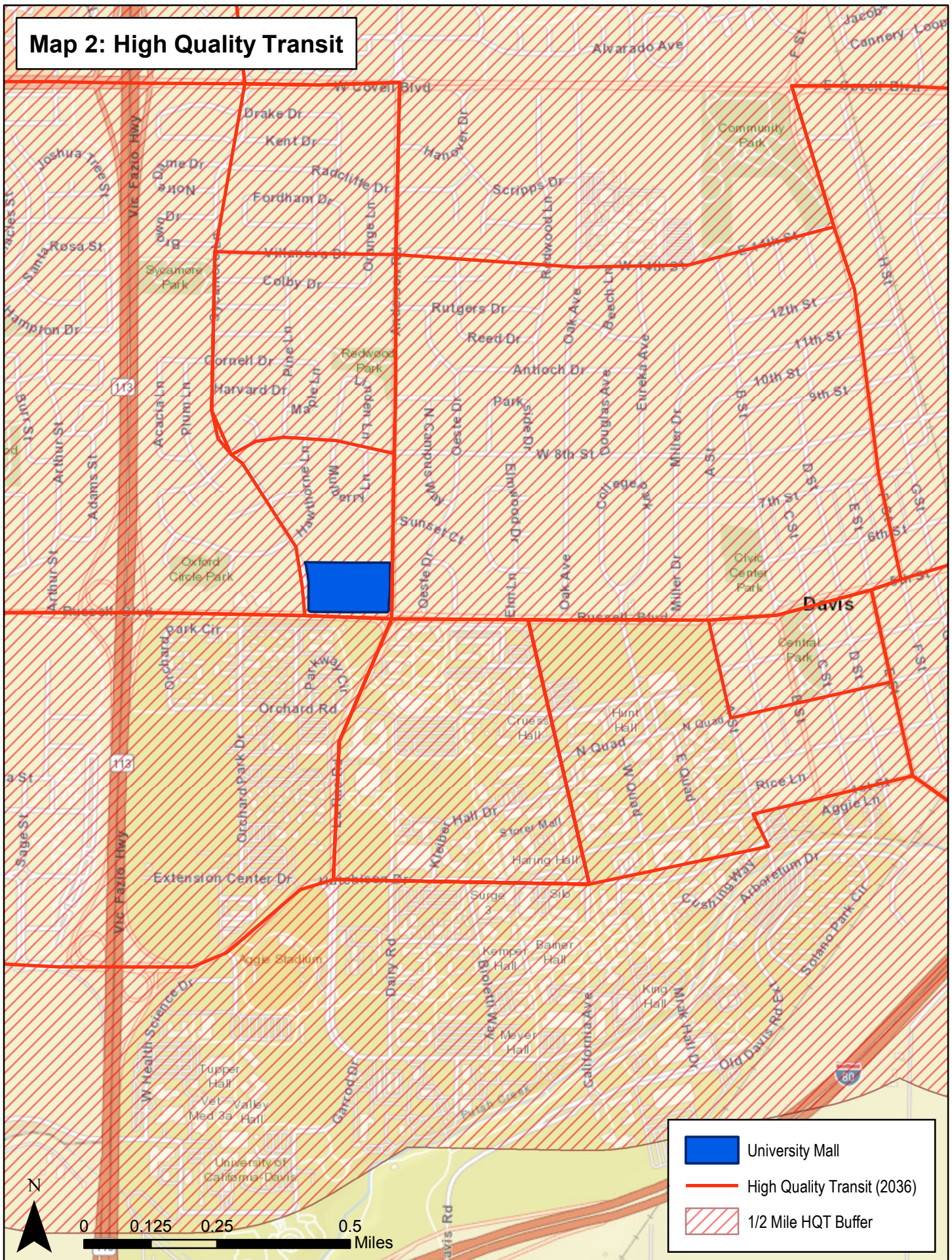
A handwritten signature in blue ink, appearing to read 'K Lizon', with a stylized flourish extending from the end.

Kacey Lizon  
Planning Manager





Map 2: High Quality Transit





**DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET**  
**For Qualifying Transit Priority Projects and Residential/Mixed-Use**  
**Residential Projects**

*As of October 4, 2016<sup>1</sup>*

**Background:** Pursuant to SB 375, streamlined CEQA review and analysis is available to Transit Priority Projects (TPPs) and residential or mixed-use residential projects that are consistent with the SCS. The SCS was adopted by the Sacramento Area Council of Governments (SACOG) Board as part of the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy on February 18, 2016. The California Air Resources Board (CARB) provided an Acceptance of GHG Quantification Determination for the SACOG SCS in September 2016.

Streamlined CEQA review available to TPPs consists of one of the following: 1) a Sustainable Communities Environmental Assessment (SCEA) pursuant to Public Resources Code (PRC) § 21155.2(b) or 2) an EIR pursuant to PRC § 21155.2(c).<sup>11</sup>

Streamlined CEQA review available to residential or mixed-use residential projects consists of an EIR pursuant to PRC § 21159.28(a).

**Purpose:** The purpose of this worksheet is to provide lead agencies with assistance on three issues:

1. Whether a proposed project qualifies as a TPP;
2. Whether a proposed project qualifies as a residential or mixed-use residential project (at least 75 percent of the total building square footage is residential);
3. Whether the TPP or residential/mixed-use residential project is consistent with the general land use designation, density, intensity and applicable policies of the 2016 MTP/SCS adopted by the Sacramento Area Council of Governments (SACOG).

**The lead agency has responsibility to make the final determination on these matters and to determine the applicable and appropriate CEQA streamlining, if any.**

**Directions:** This worksheet should be completed by the lead agency, relying on the project description of the proposed project, MTP/SCS Chapters 3 and 4, and MTP/SCS Appendix E-3. Regardless of whether this worksheet is used, pursuant to PRC § 21155(a) and PRC § 21159.28(a), a project can only be consistent with the MTP/SCS if it is consistent with the general land use designation, density, building intensity, and applicable policies specified for the project area in the adopted SCS. This worksheet only applies to the 2016 MTP/SCS (adopted February 18, 2016); subsequent MTP/SCS adoptions may require updates to this form.

Lead agencies are welcome to contact SACOG for assistance in completing this worksheet. For assistance, contact Kacey Lizon at [klizon@sacog.org](mailto:klizon@sacog.org) or 916-340-6265.

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**Project Title:** University Mall Redevelopment

**Proposed project is located in (city/county name):** Davis, Yolo County

# DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

As of October 7, 2013

## 1. Transit Priority Project Designation (PRC § 21155(b))

A project must meet the requirements of items 1.A, 1.B, 1.C, and 1.D, below, to qualify as a Transit Priority Project. For items 1.C and 1.D, the definition of an MTP/SCS Transit Priority Area is: the area within one-half mile of a rail station stop or a high-quality transit corridor included in the MTP/SCS. A high-quality transit corridor has fixed route bus service with service intervals of 15 minutes or less during peak commute hours. See MTP/SCS Chapter 3 for the map of Transit Priority Areas.

- 1.A. ☒ The Project has a minimum net density<sup>III</sup> of 20 dwelling units per acre.

Calculation:

$$\begin{aligned} & \text{Total housing units proposed in Project } \underline{174} \div \text{Total Project parcel area (in net} \\ & \text{acres)} \underline{8.25} \\ & = \underline{21.0} \quad (\text{Should be } \geq 20 \text{ du/ac}) \end{aligned}$$

- 1.B. ☒ At least 50 percent of the Project's total building square footage is in residential use, **AND**,

☒ The total building square footage of the Project has 25 percent or less non-residential use, or, if it has between 26 and 50 percent in non-residential use, has a minimum FAR of 0.75.

Calculations:

$$\begin{aligned} & \text{Total Project residential square footage } \underline{208,606} \div \text{Total Project building square footage } \underline{324,162} \\ & = \underline{64.3\%} \quad (\text{Should be } \geq 50\%) \quad \text{(does not include parking garage)} \\ & \text{Total Project building square footage } \underline{324,162} \div \text{Total Project parcel(s) area square footage } \underline{359,370} \\ & = \underline{0.90} \quad (\text{Should be } \geq 0.75) \end{aligned}$$

- 1.C. ☒ The Project is located within an MTP/SCS Transit Priority Area and the qualifying transit service is (transit route name/applicable street name/number or light rail stop name as identified in the adopted MTP/SCS): Davis Transit Priority Area served by Unitrans.  
Adjacent to bus stops for Lines B, C, G, J, K, P, Q.

- 1.D. ☒ No more than 25 percent of the area of the Project parcels are farther than one-half mile from the TPA transit stop/corridor and no more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from the TPA transit stop/corridor.

## DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

As of October 7, 2013

Calculations:

Project area outside of ½ mile TPA 0 ÷ Total Project area 8.25 acres  
= 0 (Should be ≤ 25%)

Project residential units outside of ½ mile TPA 0 ÷ Total Project units  
174 = 0 (Should be ≤ 10% or less than 100 units)

### SECTION 1 CONCLUSION:

- ☒ The proposed project meets the requirements of 1.A, 1.B, 1.C, and 1.D and therefore qualifies as a Transit Priority Project.
- ☐ The proposed project does not meet all the requirements of 1.A, 1.B, 1.C, and 1.D and therefore does not qualify as a Transit Priority Project.

### 2. Residential or Mixed-Use Residential Project Designation for Projects Located Outside of an MTP/SCS TPA 21159.28(a)

A residential or mixed-use residential project using the streamlined CEQA review to complete an EIR pursuant to PRC § 21159.28(a) must meet the following requirement:

- 2.A. ☐ At least 75 percent of the total building square footage of the project consists of residential use.

Calculation:

Total Project residential square footage 208,606 ÷ Total Project building square footage 324,162  
= 64% (Should be ≥ 75%)

### SECTION 2 CONCLUSION:

- ☐ The proposed project meets the requirements of 2.A and therefore qualifies as a residential or mixed-use residential project.
- ☒ The proposed project does not meet the requirements of 2.A and therefore does not qualify as a residential or mixed-use residential project.

**IF A PROJECT DOES NOT QUALIFY AS EITHER A TRANSIT PRIORITY PROJECT (UNDER SECTION 1) OR A RESIDENTIAL OR MIXED-USE RESIDENTIAL PROJECT (UNDER SECTION**



## DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

As of October 7, 2013

2), THE PROJECT DOES NOT QUALIFY FOR SB 375 CEQA STREAMLINING. DO NOT PROCEED TO SECTION 3.

### 3. Required Consistency with the SCS: General Use Designation, Density and Intensity, and Applicable MTP/SCS Policies (PRC § 21155(a) and PRC § 21159.28(a))

**3.A. Applicable MTP/SCS Policies.** For the purposes of determining SCS consistency, the policies of the MTP/SCS are embedded in the metrics and growth forecast assumptions of the MTP/SCS. Projects consistent with the growth forecast assumptions of the MTP/SCS, as determined by application of items 3.B. and 3.C, are consistent with the MTP/SCS and its policies.

**3.B. Applicable Community Type.** The MTP/SCS land use forecast is illustrated using Community Types. In order to determine the general use designation, density and intensity of the Project area within the MTP/SCS, the Project must be located within a Community Type designated in the MTP/SCS. The MTP/SCS defines density/building intensity in terms of the amount of growth (residential and non-residential) forecasted and the amount of build out potential within each Community Type area. SACOG monitors development activity on an annual basis to check that the amount of development is consistent with the growth forecast of the MTP/SCS.

For the purposes of the lead agency's determination of SCS consistency, use MTP/SCS Appendix E-3 to identify the Community Type for the Project and fill in the applicable information, below for 3.B.1 and 3.B.2.

#### 3.B.1. The Project is located in the following Community Type:

☐ Center and Corridor Community

☒ Established Community

☐ Developing Community (*list the specific name of the Developing Community as identified in the jurisdiction narrative in Appendix E-3*): \_\_\_\_\_

☐ Rural Residential Community

**3.B.2** ☒ Development from the project when added to other entitled projects will not exceed the MTP/SCS build out assumptions for the area within this Community Type, which is 1,942 new housing units and 3,354 new employees<sup>iv</sup>.

## DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

*As of October 7, 2013*

**3.C. General Use Designation, Density and Building Intensity.** The foundation of the land use designations for the MTP/SCS is adopted and proposed local general plans, community plans, specific plans and other local policies and regulations. A project is consistent with the MTP/SCS if its uses are identified in the applicable MTP/SCS Community Type **and** its uses meet the general density and building intensity assumptions for the Community Type. The proposed project does not have to include all allowed uses in the MTP/SCS.

**3.C.1. Determine consistency of the Project using one of the methods below:**

**Option A:**

☐ The Project is located in a **Center and Corridor Community or an Established Community** and the Project uses are consistent with the allowed uses of the applicable adopted local land use plan as it existed in 2012 and are at least 80 percent of the maximum allowed density or intensity of the allowed uses of the applicable local land use plans. Therefore, the Project is consistent with the MTP/SCS.<sup>v</sup>

**OR**

**Option B:**

☒ The Project is located in a **Center and Corridor Community or an Established Community** and the Project uses have been reviewed in the context of, and are found to be consistent with, the general land use, density, and intensity information provided for this Community Type in Appendix E-3 of the MTP/SCS. Therefore, the Project is consistent with the MTP/SCS.

**OR**

**Option C:**

☐ The Project is located in a **Rural Residential Community** and the Project residential density does not exceed the maximum density of one unit per acre as specified in the MTP/SCS, and employment development in the Project is at least 80 percent of the maximum allowed density or intensity of the applicable local land use plans. Therefore, the Project is consistent with the MTP/SCS.

**OR**

**Option D:**

☐ The Project is located in a **Developing Community** and the Project's average net density meets or exceed the average net density described for this specific

# DETERMINATION OF MTP/SCS CONSISTENCY WORKSHEET

As of October 7, 2013

Developing Community (as referenced by name of applicable specific plan, master plan, or special plan in MTP/SCS Appendix E-3) and employment development in the Project is consistent with the general employment land uses described for this specific Developing Community.<sup>vi</sup> Therefore, the Project is consistent with the MTP/SCS.

## SECTION 3 CONCLUSION:

The proposed project is consistent with the General Use Designation, Density and Intensity, and Applicable MTP/SCS Policies for the following reasons (*summarize findings on use designation, density and intensity for the Project evaluation completed in Section 3*):

*The project is located within an Established Community type as defined in SACOG's MTP/SCS. In 2016, SACOG adopted the latest MTP/SCS which contemplated development of 1,872 housing units over the next 20 years in the Established Community of Davis. The 178 units in this proposed project would not exceed the additional 1,872 units projected. Project density of 21.0 du/acre as a high density infill project on a high quality transit corridor and immediately adjacent to U.C. Davis would be consistent with the requirements of a Transit Priority Project. Proposed Retail square footage of 115,556 sq. ft. would be an increase of approximately 11,861 sq. ft. above the existing 103,695 sq. ft. of retail and would not exceed the 2,944 new employees contemplated in the MTP/SCS for this community type. Project is consistent with the general land uses, densities + building intensities in the MTP/SCS.*

<sup>i</sup> This document may be updated as users provide feedback on its utility.

<sup>ii</sup> If a TPP complies with an additional series of requirements set forth in PRC § 21155.1, it qualifies as a Sustainable Communities Project and becomes eligible for a complete exemption from CEQA. This worksheet does not address Sustainable Communities Projects.

<sup>iii</sup> Net density is not defined in PRC §2115(b). In the MTP/SCS, net density is defined as follows: Housing units divided by the acres on which housing is built, exclusive of public rights-of-ways, parks, schools and public areas (MTP/SCS Appendix E-3).

<sup>iv</sup> The MTP/SCS build out for each Community Type assumes development that is entitled as of January 1, 2012. SACOG monitors housing permits on an annual basis and will ensure that housing and employment projects relying on the SB 375 CEQA benefits will not exceed the capacity assumed in the MTP/SCS. SACOG undertakes this review generally every four years as part of the update of the MTP/SCS.

<sup>v</sup> The MTP/SCS general land use, density and intensity in Center and Corridor Communities and Established Communities is based on 80 percent of the maximum allowed density or intensity of the land use designations in applicable local land use plans as they existed in 2012, unless otherwise noted in Appendix E-3.

<sup>vi</sup> The MTP/SCS land use forecast in Developing Communities was modeled according to adopted and proposed specific plans, master plans, and special plans as they existed in 2012, and is based on the housing and employment totals and the average net density of these plans, as outlined in Appendix E-3.

**Appendix B**

**Arborist Report**



**ARBORIST REPORT  
UNIVERSITY MALL PROJECT  
DAVIS, CALIFORNIA**

**Prepared for  
BRIXMOR PROPERTY GROUP  
Carlsbad, California**

**Prepared by  
TREE ASSOCIATES  
John M. Lichter, M.S.  
ASCA Registered Consulting Arborist #375  
ISA Certified Arborist #863  
ISA Qualified Tree Risk Assessor**

**October 4, 2018**

**©Copyright TREE ASSOCIATES, INC. 2018**

## Assignment

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Andrew Gracey, Vice President with Brixmor Property Group requested arborist-consulting services in association with the University Mall Project in Davis. This Arborist Report includes a tree evaluation, development impact assessment and preservation guidelines for all City of Davis ordinance-protected trees on site as well as 11 off-site trees which were close enough to the project to potentially be impacted by the development. The site plan includes trees which are not protected by the Tree Preservation Ordinance (due to their species or small size). I did not evaluate these trees nor did I include them in the exhibits found in this report.

## Limits of the Assignment

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- This evaluation reports on the condition of the subject trees at the time of my site visit. Tree conditions change over time and, as they change, this report may need to be revised.
- The result of the evaluations for trees for which more detailed examination and/or testing and risk assessment is recommended (including aerial inspection, decay mapping and/or root examination) is provisional, pending the outcome of these studies.
- This evaluation was based on a visual inspection from the ground.
- Impact ratings assumed that 1) my description of construction was accurate; 2) the extent of excavation was limited to 5' off buildings and 1' off drives, parking and walkways; utility trenches were not laid back; and there was no grading within protection zones outside of these areas.
- Once construction plans are prepared or revised, the impact assessment should be updated. If there are changes to the location of infrastructure or there is additional disturbance and/or construction within the TPZ or MTPZ, the prognoses for retained trees may need to be adjusted.





## Tree Evaluation

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I identified, tagged in the field and evaluated the ordinance-protected trees on June 29-July 5, 2018. For each of these trees, the following data were provided.

- Tree Number – corresponds to a round aluminum tag affixed to each protected tree.
- Species – common and scientific name of the tree.
- Trunk Diameter – the diameter of the tree (in inches) at 4.5' above grade, unless measurement at another location between 1 and 5 feet above grade provided a more accurate reflection of the size of the tree.
- Dripline – the approximate maximum distance from the trunk to the edge of the branches, in feet.
- Tree Protection Zone (TPZ) – the radius in feet of a circular tree protection zone (centered at the trunk) recommended by the author.
- Comments – comments regarding tree and landscape features that influenced health, structure and condition ratings.
- Health Rating – rating between poor and good considering the overall health of the tree. A rating of fair-good or good indicates no significant health concerns.
- Structural Rating – rating between poor and good considering the overall structure of the tree. A rating of fair-good or good indicates no significant structural concerns.
- Condition Rating – percentage rating of tree condition used for appraisal calculations.
- Recommendations – recommendations for tree work or treatments to improve tree structure or health or for further evaluation, where necessary. Note: recommendations are indicated in red where removal was recommended or green where detailed examination and/or testing was recommended.

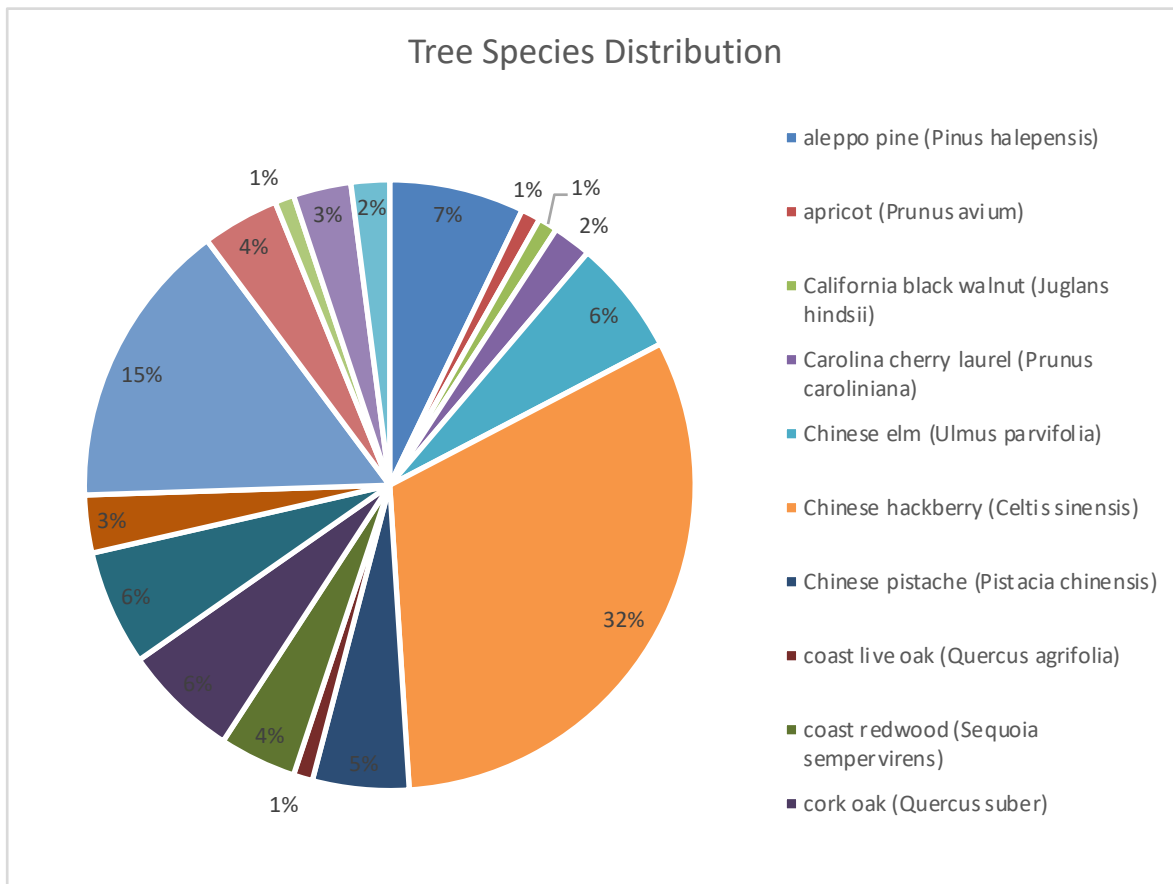
Exhibit 1, entitled “Tree Evaluation” summarizes the results of the tree evaluation for all protected trees. Note that data for off-site trees is shaded blue. The locations of these trees *as well as those of unprotected trees* can be found on the attached Arborist Reference Plan.

## Summary of Tree Evaluation (Protected Trees Only)

### *Number of Trees, Species Makeup, Location*

The site was occupied by a shopping mall. The trees were located in planters within or adjacent to the parking lots or along the street in park strips. I tagged and evaluated a total of 109 protected trees which were those trees which were a protected species having trunk diameters of 5 inches or greater within the University Mall property (98 trees) or close enough to the property to potentially be impacted by the proposed development (11 trees). Trunk diameters of the protected on-site trees ranged from 6 to 42 inches at 4.5 feet above grade. There were an additional 15 unprotected trees on site including palms (see Arborist Reference Plan).

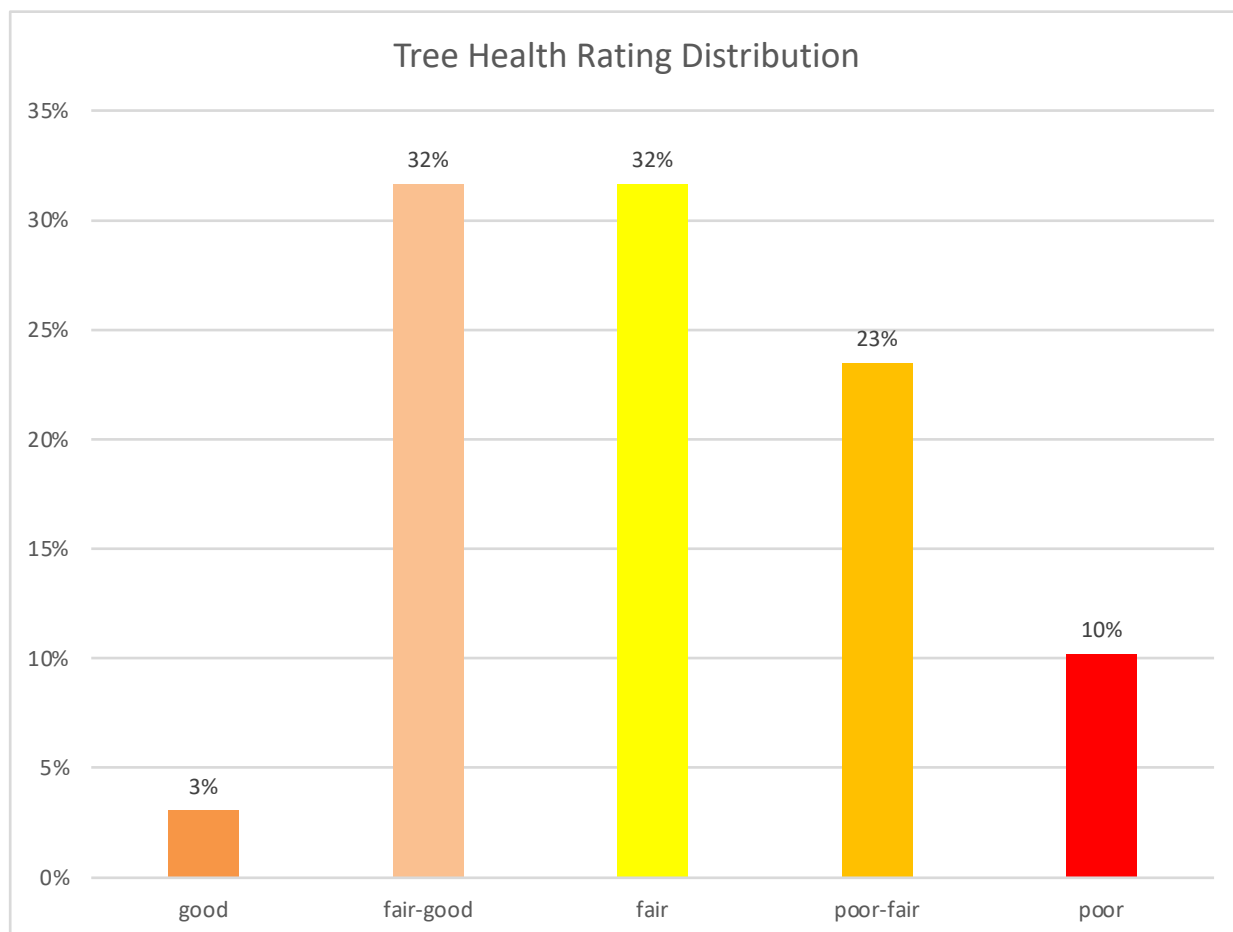
Seventeen protected tree species were represented on site. Chinese hackberry and fruitless mulberry were the most populous, representing 31 and 15 percent of the total population, respectively. Aleppo pine, cork oak and crepe myrtle represented 7, 6 and 6 percent of the total population, respectively. No other species represented more than 5% of the population (Figure 1).



**Figure 1. Tree species distribution of protected on-site trees.**

### Tree Health

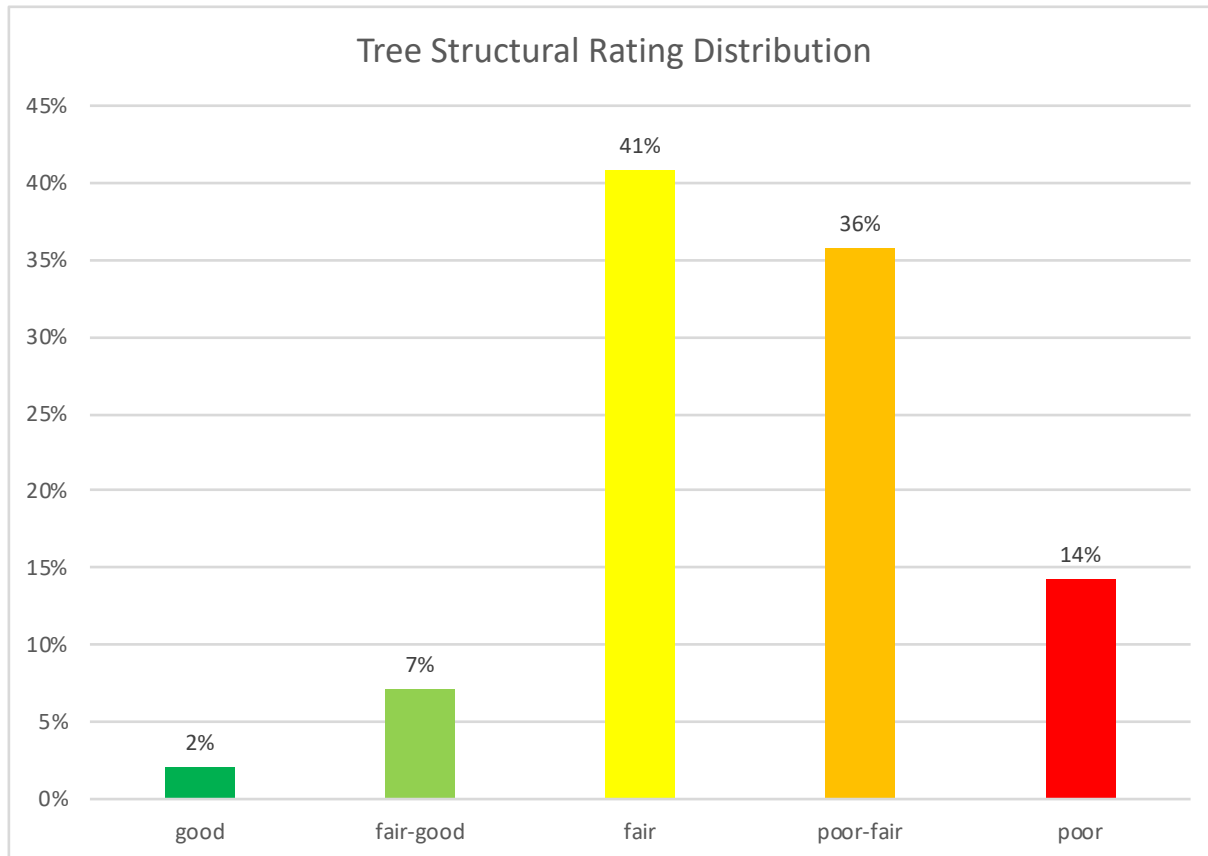
Thirty-five percent or 34 of the trees had no significant health concerns (rated fair-good or good). Thirty-three percent or 33 of the trees were in poor-fair or poor health while the remaining thirty-two percent or 31 trees were in fair health (Figure 2). Many of the trees, especially those in the parking lot planters, were exhibiting symptoms of drought stress (foliar yellowing, burn, drop, twig and branch dieback). No irrigation was apparent in the planters. Irrigation is critical to the maintenance of all but the most drought tolerant trees in the Central Valley, especially those in planters.



**Figure 2. Health ratings of on-site trees.**

### Tree Structure

Nine percent or 9 of the trees had no significant structural concerns (ratings of fair-good or good), while 50% or 49 trees were in poor or poor-fair structural condition (Figure 3). Many of the trees (most of the fruitless mulberries) had previously been topped which was detrimental to their structure. Aside from the topping, it appeared that the on-site trees had only been pruned to raise their canopies and not to improve their structure.



**Figure 3. Structural ratings of on-site trees.**

### Removal Recommendations, Recommendations to Improve Tree Condition

I recommended 42 trees (43% of the total protected tree population) be removed due to their poor condition and suitability for preservation. My removal recommendations are indicated in red in Exhibit 1. Exhibit 1 also contains recommendations to improve the health or structure of trees (if they are to be preserved) where appropriate.

## **Preliminary Development Impact Assessment (Protected Trees Only)**

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I reviewed the retail plan at grade level dated 9/6/18 in order to determine the planned development within tree protection zones, preliminarily determine the potential impact of development on the trees and to provide possible design modifications to lessen development impacts. The following data was provided for the subject trees. The results may be found in Exhibit 2, attached.

- Tree Number, Species, Dripline, Diameter, TPZ – see description above.
- Development within TPZ (limit of disturbance) – a description of infrastructure proposed within the TPZ.
- Impact Rating – a rating low, moderate, high or extreme considering the *possible* impact to tree condition from construction of the proposed plan.<sup>1</sup> Impact ratings assumed that 1) my description of construction was accurate; 2) the extent of excavation was limited to 5' off buildings and 1' off drives, parking and walkways; utility trenches were not laid back; and there was no grading within protection zones outside of these areas.
- Possible Design Modifications/Construction Methods - possible adjustments to the design and/or construction methods that could decrease the impact of the development to the trees. I did not indicate all possible design modifications (such as moving buildings). Changes to the site plan other than those I mention in this table could result in preserving additional trees and/or modifying potential impacts.

The following is a preliminary summary of the development impacts to the ordinance-protected, on-site trees considering the information above.

- To be removed due to their poor condition = 42 trees (43% of the total)
- To be removed due to site layout conflicts = 40 trees (41% of the total)
- To be preserved = 16 trees (16% of the total)

Of the 16 trees to be remain, given the location of the proposed infrastructure, the preliminary impacts are as follows: Low – 7 trees; Moderate – 1 tree; High – 2 trees; Extreme – 6 trees. Trees with impacts rated High or Extreme (8 trees) may need to be removed and mitigated for if the plans cannot be modified to provide them more undisturbed space.

Of the 11 off site trees, three would need to be removed due to site layout conflicts.

All 15 unprotected trees are to be removed.

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<sup>1</sup> Note: Impact ratings were preliminary and assumed typical root locations. Once construction plans are prepared and/or updated, the impact ratings will need to be updated. The actual impact is dependent upon the actual nature of construction, the location of tree roots and other factors.

## Appraisal

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I appraised the monetary value of all protected, on site trees except those I recommended be removed due to their poor condition. The appraisal used Arborist-standard methods found in the Guide for Plant Appraisal, 9<sup>th</sup> Edition, authored by the Council of Tree and Landscape Appraisers. The results of the appraisal can be found in Exhibit 3, attached.

## Tree Preservation Guidelines

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The guidelines presented below should be followed for all trees to be preserved to ensure the least impact to the trees considering the existing plans.

- Tree preservation measures should be indicated on construction plans.
- Indicate surveyed trunk locations and tree protection zones (TPZ's) as described in attached table on all construction plans for trees to be preserved. Note, where infrastructure is located within protection zones, indicate modified tree protection zones (MTPZ's) and fencing as close to infrastructure as possible (minimize overbuild).
- Engage the Consulting Arborist to revise the development impact assessment as construction plans are prepared/revised.
- Conduct a meeting to discuss tree preservation guidelines with the Consulting Arborist and all contractors, subcontractors and project managers prior to the initiation of demolition and construction.
- Any pruning required for construction or recommended in this report should be performed by an ISA Certified Arborist or Tree Worker. Pruning for necessary clearance should be the minimum required for the project performed prior to demolition by an ISA Certified Arborist.
- Prior to any demolition activity on site, identify (tagged) trees to be preserved and install tree protection fencing as indicated on construction plans.
- Tree protection fences should be made of chain link with posts sunk into the ground. These fences should not be removed or moved until construction is complete. Avoid soil or above ground disturbances within the fenced area.
- Avoid grading, compaction, trenching, rototilling, vehicle traffic, material storage, spoil, waste or washout or any other disturbance within TPZ's/MTPZ's.
- Any work that is to occur within the protection zones of the trees should be monitored by the Consulting Arborist.
- Prior to trenching or grading within the protection zone of trees, carefully excavate, expose and mark roots  $\geq 2$ " diameter and preserve if possible or cut cleanly with a sharp saw under Arborist supervision.
- If roots  $\geq 2$  inches or limbs larger than 3 inches in diameter are cut or damaged during construction, contact Consulting Arborist as soon as possible to inspect and recommend appropriate remedial treatments.
- All trees to be preserved should be irrigated once every week during non-Winter months to uniformly wet the soil to a depth of at least 18 inches under and beyond their canopies.





## Arborist Disclosure Statement

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The following statement pertains to my work and this report.

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the Arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the Arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the Arborist. An Arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.



## Glossary<sup>2</sup>

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*Bow* – the gradual curve of a branch or stem.

*Callus* – growth resulting from and found at the margin of wounds.

*Canker* – a localized area of dead tissue on a stem or branch, caused by fungal or bacterial organisms.

*Central Leader* – the main stem of the tree.

*Chlorotic* – yellow.

*Codominant* – equal in size and relative importance.

*Crown* – parts of the tree above the trunk.

*Crown Clean* – the removal of dead, dying, diseased, broken, and weakly attached branches and watersprouts from a tree's crown.

*Decay* – process of degradation of woody tissues by fungi and bacteria.

*Dieback* – death of shoots and branches, generally from tip to base.

*Dropcrotch* – the process of shortening trunks or limbs by pruning back to dominant lateral limbs.

*End Weight* – the concentration of foliage at the distal ends of branches.

*Epicormic* – shoots which result from adventitious or latent buds; often indicates poor vigor.

*Included bark* – pattern of development at branch junctions where bark is turned inward rather than pushed out.

*Primary limb* – limb attached directly to the trunk.

*Reduction cut* – shortening the length of a branch or stem by cutting it back to a lateral branch of at least one-third the diameter of the cut stem.

*Root crown* – area at the base of a tree where the roots and stem merge.

*Secondary limb* – limb attached directly to a primary limb.

*Sound wood* – undecayed wood.

*Suppressed* – trees which have been overtopped and whose crown development is restricted from above.

*Target* – people or property potentially affected by tree failure.

*Topped* – Pruned to reduce height by cutting large branches back to stubs.

*Train* – to prune a young tree to establish a strong structure.

*Vigor* – overall health.

*Watersprouts* – vigorous, upright, epicormic shoots that grow from latent buds in older wood.

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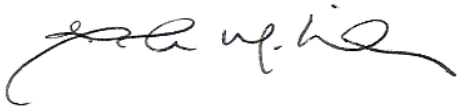
<sup>2</sup> Definitions from author or Matheny and Clark, Evaluation of Hazard Trees in Urban Areas, 2<sup>nd</sup> Edition c 1994, ISA.

## Certification of Performance

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I, John M. Lichter, certify:

- That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and the Terms and Conditions;
- That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions and conclusions stated herein are my own, and are based on current scientific procedures and facts;
- That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events;
- That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;
- That no one provided significant professional assistance to the consultant, except as indicated within the report.



John M. Lichter, M.S.  
ASCA Registered Consulting Arborist #375  
ISA Certified Arborist #863  
ISA Qualified Tree Risk Assessor

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**ASSUMPTIONS AND LIMITING CONDITIONS: TREE ASSOCIATES, INC.**

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1. Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.
3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.
4. The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
5. Unless required by law otherwise, possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
6. Unless required by law otherwise, neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser - particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant/appraiser as stated in his qualifications.
7. This report and any values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
8. Sketches, drawings, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys unless expressed otherwise. The reproduction of any information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is for the express purpose of coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by John M. Lichter or TREE ASSOCIATES as to the sufficiency or accuracy of said information.
9. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.
10. Loss or alteration of any part of this report invalidates the entire report.



## Exhibit 1.

**Tree Evaluation**  
**(Protected Trees Only)**  
**University Mall, Davis, California**

**To Accompany**  
**Tree Associates, Inc. Report**  
**Dated October 4, 2018**

Tree #	Species	Diameter (in.)	Dripline (ft.)	TPZ (ft.)	Comments	Health Rating	Structural Rating	Condition	Recommendations
501	apricot ( <i>Prunus avium</i> )	11,9	18	15	codominant trunks with included bark; limb dieback; grossly restricted root zone; trunk wounds	poor-fair	poor	0%	remove tree.
502	Chinese hackberry ( <i>Celtis sinensis</i> )	16	26	16	topped to clear high voltage lines; grossly restricted root zone	fair	poor-fair	47%	remove tree.
503	glossy privet ( <i>Ligustrum lucidum</i> )	9,7	16	12	under high voltage lines; grossly restricted root zone; codominant trunks with included bark; large trunk wound	fair	poor-fair	50%	remove tree.
504	Carolina cherry laurel ( <i>Prunus caroliniana</i> )	10	12	10	Under high voltage lines; large trunk wound and decay; limb dieback; grossly restricted root zone	fair-good	poor	44%	remove tree.
505	glossy privet ( <i>Ligustrum lucidum</i> )	6,7,5	14	11	declining health; grossly restricted root zone; multiple trunks with included bark; limb dieback	poor	poor	0%	remove tree.
506	Carolina cherry laurel ( <i>Prunus caroliniana</i> )	6	12	6	limb dieback; grossly restricted root zone; trunk wounds; trunk decay	poor	poor	0%	remove tree.
507	Chinese elm ( <i>Ulmus parvifolia</i> )	12,10	32	16	topped to clear high voltage lines; overextended limbs; grossly restricted root zone; codominant trunks; trunk rests on wall; poor suitability for preservation; limb breaks	fair-good	poor-fair	59%	remove tree.
508	coast redwood ( <i>Sequoia sempervirens</i> )	34	22	34	foliage burn north side; codominant trunks; one trunk missing	fair-good	poor-fair	69%	conduct aerial inspection. irrigate.
509	coast redwood ( <i>Sequoia sempervirens</i> )	20	20	20	redwood canker symptoms	fair-good	good	81%	irrigate. crown clean.

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510	coast redwood ( <i>Sequoia sempervirens</i> )	28	18	28	codominant trunks; large vertical primary limb	fair-good	poor-fair	66%	conduct aerial inspection. select leader, drop crotch competing trunks or primary limbs. irrigate.
511	coast redwood ( <i>Sequoia sempervirens</i> )	34	22	34	limb breaks; low vigor; redwood canker symptoms; roots dead; trunk lean; likely root pruning 5 feet from trunk base	fair	poor	0%	remove tree.
512	California black walnut ( <i>Juglans hindsii</i> )	30	30	30	multiple trunks; primary limbs with excessive end weight; side pruned to clear high voltage lines; unbalanced crown; limb dieback	fair-good	fair	72%	crown clean. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
513	coast live oak ( <i>Quercus agrifolia</i> )	25	32	25	topped to clear high voltage lines; unbalanced crown; sap fluxing on trunk; adjacent to wall; root growth restriction	fair	fair	69%	crown reduction.
514	Chinese pistache ( <i>Pistacia chinensis</i> )	18	28	18	multiple trunks; primary limbs with excessive end weight; restricted root zone	good	fair	75%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
515	Chinese pistache ( <i>Pistacia chinensis</i> )	14	26	14	low vigor; yellow foliage; verticillium wilt symptoms	fair	fair	59%	
516	Chinese pistache ( <i>Pistacia chinensis</i> )	9	24	9	unbalanced crown; primary limbs with excessive end weight; possible verticillium wilt symptoms	fair-good	fair	72%	
517	Chinese pistache ( <i>Pistacia chinensis</i> )	19	34	19	restricted root zone; likely root pruning; multiple trunks; primary limbs with excessive end weight	fair-good	fair	72%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.



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518	evergreen pear ( <i>Pyrus kawakamii</i> )	10	16	10	unbalanced crown; trunk wound; drop crotched; restricted root zone	fair-good	fair	63%	
519	Chinese hackberry ( <i>Celtis sinensis</i> )	12	24	12	restricted root zone; low vigor; codominant trunks	fair	fair	56%	
520	Chinese hackberry ( <i>Celtis sinensis</i> )	15	22	15	restricted root zone; hackberry decline syndrome ; declining health; primary limbs with excessive end weight; poor suitability for preservation	fair	fair	50%	remove tree.
521	Chinese hackberry ( <i>Celtis sinensis</i> )	8	18	8	low vigor; twig dieback; yellow foliage; restricted root zone	poor-fair	fair	59%	remove tree.
522	Chinese hackberry ( <i>Celtis sinensis</i> )	17	26	17	restricted root zone; codominant trunks; primary limbs with excessive end weight; low vigor; limb dieback; hackberry decline syndrome; poor suitability for preservation; twig dieback	poor-fair	fair	47%	remove tree.
523	Chinese hackberry ( <i>Celtis sinensis</i> )	16	28	16	restricted root zone; codominant trunks; primary limbs with excessive end weight; low vigor; limb dieback; hackberry decline syndrome; poor suitability for preservation; twig dieback	poor-fair	fair	47%	remove tree.
524	valley oak ( <i>Quercus lobata</i> )	20	36	20	side pruned to clear high voltage lines; topped to clear high voltage lines; limb dieback; primary limbs with excessive end weight; sparse canopy	fair	poor-fair	44%	consider removal. crown reduction.

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525	valley oak ( <i>Quercus lobata</i> )	24	36	24	side pruned to clear high voltage lines; topped to clear high voltage lines; limb dieback; primary limbs with excessive end weight; sparse canopy	fair	poor-fair	44%	consider removal. crown reduction.
526	cork oak ( <i>Quercus suber</i> )	15	24	15	side pruned to clear high voltage lines; low vigor; multiple trunks; trunk lean	fair	fair	66%	select leader, drop crotch competing trunks or primary limbs.
527	Chinese hackberry ( <i>Celtis sinensis</i> )	16	24	16	restricted root zone; low vigor; possible hackberry decline syndrome; multiple trunks	fair	fair	56%	
528	Chinese hackberry ( <i>Celtis sinensis</i> )	9	16	9	codominant trunks; low vigor; yellow foliage	poor-fair	fair	41%	remove tree.
529	Chinese hackberry ( <i>Celtis sinensis</i> )	16	22	16	multiple trunks; low vigor; trunk decay; root dead	fair	poor	0%	remove tree.
530	Chinese hackberry ( <i>Celtis sinensis</i> )	17	22	17	trunk wound from old trunk failure; trunk decay; root dead; root decay; low vigor	fair	poor	0%	remove tree.
531	aleppo pine ( <i>Pinus halepensis</i> )	25	36	25	trunk lean; codominant trunks; primary limbs with excessive end weight; low vigor	fair	fair	59%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
532	Chinese elm ( <i>Ulmus parvifolia</i> )	11	24	11	off property. restricted root zone; trunk lean; primary limbs with excessive end weight	fair-good	fair	75%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
533	Chinese elm ( <i>Ulmus parvifolia</i> )	13	28	13	off property. codominant trunks; primary limbs with excessive end weight; restricted root zone	fair-good	fair	69%	select leader, drop crotch competing trunks or primary limbs. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
534	Chinese elm ( <i>Ulmus parvifolia</i> )	14	26	14	off property. unbalanced crown; primary limbs with excessive end weight; restricted root zone;	fair-good	fair	78%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.

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Tree #	Species	Diameter (in.)	Dripline (ft.)	TPZ (ft.)	Comments	Health Rating	Structural Rating	Condition	Recommendations
535	Modesto ash ( <i>Fraxinus velutina</i> 'Modesto')	12	16	12	off property. limb dieback; low vigor; codominant trunks; primary limbs with excessive end weight; poor suitability for preservation	poor-fair	poor-fair	56%	remove tree.
536	Modesto ash ( <i>Fraxinus velutina</i> 'Modesto')	9	12	9	off property. limb dieback; low vigor; codominant trunks with included bark; primary limbs with excessive end weight; poor suitability for preservation	poor-fair	poor-fair	47%	remove tree.
537	evergreen pear ( <i>Pyrus kawakamii</i> )	10	12	10	off property. low vigor; codominant trunks	poor-fair	fair	56%	
538	Modesto ash ( <i>Fraxinus velutina</i> 'Modesto')	15	20	15	off property. codominant trunks with included bark; primary limbs with excessive end weight; limb dieback; sparse canopy	fair	poor-fair	59%	crown reduction.
539	evergreen pear ( <i>Pyrus kawakamii</i> )	15	20	15	off property. codominant trunks; primary limbs with excessive end weight; fire blight	poor-fair	poor-fair	41%	consider removal. crown reduction.
540	fruitless mulberry ( <i>Morus alba</i> )	18	26	18	trunk decay; at codominant trunk attachment; limb decay; previously topped	fair-good	poor	0%	remove tree.
541	fruitless mulberry ( <i>Morus alba</i> )	16	28	16	previously topped; primary limbs with excessive end weight; limb decay	fair-good	poor-fair	66%	consider removal. crown reduction. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
542	Chinese elm ( <i>Ulmus parvifolia</i> )	13	26	13	off property. codominant trunks; primary limbs with excessive end weight; restricted root zone	fair-good	poor-fair	69%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.

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543	Chinese elm ( <i>Ulmus parvifolia</i> )	19	28	19	off property. codominant trunks; primary limbs with excessive end weight	fair-good	poor-fair	69%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter. crown reduction.
544	London plane ( <i>Platanus X acerifolia</i> )	16	26	16	off property. restricted root zone	fair-good	fair-good	75%	
545	cork oak ( <i>Quercus suber</i> )	17	24	17	trunk lean; unbalanced crown; twig dieback; low vigor; limb breaks	poor-fair	poor-fair	50%	remove tree.
546	fruitless mulberry ( <i>Morus alba</i> )	13	16	13	low vigor; trunk wound; previously topped; limb dieback; poor suitability for preservation	poor-fair	poor-fair	47%	remove tree.
547	fruitless mulberry ( <i>Morus alba</i> )	12	16	12	low vigor; trunk wound; previously topped; limb dieback; poor suitability for preservation	poor-fair	poor-fair	47%	remove tree.
548	fruitless mulberry ( <i>Morus alba</i> )	14	18	14	declining health; limb dieback; sparse canopy; trunk wounds; previously topped; poor suitability for preservation	poor	poor-fair	31%	remove tree.
549	fruitless mulberry ( <i>Morus alba</i> )	13	26	13	multiple trunks; previously topped; trunk and left mb wounds with decay; low vigor; yellow foliage; twig dieback; poor suitability for preservation	poor-fair	poor-fair	38%	remove tree.
550	Chinese hackberry ( <i>Celtis sinensis</i> )	6	10	6	low vigor; limb dieback; yellow foliage; poor suitability for preservation	poor	poor-fair	41%	remove tree.
551	fruitless mulberry ( <i>Morus alba</i> )	18	26	18	multiple trunks; previously topped; trunk and left mb wounds with decay; low vigor; yellow foliage; twig dieback; poor suitability for preservation	poor-fair	poor-fair	38%	remove tree.

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**Dated October 4, 2018**

Tree #	Species	Diameter (in.)	Dripline (ft.)	TPZ (ft.)	Comments	Health Rating	Structural Rating	Condition	Recommendations
552	fruitless mulberry ( <i>Morus alba</i> )	13	26	13	low vigor; limb wounds; previously topped	fair	poor-fair	53%	perform crown reduction regularly to maintain size.
553	fruitless mulberry ( <i>Morus alba</i> )	13	18	13	previously topped; trunk wounds; low vigor; limb dieback; poor suitability for preservation	poor-fair	poor-fair	34%	remove tree.
554	fruitless mulberry ( <i>Morus alba</i> )	13	24	13	previously topped; sap fluxing on trunk; multiple trunks; trunk wound; twig dieback; primary limbs with excessive end weight; declining health; poor suitability for preservation	poor-fair	poor-fair	41%	remove tree.
555	fruitless mulberry ( <i>Morus alba</i> )	16	24	16	multiple trunks; previously topped; declining health; twig dieback	poor-fair	poor-fair	44%	remove tree.
556	fruitless mulberry ( <i>Morus alba</i> )	15	20	15	multiple trunks; previously topped; declining health; twig dieback	poor-fair	poor-fair	41%	remove tree.
557	fruitless mulberry ( <i>Morus alba</i> )	15	22	15	multiple trunks; previously topped; declining health; twig dieback; trunk and limb wounds and decay	poor-fair	poor	31%	remove tree.
558	fruitless mulberry ( <i>Morus alba</i> )	14	24	14	previously topped; trunk wounds; low vigor	fair	poor-fair	44%	remove tree.
559	fruitless mulberry ( <i>Morus alba</i> )	15	24	15	previously topped; trunk wounds; low vigor	fair	poor-fair	53%	remove tree.
560	cork oak ( <i>Quercus suber</i> )	37	48	37	slightly sparse canopy; primary limbs with excessive end weight; limb dieback; twig dieback	fair	fair	72%	crown clean. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.

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561	aleppo pine ( <i>Pinus halepensis</i> )	41	48	41	multiple trunks; primary limbs with excessive end weight; trunk lean	fair-good	poor	63%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter. crown reduction.
562	aleppo pine ( <i>Pinus halepensis</i> )	35	38	35	trunk lean; unbalanced crown; codominant trunks; primary limb with neutral plane crack; sparse canopy	fair	poor	47%	crown reduction. crown clean. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
563	Chinese elm ( <i>Ulmus parvifolia</i> )	15	28	15	primary limbs with excessive end weight; restricted root zone	fair-good	fair	78%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
564	Chinese elm ( <i>Ulmus parvifolia</i> )	13	26	13	sparse canopy; codominant trunks; primary limbs with excessive end weight; restricted root zone	fair	fair	50%	crown clean. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
565	Chinese elm ( <i>Ulmus parvifolia</i> )	16	34	16	trunk lean; codominant trunks; primary limbs with excessive end weight	fair-good	fair	72%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
566	Chinese elm ( <i>Ulmus parvifolia</i> )	16	32	16	restricted root zone; codominant trunks; primary limbs with excessive end weight; limb dieback	fair-good	fair	72%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter. crown clean.
567	Chinese pistache ( <i>Pistacia chinensis</i> )	7	14	7	restricted root zone; multiple trunks; low vigor	fair	fair	59%	select leader, drop crotch competing trunks or primary limbs.
568	crepe myrtle ( <i>Lagerstroemia indica</i> )	7	12	7	restricted root zone; multiple trunks	fair-good	fair-good	81%	



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569	crepe myrtle ( <i>Lagerstroemia indica</i> )	6	16	6	multiple trunks; restricted root zone	fair-good	fair-good	81%	
570	crepe myrtle ( <i>Lagerstroemia indica</i> )	7	14	7	multiple trunks; restricted root zone	fair-good	fair-good	81%	
571	Chinese hackberry ( <i>Celtis sinensis</i> )	12	24	12	restricted root zone; low vigor; limb dieback; primary limbs with excessive end weight; codominant trunks; drought stressed	fair	fair	59%	crown clean. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter. irrigate.
572	Chinese hackberry ( <i>Celtis sinensis</i> )	16	24	16	limb dieback; low vigor; drought stress; primary limbs with excessive end weight	poor-fair	fair	53%	irrigate.
573	Chinese hackberry ( <i>Celtis sinensis</i> )	14	18	14	limb dieback; low vigor; drought stressed; root dead; poor suitability for preservation	poor-fair	poor	41%	remove tree.
574	Chinese hackberry ( <i>Celtis sinensis</i> )	10	14	10	drought stressed; low vigor; yellow foliage; poor suitability for preservation	poor	fair-good	34%	remove tree.
575	cork oak ( <i>Quercus suber</i> )	42	46	42	primary limbs with excessive end weight; sap fluxing on trunk; multiple trunks	good	fair	81%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
576	Chinese hackberry ( <i>Celtis sinensis</i> )	10	18	10	low vigor; restricted root zone; drought stressed; codominant trunks	fair	fair	59%	irrigate. select leader, drop crotch competing trunks or primary limbs.
577	Chinese hackberry ( <i>Celtis sinensis</i> )	12	18	12	hackberry decline syndrome; low vigor; drought stressed; codominant trunks; poor suitability for preservation	poor-fair	fair	41%	remove tree.

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578	Chinese hackberry ( <i>Celtis sinensis</i> )	17	22	17	hackberry decline syndrome; drought stressed; primary limbs with excessive end weight; restricted root zone	fair	fair	59%	consider removal. irrigate.
579	Chinese hackberry ( <i>Celtis sinensis</i> )	11	18	11	codominant trunks; restricted root zone; low vigor	fair	fair	69%	irrigate. select leader, drop crotch competing trunks or primary limbs.
580	crepe myrtle ( <i>Lagerstroemia indica</i> )	7	12	7	restricted root zone; multiple trunks	fair-good	fair-good	81%	
581	crepe myrtle ( <i>Lagerstroemia indica</i> )	6	12	6	restricted root zone; multiple trunks	fair-good	fair-good	84%	
582	crepe myrtle ( <i>Lagerstroemia indica</i> )	6	12	6	restricted root zone; multiple trunks	fair-good	fair	75%	
583	Chinese hackberry ( <i>Celtis sinensis</i> )	10	16	10	low vigor; primary limbs with excessive end weight; limb wounds; drought stressed	fair	fair	72%	irrigate. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
584	Chinese hackberry ( <i>Celtis sinensis</i> )	13	16	13	greatly restricted root zone; drought stressed; hackberry decline syndrome limb wounds; limb dieback; sparse canopy; multiple trunks	poor	poor-fair	38%	remove tree.
585	Chinese hackberry ( <i>Celtis sinensis</i> )	10	18	10	trunk wound; trunk decay; drought stressed; greatly restricted root zone; low vigor	poor-fair	poor	44%	remove tree.
586	Chinese hackberry ( <i>Celtis sinensis</i> )	15	20	15	restricted root zone; limb wounds; limb dieback; limb breaks; low vigor; codominant trunks	fair	fair	59%	irrigate. crown clean. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.

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587	cork oak ( <i>Quercus suber</i> )	27	36	27	codominant trunks; primary limbs with excessive end weight	fair-good	fair	84%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
588	cork oak ( <i>Quercus suber</i> )	19	30	19	severely unbalanced crown; codominant trunks; primary limbs with excessive end weight	fair-good	poor-fair	72%	perform crown reduction regularly to maintain size
589	Chinese elm ( <i>Ulmus parvifolia</i> )	7	18	7	previously topped; codominant trunks; primary limbs with excessive end weight	fair-good	fair	75%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
590	evergreen pear ( <i>Pyrus kawakamii</i> )	9	12	9	fire blight; low vigor; restricted root zone; poor suitability for preservation	poor-fair	poor-fair	47%	remove tree.
591	evergreen pear ( <i>Pyrus kawakamii</i> )	11	20	11	codominant trunks; unbalanced crown; restricted root zone	fair-good	poor-fair	59%	crown reduction.
592	Chinese hackberry ( <i>Celtis sinensis</i> )	12	18	12	bronzed foliage; low vigor; poor suitability for preservation; no tag	poor-fair	fair	44%	remove tree.
593	Chinese hackberry ( <i>Celtis sinensis</i> )	15	26	15	codominant trunks; low vigor; primary limbs with excessive end weight	fair	fair	69%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
594	Chinese hackberry ( <i>Celtis sinensis</i> )	15	24	15	codominant trunks; limb dieback; declining health	poor	poor	0%	remove tree.
595	Chinese hackberry ( <i>Celtis sinensis</i> )	11	16	11	declining healthunbalanced crown; bronzed foliage; hackberry decline syndrome	poor	poor-fair	0%	remove tree.
596	Chinese hackberry ( <i>Celtis sinensis</i> )	13	20	13	declining healthyellow foliage; sparse canopy; multiple trunks; no tag	poor	poor-fair	31%	remove tree.

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597	Chinese hackberry ( <i>Celtis sinensis</i> )	14	20	14	codominant trunks; unbalanced crown; no tag	fair-good	fair	72%	crown reduction.
598	Chinese hackberry ( <i>Celtis sinensis</i> )	15	22	15	codominant trunks; no tag	fair-good	fair	75%	crown reduction.
599	Chinese hackberry ( <i>Celtis sinensis</i> )	16	24	16	low vigor; limb dieback; codominant trunks; primary limbs with excessive end weight	fair	fair	63%	use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
600	holly oak ( <i>Quercus ilex</i> )	14	20	14	primary limbs with excessive end weight; no dominant leader	good	poor-fair	75%	select leader, drop crotch competing trunks or primary limbs.
601	London plane ( <i>Platanus X acerifolia</i> )	8	16	8	broken, hanging limbs; powdery mildew; primary limbs with excessive end weight	fair-good	fair-good	78%	
602	London plane ( <i>Platanus X acerifolia</i> )	9	18	9	powdery mildew; primary limbs with slightly excessive end weight	fair-good	good	84%	
603	London plane ( <i>Platanus X acerifolia</i> )	9	18	9	codominant trunks; powdery mildew	fair-good	fair	78%	select leader, drop crotch competing trunks or primary limbs.
604	aleppo pine ( <i>Pinus halepensis</i> )	32	44	32	trunk lean; codominant trunks; primary limbs with excessive end weight	fair-good	poor-fair	59%	crown reduction.
605	glossy privet ( <i>Ligustrum lucidum</i> )	10,8,5,7,1 1,5	20	21	declining health; limb dieback; sparse canopy	poor	poor-fair	0%	remove tree.
606	glossy privet ( <i>Ligustrum lucidum</i> )	7,10,7,9,1 0,8	20	21	multiple trunks with included bark; low vigor; limb dieback; declining health	poor-fair	poor-fair	41%	remove tree.

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607	aleppo pine ( <i>Pinus halepensis</i> )	34	36	34	trunk lean; codominant trunks; sparse canopy; twig canker; prognosis uncertain	fair	poor-fair	47%	consider removal. perform root crown examination. diagnose cause of twig canker. monitor health
608	aleppo pine ( <i>Pinus halepensis</i> )	37	38	37	Twig canker; sparse canopy; multiple trunks; declining healthprimary limbs with excessive end weight; trunk lean	poor-fair	poor-fair	41%	consider removal. crown reduction. use reduction cuts to remove 25% of the foliage of all primary limbs with diameters > 1/3 the trunk diameter.
609	aleppo pine ( <i>Pinus halepensis</i> )	25	26	25	trunk lean; sequoia pitch moth; no dominant leader	fair	poor-fair	53%	crown reduction.

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501	apricot ( <i>Prunus avium</i> )	11,9	18	15	Removal recommended by Arborist.	N/A		
502	Chinese hackberry ( <i>Celtis sinensis</i> )	16	26	16	Removal recommended by Arborist.	N/A		
503	glossy privet ( <i>Ligustrum lucidum</i> )	9,7	16	12	Removal recommended by Arborist.	N/A		
504	Carolina cherry laurel ( <i>Prunus caroliniana</i> )	10	12	10	Removal recommended by Arborist.	N/A		
505	glossy privet ( <i>Ligustrum lucidum</i> )	6,7,5	14	11	Removal recommended by Arborist.	N/A		
506	Carolina cherry laurel ( <i>Prunus caroliniana</i> )	6	12	6	Removal recommended by Arborist.	N/A		
507	Chinese elm ( <i>Ulmus parvifolia</i> )	12,10	32	16	Removal recommended by Arborist.	N/A		
508	coast redwood ( <i>Sequoia sempervirens</i> )	34	22	34	Under building	To be removed due to site layout conflicts		34
509	coast redwood ( <i>Sequoia sempervirens</i> )	20	20	20	Under building	To be removed due to site layout conflicts		20



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510	coast redwood ( <i>Sequoia sempervirens</i> )	28	18	28	Mislabeled on map as 511. Within driveway	To be removed due to site layout conflicts		28
511	coast redwood ( <i>Sequoia sempervirens</i> )	34	22	34	Removal recommended by Arborist.	N/A		
512	California black walnut ( <i>Juglans hindsii</i> )	30	30	30	Within driveway/parking.	To be removed due to site layout conflicts		30
513	coast live oak ( <i>Quercus agrifolia</i> )	25	32	25	Under building	To be removed due to site layout conflicts		25
514	Chinese pistache ( <i>Pistacia chinensis</i> )	18	28	18	Under building	To be removed due to site layout conflicts		18
515	Chinese pistache ( <i>Pistacia chinensis</i> )	14	26	14	Under building	To be removed due to site layout conflicts		14
516	Chinese pistache ( <i>Pistacia chinensis</i> )	9	24	9	Under building	To be removed due to site layout conflicts		9
517	Chinese pistache ( <i>Pistacia chinensis</i> )	19	34	19	Under building	To be removed due to site layout conflicts		19

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518	evergreen pear ( <i>Pyrus kawakamii</i> )	10	16	10	Under building	To be removed due to site layout conflicts		10
519	Chinese hackberry ( <i>Celtis sinensis</i> )	12	24	12	Under building	To be removed due to site layout conflicts		12
520	Chinese hackberry ( <i>Celtis sinensis</i> )	15	22	15	Removal recommended by Arborist.	N/A		
521	Chinese hackberry ( <i>Celtis sinensis</i> )	8	18	8	Removal recommended by Arborist.	N/A		
522	Chinese hackberry ( <i>Celtis sinensis</i> )	17	26	17	Removal recommended by Arborist.	N/A		
523	Chinese hackberry ( <i>Celtis sinensis</i> )	16	28	16	Removal recommended by Arborist.	N/A		
524	valley oak ( <i>Quercus lobata</i> )	20	36	20	Under building	To be removed due to site layout conflicts		20
525	valley oak ( <i>Quercus lobata</i> )	24	36	24	Under building	To be removed due to site layout conflicts		24

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526	cork oak ( <i>Quercus suber</i> )	15	24	15	Under building	To be removed due to site layout conflicts		15
527	Chinese hackberry ( <i>Celtis sinensis</i> )	16	24	16	Within driveway/parking.	To be removed due to site layout conflicts		16
528	Chinese hackberry ( <i>Celtis sinensis</i> )	9	16	9	Removal recommended by Arborist.	N/A		
529	Chinese hackberry ( <i>Celtis sinensis</i> )	16	22	16	Removal recommended by Arborist.	N/A		
530	Chinese hackberry ( <i>Celtis sinensis</i> )	17	22	17	Removal recommended by Arborist.	N/A		
531	aleppo pine ( <i>Pinus halepensis</i> )	25	36	25	Parking 8' North of trunk further from trunk than existing parking.	Low		25
532	Chinese elm ( <i>Ulmus parvifolia</i> )	11	24	11	No significant impact	Low		11
533	Chinese elm ( <i>Ulmus parvifolia</i> )	13	28	13	No significant impact	Low		13
534	Chinese elm ( <i>Ulmus parvifolia</i> )	14	26	14	No significant impact	Low		14

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535	Modesto ash ( <i>Fraxinus velutina</i> 'Modesto')	12	16	12	Removal recommended by Arborist.	N/A		
536	Modesto ash ( <i>Fraxinus velutina</i> 'Modesto')	9	12	9	Removal recommended by Arborist.	N/A		
537	evergreen pear ( <i>Pyrus kawakamii</i> )	10	12	10	No significant impact	Low		10
538	Modesto ash ( <i>Fraxinus velutina</i> 'Modesto')	15	20	15	No significant impact	Low		15
539	evergreen pear ( <i>Pyrus kawakamii</i> )	15	20	15	Not on site plan; under building	To be removed due to site layout conflicts	Indicate tree location on site plan	15
540	fruitless mulberry ( <i>Morus alba</i> )	18	26	18	Removal recommended by Arborist.	N/A		
541	fruitless mulberry ( <i>Morus alba</i> )	16	28	16	Under building	To be removed due to site layout conflicts		16
542	Chinese elm ( <i>Ulmus parvifolia</i> )	13	26	13	Building 3' west	To be removed due to site layout conflicts		13

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543	Chinese elm ( <i>Ulmus parvifolia</i> )	19	28	19	Within driveway/parking.	To be removed due to site layout conflicts		19
544	London plane ( <i>Platanus X acerifolia</i> )	16	26	16	No significant impact	Low		16
545	cork oak ( <i>Quercus suber</i> )	17	24	17	Removal recommended by Arborist.	N/A		
546	fruitless mulberry ( <i>Morus alba</i> )	13	16	13	Removal recommended by Arborist.	N/A		
547	fruitless mulberry ( <i>Morus alba</i> )	12	16	12	Removal recommended by Arborist.	N/A		
548	fruitless mulberry ( <i>Morus alba</i> )	14	18	14	Removal recommended by Arborist.	N/A		
549	fruitless mulberry ( <i>Morus alba</i> )	13	26	13	Removal recommended by Arborist.	N/A		
550	Chinese hackberry ( <i>Celtis sinensis</i> )	6	10	6	Removal recommended by Arborist.	N/A		
551	fruitless mulberry ( <i>Morus alba</i> )	18	26	18	Removal recommended by Arborist.	N/A		
552	fruitless mulberry ( <i>Morus alba</i> )	13	26	13	Within driveway/parking.	To be removed due to site layout conflicts		13

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553	fruitless mulberry ( <i>Morus alba</i> )	13	18	13	Removal recommended by Arborist.	N/A		13
554	fruitless mulberry ( <i>Morus alba</i> )	13	24	13	Removal recommended by Arborist.	N/A		13
555	fruitless mulberry ( <i>Morus alba</i> )	16	24	16	Removal recommended by Arborist.	N/A		16
556	fruitless mulberry ( <i>Morus alba</i> )	15	20	15	Removal recommended by Arborist.	N/A		15
557	fruitless mulberry ( <i>Morus alba</i> )	15	22	15	Removal recommended by Arborist.	N/A		15
558	fruitless mulberry ( <i>Morus alba</i> )	14	24	14	Removal recommended by Arborist.	N/A		14
559	fruitless mulberry ( <i>Morus alba</i> )	15	24	15	Removal recommended by Arborist.	N/A		15
560	cork oak ( <i>Quercus suber</i> )	37	48	37	Building 16' north of trunk; assume 5' overexcavation - 11' feet from trunk. Existing parking 17' north of trunk.	High	Avoid grading/soil disturbance within existing planter (no overexcavation/compaction for building/use sheet piles).	37
561	aleppo pine ( <i>Pinus halepensis</i> )	41	48	41	Building 6' north of trunk; assume 5' overexcavation - 1' foot from trunk. Existing parking 8' north of trunk.	Extreme	Avoid grading/soil disturbance within existing planter (no overexcavation/compaction for building/use sheet piles).	41



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Tree #	Species	Diameter (in.)	Dripline (ft.)	TPZ (ft.)	Development Within TPZ	Preliminary Impact Rating	Possible Design Modifications	Mitigation Inches
562	aleppo pine ( <i>Pinus halepensis</i> )	35	38	35	Building 6' north of trunk; assume 5' overexcavation - 1' foot from trunk. Existing parking 8' north of trunk.	Extreme	Avoid grading/soil disturbance within existing planter (no overexcavation/compaction for building/use sheet piles).	35
563	Chinese elm ( <i>Ulmus parvifolia</i> )	15	28	15	Building 3' south; parking 9' north.	To be removed due to site layout conflicts		15
564	Chinese elm ( <i>Ulmus parvifolia</i> )	13	26	13	Within driveway/parking.	To be removed due to site layout conflicts		13
565	Chinese elm ( <i>Ulmus parvifolia</i> )	16	34	16	Within driveway/parking.	To be removed due to site layout conflicts		16
566	Chinese elm ( <i>Ulmus parvifolia</i> )	16	32	16	Within driveway/parking.	To be removed due to site layout conflicts		16
567	Chinese pistache ( <i>Pistacia chinensis</i> )	7	14	7	Within driveway/parking.	To be removed due to site layout conflicts		7
568	crepe myrtle ( <i>Lagerstroemia indica</i> )	7	12	7	Within driveway/parking.	To be removed due to site layout conflicts		7

**Exhibit 2.**

**Development Impact Assessment  
(Protected Trees Only)  
University Mall, Davis, California**

**To Accompany  
Tree Associates, Inc. Report  
Dated October 4, 2018**

<b>Tree #</b>	<b>Species</b>	<b>Diameter (in.)</b>	<b>Dripline (ft.)</b>	<b>TPZ (ft.)</b>	<b>Development Within TPZ</b>	<b>Preliminary Impact Rating</b>	<b>Possible Design Modifications</b>	<b>Mitigation Inches</b>
569	crepe myrtle ( <i>Lagerstroemia indica</i> )	6	16	6	Within driveway/parking.	To be removed due to site layout conflicts		6
570	crepe myrtle ( <i>Lagerstroemia indica</i> )	7	14	7	Within driveway/parking.	To be removed due to site layout conflicts		7
571	Chinese hackberry ( <i>Celtis sinensis</i> )	12	24	12	Within driveway/parking.	To be removed due to site layout conflicts		12
572	Chinese hackberry ( <i>Celtis sinensis</i> )	16	24	16	Within driveway/parking.	To be removed due to site layout conflicts		16
573	Chinese hackberry ( <i>Celtis sinensis</i> )	14	18	14	Removal recommended by Arborist.	N/A		14
574	Chinese hackberry ( <i>Celtis sinensis</i> )	10	14	10	Removal recommended by Arborist.	N/A		10
575	cork oak ( <i>Quercus suber</i> )	42	46	42	Parking 15' north of trunk. Existing parking 16' north of trunk.	Moderate	Avoid grading/soil disturbance within existing planter.	42
576	Chinese hackberry ( <i>Celtis sinensis</i> )	10	18	10	Within driveway/parking.	To be removed due to site layout conflicts		10
577	Chinese hackberry ( <i>Celtis sinensis</i> )	12	18	12	Removal recommended by Arborist.	N/A		12

**Exhibit 2.**

**Development Impact Assessment  
(Protected Trees Only)  
University Mall, Davis, California**

**To Accompany  
Tree Associates, Inc. Report  
Dated October 4, 2018**

<b>Tree #</b>	<b>Species</b>	<b>Diameter (in.)</b>	<b>Dripline (ft.)</b>	<b>TPZ (ft.)</b>	<b>Development Within TPZ</b>	<b>Preliminary Impact Rating</b>	<b>Possible Design Modifications</b>	<b>Mitigation Inches</b>
578	Chinese hackberry ( <i>Celtis sinensis</i> )	17	22	17	Within driveway/parking.	To be removed due to site layout conflicts		17
579	Chinese hackberry ( <i>Celtis sinensis</i> )	11	18	11	Within driveway/parking.	To be removed due to site layout conflicts		11
580	crepe myrtle ( <i>Lagerstroemia indica</i> )	7	12	7	Within driveway/parking.	To be removed due to site layout conflicts		7
581	crepe myrtle ( <i>Lagerstroemia indica</i> )	6	12	6	Within driveway/parking.	To be removed due to site layout conflicts		6
582	crepe myrtle ( <i>Lagerstroemia indica</i> )	6	12	6	Within driveway/parking.	To be removed due to site layout conflicts		6
583	Chinese hackberry ( <i>Celtis sinensis</i> )	10	16	10	Within driveway/parking.	To be removed due to site layout conflicts		10
584	Chinese hackberry ( <i>Celtis sinensis</i> )	13	16	13	Removal recommended by Arborist.	N/A		13
585	Chinese hackberry ( <i>Celtis sinensis</i> )	10	18	10	Removal recommended by Arborist.	N/A		10

**Exhibit 2.**

**Development Impact Assessment  
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University Mall, Davis, California**

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Tree Associates, Inc. Report  
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Tree #	Species	Diameter (in.)	Dripline (ft.)	TPZ (ft.)	Development Within TPZ	Preliminary Impact Rating	Possible Design Modifications	Mitigation Inches
586	Chinese hackberry ( <i>Celtis sinensis</i> )	15	20	15	Within driveway/parking.	To be removed due to site layout conflicts		15
587	cork oak ( <i>Quercus suber</i> )	27	36	27	Driveway 8' west; parking 14' north. Existing driveway 22' west; parking 18' north.	High	Avoid grading/soil disturbance within existing planter.	27
588	cork oak ( <i>Quercus suber</i> )	19	30	19	Within driveway/parking.	To be removed due to site layout conflicts		19
589	Chinese elm ( <i>Ulmus parvifolia</i> )	7	18	7	Within driveway/parking.	To be removed due to site layout conflicts		7
590	evergreen pear ( <i>Pyrus kawakamii</i> )	9	12	9	Removal recommended by Arborist.	N/A		9
591	evergreen pear ( <i>Pyrus kawakamii</i> )	11	20	11	Parking 2' south of tree.	Extreme	Create planter.	11
592	Chinese hackberry ( <i>Celtis sinensis</i> )	12	18	12	Removal recommended by Arborist.	N/A		12
593	Chinese hackberry ( <i>Celtis sinensis</i> )	15	26	15	Within driveway/parking.	To be removed due to site layout conflicts		15
594	Chinese hackberry ( <i>Celtis sinensis</i> )	15	24	15	Removal recommended by Arborist.	N/A		15

**Exhibit 2.**

**Development Impact Assessment  
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University Mall, Davis, California**

**To Accompany  
Tree Associates, Inc. Report  
Dated October 4, 2018**

<b>Tree #</b>	<b>Species</b>	<b>Diameter (in.)</b>	<b>Dripline (ft.)</b>	<b>TPZ (ft.)</b>	<b>Development Within TPZ</b>	<b>Preliminary Impact Rating</b>	<b>Possible Design Modifications</b>	<b>Mitigation Inches</b>
595	Chinese hackberry ( <i>Celtis sinensis</i> )	11	16	11	Removal recommended by Arborist.	N/A		11
596	Chinese hackberry ( <i>Celtis sinensis</i> )	13	20	13	Removal recommended by Arborist. Mislabed as 593 on plan.	N/A	Modify tree number on plan.	13
597	Chinese hackberry ( <i>Celtis sinensis</i> )	14	20	14	Under building	To be removed due to site layout conflicts		14
598	Chinese hackberry ( <i>Celtis sinensis</i> )	15	22	15	Under building	To be removed due to site layout conflicts		15
599	Chinese hackberry ( <i>Celtis sinensis</i> )	16	24	16	Parking 2.5' south; building 13' north.	Extreme	Create planter.	16
600	holly oak ( <i>Quercus ilex</i> )	14	20	14	No significant impact	Low		14
601	London plane ( <i>Platanus X acerifolia</i> )	8	16	8	No significant impact	Low		8
602	London plane ( <i>Platanus X acerifolia</i> )	9	18	9	No significant impact	Low		9
603	London plane ( <i>Platanus X acerifolia</i> )	9	18	9	No significant impact	Low		9
604	aleppo pine ( <i>Pinus halepensis</i> )	32	44	32	Parking 3' east; existing planter extends 10 feet east of trunk.	Extreme	Avoid grading/soil disturbance within existing planter.	32

**Exhibit 2.**

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University Mall, Davis, California**

**To Accompany  
Tree Associates, Inc. Report  
Dated October 4, 2018**

<b>Tree #</b>	<b>Species</b>	<b>Diameter (in.)</b>	<b>Dripline (ft.)</b>	<b>TPZ (ft.)</b>	<b>Development Within TPZ</b>	<b>Preliminary Impact Rating</b>	<b>Possible Design Modifications</b>	<b>Mitigation Inches</b>
605	glossy privet ( <i>Ligustrum lucidum</i> )	10,8,5,7,1 1,5	20	21	Removal recommended by Arborist.	N/A		21
606	glossy privet ( <i>Ligustrum lucidum</i> )	7,10,7,9,1 0,8	20	21	Removal recommended by Arborist.	N/A		21
607	aleppo pine ( <i>Pinus halepensis</i> )	34	36	34	Building 11' east of trunk; assume 5' overexcavation - 6' feet from trunk. Existing parking 11' east of trunk.	Extreme	Avoid grading/soil disturbance within existing planter (no overexcavation/compaction for building/use sheet piles).	34
608	aleppo pine ( <i>Pinus halepensis</i> )	37	38	37	Building 21' east of trunk; assume 5' overexcavation - 16' feet from trunk. Existing parking 11' east of trunk.	Low	Avoid grading/soil disturbance within existing planter (no overexcavation/compaction for building/use sheet piles).	37
609	aleppo pine ( <i>Pinus halepensis</i> )	25	26	25	Building 28' east of trunk; assume 5' overexcavation - 23' feet from trunk. Existing parking 11' east of trunk.	Low		25



**Exhibit 3.**

**Appraisal  
(Protected Trees to be Removed  
Due to Layout Conflicts)  
University Mall**

**To Accompany  
Tree Associates, Inc. Report  
October 4, 2018**

Tree #	Species	Dia. @ 4.5' height (in.)	Species Rating	Condition Rating	Location Rating	Installed Tree Cost (installed cost of 24" box tree)	Unit Tree Cost (cost/ in2 of trunk)	Trunk or Adjusted Trunk Area (in2)	Replacement Tree Trunk Area (sq. in.)	Appraised Tree Trunk Increase (sq. in.)	Basic Tree Cost (Appraised Tree Trunk Increase X Unit Tree Cost + Installed Tree Cost)	Appraised Value (Basic Tree Cost X Species Rating X Condition X Location)	Appraised Value (Rounded to \$100.00 if over \$5,000; to \$10.00 if < \$5000)
508	coast redwood ( <i>Sequoia sempervirens</i> )	34	70%	69%	83%	\$ 345.46	\$ 36.36	882	4.75	877.25	\$ 31,896.81	\$ 12,740.78	\$ 12,700.00
509	coast redwood ( <i>Sequoia sempervirens</i> )	20	70%	81%	83%	\$ 345.46	\$ 36.36	314	4.75	309.25	\$ 11,244.33	\$ 5,308.03	\$ 5,300.00
510	coast redwood ( <i>Sequoia sempervirens</i> )	28	70%	66%	83%	\$ 345.46	\$ 36.36	615	4.75	610.25	\$ 22,188.69	\$ 8,460.13	\$ 8,500.00
512	California black walnut ( <i>Juglans hindsii</i> )	30	70%	72%	83%	\$ 345.46	\$ 45.46	707	3.8	703.2	\$ 31,967.47	\$ 13,349.42	\$ 13,300.00
513	coast live oak ( <i>Quercus agrifolia</i> )	25	90%	69%	83%	\$ 345.46	\$ 45.46	491	3.8	487.2	\$ 22,148.11	\$ 11,374.44	\$ 11,400.00
514	Chinese pistache ( <i>Pistacia chinensis</i> )	18	90%	75%	83%	\$ 345.46	\$ 77.04	254	2.24	251.76	\$ 19,395.59	\$ 10,866.38	\$ 10,900.00
515	Chinese pistache ( <i>Pistacia chinensis</i> )	14	90%	59%	83%	\$ 345.46	\$ 77.04	154	2.24	151.76	\$ 11,691.59	\$ 5,185.59	\$ 5,200.00

**Exhibit 3.**

**Appraisal  
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Due to Layout Conflicts)  
University Mall**

**To Accompany  
Tree Associates, Inc. Report  
October 4, 2018**

Tree #	Species	Dia. @ 4.5' height (in.)	Species Rating	Condition Rating	Location Rating	Installed Tree Cost (installed cost of 24" box tree)	Unit Tree Cost (cost/ in2 of trunk)	Trunk or Adjusted Trunk Area (in2)	Replacement Tree Trunk Area (sq. in.)	Appraised Tree Trunk Increase (sq. in.)	Basic Tree Cost (Appraised Tree Trunk Increase X Unit Tree Cost + Installed Tree Cost)	Appraised Value (Basic Tree Cost X Species Rating X Condition X Location)	Appraised Value (Rounded to \$100.00 if over \$5,000; to \$10.00 if < \$5000)
516	Chinese pistache (Pistacia chinensis)	9	90%	72%	83%	\$ 345.46	\$ 77.04	64	2.24	61.76	\$ 4,757.99	\$ 2,554.59	\$ 2,550.00
517	Chinese pistache (Pistacia chinensis)	19	90%	72%	83%	\$ 345.46	\$ 77.04	283	2.24	280.76	\$ 21,629.75	\$ 11,613.15	\$ 11,600.00
518	evergreen pear ( <i>Pyrus kawakamii</i> )	10	50%	63%	83%	\$ 345.46	\$ 82.82	79	2.09	76.91	\$ 6,369.69	\$ 1,652.14	\$ 1,650.00
519	Chinese hackberry ( <i>Celtis sinensis</i> )	12	70%	56%	83%	\$ 345.46	\$ 45.46	113	3.8	109.2	\$ 4,964.23	\$ 1,622.37	\$ 1,620.00
524	valley oak ( <i>Quercus lobata</i> )	20	90%	44%	83%	\$ 345.46	\$ 77.04	314	2.24	311.76	\$ 24,017.99	\$ 7,849.38	\$ 7,800.00
525	valley oak ( <i>Quercus lobata</i> )	24	90%	44%	83%	\$ 345.46	\$ 77.04	452	2.24	449.76	\$ 34,649.51	\$ 11,388.60	\$ 11,400.00
526	cork oak ( <i>Quercus suber</i> )	15	90%	66%	83%	\$ 345.46	\$ 77.04	177	2.24	174.76	\$ 13,463.51	\$ 6,600.07	\$ 6,600.00

## Exhibit 3.

**Appraisal  
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Due to Layout Conflicts)  
University Mall**

**To Accompany  
Tree Associates, Inc. Report  
October 4, 2018**

Tree #	Species	Dia. @ 4.5' height (in.)	Species Rating	Condition Rating	Location Rating	Installed Tree Cost (installed cost of 24" box tree)	Unit Tree Cost (cost/ in2 of trunk)	Trunk or Adjusted Trunk Area (in2)	Replace-ment Tree Trunk Area (sq. in.)	Appraised Tree Trunk Increase (sq. in.)	Basic Tree Cost (Appraised Tree Trunk Increase X Unit Tree Cost + Installed Tree Cost)	Appraised Value (Basic Tree Cost X Species Rating X Condition X Location)	Appraised Value (Rounded to \$100.00 if over \$5,000; to \$10.00 if < \$5000)
527	Chinese hackberry ( <i>Celtis sinensis</i> )	16	70%	56%	83%	\$ 345.46	\$ 45.46	201	3.8	197.2	\$ 8,964.71	\$ 2,929.78	\$ 2,930.00
531	aleppo pine ( <i>Pinus halepensis</i> )	25	70%	59%	83%	\$ 345.46	\$ 45.46	491	3.8	487.2	\$ 22,148.11	\$ 7,640.41	\$ 7,600.00
541	fruitless mulberry ( <i>Morus alba</i> )	16	50%	66%	83%	\$ 345.46	\$ 45.46	201	3.8	197.2	\$ 8,964.71	\$ 2,441.48	\$ 2,440.00
552	fruitless mulberry ( <i>Morus alba</i> )	13	50%	53%	83%	\$ 345.46	\$ 45.46	133	3.8	129.2	\$ 5,873.43	\$ 1,294.91	\$ 1,290.00
560	cork oak ( <i>Quercus suber</i> )	37	90%	72%	83%	\$ 345.46	\$ 77.04	1018	2.24	1015.76	\$ 78,254.15	\$ 42,015.14	\$ 42,000.00
561	aleppo pine ( <i>Pinus halepensis</i> )	41	70%	63%	83%	\$ 345.46	\$ 45.46	1191	3.8	1187.2	\$ 53,970.11	\$ 19,597.90	\$ 19,600.00
562	aleppo pine ( <i>Pinus halepensis</i> )	35	70%	47%	83%	\$ 345.46	\$ 45.46	928	3.8	924.2	\$ 42,014.13	\$ 11,442.29	\$ 11,400.00
563	Chinese elm ( <i>Ulmus parvifolia</i> )	15	70%	78%	83%	\$ 345.46	\$ 77.04	177	2.24	174.76	\$ 13,463.51	\$ 6,111.17	\$ 6,100.00

**Exhibit 3.**

**Appraisal  
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University Mall**

**To Accompany  
Tree Associates, Inc. Report  
October 4, 2018**

Tree #	Species	Dia. @ 4.5' height (in.)	Species Rating	Condition Rating	Location Rating	Installed Tree Cost (installed cost of 24" box tree)	Unit Tree Cost (cost/ in2 of trunk)	Trunk or Adjusted Trunk Area (in2)	Replace-ment Tree Trunk Area (sq. in.)	Appraised Tree Trunk Increase (sq. in.)	Basic Tree Cost (Appraised Tree Trunk Increase X Unit Tree Cost + Installed Tree Cost)	Appraised Value (Basic Tree Cost X Species Rating X Condition X Location)	Appraised Value (Rounded to \$100.00 if over \$5,000; to \$10.00 if < \$5000)
564	Chinese elm ( <i>Ulmus parvifolia</i> )	13	70%	50%	83%	\$ 345.46	\$ 77.04	133	2.24	130.76	\$ 10,073.75	\$ 2,926.42	\$ 2,930.00
565	Chinese elm ( <i>Ulmus parvifolia</i> )	16	70%	72%	83%	\$ 345.46	\$ 77.04	201	2.24	198.76	\$ 15,312.47	\$ 6,394.39	\$ 6,400.00
566	Chinese elm ( <i>Ulmus parvifolia</i> )	16	70%	72%	83%	\$ 345.46	\$ 77.04	201	2.24	198.76	\$ 15,312.47	\$ 6,394.39	\$ 6,400.00
567	Chinese pistache ( <i>Pistacia chinensis</i> )	7	90%	59%	83%	\$ 345.46	\$ 77.04	38	2.24	35.76	\$ 2,754.95	\$ 1,221.91	\$ 1,220.00
568	crepe myrtle ( <i>Lagerstroemia indica</i> )	7	90%	81%	83%	\$ 345.46	\$ 82.82	38	2.09	35.91	\$ 2,974.07	\$ 1,805.07	\$ 1,810.00
569	crepe myrtle ( <i>Lagerstroemia indica</i> )	6	90%	81%	83%	\$ 345.46	\$ 82.82	28	2.09	25.91	\$ 2,145.87	\$ 1,302.41	\$ 1,300.00
570	crepe myrtle ( <i>Lagerstroemia indica</i> )	7	90%	81%	83%	\$ 345.46	\$ 82.82	38	2.09	35.91	\$ 2,974.07	\$ 1,805.07	\$ 1,810.00

**Exhibit 3.**

**Appraisal  
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University Mall**

**To Accompany  
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October 4, 2018**

Tree #	Species	Dia. @ 4.5' height (in.)	Species Rating	Condition Rating	Location Rating	Installed Tree Cost (installed cost of 24" box tree)	Unit Tree Cost (cost/ in2 of trunk)	Trunk or Adjusted Trunk Area (in2)	Replacement Tree Trunk Area (sq. in.)	Appraised Tree Trunk Increase (sq. in.)	Basic Tree Cost (Appraised Tree Trunk Increase X Unit Tree Cost + Installed Tree Cost)	Appraised Value (Basic Tree Cost X Species Rating X Condition X Location)	Appraised Value (Rounded to \$100.00 if over \$5,000; to \$10.00 if < \$5000)
571	Chinese hackberry ( <i>Celtis sinensis</i> )	12	70%	59%	83%	\$ 345.46	\$ 45.46	113	3.8	109.2	\$ 4,964.23	\$ 1,712.50	\$ 1,710.00
572	Chinese hackberry ( <i>Celtis sinensis</i> )	16	70%	53%	83%	\$ 345.46	\$ 45.46	201	3.8	197.2	\$ 8,964.71	\$ 2,767.01	\$ 2,770.00
575	cork oak ( <i>Quercus suber</i> )	42	90%	81%	83%	\$ 345.46	\$ 77.04	1233	2.24	1230.76	\$ 94,817.75	\$ 57,548.45	\$ 57,500.00
576	Chinese hackberry ( <i>Celtis sinensis</i> )	10	70%	59%	83%	\$ 345.46	\$ 45.46	79	3.8	75.2	\$ 3,418.59	\$ 1,179.31	\$ 1,180.00
578	Chinese hackberry ( <i>Celtis sinensis</i> )	17	70%	59%	83%	\$ 345.46	\$ 45.46	227	3.8	223.2	\$ 10,146.67	\$ 3,500.28	\$ 3,500.00
579	Chinese hackberry ( <i>Celtis sinensis</i> )	11	70%	69%	83%	\$ 345.46	\$ 45.46	95	3.8	91.2	\$ 4,145.95	\$ 1,656.05	\$ 1,660.00

Exhibit 3.

**Appraisal  
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University Mall**

**To Accompany  
Tree Associates, Inc. Report  
October 4, 2018**

Tree #	Species	Dia. @ 4.5' height (in.)	Species Rating	Condition Rating	Location Rating	Installed Tree Cost (installed cost of 24" box tree)	Unit Tree Cost (cost/ in2 of trunk)	Trunk or Adjusted Trunk Area (in2)	Replace-ment Tree Trunk Area (sq. in.)	Appraised Tree Trunk Increase (sq. in.)	Basic Tree Cost (Appraised Tree Trunk Increase X Unit Tree Cost + Installed Tree Cost)	Appraised Value (Basic Tree Cost X Species Rating X Condition X Location)	Appraised Value (Rounded to \$100.00 if over \$5,000; to \$10.00 if < \$5000)
580	crepe myrtle ( <i>Lagerstroemia indica</i> )	7	90%	81%	83%	\$ 345.46	\$ 82.82	38	2.09	35.91	\$ 2,974.07	\$ 1,805.07	\$ 1,810.00
581	crepe myrtle ( <i>Lagerstroemia indica</i> )	6	90%	84%	83%	\$ 345.46	\$ 82.82	28	2.09	25.91	\$ 2,145.87	\$ 1,352.50	\$ 1,350.00
582	crepe myrtle ( <i>Lagerstroemia indica</i> )	6	90%	75%	83%	\$ 345.46	\$ 82.82	28	2.09	25.91	\$ 2,145.87	\$ 1,202.22	\$ 1,200.00
583	Chinese hackberry ( <i>Celtis sinensis</i> )	10	70%	72%	83%	\$ 345.46	\$ 45.46	79	3.8	75.2	\$ 3,418.59	\$ 1,427.58	\$ 1,430.00
586	Chinese hackberry ( <i>Celtis sinensis</i> )	15	70%	59%	83%	\$ 345.46	\$ 45.46	177	3.8	173.2	\$ 7,873.67	\$ 2,716.17	\$ 2,720.00
587	cork oak ( <i>Quercus suber</i> )	27	90%	84%	83%	\$ 345.46	\$ 77.04	572	2.24	569.76	\$ 43,894.31	\$ 27,665.76	\$ 27,700.00
588	cork oak ( <i>Quercus suber</i> )	19	90%	72%	83%	\$ 345.46	\$ 77.04	283	2.24	280.76	\$ 21,629.75	\$ 11,613.15	\$ 11,600.00



## Exhibit 3.

**Appraisal  
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University Mall**

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October 4, 2018**

Tree #	Species	Dia. @ 4.5' height (in.)	Species Rating	Condition Rating	Location Rating	Installed Tree Cost (installed cost of 24" box tree)	Unit Tree Cost (cost/ in2 of trunk)	Trunk or Adjusted Trunk Area (in2)	Replace-ment Tree Trunk Area (sq. in.)	Appraised Tree Trunk Increase (sq. in.)	Basic Tree Cost (Appraised Tree Trunk Increase X Unit Tree Cost + Installed Tree Cost)	Appraised Value (Basic Tree Cost X Species Rating X Condition X Location)	Appraised Value (Rounded to \$100.00 if over \$5,000; to \$10.00 if < \$5000)
589	Chinese elm ( <i>Ulmus parvifolia</i> )	7	70%	75%	83%	\$ 345.46	\$ 77.04	38	2.24	35.76	\$ 2,754.95	\$ 1,200.47	\$ 1,200.00
591	evergreen pear ( <i>Pyrus kawakamii</i> )	11	50%	59%	83%	\$ 345.46	\$ 82.82	95	2.09	92.91	\$ 7,694.81	\$ 1,896.05	\$ 1,900.00
593	Chinese hackberry ( <i>Celtis sinensis</i> )	15	70%	69%	83%	\$ 345.46	\$ 45.46	177	3.8	173.2	\$ 7,873.67	\$ 3,145.04	\$ 3,150.00
597	Chinese hackberry ( <i>Celtis sinensis</i> )	14	70%	72%	83%	\$ 345.46	\$ 45.46	154	3.8	150.2	\$ 6,828.09	\$ 2,851.37	\$ 2,850.00
598	Chinese hackberry ( <i>Celtis sinensis</i> )	15	70%	75%	83%	\$ 345.46	\$ 45.46	177	3.8	173.2	\$ 7,873.67	\$ 3,430.95	\$ 3,430.00
599	Chinese hackberry ( <i>Celtis sinensis</i> )	16	70%	63%	83%	\$ 345.46	\$ 45.46	201	3.8	197.2	\$ 8,964.71	\$ 3,255.31	\$ 3,260.00
600	holly oak ( <i>Quercus ilex</i> )	14	70%	75%	83%	\$ 345.46	\$ 77.04	154	2.24	151.76	\$ 11,691.59	\$ 5,094.61	\$ 5,100.00

Exhibit 3.

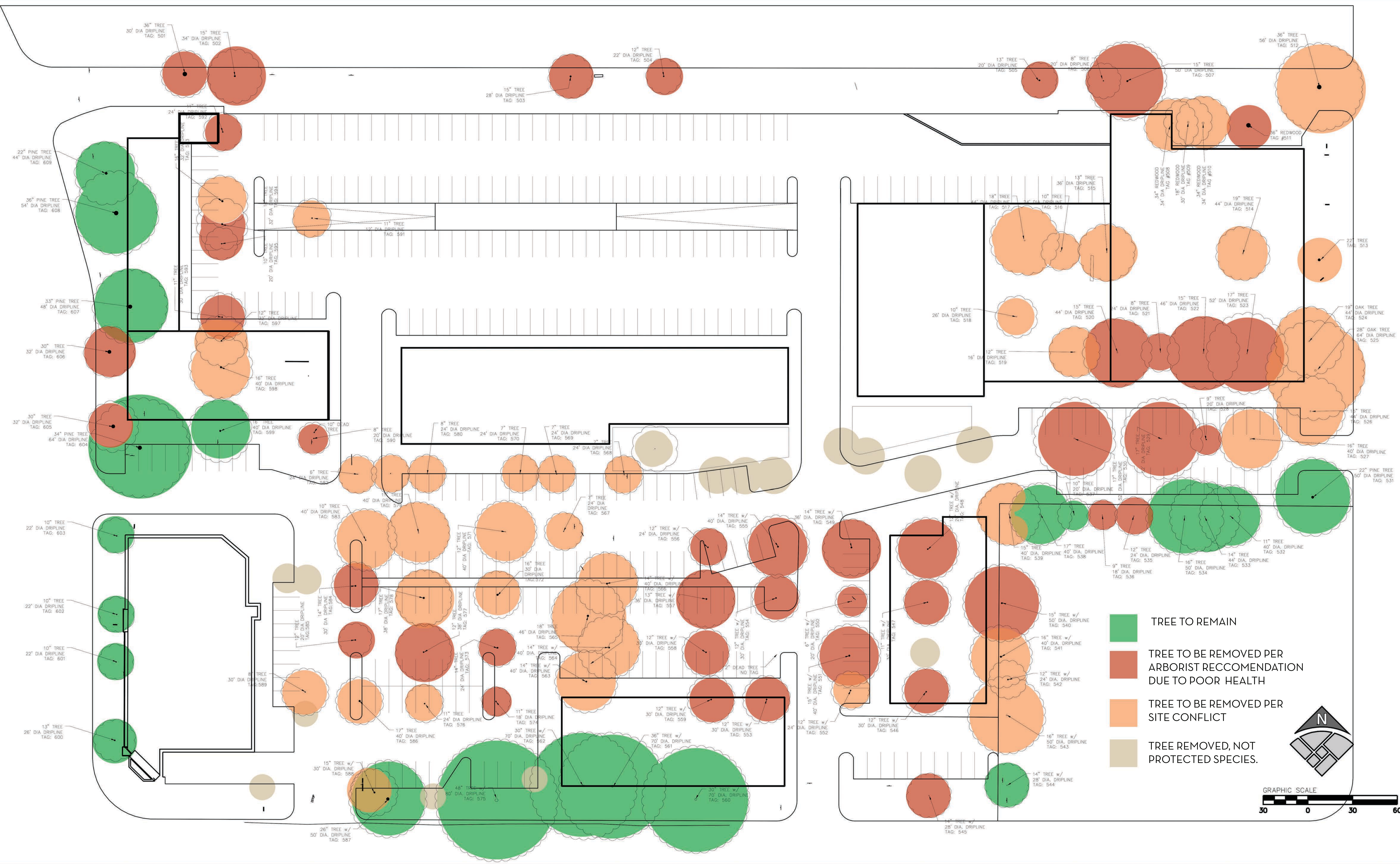
**Appraisal  
(Protected Trees to be Removed  
Due to Layout Conflicts)  
University Mall**

**To Accompany  
Tree Associates, Inc. Report  
October 4, 2018**

Tree #	Species	Dia. @ 4.5' height (in.)	Species Rating	Condition Rating	Location Rating	Installed Tree Cost (installed cost of 24" box tree)	Unit Tree Cost (cost/ in2 of trunk)	Trunk or Adjusted Trunk Area (in2)	Replacement Tree Trunk Area (sq. in.)	Appraised Tree Trunk Increase (sq. in.)	Basic Tree Cost (Appraised Tree Trunk Increase X Unit Tree Cost + Installed Tree Cost)	Appraised Value (Basic Tree Cost X Species Rating X Condition X Location)	Appraised Value (Rounded to \$100.00 if over \$5,000; to \$10.00 if < \$5000)
601	London plane ( <i>Platanus X acerifolia</i> )	8	70%	78%	83%	\$ 345.46	\$ 45.46	50	3.8	46.2	\$ 2,100.25	\$ 953.32	\$ 950.00
602	London plane ( <i>Platanus X acerifolia</i> )	9	70%	84%	83%	\$ 345.46	\$ 45.46	64	3.8	60.2	\$ 2,736.69	\$ 1,341.58	\$ 1,340.00
603	London plane ( <i>Platanus X acerifolia</i> )	9	70%	78%	83%	\$ 345.46	\$ 45.46	64	3.8	60.2	\$ 2,736.69	\$ 1,242.20	\$ 1,240.00
604	aleppo pine ( <i>Pinus halepensis</i> )	32	70%	59%	83%	\$ 345.46	\$ 45.46	788	3.8	784.2	\$ 35,649.73	\$ 12,298.04	\$ 12,300.00
607	aleppo pine ( <i>Pinus halepensis</i> )	34	70%	47%	83%	\$ 345.46	\$ 45.46	882	3.8	878.2	\$ 39,922.97	\$ 10,872.77	\$ 10,900.00
608	aleppo pine ( <i>Pinus halepensis</i> )	37	70%	41%	83%	\$ 345.46	\$ 45.46	1018	3.8	1014.2	\$ 46,105.53	\$ 10,882.35	\$ 10,900.00
609	aleppo pine ( <i>Pinus halepensis</i> )	25	70%	53%	83%	\$ 345.46	\$ 45.46	491	3.8	487.2	\$ 22,148.11	\$ 6,836.15	\$ 6,800.00



Revisions	
No.	Revisions
1	DATE: 08-14-2018
2	SCALE: AS SHOWN
3	DESIGN: BKF
4	DESIGN: BKF
5	APPROVED: JPS
6	JOB NO: 20180439
Drawing Number:	
1	of 1





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## **Appendix D**

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**From:** RICHARD HAGGSTROM <rhaggstrom@comcast.net>

**Sent:** Sunday, November 25, 2018 12:14 PM

**To:** Eric Lee <ELee@cityofdavis.org>

**Cc:** Brett Lee <BLee@cityofdavis.org>

**Subject:** Draft EIR University Mall

Dear Mr. Lee,

As a retired transportation engineer and former member of the Davis Bicycle Commission I have the following comments:

1. The sidewalks at the eastern and southern project limits, including along the adjacent AM/PM, should be widened.
2. The bicycle and pedestrian staging area at the northwest corner of Anderson & Russell should be enlarged.
3. The median cut on the northern leg of that intersection should be widened.
4. The northbound pedestrian call button on the southeast corner of that intersection should be relocated to the east side of the bike/ped lane to reduce weaving conflicts between bike & ped traffic.
5. The eastbound to northbound left turn pocket at that intersection should be extended.
6. The project should provide adequate on-site bicycle parking facilities at convenient locations.
7. The project should provide for a program to maintain the facilities, periodically removing abandoned bicycles.
8. This program should incorporate security measures to discourage bicycle theft and vandalism.

Thank you for the opportunity to comment. Please let me know if you would prefer these written comments to be submitted more formally in a letter.

Sincerely,

Richard Haggstrom  
609 Oeste Drive  
Davis, CA 95616  
[rhaggstrom@comcast.net](mailto:rhaggstrom@comcast.net);

From: kathy.m.ormiston@gmail.com <kathy.m.ormiston@gmail.com>  
Sent: Friday, November 30, 2018 7:04 PM  
To: Eric Lee <ELee@cityofdavis.org>  
Subject: University Mall

Mr. Lee, I wanted to ask you about two issues I did not see specifically addressed in the environmental study for the University Mall redevelopment proposal.

The first item concerns a popular walking and biking path from my west central Davis neighborhood to the University Mall (see attached map). I use it almost daily, as do many of my neighbors. Right now the path enters the Mall at the back of the building, which is not a very appealing or pedestrian friendly route. There isn't a sidewalk; only a painted walkway in the alley. I hope the new plan would consider improving this route with a safer, more attractive entrance and better lighting. I think it would encourage more local visits to the stores at the Mall.

Another item I hope the developers consider is designing a more attractive façade for the back of the building (the north side). Right now the Sycamore Apartments look out at a pretty bleak wall. The mall should present a friendlier face to the neighborhood. Right now I cannot tell what the north side of the new building would look like from the plans posted on the city's website. Would it be possible to have a view showing the north side of building?

I support renovating the Mall because Davis needs more housing and the current mall is outdated and underutilized. I hope the developers and the city will consider addressing these two issues.

Thank you advance for your consideration.

Kathy Ormiston  
842 Linden Lane

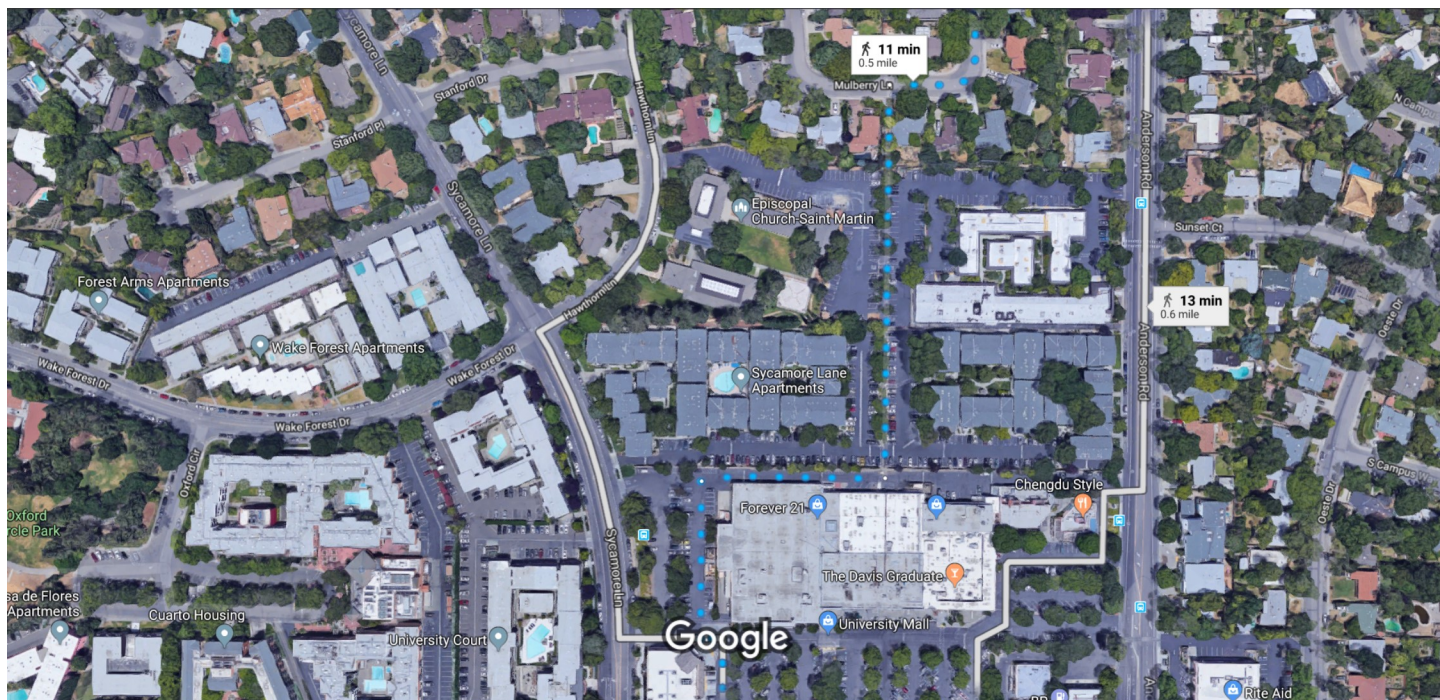




38.5530230, -121.7596448 to Trader Joe's

Walk 0.5 mile, 11 min

Pedestrian Path to University Mall



Imagery ©2018 Google, Map data ©2018 Google 100 ft

via Linden Ln

11 min

0.5 mile

via Anderson Rd

13 min

0.6 mile

via Linden Ln and Hawthorn Ln

12 min

0.6 mile

All routes are mostly flat



-----Original Message-----

From: Jeff March <radarjeff@editpros.com>  
Sent: Sunday, December 2, 2018 7:04 PM  
To: Eric Lee <ELee@cityofdavis.org>  
Subject: Proposed University Mall redevelopment project

Hello, Mr. Lee,

I am skeptical about the viability and wisdom of the proposed seven-story University Mall redevelopment project as described in the Nov. 30 edition of the Davis Enterprise and in the Community Development and Sustainability portion of the City of Davis website.

The commercial-residential mixed-use, multi-story concept makes sense for Eighth Avenue in Midtown Manhattan — but seems silly for a town the size of Davis. "Brixmor's plans call for 264 new units of housing" (including two- and three-bedroom units) ... but only 265 parking spaces allocated for residents (who collectively will own probably triple that number of vehicles). There go the 431 parking spaces allocated for retail shoppers. That'll make parking even more elusive than it is now for Trader Joe's shoppers — particularly during the demolition and construction phases of this project. TJ's ought to begin looking for a better location elsewhere in Davis.

I'm just an ordinary Davis homeowner, taxpayer and small-business owner, but from my perspective this project seems overly, unrealistically ambitious and out of character for Davis.

Thank you for considering my views.

Best regards,  
Jeff March

~~~~~

Jeff March  
[radarjeff@editpros.com](mailto:radarjeff@editpros.com)  
2946 Boathouse Ave.  
Davis, CA 95616-5637  
(530) 758-9539  
Facebook: <http://www.facebook.com/radarjeff> EditPros on Twitter: <http://twitter.com/EditPros>

-----Original Message-----

From: Valerie Durbin <vdurbin@dcn.org>

Sent: Sunday, December 2, 2018 8:46 AM

To: Eric Lee <ELee@cityofdavis.org>

Subject: Brixmor

Dear Mr. Lee,

I am opposed to the City even considering this project. It is disheartening to think that we could be allowing out of town big developers to build what will essentially be dorms across from campus.

Yes, student housing is needed, but it is not the City's responsibility to provide it, nor is it ultimately in our best interests.

It is however in the interests of both the University and the developer. It is another profit making plan couched as something beneficial to the City.

Yours truly,

Valerie Durbin

320 Fiesta Avenue

Davis, CA 95616

530-400-3348

Sent from my iPhone

-----Original Message-----

From: Paul Ochs <paulochs2@yahoo.com>

Sent: Tuesday, December 4, 2018 6:19 PM

To: Eric Lee <ELee@cityofdavis.org>

Subject: Mall Project & Resident Parking

Hi Eric,

I personally don't think the proposed number of parking spaces is anywhere near enough for the number of beds proposed. I see continuous conflict and frustration for people trying to shop or live in the Mall area.

Thanks for your public service and listening.

Sincerely,

Paul

Paul Ochs

Davis

December 12, 2018

Eric Lee, Planner  
City of Davis Department of Community  
Development and Sustainability  
23 Russell Boulevard  
Davis, CA 95616  
elee@cityofdavis.org

Mr. Lee,

As long time residents of the University Mall neighborhood, we are deeply concerned about the current proposal to renovate and greatly expand the mall. We have many specific concerns about the project that we would like to see addressed in the EIR.

1) Traffic.

The Russell boulevard/Sycamore intersection is already very busy, especially in the evenings when shoppers are trying to enter and leave Trader Joe's via the southern most parking entrance from Sycamore. There is also a UCD bus stop just north of this mall entrance, but because of street parking, the bus blocks traffic when stopping. Traffic at this entrance often backs up all the way through the Sycamore/Russell intersection requiring drivers to miss a cycle of the left turn signal. A couple of years ago, the city elongated the left turn lane from eastbound Russell to Sycamore, but it still often takes 3 cycles of the traffic light to turn from Russell on to Sycamore, due to congestion caused by the mall entrance. We're concerned that the addition of the new retail space and the tenants of the planned residential complex would bring this corner to a standstill, as that same southern entrance would be their main way into and out of the mall area. In addition, the residents of the project will add a considerable pedestrian presence to the Russell Blvd crosswalks, which will also slow down the intersection further.

2) Speed Controls.

Inevitably, drivers' frustration with the intersection at Russell and Sycamore results in them speeding when traveling northbound on Sycamore after passing through it, often exceeding 40 MPH in the 25 MPH zone. This already endangers the residents of this area. We expect this to worsen with added traffic in the area.

3) Mall Access.

As there are no new entrances to the mall contained in the proposal (in fact, we think one of the Anderson entrances will be removed), we're wondering how all the residents' and shoppers' cars are going to get in and out of the mall area. There is no turn lane from east bound Russell, meaning shoppers and residents driving from the 113 freeway would need to make a left turn at Sycamore (see above) or a left or a U-turn at Anderson once again slowing traffic on Russell. The U-turn at Anderson is a tight one, often requiring pickups and SUVs to make a 3-point turn. In addition, the parking lot in the proposal is designed with parking spaces perpendicular to the single lane two-way entrances. This means that entry to the mall will be held up each time a car is backing out of one of those spaces, causing traffic to back up on to the surface streets and into the intersections. In addition to all of this, there is already a problem with pedestrians jaywalking across Anderson, Russell and Sycamore outside of the designated crosswalks in order to reach the mall from campus and the surrounding residence buildings. We expect the number of jaywalking pedestrians to increase as the population of mall visitors and new residents increases. It's only a matter of time before someone gets hurt.

4) Parking.

Given that the 264 residential units will likely be shared by multiple individuals (the plan assumes this), we're wondering where all the residents are going to park. The number of spaces in the garage, while offsetting some of the lost parking due to the new buildings in the mall, do not provide enough parking for the number of residents who will have cars, in our opinion. The surrounding neighborhood streets are already impacted and despite overnight parking control, we still deal with students parking on surrounding streets and walking or riding a bike they've brought with them on to campus.

5) Noise.

As residents of the area, we already deal with a lot of noise from student housing units. Loud music, parties and unruly behavior are daily concerns. The design of the residence at SEVEN stories (an unprecedented height for a housing complex in Davis) including a rooftop pool, will dramatically increase the noise level and how far the noise from these units will travel.

6) Unknown Impact of the new University "Davis Live" residence on Oxford Circle.



We are reeling from the one-two punch of this mall proposal as it follows the approval of the seven-story university residence less than a full block away. We're worried that it will be difficult to predict the effects of two large residences at the same time, specifically foot and auto traffic. We want some assurances that the EIR takes the effect of the Davis Live residence into account.

We are not opposed to mixed-use residence/retail for the University Mall. However, we feel the project, as currently proposed, is far too large for the size of the area, and that the increase in people and traffic is not a safe combination. Please feel free to contact us if you have any questions.

Sincerely,

Heather and Malcolm MacKenzie  
1121 Stanford Pl  
Davis, CA 95616  
530-758-7514

2-way protected bike ways between side walk and street or parking lot automobile traffic.

**SUMMARY**

DAVIS MUNICIPAL CODE PARKING REQUIREMENTS: RETAIL SF / 350

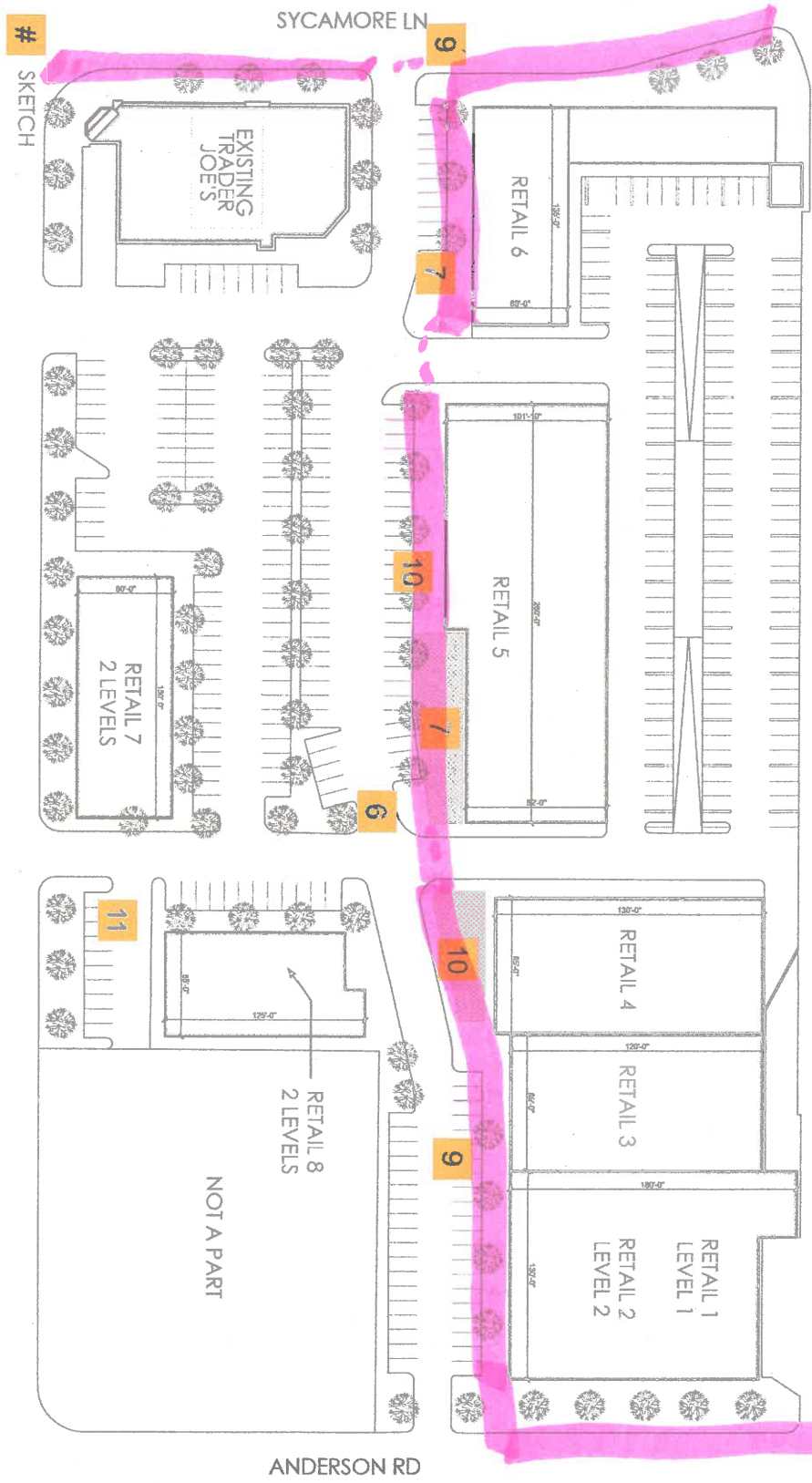
RETAIL PROVIDED:

|                 |          |
|-----------------|----------|
| RETAIL 1        | 20 KSF   |
| RETAIL 2        | 24 KSF   |
| RETAIL 3        | 13.5 KSF |
| RETAIL 4        | 14.4 KSF |
| RETAIL 5        | 24.9 KSF |
| RETAIL 6        | 6 KSF    |
| RETAIL 7        | 18 KSF   |
| RETAIL 8        | 18 KSF   |
| (E) TRADER JOES | 13.2 KSF |

TOTAL RETAIL: 150 KSF  
PARKING REQUIRED: 429 SPACES

**TOTAL PROJECT PARKING**

|                                |             |
|--------------------------------|-------------|
| RETAIL REQUIRED:               | 429 SPACES. |
| RESIDENTIAL REQUIRED:          | 264 SPACES  |
| TOTAL REQUIRED:                | 693 SPACES  |
| <b>TOTAL PARKING PROVIDED:</b> |             |
| PARKING FRONT:                 | 145 SPACES  |
| GRADE STRUCTURE:               | 128 SPACES  |
| MEZZ STRUCTURE:                | 128 SPACES  |
| TOP STRUCTURE:                 | 285 SPACES  |
| TOTAL PARKING:                 | 686 SPACES  |
| BICYCLE PARKING:               | 1018 SPACES |



Suggestion by



Prof. Earl Bossard  
401 Del Oro Ave  
Davis, CA 95616





Bike entrance from N  
via Sycamore

## Safer University Mall Shopping Center Bikeway Access



2-way protected bike lane  
alongside:  
sidewalk — Driveway  
only —

2-way bike lane crossing option  
for:  
Motor vehicles — pedestrians —

Cycle shopping  
center entrance →

Earl Bossard  
401 Del Oro Ave.  
Davis, CA 95616

CV 19, 2018

# UNIVERSITY MALL REDEVELOPMENT PROJECT NOTICE OF PREPARATION (NOP) SCOPING MEETING

## COMMENT FORM

To document the author of comments received, please provide the following information. Thank you.

Name: Eric Lee Sanita

Address: 2015 Revoir Ave

Organization (if applicable): \_\_\_\_\_

Please provide us with your written comments on the scope of the EIR by **5:00 PM, December 17, 2018.**

- ① The residential is far too dense for the vicinity to handle traffic. (Almost 900 beds)
- ② Eliminate the 4 bedroom units (only 1, 2, 3 bedrooms)
- ③ The project needs to focus on work force housing, less likely that Saniter would want to live in this retail mall environment
- ④ How is parking going to be controlled to preserve existing parking for the retail which relies on it to survive?
- ⑤ Almost 900 beds would need more than 265 parking spaces → ADD more parking floors.
- ⑥ The Project should be focusing on more retail space + planning for adequate parking for it.
- ⑦ Make sure that the Graduate + Fluffy dorms will be returning (whatever + take!) The grad provides a nearby socializing + eating place for students and is ideally located in U Hall.
- ⑧ Traffic studies are essential.

Send comments to:

Over →

Eric Lee, Planner  
City of Davis Department of Community Development and Sustainability  
23 Russell Boulevard  
Davis, CA 95616  
elee@cityofdavis.org

⑨ The project design should not be 1 bathroom per Bedroom per room format. Use Traditional Apt design for work force housing which helps reduce the cost of construction.

⑩ No lock for bedroom format <sup>per room</sup> a dorm. Use Traditional Apt design format, regarding bathroom ratios as well as



**UNIVERSITY MALL REDEVELOPMENT PROJECT  
NOTICE OF PREPARATION (NOP) SCOPING MEETING**

**COMMENT FORM**

To document the author of comments received, please provide the following information. Thank you.

Name: ERUST VON KUGELGEN

Address: 422 11<sup>th</sup> ST.

Organization (if applicable): DAVIS RESIDENT

Please provide us with your written comments on the scope of the EIR by **5:00 PM, December 17, 2018.**

INCREASING CAR TRAFFIC AT THAT  
INTERSECTION IS AN ATROCITY.

THE ANTICIPATED ARCHITECTURE  
IS NEO-SOVIET.

IS THERE SOME OTHER WAY FOR  
THE OWNERS TO MAKE ENOUGH  
MONEY?

Send comments to:

**Eric Lee, Planner**  
**City of Davis Department of Community Development and Sustainability**  
**23 Russell Boulevard**  
**Davis, CA 95616**  
**[elee@cityofdavis.org](mailto:elee@cityofdavis.org)**

**UNIVERSITY MALL REDEVELOPMENT PROJECT  
NOTICE OF PREPARATION (NOP) SCOPING MEETING**

**COMMENT FORM**

To document the author of comments received, please provide the following information. Thank you.

Name: Greg Rowe

Address: 1610 Pismo Court Davis CA 95616

Organization (if applicable): Davis Planning Commission

Please provide us with your written comments on the scope of the EIR by **5:00 PM, December 17, 2018.**

- ① Strongly suggest that Alternative #3 assume no 4-bedroom apartments and a project that is explicitly oriented not toward students, but instead toward UCD faculty and staff that are underserved by housing in Davis.
- ② Environmental analysis should take in account the UCD 2018-~~20~~2030 Long Range Development Plan (LRDP), the EIR for the LRDP and the new MOU between UCD-city of Davis-Yolo County.
- ③ Traffic analysis should take ~~into~~ into account driver apps that direct drivers from I-80 through Davis when I-80 is congested.

Send comments to:

**Eric Lee, Planner**  
City of Davis Department of Community Development and Sustainability  
23 Russell Boulevard  
Davis, CA 95616  
elee@cityofdavis.org

**UNIVERSITY MALL REDEVELOPMENT PROJECT  
NOTICE OF PREPARATION (NOP) SCOPING MEETING**

**COMMENT FORM**

To document the author of comments received, please provide the following information. Thank you.

Name: Jennifer + Ted Tucker

Address: 934 Acacia Ln. - neighbor

Organization (if applicable): N/A

Please provide us with your written comments on the scope of the EIR by **5:00 PM, December 17, 2018.**

- We are very concerned about the traffic impact on the EB left turn lane from Russell onto Sycamore.
- ① This intersection is impacted already by the number of vehicles turning right into shopping center from Sycamore after making left onto Sycamore from Russell (Trader Joe's shoppers).
- ② At same intersection, bike traffic, untrans, commuting traffic and parents dropping off returning home make the SB Sycamore traffic turning WB onto Russell terrible and dangerous, particularly for bike traffic headed to campus.
- ③ We're afraid if Russell Blvd corridor is not addressed, altered for the increase traffic, traffic will find alternate routes through the neighborhood, specifically NB Sycamore, EB Hawthorn and EB 8th St. This is dangerous for students and children on bike going to school at Willett Elementary, Chavez Elementary and crossing Eighth to go to Emerson JRHS as well as MCD students and other bicycle commuters.
- Send comments to: Traffic light @ West 8th + Sycamore?

**Eric Lee, Planner**

**City of Davis Department of Community Development and Sustainability**

**23 Russell Boulevard**

**Davis, CA 95616**

**elee@cityofdavis.org**

**UNIVERSITY MALL REDEVELOPMENT PROJECT  
NOTICE OF PREPARATION (NOP) SCOPING MEETING**

**COMMENT FORM**

To document the author of comments received, please provide the following information. Thank you.

Name: Steve Preetter

Address: 767 Mulberry Ln.

Organization (if applicable): Planning Commission

Please provide us with your written comments on the scope of the EIR by **5:00 PM, December 17, 2018.**

Offsite locations for U-Mall businesses, eg. Whole Foods  
Davis Commons, Ace building on 3rd St  
Alternative to project w/ 5 stories & 2 story parking garage  
Parking study to document reduced parking  
Parking spaces to meet current standards  
Photo simulations  
Shadow study  
Neighbor hood meeting  
13,000 sq ft. 5th. to remove; Trade 2nd or  
park if the 1000 sq ft. 4th?

Send comments to:

**Eric Lee, Planner**  
**City of Davis Department of Community Development and Sustainability**  
**23 Russell Boulevard**  
**Davis, CA 95616**  
**elee@cityofdavis.org**

**From:** Robert Barandas <rbarandas@yahoo.com>  
**Sent:** Wednesday, December 12, 2018 11:19 AM  
**To:** Eric Lee <ELee@cityofdavis.org>  
**Subject:** UMall EIR Input

Hi:

I'm a member of the Oeste Manor Neighborhood Association as well as a homeowner on Oeste Dr. I never received any notification about the recent meeting regarding the new UMall development, but wanted my comments reflected in the EIR. I suggest that better effort is made to engage adjoining neighborhoods to this large project (not just those who are within the legally required 500 foot notice radius). While I generally support the proposed development, I do have concerns about the additional traffic impact it may present to my neighborhood, and in particular, my street.

As traffic has increased in the general area, there are more and more cars that are using Oeste Dr as a cut-through from Russell to W 8th St. Already, we have significant cut through traffic from customers and delivery vehicles for the Rite Aid on Oeste and Russell Boulevard. Additionally, there is significant cut through traffic from the mosque on the corner of S. Campus Dr and Russell Boulevard. Both of these establishments use Oeste Dr by default as a primary ingress or egress path to and from W 8th, Anderson, or Russell. Additionally, with the advent of traffic direction apps such as Waze, Oeste Dr has become a cut through route for traffic avoiding backed up eastbound Russell during the commute hours, where they are seeking a quicker path to cross town and enter I 80 on Mace. Lastly, when vehicles cannot make the time limited left turn onto Anderson Drive from eastbound Russell Boulevard, they often proceed to the S. Campus left turn access lane (at the Mosque) and then use our stretch of Oeste Dr as an access point to get to W. 8th St and continue east bound. *For a residential stretch of street with only 36 homes, we have a significant amount of traffic which is more common to a minor arterial than a residential street.* The two traffic calming speed bumps are often afterthoughts for most vehicles that are speeding through our neighborhood. With the addition of hundreds of units of housing and more commercial space, it is very likely that additional traffic will find its way onto our street. Without traffic mitigation that blocks cut through traffic access on Oeste Dr between Russell and W 8th St, this project will cause us increased traffic and potential traffic hazards in our neighborhood. The corner of Oeste Dr and W 8th is already plagued with a disproportionate number of vehicle collisions, this development could potentially cause more.

While I'm generally supportive of more housing and the upgraded shopping options as described in the project scope, I will not support this development unless the inevitable cut through traffic is mitigated on Oeste Dr. As I understand it, the City of Davis has installed detachable bollards in many neighborhoods to stop cut through traffic that has resulted from changes in traffic patterns or new developments. This would be an ideal, and inexpensive mitigation for this development.

I welcome any conversations that the city and developer would like to have with the 220+ households represented by the Oeste Manor Neighborhood Association, and encourage better efforts to reach out beyond the 500 foot notice radius for input.

Sincerely,  
Robert Barandas  
753 Oeste Dr

# UNIVERSITY MALL REDEVELOPMENT PROJECT NOTICE OF PREPARATION (NOP) SCOPING MEETING

## COMMENT FORM

To document the author of comments received, please provide the following information. Thank you.

Name: NANCY SWEET

Address: 720 MULBERRY LANE DAVIS

Organization (if applicable): \_\_\_\_\_

Please provide us with your written comments on the scope of the EIR by **5:00 PM, December 17, 2018.**

---

I live on Mulberry Lane, a block north of the mall. The University Mall Redevelopment Project will impact our neighborhood in a very negative manner. I have several objections to the size of the development.

There is currently a 0% vacancy rate in Davis. It is extremely difficult to find rental housing. There are several student rental houses in our area near the mall. One thing is certain: they pack the houses with students as much as they can. It would be unrealistic and short-sighted not to see that the new apartments will be filled with as many occupants as they can squeeze in. In almost every case (in my experience), every student has his or her own car. Although I live very close to campus, the students in my neighborhood do not use bicycles or walk to school.

You propose 264 multi-family residential units: 66 one bedrooms, 104 two-bedrooms, 28 three-bedrooms, and 66 four-bedroom units. I am completely certain that each one of those bedrooms will have at least two people living in them. That number of apartments would result in the following number of occupants: 132 occupants (one bedroom), 416 in 2 bedrooms, 168 in the three bedrooms, 528 in the four-bedrooms – for a total of 1,244 occupants. I am very sure that almost all of them would have their own vehicle. One just has to live in the neighborhood and see this result occur year after year in the rental houses to know it is true. You have allocated 265 parking spaces for the residential use. That means that there will be more than 1,000 additional vehicles (over and above the cars in the lot) needing parking spaces as a result of the new development. That will undoubtedly impact the surrounding residential neighborhood.

Send comments to:

**Eric Lee, Planner**  
**City of Davis Department of Community Development and Sustainability**  
**23 Russell Boulevard**  
**Davis, CA 95616**  
**elee@cityofdavis.org**



With the new development, there will be no parking spaces open in the parking lot at University Mall for the residents of Davis or the overflow vehicles from the new apartments. Since Trader Joe's has opened, it has gotten almost impossible to negotiate the parking lot at the mall and is very difficult to find an accessible parking spot. There will be more buildings in the lot with your new development. The parking lot at the mall will be a nightmare.

Russell Boulevard is so crowded now, especially after Trader Joe's has opened, that it is very difficult to make the light to turn onto Sycamore or Anderson. The line of cars is so long. The impact of the new development will make that turn almost impossible. The residential development at the mall will add enormous traffic pressure to Russell, Sycamore and Anderson and impact the negotiability of the streets so that residents will be adversely affected. The entire situation will be aggravated by the new apartments across the street (west) from Trader Joe's, the new apartments at Orchard Park on University property, and the new development further west on Russell towards Highway 113.

The increase in residential development will place an undue burden on the residential district adjacent to the mall. The increase in the number of cars caused by the new apartments and increased traffic flow around the mall will cause extreme compaction and delays for people in the area. I strenuously object to the residential development proposed at the mall.

Central Valley Regional Water Quality Control Board

10 December 2018

Eric Lee  
City of Davis  
Community Development and Sustainability  
23 Russel Boulevard, Suite 2  
Davis, CA 95616

**CERTIFIED MAIL**  
7018 1830 0001 0062 3503

**COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, UNIVERSITY MALL REDEVELOPMENT PROJECT, SCH#2018112044, YOLO COUNTY**

Pursuant to the State Clearinghouse's 16 November 2018 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the University Mall Redevelopment Project, located in Yolo County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

**I. Regulatory Setting**

**Basin Plan**

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources

KARL E. LONGLEY SCD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)

Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:  
[http://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/](http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/)

### **Antidegradation Considerations**

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:  
[https://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/sacsjr\\_201805.pdf](https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf)

In part it states:

*Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*

*This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

## **II. Permitting Requirements**

### **Construction Storm Water General Permit**

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan

(SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml)

**Phase I and II Municipal Separate Storm Sewer System (MS4) Permits<sup>1</sup>**

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/storm\\_water/municipal\\_permits/](http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/)

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/phase\\_ii\\_municipal.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml)

**Industrial Storm Water General Permit**

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/storm\\_water/industrial\\_general\\_permits/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml)

**Clean Water Act Section 404 Permit**

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

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<sup>1</sup> Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

**Clean Water Act Section 401 Permit – Water Quality Certification**

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

For more information on the Water Quality Certification, visit the Central Valley Water Board website at:  
[https://www.waterboards.ca.gov/centralvalley/water\\_issues/water\\_quality\\_certification/](https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/)

**Waste Discharge Requirements – Discharges to Waters of the State**

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:  
[https://www.waterboards.ca.gov/centralvalley/water\\_issues/waste\\_to\\_surface\\_water/](https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/)

**Dewatering Permit**

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:  
[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2003/wqo/wqo2003-0003.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf)

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/waivers/r5-2013-0145\\_res.pdf](http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf)

**Regulatory Compliance for Commercially Irrigated Agriculture**

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: [https://www.waterboards.ca.gov/centralvalley/water\\_issues/irrigated\\_lands/regulatory\\_information/for\\_growers/coalition\\_groups/](https://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/regulatory_information/for_growers/coalition_groups/) or contact water board staff at (916) 464-4611 or via email at [IrrLands@waterboards.ca.gov](mailto:IrrLands@waterboards.ca.gov).
2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100.** Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently \$1,084 + \$6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at [IrrLands@waterboards.ca.gov](mailto:IrrLands@waterboards.ca.gov).

**Limited Threat General NPDES Permit**

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order.

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:  
[https://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/general\\_orders/r5-2016-0076-01.pdf](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf)

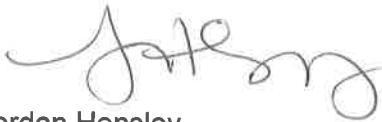


**NPDES Permit**

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:  
<https://www.waterboards.ca.gov/centralvalley/help/permit/>

If you have questions regarding these comments, please contact me at (916) 464-4812 or [Jordan.Hensley@waterboards.ca.gov](mailto:Jordan.Hensley@waterboards.ca.gov).



Jordan Hensley  
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

UNIVERSITY MALL REDEVELOPMENT PROJECT  
NOTICE OF PREPARATION (NOP) SCOPING MEETING

COMMENT FORM

To document the author of comments received, please provide the following information. Thank you.

Name: JARUE MALALIALS

Address: 726 MULBERRY LANE

Organization (if applicable): \_\_\_\_\_

Please provide us with your written comments on the scope of the EIR by **5:00 PM, December 17, 2018.**

Dec 17 2018  
**RECEIVED**  
DEC 17 2018  
City of Davis  
Community Development

One issue, only made apparent from reading of the Davis Enterprise, relates to an apparent lack of openness and communication regarding the proposed renovation of the University Mall which is planned to include some 264 new apartments 894 beds. Attending the scoping meeting and reading the "Draft Environmental Checklist and Initial Study" (DECIS) it is my opinion that there are several accepts of the proposed redo of the Mall which warrant further study and more detailed explanation. Of particular concern is the report, as referred to above, (Davis Enterprise, November 30, 2018; Pgs A-1 and A5) that Davis city officials who initiated and encouraged the owner of the University Mall to add residential units to the proposal for the more simple modernization of the mall.

Information would be appreciated as to why this suggestive action to add housing was initiated by the City of Davis given that Davis City Planners were undoubtedly aware that additional student-type housing was being planned/approved for properties adjacent to Russell Blvd to the west of the mall as well as the development of extensive housing by the University of California in the space to the east of Russell and just west of Orchard Park must have realized that the suggested additional housing units would have a significant impact on mall services. This is in addition to very large student housing development in West Village on the University campus. In addition, it seems clear to me that the impact of additional living quarters at the Mall would also have dramatic impact on traffic in and around the Mall.

Related to the increase in persons living directly in the proposed mall housing is the lack of commentary in DICES on the effect of the increased number of vehicles on traffic flow in and around the proposed new Mall. In looking at the flow-diagram for the University Mall - Public Review Process, available at the scoping meeting, it seems that the matter of "Transportation and Traffic" shown as item 5 in Box 2 (no date) has not been addressed adequately. I would appear that the number of vehicles belonging to the proposed residents when added to

the number of statements visitor-customers would not be adequate to allow reasonable accessibility to shops and Trader Joe's.

The comments on the traffic flow in and around the "new" Mall is almost nonexistent. The access to the University of California via LaRue from Andersen and from Russell warrants careful evaluation and explanation. For this, the City of Davis should make a careful study of the "traffic issue" surrounding the University Mall and Russell-Andersen-Sycamore-Orchard Park area. Many cities have developed such planning documents. The traffic in Davis is becoming increasingly more intense and only increases potential automobile-pedestrian-bicycle interactions. For this I suggest an EIR be developed for the Russell - Andersen area has I believe been done for parts of "Downtown Davis".

JaRue Manning  
726 Mulberry Lane  
Davis, CA

UNIVERSITY MALL REDEVELOPMENT PROJECT  
NOTICE OF PREPARATION (NOP) SCOPING MEETING

COMMENT FORM

RECEIVED

DEC 17 2018

City of Davis  
Community Development

To document the author of comments received, please provide the following information. Thank you.

Name: Mark Estremura

Address: 717 Mulberry Ln, Davis, Ca 95616

Organization (if applicable): \_\_\_\_\_

Please provide us with your written comments on the scope of the EIR by **5:00 PM, December 17, 2018.**

Eric:  
The plan is to build up it would be preferable for the University Mall not to be higher than any building currently on Russell Blvd. it would be preferable if it were kept retail, not mixed use. We never received any information on how traffic would be mitigated in an already congested area. Davis is in a conundrum because the University is experiencing rapid growth; the builders and planners want to accommodate mixed use housing but are restricted by our agricultural boundaries. The only alternative is to build up, increasing density but our roadways and infrastructure for the most part remain the same. Davis is a city of bikes but many people still drive. More residential brings more revenue to the city and the developers but it would be preferable if the University with the size of its campus took a greater role in accommodating an increase in student enrollment. It's difficult to make everyone happy, change is inevitable. My father attended UC Davis in 1948 and we had a housing shortage then.

Send comments to:

Eric Lee, Planner  
City of Davis Department of Community Development and Sustainability  
23 Russell Boulevard  
Davis, CA 95616  
elee@cityofdavis.org

**From:** [Eric Lee](#)  
**To:** [Nick Pappani](#)  
**Cc:** [Angela DaRosa](#)  
**Subject:** FW: Email contact from City of Davis, CA  
**Date:** Wednesday, December 26, 2018 1:53:03 PM

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Nick,

This one is for your info. It came in well past the NOP comment period so we don't need to include and it doesn't raise any new CEQA issue, unless you would include it as a general practice. However, I will add his email to my notification list. Happy holidays.

-Eric

**From:** webmaster@cityofdavis.org <webmaster@cityofdavis.org>  
**Sent:** Wednesday, December 26, 2018 10:35 AM  
**To:** Eric Lee <ELee@cityofdavis.org>  
**Subject:** Email contact from City of Davis, CA

Message submitted from the <City of Davis, CA> website.

**Site Visitor Name:** Steve Smith  
**Site Visitor Email:** [sjsmith\\_07@sbcglobal.net](mailto:sjsmith_07@sbcglobal.net)

Mr. Lee, I read the article in the Davis Enterprise regarding the proposed redevelopment of the University Mall. I have been a Davis resident for 46 years. My business is located in the Davis Medical Center on Anderson Road just north of the University Mall. I believe the proposed redevelopment as configured would have a very negative impact. There already is a lot of dense student housing in the area and this would exacerbate congestion of people, bicycles and cars. The size of the project would dominate the entry into town from 113 and create a closed, congested feeling. Both of these issues will be even worse when UCD completes their housing project on the south side of Russell. The current set back of the businesses and their low profile are more consistent with the ambience of our town. This project does not fit in our town.

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www.lozeaudrury.com  
michael@lozeaudrury.com

*Via Email and U.S. Mail*

January 30, 2019

Eric Lee, Planner  
City of Davis Department of Community  
Development and Sustainability  
23 Russell Boulevard  
Davis, CA 95616  
[elee@cityofdavis.org](mailto:elee@cityofdavis.org)

**Re: CEQA and Land Use Notice Request for the Project known as University Mall  
Redevelopment Project**

Dear Mr. Lee:

I am writing on behalf of the Laborers International Union of North America, Local Union 185 and its members living in the City of Davis ("LiUNA"), regarding the project known as University Mall Redevelopment Project, including all actions related or referring to the proposed construction of approximately 264 residential units (412,500 sf) in 4 residential floor levels, 150,000 sf of ground level retail uses, and a 3-level parking structure located at 737-885 Russell Boulevard in the City of Davis ("Project").

We hereby request that City of Davis ("City") send by electronic mail, if possible or U.S. Mail to our firm at the address below notice of any and all actions or hearings related to activities undertaken, authorized, approved, permitted, licensed, or certified by the City and any of its subdivisions, and/or supported, in whole or in part, through contracts, grants, subsidies, loans or other forms of assistance from the City, including, but not limited to the following:

- Notice of any public hearing in connection with projects as required by California Planning and Zoning Law pursuant to Government Code Section 65091.
- Any and all notices prepared pursuant to the California Environmental Quality Act ("CEQA"), including, but not limited to:
  - Notices of any public hearing held pursuant to CEQA.
  - Notices of determination that an Environmental Impact Report ("EIR") or supplemental EIR is required for the project, prepared pursuant to Public Resources Code Section 21080.4.
  - Notices of any scoping meeting held pursuant to Public Resources Code Section 21083.9.
  - Notices of preparation of an EIR or a negative declaration for the project, prepared pursuant to Public Resources Code Section 21092.
  - Notices of availability of an EIR or a negative declaration for the project, prepared pursuant to Public Resources Code Section 21152 and Section 15087 of Title 14 of the California Code of Regulations.

January 30, 2019

CEQA and Land Use Notice Request for the Project known as University Mall Redevelopment Project

Page 2 of 2

- Notices of approval and/or determination to carry out the project, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
- Notices of approval or certification of any EIR or negative declaration, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
- Notices of determination that the project is exempt from CEQA, prepared pursuant to Public Resources Code section 21152 or any other provision of law.
- Notice of any Final EIR prepared pursuant to CEQA.
- Notice of determination, prepared pursuant to Public Resources Code Section 21108 or Section 21152.

Please note that we are requesting notices of CEQA actions and notices of any public hearings to be held under any provision of Title 7 of the California Government Code governing California Planning and Zoning Law.

**This request is filed pursuant to Public Resources Code Sections 21092.2 and 21167(f), and Government Code Section 65092**, which requires agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

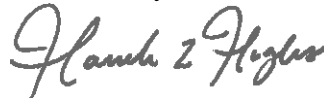
In addition, we request that the City of Davis send to us via email or U.S. Mail a copy of all Planning Commission, and City Council meeting and/or hearing agendas.

Please send notice by electronic mail, if possible or U.S. Mail to:

Michael Lozeau  
Hannah Hughes  
Komal Toor  
Lozeau Drury LLP  
410 12<sup>th</sup> Street, Suite 250  
Oakland, CA 94607  
510 836-4200  
[michael@lozeaudrury.com](mailto:michael@lozeaudrury.com)  
[hannah@lozeaudrury.com](mailto:hannah@lozeaudrury.com)  
[komal@lozeaudrury.com](mailto:komal@lozeaudrury.com)

Please call if you have any questions. Thank you for your attention to this matter.

Sincerely,



Hannah Hughes  
Legal Assistant  
Lozeau | Drury LLP