

Initial Study/Mitigated Negative Declaration for the

# Carlton Senior Assisted Living Facility Project

2850 Redwood Parkway  
City of Vallejo  
December 2018

Prepared by:



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## **Appendices (Separate Documents)**

- A. Air Quality and Greenhouse Gas Analysis; October, 2018; MIG, Inc.
- B. Updated CNDDDB Search; October, 2018; MIG, Inc.
- C. Traffic Report, October, 2018, Michael Baker International

# 1. Project Information

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## 1.1 Project Title

Initial Study/Mitigated Negative Declaration for the Senior Living Assisted Living Facility Project

## 1.2 Lead Agency Name and Address

City of Vallejo  
Planning & Development Services Department  
Planning Division  
555 Santa Clara Street  
Vallejo, California 94590

## 1.3 Contact Person and Phone Number

Michelle Hightower  
Senior Planner  
(707) 648-4506  
Michelle.Hightower@cityofvallejo.net

## 1.4 Project Sponsor Name and Address

Carlton Senior Living  
4005 Port Chicago Highway, Suite 120  
Concord, CA 94520

## 1.5 General Plan Designation

Business/Limited Residential

## 1.6 Zoning

Pedestrian Shopping & Service District (CP)

## 1.7 Introduction

This Initial Study of environmental impacts has been prepared to conform to the requirements of the Public Resources Code California Environmental Quality Act (CEQA Statutes), the California Code of Regulations Section 15000 et. Seq. (CEQA Guidelines), and the regulations and policies of the City of Vallejo. The report is intended to inform City of Vallejo (City) decision-makers, responsible agencies, and the general public of the Carlton Senior Living project (proposed project) and its environmental consequences. The City of Vallejo is the Lead Agency under CEQA and has prepared this Initial Study to address the impacts of implementing the proposed project.

## 1.8 Project Location and Context

The following section describes the project site's location, surrounding land uses, site characteristics, and land use designations.

*Location.* The project site (2850 Redwood Parkway) is on the north side of Redwood Parkway between Admiral Callaghan Lane and Cadloni Lane in Vallejo (Figure 1).

*Surrounding Land Uses.* The site is bounded by the Redwood Plaza Shopping Center and commercial uses to the north, multi-family homes and a medical office building to the east, Redwood Parkway to the



south, and a gas station and Admiral Callaghan Lane to the west. The Interstate 80 Freeway and off-ramps are west of the project site.

*Site Characteristics.* The site consists of two irregular shaped parcels that total approximately 7.67 acres with access from both Redwood Parkway and Admiral Callaghan Lane. The project site is the former Elks Lodge property fronting Redwood Parkway. The project site is currently developed with the Vallejo Elks Lodge #559, which includes three one- to two-story buildings totaling approximately 35,057 square feet and associated recreational facilities, surface parking, and landscaping. A water easement bisects the property in a northwest direction.

*Land Use Designation.* The General Plan 2040, Propel Vallejo (General Plan) land use designation for the project site is Business/Limited Residential and the zoning designation is Pedestrian Shopping & Service District (CP).

## **1.9 Project Description**

The proposal is to construct a three-story, 154,000 square foot assisted living facility that includes 120 assisted living units and 36 memory care units with a total of 179 beds (Figure 2). The proposed project would involve demolishing all existing uses including buildings, swimming pools, the aggregate base, concrete, topsoil, organic material, fencing, and miscellaneous structures (Figure 3). The new assisted living facility would provide support services such as an administrative office, living, dining, kitchen, wellness and other activity areas. The 24-hour facility would include approximately 35 employees (part-time and full-time) working in three shifts. An application for a lot line adjustment would be submitted to create a 1.63-acre parcel fronting Redwood Parkway for future commercial development providing complimentary services to the assisted living facility. This new parcel would accommodate up to 24,000 square feet of medical office or commercial retail space in a two-story building.

The project would be developed in two phases with Phase I as the assisted living facility and Phase II as the medical office or commercial building. Details regarding Phase II are unknown at this time and are not provided as part of this project description.

### **Phase I - Assisted Living Facility**

The proposed assisted living facility building design is a contemporary style with gable roofs and concrete tile shingles. The building would have variations in the horizontal planes such as recessed walls and a mix of siding materials including plaster/stucco, horizontal cement siding, and stone veneer. Accent features include towers with stone veneer siding and window openings at various locations, decorative kickers, metal box canopies, and louvered vents. The material palette is grey, brown and white colors for the building. The building would be three stories which is taller than the adjacent one-story shopping center to the northwest, and the two-story multi-family development to the east.

The proposed building would be sited in the northeast section of the property fronting Redwood Parkway. For security purposes, the site would include a concrete masonry wall (CMU) along the northern and eastern property lines and a steel perimeter fence along the front on the site facing Redwood Parkway with gates at the two entrances; however, the gates would remain open during the day. The existing chain link fence along the northerly boundary adjacent to Redwood Plaza would be retained.

Walking paths would be provided throughout the site with direct pedestrian access to both streets. Additionally, a dog park, interior courtyards, and an open space area with seating on the east side of the

main entrance near a retention basin are proposed as site amenities. The proposed landscaping includes hedges and trees along the property lines, and a variety of shrubs, grasses, and ground covers throughout the property (Figure 4).

*Circulation and Parking.* The primary vehicular entrance to the site is proposed at the south signalized driveway on Redwood Parkway at Admiral Callaghan Lane. The driveway leads to a circular approach at the main building entrance and a service road is provided along the perimeter of the site. The secondary access at Admiral Callaghan Lane would be restricted to right-turns into the site and right-turns from the site. There would be 83 parking spots associated with the assisted living facility and 97 parking spaces would be provided to support this use. As such, a total of 180 parking spaces are proposed with the majority of spaces fronting Redwood Parkway and others in various locations surrounding the building.

*Landscape and Open Space.* The proposed assisted living facility building design is a contemporary style which is consistent with the surrounding area. All outdoor lighting would be downward directed, and would minimize light dispersion to adjacent properties (Figure 5). Landscaping includes trees and shrubs that comply with the criteria of the water efficient landscape ordinance; the criteria were applied to both the landscape design plan and irrigation design plan.

*Grading.* The site would be graded (and balanced on-site) and all new hardscape surfaces would flow to treatment areas or landscape planters. The project would comply with stormwater treatment requirements and includes bio-retention areas in excess of what is required by regulations (Figure 6).

*Utilities and Infrastructure.* The proposed project would connect to existing water, wastewater, storm drainage, electricity, and telecommunication infrastructure (Figure 7). In addition, runoff overflow from the proposed bioretention facility planter areas would enter drain box inlets and would be carried by a new onsite underground storm drain pipe connecting to an existing storm drain pipe (Figure 8).

*Project Construction and Excavation.* Construction is anticipated to begin in September 2019 and be completed in December 2020.

## Phase II – Future Commercial Building

Phase II of the project would include development of a two-story medical office or commercial retail building on 1.63 acres fronting Redwood Parkway in the southeast corner of the property. Although not yet defined, the project would include a surface parking lot and landscaping on the site. The area would be hydroseeded with turf until future development occurs. Phase II would require a separate Site Development Permit from the City Planning Division.

*City Actions/Approvals.* The proposed project would require the following City approvals:

- Adoption of the Mitigated Negative Declaration - City Planning Commission
- Approval of the Conditional Use Permit and Site Development Permit, Phase 1- City Planning Commission
- Approval of a Lot Line Adjustment, Landscape Review Permit and Sign Permit, Phase 1 - Planning Division
- Approval of Future Site Development Permit, Landscape Review Permit and Sign Permit, Phase II – Planning Division

*Other Public Agencies Whose Notification and/or Approval is Required.* The proposed project would require the following public agencies to be notified and/or approvals:

- City of Vallejo Building Division, Fire Prevention Division, Water Department and Public Works Department
- Vallejo Flood and Wastewater District (VFWD)
- Recology Vallejo
- Solano County Environmental Health
- State of California, Residential Care for the Elderly License

Figure 1: Project Location Map



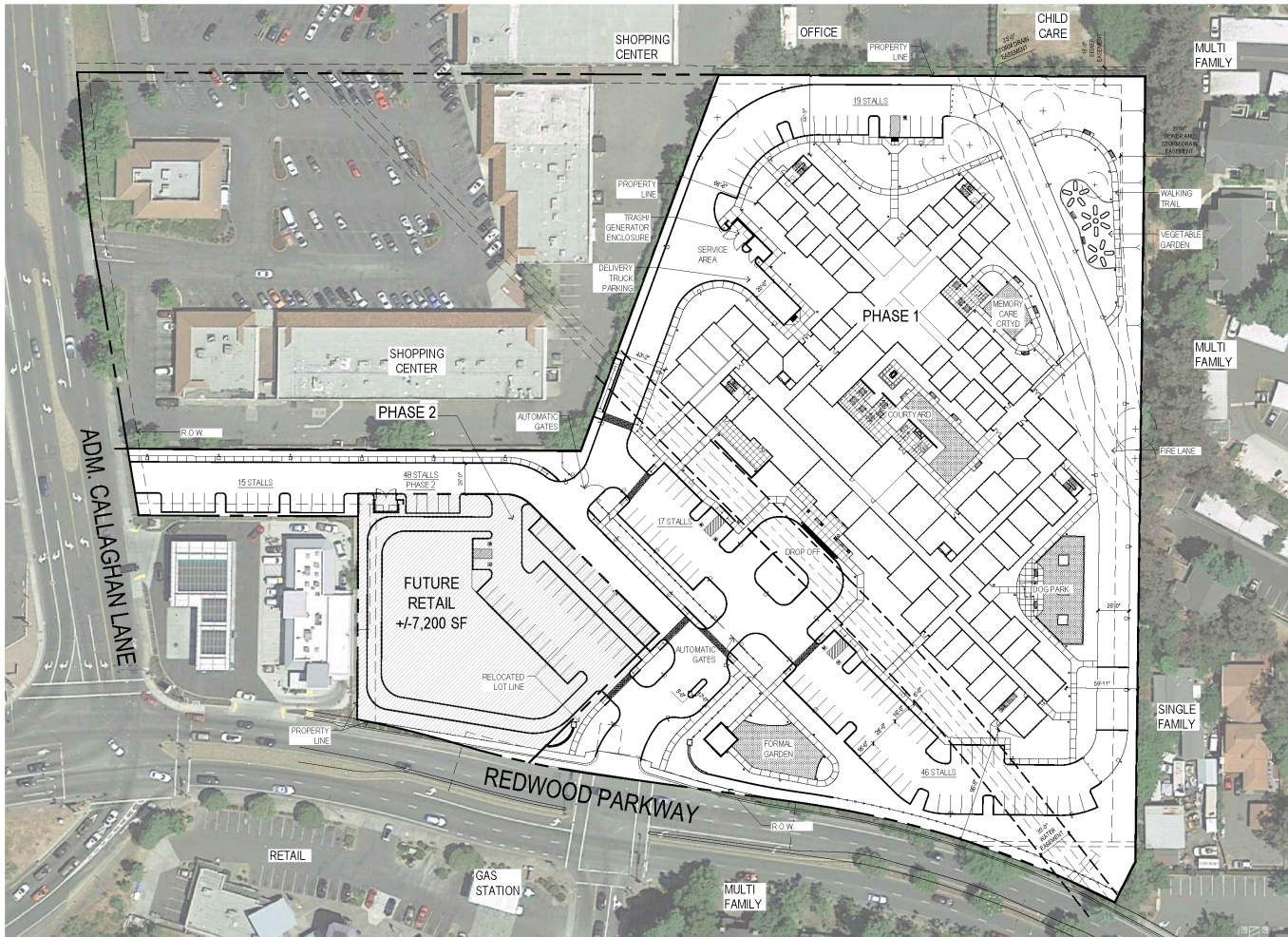
**Figure 1** Project Vicinity Map

Carlton Assisted Living Project, Solano County, CA





Figure 2: Site Plan



## CARLTON VALLEJO

VALLEJO, CA

## MASTER SITE PLAN

DATE: 05.11.2018  
 PROJECT NO.: 508-0022  
 SCALE:  
 SHEET: L01



LPAS

2484 Natomas Park Drive, Suite 100, Sacramento CA 95833  
 916.443.8338 | lpasdesign.com

Figure 3: Demolition Plan



CARLTON VALLEJO

VALLEJO, CA

PRELIMINARY  
DEMOLITION PLAN

DATE: 5-10-2018  
 PROJECT NO: 508-0022  
 SCALE: AS SHOWN  
 SHEET: C01









Figure 4: Landscaping Plans



NOTE:  
 • THE PROJECT WILL COMPLY WITH THE CRITERIA OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED SUCH CRITERIA FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.  
 • THE PROJECT WILL COMPLY WITH THE CRITERIA OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED SUCH CRITERIA FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.  
 • A FULLY AUTOMATED IRRIGATION SYSTEM WILL BE PROVIDED.

PLANT LIST		
TREES	BOTANICAL NAME	CONT
	Acer palmatum 'Sango Kaku' Coral Bark Maple	15 gal
	Acer rubrum 'Karpisik' Karpisik Red Maple	15 gal
	Cercis canadensis 'Hearts of Gold' Forest Pink Redbud	15 gal
	Elaeagnus decipiens TM Japanese Blueberry Tree	15 gal
	Lagostroemia x 'Natchez' Crape Myrtle	24"box
	Nyssa sylvatica 'Forum' TM Sour Gum	15 gal
	Prunella chinensis 'Keith Davey' Keith Davey Chinese Plisache	24"box
	Quercus laevis Valley Oak	48"box
	Quercus virginiana Southern Live Oak	24"box
	Zelkova serotina 'Green Vase' Sweet Zelkova	24"box
SHRUBS	BOTANICAL NAME	CONT
	Anisocarpus x 'Bush Gold' Kingsize Pix	1 gal
	Berberis thunbergii 'Orange Rocket' Orange Rocket Barberry	1 gal
	Buxus microphylla japonica 'Green Beauty' Green Beauty Boxwood	1 gal
	Callistemon viminalis 'Little John' Oval Weeping Bottlebrush	1 gal
	Ceanothus gneiss horizontalis 'Yankee Point' California Lilac	1 gal
	Galearia speciosa Island Bush Snapdragon	1 gal
	Hebe x Autumn Glory Autumn Glory Hebe	1 gal
	Lavandula angustifolia 'Hidoux' Hidoux Lavender	1 gal
	Loropetalum chinense 'Purple Pixie' Purple Pixie Loropetalum	1 gal
	Munthebergia bicolor Lindheimer's Mulberry	1 gal
	Nandina domestica 'Bush Pink' Heavenly Bamboo	1 gal
	Penstemon heterophyllus 'Margarta BOP' Beauti Tongue	5 gal
	Pittosporum tenuifolium 'Golf Ball' Teeball	5 gal
	Potamogeton microphyllus makii Shrubby Yew	5 gal
	Rosa x 'Noisette' Flower Carpet White Groundcover Rose	5 gal
	Salvia x 'Bee's Bliss' Sage	1 gal
GROUND COVERS	BOTANICAL NAME	CONT
	Arctostaphylos uva-ursi 'Emerald Carpet' Emerald Carpet Manzanita	1 gal
	Baccharis pilularis 'Twin Peaks' Twin Peaks Coyote Brush	1 gal
	Boutanous graminis 'Bronze Ambition' Blue Grama	1 gal
	Dianella revivida 'Little Rev' Little Rev Fisk Lily	1 gal
	Hemerocallis x 'Mond' Stansford Red Evergreen Daylily	1 gal
	Juniperus horizontalis 'Willow' Blue Rug Juniper	1 gal
	Liriodendron bicolor 'Slavery Sunroof' Slavery Sunroof Blue Liriodendron	1 gal
	Lomandra hystrix 'Katie Beiles' Katie Beiles Lomandra Grass	1 gal
	Mycoporum parvifolium Trailing Myoporum	1 gal
	Native Sod Delta Grasslands Mix	sod
	Zauschneria californica California Fuchsia	1 gal

# CARLTON VALLEJO

VALLEJO, CA

## LANDSCAPE PLAN

DATE: 05.11.2018  
 PROJECT NO: 508-0022  
 SCALE:  
 SHEET: L09



# LPAS

2466 Natamas Park Drive, Suite 100, Sacramento CA 95833  
 916.443.0335 lpadesign.com architecture + design



Figure 5: Photometric Plan



CARLTON VALLEJO

VALLEJO, CA

PHOTOMETRIC PLAN

DATE: 05.11.2018  
PROJECT NO: 508-0022  
SCALE:  
SHEET: L07



Figure 6: Grading Plan



CARLTON VALLEJO

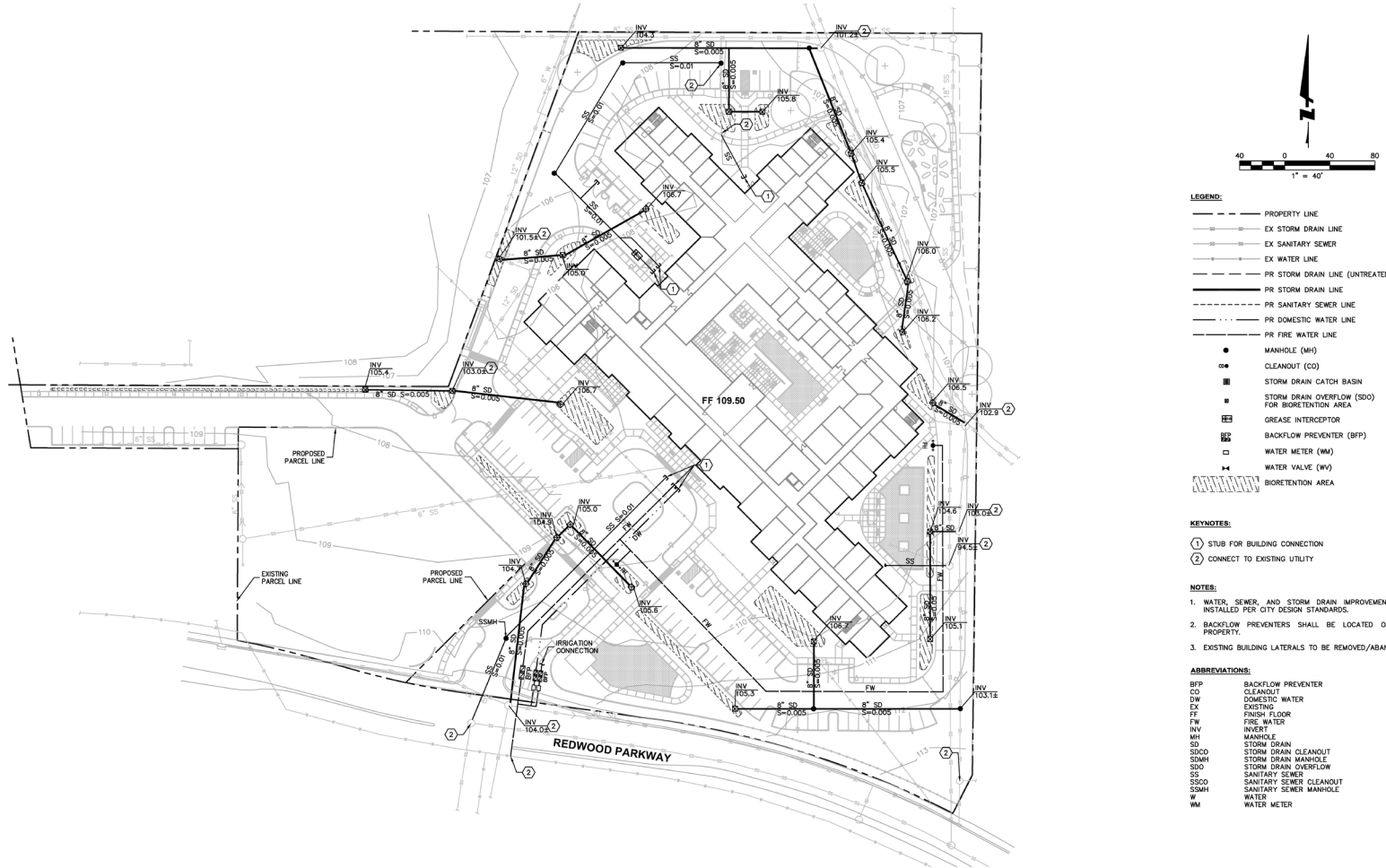
VALLEJO, CA

PRELIMINARY GRADING PLAN

DATE: 5-10-2018  
 PROJECT NO: 508-0022  
 SCALE: AS SHOWN  
 SHEET: C02



Figure 7: Utilities Plan



CARLTON VALLEJO

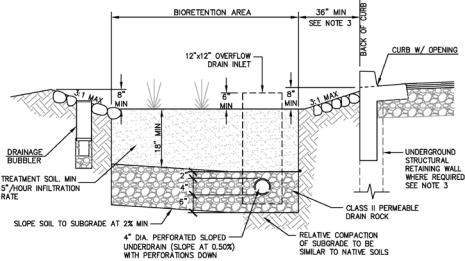
VALLEJO, CA

PRELIMINARY  
UTILITY PLAN

DATE: 5-10-2018  
PROJECT NO: 508-0022  
SCALE: AS SHOWN  
SHEET: C03

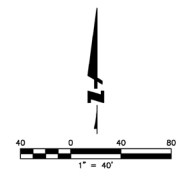
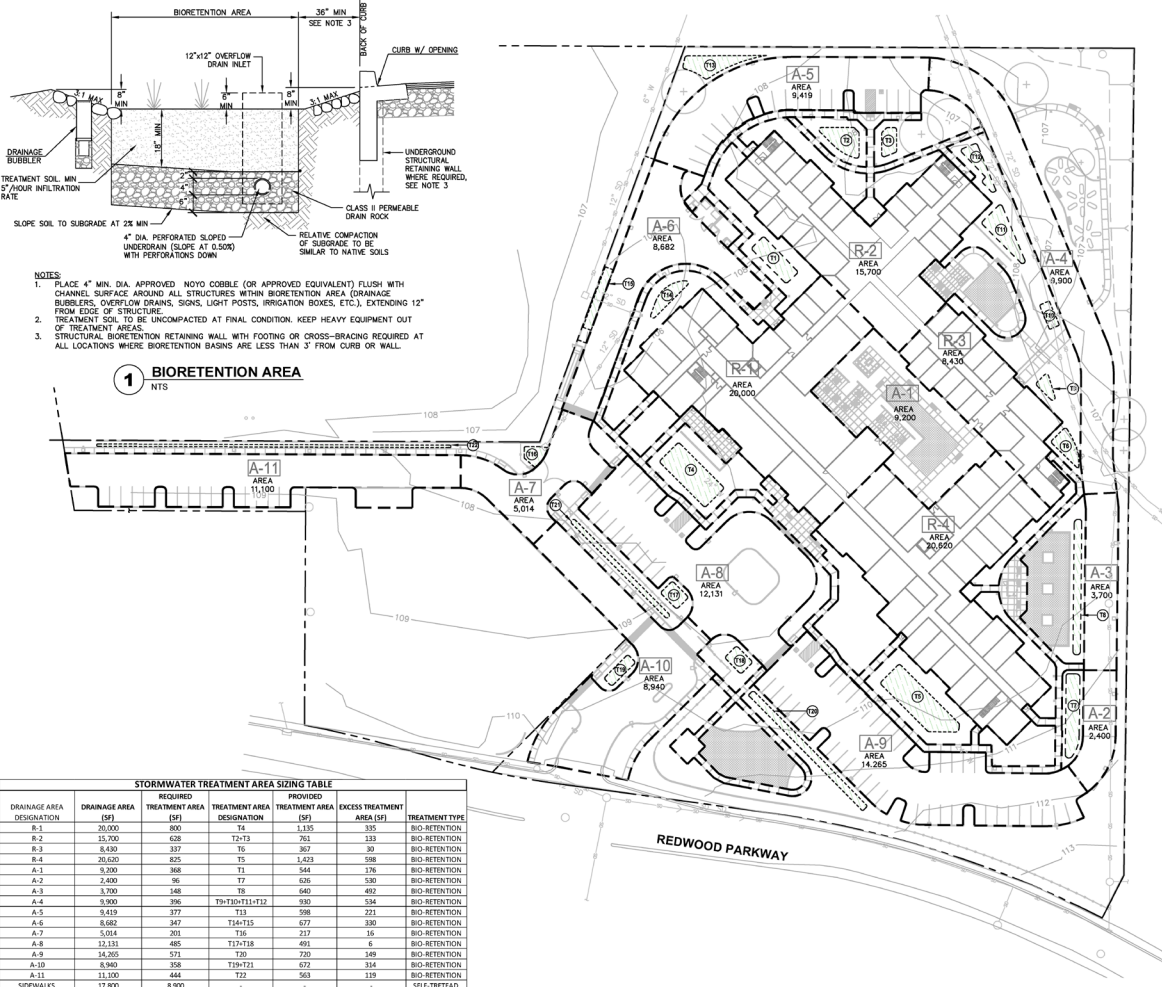


Figure 8: Stormwater Control Plan



- NOTES:**
1. PLACE 4" MIN. DIA. APPROVED NOVO COBBLE (OR APPROVED EQUIVALENT) FLUSH WITH CHANNEL SURFACE AROUND ALL STRUCTURES WITHIN BIORETENTION AREA (DRAINAGE SUBLAYER, OVERFLOW DRAINS, SINKS, LIGHT POSTS, IRRIGATION BOXES, ETC.), EXTENDING 12" FROM EDGE OF STRUCTURE.
  2. TREATMENT SOIL TO BE UNCOMPACTED AT FINAL CONDITION. KEEP HEAVY EQUIPMENT OUT OF TREATMENT AREAS.
  3. STRUCTURAL BIORETENTION RETAINING WALL WITH FOOTING OR CROSS-BRACING REQUIRED AT ALL LOCATIONS WHERE BIORETENTION BASINS ARE LESS THAN 3' FROM CURB OR WALL.

**1 BIORETENTION AREA**  
NTS



**LEGEND:**  
 POTENTIAL BIORETENTION AREA, SEE DETAIL THIS SHEET

**NOTES:**

1. ALL NEW HARDSCAPE SURFACE FLOWS TO ADJACENT TREATMENT AREAS OR LANDSCAPE PLANTERS FOR TREATMENT.

**Preliminary Storm Water Control Plan**

**1. PROJECT DATA**

Table 1: Project Data

Project Name/Number	Carlton Vallejo
Application Submittal Date	
Project Location	2800 Redwood Parkway, Vallejo, CA
Name of Developer	Carlton Senior Living
Project Phase No.	Phase 1
Project Type and Description	An Assisted Living Facility and associated parking lot
Project Waterbody	Lake Chabot
Total Project Site Area (acres)	6.7 acres
Total Area of Land Disturbed (acres)	6.7 acres
Total New Impervious Surface Area (sq. ft.)	31,347 sq. ft.
Total Replaced Impervious Surface Area	20,656 sq. ft.
Total Pre-Project Impervious Surface Area	22,034 sq. ft.
Total Post-Project Impervious Surface Area	23,085 sq. ft.
50% Rule [1]	Applies
Project Density	(To be determined)
Applicable Special Project Categories	(Depends on FAR)
Percent LED and non-LED treatment	50%
HM Compliance [2]	Exempt per HMP Applicability Map

[1] 50% rule applies if:  
 Total Replaced Impervious Surface Area > 0.5 x Pre-Project Impervious Surface Area  
 [HM] required (unless project meets one of the exemptions on Guideline 9.7.1) [2]  
 Total New Impervious Surface Area < Total Replaced Impervious Surface Area > 1 acre

Carlton Vallejo Page 1 of 1 PreSite Planning

**STORMWATER TREATMENT AREA SIZING TABLE**

DRAINAGE AREA DESIGNATION	DRAINAGE AREA (SQ)	REQUIRED TREATMENT AREA (SQ)	TREATMENT AREA DESIGNATION	TREATMENT AREA (SQ)	EXCESS TREATMENT AREA (SQ)	TREATMENT TYPE
R-1	20,000	800	T4	1,135	335	BIO-RETENTION
R-2	15,700	628	T2+T3	761	133	BIO-RETENTION
R-3	8,430	337	T6	392	59	BIO-RETENTION
R-4	20,620	825	T5	1,423	598	BIO-RETENTION
A-1	9,200	368	T1	544	176	BIO-RETENTION
A-2	2,400	96	T7	636	536	BIO-RETENTION
A-3	3,700	148	T8	640	492	BIO-RETENTION
A-4	9,900	396	T9+T10+T11+T12	930	534	BIO-RETENTION
A-5	9,410	377	T13	598	221	BIO-RETENTION
A-6	8,682	347	T14+T15	677	330	BIO-RETENTION
A-7	5,014	201	T16	217	16	BIO-RETENTION
A-8	12,131	485	T17+T18	491	6	BIO-RETENTION
A-9	14,265	571	T20	720	149	BIO-RETENTION
A-10	6,940	268	T19+T21	672	314	BIO-RETENTION
A-11	11,100	444	T22	563	119	BIO-RETENTION
SIDEWALKS	17,800	8,900	-	-	-	SELF-TREATMENT

**CARLTON VALLEJO**

VALLEJO, CA

**PRELIMINARY STORMWATER CONTROL PLAN**

DATE: 5-10-2018  
 PROJECT NO: 508-0022  
 SCALE: AS SHOWN  
 SHEET: C04



## 2. Summary of Findings: Impacts and Mitigations

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Impacts and mitigation measures identified in this report, the completed Initial study checklist and narrative are summarized below. The mitigations listed below represent conditions for the Initial Study/Mitigated Negative Declaration for the proposed project.

### Aesthetics

No significant impacts have been identified; no mitigation is necessary.

### Agricultural and Forestry Resources

No significant impacts have been identified; no mitigation is necessary.

### Air Quality

Implementation of the following mitigation measure would ensure impacts would be less than significant.

**Impact AIR-1:** Construction activity could cause impacts resulting from fugitive dust emissions.

**Mitigation Measure AIR-1:** To reduce potential fugitive dust that would be generated by project construction activities, the City shall require the applicant and/or its construction contractor to implement the following Bay Area Air Quality Management District (BAAQMD) basic construction measures:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.



## **Biological Resources**

Implementation of the following mitigation measures would ensure impacts would be less than significant.

**Impact BIO-1:** Project construction activities during the nesting season could result in nest abandonment that would have an adverse impact on bird species and violate state and federal laws.

**Measure BIO-1a: Nesting Bird Survey.** To avoid impacts to nesting birds and violation of state and federal laws pertaining to birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) shall occur outside the avian nesting season (generally prior to February 1 or after September 15). If construction and construction noise occur within the avian nesting season (from February 1 to August 31 or according to local requirements), all suitable habitats located within the project's area of disturbance including staging and storage areas shall be surveyed for presences of active nests, no more than five days before commencement of any site disturbance activities and equipment mobilization. The bird survey buffer radius may be modified in consultation with the California Department Fish and Wildlife (CDFW) if the project is in an urban area. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented. If it is determined that birds are actively nesting within the survey area, Mitigation Measure BIO-1b shall apply. Conversely, if the survey area is found to be absent of nesting birds, Mitigation Measure BIO-1b shall not be required.

**Measure BIO-1b: Nest Buffers.** If pre-construction nesting bird surveys result in the location of active nests, no site disturbance and mobilization of heavy equipment (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, fence installation, demolition, and grading), shall take place within 250 feet of non-raptor nests, 500-feet of small raptor nests (e.g., sparrow hawks), and 1,000 feet of large raptor nests (e.g., red-tailed hawk), or as determined by a qualified biologist in consultation with the CDFW, until the chicks have fledged. Monitoring shall be required to insure compliance with the relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

**Impact BIO-2:** Tree removal and/or demolition of the existing buildings could result in the removal or disturbance of bat roost habitat and may result in significant impacts to bat populations if an occupied or perennial (but unoccupied) maternity or colony roost is disturbed or removed.

**Mitigation Measure BIO-2: Bat Surveys.** To avoid impacting breeding, roosting, or hibernating bats protected by CDFW, pre-construction surveys of potential bat roost habitat shall be performed in all trees and buildings subject to removal or demolition and a 50-foot buffer for evidence of maternal or colony bat roosts (e.g., guano accumulation, acoustic, or visual detections) within 48 hours of project disturbance. If an occupied maternity or colony roost is detected or evidence of bat occupancy is found, CDFW shall be consulted to determine the appropriate mitigation measures, which may include exclusion prior to removal if the roost

cannot be avoided, a buffer zone, seasonal restrictions on construction work, and/or construction noise reduction measures.

## **Cultural Resources**

**Impact CUL-1:** Project construction activities may disturb previously undocumented archaeological resources. **Measure CUL-1:** If archaeological resources are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until a qualified archaeologist has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes/Individuals should be contacted and consulted, and Native American construction monitoring shall be initiated. The applicant and City shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. If it is determined that the proposed development could damage a unique archaeological resource, mitigation shall be implemented in accordance with Public Resources Code section 21083.2 and CEQA Guidelines section 15126.4, with a preference for preservation in place.

**Impact CUL-2:** Project construction activities may disturb previously undiscovered paleontological resources.

**Mitigation Measure CUL-2:** The applicant shall retain a professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct periodic paleontological spot checks beginning at depths below four feet to determine if construction excavations have extended into upper Cretaceous deposits or in sediments derived from the Franciscan Formation Assemblage. After the initial paleontological spot check, further periodic checks shall be conducted at the discretion of the qualified paleontologist. If the qualified paleontologist determines that construction excavations have extended into the upper Cretaceous deposits or in sediments derived from the Franciscan Formation Assemblage, construction monitoring for paleontological resources shall be required. The applicant shall retain a qualified paleontological monitor, who shall work under the guidance and direction of a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology. The paleontological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into the upper Cretaceous deposits or in sediments derived from the Franciscan Formation Assemblage. Multiple earth-moving construction activities may require multiple paleontological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known paleontological resources and/or unique geological features, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of paleontological resources and/or unique geological features encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the qualified professional paleontologist.

**Impact CUL-3:** Project construction may disturb previously undiscovered human remains.

**Mitigation Measure CUL-3:** If human remains are unearthed during implementation of the proposed project, the City of Vallejo and the applicant shall comply with State Health and Safety Code Section 6050.5. The City of Vallejo and the applicant shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). After the MLD has inspected the remains and the site, they have 48 hours to recommend to the landowner the treatment and/or disposal, with appropriate dignity, the human remains and any associated funerary objects. Upon the reburial of the human remains, the MLD shall file a record of the reburial with the NAHC and the project archaeologist shall file a record of the reburial with the CHRIS-NWIC. If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

## **Geology and Soils**

Implementation of the following mitigation measures would ensure impacts remain less than significant:

**Impact GEO-1:** Project construction could result in substantial soil erosion and loss of topsoil.

**Mitigation Measure GEO-1:** Prior to the issuance of a grading permit, the Project applicant shall submit an erosion control plan to the City of Vallejo. The plan shall include the following measures:

- Erosion control measures shall be installed prior to and shall remain in place through the rainy season (November 1 through April 15).
- Specific soil stockpile areas shall be designated with the proposed construction areas, and soils shall not be stockpiled outside of these areas. Soils and other materials shall not be stockpiled near drainage channels or inlets.
- Tarps shall be used to cover all excavated soils and stockpiles during the rainy season (November 1 through April 15).
- Where appropriate, silt basins and swales shall be installed to collect silt and eroded soils.
- Landslide repair or containment shall be completed first during construction, so that the potential for erosion is minimized during site grading and construction.

**Impact GEO-2:** Potential hazards associated with the presence of expansive soils in the project area.

**Mitigation Measure GEO-2:** The applicant shall comply with the building code with respects to expansive soils. Compliance with building code provisions (Uniform Building Code) including adequate design and construction of foundations can mitigate the expansive soil



hazard. Uniform building standards would apply to the proposed project, which would reduce risks to life and property to less than significant levels.

### **Greenhouse Gas Emissions**

No significant impacts have been identified; no mitigation is necessary.

### **Hazards and Hazardous Materials**

Implementation of the following mitigation measures would ensure impacts remain less than significant:

**Impact HAZ-1:** Demolition of structures during project construction could result in potential exposure to asbestos, lead-based paint, and other hazardous materials, if present. Implementation of the following mitigation measure, which requires hazardous building material surveys prior to demolition and corresponding abatement, would reduce this potential impact to a less-than-significant level.

**Mitigation Measure HAZ-1:** A hazardous building materials survey shall be performed by a qualified environmental professional retained by the project applicant prior to issuance of a demolition permit. The hazardous building materials surveys shall include inspections of asbestos, lead-based paint, and sources of universal wastes. If asbestos containing materials are determined to be present, the materials shall be abated by a certified contractor in accordance with Bay Area Air Quality Management District regulations and notification requirements. If lead-based paint is present, protective measures and air monitoring shall be implemented by qualified workers during activities that generate potential airborne exposures to lead in accordance with the California Department of Industrial Relations, Division of Occupational Safety and Health regulations and notification requirements. Loose or peeling lead-based paint shall be removed by a qualified worker and disposed of in accordance with existing hazardous waste regulations. If lead, asbestos, or other hazardous building materials are present, then applicable federal and State construction worker health and safety regulations shall be implemented during construction activities.

**Impact HAZ-2:** The disturbance of soils which may contain agricultural pesticides or hazardous building materials during project construction could pose a significant threat to human health.

**Mitigation Measure HAZ-2:** Prior to project construction, the project applicant shall be responsible for performing an environmental investigation to determine if residues from inorganic or organochlorine pesticides have contaminated exposed shallow soils and shallow soils beneath paved surfaces that would be disturbed during project construction. Representative shallow soil samples shall be collected in areas that will be disturbed during construction in accordance with the Department of Toxic Substances Control (DTSC) guidance document, Interim Guidance for Sampling Agricultural Properties. However, the soil sampling depth should be modified to 1 foot below ground surface or pavement due to grading and mixing of soils during redevelopment in the mid- to late-1960s; the DTSC guidance document does not account for agricultural soils disturbed by redevelopment.

### **Hydrology and Water Quality**

Implementation of the following mitigation measure would ensure impacts remain less than significant.

**Impact HYD-1: Pollutant Discharge Related to Project Construction and Operations.** Project construction and operations could produce pollutants, if discharged, into the storm drainage system would cause degradation of water quality.

**Mitigation Measure HYD-1.** Prior to issuance of improvement and grading plans, the applicant shall submit a final stormwater control and an operations and maintenance plan that complies with Provision C.3 of the Municipal Regional Stormwater Permit National Pollution Discharge Elimination System (NPDES) permit, and the Vallejo Municipal Code Chapter 12.41 (Stormwater Management and Discharge Control), to the satisfaction of the City.

### **Land Use and Planning**

No significant impacts have been identified; no mitigation is necessary.

### **Mineral Resources**

No significant impacts have been identified; no mitigation is necessary.

### **Noise**

Implementation of the following mitigation measure would ensure impacts remain less than significant.

**Impact NOISE-1: Construction Period Noise Impacts.** Temporary project construction activities would expose surrounding uses to short-term increases in noise levels, which would represent a potentially significant impact.

**Mitigation Measure NOISE-1:** Consistent with the City of Vallejo General Plan Noise Element, the following measures shall be implemented to reduce noise and vibration impacts from project construction activities:

- a) *Construction Scheduling.* Limit noise-generating construction activity to between the hours of 7:00 a.m. to 6:00 p.m. Monday through Saturday, and no construction activity on Sunday.
- b) *Construction Equipment Mufflers and Maintenance.* Equip internal combustion engine-driven vehicles and equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- c) *Idling.* Prohibit unnecessary idling of internal combustion engines.
- d) *Equipment Location.* Locate all stationary noise-generating construction equipment, such as air compressors, as far as practical from existing nearby residences and other noise sensitive land uses.
- e) *Quiet Equipment Selection.* Select quiet construction equipment, particularly air compressors, whenever possible. Fit motorized equipment with proper mufflers in good working order.

### **Population and Housing**

No significant impacts have been identified; no mitigation is necessary.

### **Public Services**

No significant impacts have been identified; no mitigation is necessary.

### **Recreation**

No significant impacts have been identified; no mitigation is necessary.

### **Transportation/Traffic**

Implementation of the following mitigation measure would ensure impacts remain less than significant.

**Impact TRA-1:** Traffic generated from the project partially contributes to the need for a traffic signal at the Rotary Way/Admiral Callaghan Lane intersection. As described in Mitigation Measure TRA-1 below the installation of the new traffic signal would improve existing and future service level deficiency.

**Mitigation Measure TRA-1:** The project applicant shall fund the proportional fair-share for the traffic signal at the Admiral Callaghan Lane at Rotary Way intersection.. The project applicant's proportionate share of the costs shall be paid to the City of Vallejo for the new signal.

### **Utilities and Service Systems**

No significant impacts have been identified; no mitigation is necessary.

### 3. Environmental Factors Potentially Affected

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The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Aesthetics                      | <input checked="" type="checkbox"/> Hazards & Hazardous Material | <input type="checkbox"/> Public Services                   |
| <input type="checkbox"/> Agriculture and Forestry        | <input checked="" type="checkbox"/> Hydrology/Water Quality      | <input type="checkbox"/> Recreation                        |
| <input checked="" type="checkbox"/> Air Quality          | <input type="checkbox"/> Land Use/Planning                       | <input checked="" type="checkbox"/> Transportation/Traffic |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Mineral Resources                       | <input type="checkbox"/> Utilities/Service Systems         |
| <input checked="" type="checkbox"/> Cultural Resources   | <input checked="" type="checkbox"/> Noise                        | <input type="checkbox"/> Man. Findings of Signif.          |
| <input checked="" type="checkbox"/> Geology/Soils        | <input type="checkbox"/> Population/Housing                      | <input type="checkbox"/> Greenhouse Gas Emissions          |

## 4. Determination

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On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

 _____ Signature	12/10/2018 _____ Date
Michelle Hightower, Senior Planner _____ Printed Name	December 10, 2018 _____ Date

## 5. Evaluation of Environmental Impacts

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- (1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- (2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- (3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation incorporated, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- (4) "Less than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analysis," as explained in [5] below, may be cross-referenced).

*It is noted that many potential environmental impacts can be avoided or reduced through implementation of uniformly applied development policies, standards, or regulations – such as building and fire codes, design guidelines, a noise ordinance, a historic resource ordinance, a tree preservation ordinance, and other requirements that the lead agency applies uniformly toward all project proposals. Consistent with CEQA streamlining provisions (e.g., Section 15183), these uniformly applied requirements are not distinguished as project-specific “mitigation measures,” primarily because they have already been adopted to avoid or reduce potential environmental impacts of all future project proposals, not only the particular project being evaluated at the moment.*

- (5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. (CEQA Guidelines Section 15063[b][1][c]). In this case, a brief discussion should identify the following:
  - (a) Earlier Analysis Used. Identify and state where they are available for review.
  - (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

- (c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- (6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- (7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- (8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- (9) The explanation of each issue should identify:
  - (a) The significance criteria or threshold, if any, used to evaluate each question; and
  - (b) The mitigation measure identified, if any, to reduce the impact to less than significant.

## 6. Issues

### 6.1 Aesthetics

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?				✗
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✗
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			✗	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ("Glare" is defined in this EIR as the reflection of harsh bright light sufficient to cause physical discomfort or loss in visual performance and visibility.)			✗	

**Conclusion:** Regarding aesthetics, the proposed project would not result in any significant environmental impacts.

#### **Documentation:**

- a. There are no officially designated scenic views in the City. However, the General Plan recognizes that views from the hillsides and elevated roadways of the area including San Pablo Bay, Mare Island Strait, the Vallejo waterfront, Sulphur Springs Mountain, the Vaca Mountains, White Slough, the Napa River Wetlands, and Sky Valley. Also, the City of Vallejo Zoning Ordinance contains Residential View District Overlay Zone, intended to protect views of certain residential areas. The neighboring residential properties are not located in the Residential View District Overlay Zone. The project site does not offer expansive views of scenic resources and the project's profile would be consistent with existing surrounding commercial and residential development. Therefore, the project would not have a substantial adverse effect on a scenic vista and there would be no impact.
- b. State Scenic Highways are designed by the California Department of Transportation (Caltrans) to promote the protection and enhancement of the natural scenic beauty of California's highways and adjacent corridors. State Route (SR) 37 within Vallejo from Highway 29 west is eligible for designation as a State Scenic Highway. However, the proposed project is not located in proximity to a designated Scenic Highway. There would be no impact.
- c. The project would not change the character of the neighborhood which includes residential and commercial uses (including retail); the building design is a contemporary style which is consistent with the surrounding area. The architect is providing a building with variations in height and massing, and a landscaping plan that provides a variety of plants and trees (Figure 4). Landscaping includes trees and shrubs that comply with the criteria of the water efficient



landscape ordinance; the criteria was applied to both the landscape design plan and irrigation design plan.

Chapter 16.70 Screening and Landscaping Regulations of the Zoning Ordinance provides standards to preserve existing visual character or quality of the site and its surroundings. This Chapter addresses screening, fences, walls, and landscaping within the city for the conservation and protection of property, the assurance of safety and security, the enhancement of privacy, the control of dust, the abatement or attenuation of noise, and the improvement of the visual environment, including the provision of a neat appearance in keeping with neighborhood character. The project would conform with applicable screening and landscaping requirements. Conformance with requirements would be confirmed when the final building permit is issued. As such, the project would not substantially degrade the existing visual character or quality of the site and its surroundings and the impact would be less than significant.

- d. The lighting associated with the proposed project would increase the overall light in the project area. The project would comply with the Zoning Ordinance by not creating readily detectable glare along either the adjacent roads or surrounding commercial and residential uses. The fixtures would be the latest LED design to meet the requirements of California Green Building Standards for power usage and light pollution outside the required lighted area. All building lighting would have downward directed lights to provide lighting for walking areas. No lighting fixtures would be directed toward residential areas. Therefore, the project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. The impact would be less than significant.

### **References:**

- a. City of Vallejo, General Plan
  - i. City of Vallejo, Zoning Ordinance
  - ii. California Department of Transportation, Scenic Highway

## 6.2 Agriculture and Forest Resources

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✗
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✗
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51140 (g))?				✗
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✗
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✗

**Conclusion:** Regarding agricultural and forest resources, the proposed project would not result in any significant environmental impacts.

### **Documentation:**

- a. The project site and vicinity are located within an urban area and there are no agricultural resources located on or near the project site. The site is classified as “Urban and Built-Up Land” by the State Department of Conservation. Therefore, implementation of the proposed project would not convert agricultural land to non-agricultural uses. The proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a nonagricultural use.
- b. The project site is currently zoned Pedestrian Shopping & Service District (CP) on the City’s zoning map. Additionally, lands within the project area are not under Williamson Act contracts nor would the project impact any lands under Williamson Act. Therefore, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract, and no impact would occur.
- c. The project site and vicinity are located within an urban area and there is no forest land or timberland located on or near the project site. The proposed project would not conflict with

existing zoning for, or cause rezoning of, forest land or timberland, nor result in the loss of forest land or conversion of forest land to non-forest uses. Therefore, no impact would occur.

- d. Refer to 6.2.c. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses. Therefore, no impact would occur.
- e. Refer to Sections 6.2.a and 6.2.c. The proposed project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to nonagricultural use or conversion of forest land to non-forest use. Therefore, no impact would occur.

**References:**

- a. California Department of Conservation, Division of Land Resource Protection, 2017. *Solano County Important Farmland 2016* (map). Website: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/sol16.pdf> (accessed August 6, 2018).
- b. California Department of Conservation, Division of Land Resource Protection, 2013. *Solano County Williamson Act Lands 2013/2014* (map). Website: [ftp://ftp.consrv.ca.gov/pub/dlrp/WA/Solano\\_13\\_14\\_WA.pdf](ftp://ftp.consrv.ca.gov/pub/dlrp/WA/Solano_13_14_WA.pdf) (accessed August 6, 2018).
- c. City of Vallejo, Zoning Ordinance

### 6.3 Air Quality

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard, including releasing emissions that exceed quantitative threshold for ozone precursors?		X		
d) Expose sensitive receptors to substantial pollutant concentrations, including, but not limited to, substantial levels of toxic air contaminants?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

**Conclusion:** Regarding air quality, the proposed project would not result in any significant environmental impacts after incorporation of Mitigation Measure AIR-1, which would reduce the significance of fugitive dust emissions during project construction to less than significant.

**Documentation:**

- a. The proposed project would not conflict with or obstruct implementation of the BAAQMD Clean Air Plan (BAAQMD 2017a). The Climate Action Plan (CAP) includes criteria air pollutant emissions from construction, mobile, and stationary source activities in its emission inventories and plans for achieving attainment of air quality standards. The BAAQMD’s 2017 CAP contains 85 control strategies grouped into nine categories: Stationary Source Measures, Transportation Control Measures, Energy Control Measures, Buildings Control Measures, Agriculture Control Measures, Natural and Working Lands Control Measures, Waste Management Control Measures, Water Control Measures, and Super GHG Control Measures. Most of these control strategies do not apply to the proposed project or are implemented at the local and regional level by municipal government and the BAAQMD. Table 1 below presents potentially applicable control strategies and how the project is consistent with those measures.

**Table 1. Project Consistency with BAAQMD 2017 Clean Air Plan**

2017 Clean Air Plan Control Strategy	Project Consistency
<u>Stationary Source Measures</u>	
SS38 – Fugitive Dust	The applicant would implement BAAQMD-recommended fugitive dust control measures to abate dust from project construction activities.
<u>Energy Measures</u>	
EN2 – Decrease Electricity Demand	The proposed project would comply with the California Green Building Standards Code, which would ensure development would be energy efficient. Development may incorporate renewable energy generation once residential designs come to fruition.
<u>Building Measures</u>	
BL1 – Green Buildings	The proposed project would comply with the California Green Building Standards Code and the City’s Climate Action Plan and General Plan, which would ensure development would be energy efficient
<u>Water Measures</u>	
WR2 – Support Water Conservation	The proposed project would comply with the City’s Climate Action Plan and General Plan, which would ensure development would conserve water.

- b. The proposed project supports the primary goals of the CAP in that neither construction nor operation of the proposed project would result in emission concentrations that would hinder the BAAQMD in attaining all state and national air quality standards. Furthermore, the project would not exacerbate or contribute to disparities among Bay Area communities in cancer health risk from toxic air contaminants. Thus, the proposed project would not conflict with the 2017 Clean Air Plan, and impacts would be less than significant.

The proposed project would generate short- and long-term emissions of criteria air pollutants from heavy-duty construction equipment, motor vehicles, and area sources such as landscaping equipment, using of cleaning products, etc. These emissions sources are described below.

*Short-Term Construction Emissions.* Project construction activities associated with development of the proposed assisted living facility and medical office building would include: demolition, site preparation, grading, building construction, paving, and architectural coating. Ground-disturbing activities, such as demolition, site preparation, grading, as well as on- and off-site travel, would generate the highest levels of dust and particulate matter. The project’s potential construction emissions were modeled using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2 (see Appendix A). CalEEMod default assumptions for construction phases, duration, equipment, and deliveries were used in the modeling. Estimated construction emissions, evaluated against BAAQMD thresholds, are presented in Table 2.

**Table 2. Estimated Project Construction Emissions<sup>(A)</sup>**

Year	Pollutant Emissions (Average Pounds per Day) <sup>(B)</sup>						
	ROG	NO <sub>x</sub>	CO	PM10		PM2.5	
				Dust <sup>(A)</sup>	Exhaust	Dust <sup>(A)</sup>	Exhaust
<i>Unmitigated</i>							
2019	3.5	30.5	24.9	2.6	1.6	1.5	1.5
2020	27.4	0.8	1.2	0.0	0.0	0.0	0.0
<i>Mitigated</i>							
2019	3.5	30.5	24.9	1.9	1.6	0.6	1.5
2020	27.4	0.8	1.2	0.0	0.0	0.0	0.0
<b>BAAQMD CEQA Threshold</b>	<b>54</b>	<b>54</b>	<b>--</b>	<b>BMPs</b>	<b>82</b>	<b>BMPs</b>	<b>82</b>
<b>Potentially Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>
MIG 2018. See Appendix A							
Notes:							
ROG = reactive organic gases							
NO <sub>x</sub> = nitrogen oxides							
PM10 = particulate matter 10 microns or less in diameter							
PM2.5 = particulate matter 2.5 microns or less in diameter							
a. For all projects, the BAAQMD recommends implementing eight basic construction best management practices (BMPs) to control fugitive dust from construction activities.							
b. Average daily emissions assume 261 construction days in 2019 and 42 days in 2020.							

As shown in Table 2, potential construction emissions would be below all BAAQMD significance thresholds for construction equipment exhaust emissions; however, for all projects the BAAQMD recommends implementation of eight “Basic Construction Mitigation Measures” (BAAQMD 2017b) to reduce construction fugitive dust emissions levels. These basic measures are also used to meet the BAAQMD’s best management practices (BMPs) threshold of significance for construction fugitive dust emissions (i.e., the implementation of all basic construction measures renders fugitive dust impacts a less than significant impact). Accordingly, the City would require the applicant and/or its construction contractor to implement Mitigation Measure AIR-1 to reduce fugitive dust emissions from the proposed project’s construction activities to a less than significant level.

**Impact AIR-1:** Construction activity could cause impacts resulting from fugitive dust emissions.

**Mitigation Measure AIR-1:** To reduce potential fugitive dust that would be generated by project construction activities, the City shall require the applicant and/or its construction contractor to implement the following BAAQMD basic construction measures:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified visible emissions evaluator.
- Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.

*Long Term Operational Emissions.* Long-term criteria air pollutant emissions would result from operation of the proposed assisted living facility and medical office building. Long-term emissions are categorized as area source emissions, energy demand emissions, and mobile emissions. Area source emissions are the combination of many small emission sources that include use of outdoor landscape maintenance equipment, use of consumer products such as cleaning products, and periodic repainting of the proposed structure. Energy demand emissions result from use of electricity and natural gas in on-site space and water heating systems. Mobile emissions would result from automobile and other vehicle sources associated with daily trips to and from the proposed assisted living facility and medical office building, as identified in the traffic impact analysis prepared for the project (Appendix C). The proposed project’s potential operational emissions were estimated using CalEEMod, V. 2016.3.2, and are summarized in Table 3.

**Table 3. Estimated Project Operational Emissions**

Category	Pollutant Emissions (Average Pounds per Day)				
	ROG	NO <sub>x</sub>	CO	PM10	PM2.5
Area	4.7	0.1	7.0	0.1	0.1
Energy	0.0	0.3	0.2	0.0	0.0
Mobile	1.8	10.5	18.5	5.1	1.4
<b>TOTAL</b>	<b>6.5</b>	<b>10.9</b>	<b>25.6</b>	<b>5.2</b>	<b>1.6</b>
<b>BAAQMD CEQA Threshold</b>	<b>54</b>	<b>54</b>	<b>--</b>	<b>82</b>	<b>54</b>
<b>Potentially Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
MIG 2018. See Appendix A					

As shown in Table 3, the proposed project’s potential long-term increases in emissions would be substantially below all BAAQMD recommended thresholds of significance for operational emissions. Therefore, this impact would be less than significant.

- c. The San Francisco Bay Area Air Basin (SFBAAB) is an area of non-attainment for national and state ozone, state PM10, and national and state PM2.5 air quality standards. Regarding cumulative impacts, the BAAQMD's CEQA Air Quality Guidelines state (BAAQMD 2017b, pg. 2-1):

“SFBAAB’s non-attainment status is attributed to the region’s development history. Past, present, and future development projects contribute to the region’s adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project’s individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project’s contribution to the cumulative impact is considerable, then the project’s impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project’s individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region’s existing air quality conditions. Table 1 shows that emission levels for the proposed project do not exceed BAAQMD standards. Therefore, additional analysis to assess cumulative impacts is unnecessary.”

As discussed under paragraphs a) and b) above, the proposed project would not conflict with the BAAQMD’s Clean Air Plan, or result in construction or operational emissions that exceed BAAQMD thresholds of significance after implementation of Mitigation Measure AIR-1. As such, the proposed project’s emissions would not result in a cumulatively considerable contribution to regional air quality impacts. This impact would be less than significant with the mitigation incorporated.

- d. A sensitive receptor is generally defined as a location where human populations, especially children, seniors, and sick persons, are located where there is reasonable expectation of continuous human exposure to air pollutants. These typically include residences, hospitals, and schools. The closest sensitive receptors to the project site are a child care facility located approximately 50 feet north of the project boundary and multi-family homes located approximately 50 feet east of the project boundary. The project could expose existing sensitive receptors to substantial concentrations of criteria air pollutants and toxic air contaminants (TAC) emissions<sup>1</sup> that pose adverse health effects. The project would generate emissions, including emissions of Diesel Particulate Matter (DPM) (a TAC), during construction activities. As shown in Table 2, emissions of construction-related dust and DPM would not exceed BAAQMD significant thresholds during construction activity. Additionally, most of the construction-related DPM would occur offsite and would not affect just one receptor. Potential adverse health risks from DPM emissions are evaluated assuming a constant exposure to emissions over a 70-year lifetime, 24 hours a day, seven days a week, with increased risks generally associated with increased proximity to emissions sources. Since receptors would be exposed to DPM emissions

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<sup>1</sup> TACs are defined by the California Health and Safety Code as air pollutants which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.



for a limited time (less than two years), DPM emissions from construction activities would be unlikely to result in adverse health effects that exceed BAAQMD significance criteria<sup>2</sup>.

The implementation of the proposed project would also generate long-term emissions, primarily associated with area and mobile sources that would combust natural gas or gasoline. As shown in Table 3, emissions of operations-related criteria air pollutants would be below BAAQMD significance thresholds and would not result in substantial TAC pollutant concentrations. Thus, this impact would be less than significant.

*Carbon Monoxide Hotspots.* The BAAQMD developed a screening-level analysis for CO hotspots in 2010 which found that projects that are consistent with the applicable congestion management program, and that do not cause traffic volumes at affected intersections to increase to more than 44,000 vehicles per hour, would not result in a CO hotspot that could exceed State or Federal air quality standards (BAAQMD 2017). Based on the TIA prepared for the proposed (see Appendix A and C), the maximum number of vehicles moving through any study intersection would be substantially below the screening threshold of 44,000 vehicles per hour for a CO hotspot analysis. Implementation of the project with an event would result in an additional 1,404 weekday daily trips with 88 weekday AM and 127 PM peak hour trips; 622 Saturday daily trips with 135 midday peak hour trips. These trip generation rates would not increase traffic volumes above BAAQMD carbon monoxide screening levels of 44,000 vehicles per hour. The project, therefore, would not result in substantial CO concentrations from vehicle trips or idling.

- e The BAAQMD thresholds for odors are qualitative. For operational phase odor impacts, a project that would result in the siting of a new source of odor or exposure of a new receptor to existing or planned odor sources should consider odor impacts. BAAQMD considers potential odor impacts to be significant if there are five confirmed complaints per year from a facility, averaged over three years. BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. However, the proposed project does not include any of the above noted uses or processes, nor would it be located in proximity to one of these land uses or conflict with the City's General Plan air quality policies.

Project construction activities could cause short-term, temporary, localized odors common to roadwork, such as asphalt paving. Asphalt used in parking lot surfacing is a source of organic gases for a short time after its application. However, the proposed project would not involve the creation of long-term objectionable odors after it is built. Due to the short-term, temporary, and localized nature of construction-period odor impacts, project odor impacts would be less than significant.

## **References:**

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<sup>2</sup> The BAAQMD has established thresholds of significance for local community risk and hazard impacts associated with TACs and PM<sub>2.5</sub>, if emissions exceed any of the following, the proposed project would result in a significant impact: Non-compliance with a qualified risk reduction plan; an excess cancer risk level of more than 10 in one million, or a non-cancer (i.e., chronic or acute) hazard index greater than 1.0 would be a cumulatively considerable contribution; an incremental increase of greater than 0.3 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) annual average PM<sub>2.5</sub> would be a cumulatively considerable contribution.

- a. City of Vallejo General Plan
- b. Bay Area Air Quality Management District (BAAQMD). 2017a. Spare the air. Cool the Climate. Final 2017 Clean Air Plan. Adopted April 19, 2017.
- c. BAAQMD 2017b. “California Environmental Quality Act: Air Quality Guidelines.” Revised May 2017.
- d. Michael Baker, 2018. Carlton Senior Living 2850 Redwood Parkway City of Vallejo Traffic Impact Analysis. October 31, 2018.

## 6.4 Biological Resources

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✗		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✗
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			✗	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			✗	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✗
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✗

**Conclusion:** Regarding biological resources, the proposed project would not result in any significant environmental impacts with implementation of Mitigation Measures BIO-1 and BIO-2.

### Documentation:

#### 6.4.1 Environmental Setting

The project site is bounded by the Redwood Plaza Shopping Center and commercial uses to the north, multi-family homes and medical office buildings to the east, Redwood Parkway to the south, and a gas station and Admiral Callaghan Lane to the west. The project site is generally flat with an elevation at approximately 110 feet above mean sea level. The project site is primarily covered with existing buildings, recreational facilities, and pavement, including surface parking. Natural vegetation communities are not present. Landscaped/ornamental trees and

shrubs, such as blackwood acacia (*Acacia melanoxydon*), sweet gum (*Liquidambar styraciflua*), pine (*Pinus* sp.), oleander (*Nerium oleander*), and deodar cedar (*Cedrus deodara*), are present on the project site around the existing buildings and parking area. A remnant orchard is also present adjacent to one of the existing buildings.

As natural, vegetation communities are not present on the project site, wildlife expected to occur on the project site are limited to common, urbanized species. Birds expected to occur in the project area include species such as dark-eyed junco (*Junco hyemalis*), American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), and house finch (*Carpodacus mexicanus*).

Sensitive vegetation communities include riparian habitat; waters of the U.S. or State; other sensitive natural communities identified in local or regional plans, policies; or regulations, or designated by the U.S. Fish and Wildlife Service (USFWS) or the California Department of Fish and Wildlife (CDFW). As mentioned above there are no sensitive natural communities on the project site. Nor are waters of the U.S. or State present on the project site.

Special-status species are those plants and animals that are legally protected or otherwise recognized as vulnerable to habitat loss or population decline by federal, state, or local resource conservation agencies and organizations. In this analysis, special-status species include:

- Species that are state and/or federally listed or proposed for listing as threatened or endangered;
- Species considered as candidates for listing as threatened or endangered;
- CDFW Species of Special Concern;
- Fully protected species per California Fish and Game Code; and
- Plants considered by the California Native Plant Society (CNPS) and the CDFW to be rare, threatened, or endangered [California rare plant ranked, (CRPR); e.g. CRPR 1B).

The potential for special-status species to occur within the project area was analyzed by conducting queries of: the California Natural Diversity Database (CNDDDB), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database, and the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants to see which species occur within the nine U.S. Geological Survey topographical quadrangles (Cordelia, Cuttings Wharf, Fairfield South, Fairfield North, Mount George, Napa, Mare Island, Benicia, and Vine Hill quads) surrounding the site. The potential for occurrence of those species included on the USGS nine quadrangle search was then evaluated based on the habitat requirements of each species relative to the habitat conditions documented in the project area. If there are no documented occurrences within 5 miles of the project site, if there is clearly no suitable habitat present, and if the project is outside the expected range of the species, these species were eliminated from consideration and are not discussed further. Numerous special-status plant and wildlife species are known from the region and a total of 6 plant species and 22 wildlife species have been recorded within 5 miles of the project area. All of the special-status plant and wildlife species have no or low potential to occur within the project site due to a lack of suitable habitat. These species are not considered further in this analysis. The list of special-status animals and plants that occur within 5 miles of the project site, their habitat requirements, and a ranking of potential for occurrence in the project site is included in Appendix B. Trees, shrubs, and/or ornamental vegetation on the project site provide nesting habitat for migratory birds, including raptors (i.e., birds of prey). Tree cavities, loose tree bark, tree leaves, and

buildings on or near the project area provide potential nursery and roosting habitat for common bat species.

#### **6.4.2 Regulatory Setting**

Federal, state and local laws and regulations governing biological resources are discussed below. Violation of these laws and regulations would constitute a significant biological impact. Biological resources in California are protected under federal and state laws. The laws that pertain to the biological resources potentially present on the project site or affected by the project are discussed below.

##### ***Federal Endangered Species Act (FESA)***

FESA establishes a broad public and federal interest in identifying, protecting, and providing for the recovery of threatened or endangered species. The Secretary of the Interior and the Secretary of Commerce are designated in FESA as responsible for identifying endangered and threatened species and their critical habitat, carrying out programs for the conservation of these species, and rendering opinions regarding the impact of proposed federal actions on listed species. The USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) are charged with implementing and enforcing the FESA. USFWS has authority over terrestrial and continental aquatic species, and NOAA Fisheries has authority over species that spend all or part of their life cycle at sea, such as salmonids.

Section 9 of FESA prohibits the unlawful "take" of any listed fish or wildlife species. Take, as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such action." USFWS's regulations define harm to mean "an act which actually kills or injures wildlife." Such an act "may include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR § 17.3). Take can be permitted under FESA pursuant to sections 7 and 10. Section 7 provides a process for take permits for federal projects or projects subject to a federal permit, and Section 10 provides a process for incidental take permits for projects without a federal nexus. FESA does not extend the take prohibition to federally listed plants on private land, other than prohibiting the removal, damage, or destruction of such species in violation of state law.

##### ***The Migratory Bird Treaty Act of 1918 (MBTA)***

The U.S. MBTA (16 USC §§ 703 et seq., Title 50 Code of Federal Regulations [CFR] Part 10) states it is "unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill; attempt to take, capture or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest or egg thereof..." In short, under MBTA it is illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. The USFWS enforces MBTA. The MBTA does not protect some birds that are non-native or human-introduced or that belong to families that are not

covered by any of the conventions implemented by MBTA. In 2017, the USFWS issued a memorandum stating that the MBTA does not prohibit incidental take; therefore, the MBTA is currently limited to purposeful actions, such as directly and knowingly removing a nest to construct a project, hunting, and poaching.

### ***The Clean Water Act (CWA)***

The CWA of 1972 is the primary federal law regulating water quality. The implementation of the CWA is the responsibility of the U.S. Environmental Protection Agency (EPA). However, the EPA depends on other agencies, such as the individual states and the U.S. Army Corps of Engineers (USACE), to assist in implementing the CWA. The objective of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Section 404 and 401 of the CWA apply to activities that would impact waters of the U.S. The USACE enforces Section 404 of the CWA and the California State Water Resources Control Board enforces Section 401.

As part of its mandate under Section 404 of the CWA, the EPA regulates the discharge of dredged or fill material into “waters of the U.S.”. “Waters of the U.S.” include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high-water marks. Wetlands are defined as those areas “that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3(b)). The discharge of dredged or fill material into waters of the U.S. is prohibited under the CWA except when it is in compliance with Section 404 of the CWA. Enforcement authority for Section 404 was given to the USACE, which it accomplishes under its regulatory branch. The EPA has veto authority over the USACE’s administration of the Section 404 program and may override a USACE decision with respect to permitting.

Substantial impacts to waters of the U.S. may require an Individual Permit. Projects that only minimally affect waters of the U.S. may meet the conditions of one of the existing Nationwide Permits, provided that such permits’ other respective conditions are satisfied. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions (see below).

Under Section 401 of the CWA, any applicant for a federal permit to impact waters of the U.S. under Section 404 of the CWA, including Nationwide Permits where pre-construction notification is required, must also provide to the USACE a certification or waiver from the State of California. The “401 Certification” is provided by the State Water Resources Control Board through the local Regional Water Quality Control Board (RWQCB). The RWQCB issues and enforces permits for discharge of treated water, landfills, storm-water runoff, filling of any surface waters or wetlands, dredging, agricultural activities and wastewater recycling. The RWQCB recommends the “401 Certification” application be made at the same time that any applications are provided to other agencies, such as the USACE, USFWS, or NOAA Fisheries. The application is not final until completion of environmental review under the CEQA. The application to the RWQCB is similar to the pre-construction notification that is required by the USACE. It must include a description of the habitat that is being impacted, a description of how the impact is proposed to be minimized and proposed mitigation measures with goals, schedules, and performance standards. Mitigation must include a replacement of functions and values, and

replacement of wetland at a minimum ratio of 2:1, or twice as many acres of wetlands provided as are removed. The RWQCB looks for mitigation that is on site and in-kind, with functions and values as good as or better than the water-based habitat that is being removed.

### ***California Endangered Species Act (CESA)***

Provisions of CESA protect state-listed threatened and endangered species. The CDFW is charged with establishing a list of endangered and threatened species. CDFW regulates activities that may result in “take” of individuals (i.e., “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of “take” under the California Fish and Game Code, but CDFW has interpreted “take” to include the killing of a member of a species which is the proximate result of habitat modification.

### ***California Fish and Game Code 1600-1602***

Sections 1600-1607 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration Agreement (LSAA) application be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW reviews the proposed actions in the application and, if necessary, prepares a LSAA that includes measures to protect affected fish and wildlife resources, including mitigation for impacts to bats and bat habitat.

### ***Native Plant Protection Act***

The Native Plant Protection Act (NPPA) was created in 1977 with the intent to preserve, protect, and enhance rare and endangered plants in California (California Fish and Game Code sections 1900 to 1913). The NPPA is administered by CDFW, which has the authority to designate native plants as endangered or rare and to protect them from “take.” CDFW maintains a list of plant species that have been officially classified as endangered, threatened or rare. These special-status plants have special protection under California law and projects that directly impact them may not qualify for a categorical exemption under CEQA guidelines.

### ***California Fish and Game Code 3503***

Nesting birds, including raptors, are protected under California Fish and Game Code Section 3503, which reads, “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 made pursuant thereto.” In addition, under California Fish and Game Code Section 3503.5, “it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto”. Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFW.

### ***California Fish and Game Codes 4150-4155***

Sections 4150-4155 of the California Fish and Game Code protects non-game mammals, including bats. Section 4150 states “A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission”. The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. Bats are classified as a non-game mammal and are protected under California Fish and Game Code.

### ***California Fully Protected Species and Species of Special Concern***

The classification of “fully protected” was the CDFW’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (fish at §5515, amphibians and reptiles at §5050, birds at §3503 and §3511, and mammals at §4150 and §4700) dealing with “fully protected” species state that these species “...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species,” although take may be authorized for necessary scientific research. This language makes the “fully protected” designation the strongest and most restrictive regarding the “take” of these species. In 2003, the code sections dealing with “fully protected” species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

California Species of Special Concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or because they historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologist, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under the CEQA during project review.

### ***Porter-Cologne Water Quality Control Act***

The intent of the Porter-Cologne Water Quality Control Act (Porter-Cologne) is to protect water quality and the beneficial uses of water, and it applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as “waters of the State,” include isolated waters that are not regulated by the USACE. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, any



person discharging, or proposing to discharge, waste (e.g. dirt) to waters of the State must file a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

Local

### ***City of Vallejo General Plan***

The City of Vallejo General Plan establishes the key goals, policies, and programs for the long-term physical development of City of Vallejo. The Natural and Built Environment portion of the General Plan provides the guidance to live with and preserve natural resources. A list of natural resources policies and actions relevant to biological resources in the project area follows:

Policy NBE-1.1: Natural Resources. Protect and enhance hillsides, waterways, wetlands, occurrences of special-status species and sensitive natural communities, and aquatic and important wildlife habitat through land use decisions that avoid and mitigate potential environmental impacts on these resources to the extent feasible.

- Action NBE 1.1E: Protect the remaining woodlands and native tree resources, and require replacement plantings where native trees must be removed.
- Action NBE 1.1F: Require a biological assessment for new development proposed on sites that are determined to have some potential to contain sensitive biological and wetland resources. The assessment should be conducted by a qualified professional to determine the presence or absence of any sensitive resources, should evaluate potential adverse effects, and should define measures for protecting the resources in compliance with State and federal laws. Detailed surveys are not necessary in locations where past and existing development have eliminated natural habitat and the potential for presence of sensitive biological resources.
- Action NBE 1.1G: Avoid potential impacts on jurisdictional wetlands and other waters as part of new development to the maximum extent feasible. This should include streams and associated riparian habitat and coastal salt marsh habitat along the Vallejo shoreline. Where complete avoidance is not possible, require that appropriate authorizations be secured from State and federal jurisdictional agencies and that adequate replacement mitigation be provided to ensure there is no net loss in habitat acreage or values.

Policy NBE-1.2: Sensitive Resources. Ensure that adverse impacts on sensitive biological resources, including special-status species, sensitive communities, and wetlands are avoided and mitigated to the greatest extent feasible as development takes place.

- Action NBE 1.2C: Protect the nests of raptors and other birds when in active use, as required by State and federal regulations. As part of new development, avoid disturbance to and loss of bird nests in active use by scheduling vegetation removal and new construction during the non-nesting season (September through February) or by conducting a preconstruction survey by a qualified biologist to confirm nests are absent or to define appropriate buffers until any young have successfully fledged the nest.
- Action NBE 1.2D: Continue to require environmental review of development applications pursuant to CEQA to assess the potential impacts on native species and habitat diversity. Require adequate mitigation measures for ensuring the protection of sensitive resources and achieving “no net loss” of sensitive habitat acreage, values, and functions and encourage early consultation with all trustee agencies and agencies with

review authority pursuant to CEQA for projects in areas supporting special-status species, sensitive natural communities, or wetland that may be adversely affected by new development.

### *City of Vallejo Municipal Code*

Title 10, Chapter Section 10.12, Trees, of the Vallejo Municipal Code, serves to regulate the removal of trees in public areas or of a certain size. The ordinance defines a "street tree" as any tree of any species or size planted in parkways, sidewalk areas, easements, and rights-of-way granted to the city. A permit is required prior to removal of any street tree.

#### **6.4.3 Discussion**

- a. The project site is developed. No special-status plants, fish, amphibians, birds, or reptiles are anticipated to occur within or in the vicinity of the project area; therefore, no impacts would occur to these species. However, nesting birds, including raptors, protected under the California Fish and Game Code are potentially present in the trees and shrubs in the project area. If tree removal/trimming activities occur during the avian breeding season (generally February 1 to September 15), injury to individuals or nest abandonment could occur. In addition, noise and increased construction activity could temporarily disturb nesting or foraging activities, potentially resulting in the abandonment of nest sites. With the implementation of Mitigation Measure BIO-1a and BIO-1b, the impacts from the proposed project to nesting birds would be less than significant.

**Impact BIO-1: Project construction activities during the nesting season could result in nest abandonment that would have an adverse impact on nesting birds.**

**Measure BIO-1a: Nesting Bird Survey.** To avoid impacts to nesting birds and violation of state and federal laws pertaining to birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) shall occur outside the avian nesting season (generally prior to February 1 or after September 15). If construction and construction noise occur within the avian nesting season (from February 1 to August 31 or according to local requirements), all suitable habitats located within the project's area of disturbance including staging and storage areas shall be surveyed for presences of active nests, no more than five days before commencement of any site disturbance activities and equipment mobilization. The bird survey buffer radius may be modified in consultation with the CDFW if the project is in an urban area. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented. If it is determined that birds are actively nesting within the survey area, Mitigation Measure BIO-1b shall apply. Conversely, if the survey area is found to be absent of nesting birds, Mitigation Measure BIO-1b shall not be required.

**Impact BIO-2:** Tree removal and/or demolition of the existing buildings could result in the removal or disturbance of bat roost habitat and may result in significant impacts to bat populations if an occupied or perennial (but unoccupied) maternity or colony roost is disturbed or removed.

**Measure BIO-1b: Nest Buffers.** If pre-construction nesting bird surveys result in the location of active nests, no site disturbance and mobilization of heavy equipment (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, fence installation, demolition, and grading), shall take place within 250 feet of non-raptor nests, 500-feet of small raptor nests (e.g., sparrow hawks), and 1,000 feet of large raptor nests (e.g., red-tailed hawk), or as determined by a qualified biologist in consultation with the California Department of Fish and Wildlife (CDFW), until the chicks have fledged. Monitoring shall be required to insure compliance with the relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

**Mitigation Measure BIO-2: Preconstruction Bat Surveys.** To avoid impacting breeding, roosting, or hibernating bats protected by CDFW, pre-construction surveys of potential bat roost habitat shall be performed in all trees and buildings subject to removal or demolition and a 50-foot buffer for evidence of maternal or colony bat roosts (e.g., guano accumulation, acoustic, or visual detections) within 48 hours of project disturbance. If an occupied maternity or colony roost is detected or evidence of bat occupancy is found, CDFW shall be consulted to determine the appropriate mitigation measures, which may include exclusion prior to removal if the roost cannot be avoided, a buffer zone, seasonal restrictions on construction work, and/or construction noise reduction measures.

Bats could potentially roost in the leaves, bark, or cavities of the trees adjacent to or within the project area or the buildings in the project area. Direct impacts to bats could occur if construction activities result in the disruption or abandonment of nearby active bat roosts. Impacts to bat foraging and movement are anticipated to be minimal. With the implementation of Mitigation Measure BIO-2, the impacts from the project to bats would be less-than-significant.

Overall, impacts to candidate, sensitive, and special status species would be less than significant with mitigation.

- b. No sensitive natural communities identified in local or regional plans, policies, regulations, or by the USFWS or CDFW are present in the project area. Therefore, there would be no impact to these sensitive natural communities.
- c. No wetlands or other waters of the U.S., as defined by Section 404 of the Clean Water Act are located in the project area. In addition, no wetlands or other waters under the jurisdiction of the CDFW or RWQCB are present on the project site. Less than Significant Impact. No wetlands or other waters of the U.S., as defined by Section 404 of the Clean Water Act are located in the project area. In addition, no wetlands or other waters under the jurisdiction of the CDFW or RWQCB are present within the project area. Therefore, there would be no impacts to these resources. Construction activities could indirectly cause the degradation of water-quality due to erosion and transport of fine sediments downstream of the construction area and unintentional release of contaminants into jurisdictional waters that are outside of the footprint of project area. As part of the permit application and permitting process for the project, the applicant would have to comply with the NPDES General Construction Permit regulations, implement a SWPPP, and implement spill prevention and controls measures, as appropriate. Therefore, impacts to waters under the jurisdiction of the USACE, CDFW, and/or RWQCB downstream of the construction area would be less than significant.

- d. The project site is located within a human-altered, urban landscape that contains large amounts of paved surfaces and associated landscaped habitats. Due to the urban nature of the project site and lack of riparian corridors, waterways, and other suitable habitat for wildlife species within the project site or vicinity, it is unlikely the site is part of an established wildlife movement corridor. Therefore, the project would have less than significant impacts on native wildlife movement.
- e. The City of Vallejo's Tree Ordinance applies to trees in public areas (e.g., street, park, pleasure ground, boulevard, alley, or public place of the City). Since the proposed project is not located within public areas, the proposed project would not conflict with any local policies or ordinances protecting trees. The project would not remove any native trees or impact any special-status species or sensitive natural communities; therefore, the project would not conflict with the City of Vallejo General Plan protecting biological resources. Therefore, there would be no impacts regarding consistency with local policies and ordinances.
- f. There is no adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan that applies to the project site. The Solano County Multispecies HCP is currently still in draft form and has not been adopted yet. Therefore the proposed project would result in no impact related to any HCPs.

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## 6.5 Cultural Resources

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines §15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

**Conclusion:** Regarding cultural resources, the proposed project would not result in any significant environmental impacts with implementation of Mitigation Measures CUL-1, CUL-2, and CUL-3.

### Documentation:

#### 6.5.1 Environmental Setting

The project site is developed and primarily covered with existing buildings, recreational facilities, and pavement, including surface parking. Natural vegetation communities are not present but there are landscaped/ornamental trees and shrubs, such as blackwood acacia (*Acacia melanoxydon*), sweet gum (*Liquidambar styraciflua*), pine (*Pinus* sp.), oleander (*Nerium oleander*), and deodar cedar (*Cedrus deodara*), are present in the project area around the existing buildings and parking area. A remnant orchard is also present adjacent to one of the existing buildings.

Topography of the project area is characterized as flat with a gentle slope towards the southeast. The project area, as geologically mapped, has surface sediments composed of Quaternary deposits that are underlain by upper Cretaceous sediments as well as exposures to the Franciscan Formation.

#### 6.5.2 Regulatory Setting

##### Federal

##### *National Historic Preservation Act of 1966*

Enacted in 1966, the National Historic Preservation Act (NHPA) (16 U.S.C §§ 470 et seq.) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of

the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO), provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assist Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

In summary, the NHPA establishes the nation’s policy for historic preservation and sets in place a program for the preservation of historic properties by requiring federal agencies to consider effects to significant cultural resources (i.e. historic properties) prior to undertakings.

### ***Section 106 of the Federal Guidelines***

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the NRHP and that the ACHP and SHPO must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800, on such undertakings.

### ***National Register of Historic Places***

The NRHP was established by the NHPA of 1966 as “an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: It is associated with the lives of persons who are significant in our past.
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource

must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

### ***Native American Graves Protection and Repatriation Act of 1990***

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

### **State**

#### ***California Environmental Quality Act***

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with state guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1.

CEQA applies to archaeological resources when (1) the archaeological resource satisfies the definition of a historical resource or (2) the archaeological resource satisfies the definition of a “unique archaeological resource.” A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

Appendix G of the State CEQA Guidelines provides a set of sample questions that guide the evaluation of potential impacts with regard to cultural resources:

Would the project:

- a) Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?



- b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
- d) Disturb any human remains, including those interred outside of formal cemeteries?

***California Register of Historical Resources***

Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is “an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change.”<sup>3</sup> Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria<sup>4</sup>:

- Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- Criterion 2: It is associated with the lives of persons important in our past.
- Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

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<sup>3</sup> California Public Resources Code § 5024.1(a).

<sup>4</sup> California Public Resources Code § 5024.1(b).

## ***California Historical Landmarks***

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource must also be approved for designation by the County Board of Supervisors or the City or Town Council in whose jurisdiction it is located, be recommended by the State Historical Resources Commission, or be officially designated by the Director of California State Parks. The specific standards in use now were first applied in the designation of CHL No. 770. CHLs No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California)
- Associated with an individual or group having a profound influence on the history of California
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder

## ***Native American Heritage Commission, Public Resources Code Sections 5097.9–5097.991***

Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

## ***California Native American Graves Protection and Repatriation Act of 2001***

Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to “provide a seamless and consistent state policy to ensure that all California Indian human remains, and cultural items be treated with dignity and respect,” the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

### ***Senate Bill 18***

Senate Bill (SB) 18 (California Government Code, Section 65352.3) incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan.

### ***Assembly Bill 52***

Assembly Bill (AB) 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

### ***Health and Safety Code, Sections 7050 and 7052***

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

### ***Penal Code, Section 622.5***

Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

## Local

### *City of Vallejo General Plan*

The City of Vallejo General Plan establishes the key goals, policies, and programs for the long-term physical development of City of Vallejo.<sup>5</sup> The Nature and Built Environment portion of the General Plan provides the guidance to live with and preserve natural resources. A list of cultural resources policies and actions relevant to cultural resources in the project area follows:

Policy NBE-1.9: Cultural Resources. Protect and preserve archaeological, historic, and other cultural resources.

- Action NBE-1.9A: Continue to require that land use activities comply with State requirements and follow best practices to ensure that cultural resources are not impacted, and that appropriate agencies and technical experts are involved in the evaluation and protection of resources and sites.
- Action NBE-1.9B: Maintain a dialogue with local Native American groups regarding sensitive cultural resources in Vallejo. Action
- Action NBE-1.9C Support protection and formal designation of the Sacramento San Joaquin Delta region.

Policy NBE-1.10: Historic Resources. Encourage the protection, rehabilitation, and reuse of historic buildings and structures.

- Action NBE-1.10A: Seek funding to update the City's historic resources inventory. Action
- Action NBE-1.10B Require the identification and protection of all on-site historic resources in conjunction with any proposed development, in compliance with all applicable City provisions (including the Downtown Specific Plan Historical Resource Assessment) and State and federal guidelines for the treatment of historic properties.
- Action NBE-1.10C: Participate in federal and State programs that offer funding and economic incentives for the restoration and preservation of qualified historic buildings, including:
  - The federal historic preservation tax credit for qualified rehabilitation projects;
  - Reduced development fees for projects that comply with the State Historical Building Code (SHBC) and the Secretary of the Interior's Standards;
  - The Mills Act Property Tax Abatement Program;
  - Income tax deductions for qualified donations of historic preservation easements; and
  - Transfer of Development Rights

Policy NBE-1.11: Historic Districts. Preserve the integrity of the City's historic districts, including downtown, as physical changes occur within them.

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<sup>5</sup> City of Vallejo. 29, August 2017. Propel Vallejo General Plan 2040: Nature and Built Environment Section; Cultural and Historic Resources (pg. 4-8 thru 4.11). Prepared by the City of Vallejo.

Electronically available at:

<http://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=12181697>

- Action NBE-1.11A: Update design guidelines to require development in historic districts to complement historic resources, including through appropriate mass, scale, and exterior features. Action NBE-1.11B: Support preservation, rehabilitation, and reuse of known and potentially historic buildings in Downtown and consider periodic detailed assessments to update the list of existing historic resources.
- Action NBE-1.11C: Consider applying for a National Register Historic Commercial District designation for a portion of Downtown.

Policy NBE-1.12: Historic Preservation. Promote community awareness of the benefits of historic preservation.

- Action NBE-1.12A: Work with community, real estate, and commerce organizations to promote the connection between historic resources and the economic and cultural well-being of the community.
- Action NBE-1.12B: In collaboration with local historic preservation organizations, continue the annual preservation awards program to recognize property owners for completing appropriate rehabilitation and/or restoration of historic properties.

### *City of Vallejo Municipal Codes*

Title 16, Chapter Section 16.38, Architectural Heritage and Historic Preservation Municipal Code serves to protection, enhancement, perpetuation and, use of buildings, structures, landscaping, districts and neighborhoods of historic, architectural and engineering significance located within the city are of cultural, aesthetic and economic benefit to the community and region.<sup>6</sup> It is further found that the economic, cultural and aesthetic standing of the city will be enhanced by preserving the heritage of the city. The purpose of this chapter is to:

- A. Designate, preserve, protect, enhance and perpetuate those historic buildings, structures, landscaping, districts and neighborhoods which contribute to the cultural and aesthetic heritage of Vallejo;
- B. Foster civic pride in the beauty and accomplishments of the past;
- C. Stabilize and improve the economic values of certain historic buildings, structures, landscaping, districts and neighborhoods;
- D. Protect and enhance the city's cultural and aesthetic heritage;
- E. Recognize the uniqueness of historic resources on Mare Island that have contributed to the history of Vallejo, California and the United States and that have significant value to the economic development and land use goals for the island and the community; and

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<sup>6</sup> City of Vallejo. 17 October 2018. City of Vallejo Municipal Codes: Chapter 16.38; Architectural Heritage and Historic Preservation. Electronically available at: [https://library.municode.com/ca/vallejo/codes/code\\_of\\_ordinances?nodeId=TIT16ZO\\_PTIISPZODI\\_CH16.38ARHEHIPR\\_ITIPUCH](https://library.municode.com/ca/vallejo/codes/code_of_ordinances?nodeId=TIT16ZO_PTIISPZODI_CH16.38ARHEHIPR_ITIPUCH).

F. Promote and encourage continued private ownership, where appropriate, and utilization of such buildings and other structures now so owned and used, to the extent that the objectives listed above can be obtained under such policy.

### 6.5.3 Discussion

Would the proposed project:

- a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?

Results of the cultural resources record search conducted at the Northwest Information Center (CHRIS-NWIC) on October 31, 2018 identifies no previously recorded historical resources within the project boundaries; sixteen historic (16) buildings are located within a one-half mile radius of the project boundaries.<sup>7</sup> None of these buildings would be impacted by the proposed project.

Archival research indicates the former Vallejo Elks Lodge 559 located at 2850 Redwood Parkway (within the project boundaries) is 56 years old or older (built in 1962).<sup>8</sup> This structure would be directly impacted (demolished) by the proposed project. Since the building is 45 years old or older, the building requires an evaluation as historic site to determine if these structures are eligible for listing in the National Register for Historic Places (NRHP), the California Register for Historic Resources (CRHR), or Local Register.

A historic site evaluation conducted on the former Vallejo Elks Lodge 559 concluded that the structure lacked individual distinction and significance and is not eligible for listing on the NRHP or in the CRHR under any of the significance criteria. An assessment of the architectural styling, human, and ecological environmental conditions existing within the neighborhood indicate that the proposed project, as currently conceived, would not cause an indirect impact to the commercial or residential structures located along Redwood Parkway, Admiral Callaghan Lane and Cadloni Lane. Therefore, the proposed project would result in no adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

- b. Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines §15064.5?

Results of the cultural resources record search conducted at the Northwest Information Center (CHRIS-NWIC) on October 31, 2018 indicate that there are no previously recorded archaeological resources located within the project boundaries.<sup>9</sup> However, despite the heavy

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<sup>7</sup> Northwest Information Center. 31, October 2018. Cultural Resources Record Search for the Carlton Senior Living Assisted Facility 2850 Redwood Parkway/APN 0069-340-450 and-460 Project, City of Vallejo. Prepared by the Northwest Information Center, Sonoma State University, Sonoma California 94928-3609; prepared for MIG, Inc. (Mr. Chris Purtell, M.A. RPA) Berkeley, California 94710. Record search results on file at the Northwest Information Center, Sonoma State University, Sonoma.

<sup>8</sup> Newspaper.com. 29 December 2014. “Vallejo Elks’ Redwood Parkway Clubhouse Closed for Good”. Electronically available at: <https://www.timesheraldonline.com/article/NH/20141229/News/141229732>

<sup>9</sup> Northwest Information Center. 31, October 2018. Cultural Resources Record Search for the Carlton Senior Living Assisted Facility 2850 Redwood Parkway/APN 0069-340-450 and-460 Project, City of

disturbances of the project area in the past that may have displaced archaeological resources on the surface, it is possible that intact archaeological resources exist at depth.

**Impact CUL-1: Project construction activities may disturb previously undocumented archaeological resources.**

With the implementation of **Mitigation Measure CUL-1**, potentially significant impacts to previously undiscovered archaeological resources would be reduced to a less than significant level.

**Measure CUL-1:** If archaeological resources are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until a qualified archaeologist has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes/Individuals shall be contacted and consulted, and Native American construction monitoring should be initiated. The applicant and City shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. If it is determined that the proposed development could damage a unique archaeological resource, mitigation shall be implemented in accordance with Public Resources Code section 21083.2 and CEQA Guidelines section 15126.4, with a preference for preservation in place.

- c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

**Impact CUL-2: Project construction activities may disturb previously undiscovered paleontological resources.**

Results of the paleontological resources record search through the University of California Museum of Paleontology (UCMP) database, conducted on September 18, 2018 indicate that there are no known vertebrate fossil localities that have been previously identified within the project area or within a mile radius. However, thirty-one (31) fossil localities from the Portland Cement Company Quarry, the Fairfield facility (Mammalia) and three (3) fossil localities from the Benicia 2 Area (Mammuthus, Mammalia, and Osteichthyes) are located within an 8-mile radius of the project area.<sup>10</sup> These fossil localities were discovered within the same sedimentary deposits at depths that extend into the project area.

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Vallejo. Prepared by the Northwest Information Center, Sonoma State University, Sonoma California 94928-3609; prepared for MIG, Inc. (Mr. Chris Purtell, M.A. RPA) Berkeley, California 94710. Record search results on file at the Northwest Information Center, Sonoma State University, Sonoma.

<sup>10</sup> University of California Museum of Paleontology Specimens. 18 September 2018. Solano County. Electronically available at: [https://www.ucmpdb.edu/cgi/ucmp\\_query2](https://www.ucmpdb.edu/cgi/ucmp_query2)

An examination of the Geological Map of California indicates that the project site consists of surface sediments composed of Quaternary deposits that are underlain by upper Cretaceous deposits. These deposits have the potential to contain significant vertebrate fossils at relatively shallow depth (4-10 feet). To the southeast of the project area there are exposures of the Franciscan Formation Assemblage and these deposits probably occur at unknown but relatively shallow depths below 10-feet. Excavations that extend below 4-feet may well uncover significant vertebrate fossil remains and, therefore, should be closely monitored to quickly and professionally collect any vertebrate fossil remains without impeding development. The implementation of **Mitigation Measure CUL-2** would reduce potentially significant impacts to previously undiscovered paleontological resources and/or unique geological features to a less than significant level.

**Mitigation Measure CUL-2:** The applicant shall retain a professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct periodic Paleontological Spot Checks beginning at depths below four feet to determine if construction excavations have extended into upper Cretaceous deposits or in sediments derived from the Franciscan Formation Assemblage. After the initial paleontological spot check, further periodic checks shall be conducted at the discretion of the qualified paleontologist. If the qualified paleontologist determines that construction excavations have extended into the upper Cretaceous deposits or in sediments derived from the Franciscan Formation Assemblage, construction monitoring for paleontological resources shall be required. The applicant shall retain a qualified paleontological monitor, who will work under the guidance and direction of a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology. The paleontological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into the upper Cretaceous deposits or in sediments derived from the Franciscan Formation Assemblage. Multiple earth-moving construction activities may require multiple paleontological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known paleontological resources and/or unique geological features, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of paleontological resources and/or unique geological features encountered. Full-time monitoring may be reduced to part-time inspections if determined adequate by the qualified professional paleontologist.

- d. Disturb any human remains, including those interred outside of formal cemeteries?

**Impact CUL-3:** Project construction may disturb previously undiscovered human remains.

No known human remains have been identified from the CHRIS-NWIC database within a one-mile radius of the project area.<sup>11</sup> However, these findings do not preclude the existence of previously unknown human remains located below the ground surface, which may be encountered during construction excavations associated with the proposed project. Similar to the discussion regarding archaeological resources, it is also possible to encounter buried human remains during construction given the proven prehistoric occupation of the region. On September

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<sup>11</sup> Northwest Information Center. 31, October 2018. Cultural Resources Record Search for the Carlton Senior Living Assisted Facility 2850 Redwood Parkway/APN 0069-340-450 and-460 Project, City of Vallejo. Prepared by the Northwest Information Center, Sonoma State University, Sonoma California 94928-3609; prepared for MIG, Inc. (Mr. Chris Purtell, M.A. RPA) Berkeley, California 94710. Record search results on file at the Northwest Information Center, Sonoma State University, Sonoma.



20, 2018, the City of Vallejo hosted a coordination meeting with a representative of the Yocha Dehe Wintun Nation. Based on the outcome of the meeting, the Tribe requested copies of the subject document, Sacred Lands files, updated CHRIS records search, a detailed project description and updated mitigation measures for the project. The Tribe also highly recommended cultural monitoring during development or ground disturbance, including backhoe trenching and excavations and for the applicant to setup a monitoring agreement with their Tribe. With the implementation of **Mitigation Measure CUL-3** would reduce potentially significant impacts to previously unknown human remains that may be unexpectedly discovered during project implementation to a less than significant level.

**Mitigation Measure CUL-3:** If human remains are unearthed during implementation of the proposed project, the City of Vallejo and the applicant shall comply with State Health and Safety Code Section 6050.5. The City of Vallejo and the applicant shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). After the MLD has inspected the remains and the site, they have 48 hours to recommend to the landowner the treatment and/or disposal, with appropriate dignity, the human remains and any associated funerary objects. Upon the reburial of the human remains, the MLD shall file a record of the reburial with the NAHC and the project archaeologist shall file a record of the reburial with the CHRIS-NWIC. If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Copies of the Initial Study, Sacred Lands files, updated CHRIS records search, a detailed project description and updated mitigation measures shall be provided to the Yocha Dehe Wintun Nation. A monitoring agreement between the applicant and Yoch Dehe Wintun Nation shall also be established prior to issuance of grading permit. Cultural monitoring shall take place during all ground disturbance, including backhoe trenching and excavations.

### **References:**

California Code of Regulations, 2005. Title 14, Chapter 3. Amended 6 Guidelines for the Implementation of the California Environmental Quality Act, Section 15064.5(a).

California Code of Regulations, 2005. Title 14, Chapter 3. Amended 6 Guidelines for the Implementation of the California Environmental Quality Act, Section 15064.5(b).

City of Vallejo. 2018. City of Vallejo Municipal Codes: Chapter 16.38; Architectural Heritage and Historic Preservation. Electronically available at:  
[https://library.municode.com/ca/vallejo/codes/code\\_of\\_ordinances?nodeId=TIT16ZO\\_PTIIISP\\_ZODI\\_CH16.38ARHEHIPR\\_ITIPUCH](https://library.municode.com/ca/vallejo/codes/code_of_ordinances?nodeId=TIT16ZO_PTIIISP_ZODI_CH16.38ARHEHIPR_ITIPUCH).

City of Vallejo. 2017. Propel Vallejo General Plan 2040: Nature and Built Environment Section; Cultural and Historic Resources (pg. 4-8 thru 4.11). Electronically available at: <http://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=12181697>

Newspaper.com. 2014. "Vallejo Elks' Redwood Parkway Clubhouse Closed for Good". Electronically available at: <https://www.timesheraldonline.com/atricle/NH/20141229/News/141229732>.

Northwest Information Center. 2018. Cultural Resources Record Search for the Carlton Senior Living Assisted Facility 2850 Redwood Parkway/APN 0069-340-450 and-460 Project, City of Vallejo. Prepared by the Northwest Information Center, Sonoma State University, Sonoma California 94928-3609.

University of California Museum of Paleontology Specimens. 2018. Paleontological database record search for the Solano County. Electronically available at: [https://www.ucmpdb.edu/cgi/ucmp\\_query2](https://www.ucmpdb.edu/cgi/ucmp_query2)

## 6.6 Geology and Soils

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: The project would not create new geologic hazards that could damage project or nearby facilities. Therefore, this section focuses on the effect of local geologic conditions and activity on the proposed project.				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (Division of Mines and Geology Special Publication 42)?			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

**Conclusion:** Regarding geology and soils, the proposed project would not result in any significant environmental impacts with implementation of Mitigation Measures GEO-1 and GEO-2.

### **Documentation:**

- a. i.: The proposed project site is not located in an Alquist-Priolo fault zone. As such, the proposed project would not impact persons or structures due to rupture of a known earthquake fault. The impact would be less than significant.

ii. – iii.: The entire San Francisco Bay Area is in a seismically active area. Historically, numerous moderate to strong earthquakes have occurred in the region by several major faults and fault zones in the San Andreas Fault Zone system. Ground shaking from earthquakes along the known active faults in the region could cause injury to people and damage to property. Ground shaking potential is estimated on a worst-case basis by taking the maximum expected earthquake and estimating the peak accelerations that it could generate. The expected peak horizontal acceleration (with a 10 percent chance of being exceeded in the next 50 years) generated by any of the seismic sources potentially affecting the project site is estimated by the California Geological Survey at about 0.468g. This level of ground shaking is considered a potential hazard.

The 2016 California Building Code (CBC; Title 14, California Code of Regulations, Part 2.5) contains seismic safety provisions with the aim of preventing building collapse during a design earthquake, so that occupants would be able to evacuate after the earthquake. A design earthquake is one with a two percent chance of exceedance in 50 years, or an average return period of 2,475 years. Adherence to these requirements and consideration of the site's seismic coefficients would reduce the potential of the building from collapsing during an earthquake, thereby minimizing injury and loss of life. Although structures may be damaged during earthquakes, adherence to seismic design requirements would minimize damage to property within the structure because the structure is designed not to collapse. The CBC is intended to provide minimum requirements to prevent major structural failure and loss of life. The CBC seismic classification of the project site and related engineering calculations must be determined by a qualified professional and are site-specific. Moreover, the proposed project would need to comply with the City of Vallejo Building and Engineering Division's geotechnical and seismic design requirements. Adherence to these existing state and local regulations would reduce the risk of loss, injury, and death; and impacts due to strong seismic ground shaking would be less than significant.

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state due to seismic ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Since saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction risk. According to the Geotechnical Report, completed for the 2011 Environmental Impact Report (EIR) for the proposed Winco supermarket on the project site, a portion of the project site is underlain by the historic channel of Blue Rock Springs Creek. Regional mapping by ABAG indicates that liquefaction susceptibility in the historic channel was rated very-high, with the remainder of the site mapped as having moderate liquefaction susceptibility, and the liquefaction hazard for the site (susceptibility combined with likelihood of shaking severe enough to trigger liquefaction) is rated as moderate. Historically, the creek channel crossed the project site from the southeast corner, towards the northeast roughly where the swimming pool is located. However, the creek has been routed, along with stormwater for the area, to underground double 72-inch diameter concrete storm mains that cross the project site slightly east of the original creek channel, thus reducing the potential for liquefaction.

The Geotechnical Report, prepared for the Winco supermarket EIR, noted that groundwater was encountered at approximately 13 feet below ground surface (bgs), and field exploration did not encounter any loose fine sands or low plasticity cohesive soils to the total explored depth of 50 feet below grade. Bedrock was encountered between about 13 and 25 feet bgs. Consequently, it

was concluded that the potential for liquefaction at the site is considered to be low and that liquefaction is not a design constraint for this project. Moreover, the City's General Plan shows the project site is located in a "low hazard" liquefaction zone. Therefore, the potential for liquefaction to impact persons or structures during a seismic event would be less than significant.

iv: Slope failure can occur as either rapid movement of large masses of soil ("landslide") or slow, continuous movement ("creep"). The primary factors influencing the stability of a slope are: (1) the nature of the underlying soil or bedrock; (2) the geometry of the slope (height and steepness); (3) rainfall; and (4) the presence of previous landslide deposits. The Geotechnical Report, completed for the site as a part of a proposed Winco project, concluded that seismically-induced landsliding is not a hazard on or near the project site because of the lack of steep slopes. Therefore, persons or structures would not be adversely affected by landslides, and impacts would be less than significant.

b. Construction activities related to the proposed project would result in the potential for soil erosion or the loss of topsoil. Implementation of erosion control measures are required by the City of Vallejo's Municipal Code Section 12.41.090 for any construction contractor performing work in the City. Section 12.41.090 states that "all construction sites must implement and maintain the following best management practices (BMPs):

1. Erosion control at the site;
2. Run-on and run-off controls to and from the site;
3. Control of sediments and fines on the site;
4. Active treatment systems (as necessary);
5. Good site management; and
6. Non-stormwater management."

BMPs may be adjusted and fine-tuned to accommodate site conditions, as appropriate. Implementation of these required BMPs would result in a less than significant impact associated with soil erosion or loss of topsoil. Implementation of Mitigation Measure GEO-1 would further reduce the potential for soil erosion during project construction to a less-than-significant level.

**Impact GEO-1:** Project construction could result in substantial soil erosion and loss of topsoil.

**Mitigation Measure GEO-1:** Prior to the issuance of a grading permit, the Project applicant shall submit an erosion control plan to the City of Vallejo. The plan shall include the following measures:

- Erosion control measures shall be installed prior to and shall remain in place through the rainy season (November 1 through April 15).
- Specific soil stockpile areas shall be designated with the proposed construction areas, and soils shall not be stockpiled outside of these areas. Soils and other materials shall not be stockpiled near drainage channels or inlets.
- Tarps shall be used to cover all excavated soils and stockpiles during the rainy season (November 1 through April 15).
- Where appropriate, silt basins and swales shall be installed to collect silt and eroded soils.
- Landslide repair or containment shall be completed first during construction, so that the potential for erosion is minimized during site grading and construction.

- c. The project site would not be subject to slope instability. Soil subsidence or ground collapse generally occurs due to removal of subsurface materials, usually water, resulting in either catastrophic or gradual depression of the surface elevation of a site. The proposed project is located within an urban environment and would receive water from the City of Vallejo Water Department and the Solano County Water Agency. The proposed project would not use groundwater resources; therefore, subsidence or collapse of project site soils is not likely to occur.

Lateral spreading is a form of horizontal displacement of soils toward an open channel or other “free” face, such as an excavation boundary. Lateral spreading can result from either the slump of low cohesion unconsolidated material (caving) or by liquefaction of either the soil layer or a subsurface layer underlying soil material on a slope, resulting in gravitationally driven movement. Earthquake shaking leading to liquefaction of saturated soil can result in lateral spreading where the soil undergoes a temporary loss of strength. The risk of lateral spreading as a result of earthquake shaking generally correlates with the risk of liquefaction. The risk of liquification is low for the project site. Excavations for foundations or utility trenching may lead to the possibility of caving during project construction. The Natural Resources Conservation Service (NRCS) soil survey notes that the Clear Lake clay has relatively low soil strength and may be prone to caving. The Department of Labor Occupational Safety and Health Administration (OSHA) provides guidelines for shoring up excavations and slopes to provide for worker safety. Adherence to the OSHA requirements reduce this potential hazard to construction workers from caving to a less-than-significant level.

- d. The NRCS soil survey also notes that the Clear Lake clay has a high shrink-swell potential. High shrink-swell soils are classified as expansive soils. Expansive soils can undergo significant volume changes based on the amount of moisture in the soil; the soils may shrink and harden in response to the varying moisture levels. The Geotechnical Report, completed for the Winco project that was previously proposed on this project site, identified expansive soils as the primary geotechnical hazard. Therefore, consideration for expansive soils is necessary when designing and constructing the project.

**Impact GEO-2:** There would be potential hazards due to shrink-swell potential associated with the presence of expansive soils on the project site.

**Mitigation Measure GEO-2:** The applicant shall comply with the building code with respect to expansive soils. Compliance with building code provisions (2016 California Building Code, Part 2, Volume 2, Chapter 18) including adequate design and construction of foundations can mitigate the expansive soil hazard. Adherence to this section of CBC would reduce risks to life and property to less than significant levels.

- e. The proposed project is within the City boundaries and would be served by a public sewer system and therefore does not include the installation of septic tanks or alternate wastewater disposal systems. No impact would result.

**References:**

- a. City of Vallejo, General Plan
- b. City of Vallejo, Zoning Ordinance

## 6.7 Greenhouse Gas Emissions

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✗	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✗	
c) Result in a substantial increase in net energy demand or result in the use of fuel or energy in a wasteful manner?			✗	

### **Documentation:**

**Conclusion:** Regarding greenhouse gas (GHG) emissions, the proposed project would be consistent with the City’s Climate Plan; therefore, the project would not result in any significant environmental impact from GHG emissions.

### **Documentation:**

a & b. Global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project’s contribution to global climate change is cumulatively considerable.

The project site is currently developed with the Vallejo Elks Lodge #559; however, the buildings have not been in use for several years and, therefore, the site does not have existing GHG emissions. As discussed in section 6.3, Air Quality, the proposed project’s emissions were modeled using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2 (see Appendix A).

*Short-Term Construction Emissions.* GHG emissions would be generated from fuel combustion in equipment used for demolition, site preparation, grading, paving, building construction, and architectural coating activities. GHG emissions would also result from worker, visitor, and vendor trips to and from the project site. Unlike operational emissions, construction emissions are short-term and cease to emit greenhouse gases upon completion. Since the BAAQMD has not established a threshold for GHG emissions, this analysis amortizes construction emissions over a 30-year lifetime and groups construction emissions with operational emissions in order to quantify the project’s GHG inventory (see Table 1).

*Long Term Operational Emissions.* Proposed project activities would result in long-term GHG emissions from mobile and other operational sources. Operational emissions were estimated using CalEEMod default assumptions and modified as necessary (e.g., updating energy efficiency to reflect the 2019 Title 24 energy efficiency code). Mobile sources, including vehicle trips to and from the project site, would result primarily in emissions of carbon dioxide



(CO<sub>2</sub>) with minor emissions of methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). The most significant GHG emission from natural gas usage would be methane. Electricity usage by the proposed project and indirect usage of electricity for water and wastewater conveyance would result primarily in emissions of carbon dioxide. Disposal of solid waste will result in emissions of methane from the decomposition of waste at landfills coupled with CO<sub>2</sub> emission from the handling and transport of solid waste. These sources combine to define the long-term GHG emissions inventory for the build-out of the proposed project.

GHG emissions from construction and operation of the proposed project are presented below in Table 4.

**Table 4. Proposed Project Construction and Operational GHG Emissions**

Source	Pollutant Emissions (MT/YR)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total (MTCO <sub>2e</sub> ) <sup>(A)</sup>
<b>Construction</b>				
2019	609.0	0.1	0.0	611.7
2020	4.7	0.0	0.0	4.7
Total	613.7	0.1	0.0	616.4
<i>Amortized Total</i>	<b>20.5</b>	<b>0.0</b>	<b>0.0</b>	<b>20.5</b>
<b>Operational</b>				
Area	10.6	0.0	0.0	10.9
Energy	360.8	0.0	0.0	362.4
Mobile	1,122.9	0.1	0.0	1,124.3
Solid Waste	81.5	4.8	0.0	201.9
Water / Wastewater	32.0	0.4	0.0	45.9
<i>Operational Total</i>	<b>1,607.9</b>	<b>5.3</b>	<b>0.0</b>	<b>1,745.4</b>
<b>Total Project GHG</b>				<b>1,765.9</b>
<i>BAAQMD Threshold</i>				<i>1,100</i>
MIG 2018. See Appendix A				
Notes:				
CO <sub>2</sub> = Carbon Dioxide				
CH <sub>4</sub> = Methane				
N <sub>2</sub> O = Nitrous Oxide				
MT = Metric Tons				
CO <sub>2e</sub> = Carbon Dioxide Equivalent				
(A) The reference gas for measuring global warming potential (GWP) is CO <sub>2</sub> , which has a GWP of one. By comparison, CH <sub>4</sub> has a GWP of 25, which means that one molecule of CH <sub>4</sub> has 25 times the effect on global warming as one molecule of CO <sub>2</sub> . Multiplying the estimated emissions for non-CO <sub>2</sub> GHG by their GWP determines their CO <sub>2e</sub> , which enables a project's combined global warming potential to be expressed in terms of mass CO <sub>2</sub> emissions.				

For determining whether the proposed project’s potential GHG emissions may have a significant impact on the environment, this analysis is tiered from the City of Vallejo Climate Action Plan (CAP) (City of Vallejo 2012) in accordance with Sections 15152 and 15168 of the CEQA Guidelines. The City’s CAP is a qualified GHG Reduction Plan that was prepared pursuant to Section 15168 of the CEQA Guidelines. The City’s CAP is both a policy document and a quantitative analysis of the City’s greenhouse gas emissions. Specifically, the CAP identifies policies to ensure the City meets the state-recommended GHG reductions of 1990 GHG levels by 2020 and 40 percent below 1990 levels by 2030, as set by Assembly Bill 32. The CAP provides goals and measures for energy use, transportation, land use, water, solid waste, and off-road equipment sectors. Projects that are consistent with the CAP may be found to cause a less than significant impact under CEQA (CEQA Guidelines Section 15064(h)(3)).

Appendix D of the City’s CAP contains a Compliance Checklist for New Development. This checklist can be used to determine a new development’s compliance with the City’s CAP. The checklist contains project requirements in order to be consistent with the CAP policies. The proposed project’s compliance with each CAP requirement is presented below in Table 5.

<b>Table 5. CAP Compliance Checklist for New Development</b>		
Policy	Project Requirements	Compliance
<b>Energy Efficiency</b>		
Building Standard - Require all new development to meet minimum energy efficiency and green building requirements, as amended and encourage new development to exceed Title 24 Energy Efficiency and CALGreen Standards.	Comply with Title 24 minimum requirements and consider adhering to the Tier 1 or Tier 2 standards of the CALGreen Code for Energy Efficiency.	Project will comply with Title 24 minimum requirements and complete CAP Checklist
	Complete CAP checklist.	
Smart Meters - Increase the community’s awareness and utilization of real-time energy consumption data available through PG&E’s SmartMeter program.	Install indoor real-time energy monitor in each unit or tenant space	Project will comply with SmartMeter program.
	Provide information to prospective buyers or tenants on available rebates for appliances with smart grid enabled technology	
Cool Roofs and Pavements -Increase tree planting and the use of cool roofs and cool pavement materials to reduce the urban heat island effect and corresponding energy consumption. Implement tree replacement policy for projects where tree removal is necessary.	Comply with minimum Title 24 requirements for cool roofs to have a minimum Solar Reflectance Index (SRI) of 10 for steep slope and 64 for low slope roofs on residential and nonresidential projects	Project will comply with Title 24 and vegetation planting requirements to reduce the urban heat island effect.
	Reduce exterior heat gain by planting vegetation, installing solar panel shade structures, or utilizing paving materials with a minimum SRI of 29 for at least 50% of non-roof impervious site surfaces.	
	Install and maintain street trees in compliance with current development standards	
	Utilize high albedo paving material when required to install or renovate sidewalks, roads crosswalks, parking lots, and driveways	
<b>Renewable Energy</b>		

<b>Table 5. CAP Compliance Checklist for New Development</b>		
Renewable Energy Installation - Support the installation of small-scale renewable energy systems including solar photovoltaic, solar thermal, and wind, river current, and tidal energy conversion systems.	Pre-wire and pre-plumb new residential and commercial buildings for solar and solar thermal installations.	The project will comply with pre-wire and pre-plumb requirements.
<b>Transportation &amp; Land Use</b>		
Promote mixed-use, higher-density development near transit nodes.	Include sidewalks, walking paths, or hiking trails connecting various land uses and including safety amenities such as lighting and signage throughout the project site for projects with the Downtown Specific Plan.	Not applicable
	Incorporate commercial services such as day care, restaurants, banks, and stores near employment centers where feasible in mixed use projects for projects within the Downtown Specific Plan.	
Expand and link the network of pedestrian and bicycle paths and facilities through preparation of a Bicycle and Pedestrian Master Plan, with the goal of increasing the bicycle and pedestrian mode share 20% by 2035.	Provide bicycle support facilities at a rate of 1 changing room and shower per 200 occupants within non-residential development.	The project would be required to demonstrate compliance with bicycle support facilities requirements.
Revise parking requirements for new commercial and multifamily residential projects and implement the Downtown Parking Meter Installation Plan.	Provide bike racks for 5% of the projected building occupants within 200 feet of the building entrance and one long-term bicycle storage space per two-multi-family units.	The project would comply with the required bike racks and marked pathways and would demonstrate compliance during final plan check review.
	Consider reducing the number of required vehicle parking spaces by up to 15% through the development of an approved trip reduction program.	
	Consider utilizing shared parking in mixed-use and transit-oriented developments.	
	Design parking lots, where feasible, to include clearly marked and shaded pedestrian pathways between transit facilities and building entrances.	
Reduce emissions from commute travel to and from schools and workplace.	Implement applicable transportation demand management programs and techniques.	--
	Install infrastructure within and adjacent to the project site to ensure the safe passage of children to and from school.	
	Encourage employers and employees to utilize the Solano transit Authority's rideshare matching systems.	
	Encourage employers and employees to participate in STA's ridesharing and support services.	

<b>Table 5. CAP Compliance Checklist for New Development</b>		
Plan for an improved jobs/housing balance in order to reduce the need for long-distance travel from residences to places of work.	Provide jobs and economic revitalization that improves Vallejo’s jobs/housing balance.	Implementation of the proposed project would result in additional jobs adjacent to existing housing.
	Provide live/work opportunities when compatible within existing neighborhoods.	
Efficient and Alternative Fuel Vehicles - Support the expanded use of efficient and alternative fuel vehicles.	Include designated stalls for low-emitting, fuel efficient vehicles and carpool/vanpool vehicles for a minimum of 8% of total non-residential parking capacity and pre-wire stalls for future electric vehicle charging stations for 2% of total parking capacity.	The project would comply with parking and alternative fuel station requirements.
	Consider including alternative fuel stations within the projects.	
<b>Water Conservation</b>		
Development Standards for Water Conservation - Require water conservation in all new buildings and landscapes.	Install individual water meters for each tenant space projected to consume more than 100 gallons per day in all non-residential buildings larger than 50,000 square feet.	The project would comply with all water conservation requirements.
	Provide an additional water meter or sub-meter for landscaping uses for all new non-residential facilities with 1,000 to 5,000 square feet of irrigated landscaped spaces.	
	Consider installing greywater, recycled water, and rainwater catchment systems if feasible.	
	Implement low impact development strategies in new non-residential projects to treat a minimum of 40% of the average annual rainfall on-site.	
	Facilitate on-site retention of water and reduce water run-off by installing permeable surfaces for a minimum of 20% of the total parking, walkway, and porch area surfaces serving single-family and multi-family residential buildings under 4 units.	
Development Standards for Recycling and Composting - Require waste diversion and the use of recycled materials in new development.	Comply with the City’s Construction/Demolition Waste Reuse and Recycling Ordinance.	The project would comply with the City’s recycling ordinance and would meet the minimum recycled content requirement.
	Incorporate recycled content materials for a minimum of 10% of total materials.	
Lawn & Garden Equipment - Encourage the use of electrified and higher-efficiency lawn and garden equipment.	Install outdoor electrical outlets on the exterior of each building in an accessible location.	The project will comply with outdoor electrical outlet requirement.
	Consider installing low-maintenance, native landscaping to minimize the need for gas-powered lawn and garden equipment.	

<b>Table 5. CAP Compliance Checklist for New Development</b>		
Construction Equipment - Reduce emissions from heavy-duty construction equipment by limiting idling and utilizing cleaner fuels, equipment, and vehicles.	Shut construction equipment off when not in use or reduce the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), or less.	Equipment used for construction of the project will meet all requirements and construction activity will comply with regulations. Some of the requirements exceed those outlined in Mitigation Measure AIR-1.
	Maintain construction equipment per manufacturer's specifications.	
	Implement one of the following best practices to minimize construction related GHG emissions: Substitute electrified equipment for diesel- and gasoline-powered equipment where practical. Use alternatively fueled construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel. Avoid the use on on-site generators by connecting to grid electricity or utilizing solar-powered equipment. Limit heavy-duty equipment idling time to a period of 3 minutes or less, exceeding CARB regulation minimum requirements of 5 minutes.	
<b>Adaptation</b>		
Adaptation Mainstreaming - Integrate potential climate change impacts into local planning documents and processes.	Review, analyze and disclose possible impacts of climate change on the project or plan area, with an emphasis on sea level rise.	According to the City's General Plan Map NBE-6 Projected Sea Level Rise, the proposed project is not located within a vulnerable area to projected sea level rise by 2100, thus the project is compatible.
Source: City of Vallejo; modified by MIG 2018		

While the project would exceed the BAAQMD GHG emissions threshold of significance, as shown above in Table 5, the project would be consistent with the City's CAP. The City's is a qualified GHG Reduction Plan that was prepared pursuant to Section 15168 of the CEQA guidelines, and as stated previously, projects that are consistent with the CAP may be found to cause a less than significant impact under CEQA (CEQA Guidelines Section 15064(h)(3)); therefore, this impact would be less than significant.

- c. Short-term energy demand would result from construction of the assisted living facility and medical office building. This would include energy demand from worker and vendor vehicle trips and construction equipment usage. Long-term energy demand would result from operation of facilities, which would include lighting, heating and cooling of the buildings, water consumption, etc. Operational energy demands would typically be a result of vehicle trips, electricity and natural gas usage, and water and wastewater conveyance.

As estimated by the TIA prepared for the proposed project and the emissions modeling using CalEEMod, the proposed project is anticipated to generate 1,404 weekday total daily vehicle trips, consume 1,139.820 kBTU of natural gas annually, and consume 1,025,706 kilowatt hours of electricity annually. Although the proposed project may increase vehicle miles traveled and energy and natural gas usage compared to current undeveloped conditions, the proposed project does not result in the wasteful or inefficient use of energy resources because the project would be required to meet the latest energy efficiency requirements for non-residential development adopted by the State and City, which were developed, in part, to meet State's GHG reduction goals. Thus, the proposed project would not result in the wasteful or inefficient use of energy resources. This impact would be less than significant.

**References:**

- a. City of Vallejo, 2012. City of Vallejo Climate Action Plan. March 2012.
- b. Bay Area Air Quality Management District, 2017. "California Environmental Quality Act: Air Quality Guidelines." Revised May 2017.

## 6.8 Hazards and Hazardous Materials

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

**Conclusion:** Regarding hazards and hazardous materials, the proposed project would not result in any significant environmental impacts.

### **Documentation:**

- a. The proposed project would not create a significant hazard from the routine transport, use, or disposal of hazardous materials, nor would it result in hazardous emissions. Relatively low amounts of hazardous substances could be generated, stored, transported, used, or disposed of that are associated with operation of the assisted living facility or medical building. However,

during project construction demolition of buildings could result in potential exposure to asbestos, lead-based paint, and other hazardous materials, if present. A hazardous building materials survey would need to be performed prior to issuing a demolition permit; refer to Mitigation Measure HAZ-1 below.

Additionally, construction equipment would use hazardous materials including petroleum hydrocarbon-based fuels and lubricants. An accidental release of hazardous materials during fueling, maintenance, or improper operation of construction equipment could potentially occur and pose a risk to construction workers, the public, or the environment. Identification, transportation, use, and disposal of hazardous materials during construction activities are regulated by federal, State, and local statutes and regulations. The Solano County Department of Resource Management, Environmental Health Services Division is the Certified Unified Program Agency (CUPA) for all cities and unincorporated areas within Solano County. The CUPA is responsible for applying state laws and policies regarding hazardous materials. The laws and regulations pertaining to the use and disposal of hazardous materials and hazardous wastes are in the California Health and Safety Code, Chapters 6.5, 6.67, 6.7, 6.75, 6.95, & 6.11 and the California Code of Regulations, Title 19, Title 22, Title 23, & Title 27 found in Health and Safety Code and California Code of Regulations. The proposed project would be required to comply with all of these regulations. Additionally, the project is required by the State Water Resources Control Board to obtain a General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit). The Construction General Permit requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which includes best management practices to manage releases of hazardous materials and prevent runoff into stormwater collection systems or waterways. As such, compliance with Mitigation Measure HAZ-1 and existing regulations and implementation of a SWPPP during construction would reduce the above referenced impacts related to the use of hazardous materials to less than significant levels.

**Impact HAZ-1:** Demolition of structures during project construction could result in potential exposure to asbestos, lead-based paint, and other hazardous materials, if present. Implementation of the following mitigation measure, which requires hazardous building material surveys prior to demolition and corresponding abatement.

**Mitigation Measure HAZ-1:** A hazardous building materials survey shall be performed by a qualified environmental professional retained by the project applicant prior to issuance of a demolition permit. The hazardous building materials surveys shall include inspections of asbestos, lead-based paint, and sources of universal wastes. If asbestos containing materials are determined to be present, the materials shall be abated by a certified contractor in accordance with BAAQMD regulations and notification requirements. If lead-based paint is present, protective measures and air monitoring shall be implemented by qualified workers during activities that generate potential airborne exposures to lead in accordance with the California Department of Industrial Relations, Division of Occupational Safety and Health regulations and notification requirements. Loose or peeling lead-based paint shall be removed by a qualified worker and disposed of in accordance with existing hazardous waste regulations. If lead, asbestos, or other hazardous building materials are present, then applicable federal and State construction worker health and safety regulations shall be implemented during construction activities. Implementation of this mitigation measure would reduce impacts to less than significant levels.



- b. The Phase I Environmental Site Assessment (ESA) was prepared in preparation of the WinCo project to determine whether any releases or threatened releases of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) designated hazardous substances or petroleum products are present in the project vicinity that would subject a responsible party (e.g., landowner) to remedial actions if brought to the attention of the appropriate governmental authorities. No releases or threatened releases of CERCLA hazardous substances or petroleum products subject to remedial actions were identified in the project vicinity. However, the Phase I ESA did not evaluate hazardous material conditions where a responsible party may not be subject to remedial actions under CERCLA, such as the former application of agricultural pesticides or the presence of hazardous building materials. The Phase I document indicates that the project site was formerly used for agriculture from about the mid-1930s until the mid- to late-1960s when the land was redeveloped for the Vallejo Elks Lodge. Prior to 1950, inorganic pesticides that contained elevated concentrations of heavy metals, such as arsenic, were commonly applied to crops. From 1950 until the mid-1970s, organochlorine pesticides were commonly used in California agriculture as well. Residues from inorganic and organochlorine pesticides used in the past have the potential to persist for many decades in shallow soils and can affect human health or the environment. Project construction activities that disturb shallow soils containing inorganic or organochlorine residues, if present, could pose a threat to construction workers, the public, or the environment.

**Impact HAZ-2:** The disturbance of soils which may contain agricultural pesticides or hazardous building materials during project construction could pose a significant threat to human health.

**Mitigation Measure HAZ-2:** Prior to project construction, the project applicant shall be responsible for performing an environmental investigation to determine if residues from inorganic or organochlorine pesticides have contaminated exposed shallow soils and shallow soils beneath paved surfaces that would be disturbed during project construction. Representative shallow soil samples shall be collected in areas that would be disturbed during construction in accordance with the Department of Toxic Substances Control (DTSC) guidance document, Interim Guidance for Sampling Agricultural Properties. However, the soil sampling depth should be modified to 1 foot below ground surface or pavement due to grading and mixing of soils during redevelopment in the mid- to late-1960s; the DTSC guidance document does not account for agricultural soils disturbed by redevelopment. Implementation of this mitigation measure would reduce this impact to less than significant.

- c. Kinder Care Learning Center is a day care facility for children located adjacent to the project site's northeast boundary. Hazardous materials would be used during project construction, but not during operation of the project. Hazardous materials used during construction would not include acutely hazardous materials. An accidental release of hazardous materials during project construction in the vicinity of the day care facility could pose a potential health risk to the children. However, protective measures for handling hazardous materials during construction, including accidental releases, are required by federal, State, and local statutes and regulations, and are summarized in section 6.8a. Therefore, potential impacts on schools from a hazardous materials release during construction would be less than significant.
- d. The Phase I ESA, as completed for the proposed WinCo project, includes a review of regulatory databases, including listed hazardous materials release sites compiled pursuant to Government Code Section 65962.5. No hazardous materials release sites compiled pursuant to Government

Code Section 65962.5 were identified on the project site. Therefore, the project would have no impact related to hazardous material release sites.

- e. The closest public use airport to the City is the Napa Airport which lies three miles to the north of the City's Sphere of Influence. The project is not within two miles of a public airport and therefore there would be no impact.
- f. There are no private airstrips within the City and therefore there would be no impact.
- g. The project contains no features which would hinder or physically interfere with an emergency evacuation or response plan. The proposed project is located with existing parcels and there is no permanent impact to public roads that would alter evacuation routes. There would be no impact.
- h. The California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas within Solano County that have significant fire hazards based on fuels, terrain, weather, and other relevant factors. These areas are identified on the map as Very High Fire Hazard Severity Zones. CAL FIRE has identified some areas near the periphery of Vallejo as Moderate and High Hazard Fire Severity Zones, but no areas are classified as "Very High." Additionally, these areas of moderate and high concern are not in close proximity to the proposed project. The project site is in an "Other Unzoned" area. No special Fire or Building Codes are applicable to this project. As such, there would be no impact.

**References:**

- a. Solano County Draft Fire Hazard Severity Zone,  
[http://frap.fire.ca.gov/webdata/maps/solano/fhszl06\\_1\\_map.48.pdf](http://frap.fire.ca.gov/webdata/maps/solano/fhszl06_1_map.48.pdf)
- b. City of Vallejo, General Plan
- c. City of Vallejo, Final EIR for the General Plan 2040 (Propel Vallejo)

## 6.9 Hydrology and Water Quality

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?		X		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
j) Inundation by seiche, tsunami, or mudflow?				X

**Conclusion:** Regarding hydrology and water quality, the proposed project would not result in any significant environmental impacts with implementation of Mitigation Measures HYD-1 and HYD-2.

## **Documentation:**

- a. A project could impact surface water quality if discharges associated with it would create pollution, contamination, or nuisance as defined in Section 13050 of the California Water Code (CWC) or would cause regulatory standards to be violated as defined in the applicable National Pollutant Discharge Elimination System (NPDES) stormwater permit or Water Quality Control Plan for the receiving water body. For the purpose of this specific issue, a significant impact could occur if the proposed project would discharge water that does not meet the quality standards of the agencies which regulate surface water quality and water discharge into stormwater drainage systems. Potentially significant impacts could also occur if the proposed project does not comply with all applicable regulations with regard to surface water quality as governed by the State Water Resources Control Board (SWRCB).

*Construction Period Impacts.* For the Carlton project construction activities would include grading, cutting and filling; removing vegetation; removing existing onsite structures; constructing the new building and other onsite improvements (parking areas, landscaping and driveways). In areas of active construction, soil erosion may result in discharges of sediment-laden stormwater runoff into Blue Rock Springs Creek, if not properly controlled. Additional sediment input to the creek from construction of the project could contribute to degradation of downstream water quality and impairment of beneficial uses. Sediment can also be a carrier for other pollutants, such as heavy metals, nutrients, pathogens, oil and grease, fuels and other petroleum products.

However, standard City-required construction period best management practices (BMPs) would ensure that the project would not discharge polluted water in violation of water quality standards or waste discharge requirements. These BMPs would include, at a minimum:

- erosion control at the site,
- preservation of existing vegetation, where feasible,
- stabilize soils
- run-on and run-off controls to and from the project site,
- control of sediments transport on the project site,
- active treatment systems (as necessary),
- use of sediment basins and traps, and

*Project Operational Impacts.* Operation of the proposed assisted living facility would potentially increase impervious areas by removing and replacing existing buildings and facilities with new buildings and associated paving and landscaping. Limited vegetation is present under existing conditions and landscaping is proposed as part of project design in the form of landscaped planters containing trees, shrubs, ground covers, and vines. Provision C.3 of the Municipal Regional Stormwater NPDES Permit (MRP) requires site developments to minimize the area of new roofs and paving. Where feasible, pervious surfaces should be used instead of paving so that runoff can infiltrate to the underlying soil. Remaining runoff from impervious areas must be captured and used or treated using bioretention. In some developments, the rates and durations of site runoff must also be controlled. In addition, project applicants must execute agreements to allow municipalities to verify that stormwater treatment and flow-control facilities are maintained properly. The project must comply with the C.3 provisions established by the City of Vallejo to minimize the area of pervious surfaces so that runoff can infiltrate to the underlying

soil. Although the amount of impervious surfaces will be greater than existing conditions, all on-site runoff would be directed to bioretention basins throughout the project. A storm drain pipe is proposed to connect the bioretention basin to the existing storm drain on the western portion of the site.

Pursuant to the San Francisco Bay Region Municipal Regional Stormwater (MRP) NPDES Permit, of which Vallejo is a co-permittee, permittees shall use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development projects. The NPDES permit addresses both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. This goal is to be accomplished primarily through the implementation of low impact development (LID) techniques which include features such as bioretention basins and stormwater planters.

For all new development projects, the permittee shall include adequate source control measures to limit pollutant generation, discharge, and runoff. These source control measures should include:

- storm drain stenciling;
- landscaping that minimizes irrigation and runoff, promotes surface infiltration where possible, minimizes the use of pesticides and fertilizers, and incorporates appropriate sustainable landscaping practices and programs;
- appropriate covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas;
- covered trash, food waste, and compactor enclosures; and
- plumbing of discharges to the sanitary sewer including: discharges from indoor floor mat/equipment/hood filter wash racks or covered outdoor wash racks for restaurants; dumpster drips from covered trash and food compactor enclosures; discharges from outdoor covered wash areas for vehicles, equipment, and accessories; swimming pool water; and fire sprinkler test water.

Finally, MRP permittees shall integrate water quality and watershed protection with water supply, flood control, habitat protection, groundwater recharge, and other sustainable development principles and policies. With adherence to the San Francisco Bay Municipal Regional Stormwater NPDES Permit requirements, BMPs, and the Vallejo Municipal Code Chapter 12.4, impacts from the proposed Project will be less than significant.

**Impact HYD-1: Pollutant Discharge Related to Project Construction and Operations.** Project construction and operations could produce pollutants, if discharged, into the storm drainage system would degrade water quality.

**Mitigation Measure HYD-1.** Prior to issuance of improvement and grading plans, the applicant shall submit a final stormwater control and an operations and maintenance plan that complies with Provision C.3 of the Municipal Regional Stormwater Permit National Pollution Discharge Elimination System (NPDES) permit, and the Vallejo Municipal Code Chapter 12.41 (Stormwater Management and Discharge Control), to the satisfaction of the City.

Implementation of Mitigation Measure HYD-1 would reduce the potentially significant impact on construction and operational pollutant discharges to a less-than-significant level.

- b. The proposed project would be connected to municipal water supplies and would not use any groundwater supplies. The proposed project would include bioretention areas, designed to capture any increased flows attributable to the project, which would provide enhanced opportunities for groundwater recharge. The project impact on groundwater supplies and recharge would be less-than-significant.
- c. The project would not significantly alter site drainage patterns. Runoff from the site would discharge into the stormwater drainage system, and the locations of drain inlets would be modified to accommodate the grading and drainage for the new site design. Any changes in proposed project drainage patterns would not result in substantial erosion or siltation onsite or offsite. Project BMPs would prevent substantial erosion and siltation from construction (which includes erosion control requirements for earth-moving activities) and post-construction phases (which includes requirements to treat stormwater runoff before it discharges into the stormwater drainage system). In addition, the proposed project would comply with the City's requirement to submit a Grading and Erosion Control Plan, which would minimize erosion and siltation during construction. Therefore, impacts associated with drainage pattern alteration that would cause substantial erosion would be less than significant.
- d. As discussed above, the proposed project would not significantly alter drainage patterns. The project must allow for overland release of surface runoff in excess of the 100-year storm event, and/or in the case that flooding occurs during a smaller storm resulting from debris clogging in the downstream stormwater drainage system. In the existing condition, overland release of such flows is conveyed through the adjacent property to the north and onto Rotary Way. There would be no change in the drainage pattern for overland release of stormwater runoff with implementation of the project; therefore, the project impacts on flooding offsite would be less than significant. In order to prevent onsite flooding in both the Phase 1 and Phase 2, the project applicant would comply with the Vallejo Flood and Wastewater District's requirement to construct the new building so the finish floor elevation is one foot above the curb elevation on Rotary Way. Therefore, flooding onsite as a result of changes in drainage patterns would be less than significant.
- e. The project site is previously graded, and the proposed project would not substantially alter the existing drainage pattern of the site. The project design would include bioretention areas that would treat stormwater before it empties into the stormwater drainage system. However, prior to City approval of the final stormwater control plan, the applicant would need to provide storm drain calculations to compare projected peak flows with historical (i.e., previous full occupancy) ten-year peak flows and incorporate any necessary on-site drainage improvements to the City's satisfaction as a project condition of approval. Because the project would not substantially alter the total volume or rate of stormwater runoff, this impact would be less than significant.
- f. As discussed above under 6.9.a and 6.9.d, the project would be designed so that runoff would not exceed the design system capacity. Also, implementation of Mitigation Measure HYD-1 would reduce impacts from potential additional pollutions to less-than-significant levels.
- g. & h The proposed project does include structures and housing as a part of an assisted living facility. However, the project site is not located within a 100-year flood zone. As such, the project would not create structures that would impede or redirect flows nor place housing in a 100-year flood zone. Therefore, there would be no impact.

- i. The proposed project site could be impacted if one or more of the dams in the vicinity were to fail catastrophically. Catastrophic structural dam failure can be caused by an earthquake or overflow. Dams in the project vicinity include Summit, Fleming Hill/Chabot, Lake Chabot, Fleming Hill #2, and Swanzy Lake. The project site is not located in or within the vicinity of the inundation zones for these dams. Furthermore, each of these dams is under the jurisdiction of the California Department of Water Resources, Division of Safety of Dams (DWR). Existing dams under DWR's jurisdiction are inspected periodically to ensure adequate maintenance and to direct the owner to correct any identified deficiencies. Regular inspections and required maintenance of the dams substantially reduce the potential for catastrophic failure. Therefore, the proposed project would not expose people or structures to a significant risk as a result of the failure of a levee or a dam and the impact would be less than significant.
- j. The project site is located approximately 1.5 miles east of Lake Chabot (located adjacent to Six Flags Amusement Park), the nearest open body of water, therefore, impacts associated with seiches would not occur. Based on the distance of the project site from San Pablo Bay (approximately six miles) and the elevation of the site, coastal hazards such as tsunamis, extreme high tides, and sea level rise would not affect the project site. Due to the generally level nature of the project site, the proposed project would not be affected by mudflows. There would be no impact.

**References:**

- a. City of Vallejo, Municipal Code Chapter 12.41;
- b. City of Vallejo, Annual Water Quality Report, 2015,  
<http://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=3040139>,
- c. FEMA Map F06095C0629G (August 3, 2016).
- d. Solano County Office of Emergency Services, Solano County Emergency Operations Plan: Flood and Tsunami Annex, March 2012.
- e. ABAG Resilience Program,  
<http://gis.abag.ca.gov/website/Hazards/?hlyr=concordGV&co=6095>,
- f. City of Vallejo, Final EIR for the General Plan 2040 (Propel Vallejo)

**6.10 Land Use and Planning**

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Disrupt or divide the physical arrangement of a community?				X
b) Be incompatible with existing land use in the vicinity?			X	
c) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X

**Conclusion:** Regarding land use and planning, the proposed project would not result in any significant environmental impacts.

**Documentation:**

- a. The project would introduce an assisted living facility, including medical offices and commercial space, into an area zoned for commercial and residential uses. The project would involve the removal of an Elks Lodge facility; the subject property currently does not support any residential uses. The proposed project would not substantially affect circulation patterns in the neighborhood and would not result in any physical or perceptual barriers or divisions in the established community. Therefore, the proposed project and associated construction would not result in the physical division of any established community or adversely affect the continuity of land uses in the vicinity; there would be no impact.

The proposed project is designed to be compatible with the existing surrounding development. The surrounding uses are multi-family residential, medical, civic (day care center), commercial retail, and office space. The proposed project is to be developed for residential that commercial uses to accommodate the senior assisted living facility, including: administrative offices, living, dining, wellness and other activity area. Because the proposed project involves a mixture of residential and commercial uses the project is compatible and would blend well with surrounding community and developments. The project is consistent with local land use regulations, per the Vallejo Municipal Code and General Plan, designed to mitigate environmental impacts.

- b. The project site is within the City of Vallejo limits and is not subject to any area specific plans. The project site has a General Plan land use designation of Business/Limited Residential. Per the General Plan, this designation is intended to support high quality employment-based business. The land use designation also encourages mixed use projects that include residential components. Per the Vallejo Municipal Code, an assisted living facility is classified as a residential use, but considered a commercial building for construction. Furthermore, assisted living facilities are an allowed use in the designated CP (Pedestrian Shopping and Service) district per the Vallejo Municipal Code, with a Major Use Permit. The subject property, which is zoned CP, is located near commercial retail, medical, civic, and multi-family residential uses.



The proposed project does not conflict with existing plans or policies for the purpose of avoiding or mitigating an environmental effect. Therefore, impacts would be less than significant.

- c. There is no adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan that applies to the project site. The Solano County Multispecies HCP is currently still in draft form and has not been adopted yet. Therefore the proposed project would result in no impact related to any HCPs.

**References:**

- a. City of Vallejo, Final EIR for the General Plan 2040 (Propel Vallejo)
- b. City of Vallejo, Zoning Ordinance

## 6.11 Mineral Resources

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				✗
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✗

**Conclusion:** Regarding mineral resources, the proposed project would not result in any significant environmental impacts.

### **Documentation:**

- a. According to the General Plan EIR, there are no formal mineral resource deposits located within the city boundaries. Therefore, the proposed project would not result in the loss of availability of a known mineral resource of value to the region and the residents of the State, and no impact would occur.
- b. Refer to 6.11.a. The proposed project would not result in the loss of availability of a locally important mineral resource recovery site, and no impact would occur.

### **References:**

- a. City of Vallejo, Final EIR for the General Plan 2040 (Propel Vallejo)

## 6.12 Noise

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels?			X	
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels?				X

**Conclusion:** Regarding noise, the proposed project would not result in any significant environmental impacts with implementation of Mitigation Measure NOISE-1.

### **Documentation:**

- a. The proposed project is located on the north side of Redwood Parkway between Admiral Callaghan Lane and Cadloni Lane. The site is bounded by the Redwood Plaza Shopping Center, commercial uses, and a day care center to the north, multi-family homes and a medical office building to the east, Redwood Parkway to the south, and a gas station and Admiral Callaghan Lane to the west. The Interstate 80 Freeway and off-ramps are west of the project site. Existing noise conditions include traffic noise from I-80 and Redwood Parkway. Other nearby commercial and residential uses contribute lesser amounts of noise to the environment compared to traffic related noise.

The City of Vallejo’s General Plan Noise Element establishes guidelines for siting new developments based on land use. The proposed project, which consists of the construction and operation of an assisted living facility and medical office building, most closely resembles the land use designation of “Schools, Libraries, Churches, Hospitals, Nursing Homes” and “Office Buildings, Business Commercial, and Professional.” The Noise Element indicates the former type of land use is considered *normally acceptable* in areas receiving noise levels up to 60 CNEL, and *conditionally acceptable* in areas receiving noise levels between 60 to 70 CNEL, while the

latter land use is considered *normally acceptable* in areas receiving noise levels up to 70 CNE, and *conditionally acceptable* in areas receiving noise levels between 68 to 78 CNEL.

While no ambient noise monitoring was conducted for this specific project site, the City's General Plan Draft EIR ambient noise monitoring has the following information pertaining to existing ambient noise levels at the site and the surrounding areas: Figure 4.10-1, Existing Noise Contours, identifies the project area to have existing noise levels of approximately 65 dBA CNEL and the Draft EIR presents long-term ambient noise modeling results from Rotary Drive, near the project site, as 66.5 CNEL. Additionally, per Table 4.10-12 in the General Plan Draft EIR, the modeled roadway noise level along Redwood Pkwy between Ascot Parkway and Admiral Callaghan Lane is 67.6, increasing to 69 CNEL under General Plan build-out conditions. Thus, the proposed development would be located in a noise environment that exceeds the *normally acceptable* noise compatibility level for the land use designation for the assisted living facility (60 CNEL) but would be within the *normally acceptable* range for the land use designation for medical office building (70 CNEL). However, as indicated in the landscaping plans, there would be a six-foot concrete masonry wall (CMU) wall located on the north, east, and part of the west sides of the assisted living facility. The CMU would attenuate noise levels from Cadloni Lane, Rotary Way, and Admiral Callaghan Lane as well I-80. Approximate noise reduction value from light concrete, 4 inches thick, is 36 dBA (Caltrans 2013a). Considering that actual noise reduction is approximately 10 dBA for light concrete, the CMU would attenuate noise levels by approximately 20 to 25 dBA. This effect would result in on-site noise levels that are compatible with the assisted living land use. The General Plan noise standard for interior noise of 45 db L<sub>dn</sub>. Typical construction building techniques attenuate exterior noise levels by at least 15 dBA with windows open and approximately 20 to 25 dBA with windows closed. Compliance with Building Code would ensure interior noise levels for the new development would be met.

The City's General Plan Noise Element Policy NBE-5.13 limit construction, demolition maintenance, and unloading and loading activities that may impact noise-sensitive land uses between the hours of 7 AM and 7PM on weekdays. In addition, Policy NBE-5.15 limits project-related noise increases to no more than 10dB in non-residential areas and 5dB in residential areas where the project noise levels is less than the maximum "normally acceptable" levels in Noise and Land Use Compatibility figure. Additionally, Section 12.40, Excavations, Grading, and Filling of the City's Municipal Code states that all grading, and the associated production of noise, that is conducted in residential zones or within 1,000 feet of any residential occupancy, hotel, motel or hospital shall be limited to between the hours of 7:00 a.m. and 6:00 p.m. The proposed project would not conflict with the applicable City requirements for construction noise, as discussed further in 6.12.

Once constructed, the proposed project would continue to generate similar residential and commercial-type land use noise levels and has limited potential to generate noise that exceeds standards at adjacent property lines. The primary on-site noise generating activities would be parking activities, human activities, some mechanical equipment (e.g. heating, ventilation, and air condition equipment), and noise associated with the proposed dog park. Potential increase in traffic-related noise levels resulting from off-site project vehicles trips is discussed further in 6.12c.

The proposed project would increase noise levels at the site by providing additional parking capacity. Noise sources associated with the parking lot (e.g., car horns, doors slamming, cars

starting, etc.) would be intermittent. These types of noises would not differ substantially from the noise generated by existing parking activities in the project area. The proposed assisted living facility and medical office building would have individual roof mounted heating, ventilation, and air conditioning systems located behind a parapet wall. Based on measurements of noise levels for similar roof-mounted systems, such equipment is anticipated to generate a noise level of approximately 50 to 60 dBA at a distance of 50 feet. Thus, the noise generated from this equipment would be unlikely to exceed the ambient noise levels on the project site and would not exceed City standards. Nor would it result in a substantial increase in ambient noise levels in the vicinity of the project (which are presumed to be approximately 15 to 16 dBA higher than noise levels generated by project heating, ventilation, and air conditioning equipment).

- b. Vibration is the movement of particles within a medium or object such as the ground or a building. As is the case with airborne sound, ground borne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared, in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Human response to ground borne vibration is subjective and varies from person to person. The California Department of Transportation’s (Caltrans) Transportation and Construction Vibration Guidance Manual provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans, 2013a). Chapters six and seven of the manual summarize vibration detection and annoyance criteria from various agencies and provide Caltrans’ recommended guidelines and thresholds for evaluating potential vibration impacts on buildings and humans from transportation and construction projects. These thresholds are summarized in Table 6.

**Table 6. Caltrans’ Vibration Threshold Criteria for Human Response and Building Damage**

Human Response	Maximum PPV (Inches/second)	
	Transient	Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40
Structural Integrity	Maximum PPV (Inches/second)	
	Transient	Continuous
Extremely fragile buildings, ruins, monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50
Source: Caltrans 2013a		

The potential for groundborne vibration is typically greatest when vibratory or large equipment such as rollers, impact drivers, or bulldozers are in operation. For the proposed project, the largest earthmoving equipment would primarily operate during building demolition and site preparation / grading activities (HUD, 2009a, 2009b). Table 7 lists the typical vibration levels generated by the type of heavy-duty construction equipment most likely to be used during

project construction (at a distance of 100 feet), as well as the estimate vibration levels at nearby sensitive receptors, including multifamily residences to the east and a kinder care north of the project site.

**Table 7. Estimated Ground-Borne Vibration Levels from Construction Equipment**

Equipment	Peak Particle Velocity (in/sec) <sup>(A)</sup>			Velocity Decibels (vdB) <sup>(B)</sup>		
	50	100	300	50	100	300
Large bulldozer	0.042	0.019	0.006	78.0	68.9	54.6
Small bulldozer	0.014	0.007	0.002	49.0	39.9	25.6
Loaded truck	0.035	0.017	0.005	77.0	67.9	53.6
Jackhammer	0.016	0.008	0.002	70.0	60.9	46.6
Auger Drill Rig	0.042	0.019	0.006	78.0	68.9	54.6

SOURCES: Caltrans, 2013a and FTA 2006.

(A) Estimated PPV calculated as:  $PPV(D) = PPV(ref) * (25/D)^{1.3}$  where  $PPV(D)$  = Estimated PPV at distance;  $PPV(ref)$  = Reference PPV at 25 ft;  $D$  = Distance from equipment to receiver; and  $n$  = ground attenuation rate (1.1 for dense compacted hard soils).

(B) Estimated  $L_v$  calculated as:  $L_v(D) = L_v(25 \text{ feet}) - 30 \log(D/25)$  where  $L_v(D)$  = estimated velocity level in decibels at distance,  $L_v(25 \text{ feet})$  = RMS velocity amplitude at 25 ft; and  $D$  = distance from equipment to receiver.

As shown in Table 7, at their closest, presuming work occurs on the property line, construction activities could occur within approximately 50 feet of the adjacent residential buildings. At this distance, a large bulldozer would generate a ground vibration level of 0.042 PPV, which is well below Caltrans’ vibration threshold criteria for older residential structures damage of 0.50 and, therefore, would not result in building damage. In addition, levels of vibration produced by construction equipment are evaluated against Caltrans’ vibration threshold criteria for human response. The ground vibration level of 0.042 PPV generated by a large bulldozer at 50 feet would exceed Caltrans’ vibration detection thresholds for “distinctly perceptible” (Caltrans, 2009); however, this impact is considered less than significant because it would be intermittent (occurring only a few hours each day when equipment was in operation), infrequent (equipment capable of generating the greatest vibration would operate a few weeks at most), and would not damage the adjacent residential structures. These worst-case vibration levels would only occur when equipment is operating within approximately 100 feet of residences. At distances farther away than 100 feet, vibration from equipment would be below the lowest perception thresholds identified by Caltrans. For these reasons, potential groundborne vibrations generated by the project are not considered excessive. This impact would be less than significant.

- c. As described under discussion 6.12a, the proposed project’s on-site noise generating equipment would generate noise levels that are estimated to be 15 to 16 dBA less than existing ambient conditions at and in the vicinity of the project site (which are presumed to be in the range of 66.5 to 67.6 CNEL, increasing to 69 CNEL under General Plan build-out conditions). Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dBs represents a ten-fold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 times more intense, etc. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations. Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50

dBA, two of the same sources would combine to produce 53 dB. In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source. The proposed project's on-site noise generating equipment would be approximately 15 to 16 decibels less than the existing ambient noise environment and would contribute less than 0.5 dBA to the existing ambient noise environment. This noise level increase is considered an indiscernible and less than significant change to the existing ambient noise environment at and in the vicinity of the project site. Therefore, project related noise would not exceed City standards nor result in a substantial increase in ambient noise levels. At most, the proposed project would be expected to result in a doubling of sound energy within the immediate project site, which would yield a 3 dBA increase in ambient noise levels. A 3 dBA increase in general environmental noise levels is not considered a significant because it is usually not a perceptible change to the noise environment.

The traffic analysis, prepared by Michael Baker, identifies that the proposed project's peak hour trip generation is estimated to be 135 vehicles. In general, it takes a doubling of traffic to increase traffic noise volumes by 3 dBA (Caltrans 2013b). The traffic analysis identifies peak traffic conditions at the intersection of Admiral Callaghan Lane at Redwood Parkway to be 2,530 vehicles. The addition of 135 vehicles would, therefore, result in a less than 3 dBA increase in noise levels on local roadways used to access the project site. Thus, there would not be a permanent perceptible increase in ambient noise, and this impact would be less than significant.

- d. Project construction could temporarily increase noise levels at residences surrounding the site and along roadways used to access the site. The noise would occur mainly from equipment operations such as a loader (which could also act as an excavator because it has a bucket on the opposite end), a grader, paver, roller, bulldozer, material lifts and haul trucks. Typical equipment noise levels are presented below in Table 8.

**Table 8. Project Construction Equipment Noise Levels**

Equipment	Noise Level at 50 feet (L <sub>max</sub> ) <sup>(A)</sup>	Percent Usage Factor <sup>(B)</sup>	Predicted Equipment Noise Levels (L <sub>eq</sub> ) <sup>(C)</sup>				
			50 Feet	100 Feet	150 Feet	200 Feet	250 Feet
Bulldozer	85	40	81	75	71	69	67
Backhoe	80	40	76	70	66	64	62
Concrete mixer	85	40	81	75	71	69	67
Crane	85	16	77	71	67	65	63
Excavator	85	40	81	75	71	69	67
Generator	82	50	79	73	69	67	65
Pneumatic tools	85	50	82	76	72	70	68
Scraper	85	40	82	76	72	70	68
Delivery Truck	85	40	81	75	71	69	67
Vibratory Roller	80	20	73	67	63	61	59

Sources: Caltrans 2013 and FHWA 2010.

(A) L<sub>max</sub> noise levels based on manufacturer’s specifications.

(B) Usage factor refers to the amount (percent) of time the equipment produces noise over the time period

(C) Estimate does not account for any atmospheric or ground attenuation factors.

Calculated noise levels based on Caltrans, 2009:  $L_{eq} \text{ (hourly)} = L_{max} \text{ at 50 feet} - 20\log(D/50) + 10\log(UF)$ , where: L<sub>max</sub> = reference L<sub>max</sub> from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

As indicated in Table 8, the worst case Leq and Lmax construction equipment noise levels are predicted to be approximately 72 dBA at a distance of 150 feet; however, the magnitude of the project’s temporary and periodic increase in ambient noise levels would depend on the nature of the construction activity (i.e., site preparation, grading, or building construction) and the distance between the construction activity and sensitive outdoor areas. When two or more pieces of similar equipment are used in combination, noise levels would be higher, approaching 75-76 dBA. These noise levels would be intermittent, occurring a few hours each day, no more than six days a week (Monday through Saturday) between the hours of 7:00 AM and 6:00 PM as outlined in the City’s Municipal Code. This increase in noise related to project construction would result in a potentially significant noise impact to neighboring residences. Accordingly, the City would require the applicant and its construction contractor to implement the Mitigation Measure NOISE-1, which would reduce this impact to a less than significant level.

Once operational, the proposed assisted living facility may, on occasion, require emergency vehicle assistance, which may include the use of a siren. The project applicant has stated that no sirens would be used, and transport of persons needing emergency assistance may occur by on-site personnel using facility transport vehicles. To document the worst-case scenario, sirens could reach levels of 92 to 94 dBA Lmax at a distance of approximately 50 feet. The nearest residences would be located approximately 130 feet from the entrance driveway of the project



site. At this distance, maximum instantaneous noise levels would reach 84 to 86 dBA Lmax. While these levels could be considered excessive, they would occur in short time spans and would be in response to emergencies. According to Chapter 16.72.05 D. of the Vallejo Municipal Code Zoning Ordinance, sounds made in the interest of public safety are exempt from noise performance standards. Thus, this impact is less than significant.

**Impact NOISE-1: Construction Period Noise Impacts.** Temporary project construction activities would expose surrounding uses to short-term increases in noise levels, which would represent a potentially significant impact.

**Mitigation Measure NOISE-1:** Consistent with the City of Vallejo General Plan Noise Element, the following measures shall be implemented to reduce noise and vibration impacts from project construction activities:

- f) *Construction Scheduling.* Limit noise-generating construction activity to between the hours of 7:00 a.m. to 6:00 p.m. Monday through Saturday, and no construction activity on Sunday or on federal holidays.
- g) *Construction Equipment Mufflers and Maintenance.* Equip internal combustion engine-driven vehicles and equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- h) *Idling.* Prohibit unnecessary idling of internal combustion engines.
- i) *Equipment Location.* Locate all stationary noise-generating construction equipment, such as air compressors, as far as practical from existing nearby residences and other noise sensitive land uses.
- j) *Quiet Equipment Selection.* Select quiet construction equipment, particularly air compressors, whenever possible. Fit motorized equipment with proper mufflers in good working order.

Implementation of Mitigation Measure NOISE-1 would reduce the short-term, construction noise impacts generated by the project to a less-than-significant level.

- e. There are no public airports within two miles of the project site, nor is the project site within the airport influence area designated in the appropriate land use plan for the nearest public airports. Therefore, no impact would occur.
- f. There are no private airstrips in the vicinity of the project site. Therefore, no impact would occur.

**References:**

- a. California Department of Transportation (Caltrans), 2009. Technical Noise Supplement. Prepared by ICF Jones and Stokes for Caltrans Division of Environmental Analysis. Sacramento, CA. November 2009.
- b. \_\_\_\_\_. 2013a. Transportation and Construction Vibration Guidance Manual. Sacramento, CA. September 2013.

- c. \_\_\_\_\_ 2013b. Technical Noise Supplement to the Traffic Analysis Protocol. Sacramento, CA. September 2013.
- d. US Federal Highway Administration, 2010. “Construction Noise Handbook, Chapter 9. Construction Equipment Noise Levels and ranges.” May 2010.
- e. Federal Aviation Administration, Airport Contact and Data Information, [http://www.faa.gov/airports/airport\\_safety/airportdata\\_5010/](http://www.faa.gov/airports/airport_safety/airportdata_5010/).

### 6.13 Population and Housing

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

**Conclusion:** Regarding population and housing, the proposed project would not result in any significant environmental impacts.

#### **Documentation:**

- a. The proposed project includes a residential assisted living facility and would result in a slight increase in population. Phase 1 would include 179 beds, so it can be reasonably expected that the maximum population increase would be 179 persons. Moreover, Phase 1 would be supported by a cumulative 35 employees that are both part-time and full-time. Phase 2 includes a 24,000 square-foot medical office building. Using the EnergyStar “space use information”, it is estimated that there are 2.6 full time workers per 1,000 square feet resulting in (24\*2.6) an estimated 63 employees. Both phases, combined, are anticipated to provide about 98 jobs. It is assumed that new jobs would not induce employees to move to Vallejo, and therefore would not impact population growth. Pursuant to these findings, the proposed project would not induce major population growth in the area and the impact would be less than significant.
- b. The proposed project would not remove existing housing. Demolition involves the removal of an existing Elks Lodge facility that has no residential use. Therefore, the proposed project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere and there would be no impact.
- c. The proposed project would not displace any people, nor would it require the construction of replacement housing. Therefore, no impact would occur.

#### **References:**

- a. California Department of Transportation, Solano County Economic Forecast.  
[http://www.dot.ca.gov/hq/tpp/offices/eab/socio\\_economic\\_files/2017/Solano.pdf](http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2017/Solano.pdf)
- b. United States Census Bureau, Quick Facts: Vallejo CA.  
<https://www.census.gov/quickfacts/fact/table/vallejocitycalifornia/PST045217>

## 6.14 Public Services

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection			✗	
b) Police protection			✗	
c) Schools			✗	
d) Parks			✗	
e) Other Public Facilities			✗	

**Conclusion:** Regarding public services, the proposed project would not result in any significant environmental impacts.

### **Documentation:**

- a. *Fire Protection - The Vallejo Fire Department includes Fire Suppression, Emergency Medical Services, Fire Training, and Fire Prevention Divisions. The Fire Suppression Division is comprised of three shifts led by a Battalion Chief who oversees five Engines and one Truck company. The Fire Suppression Division provides fire suppression, emergency medical services, and responds to calls for emergency service. All stations are staffed with paramedics on call. The Fire Prevention Division provides public education, inspection services, Fire/Life Safety inspections, plan check and permitting, fire reports, and fire cause and origin investigations.*

The Vallejo Fire Department currently operates six open fire stations. Stations 21, 22, 23, 24, 25 and 27 all are each staffed with three firefighters on an Engine. Station 21 is also staffed with three firefighters on a 110-foot Ladder Truck.

The closest fire station to the project site is Station #23, located at 900 Redwood Street, 1.5 miles west of the project site. This station would be the first station to respond to calls originating from the project site. The Vallejo Fire Station #24, located approximately 2.1 miles south of the project site at 1005 Oakwood Avenue, would provide the secondary response. The proposed project is anticipated to marginally increase demand for fire protection services, but it is not expected to compromise response times, exceed planned staffing levels or equipment, nor require the construction of additional fire facilities. In addition, the Vallejo Fire Department would review the design of the proposed project prior to the issuance of building permits to ensure the

incorporation of adequate fire and life safety features into the design. Therefore, development of the proposed project would result in less than significant impacts to fire protection.

- b. *Police Protection* - The project site is under the jurisdiction of the City of Vallejo Police Department (VPD). VPD provides police protection services throughout the City. VPD headquarters are located at 111 Amador Street, approximately 2.4 miles southwest of the project site. The Vallejo Police Department is structured according to the following units: Records, Communications and Dispatch, Patrol, Detective, Traffic, Management Support, Community Services, and Code Enforcement.

The proposed project would be supported by a cumulative 98 employees that are both part-time and full-time who would work various shifts throughout the operating hours. The Phase 1 facility would operate 24 hours a day, seven days a week. The proposed project is anticipated to marginally increase demand for police protection services but is not expected to compromise response times, exceed planned staffing levels or equipment, nor directly require the construction of additional police facilities. In addition, the project site is located in an area where existing commercial and residential uses are located. Therefore, the proposed project would not result in substantial adverse physical impacts to police service facilities. The impact would be less than significant.

- c. *Schools* – Refer to 6.14a. No new school facilities would have to be physically altered or newly constructed. As a result, the proposed project would have no impact on school facilities.
- d. *Parks* - The nearest parks to the project site are Hanns Park, Fairmont Park, Wardlaw Park, Dan Foley Park, and Grant Mahony Park. Because of the nature of assisted living facilities and on-site recreational programs, the project would result in little or no increased demand for recreational services. Therefore, the proposed project would not result in a significant increased demand for park facilities such that new park facilities would have to be constructed. As a result, the proposed project would have a less than significant impact on City park facilities.
- e. *Other Public Facilities* - Implementation of the proposed project would result in a slight increase of the local senior resident population and a slight increase in population associated with employment. Subsequently, the proposed project would slightly increase the demand for other public facilities such as libraries and community centers. But, this increase in demand would not require construction of new facilities. As a result, the proposed project would have a less than significant impact on other public facilities.

### **References:**

- a. City of Vallejo, 2016. Fire, Stations & Divisions. Website:  
[www.ci.vallejo.ca.us/city\\_hall/departments\\_\\_\\_divisions/fire](http://www.ci.vallejo.ca.us/city_hall/departments___divisions/fire) .
- b. City of Vallejo, General Plan
- c. City of Vallejo, Final EIR for the General Plan 2040 (Propel Vallejo)

## 6.15 Recreation

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Result in an increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				X

**Conclusion:** Regarding recreation, the proposed project would not result in any significant environmental impacts.

### **Documentation:**

- a. The closest park to the project site is Hanns Park (a 21-acre park located east of the Project) that contains picnic areas, an amphitheater, and a trail leading to Blue Rock Springs linear parkway. The park is operated by the Greater Vallejo Recreation District (GVRD), a special district. GVRD manages 407 acres of public park space including 20 neighborhood parks, 10 community parks, 6 special purpose parks, an Olympic-size swimming pool along with 4 community centers.

Because of the nature of an assisted living facility and on-site recreational programs, the project would result in little or no increased demand for parks. Implementation of the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities, and the impact would be less than significant.

- b. The proposed project does not include recreational facilities, nor would it require the construction or expansion of park or recreational facilities. Development of the proposed project would result in no impact.

### **Reference:**

- a. Greater Vallejo Recreation District, District Website, Accessed on October 9, 2018.

## 6.16 Transportation/Traffic

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?			X	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?		X		
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?				X
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

**Conclusion:** Regarding transportation/traffic, the proposed project would not result in any significant environmental impacts with implementation of Mitigation Measure TRA-1.

### **Documentation:**

a & b. A traffic impact analysis (TIA) was completed by Michael Baker International for the Project (Appendix F). Level of service (LOS) and highway segment volume to capacity (v/c) ratios were analyzed for six intersections and two roadway links respectively. The City of Vallejo has established an intersection operation standard of LOS D or better.

Under existing conditions, only one intersection (Admiral Callaghan Lane at Rotary Way) during weekend peak hour is LOS E or higher. For Existing 2018 conditions, both roadway segments are operating at LOS D or better. Table 9 shows the level of service for each intersection and roadway link where counts occurred. A complete list of the counts is provided in Appendix A and Appendix B of the Traffic Impact Analysis.

**Table 9. Summary of Traffic Counts Results**

Intersection	Level of Service (LOS)		
	Weekday AM	Weekday PM	Saturday Midday
Admiral Callaghan Ln at Rotary Way	B	D	E
Admiral Callaghan Ln at I-80 EB Ramps	B	B	B
Admiral Callaghan Ln at West Project Dwy	A	A	A
Admiral Callaghan Ln / I-80 EB Ramps at Redwood Parkway	C	C	C
Fairground Drive / I-80 WB Ramps at Redwood Parkway	D	C	C
Admiral Callaghan Ln at Redwood Pkwy	B	B	B
<b>Roadway Link</b>			
Admiral Callaghan Ln (Rotary Way to Redwood Pkwy) - Northbound	B	C	C
Admiral Callaghan Ln (Rotary Way to Redwood Pkwy) - Southbound	D	D	D
Redwood Pkwy (Fairgrounds Dr to South Project Dwy/Admiral Callaghan Ln) - Eastbound	D	C	C
Redwood Pkwy (Fairgrounds Dr to South Project Dwy/Admiral Callaghan Ln) - Westbound	D	D	D
Level of Service is based on the 2010 Highway Capacity Manual Analysis Method. Intersections and roadway links are rated from A (less than 10 second delay) to F (greater than 80-second delay at a signal or greater than 50 second delay ay an unsignalized intersection).			

The study analyzed the following six scenarios:

1. Existing 2018 Conditions;
2. Opening Year 2020 without Cumulative, without Project Conditions;
3. Opening Year 2020 plus Cumulative Projects without Project Conditions;
4. Opening Year 2020 plus Cumulative Projects with Project Conditions;
5. Future Buildout Year 2040 Cumulative without Project Conditions; and
6. Future Buildout Year 2040 Cumulative with Project Conditions.

Traffic generation for assisted living facilities (Phase 1) are projected to be the following:

- 157 weekday daily trips
- 31 trips for weekday AM peak hour and 41 trips for the weekday PM peak hour
- 407 weekend daily trips and 48 weekend peak hour trips



Traffic generation for the medical office building (Phase 2) are projected to be the following:

- 537 weekday daily trips
- 57 for weekday AM peak hour and 86 for the weekday PM peak hour
- 215 weekend daily trips and 87 weekend peak hour

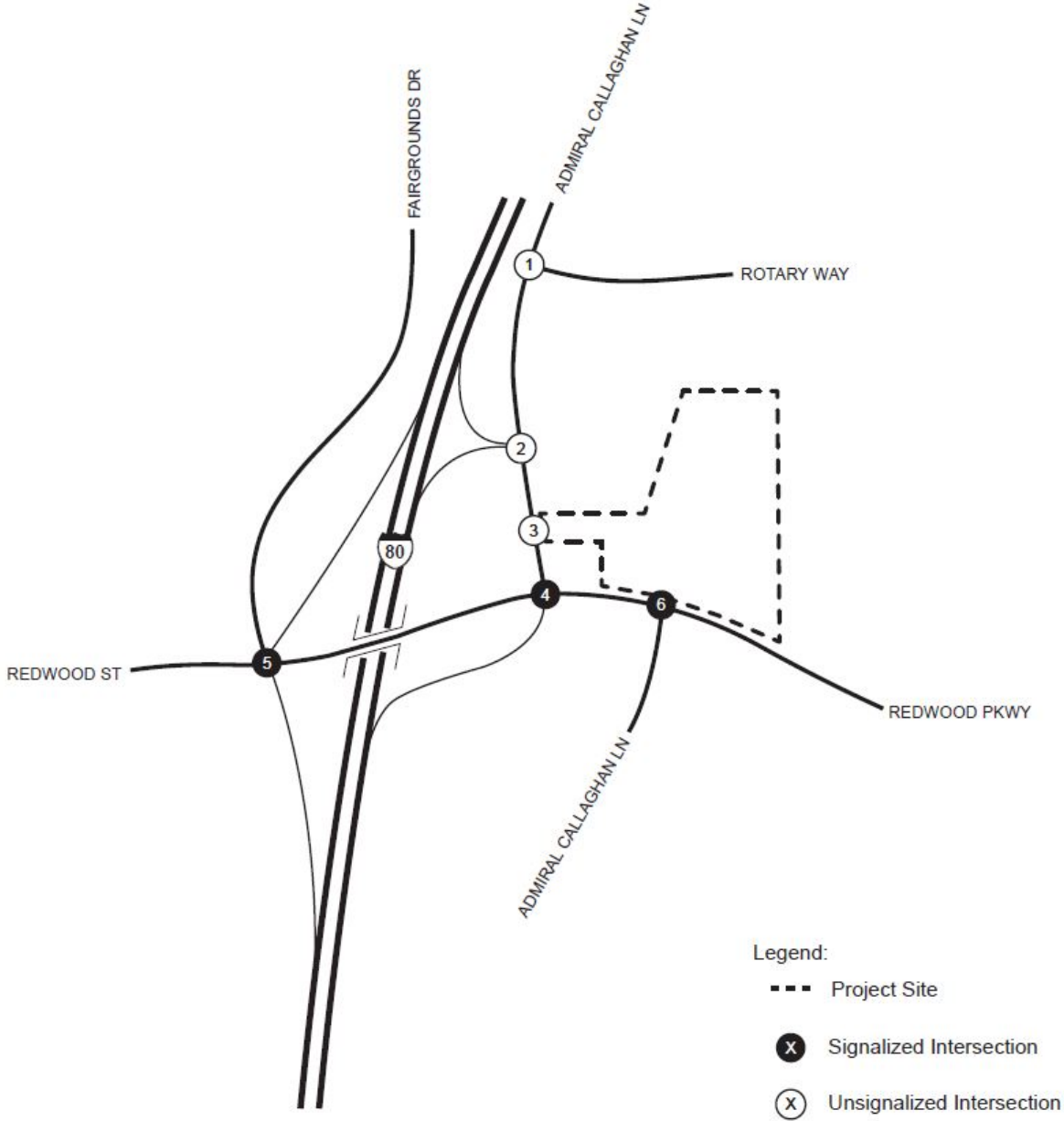
According to the TIA, the project would result in very small changes to the travel times and travel speeds (less than 1 mph) on the Admiral Callaghan Lane and Redwood Parkway (Figure roadway link so it is forecasted that the project would not significantly impact the roadway link operations for Opening Year 2020 plus cumulative, with project Phase 1 & 2 conditions. The project would result in very small changes to the travel times and travel speeds (less than 1 mph) on the Admiral Callaghan Lane and Redwood Parkway (Figure 9) so it is forecasted that the project would not significantly impact the roadway operations for Future Buildout Year 2040 with project Phase 1 & 2 conditions. As such, the impact would be less than significant. The project would not exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways. However, incremental increases in traffic due the project along with traffic attributable to other projects, result in a need for a traffic signal at the Rotary Way/Admiral Callaghan Lane intersection. Inclusion if MM-TRA 1 reduces the impact to less than significant.

**Impact TRA-1:** Traffic generated from the project partially contributes to the need for a traffic signal at the Rotary Way/Admiral Callaghan Lane intersection. As described in Mitigation Measure TRA-1 below the installation of the new traffic signal would improve existing and future service level deficiency.

**Mitigation Measure TRA-1:** The project applicant shall fund the proportional fair-share for the traffic signal at the Admiral Callaghan Lane at Rotary Way intersection. The project applicant's proportionate share of the costs shall be paid to the City of Vallejo for the new signal.

- c. The project is not located in an area where air traffic patterns would be impacted. The closest public airstrip is located at Oakland International Airport, located approximately 36 miles from the project site. Therefore, the project would not result in a change in air traffic patterns and there would be no impact.
- d. The project does not propose to change any design features or changes on existing streets; the project would be built in an existing previously developed area with adequate sight distances at points of ingress and egress to and from the project site. Therefore, there would be no impact.
- e. The project site would not change the circulation patterns of the existing roads, where adequate services currently exist, and both facilities would provide adequate turnaround areas for emergency services. The project does not result in inadequate emergency access and there would be no impact.

Figure 9: Study Area (Traffic)



Source: Michael Baker International

- f. Bus service is provided via Route 7 and Route 38 (school days only) on Redwood Parkway; the project would not impact either of these routes by changing bus turn-outs, for example. There is a bus stop in front of the site on the westside of the driveway. Route 7 (Springs road) travels from the Vallejo Transit Center to the Gateway Plaza located opposite of Highway 80 from the Solano County Fairgrounds. The route operates about two times per hour from about 6:00am until about 8:30pm on weekdays. The bus operates the route 13 times on Saturdays and five times on Sunday. Route 38 operates on school days but with only bus per day. The bus departs Glen Cove at 7:00am and terminates at Gateway Plaza at 7:36am. Redwood Parkway does contain bike lanes in both directions and these lanes would not be changed as a result of the proposed project.

**References:**

- a. City of Vallejo, General Plan

## 6.17 Utilities and Services Systems

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<b>Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			✗	
b) Require or result in the construction of new water or wastewater treatment or distribution facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?			✗	
c) Require or result in the construction of a new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✗	
d) Result in the need for new or expanded water supply entitlements?			✗	
e) Result in a determination by the wastewater treatment provider that serves the project area that it does not have adequate capacity to serve the project area's projected demand in addition to the provider's existing commitments?			✗	
f) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?			✗	
g) Fail to comply with federal, state, and local statutes and regulations related to solid waste?			✗	

**Conclusion:** Regarding utilities and service systems, the proposed project would not result in any significant environmental impacts.

### **Documentation:**

- a. The Vallejo Flood and Wastewater District provides wastewater treatment, collection, and disposal of wastewater to the City of Vallejo and outlying areas. Wastewater in the pipes is conveyed by collection system pump stations that range in age and capacity. All wastewater collected in the area served by Vallejo Flood and Wastewater District (VFWD), is routed to the Ryder Street Wastewater Treatment Plant (WWTP) where it is processed.

The plant (full name: Vallejo Flood and Wastewater District Wastewater Treatment Plant and its collection system) operates under an order from the Regional Water Quality Control Board, adopted on September 13, 2017, through 2022. The order states the water discharge requirements (WDR) for the facility and ensures that the facility (and the Project under review) do not exceed

wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board. The impact would be less than significant.

- b. *Water Supply and Distribution Facilities.* According to the City's 2015 Urban Water Management Plan (UWMP), the City uses surface water for all its drinking water. The City of Vallejo's water comes from the following resources: Solano Project (Lake Berryessa), State Water Project (SWP)/Vallejo Permit Water (California Bay Delta), and Lakes Frey and Madigan. The City receives a small amount of water from the City of Fairfield. According to the UWMP, the City's total supply (total right or safe yield) is 14,142 million gallons (MG) annually (although this number is reduced during times of drought).

The UWMP notes the service area population (including some areas in unincorporated Solano County) of 121,652 in 2015; the report cites a population projection of 137,081 in 2040. The amount of water consumed in 2015 was 5,067 MG; the plan notes that the 2015 water consumption was 114 gallons per capita per day (GPCD) - although this was noted to be potentially artificially low due to statewide drought restrictions. Regardless, the City of Vallejo does not face any short-term unexpected water shortages unrelated to drought. CalEEMod (an air quality model also used to complete the Air Quality and Greenhouse Gas Sections) was used to estimate the amount of water used annually by both Phase 1 and Phase 2. The model run assumed standard efficiency strategies (including those required by the Vallejo's Climate Action Plan). Under these assumptions, it is anticipated that Phase 1 of the proposed project would consume 12.6 MG (8.2 MG for indoor use) annually while Phase 2 would consume 2.4 MG (2.1 MG for indoor use) annually. This would result in an annual consumption of 15.0 MG attributable to the proposed project, and would not require the building of a new water treatment or delivery facilities as there is adequate capacity to meet the water demands of the proposed project.

Water would be provided by a pre-existing network for both Phase 1 and Phase 2 and no significant improvements to the existing infrastructure would be necessary to serve the proposed project. Currently a 24-inch waterline traverses the center of the project site.

*Wastewater Facilities.* The proposed project would use existing sewer lines to convey the wastewater and the water would be treated at the Ryder Street WWTP. In the project vicinity, there is an 8-inch sanitary sewer line in Redwood Parkway, and an 8-inch sanitary sewage line in an easement along the northern boundary of the property, and an 18-inch sanitary sewer line located at the eastern property line.

According to the City's General Plan, the Ryder Street WWTP has a dry weather permitted capacity of up to 15.5 million gallons per day (mgd); the average dry weather flow is less than 10 mgd. For the purposes of estimating wastewater generation, the assumptions are consistent with those used in the General Plan Update EIR (100 gallons per day per resident and 25 gallons per day per employee). Phase 1 includes a total of 179 beds (generating 17,900 gallons of wastewater daily) and an estimated 35 employees (875 gallons daily); this results in about 18,800 gallons of daily wastewater attributable to Phase 1. For Phase 2, a worst-case analysis is used by assuming all of the indoor water use attributable to the project 2.1 MG annually (about 5,800 gallons daily) would be treated as wastewater. As such, the total daily generation wastewater attributable to the project is 24,600 gallons or 0.025 MGD. This increase in wastewater generation would be well within the currently available excess dry weather design flow capacity of greater than 5.5 mgd (15.5 mgd design/permitted flow minus less than 10 mgd current average

flow equals greater than 5.5 mgd) of the Ryder Street WWTP. Therefore, no new water or wastewater treatment or distribution facilities, nor expansion of existing facilities would be necessary, and the impact would be less than significant.

- c. The project would use existing storm water facilities including a 72-inch drainage pipe designed to accommodate a 100-year flood. Additionally (as discussed in Section 6.9 Hydrology and Water Quality), the project would include bioretention basins designed to capture on-site runoff. Additionally, the project would comply with the San Francisco Bay Municipal Regional Stormwater NPDES Permit requirements and the Vallejo Municipal Code Chapter 12.4. With the inclusion of Project BMPs, the impact would be less than significant.
- d. As shown in Section 6.17(b) above, the City has adequate water entitlements to meet project demand and the impact would be less than significant.
- e. As shown in Section 6.17(b) above, the City has adequate wastewater treatment capacity to meet project generated wastewater and the impact would be less than significant.
- f. Recology Vallejo currently provides non-hazardous solid waste removal for the City. Recology Vallejo is located at 2021 Broadway Street and provides residential garbage, recycling and yard waste collection service for Vallejo residents. It also offers recycling service for multi-family units, debris box service, garbage and recycling collection for commercial businesses. The majority (about 98%) of the City's waste is then trucked to the Potrero Hills and Recology Hay Road. According to the General Plan EIR, the Potrero Hills landfill is permitted to accept 4,330 tons per day and anticipated to be a capacity in 2048 while the Recology Hay Landfill can accept up to 2,400 tons per day and is anticipated to reach capacity in 2077.

Implementation of the proposed project would result in a net increase in solid waste generated from the project site as it is currently lies unoccupied. CalRecycle provides estimated waste generation rates for several land use types; for Phase 1, an estimate of five pounds of solid waste is generated daily for each resident in a nursing/retirement home. Phase 1 includes 179 beds and, assuming one resident per bed, this would result in 895 pounds of solid waste generated daily or 326,675 pounds (163 tons) annually.

For Phase 2 (a 24,000 square foot medical office building), an employee per square foot was used to estimate the number of employees at the Phase 2 building. The City of Davis provides estimates of number of employees by land use square footage; for a medical/dental building, one employee per 207 square feet is the estimate or 116 employees. Using the 14.55 pounds per day per employee generation rate (from the General Plan EIR), this would result in 1688 pounds of solid waste generated per day or 308 tons annually. Overall, the proposed project would generate 2,583 pounds daily or about 470 tons annually. This represents far less than one percent of the total daily permitted throughput for the Potrero Hills and Recology Hay Road Landfills, which are 4,330 tons/day, and 2,400 tons/day, respectively. Since the project would represent less than one percent of the daily permitted throughput, the amount of solid waste generated by operation of the proposed project would not exceed the capacity of the landfill nor substantially shorten the life of the landfill. As a result, implementation of the proposed project would result in a less than significant impact to solid waste collection and disposal.

- g. The proposed project would comply with federal, State, and local statutes and regulations related to solid waste. Impacts would be less than significant.

**References:**

- a. Vallejo Flood and Wastewater District. Website:  
<https://www.vallejowastewater.org/SitePages/default.aspx>
- b. City of Vallejo, Final EIR for the General Plan 2040 (Propel Vallejo)
- c. City of Vallejo, 2015 Urban Water Management Plan (UWMP)
- d. California Department of Resources Recycling and Recovery (CalRecycle), 2016. Solid Waste Characterization Database: Waste Disposal Rates for Business Types. Website:  
[www.calrecycle.ca.gov/wastechar/DispRate.htm](http://www.calrecycle.ca.gov/wastechar/DispRate.htm)

## 6.18 Mandatory Findings of Significance

	Summary of Impacts			
	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		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 that will cause substantial adverse effects on human beings, either directly or indirectly?			X	

### **Documentation:**

- a. As discussed in this Initial Study, the proposed project would not: 1) substantially reduce the habitat of a fish or wildlife species; 2) cause a fish or wildlife species population to drop below self-sustaining levels; 3) threaten to eliminate a plant or animal community; or 4) reduce the number or restrict the range of a rare or endangered plant or animal. With implementation of Mitigation Measures BIO-1 and BIO-2, and Mitigation Measures CUL-1, CUL-2, and CUL-3, the proposed project would not substantially reduce the habitat of a wildlife species.
- b. With implementation of the standard measures and mitigation measures recommended in this report, impacts to biological resources, cultural resources, geology and soils, hydrology and water quality, and noise would be reduced to a less-than-significant level through implementation of the standard mitigation measures recommended in this report. \*Need to add that this project is to pay their fair share for signaling the Rotary Way/Admiral Callaghan Lane intersection.
- c. Refer to Sections 6.18.a and 6.18.b. The proposed project would not have significant environmental effects that would cause substantial direct or indirect adverse effects on human beings.



## 7. References

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California Code of Regulations, 2005. Title 14, Chapter 3. Amended 6 Guidelines for the Implementation of the California Environmental Quality Act, Section 15064.5(b).

California Department of Resources Recycling and Recovery (CalRecycle), 2016. Solid Waste Characterization Database: Waste Disposal Rates for Business Types. Website: [www.calrecycle.ca.gov/wastechar/DispRate.htm](http://www.calrecycle.ca.gov/wastechar/DispRate.htm).

California Department of Conservation, Division of Land Resource Protection, 2017. *Solano County Important Farmland 2016* (map). Website:  
<ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/sol16.pdf> (accessed August 6, 2018).

California Department of Conservation, Division of Land Resource Protection, 2013. *Solano County Williamson Act Lands 2013/2014* (map). Website:  
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Vallejo Flood and Wastewater District. Website: <https://www.vallejowastewater.org/SitePages/default.aspx>.

## 10. Appendices

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Provided upon request.  
Please disregard the following pages.

## **Appendix A: Air Quality and Greenhouse Gas Analysis**

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### **1.3 Analysis Scenarios**

The study intersections are analyzed for the following study scenarios:

1. Existing 2018 Conditions;
2. Opening Year 2020 without Cumulative, without Project Conditions;
3. Opening Year 2020 plus Cumulative Projects without Project Conditions;
4. Opening Year 2020 plus Cumulative Projects with Project Conditions;
5. Future Buildout Year 2040 Cumulative without Project Conditions; and
6. Future Buildout Year 2040 Cumulative with Project Conditions.

The “with Project Condition” scenarios analyzed the project with Phase 1 completed and with Phase 1 & 2 completed.

### **1.4 Analysis Time Period**

The study area intersections are analyzed for the following time periods:

- Weekday AM Peak Hour – Peak hour within 7:00 AM and 9:00 AM
- Weekday PM Peak Hour – Peak hour within 4:00 PM and 6:00 PM
- Saturday Mid-Day (MD) Peak Hour – Peak hour within 12:00 AM and 2:00 PM

driveways. It is recommended that as the proposed project moves into final design and construction, the designers and engineers will need to consider the placements of objects in the limited use area mentioned above.

### **9.5 Project Driveway Queuing Analysis**

The 95th percentile vehicular queue is calculated based on the Highway Capacity Manual (HCM) method using the Synchro analysis software. The queue length is calculated based on a typical car length of 25 feet per vehicle. The project is assumed to have no significant queueing to occur at either project driveways. For Admiral Callaghan Lane at West Project Driveway (Intersection #3), the maximum queue occurring for the westbound right-turn movement is 25 feet. For South Project Driveway at Redwood Parkway (Intersection #6), the maximum queue occurring for the southbound movement is 25 feet, while the maximum queue occurring for the eastbound left-turn movement is 47 feet. It should be noted when striping for the south project driveway (Intersection #6), the designers and engineers consider the potential queueing length that may occur, as mentioned above.

**Table 3.11-8: Trip Generation Estimate Solano Fairgrounds Draft Specific Plan Program – Phase 1**

Use (notes)	Amount	Units	Saturday Net New Trips								
			AM Peak Hour (10 - 11)				PM Peak Hour (5 - 6)				
			Rate	Trips	In	Out	Rate	Trips	In	Out	
<b>Fairgrounds Uses</b>											
72 ksf Exposition Hall (50 ksf Exposition space) <sup>(1)</sup>	50	ksf	(1)	0	0	0	0	(1)	0	0	0
<i>Fairgrounds Subtotal</i>				0	0	0	0		0	0	0
<b>Private Uses</b>											
Commercial Entertainment	0	acres		0	0	0	0		0	0	0
Entertainment Mixed Use Sites <sup>(3.a)</sup>	120	ksf	(3.a)	820	459	361	361	(3.a)	820	361	459
<i>Private Subtotal</i>				820	459	361	361		820	361	459
<b>Gross Total</b>				<b>820</b>	<b>459</b>	<b>361</b>	<b>361</b>		<b>820</b>	<b>361</b>	<b>459</b>
Entertainment Mixed Use Sites linked trip reduction (35%) <sup>(4)</sup>					-287	-161	-126		-287	-126	-161
<b>Net Trip Generation</b>					<b>533</b>	<b>298</b>	<b>235</b>		<b>533</b>	<b>235</b>	<b>298</b>
Notes: <sup>(1)</sup> Net new trip generation is zero, based on event management plan implementation <sup>(3.a)</sup> Assumes 120 ksf of uses like Boomers, Johns Incredible Pizza, Bowling, etc. (with surface parking) Use retail rate: ITE Trip Generation 8th Edition, LU #820, Saturday Peak hour of Generator: $Ln(T) = 0.65 * Ln(X) + 3.76 \times 0.85$ for 10 to 11 a.m. and 5 to 6 p.m. <sup>(4)</sup> A 35% reduction is taken on the Entertainment Mixed Use gross trip generation, to account for shared trips to the Fairgrounds site and the other centers.											

**Table 3.11-9: Trip Generation Estimate Solano Fairgrounds Draft Specific Plan Program – Phases 1 and 2**

Use (notes)	Amount	Units	Saturday Net New Trips							
			AM Peak Hour (10 - 11)				PM Peak Hour (5 - 6)			
			Rate	Trips	In	Out	Rate	Trips	In	Out
<b>Fairgrounds Uses</b>										
50 ksf Exposition Hall <sup>(1)</sup>	50	ksf	(1)	137	95	42	(1)	112	18	95
<i>Fairgrounds Subtotal</i>				<i>137</i>	<i>95</i>	<i>42</i>		<i>112</i>	<i>18</i>	<i>95</i>
<b>Private Uses</b>										
Entertainment Commercial <sup>(2.a)</sup>	18	acres	(2.a)	319	288	31	(2.a)	167	46	121
Entertainment Mixed Use <sup>(3.a)</sup>	181	ksf	(3.a)	1,075	559	516	(3.a)	1,075	516	559
<i>Private Subtotal</i>				<i>1,394</i>	<i>847</i>	<i>547</i>		<i>1,242</i>	<i>562</i>	<i>680</i>
<b>Gross Total</b>				<b>1,532</b>	<b>943</b>	<b>589</b>		<b>1,354</b>	<b>580</b>	<b>775</b>
Entertainment Mixed Use linked trip reduction (35%) <sup>(4)</sup>				-376	-196	-181		-376	-181	-196
<b>Net Trip Generation</b>				<b>1,155</b>	<b>747</b>	<b>409</b>		<b>978</b>	<b>399</b>	<b>579</b>

Notes:

<sup>(1)</sup> Trip gen based on adding this space to existing facilities, and a 25% increase in summer Saturday attendance (non-Fair weeks)

	AM (10-11)			PM (5-6)		
	In	Out	Total	In	Out	Total
Existing Fairgrounds TG (Saturday, June 11):	381	168	549	70	379	449
Estimated Future Fairgrounds TG (x1.25):	476	210	686	88	474	561
Growth:	95	42	137	18	95	112

<sup>(2.a)</sup> Phase II — 18-acre Major Entertainment Park, based on Six Flags Discovery Kingdom existing trip generation x (18 acre park on SF site/67-acre active portion of Six Flags Discovery Kingdom site)

	AM (10-11)			PM (5-6)		
	In	Out	Total	In	Out	Total
Existing Six Flags Discovery Kingdom TG (Saturday, June 11):	1073	116	1189	172	450	622
Estimated New Theme Park TG:	288	31	319	46	121	167

<sup>(3.a)</sup> Assumes 181 ksf of uses like Boomers, Johns Incredible Pizza, Bowling, etc. (with surface parking)

Use retail rate: ITE Trip Generation 8th Edition, LU #820, Saturday Peak hour of Generator:  $\ln(T) = 0.65 * \ln(X) + 3.76$   
x 0.85 for 10 to 11 a.m. and 5 to 6 p.m.

<sup>(4)</sup> A 35% reduction is taken on the Entertainment Mixed Use gross trip generation, to account for shared trips to the Fairgrounds site, the other centers, and to the Entertainment Commercial site.



**Table 3.11-10: Trip Generation Estimate Solano Fairgrounds Draft Specific Plan Program – Phases 1, 2, and 3 (Cumulative)**

Use (notes)	Amount	Units	Saturday Net New Trips							
			AM Peak Hour (10 - 11)				PM Peak Hour (5 - 6)			
			Rate	Trips	In	Out	Rate	Trips	In	Out
<b>Fairgrounds Uses</b>										
144 ksf Exposition Hall (100 ksf of Exposition space) and outdoor venue <sup>(1)</sup>	100	ksf	(1)	412	286	126	(1)	337	53	284
<i>Fairgrounds Subtotal</i>				<i>412</i>	<i>286</i>	<i>126</i>		<i>337</i>	<i>53</i>	<i>284</i>
<b>Private Uses</b>										
Entertainment Commercial <sup>(2.b)</sup>	24	acres	(2.b)	426	384	42	(2.b)	223	62	161
Entertainment Mixed Use <sup>(3.b)</sup>	327	ksf	(3.b)	1,573	818	755	(3.b)	1,573	755	818
<i>Private Subtotal</i>				<i>1,999</i>	<i>1,202</i>	<i>797</i>		<i>1,796</i>	<i>817</i>	<i>979</i>
<b>Gross Total</b>				<b>2,411</b>	<b>1,488</b>	<b>923</b>		<b>2,133</b>	<b>869</b>	<b>1,264</b>
Entertainment Mixed Use linked trip reduction (35%) <sup>(4)</sup>				-551	-286	-264		-551	-264	-286
<b>Net Trip Generation</b>				<b>1,860</b>	<b>1,202</b>	<b>658</b>		<b>1,582</b>	<b>605</b>	<b>977</b>

Notes:

<sup>(1)</sup> Trip gen based on adding this space to existing facilities, and a 75% increase in summer Saturday attendance (non-Fair weeks)

	AM (10-11)			PM (5-6)		
	In	Out	Total	In	Out	Total
Existing Fairgrounds TG (Saturday, June 11):	381	168	549	70	379	449
Estimated Future Fairgrounds TG (x1.50):	667	294	961	123	663	786
Growth:	286	126	412	53	284	337

<sup>(2.b)</sup> Phase III — 24-acre Themed Entertainment Park, based on Six Flags Discovery Kingdom existing trip generation x (24-acre park on SF site/67-acre active portion of Six Flags Discovery Kingdom

	AM (10-11)			PM (5-6)		
	In	Out	Total	In	Out	Total
Existing Six Flags Discovery Kingdom TG (Saturday, June 11):	1073	116	1189	172	450	622
Estimated New Theme Park TG:	384	42	426	62	161	223

<sup>(3.b)</sup> Assumes 327 ksf of uses like Boomers, Johns Incredible Pizza, Bowling, etc. (with structured parking)

Use retail rate: ITE Trip Generation 8th Edition, LU #820, Saturday Peak hour of Generator:  $\text{Ln}(T) = 0.65 * \text{Ln}(X) + 3.76$   
x 0.85 for 10 to 11 a.m. and 5 to 6 p.m.

<sup>(4)</sup> A 35% reduction is taken on the Entertainment Mixed Use gross trip generation, to account for shared trips to the Fairgrounds site, the other centers, and to the Entertainment Commercial site.



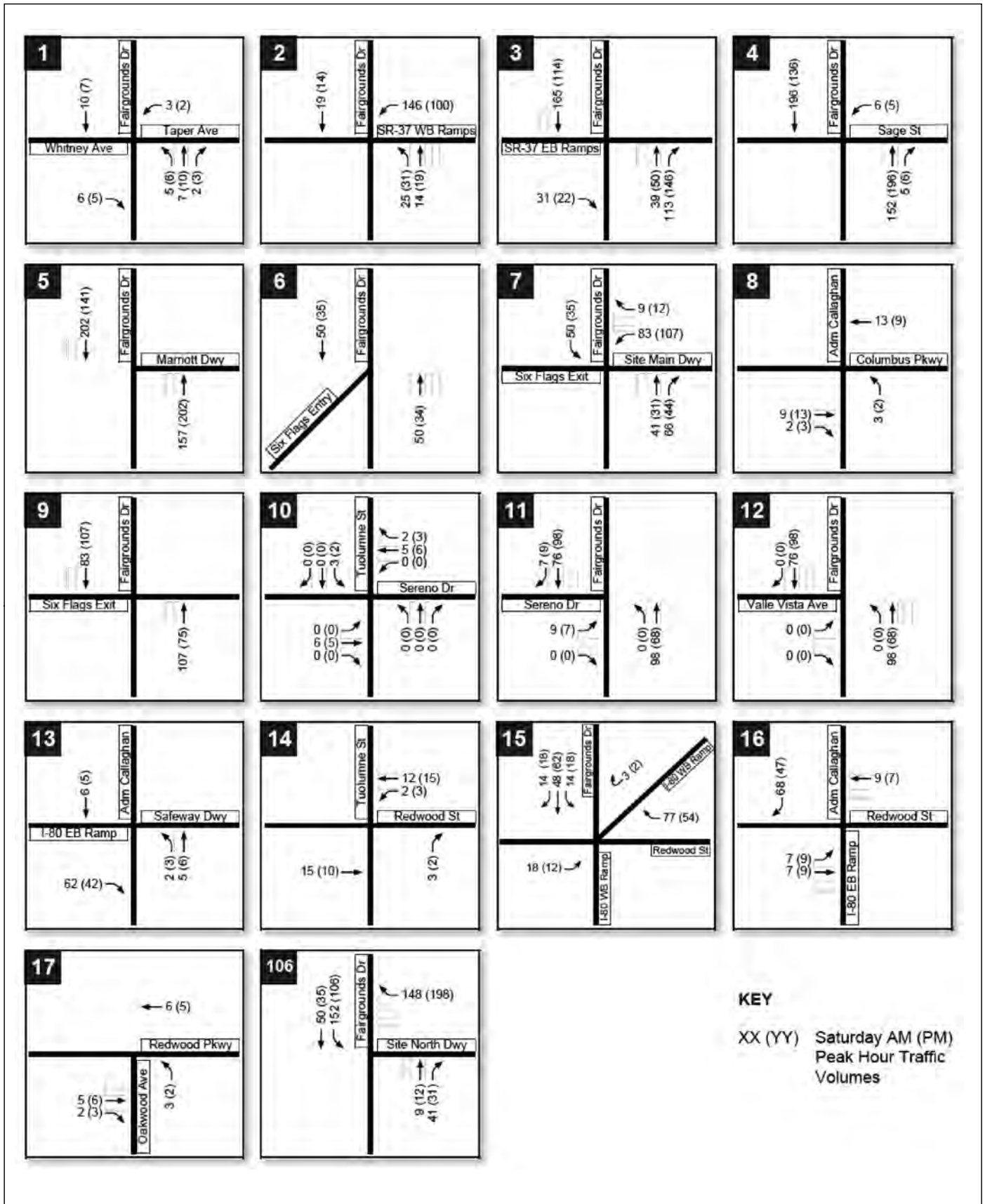
Source: Fehr and Peers, 2011.



Michael Brandman Associates

20850018 • 11/2011 | 3.11-7\_project\_trip\_distribution.cdr

## Exhibit 3.11-7 Project Trip Distribution



Source: Fehrs and Peers, 2012.

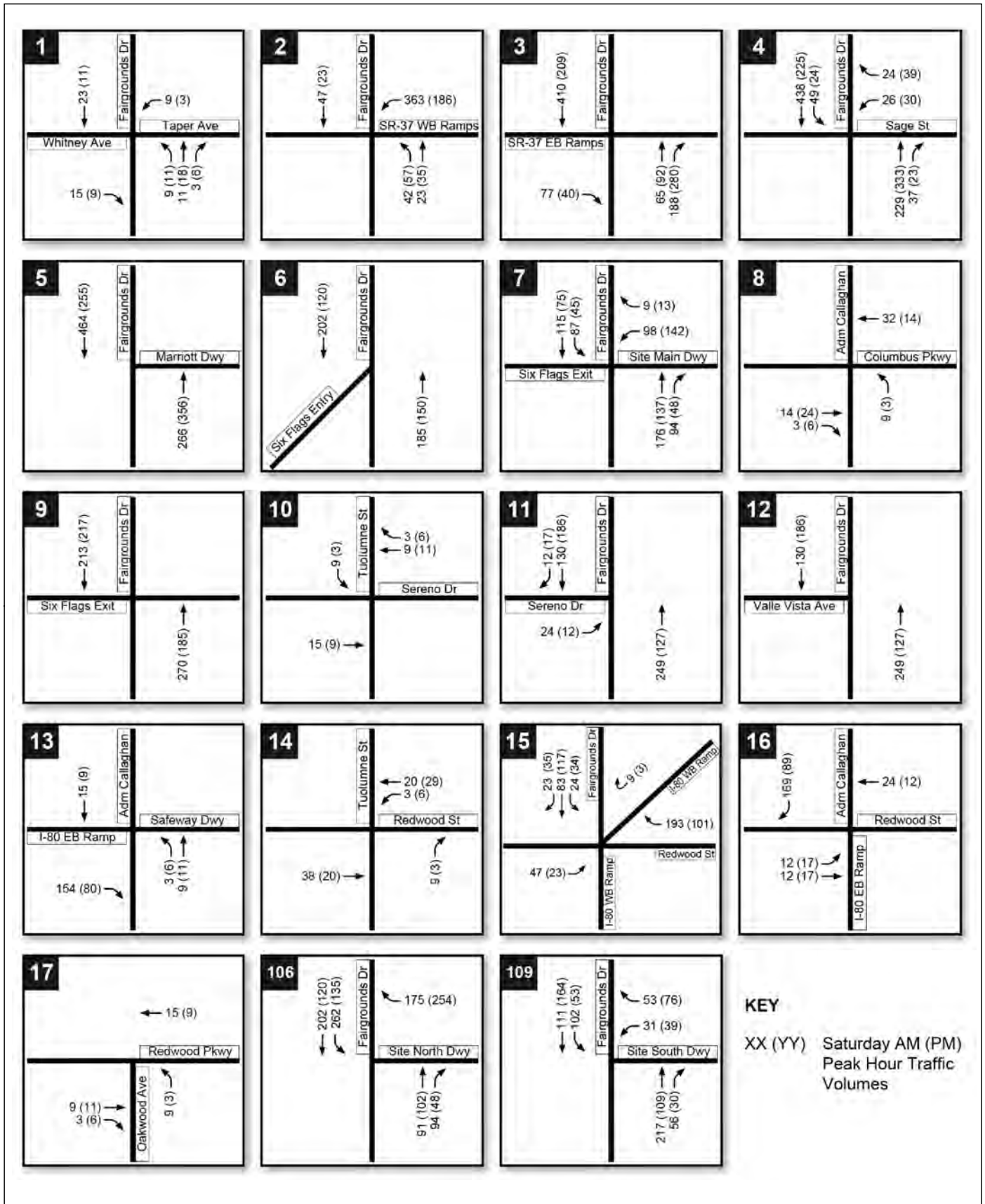
## Exhibit 3.11-8a Project Traffic Assignment Phase 1



Michael Brandman Associates

20850018 • 08/2012 | 3.11-8a\_project\_traffic\_assignment.cdr



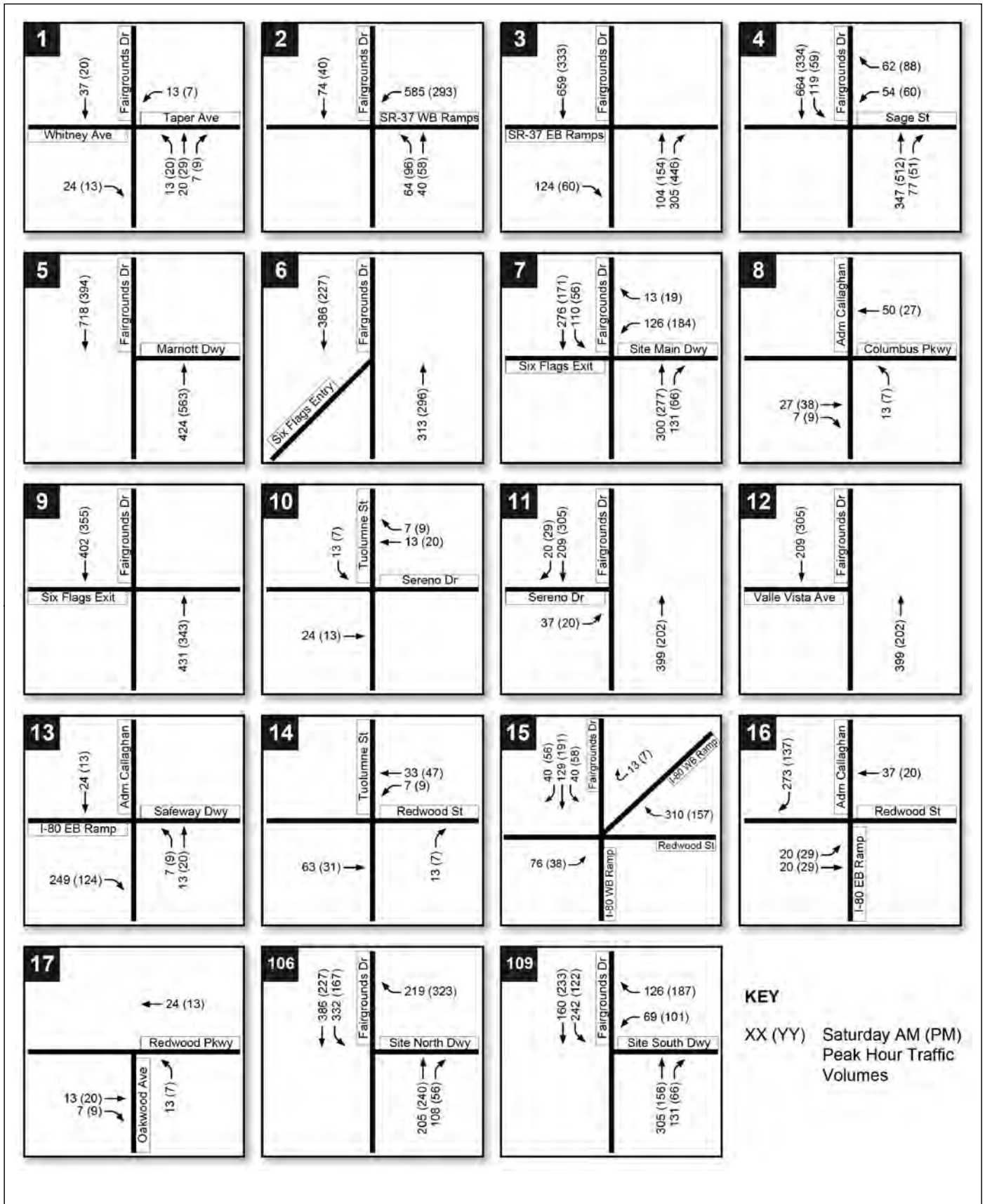


Source: Fehrs and Peers, 2012.

## Exhibit 3.11-8b Project Traffic Assignment Phases 1 and 2



Michael Brandman Associates



Source: Fehrs and Peers, 2012.

## Exhibit 3.11-8c Project Traffic Assignment Phases 1, 2, and 3



Michael Brandman Associates

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## **Appendix J – Future Buildout Year 2040 with Project Conditions Intersection and Roadway Link Analysis Worksheets**

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# Redwood Parkway – Fairgrounds Drive Improvement Project

SOLANO COUNTY, CALIFORNIA

DISTRICT 04-Sol-80 PM 4.0/4.9

04-Sol-37 PM 10.6/11.2

EA 4A4410/Project No. 0400020584

SCH No. 2011012032

## Final Environmental Impact Report/ Environmental Assessment (EIR/EA)



Prepared by the State of California Department of Transportation and  
Solano Transportation Authority

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.



June 2015