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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. The chapter includes a discussion of the proposed project’s potential to induce economic or population growth. In addition, the chapter includes a list of cumulative impacts, and a discussion of energy impacts and significant irreversible environmental changes that could be caused by the proposed project.

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 SACOG’s MTP/SCS are granted CEQA streamlining benefits, including that the EIR is not required to reference, describe, or discuss growth-inducing impacts. Nevertheless, for the purpose of public disclosure, the City has chosen to include an analysis of the proposed project’s effects associated with growth inducement.

The CEQA Guidelines state that induced growth should not necessarily be assumed to be significant or adverse. This analysis examines the following potential growth-inducing impacts related to implementation of the proposed project and assesses whether these effects are significant and adverse (see *CEQA Guidelines*, Section 15126.2[d]):

1. Foster population and economic growth and construction of housing.
2. Eliminate obstacles to population growth.
3. Affect service levels, facility capacity, or infrastructure demand.
4. Encourage or facilitate other activities that could significantly affect the environment.

5.2.1 Foster population and economic growth and construction of housing.

Implementation of the proposed project would result in direct population growth as the project would include the development of new multi-family residential units. The units would be designed specifically to provide housing for students. However, as discussed in Section 4.9, Population and Housing, the project is consistent with the regional growth projections prepared by SACOG and the project would not exceed the growth limits set by the City. The project would be considered an infill development. In addition, the City's requirements associated with the One Percent Growth Policy would ensure that the population growth associated with the project is consistent with the City's growth management requirements. As such, a less-than-significant impact related to population and economic growth would occur.

5.2.2 Eliminate obstacles to population growth.

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services, would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

The proposed project site is currently developed with 10 single-family homes and an apartment complex. In addition, the site is anticipated for development in the Gateway/Olive Drive Specific Plan. Consequently, the proposed project would not include the construction of water, sewer, drainage, and roadway infrastructure within an area not previously anticipated for urban development. As such, the proposed project would not be considered to eliminate any obstacles to growth or be expected to result in growth-inducing impacts.

5.2.3 Affect service levels, facility capacity, or infrastructure demand.

Increases in population that would occur as a result of a proposed project may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental impacts. Section 4.10, Public Services and Recreation, of this EIR has determined that the increased demands for fire and police protection services attributable to the proposed project would not necessitate the construction of new facilities that could cause significant environmental impacts. As discussed in Section 4.12, Utilities and Service Systems, of this EIR, wastewater generated by the proposed project could be accommodated by existing and planned wastewater treatment facilities and infrastructure, and the City's existing water system would be able to accommodate the domestic and fire flow demands associated with the proposed project. In addition, the landfill that would serve the proposed project has adequate capacity to manage the solid waste generated as result of the project. Furthermore, mitigation measures set forth in Section 4.6, Hydrology and Water Quality, of this EIR would ensure that the proposed project would not create or contribute runoff water that would exceed the capacity of the City's stormwater drainage systems. Therefore, the proposed project would not increase population such that service levels, facility capacity, or infrastructure demand would require construction of new facilities that could cause significant environmental impacts.

5.2.4 Encourage or facilitate other activities that could significantly affect the environment.

This EIR provides a comprehensive assessment of the potential for environmental impact associated with implementation of the proposed project. Please refer to sections 4.1 through 4.12, which comprehensively address the potential for impacts from urban development on the project site.

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, and secondary or growth-inducing impacts that commit future generations to similar uses. 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 multi-family residential development, and, thus, would result in a commitment of energy resources associated with maintaining the proposed development over the lifetime of the building. 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 below.

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. For the proposed project, such accidents would be primarily associated with release of, or exposure to, hazardous materials. As discussed in Section 4.5, Hazards and Hazardous Materials, the construction of the proposed project would involve demolition of existing structures that could potentially contain lead-based paint and asbestos-containing materials. However, all potential risks would be mitigated to less-than-significant levels through implementation of mitigation measures set forth in this EIR. Because the proposed project consists of a residential development, the occurrence of environmental accidents following completion of construction activities and occupation of the proposed residential units 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 such 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 such resources, nor would it be expected to consume any of these 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). In addition, this EIR also considers a combined list/projections approach for the following quantifiable CEQA topics: traffic, noise, and utilities (water and wastewater), for which buildout of the Davis city limits is considered, as well as buildout of the Mace Ranch Innovation Center Project and associated Mace Triangle, as well as the Nishi Gateway Project. It is important to note that the combined list/projections approach is referred to as the “CEQA Cumulative Scenario” in the Transportation and Circulation Chapter of the EIR. Both approaches include the approved Embassy Suites Hotel / Conference Center project. On March 8, 2017, the Planning Commission approved revised entitlement applications that replaced the 13,772 square foot conference facility with a 3,150 square-foot meeting room, reduced building height from six to five stories, retained the top-floor lounge and deck, and provided surface parking rather than structured while retaining 132 rooms on the new five story structure. Therefore, both cumulative scenarios are conservative with respect to the assumptions made for the Embassy Suites Hotel/Conference Center. The cumulative traffic scenarios and assumptions are described in greater detail in Section 4.11.

5.5 ENERGY CONSERVATION

In order to ensure energy implications are considered in project decisions, Appendix F of CEQA Guidelines requires a discussion of the potential energy impacts of projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

- (1) Decreasing overall per capita energy consumption;
- (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- (3) Increasing reliance on renewable energy sources.

The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2016 California Green Building Standards Code, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to each form of energy supply during construction and operations is provided below.

California Green Building Standards Code

The 2016 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), became effective January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, 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.

In addition to State-wide mandates, 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 adopted the Tier 1 CALGreen Code provisions for the 2010 and 2013 versions of the Code. As of January 1, 2017, the 2016 CALGreen Code has come into effect. Because the City adopted the Tier 1 provisions for previous versions of the Code, the City's adoption of the Tier 1 provisions of the 2016 CALGreen Code has been assumed for analysis purposes within this EIR. The proposed project would include various other sustainability strategies to help the project achieve equivalency with the Gold designation in Leadership in Energy and Environmental Design (LEED), from the U.S. Green Building Council (USGBC).

Building Energy Efficiency Standards

The 2016 Building Energy Efficiency Standards is a portion of the California Building Standards Code (CBSC), which expands upon energy efficiency measures from the 2013 Building Energy Efficiency Standards resulting in a 28 percent reduction in energy consumption from the 2013 standards for residential 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.

Construction Energy Use

Appendix F of the CEQA Guidelines identifies several potential sources of energy conservation impacts, including the project's construction energy requirements and energy use efficiencies by amount and fuel type. 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 is assumed to commence in July and would occur over approximately 18 months. As discussed in Section 4.2, Air Quality and Greenhouse Gas Emissions, of this EIR, even during the most intense year of construction, due to the different types of construction activities (e.g., demolition, site preparation, building construction), only portions of the site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated per the California Air Resources Board (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, 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 3.1 related to permit requirements, including permits to operate. As a result, construction equipment operating at the project site would occur over a relatively short duration in comparison to the operational lifetime of the proposed project, and would operate intermittently over the construction period for the project. Furthermore, implementation of Mitigation Measure 4.8-1 of this EIR requires measures to reduce construction noise that may include measures such as using electric construction equipment in place of diesel-powered equipment and/or limiting idling time of construction vehicles and equipment.

The CARB has recently prepared the *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan),¹ which builds upon previous efforts to reduce greenhouse gas (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 that the proposed project must comply with, as well as the required mitigation measures set forth in this EIR would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Nonetheless, construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of

¹ California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.

the site where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment. Construction activities would be limited to the hours of 7:00 AM to 7:00 PM, Monday through Friday, and 8:00 AM to 8:00 PM, Saturdays and Sundays per Chapter 24 of the City's Municipal Code.

Electricity Demand During Construction

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 utilized 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. However, the base demand for electricity in the area would increase. Overall, construction of the project would be over a relatively short duration in comparison to the operational lifetime of the proposed project and 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 further below. It should be noted that standards or regulations specific to construction-related electricity usage do not currently exist.

PG&E currently supplies electricity to the area and would supply electricity to the project site, including during construction. Construction of the proposed project, which would result in temporary increases in electricity demand, would not cause a permanent or substantial increase in demand that would exceed the demand projections or such that the existing PG&E supplies or infrastructure could not 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 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 During Construction

Based on the CalEEMod results for the proposed project, construction is anticipated to generate approximately 542 worker, delivery, and hauling vehicle trips during construction activities. 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 for where more immediate electricity is needed such as for welding or other hand tools. Overall, construction equipment operating 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 oil demand, and is discussed further 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. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions. 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 equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

Overall, 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 significant adverse impacts 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. Therefore, the proposed project would result in a less-than-significant impact on energy resources during construction.

Operational Energy Use

In order to ensure energy implications are considered in project decisions, Appendix F of the CEQA Guidelines requires a discussion of the potential energy impacts of a project, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Appendix F identifies several potential methods of evaluating a project's energy use, which are listed as follows and discussed in further detail below, with the exception of the project's construction-related energy requirements and energy use efficiencies, which are discussed above:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.

- The project’s projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Building Energy

Currently, the project site is developed with 10 single-family residences and 14 apartment units. At the time of issuance of the Notice of Preparation, six of the 10 single-family homes were occupied by renters; of the remaining four units, three were uninhabitable and one was vacant. Electricity and natural gas are currently provided to the project site by PG&E. PG&E’s current energy supplies consist of 28 percent natural gas, 22 percent nuclear, 18 percent market purchases, 10 percent large hydroelectric facilities, and 22 percent renewables. More than half of PG&E’s power is from clean or no emissions sources such as nuclear, large hydroelectric facilities, and renewables. As a result, PG&E is ranked one of the three cleanest large power producers in the country.² Following implementation of the proposed project, PG&E would continue to provide electricity and natural gas to the project site. Energy use associated with operation of the proposed project would be typical of residential uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, refrigeration, appliances, security systems, and more. In addition, maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment.

Both the potential demand from the proposed project and the current demand from the existing developments were estimated using California Emissions Estimator Model (CalEEMod). The estimated electricity and gas consumption for the existing development and the proposed development as well as the net increase in energy demand are presented in Table 5-1 below.

Table 5-1		
Estimated Electricity and Natural Gas Consumption		
	Electricity (kWh/yr)	Natural Gas (kBTU/yr)
Proposed Project	585,999	1,541,440
Existing Residential Developments	121,989	419,681
Net Increase	464,010	1,121,759
<i>Source: CalEEMod December 2016 (Appendix E).</i>		

As shown in the table above, operation of 130 residential units on the project site would increase the total energy and natural gas demand from the project site. However, increased energy and natural gas demand does not necessarily mean that a project would have an impact related to energy resources. Based on Appendix F of the CEQA Guidelines, a proposed project would result in an impact related to energy resources if a project would result in the inefficient use or waste of energy.

Structures included in the proposed project would be subject to all relevant provisions of the 2016 update of the CBSC, including the Building Energy Efficiency Standards and the Tier 1 provisions

² Pacific Gas & Electric Company, Tim Fitzpatrick, Chief Communications Officer. *PG&E Cuts Carbon Emissions with Clean Energy*. January 30, 2015. Available at: <http://www.pgecurrents.com/2015/01/30/pge-cuts-carbon-emissions-with-clean-energy/>. Accessed March 10, 2015.

of the CALGreen Code. Adherence to the most recent CALGreen and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting.

While the proposed project would be constructed to meet the current CBSC requirements, the existing structures were built in the early- to mid-20th century, before the adoption of the CBSC. Structures built prior to the CBSC are generally less efficient in terms of electricity and natural gas consumption. Such inefficiency can be seen on a per unit basis, as shown in Table 5-2 below.

Table 5-2		
Estimated Per Unit Electricity and Natural Gas Consumption		
	Electricity (kWh/yr/unit)	Natural Gas (kBTU/yr/unit)
Proposed Project	4,508	11,857
Existing On-Site Development	6,700	20,984

Source: CalEEMod December 2016 (Appendix E).

As shown in Table 5-2, the proposed project would result in a reduction in per unit electricity and natural gas consumption as compared to the existing developments. Therefore, while the proposed project would increase the overall use of electricity and natural gas on the project site, the electricity and natural gas would be consumed more efficiently than what currently occurs on the project site. In addition, the proposed project would incorporate various sustainability strategies related to building energy, including, but not limited to, the following:

- High performing building envelopes;
- Solar shading and building orientation to:
 - Increase passive heating in winter and reduce unwanted heat gain in summer;
 - Optimize daylighting strategies and reduce glare;
- Daylighting and efficient lighting and control systems;
- Natural ventilation;
- Efficient mechanical systems;
- On-site renewable energy generation; and
- Energy performance metering and tracking.

As such, the proposed project would not result in the inefficient or wasteful consumption of electricity or natural gas.

Transportation Energy

The annual VMT at full buildout of the proposed project is anticipated to be approximately 851,545. The average fuel economy in miles per gallon (mpg) for the U.S. car (24.9 mpg) and light truck (18.5 mpg) fleet, which each make up 50 percent of new light vehicle sales in the U.S., was obtained from the *Transportation Energy Data Book*. Using the aforementioned data, the overall average fuel economy of the U.S. vehicle fleet was calculated to be 21.7 mpg. Using 21.7 mpg, the proposed project would be expected to result in an increased consumption from existing levels

associated with the site of approximately 17.92 barrels of gasoline per week. California inventories of gasoline averaged 10.6 million barrels in 2016, similar to 2015 levels.³ Based on the aforementioned data, the proposed project at full buildout would be expected to result in an increased demand of a maximum of approximately 0.00017 percent of the State's current inventory of gasoline.

California leads the nation in registered alternatively-fueled and hybrid vehicles. In addition, State-specific regulations encourage fuel efficiency and reduction of dependence on oil. Improvements in vehicle efficiency and fuel economy standards help to reduce consumption of gasoline and reduce the State's dependence on petroleum products. The proposed project would be required to comply with all applicable regulations associated with vehicle efficiency and fuel economy. Furthermore, the proposed project would incorporate various sustainability strategies related to transportation energy, including, but not limited to, the following:

- Designated parking for green vehicles;
- Electric vehicle charging stations;
- Reduced parking to encourage public transit, car share, and biking/walking;
- Car sharing spaces; and
- Indoor and outdoor bike storage.

The proposed project would be located within walking and biking distance of downtown Davis and UC Davis, which would encourage the use of alternate forms of transportation and help to further reduce reliance on single-occupancy vehicle use. Based on the above, the proposed project would not be considered to result in the inefficient or wasteful consumption of transportation energy.

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, and impacts related to operational energy would be considered less than significant.

5.6 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]). Such 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

³ California Energy Commission. *Petroleum Watch*. February 2015. Available at: http://www.energy.ca.gov/almanac/petroleum_data/petroleum_watch/2017_Petroleum_Watch/2017-01_Petroleum_Watch.pdf. Accessed February 15, 2017.

reduced to a level that is less-than-significant. Based on the analysis provided in Sections 4.1 through 4.12 of this EIR, the proposed project would not result in any significant impacts that could not 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.