City of SACRAMENTO

Heritage Park at Natomas
Multi-Level Retirement Community

Initial Study for Anticipated Subsequent Project to the 2035 General Plan Master EIR

Project Number: P15-002

Prepared for the City of Sacramento

Community Development Department

Environmental Planning Services

Date Completed: June 10, 2015

Prepared by:

ESA
2600 Capitol Avenue, Suite 200
Sacramento, CA 95816

HERITAGE PARK AT NATOMAS MULTI-LEVEL RETIREMENT COMMUNITY (P15-002)

INITIAL STUDY FOR ANTICIPATED SUBSEQUENT PROJECT UNDER THE 2035 GENERAL PLAN MASTER EIR

This Initial Study has been prepared by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into the following sections:

SECTION I - BACKGROUND: Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

SECTION II - PROJECT DESCRIPTION: Includes a detailed description of the proposed project.

SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION: Reviews proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Master EIR for the 2035 General Plan.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION V - DETERMINATION: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

Section I - Background

Project Name and File Number:	Heritage Park at Natomas Multi-Level Retirement Community (P15-002)
Project Location:	North Natomas 2200 Rose Arbor Drive
Project Applicant:	Jeffrey DeMure & Associates Architects and Planners 5905 Granite Lake Drive, #140 Granite Bay, CA 95746 Attn: Justin Arnest (916) 783-3700
Project Planner:	Arwen Wacht, Associate Planner Community Development Department 300 Richards Boulevard, Third Floor Sacramento, CA 95811 awacht@cityofsacramento.org
Environmental Planner:	Dana Mahaffey, Associate Planner Community Development Department 300 Richards Boulevard, Third Floor Sacramento, CA 95811 dmahaffey@cityofsacramento.org
Date Initial Study Completed:	June 10, 2015

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000 *et seq*.). The Lead Agency is the City of Sacramento.

The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that the proposed project is an anticipated subsequent project identified and described in the 2035 General Plan Master EIR and is consistent with the land use designation and the permissible densities and intensities of use for the project site as set forth in the 2035 General Plan. See CEQA Guidelines Section 15176 (b) and (d).

The City has prepared the attached Initial Study to (a) review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the 2035 General Plan Master EIR to determine their adequacy for the project (see CEQA Guidelines Section 15178(b),(c)) and (b) identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or

alternatives that may avoid or mitigate the identified effects to a level of less than significant, if any.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177(d)). The Master EIR mitigation measures that are identified as appropriate are set forth in the applicable technical sections below. Policies included in the 2035 General Plan that reduce significant impacts identified in the Master EIR are identified and discussed in the Master EIR.

This analysis incorporates by reference the general discussion portions of the 2035 General Plan Master EIR. (CEQA Guidelines Section 15150(a)). The Master EIR is available for public review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, and on the City's web site at:

http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

The City is soliciting views of interested persons and agencies on the content of the environmental information presented in this document. Due to the time limits mandated by state law, your response must be sent at the earliest possible date, but no later than the 30-day review period ending July 11, 2015.

Please send written responses to:

Dana Mahaffey
Community Development Department
City of Sacramento
300 Richards Blvd, 3rd Floor
Sacramento, CA 95811
Direct Line: (916) 808-2762
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Section II - Project Description

Introduction

The Heritage Park at Natomas Multi-Level Retirement Community (MLRC) project (proposed project) proposes to construct a retirement community on an approximately 10-acre property located in the North Natomas neighborhood in the City of Sacramento. This Initial Study (IS) has been prepared to evaluate the environmental effects of this project and to ensure compliance under the California Environmental Quality Act (CEQA). The City of Sacramento is the lead agency responsible for CEQA compliance.

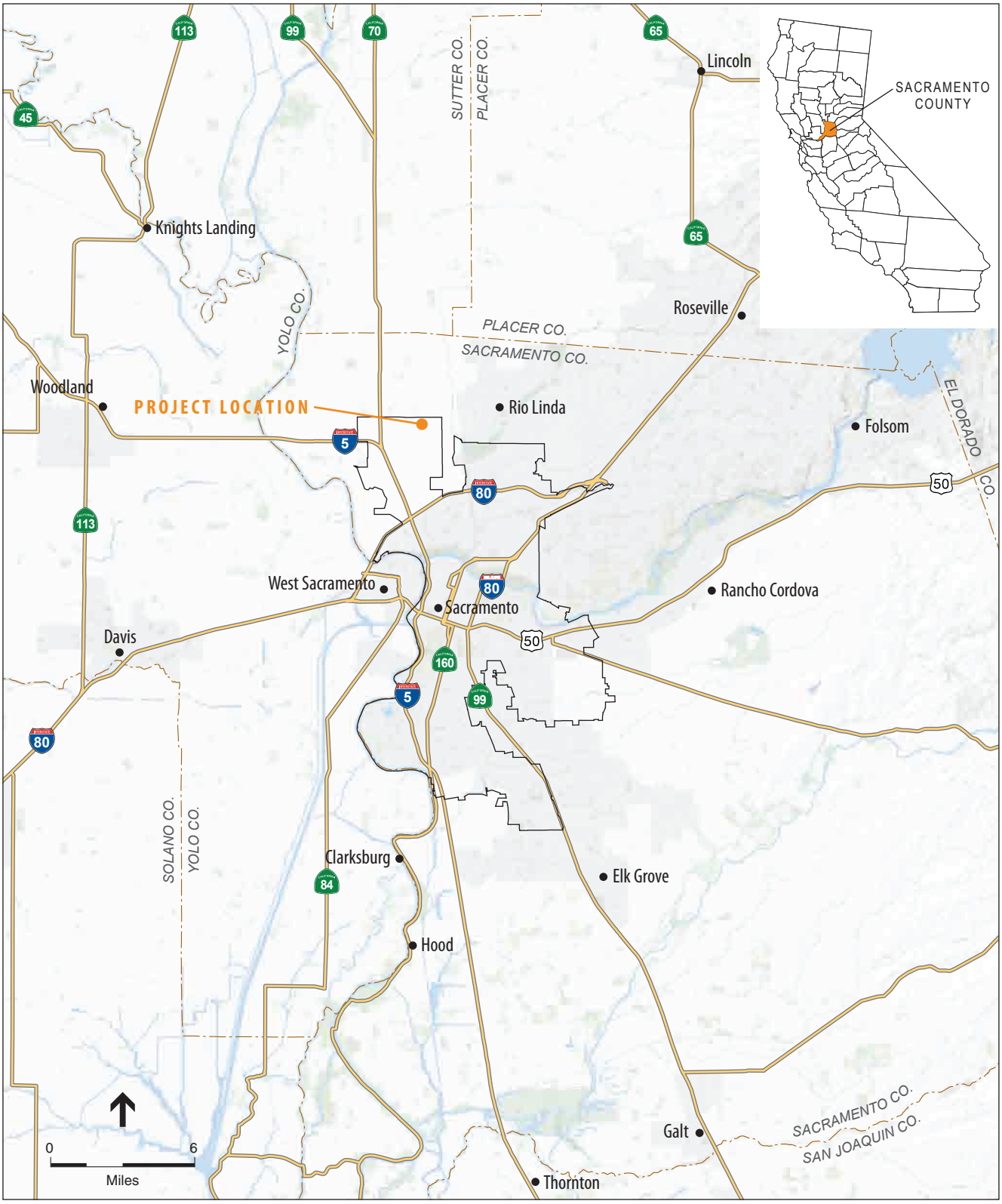
Project Location and Surrounding Uses

The 10-acre project site is located in North Natomas, within the North Natomas Community Plan area, Northborough Planned Unit Development, specifically within the Heritage Park neighborhood. The site is bound by Natomas Boulevard to the east, Rose Arbor Drive to the south, single-family age-restricted residential uses to the west, and a detention basin and Elkhorn Boulevard to the north (see **Figures 1 and 2**). The project site is in the northeast corner of the Heritage Park age-restricted community. Residential uses to the west of the project site are a mix of age-restricted detached houses duplexes. An apartment complex, single-family residences, and vacant land are south of the project site. An apartment complex and single-family residences are east of the project site across Natomas Boulevard and the Natomas East Main Drainage Canal. Actively farmed agricultural fields are north of the project site across Elkhorn Boulevard.

The project is site is within the North Natomas Community Plan Area, located in the northwest portion of the City of Sacramento, and is part of the greater Natomas Basin (55,000 acres). The North Natomas Community Plan Area consists of approximately 7,440 acres in the city limits and 1,561 acres in Sacramento County. The southern edge of the community is approximately 3 miles from Downtown Sacramento and the northwestern edge is approximately 2 ½ miles from the Sacramento International Airport. The community is bounded by Elkhorn Boulevard on the north, I-80 on the south, the Natomas East Main Drainage Canal on the east, and the West Drainage Canal, Fisherman's Lake, and Highway 99 on the west. The South Natomas Community Plan Area borders North Natomas on the south and North Sacramento on the east. Unincorporated areas of Sacramento County and the Natomas Joint Vision Area border on the north and west.

Project Background

The project site was previously graded for proposed construction in 2002 and has been tilled annually to remove vegetation. Prior to grading, the project site and surrounding land was used for agricultural purposes; however, agricultural activities have not been conducted on the project site or on adjacent areas since prior to 2002.



SOURCE: CaSIL, 2013

Heritage Park MLRC Natomas .150240

Figure 1

Regional Location Map

SOURCE: Microsoft, 2012; ESRI, 2014; ESA, 2015

Heritage Park MLRC Natomas . 150240

Figure 2

Vicinity Map

Development of the project site was anticipated in the City's 2035 General Plan and analyzed in the 2035 General Plan Master Environmental Impact Report (Master EIR). The project site is designated as Suburban Center in the General Plan and zoned Shopping Center – Planned Unit Development (SC-PUD).

Development of the project site was previously considered and analyzed in the 2035 Master EIR,[1] the 1994 North Natomas Community Plan (since replaced by the North Natomas Community Plan incorporated in the 2035 General Plan), and Heritage at Natomas Park Initial Study/Negative Declaration.[2]

Project Description

The proposed Heritage Park at Natomas project would develop a two-story, 60-unit assisted living building; a one-story, 48-unit memory care facility; and 54 independent living cottages. The project would be accessed via driveways on Natomas Boulevard and Rose Arbor Drive. A total of 192 parking spaces would be provided to serve project residents, guests, employees, and vendors (see **Figure 3**).

Central Residential Building

The two-story Assisted Living building (Central Residential Building) would include a mix of assisted living residential units, assisted living common areas, administration, common/public and service. Assisted living residential units would include studios, one-bedroom, and two-bedroom apartment types on both floors of the Central Residential Building.

The main floor of the Central Residential Building would include 30 residential units, a lounge, dining facility, atrium, parlor, and club space along with service and administrative space for employees. The second floor would accommodate 30 residential units, a lounge, large activity center, fitness center, salon, library/lounge, and theater/chapel. External features of the Central Residential Building would include two main entry points, a service area, and outdoor patio.

[1] City of Sacramento, 2015 (March 3). *City of Sacramento 2035 General Plan Master Environmental Impact Report*.
[2] City of Sacramento, 2001 (July). *Heritage at Natomas Park Initial Study/Negative Declaration*. City Project No. P00-005.

SOURCE: Microsoft, 2012; ESRI, 2014; ESA, 2015

Heritage Park MLRC Natomas . 150240

Figure 3
Site Plan

Resident Memory Care Center

The Resident Memory Care Center would have 48 residential units specifically designed to meet the needs of residents with memory impairments. The Resident Memory Care Center would include space for assisted-living facility operations and care along with recreational and common areas. An exterior courtyard would be provided in the middle of the Resident Memory Care Center.

Cottages

The 54 Independent-Living Cottages would be single-family or duplex residences that are intended to be proximal to assisted-living services while not requiring them. Each dwelling unit would be approximately 1,245 square feet and feature two bedrooms, two bathrooms, a full kitchen, single-car garage, and guest parking space. The Independent Living Cottages would be located in the northern and western sections of the project site and would be accessible by vehicle and pedestrian pathways.

Greenhouse

The Greenhouse would be a stand-alone structure with recreational facilities including a pool, spa, sauna, greenhouse, kitchen, and gathering area. The Greenhouse is intended for regular use by all residents of the proposed project.

Circulation

The project site would be interspersed with pedestrian walkways and driveways for private and commercial vehicle access. Sidewalks would connect the project site to the existing and proposed sidewalks along Natomas Boulevard and Rose Arbor Drive. The project proposes to extend a ten-foot sidewalk along Natomas Boulevard that would be a shared pedestrian/bicycle facility mirroring the facility on the east side of the roadway from the Rose Arbor round corner northward to connect it to the pedestrian path in the open space drainage basin to the north of the project site.

The proposed project includes two vehicular drop-off areas, one along the east face of the Central Residential Building and one along the northern face of the Resident Memory Care Center.

The proposed project would add a driveway along Natomas Boulevard to provide for right-in, right-out movements. No left-out movements would be permitted. The proposed project would also include a driveway along Rose Arbor Drive allowing for full ingress and egress. Parking for residents and visitors would mainly be located in the southeastern section of the project site along Rose Arbor Drive, with some visitor parking available near the Greenhouse in the northeastern portion of the project site.

Landscaping

The eastern and southern boundaries of the project site would have landscape buffering along the sidewalks to provide visual buffering from adjacent roadways. The project site would also have a six-foot masonry wall along the northern border of the project site and along the eastern side of Cottage 28 in the northeast corner of the project site. Landscaping would be designed to meet the States AB1881, Executive Order B-29-15, and City's modal water efficient landscape ordinance. Landscaping would include native and drought tolerant plant material and the irrigation system would be an all drip point source irrigation system. Irrigation valves would be automatically controlled and would include a weather-based operating system, with rain/sun/and temperature sensors, to eliminate evaporative loss from watering during high heat or rainy conditions. Use of turf would be limited to less than one third (33.3%) of the total landscape area.

Exterior Lighting

Exterior lighting would only be installed where needed for security and safety purposes. Proposed outdoor lighting fixtures would include downward-shielding for overhead light fixtures and low-intensity exterior lighting to minimize fugitive light, consistent with Policy LU 6.1.12.

Energy Efficiency

The proposed project would incorporate energy savings measures, including dimming controls in all areas larger than 100 feet; LED luminaries for indoor and outdoor lighting; occupancy sensors; corridor and stairwell lighting, equipped with occupancy sensors to reduce lighting levels to 50% when not occupied; Economizers on all packaged rooftop HVAC units; high efficiency (14 SEE, 93% AFUE) split systems serving common areas; and high efficiency (95%) domestic water heaters.

Water Efficiency

The proposed project would incorporate water efficiency measures into project design to meet CalGreen, Tier 1 requirements. In addition to water saving measures discussed in the Landscaping description, the proposed project would implement numerous other water-saving features. The dishwasher in the commercial kitchen, for example, in addition to being Energy Star rated for low energy usage, would only utilize 0.74 gallons of 120 degree water per rack, which would be below the industry standard of 0.89 gallons per rack. Low-flow components would be used for all faucets, showers, and basins in both commercial and residential spaces. Electronic hand sink faucets would be installed in common restrooms. All toilets would be low-flow models in the commercial, common, and residential restrooms.

Construction

The applicant would implement numerous Best Management Practices (BMPs) to minimize construction impacts from noise, vibration, light, dust, sedimentation and erosion, and general disturbances to sensitive receptors and sensitive resources. The proposed project would be constructed in a single phase, which would be scheduled to avoid the raptor nesting season, if construction activities are expected to occur near nests, consistent with Policy ER 2.1.13. Construction activities would be scheduled during normally acceptable hours in accordance with the City's noise ordinances.

All grading, excavation, and earth-moving activities would be subject to industry BMPs for fugitive dust, including watering, maximum disturbance thresholds, and cessation of ground disturbing activities during high-wind periods. The proposed project would comply with the City's standards set forth in the "Administrative and Technical Procedures Manual for Grading and Erosion and Sediment Control." The project would also comply with the City's grading ordinance (Chapter 15.88 of Sacramento City Code) which specifies construction standards to minimize erosion and runoff. The applicant would develop and implement a Storm Water Pollution Prevention Plan (SWPPP) to address potential sedimentation and erosion, consistent with City's SQIP and NPDES Permit for Storm Water Discharges Associated with Construction Activity.

Project site preparation would include measures to minimize impacts from construction activities. As an avoidance measure for potential impact to northwestern pond turtles, the applicant would erect exclusionary barriers in the form of silt fencing and the planned sound wall along the northern perimeter of the project site, prior to commencement of construction activities.

Entitlements

The project requires the following planning approvals from the City of Sacramento:

- PUD Schematic Plan Amendment to the Heritage Park section of the Northborough Planned Unit Development;

- PUD Guidelines Amendment to the Heritage Park section of the Northborough Planned Unit Development;

- Conditional Use Permit for a residential care facility (60 unit assisted living and 48-resident memory care) and multi-unit dwellings (54 cottages) in the Shopping Center (SC-PUD) zone; and

- Site Plan and Design Review for the proposed development of the residential care facility and multi-unit dwellings.

Attachments

Figure 1 – Regional Location Map
Figure 2 – Vicinity Map
Figure 3 –Site Plan

Appendix A – CalEEMod Reports

SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION

LAND USE, POPULATION AND HOUSING, AGRICULTURAL RESOURCES AND ENERGY

Introduction

The California Environmental Quality Act (CEQA) requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable general plans and regional plans.

An inconsistency between the proposed project and an adopted plan for land use development in a community would not constitute a physical change in the environment. When a project diverges from an adopted plan, however, it may affect planning in the community regarding infrastructure and services, and the new demands generated by the project may result in later physical changes in response to the project.

In the same manner, the fact that a project brings new people or demand for housing to a community does not, by itself, change the physical conditions. An increase in population may, however, generate changes in retail demand or demand for governmental services, and the demand for housing may generate new activity in residential development. Physical environmental impacts that could result from implementing the proposed project are discussed in the appropriate technical sections.

This section of the initial study identifies the applicable land use designations, plans and policies, and permissible densities and intensities of use, and discusses any inconsistencies between these plans and the proposed project. This section also discusses agricultural resources and the effect of the project on these resources.

Discussion

Land Use

The project site is designated as Suburban Center in the 2035 General Plan. The parcel is zoned as Shopping Center – Planned Unit Development (SC-PUD).

The project site is located in a residential portion of the community, with primarily residential uses in the project vicinity. The proposed project is located immediately to the west of Natomas Boulevard, which is bordered to the east by a canal. Beyond the canal are multi-family residential land uses, to the east. The proposed project is located immediately to the north of Rose Arbor Drive. To the south of Rose Arbor Drive are graded, undeveloped open space and residential uses. Immediately to the west of the project site is the Heritage Park senior community which consists of single-family residential and duplex units of varying densities. Immediately to the north of the project site is agricultural and open space uses and West Elkhorn Boulevard. Beyond Elkhorn Boulevard is intensive agricultural land use. Elkhorn Boulevard marks the northern border for the City of Sacramento.

The Suburban Center designation provides for predominantly nonresidential, lower-intensity single-use commercial development or horizontal and vertical mixed-use development that includes retail, service, office, and/or residential uses; central public gathering places; or compatible public, quasi-public, and special uses. Residential densities are allowed between 15 dwelling units per acre (du/ac) and 36 du/ac. The SC-PUD zone allows for a wide variety of commercial and institutional uses, and conditionally allows for residential care facilities.

The proposed project would develop a residential care facility and detached residential units at an average density of 16 du/ac, compatible with the density range allowable in the Suburban Center designation. The surrounding land uses are primarily residential, with both multi-family and single-family uses. Development of the proposed project would continue residential development from the west and would fill in a vacant parcel that is surrounded by residential development.

Development of the site as proposed would develop the existing properties in a manner that is consistent with the designations for urban development in the 2035 General Plan and the Planning and Development Code.

Population and Housing

The 2035 General Plan includes assumptions for the amount of growth that will occur within the Policy Area over the next 20 years. The General Plan assumes the City will grow by approximately 165,000 new residents, 86,483 new jobs, and 68,347 new housing units. The 2035 General Plan Master EIR identifies, estimates, and evaluates population and housing changes that would be caused by development of the 2035 General Plan that have the potential to cause physical environmental effects . The Land Use, Population, and Housing analysis in the 2035 General Plan Master EIR (Chapter 3) provides a detailed discussion of how the City reached these assumptions and the methodology used to determine a realistic level of growth for the City.[3]

According to the City's 2013–2021 Housing Element, there were 55,582 residents in the North Natomas in 2010.[4] The 2010 Census counted 38,766 residents and 13,960 households in the Natomas census tracts (71.01 – 71.07), resulting in an average household size of approximately 2.78 persons.[5] For the purposes of this analysis, an estimate of 2.0 persons per dwelling unit is used, which is the maximum occupancy allowed for the Central Residential Center and Cottages. One resident per unit is assumed for the Resident Memory Care Center. This could be considered a conservative estimate, since no vacancy is assumed and the estimates from the Census are for occupied housing units only ("conservative" in this context meaning this may

[3] City of Sacramento, 2015 (March 3). *City of Sacramento 2035 General Plan Master Environmental Impact Report*.
[4] City of Sacramento, 2013. City of Sacramento 2013–2021 Housing Element. Adopted December 17, 2013. Page 3-5. Table H 3-2.
[5] U.S. Census Bureau, 2013. 5-Year American Community Survey. Available: http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml. Accessed: May 13, 2015.

overestimate slightly the additional residential population associated with the project). The proposed project proposes up to 114 new dwelling units plus the 48-resident memory care center. The net additional population, then, would be approximately 276 residents. This projected population is consistent with the cumulative population growth assumed in the General Plan and Master EIR.

The project would be consistent with the General Plan land use designation (Suburban Center); additionally, it would not require any change to the current zoning (SC-PUD). There are no existing houses or residential uses on the project site; therefore, people and housing units would not be displaced as a result of project construction and implementation. Impacts due to the development of proposed project related to population and housing would be less than significant.

Agricultural Resources

The Master EIR discussed the potential impact of development under the 2035 General Plan on agricultural resources (Master EIR, Chapter 4.1). In addition to evaluating the effect of the General Plan on sites within the City, the Master EIR noted that to the extent the 2035 General Plan accommodates future growth within the City limits, the conversion of farmland outside the City limits is minimized (Master EIR, page 4.1-3). The Master EIR concluded that the impact of the 2035 General Plan on agricultural resources within the City was less than significant.

The project site does not contain soils designated as Important Farmland (i.e., Prime Farmland, Unique Farmland or Farmland of Statewide Importance)[6]. The site is not zoned for agricultural uses, and there are no Williamson Act contracts that affect the project site. No existing agricultural or timber-harvest uses are located on the project site. Existing agricultural uses north of the project site, and outside of the City of Sacramento, would be unaffected by development of the project site. Development of the site would result in no impacts on agricultural resources.

Energy

Structures built as part of the project would be subject to Titles 20 and 24 of the California Code of Regulations, which serve to reduce demand for electrical energy by implementing energy-efficient standards for residential and non-residential buildings. The 2035 General Plan includes policies (see General Plan Policies U 6.1.9 through U 6.1.16) to encourage the spread of energy-efficient technology by offering rebates and other incentives to commercial and residential developers, and recruiting businesses that research and promote energy conservation and efficiency.

[6] California Department of Conservation, 2012. Sacramento County Important Farmland 2012 Map. Available: ftp://ftp.consrv.ca.gov/pub/Dlrp/FMMP/pdf/2012/sac12.pdf. Accessed: May 13, 2015.

General Plan Policies U 6.1.6 through U 6.1.8 focus on promoting the use of renewable resources, which would reduce the cumulative impacts associated with use of non-renewable energy sources. In addition, General Plan Policies U 6.1.10 and U 6.1.13 call for the City to work closely with utility providers and industries to promote new energy conservation technologies.

The Master EIR evaluated the potential impacts on energy use and concluded that the effects would be less than significant (see Master EIR Impact 4.11-6). The proposed project would not result in any impacts not identified and evaluated in the Master EIR.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
1. AESTHETICS, LIGHT AND GLARE Would the proposal: A) Create a source of glare that would cause a public hazard or annoyance?	X		
B) Create a new source of light that would be cast onto oncoming traffic or residential uses?	X		
C) Substantially degrade the existing visual character of the site or its surroundings?	X		

ENVIRONMENTAL SETTING

The project site is vacant land within urbanized residential development. Land uses to the north of the project site include an open space buffer that contains a drainage basin directly adjacent to the site, Elkhorn Boulevard, and agricultural rice field further north. Uses to the east include Natomas Boulevard adjacent to the project site, the East Main Drainage Canal, and multi-family residential structures. Land uses to the south include Rose Arbor Drive directly adjacent to the site, additional vacant land, and multi-family residential structures. To the west, the Heritage Park Community with detached single-family units and duplexes borders the project site.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, aesthetics impacts may be considered significant if the proposed project would result in one or more of the following:

- Glare would be cast in such a way as to cause public hazard or annoyance for a sustained period of time.

- Light would be cast onto oncoming traffic or residential uses.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR described the existing visual conditions in the general plan policy area, and the potential changes to those conditions that could result from development consistent with the 2035 General Plan. See Master EIR, Chapter 4.13, Visual Resources.

The Master EIR identified potential impacts for glare (Impact 4.13-1). The Master EIR identified Policy ER 7.1.4 (Reflective Glass) and its requirement prohibiting new development from using

reflective glass that exceeds 50 percent of any building surface and on the bottom three floors, using mirrored glass, using black glass that exceeds 25 percent of any surface of a building, using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building, and using exposed concrete that exceeds 50 percent of any building as reducing the potential effect to a less-than-significant level.

Light cast onto oncoming traffic or residential uses was identified as a potential impact (Impact 4.13-1). The Master EIR identified Policy LU 6.1.12 (Compatibility with Adjoining Uses) and its requirement that lighting must be shielded and directed downward as reducing the potential effect to a less-than-significant level.

The Master EIR identified potential impacts to existing scenic resources (Impact 4.13-2). The Master EIR identified Policy ER 7.1.1 (Protect Scenic Views) which would guide the City to avoid or reduce substantial adverse effects of new development on views from public places to scenic resources. Further, the Master EIR identified Policy ER 7.1.2 and its requirement that new development be located and designed to visually compliment the natural environment/setting when near the Sacramento and American Rivers, and along streams. These policies reduce the potential effect on existing scenic resources to a less-than-significant level.

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO PROJECT

None required.

ANSWERS TO CHECKLIST QUESTIONS

Questions A through C

Development of the project site as proposed would introduce small areas of new reflective surfaces (e.g., window glazing and possibly other building materials) and new sources of night lighting. The proposed project would utilize night lights for security purposes only where necessary. The proposed lighting fixtures would include downward-shielding for overhead light fixtures and low-intensity exterior lighting to minimize fugitive light. These sources of lighting would be consistent with the existing features of surrounding development and would not adversely affect day or nighttime views.

The cumulative effects were evaluated in the Master EIR, and the project would have no additional significant environmental effects relating to aesthetics, light and glare.

MITIGATION MEASURES

None required.

FINDINGS

The project would have no additional project-specific environmental effects relating to aesthetics, light and glare.

Issues:		No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
2. AIR QUALITY *Would the proposal:*				
A)	Result in construction emissions of NO_x above 85 pounds per day?	X		
B)	Result in operational emissions of NOx or ROG above 65 pounds per day?	X		
C)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X		
D)	Result in PM10 concentrations equal to or greater than five percent of the State ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard?	X		
E)	Result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm)?	X		
F)	Result in exposure of sensitive receptors to substantial pollutant concentrations?	X		
G)	Result in TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources?	X		
H)	Conflict with the Climate Action Plan?	X		

ENVIRONMENTAL SETTING

The proposed project is located within the City of Sacramento. The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary local agency with respect to air quality for all of Sacramento County, including the City of Sacramento. The City of Sacramento is within the Sacramento Valley Air Basin (SVAB), which also includes all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba Counties, the western portion of Placer County, and the eastern portion of Solano County.

As required by the Federal Clean Air Act (FCAA) passed in 1970, the United States Environmental Protection Agency (U.S. EPA) has identified six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. The U.S. EPA calls these pollutants “criteria air pollutants” because the agency has regulated them by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. Ozone, carbon monoxide (CO), nitrogen dioxide

(NO_2), sulfur dioxide (SO_2), particulate matter, and lead are the six criteria air pollutants. Notably, particulate matter is measured in two size ranges: PM_{10} for particles less than 10 microns in diameter, and PM2.5 for particles less than 2.5 microns in diameter.

The California Air Resources Board (CARB) regional air quality monitoring network provides information on ambient concentrations of non-attainment criteria air pollutants. The monitoring stations that include data representative of the proposed project site are located on Goldenland Court (monitors ozone, and PM_{10} and is approximately 2.16 miles south of the project site), near the intersection of El Camino Avenue and Watt Avenue (monitors $PM_{2.5}$ and is approximately 8.8 miles southeast of the project site), and on T Street (monitors CO and is approximately 8.01 miles south of the project site). **Table 2-1** presents a five-year summary of air pollutant concentration data collected at these monitoring stations for ozone, PM_{10}, $PM_{2.5}$ and CO.

TABLE 2-1

SUMMARY OF AIR QUALITY MONITORING DATA (2009–2013)

Pollutant	Applicable Standard	Number of Days Standards Were Exceeded and Maximum Concentrations Measured[a] 2009	2010	2011	2012	2013
Ozone – Goldenland Court Station						
Days 1-hour State Std. Exceeded	>0.09 ppm[b]	0	0	0	0	0
Max. 1-hour Conc. (ppm)		0.094	0.092	0.088	0.089	.090
Days 8-hour National Std. Exceeded	>0.075 ppm[c]	**5**	**1**	**1**	**4**	0
Days 8-hour State Std. Exceeded	>0.07 ppm[b]	**11**	**2**	**2**	**7**	**2**
Max. 8-hour Conc. (ppm)		**0.083**	**0.078**	**0.079**	**0.081**	**0.073**
Suspended Particulates (PM_{10}) – Goldenland Court Station						
Estimated Days Over 24-hour National Std.[d]	>150 µg/m^3 [c]	0	NA	NA	NA	NA
Estimated Days Over 24-hour State Std.[d]	>50 µg/m^3 [b]	0.0	0.0	**6.1**	0.0	**6.0**
Max. 24-hour Conc. National/State (µg/m^3)		48.0/48.0	56.2/42.0	69.6/**67.0**	76.5/32.0	96.4/**51.0**
State Annual Average (µg/m^3)	>20 µg/m^3 [b]	19.4	14.7	18.6	15.0	18.9
Suspended Particulates ($PM_{2.5}$) – El Camino Avenue and Watt Avenue Station						
Estimated Days Over 24-hour National Std.[d]	>35 µg/m^3 [c]	**8.9**	0.0	**9.5**	0.0	**13.0**
Max. 24-hour Conc. National (µg/m^3)		**49.8**	33.9	**54.3**	35.3	**53.8**
Annual Average (µg/m^3)	>12 µg/m^3 [b]	10.7	8.8	10.5	9.1	11.5
Carbon Monoxide (CO) – T Street Station						
Days 8-hour Std. Exceeded	>9 ppm[b]	0	0	0	0	0
Max. 8-hour Conc. (ppm)		2.8	1.9	2.8	2.1	2.4
Days 1-hour Std. Exceeded	>20 ppm[b]	0	0	0	0	0
Max. 1-hour Conc. (ppm)		3.3	2.3	3.0	2.7	2.8

NOTES:
Bold values are in excess of applicable standard. "NA" indicates that data is not available.
conc. = concentration; ppm = parts per million; ppb=parts per billion;
µg/m3 = micrograms per cubic meter
ND = No data or insufficient data.

a. Number of days exceeded is for all days in a given year, except for particulate matter. PM10 and PM2.5 are monitored every six days.
b. State standard, not to be exceeded.
c. National standard, not to be exceeded.
d. Particulate matter sampling schedule of one out of every six days, for a total of approximately 60 samples per year. Estimated days exceeded mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

SOURCE: California Air Resources Board, 2014. *Summaries of Air Quality Data, 2009-2013*. www.arb.ca.gov/adam. Accessed April 27, 2015.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, air quality impacts may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan Master EIR:

- construction emissions of NOx above 85 pounds per day;
- operational emissions of NOx or ROG above 65 pounds per day;
- violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- PM10 concentrations equal to or greater than five percent of the State ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard. However, if project emissions of NOx and ROG are below the emission thresholds given above, then the project would not result in violations of the PM10 ambient air quality standards;
- CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm); or
- Exposure of sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for toxic air contaminants (TAC). TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

A project is considered to have a significant effect relating to greenhouse gas emissions if it fails to satisfy the requirements of the City's Climate Action Plan.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR addressed the potential effects of the 2035 General Plan on ambient air quality and the potential for exposure of people, especially sensitive receptors such as children or the elderly, to unhealthful pollutant concentrations (see Master EIR, Chapter 4.2).

Policies in the 2035 General Plan Environmental Resources Element were identified as mitigating potential effects of development that could occur under the 2035 General Plan. For example, General Plan Policy ER 6.1.1 calls for the City to work with the CARB and the SMAQMD to meet state and federal air quality standards; General Plan Policy ER 6.1.2 requires the City to review proposed development projects to ensure that the projects incorporate feasible measures that reduce construction and operational emissions; General Plan Policy ER 6.1.4 calls for coordination of City efforts with SMAQMD; and General Plan Policy ER 6.1.14 requires the City to give preference to contractors using reduced-emission equipment.

The Master EIR identified exposure to sources of toxic air contaminants (TAC) as a potential effect. Policies in the 2035 General Plan would reduce the effect to a less-than-significant level. The policies include General Plan Policy ER 6.1.4, requiring consideration of current guidance provided by the Air Resources Board and SMAQMD; requiring development adjacent to stationary or mobile TAC sources to be designed with consideration of such exposure in design, landscaping and filters; as well as General Plan Policies ER 6.11.1 and ER 6.11.14, referred to above.

Policies in the 2035 General Plan Environmental Resources Element were identified as mitigating potential climate change impacts from new development that could occur under the 2035 General Plan. For example, General Plan Policy ER 6.1.6 calls for the City to maintain and implement a Phase 1 Climate Action Plan (CAP) to reduce municipal greenhouse gas (GHG) emissions by 22 percent below 2005 baseline level by 2020, and strive to reduce municipal emission by 49 percent by 2035 and 83 percent by 2050; General Plan Policy ER 6.1.10 calls for the coordination between the City and SMAQMD to ensure projects incorporate feasible mitigation measures to reduce GHG emissions if not already provided for through project design.

The Master EIR found that GHG emissions that would be generated by development consistent with the 2035 General Plan would be a less than significant impact. The discussion of greenhouse gas emissions and climate change in the 2035 General Plan Master EIR are incorporated by reference in this Initial Study (CEQA Guidelines Section 15150).

The Master EIR identified numerous policies included in the 2035 General Plan that addressed GHG emissions and climate change (see Draft Master EIR, Chapter 4.14, and pages 4.14-3 through 4.14-7 et seq.). The Master EIR is available at http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.

Policies identified in the 2035 General Plan include directives relating to sustainable development patterns and practices, and increasing the viability of pedestrian, bicycle and public transit modes. A complete list of policies addressing climate change is included in the Master EIR, Table 4.14-3, pages 4.14-12 through 4.14-13 et seq; the Final Master EIR included additional discussion of GHG emissions and climate change in response to written comments.

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A - G

The proposed project is consistent with the 2035 General Plan. Development consistent with the General Plan would not result in overall emissions in excess of those utilized in the Master EIR for analysis of cumulative effects, and the proposed project would not have additional significant environmental effects.

Decreasing vehicle miles traveled is a key strategy in the City's efforts to reduce greenhouse gas emissions, and the project would support this effort. The cumulative effects of greenhouse gas emissions that could be generated by development under the 2035 General Plan was evaluate in the Master EIR, as noted above, and the project would not impede the City's efforts to comply with statewide mandates for reduction of greenhouse gases. The project would not have any additional significant environmental effect.

QUESTION H

In 2012, City of Sacramento adopted a community wide Climate Action Plan (CAP). The CAP outlines multiple initiatives intended to help the City achieve its overall goals of reducing community-wide emissions by 15% below 2005 levels by 2020, 38% below 2005 levels by 2030, and 83% below 2005 levels by 2050. Included in the CAP are a comprehensive set of strategies, measures and implementing actions to achieve the 2020 GHG reduction target. These GHG reduction measures and actions apply to both existing sources within the City as of the 2005 baseline and projected emissions from new growth and development anticipated in the 2035 General Plan. In addition, the CAP identifies potentially adverse physical effects related to climate change on the community and includes specific adaptation measures to address and mitigate such effects.

The City has developed a Climate Action Plan Consistency Checklist for use in determining the consistency of proposed projects with the CAP.

The CAP Consistency Review Checklist includes seven criteria that a project must be evaluated against. Projects that are consistent with each of the seven criteria are considered consistent with Sacramento's CAP and would not have a significant GHG impact. The following discussion evaluates the proposed project for each of these seven criteria.

1. *Is the proposed project consistent with the land use and urban form designation, allowable floor area ratio (FAR) and/or density standards in the City's 2035 General Plan?*

   The CAP Consistency Review Checklist states that the proposed project must be consistent with the 2035 General Plan Land Use and Urban Form Designations and Development Standards. The proposed project site is designated as Suburban Center, which requires a residential density ranging from 15 to 36 units per acre and a floor to area ratio (FAR) ranging from 0.15 to 2.0.

   The proposed project would construct a total of 162 residential units. The proposed project would result in a density of 16.2 units per acre (162 units / 10 acres). Therefore, residential development from the proposed project would fall within the allowable density range for Suburban Center.

   The total floor area ratio of the entire project would be within the range of the 0.15 to 2.0 FAR defined for the Suburban Center designation. This is determined by taking the total square footage of the development (155,830 square feet) and dividing by the total square footage of the project site (435,600 square feet). This results in a FAR of 0.36, which is within the allowable range. Thus, the proposed project would be consistent with the City's 2035 General Plan FAR requirements for the Urban Corridor High land use designation.

2. *Would the proposed project reduce average vehicle miles traveled (VMT) per capita of the proposed residents, employees, and/or visitors to the project by a minimum of 35% compared to the statewide average?*

   SACOG adopted its 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) in 2012, which demonstrated that the transportation strategy in the MTP would achieve the 2035 GHG reduction targets. The modeling has shown that the Citywide average for VMT has reached the 35% reduction target and the 2035 general plan is consistent with the 2035 MTP/SCS. Development of the project site was assumed under the 2035 General Plan and the proposed project is consistent with the 2035 General Plan. Therefore, the proposed project meets the CAP Consistency Review Checklist VMT criteria.

3. *Would the proposed project include traffic-calming measures?*

   The proposed project would be located along Natomas Boulevard, an arterial roadway in North Natomas, which is not a part of the City where installation of traffic calming measures is encouraged. Consequently, this measure does not apply to the proposed project and traffic-calming measures are not proposed.

4. *Would the proposed project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan?*

   The level of pedestrian improvements necessary to determine Pedestrian Master Plan and thus CAP consistency is measured according to the "Basic, Upgrade, or Premium" categories defined in Appendix A to the Pedestrian Master Plan.[7] The differences between these three categories are based on several criteria, including project location, surrounding land uses, and proximity to transit.

   The proposed project would construct connections with existing sidewalks along Natomas Boulevard and Rose Arbor Drive and provide a pedestrian connection to the walking path to the north of the project site. Street facilities along Natomas Boulevard and Rose Arbor Drive presently meet the Basic level of pedestrian improvements. The proposed project would construct driveways with curb ramps along Natomas Boulevard and Rose Arbor Drive, which would preserve the Basic level of pedestrian improvements.

   Based on this evaluation, the proposed project's pedestrian amenities would meet the City of Sacramento's Consistency Checklist for pedestrian facilities.

5. *Would the proposed project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen?*

   The project site is within an existing network of on-street and off-street bikeways that are consistent with the Bikeway Master Plan and exceed zoning code and CALGreen standards. Since the project site is accessible by existing on-street bikeways, the proposed project would be consistent with the Bikeway Master Plan and meets the CAP Consistency Checklist for bicycle facilities.

6. *For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., photovoltaic systems) that would generate at least a minimum of 15% of the project's total energy demand on-site? (CAP Actions: 3.4.1 and 3.4.2)*

   The proposed project would not generate 15% of its energy demand on-site. However, the proposed project would be designed in compliance with the 2013 Title 24 Building Energy Efficiency Standards, effective January 1, 2014. Projects may substitute a quantity of energy efficiency for renewable energy, under certain circumstances. The

[7] City of Sacramento, 2006. City of Sacramento Pedestrian Master Plan, Making Sacramento the Walking Capital.

project applicant has is required to exceed the minimum energy efficiency substitution level of 5%, for commercial projects. The proposed project would incorporate the following energy saving measures to meet the 5% reduction:

- Dimming controls in all areas larger than 100 square feet,
- LED luminaries specified for indoor and outdoor lighting,
- Automatic daylighting controls in areas required to comply with Title 24 standards,
- Occupancy sensors in all spaces,
- Occupancy sensors in stairwells equipped to reduce lighting levels to 50% when not occupied,
- Economizers on all packaged rooftop air conditioning units,
- High efficiency (14 SEER, 93% AFUE) split systems serving common areas, and
- High efficiency (95%) domestic water heaters.

The proposed project was modeled using CalEEMod Version 2013.2.2 to determine energy efficiency and was found to exceed Title 24 standards by 7.39% (See **Appendix A**). Therefore, the proposed project would meet the CAP Consistency Checklist requirements for Energy.

7. *Would the proposed project (if constructed on or after January 1, 2014) comply with minimum CALGreen Tier 1 water efficiency standards? (CAP Action: 5.1.1)*

   The proposed project would comply with the following CALGreen Tier 1 water efficiency measures that were assumed in the Climate Action Plan Technical Appendix (page E-29):

   - Non-residential Buildings/Space: 30% improvement in indoor water efficiency (compared to 2008 Plumbing Code baseline); and outdoor potable water use reduction to a quantity that does not exceed 60% of the reference evapotranspiration rate (ETo) times the landscape area plus 1 voluntary outdoor water efficiency & conservation measure as listed in the CALGreen Nonresidential Voluntary Measures.
   - Residential Buildings/Space: 20% improvement on indoor water efficiency (compared to 2008 Plumbing Code baseline; per CALGreen Mandatory Measures), and kitchen faucets shall have a maximum flow rate no greater than

1.5 gallons per minute (gpm); and outdoor potable water use reduction to a quantity that does not exceed 65% of ETo times the landscape area plus 2 voluntary outdoor water efficiency & conservation measures as listed in the CALGreen Residential Voluntary Measures.

The proposed project would utilize, at maximum, 1.5 gpm aerators for sinks in the residential units and for sinks and sprayers in the commercial kitchen. The dishwasher in the commercial kitchen would utilize 0.74 gallons of 120 degree water per rack, which is below the industry standard of .89 gallons per rack. Residential units would utilize 1.0 gpf water closets, 0.5 gpm aerators for lavatory sinks, and 1.5 gpm showerheads, to meet Tier 1 efficiency for indoor water usage.

Landscape irrigation for the proposed project would include native and drought tolerant plant material and the irrigation system would be an all drip point source irrigation system. All irrigation valves would be automatically controlled and would include weather-based operating systems. With these features, the proposed project would meet Tier 1 efficiency goals for outdoor potable water use reduction.

The proposed project would comply with the above-referenced CALGreen Tier 1 Water Efficiency Measures as a condition of approval, and would therefore be consistent with CAP Action 5.1.1.

Based on this review, the proposed project would meet each applicable CAP Consistency Review Checklist item. Therefore, the proposed project would result in a less than significant impact.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Air Quality.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
3. BIOLOGICAL RESOURCES Would the proposal: A) Create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected?	X		
B) Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal species?	X		
C) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)?	X		

ENVIRONMENTAL SETTING

Regional

The project site is located within the City of Sacramento. The regional setting is mainly urban with the Sacramento River and American River corridors supporting riparian woodlands. Agricultural and grassland areas dominate the unincorporated areas of Sacramento County. Natural habitats are located primarily outside the City boundaries but also occur along river and stream corridors and on a number of undeveloped parcels. Native habitats in the greater region include oak woodlands, riparian woodlands, wetlands, and annual grasslands. These native areas provide habitat for a variety of wildlife including migratory birds, raptors, small mammals, as well as larger native fauna such as deer and coyote.

Local

The proposed project is located within the Natomas Basin, a low-lying region in the Sacramento Valley, located east of the Sacramento River and north of the American River. The Natomas Basin contains incorporated and unincorporated areas within the jurisdictions of the City of Sacramento, Sacramento County, and Sutter County. Historically the basin was primarily in agricultural production. The existing water conveyance systems, like the East Drainage Canal within the Natomas Basin were created for water conveyance and drainage. It provides nesting, feeding, and migration corridor habitat for a variety of species in the basin.

The Natomas Basin contains a variety of habitat types, open water aquatic habitat (including ditches and drains), emergent marsh, riparian forest, riparian scrub-shrub, grassland, vernal pools, and agriculture. A number of special-status species (wildlife and plant), as determined by

the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS), inhabit or forage within the Natomas Basin.

The project site is located in an urbanized area, in the North Natomas Community in the City of Sacramento. The project site is a single approximately 10-acre parcel that was previously graded during construction of the adjacent Heritage Park Senior Community to the west. The project site has no vegetation or ornamental street trees along the perimeter. There are no natural plant communities or sensitive habitats that exist within the project site.

The immediate urban setting is mainly occupied by residential development and two vacant parcels immediately south and an open space buffer to the north of the project site. The project site and the vacant parcel to the south are regularly tilled and are highly disturbed and provide limited wildlife value for non-native and very common wildlife species. The open space buffer to the north has a retention pond and is lined with native and non-native trees that could provide nesting habitat for migrating birds. The site is approximately 4 miles from the Sacramento River. Other nearby water sources that can be used by wildlife includes the North Natomas Regional Park pond (1.2 miles to the south) and the Natomas Drainage Canal. Intensive agricultural activity to the north of Elkhorn Boulevard consists mainly of rice crops, which require seasonal shallow flooding of fields. The proximity of water and the riparian corridor of Sacramento River to the project site can provide foraging and habitat features utilized by special status species.

The Natomas Basin Habitat Conservation Plan

The Natomas Basin Habitat Conservation Plan (NBHCP), adopted in 1997 and revised in 2003, is a conservation plan designed to promote biological conservation along with economic development and continuation of agriculture in the Natomas Basin. The Natomas Basin includes portions of Sacramento and Sutter County including the North Natomas Plan Area in the City of Sacramento. The NBHCP is part of the requirements of the ESA designed to support applications for federal permits under Section 10(a)(1)(B). The NBHCP is also intended to serve as an application for Incidental Take Permits (ITPs) under California state law pursuant to Section 2081(b) of the California Fish and Game Code. The requirement for issuance of the federal and state permits is described in Section I.I of the NBHCP.

The NBHCP is designed to serve a number of purposes, including but not limited to the satisfaction of the federal and state Endangered Species Acts, Mitigation and Monitoring Plan requirements specified in the North Natomas Community Plan, and requirements of the SAFCA Permit, relating to direct, indirect, and cumulative biological impacts associated with Urban Development in the Permit Area. As such, the NBHCP allows developers to pay mitigation fees to satisfy requirements covered by the plan. NBHCP fees are adjusted based on the HCP Finance Model, which is periodically reviewed and considered by the Board of Directors of The Natomas Basin Conservancy (TNBC), and are intended to represent the true cost of a development's mitigation share within the Natomas Basin.

The NBHCP establishes a comprehensive program for the preservation and protection of habitat for threatened and endangered species potentially found on approximately 55,537 acres of undeveloped and agricultural land in northwestern Sacramento County and southern Sutter County. This is conducted by the Natomas Basin Conservancy (TNBC) and consists of managed marsh habitats, upland habitats, rice fields, and associated buffers and infrastructure. The NBHCP also includes management measures that are intended to avoid, minimize, and mitigate effects on species during urban development activities.

The NBHCP was originally established as mitigation for development in the Natomas Basin, including North Natomas, in 1994. To comply with state and federal law, an Environmental Assessment (EA) was prepared by the USFWS for the National Environmental Policy Act (NEPA) requirement and a Negative Declaration was prepared by the City of Sacramento for the CEQA requirement. The USFWS and CDFG (now CDFW) issued an ITP to the City of Sacramento. The HCP and ITP were subsequently challenged, and on August 15, 2000, the federal court ruled that the ITP should not have been issued, and an EIS was required for the project. Based on this ruling, the City of Sacramento and Sutter County jointly prepared the joint EIR/EIS on behalf of USFWS. The USFWS was the lead federal agency for the preparation of the EIS and the City of Sacramento and Sutter County were co-lead agencies for the preparation of the EIR. The Final EIR/EIS for the NBHCP was adopted in April of 2003.

The project site is within the 8,050-acre permit area addressed by the EIR/EIS. Development within the project site is required to be consistent with the NBHCP.

Sensitive Biological Resources

Information in this section is based on data collected during reconnaissance-level field surveys conducted by ESA biologists on May 1, 2015, and review of other relevant documentation for the project area and surrounding vicinity including:

- California Natural Diversity Database (CNDDB) records search of a nine (9) USGS quadrangle area around the project site[8];
- Aerial photography via Google Earth;
- National Wetlands Inventory Database;[9]
- Online USDA-NCSS soil survey data;
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants;[10]

[8] California Department of Fish and Wildlife, 2015. California Natural Diversity Database (CNDDB).
[9] U.S. Fish & Wildlife Service. 2015. National wetlands inventory website. Available: http://www.fws.gov/wetlands/data/Mapper.html. Accessed May 5, 2015.

- Sacramento 2035 General Plan;[11]
- Sacramento 2035 General Plan Master EIR;[12]
- Natomas Basin Habitat Conservation Plan; and
- Natomas Basin Habitat Conservation Plan Final Environmental Impact Report / Environmental Impact Statement.

Special-Status Wildlife

Eighty-three (83) special-status wildlife species have been documented in the CNDDB 9-quad search area. Most of these species are associated with specific habitat types (aquatic, riparian, vernal pools, oak woodlands) that do not occur within the project site or immediate vicinity and are not evaluated further in this document. Of the special status species documented in the CNDDB search, giant garter snake, northwestern pond turtle, nesting raptors, and nesting migratory birds have the potential to occur within the project area and could affected by the proposed project. Three special status species have potential to occur in the project vicinity: giant garter snake (*Thamnophis gigas*), Northwestern pond turtle (*Actinemys marmorata*), and nesting raptors. The giant garter snake is listed as state and federally threatened, the Northwestern pond turtle is a state special of concern. None of these species were observed on or adjacent to the project site during the field survey.

Sensitive Habitats and Special-Status Plant Communities

No native plant communities exist within the project site or immediate vicinity as determined by reconnaissance field surveys. Elderberry savanna, Great Valley cottonwood riparian forest Great Valley mixed riparian forest, northern claypan vernal pool and northern hardpan vernal pool are identified within the 5-mile radius CNDDB search but these habitats are not in the project vicinity and would not be affected by project activities. Additionally there are no potential wetlands or waters of the United States within the project area.

The City of Sacramento protects “Street Trees” and “Heritage Trees” for aesthetic and habitat value. These types of trees are defined and further discussed below, under Regulatory Background.

[10] CNPS, Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Available: http://www.rareplants.cnps.org. Accessed: May 5, 2015.
[11] City of Sacramento, 2015. City of Sacramento 2035 General Plan.
[12] City of Sacramento, 2015. City of Sacramento 2035 General Plan Master Environmental Impact Report.

REGULATORY SETTING

Federal Endangered Species Act

Federal Endangered Species Act (FESA) prohibits the unauthorized "take" of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery. The term "take" is defined by the Endangered Species Act as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct."

California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the take of plant and animal species that the California Fish and Game Commission have designated as either threatened or endangered in California. "Take" in the context of the CESA means to hunt, pursue, kill, or capture a listed species, as well as any other actions that may result in adverse impacts when a person is attempting to take individuals of a listed species. The take prohibitions also apply to candidates for listing under the CESA.

California Fish and Game Code

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation under it. Section 3503.5 prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) allow the designation of a species as fully protected. This is a greater level of protection than that afforded by the CESA. Except for take related to scientific research, all take of fully protected species is prohibited.

Migratory Bird Treaty Act

Federal law protects raptors, migratory birds, and their nests. The federal Migratory Bird Treaty Act (15 USC 703-711 and 16 USC Section 7.3, Supp I 1989), 50 CFR Part 21, and 50 CFR Part 10, prohibits killing, possessing or trading in migratory birds. Executive Order 13186 (January 11, 2001) requires that any project with federal involvement address impact of federal actions on migratory birds.

STANDARDS OF SIGNIFICANCE

For purposes of this environmental document, an impact would be significant if any of the following conditions or potential thereof, would result with implementation of the proposed project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;

- Substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal; or

- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

For the purposes of this document, "special-status" has been defined to include those species, which are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed for, or candidates for, listing);

- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);

- Designated as endangered or rare, pursuant to California Fish and Game Code (Section 1901);

- Designated as fully protected, pursuant to California Fish and Game Code (Section 3511, 4700, or 5050);

- Designated as species of concern by U.S. Fish and Wildlife Service (USFWS), or as species of special concern to California Department of Fish and Wildlife (CDFW);

- Plants or animals that meet the definition of rare or endangered under the California Environmental Quality Act (see CEQA Guidelines §15380).

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 4.3 of the Master EIR evaluated the effects of the 2035 General Plan on biological resources within the General Plan policy area. The Master EIR identified potential impacts in terms of degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat, special–status mammals, and contributes to regional loss of special-status plant or wildlife species or their habitat.

Policies in the 2035 General Plan were identified as mitigating the effects of development that could occur under the provisions of the 2035 General Plan. Although determined to be significant and unavoidable, proposed policies require all feasible impact-reducing actions as part of the 2035 General Plan. General Plan Policy ER 2.1.1 calls for the City to encourage new development to preserve on-site natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character; General Plan Policy ER 2.1.10

requires the City to consider the potential impact on sensitive plants for each project and to require pre-construction surveys when appropriate and impact compensation; General Plan Policy ER 2.1.11 requires the City to coordinate its actions with those of the California Department Fish and Game, U.S. Fish and Wildlife Service, and other agencies in the protection of resources; and General Plan Policy ER 3.1.3 requires the City to preserve trees of significance.

The Master EIR concluded that the cumulative effects of development that could occur under the 2035 General Plan would be significant and unavoidable as they related to effects on special-status plant species (Impact 4.3-1), reduction of habitat for special-status invertebrates (Impact 4.3-2), loss of habitat for special-status birds (Impact 4.3-3), loss of habitat for special-status amphibians and reptiles (Impact 4.3-4), loss of habitat for special-status mammals (Impact 4.3-4), special-status fish (Impact 4.3-6) and, in general, loss of riparian habitat, wetlands and sensitive natural communities such as elderberry savannah (Impacts 4.3-7 through 9).

2035 GENERAL PLAN POLICIES CONSIDERED MITIGATION

The following 2035 General Plan goals and policies relevant to project activities would avoid or lessen environmental impacts as identified in the 2035 Master EIR and are considered mitigation measures for the following relevant project-level and cumulative impacts:

- **Impact 4.3-3** Degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.
- **Impact 4.3-5** Degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status mammals.
- **Impact 4.3-11** Contribution to regional loss of special-status plant or wildlife species or their habitat.

Goal ER 2.1: Natural and Open Space Protection. Protect and enhance open space, natural areas, and significant wildlife and vegetation in the city as integral parts of a sustainable environment within a larger regional ecosystem.

- **Policy ER 2.1.1**: **Resource Preservation**. The City shall encourage new development to preserve on-site natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character.
- **Policy ER 2.1.10**: **Habitat Assessments and Impact Compensation**. The City shall consider the potential impact on sensitive plants and wildlife for each project requiring discretionary approval. If site conditions are such that potential habitat for sensitive plant and/or wildlife species may be present, the City shall require habitat assessments, prepared by a qualified biologist, for sensitive plant and wildlife species. If the habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is

present, then either (1) protocol-level surveys shall be conducted (where survey protocol has been established by a resource agency), or, in the absence of established survey protocol, a focused survey shall be conducted consistent with industry-recognized best practices; or (2) suitable habitat and presence of the species shall be assumed to occur within all potential habitat locations identified on the project site. Survey Reports shall be prepared and submitted to the City and the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS) (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.

- **Policy ER 2.1.11: Agency Coordination**. The City shall coordinate with State and Federal resource agencies (e.g., California Department of Fish and Wildlife (CDFW)), U.S. Army Corps of Engineers, and United States Fish and Wildlife Service (USFWS)) to protect areas containing rare or endangered species plants and animals.

- **Policy ER 2.1.12**: Natomas Basin Habitat Conservation Plan. The City shall continue to participate in and support the policies of the Natomas Basin habitat Conservation plan for the protection of biological resources in the Natomas Basin. (RDR/IGC)

- **Policy ER 2.1.13**: Support Habitat Conservation Plan Efforts. The City shall encourage and support regional habitat conservation planning efforts to conserve and manage habitat for species=-status species. New or amended Habitat Conservation Plans should provide a robust adaptive management component sufficient to ensure that habitat preserves are resilient to climate change effects/ impacts and to ensure their mitigation value over time. Provisions should include, but are not limited to: greater habitat ranges and diversity; corridors and transition zones to accommodate retreat or spatial shifts in natural areas; redundant water supply; elevation topography to accommodate extreme flooding; and flexible management and fee structure. (RDR/IGC) [Source: 2012 CAP]

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

QUESTION A

Project activities would occur within highly disturbed areas that have been regularly graded and cleared of vegetation. The surrounding residential land uses provide marginal habitat for disturb-tolerant wildlife. Project activities would not disturb contaminated soils or release any materials that would be hazardous to special-status species (see Item 6, Hazards, below). Therefore, a **less-than-significant impact** from hazardous materials on special status species would occur.

QUESTION B AND C

The project site provides limited value to wildlife species, including threatened and endangered plants and animals, development of the site would not eliminate any habitat important to the long-term survival of any species or community, and would not substantially reduce the number or restrict the range of any species. However, it is possible that some species which are protected under State and federal regulations could potentially occur in the project vicinity. These species are discussed below.

Implementation of Policy ER 2.1.13 requires the City to continue participation in and support the policies of the Natomas Basin Habitat Conservation Plan (NBHCP). The NBHCP allows participants to pay mitigation fees to offset development within the Natomas Basin. HCP fees for the project site were paid in 1999, prior to the grading of the site. The site has been regularly tilled since original grading, prohibiting establishment of potential habitat.

The NBHCP further provides a list of general and species-specific measures intended to avoid, minimize, or mitigate incidental take during covered activities that could occur during land development. General measures to reduce take include:

- To determine the status, presence of, and likely impacts to all covered species on the site, a preconstruction survey of the site shall be conducted no more than six months prior and not less than 30 days before commencement of construction.

- To improve the wildlife value of landscaped buffers, parks and developed areas, planting of trees and shrubs shall consist of species native to the Natomas Basin and therefore used by native animals.

- Construction activities shall be scheduled to avoid the raptor nesting season when that construction activities are expected to occur near nests.

Giant Garter Snake

Giant Garter Snake (*Thamnophis gigas*) is a federal and state threatened species. Due to grading and lack of vegetation it is unlikely that giant garter snake would occupy the landscape on site and no giant garter snakes were observed at the time of the site survey. Potential habitat for giant garter snake exists in the drainage canal adjacent to the Natomas Boulevard and in the drainage basin in the open-space buffer to the north of the project site.

The nearest CNDDB occurrence for Giant Garter Snake (*Thamnophis gigas*) is documented in the Natomas East Main Drainage Canal approximately 150 feet east of the project site. While the canal provides suitable habitat and is in relatively close proximity to the project site, this species is not expected to occur within the project site because Natomas Boulevard runs between the project site and the NEMDC and functions as a barrier to giant garter snake movement into the project site. The basin area to the north of the project site is unlikely to

support GGS due to tall upland vegetation on the bands of the wetland area and emergent vegetation within the basin.

Implementation of Policy ER 2.1.10 would require habitat assessments for sensitive species to be conducted and, if habitat is present, focused/protocol-level surveys for any project requiring discretionary approval (unless the applicant assumes the species is present). If special-status amphibian or reptile species are identified as being present, project applicants would be required to prepare survey reports to be submitted to the City and CDFW or USFWS for development of avoidance and/or specific mitigation measures, which may include providing off-site habitat replacement or compensation.

The NBHCP provides a list of species-specific measures for the avoidance or minimization of incidental take for giant garter snake to include:

- Within the Natomas Basin, all construction activity involving disturbance of habitat, such as site penetration and initial grading, is restricted to the period between May 1 and September 30. This is the active period for the giant garter snake and direct mortality is lessened, because snakes are expected to actively move and avoid danger.

- Preconstruction surveys for giant garter snake, as well as other covered species, must be completed for all development projects by a qualified biologist approved by USFWS. If any giant garter snake habitat is found within a specific site, the following additional measures shall be implemented to minimize disturbance of habitat and harassment of giant garter snake, unless such project is specifically exempted by USFWS.

- Between April 15 and September 30, all irrigation ditches, canals, or other aquatic habitat should be completely dewatered, with no puddled water remaining, for at least 15 consecutive days prior to the excavation or filling in of the dewatered habitat. Make sure dewatered habitat does not continue to support giant garter snake prey, which could detain or attract snakes into the area. If a site cannot be completely dewatered, netting and salvage of prey items may be necessary. This measure removes aquatic habitat components and allows giant garter snake to leave on their own.

- For sites that contain giant garter snake habitat, no more than 24-hours prior to start of construction activities (site preparation and/or grading); the project area shall be surveyed for the presence of giant garter snake. If construction activities stop on the project site for a period of two weeks or more, a new giant garter snake survey shall be completed no more than 24-hours prior to the re-start of construction activities.

- Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to the project as Environmentally Sensitive Areas. This area shall be avoided by all construction personnel.

- Construction personnel completing site preparation and grading operations shall receive USFWS approved environmental awareness training. This training instructs workers on how to identify giant garter snakes and their habitats, and what to do if a giant garter snake is encountered during construction activities. During this training an on-site biological monitor shall be designated

- If a live giant garter snake is found during construction activities, immediately notify the USFWS and the project's biological monitor. The biological monitor, or his assignee, shall do the following:

- Stop construction in the vicinity of the snake. Monitor the snake and allow the snake to leave on its own. The monitor shall remain in the area for the remainder of the work day to make sure the snake is not harmed or if it leaves the site, does not return. Escape routes for giant garter snake should be determined in advance of construction and snakes should always be allowed to leave on their own. If a giant garter snake does not leave, on its own, within 1 working day, further consultation with USFWS is required.

- Upon locating dead, injured or sick threatened or endangered wildlife species, the Permittees or their designated agents must notify within 1 working day the Service's Division of Law Enforcement (2800 Cottage Way, Sacramento CA 95825) or the Sacramento Fish and Wildlife Office (2800 Cottage Way, Room W-2650, Sacramento, CA 95825, telephone 916 414-6600). Written notification to both offices must be made within 3 calendar days and must include the date, time, and location of the finding of a specimen and any other pertinent information.

- Fill or construction debris may be used by giant garter snake as an over-wintering site. Therefore, upon completion of construction activities remove any temporary fill and/or construction debris from the site. If this material is situated near undisturbed giant garter snake habitat and it is to be removed between October 1 and April 30, it shall be inspected by a qualified biologist to assure that giant garter snake are not using it as hibernacula.

Although the presence of giant garter snake on the project site is unlikely, measures are necessary to minimize potential for incidental take. As conditions of approval by the City of Sacramento, the project applicant would incorporate required avoidance measures into the project design and site plans as required by Policy ER 2.1.13 of the 2035 General Plan. The proposed project is consistent with the 2035 General Plan and impacts to giant garter snake are considered **less than significant**.

Swainson's Hawk and Other Nesting Birds

Swainson's hawk is a California Threatened species. The Natomas Basin supports both nesting and foraging habitat for Swainson's hawks. For nesting, Swainson's hawks typically use riparian

forest habitats where large trees are available, but can use isolated trees or groves of trees outside of riparian zones.

The trees on the vicinity of the wetland area of Basin 2 to the north of the project site have the potential to support Swainson's hawk and other nesting birds, including raptors. Tricolored Blackbird (*Agelaius tricolor*) has been a noted occurrence 1,500 feet to the west of the project site.

Though there is no removal of trees associated with the proposed habitat, construction activities still have potential to disturb nesting activities. The NBHCP provides avoidance measures that minimize potential for impacts to Swainson's hawks and nesting birds from construction, to include:

- Pre-construction surveys to determine whether any Swainson's hawk nest sites occur on or within ½ mile of the lands designated for development;
- Timing restrictions for construction activity if an occupied Swainson's hawk nest is identified (i.e., defer construction activities until after the nesting season) and then, if unavoidable, the nest tree may be destroyed during the non-nesting season.
- An onsite biological monitor (CDFW-approved raptor biologist funded by the applicant) would be assigned to the project if construction or other project-related activities that could cause nest abandonment or forced fledging are proposed within the ¼ mile buffer zone.

Northwestern Pond Turtle

Northwestern pond turtle (*Actinemys marmorata*) are highly aquatic and are closely associated with wetland and aquatic habitats. In the Natomas Basin, potential habitat consists of canals, rice, ponds, and seasonally wet areas, and riparian. Turtles use upland areas for hibernation and for nesting. Upland areas used by turtles typically are close to aquatic habitats but can be as far as 1,300 feet from water.

The basin area to the north of the project site has the potential to support Northwestern pond turtle (*Actinemys marmorata*). Due to close proximity of the wetland area in the basin to the project site, and absence of barriers to movement between the project site and the wetland area, western pond turtle has the potential to occur within the project site. The proposed project includes construction of a 6-foot sound wall across the northern boundary of the project site, to be built prior to commencement of other construction activities. The sound wall would exclude potential entry by northwestern pond turtles into the site, thereby minimizing potential for adverse effect to the species due to construction activities.

The NBHCP provides measures to minimize direct impacts to western pond turtle. Due to similar habitat requirements, avoidance measures match those required for the giant garter snake. Implementation of measures in the NBHCP would result in **less-than-significant**

impacts to the northwestern pond turtle. Conformance with NBHCP requirements is consistent with Policy ER 2.1.13 of the 2035 General Plan.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to biological resources.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
4. CULTURAL RESOURCES Would the project: A) Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5?	X		
B) Directly or indirectly destroy a unique paleontological resource?	X		

ENVIRONMENTAL SETTING

The project site is located on vacant land that has been maintained and cleared of vegetation annually since being graded in 2002. Prior that period the site had been used for agricultural production as a rice field along with adjacent properties. Development around the project site took place in phases, consistent with the North Natomas Community Plan and planned developments.

The project site is vacant and does not contain any above-ground structures that would be considered historic resources. To determine the sensitivity for cultural resources in the project area, ESA completed background research including a records search at the North Central Information Center (NCIC) of the California Historical Resources Information System on May 4, 2015 (File No. Sac-15-79). The records search included the project area and a ½-mile radius around the project. Previous surveys, studies, and archaeological site records were accessed. Records were also reviewed in the *Historic Property Data File for Sacramento County,* which contains information on resources of recognized historical significance including those evaluated for listing in the *National Register of Historic Places*, the *California Register of Historical Resources*, the *California Inventory of Historical Resources*, *California Historical Landmarks*, and *California Points of Historical Interest*. The purposes of the records search were to (1) determine whether known cultural resources have been recorded within or adjacent to the project area; (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby sites; and (3) develop a context for the identification and preliminary evaluation of cultural resources.

Results of the records search indicate that the entire project area had been previously analyzed as part of a larger 108-acre development project in 1997.[13] The PAR cultural resources study

[13] PAR Environmental Services, Inc., Cultural Resources Inventory and Evaluation for the Proposed Natomas 108 Development, Sacramento County, California. Prepared for Gibson & Skordal. On file, NCIC (S-1730), February 1997.

included a cursory survey; the project area was inaccessible due to standing water and dense mud banks. No archaeological sites were identified. The project area's natural environmental setting is a low lying area that was subject to annual flooding prior to construction of the vast levee system along the Sacramento and American Rivers. The nearest archaeological sites are over one mile to the southeast.

PAR noted that the project area was within the boundaries of Reclamation District 1000, determined eligible for listing in the National Register of Historic Places as a Rural Historic Landscape District. The District was eligible for the period from 1911 to 1939 as an important part of the history of reclamation and flood control. A determination of adverse effects for development of the region resulted in mitigation consisting of Historic American Engineer Record (HAER) documentation from Peak and Associates in 1997.[14] In the years since the HAER documentation, the area has been developed with residences, businesses, schools, parks and community centers.

ESA completed a supplemental surface survey of the project area on May 6, 2015. The survey consisted of a walking transects spaced 10 meters (33 feet) apart. Visibility was 100 percent; the project area had recently been graded. Soils consisted of a medium brown loam with rounded cobbles and gravels; all disturbed fill. No cultural resources were identified.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, cultural resource impacts may be considered significant if the proposed project would result in one or more of the following:

- Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5 or
- Directly or indirectly destroy a unique paleontological resource.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources (see Master EIR Chapter 4.4 and Appendix C – Background Report, B. Cultural Resources Appendix). The Master EIR identified significant and unavoidable effects on historic resources and archaeological resources.

[14] Peak and Associates, Historic American Engineering Record Reclamation District 1000, HAER No. CA-187. Prepared for Sacramento Area Flood Control Agency.

Relevant General Plan Historic and Cultural Resources (HCR) policies identified as reducing such effects include, but are not limited to, identification of resources on project sites (Policy HCR 2.1.1); implementation of applicable laws and regulations (Policy HCR 2.1.2 and HCR 2.1.15); consultation with appropriate organizations and individuals (Policy HCR 2.1.3); enforcement programs to promote the maintenance, rehabilitation, preservation, and interpretation of the City's historic resources (Policy HCR 2.1.4); listing of qualified historic resources under appropriate national, State, and local registers (Policy HCR 2.1.5); consideration of historic and cultural resources in planning studies (Policy HCR 2.1.6); maintenance and upkeep of historic resources (Policy HCR 2.1.7); enforcement of compliance with local, State, and federal historic and cultural preservation requirements (Policy HCR 2.1.8); early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10); and preservation, rehabilitation, restoration, and/or reconstruction of contextual features (Policy HCR 2.1.12); encouragement of adaptive reuse of historic structures (Policy HCR 2.1.14). Policy HCR 2.1.15 states that demolition of historic resources is deemed a last resort, and should be permitted only if rehabilitation is determined to be infeasible, if it is necessary to protect public health and safety, or if the public benefits outweigh the loss of the resource.

Relevant General Plan Land Use (LU) policies identified as reducing such effects include promotion of infill development that ensures the integrity of historic districts (Policy LU 1.1.5); provision of sensitive transitions between established neighborhoods and adjoining areas (Policy LU 2.1.2); promotion of infill development, reuse, and rehabilitation that contributes positively (e.g., architectural design) to existing neighborhoods and surrounding areas (Policy LU 2.1.8); and retention and adaptive reuse of existing structures with green technologies in order to retain the structures' embodied energy and limit the generation of waste (Policy LU 2.6.5).

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

QUESTION A

Archaeological Resources

Based on nearby site distribution and the environmental setting, there is a very low potential for cultural resources in the project area. Given the extent of previous disturbance from the periodic grading and intensive agricultural uses prior to grading, there is low likelihood that cultural resources can be found on the project site. However, as discussed in the Heritage at Natomas

Park IS/ND[15], the project site is located an area considered to be of medium to high sensitivity for archaeological resources. The 2035 General Plan describes the project site as not being within an area of high or moderate sensitivity for archaeological resources.[16] While unlikely, the accidental discovery of archaeological resources cannot be entirely discounted. Thus, ground disturbing activities within the project area could affect the integrity of a previously-unknown archaeological resources.

The 2035 General Plan contains policies that would work to identify and protect archaeological resources along with other federal and state regulations, which could result in the preservation of historic and prehistoric archaeological resources. Policies HCR 2.1.2 and HCR 2.1.16 in the General Plan would protect archaeological resources by requiring surveys, research, and testing prior to excavation in high-sensitivity areas where there is known previous disturbance of soils at the level of the proposed excavation, proper handling of discovered resources, and enforcement of applicable laws and regulations. Implementation Program 11 requires discovery procedures for archaeological resources found during grading, excavation, or construction in any area.

However, because the presence of significant archaeological resources is typically unknown until the resource is unearthed during ground disturbing activities, adverse effects may occur prior to discovery of the resources. The 2035 General Plan Master EIR determined that impacts to previously unknown archaeological resources cannot be fully mitigated and are, therefore, considered significant and unavoidable. Potential impacts to archaeological resources from the proposed project were assumed in the 2035 General Plan and considered in the 2035 Master EIR. The proposed project does not create any new impacts to archaeological resources; therefore, impacts from the proposed project are **less than significant**.

QUESTION B

Based on review of United States Geological Survey (USGS) geologic mapping, the proposed project would be located entirely within Holocene (11,000 years Before Present and younger) basin deposits.[17] By definition, an object must be more than 11,000 years old in order to be considered a fossil, and because of the age of the underlying soils, paleontological sensitivity in the project area is considered low.

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[15] City of Sacramento, 2001 (July). Heritage at Natomas Park Initial Study/Negative Declaration. City Project No. P00-005

[16] City of Sacramento 2014 (August). City of Sacramento 2035 General Plan Background Report. Page 6-61; Figure 6.4-1.

[17] Helley, E.J., 1979, Preliminary geologic map of Cenozoic deposits of the Davis, Knights Landing, Lincoln, and Fair Oaks quadrangles, California: U.S. Geological Survey, Open-File Report OF-79-583, scale 1:62,500. Available: http://ngmdb.usgs.gov/ngm-bin/pdp/zui_viewer.pl?id=21177. Accessed: May 5, 2015.

As discussed in Section 4.5, Geology, Soils, and Mineral Resources, of the General Plan Master EIR, the City of Sacramento is not considered sensitive for paleontological resources and the likelihood for finding paleontologically significant resources is very low (page 4.5-7). General Plan Policy HCR 2.1.16 requires that accepted protocols be adhered to if paleontological resources are discovered during excavation or construction. Implementation Program 12 requires discovery procedures for archaeological resources found during grading, excavation, or construction in any area.

While the project site is not considered sensitive for paleontological resources and the likelihood of encountering paleontological resources is very low, it remains possible that project-related earth-disturbing activities could affect the integrity of a paleontological site, thereby causing a substantial change in the significance of the resource.

Implementation of Program 13 of the 2035 General Plan requires amendment of the Sacramento Code to require discovery procedures for paleontological resources found during grading, excavation, or construction. These procedures include protocols and criteria for qualifications of personnel, and for survey, research, testing, training, monitoring, cessation and resumption of construction, identification, evaluation, and reporting, as well as compliance with recommendations to address any significant adverse effects where determined by the City to be feasible. Consistent with the application of General Plan policy, the Master EIR determined impacts to paleontological resources to be **less than significant**. The proposed project is consistent with the 2035 General Plan and Master EIR and would not generate any new impacts to paleontological resources that have not been previously evaluated in the Master EIR.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to cultural resources.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
5.GEOLOGY AND SOILS Would the project allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards?	X		

ENVIRONMENTAL SETTING

The proposed project site is located within the Sacramento Valley, and lies centrally in the Great Valley geomorphic province of California. The Sacramento Valley forms the northern third of the Great Valley, which fills a northwest-trending structural depression bounded on the west by the Great Valley Fault Zone and the northern Coast Range and to the east by the northern Sierra Nevada and the Foothills Fault Zone. Most of the surface of the Great Valley is covered with Holocene and Pleistocene-age alluvium, primarily composed of sediments from the Sierra Nevada and the Coast Ranges, which were carried by water and deposited on the valley floor. Siltstone, claystone, and sandstone are the primary types of sedimentary deposits. Older Tertiary Cenozoic deposits underlie the Quaternary alluvium.

Within the City of Sacramento and the Sacramento region, there are no known active faults. The greatest earthquake threat to the city comes from earthquakes along Northern California's major faults, which are the San Andreas, Calaveras, and Hayward faults. Ground shaking on any of these faults could cause shaking within the City to an intensity of 5 to 6 moment magnitude (Mw). Sacramento's seismic ground-shaking hazard is low, ranking among the lowest in the state. The city is in Seismic Zone 3; accordingly, any future development, rehabilitation, reuse, or possible change of use of a structure would be required to comply with all design standards applicable to Seismic Zone 3.[18]

Liquefaction

Liquefaction is a soil strength and stiffness loss phenomenon that typically occurs in loose, saturated cohesionless sands as a result of strong ground shaking during earthquakes. The potential for liquefaction at a specific site is usually determined based on the results of the

[18] City of Sacramento 2014. City of Sacramento 2035 General Plan Master Environmental Impact Report. Page 4.5-1.

underlain soil composition and groundwater conditions beneath the site. Some areas in the City of Sacramento are susceptible to liquefaction events, including: Central City, Pocket, and North and South Natomas Community Plan areas. The proposed project site is not located within a State Designated Seismic Hazard Zone for liquefaction.

Project Area Geology

According to the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey, the entire project site is made up of Clear Lake clay with hardpan substratum that is drained with 0 to 1 percent slopes.[19] No unique geologic or physical features are located on or adjacent to the project site.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, geologic and soil impacts may be considered significant if the proposed project would result in:

- Introduction of geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 4.5 of the Master EIR evaluated the potential effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, and existing mineral resources in the General Plan policy area. Implementation of identified policies in the 2035 General Plan was determined to reduce all effects on these issues to a less than significant level. General Plan Policies EC 1.1.1 and 1.1.2 require the City to keep up-to-date records of seismic conditions, implement and enforce the most current building standards, and continue to require that site-specific geotechnical analyses be prepared for projects within the City and that report recommendations are implemented. These policies protect City residents and structures from seismic hazards.

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

[19] United States Department of Agriculture, 2015. Natural Resources Conservation Service. Custom Soils Report for Sacramento County, California: Ice Blocks. Created from http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed April 28, 2015.

ANSWERS TO CHECKLIST QUESTIONS

QUESTION A

The City of Sacramento's topography is relatively flat, the City is not located within an Alquist-Priolo Earthquake Fault Zone, and the City is not located in the immediate vicinity of an active fault. However, the 2035 General Plan indicates that ground shaking would occur periodically in Sacramento as a result of distant earthquakes. The 2035 General Plan further states that the earthquake resistance of any building is dependent on an interaction of seismic frequency, intensity, and duration with the structure's height, condition, and construction materials. Although the project site is not located near any active or potentially active faults, strong ground shaking could occur at the project site during a major earthquake on any of the major regional faults.

The State of California provides minimum standards for building design through the California Building Standards Code (CBSC) (Title 24 of the California Code of Regulations). The CBSC is based on more the federal Uniform Building Code (UBC) but is more detailed and stringent than the federal UBC. Specific minimum seismic safety requirements are set forth in Chapter 23 of the CBSC. The state earth protection law (California Health and Safety Code Section 19100 et seq.) requires that buildings be designed to resist stresses produced by lateral forces caused by earthquakes. Earthquake resistant design and materials are required to meet or exceed the current seismic engineering standards of the CBSC Seismic Risk Zone 3 improvements. The proposed project would be required to comply with CBSC requirements and the City's 2035 General Plan and Master EIR, which require project applicants to prepare site-specific geotechnical evaluations and conformance with Title 24 of the California Code of Regulations.

Geologic Conditions

A geotechnical evaluation was completed for the project site on April 29, 2015[20] The study determined that subsurface conditions of the project site included clays, silts, and sands. The upper soil layers were generally observed to be loose or soft to depths of approximately 2 feet across the project site. The surface soils at all excavated test pits were observed to contain fill soils. The surface soils generally consisted of soft gravelly silt to a depth of approximately 6 inches below the ground surface underlain by soft to medium stiff sandy clay to depths between 2 and 4 feet below the ground surface. At all excavated test pits, medium stiff to stiff silt was encountered from a depth between 2 and 4 feet until termination of the test pits between 13 ½ and 18 feet below the ground surface.

[20] Youngdahl Consulting Group, Inc., 2015. Geotechnical engineering study for Heritage Park MLRC.

Groundwater

Seepage and perched water from groundwater was observed within an excavated test pit at a depth of 17 ½ feet below the ground surface. No indications of groundwater conditions were observed within the other excavated test pit locations.

Seismicity

According to the California Geological Survey and the USGS, an active fault is not mapped across the project site, nor is the project site located within an Alquist-Priolo Earthquake Special Study Zone. In addition, the nearest fault to the proposed project site, the Dunnigan Hills Fault, is located approximately 18 miles to the northwest. **Table 5-1** describes the proximity of the project site to local active and potentially active faults. The intensity of ground shaking caused by an earthquake at the Dunnigan Hills Fault is not expected to cause substantial damage to the project site, according to the *Probabilistic Seismic Hazard Assessment for the State of California*.

TABLE 5-1
LOCAL ACTIVE AND POTENTIALLY ACTIVE FAULTS

Activity	Fault Name	Distance, Direction
Historic	Green Valley Fault	69 km W-SW
Historic	Rodgers Creek Fault	99 km W-SW
Active	Dunnigan Hills	29 km W-NW
Active	West Napa Fault	79 km W-SW
Active	Concord Fault	88 km SW
Potentially Active	Midland Fault	39 km SW
Potentially Active	Bear Mountains Fault Zone – West	39 km E
Potentially Active	Bear Mountains Fault Zone – East	48 km E
Potentially Active	Maidu Fault	44 km E
Potentially Active	Melones – West	56 km E
Potentially Active	Melones – East	60 km E

SOURCE: Youndahl Consulting Group, Inc., 2015

Earthquake Induced Liquefaction, Surface Rupture Potential, and Settlement

Due to the absence of permanently elevated groundwater table, the relatively low seismicity of the area and the fine grained nature of the soils, the potential for seismically induced damage due to liquefaction, surface ruptures, and settlement is considered negligible. For the above-

mentioned reasons mitigation for these potential hazards is not required for the development of the project.

Erosion

Construction activities would involve excavating, filling, moving, grading, and temporarily stockpiling soils onsite, which would expose site soils to erosion from wind and surface water runoff. The City has adopted standard measures to control erosion and sediment during construction and all projects in the City are required to comply with the City's Standard Construction Specifications for Erosion and Sediment Control. The proposed project would comply with the City's standards set forth in the "Administrative and Technical Procedures Manual for Grading and Erosion and Sediment Control." The project would also comply with the City's grading ordinance (Chapter 15.88 of Sacramento City Code) which specifies construction standards to minimize erosion and runoff.

Because the proposed project would be required to comply with federal, state, and local construction standards, it would not expose people or structures to the risk of loss, injury, or death. Therefore, this impact is **less-than-significant**.

MITIGATION MEASURES

None required.

FINDINGS

The project would have no additional project-specific environmental effects relating to Geology and Soils.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
6. HAZARDS Would the project: A) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?	X		
B) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials?	X		
C) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities?	X		

ENVIRONMENTAL SETTING

The project site is vacant and was historically used for agricultural purposes. The project site was initially graded in 2002 and has been tilled annually since then. There are no old foundations, garbage or other evidence suggesting that the historic use of the site could have resulted in hazardous material discharge or dumping. A site survey was conducted by AES, Inc. in June 2001, before the site had been originally graded in support of the Heritage at Natomas Park Initial Study Negative Declaration (IS/ND)[21]. The site study did not reveal any evidence of hazardous materials existing or disposed on the project site. No subsequent activity has occurred on the site following adoption of the Heritage at Natomas Park IS/ND and site conditions have not changed. The project site is tilled annually to control vegetative growth. The State Department of Toxic Substances Control (DTSC) EnviroStor does not list any hazardous materials sites within 10,000 feet of the project site. There are no planned dewatering activities associated with the proposed project.

[21] City of Sacramento, 2001 (July). Heritage at Natomas Park Initial Study/Negative Declaration. City Project No. P00-005.

REGULATORY SETTING

State Department of Toxic Substances Control (DTSC)

The DTSC is responsible for the management of hazardous materials and hazardous wastes within the state of California. The DTSC oversees some cleanup sites, sharing certain overlapping jurisdiction with the SCMED or the RWQCB. Sites within DTSC's jurisdiction include hazardous materials sites where soil and sometimes groundwater has been contaminated.

Regional Water Quality Control Board (RWQCB)

The RWQCB is responsible for maintaining the high quality of waters within the state. Although many hazardous materials sites are overseen by the local Certified Unified Program Agency (CUPA), the RWQCB often assumes lead agency status over hazardous materials sites where groundwater has been contaminated.

County of Sacramento Environmental Management Department (SCEMD)

The Sacramento County Environmental Management Department (SCEMD) is the local CUPA. Hazardous waste laws and regulations are enforced locally by SCEMD, including UST investigations and cleanups.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact is considered significant if the proposed project would:

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials; or
- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated effects of development on hazardous materials, emergency response and aircraft safety hazards (see Master EIR Chapter 4.6).

The Master EIR disclosed that implementation of the 2035 General Plan may result in the exposure of people to hazards and hazardous materials during construction activities, and exposure of people to hazards and hazardous materials during the life of the 2035 General Plan. Impacts identified related to construction activities and operations were found to be less than significant. Policies included in the 2035 General Plan were effective in reducing the identified impacts.

General Plan Policy PHS 3.1.1 would require that buildings and sites under consideration for new development or redevelopment are investigated for the presence of hazardous materials prior to development activities. General Plan Policy PHS 3.1.2 requires that property owners of contaminated sites develop plans to investigate and manage hazardous material contamination to prevent risk to human health or the environment. The City would also maintain a Multi-Hazard Emergency Response Plan to address hazardous materials spills as required by General Plan Policy PHS 4.1.1.

Routine use and transport of hazardous materials is regulated by a number of federal, state, and local regulations. Most household and general commercial uses of hazardous materials would be very minor and would not result in a substantial increase in the risk of a hazardous materials incident. Potential incidents may include accidental spills or releases, intentional releases, and/or the release of hazardous materials during or following a natural disaster such as an earthquake or flood. To respond to these circumstances, Sacramento County has developed an Area Plan for Emergency Response to Hazardous Materials Incidents. The City of Sacramento Fire Department also has a hazardous materials incident response team, and works in cooperation with other regional and state agencies in the event of a major emergency.

Compliance with all applicable rules and regulations, along with the 2035 General Plan policies, was found to reduce the potential for exposure of construction workers and the general public to unusual or excessive risks related to hazardous materials during demolition or construction activities and throughout the life of the 2035 General Plan. The Master EIR concluded that the impact of the 2035 General Plan on hazards within the City was less than significant.

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A - C

The DTSC EnviroStor database does not list any hazardous materials sites in the project vicinity. Development of the project site was assumed under the 2035 General Plan and is consistent with General Plan policies for development. The proposed project does not involve earthmoving beyond the scope of activity covered under the Master EIR. Further, there are no

known contaminants on the project site. There are no known sources of asbestos and no demolition or alteration of structures containing asbestos would occur. Therefore, impacts would be **less than significant**.

MITIGATION MEASURES

None required.

FINDINGS

The proposed action does not pose any new, unusual or significant public hazards. The project would not result in any additional significant environmental effects relating to hazards.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
7. HYDROLOGY AND WATER QUALITY Would the project: A) Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project?	X		
B) Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood?	X		

ENVIRONMENTAL SETTING

The project site is set within the Natomas Basin which is set within the Greater Sacramento River Basin, which drains the Sacramento Valley. The Natomas Basin has historically provided backwater flood flows on the Sacramento River, north of the confluence with the American River. Historically, intensive agriculture in the basin installed a series of canals and channels for the conveyance and drainage of water supplies to agricultural operations throughout the basin. These canals include the Reclamation District 1000 canals: the East Drain, which runs along the east side of Natomas Boulevard; the Steelhead Creek, which runs parallel to the Union Pacific right of way (1.3 miles east of the project site); and the West Drain which runs along the western boundary of the North Natomas plan area. This system of canals eventually drains agricultural and stormwater runoff into the Sacramento River.

The project site is within a greater regional context that includes the Sacramento River and the American River and their tributaries, which merge in the City of Sacramento approximately 6 miles south of the project site. The Sacramento Basin encompasses approximately 27,000 square miles and is bound by the Sierra Nevada mountain range to the east, the California coast range to the west, the Cascade Range and Trinity Mountains to the north, and the Sacramento River Delta to the southeast. The American River watershed runs down the western slope of the Sierra Nevada mountain range to the City of Sacramento where it feeds the Sacramento River. Elevations in the watershed range from more than 10,000 feet in the high Sierra to 23 feet above mean sea level where it meets the Sacramento River. The river is subject to multiple impoundments including dams, canals, pipelines, and penstocks for power generation, flood control, water supply, recreation, and fisheries and wildlife management. The Folsom Dam forms Folsom Lake and its afterbay forms Lake Natomas. Water from Lake Natomas is released to the lower American River and to the Folsom South Canal. Operation of

the Folsom Dam directly affects most of the water utilities on the American River system including domestic water supply for the City of Sacramento.

Surface and groundwater within the City of Sacramento are regulated by the Central Valley Regional Water Quality Control Board (CVRWQCB). The primary function of the CVRWQCB is the prevention of either the introduction of new pollutants or an increase in the discharge of existing pollutants into bodies of water that fall under its jurisdiction.

The entire project site is vacant and cleared of all vegetation. The project site is in a suburban area of Sacramento. Currently the project site is has no impervious surfaces and as a result, does not impede groundwater recharge or require significant drainage.

Flood Zone Planning

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRM) that delineates flood hazard zones for communities. The project site is located within a Special Flood Hazard Area that is subject to inundation during 100-year flood events and within shaded Zone AE for Base Flood Elevations (Community Panel Number 06067C 0045H). This zone is applied to areas subject to inundation with 1.0% annual chance flood and is considered to be of high flood risk. FEMA requires mandatory flood insurance for structures in Zone AE.

In December of 2008, the Flood Insurance Rate Maps (FIRMs) for the Natomas Basin were remapped by FEMA. The area, which was previously understood to offer between 100-year and 500-year protection (Shaded X Zone) was reclassified as within the 100-year flood hazard zone (AE Zone) after the U.S. Army Corps of Engineers (USACE) decertified the levee system protecting the basin. The remap required that all new construction or substantial improvements to structures had to meet a 33-foot base flood elevation requirement. Prior to the USACE decertification, SAFCA implemented the Natomas Levee Improvement Program (NLIP) to upgrade the levee system protecting the Natomas Basin. Construction on the NLIP began in 2007. However, the remap limited construction to the extent that it served as a de facto building moratorium.

In April of 2015, FEMA approved an A99 flood zone designation for the Natomas Basin. An A99 is an interim flood zone designation that does not diminish the risk consideration for the flood zone, but allows construction in Natomas if certain conditions are met. An A99 designation is granted in areas of special flood hazard where enough progress has been made on the construction of a protection system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. Under an A99 designation the City is allowed to issue building permits, but properties may be subject to insurance rate changes.

North Natomas Drainage Basin

Drainage for the North Natomas Community is planned through the North Natomas Comprehensive Drainage Study. The North Natomas Drainage System retains storm flows

through a series of retention basins and canals to maintain a "natural" rate of discharge into the Sacramento River from the Natomas Basin. The project site is within Basin 2 of the drainage plan. Basin 2 covers approximately 18.6 acres to the north of the project site in the 250-foot buffer between Elkhorn Boulevard and the project site. The retention basin extends west 1,071 feet past the west edge of Northborough Boulevard. Retained water is conveyed to the East Drainage Canal through Pump Station 12, which is located on the corner of Elkhorn Boulevard and Natomas Boulevard.

REGULATORY SETTING

Federal

U.S. Army Corps of Engineers

USACE has nationwide responsibility for flood management. In California, flood management is performed through a combination of projects operated by USACE, the U.S. Bureau of Reclamation, the State of California, local maintaining agencies, and private proponents, all under official USACE flood management plans. Laws and regulations related to USACE functions are described below.

Flood Control Acts

Several Flood Control Acts (1917, 1936, 1944, and 1960) have been enacted which affect the Sacramento region.

Operations and Maintenance Controls, Flood Control Projects

The maintenance and operation of federal project levees is discussed in Title 33, Section 208.10, of the Code of Federal Regulations (33 CFR 208.10), Local Flood Protection Works; Maintenance and Operation of Structure and Facilities.

Water Resources Development Acts

Several Water Resources Development Acts (1986, 1990, 1996, and 1999) have been enacted, which affected funding and environmental goals for USACE flood management projects.

Federal Emergency Management Agency

FEMA is responsible for maintaining minimum federal standards for floodplain management within the United States and territories of the United States.

National Flood Insurance Act of 1968

The National Flood Insurance Program (NFIP) offers flood insurance to homeowners, renters, and business owners in participating communities. FEMA administers the National Flood Insurance Program and delineates areas subject to flood hazard on FIRMs for each participating community. The FIRM zones within the policy area are defined by FEMA as follows.

- **Zone A**: Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

- **Zone A99**: Areas subject to inundation by the 1-percent-annual-chance flood event, but which will ultimately be protected upon completion of an under-construction Federal flood protection system. These are areas of special flood hazard where enough progress has been made on the construction of a protection system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. Zone A99 may only be used when the flood protection system has reached specified statutory progress toward completion. No Base Flood Elevations (BFEs) or depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

- **Zones AE**: Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

- **Zone AH**: Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between one and three feet. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply.

- **Zone AR**: Areas that result from the decertification of a previously accredited flood protection system that is determined to be in the process of being restored to provide base flood protection. Mandatory flood insurance purchase requirements and floodplain management standards apply.

The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are designated “Zone C” or “Zone X”. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program.

Flood Insurance Reform Act of 2012 (Biggert-Waters Act)

The Biggert-Waters Act required the NFIP to raise flood insurance rates to reflect true risk, making the program more financially stable, and changing how FIRM updates impact policyholders.

State

California Department of Water Resources

The Department of Water Resources (DWR) partners with local, regional, State, Tribal, and federal officials, to create flood-management and emergency-response systems. DWR is required by flood control legislation (2007 & 2008) to prepare a flood control system status report for the SPFC and CVFPP.

California Central Valley Flood Protection Act of 2008

The Central Valley Flood Protection Plan (CVFPP) is prepared by DWR for the purpose of describe the structural and nonstructural means for improving the performance of the levees, weirs, bypasses, reservoirs, and other State Plan of Flood Control facilities. The CVFPP is subject to requirements of the California Central Valley Flood Protection Act of 2008 (Senate Bill 5), which defines objectives, codified in the California Water Code Section 9616, for reducing the risk of flooding in the Central Valley. The Act requires that urban and urbanizing areas within the planning areas make certain findings related to the provision of a minimum 200-year level of flood protection before making certain land use decisions.

Water Code Sections 9602 and 9621

Water Code Section 9602 defines the 200-year floodplain as the minimum urban level of flood protection in the Sacramento-San Joaquin Valley. Water Code Section 9621 requires counties to collaborate with cities to develop flood emergency plans.

Government Code Sections 65302 and 65860

Government Code Sections 65302 and 65860 requires cities and counties to address flood risks in the land use, conservation, and safety elements of their general plans. The code requires annual review of the land use element for areas identified by FEMA or DWR floodplain mapping. Further, the code requires the establishment of comprehensive goals, policies, objectives, and feasible implementation measures to protect communities from risk of flooding within the safety element.

Government Code Sections 65865, 65962, and 66474

These statutes limit development within flood hazard areas, except where certain findings can be made related to provisions of a 200-year level of flood protection in urban and urbanizing areas or a 100-year level of flood protection in nonurbanized area.

Local Flood Protection Act of 2008

The Local Flood Protection Act of 2008 allows local agencies to prepare local plans for flood protection. Local flood protection plans are required to be consistent with CVFPP but can be more focused to meet local agency-level concerns.

State of California Uniform Building Code

The California Uniform Building Code (CBC) establishes requirements for constructing structures within flood hazard areas. The CBC contains standards for the constructions of new buildings, structures, and portions of buildings and structures, including substantial improvements and restoration of substantial damage to buildings and structures. These structures are to be designed and constructed to resist the effects of flood hazards and flood loads (CBC Section 1612.1).

Local

Sacramento Area Flood Control Agency Act of 1990

The Sacramento Area Flood Control Agency (SAFCA) Act of 1990 formed SAFCA and granted it broad authority to finance flood control projects and carry out flood control responsibilities. SAFCA's primary function is to provide the region with at least a 100-year level of flood protection as quickly as possible while seeking a 200-year or greater level of protection in the long term.

Sacramento County Office of Emergency Services

The Sacramento Office of Emergency Services (SacOES) develops plans and procedures in response to and recovery from disasters including flood emergencies. SacOES coordinates notifies all appropriate agencies in the event of large scale incidents and coordinates multi-agency responses, ensuring the availability of resources.

American River Flood Control District

The American River Flood Control District (ARFCD) maintains 40 miles of levees along the American River and portions of Steelhead, Arcade, Dry Creek, and Magpie Creek.

Reclamation District 1000

Reclamation District 1000 (RD1000) was formed by the California legislature to maintain the levee system surrounding the perimeter of the Natomas Basin to keep floodwaters from the Sacramento River, American River, Natomas East Main Drain Canal, Pleasant Grove Creek Canal, and Natomas Cross Canal out of the basin. RD 1000 operates several pump stations and canals which discharge water within the basin into the river.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to hydrology and water quality may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan Master EIR:

- substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the proposed project; or

- Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 4.7 of the Master EIR evaluates the potential effects of the 2035 General Plan as they relate to surface water, groundwater, flooding, and stormwater and water quality. Potential effects include water quality degradation due to construction and operational activities (Impact 4.7-1), and exposure of people to flood risks (Impact 4.7-3). Policies included in the 2035 General Plan, including a directive for regional cooperation (General Plan Policies ER 1.1.2 and EC 2.1.1), comprehensive flood management (General Plan Policy EC 2.1.23), and construction of adequate drainage facilities with new development (General Plan Policy U 1.1.1) were identified that reduced all impacts to a less-than-significant level.

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Question A

The proposed project may result in some sedimentation and construction-period erosion and runoff. Construction-related activities have the potential to impact water quality. Fuel, oil, grease, solvents, concrete wash and other chemicals used in construction activities have the potential of creating toxic problems if allowed to enter a waterway. Construction activities are also a source of various other materials including trash, soap, and sanitary wastes.

The City's SQIP contains a Construction Element that guides in implementation of the NPDES Permit for Storm Water Discharges Associated with Construction Activity. This General Construction Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list BMPs the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP. Compliance with City requirements to protect storm water inlets would require the developer to implement BMPs such as the use of straw bales, sandbags, gravel traps, and filters; erosion control measures such as vegetation and physical stabilization; and sediment control measure such as fences, dams, barriers, berms, traps, and basins. City staff also inspects and enforce the erosion, sediment and pollution control requirements in accordance with City codes (Grading, Erosion and Sediment Control ordinance).

Conformance with City regulations and permit requirements along with implementation of BMPs, construction activities under the proposed project would result in a **less-than-significant** impact related to storm water absorption rates, discharges, flows, and water quality.

Question B

The subject site is located within the City of Sacramento within a portion of the 100-year flood plain identified as flood hazard area. The project site is located in the Natomas Basin, which was recently subject to a change in FEMA floodplain designation from flood hazard area to A99 flood zone. The A99 designation signifies that adequate progress has been made toward improved flood protection within the flood hazard zone and progress toward fully updated flood protection is ongoing. Eventual completion of flood protection improvements can be assumed based on the changed FEMA flood zone designation. The 2035 General Plan assumes completion of flood protection improvements to the Natomas Basin and development of the

project site. The Master EIR determined that General Plan buildout would not substantially increase exposure of people or property to risk of injury or damage from the event of a 100-year flood. The proposed project is consistent with the General Plan; therefore this impact would be **less than significant**.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Hydrology and Water Quality.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
8. NOISE Would the project: A) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?	X		
B) Result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project?	X		
C) Result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance?	X		
D) Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction?	X		
E) Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations?	X		
F) Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic?	X		

ENVIRONMENTAL SETTING

The following discussions present basic information related to noise and vibration, as well as the existing noise environment at the proposed project site.

Noise

Sound is mechanical energy transmitted by pressure waves through the air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The decibel (dB) scale is used to quantify sound intensity. Since the human ear is not equally sensitive to all frequencies

within the entire spectrum, noise measurements are weighted more heavily within those frequencies of maximum human sensitivity in a process called "A-weighting," referred to as dBA. In general, a difference of more than three dBA is a perceptible change in environmental noise, while a five dBA difference typically causes a change in community reaction. An increase of 10 dBA is perceived by people as a doubling of loudness.[22]

Cumulative noise levels from two or more sources will combine logarithmically, rather than linearly. For example, if two identical noise sources produce a noise level of 50 dBA each, the combined noise level would be 53 dBA, not 100 dBA.

Time variation in noise exposure is typically expressed in terms of the average energy over time (L_{eq}), or alternatively, as a statistical description of the sound level that is exceeded over some fraction of a given period of time. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time – half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_8 and L_{25} represent the noise levels that are exceeded eight and 25 percent of the time, respectively, or for five and 15 minutes during a 1 hour period, respectively.

Several methods have been devised to relate noise exposure over time to human response. The Day-Night Noise Level (L_{dn}) is a 24-hour L_{eq} that adds a 10 dBA penalty to sounds occurring between 10:00 PM to 7:00 AM to account for the increased sensitivity to noise events that occur during the quiet late evening and nighttime periods. A commonly used noise metric for this type of study is the Community Noise Equivalent Level (CNEL). The CNEL, originally developed for use in the California Airport Noise Regulation, adds a five dBA penalty to noise occurring during evening hours from 7:00 PM to 10:00 PM, and a 10 dBA penalty to sounds occurring between the hours of 10:00 PM and 7:00 AM to account for the increased sensitivity to noise events that occur during the quiet late evening and nighttime periods. Thus, the CNEL noise metric provides a 24-hour average of A-weighted noise levels at a particular location, with an evening and a nighttime adjustment, which reflects increased sensitivity to noise during these times of the day.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe

[22] United States Environmental Protection Agency (USEPA), 1974 (March). *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA 550/9-79-100).*

the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.[23] Typically, ground borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly and sick), and vibration sensitive equipment. Fragile buildings can be exposed to ground-borne vibration levels of 0.5 PPV without experiencing structural damage. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV. The human annoyance response level is 80 RMS.

Existing Noise Setting

The project site is in a suburban area surrounded by residential development and vacant land or open space. Existing noise sources in the immediate vicinity of the project site consists of adjacent roadways, Natomas Boulevard and Rose Arbor Drive, and nearby Elkhorn Boulevard. Existing noise levels from Natomas Boulevard were analyzed at 68.4 dBA at 50-feet under existing conditions and 2035 General Plan Conditions of 69.8 dBA at the same distance in the Master EIR (see Table 4.8-4). The project site is also subject to noise from residential sources from the adjacent Heritage Park senior community to the west and high density residential land uses to the south and east. The property directly across Rose Arbor Drive to the south of the project site is vacant but anticipated to be developed for uses consistent with the 2035 General Plan. The property to the north of the project site is an open-space buffer that contains a large drainage basin and water-conveyance pump and accommodating structure. Both properties to the north and south generate no noise. The project site is not within the Interstate 5 (I-5) noise contour; therefore, noise associated with vehicle activity on I-5 does not affect the project site. Additionally, the site is not within the noise contours of the Sacramento International Airport and is not subject to the Comprehensive Land Use Plan (CLUP) noise policy.

REGULATORY SETTING

Federal

The Federal Noise Control Act of 1972

The basic motivating legislation for noise control in the U.S. was provided by the Federal Noise Control Act (1972). EPA found that sleep, speech, and other types of essential activity

[23] Federal Transit Administration (FTA), 2006 (May). *Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06).*

interference could be avoided in residential areas if the Ldn did not exceed 55 dBA outdoors and 45 dBA indoors. These are considered advisory exposure a level, below which, there is no reason to suspect that the general population would be at risk from any of the identified health or welfare effects of noise. The EPA Levels report also identified 5 dBA as an adequate margin of safety before an increase in noise level would produce a significant increase provided that the existing baseline noise exposure did not exceed 55 dBA Ldn.

U.S. Department of Transportation

To address the human response to ground vibration, the Federal Transit Administration (FTA) of the U.S. Department of Transportation (DOT) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 7-5 of the 2035 General Plan Background Report.

State

The State of California General Plan Guidelines 2013 (Guidelines) promotes use of Ldn or CNEL for evaluating noise compatibility of various land uses with the expected degree of noise exposure. Findings presented in EPA Levels have had an obvious influence on the content of the State Guidelines, most importantly in the latter's choice of noise exposure metrics and in the upper limits for the "normally acceptable" exposure of noise-sensitive uses (no higher than 60 dBA Ldn or CNEL for low-density residential, which is just at the upper limit of the 5 dBA "margin of safety" defined by the EPA for noise-sensitive land use categories).

Caltrans

In 2004, the California Department of Transportation (Caltrans) published the Transportation-and Construction-Induced Vibration Manual, which provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. **Table 8-1** presents recommended levels of vibration that could result in damage to structures exposed to continuous vibration.

TABLE 8-1
CALTRANS RECOMMENDED VIBRATION LEVELS

PPV (in/ec)	Effect on Buildings
0.4-0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.8	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006 - 0.019	Vibration unlikely to cause damage of any type

SOURCE: California Department of Transportation. 2004. Transportation- and Construction-Induced Vibration Guidance Manual., CA: Noise, Vibration, and Hazardous Waste Management Office. Prepared by Jones & Stokes. Page 5.

Local

City of Sacramento Municipal Code

Chapter 8.68 of the City of Sacramento Municipal Code contains applicable noise regulations within City limits.

GENERAL PLAN POLICIES CONSIDERED MITIGATION

The following General Plan policies would avoid or lessen environmental impacts as identified in the Master EIR and are considered mitigation measures for the following project-level and cumulative impacts.

Impact 4.8-4: Implementation of the 2035 General Plan could permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.

General Plan Policy EC 3.1.5 – Interior Vibration Standards: The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.

Impact 4.8-5: Implementation of the 2035 General Plan could permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.

General Plan Policy EC 3.1.6 – Effects of Vibration: The City shall consider potential effects of

vibration when reviewing new residential and commercial projects that are proposed in the vicinity of rail lines or light rail lines.

Impact 4.8-6: Implementation of the 2035 General Plan could permit historic buildings and archeological sites to be exposed to vibration-peak-particle velocities greater than 0.25 inches per second due to project construction, highway traffic and rail operations.

General Plan Policy EC 3.1.7 – Vibration: The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archeological sites and require all feasible mitigation measures be implemented to ensure no damage would occur.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts due to noise may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of 2035 General Plan policies or mitigation from the General Plan Master EIR:

- result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases;

- result in residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to the project;

- result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;

- permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;

- permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or

- Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the potential for development under the 2035 General Plan to increase noise levels in the community. New noise sources include vehicular traffic, aircraft, railways, light rail and stationary sources. The general plan policies establish exterior (General Plan Policies EC 3.1.1 and 3.1.2) and interior (General Plan Policies EC 3.1.3 and 3.1.4) noise standards. A variety of policies provide standards for the types of development envisioned in the General Plan. See General Plan Policy EC 3.1.8, which requires new mixed-use, commercial and industrial development to mitigate the effects of noise from operations on adjoining sensitive land use. Notwithstanding application of the General Plan policies, noise impacts for exterior noise levels (Impact 4.8-1), interior noise levels (Impact 4.8-2), and vibration impacts (Impact 4.8-4) were found to be significant and unavoidable.

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Question A

The project site is designated as Suburban Center under the 2035 General Plan with zoning designation for shopping center – PUD. The proposed project is consistent with General Plan land use and zoning designations, and would generate substantially less noise than other land uses consistent with the same designation. The 2035 General Plan provides noise profiles for Sacramento roadways, including Natomas Boulevard and Elkhorn Boulevard.

Elkhorn Boulevard

The northern boundary of the project site, which would be lined with independent living cottages, is approximately 295 feet from the centerline of Elkhorn Boulevard. The 2035 General Plan provided noise levels and contour measurements for Elkhorn Boulevard between Natomas Boulevard and East Commerce Way, adjacent to the drainage basin / open space buffer, to the north of the project site. Existing noise levels along Elkhorn Boulevard are 68.5 dBA at 50 feet from centerline and projected to be 70.6 under 2035 General Plan conditions; an increase of 2.1 dBA over existing conditions.[24] Under the exterior noise compatibility standards for various land uses in the 2035 General Plan (Policy EC 3.1.1), the highest level of "normally acceptable"

[24] City of Sacramento 2014. City of Sacramento 2035 General Plan Master Environmental Impact Report. Table 4.8-4.

noise is 70 dBA for land use types including nursing homes and mixed-use projects and 65 dBA for residential- multi-family uses. The independent-living cottages along the northern section of the proposed project are subject to a "normally acceptable" threshold of 65 dBA. The noise contour for 65 dBA is 181 feet from the center line of Elkhorn Boulevard; therefore impacts of roadway noise from Elkhorn Boulevard would be **less than significant**.

Natomas Boulevard

Noise levels on Natomas Boulevard between West Elkhorn Boulevard and Del Paso Road were found to be 68.4 dBA at 50 feet (CNEL) and projected to reach 69.8 dBA at 50 feet (CNEL) by 2035.[25] The closest sensitive receptor to Natomas Boulevard would be residents of Cottage 28 as shown on the proposed site plan. As shown in Table 4.8-4 of the Master EIR, the distance from the centerline of Natomas Boulevard to the 70 dBA noise contour is 48 feet, and the distance from the centerline of Natomas Boulevard to the 65 dBA noise contour is 153 feet. The northeast corner of Cottage 28 and its rear exterior yard are approximately 70 feet from the centerline of Natomas Boulevard, which is within the 65 dBA contour but beyond the 70 dBA contour for roadway noise. The maximum noise threshold for the land use type for the proposed cottages is 65 dBA for "normally acceptable" noise. Without noise reducing features the noise contour for the maximum threshold of 65 dBA is 153 feet from the centerline of Natomas Boulevard. This exceeds acceptable noise thresholds under the General Plan. The proposed project includes a sound wall along the northern boundary of the project site that wraps around the eastern boundary of Cottage 28 along Natomas Boulevard. The sound wall would attenuate existing and projected roadway noise by more than 5 dBA, which would reduce noise levels from Natomas Boulevard to below the "normally acceptable" (70 dBA) exterior noise threshold. Therefore, the impact from roadway noise along Natomas Boulevard would be **less than significant**.

Question B

The Master EIR evaluated interior noise impacts based on areas influenced by flight operations from area airports, including Sacramento International Airport, or along busy rail or truck routes. Institutional land uses where it is important to avoid interference with such activities as speech, meditation, and reading are likely to exceed the hourly average acceptable levels (45 dBA L_{eq} peak hour). 2035 General Plan Policy EC 3.1.3 requires noise mitigation that assures acceptable interior noise levels appropriate to the land use type. The project site is not located in an area considered to be specific situations for which the noise levels cannot be fully reduced below City standards. The project site is beyond the noise contours of nearby airports and is not located near highways or rail. Interior and exterior noise impacts from nearby roadways would

[25] City of Sacramento, 2014 (August). *Draft Environmental Impact Report for the City of Sacramento 2035 General Plan Update*. Page 4.8-9, Table 4.8-4.

be below “normally acceptable” thresholds; therefore, this impact is considered **less than significant**.

Question C

The 2035 General Plan Policy EC 3.1.10 requires developers to minimize construction noise impacts on sensitive uses to the extent feasible. Construction noise is subject to intensity and hours of operation restrictions by City codes. Impacts from construction noise were assumed for buildout of the 2035 General Plan in the Master EIR and determined to less-than-significant. The proposed project is consistent with the 2035 General Plan and would be executed in compliance with all city codes regarding noise due to construction. Thus, this impact is considered **less than significant**.

Question D

Buildout of the proposed project is likely to produce ground-born vibration from the use of heavy equipment for excavation and grading activities. The 2035 General Plan Policy EC 3.1.5 requires construction projects anticipated to generate a significant amount of vibration to reduce, to the extent feasible, interior vibration levels at nearby residential and commercial uses based on current City or FTA criteria. The policy further requires that vibration-reduction measures be implemented to the extent feasible. Construction activities considered to generate a significant amount of vibration include demolition, pile driving and site preparation. The project site does not require demolition or pile driving and has already been graded flat and regularly tilled. Remaining construction activities are not likely to produce significant vibration beyond that which can be mitigated through the implementation of General Plan Policy. Therefore, impacts from vibration are considered **less than significant**.

Question E

The project site is not located near highways or major heavy or light rail lines, and is therefore, not subject to vibration impacts from those sources. This impact is considered **less than significant**.

Question F

There are no historic buildings or archaeological sites on or near the project site that could potentially be subject to vibration impacts from construction or operation of the proposed project. This impact is considered **less than significant**.

Mitigation

None.

Findings

The project would have no additional project-specific environmental effects relating to noise.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
9. PUBLIC SERVICES Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan?	X		

ENVIRONMENTAL SETTING

The project site is located in Sacramento and is served with fire protection and police protection by the City of Sacramento.

The Sacramento City Police Department (SPD) provides police protection services to the project area. The project area is serviced by North Command which is located at the William J. Kinney Police Facility, 3550 Marysville Boulevard which is 7.2 miles southeast of the project site.[26] In addition to the SPD, the Sacramento County Sheriff's Department, California Highway Patrol (CHP), UC Davis Police Department, and the Regional Transit Police Department aid the SPD to provide protection for the City.

The Sacramento Fire Department (SFD) provides fire protection and emergency medical services to the entire City and some small areas just outside the City boundaries within the County limits. SFD provides fire protection and emergency medical services to the project area. First-response service is provided by Station 30, located at 1901 Club Center Drive, approximately 1.1 miles south of the project site.[27]

The project site is located in an age-restricted area of North Natomas, which limits eligible residents to a minimum age. The proposed project is an MLRC facility and would not require school services.

[26] City of Sacramento Police Department, 2015. William J. Kinney Police Facility. Available: http://portal.cityofsacramento.org/Police/Contact/Police-Facilities/William-J-Kinney-Police-Facility. Accessed April 30, 2015.

[27] City of Sacramento Fire Department, 2012 (May 20). Engine Company First-In Districts and Response Zones - BARB Configuration. Available: http://portal.cityofsacramento.org/Fire/About/Station-Information. Accessed April 30, 2015.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the potential effects of the 2035 General Plan on various public services. These include parks (Chapter 4.9) and police, fire protection, schools, libraries and emergency services (Chapter 4.10).

The General Plan provides that adequate staffing levels for police and fire are important for the long-term health, safety and well-being of the community (Goal PHS 1.1, PHS 2.1). The Master EIR concluded that effects would be less than significant.

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

The project area is located in an urbanized portion of the City of Sacramento, and is served by various municipal services including fire and police. As a retirement community, the proposed project does not require school service. The development of the project site was assumed under the 2035 General Plan and the Master EIR found that impacts to public services were less than significant. The proposed project is consistent with the 2035 General Plan; therefore there would be no additional impacts to public services resulting from the proposed project.

The Master EIR evaluated the cumulative effects of development that could occur under the 2030 General Plan, and the project would result in no additional significant environmental effects.

Mitigation Measures

None required.

Findings

The project would have no additional project-specific environmental effects relating to Public Services.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
10. RECREATION Would the project: A) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities?	X		
B) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan?	X		

ENVIRONMENTAL SETTING

The City of Sacramento Parks and Recreation (Parks) Department maintains parks and recreational facilities within the City of Sacramento. The Parks Department classifies parks according to three distinct types: 1) neighborhood parks; 2) community parks; and, 3) regional parks. Neighborhood parks are typically less than ten acres in size and are intended to be used primarily by residents within a half-mile radius. Neighborhood parks contribute to a sense of community by providing gathering places for recreation, entertainment, sports, or quiet relaxation. Community Parks are generally 10 to 60 acres and serve an area within approximately two to three miles, encompassing several neighborhoods and meeting the requirements of a large portion of the City. Regional parks are larger in size and serve the entire City, as well as population from around the region. Regional parks are developed with a wide range of improvements not usually found in local neighborhood and community parks.[28] The City of Sacramento currently has a park inventory of 235 facilities with a total area of 3,431 acres. Of these, 1,607 acres are neighborhood and community parks and the remaining are City regional parks and parkways.[29].

The closest parks to the proposed project site are Willow Park, located approximately 1,300 feet west of the project site, at the corner of Rose Arbor Drive and Northborough Drive; Autumn Meadow Park, located 0.5 miles southeast on Northborough Drive; and Regency Community Park, located approximately 700 feet to the east, at the corner of Bridgecross Drive and Honor Parkway (see **Figure 2**). In general, neighborhood parks are located near the residential neighborhoods that they serve.

[28] City of Sacramento Department of Parks and Recreation. 2015. Parks. Available: http://portal.cityofsacramento.org/ParksandRec/Parks. Accessed March 31, 2015.

[29] City of Sacramento 2014. City of Sacramento 2035 General Plan Background Report Public Review Draft. August 2014. Page 5-29

The 2035 General Plan establishes a goal of developing and maintaining 5 acres of neighborhood and community parks and other recreational facilities/sites per 1,000 residents. The 2035 General Plan also requires new residential development to meet its fair share of park dedication, payment of a fee in lieu of dedication, or a combination of the two. For new development in urban areas where land dedication or acquisition is constrained by a lack of available suitable properties (e.g., the Central City), General Plan Policy ERC 2.2.5 requires new development to either construct improvements or pay fees for existing park and recreation enhancements to address increased use. General Plan Policy ERC 2.2.5 requires the City to identify and pursue the best possible options for park development, such as joint use, regional park partnerships, private open space, acquisition of parkland, and use of grant funding.

Residential and non-residential projects that are built in the City of Sacramento are required to pay a park development impact fee pursuant to Chapter 18.44 of the Sacramento City Code. The fees collected pursuant to Chapter 18.44 are used to finance the construction of neighborhood and community park facilities. Projects sized below the map requirement threshold are not required to meet the construct improvements or pay fees.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to recreational resources are considered significant if the proposed project would do either of the following:

- cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or

- Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 4.9 of the Master EIR considered the effects of the 2035 General Plan on the City's existing parkland, urban forest, recreational facilities and recreational services. The General Plan identified a goal of providing an integrated park and recreation system in the City (Goal ERC 2.1) and a park acreage service level goal of 5 acres per 1,000 residents (Policy ERC 2.2.4). New residential development is required to dedicate land, pay in-lieu fees or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities (Policy ERC 2.2.5). Impacts were considered less than significant after application of the applicable policies (Impacts 4.9-1 and 4.9-2).

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A AND B

Development of the project site was assumed in the 2035 General Plan Master EIR. The project would not result in any substantial increase in population beyond that identified in the General Plan. The proposed project is consistent with the 2035 General Plan and would not result in unexpected demand and need for construction of additional recreational facilities. The cumulative effects were evaluated in the Master EIR, and the project would have no additional significant environmental effects relating to recreation.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Recreation.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
11. TRANSPORTATION AND CIRCULATION Would the project: A) Roadway segments: degrade peak period Level of Service (LOS) from A,B,C or D (without the project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the Volume to Capacity Ratio (V/C ratio) by 0.02 or more?	X		
B) Intersections: degrade peak period level of service from A, B, C or D (without project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the peak period average vehicle delay by five seconds or more?	X		
C) Freeway facilities: off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway; project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service; project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility; or the expected ramp queue is greater than the storage capacity?	X		
D) Transit: adversely affect public transit operations or fail to adequately provide for access to public?	X		
E) Bicycle facilities: adversely affect bicycle travel, bicycle paths or fail to adequately provide for access by bicycle?	X		
F) Pedestrian: adversely affect pedestrian travel, pedestrian paths or fail to adequately provide for access by pedestrians?	X		

ENVIRONMENTAL SETTING

Roadway System - Regional Access

Regional automobile access to the site is provided by the freeway system. Interstate 5 (I-5) is a north-south freeway that extends the length of the west coast states of the United States. I-5 can be accessed from Del Paso Road, southwest of the project site. Interstate 80 (I-80) is an east-west freeway that extends from San Francisco to New Jersey. I-80 is accessible from

Truxel Road to the south of the project site. California State Route 99 (Highway 99) is a north-south highway that stretches almost the entire length of the Central Valley and provides an alternate travel route to I-5. Highway 99 is accessible from Elkhorn Boulevard west of the project site.

Roadway System - Local Access

Primary access to the project site is provided via Natomas Boulevard and Rose Arbor Drive. Natomas Boulevard is an arterial roadway in North Natomas that runs north-south becoming Truxel Road south of the project site and ending at Elkhorn Boulevard north of the project site. Elkhorn Boulevard is an arterial roadway, immediately north of the detention basin along the north boundary of the project site and runs east-west connecting Power Line Road adjacent to the Sacramento Airport to I-80 and Greenback Lane. Rose Arbor Drive adjacent south of the project site is a minor collector roadway that provides access to residential areas from Natomas Boulevard.

Pedestrian System

Throughout North Natomas, sidewalks are provided on both sides of most streets. The project site has sidewalks along Rose Arbor Drive but does not have sidewalks along Natomas Boulevard from the Rose Arbor round corner north to Elkhorn Boulevard. Directly north of the project site, a pedestrian path extends along the drainage basin. As part of the proposed project, construction would include establishing a connection from the sidewalk along Natomas Boulevard to the pedestrian path adjacent to the drainage basin. Further, the project would include pedestrian accessibility to the basin path from the northwest corner of the project site.

Bicycle System

The City's Bikeway Master Plan is intended to create and maintain a safe, comprehensive, and integrated bicycle system and support facilities throughout the City. The project site is within an extensive network of bikeways. Adjacent to the east of Natomas Boulevard is a Class I bike lane that runs north-south along the East Drainage Canal. There is presently no sidewalk or Class II bikeway along the west side of Natomas Boulevard, between Rose Arbor Drive and Elkhorn Boulevard. Main arteries throughout the North Natomas neighborhood feature Class II bikeways (dedicated roadside bike lanes) that allow for bicycle access. Rose Arbor Drive has Class II bikeways on both sides of the road in the project vicinity. The network of bikeways in North Natomas allow for access to other parts of the city through the American River Bike Trail which features miles of interlinking Class I bikeways spanning from Folsom Lake to downtown Sacramento.

Transit System

The project site is provided transit services by the Sacramento Regional Transit District (SacRT) and the North Natomas Transit Management Association (TMA). The SacRT operates 67 bus

routes and 38.6 miles of light rail covering a 418 square-mile service area. Buses and light rail run 365 days a year using 76 light rail vehicles, 182 buses (with an additional 30 buses in reserve) powered by compressed natural gas (CNG) and 11 shuttle vans. Buses operate daily from 5 a.m. to 11 p.m. every 12 to 75 minutes, depending on the route. The project site is serviced by two Sacramento Regional Transit (SacRT) bus lines; route 170, which connects Natomas with Downtown Sacramento via Truxel Road, I-80 and I-5; and route 172 which connects west Natomas with Downtown Sacramento via Del Paso Road and I-5. Residents of the project site can access route 170 at the intersection of Bridgecross Drive and Honor Parkway, 0.1 miles east of the project site. Route 172 can be accessed at the intersection of Hose Arbor Drive and Northborough Drive, approximately 0.4 miles west of the project site. Routes 170 and 172 provide access to light rail stops, long distance rail (Amtrak), and Yolo Bus, which provides service to Sacramento International Airport.

The North Natomas TMA provides shuttle service for four routes, each connecting North Natomas neighborhoods to Downtown Sacramento. Three routes provide stops within the project site vicinity. The Square Route (173) provides one morning- and one evening-intervals, along Northborough Drive, Rose Arbor Drive, Honor Parkway, stopping at the intersection of Northborough Drive and Rose Arbor Drive, 0.3 miles west of the project site, and Honor Parkway and Rose Arbor Drive, 0.15 miles east of the project site. The Central Route (172) provides four morning- and four afternoon/evening-intervals along East Commerce Way, up to Heritage Park Lane, and down Dunlay Drive, Mabry Drive, and Maybrook Drive. Route 172 stops at Northborough Drive and Rose Arbor Drive. The Eastside Route (170) provides four morning and four afternoon/evening intervals Along Honor Parkway, Bridgecross Drive, Regency Park Circle, Danbrook Drive, North Bend Drive and Gateway Park Boulevard. Route 170 stops at the intersection of Honor Parkway and Bridgecross Drive, east of the project site.

GENERAL PLAN POLICIES CONSIDERED MITIGATION

None.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts resulting from changes in transportation or circulation may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan Master EIR:

Roadway Segments and Intersections

A) the traffic generated by the project degrades Level of Service (LOS) from acceptable (without the project) to unacceptable (with project); or

B) The LOS (without project) is already (or projected to be) unacceptable, and project generated traffic increases the average vehicle delay by 5 seconds or more.

Sacramento 2035 General Plan Policy M 1.2.2 establishes variable LOS thresholds for different neighborhoods in the City. The proposed project is located in a Standard LOS area, and the LOS threshold is D.

Transit

- adversely affect public transit operations; or
- Fail to adequately provide for access to public transit.

Bicycle Facilities

- adversely affect existing or planned bicycle facilities; or
- Fail to adequately provide for access by bicycle.

Pedestrian Circulation

- adversely affect existing or planned pedestrian facilities; or
- Fail to adequately provide for access by pedestrians.

Construction-Related Traffic Impacts

- Degrade an intersection or roadway to an unacceptable Level of Service;
- Cause inconveniences to motorists due to prolonged road closures; or
- Result in increased frequency of potential conflicts between vehicles, pedestrians, and bicyclists.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Transportation and Circulation were discussed in the Master EIR in Chapter 4.12. Multiple modes of travel were addressed in the analysis, including vehicular, transit, bicycle, pedestrian, and aviation components. The analysis included consideration of roadway and freeway capacity, identification of existing and future (including cumulative) levels of service, and effects of the 2035 General Plan on the public transportation system.

Numerous policies of the 2035 General Plan were noted to reduce potential adverse environmental impacts of implementation of the Plan. For roadway segments and intersections, these policies support: identification of Level of Service (LOS) standards (Policy M 1.2.2); a transportation network that is well-connected (Policy M 1.3.1), elimination of “gaps” in roadways, bikeways, and pedestrian networks (Policy M 1.3.2), improved transit access (Policy M 1.3.3),

improved connections to transit stations (Policy M1.3.5), identification of existing and future transportation corridors that should be linked across jurisdictional boundaries (Policy M 1.3.6), increased regional average vehicle occupancy (Policy M 1.4.1), and reduced single-occupant vehicle commute trips (Policy M 1.4.2).

For freeways and elements of the regional transportation system, policies that would serve to reduce potential impacts include all of the policies noted above for reducing impacts to roads and intersections, as well as policies that support State highway expansion and management plans consistent with the SACOG MTP/SCS (Policy M 1.5.6), development of a fair share funding system for Caltrans facilities (Policy M 1.5.7), and working with adjacent jurisdictions and other agencies (i.e., Regional Transit) in the context of multimodal corridor planning to determine the appropriate responsibilities to fund, evaluate, plan, design, construct, and maintain new river crossings.

For bicycle, pedestrian, and transit elements of the transportation system, in addition to Policy M 1.2.2, described above, policies that would serve to reduce potential impacts support: preservation and management of right-of-way consistent with the General Plan circulation diagram, the City Street Design Standards, the goal to provide Complete Streets as described in Goal M 4.2, and the modal priorities for each street segment and intersection (Policy M 1.1.1); increased multimodal choices (Policy M 1.2.1); evaluation of discretionary projects for potential impacts to traffic operations, traffic safety, transit service, bicycle facilities, and pedestrian facilities (Policy 1.2.3); participation of commercial, retail, or residential projects in Transportation Management Associations (Policy M 1.4.3); provision of sufficient road travel space for all users including bicyclists, pedestrians, and transit riders (Policy M 4.2.1); ensuring that all street projects support pedestrian and bicycle travel (Policy M 4.2.2); an adequate street tree canopy (Policy M 4.2.3); pedestrian and/or bicycle facilities on bridges (Policy M 4.2.4); designation of multi-modal corridors in the Central City (Policy M 4.2.5); identification and filling of gaps in Complete Streets (Policy M 4.2.6); promotion of infill development (Policy LU 1.1.5); promotion of compact development patterns, mixed use, and higher-development intensities that use land efficiently, reduce pollution and automobile dependence and the expenditure of energy and other resources, and facilitate walking, bicycling, and transit use (Policy LU 2.6.1); creation of walkable, pedestrian-scaled blocks, publicly accessible mid-block and alley pedestrian routes where appropriate, and sidewalks appropriately scaled for the anticipated pedestrian use (Policy LU 2.7.6); neighborhoods that are pedestrian friendly (Policy LU 4.1.3); better connections by all travel modes between residential neighborhoods and key commercial, cultural, recreational, and other community-supportive destinations (Policy 4.1.6); and enhanced walking and biking in existing suburban neighborhoods (Policy LU 4.2.1).

For construction effects on the local roadway system, in addition to Policy M 1.2.2, described above, policies that would serve to reduce potential impacts support: ensuring mobility in the event of emergencies (Policy M 4.1.1); and maximizing connections and minimizes barriers between neighborhoods corridors, and centers within the city (Policy LU 2.5.1)

While the 2035 General Plan includes numerous policies that direct the development of the City's transportation system, the Master EIR concluded that implementation of the 2035 General Plan would result in significant and unavoidable effects on roadway segments in neighboring jurisdictions (see Impact 4.12-3) and on certain segments of freeways in the region (see Impact 4.12-4).

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A THROUGH C

Roadways around the project site presently operate at a level of service (LOS) above the minimum acceptable threshold (LOS A through D). Under the 2035 General Plan conditions, the roadways in the project vicinity are projected to remain at LOS A through D, above the minimum acceptable threshold. The Natomas Boulevard section between West Elkhorn Boulevard and Del Paso Road currently operates at LOS C. The West Elkhorn Boulevard section between East Commerce Way and Natomas Boulevard operates at LOS C[30]. The arterial roadways have sufficient capacity to accommodate the project generated traffic.

The 2001 Heritage at Natomas Park IS/ND evaluated impacts to transportation and circulation from the Heritage at Natomas Park development, which included the 10-acre project site. The 2001 Heritage at Natomas Park IS/ND identified the land use for the project site as "Neighborhood Commercial" which is consistent with the proposed project and the 2035 General Plan. Based on the information compiled by Institute of Transportation Engineers (ITE) in Trip Generation Manual (2012, 9th Edition) the proposed project would generate 54 trips during the a.m. peak hour, 52 trips during the p.m. peak hour, and 570 daily trips.

Relative to other land uses consistent with the General Plan land use designation, such as retail or shopping centers, the proposed project would generate fewer trips. Development of the project site was assumed in the 2035 General Plan. The proposed project is consistent with the 2035 General Plan and would not result in additional impacts from diminished level of service (LOS) or congestion beyond those considered in the Master EIR. These impacts are considered **less than significant**.

[30] City of Sacramento, 2015. 2035 General Plan Master Environmental Impact Report, Appendix D.

QUESTION D

The project would not adversely affect existing or planned transit operations. The project would add transit demands, which are anticipated to be adequately accommodated by the transit system. The impacts of the project would be **less than significant**.

QUESTIONS E AND F

The project would not remove any existing or planned pedestrian facility. The project would not remove any existing bicycle facility or any facility that is planned in the City of Sacramento Bikeway Master Plan. The project would add pedestrian and bicycle demands within the project site and to and from nearby land uses by providing a ten-foot sidewalk adjacent to Natomas Boulevard that would be a shared pedestrian/bicycle facility mirroring the facility on the east side of Natomas Boulevard. The impacts of the project would be **less than significant**.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Transportation and Circulation.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
12. UTILITIES AND SERVICE SYSTEMS Would the project: A) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments?	X		
B) Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts?	X		

Water Supply

Water service for the project would be provided by the City of Sacramento. The City provides domestic water service from a combination of surface water and groundwater sources including the American River, Sacramento River, and groundwater wells. Water from the American River and Sacramento River is diverted by two water treatment plants: the Sacramento River Water Treatment Plant (WTP), located at the southern end of Bercut Drive approximately 6.2 miles south of the project site, and the E.A. Fairbairn Water Treatment Plant (EAFWTP), located at the northeast corner of State University Drive South and College Town Drive approximately 9.9 miles southeast of the project site. Water diverted from the Sacramento and American Rivers is treated, stored in storage reservoirs, and pumped to customers via a conveyance network.

The City of Sacramento complies with the California Water Code, which requires urban water suppliers to prepare and adopt Urban Water Management Plan (UWMPs) every five years. The most recent UWMP was adopted in 2010, and includes an analysis of water demand sufficiency under normal, single dry year, and multiple dry year scenarios. Water supply and demand projections include future planned development until 2035. Based, in part, on these projections, the City possesses sufficient water supply entitlements and treatment capacity during normal, dry, and multiple dry years to meet the demands of its customers up to the year 2035.[31]

Due to severe drought conditions in California that are predicted to stretch into a fifth straight year in 2016 and beyond, the Governor issued Executive Order B-29-15 on April 1, 2015, mandating substantial water reductions across the State. Executive Order B-29-15 requires that

[31] City of Sacramento, 2011 (October). Department of Utilities. 2010 Urban Water Master Plan. Page 5-22.

the Governor's January 17, 2014 and April 25, 2014 Proclamations and Executive Orders B-26-14 and B-28-14 remain in effect with modification for stricter water-saving measures. The Order imposes restrictions to achieve statewide 25% reduction in potable urban water usage through February 28, 2016, enforceable across a number of agencies, including the California Water Resources Control Board (Water Board), Department of Water Resources (DWR) and California Energy Commission. The Executive Order calls for DWR to partner with local agencies to replace 50 million square feet of lawns and ornamental turf with drought tolerant landscapes. The Order further requires the Water Board to impose restrictions for commercial, industrial, and institutional properties to reduce potable water usage by 25%. The Water Board is further required to prohibit irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or microspray systems. The Order also increases enforcement measures against water waste.

Wastewater and Stormwater

Wastewater would be collected by the Sacramento Area Sewer District's (SASD) Separated Sewer System, conveyed to the Sacramento Regional County Sanitation District (SRCSD) system, and ultimately treated at the Sacramento Regional Wastewater Treatment Plant (SRWWTP), which is located in Elk Grove. Local drainage within the City is pumped or gravity flown into the creeks and rivers.

Solid Waste Disposal

As discussed in the City's 2035 General Plan Background Report, multifamily residences with five units or more are considered commercial, and thus served by private haulers franchised by the Sacramento Solid Waste Authority (SWA).[32]

The Sacramento County Kiefer Landfill is the primary location for the disposal of waste in the City of Sacramento. The landfill accepts municipal waste and industrial waste and is permitted to accept up to 10,815 tons per day, averaging 6,300 tons per day.[33] This is further limited, however, by Section 17, Condition 26 and Table 2 of Kiefer's Solid Waste Permit, which limits the 2013 peak to 5,928 TPD and average to 3,487 TPD.[34] It is the only landfill facility in Sacramento County permitted to accept household waste from the public. Current peak and average daily disposal is much lower than the current permitted amounts. As of 2012, 305 acres

[32] City of Sacramento 2014. City of Sacramento 2035 General Plan Background Report Public Review Draft. August 2014. Page 4-44.
[33] CalRecycle, 2013. Solid Waste Facility Permit 34-AA-0001, updated June 2013.
[34] CalRecycle, 2013. Solid Waste Facility Permit 34-AA-0001, updated June 2013.

of the 660 acres contain waste.[35] The landfill facility sits on 1,084 acres. As a result, the Kiefer Landfill should be able to serve the area until the year 2065.[36]

Electricity and Natural Gas

The Sacramento Municipal Utility District (SMUD) is responsible for the generation, transmission, and distribution of electrical power to its 900 square mile service area, which includes most of Sacramento County and a small portion of Placer County. SMUD buys and sells energy and capacity on a short-term basis to meet load requirements and reduce costs. The Pacific Gas & Electric Company (PG&E) provides natural gas service to residents and businesses within the City of Sacramento.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, or school facilities beyond what was anticipated in the 2035 General Plan:

- result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments or

- Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the effects of development under the 2035 General Plan on water supply, sewer and storm drainage, solid waste, electricity, natural gas and telecommunications. See Chapter 4.11.

The Master EIR evaluated the impacts of increased demand for water that would occur with development under the 2035 General Plan. Policies in the general plan would reduce the impact generally to a less-than-significant level (see Impact 4.11-1) but the need for new water supply facilities results in a significant and unavoidable effect (Impact 4.11-2). Increased generation of wastewater and stormwater could result in the need for additional conveyance facilities (Impact

[35] City of Sacramento 2014. City of Sacramento 2035 General Plan Background Report Public Review Draft. August 2014. Page 4-45.
[36] City of Sacramento 2014. City of Sacramento 2035 General Plan Background Report Public Review Draft. August 2014. Page 4-45.

4.11-3) but there are established plans and fee programs in place as well as proposed policies to increase conveyance capacity in response to demand. Impacts to conveyance facilities are less than significant. The potential need for expansion of wastewater treatment facilities was identified as having a less-than-significant effect (Impact 4.11-4) because SRCSD has determined that the Sacramento Regional Wastewater Treatment Plant would have sufficient capacity throughout the General Plan planning period, and no capacity expansion at the plant would be expected. Impacts on solid waste facilities were less than significant (Impact 4.11-5). Implementation of energy efficient standards as set forth in Titles 20 and 24 of the California Code of Regulations for residential and non-residential buildings would reduce effects for energy to a less-than-significant level (Impact 4.11-6).

MITIGATION MEASURES FROM 2035 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A AND B

Water Supply

The proposed project consists of constructing a 60-unit multi-family residential unit assisted living structure, a 48-unit resident memory care structure, and 54 single-family residential/duplex units. An existing 12-inch transmission main runs north-south along Natomas Boulevard in the existing right-of-way (roadway located adjacently east of the project site); the on-site water conveyance system for the proposed project would connect to this water pipeline for water conveyance.

The projected water demand from the proposed project was accounted for in the City's 2035 General Plan and Master EIR, as the project is consistent with the General Plan land use designation. The Master EIR concluded that the City's existing water right permits and United States Bureau of Reclamation (USBR) contract are sufficient to meet the total water demand projected for buildout of the proposed 2035 General Plan, including the proposed project site. In addition, according to the 2010 Sacramento Urban Water Management Plan (UWMP), the City's water supply would be well below the City's water demand during a multiple-dry year in 2015, 2020, 2025, 2030, and 2035. During a drought year in 2035, the City's water yearly supply is expected to be 346,800 acre feet (AFY), while the City's yearly water demand would be 260,984 AFY; it is anticipated that there would be an 85,816 AFY surplus of water supply in the year

2035 during drought.[37] Because the City would have adequate capacity of water supply at buildout of the 2035 General Plan, and the proposed project is consistent with the General Plan, the project would have a **less-than-significant** impact related to water supply.

Wastewater and Stormwater

The proposed project consists of constructing a 60-unit multi-family residential unit assisted living structure, a 48-unit resident memory care structure, and 54 single-family residential/duplex units. Because the proposed project land use is consistent with that identified for the project site in the 2035 General Plan, wastewater flows on the project site were accounted for in the 2035 General Plan and Master EIR.

The SRCSD has a program in place to continually evaluate demand/capacity needs, and the master planning effort provides the flexibility to respond to changes in demand that can be anticipated in advance of planned improvements so that capacity issues are addressed in a timely and cost-effective manner. Master planning efforts that would identify necessary improvement in capacity to accommodate city growth beyond the 2020 Master Plan timeframe would be initiated well in advance of 2035. To fund expansions to the conveyance systems, the SRCSD requires a regional connection fee be paid to the District for any users connecting to or expanding sewer collection systems (SRCSD Ordinance No. SRCSD-0043).

Therefore, because there are established plans and fee programs in place as well as proposed policies to increase conveyance capacity in response to demand, the impact would be **less than significant**.

Solid Waste

As described above, multifamily residences with five units or more are considered commercial, and thus served by private haulers franchised by the Sacramento Solid Waste Authority (SWA).[38] Because the project was accounted for in the City's General Plan and Master EIR, and the project is consistent with the General Plan land use designation, this increase in solid waste production would not exhaust the remaining landfill capacity and this impact would be **less than significant**.

Electricity and Natural Gas

[37] City of Sacramento, 2011 (October). Department of Utilities. 2010 Urban Water Master Plan. Page 5-21, Table 46.
[38] City of Sacramento 2014. City of Sacramento 2035 General Plan Background Report Public Review Draft. August 2014. Page 4-44.

Construction of the project would result in increased use of electricity and natural gas. Both utility providers would install new distribution facilities, as needed, according to California Public Utilities Commission rules. Because the increased demand in energy is evaluated in the 2035 General Plan Master EIR, and because PG&E and SMUD would ensure their capability of providing an adequate level of service to the project site, this impact would be **less than significant**.

MITIGATION MEASURES

None.

FINDINGS

The project would have no additional project-specific environmental effects relating to Utilities and Service Systems.

Issues:	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
13. MANDATORY FINDINGS OF SIGNIFICANCE 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?	X		
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.)	X		
C.) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X		

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A THROUGH C

Development of the project site was assumed under the 2035 General Plan Master EIR. The proposed project is consistent with General Plan policy. The cumulative effects, growth-inducing effects and irreversible significant effects that could occur as a result of development allowed under the 2035 General Plan were evaluated in the Master EIR. The project would not result in any significant effects that were not evaluated in the Master EIR.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

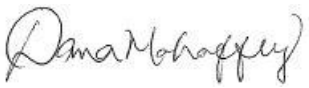
The environmental factors checked below would potentially be affected by this project.

___	Aesthetics	___	Hazards
___	Air Quality	___	Noise
___	Biological Resources	___	Public Services
___	Cultural Resources	___	Recreation
___	Energy and Mineral Resources	___	Transportation/Circulation
___	Geology and Soils	___	Utilities and Service Systems
___	Hydrology and Water Quality	___	
___		___	
X	None Identified		

SECTION V - DETERMINATION

On the basis of the initial study:

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2035 General Plan Master EIR; (b) the proposed project is consistent with the 2035 General Plan land use designation and the permissible densities and intensities of use for the project site; and (c) the proposed project will not have any project-specific additional significant environmental effects not previously examined in the Master EIR, and no new mitigation measures or alternatives will be required. Mitigation measures from the Master EIR will be applied to the proposed project as appropriate. Notice shall be provided pursuant to CEQA Guidelines Section 15087. (CEQA Guidelines Section 15177(b))



Signature

Date

Dana Mahaffey

Printed Name

Appendix A
CalEEMod Reports

Heritage Park - Without Energy Measures

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	108.00	Dwelling Unit	6.75	88,600.00	288
Retirement Community	54.00	Dwelling Unit	3.25	67,230.00	144

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2015
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Assisted Living land use also encapsulates Memory Care Center (48 units) and estimated to be ~88,600 sf. Independent cottages (54 units) would be an average of 1,245 sf.

Construction Phase - Modeling operational energy only

Off-road Equipment - Modeling operational energy only

Trips and VMT - Modeling operational energy only

Architectural Coating - Modeling operational energy only

Vehicle Trips - Modeling operational energy only

Consumer Products - Modeling operational energy only

Area Coating - Modeling operational energy only

Energy Use - Updated Title 24 electricity and natural gas energy intensity to match 2013 Title 24 standards (25% reduction versus 2008 standards)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	105,185.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	315,556.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	301.15	225.86
tblEnergyUse	T24NG	8,261.25	6,195.94
tblEnergyUse	T24NG	18,960.80	14,220.60
tblLandUse	LandUseSquareFeet	108,000.00	88,600.00
tblLandUse	LandUseSquareFeet	54,000.00	67,230.00
tblLandUse	LotAcreage	10.80	3.25
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	2.81	0.00
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	2.81	0.00
tblVehicleTrips	WD_TR	2.74	0.00
tblVehicleTrips	WD_TR	2.81	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6630	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Energy	9.6100e-003	0.0821	0.0349	5.2000e-004		6.6400e-003	6.6400e-003		6.6400e-003	6.6400e-003	0.0000	260.3256	260.3256	9.9400e-003	3.4200e-003	261.5954
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	25.0471	0.0000	25.0471	1.4802	0.0000	56.1321
Water						0.0000	0.0000		0.0000	0.0000	3.7344	20.3179	24.0522	0.0139	8.3300e-003	26.9246
Total	**0.6727**	**0.1022**	**1.7369**	**6.1000e-004**	**0.0000**	**0.0158**	**0.0158**	**0.0000**	**0.0158**	**0.0158**	**28.7814**	**283.3724**	**312.1538**	**1.5069**	**0.0118**	**347.4406**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6630	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Energy	9.6100e-003	0.0821	0.0349	5.2000e-004		6.6400e-003	6.6400e-003		6.6400e-003	6.6400e-003	0.0000	260.3256	260.3256	9.9400e-003	3.4200e-003	261.5954
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	25.0471	0.0000	25.0471	1.4802	0.0000	56.1321
Water						0.0000	0.0000		0.0000	0.0000	3.7344	20.3179	24.0522	0.0139	8.3400e-003	26.9288
Total	**0.6727**	**0.1022**	**1.7369**	**6.1000e-004**	**0.0000**	**0.0158**	**0.0158**	**0.0000**	**0.0158**	**0.0158**	**28.7814**	**283.3724**	**312.1538**	**1.5069**	**0.0118**	**347.4448**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-0.09**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	2/24/2017	3/23/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	0.00	0.00	0.00		
Retirement Community	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
Retirement Community	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504472	0.068177	0.177914	0.148798	0.045219	0.006392	0.019958	0.015471	0.002301	0.002330	0.006201	0.000579	0.002187

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	165.2430	165.2430	8.1200e-003	1.6800e-003	165.9342
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	165.2430	165.2430	8.1200e-003	1.6800e-003	165.9342
NaturalGas Mitigated	9.6100e-003	0.0821	0.0349	5.2000e-004		6.6400e-003	6.6400e-003		6.6400e-003	6.6400e-003	0.0000	95.0826	95.0826	1.8200e-003	1.7400e-003	95.6612
NaturalGas Unmitigated	9.6100e-003	0.0821	0.0349	5.2000e-004		6.6400e-003	6.6400e-003		6.6400e-003	6.6400e-003	0.0000	95.0826	95.0826	1.8200e-003	1.7400e-003	95.6612

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	854513	4.6100e-003	0.0394	0.0168	2.5000e-004		3.1800e-003	3.1800e-003		3.1800e-003	3.1800e-003	0.0000	45.6001	45.6001	8.7000e-004	8.4000e-004	45.8776
Retirement Community	927266	5.0000e-003	0.0427	0.0182	2.7000e-004		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	49.4825	49.4825	9.5000e-004	9.1000e-004	49.7836
Total		**9.6100e-003**	**0.0821**	**0.0349**	**5.2000e-004**		**6.6300e-003**	**6.6300e-003**		**6.6300e-003**	**6.6300e-003**	**0.0000**	**95.0826**	**95.0826**	**1.8200e-003**	**1.7500e-003**	**95.6612**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Retirement Community	927266	5.0000e-003	0.0427	0.0182	2.7000e-004		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	49.4825	49.4825	9.5000e-004	9.1000e-004	49.7836
Congregate Care (Assisted Living)	854513	4.6100e-003	0.0394	0.0168	2.5000e-004		3.1800e-003	3.1800e-003		3.1800e-003	3.1800e-003	0.0000	45.6001	45.6001	8.7000e-004	8.4000e-004	45.8776
Total		**9.6100e-003**	**0.0821**	**0.0349**	**5.2000e-004**		**6.6300e-003**	**6.6300e-003**		**6.6300e-003**	**6.6300e-003**	**0.0000**	**95.0826**	**95.0826**	**1.8200e-003**	**1.7500e-003**	**95.6612**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	382079	102.3056	5.0300e-003	1.0400e-003	102.7335
Retirement Community	235052	62.9375	3.0900e-003	6.4000e-004	63.2007
Total		**165.2430**	**8.1200e-003**	**1.6800e-003**	**165.9342**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	382079	102.3056	5.0300e-003	1.0400e-003	102.7335
Retirement Community	235052	62.9375	3.0900e-003	6.4000e-004	63.2007
Total		**165.2430**	**8.1200e-003**	**1.6800e-003**	**165.9342**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6630	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Unmitigated	0.6630	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6086					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0545	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Total	**0.6630**	**0.0201**	**1.7020**	**9.0000e-005**		**9.1100e-003**	**9.1100e-003**		**9.1100e-003**	**9.1100e-003**	**0.0000**	**2.7290**	**2.7290**	**2.8400e-003**	**0.0000**	**2.7886**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6086					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0545	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Total	**0.6630**	**0.0201**	**1.7020**	**9.0000e-005**		**9.1100e-003**	**9.1100e-003**		**9.1100e-003**	**9.1100e-003**	**0.0000**	**2.7290**	**2.7290**	**2.8400e-003**	**0.0000**	**2.7886**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	24.0522	0.0139	8.3400e-003	26.9288
Unmitigated	24.0522	0.0139	8.3300e-003	26.9246

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	7.03663 / 4.43614	16.0348	9.2300e-003	5.5500e-003	17.9498
Retirement Community	3.51832 / 2.21807	8.0174	4.6200e-003	2.7800e-003	8.9749
Total		**24.0522**	**0.0139**	**8.3300e-003**	**26.9246**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	7.03663 / 4.43614	16.0348	9.2700e-003	5.5600e-003	17.9525
Retirement Community	3.51832 / 2.21807	8.0174	4.6300e-003	2.7800e-003	8.9763
Total		**24.0522**	**0.0139**	**8.3400e-003**	**26.9288**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	25.0471	1.4802	0.0000	56.1321
Mitigated	25.0471	1.4802	0.0000	56.1321

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	98.55	20.0048	1.1823	0.0000	44.8320
Retirement Community	24.84	5.0423	0.2980	0.0000	11.3001
Total		**25.0471**	**1.4802**	**0.0000**	**56.1321**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	98.55	20.0048	1.1823	0.0000	44.8320
Retirement Community	24.84	5.0423	0.2980	0.0000	11.3001
Total		**25.0471**	**1.4802**	**0.0000**	**56.1321**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Heritage Park - With Energy Measures

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	108.00	Dwelling Unit	6.75	88,600.00	288
Retirement Community	54.00	Dwelling Unit	3.25	67,230.00	144

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2015
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Assisted Living land use also encapsulates Memory Care Center (48 units) and estimated to be ~88,600 sf. Independent cottages (54 units) would be an average of 1,245 sf.

Construction Phase - Modeling operational energy only

Off-road Equipment - Modeling operational energy only

Trips and VMT - Modeling operational energy only

Architectural Coating - Modeling operational energy only

Vehicle Trips - Modeling operational energy only

Consumer Products - Modeling operational energy only

Area Coating - Modeling operational energy only

Energy Use - Updated Title 24 electricity and natural gas energy intensity to match 2013 Title 24 standards (25% reduction versus 2008 standards), then applied an additional 15% reduction to natural gas intensity based on the higher efficiency split systems and water heaters incorporated into the project

Water Mitigation - Incorporated 28% indoor water reduction per information from LP Consulting Engineers

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	105,185.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	315,556.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	301.15	225.86
tblEnergyUse	T24NG	8,261.25	4,956.75
tblEnergyUse	T24NG	18,960.80	11,376.48
tblLandUse	LandUseSquareFeet	108,000.00	88,600.00
tblLandUse	LandUseSquareFeet	54,000.00	67,230.00
tblLandUse	LotAcreage	10.80	3.25
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	2.81	0.00
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	2.81	0.00
tblVehicleTrips	WD_TR	2.74	0.00
tblVehicleTrips	WD_TR	2.81	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6630	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Energy	8.0600e-003	0.0689	0.0293	4.4000e-004		5.5700e-003	5.5700e-003		5.5700e-003	5.5700e-003	0.0000	244.9880	244.9880	9.6500e-003	3.1400e-003	246.1645
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	25.0471	0.0000	25.0471	1.4802	0.0000	56.1321
Water						0.0000	0.0000		0.0000	0.0000	3.7344	20.3179	24.0522	0.0139	8.3300e-003	26.9246
Total	**0.6711**	**0.0889**	**1.7313**	**5.3000e-004**	**0.0000**	**0.0147**	**0.0147**	**0.0000**	**0.0147**	**0.0147**	**28.7814**	**268.0349**	**296.8163**	**1.5066**	**0.0115**	**332.0097**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6630	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Energy	8.0600e-003	0.0689	0.0293	4.4000e-004		5.5700e-003	5.5700e-003		5.5700e-003	5.5700e-003	0.0000	244.9880	244.9880	9.6500e-003	3.1400e-003	246.1645
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	25.0471	0.0000	25.0471	1.4802	0.0000	56.1321
Water						0.0000	0.0000		0.0000	0.0000	2.6887	17.0929	19.7816	0.0101	6.0200e-003	21.8600
Total	**0.6711**	**0.0889**	**1.7313**	**5.3000e-004**	**0.0000**	**0.0147**	**0.0147**	**0.0000**	**0.0147**	**0.0147**	**27.7358**	**264.8099**	**292.5457**	**1.5028**	**9.1600e-003**	**326.9452**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.63**	**1.20**	**1.44**	**0.25**	**20.14**	**1.53**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	2/24/2017	3/23/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	0.00	0.00	0.00		
Retirement Community	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
Retirement Community	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504472	0.068177	0.177914	0.148798	0.045219	0.006392	0.019958	0.015471	0.002301	0.002330	0.006201	0.000579	0.002187

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	165.2430	165.2430	8.1200e-003	1.6800e-003	165.9342
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	165.2430	165.2430	8.1200e-003	1.6800e-003	165.9342
NaturalGas Mitigated	8.0600e-003	0.0689	0.0293	4.4000e-004		5.5700e-003	5.5700e-003		5.5700e-003	5.5700e-003	0.0000	79.7450	79.7450	1.5300e-003	1.4600e-003	80.2303
NaturalGas Unmitigated	8.0600e-003	0.0689	0.0293	4.4000e-004		5.5700e-003	5.5700e-003		5.5700e-003	5.5700e-003	0.0000	79.7450	79.7450	1.5300e-003	1.4600e-003	80.2303

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	720681	3.8900e-003	0.0332	0.0141	2.1000e-004		2.6800e-003	2.6800e-003		2.6800e-003	2.6800e-003	0.0000	38.4583	38.4583	7.4000e-004	7.1000e-004	38.6923
Retirement Community	773684	4.1700e-003	0.0357	0.0152	2.3000e-004		2.8800e-003	2.8800e-003		2.8800e-003	2.8800e-003	0.0000	41.2867	41.2867	7.9000e-004	7.6000e-004	41.5380
Total		**8.0600e-003**	**0.0689**	**0.0293**	**4.4000e-004**		**5.5600e-003**	**5.5600e-003**		**5.5600e-003**	**5.5600e-003**	**0.0000**	**79.7450**	**79.7450**	**1.5300e-003**	**1.4700e-003**	**80.2303**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Retirement Community	773684	4.1700e-003	0.0357	0.0152	2.3000e-004		2.8800e-003	2.8800e-003		2.8800e-003	2.8800e-003	0.0000	41.2867	41.2867	7.9000e-004	7.6000e-004	41.5380
Congregate Care (Assisted Living)	720681	3.8900e-003	0.0332	0.0141	2.1000e-004		2.6800e-003	2.6800e-003		2.6800e-003	2.6800e-003	0.0000	38.4583	38.4583	7.4000e-004	7.1000e-004	38.6923
Total		**8.0600e-003**	**0.0689**	**0.0293**	**4.4000e-004**		**5.5600e-003**	**5.5600e-003**		**5.5600e-003**	**5.5600e-003**	**0.0000**	**79.7450**	**79.7450**	**1.5300e-003**	**1.4700e-003**	**80.2303**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	382079	102.3056	5.0300e-003	1.0400e-003	102.7335
Retirement Community	235052	62.9375	3.0900e-003	6.4000e-004	63.2007
Total		**165.2430**	**8.1200e-003**	**1.6800e-003**	**165.9342**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	382079	102.3056	5.0300e-003	1.0400e-003	102.7335
Retirement Community	235052	62.9375	3.0900e-003	6.4000e-004	63.2007
Total		**165.2430**	**8.1200e-003**	**1.6800e-003**	**165.9342**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6630	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Unmitigated	0.6630	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6086					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0545	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Total	**0.6630**	**0.0201**	**1.7020**	**9.0000e-005**		**9.1100e-003**	**9.1100e-003**		**9.1100e-003**	**9.1100e-003**	**0.0000**	**2.7290**	**2.7290**	**2.8400e-003**	**0.0000**	**2.7886**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6086					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0545	0.0201	1.7020	9.0000e-005		9.1100e-003	9.1100e-003		9.1100e-003	9.1100e-003	0.0000	2.7290	2.7290	2.8400e-003	0.0000	2.7886
Total	**0.6630**	**0.0201**	**1.7020**	**9.0000e-005**		**9.1100e-003**	**9.1100e-003**		**9.1100e-003**	**9.1100e-003**	**0.0000**	**2.7290**	**2.7290**	**2.8400e-003**	**0.0000**	**2.7886**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.7816	0.0101	6.0200e-003	21.8600
Unmitigated	24.0522	0.0139	8.3300e-003	26.9246

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	7.03663 / 4.43614	16.0348	9.2300e-003	5.5500e-003	17.9498
Retirement Community	3.51832 / 2.21807	8.0174	4.6200e-003	2.7800e-003	8.9749
Total		**24.0522**	**0.0139**	**8.3300e-003**	**26.9246**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	5.06638 / 4.43614	13.1877	6.7300e-003	4.0100e-003	14.5734
Retirement Community	2.53319 / 2.21807	6.5939	3.3600e-003	2.0100e-003	7.2867
Total		**19.7816**	**0.0101**	**6.0200e-003**	**21.8600**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	25.0471	1.4802	0.0000	56.1321
Mitigated	25.0471	1.4802	0.0000	56.1321

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	98.55	20.0048	1.1823	0.0000	44.8320
Retirement Community	24.84	5.0423	0.2980	0.0000	11.3001
Total		**25.0471**	**1.4802**	**0.0000**	**56.1321**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	98.55	20.0048	1.1823	0.0000	44.8320
Retirement Community	24.84	5.0423	0.2980	0.0000	11.3001
Total		**25.0471**	**1.4802**	**0.0000**	**56.1321**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Heritage Park Title 24 Comparison

2013 Title 24 Adjustment to defaults in CalEEMod

CalEEMod Summary	Default Electricity (kWhr/size/yr)	Electricity 2013 Title 24	Default Natural Gas (kBtu/size/yr)	Natural Gas 2013 Title 24
Assisted Living	322.48	241.86	8,261.25	6,195.94
Retirement Community	301.15	225.86	18,960.80	14,220.60

Improved Efficiency Systems (HVAC and Water Heaters) - Additional 15% Reduction vs Title 24 Requirements for Natural Gas

CalEEMod Summary	Default Electricity (kWhr/size/yr)	Electricity 2013 Title 24	Default Natural Gas (kBtu/size/yr)	Natural Gas 2013 Title 24
Assisted Living	322.48	241.86	8,261.25	4,956.75
Retirement Community	301.15	225.86	18,960.80	11,376.48

Comparison of Project to 2013 Title 24

Scenario	Land Use	Electricity Use kWhr/yr	Electricity Use kBTU/year	Natural Gas Use kBTU/yr	Total Energy kBTU/yr
Title 24 Requirements	Assisted Living	382,079.00	1,303,707.04	854,513.00	2,158,220.04
	Cottages	235,052.00	802,030.33	927,266.00	1,729,296.33
	Total	617,131.00	2,105,737.37	1,781,779.00	3,887,516.37
Project	Assisted Living	382,079.00	1,303,707.04	720,681.00	2,024,388.04
	Cottages	235,052.00	802,030.33	773,684.00	1,575,714.33
	Total	617,131.00	2,105,737.37	1,494,365.00	3,600,102.37
				Reduction %	7.39%