

Santa Clara County Clerk-Recorder's Office
State of California

County of Santa Clara
Office of the County Clerk-Recorder
Business Division

County Government Center
70 West Hedding Street, E. Wing, 1st Floor
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REGINA ALCOMENDRAS, County Clerk-Recorder
by Veronica Aguirre, Deputy Clerk-Recorder,

CEQA DOCUMENT DECLARATION

ENVIRONMENTAL FILING FEE RECEIPT

PLEASE COMPLETE THE FOLLOWING:

1. LEAD AGENCY: City of Campbell
2. PROJECT TITLE: Winchester/El Caminito Mixed-Use Project
3. APPLICANT NAME: SREA, Inc. c/o Jeff Warmoth PHONE: (650) 400-6293
4. APPLICANT ADDRESS: P.O. Box 1001, Los Altos, CA 94023
5. PROJECT APPLICANT IS A: Local Public Agency School District Other Special District State Agency Private Entity
6. NOTICE TO BE POSTED FOR 21 DAYS.
7. CLASSIFICATION OF ENVIRONMENTAL DOCUMENT

a. PROJECTS THAT ARE SUBJECT TO DFG FEES

- | | | |
|---|-------------|----------------|
| <input type="checkbox"/> 1. <u>ENVIRONMENTAL IMPACT REPORT</u> (PUBLIC RESOURCES CODE §21152) | \$ 3,029.75 | \$ <u>0.00</u> |
| <input type="checkbox"/> 2. <u>NEGATIVE DECLARATION</u> (PUBLIC RESOURCES CODE §21080(C)) | \$ 2,181.25 | \$ <u>0.00</u> |
| <input type="checkbox"/> 3. <u>APPLICATION FEE WATER DIVERSION</u> (STATE WATER RESOURCES CONTROL BOARD ONLY) | \$ 850.00 | \$ <u>0.00</u> |
| <input type="checkbox"/> 4. <u>PROJECTS SUBJECT TO CERTIFIED REGULATORY PROGRAMS</u> | \$ 1,030.25 | \$ <u>0.00</u> |
| <input type="checkbox"/> 5. <u>COUNTY ADMINISTRATIVE FEE</u> (REQUIRED FOR a-1 THROUGH a-4 ABOVE)
Fish & Game Code §711.4(e) | \$ 50.00 | \$ <u>0.00</u> |

b. PROJECTS THAT ARE EXEMPT FROM DFG FEES

- | | | |
|---|----------|----------------|
| <input type="checkbox"/> 1. NOTICE OF EXEMPTION (\$50.00 COUNTY ADMINISTRATIVE FEE REQUIRED) | \$ 50.00 | \$ <u>0.00</u> |
| <input type="checkbox"/> 2. A COMPLETED "CEQA FILING FEE NO EFFECT DETERMINATION FORM" FROM THE DEPARTMENT OF FISH & GAME, DOCUMENTING THE DFG'S DETERMINATION THAT THE PROJECT WILL HAVE NO EFFECT ON FISH, WILDLIFE AND HABITAT, OR AN OFFICIAL, DATED RECEIPT / PROOF OF PAYMENT SHOWING PREVIOUS PAYMENT OF THE DFG FILING FEE FOR THE *SAME PROJECT IS ATTACHED (\$50.00 COUNTY ADMINISTRATIVE FEE REQUIRED) | | |
| DOCUMENT TYPE: <input type="checkbox"/> ENVIRONMENTAL IMPACT REPORT <input type="checkbox"/> NEGATIVE DECLARATION | \$ 50.00 | \$ <u>0.00</u> |

c. NOTICES THAT ARE NOT SUBJECT TO DFG FEES OR COUNTY ADMINISTRATIVE FEES

- | | | | |
|--|--|--------|------------------|
| <input type="checkbox"/> NOTICE OF PREPARATION | <input checked="" type="checkbox"/> NOTICE OF INTENT | NO FEE | \$ <u>NO FEE</u> |
|--|--|--------|------------------|

8. OTHER: _____ FEE (IF APPLICABLE): \$ _____

9. TOTAL RECEIVED..... \$ 0.00

*NOTE: "SAME PROJECT" MEANS NO CHANGES. IF THE DOCUMENT SUBMITTED IS NOT THE SAME (OTHER THAN DATES), A "NO EFFECT DETERMINATION" LETTER FROM THE DEPARTMENT OF FISH AND GAME FOR THE SUBSEQUENT FILING OR THE APPROPRIATE FEES ARE REQUIRED.

THIS FORM MUST BE COMPLETED AND ATTACHED TO THE FRONT OF ALL CEQA DOCUMENTS LISTED ABOVE (INCLUDING COPIES) SUBMITTED FOR FILING. WE WILL NEED AN ORIGINAL (WET SIGNATURE) AND THREE COPIES. (YOUR ORIGINAL WILL BE RETURNED TO YOU AT THE TIME OF FILING.)

CHECKS FOR ALL FEES SHOULD BE MADE PAYABLE TO: SANTA CLARA COUNTY CLERK-RECORDER

PLEASE NOTE: FEES ARE ANNUALLY ADJUSTED (Fish & Game Code §711.4(b)); PLEASE CHECK WITH THIS OFFICE AND THE DEPARTMENT OF FISH AND GAME FOR THE LATEST FEE INFORMATION.

"... NO PROJECT SHALL BE OPERATIVE, VESTED, OR FINAL, NOR SHALL LOCAL GOVERNMENT PERMITS FOR THE PROJECT BE VALID, UNTIL THE FILING FEES REQUIRED PURSUANT TO THIS SECTION ARE PAID." Fish & Game Code §711.4(c)(3)

(FEES EFFECTIVE 01-01-2014)

ORIGINAL



**NOTICE OF INTENT
INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
CITY OF CAMPBELL, CALIFORNIA**

Notice is hereby given of the intent of the Campbell City Council to adopt a Mitigated Negative Declaration for the Winchester Mixed-Use Project, an application for a Zoning Map Amendment (PLN2014-142) from P-D (Planned Development) to C-PD (Condominium Planned Development), a Tentative Subdivision Map (PLN2014-141) for condominium purposes including vacation and abandonment of a public service easement and building setback line, a Planned Development Permit (PLN2014-140) to allow construction of a mixed-use project (16 residential condominium units and 3,200 square-feet of ground floor retail space), and a Tree Removal Permit (PLN2014-143), for properties located at **2295 and 2305 S. Winchester Boulevard, Campbell, CA 95008**, pursuant to Public Resources Code Section 21092(b)(1).

The project site of .56 acres consists of two parcels located at the southwest corner Winchester Boulevard and El Caminito Avenue. The site is currently vacant, having been formally improved with a commercial building and single-family residence. Abutting land uses include single-family residences to the north and west, a retail center to the south, and various commercial uses to the east across S. Winchester Boulevard.

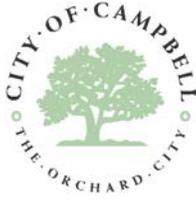
The Initial Study prepared by the City was undertaken for the purpose of determining whether the project may have a significant effect on the environment. On the basis of the Initial Study, Community Development Department staff has determined that the project will not have a significant effect on the environment due to the incorporation of certain mitigation measures, and therefore, has prepared a draft Mitigated Negative Declaration for consideration by the Campbell Planning Commission and Campbell City Council.

All interested parties are invited and encouraged to submit comments in writing regarding the draft Mitigated Negative Declaration and/or attend the below described public hearings. The public review period for the draft Mitigated Negative Declaration begins on **October 8, 2014** and ends on **October 28, 2014**. Any comments must be submitted in writing, including email, to the Community Development Department by 5:00 p.m. on **October 28, 2014**. The Initial Study and draft Mitigated Negative Declaration are available for review from 8:00 a.m. to 5:00 p.m. at the Community Development Department, City Hall, 70 North First Street, Campbell, CA or online at <http://www.cityofcampbell.com/501/Public-Notices> under 'Environmental Notices'.

The Campbell Planning Commission will consider the project and draft Mitigated Negative Declaration at a public hearing to be held on **October 28, 2014** and submit to the Campbell City Council a recommendation for approval or denial. The Campbell City Council is tentatively scheduled to hold a public hearing on **November 18, 2014**, to consider the Planning Commission's recommendation on the project and draft Mitigated Negative Declaration. Both meetings will be held at 7:30 p.m., or shortly thereafter, in the City Hall City Council Chambers, 70 North First Street, Campbell, CA.

Please be advised that if you challenge the decision on the Mitigated Negative Declaration and/or project in court, you may be limited to raising only those issues you or someone else raised at the public hearings described in this notice, or in written correspondence delivered to the City of Campbell prior to the public hearings. Questions and written comments may be addressed to Daniel Fama at (408) 866-2193 or by email at danielf@cityofcampbell.com.

CITY OF CAMPBELL
ANNE BYBEE
CITY CLERK



CITY OF CAMPBELL
Community Development Department

DRAFT
MITIGATED NEGATIVE DECLARATION

The Community Development Director has reviewed the proposed project described below to determine whether it could have a significant effect on the environment as a result of the project completion. “Significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

- Project Title:** Winchester/El Caminito Mixed-Use Project
- File Number(s):** CEQA Review (PLN2014-144), Planned Development Permit (PLN2014-140), Zoning Map Amendment (PLN2014-142), Tree Removal Permit (PLN2014-143)
- Project Address:** 2295 and 2305 S. Winchester Blvd., Campbell, CA 95008
- Project Sponsor:** SREA, Inc./Jeff Warmoth
P.O. Box 1001
Los Altos, CA 94023
- Zoning District (e):** P-D (Planned Development)
Zoning District (p): C-PD (Condominium Planned Development)
- General Plan:** *Central Commercial (Winchester Boulevard Master Plan)*
- Lead Agency:** City of Campbell, Community Development Department
70 N. First Street, Campbell, CA 95008
- Contact Person:** Daniel Fama, Associate Planner
(408) 866-2193 | danielf@cityofcampbell.com
- Date Posted:** October 8, 2014
- Other public agencies whose approval is required:** None
- Project Description:** A 3-story mixed-use building incorporating 16 residential condominiums and 3,200 square-feet of ground floor retail.

Surrounding Land Use | Zoning District | General Plan Designation:

North: Commercial | P-D (Planned Development) | *Central Commercial*

South: Commercial | P-D (Planned Development) | *Central Commercial*

East: Commercial | P-D (Planned Development) | *Central Commercial*

Public Assembly | P-F (Public Facilities) | *Institutional*

West: Residential | R-1-6 (Single-Family Residential) | *Low Density Residential*

Finding: The Community Development Director finds that the project described above will not have a significant effect on the environment in that the attached Initial Study identifies one or more potentially significant effects on the environment for which the project proponent, before public release of this draft Mitigated Negative Declaration, has made or agrees to make project revisions that clearly mitigate the effects to a less than significant level.

Mitigation Measures Included in the Project to Reduce Potentially Significant Environmental Effects to a Less Than Significant Level:

Mitigation Measure AIR-1: The contractor shall implement the following Best Management Practices during construction and demolition activity:

- 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 mph.
- 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 mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency 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.

Any person may file a written protest of the draft Mitigated Negative Declaration before 5:00 p.m. on **October 28, 2014**. Such protest must be filed at the Community Development Department, City Hall, 70 North First Street, Campbell, California. The written protest should make a "fair argument" that the project will have one or more significant effects on the environment based on substantial evidence.

Daniel Fama
PROJECT PLANNER

Associate Planner
TITLE

City of Campbell
AGENCY



SIGNATURE

October 8, 2014

DATE

INITIAL STUDY

2295 AND 2305 S. WINCHESTER BOULEVARD

*An environmental evaluation
prepared in compliance with the
California Environmental Quality Act*



Prepared by
Daniel Fama
Associate Planner

City of Campbell
Community Development Department
Planning Division
70 N. First Street
Campbell, CA 95008

Public Review Period
October 8, 2014 – October 28, 2014



I. PROJECT OVERVIEW

Project Title: Winchester/El Caminito Mixed-Use Project

File Number(s):

CEQA Review (PLN2014-144)
Planned Development Permit (PLN2014-140)
Tentative Subdivision Map (PLN2014-141)
Zoning Map Amendment (PLN2014-142)
Tree Removal Permit (PLN2014-143)

Project Location: 2295 and 2305 S. Winchester Blvd., Campbell, CA 95008

Name and Address of Project Proponent:

SREA, Inc.
Jeff Warmoth
P.O. Box 1001
Los Altos, CA 94023

Lead Agency Name and Address:

City of Campbell
Community Development Department
70 N. First Street
Campbell, CA 95008

Contact Person(s):

Daniel Fama, Associate Planner
(408) 866-2193
danielf@cityofcampbell.com

Zoning Designation:

Current: P-D (Planned Development)
Proposed: C-PD (Condominium Planned Development)

General Plan Designation:

Current: Central Commercial
Proposed: No Change Proposed

Other public agencies whose approval is required: None

Surrounding Land Use | Zoning District | General Plan Designation:

North: Commercial | P-D (Planned Development) | *Central Commercial*

South: Commercial | P-D (Planned Development) | *Central Commercial*

East: Commercial | P-D (Planned Development) | *Central Commercial*

Public Assembly | P-F (Public Facilities) | *Institutional*

West: Residential | R-1-6 (Single-Family Residential) | *Low Density Residential (>6 units/gr. acre)*

Project Location: The project site is composed of two vacant parcels, comprising approximately 25,000 square-feet, located at the southwest corner of South Winchester Boulevard and El Caminito Avenue, abutting a single-family residence to the west and a small retail center to the south (reference location map). The project site is located within the Planned Development (P-D) Zoning District and has a General Plan land use designation of *Central Commercial*. The site is also within the boundaries of the Winchester Boulevard Master Plan and is less than a quarter mile to the Winchester Transit Center (traversable distance to the station platform), which defines the project as a "transit-oriented development" (TOD).

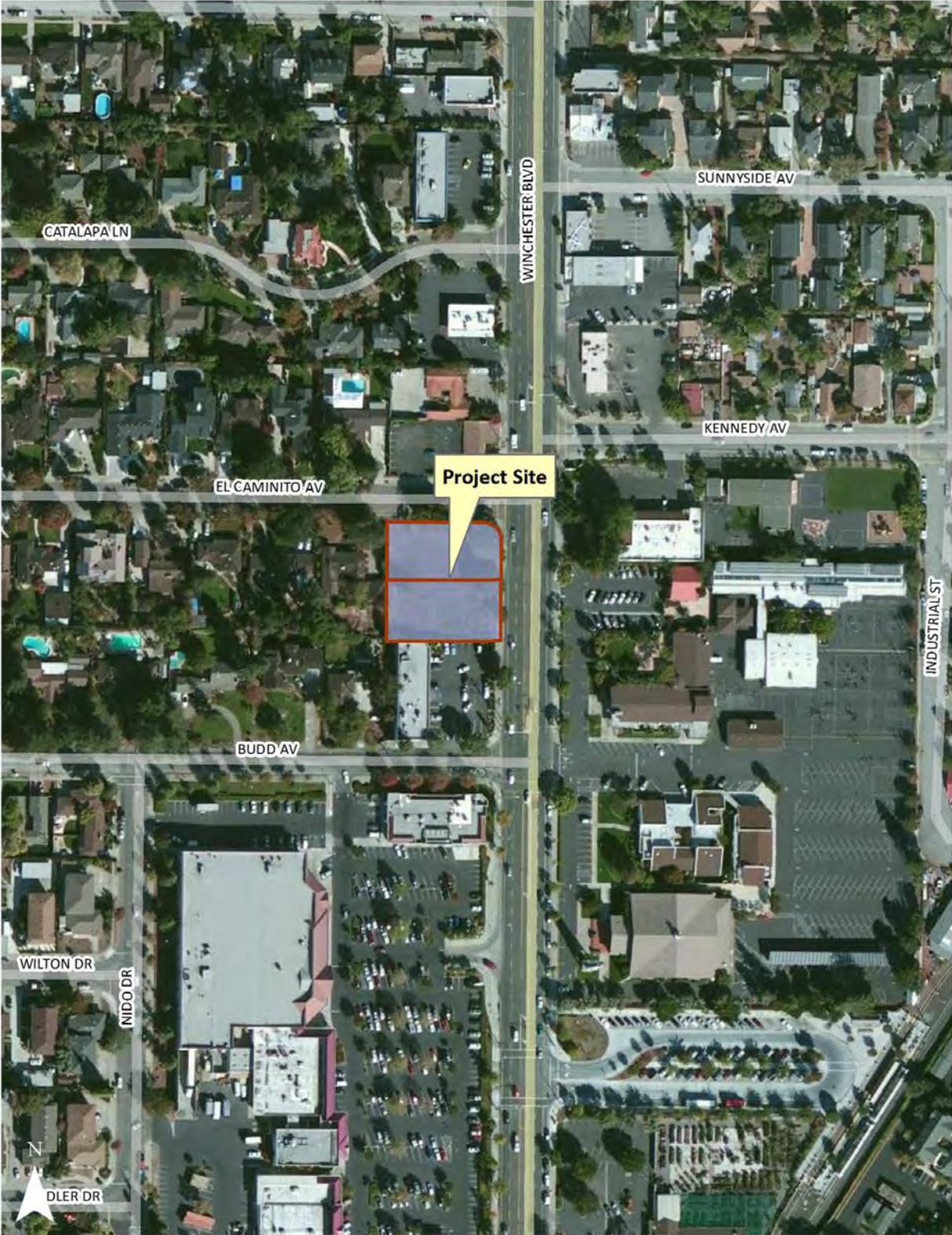
Project Description: The proposed project is a mixed-use building comprised of 3,200 square-feet of ground floor commercial space along Winchester Boulevard and 16 condominium units (one- and two-bedroom configurations) in two upper stories. Formally, this application submittal includes requests for a Zoning Map Amendment to rezone the property from P-D (Planned Development) to C-PD (Condominium Planned Development), a Tentative Vesting Subdivision Map, a Planned Development Permit, and a Tree Removal Permit. Additionally, the application also includes a request for a reduced parking standard pursuant to the City's "Density Bonus" provisions.

The configuration of the project site is defined by the siting of the mixed-use building at the street, as required by the Winchester Boulevard Master Plan, which deemphasizes the parking lot by placing it behind the building. Vehicular ingress/egress into the site would be from an unrestricted driveway along El Caminito Avenue. Although residential and commercial traffic would share the same driveway, commercial parking would be separated from the residential parking through use of separate drive aisles. Signage would indicate that residential (and disabled) parking is to the left upon entering the site and that commercial parking is straight ahead. Once on site, pedestrians would access the building—either the residential units or the street front commercial—through a center walkway/paseo that goes through the building and connects the sidewalk to the rear parking lot.

Project Data:

Proposed Units:	16 units
Allowable (Max) Units:	23 units
Proposed Density:	18 units/gr. acre (16 units / .87 gross acres)
Allowable (Max) Density:	27 units/gr. acre
Unit Types/Size:	
1-Bedroom	6 Units (857 – 954 sq. ft.)
2-Bedroom	10 Units (1,088 – 1,244 sq. ft.)
Building Coverage:	56% (14,000 sq. ft. building "footprint")
Floor Area Ratio (FAR):	.27 (excluding residential floor area per CMC 21.36.130)
Proposed Building Height:	45 Feet
Maximum Height Allowed:	45 Feet (Winchester Boulevard Master Plan)

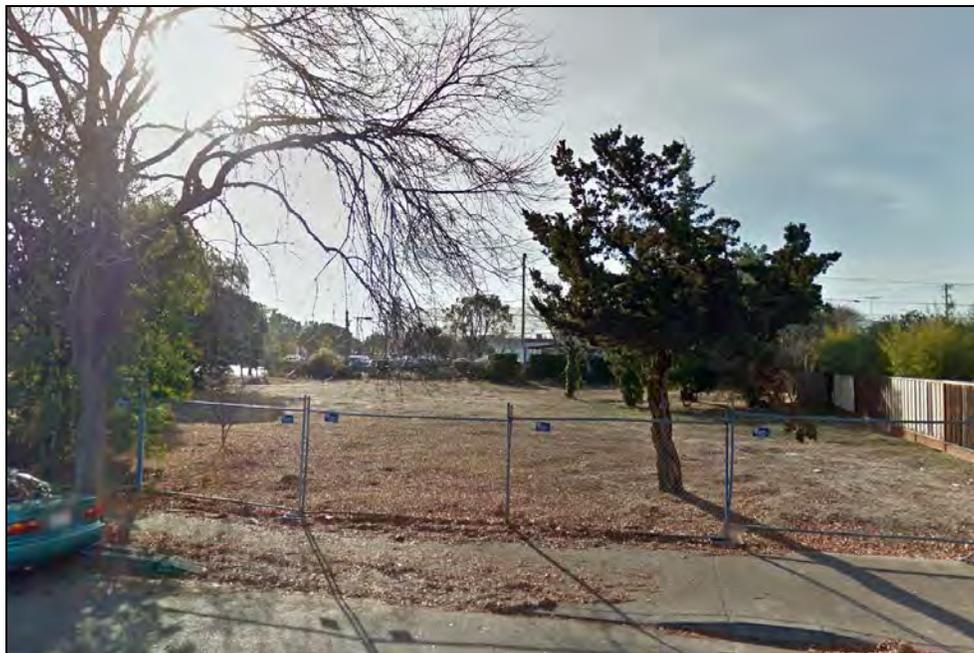
Location Map



Site Photographs



VIEW OF THE SITE LOOKING WESTERLY



VIEW OF THE SITE LOOKING SOUTHERLY

II. ENVIRONMENTAL IMPACT EVALUATION:

The following evaluation has been prepared to determine if the proposed project may result in a “significant impact” on the environment. For the purposes of this study, a significant impact means a substantial or potentially substantial change in the physical environment. The following terms used in the evaluation are defined as specified below:

"Potentially Significant Impact" means that there is either substantial evidence that an effect may be significant or, due to lack of existing information, may have potential to be a significant effect.

"Less than Significant With Mitigation Incorporated" means the incorporation of one or more mitigation measures can reduce the effect from potentially significant to a less than significant level.

"Less Than Significant Impact" means that there is sufficient evidence available to determine that the effect is less than significant and no mitigation is necessary to reduce the impact to a lesser level.

"No Impact" means that the effect does not apply to the proposed project, or clearly will not impact nor be impacted by the project.

A description of the proposed mitigation measures and the factual data or evidence used to reach conclusions regarding impact significance follows each section. The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Less Than Significant with Mitigation Incorporation" as indicated by the checklist on the following pages. The impacts of the project, as well as a recommended mitigation measures, are summarized in Section III: Recommendation and Determination.

- | | | |
|--|---|--|
| <input type="checkbox"/> (1) Aesthetics
(Page 10) | <input type="checkbox"/> (2) Agriculture Resources
(Page 11) | <input checked="" type="checkbox"/> (3) Air Quality
(Page 12) |
| <input type="checkbox"/> (4) Biological Resources
(Page 18) | <input type="checkbox"/> (5) Cultural Resources
(Page 19) | <input checked="" type="checkbox"/> (6) Geology/Soils
(Page 20) |
| <input type="checkbox"/> (7) Greenhouse Gas Emissions
(Page 22) | <input checked="" type="checkbox"/> (8) Hazards & Hazardous
Material (Page 24) | <input type="checkbox"/> (9) Hydrology/Water
Quality (Page 26) |
| <input type="checkbox"/> (10) Land Use/Planning
(Page 28) | <input type="checkbox"/> (11) Mineral Resources
(Page 29) | <input type="checkbox"/> (12) Noise
(Page 30) |
| <input type="checkbox"/> (13) Population/Housing
(Page 32) | <input type="checkbox"/> (14) Public Services
(Page 33) | <input type="checkbox"/> (15) Recreation
(Page 34) |
| <input type="checkbox"/> (16) Transportation/Traffic
(Page 35) | <input type="checkbox"/> (17) Utilities/Service System
(Page 37) | <input type="checkbox"/> (18) Mandatory Findings
of Significance
(Page 38) |

1. AESTHETICS

<i>Would the project:</i>		Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)		Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)		Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)		Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)		Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a to c): The project will alter the existing visual character of the site and its surroundings through development of the proposed mixed-use building. However, since neither the project site nor any area, roadway, or view-corridor in the vicinity of the project site is a recognized scenic vista or scenic resource, these activities will not result in a significant environmental affect. Moreover, introduction of residential development will improve the visual character of the current vacant property. The project is subject to various policies and strategies of the Campbell General Plan as well as development standards and design guidelines of the Winchester Boulevard Master Plan that are intended to facilitate development that improves the visual character of the community through good design and site planning.

(d): Development of the proposed project will include installation of new lighting fixtures. As all new lighting is subject to the City’s Lighting Design Standards (CMC Sec. 21.18.090)—which requires lighting to be designed and installed so that light rays are not emitted across property lines—the project would not result in new sources of substantial light or glare.

2. AGRICULTURAL RESOURCES

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a to c): The project site is not used for, nor zoned for farmland or other agricultural or horticultural purpose. Neither the project site nor surrounding properties contain farmland or support agricultural activity that could be impacted by the project. As a result, no impact to farmland or agricultural/horticultural uses will occur.

3. AIR QUALITY

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Note: The following is excerpted from the 'TAC and GHG Emissions Assessment', prepared by Illingworth and Rodkin, Inc. for this project, and has been edited for brevity and clarity. The complete document, included tables and figures, is included as **Attachment 1**.

Discussion:

The project is located in the northern portion of the Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}).

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and Federal level.

(a): The most recent clean air plan is the Bay Area 2010 Clean Air Plan that was adopted by BAAQMD in September 2010. The proposed project would not conflict with the latest Clean Air planning efforts since the project would have emissions well below the BAAQMD thresholds (see Impact 'b', below), and development would be near existing transit with regional connections. The project, at 16 multi-family residences and 3,200-square feet of retail uses, is too small to exceed any of the significance thresholds and, thus, it is not required to incorporate project-specific transportation control measures listed in the latest Clean Air Plan.

(b) The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter (PM_{2.5}) under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM₁₀) under the California Clean Air Act, but not the Federal act. The area has attained both State and Federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM₁₀, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO_x), PM₁₀ and PM_{2.5} and apply to both construction period and operational period impacts.

Due to the project size, construction exhaust and operational period emissions would be less than significant. In their 2011 update to the *CEQA Air Quality Guidelines*, BAAQMD identified the size of land use projects that could result in significant air pollutant emissions. For construction exhaust impacts, the residential townhouse size was identified at 240 dwelling units and 277 thousand square feet for retail uses. For operational impacts, the project size was identified at 451 dwelling units and 99 thousand square feet of retail uses. Since the project proposes 16 townhomes and 3,200 square feet of retail, it is concluded that emissions would be well below the BAAQMD significance thresholds for both construction exhaust and operational emissions.

However, construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. The BAAQMD *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. Because the project would be below the screening size for both construction exhaust and operational period emissions, and with incorporation of BAAQMD-recommended best management practices (BMP), as *Mitigation Measure AIR-1*, this impact is considered *less than significant*.

Mitigation Measure AIR-1: The contractor shall implement the following Best Management Practices during construction and demolition activity:

- 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 mph.
- 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 mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency 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.

(c): As discussed under Impact 'b', above, the project would have emissions less than the BAAQMD screening size for evaluating impacts related to ozone and particulate matter. Therefore, the project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. There is an ambient air quality monitoring station in San Jose that measures carbon monoxide concentrations. The highest measured level over any 8-hour averaging period during the last 3 years is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the project would have traffic volumes less than the BAAQMD screening criteria and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards.

(d): Sensitive receptors are locations where an identifiable subset of the general population (children, asthmatics, the elderly, and the chronically ill) that is at greater risk than the general population to the effects of air pollutants are likely to be exposed. These locations include residences, schools, playgrounds, childcare centers, retirement homes, hospitals, and medical clinics. The closest off-site sensitive receptors are residences adjacent to the western project site boundary. There is also a school, St. Lucy's Parish School (Kindergarten through 8th grade and preschool), across the street from the project site on the west side of South Winchester Boulevard.

Construction activity would generate dust and equipment exhaust on a temporary basis. Impacts from project construction and nearby operational TAC sources are addressed below. Operation of the project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels, however nearby sources of TAC emissions such as roadways and stationary sources are analyzed for a potential future impact on proposed residences.

Project Construction Activity

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions.

Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known Toxic Air Contaminant (TAC). Diesel exhaust poses both potential health and nuisance impacts to nearby receptors. A community risk assessment of the project construction activities was conducted that evaluated potential health effects to sensitive receptors at nearby residences from construction emissions of diesel particulate matter (DPM) and PM_{2.5}. A dispersion model was used to predict the off-site DPM concentrations resulting from project construction so that lifetime cancer risks could be predicted.

The maximum modeled DPM and PM_{2.5} concentrations occurred at a residence northwest of the project site on El Caminito Avenue. Increased cancer risks were calculated using the modeled concentrations and BAAQMD- recommended risk assessment methods for both a child exposure (3rd trimester through 2 years of age) and adult exposure. The cancer risk calculations were based on applying the BAAQMD-recommended age sensitivity factors to the DPM exposures. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. BAAQMD- recommended exposure parameters were used for the cancer risk calculations. Infant and child exposures were assumed to occur at all residences during the entire construction period and a child exposure was assumed to occur for the children at the St. Lucy's Parish School.

Results of this assessment indicate that for project construction the incremental residential child cancer risk at the maximally exposed individual (MEI) receptor would be 8.5 in one million and the incremental residential adult cancer risk would be 0.4 in one million. The maximum school child increased cancer risk would be 3.4 in one million. These increased cancer risks would be lower than the BAAQMD significance threshold of a cancer risk of 10 in one million and would be considered a *less-than-significant impact*. The maximum modeled annual PM_{2.5} concentration was 0.13 micrograms per cubic meter (µg/m³) occurring at the St. Lucy's Parish School. This PM_{2.5} concentration is lower than the BAAQMD significance threshold of 0.3 µg/m³ used to judge the significance of health impacts from PM_{2.5}. This would be considered a *less-than-significant impact*.

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. Non- cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). California's Office of Environmental

Health and Hazards (OEHHA) has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The chronic inhalation REL for DPM is 5 µg/m³. The maximum modeled annual residential DPM concentration was 0.13 µg/m³, which is much lower than the REL. The maximum computed hazard index based on this DPM concentration is 0.03 which is much lower than the BAAQMD significance criterion of a hazard index greater than 1.0. The project would have a *less-than-significant impact* with respect to community risk caused by construction activities.

Project Operation

Operation of this residential project is not considered a source of TAC or PM_{2.5} emissions. As a result, the project operation would not cause emissions that expose sensitive receptors to unhealthy air pollutant levels. Because the project would not be a source of TACs, it would not contribute cumulatively to unhealthy exposure to TACs.

The project would include new sensitive receptors. Substantial sources of air pollution can adversely affect sensitive receptors proposed as part of new projects. A review of the area indicates that there are roadways within 1,000 feet of the site that could adversely affect new residences and one stationary source of air pollution with substantial reported screening risk is located near the site. There are thresholds that address both the impact of single and cumulative TAC sources upon projects that include new sensitive receptors. The analysis of the local surface streets used screening data provided by BAAQMD to identify the potential cancer risk and PM_{2.5} exposure risks. The potential impact from the stationary source is described below.

Impacts from Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using the BAAQMD's *Stationary Source Risk and Hazard Analysis Tool*. This mapping tool uses Google Earth to identify the location of stationary sources and their estimated risk and hazard impacts. One drycleaners was identified within 1,000 feet of the site. Note that Dry Cleaners are phasing out the use of perchloroethylene or "perc" (the TAC causing cancer risk) as required by State law. The use of TACs in dry cleaning operations will be completely phased out by 2023. Correspondence with Campbell Plaza Cleaners indicated that their drycleaning process involves a new non-perchloroethylene machine. Therefore, it is concluded that no cancerous chemicals are released from the cleaners, and it does not pose a risk to the project site.

Impacts from Local Surface Streets

Traffic on high volume roadways is a source of TAC emissions that may adversely affect sensitive receptors in close proximity to the roadway. For roadways, BAAQMD has published screening tables and data to determine if roadways with traffic volumes of over 10,000 vehicles per day may have a significant effect on a proposed project. Based on data provided by the City of Campbell Public Works Department,⁹ S. Winchester Boulevard has an average daily traffic (ADT) volume of about 24,000 in the vicinity of the project. This count was made in 2006, but it can be assumed that traffic volumes do not exceed 30,000 ADT. Other nearby roadways are assumed in this analysis to have less than 10,000 average daily trips.

Using the BAAQMD *Roadway Screening Analysis Table* for Santa Clara County for north-south directional roadways and at a distance of 10 feet and traffic volume of 30,000 ADT, estimated cancer risk from S. Winchester Boulevard at the project site would be 6.3 in one million, which is below the BAAQMD community risk significance threshold of 10 in one million. The estimated PM_{2.5} concentration of 0.24 µg/m³ and a HI of less than 0.03 associated with this source would be below the BAAQMD community risk significance thresholds, as well. This would be considered a *less-than-significant* impact.

4. BIOLOGICAL RESOURCES

<i>Would the project:</i>		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Have a substantial adverse effect, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a to d): According to the California Natural Diversity Database and the City's General Plan, no species identified as a candidate, sensitive or special status species, or habitat for such species are known to occupy the project site.

(e): A tree survey prepared for the project (reference Attachment 2) cataloged 18 trees within and along the project site (12 actually located on the project site). Removal of all on-site trees will be required to accommodate construction of the mixed-use building, parking lot, and bio-retention area. Removal of trees greater than 12-inches in diameter will require a Tree Removal Permit under the City's Tree Protection requirements (CMC Sec. 21.32). Based on the General Plan intent for this area to encourage higher density at the project site, the removal of the existing trees is necessary to accommodate new development. As a Condition of Approval, the applicant shall be required to submit a final landscaping plan with Building Permit construction documents, which shall specify the exact number, type, size, and location of replacement trees to be planted, in conformance with the City's Tree Protection Ordinance. Therefore, the project will incur a less than significant impact.

(f): No adopted Habitat Conservation Plan, Natural Community Conservation Plan or approved local, regional or state habitat conservation plans apply to the project or the project site.

5. CULTURAL RESOURCES

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a): The project site does not contain known historical resources as defined in §15064.5 of the CEQA Guidelines.

(b and c): The project site is currently vacant and contains no known archaeological, paleontological, or other cultural resources. However, consistent with General Plan Strategy CNR-1.1b, a standard City Condition of Approval will require proper handling of any discovered archeological or paleontological resources. As a result, no formal mitigation is required.

Strategy CNR-1.1b: Archaeological Resources: In accordance with CEQA and the State Public Resources Code, require the discontinuation of all work in the immediate vicinity and the preparation of a resource mitigation plan and monitoring program by a licensed archaeologist if archaeological resources are found on any sites within the City.

(d): No human remains are known to exist on the project site. Should human remains be discovered during excavation or construction, such remains shall be handled pursuant to § 7050.5 of the California Health and Safety Code and § 5097.94 of the California Public Resources Code. Specifically, in the event a human burial or skeletal element is identified during excavation or construction, work in that location shall stop immediately until the find can be properly treated. The Santa Clara County Coroner shall be notified and shall make a determination as to whether remains are Native American in origin and take such actions as required by law. As such, no mitigation pertaining to the handling of humans remains is required.

6. GEOLOGY AND SOILS

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(a)	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? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): The project site is located within the seismically active San Francisco Bay Area. According to maps prepared under the Alquist-Priolo Earthquake Fault Zone Act, there are no zoned active faults within the City of Campbell. Therefore, ground rupture is not likely to occur at the site. The nearest major earthquake faults are the Monte Vista Shannon Fault, San Andreas Fault, the Hayward-Rogers Creek Fault and the Calaveras Fault, all of which pose the greatest earthquake threat because of their high quake potential. The project will likely be subjected to at least one moderate to severe earthquake that will cause moderate to severe ground shaking during the useful life of the proposed residential buildings. Because construction practices in the State of California—pursuant to the California Building Code—take into account that earthquakes could potentially damaged buildings, they are designed to withstand moderate ground-shaking, resulting in a less than significant impact. Lastly, according to the State Seismic Hazard Zones Map, the project site is not located in any hazard zone and therefore does not have the potential for liquefaction or earthquake-induced landslides.

(b): The project's preliminary grading, draining, and utility plan, indicates the project would include minimal grading, which would not result in substantial soil erosion or the loss of topsoil.

(c): A geotechnical investigation (reference Attachment 4) prepared for the project site determined that the proposed development will not exhibit any potential for liquefaction under the influence of a maximum credible earthquake. Moreover, based on the drill test borings the project site is not geologically unstable and would not pose a risk of landslide, lateral spreading, subsidence, liquefaction or collapse.

(d): Based on historical construction data, The site does not consist of expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks of life or property.

- (e): The project would not involve the use of septic tanks or alternative waste water disposal systems.
- (f): As discussed in Section 5 (Cultural Resources), no unique paleontological resources or unique geological features are known to exist on the project site.

7. GREENHOUSE GAS EMISSIONS

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Note: The following is excerpted from the 'Tac and GHG Emissions Asssment', prepared by Illingworth and Rodkin, Inc. for this project, and has been edited for brevity and clarity. The complete document, included tables and figures, is included as **Attachment 1**.

Discussion:

(a): The BAAQMD May 2011 CEQA Guidelines included GHG emissions-based significance thresholds. These thresholds include a “bright-line” emissions level of 1,100 metric tons per year for land-use type projects and 10,000 metric tons per year for stationary sources. Land use projects with emissions above the 1,100 metric ton per year threshold would then be subject to a GHG efficiency threshold of 4.6 metric tons per year per capita. Projects with emissions above the thresholds would be considered to have an impact, which, cumulatively, would be significant.

CalEEMod was also used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model. The use of this model for evaluating emissions from land use projects is recommended by the BAAQMD. Unless otherwise noted below, the CalEEMod model defaults for Santa Clara County were used. CalEEMod provides emissions for transportation, areas sources, electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport

Construction Emissions

GHG emissions associated with construction were computed to be 73 MT of CO_{2e}, anticipated to occur over the entire construction period. These are the emissions from on-site operation of construction equipment, vendor truck trips, and worker trips. BAAQMD does not have an adopted Threshold of Significance for construction-related GHG emissions, though the District recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable. Best management practices assumed to be incorporated into construction of the proposed project include, but are not limited to: using local building materials of at least 10 percent and recycling or reusing at least 50 percent of construction waste or demolition materials.

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to predict daily emissions associated with operation of the fully-developed site under the proposed project. In 2016, annual emissions resulting from operation of the proposed project are predicted to be 195 MT of CO₂e. These emissions would not exceed the BAAQMD threshold of 1,100 MT of CO₂e/yr. Therefore, *this would be a less than significant impact.*

(b): The City of Campbell has not adopted a Climate Action Plan or any comparable policy or regulation pertaining to the reduction or monitoring of greenhouse gases.

8. HAZARDS AND HAZARDOUS MATERIALS

<i>Would the project:</i>		Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)		Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)		Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)		Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)		Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)		For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)		For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g)		Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a and b): No routine transport, use or disposal of hazardous materials would be associated with the project. A slight hazardous potential would exist during project construction when materials and construction equipment are at the site; however, long-term hazard risk is very low. Hazard risks during construction would be regulated by the City's standard conditions of approval and will be required to be performed in accordance with state and federal hazardous materials regulations and current Best Management Practices (BMP's) for construction activities. The use of toxic chemicals for landscaping (pesticides, herbicides, etc.) will not be above what is generally required for landscape maintenance and is not considered significant.

(c): The project site is within ¼ mile of St. Lucy's private school, located south of the project site. However, the operation of the project will not include hazardous emission or handling of hazardous or acutely hazardous materials, substances. Further, as discussed in Section 3 (Air Quality), construction and demolition related air pollutants that may constitute a hazard are regulated through Best Management Practices as required by City ordinances and reiterated through *Mitigation Measure AIR – 1*.

(d): The project site is not listed on the Hazardous Waste and Substances Sites List (available at http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm) compiled pursuant to Government Code Section 65962.5, therefore it would not create a significant hazard to the public or the environment. Additionally, the Phase I site assessment (reference Attachment 3) did not identify any "recognized environmental conditions"—meeting the standard set forth by American Society for Testing and Materials (ASTM)—that could be considered "significant effect" under CEQA (Guideline § 21068).

(e to f): The project site is not located within the Santa Clara County Airport Land Use Commission jurisdiction, within two miles of a public airport or within the vicinity of a private airstrip.

(g): The project would not interfere with emergency response or evacuation plans. Sufficient emergency access and emergency services staff would be provided for the project site in compliance with the State Uniform Building Code Standards and requirements of the Santa Clara County Fire and Health Departments. The project would improve sidewalk access and lighting in the area, thereby potentially improving access for emergency response or emergency evacuation.

(h): The project site is not located near any wildland areas and would not increase a wildland fire hazard.

9. HYDROLOGY AND WATER QUALITY

<i>Would the project:</i>		Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)		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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)		Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)		Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)		Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)		Create significant increases in erosion of the project site or surrounding areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)		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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g)		Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h)		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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i)		Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(j)		Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(k)		Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(l)		Potentially impact stormwater runoff from construction activities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(m)		Potentially impact stormwater runoff from post-construction activities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(n)		Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(o)		Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(p)		Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): The project will be adequately served by the existing water supplies, as confirmed in written correspondence (“will serve” letter) by San Jose Water Company, the local area water utility (reference Attachment 7). As such, the project will not deplete or otherwise interfere with groundwater supplies.

(b to e): The project would entirely alter the existing drainage pattern of the project site through re-grading to accommodate residential development. As discussed below, the project includes advanced stormwater treatment and retention that will prevent erosion, siltation, runoff related flooding, or increases in flow velocity or volume of stormwater runoff. The changes to the project site as a result of

on-site improvements will not substantially alter the existing drainage pattern of the surrounding area, alter 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.

(f to g, m to o): In compliance with Provision C.3 of the National Pollution Discharge Elimination System (NPDES), the project incorporates stormwater management measures. The project's stormwater treatment plan indicates use of private bio-retention areas (vegetated swales) that allow water to percolate into the ground through a passive (natural) infiltration medium before flowing to a central storm drain within the street. The proposed treatment system will treat and contain stormwater on-site and therefore not exceed the capacity of existing or planned storm water drainage systems, provide substantial additional sources of polluted stormwater runoff, otherwise substantially degrade water quality or violate any water quality standards or waste discharge requirements.

(h to i): According to the Federal Emergency Management Agency Flood Insurance Rate Maps, the majority of the project site is located in Zone X, an area determined to be outside the 100-year annual chance floodplain.

(j to k): The project site is located downstream of Lexington Reservoir, in an area defined by the Association of Bay Area Governments as a dam failure inundation area. As the project is not modifying flood protection measures or creating a condition where adjacent properties are exposed to a new significant risk of loss, injury or death involving flooding, no additional exposure to water-related hazards is expected as a result of the project construction or operation.

(l): As discussed in Section 3 (Air Quality), construction and demolition activities are regulated through Best Management Practices as required by City ordinances and reiterated by *Mitigation Measure AIR – 1*, which is designed to limit air and water contamination related to construction activity. With the implementation of this measure, potential short-term air and water quality impacts associated with construction would be reduced to a less than significant level.

(n): The mixed-use building will not include uses that would include vehicle fueling, waste handling, hazardous material storage, or other outdoor work areas that could result in the potential discharge of stormwater pollutants.

10. LAND USE and PLANNING

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): Projects that have the potential to physically divide an established community typically include construction that would eliminate formal or informal travel ways through a property. No such pathways or other forms of informal access through the project site currently exist. Therefore, the project would not physically divide an established community.

(b): The proposed project would consistent with the following General Plan Land Use and Transportation Element includes polices and strategies. In whole, the General Plan encourages a supportive approach to mixed-use and transit-oriented development, in areas anticipated for residential growth, such as Winchester Boulevard. The project would also be consistent with the standards provided for in the Winchester Boulevard Master Plan.

Strategy LUT-1.5a: Transit-Oriented Development: Encourage transit-oriented development including employment centers such as office and research and development facilities and the city’s highest density residential projects by coordinating the location, intensity, and mix of land uses with transportation resources, such as Light Rail.

Policy LUT-2.3d: Winchester Boulevard: Evaluate alternative methods to reduce speed on Winchester Boulevard, including boulevard treatments such as bulb-outs or on-street parking and encourage north-south transit on the 17 Freeway and San Tomas Expressway.

Strategy LUT-2.4a: Full Range of Uses: Provide for a full range of land uses within the City, and for mixed-uses within specific development projects

Strategy LUT-3.1c: High Density Residential: Allow higher residential densities in the North of Campbell Area (NOCA), South of Campbell Area (SOCA), and areas near the Light Rail stations as an incentive to redevelop older, less intensive uses (see individual area plans for allowed densities).

Policy LUT-5.3j: Winchester Boulevard Plan: Develop an Area Plan for Winchester Boulevard. The Area Plan should address specific boundaries, mix of uses, street amenities, landscaping, building and site design.

Policy H-4.2: Mixed-Use Development: Promote mixed-use development where housing is located near jobs, services, shopping, schools, and public transportation.

Policy H-4.3: Planned For Densities: To encourage the efficient and sustainable use of land, the City encourages residential development that is proposed near existing light rail stations (within 1/4 mile radius) and/or within the boundaries of the Winchester Boulevard Plan and East Campbell Avenue plan areas, to achieve at least 75 percent of the maximum General Plan Land Use category densities.

(c): No habitat conservation plan or natural community conservation plans are applicable to the project site.

11. MINERAL RESOURCES

<i>Would the project:</i>		Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a to b): No known mineral resources are present at the project site.

12. NOISE

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a to b): The City's residential noise standards, contained in CMC Sec. 21.16.070, provide the following noise exposure levels for new residential development. Acoustical studies are required for all new noise-sensitive projects that may be affected by existing noise from stationary sources, including all new residential developments with a noise exposure greater than 60 dBA CNEL. When an acoustical study shows that existing stationary noise sources exceed, or will exceed maximum allowable noise levels, appropriate attenuation measures must be incorporated to reduce noise exposure to or below the allowable levels.

- Noise from stationary sources. New residential development shall conform to a stationary source noise exposure standard of 65 dBA for exterior noise levels and 45 dBA for interior noise levels.
- Traffic-related noise. New residential development shall conform to a traffic-related noise exposure standard of 60 dBA CNEL for outdoor noise in noise-sensitive outdoor activity areas and 45 dBA CNEL for indoor noise.

As required by CMC Sec. 21.16.070, an acoustical study was prepared for this project (reference Attachment 5). The study identified that existing traffic-related noise along Winchester Boulevard reaches 71 dBA CNEL which would result in interior noise levels in excess of 45 dBNA CNEL, assuming windows/doors were open for ventilation. As such, the study identifies the need for attenuation measures including forced-air mechanical ventilation (to allow for windows to be closed) and use of sound-rated (STC) building materials. In terms of outdoor noise exposure, the project includes balconies. Although this term "noise-sensitive outdoor activity areas" is not defined, it historically been understood to include active outdoor spaces such as backyards, parks, or playgrounds. As such, balconies, which are more passive in nature, are not subject to a noise standard. Therefore, the project as a whole not expose persons to noise levels in excess of standards established in the local general plan or noise ordinance.

(c): Due to the limited scale of the project, no noise of any appreciable level is expected to be generated. As such, the project would not result in increase in ambient noise within the vicinity of the project site.

(d): Construction will result in temporarily increasing ambient noise levels in the project vicinity. However, construction is governed by CMC Sec. 18.04.052, which limits construction activity from 8 AM to 5 PM., Monday through Friday, 9 AM to 4 PM on Saturday, and prohibits construction on Sunday. Additionally, loud environmentally disruptive noise over 50 dBA (e.g., air compressors without mufflers, continuously running motors or generators, loud playing musical instruments or radios) is prohibited. As such, temporary ambient noise level increases associated with construction will be less than significant.

(e and f): The project is not located within the vicinity of an airport land use plan or within two miles of an airport. The project is not located within the vicinity of a private airstrip.

13. POPULATION AND HOUSING

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

Discussion:

(a): The project will eventually result in the construction of sixteen residential units on a property identified by the Campbell General Plan Housing Element as being suitable and appropriate for housing. The introduction of sixteen residences in a predominantly developed residential neighborhood represents only a nominal increase of population growth.

(b and c): The project site is vacant and would not result in the displacement of any people or housing units, which would necessitate the construction of replacement housing elsewhere.

14. PUBLIC SERVICES

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Would the project result in substantial adverse physical impacts associated with the provision of or 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:				
	i) Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	ii) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a): The project will require public services such as fire, police services, schools, open space, and street maintenance, commensurate with the scale of the project. The County Fire District, Campbell Police Department, City stakeholder agencies, and area school districts reviewed the project. As this project will result in only a nominal increase in population, a less than significant impact to existing services was determined by the reviewing agencies. Existing parkland is sufficient to serve the residents of the project, as discussed in Section 14 (Recreation).

15. RECREATION

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): Residents of the project are likely to access John D. Morgan Park, located less than one-half mile from the project site. Due to the limited scope and scale of the project, only a nominal increase in the use of City and regional parks and other recreational facilities can be expected as a result of the project, which would not result in a significant impact.

(b): The project does not any include recreational facilities.

16. TRANSPORTATION and TRAFFIC

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Cause an increase in traffic which 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Substantially increase hazards due to a design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a and b): The City contracted for preparation of a traffic study, which is currently in draft form (reference Attachment 6). The traffic study’s trip generation analysis anticipates that the project would generate 185 daily vehicular trips to and from the project site, including 9 trips during the AM peak hour (7:00 – 9:00) and 14 during the PM peak hour (4:00 – 6:00). As noted in the table below, the analysis incorporates reduction credits for both proximity to light-rail (9%) and the mixed-use character of the project (15%). According to the study, the increase in trips represents an incremental increase in traffic that would not result in a level of service (LOS) reduction at nearby intersections (Winchester/Kennedy and Winchester/El Caminito). Similarly, the study’s TIRE (traffic infusion on residential environment) analysis determined that the project would not result in a noticeable change in neighborhood traffic along El Caminito Avenue and Cherry Lane, (this analysis is designed to determine if an increase in traffic would be *perceivable* to a neighborhood).

**Table 2
Trip Generation Summary**

Land Use	Units	Daily		AM Peak Hour			PM Peak Hour				
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Proposed											
Residential Condominium	16 du	5.81	93	0.44	7	1	6	.52	8	6	2
<i>LRT Housing Reduction</i>	-9%		-8		-1	0	-1		-1	-1	0
<i>Internal Capture</i>	-15%		-21		0	0	0		-1	-1	0
Specialty Retail Center *	3.2 ksf	44.32	142	0.96	3	2	1	2.71	9	4	5
<i>Internal Capture</i>	-15%		-21		0	0	0		-1	0	-1
Total			185		9	3	6		14	8	6

Note: du = dwelling unit; ksf = 1,000 square feet; * Because ITE *Trip Generation Manual* did not have trip generation rates for Specialty Retail during the AM peak hour, Shopping Center (LU#820) rates were used instead for the AM peak hour

(c): The project will not 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.

(d): Although the draft traffic study provides potential recommendations for improvements at the Winchester Blvd./El Caminito Ave. intersection, the study notes that the intersection has no recent history of collisions. As such, construction of the proposed mixed-use building at this corner would not result in any transportation-related hazards.

(e): The project has been designed to comply with emergency access requirements of the Santa Clara Fire Department. The County Fire Department has reviewed the project during the City’s department review committee process and will again review the access routes during review of construction drawings.

(f): The project application also includes a request for a reduced parking standard pursuant to the City's "Density Bonus" provisions (CMC Sec. 21.20.120). This standard states that the City cannot require more than one parking space for studio and one-bedroom units and no more than two parking spaces for two-bedroom units. To accommodate the project's six one-bedroom units and 10 two-bedroom units, the project will provide 26 residential parking spaces. The retail component of the project would be served by 16 parking spaces, consistent with the applicable retail parking standard of 1 space per 200 square feet of gross floor area. Overall, the project would provide 42 parking spaces. The traffic study determined that the 42 parking spaces would satisfy the project's shared (combined) parking demand based on ITE *Parking Generation* rates:

**Table II
Project Parking Demand**

Land Use	Units	Weekday		Weekend	
		Rate	Spaces	Rate	Spaces
Residential Condominium	16 du	1.38	22	1.12	18
Specialty Retail Center	3.2 ksf	2.55	8	2.87	9
Shared Parking Demand*			29		27

Note: du = dwelling unit; ksf = 1,000 square feet; * see enclosed shared parking analysis for calculations; Parking demand rates per ITE *Parking Generation*, 4th Edition

(g): The City’s adopted requirements for alternative transportation solutions per CMC Sec. 21.28.070 require provision bicycle and clean-air vehicle parking subject to the Green Building Standards Code (CALGreen). The project will provide these facilities, and therefore, will not conflict with adopted policies, plans, or programs supporting alternative transportation.

17. UTILITIES and SERVICE SYSTEMS

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Require or result in the construction of new water or wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f)	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g)	Comply with federal, state, and local statutes and regulations related to solid wastes.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a to b): The utilities for the proposed project, including sewage disposal, would require the construction of a publicly maintained on-site sewer system and off-site sewer improvements. The project would not generate significant amounts of wastewater, and would therefore not exceed wastewater treatment requirements for the Regional Water Quality Control Board. The West Valley Sanitation District has provided written correspondence ("will serve" letter) which indicates that the sewer facilities, with the construction of on- and off-site improvements, are adequate to support the site (reference Attachment 7).

(c): The stormwater runoff generated by the project site would be collected and treated on-site in compliance with Provision C.3 of the National Pollution Discharge Elimination System (NPDES) requirements as discussed in Section 9 (Hydrology and Water Quality) and will not require expansion or construction of new stormwater treatment facilities. Therefore, the proposed drainage facility for the project site would not cause any significant environmental effects.

(d): The project will be adequately served by the existing water supplies, as confirmed in written correspondence ("will serve" letter) by San Jose Water Company, the local area water utility (reference Attachment 7).

(e): The project would connect to the existing waste water treatment system, which currently has sufficient capacity to receive the additional waste water generated from the proposed project. Therefore, the project would not impact the ability of the waste water treatment provider to meet its current commitments for service.

(f to g): Existing capacity at local landfills can accommodate the amount of waste generated as a result of project operation. The project would comply with Federal, State and local statutes and regulations related to solid waste.

18. MANDATORY FINDINGS OF SIGNIFICANCE

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a): Based on the findings of the Initial Study, construction and operation of the project, with mitigation, would not substantially degrade the quality the environment; reduce the habitat, population, or range of species; nor eliminate important examples of California history or prehistory.

(b): Based on the findings of this Initial Study, the project would not have individual or cumulative environmental impacts that cannot be mitigated to a less than significant level.

(c): Based on the findings of the Initial Study, there is no evidence to demonstrate that the project would cause a substantial adverse effect on human beings, either directly or indirectly.

III. RECOMMENDATION and DETERMINATION

On the basis of this initial evaluation, and incorporation of the recommended mitigation measures into the project design:

1.	I find that the project could not have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
2.	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.	<input checked="" type="checkbox"/>
3.	I find the proposed project may have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	<input type="checkbox"/>
4.	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.	<input type="checkbox"/>
5.	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	<input type="checkbox"/>

Daniel Fama
PROJECT PLANNER

Associate Planner
TITLE

City of Campbell
AGENCY



SIGNATURE

October 8, 2014
DATE

IV. REFERENCE MATERIALS

Attachments (May be viewed online on the City of Campbell 'Public Notices' web page (<http://www.cityofcampbell.com/501/Public-Notices>) under 'Environmental Notices' or at the Campbell Community Development Department office (70 N First St., Campbell, CA 95008) during normal business hours).

1. Draft TAC and GHG Emissions Assessments by Illingworth and Rodkin, Inc, dated August 27, 2014
2. An Evaluations of Existing Trees by Michael L. Bench, dated July 24, 2014
3. Phase I Environmental Site Assessment by RRM, Inc dated March 27, 2007
4. Geotechnical Investigation by AMSO Consulting Engineers, dated June 26, 2008
5. Environmental Noise Assessment by Illingworth dated September 5, 2014
6. Draft Traffic Study by W-Trans, dated August 28, 2014
7. "Will Serve" Letters

Reference Documents:

1. Bay Area Air Quality Management District (BAAQMD), June 2010, CEQA Air Quality Guidelines.
2. Bay Area Air Quality Management District (BAAQMD), December 2008, Source Inventory of Bay Area Greenhouse Gas Emissions.
3. California Environmental Protection Agency (CEPA) California Air Resources Board (CARB), April 2005, Air Quality and Land Use Handbook: A Community Health Perspective.
4. California Environmental Protection Agency (CEPA) California Air Resources Board (CARB), November 16, 2007, Staff Report: California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit.
5. California Natural Diversity Database, 2000.
6. California Office of Planning and Research (OPR), June 19, 2008, Technical Advisory: CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review.
7. CEQA Guidelines, 2012 version.
8. City of Campbell General Plan.
9. City of Campbell Zoning Code.
10. Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, Community Map Number 06085C0241H, Effective Date May 18, 2009.
11. State of California, Seismic Hazard Zones Map, San Jose West Quadrangle, February 7, 2002.
12. U.S. Environmental Protection Agency, April 15, 2009, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007.

ATTACHMENT 1

DRAFT TAC AND GHG EMISSIONS ASSESSMENTS

***2295/2305 SOUTH WINCHESTER MIXED-USE
RESIDENTIAL DEVELOPMENT
DRAFT TAC AND GHG EMISSIONS
ASSESSMENT
CAMPBELL, CALIFORNIA***

August 27, 2014



Prepared for:

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Project: 14-132

Introduction

The purpose of this report is to address toxic air contaminant (TAC) and greenhouse gas (GHG) emission impacts associated with the proposed mixed-use residential development project. The project would entail the construction of 16 condominiums and 3,200 square feet of retail on an approximately 0.57-acre site located on two vacant parcels at 2295 and 2305 S. Winchester Boulevard in Campbell, California. The site is mostly flat and there would be minimal import or export of soils. Parking would be at ground-level.

Community risk and GHG impacts could occur due to temporary construction emissions and as a result of direct and indirect emissions from new occupants. Additionally, nearby sources of TAC emissions were assessed for operational impacts to proposed residences. This analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).

Setting

The project is located in the northern portion of the Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}).

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and Federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the state's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.¹ The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The Bay Area Air Quality Management District (BAAQMD) is the regional agency tasked with managing air quality in the region. At the State level, the California Air Resources Board (a part of the California Environmental Protection Agency) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has recently published CEQA Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.²

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. The closest off-site sensitive receptors are residences adjacent to the western project site boundary. There is also a school, St. Lucy's Parish School (Kindergarten through 8th grade and preschool), across the street from the project site on the western site of South Winchester Boulevard. The project would include residences, which are considered sensitive receptors.

Greenhouse Gases

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO₂) and water vapor but there are also several

¹ Available online: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. Accessed: July 11, 2012.

² Bay Area Air Quality Management District. 2011. BAAQMD CEQA Air Quality Guidelines. May.

others, most importantly methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). These are released into the earth's atmosphere through a variety of natural processes and human activities.

Sources of GHGs are generally as follows:

- CO₂ and N₂O are byproducts of fossil fuel combustion.
- N₂O is associated with agricultural operations such as fertilization of crops.
- CH₄ is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO₂ being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger with a GWP of 23,900. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO₂ equivalents (CO₂e).

An expanding body of scientific research supports the theory that global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These Thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on BAAQMD's website and included in the Air District's updated CEQA Guidelines (updated May 2011). The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 1. These thresholds are considered the best available information available to assess air quality and greenhouse gas emission impacts from land use projects.

BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in California Building

Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). The order requires BAAQMD to set aside its approval of the thresholds until it has conducted environmental review under CEQA. The ruling made in the case concerned the environmental impacts of adopting the thresholds and how the thresholds would indirectly affect land use development patterns. In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds. However, this litigation remains pending as the California Supreme Court recently accepted a portion of CBIA's petition to review the appellate court's decision to uphold BAAQMD's adoption of the thresholds. The specific portion of the argument to be considered is in regard to whether CEQA requires consideration of the effects of the environment on a project (as contrasted to the effects of a proposed project on the environment). Therefore, the significance thresholds contained in the 2011 CEQA Air Quality Guidelines are applied to this project.

Table 1. Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82	82	15
PM _{2.5}	54	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources			
Excess Cancer Risk	10 per one million		
Chronic or Acute Hazard Index	1.0		
Incremental annual average PM _{2.5}	0.3 µg/m ³		
Health Risks and Hazards for Sensitive Receptors (Cumulative from all sources within 1,000 foot zone of influence) and Cumulative Thresholds for New Sources			
Excess Cancer Risk	100 per one million		
Chronic Hazard Index	10.0		
Annual Average PM _{2.5}	0.8 µg/m ³		
Greenhouse Gas Emissions			
GHG Annual Emissions	1,100 metric tons or 4.6 metric tons per capita		
Note: ROG = reactive organic gases, NO _x = nitrogen oxides, PM ₁₀ = coarse particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM _{2.5} = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas.			

Impacts and Mitigation Measures

Impact: Conflict with or obstruct implementation of the applicable air quality plan?
Less than significant with construction period

The most recent clean air plan is the *Bay Area 2010 Clean Air Plan* that was adopted by BAAQMD in September 2010. The proposed project would not conflict with the latest Clean Air planning efforts since the project would have emissions well below the BAAQMD thresholds (see Impact 2), and development would be near existing transit with regional connections. The project, at 16 multi-family residences and 3,200-square feet of retail uses, is too small to exceed any of the significance thresholds and, thus, it is not required to incorporate project-specific transportation control measures listed in the latest Clean Air Plan

Impact: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? *Less than significant with construction period best management control measures.*

The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter (PM_{2.5}) under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM₁₀) under the California Clean Air Act, but not the Federal act. The area has attained both State and Federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM₁₀, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO_x), PM₁₀ and PM_{2.5} and apply to both construction period and operational period impacts.

Due to the project size, construction exhaust and operational period emissions would be less than significant. In their 2011 update to the *CEQA Air Quality Guidelines*, BAAQMD identified the size of land use projects that could result in significant air pollutant emissions. For construction exhaust impacts, the residential townhouse size was identified at 240 dwelling units and 277 thousand square feet for retail uses. For operational impacts, the project size was identified at 451 dwelling units and 99 thousand square feet of retail uses. Since the project proposes 16 townhomes and 3,200 square feet of retail, it is concluded that emissions would be well below the BAAQMD significance thresholds for both construction exhaust and operational emissions.

However, construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near

the source, while fine particles would be dispersed over greater distances from the construction site. The BAAQMD *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. According to the project applicant, the project would implement BAAQMD-recommended best management practices, shown below as Construction BMPs. Because the project would be below the screening size for both construction exhaust and operational period emissions, and because the project would implement BAAQMD-recommended BMPs to control fugitive dust during construction, this impact is considered *less than significant*.

Construction BMPs: Include measures to control dust emissions.

Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality and fugitive dust-related impacts associated with grading and new construction to a less than significant. The contractor shall implement the following Best Management Practices that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. 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.
6. 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.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency 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.

Impact: Violate any air quality standard or contribute substantially to an existing or projected air quality violation? *Less than significant*

As discussed under Impact 2, the project would have emissions less than the BAAQMD screening size for evaluating impacts related to ozone and particulate matter. Therefore, the project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. There is an ambient air quality monitoring station in San Jose that measures carbon monoxide concentrations. The highest measured level over any 8-hour averaging period during the last 3 years is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the project would have traffic volumes less than the BAAQMD screening criteria and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards.³

Impact: Expose sensitive receptors to substantial pollutant concentrations? *Less than significant with construction period mitigation measures*

Sensitive receptors are locations where an identifiable subset of the general population (children, asthmatics, the elderly, and the chronically ill) that is at greater risk than the general population to the effects of air pollutants are likely to be exposed. These locations include residences, schools, playgrounds, childcare centers, retirement homes, hospitals, and medical clinics. The closest off-site sensitive receptors are residences adjacent to the western project site boundary. There is also a school, St. Lucy's Parish School (Kindergarten through 8th grade and preschool), across the street from the project site on the western site of South Winchester Boulevard.

Construction activity would generate dust and equipment exhaust on a temporary basis. Impacts from project construction and nearby operational TAC sources are addressed below. Operation of the project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels, however nearby sources of TAC emissions such as roadways and stationary sources are analyzed for a potential future impact on proposed residences.

Project Construction Activity

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless

³ For a land-use project type, the BAAQMD CEQA Air Quality Guidelines state that a proposed project would result in a less than significant impact to localized carbon monoxide concentrations if the project would not increase traffic at affected intersections to more than 44,000 vehicles per hour.

properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions.

Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known Toxic Air Contaminant (TAC). Diesel exhaust poses both potential health and nuisance impacts to nearby receptors. A community risk assessment of the project construction activities was conducted that evaluated potential health effects to sensitive receptors at nearby residences from construction emissions of diesel particulate matter (DPM) and PM_{2.5}.⁴ A dispersion model was used to predict the off-site DPM concentrations resulting from project construction so that lifetime cancer risks could be predicted. Figure 1 shows the project site and sensitive receptor locations (residences and school) used in the air quality dispersion modeling analysis where potential health impacts were evaluated.

Construction Emissions

The refined community risk assessment focused on modeling on-site construction activity. Construction period emissions were modeled using the California Emissions Estimator Model, Version 2013.2.2 (CalEEMod) using model defaults for a project of this type and size. Construction of the project is expected to occur over an approximate six month period beginning in January 2015. The CalEEMod model provided total annual PM_{2.5} exhaust emissions (assumed to be diesel particulate matter) for the off-road construction equipment and for exhaust emissions from on-road vehicles (vendor trucks and worker vehicles), with total emissions of 0.0495 tons (99 pounds). The on-road emissions are a result of worker travel and vendor deliveries during construction activities. A trip length of 0.3 miles was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive PM_{2.5} dust emissions were calculated by CalEEMod as 1.1 pounds for the overall construction period. The project emission calculations are provided in *Attachment 1*.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and PM_{2.5} concentrations at existing sensitive receptors (residences and school) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.⁵ Emission sources for the construction site were grouped into two categories, exhaust emissions of DPM and fugitive PM_{2.5} dust emissions. The AERMOD modeling utilized two area sources to represent the on-site construction emissions, one for DPM exhaust emissions and the other for fugitive PM_{2.5} dust emissions. For the exhaust emissions from construction equipment an emission release height of six meters was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the

⁴ DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

⁵ Bay Area Air Quality Management District (BAAQMD), 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0*. May.

exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. For modeling fugitive PM_{2.5} emissions, a near-ground level release height of two meters was used for the area source. Emissions from vehicle travel around the project site were included in the modeled area sources. Construction emissions were modeled as occurring daily between 7 a.m. and 4 p.m.

The modeling used a five-year data set (2006 - 2010) of hourly meteorological data from the San Jose Airport prepared by the BAAQMD for use with the AERMOD model. Annual DPM and PM_{2.5} concentrations from construction activities in 2015 were calculated using the model. DPM and PM_{2.5} concentrations were calculated at nearby sensitive receptors at a receptor height of 1.5 meters (4.9 feet). Figure 1 shows the construction area modeled and locations of nearby sensitive receptors.

Predicted Cancer Risk and Hazards

The maximum modeled DPM and PM_{2.5} concentrations occurred at a residence northwest of the project site on El Caminito Avenue. The location of this receptor is identified on Figure 1. Increased cancer risks were calculated using the modeled concentrations and BAAQMD-recommended risk assessment methods for both a child exposure (3rd trimester through 2 years of age) and adult exposure.⁶ The cancer risk calculations were based on applying the BAAQMD-recommended age sensitivity factors to the DPM exposures. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. BAAQMD-recommended exposure parameters were used for the cancer risk calculations.⁷ Infant and child exposures were assumed to occur at all residences during the entire construction period and a child exposure was assumed to occur for the children at the St. Lucy's Parish School.

Results of this assessment indicate that for project construction the incremental residential child cancer risk at the maximally exposed individual (MEI) receptor would be 8.5 in one million and the incremental residential adult cancer risk would be 0.4 in one million. The maximum school child increased cancer risk would be 3.4 in one million. These increased cancer risks would be lower than the BAAQMD significance threshold of a cancer risk of 10 in one million and would be considered a *less-than-significant impact*.

The maximum modeled annual PM_{2.5} concentration was 0.13 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) occurring at the St. Lucy's Parish School. This PM_{2.5} concentration is lower than the BAAQMD significance threshold of 0.3 $\mu\text{g}/\text{m}^3$ used to judge the significance of health impacts from PM_{2.5}. This would be considered a *less-than-significant impact*.

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. Non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). California's Office of Environmental Health and Hazards (OEHHA) has defined acceptable concentration levels for

⁶ Bay Area Air Quality Management District (BAAQMD), 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May.

⁷ Bay Area Air Quality Management District (BAAQMD), 2010, *Air Toxics NSR Program Health Risk Screening Analysis Guidelines*, January.

contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The chronic inhalation REL for DPM is $5 \mu\text{g}/\text{m}^3$. The maximum modeled annual residential DPM concentration was $0.13 \mu\text{g}/\text{m}^3$, which is much lower than the REL. The maximum computed hazard index based on this DPM concentration is 0.03 which is much lower than the BAAQMD significance criterion of a hazard index greater than 1.0. *Attachment 2* includes the emission calculations used for the area source modeling and the cancer risk calculations.

The project would have a *less-than-significant impact* with respect to community risk caused by construction activities.

Project Operation

Operation of this residential project is not considered a source of TAC or $\text{PM}_{2.5}$ emissions. As a result, the project operation would not cause emissions that expose sensitive receptors to unhealthy air pollutant levels. Because the project would not be a source of TACs, it would not contribute cumulatively to unhealthy exposure to TACs.

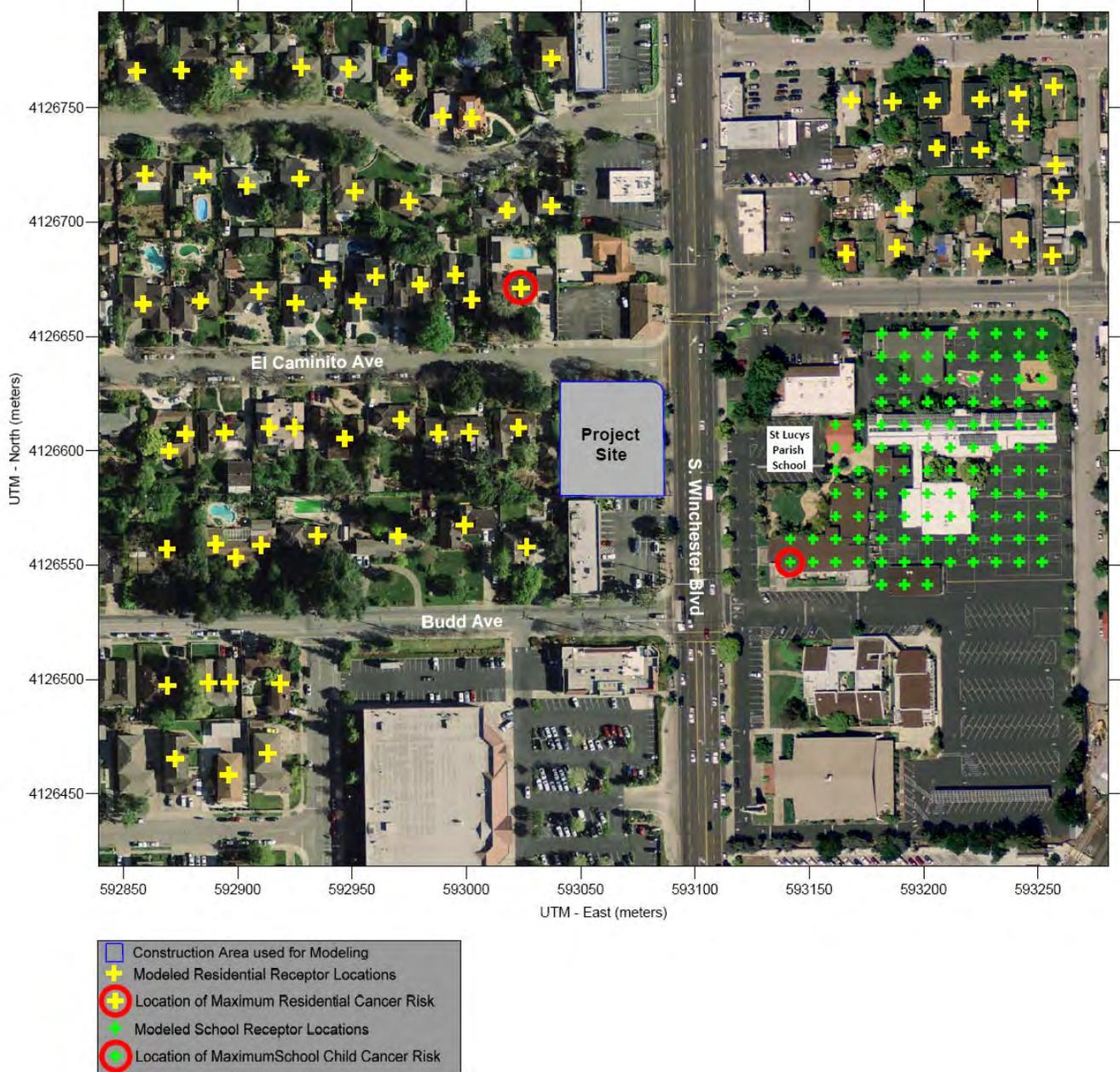
The project would include new sensitive receptors. Substantial sources of air pollution can adversely affect sensitive receptors proposed as part of new projects. A review of the area indicates that there are roadways within 1,000 feet of the site that could adversely affect new residences and one stationary source of air pollution with substantial reported screening risk is located near the site. There are thresholds that address both the impact of single and cumulative TAC sources upon projects that include new sensitive receptors. The analysis of the local surface streets used screening data provided by BAAQMD to identify the potential cancer risk and $\text{PM}_{2.5}$ exposure risks. The potential impact from the stationary source is described below.

Impacts from Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using the BAAQMD's *Stationary Source Risk and Hazard Analysis Tool*. This mapping tool uses Google Earth to identify the location of stationary sources and their estimated risk and hazard impacts. One drycleaners was identified within 1,000 feet of the site. Note that Dry Cleaners are phasing out the use of perchloroethylene or "perc" (the TAC causing cancer risk) as required by State law. The use of TACs in dry cleaning operations will be completely phased out by 2023. Correspondence with Campbell Plaza Cleaners (BAAQMD Source 11736) indicated that their drycleaning process involves a new non-perchloroethylene machine. Therefore, it is concluded that no cancerous chemicals are released from the cleaners, and it does not pose a risk to the project site.⁸

⁸ Correspondence between Joshua Carman, Illingworth & Rodkin, and Campbell Plaza Cleaners, August 26, 2014.

Figure 1. Project Construction Site and Locations of Sensitive Receptors and Maximum Cancer Risks



Impacts from Local Surface Streets

Traffic on high volume roadways is a source of TAC emissions that may adversely affect sensitive receptors in close proximity to the roadway. For roadways, BAAQMD has published screening tables and data to determine if roadways with traffic volumes of over 10,000 vehicles per day may have a significant effect on a proposed project. Based on data provided by the City of Campbell Public Works Department,⁹ S. Winchester Boulevard has an average daily traffic (ADT) volume of about 24,000 in the vicinity of the project. This count was made in 2006, but it can be assumed that traffic volumes do not exceed 30,000 ADT. Other nearby roadways are assumed in this analysis to have less than 10,000 average daily trips.

Using the BAAQMD *Roadway Screening Analysis Table* for Santa Clara County for north-south directional roadways and at a distance of 10 feet and traffic volume of 30,000 ADT, estimated cancer risk from S. Winchester Boulevard at the project site would be 6.3 in one million, which is below the BAAQMD community risk significance threshold of 10 in one million. The estimated PM_{2.5} concentration of 0.24 µg/m³ and a HI of less than 0.03 associated with this source would be below the BAAQMD community risk significance thresholds, as well. This would be considered a *less-than-significant* impact.

Cumulative Community Risk Impacts

As the only nearby source identified by BAAQMD screening tools, excess risk and hazards from S. Winchester Based would also not exceed the cumulative source thresholds of significance identified by BAAQMD (see Table 1) and this would be considered a *less-than-significant* impact.

Impact: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? *Less than significant*

The BAAQMD May 2011 CEQA Guidelines included GHG emissions-based significance thresholds. These thresholds include a “bright-line” emissions level of 1,100 metric tons per year for land-use type projects and 10,000 metric tons per year for stationary sources. Land use projects with emissions above the 1,100 metric ton per year threshold would then be subject to a GHG efficiency threshold of 4.6 metric tons per year per capita. Projects with emissions above the thresholds would be considered to have an impact, which, cumulatively, would be significant.

CalEEMod Modeling

CalEEMod was also used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model. The use of this model for evaluating emissions from land

⁹ E-mail correspondence between Joshua Carman, Illingworth & Rodkin, and Matthew Jue, City of Campbell Traffic Engineer, August 26, 2014.

use projects is recommended by the BAAQMD. Unless otherwise noted below, the CalEEMod model defaults for Santa Clara County were used. CalEEMod provides emissions for transportation, areas sources, electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport. CalEEMod output worksheets are included in *Attachment 1*.

Land Use Descriptions

The proposed project land uses were input into CalEEMod, which included 16 dwelling units of “Condo/Townhouse,” 3,200 square feet of retail entered as “Strip Mall,” and 40 parking lot spaces on a 0.57-acre site.

Trip Generation Rates

The following default CalEEMod trip rates were used in the model: Condo/Townhouse – 6.59 daily trips per weekday, and Strip Mall – 44.32 trips per weekday. The default trip lengths and trip types specified by CalEEMod for Santa Clara County were used.

Model Year

The model uses mobile emission factors from the California Air Resources Board’s EMFAC2011 model. This model is sensitive to the year selected, since vehicle emissions have and continue to be reduced due to fuel efficiency standards and low carbon fuels. The year 2016 was analyzed since it is the first full year that the project could conceivably be occupied.

Energy

Default rates for energy consumption were assumed in the model. Emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric utility’s (PG&E) projected 2016 CO₂ intensity rate. This 2016 rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. CalEEMod uses a default rate of 641.35 pounds of CO₂ per megawatt of electricity produced. The derived 2016 rate for PG&E was estimated at 370 pounds of CO₂ per megawatt of electricity delivered and is based on the California Public Utilities Commission (CPUC) GHG Calculator.¹⁰

Other Inputs

Default model assumptions for GHG emissions associated with area sources, solid waste generation and water/wastewater use were applied to the project. The project would be located approximately 0.2 miles from the VTA Winchester light-rail transit hub. This information was input to the model which, by the nature of the model, is included in the mitigated output.

Construction Emissions

GHG emissions associated with construction were computed to be 73 MT of CO₂e, anticipated to occur over the entire construction period. These are the emissions from on-site operation of construction equipment, vendor truck trips, and worker trips. BAAQMD does not have an adopted Threshold of Significance for construction-related GHG emissions, though the District recommends quantifying emissions and disclosing that GHG emissions would occur during

¹⁰ California Public Utilities Comissions GHG Calculator version 3c, October 7, 2010. Available on-line at: http://ethree.com/public_projects/cpuc2.php. Accessed: August 27, 2014.

construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable. Best management practices assumed to be incorporated into construction of the proposed project include, but are not limited to: using local building materials of at least 10 percent and recycling or reusing at least 50 percent of construction waste or demolition materials.

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to predict daily emissions associated with operation of the fully-developed site under the proposed project. In 2016, annual emissions resulting from operation of the proposed project are predicted to be 195 MT of CO₂e. These emissions would not exceed the BAAQMD threshold of 1,100 MT of CO₂e/yr. Therefore, *this would be a less than significant impact*. Table 2 shows predicted project GHG emissions.

Table 2. Annual Project GHG Emissions in Metric Tons

Source Category	2016 Project Emissions
Area	1
Energy Consumption	38
Mobile	148
Solid Waste Generation	5
Water Usage	3
Project Total	195
BAAQMD Threshold	1,100 MT CO ₂ e/year

Impact: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? *No Impact.*

The project would be subject to new requirements under rule making developed at the State and local level, regarding greenhouse gas emissions and be subject to local policies that may regulate emissions of greenhouse gases.

Attachment 1: CalEEMod Input and Output Worksheets and Construction Schedule

**2295/2305 S. Winchester Blvd, Campbell
Santa Clara County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	16.00	Dwelling Unit	0.57	16,510.00	46
Strip Mall	3.20	1000sqft	0.00	3,200.00	0
Parking Lot	40.00	Space	0.00	16,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4	Operational Year		2016	
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	370	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor (370 lb/MWh) for 2016 obtained from CPUC GHG Calculator version 3c.
 Land Use - Lot acreage and project square footage from project description and plan drawings.
 Construction Phase -
 Architectural Coating -
 Woodstoves - No woodstoves or wood fireplaces, possible gas-powered fireplaces.
 Energy Use - No change.
 Mobile Land Use Mitigation - 0.2 miles to VTA Winchester light-rail transit hub.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	92.40	0.00
tblFireplaces	NumberGas	8.80	16.00
tblFireplaces	NumberNoFireplace	4.96	0.00
tblFireplaces	NumberWood	2.24	0.00
tblLandUse	LandUseSquareFeet	16,000.00	16,510.00
tblLandUse	LotAcreage	1.00	0.57
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.36	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	370
tblProjectCharacteristics	OperationalYear	2014	2016
tblWoodstoves	NumberCatalytic	0.08	0.00
tblWoodstoves	NumberNoncatalytic	0.08	0.00
tblWoodstoves	WoodstoveDayYear	10.82	0.00
tblWoodstoves	WoodstoveWoodMass	954.80	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.2218	0.8079	0.5444	7.9000e-004	0.0119	0.0542	0.0661	3.3700e-003	0.0500	0.0533	0.0000	72.6333	72.6333	0.0178	0.0000	73.0067
Total	0.2218	0.8079	0.5444	7.9000e-004	0.0119	0.0542	0.0661	3.3700e-003	0.0500	0.0533	0.0000	72.6333	72.6333	0.0178	0.0000	73.0067

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.2218	0.8079	0.5444	7.9000e-004	0.0119	0.0542	0.0661	3.3700e-003	0.0500	0.0533	0.0000	72.6332	72.6332	0.0178	0.0000	73.0066
Total	0.2218	0.8079	0.5444	7.9000e-004	0.0119	0.0542	0.0661	3.3700e-003	0.0500	0.0533	0.0000	72.6332	72.6332	0.0178	0.0000	73.0066

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1569	1.4100e-003	0.1209	1.0000e-005		7.1000e-004	7.1000e-004		7.0000e-004	7.0000e-004	0.0000	0.9640	0.9640	2.1000e-004	1.0000e-005	0.9729
Energy	1.7200e-003	0.0148	6.4400e-003	9.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	37.2709	37.2709	1.9100e-003	6.4000e-004	37.5096
Mobile	0.1382	0.2643	1.2631	2.2600e-003	0.1617	3.3000e-003	0.1650	0.0432	3.0300e-003	0.0463	0.0000	178.3801	178.3801	7.9300e-003	0.0000	178.5467
Waste						0.0000	0.0000		0.0000	0.0000	2.1761	0.0000	2.1761	0.1286	0.0000	4.8767
Water						0.0000	0.0000		0.0000	0.0000	0.4059	1.6333	2.0393	0.0418	1.0100e-003	3.2309
Total	0.2969	0.2805	1.3904	2.3600e-003	0.1617	5.2000e-003	0.1669	0.0432	4.9200e-003	0.0481	2.5820	218.2484	220.8304	0.1805	1.6600e-003	225.1368

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1569	1.4100e-003	0.1209	1.0000e-005		7.1000e-004	7.1000e-004		7.0000e-004	7.0000e-004	0.0000	0.9640	0.9640	2.1000e-004	1.0000e-005	0.9729
Energy	1.7200e-003	0.0148	6.4400e-003	9.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	37.2709	37.2709	1.9100e-003	6.4000e-004	37.5096
Mobile	0.1326	0.2273	1.1273	1.8700e-003	0.1327	2.7700e-003	0.1355	0.0355	2.5500e-003	0.0380	0.0000	147.9250	147.9250	6.7400e-003	0.0000	148.0665

Waste						0.0000	0.0000		0.0000	0.0000	2.1761	0.0000	2.1761	0.1286	0.0000	4.8767
Water						0.0000	0.0000		0.0000	0.0000	0.4059	1.6333	2.0393	0.0418	1.0100e-003	3.2302
Total	0.2912	0.2435	1.2546	1.9700e-003	0.1327	4.6700e-003	0.1374	0.0355	4.4400e-003	0.0399	2.5820	187.7933	190.3752	0.1793	1.6600e-003	194.6560

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.90	13.20	9.77	16.53	17.89	10.19	17.65	17.89	9.76	17.08	0.00	13.95	13.79	0.66	0.00	13.54

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/1/2015	5	1	
2	Grading	Grading	1/2/2015	1/5/2015	5	2	
3	Building Construction	Building Construction	1/6/2015	5/25/2015	5	100	
4	Paving	Paving	5/26/2015	6/1/2015	5	5	
5	Architectural Coating	Architectural Coating	6/2/2015	6/8/2015	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 33,433; Residential Outdoor: 11,144; Non-Residential Indoor: 5,520; Non-Residential Outdoor: 1,840 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	19.00	5.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e-004	7.1500e-003	3.7000e-003	0.0000		4.4000e-004	4.4000e-004		4.0000e-004	4.0000e-004	0.0000	0.4466	0.4466	1.3000e-004	0.0000	0.4494
Total	7.1000e-004	7.1500e-003	3.7000e-003	0.0000	2.7000e-004	4.4000e-004	7.1000e-004	3.0000e-005	4.0000e-004	4.3000e-004	0.0000	0.4466	0.4466	1.3000e-004	0.0000	0.4494

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0208	0.0208	0.0000	0.0000	0.0208
Total	1.0000e-005	1.0000e-005	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0208	0.0208	0.0000	0.0000	0.0208

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e-004	7.1500e-003	3.7000e-003	0.0000		4.4000e-004	4.4000e-004		4.0000e-004	4.0000e-004	0.0000	0.4466	0.4466	1.3000e-004	0.0000	0.4494
Total	7.1000e-004	7.1500e-003	3.7000e-003	0.0000	2.7000e-004	4.4000e-004	7.1000e-004	3.0000e-005	4.0000e-004	4.3000e-004	0.0000	0.4466	0.4466	1.3000e-004	0.0000	0.4494

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0208	0.0208	0.0000	0.0000	0.0208
Total	1.0000e-005	1.0000e-005	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0208	0.0208	0.0000	0.0000	0.0208

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4100e-003	0.0119	8.8100e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.4000e-004	8.4000e-004	0.0000	1.0892	1.0892	2.2000e-004	0.0000	1.0939
Total	1.4100e-003	0.0119	8.8100e-003	1.0000e-005	7.5000e-004	8.7000e-004	1.6200e-003	4.1000e-004	8.4000e-004	1.2500e-003	0.0000	1.0892	1.0892	2.2000e-004	0.0000	1.0939

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	5.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0831	0.0831	0.0000	0.0000	0.0832
Total	4.0000e-005	6.0000e-005	5.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0831	0.0831	0.0000	0.0000	0.0832

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4100e-003	0.0119	8.8100e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.4000e-004	8.4000e-004	0.0000	1.0892	1.0892	2.2000e-004	0.0000	1.0939
Total	1.4100e-003	0.0119	8.8100e-003	1.0000e-005	7.5000e-004	8.7000e-004	1.6200e-003	4.1000e-004	8.4000e-004	1.2500e-003	0.0000	1.0892	1.0892	2.2000e-004	0.0000	1.0939

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	5.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0831	0.0831	0.0000	0.0000	0.0832
Total	4.0000e-005	6.0000e-005	5.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0831	0.0831	0.0000	0.0000	0.0832

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0727	0.7189	0.4149	5.7000e-004		0.0500	0.0500		0.0460	0.0460	0.0000	54.0547	54.0547	0.0161	0.0000	54.3936
Total	0.0727	0.7189	0.4149	5.7000e-004		0.0500	0.0500		0.0460	0.0460	0.0000	54.0547	54.0547	0.0161	0.0000	54.3936

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3100e-003	0.0287	0.0360	6.0000e-005	1.6100e-003	4.7000e-004	2.0800e-003	4.6000e-004	4.3000e-004	8.9000e-004	0.0000	5.4693	5.4693	5.0000e-005	0.0000	5.4703
Worker	3.9400e-003	5.5500e-003	0.0540	1.0000e-004	8.6500e-003	7.0000e-005	8.7200e-003	2.3000e-003	7.0000e-005	2.3700e-003	0.0000	7.8942	7.8942	4.5000e-004	0.0000	7.9036
Total	7.2500e-003	0.0343	0.0900	1.6000e-004	0.0103	5.4000e-004	0.0108	2.7600e-003	5.0000e-004	3.2600e-003	0.0000	13.3635	13.3635	5.0000e-004	0.0000	13.3739

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0727	0.7189	0.4149	5.7000e-004		0.0500	0.0500		0.0460	0.0460	0.0000	54.0546	54.0546	0.0161	0.0000	54.3935
Total	0.0727	0.7189	0.4149	5.7000e-004		0.0500	0.0500		0.0460	0.0460	0.0000	54.0546	54.0546	0.0161	0.0000	54.3935

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3100e-003	0.0287	0.0360	6.0000e-005	1.6100e-003	4.7000e-004	2.0800e-003	4.6000e-004	4.3000e-004	8.9000e-004	0.0000	5.4693	5.4693	5.0000e-005	0.0000	5.4703
Worker	3.9400e-003	5.5500e-003	0.0540	1.0000e-004	8.6500e-003	7.0000e-005	8.7200e-003	2.3000e-003	7.0000e-005	2.3700e-003	0.0000	7.8942	7.8942	4.5000e-004	0.0000	7.9036
Total	7.2500e-003	0.0343	0.0900	1.6000e-004	0.0103	5.4000e-004	0.0108	2.7600e-003	5.0000e-004	3.2600e-003	0.0000	13.3635	13.3635	5.0000e-004	0.0000	13.3739

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0200e-003	0.0289	0.0184	3.0000e-005		1.8100e-003	1.8100e-003		1.6800e-003	1.6800e-003	0.0000	2.4801	2.4801	6.7000e-004	0.0000	2.4943
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0200e-003	0.0289	0.0184	3.0000e-005		1.8100e-003	1.8100e-003		1.6800e-003	1.6800e-003	0.0000	2.4801	2.4801	6.7000e-004	0.0000	2.4943

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.6000e-004	2.5600e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3739	0.3739	2.0000e-005	0.0000	0.3744
Total	1.9000e-004	2.6000e-004	2.5600e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3739	0.3739	2.0000e-005	0.0000	0.3744

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0200e-003	0.0289	0.0184	3.0000e-005		1.8100e-003	1.8100e-003		1.6800e-003	1.6800e-003	0.0000	2.4801	2.4801	6.7000e-004	0.0000	2.4943
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0200e-003	0.0289	0.0184	3.0000e-005		1.8100e-003	1.8100e-003		1.6800e-003	1.6800e-003	0.0000	2.4801	2.4801	6.7000e-004	0.0000	2.4943

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.6000e-004	2.5600e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3739	0.3739	2.0000e-005	0.0000	0.3744
Total	1.9000e-004	2.6000e-004	2.5600e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3739	0.3739	2.0000e-005	0.0000	0.3744

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1354					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	6.4300e-003	4.7500e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6401
Total	0.1364	6.4300e-003	4.7500e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6401

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	5.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0831	0.0831	0.0000	0.0000	0.0832
Total	4.0000e-005	6.0000e-005	5.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0831	0.0831	0.0000	0.0000	0.0832

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1354					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	6.4300e-003	4.7500e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6401
Total	0.1364	6.4300e-003	4.7500e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6401

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	5.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0831	0.0831	0.0000	0.0000	0.0832
Total	4.0000e-005	6.0000e-005	5.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0831	0.0831	0.0000	0.0000	0.0832

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1326	0.2273	1.1273	1.8700e-003	0.1327	2.7700e-003	0.1355	0.0355	2.5500e-003	0.0380	0.0000	147.9250	147.9250	6.7400e-003	0.0000	148.0665
Unmitigated	0.1382	0.2643	1.2631	2.2600e-003	0.1617	3.3000e-003	0.1650	0.0432	3.0300e-003	0.0463	0.0000	178.3801	178.3801	7.9300e-003	0.0000	178.5467

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	105.44	114.56	97.12	235,636	193,483
Parking Lot	0.00	0.00	0.00		
Strip Mall	141.82	134.53	65.38	199,990	164,213
Total	247.26	249.09	162.50	435,625	357,696

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.552322	0.058092	0.185339	0.123855	0.029634	0.004459	0.012625	0.022329	0.001774	0.001272	0.006012	0.000525	0.001763

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.2179	20.2179	1.5800e-003	3.3000e-004	20.3528
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.2179	20.2179	1.5800e-003	3.3000e-004	20.3528
NaturalGas Mitigated	1.7200e-003	0.0148	6.4400e-003	9.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	17.0530	17.0530	3.3000e-004	3.1000e-004	17.1568
NaturalGas Unmitigated	1.7200e-003	0.0148	6.4400e-003	9.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	17.0530	17.0530	3.3000e-004	3.1000e-004	17.1568

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	311594	1.6800e-003	0.0144	6.1100e-003	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.6278	16.6278	3.2000e-004	3.0000e-004	16.7290
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	7968	4.0000e-005	3.9000e-004	3.3000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4252	0.4252	1.0000e-005	1.0000e-005	0.4278
Total		1.7200e-003	0.0148	6.4400e-003	9.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	17.0530	17.0530	3.3000e-004	3.1000e-004	17.1568

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	311594	1.6800e-003	0.0144	6.1100e-003	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.6278	16.6278	3.2000e-004	3.0000e-004	16.7290
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	7968	4.0000e-005	3.9000e-004	3.3000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4252	0.4252	1.0000e-005	1.0000e-005	0.4278
Total		1.7200e-003	0.0148	6.4400e-003	9.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	17.0530	17.0530	3.3000e-004	3.1000e-004	17.1568

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	68979.2	11.5767	9.1000e-004	1.9000e-004	11.6540
Parking Lot	14080	2.3630	1.9000e-004	4.0000e-005	2.3788
Strip Mall	37408	6.2782	4.9000e-004	1.0000e-004	6.3201
Total		20.2179	1.5900e-003	3.3000e-004	20.3528

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	68979.2	11.5767	9.1000e-004	1.9000e-004	11.6540
Parking Lot	14080	2.3630	1.9000e-004	4.0000e-005	2.3788
Strip Mall	37408	6.2782	4.9000e-004	1.0000e-004	6.3201
Total		20.2179	1.5900e-003	3.3000e-004	20.3528

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1569	1.4100e-003	0.1209	1.0000e-005		7.1000e-004	7.1000e-004		7.0000e-004	7.0000e-004	0.0000	0.9640	0.9640	2.1000e-004	1.0000e-005	0.9729
Unmitigated	0.1569	1.4100e-003	0.1209	1.0000e-005		7.1000e-004	7.1000e-004		7.0000e-004	7.0000e-004	0.0000	0.9640	0.9640	2.1000e-004	1.0000e-005	0.9729

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0135					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.0000e-005	0.0000	0.0000	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7692	0.7692	1.0000e-005	1.0000e-005	0.7739
Landscaping	3.8300e-003	1.4100e-003	0.1209	1.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	0.1948	0.1948	2.0000e-004	0.0000	0.1990
Total	0.1569	1.4100e-003	0.1209	1.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	0.9640	0.9640	2.1000e-004	1.0000e-005	0.9729

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0135					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.0000e-005	0.0000	0.0000	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7692	0.7692	1.0000e-005	1.0000e-005	0.7739
Landscaping	3.8300e-003	1.4100e-003	0.1209	1.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	0.1948	0.1948	2.0000e-004	0.0000	0.1990
Total	0.1569	1.4100e-003	0.1209	1.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	0.9640	0.9640	2.1000e-004	1.0000e-005	0.9729

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.0393	0.0418	1.0100e-003	3.2302
Unmitigated	2.0393	0.0418	1.0100e-003	3.2309

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	1.04246 / 0.657206	1.6635	0.0341	8.2000e-004	2.6343
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.237032 / 0.145278	0.3758	7.7500e-003	1.9000e-004	0.5965
Total		2.0393	0.0418	1.0100e-003	3.2309

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	1.04246 / 0.657206	1.6635	0.0341	8.2000e-004	2.6338
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.237032 / 0.145278	0.3758	7.7500e-003	1.9000e-004	0.5964
Total		2.0393	0.0418	1.0100e-003	3.2302

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.1761	0.1286	0.0000	4.8767
Unmitigated	2.1761	0.1286	0.0000	4.8767

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	7.36	1.4940	0.0883	0.0000	3.3482

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	3.36	0.6821	0.0403	0.0000	1.5285
Total		2.1761	0.1286	0.0000	4.8767

Mitigated

Land Use	Waste Disposed tons	Total CO2 MT/yr	CH4	N2O	CO2e
Condo/Townhouse	7.36	1.4940	0.0883	0.0000	3.3482
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	3.36	0.6821	0.0403	0.0000	1.5285
Total		2.1761	0.1286	0.0000	4.8767

9.0 Operational Offroad

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

Attachment 2: Construction Health Risk Modeling Emissions and Risk Calculations

2295/2305 S. Winchester Blvd, Campbell, CA

DPM Construction Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2015	Construction	0.0495	CON_DPM	99.0	0.03014	3.80E-03	2,250	1.69E-06

Notes:

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
 days/yr = 365
 hours/year = 3285

PM2.5 Fugitive Dust Construction Emissions for Modeling

Construction Year	Activity	Area Source	Area (ton/year)	PM2.5 Emissions			Modeled Area (m ²)	PM2.5 Emission Rate g/s/m ²
				(lb/yr)	(lb/hr)	(g/s)		
2015	Construction	CON_FUG	0.00053	1.1	0.00032	4.07E-05	2,250	1.81E-08

Notes:

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
 days/yr = 365
 hours/year = 3285

2295/2305 S. Winchester Blvd, Campbell, CA - Construction Health Impact Summary

Construction Health Impact Summary - Residential Receptors

Construction Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m ³)
	Exhaust PM2.5/DPM (µg/m ³)	Fugitive PM2.5 (µg/m ³)	Child	Adult		
	2015 Maximum Annual	0.0975 0.0975	0.0022 0.0022	8.5 -	0.4 -	0.019 0.019

Maximum Impacts at St Lucys School Student Receptors

Construction Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m ³)
	Exhaust PM2.5/DPM (µg/m ³)	Fugitive PM2.5 (µg/m ³)	Child	Adult		
	2015 Maximum Annual	0.1277 0.1277	0.0016 0.0016	3.4	-	0.026 0.026

2295/2305 S. Winchester Blvd, Campbell, CA
Maximum DPM Cancer Risk Calculations From Construction
Off-Site Residential Receptor Locations - 1.5 meters

Cancer Risk (per million) = CPF x Inhalation Dose x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

Inhalation Dose = C_{air} x DBR x A x EF x ED x 10⁻⁶ / AT

Where: C_{air} = concentration in air (µg/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

AT = Averaging time period over which exposure is averaged.

10⁻⁶ = Conversion factor

Values

Parameter	Child	Adult
CPF =	1.10E+00	1.10E+00
DBR =	581	302
A =	1	1
EF =	350	350
AT =	25,550	25,550

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Child - Exposure Information			Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
		DPM Conc (ug/m3)		Exposure Adjust Factor		Modeled		Exposure Adjust Factor			
		Year	Annual			Year	Annual				
		Year	Annual	Factor		Year	Annual	Factor			
1	1	2015	0.0975	10	8.53	2015	0.0975	1	0.44	0.0022	0.100
2	1		0.0000	10	0.00		0.0000	1	0.00		
3	1		0.0000	4.75	0.00		0.0000	1	0.00		
4	1		0.0000	3	0.00		0.0000	1	0.00		
5	1		0.0000	3	0.00		0.0000	1	0.00		
6	1		0.0000	3	0.00		0.0000	1	0.00		
7	1		0.0000	3	0.00		0.0000	1	0.00		
8	1		0.0000	3	0.00		0.0000	1	0.00		
9	1		0.0000	3	0.00		0.0000	1	0.00		
10	1		0.0000	3	0.00		0.0000	1	0.00		
11	1		0.0000	3	0.00		0.0000	1	0.00		
12	1		0.0000	3	0.00		0.0000	1	0.00		
13	1		0.0000	3	0.00		0.0000	1	0.00		
14	1		0.0000	3	0.00		0.0000	1	0.00		
15	1		0.0000	3	0.00		0.0000	1	0.00		
16	1		0.0000	3	0.00		0.0000	1	0.00		
17	1		0.0000	1.5	0.00		0.0000	1	0.00		
18	1		0.0000	1	0.00		0.0000	1	0.00		
.		
.		
.		
65	1		0.0000	1	0.00		0.0000	1	0.00		
66	1		0.0000	1	0.00		0.0000	1	0.00		
67	1		0.0000	1	0.00		0.0000	1	0.00		
68	1		0.0000	1	0.00		0.0000	1	0.00		
69	1		0.0000	1	0.00		0.0000	1	0.00		
70	1		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk					8.53				0.44		

2295/2305 S. Winchester Blvd, Campbell, CA
Maximum DPM Cancer Risk Calculations From Construction
St Lucys Parish School

Cancer Risk (per million) = CPF x Inhalation Dose x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

Inhalation Dose = C_{air} x DBR x A x EF x ED x 10⁻⁶ / AT

Where: C_{air} = concentration in air (µg/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

AT = Averaging time period over which exposure is averaged.

10⁻⁶ = Conversion factor

Values

Parameter	Child	Adult
CPF =	1.10E+00	1.10E+00
DBR =	581	302
A =	1	1
EF =	350	350
AT =	25,550	25,550

Construction Cancer Risk by Year - Student Exposure

Year	Exposure Duration (years)	Student - Exposure Information		Exposure Adjust Factor*	Student Cancer Risk (per million)
		DPM Conc (ug/m3)			
		Year	Conc		
1	1	2014	0.1277	3	3.35
2	1		0.0000	3	0.00
3	1		0.0000	3	0.00
4	1		0.0000	3	0.00
5	1		0.0000	3	0.00
6	1		0.0000	3	0.00
7	1		0.0000	3	0.00
8	1		0.0000	3	0.00
9	1		0.0000	3	0.00
10	1		0.0000	3	0.00
11	1		0.0000	3	0.00
12	1		0.0000	3	0.00
13	1		0.0000	3	0.00
14	1		0.0000	1.5	0.00
15	1		0.0000	1	0.00
16	1		0.0000	1	0.00
17	1		0.0000	1	0.00
18	1		0.0000	1	0.00
.
.
.
65	1		0.0000	1	0.00
66	1		0.0000	1	0.00
67	1		0.0000	1	0.00
68	1		0.0000	1	0.00
69	1		0.0000	1	0.00
70	1		0.0000	1	0.00
Total Increased Cancer Risk					3.4

Fugitive PM2.5 0.0016
Total PM2.5 0.129

* Assumes that students at school are younger than 16 years of age for entire construction period

ATTACHMENT 2

TREE EVALUATION



Michael L. Bench
Consulting Arborist
(831) 594-5151

7327 Langley Canyon Road
Prunedale, California 93907

**An Evaluation of the Existing Trees
2295 and 2305 South Winchester Boulevard
Campbell, California**

Assignment

I was asked by Jeff Warmoth to prepare an Arborist's Report concerning the existing trees at 2295 and 2305 South Winchester Boulevard, Campbell, California.

The plans provided for this evaluation were: (1) A Topographic Survey, prepared by an unidentified surveyor, and (2) a Site Plan prepared by EDI International, Sheet A-2, dated June 28, 2014. I have marked up these plans, showing the locations of the trees included in this evaluation. I call these marked-up versions the Tree Maps, which are included in the attachments.

Methods

The trunks of the trees were measured using a diameter tape at 4 ½ feet above soil grade (referred to as DBH or Diameter at Breast Height), except those specimens whose form did not allow for a representative measurement at this height. The measurement for multi-stem specimens were taken below the lowest fork on the trunk when possible in accordance with the International Society of Arboriculture standards. The canopy height and spread were estimated using visual references only.

The condition of each tree was observed by visual assessment only from a standing position without climbing or using aerial equipment. No invasive equipment was used. Consequently, it is possible that individual tree(s) may have internal defects, which are not detectable by visual inspection. Invasive exploratory inspection and analysis is beyond the scope of this evaluation.

Observations

There are a total of 18 trees included in this inventory. Among these trees, twelve are located on this property. Five are street trees located in the public right of way. One tree is located on the adjacent property toward the west, because its canopy (and no doubt the root zone) extends onto this property. The trees have been tagged with metallic labels showing their assigned numbers. The labels are aluminum, round, 1 ¼ inches in diameter, and are affixed at about 7-8 feet above grade, typically facing the interior of the site. They are numbered Tree # 60-77. The locations of these 18 trees are shown on the Tree Maps, included in the attachments.

2295, 2305 South
Winchester Blvd.
Campbell, CA

The 18 trees are listed by number on the List of Trees, which follows this text. This data sheet provides the basic information about each tree, including the species, the trunk diameter(s), height, spread, health, and an estimate of structural integrity. The health and structural integrity is rated on a scale of 1-5: (1) Excellent, (2) Good, (3) Fair, (4) Poor, (5) Extremely Poor.

Working definitions of these ratings are: (1) “Excellent” indicates outstanding Health and Structural integrity without obvious structural weaknesses; (2) “Good” usually indicates fine Health but some observed Structural weakness, which can typically be improved by cabling or pruning; (3) “Fair” usually indicates less than desirable but stable Health and often indicates at least one significant structural weakness, which is not observed to be immediately threatening; (4) “Poor” indicates less than average Health, possibly a result of disease or insect infestation, presumed to be in slow decline with unlikely recovery; and (5) “Extremely Poor” indicates significantly declining health with no hope of recovery, and possibly Hazardous structural integrity. Bear in mind that these are rough definitions. There are many variations, all of which cannot be listed here.

Trees # 66 and 70 are Dead.

Risks by Proposed Construction

Trees # 60 – 71 are in conflict with proposed construction features and would be removed should the Retail Buildings and the Parking Areas be constructed as planned.

A 10 foot wide planter bed is proposed for the west side of the property. This would be sufficient width of this planter bed to expect the preservation of Trees # 72 and 73. If the neighbor does not irrigate Tree # 73, this tree may not survive, regardless of construction.

Should a Bio-Swale Retention Pond be constructed in the 10 wide planter bed, Trees # 72 and 73 may be at risk of survival.

The street Trees # 68, 74, 75, 76, and 77 would be preserved. Should any repairs of the sidewalk be required, the supervision of a consulting arborist would be recommended to assure their survival.

Tree Protection Plan

1. Tree Protective Fencing

At most construction sites, Tree Protective Fencing provides primary protection, because prevention of damage is the most effective method, in virtually all cases. The fencing must protect a sufficient portion of the root zone to be effective. In most cases, it would be essential to locate the fencing a minimum radius distance of 10 times the trunk diameter in all directions from the trunk. For example, a tree with a trunk diameter of 15 inches dbh (Diameter at Breast Height = 54 inches above grade) would require that protective fencing be erected 13 feet minimum from the trunk. If hardscape (i.e., curbing, paving, etc.) exists inside this 13 foot radius, the protective is usually recommended to be erected at the edge of the hardscape feature and be located at least 13 feet from the trunk minimum on all other sides. In my experience, the protective fencing must:

- Consist of chain link fencing and having a minimum height of 6 feet.
- Be mounted on steel posts driven approximately 2 feet into the soil.
- Fencing posts must be located a maximum of 10 feet on center.
- Protective fencing must be installed prior to the arrival of materials, vehicles, or equipment.
- Protective fencing must not be moved, even temporarily, and must remain in place until all construction is completed, unless approved by a certified arborist.

2. Trunk Wrap Protection

When the Project Arborist and the City have agreed that the Chain Link Tree Protective Fencing (Protection Item # 2) would interfere with safety or impossible (or sufficiently impractical) to achieve the approved work, the following trunk wrap protection may be used as a secondary alternative form of tree protection:

- a. Wrap the trunk with straw waddle (commonly used for erosion control). Coil around the trunk to a height of 8 feet above grade. Secure the straw waddle without damaging the trunk of the tree.
- b. Wrap the straw waddle with a double layer of orange plastic barrier fencing. Secure the plastic material to prevent uncoiling.
- c. Major scaffolding limbs may also require this wrap as determined by the Project Arborist.
- d. Damaged Waddle/Plastic Wrap must be replaced immediately.

3. Grading and Trenching

Typically there must be no grading, trenching, or excavation inside the driplines of protected trees, unless specifically approved by a certified arborist. At this location, excavation must be a minimum distance of 10 feet from the trunks of Trees # 72 and 73.

2295, 2305 South
Winchester Blvd.
Campbell, CA

4. Underground Utilities

If any underground utilities would be constructed, the trenches must be a minimum distance from the trunks of trees equaling 10 times the trunk diameter of individual trees. Any trenches less than this distance must be approved in writing by a certified arborist prior to the work.

5. Temporary Supplemental Irrigation

Trees typically suffer some level of damage. In order to prevent decline from this damage, the protected trees must be irrigated throughout the entire construction period during the dry months (any month receiving less than 1 inch of rainfall). Irrigate a minimum of 10 gallons for each inch of trunk diameter every two weeks. A soaker hose or a drip line is preferred for this purpose, but the soaker hose(s) must be located near the dripline (not near the trunk) to be effective.

I recommend that the irrigation be monitored and a report supplied to the city arborist upon request or on a schedule required by the city arborist.

6. Mulch

Protected trees, which suffer some level of damage, must be mulched to the extent feasible (within the area of Tree Protective Fencing). Mulching consists of a protective material (wood chips, gravel) being spread over the root zone inside the dripline. This material must be 4 inches in depth after spreading, which must be done by hand. I prefer course wood chips because it is organic, and degrades naturally over time.

7. Root Buffer

At locations where it may not be feasible to protect any portion of the root zone, the project arborist may require a Root Buffer to protect the root mass in those areas.

A root buffer consists of:

- a 6 inch layer of course wood chips
- topped with full sheets of 1-½ inch plywood tied together.
- The wood chips must be course (approximately ¾ inch in diameter or larger) to be effective (shredded redwood is not acceptable for this purpose due to its compressibility).
- The wood chips must be spread by hand over the existing soil grade to a minimum depth of 6 inches over the specific area to be protected.
- The plywood must be secured to prevent slippage.
- This root buffer must be installed in conjunction with protective fencing and must remain in place until all construction is completed.
- The root buffer should cover the entire area of the root zone to the dripline (as shown on the attached map) where it would not be practical to install Tree Protective Fencing.

8. Demolition of old Underground Services

If any old irrigation lines, drain lines, sewer lines, or any other underground features exist inside the driplines of protected trees, but would not be used, I recommend that they be cut off approximately at soil grade and left in the ground.

9. Severing of Roots

The severing of large roots (1 inch in diameter or larger) must be inspected by the Project Arborist to evaluate the tree's potential for survival and to provide an opinion concerning stability. If the tree would be preserved, large roots must be sealed to prevent desiccation. The following procedure is recommended:

1. Cut the root perpendicular with itself. Use a sharp saw and make a clean smooth cut.
2. Seal the stub end of the cut to prevent desiccation. A plastic bag tied to the stub end to seal it or two coats of latex house paint may be used. The objective is to make a good seal.

10. Pruning

Any pruning must be done by an arborist certified by the ISA (International Society of Arboriculture) and according to ISA, Western Chapter Standards, 1998.

11. Staging of Materials and/or Equipment

Materials must not be stored, stockpiled, dumped, or buried inside the driplines of protected trees.

12. Excavated Soil

Excavated soil must not be piled or dumped, even temporarily, inside the driplines of protected trees.

13. Landscaping

Any pathways or other hardscape inside the driplines of protected trees must be constructed completely on top of the existing soil grade without excavation. Fill soil may be added to the edge of finished hardscape for a maximum distance of approximately 2 feet from the edges to integrate the new hardscape to the natural grade.

14. Permanent Irrigation

The sprinkler irrigation must not be designed to strike the trunks of trees, because of potential high risk of disease infection.

Landscape irrigation trenches must be a minimum distance of 10 times the trunk diameter from the trunks of protected trees.

2295, 2305 South
Winchester Blvd.
Campbell, CA

15. Landscape Materials

Landscape materials (cobbles, decorative bark, stones, fencing, etc.) must not be installed directly in contact with the bark of trees because of the risk of serious disease infection.

Photos of Existing Trees

Trees # 60, 61 and 62 (Left to Right)



Trees # 63 (right) and # 64 (Left)



2295, 2305 South
Winchester Blvd.
Campbell, CA

Tree # 65 (right), Tree #66 (Dead),
Tree # 67 Green on Left



Tree # 68 (adjacent to White Truck);
Tree # 67 (Right Edge of Canopy of
Tree # 68



Tree # 69



Tree # 70 (Left); Tree # 71 (Right)



Consulting Arborist

Site

Page 7

2295, 2305 South
Winchester Blvd.
Campbell, CA

Tree # 72



Tree # 73



Tree # 74 (Typical concerning Trees # 75, 76, and 77)

Respectfully submitted,

Michael L. Bench, Consulting Arborist
International Society of Arboriculture Certification # WE 1897A
American Society of Consulting Arborists Member



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2295 & 2305
 SOUTH
 WINCHESTER
 BOULEVARD

CAMPBELL
 CALIFORNIA

SITE PLAN
 & FIRST LEVEL

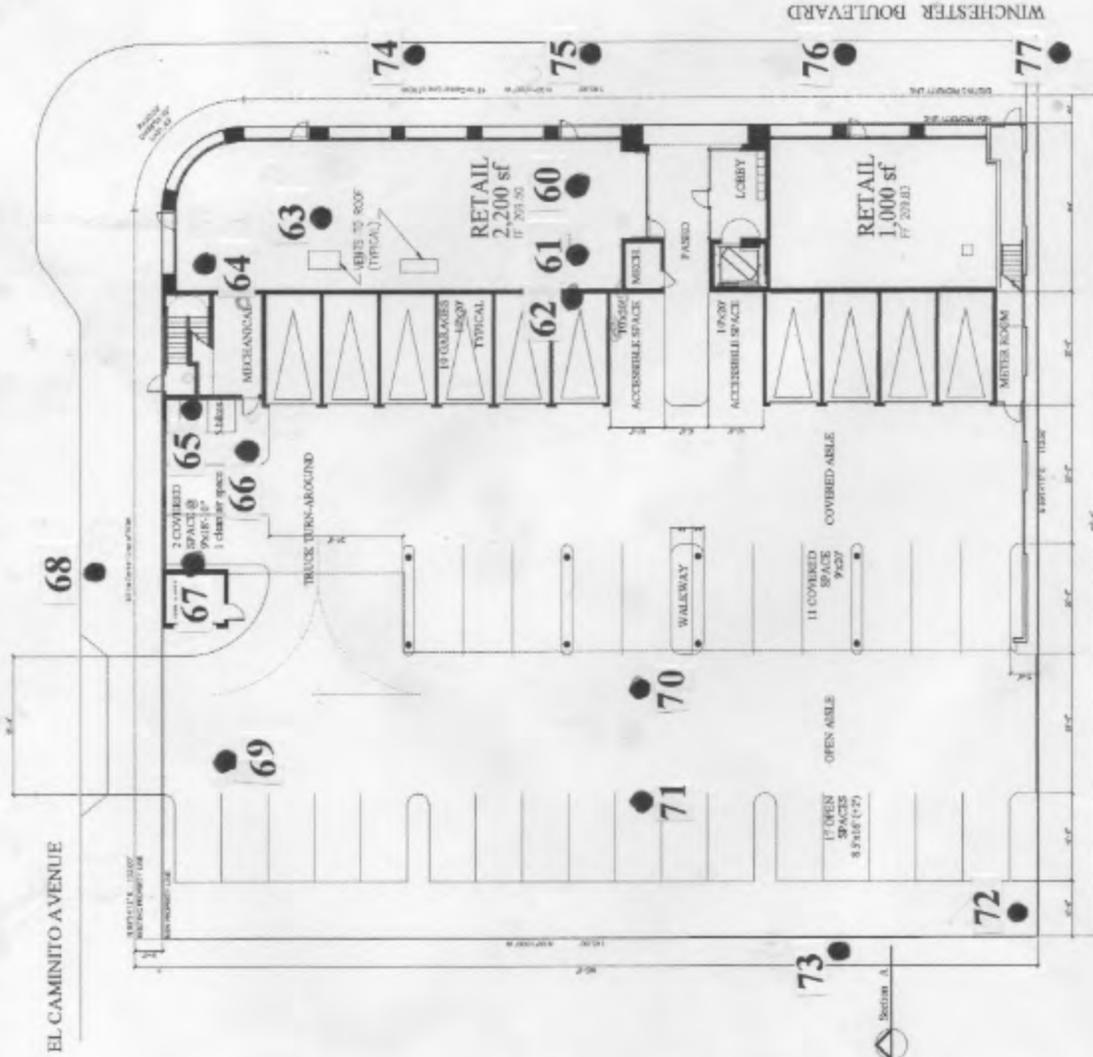
28 JUNE 2014

APPROVED FOR THE CITY OF CAMPBELL, CALIFORNIA
 BY THE CITY ENGINEER
 DATE: 06/26/14
 ENGINEER: [Signature]

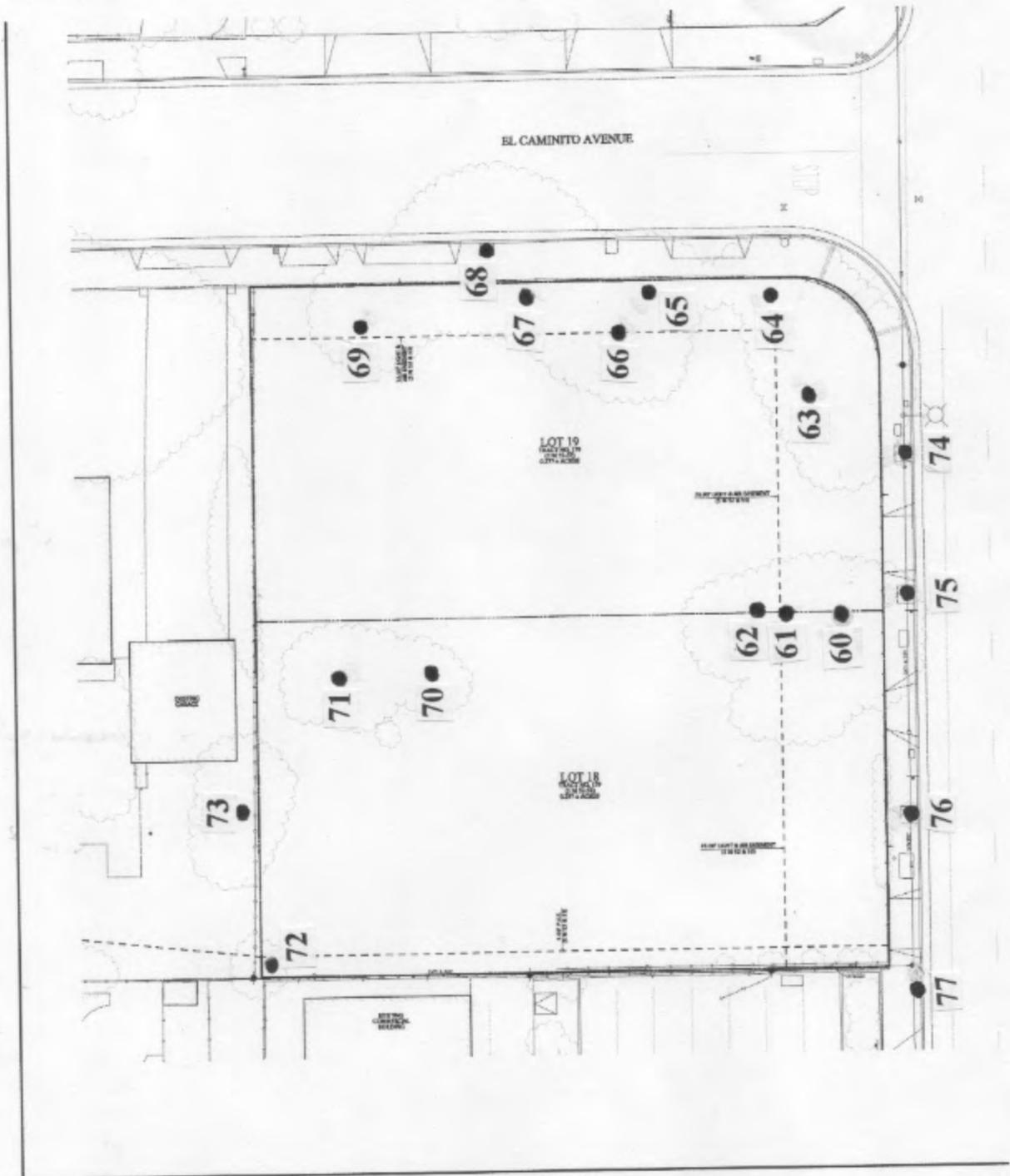
A-2

UNIT DATA

A UNITS - 1 bedroom / 1.5 baths	
A1	2 @ 844 sq. ft. = 1,688 sq. ft.
A2	2 @ 858 sq. ft. = 1,716 sq. ft.
A3	2 @ 954 sq. ft. = 1,908 sq. ft.
Total	6 A Units = 5,312 sq. ft.
B UNITS - 2 bedrooms / 2.5 baths	
B1	2 @ 1,078 sq. ft. = 2,156 sq. ft.
B2	6 @ 1,088 sq. ft. = 6,528 sq. ft.
B3	2 @ 1,244 sq. ft. = 2,488 sq. ft.
Total	10 B Units = 11,172 sq. ft.
GRAND TOTAL	16 UNITS = 16,484 sq. ft.



SITE & FIRST LEVEL



List of Trees

Field Data Sheet		Trunk Diameter In Inches	Canopy Height In Feet	Canopy Diameter In Feet	Health 1 - 5 = Good to Poor	Structure 1 - 5 = Good to Poor	DBH = Diameter at Breast Height = 54 inches Above Grade
Tree Name	DBH	Canopy Height	Canopy Spread	Health	Structural Integrity	Overall Condition	Notes
60 California Pepper (Schinus molle)	34.7	45	50	2	3	Fair	
61 Tobira (Pittosporum tobira)	6/5	20	15	1	1	Excellent	
62 Tobira	10.1	25	20	1	1	Excellent	
63 White Mulberry (Morus alba)	20.0	35	50	1	2	Good	
64 Arizona Cypress (Cupressus arizonica)	15.9	35	25	3	2	Fair	Drought Stress
65 Arizona Cypress	17.6/6.1	60	25	3	2	Fair	Drought Stress
66 White Mulberry	22	--	--	--	--	Dead	
67 Japanese Privet (Ligustrum japonicum)	12.2	30	15	1	2	Good	
68 Chinese Pistache (Pistacia chinensis)	16.7	35	50	1	1	Excellent	
69 Hollyhock Juniper (Juniperus chinensis 'Kaizuka')	15.5	15	20	3	1	Fair	Drought Stress
70 Japanese Privet	11	--	--	--	--	Dead	
71 Cypress (Cupressus species)	19.7	50	30	2	1	Good	Drought Stress
72 Loquat (Eriobotrya japonica)	9/3/2	25	15	1	1	Excellent	
73 Cherry (Prunus cerasus)	11/10 (e)	25	35	4	2	Very Poor	Severe Drought Stress
74 London plane (Platanus acerifolia)	1.5	10	8	1	1	Excellent	

2295 2305 South
Winchester Blvd.

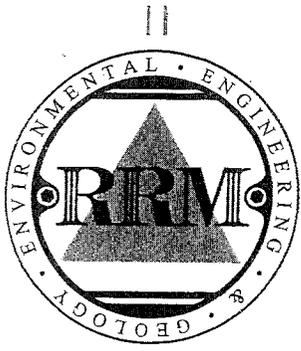
List of Trees

Campbell, California

75	London plane	1.5	10	8	1	1	Excellent
76	London plane	1.5	10	8	1	1	Excellent
77	London plane	1.5	10	8	1	1	Excellent

ATTACHMENT 3

PHASE I SITE ASSESSMENT



PHASE I ENVIRONMENTAL SITE ASSESSMENT

Healy Property and Fanelli/Howell Property
2295 and 2305 South Winchester Boulevard
Campbell, California

Prepared for:
Lexmar Development Company

Prepared by:
RRM, Inc.
2560 Soquel Avenue, Suite 202
Santa Cruz, California 95062

March 27, 2007

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FIGURES AND ATTACHMENTS

FIGURES

Figure 1 – Site Location Map

Figure 2 – Site Map

ATTACHMENTS

Attachment A – Site Inspection Photographs

Attachment B – EDR Historical Topographic Map Report

Attachment C – EDR Radius Map with GeoCheck

1. EXECUTIVE SUMMARY

Lexmar Development Company (Lexmar), requested this Phase I Environmental Site Assessment (ESA) for the real property located at 2295 and 2305 South Winchester Boulevard in Campbell, California (Property) (Figures 1 and 2). The Property is identified by the County of Santa Clara Assessor's Department as Assessor Parcel Numbers (APNs) 305-34-004 and 305-34-005. RRM, Inc. (RRM) performed the ESA, which included a review of available historical information, site reconnaissance, a review of regulatory agency records involving the Property and nearby parcels, and the preparation of this report.

The following information was obtained from the historic records review, aerial photograph review, interviews, site inspection, and regulatory agency file review.

- The subject Property is comprised of two parcels with a combined area of approximately 25,000 square feet situated in Campbell, Santa Clara County, California. The Property is bordered by El Caminito Avenue to the north and South Winchester Boulevard to the east. Commercial developments are present across Winchester Boulevard, across El Caminito Avenue, and on the parcel bordering the Property to the south. A residence is located on the parcel to the west of the Property.
- Surface topography at the Property is relatively flat with an approximate surface elevation of 310 feet above mean sea level (msl). The nearest surface water to the Property is Los Gatos Creek, which is located approximately 1,300 feet southeast of the Property. Los Gatos Creek flows into the Guadalupe River, which flows into San Francisco Bay approximately 12 miles northwest of the Property. Based on topography and the flow direction of Los Gatos Creek, groundwater flow in the Property vicinity is expected to be toward the north.
- The parcel located on the northern half of the Property is partially in use as a dwelling; two garages present on this parcel have been converted into an office and storage/shop that is currently used by a sunroom business that occupies the Property. The parcel located on the southern half of the Property has been converted for commercial use. The former dwelling on this parcel is now a business

office and the former garage is used for storage and as a shop. An environmental services company that performs asbestos and lead assessment and abatement services occupies this parcel.

- Aerial photographs, historic topographic maps, and historic address listings were used to ascertain former Property uses. From these sources, it appeared that the structures on the Property were built as of the mid-1950s. Address records indicated that the parcels were used for residential purposes until the early 1980s. The parcels then appeared to have been vacant until the mid-1990s. Since then, the Property has been used for mixed commercial and residential purposes.
- During the Property inspection, RRM observed several containers of hazardous materials in connection with use by the businesses on the Property and the dwelling on the northern parcel. All hazardous materials appeared to be properly contained, intact, and in good condition.
- The environmental services company at the Property formerly stored and maintained a radioactive source (the Source) for use with lead inspection services. The Source was reportedly stored in a cabinet intended for radioactive equipment storage, was properly maintained, and was properly permitted with government agencies.
- Several sites with reported environmental conditions were identified in the Property vicinity. A review of data regarding these sites indicated that it is unlikely that contamination from any known source had migrated beneath the Property.
- RRM performed a limited inspection of materials used to construct the structures on the Property; this survey did not include sample collection or laboratory analysis to ascertain the presence of asbestos, mold, or lead containing paints. Based on the age of the buildings and the materials used, it is likely that some of the construction materials contain asbestos and/or lead.
- This assessment has revealed no evidence of recognized environmental conditions in connection with the Property.

2. INTRODUCTION

2.1. Purpose and Methods of this Assessment

The purpose of this ESA was to determine the potential for soil and groundwater contamination resulting from the use of hazardous substances or petroleum products on or near the Property located at 2295 and 3305 South Winchester Boulevard, APNs 305-34-004 (the 2295 parcel) and 305-34-005 (the 2305 parcel), in Campbell, Santa Clara County, California. The steps included for this ESA are as follows:

- **Site Reconnaissance.** The Property and Property vicinity were physically inspected in order to identify possible hazardous waste storage, dumping, or contamination.
- **Records Review.** A review of reasonably ascertainable records was conducted; sources included regulatory agency files, lists and databases, topographical maps, and aerial photographs.
- **Interview.** The former Property owner and the current Property owner were interviewed in order to establish current and previous Property uses, current and previous use of hazardous materials, and hazardous waste practices at the Property.
- **Report Preparation.** The information gathered for this ESA and for the lead and asbestos survey was compiled, and the findings are presented in this report.

Each of the steps of the Phase I ESA is described in detail in Sections 3, 4, and 5; the findings and conclusions of these assessments are presented in Section 6, limitations of this assessment are presented in Section 7, and the signatures of environmental professionals performing the Phase I ESA are presented in Section 8.

2.2. Exceptions of this Assessment

We have developed and performed appropriate inquiries in conformance with the standards and practices set forth in the United States Code of Federal Regulations (CFR) 40 CFR Part 312 and as defined in ASTM Practice E1527-05. Exceptions to ASTM Practice E1527-05 are as follows:

- **Historic Fire Insurance Maps.** RRM requested historic Sanborn Fire Insurance Maps (Sanborns) for the Property from Environmental Data Resources (EDR). EDR reported that Sanborns were not available for the Property, but were available for the area across Winchester Boulevard to the west of the Property.

2.3. Qualifications of Environmental Professionals

We declare to the best of our professional knowledge that the environmental professionals who performed the research and prepared this assessment meet the definition of *Environmental Professionals* (EPs) as defined in ASTM Practice E1527-05 and §312.10 of 40 CFR 312.

We have the specific qualifications based on education, training, and experience to assess a Property of the nature, history, and setting of the subject Property. The following further defines the specific qualifications of the EPs who performed this assessment. Further detail regarding these qualifications can be obtained by contacting RRM.

- **Project Scientist Edward Buskirk** has a Bachelor of Science degree from the University of Michigan dated 1985 and has been performing work involved with environmental site assessments and remediation since 1987.
- **Staff Geologist Cate Townsend** has a Bachelor of Science degree from the University of California at Santa Cruz dated 1996 and has been performing work involved with environmental site assessments and remediation since 1998.

3. SITE DESCRIPTION

3.1. Site Location and Physical Characteristics

The subject Property comprises two parcels situated in Campbell, California. The 2295 Parcel has an approximate area of 12,160 square feet and the 2305 Parcel has an approximate area of 12,920 square feet. The Property location is shown on the San Jose West, California Quadrangle of the United States Geologic Survey (USGS) 7.5-minute topographic map series (Figure 1). Surface topography in the Property vicinity is generally flat with a gentle slope to the south. Surface elevation at the Property is approximately 310 feet above mean sea level. The nearest surface water to the Property is Los Gatos Creek, which is located approximately 1,300 feet to the southeast of the Property. Los Gatos Creek flows into the Guadalupe River, which flows into San Francisco Bay approximately 12 miles northwest of the Property.

3.2. Descriptions of Site Improvements

Both of the parcels were developed with dwellings that have now been converted for commercial use. A description of the developments on each portion of the Property is presented below.

2295 Parcel – Two structures are currently located on this portion of the Property. A dwelling, which has continued use as a residence, and an attached garage, which has been converted to the business offices of Affordable Sunrooms, Inc. (ASI), are present in the central portion of the parcel. A garage that is used as a storage space and shop by ASI is present along the western parcel boundary. The dwelling is a wood framed stucco structure with hardwood floors and plaster/lath or sheet rock walls. The attached business offices are constructed of wood and brick with sheet rock walls, carpeted, hard wood, or linoleum floors. The storage/shop structure is constructed of wood with wooden divider walls and a concrete floor. The balance of the 2295 Parcel is covered with landscaping and grass. An asphalt driveway is present in the northeast corner of the parcel running from Winchester Boulevard to El Caminito Avenue. The southwest corner of the yard is used for exterior storage of materials used by ASI and by the resident of the dwelling. A canopy and garden shed are also located in this back yard area.

2305 Parcel – Two structures connected by a covered porch are located on this portion of the Property. A wood framed and wood sided former dwelling that is currently used as the offices of Environmental Remediation Technologies (ERT) is present in the central portion of the parcel. The offices are divided by plaster/lath or sheet rock walls. Car-

peted and linoleum flooring is present throughout the offices. A wood framed and wood sided garage is used as the storage and shop areas by ERT. This structure is divided with sheet rock walls and concrete floors are present throughout the structure. The balance of this parcel is open soil, landscaped areas, or grass with an asphalt paved parking areas present to the east of the shop and office building. A shallow concrete pond, formerly used for raising koi fish, is present to the northwest of the office structure. A canopy and an empty shipping container are present in the backyard of this parcel.

Features of the Property are shown on the site map, presented as Figure 2. Site inspection photographs are presented in Attachment A.

3.3. Current Tenants

Both parcels are currently occupied by the Property owners. The 2295 Parcel is owned by Don Healy and Nancy Lanes who own and operate ASI from the 2295 Parcel. Mr. Healy also lives in the dwelling on the 2295 Parcel.

The 2305 Parcel is majority owned by Dominick Fanelli who also owns ERT. A portion of the office structure on the 2305 Parcel is occupied by a jewelry business that is operated by Mr. Fanelli's daughter.

3.4. Historical Use Information

Various sources were consulted in order to ascertain historical uses of the Property. These sources included historic aerial photographs and historic topographic maps. As stated above, Sanborns were requested from EDR. However, EDR reported that Sanborn coverage was not available for the Property.

3.4.1. Polk and Haines Directories

Polk and Haines City Directories are annual street directories that provide tenant and/or owner information for specific addresses. A limited collection of Polk Directories and Haines City Directories that included listings for the City of Campbell were available at the San Jose Public Library. RRM reviewed the city directories at approximately 5-year intervals.

The 2001/2002 directory listed Banman Construction, Broderick and Ford Builders, Sierra Pacific Mortgage, United Landscape Services, and Chris Tedford at the 2295 Parcel. The 2001/2002 directory listed ERT and JWH Asbestos Removal Services at the 2305 Parcel. The directory for 1997/1998 listed All American Moving and David Schooler at the 2295 Parcel and ERT at the 2305 Parcel. In the directories dated 1990/1991 and 1985, both parcels were listed as vacant.

The 2295 Parcel was listed as vacant in the 1981 directory, and as the residence of Joseph Bringuel in 1975 and the residence of Jay Sindorf in 1965. Earlier occupants of this par-

cel could not be determined due to a change in street addresses that occurred in approximately 1960.

The directory listings for the 2305 Parcel identified it as the residence of Mr. George Evans from 1981 back through 1954. As of 1960, Mr. Evans address was 405 Winchester Boulevard and as of 1954 Mr. Evans address was listed as 271 Winchester Boulevard.

Directories dated 1954 and earlier were listed by resident name and not street address, thus research for addresses at or near 271 Winchester Boulevard (the last address listed for Mr. Evans) could not be researched.

3.4.2. Aerial Photograph Review

A detailed aerial photograph review was conducted using aerial photographs obtained from Pacific Aerial Surveys in Oakland, California. Aerial photographs were available for the years 2005, 1994, 1984, 1974, 1963, and 1954. The purpose of the aerial photograph review was to determine historical Property uses and to verify the information collected from other sources. The following is a summary of the results of this review.

<u>Date</u>	<u>Scale</u>	<u>Comments</u>
3/25/05	1:10,000	The Property and Property vicinity appeared as today. A dwelling and storage building were present on the 2295 Parcel and a dwelling and garage were present on the 2305 Parcel. Driveways were present near Winchester Boulevard on both parcels. The balance of the parcels appeared to be covered with vegetation. Commercial developments appeared to be present on the parcel south of the Property and to the north across El Caminito Avenue. Church, school, and commercial buildings appeared to be present on the parcel to the east across Winchester Boulevard. The parcel to the west of the Property appeared to be occupied by a dwelling.
7/11/94	1:12,000	As above.
7/1/84	1:12,000	As above.
4/28/74	1:12,000	As above with the exception that the parcel south of the Property appeared to be a vacant lot and the parcel across Winchester Boulevard from the 2295 Parcel appeared to be occupied by a dwelling.
7/22/63	1:36,000	As above with the exception that the parcel north across El Caminito Avenue appeared to be a vacant lot and the parcel south of the Property appeared to be occupied by a dwelling.
2/25/54	1:9,600	As above with the exception that the parcel across Winchester Boulevard from the 2305 Parcel appeared to be vacant and the parcel across El Caminito Avenue appeared to be occupied by a dwelling. In addition, several parcels to the west and south of the subdivision that encompasses the Property appeared to be occupied by orchards.

3.4.3. Historic Topographic Maps

Topographic Maps (topos) are created by the United States Geological Survey. Historical topos for the Property and Property vicinity were purchased from EDR. EDR reported that topos were available from 1953, 1961, 1968, 1973, and 1980.

On the topo from 1953, the Property appeared to be near the southern extent of the City of Campbell. Orchards were shown to the south and west of the subdivision that encompasses the Property. As of the 1961 topo, additional subdivisions were present in the Property vicinity, but orchards were still present west and south of the Property subdivision. As of 1968, few orchards were shown on the area of the topo near the City of Campbell. San Tomas Expressway had been constructed approximately 2,500 feet west of the Property. The topos from 1973 and 1980 are generally as today. The entire area surrounding central Campbell had been developed with subdivisions. A copy of the EDR Historical Topographic Map Report is presented as Attachment B.

3.5. Summary of Historical Uses

Aerial photographs, historic topographic maps, and historic address listings were used to ascertain former Property uses. Based on a review of these sources, it appeared that the Property was used as dwellings as early as 1954, when residential listings for one of the two parcels comprising the Property were found in historic address listings and dwellings appeared to be present on both parcels. The Property vicinity also appeared to be developed as a residential subdivision near Campbell city limits on topos dated 1953. Residential use of the Property continued until the early 1980s.

Based on historic address listings, the parcels appeared to be vacant between the mid-1980s and the mid-1990s. As of the mid-1990s, the 2305 Parcel was occupied by the business of current owner, ERT. The 2295 Parcel appeared to be used as a dwelling and the offices of a moving business in the mid-1990s. As of 2001, a dwelling and the offices of a construction company occupied the 2295 Parcel. According to information obtained from one of the current owners of the 2295 Parcel, Ms. Lanes, she and Mr. Healy purchased the parcel approximately 4 years ago, after which time Mr. Healy has occupied the dwelling on the parcel and the offices and storage spaces on the 2295 Parcel have been used by their business, ASI.

3.6. Uses of Adjoining Properties

Zoning in the Property vicinity is primarily commercial and residential. To the north of the Property is El Caminito Avenue. Across El Caminito Avenue from the 2295 Parcel is a commercial printing business. To the south of the 2305 Parcel is a strip mall that includes a Mexican restaurant, a donut shop, a salon, and a convenience store. To the east of the Property is South Winchester Boulevard. Across Winchester Boulevard from the Property is a vacant commercial structure. To the west of the Property is a residential parcel.

4. RECORDS REVIEW

4.1. Environmental Records Sources

The purpose of the records review was to obtain and review records in order to identify recognized environmental conditions associated with the Property and surrounding properties. Information obtained from the following sources has been incorporated into this assessment:

- EDR Report
- Santa Clara County Department of Environmental Health (SCCDEH) File Review

4.2. EDR Report Summary

EDR provides a research service that examines databases maintained by the U.S. Environmental Protection Agency (U.S. EPA), the California Department of Toxic Substances Control (DTSC), California Environmental Protection Agency (Cal-EPA), California Integrated Waste Management Board, Department of Health Services (DHS), and the State Water Resources Control Board (SWRCB).

Listed below is a summary of findings of the EDR Report. Additional information regarding specific sites, locations, and databases can be obtained from the EDR Report, which is included as Attachment D.

4.2.1. US EPA – National Priorities List (NPL)

The NPL, also known as the Superfund List, is an EPA listing of uncontrolled or abandoned hazardous waste sites. No sites on the U.S. EPA NPL database, proposed NPL sites, delisted NPL sites, or sites with NPL liens sites were located within a 1-mile radius of the Property.

4.2.2. US EPA – CERCLIS and NFRAP Lists

The CERCLIS list contains sites that are either proposed for the NPL or are in the screening and assessment phase of possible inclusion on the NPL. NFRAP sites may be sites where, following initial investigation, it was deemed that contamination was not serious enough to require NPL consideration. No sites on the CERCLIS were located within a

radius of 0.5-mile of the Property and no NFRAP database sites were located within a radius of 0.5-mile of the Property.

4.2.3. US EPA – Resource, Conservation and Recovery Act (RCRA) Corrective Action List (without Treatment, Storage, and Disposal [TSD]) (CORRACTS)

The CORRACTS is a listing of known or suspected uncontrolled or abandoned hazardous waste sites where corrective action is occurring. This list does not include TSD facilities. No sites on the CORRACTS database were located within a radius of 1-mile of the Property.

4.2.4. US EPA – RCRA Treatment, Storage, and Disposal (RCRIS – TSD)

The RCRIS - TSD is a listing of known or TSD facilities that are suspected uncontrolled or abandoned hazardous waste sites where corrective action is occurring. No sites on the RCRIS – TSD database were located within a radius of 0.5-mile of the Property.

4.2.5. US EPA – Resource Conservation and Recovery Act – Large Quantity Generators (RCRIS – LQG)

The RCRIS – LQG report contains information pertaining to facilities that either generate large quantities of EPA regulated hazardous waste, or meet other applicable requirements of the Resource, Conservation, and Recovery Act. No RCRIS – LQG sites were located within a radius of 0.25-mile of the Property.

4.2.6. US EPA – Resource Conservation and Recovery Act – Small Quantity Generators (RCRIS – SQG)

The RCRIS – SQG report contains information pertaining to facilities that either generate small quantities of EPA regulated hazardous waste, or meet other applicable requirements of the Resource, Conservation, and Recovery Act. Four RCRIS – SQG sites were located within a radius of 0.25-mile of the Property.

4.2.7. US EPA – Emergency Response Notification System (ERNS)

ERNS is a national computer database system that is used to store information concerning the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The subject Property was not listed on the ERNS list.

4.2.8. DOT – Hazardous Materials Information Reporting System (HMIRS)

HMIRS is a database that contains hazardous material spill incidents reported to the Department of Transportation. The subject Property was not listed on the HMIRS list.

4.2.9. US EPA – Engineering Controls Site List (US ENG CONTROLS)

This is a list of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or affect human health. No US ENG CONTROLS sites were located within a 0.5-mile radius of the Property.

4.2.10. US EPA – Sites with Institutional Controls (US INST CONTROL)

This is a list of sites with institutional controls in place, which include administrative measures such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. No US INST CONTROL sites were located within a 0.5-mile radius of the Property.

4.2.11. USGS – Department of Defense Sites (DOD)

This database, maintained by the United States Geological Survey, consists of federally owned or administered lands that have any area equal or greater than 640 acres of the U.S., Puerto Rico, and the U.S. Virgin Islands. No DOD sites were located within 1-mile of the Property.

4.2.12. USACE – Formerly Used Defense Sites (FUDS)

This listing, maintained by the United States Army Corps of Engineers, includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions. No FUDS sites were located within 1-mile of the Property.

4.2.13. US EPA –Brownfields Sites List (US BROWNFIELDS)

Brownfields sites are abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. No US BROWNFIELDS sites were listed within a 0.5-mile radius of the Property.

4.2.14. DOJ – Superfund (CERCLA) Consent Decrees (CONSENT)

This listing, maintained by the Department of Justice, Consent Decree Library, includes major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. No CONSENT sites were listed within 1-mile of the Property.

4.2.15. US EPA – Records of Decision (ROD)

This database includes ROD documents, which mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup. No ROD sites were listed within 1-mile of the Property.

4.2.16. DOE – Uranium Mill Tailings Sites (UMTRA)

The Department of Energy maintains a listing of sites where uranium ore was mined by private companies for the federal government to use in national defense programs. Mill tailings are a byproduct of the mining process and in some cases, were used in construction materials before the potential health hazards of the tailings were recognized. No UMTRA sites were listed within a 0.5-mile radius of the Property.

4.2.17. US EPA – Open Dump Inventory (ODI)

An open dump is defined as a disposal facility that does not comply with certain EPA standards. No ODI sites were listed within a 0.5-mile radius of the Property.

4.2.18. US EPA – Toxic Chemical Release Inventory System (TRIS)

The Toxic Release Inventory System is a list that identifies facilities that release toxic chemicals to the air, water and land in reportable quantities under SARA Title III, Section 313. The subject Property was not listed on the TRIS list.

4.2.19. US EPA – Toxic Substances Control Act (TSCA)

The Toxic Substances Control Act is a list that identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. The subject Property was not listed on the TSCA list.

4.2.20. US EPA – Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA)/Toxic Substances Control Act (TSCA) [FIFRA/TSCA Tracking System (FTTS)]

The EPA maintains a program that tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). The subject Property was not listed on the FTTS list.

4.2.21. US EPA – Section 7 Tracking Systems (SSTS)

The Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the EPA each year that discloses the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year. The subject Property was not listed on the SSTS list.

4.2.22. US EPA – Integrated Compliance Information System (ICIS)

The Integrated Compliance Information System supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program. The subject Property was not listed on the ICIS list.

4.2.23. US EPA – Radiation Information Database (RADINFO)

This database contains information about facilities that are regulated by the US EPA regulations for radiation and radioactivity. The subject Property was not listed on the RADINFO list.

4.2.24. US Department of Justice Clandestine Drug Labs List – (US CDL)

The US Department of Justice keeps this database as a listing of clandestine drug lab locations. The list contains addresses of locations where law enforcement agencies have reported that they found chemicals or other items that indicated the presence of a drug lab or dumpsites associated with clandestine drug lab activities. The subject Property was not listed on the US CDL list.

4.2.25. US Department of Navy Land Use Control Information System –(LUCIS)

This database contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties. No LUCIS sites were listed within a 0.5-mile radius of the Property.

4.2.26. US EPA – PCB Activity Database System (PADS)

This database identifies generators, transporters, commercial storers and/or brokers and disposers of polychlorinated biphenyls (PCBs) who are required to notify the EPA of such activities. The subject Property was not listed on the PADS list.

4.2.27. NRC – Material Licensing Tracking System (MLTS)

The MLTS is a database maintained by the Nuclear Regulatory Commission that contains a list of approximately 8,100 sites that possess or use radioactive materials and which are subject to NRC licensing requirements. The subject Property was not listed on the MLTS list.

4.2.28. MSHA – DOL – Mines Master Index File (MINES)

This database is maintained by the Department of Labor’s Mine Safety and Health Administration and contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information. No MINES sites were listed within a 0.25-mile radius of the Property.

4.2.29. US EPA – Facility Index System/Facility Registry System (FINDS)

This is a database that contains both facility information and ‘pointers’ to other sources that contain more detail. The following FINDS databases are included: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FFIS (Federal Facilities Information System),

STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System). The subject Property was not listed on the FINDS list.

4.2.30. US EPA – RCRA Administrative Action Tracking System (RAATS)

This is a listing that contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. The subject Property was not listed on the RAATS list.

4.2.31. DTSC – CalSites Database (HIST CAL-SITES)

The Calsites database is maintained by the ENVIROSTOR and is a list of properties in California that contain potential confirmed hazardous releases. No HIST CAL-SITES sites were listed within 1-mile of the Property.

4.2.32. Cal-DHS – California Bond Expenditure Plan (CA Bond Exp. Plan)

The California Bond Expenditure Plan List contains information pertaining to sites eligible for the California Bond Expenditure Plan. No California Bond Expenditure Plan List sites were located within a radius of 1-mile of the Property.

4.2.33. DTSC – School Property Evaluation Program (SCH)

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. No SCH sites were listed within a 0.25-mile radius of the Property.

4.2.34. SWRCB – Toxic Pits Cleanup Act Sites (Toxic Pits)

The Toxic Pits List consists of properties that have been identified as sites containing hazardous substances where cleanup has not yet been completed. No Toxic Pits sites were located within a radius of 1-mile of the Property.

4.2.35. Cal-EPA – State Landfill List

The State Landfill List consists of properties that have been identified as landfill cleanup facilities. No State Landfill List sites were located within a radius of 0.5-mile of the Property.

4.2.36. SWRCB – Waste Discharge System (CA WDS)

The CA WDS is a list of sites that have been issued waste discharge requirements. The subject Property was not listed on the CA WDS list.

4.2.37. SWRCB – Waste Management Unit Database and Solid Waste Activity Tracking List (WMUDS/SWAT)

The WMUDS/SWAT List is a database for tracking and inventory of waste management units. No WMUDS/SWAT List sites were located within a radius of 0.5-mile of the Property.

4.2.38. CA-OHM – Cortese

The Cortese List consists of properties that are potential or confirmed hazardous waste sites throughout California. Thirteen sites on the Cortese List database were located within a radius of 0.5-mile of the Property. These sites were all listed between 0.25 and 0.5-mile of the Property.

4.2.39. DOC – Recycler Database (SWRCY)

This database is a listing of recycling facilities in California, maintained by the Department of Conservation. One site in the SWRCY database was located within a radius of 0.5-mile of the Property. This was a Safeway store located approximately one block from the Property and was listed for the recycling of glass, aluminum, and plastic beverage containers.

4.2.40. Cal-EPA – California Leaking Underground Storage Tank Report (LUST)

The LUST Report contains information pertaining to reported LUSTs within the State of California. Twenty-nine LUST sites were listed within a radius of 0.5-mile of the Property. Three of these LUST sites were listed within 0.25-mile of the Property.

4.2.41. Cal-EPA – California Underground Storage Tank List from the Facility Inventory Database (CA UST FID)

The CA UST FID List is a comprehensive listing of all registered underground storage tanks located within the State of California compiled from many different regulatory sources. One CA UST FID site was located within 0.25-mile of the Property.

4.2.42. SWRCB – Spills, Leaks, Investigations, and Cleanups Cases (SLIC)

The SLIC list includes unauthorized discharges from spills and leaks, other than from underground storage tanks or other regulated sites. No SLIC sites were listed within a radius of 0.5-mile of the Property.

4.2.43. SWRCB – California Historic Leaking Underground Storage Tank List (HIST LUST)

The HIST LUST is a comprehensive listing of all registered historic leaking underground storage tanks located within the State of California. Fourteen HIST LUST sites were located within 0.5-mile of the Property. All fourteen HIST LUST sites were located between 0.25 and 0.5-mile of the Property.

4.2.44. SWRCB – California Underground Storage Tank Reports (UST)

The UST report is a comprehensive listing of all registered underground storage tanks located within the State of California. No sites with registered USTs were located within 0.25-mile of the Property.

4.2.45. SWRCB – California Historic Underground Storage Tank List (HIST UST)

The HIST UST is a comprehensive listing of all registered underground storage tanks located within the State of California. Two HIST UST sites were located within 0.25-mile

of the Property. Both of these HIST UST sites were located between 0.25 and 0.5-mile of the Property.

4.2.46. SWRCB – California Aboveground Petroleum Storage Tank Facilities (AST)

The AST is a comprehensive listing of all registered aboveground storage tanks located within the State of California. No AST sites were located within 0.25-mile of the Property.

4.2.47. SWRCB – Statewide Environmental Evaluation and Planning System (SWEEPS UST)

This is an underground storage tank listing that is no longer updated or maintained. One SWEEPS UST site was located within 0.25-mile of the Property.

4.2.48. California Office of Emergency Services – California Hazardous Material Incident Report System (CHMIRS)

The CHMIRS database includes properties reported by the California Office of Emergency Services where one or more hazardous substances have been released or there is the threat of a release. The subject Property was not in the CHMIRS database.

4.2.49. Cal-EPA – Proposition 65 (Notify 65)

Notify 65 is a state computer database system that is used to store information concerning properties where Proposition 65 list chemicals have been released. One Notify 65 site was located within 1-mile of the Property.

4.2.50. DTSC – Deed Restriction Listing (DEED)

The Deed Restriction Listing is a list that includes deed restrictions that are active. No DEED sites were located within 0.5-mile of the Property.

4.2.51. DTSC – Voluntary Cleanup Program Properties (VCP)

The VCP List contains low threat level sites with either confirmed or unconfirmed releases where the project proponents have requested that the DTSC oversee investigation and or cleanup activities and have agreed to provide coverage for DTSC costs. No VCP sites were located within 0.5-mile of the Property.

4.2.52. DTSC – Cleaner Facilities (DRYCLEANERS)

The DRYCLEANERS list is a database of drycleaner related facilities that include power laundries, family and commercial; garment pressing and cleaner's agents; linen supply, coin-operated laundries; dry-cleaning plants, and industrial launderers. Two DRYCLEANERS sites were located within 0.25-mile of the Property.

4.2.53. RWQCB – Los Angeles Region – Well Investigation Program Case List (WIP)

The WIP is a listing of Well Investigation Program cases in the San Gabriel and San Fernando Valley areas. No WIP sites were located within 0.25-mile of the Property.

4.2.54. DTSC – Clandestine Drug Labs (CA CDL)

The CA CDL is a listing of drug lab locations. The information in this list does not indicate the presence or absence of illegal drug lab materials at these locations, and does not constitute a determination that the location either requires or does not require additional cleanup work. The subject Property was not in the CA CDL database.

4.2.55. DTSC – State Response Sites (RESPONSE)

State Response Sites is a listing of confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. No RESPONSE sites were located within 1-mile of the Property.

4.2.56. CAL-EPA – Facility and Manifest Data (HAZNET)

HAZNET is a listing of data that is extracted from the copies of hazardous waste manifests received each year by the DTSC. The subject Property was not in the HAZNET database.

4.2.57. CAL-ARB – Emissions Inventory Data (EMI)

EMI is a database that includes toxics and criteria pollutant emissions collected by the California Air Resources Board and local air pollution agencies. The subject Property was not in the EMI database.

4.2.58. DTSC – EnviroStor Database (ENVIROSTOR)

The EnviroStor Database is a listing of sites that have known contamination or sites for which there may be reasons to investigate further. Two ENVIROSTOR sites were located within 1-mile of the Property. Both of these sites were located between 0.5 and 1-mile from the Property.

4.2.59. USGS – Indian Reservations (INDIAN RESERV)

The USGS maintains a map layer that portrays Indian administered lands of the U.S. that have any area equal to or greater than 640 acres. No INDIAN RESERV sites were located within 1-mile of the Property.

4.2.60. EPA – Indian Leaking Underground Storage Tank List (Indian LUST)

The Indian LUST List is a comprehensive listing of all documented leaking underground storage tanks located on Native American land compiled from many different regulatory sources. No Indian LUST sites were located within 0.5-mile of the Property.

4.2.61. EPA – Indian Underground Storage Tank List (Indian UST)

The Indian UST List is a comprehensive listing of all registered underground storage tanks located on Native American land compiled from many different regulatory sources. No Indian UST sites were located within 0.25-mile of the Property.

4.2.62. EDR – EDR Proprietary Records Lists

EDR keeps proprietary lists of historical manufactured gas plants, historical auto stations, and historical cleaners sites. No sites on the EDR proprietary lists were found within the search radii determined by EDR.

4.3. Orphan Sites

The EDR report also contained a list of orphan sites. These are sites for which the location could not be identified by EDR based on site location information contained in various databases. There were no orphan sites listed in the EDR report.

4.4. SCCDEH File Review

Based on the results of the database review, RRM performed an evaluation of each of the sites in the vicinity of the Property where documented environmental conditions were reported. Included in this evaluation were considerations regarding the distance from the Property, the contaminants of concern, the magnitude of the environmental condition, and the current status of the reported condition. Based on this evaluation, RRM concluded that further research was warranted regarding two of the sites in the vicinity of the Property. RRM performed this review using the on-line database of SCCDEH. RRM also reviewed the SCCDEH file system for the Property and determined that SCCDEH did not have a file for either of the parcels located on the Property.

4.4.1. City of Campbell Right-of-Way, 2220 Winchester Boulevard, Campbell

This site is located approximately 550 feet north of the Property in the presumed down-gradient direction of groundwater flow and was the subject of a LUST listing in the EDR report. RRM reviewed the SCCDEH closure summary for the site, which was dated July 16, 2004.

One 300-gallon gasoline UST was discovered during sewer pipeline installation activities in September 1987. The UST was subsequently closed in place by filling the UST with grout. Soil samples collected from beneath the UST contained gasoline range total petroleum hydrocarbons (TPHg) at a concentration of 8,800 parts per million (ppm) and diesel range total petroleum hydrocarbons (TPHd) at a concentration of 490 ppm. No detectable concentrations of benzene, toluene, ethyl benzene, or xylenes (collectively BTEX compounds) were detected in the soil samples collected in 1987.

In July 2002, one groundwater monitoring well was installed adjacent to the abandoned UST location. No detectable concentrations of TPHg, TPHd, BTEX compounds, or methyl tert-butyl ether (MtBE) were found in soil samples collected during the well installation. Quarterly groundwater samples were collected from the well in July 2002, September 2002, and March 2003. No detectable concentrations of TPHg, TPHd, BTEX compounds, or MtBE were found in groundwater samples collected from the well. Based on these findings, SCCDEH closed the case in July 2004.

Based on the concentrations of petroleum hydrocarbons detected in soils beneath the UST, the results of groundwater sampling activities, the presumed direction of groundwater flow, and the distance of this site from the Property, it is unlikely that petroleum hydrocarbons from this UST have impacted the Property.

4.4.2. Rotten Robbie Station, 2140 Winchester Boulevard, Campbell

This site is located approximately 1,100 feet north of the Property in the downgradient direction of groundwater flow (based on data reported by the regulatory agency) and was the subject of a LUST listing in the EDR report. RRM reviewed two SCCDEH closure summaries for the site, which were dated June 8, 2000 and October 12, 2004.

One 550-gallon waste oil UST was removed from the site in February 1988. Two 12,000-gallon gasoline USTs, one 10,000-gallon gasoline UST, and one 2,000-gallon diesel UST were removed from the site in June 1994. TPHg was detected in soil samples beneath the USTs and conveyance piping at a maximum concentration of 9,400 ppm. The maximum TPHd concentration was 4,300 ppm. BTEX compounds were also detected in soil samples from the UST removal; benzene was detected at a maximum concentration of 3.5 ppm. Oil and grease was detected at a maximum concentration of 13 ppm.

Subsequently, two groundwater monitoring wells were installed. Depth to water at the site was reported to exceed 100 feet below ground surface. Groundwater samples collected from the wells did not contain detectable concentrations of TPHg, TPHd, BTEX compounds; or MtBE. Santa Clara Valley Water District (SCVWD) (the local oversight agency at the time) closed the LUST case based on the groundwater data. It was reported that soil impact was left in place, but was not considered to be a threat to groundwater. A second case was opened by SCVWD in 2001 based on a September 2000 report of petroleum hydrocarbon, including MtBE, impact in soils that was discovered during piping replacement activities. In August 2003, one soil boring was advanced to groundwater. Again, no detectable concentrations of TPHg, BTEX compounds were detected in the groundwater sample from the boring. The fuel additive MtBE was detected in the groundwater sample at a concentration of 2 parts per billion (ppb), below the regulatory action limit. Other fuel additives were not detected in the groundwater sample. Based on the results of this additional investigation, SCCDEH closed the second LUST case for the site in October 2004.

Based on the concentrations of petroleum hydrocarbons detected in soils and groundwater beneath the site, the direction of groundwater flow (as stated by SCVWD in their closure summary), and the distance of this site from the Property, it is unlikely that petroleum hydrocarbons from this UST have impacted the Property.

4.5. Santa Clara County Fire Department File Review

RRM contacted the administrative offices of the Santa Clara County Fire Department (SCCFD) in Los Gatos, California and requested information regarding files for both of the Property addresses. SCCFD staff reported that they kept a file for the 2305 Parcel. However, SCCFD reported that the file for the 2305 Parcel was related to construction activities. No information was available from SCCFD regarding hazardous materials storage at the Property.

5. INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEW

The Property was inspected on March 21, 2007. The current Property owners, Ms. Nancy Lanes for the 2295 Parcel and Mr. Dominick Fanelli for the 2305 Parcel, were also interviewed on March 21, 2007. The purpose of the Property inspection and interviews was to further evaluate current and previous environmental conditions for the presence of contamination from hazardous materials, petroleum hydrocarbons, and hazardous waste.

5.1. Information Reported Regarding Environmental Liens

Mr. Fanelli and Ms. Lanes indicated that they have no knowledge of environmental liens related to the Property. In addition, Mr. Stuart Giatta, the report user, was questioned regarding environmental liens and access and use limitations (AULs) involving the Property. Mr. Giatta also reported that he has no knowledge of liens or AULs related to the Property.

5.2. Additional Information Reported by the Owners

Mr. Fanelli and Ms. Lanes reported that neither is aware of hazardous materials or waste products that have been dumped, burned, or buried on the Property. The Property owners also reported that they were not aware of any USTs that had been located on the Property.

5.3. Hazardous Substances in Connection with Identified Uses

2295 Parcel – Small quantities of paints, lubricants, adhesives, and gasoline were observed at the 2305 Parcel during the site inspection. All hazardous materials observed were reportedly used by ASI for sunroom installations or for household uses, such as gasoline for the lawnmower. All the materials observed appeared to be properly contained, intact, and in good condition.

2305 Parcel – Containers of paints, lubricants, and cleaners associated with ERT's operations were observed at the 2305 Parcel during the site inspection. All hazardous materials containers appeared to be properly stored, intact, and in good condition. One cabinet located inside the offices of ERT was placarded as containing radioactive materials. This cabinet was reported to have been the former location of a radioactive source (the Source) used by ERT for lead inspection work. The Source was reportedly kept on site for a limited time and was no longer stored at the ERT office. While kept on site, Mr. Fanelli reported that the Source had been properly permitted with appropriate agencies, had been properly maintained, and had been kept in a specially lined cabinet intended for storage of

radioactive materials. The approximate location of the storage cabinet that had contained the Source is shown on Figure 2.

5.4. Unidentified Substance Containers

No unidentified substance containers were observed at the Property during the inspection.

5.5. Other Conditions Noted

RRM performed a limited inspection of materials used to construct the structure on the Property; this survey did not include sample collection or laboratory analysis to ascertain the presence of asbestos, mold, or lead containing paints. Based on the age of the buildings and the materials used, it is likely that some of the construction materials contain asbestos and/or lead.

6. FINDINGS AND CONCLUSIONS

6.1. Findings

The following information was obtained from the historic records review, aerial photograph review, interviews, and the site inspection.

The subject Property is comprised of two parcels with a combined area of approximately 25,000 square feet situated in Campbell, Santa Clara County, California. The Property is bordered by El Caminito Avenue to the north and South Winchester Boulevard to the east. Commercial developments are present across Winchester Boulevard, across El Caminito Avenue, and on the parcel bordering the Property to the south. A residence is located on the parcel to the west of the Property.

Each of the parcels is developed with a dwelling that appears to have been present since at least the mid-1950s. The 2295 Parcel, located on the northern half of the Property is still partially in use as a dwelling; two garages present on this parcel have been converted into an office and storage/shop that is currently used by a sunroom business that occupies the Property. The 2305 Parcel, located on the southern half of the Property, has been converted for commercial use. The former dwelling on this parcel is now a business office and the former garage is used for storage and as a shop. This parcel is occupied by an environmental services company that performs asbestos and lead assessment and abatement services.

Surface topography at the Property is relatively flat with an approximate surface elevation of 310 feet msl. The nearest surface water to the Property is Los Gatos Creek, which is located approximately 1,300 feet southeast of the Property. Los Gatos Creek flows into the Guadalupe River, which flows into San Francisco Bay approximately 12 miles northwest of the Property. Based on topography and the flow direction of Los Gatos Creek, groundwater flow in the Property vicinity is expected to be toward the north.

During the Property inspection, RRM observed several containers of hazardous materials in connection with use by the businesses on the Property and the dwelling on the 2295 Parcel. All hazardous materials appeared to be properly contained, intact, and in good condition.

The environmental services company at the Property formerly stored and maintained a radioactive source for use with lead inspection services. The Source was reportedly stored in a cabinet intended for radioactive equipment storage, was properly maintained, and was properly permitted with government agencies.

7. LIMITATIONS

This Phase I ESA is based strictly on the information obtained during this assessment. This ESA does not include the testing or sampling of radon, solvents, petroleum hydrocarbons, pesticides, molds, or polychlorinated biphenyls. Determining all historic hazardous materials and/or hazardous waste practices for the Property is not practicable and is beyond the scope of this assessment. Where applicable, the physical testing of site media is recommended in order to provide a greater degree of confidence.

This Phase I ESA is provided expressly for the use of the client. All reasonable care and professionalism in carrying out this Phase I ESA were taken by RRM. However, no warranty or guarantee of any kind whatsoever, expressed or implied, is made or intended other than ordinarily exercised professional standards. There are inherent risks associated with Phase I ESAs. No matter how detailed a Phase I ESA is performed, all potential hazardous material or hazardous waste locations may not be determined. RRM's findings, interpretations, and recommendations are based solely on the strength of information obtained and/or reviewed.

All fluorescent light ballasts were considered PCB-free regardless of their date of manufacture (unless otherwise notified), or discovered during the assessment process.

8. SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

PHASE I ENVIRONMENTAL SITE ASSESSMENT
Healy Property and Fanelli/Howell Property
Santa Clara County APNs 305-34-004 and 305-34-005
2295 and 2305 South Winchester Boulevard
Campbell, California
March 27, 2007

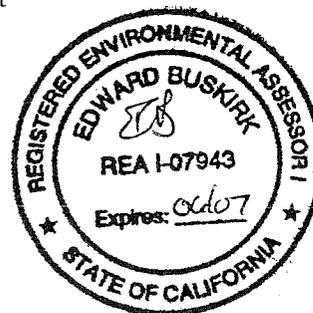
RRM, Inc.

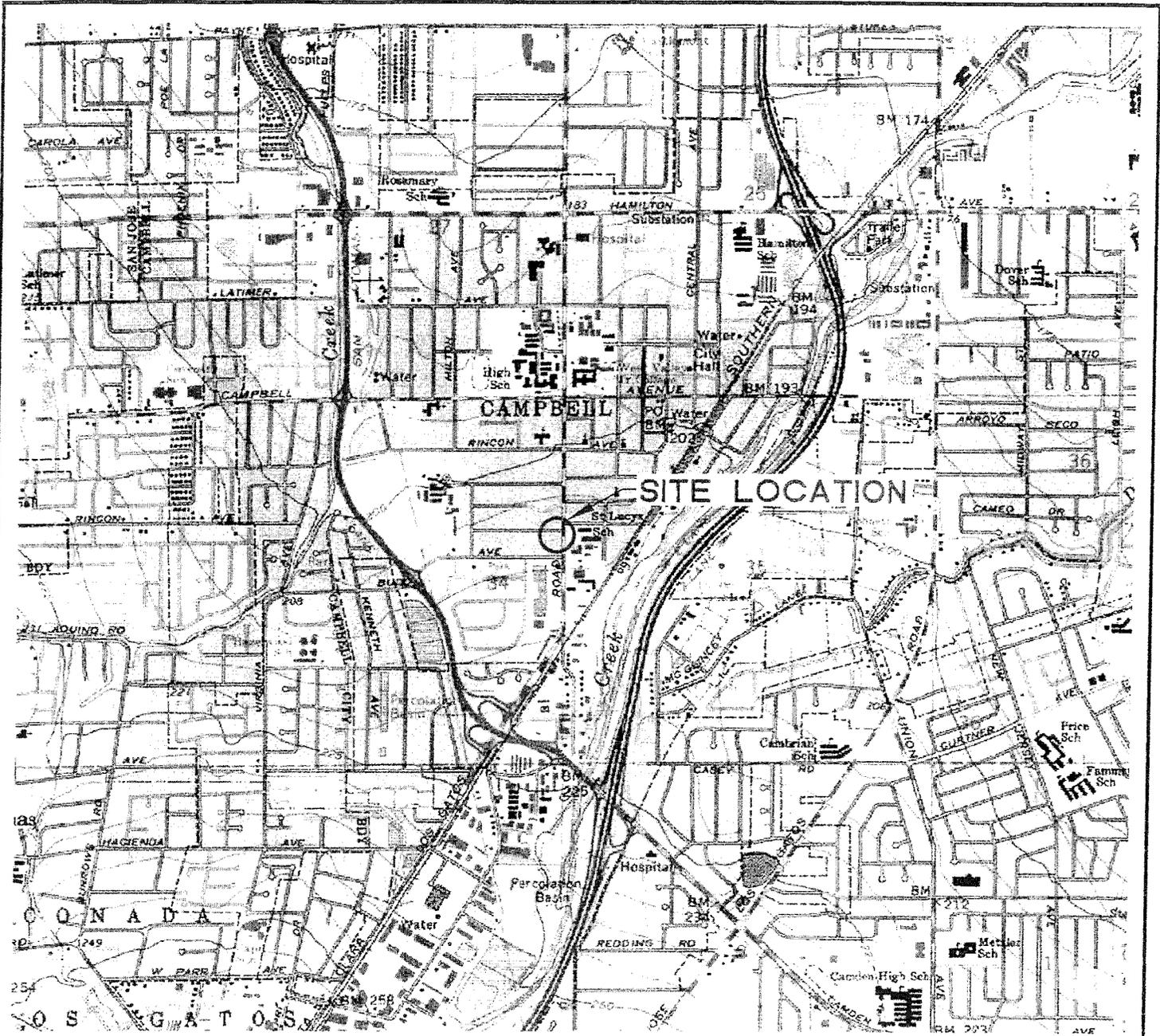


Cate Townsend
Staff Geologist



Edward Buskirk
Project Scientist
REA I 07943





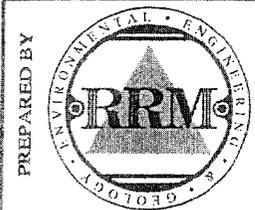
QUADRANGLE LOCATION



SCALE IN FEET



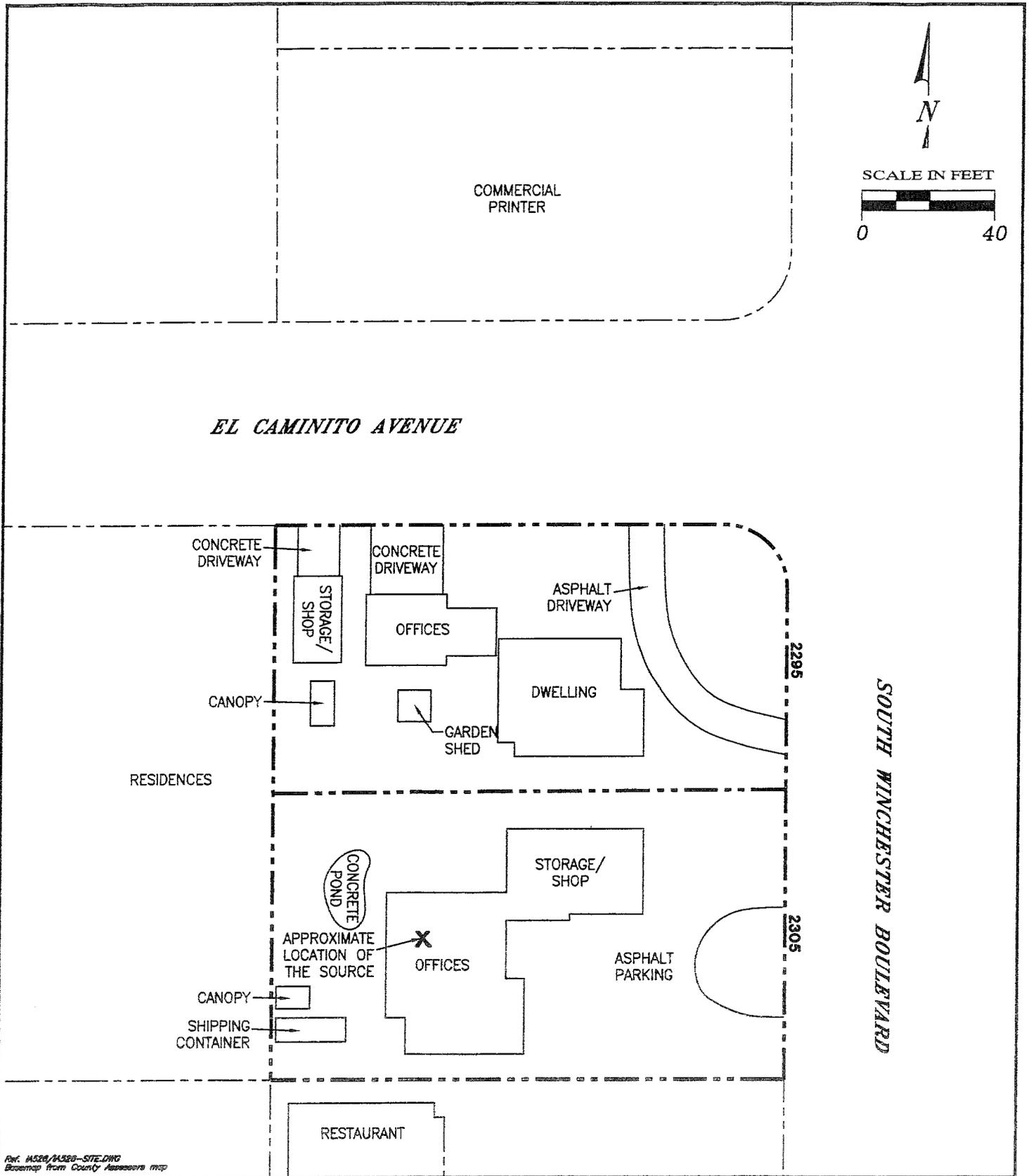
Ref. M326/M326-SITE.DWG
Base Map from TOPOTI 100



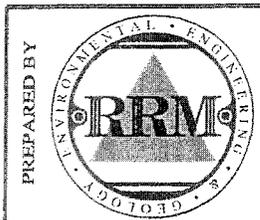
SITE LOCATION MAP

HEALY PROPERTY AND FANELLI/HOWELL PROPERTY
2295 and 2305 Winchester Boulevard
Campbell, California

FIGURE:
1
PROJECT:
IA526



Ref. IA526/IA528-SITE.DWG
 Base map from County Assessor's map



SITE MAP

HEALY PROPERTY AND FANELLI/HOWELL PROPERTY
 2295 and 2305 Winchester Boulevard
 Campbell, California

FIGURE:
2
 PROJECT:
 IA526

ATTACHMENT 4

GEOTECHNICAL INVESTIGATION



ACE

AMSO CONSULTING ENGINEERS
SOILS, FOUNDATIONS & ENVIRONMENTAL ENGINEERING

1478 B STREET, SUITE 1C, HAYWARD, CALIFORNIA 94541
Phone (510) 690-0714, Fax: (510) 690-0721, email: basil@amsconsulting.com

June 26, 2008
Project 3485

Mr. Stewart Giotta
Lexmar Development Co.
41 East Main Street
Los Gatos, California 95030

Subject: Geotechnical Investigation for
Mixed Use Building
2295 & 2305 South Winchester Boulevard
Campbell, California

Dear Mr. Giotta:

This report presents the results of our geotechnical investigation for the commercial/residential building you are proposing to construct on the combined parcels located at 2295 & 2305 South Winchester Boulevard in Campbell, California.

We understand that Lexmar Development is planning to construct a two story wood frame building over a basement level garage on these properties

SCOPE OF WORK

We propose to perform the following scope of work for this geotechnical investigation.

1. Reviewed geologic and geotechnical information in our files pertinent to the site and the surrounding area.
2. Explored, sampled and classified foundation soils by means of two small diameter exploration drill holes. At the end of drilling both holes were backfilled with cement/soil mixture.
3. Performed laboratory test on selected soil samples obtained from the exploration holes to determine their pertinent index and engineering characteristics.
4. Developed seismic characteristics for site structure resonance in accordance with the 2007 California Building Code.
5. Reviewed and analyzed of the information collected above.

6. Prepared this report summarizing our findings, conclusions, and geotechnical recommendations.

FINDINGS

Surface Conditions

The project site is located at the southwest corner of the intersection of El Caminito Avenue and South Winchester Boulevard in Campbell, California. The site is almost level with an estimated average ground elevation of about 210 feet (Based on the USGS Topographic Maps). The site is bound by residential building on the west and by a commercial building on the south.

At the time of our subsurface exploration in May of 2008, the site was clear of any structure and was covered with loose gravels, remnants of the buildings that used to occupy the two parcels and minor scattered rubble with few mature trees, weed and bushes.

Subsurface Conditions

Subsurface conditions under the proposed building were explored by means of two small diameter exploration borings. The exploration borings were advanced to 25 feet below existing ground surface. Within the depths of our exploration, the native soils at the site consist of clay, silt, sand and gravel.

The site is underlain by a surface layer of silty clay and clayey silt (CL/ML) with low plasticity and low potential for expansion. This layer of clay and silt was found to be of firm to stiff consistency and extended to an average of about 3 feet. Below this layer clay and silt, the building site is underlain by dense to hard silty sandy gravel to the maximum depth of our exploration.

Ground water was not encountered in any of the exploration holes at the time of our subsurface exploration.

The descriptions given above pertain only to the subsurface conditions found at the site at the time of our subsurface exploration in May of 2008. Subsurface conditions, particularly ground water levels and the consistency of the near-surface soils, will vary with the seasons.

Detailed descriptions of the materials encountered in the borings are given on the appended boring logs.

Seismic Considerations

This site is located within a seismically active region but outside any of the Alquist-Priolo Earthquake Fault Zones. The following faults are closest to the site.

Fault	Distance to Fault		Maximum Moment Magnitude
	Miles	Kilometers	
MONTE VISTA - SHANNON	2.4	3.8	6.8
SAN ANDREAS (1906)	7	11	7.9
SARGENT	10	16	6.8
HAYWARD (Total Length)	14	22	7.1
ZAYANTE-VERGELES	13	21	6.8
CALAVERAS (No.of Calaveras	14	22	6.8
HAYWARD (SE Extension)	11	17	6.4
SAN GREGORIO	22	35	7.3
CALAVERAS (So.of Calaveras	13	21	6.2
MONTEREY BAY - TULARCITOS	26	43	7.1

Seismic hazards can be divided into two general categories, hazards due to ground rupture and hazards due to ground shaking.

Ground Rupture

Since no active faults are known to cross this property, the risk of earthquake-induced ground rupture occurring across the project site appears to be remote.

Ground Shaking

Based on historic records and on the known general seismicity of the San Francisco Bay region, we consider it probable that during the next 50 years the site will be shaken by at least one earthquake of Richter Magnitude 6.0 or greater, and by numerous earthquakes of lesser Magnitude, all having epicentral locations within about 20 miles of the site. Should a major earthquake occur with an epicentral location close to the site, ground shaking at the site will undoubtedly be severe, as it will for other property in the general area. Potential hazards associated with ground shaking are liquefaction and lateral spreading.

Liquefaction Potential

Liquefaction is the process by which saturated, non-cohesive soil (sand and silt) loses shear strength during seismic shaking and behaves like a liquid, rather than a solid. The effect on structures and buildings can be devastating, and is a major contributor to seismic failures.

Liquefaction occurs when a saturated sand formation is subject to cyclic shaking. The shaking causes increased pore water pressure which reduces the effective stress, and therefore reduces the shear strength of the sand. Soils most prone to liquefaction are loose sands between layers of lower permeability soil that prevent rapid dissipation of cyclic pore pressures.

The loose grains can support considerable weight, as they are in contact with each other in a statically stable formation. Once strong earthquake shaking begins, the grains are separated by high pore water pressure and are no longer resting on each other. Eventually, the grains will settle into a more compact arrangement. However, this transition is not immediate, and requires excess water to leave the formation. For a short period of time, depending how long it takes for the water to drain from the formation, the grains float in liquid slurry. The excess water is squeezed out which causes the quicksand condition at the surface. If there is a dry soil crust or impermeable cap, the excess water will sometimes come to the surface through cracks in the confining layer, bringing liquefied sand with it, creating sand boils.

The project site is located in an area of moderate potential for liquefaction as identified in the liquefaction susceptibility map (Figure 4) prepared by the ABAG (Association of Bay Area Governments).

The potential for liquefaction at this site was analyzed using procedures outlined in the Technical report NCEER-97-0022 "Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils" dated December 31, 1997. Based on the results of our liquefaction analysis at this site, soils that underlie the proposed development will not exhibit any potential for liquefaction under the influence of a maximum credible earthquake. Peak ground accelerations at the site was estimated to be 0.5g based upon $S_{DS}/2.5$ as recommended in section 1802.2.7 of the 2007 California Building Code.

Seismic Design Parameters

The following general site seismic parameters may be used for design in accordance with Section 1613 of the 2007 California Building Code.

Site Class: **D** (Stiff Soil Profile)

Mapped Acceleration Parameters: S_s (for short periods) = 1.91g
 S_1 (for 1-second period) = 0.66g

Site Coefficient: F_a (for short periods) = 1.0
 F_v (for 1-second period) = 1.50

Adjusted Maximum Considered EQ Spectral Response Acceleration Parameters:

$$S_{MS} = F_a * S_s = 1.91g$$

$$S_{M1} = F_v * S_1 = 0.99g$$

Design Spectral Response Acceleration Parameters:

$$S_{DS} = 2/3 * S_{MS} = 1.27g$$

$$S_{D1} = 2/3 * S_{M1} = 0.66g$$

Seismic Design Category: **D**

We should point out that the structural seismic design is not intended to eliminate damage to a structure. The goal of the design system is to minimize the loss of human life. It is unlikely that any structure can be designed to withstand the forces of a great earthquake without any damage at all.

Potential Geologic and Geotechnical Hazards

There are several potential geologic and geotechnical hazards that can affect any given site. They are discussed below, along with any required mitigation measures.

Ground Rupture: In our opinion, this is not a significant hazard to this site. No mitigation is required.

Ground Shaking: This hazard is common to all properties in California. Mitigate by proper structural design and by following the recommendations presented in this report.

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Liquefaction: As discussed in the previous section of the report, soils that underlie the proposed development are unlikely to liquefy. No mitigation is required.

Lurching and Lateral Spreading: Same as above.

Landsliding: The site and general vicinity is essentially flat. Landsliding is not a potential hazard to this property. No mitigation is required.

Compressible Soils: Such soils are not present on this site. No mitigation is required.

Expansive Soils: Such soils are not present on this site. No mitigation is required.

Erosion: The site soils are easily eroded. Mitigate by controlling the discharge of concentrated water, both during and after construction.

CONCLUSIONS AND RECOMMENDATIONS

In our opinion, the site is suitable for the proposed development provided the recommendations presented in this report are followed.

The following recommendations, which are presented as guidelines to be used by project planners and designers, have been prepared assuming AMSCO CONSULTING ENGINEERS will be commissioned to review the grading and foundation plans prior to construction, and to observe and test during site grading and foundation construction. This additional opportunity to inspect the project site will allow us to compare subsurface conditions exposed during construction with those that were observed during this investigation.

Site Preparation Grading and Compaction

Remnants of the structures and pavement within areas of the site to be built on or paved should be removed. Utility lines including electric, water, sanitary sewers and storm drains designated for abandonment on the Project Plans, should be dug out and removed. All debris and materials arising from demolition and removal operations should be wasted off-site.

Bare areas of the site to be built on or paved should be stripped to remove any surface vegetation, organic topsoil, existing structures and trees. Soils containing more than 2% by weight of organic matter should be considered organic. Stripping depths should be determined in the field by the Soils Engineer at the time of stripping but, for planning purposes, an average stripping depth of 3 inches may be assumed. Strippings should be wasted off-site or, if so

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required by the Project Landscape Architect, stockpiled for subsequent use in landscape areas.

Soil surfaces exposed by stripping should be scarified to a depth of 8 inches, conditioned with water (or allowed to dry, as necessary) to produce a soil water content of about 3 percent above the optimum value and then compacted to at least 90 percent relative compaction based on ASTM Test D1557-91.

Structural fill (where needed) may then be placed up to design grades in the proposed pavement areas and building areas (if the second alternate described above is selected). Structural fill using on-site inorganic soil, or approved import, should be placed in layers, each not exceeding 8 inches thick (before compaction), conditioned with water (or allowed to dry, as necessary) to produce a soil water content of about 3 percent above the optimum value, and then compacted to at least 90 percent relative compaction based on ASTM Test D1557-91. The upper 8 inches of pavement subgrades should be compacted to at least 95 percent relative compaction based on ASTM Test D1557-91.

On-site soils proposed for use as structural fill should be inorganic, free from deleterious materials, and should contain no more than 15% by weight of rocks larger than 3 inches (largest dimension) and no rocks larger than 6 inches. The suitability of existing soil for reuse as a structural fill should be determined by a member of our staff at the time of grading. We expect that most of the existing fill soil will be suitable for reuse as structural fill. If import is required for use as structural fill, it should be inorganic, should preferably have a low expansion potential and should be free from clods or rocks larger than 4 inches in largest dimension. Prior to delivery to the site, proposed import should be tested in our laboratory to verify its suitability for use as structural fill and, if found to be suitable, further tested to estimate the water content and density at which it should be placed.

Building Foundations

The proposed buildings may be supported on conventional shallow foundations bearing on competent native soil or on compacted structural fill placed and compacted as described in the previous section.

Continuous, reinforced concrete foundations may be designed to impose pressures on foundation soils up to 2500 pounds per square foot from dead plus normal live loading. Continuous foundations should be at least 15 inches wide and should be embedded at least 18 inches below rough pad grade or adjacent finished grade, whichever is lower.

Interior isolated foundations, such as may support column loads, may be designed to impose pressures on foundation soils up to 3000 pounds per square foot from dead plus normal live loading. Interior foundations should be embedded at least 18 inches below rough pad grade.

Base upon our experience with similar buildings constructed on similar foundation soils, we expect the total long-term static settlement of the building to be approximately $\frac{3}{4}$ (\pm) inch. Using the design values presented above, and assuming a minimum embedment of both continuous and isolated footings, we would expect the post-construction differential settlement of a relatively uniformly loaded structure to be no more than about $\frac{1}{2}$ of the total settlement.

Lateral Resistance

Lateral forces on the proposed building may be resisted by passive pressure acting against the sides of footings and by friction between the soil and the bottom of slabs and footings. An equivalent fluid pressure of 350 pounds per square foot per foot of depth may be used to calculate the ultimate passive resistance to lateral loads. A coefficient of friction of 0.35 may be assumed to calculate resistance to lateral loads at the base of concrete slabs and foundations.

General

The allowable foundation pressures given previously may be increased by one-third when considering additional short-term wind or seismic loading.

During foundation construction, care should be taken to minimize evaporation of water from foundation and floor subgrades. Scheduling the construction sequence to minimize the time interval between foundation excavation and concrete placement is important. Concrete should be placed only in foundation excavations that have been kept moist, are free from drying cracks and contain no loose or soft soil or debris.

Basement Walls

The following may be used in the design calculations for basement walls.

1. The average bulk density of material placed on the backfill side of the wall will be 120 pcf.

2. The vertical plane extending down from the ground surface to the bottom of the heel of the wall will be subject to pressure that increases linearly with depth as follows.

<u>Condition</u>	<u>Design Pressure</u>
Active, drained	45 pcf
At-rest, drained	65 pcf

The above values are for non-seismic conditions. Active pressures should only be used for walls that are not restrained to move. Basement walls should be designed for at-rest pressure.

3. The effects of earthquakes may be simulated by applying a horizontal line load surcharge to the stem of the wall at a rate of $15 H^2$ lb/horizontal foot of wall, where H is the height of the surface of the backfill above the base of the wall. This surcharge should be applied at a height of 0.6H above the base of the wall.
4. A coefficient of "friction" of 0.35 may be used to calculate the ultimate resistance to horizontal sliding of the wall base over the ground beneath the base.
5. An equivalent fluid pressure of 350 psf/ft may be used to calculate the ultimate passive resistance to lateral movement of the ground in front of the toe of the wall and in front of any "key" beneath the toe or stem of the wall.
6. 2500 psf may be used as the maximum allowable bearing pressure for the ground beneath the toe of the wall. This value is for non-seismic conditions and may be increased by 1/3 when considering additional loads on the wall resulting from earthquakes.

A zone of drainage material at least 18 inches wide should be placed on the backfill side of walls designed for drained condition. This zone should extend up the back of the wall to about 18 inches down from the proposed ground surface above. The upper 18 inches or so of material above the drainage material should consist of native, clayey soil.

The drainage material and the clayey soil cap should be placed in layers about 6 inches thick and moderately compacted by hand-operated equipment to eliminate voids and to minimize post-construction settlement. Heavy compaction should not be applied; otherwise, the design pressure on the wall may be exceeded.

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The drainage material should consist of either Class 2 Permeable Material complying with Section 68 of the CALTRANS Standard Specifications, latest edition, or 3/4 to 1½ inch clean, durable coarse aggregate. If the coarse aggregate is chosen as the drainage material, it should be separated from all adjacent soil by Mirafi 700X or a similar filter fabric approved by the project Soil Engineer.

Any water that may accumulate in the drainage material should be collected and discharged by a 4-inch-diameter, perforated pipe placed "holes down" near the bottom of the drainage material. The perforated pipe should have holes no larger than 1/4-inch diameter.

For this site, the wall drains for the basement will need to be connected to a sump and pump system for discharge. We recommend that the sump be located outside of the basement. We also recommend that the light well drains should have their own solid drain lines that lead to a sump.

Cut Slope Stability & Temporary Shoring

The prevailing OSHA Guidelines should be followed for the excavation of the basement. In areas where this can not be done, the placement of temporary shoring will be required. The temporary shoring should be designed by the project structural engineer using the values appearing in this report, under the section "Retaining Walls".

Concrete Slabs-On-Grade

Concrete floor slabs should be constructed on compacted soil subgrades prepared as described in the section on Site Preparation, Grading and Compaction.

To minimize floor dampness, a section of capillary break material at least five inches thick and covered with a membrane vapor barrier should be placed between the floor slab and the compacted soil subgrade. The capillary break should be a free-draining material, such as 3/8" pea gravel or a permeable aggregate complying with CALTRANS Standard Specifications, Section 68, Class 1, Type A or Type B. The material proposed for use as a capillary break should be tested in our laboratory to verify its effectiveness as a capillary break. The membrane vapor barrier should be a high quality membrane such as Moistop (by Fortifiber Corporation) or similar. A protective cushion of sand or capillary break material at least two inches thick should be placed between the membrane vapor barrier and the floor slab.

Exterior concrete slabs may be constructed directly on the water-conditioned and compacted soil subgrade.

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Vehicle Pavements

Near-surface soils across the site have a low pavement-supporting capacity. An R-value of 10 at 300 psi exudation pressure was assumed in pavement design calculations. The actual R-value of the pavement soil subgrade should be tested and verified prior to construction.

Recommended minimum sections for pavement areas are presented in Table 1. A pavement section based on a Traffic Index of at least 5 should be selected for areas where traffic includes occasional light trucks.

TABLE 1 - RECOMMENDED MINIMUM ASPHALT CONCRETE PAVEMENT SECTIONS			
Traffic Index (T.I.)	Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)	Total Thickness (inches)
4.5	3.0	8.0	11.0
5.0	3.0	9.0	12.0
5.5	3.5	10.0	13.5
6.0	4.0	11.0	15.0

Pavement subgrades should be compacted as described above in the section for Site Preparation Grading and Compaction.

Curbs and gutters should be constructed directly on the soil subgrade rather than on a layer of aggregate base. This will minimize the amount of surface water that seeps below the curb and into the pavement subgrade. The seepage of water into subgrade soils beneath vehicle pavements, can result in subgrade softening and premature pavement distress.

Pavement construction should comply with the requirements of the CALTRANS Standard Specifications, latest editions, except that compaction requirements for pavement soil subgrades and aggregate base should be based on ASTM Test D1557-91, as described in the part of this report dealing with "Site Preparation, Grading and Compaction."

Utility Trenches

The attention of contractors, particularly the underground contractor, should be drawn to the requirements of California Code of Regulations, Title 8, Construction Code Section 1540 regarding Safety Orders for "Excavations, Trenches, Earthwork".

For purposes of this section of the report, bedding is defined as material placed in a trench up to 1 foot above a utility pipe and backfill is all material placed in the trench above the bedding.

Unless concrete bedding is required around utility pipes, free-draining sand should be used as bedding. Sand proposed for use in bedding should be tested in our laboratory to verify its suitability and to measure its compaction characteristics. Sand bedding should be compacted by mechanical means to achieve at least 90 percent compaction density based on ASTM Tests D1557-91.

Approved, on-site, inorganic soil, or imported material may be used as utility trench backfill. Proper compaction of trench backfill will be necessary under and adjacent to structural fill, building foundations, concrete slabs and vehicle pavements. In these areas, backfill should be conditioned with water (or allowed to dry) to produce a soil-water content of about 5 percent above the optimum value and placed in horizontal layers not exceeding 6 inches in thickness (before compaction). Each layer should be compacted to 87-90 percent relative compaction based on ASTM Test D1557-91. The upper 8 inches of pavement subgrades should be compacted to about 90 percent relative compaction based on ASTM Test D1557-91.

Where any trench crosses the perimeter foundation line of any building, the trench should be completely plugged and sealed with compacted clay soil for a horizontal distance of at least 2 feet on either side of the foundation.

Surface Drainage

Surface drainage gradients should be planned to prevent ponding and to promote drainage of surface water away from building foundations, slabs, edges of pavements and sidewalks, and towards suitable collection and discharge facilities.

Water seepage or the spread of extensive root systems into the soil subgrades of foundations, slabs, or pavements, could cause differential movements and consequent distress in these structural elements. This potential risk should be given due consideration in the design and construction of landscaping.

Follow-up Geotechnical Services

Our recommendations are based on the assumption that AMSO CONSULTING ENGINEERS will be commissioned to perform the following services.

1. Review final grading and foundation plans prior to construction.
2. Observe and advise during clearing and stripping of the site.
3. Observe, test and advise during any grading and placement of structural fill.
4. Test proposed capillary break material that will be used beneath concrete slabs-on-grade and advise on suitability.
5. Observe and advise during foundation and slab construction.
6. Observe, test and advise during utility trench backfilling.
7. Observe, test and advise during construction of pavements.

LIMITATIONS

The recommendations contained in this report are based on certain plans, information and data that have been provided to us. Any change in those plans, information and data will render our recommendations invalid unless we are commissioned to review the change and to make any necessary modifications and/or additions to our recommendations.

Subsurface exploration of any site is necessarily confined to selected locations. Conditions may, and often do, vary between and around such locations. Should conditions different from those encountered in our explorations come to light during project development, additional exploration, testing and analysis may be necessary; changes in project design and construction may also be necessary.

Our recommendations have been made in accordance with the principles and practices generally employed by the geotechnical engineering profession. This is in lieu of all other warranties, express or implied.

June 26, 2008

Project 3485

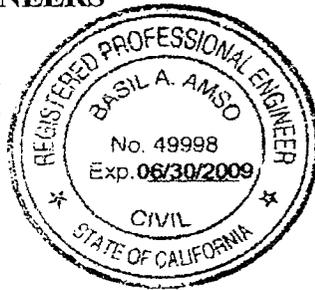
All earthwork and associated construction should be observed by our field representative, and tested where necessary, to compare the generalized site conditions assumed in this report with those found at the site at the time of construction, and to verify that construction complies with the intent of our recommendations.

Report prepared by:

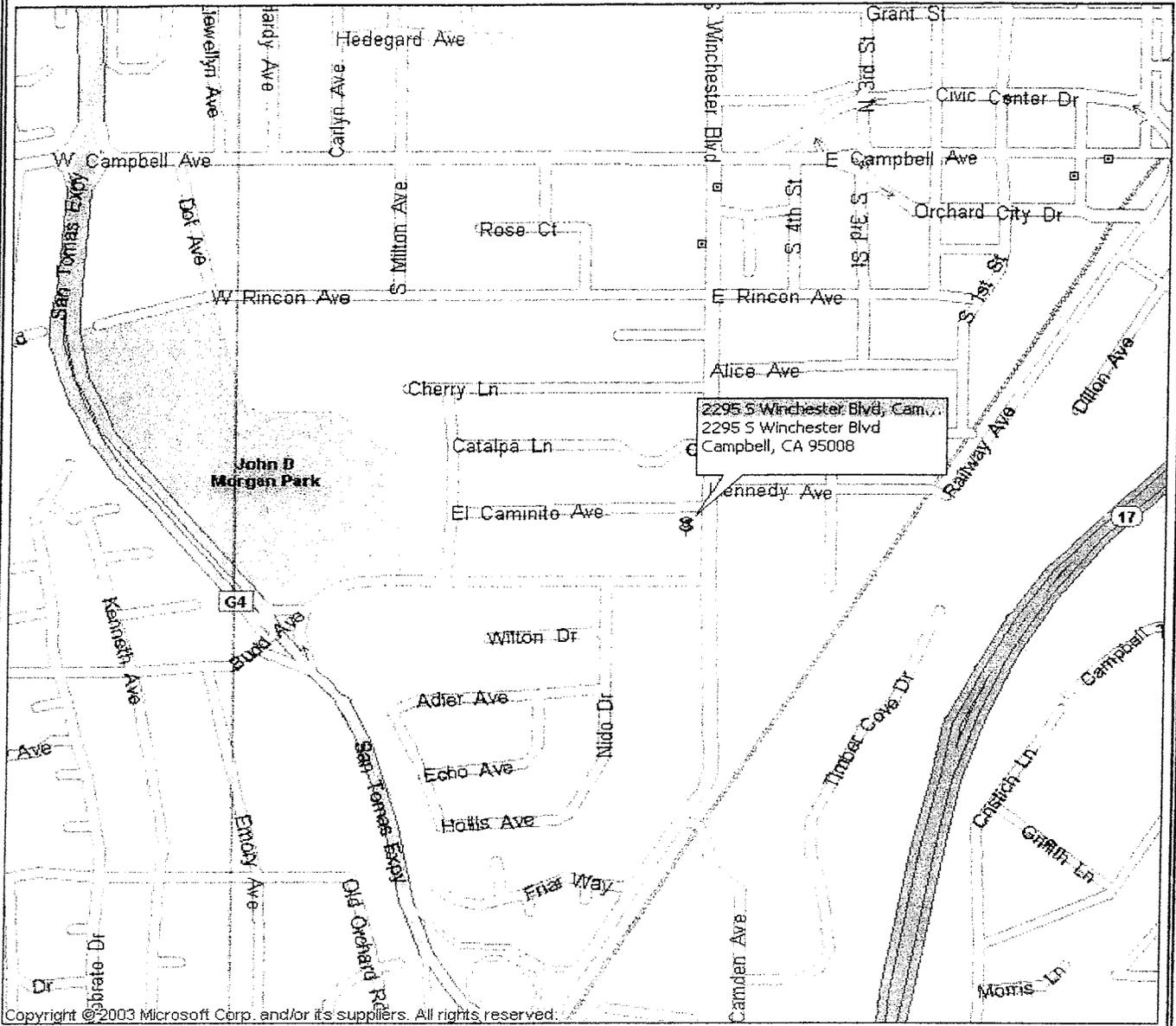
AMSO CONSULTING ENGINEERS



Basil A. Amso
CE 49998



AMSO CONSULTING ENGINEERS



**AMSO CONSULTING
ENGINEERS**

JULY 2008

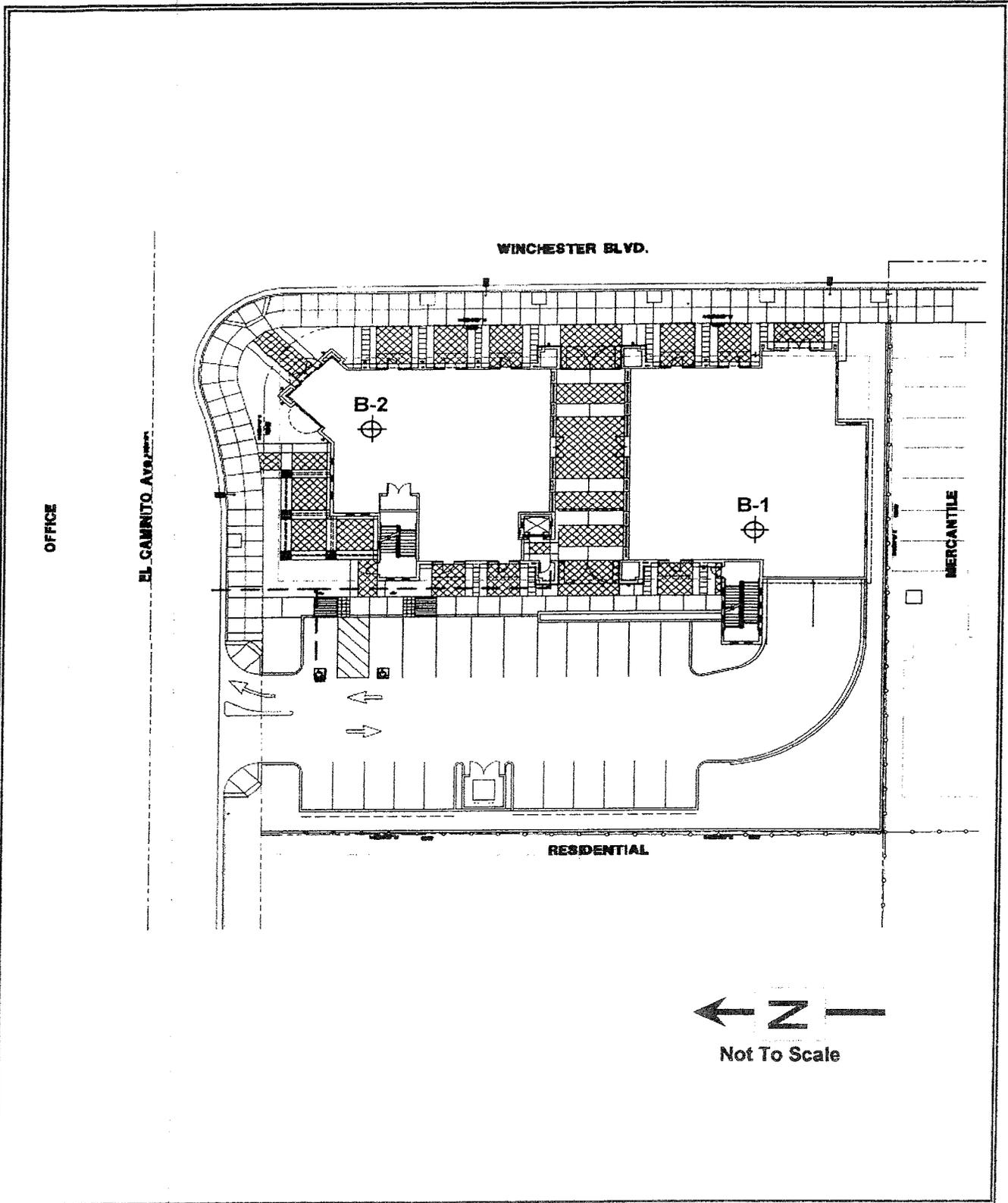
VICINITY MAP

**MIXED USE BUILDING
2295 & 2305 SOUTH WINCHESTER BLVD.
CAMPBELL, CALIFORNIA**

FIGURE

1

**PROJECT
3485**



<p>AMSO CONSULTING ENGINEERS</p>	<p>SITE PLAN AND LOCATION OF EXPLORATION BORINGS MIXED USE BUILDING</p>	<p>FIGURE 2</p>
<p>JULY 2008</p>	<p>2295 & 2305 SOUTH WINCHESTER BLVD. CAMPBELL, CALIFORNIA</p>	<p>PROJECT 3485</p>

LEGEND

- Type "A" Faults
- SA San Andreas
- SG San Gregorio
- H-A Hayward
- C-A Calaveras
- Type "B" Faults
- MV-S Monte Vista - Shannon
- CA-B Calaveras (So. Of Reser)
- H-B Hayward (South Ext.)
- SAR Sargent
- Z-V Zatante-Vergeles
- Site Location

This map should not be used to determine whether or not a given property lies on a fault line. Its only purpose is to give the reader of this report a feel of approx. distances to Types A & B fault. Faults other than Types A & B are not shown on this map.

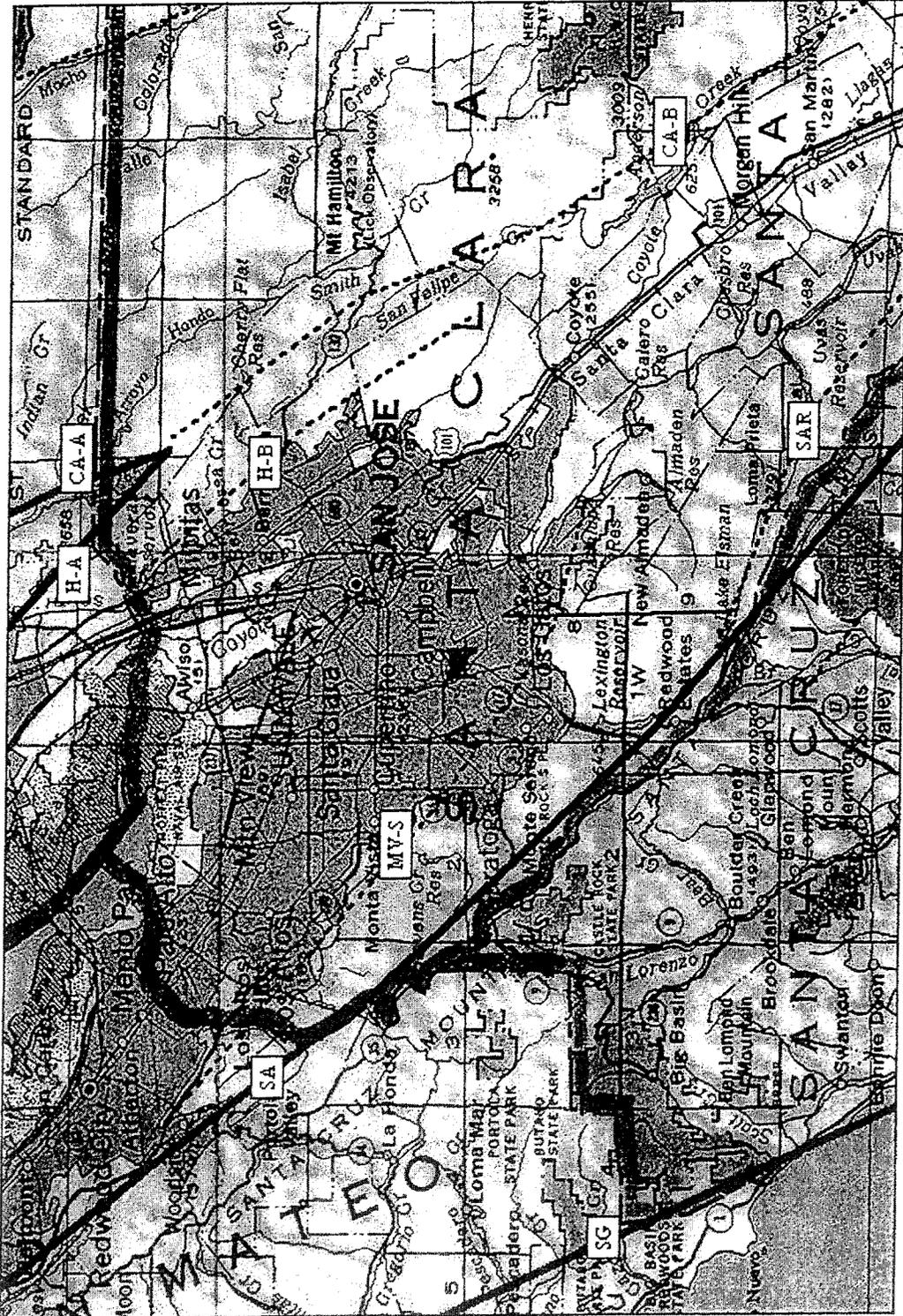


FIGURE
3

PROJECT
3485

APPROXIMATE LOCATION OF TYPES "A" AND "B" FAULTS

MIXED USE BUILDING
2295 & 2305 SOUTH WINCHESTER BLVD.
CAMPBELL, CALIFORNIA

AMSO CONSULTING ENGINEERS

JULY 2008

Liquefaction Susceptibility Map

Susceptibility Level

-  Very High
-  High
-  Moderate
-  Low
- Very Low

-  Major Roads
-  Local Roads



Scale: 1 inch equals 0.39 miles

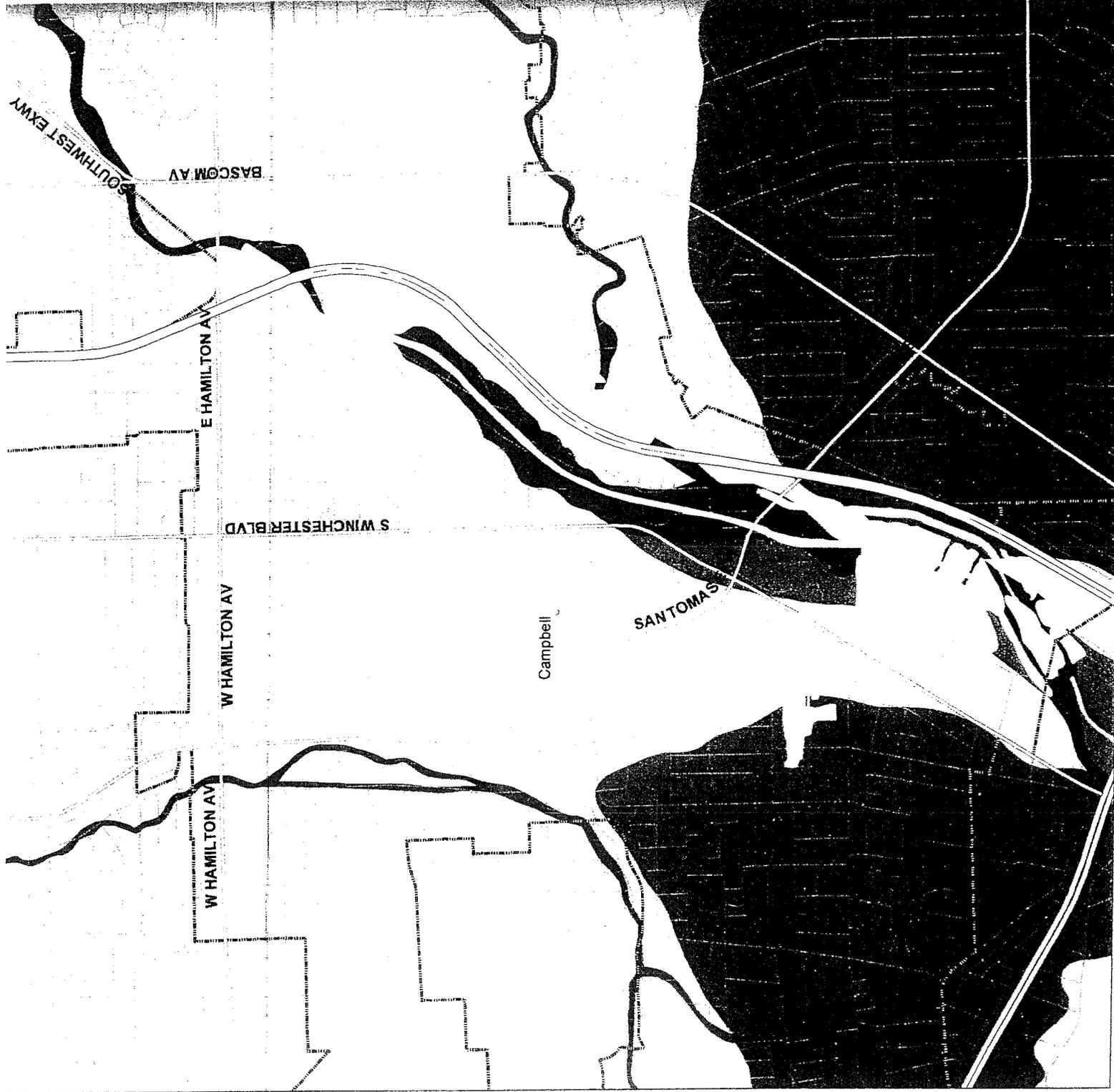
This map is intended for planning use only and is not intended to be site-specific. Rather, it depicts the general risk within neighborhoods and the relative risk from community to community. More detailed maps are needed for site development decisions.

This map is available at <http://quake.abag.ca.gov>

Source:
This map is based on work by William Lettis & Associates, Inc. and USGS. USGS Open-File Report 00-444, Knudsen & others, 2000

For more information visit:
<http://geopubs.wr.usgs.gov/open-file/of00-444/>

Map Prepared by the ABAG Earthquake Program. April 2004.



APPENDIX A

Key to Exploration Logs and Boring Logs

KEY TO EXPLORATORY BORING LOGS

SOIL CLASSIFICATIONS

PRIMARY DIVISIONS			GROUP 1 SYMBOL	SECONDARY DIVISIONS	
COARSE GRAINED SOILS More than half of material is larger than No. 200 sieve size	GRAVELS More than half coarse fraction is larger than No. 4 sieve	Clean Gravels (less than 5% fines*)	GW	Well graded gravels, gravel-sand mixtures, little or no fines	
		Gravel with fines*	GP	Poorly graded gravels, gravel-sand mixtures, little or no fines	
		SANDS More than half coarse fraction is smaller than No. 4 sieve	Clean Sands (less than 5% fines*)	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines
			Sands with fines*	GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines
	FINE GRAINED SOILS More than half of material is smaller than No. 200 sieve size	SILTS AND CLAYS Liquid limit is less than 35		SW	Well graded sands, gravelly sands, little or no fines
				SP	Poorly graded sands or gravelly sands, little or no fines
				SM	Silty sands, silt-sand mixtures, non-plastic fines
		SILTS AND CLAYS Liquid limit is between 35 and 50		SC	Clayey sand, sand-clay mixtures, plastic fines
			ML	Inorganic silts, clayey silts, rock flour, silty very fine sands	
			CL	Inorganic clays of low plasticity, gravelly clay of low plasticity	
SILTS AND CLAYS Liquid limit is greater than 50		OL	Organic silts and organic silty clays of low plasticity		
		MI	Inorganic silts, clayey silts and silty fine sand with intermediate plasticity		
		CI	Inorganic clays, gravelly clays, sandy clays and silty clays of intermediate plasticity		
		OI	Inorganic clays and silty clays of intermediate plasticity		
HIGHLY ORGANIC SOILS			MH	Inorganic silts, clayey silts, elastic silts, micaceous or diatomaceous silty or fine sandy soil	
			CH	Inorganic clays of high plasticity	
			OH	Organic clays and silts of high plasticity	
			Pt	Peat, meadow mat, highly organic soils	

GRAIN SIZES

U.S. STANDARD SERIES SIEVE					CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4		¾"	3"	12"	
Fine		Medium		Coarse	Fine	Coarse		
SAND					GRAVEL		Cobbles	Boulders

RELATIVE DENSITY

SANDS, GRAVELS AND NON-PLASTIC SILTS	BLOWS/FOOT*
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CONSISTENCY

CLAYS AND PLASTIC SILTS	UNCONFINED SHEAR STRENGTH (PSF)	BLOWS/FOOT*
VERY SOFT	0 - 250	0 - 2
SOFT	250-500	2 - 4
FIRM	500-1000	4 - 8
STIFF	1000-2000	8 - 16
VERY STIFF	2 000- 4000	16 - 32
HARD	>4000	OVER 32

SYMBOLS

	Initial Ground Water Level
	Final Ground Water Level
*	Standard Penetration Sampler
X	Modified California Sampler
D	Dames & Moore Sampler

NOTES

*BLOWS per FOOT - Resistance to advance the soil sampler in number of blows of a 140-pound hammer falling 30 inches to drive a split spoon sampler.

Stratification lines on the logs represent the approximate boundary between soil types, and the transition may be gradual.

Modified California Sampler - 2 ½ O.D. (1 7/8 Inch I.D.) sampler

Standard Penetration Sampler - 2 inch O.D. (1 3/8 Inch I.D.) split spoon sampler (ASTM D1586).

Dames & Moore Sampler - 3 inch O.D. (2.5 inch I.D.) sampler

APPENDIX B

Laboratory Test Results

ATTACHMENT 5

ENVIRONMENTAL NOISE ASSESSMENT

***2295/2305 SOUTH WINCHESTER MIXED-USE
RESIDENTIAL PROJECT
ENVIRONMENTAL NOISE ASSESSMENT
CAMPBELL, CALIFORNIA***

September 5, 2014



Prepared for:

**Jeff Warmoth
SREA, Inc.
175 E. Campbell Avenue, Suite 202
Campbell, CA 95008**

Prepared by:

**Joshua D. Carman
ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
1 Willowbrook Court, Suite 120
Petaluma, CA 94954
(707) 794-0400**

Project: 14-132

INTRODUCTION

This report presents the results of the noise assessment completed for the proposed mixed-use residential development project. The project would entail the construction of 16 condominiums and 3,200 square feet of retail on an approximately 0.57-acre site located on two vacant parcels at 2295 and 2305 S. Winchester Boulevard in Campbell, California. This noise assessment presents the regulatory criteria used in the assessment, the results of on-site noise monitoring, and our evaluation of the compatibility of the noise environment at the project site in relation to the project site plan. Preliminary noise reduction measures are presented to provide an acceptable interior noise environment per City of Campbell guidelines.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its loudness. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A decibel (dB) is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq} . The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration. The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is

from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level*, *CNEL*, is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level*, L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours.

TABLE 1 Definition of Acoustical Terms Used in this Report

Term	Definition
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max} , L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01} , L_{10} , L_{50} , L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or LDN	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall
	20 dBA	
	10 dBA	Broadcast/recording studio
	0 dBA	

Source: Technical Noise Supplement (TeNS), Caltrans, November 2009.

Regulatory Background

The Conservation and Natural Resources Element of the City of Campbell General Plan sets forth policies related to noise control in the City. The following policies are applicable to the proposed project:

Goal CNR-10: Protect the community, especially sensitive noise receptors such as schools, hospitals and senior facilities, from excessive noise.

Strategy CNR-10.1c: Noise and New Development:

Evaluate the potential for noise pollution and ways to reduce noise impacts when reviewing development proposals.

Traffic-Related Noise: New residential development shall conform to a traffic related noise exposure standard of 60 dBA CNEL for outdoor noise in noise-sensitive outdoor activity areas and 45 dBA CNEL for indoor noise. New development, which does not and cannot be made to conform to this standard shall not be permitted. Acoustical studies, describing how the exterior and interior noise standards will be met, shall be required for all new residential developments with a noise exposure greater than 60 dBA CNEL. The studies should also satisfy the requirements set forth in Title 24, part 2, of the California Administrative Code, Noise Insulation Standards, for multiple-family attached residential projects, hotels, motels, etc., regulated by Title 24.

Strategy CNR-10.1d: Noise Mitigation Measures:

Review and require noise mitigation measures for development projects, including setbacks between uses, earth berms, sound walls, landscaping and site design that shields noise-sensitive uses with non-sensitive structures such as parking lots, utility areas and garages, or orients buildings to shield outdoor spaces from noise sources.

Existing Noise Environment

The project site is approximately 0.57 acres in size and is located at the corner of S. Winchester Boulevard and El Caminito Avenue. Single-family housing bounds the project site to the west. Commercial uses bound the project site to the south. St. Lucy's School is located across S. Winchester Boulevard to the east of the project site. The existing noise environment at the site and in the vicinity results primarily from traffic on S. Winchester Boulevard.

A noise monitoring survey was conducted between August 19, 2014 and August 21, 2014 to document existing noise conditions at the project site. The noise monitoring survey included two long-term noise measurements (LT-1 and LT-2) and one short-term measurement (ST-1). Noise measurements locations are shown in Figure 1.

Long-term noise measurement LT-1 was located at the eastern portion of the project site approximately 60 feet from the centerline of S. Winchester Boulevard. Noise levels measured at this site were primarily the result of traffic on S. Winchester Boulevard. Hourly average noise levels typically ranged from 65 to 74 dBA L_{eq} during the day and from 52 to 65 dBA L_{eq} at

night. The calculated day-night average noise level at this location was 70 dBA CNEL. Long-term noise measurement LT-2 was located at the northwestern portion of the project site approximately 45 feet from the centerline of El Caminito Avenue. Noise levels measured at this site were primarily the result of traffic on El Caminito Avenue and S. Winchester Boulevard. Hourly average noise levels typically ranged from 57 to 66 dBA L_{eq} during the day and 45 to 62 dBA L_{eq} at night. The calculated day-night average noise level at this location was 64 dBA CNEL. Appendix 1 summarizes the data collected at the two long-term measurement sites.

Attended short-term noise measurements were made at one additional location (ST-1) to complete the August 2014 noise monitoring survey. Short-term noise measurement ST-1 was made at the northeastern portion of the project site. The ten-minute average noise level was 67 dBA L_{eq} . Table 4 summarizes the results of these measurements.

TABLE 4 Summary of Short-Term Noise Measurement Data

<i>Noise Measurement Location</i>	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}	CNEL
ST-1: ~60 feet from the center of S. Winchester Blvd., ~45 feet from the center of El Caminito Ave.. (8/19/2014, 12:50 p.m. - 1:00 p.m.)	81	75	70	65	57	67	70

Note: CNEL estimated through correlation to corresponding period at long-term site.

Figure 1: Noise Measurement Locations



Noise and Land Use Compatibility Assessment

Future Exterior Noise Environment

The future noise environment at the project site will result primarily from vehicular traffic along S. Winchester Boulevard. Future transportation-related noise levels at the project site were calculated based on adjustments made to existing noise level data assuming future increased traffic along area roadways. Noise levels throughout the project site would exceed the City of Campbell's acceptable noise and land use compatibility goal of 60 dBA CNEL, but would vary depending upon the proximity of receptors to area roadways and the presence of shielding features (e.g., proposed buildings).

Future traffic noise levels along S. Winchester Boulevard are anticipated to increase by 1 dBA CNEL, at the proposed setback of residential land uses with line-of-sight to the roadway. The future exterior noise environment at residential land uses proposed adjacent to S. Winchester Boulevard is calculated to reach 71 dBA CNEL.

A review of the site plan does not indicate any common outdoor use areas proposed as part of the project.

Future Interior Noise Environment

Interior noise levels within new residential units are required by the City of Campbell to be maintained at or below 45 dBA CNEL. Perimeter residential units would be exposed to future noise levels greater than 60 dBA CNEL with the highest future noise exposures occurring at unshielded residential facades nearest S. Winchester Boulevard. Future noise levels at these unshielded facades are calculated to reach 71 dBA CNEL. In buildings of typical construction, with the windows partially open, interior noise levels are generally 15 dBA lower than exterior noise levels. With the windows maintained closed, standard residential construction typically provides about 20 to 25 decibels of noise reduction. For example, a unit exposed to exterior noise levels of 70 dBA CNEL would be 55 dBA CNEL inside with the windows partially open and 45 to 50 dBA CNEL with the windows shut. Attaining the necessary noise reduction from exterior to interior spaces is readily achievable with proper wall construction techniques, the selections of proper windows and doors, and the incorporation of a forced-air mechanical ventilation system to allow the occupant the option of controlling noise by closing the windows.

Calculations were made to estimate the transmission loss provided by the proposed building elements to determine the expected interior noise levels resulting from traffic. Interior noise levels were calculated based on a review of the project's site plan, exterior building elevations, and floor plans. The relative areas of walls, windows, and doors were input into an acoustical model to calculate interior noise levels within individual units. The exterior wall of the proposed units was assumed to be wood studs with insulation, a single layer of gypsum board attached to the inside of the studs, and a cement plaster exterior finish. This exterior wall construction has an approximate rating Sound Transmission Class (STC) rating of STC 46. Windows and doors were then tested to determine the necessary sound transmission class ratings of these building elements in order to reduce interior noise levels due to traffic to acceptable levels.

Traffic noise levels are calculated to reach 71 dBA CNEL. Interior noise levels would exceed the maximum allowable interior sound level of 45 dBA CNEL assuming that windows/doors would

be open for ventilation. Therefore, forced-air mechanical ventilation, satisfactory to the local building official, would be required for all residential units to allow occupants the option of keeping the windows closed to control noise. In addition, the east (front), north (A1 units only) and south (B3 units only) building facades would require sound rated building elements to control traffic noise intrusion. Windows and doors would need to have a minimum rating of STC 30 to adequately reduce noise levels indoors.



This concludes the environmental noise assessment for the S. Winchester Mixed-Use Project. If you have any questions, or if we can be of further assistance, please do not hesitate to call.

Sincerely yours,

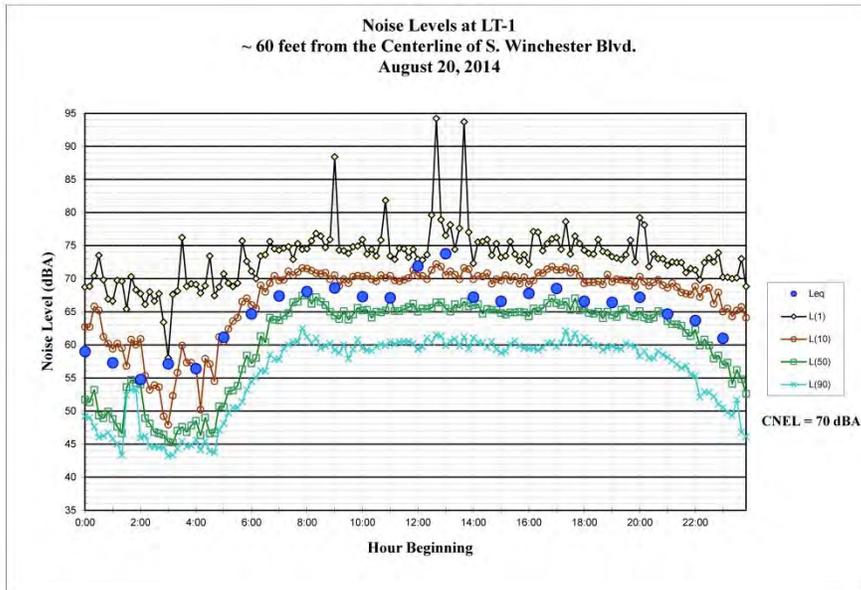
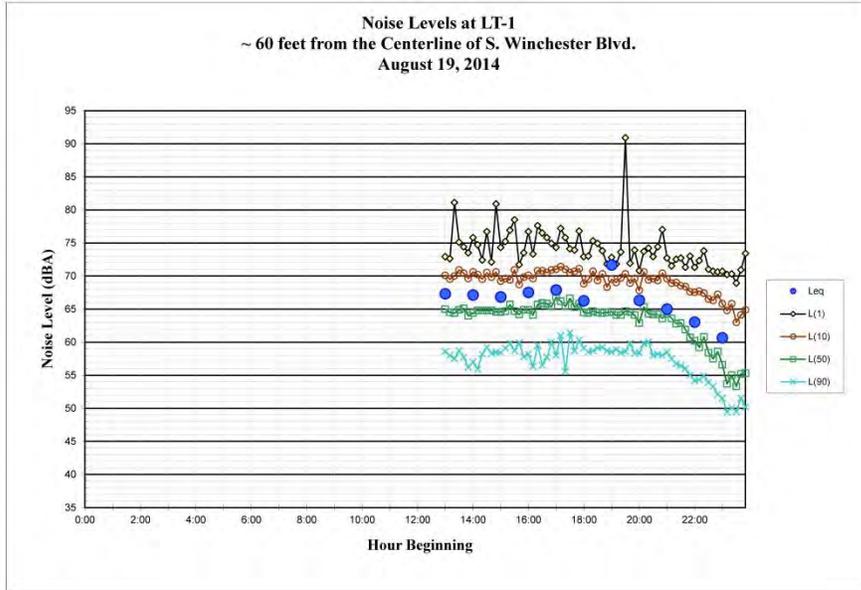
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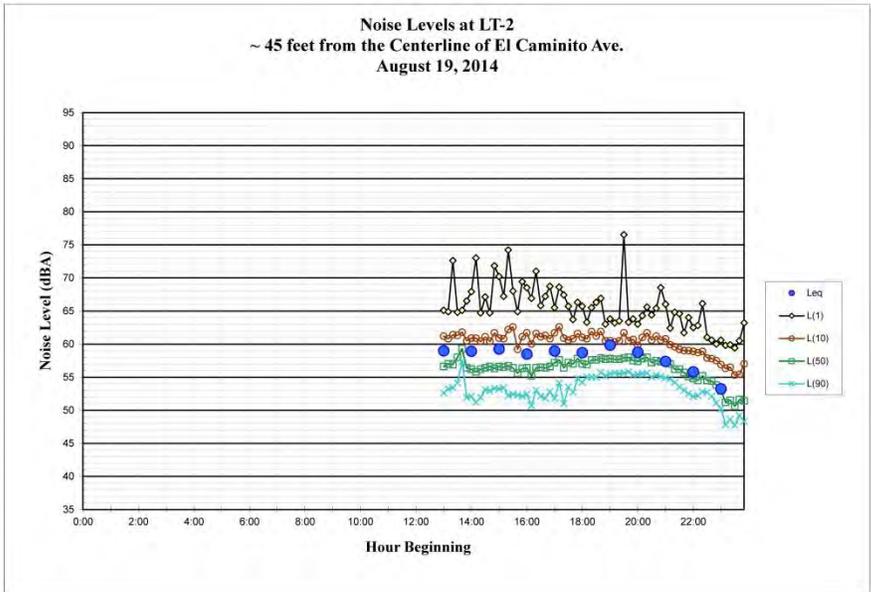
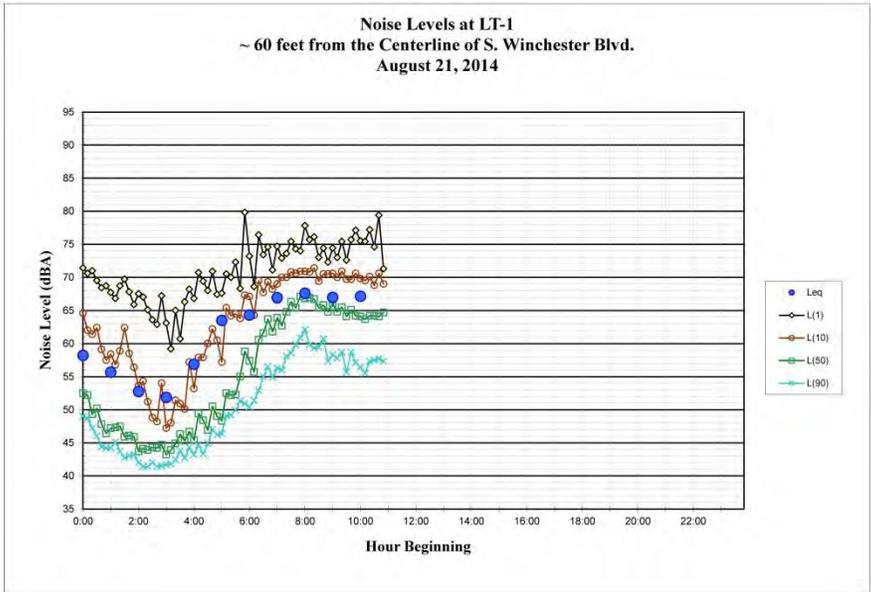
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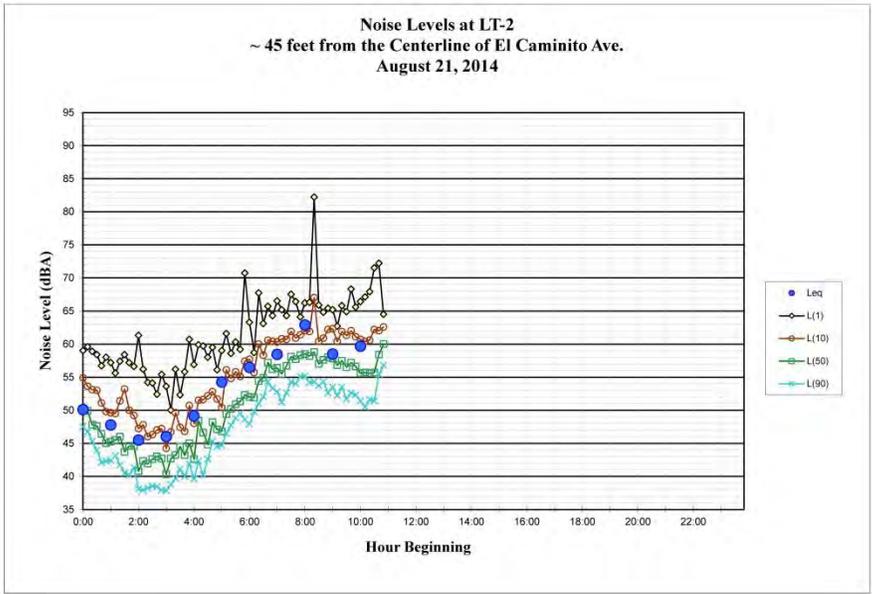
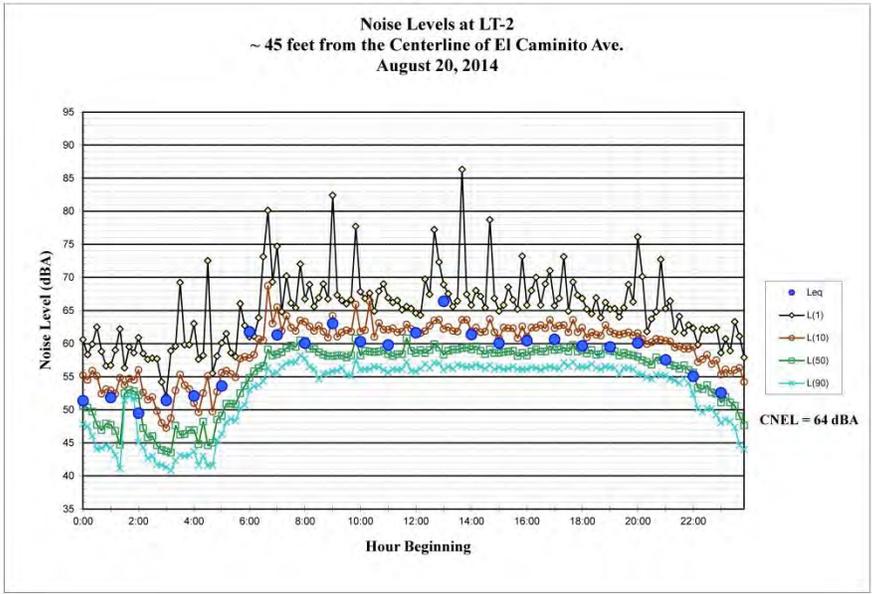
ILLINGWORTH & RODKIN, INC.

(14-132)

Appendix 1: Daily Trend in Noise Levels







ATTACHMENT 6

DRAFT TRAFFIC STUDY

August 28, 2014

Mr. Matthew Jue
City of Campbell
70 North First Street
Campbell, CA 95008

Focused Traffic Study for the 2295-2305 South Winchester Boulevard Mixed-Use Project

Dear Mr. Jue;

As requested, Whitlock & Weinberger Transportation, Inc. (W-Trans) has prepared a traffic analysis relative to the proposed mixed-use project to be located at 2295 South Winchester Boulevard in the City of Campbell. The project site is located on the southwest corner of Winchester Boulevard/El Caminito Avenue.

Study Area

The study area consists of the intersections of Winchester Boulevard/Kennedy Avenue and Winchester Boulevard/El Caminito Avenue, as well as the nearby residential streets of El Caminito Avenue, Cherry Lane, and California Street. Winchester Boulevard/Kennedy Avenue is a signalized T-intersection, with protected left-turn phasing on Winchester Boulevard and an exclusive pedestrian-only phase. Winchester Boulevard/El Caminito Avenue is a side-street stop-controlled T-intersection located 75 feet south of Winchester Boulevard/Kennedy Avenue.

Collision History

The collision histories for the study intersections were reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on collision data available from the California Highway Patrol as published in their *Statewide Integrated Traffic Records System (SWITRS)* reports between October 1, 2007 and September 30, 2012. The calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2010 Collision Data on California State Highways*, California Department of Transportation (Caltrans).

Of the two study intersections, collisions were reported at Winchester Boulevard/Kennedy Avenue only, which experienced collision rates higher than statewide averages for similar facilities. No fatalities were reported during the five-year period studied, although the injury rate at Winchester Boulevard/Kennedy Avenue was higher than the statewide average for similar facilities. The calculated collision rates are presented in Table 1 and the details are enclosed.

**Table I
Collision Rates at the Study Intersections**

Study Intersection	Number of Collisions (2007-2012)	Calculated Collision Rate (c/mve)	Statewide Average Collision Rate (c/mve)
1. Winchester Blvd/Kennedy Ave	9	0.26	0.21
2. Winchester Blvd/El Caminito Ave	0	0.00	0.18

Note: c/mve = collisions per million vehicles entering; rates higher than the statewide average are indicated in **bold** text

Based on a review of the collision records at Winchester Boulevard/Kennedy Avenue, five of nine collisions were rear-end collisions and the remaining four of nine collisions were broadside collisions involving westbound left-turn vehicles from Kennedy Avenue and northbound through vehicles from Winchester Boulevard.

Project Description

The project is a mixed-use development consisting of 16 condominium units and 3,200 square feet of retail commercial space. Six of the 16 condominium units would be one-bedroom units and the remaining 10 units would be two-bedroom units. Access to the project would be via one driveway on El Caminito Avenue.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 9th Edition, 2012. The trip generation potential of the project was developed using the published standard rates for Residential Condominium (ITE LU #230) and Specialty Retail Center (ITE LU #826).

Trip Reductions

The *Transportation Impact Analysis Guidelines* adopted by the Santa Clara County Transportation Authority's CMP also include guidelines on trip reductions which are designed to further the Santa Clara County's CMP goal of encouraging development that reduces system wide traffic congestion and improves air quality in the region. There are three particular strategies that can be used to encourage these types of developments and to accomplish these goals: mixed-use development (which increases internal trips), a strong transportation demand management (TDM) program (which provides incentives and services to encourage alternatives to the automobile), and development near transit stations or major bus lines.

Internal trips occur at mixed-use developments, and in the case of the planned mixed-use development would consist of residents patronizing adjacent retail and restaurant uses. The majority of these trips would be made by walking and would not affect the adjacent street network. The *Transportation Impact Analysis Guidelines* state that mixed-use developments involving housing and retail components are entitled to a maximum trip reduction of 15.0 percent of the smaller component, for each land use.

Additionally, the planned mixed-use development would be located near a light-rail station. Development near light-rail stations encourages transit use and such trips will also not affect the adjacent street network.

The *Transportation Impact Analysis Guidelines* allow for a maximum trip reduction of 9.0 percent of housing near a light-rail station.

Total Project Trip Generation

The expected trip generation potential for the proposed project is indicated in Table 2, with deductions taken for proximity to major transit stations. After deductions are taken into account, the project would result in the addition of 185 daily trips, including nine trips during the morning peak hour and 14 trips during the evening peak hour.

Table 2
Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour			PM Peak Hour				
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Proposed											
Residential Condominium	16 du	5.81	93	0.44	7	1	6	.52	8	6	2
<i>LRT Housing Reduction</i>	-9%		-8		-1	0	-1		-1	-1	0
<i>Internal Capture</i>	-15%		-21		0	0	0		-1	-1	0
Specialty Retail Center *	3.2 ksf	44.32	142	0.96	3	2	1	2.71	9	4	5
<i>Internal Capture</i>	-15%		-21		0	0	0		-1	0	-1
Total			185		9	3	6		14	8	6

Note: du = dwelling unit; ksf = 1,000 square feet; * Because ITE *Trip Generation Manual* did not have trip generation rates for Specialty Retail during the AM peak hour, Shopping Center (LU#820) rates were used instead for the AM peak hour

Trip Distribution

The pattern used to allocate new project trips to the street network was determined by field observations as well as based on assumptions applied in previous traffic impact analyses conducted for approved projects in the area. The applied distribution assumptions and resulting trips are shown in Table 3.

Table 3
Trip Distribution Assumptions

Route	Percent	Daily Trips	AM Peak Hour Trips		PM Peak Hour Trips	
			In	Out	In	Out
Winchester Blvd N	30%	55	1	2	2	2
Winchester Blvd S	60%	111	2	3	5	3
San Tomas Expressway N (via El Caminito Ave)	10%	19	0	1	1	1
TOTAL	100%	185	3	6	8	6

Intersection Operations Analysis

Methodology and LOS standard

Traffic operation of the study intersections was analyzed based on the *Traffic Level of Service Analysis Guidelines*, Santa Clara County Transportation Authority, Congestion Management Program (CMP), 2003, which is based on the *Highway Capacity Manual (HCM)*, Transportation Research Board, 2000. Because the methodology included in the *Traffic Level of Service Guidelines* does not include analysis of side-street stop-controlled intersections, the traffic operation of Winchester Boulevard/El Caminito Avenue was analyzed based on methodology contained in the HCM.

It is worth noting that the methodology contained in the *Traffic Level of Service Analysis Guidelines* does not include methodology for exclusive pedestrian phases. However, because the pedestrian volumes on the crosswalk operating under the exclusive pedestrian phase were below 10 pedestrians per hour during the peak hour, it was not incorporated in the operational analysis.

Intersection Operation Standards

The City of Campbell has established criteria to determine the level of significance of traffic impacts based on standards set by the Santa Clara County CMP in the *Transportation Impact Analysis Guidelines*, adopted in March 2009. For local intersections not on the CMP network, a traffic impact is considered significant if:

- The addition of project-generated traffic causes operation of an intersection to deteriorate from an acceptable level of service (LOS D or better) to LOS E or LOS F, or
- For intersections where LOS E operation has been established as acceptable, the project condition causes operation to deteriorate from LOS E to LOS F.

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Traffic volume data at the study intersections was collected on a typical weekday in May 2014 while local schools were in session.

Under Existing Conditions, all of the study intersections operate at an acceptable LOS C or better during the a.m. and p.m. peak hours. The intersection level of service calculations are summarized in Table 4 and copies are enclosed.

Table 4
Existing Peak Hour Intersection Levels of Service

Study Intersection <i>Approach</i>	Existing Conditions			
	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. Winchester Blvd/Kennedy Ave	12.4	B	11.8	B+
2. Winchester Blvd/El Caminito Ave	0.1	A	0.1	A
<i>Eastbound Approach</i>	<i>12.1</i>	<i>B</i>	<i>14.4</i>	<i>B</i>

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

Existing plus Project Conditions

Upon the addition of project-related traffic to the existing volumes, the study intersections are expected to operate acceptably during both peak hours. The intersection level of service calculations are summarized in Table 5 with Existing Conditions values shown for comparison. Copies of the level of service calculations are enclosed.

Table 5
Existing and Existing plus Project Peak Hour Intersection Levels of Service

Study Intersection <i>Approach</i>	Existing Conditions				Existing plus Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Winchester Blvd/Kennedy Ave	12.4	B	11.8	B+	12.4	B	11.8	B+
2. Winchester Blvd/El Caminito Ave	0.1	A	0.1	A	0.2	A	0.2	A
<i>Eastbound Approach</i>	<i>12.1</i>	<i>B</i>	<i>14.4</i>	<i>B</i>	<i>12.5</i>	<i>B</i>	<i>14.3</i>	<i>B</i>

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

Existing plus Approved Projects Conditions

Upon completion of the proposed project, several nearby approved projects would also be expected to be built and/or completed and occupied. These approved projects include Merrill Gardens and 45-81 Kennedy Avenue. Merrill Gardens is a mixed-use development that includes 26 apartment units, 108 senior housing units, a 21-unit senior care facility, and 16,710 square feet of retail land use. 45-81 Kennedy Avenue is a residential development of 18 new townhomes replacing three existing single-family residences. At the time traffic counts were conducted, the residential portions of Merrill Gardens was 85 percent occupied. No other portion of the approved projects were occupied at the time of counts.

Under Existing Conditions and with the addition of unoccupied portions of the approved projects, the study intersections are expected to continue operating acceptably during both peak hours. The intersection level of service calculations are summarized in Table 6 with Existing Conditions values shown for comparison. Copies of the level of service calculations are enclosed.

Table 6
Existing and Existing plus Approved Projects Peak Hour Intersection Levels of Service

Study Intersection Approach	Existing Conditions				Existing plus Approved Projects			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Winchester Blvd/Kennedy Ave	12.4	B	11.8	B+	12.5	B	11.7	B+
2. Winchester Blvd/El Caminito Ave	0.1	A	0.1	A	0.1	A	0.1	A
<i>Eastbound Approach</i>	<i>12.1</i>	<i>B</i>	<i>14.4</i>	<i>B</i>	<i>12.2</i>	<i>B</i>	<i>14.5</i>	<i>B</i>

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

Existing plus Proposed and Approved Projects Conditions

Upon the addition of project-related trips to Existing plus Approved Projects Conditions, the study intersections are expected to continue operating acceptably during both peak hours. The intersection level of service calculations are summarized in Table 7, with Existing plus Approved Projects Conditions values shown for comparison. Copies of the level of service calculations are enclosed.

Table 7
Existing plus Approved Projects and Existing plus Proposed and Approved Projects Peak Hour Intersection Levels of Service

Study Intersection Approach	Existing plus Approved Projects				Existing plus Proposed and Approved Projects			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Winchester Blvd/Kennedy Ave	12.5	B	11.7	B+	12.5	B	11.7	B+
2. Winchester Blvd/El Caminito Ave	0.1	A	0.1	A	0.2	A	0.2	A
<i>Eastbound Approach</i>	<i>12.2</i>	<i>B</i>	<i>14.5</i>	<i>B</i>	<i>12.6</i>	<i>B</i>	<i>14.5</i>	<i>B</i>

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

Neighborhood Traffic Analysis

Residential areas are especially sensitive to traffic because relatively small increases in traffic can impact the livability of the neighborhood. In the project vicinity, El Caminito Avenue, Cherry Lane, and California Street are residential streets with residential land uses on both sides of the street.

Methodology

The effect of adding project-related traffic on El Caminito Avenue, Cherry Lane, and California Street was evaluated based on the Traffic Infusion on Residential Environment (TIRE) index. The TIRE index is a tool that measures the residents' perception of the effect of increased Average Daily Traffic (ADT) on residential streets. TIRE index values range from 0.0 to 5.0 depending on daily traffic volume. An index of 0.0 represents the least infusion of traffic and 5.0 the greatest, and, thereby the poorest residential

environment. A TIRE index of 3.0 typically represents the threshold at which the character of a residential street changes. Residential streets with a TIRE index above this mid-range point of 3.0 typically exhibit higher traffic volumes, while streets with a TIRE index below 3.0 are usually more suitable for residential activities. According to this methodology, an impact occurs on the residential street when the difference in index between no project and project conditions is 0.10 or more. An abbreviated list of the TIRE indices is presented in Table 8, while the entire TIRE index table is enclosed.

Table 8
TIRE Index Table

Existing Volume Range (Daily Vehicles)	TIRE Index	Minimum Daily Volume Increase to Produce 0.10 change in the TIRE Index
281-350	2.5	79
351-450	2.6	94
451-560	2.7	114
561-710	2.8	140
711-890	2.9	170
891-1,100	3.0	220
1,101-1,400	3.1	290
1,401-1,800	3.2	380
1,801-2,200	3.3	500
2,201-2,800	3.4	650

Source: Goodrich Traffic Group

Neighborhood Traffic Analysis

Based on a 24-hour machine count conducted in June 2014, El Caminito Avenue carries 340 vehicles daily, which translates to a TIRE index of 2.5. Cherry Lane carries 1,284 vehicles daily, which translates to a TIRE index of 3.1. California Street south of El Caminito Avenue carries 1,535 vehicles daily, which translates to a TIRE index of 3.2. The proposed project would add on average 19 additional daily trips onto each of El Caminito Avenue and California Street. No additional project trips are expected on Cherry Lane. As shown in Table 9, the traffic added by the project on both study segments would be less than the minimum volume required to cause a 0.1 change in the TIRE Index and therefore, the increase in traffic would not be noticeable to residents. The proposed project would result in a less-than-significant residential street impact on the study segments. The TIRE Index summary is presented in Table 9.

**Table 9
TIRE Index Summary**

Study Segment	Existing Conditions		Volume Needed to Cause +0.1 Increase in TIRE Index	Project Daily Trips	Significant Impact
	ADT	TIRE Index			
El Caminito Ave	340	2.5	79	19	No
Cherry Ln	1,284	3.1	290	0	No
California St (south of El Caminito Ave)	1,535	3.2	380	19	No

Notes: ADT = Average Daily Traffic

Site Access

Under Existing Conditions, the majority of project trips to and from the project site would be via the unsignalized intersection of Winchester Boulevard/El Caminito Avenue. A majority of project-related trips would be expected to access the project site via Winchester Boulevard.

Northbound Winchester Boulevard Left-Turns at El Caminito Avenue.

Inbound project trips from the south would be expected to turn left from northbound Winchester Boulevard at El Caminito Avenue. The existing two-way left-turn lane on Winchester Boulevard provides vehicle storage for left-turning vehicle, and is expected to adequately serve inbound project trips from the south.

Eastbound El Caminito Avenue Left-Turns at Winchester Boulevard

Outbound project trips headed toward the north would be expected to turn left from eastbound El Caminito Avenue at Winchester Boulevard. Eastbound El Caminito Avenue is currently stop-controlled at Winchester Boulevard. Under Existing traffic patterns, the eastbound El Caminito Avenue left-turn has a peak-hour turning volume of two vehicles per hour.

Signal Indications at Winchester Boulevard/Kennedy Avenue

Existing striping on Winchester Boulevard includes a 30-foot long median storage lane between El Caminito Avenue and Kennedy Avenue, which is currently configured as a refuge for two-stage left-turns from eastbound El Caminito Avenue. These conditions are summarized in an enclosed figure. Additionally, it was noted in field observations that existing louvres on the northbound signal indications at Winchester Boulevard/Kennedy Avenue are configured to hide the indications from vehicles in the median storage lane.

As shown in the enclosed AutoTURN figure, eastbound left-turn vehicles from El Caminito Avenue are unable to make the two-stage left-turn and fully merge into northbound Winchester Boulevard traffic before entering the signalized intersection at Kennedy Avenue. Drivers making a two-stage left-turn from El Caminito Avenue must merge into northbound traffic while entering the intersection of Winchester Boulevard/Kennedy Avenue during the northbound through phase. Therefore, in order to continue allowing two-stage left-turns from El Caminito Avenue, it is recommended that existing louvres blocking visibility of the northbound signal indications to vehicles in the median storage lane be removed.

Winchester Boulevard Median Storage Lane

Drivers merging into northbound traffic from the Winchester Boulevard median storage lane need to observe both the northbound signal indications to the north and the gaps in northbound traffic approaching from the south, as the maneuver required to merge into traffic necessitates entering the intersection of Winchester Boulevard/Kennedy Avenue. While this is an unusual vehicular maneuver, based on a lack of collision history, the extremely low turning volumes under Existing Conditions, and the intersection's operational analysis, along with field observations of existing intersection operation, the existing two-stage left-turn from El Caminito Avenue would be adequate for Existing Conditions with the removal of northbound signal indication louvers. In addition, based on the project's trip generation and the intersection's operational analysis under plus-project conditions, the two-stage left-turn is expected to adequately accommodate project trips utilizing the left-turn. However, further improvements to project site access can be achieved by removing the two-stage left-turn. Two alternatives for removing the two-stage left-turn were assessed, including striping modifications removing the two-stage left-turn, and a signalized El Caminito leg combined with the existing Winchester Boulevard/Kennedy Avenue traffic signal.

Striping Modifications Alternative – Remove Two-Stage Left-Turn

As illustrated in the enclosed figure, two-stage left-turns can be removed from El Caminito Avenue by modifying existing striping on Winchester Boulevard. In this alternative, eastbound left-turns from El Caminito Avenue would turn directly into northbound travel lanes, eliminating the need for vehicles to merge immediately south of the signalized Winchester Boulevard/Kennedy Avenue intersection. "KEEP CLEAR" markings on northbound Winchester Boulevard would allow eastbound left-turns to be made while queues form to the south of Winchester Boulevard/Kennedy Avenue. However, this alternative would reduce the northbound queuing capacity at Winchester Boulevard/Kennedy Avenue from an existing 370 feet, the distance between Kennedy Avenue and Budd Avenue, to 330 feet.

Based on the intersection operations analysis, the projected 95th-percentile queues are eight vehicles long under Existing Conditions with and without the proposed project, and nine vehicles long under Existing plus Approved Projects with and without the proposed project. This translates to an estimated queue length of 200 to 225 feet. The reduced queuing capacity of 330 feet would adequately accommodate expected vehicle queues associated with northbound Winchester Boulevard traffic at Kennedy Avenue.

Combined Signal Alternative

Incorporation of El Caminito Avenue to the Winchester Boulevard/Kennedy Avenue traffic signal operations would result in an offset traffic signal. The existing geometry would require the Kennedy Avenue and El Caminito legs of the combined intersection to operate under split phasing. A figure showing the combined signalized intersection is enclosed.

Intersection Operation – Combined Signal Alternative

Under Existing plus Project and Existing plus Proposed and Approved Projects, the combined signal of Winchester Boulevard/Kennedy Avenue would operate acceptably at LOS C or better during both peaks. The intersection level of service calculations are summarized in Table 10 and copies are enclosed.

**Table 10
Combined Signal – Plus-Project Conditions Peak Hour Intersection Levels of Service**

Study Intersection Approach	Existing plus Project				Existing plus Proposed and Approved Projects			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Winchester Blvd/Kennedy Ave	12.4	B	11.8	B+	12.5	B	11.7	B+
2. Winchester Blvd/El Caminito Ave Eastbound Approach	0.2	A	0.2	A	0.2	A	0.2	A
	12.5	B	14.3	B	12.6	B	14.5	B
Combined Signal – Winchester Blvd/ Kennedy Ave-El Caminito Ave	20.6	C+	19.7	B-	20.7	C+	19.6	B-

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

Signal Modifications Required

In order to create a combined offset signalized intersection, new signal equipment would be required for much of the south half of the intersection. The signal equipment required includes:

- New vehicle detection on northbound Winchester Boulevard due to the new northbound limit line location,
- new vehicle detection on El Caminito Avenue,
- new pedestrian signals and pedestrian push-button posts for the crosswalk crossing El Caminito Avenue,
- new signal poles and signal heads for the eastbound El Caminito Avenue approach and the northbound Winchester Boulevard left-turn movement,
- new signal poles and signal heads for additional through-traffic indications along Winchester Boulevard due to the longer intersection,
- new pull boxes and conduits required for electrical wiring between the new equipment and the existing signal controller at the northeast corner of the intersection, and
- striping modifications associated with the combined signal.

The signal modifications required to complete the project would cost approximately \$215,000. The cost estimate includes a 25 percent contingency, as well as cost estimates for design and construction.

Combined Signal - Assessment

The combined signal would greatly improve site access by providing protected signal phasing for left-turns into and out-of El Caminito Avenue. However, the combined signal would result in a lower level of service for the signalized intersection as compared with the original Winchester Boulevard/Kennedy Avenue intersection. This is because the El Caminito Avenue approach would reduce the amount of green time available for through traffic on Winchester Boulevard. As a result, the estimated 95th-percentile queues for the northbound approach to the combined signal is up to 11 vehicles per lane in the a.m. peak hour Existing plus Proposed and Approved Projects Conditions. This translates to an estimated queue length of 275 feet.

In addition, the combined signal would also move the northbound limit line to the south by up to 70 feet, reducing the available queuing capacity from the existing 370 feet to 300 feet. While the reduced queuing capacity of 300 feet is greater than the estimated 95th-percentile queues of 275 feet, it is worth noting that the existing intersection operation methodology used did not account for the exclusive pedestrian phase, which could increase 95th-percentile queues further, or mitigating factors such as signal coordination, which could reduce vehicle queues. Because the estimated 95th-percentile queue is close to the available queuing capacity, the combined signal alternative can potentially affect signal operations at the next traffic signal to the south, Winchester Boulevard/Budd Avenue. Any additional growth to traffic volumes on Winchester Boulevard would result in queue spillback into the next signalized intersection to the south.

Parking

The project site as proposed would provide a total of 42 off-street parking spaces. The parking spaces would be shared between the residential and retail portions of the project.

Shared Parking Demand

Parking demand for was estimated using standard rates published by the ITE in *Parking Generation*, 4th Edition, 2010. Because the proposed parking supply would be shared between land uses, a shared parking demand analysis was conducted. The parking demand for each of the project's land uses was estimated using the published standard rates for Residential Condominium/Townhouse (ITE LU#230) and Shopping Center (ITE LU#820). Shopping Center rates were used for the retail commercial portion of the project because parking generation rates are not published for a Specialty Retail Center (LU#814). In addition, time-of-day parking demand trends for each land use was considered in a shared-parking analysis. Time-of-day parking demand trends were estimated using time-of-day factors published by the Urban Land Institute in *Shared Parking*, 2nd Edition, 2005.

The proposed project's shared parking demand is estimated to be 29 parking spaces. The peak parking demand is expected to occur during a typical weekday. Through the use of shared parking, the expected parking demand decreased by one parking space, compared to designated residential and retail parking. These results are summarized in Table 11, and calculations for the shared parking analysis are enclosed.

Table 11
Project Parking Demand

Land Use	Units	Weekday		Weekend	
		Rate	Spaces	Rate	Spaces
Residential Condominium	16 du	1.38	22	1.12	18
Specialty Retail Center	3.2 ksf	2.55	8	2.87	9
Shared Parking Demand*			29		27

Note: du = dwelling unit; ksf = 1,000 square feet; * see enclosed shared parking analysis for calculations; Parking demand rates per ITE *Parking Generation*, 4th Edition

City of Campbell Off-Street Parking Supply Requirements

City of Campbell parking supply requirements are based on the City of Campbell Municipal Code, Chapter 21.28; Parking and Loading. Additionally, the proposed project is expected to qualify for the City's Density Bonus, which limits the amount of required off-street parking for a residential project to one off-street

parking space for one-bedroom units and two off-street parking spaces for two-bedroom units. The proposed parking supply is anticipated to adequately accommodate the estimated parking demand for both the residential and retail portions of the site. The City requirements for off-street parking are shown in Table 12.

**Table 12
City Off-Street Parking Supply Requirements Summary**

Land Use	Units	City Requirements	
		Rate	Spaces Required
Residential Condominium			
One-Bedroom Unit	6 du	1.0	6
Two-Bedroom Units	10 du	2.0	20
Shopping Center*	3.2 ksf	5.0	16
Total			42

Note: du = dwelling unit; ksf = 1,000 square feet;

* Because ITE *Parking Generation* did not have parking generation rates for Specialty Retail Center, Shopping Center (LU#820) rates were used instead

Conclusions and Recommendations

- The proposed project would generate on average 185 daily trips, including nine trips during the a.m. peak and six trips during the p.m. peak.
- Under Existing Conditions, the study intersections are operating acceptably and would be expected to continue operating acceptably upon the addition of project trips.
- Under Existing plus Approved Projects Conditions with and without the proposed project, the study intersections would be expected to continue operate acceptably.
- The proposed project would result in less-than-significant impacts to nearby residential streets Cherry Lane, California Street, and El Caminito Avenue.
- Either roadway striping modifications or signalization of the El Caminito Avenue approach to the intersection of Winchester Boulevard/Kennedy Avenue would be effective in improving project site access, by removing the two-stage left-turn from El Caminito Avenue. However, there are potential impacts associated with a combined traffic signal at Winchester Boulevard/Kennedy Avenue-El Caminito Avenue, with respect to the neighboring signalized intersection to the south, Winchester Boulevard/Budd Avenue.
- The combined signal would be expected to cost \$215,000 dollars for striping and signal modifications.
- It is recommended that the existing louvers on the northbound signal indications at Winchester Boulevard/Kennedy Avenue be removed to allow drivers turning left from El Caminito Avenue to have a better view of the signal indication at Winchester Boulevard/Kennedy Avenue.

Mr. Matthew Jue

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August 28, 2014

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

Sam Lam, PE
Transportation Engineer

Mark Spencer, PE
Principal

MES/stl/CMP013.L1

Enclosures: Collision Rate Calculations
 Level of Service Calculations
 TIRE Index Table
 Site Access Figures
 Shared Parking Analysis

DRAFT

Intersection Collision Rate Calculaions

City of Campbell

Intersection # 1: Winchester Blvd & Kennedy Ave

Date of Count: Wednesday, May 14, 2014

Number of Collisions: 9

Number of Injuries: 8

Number of Fatalities: 0

ADT: 19100

Start Date: October 1, 2007

End Date: September 30, 2012

Number of Years: 5

Intersection Type: Tee

Control Type: Signals

Area: Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{9}{19,100} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.26 c/mve	0.0%	88.9%
Statewide Average*	0.21 c/mve	0.3%	42.4%

ADT = average daily total vehicles entering intersection
 c/mve = collisions per million vehicles entering intersection
 * 2010 Collision Data on California State Highways, Caltrans

Intersection # 2: Winchester Blvd & El Caminito Ave

Date of Count: Wednesday, May 14, 2014

Number of Collisions: 0

Number of Injuries: 0

Number of Fatalities: 0

ADT: 18200

Start Date: October 1, 2007

End Date: September 30, 2012

Number of Years: 5

Intersection Type: Tee

Control Type: Stop & Yield Controls

Area: Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{0}{18,200} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.00 c/mve	0.0%	0.0%
Statewide Average*	0.18 c/mve	0.7%	36.4%

ADT = average daily total vehicles entering intersection
 c/mve = collisions per million vehicles entering intersection
 * 2010 Collision Data on California State Highways, Caltrans

AM Peak Hour - Existing Conditions
2295-2305 S. Winchester Blvd Mixed Use Development TIS (Existing Int. Controls)
City of Campbell

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #1 Winchester Blvd/Kennedy Ave

Cycle (sec): 100
Loss Time (sec): 9
Optimal Cycle: 36
Level Of Service: B
Street Name: Winchester Blvd
Approach: North Bound South Bound East Bound West Bound

Control: Permitted Protected Include Split Phase
Rights: Include
Min. Green: 7 10 10 10 10 10 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
Base Vol: 0 763 170 18 489 0 0 0 163 0 52
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 1.00 0.92 0.92 1.00

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing Conditions
2295-2305 S. Winchester Blvd Mixed Use Development TIS (Existing Int. Controls)
City of Campbell

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #1 Winchester Blvd/Kennedy Ave

Cycle (sec): 100
Loss Time (sec): 9
Optimal Cycle: 36
Level Of Service: B
Street Name: Winchester Blvd
Approach: North Bound South Bound East Bound West Bound

Control: Permitted Protected Include Split Phase
Rights: Include
Min. Green: 7 10 10 10 10 10 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
Base Vol: 0 780 169 38 710 0 0 0 159 0 52
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 1.00 0.92 0.92 1.00

Note: Queue reported is the number of cars per lane.

Trip Generation Report

Forecast for am

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total % Of Trips Total
1	Proposed Pro	1.00	Project	2.00	6.00	2	6	8 100.0
	Zone 1 Subtotal					2	6	8 100.0

TOTAL 2 6 8 100.0

Trip Generation Report

Forecast for pm

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total % Of Trips Total
1	Proposed Pro	1.00	Project	8.00	6.00	8	6	14 100.0
	Zone 1 Subtotal					8	6	14 100.0

TOTAL 8 6 14 100.0

AM Peak Hour - Existing + Approved Projects Conditions
 2295-2305 S. Winchester Blvd Mixed Use Development TIS (Existing Int. Controls)
 City of Campbell

Trip Generation Report

Forecast for am approved projects

Zone #	Subzone	Amount	Units	Rate		Trips		Total % Of Trips Total
				In	Out	In	Out	
2	Merrill Gard	1.00	Merrill Garden	30.00	31.00	30	31	61 91.0
	Zone 2 Subtotal					30	31	61 91.0
3	45-81 Kenned	1.00	45-81 Kennedy	1.00	5.00	1	5	6 9.0
	Zone 3 Subtotal					1	5	6 9.0
TOTAL						31	36	67 100.0

PM Peak Hour - Existing + Approved Projects Conditions
 2295-2305 S. Winchester Blvd Mixed Use Development TIS (Existing Int. Controls)
 City of Campbell

Trip Generation Report

Forecast for pm approved projects

Zone #	Subzone	Amount	Units	Rate		Trips		Total % Of Trips Total
				In	Out	In	Out	
2	Merrill Gard	1.00	Merrill Garden	49.00	38.00	49	38	87 93.5
	Zone 2 Subtotal					49	38	87 93.5
3	45-81 Kenned	1.00	45-81 Kennedy	4.00	2.00	4	2	6 6.5
	Zone 3 Subtotal					4	2	6 6.5
TOTAL						53	40	93 100.0

AM Peak Hour - Existing + Approved Projects Conditions
2295-2305 S. Winchester Blvd Mixed Use Development TIS (Existing Int. Controls)
City of Campbell

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
Intersection #2 Winchester Blvd/El Caminito Ave

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B [12.2]
Street Name: Winchester Blvd El Caminito Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 2 0 0 0 1 1 0 0 0 1 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 12 931 0 0 645 7 2 0 0 7 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Critical Gap Module:
Critical Gap: 4.1 xxx xxxxxx xxxxxx xxxxxx 6.8 6.5 6.9 xxxxxx xxxxxx xxxxxx
FollowUpTrim: 2.2 xxx xxxxxx xxxxxx xxxxxx 3.5 4.0 3.3 xxxxxx xxxxxx xxxxxx

Capacity Module:
Conflict Vol: 724 xxx xxxxxx xxxxxx xxxxxx 1258 1770 362 xxxxxx xxxxxx xxxxxx
Potential Cap.: 888 xxx xxxxxx xxxxxx xxxxxx 166 84 641 xxxxxx xxxxxx xxxxxx

PM Peak Hour - Existing + Approved Projects Conditions
2295-2305 S. Winchester Blvd Mixed Use Development TIS (Existing Int. Controls)
City of Campbell

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
Intersection #2 Winchester Blvd/El Caminito Ave

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: B [14.5]
Street Name: Winchester Blvd El Caminito Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 2 0 0 0 1 1 0 0 0 1 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 2 947 0 0 856 13 2 0 0 3 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Critical Gap Module:
Critical Gap: 4.1 xxx xxxxxx xxxxxx xxxxxx 6.8 6.5 6.9 xxxxxx xxxxxx xxxxxx
FollowUpTrim: 2.2 xxx xxxxxx xxxxxx xxxxxx 3.5 4.0 3.3 xxxxxx xxxxxx xxxxxx

Capacity Module:
Conflict Vol: 907 xxx xxxxxx xxxxxx xxxxxx 1401 1897 453 xxxxxx xxxxxx xxxxxx
Potential Cap.: 759 xxx xxxxxx xxxxxx xxxxxx 134 70 559 xxxxxx xxxxxx xxxxxx

Note: Queue reported is the number of cars per lane.

AM Peak Hour - Existing + Proposed and Approved Projects Conditions
2295-2305 S. Winchester Blvd Mixed Use Development TIS (Existing Int. Controls)
City of Campbell

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Winchester Blvd/Kennedy Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.429
Loss Time (sec): 9 Average Delay (sec/veh): 12.5
Optimal Cycle: 36 Level Of Service: B

Street Name: Winchester Blvd Kennedy Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 7 10 10 7 10 10 10 10 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 2 0 0 0 0 0 0 1 0 0 0 1

Volume Module:
Base Vol: 0 763 170 18 489 0 0 0 163 0 52
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 763 170 18 489 0 0 0 163 0 52
Added Vol: 0 14 1 0 13 0 0 0 3 0 2
PasserByVol: 0
Initial Fut: 0 777 171 18 502 0 0 0 166 0 54
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 0 839 185 19 542 0 0 0 179 0 58
Reduct Vol: 0
Reduced Vol: 0 839 185 19 542 0 0 0 179 0 58
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 839 185 19 542 0 0 0 179 0 58

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.92
Lanes: 0.00 1.63 0.37 1.00 2.00 0.00 0.00 0.00 0.00 1.00
Final Sat.: 0 3032 667 1750 3800 0 0 0 1750 0 1750
Capacity Analysis Module:
Vol/Sat: 0.00 0.28 0.28 0.01 0.14 0.00 0.00 0.00 0.00 0.10 0.00 0.03
Crit Moves: ****
Green Time: 0.0 61.3 61.3 7.0 68.3 0.0 0.0 0.0 0.0 22.7 0.0 22.7
Volume/Cap: 0.00 0.45 0.45 0.16 0.21 0.00 0.00 0.00 0.00 0.45 0.00 0.15
Delay/Veh: 0.0 10.5 10.5 44.3 5.9 0.0 0.0 0.0 0.0 34.1 0.0 31.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 10.5 10.5 44.3 5.9 0.0 0.0 0.0 0.0 34.1 0.0 31.1
LOS by Move: A B+ B+ D A A A A C- A C
HCM2kAVGQ: 0 9 9 1 3 0 0 0 0 5 0 2

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing + Proposed and Approved Projects Conditions
2295-2305 S. Winchester Blvd Mixed Use Development TIS (Existing Int. Controls)
City of Campbell

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Winchester Blvd/Kennedy Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.422
Loss Time (sec): 9 Average Delay (sec/veh): 11.7
Optimal Cycle: 36 Level Of Service: B+

Street Name: Winchester Blvd Kennedy Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 7 10 10 7 10 10 10 10 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 2 0 0 0 0 0 0 1 0 0 0 1

Volume Module:
Base Vol: 0 780 169 38 710 0 0 0 159 0 52
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 780 169 38 710 0 0 0 159 0 52
Added Vol: 0 21 2 2 18 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1
PasserByVol: 0
Initial Fut: 0 801 171 40 728 0 0 0 160 0 53
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 815 174 41 741 0 0 0 163 0 54
Reduct Vol: 0
Reduced Vol: 0 815 174 41 741 0 0 0 163 0 54
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 815 174 41 741 0 0 0 163 0 54

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.92
Lanes: 0.00 1.64 0.36 1.00 2.00 0.00 0.00 0.00 0.00 1.00
Final Sat.: 0 3049 651 1750 3800 0 0 0 1750 0 1750
Capacity Analysis Module:
Vol/Sat: 0.00 0.27 0.27 0.02 0.20 0.00 0.00 0.00 0.00 0.09 0.00 0.03
Crit Moves: ****
Green Time: 0.0 62.3 62.3 7.0 69.3 0.0 0.0 0.0 0.0 21.7 0.0 21.7
Volume/Cap: 0.00 0.43 0.43 0.33 0.28 0.00 0.00 0.00 0.00 0.43 0.00 0.14
Delay/Veh: 0.0 9.8 9.8 45.9 5.9 0.0 0.0 0.0 0.0 34.6 0.0 31.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.8 9.8 45.9 5.9 0.0 0.0 0.0 0.0 34.6 0.0 31.8
LOS by Move: A A A D A A A A A C- A C
HCM2kAVGQ: 0 8 8 2 4 0 0 0 0 5 0 1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #2 Winchester Blvd/El Caminito Ave

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B [12.6]

 Street Name: Winchester Blvd El Caminito Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 2 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0

Volume Module:
 Base Vol: 12 931 0 0 645 7 2 0 0 7 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 12 931 0 0 645 7 2 0 0 7 0 0 0
 Added Vol: 1 13 0 0 15 1 2 0 0 4 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 13 944 0 0 660 8 4 0 11 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 14 1024 0 0 716 9 4 0 12 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 14 1024 0 0 716 9 4 0 12 0 0 0

Critical Gap Module:
 Critical Gap: 4.1 xxx xxxxxx xxxxxx 6.8 6.5 6.9 xxxxxx xxxxxx
 FollowUpTrim: 2.2 xxx xxxxxx xxxxxx 3.5 4.0 3.3 xxxxxx xxxxxx
 Capacity Module:
 Conflict Vol: 725 xxx xxxxxx xxxxxx 1261 1773 362 xxx xxxxxx
 Potent Cap.: 887 xxx xxxxxx xxxxxx 165 84 640 xxx xxxxxx
 Move Cap.: 887 xxx xxxxxx xxxxxx 163 83 640 xxx xxxxxx
 Total Cap: xxx xxxxxx xxxxxx 298 198 xxxxxx 192 196 xxxxxx
 Volume/Cap: 0.02 xxx xxxxxx xxxxxx 0.01 0.00 0.02 xxx xxxxxx

Level Of Service Module:
 2Way95thQ: 0.0 xxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Control Del: 9.1 xxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx xxxxxx xxxxxx xxxxxx 490 xxxxxx xxxxxx
 SharedQueue: xxxxxx xxxxxx xxxxxx xxxxxx 0.1 xxxxxx xxxxxx
 Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx 12.6 xxxxxx xxxxxx
 Shared LOS: * * * * *
 ApproachDel: xxxxxx xxxxxx 12.6 xxxxxx
 ApproachLOS: * * * * *

Note: Queue reported is the number of cars per lane.
 Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #2 Winchester Blvd/El Caminito Ave

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B [14.5]

 Street Name: Winchester Blvd El Caminito Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 2 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0

Volume Module:
 Base Vol: 2 947 0 0 856 13 2 0 0 3 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 2 947 0 0 856 13 2 0 0 3 0 0 0
 Added Vol: 5 22 0 0 16 2 2 0 0 4 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 7 969 0 0 872 15 4 0 7 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 7 993 0 0 894 15 4 0 7 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 7 993 0 0 894 15 4 0 7 0 0 0

Critical Gap Module:
 Critical Gap: 4.1 xxx xxxxxx xxxxxx 6.8 6.5 6.9 xxxxxx xxxxxx
 FollowUpTrim: 2.2 xxx xxxxxx xxxxxx 3.5 4.0 3.3 xxxxxx xxxxxx
 Capacity Module:
 Conflict Vol: 909 xxx xxxxxx xxxxxx 1412 1908 454 xxx xxxxxx
 Potent Cap.: 757 xxx xxxxxx xxxxxx 131 69 558 xxx xxxxxx
 Move Cap.: 757 xxx xxxxxx xxxxxx 130 68 558 xxx xxxxxx
 Total Cap: xxx xxxxxx xxxxxx 257 185 xxxxxx 196 183 xxxxxx
 Volume/Cap: 0.01 xxx xxxxxx xxxxxx 0.02 0.00 0.01 xxx xxxxxx

Level Of Service Module:
 2Way95thQ: 0.0 xxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Control Del: 9.8 xxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx xxxxxx xxxxxx xxxxxx 391 xxxxxx xxxxxx
 SharedQueue: xxxxxx xxxxxx xxxxxx xxxxxx 0.1 xxxxxx xxxxxx
 Shrd ConDel: xxxxxx xxxxxx xxxxxx xxxxxx 14.5 xxxxxx xxxxxx
 Shared LOS: * * * * *
 ApproachDel: xxxxxx xxxxxx 14.5 xxxxxx
 ApproachLOS: * * * * *

Note: Queue reported is the number of cars per lane.
 Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

AM Peak Hour - Existing + Proposed and Approved Projects Conditions
2295-2305 S. Winchester Blvd Mixed Use Development TIS (Combined Signal)
City of Campbell

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Winchester Blvd/Kennedy Ave-El Caminito Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.445
Loss Time (sec): 12 Average Delay (sec/veh): 20.7
Optimal Cycle: 49 Level Of Service: C+

Street Name: Winchester Blvd Kennedy Ave-El Caminito Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 7 10 10 7 10 10 10 10 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 0 0 1 0 1 0 1 0
Volume Module:
Base Vol: 12 761 170 18 488 1 2 0 7 157 6 52
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 12 761 170 18 488 1 2 0 7 157 6 52
Added Vol: 1 12 1 0 12 1 2 0 4 3 0 2 0 2 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 13 773 171 18 500 2 4 0 11 160 6 54
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 14 834 185 19 540 2 4 0 12 173 6 58
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 14 834 185 19 540 2 4 0 12 173 6 58
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 834 185 19 540 2 4 0 12 173 6 58

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 0.97 0.95 0.92 0.92 0.92 0.95
Lanes: 1.00 1.63 0.37 1.00 1.99 0.01 0.27 0.00 0.73 1.00 0.10 0.90
Final Sat.: 1750 3029 670 1750 3685 15 467 0 1283 1800 180 1620

Capacity Analysis Module:
Vol/Sat: 0.01 0.28 0.28 0.01 0.15 0.15 0.01 0.00 0.01 0.10 0.04 0.04
Crit Moves: ****
Green Time: 19.3 52.7 52.7 7.0 40.4 40.4 10.0 0.0 10.0 18.3 18.3 18.3
Volume/Cap: 0.04 0.52 0.52 0.16 0.36 0.36 0.09 0.00 0.09 0.52 0.20 0.20
Delay/Veh: 32.9 15.7 15.7 44.3 21.0 21.0 41.1 0.0 41.1 38.0 34.7 34.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 32.9 15.7 15.7 44.3 21.0 21.0 41.1 0.0 41.1 38.0 34.7 34.7
LOS by Move: C- B D C+ C- D A D C- C-
HCM2kAVGQ: 0 11 11 6 6 1 0 1 6 2 2

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing + Proposed and Approved Projects Conditions
2295-2305 S. Winchester Blvd Mixed Use Development TIS (Combined Signal)
City of Campbell

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Winchester Blvd/Kennedy Ave-El Caminito Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.433
Loss Time (sec): 12 Average Delay (sec/veh): 19.6
Optimal Cycle: 49 Level Of Service: B-

Street Name: Winchester Blvd Kennedy Ave-El Caminito Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 7 10 10 7 10 10 10 10 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 0 0 1 0 1 0 1 0
Volume Module:
Base Vol: 2 778 169 38 707 3 2 0 3 149 10 52
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 778 169 38 707 3 2 0 3 149 10 52
Added Vol: 5 20 2 2 15 2 2 0 4 1 0 1 0 1 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 7 798 171 40 722 5 4 0 7 150 10 53
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 7 812 174 41 735 5 4 0 7 153 10 54
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 7 812 174 41 735 5 4 0 7 153 10 54
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 7 812 174 41 735 5 4 0 7 153 10 54

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 0.97 0.95 0.92 0.92 0.92 0.95
Lanes: 1.00 1.64 0.36 1.00 1.99 0.01 0.36 0.00 0.64 1.00 0.16 0.84
Final Sat.: 1750 3047 653 1750 3675 25 636 0 1114 1800 286 1514

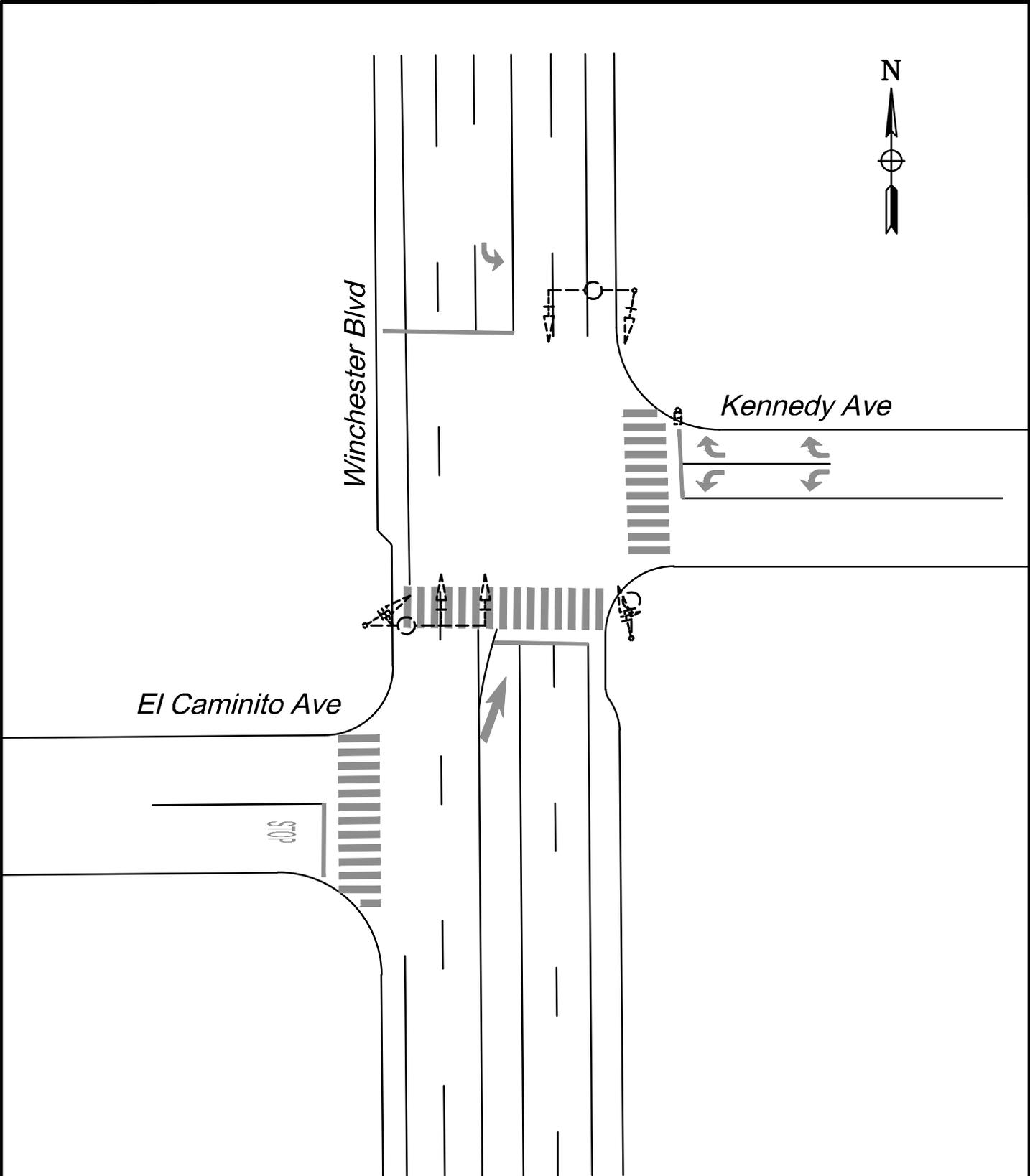
Capacity Analysis Module:
Vol/Sat: 0.00 0.27 0.27 0.02 0.20 0.20 0.01 0.00 0.01 0.08 0.04 0.04
Crit Moves: ****
Green Time: 15.8 53.9 53.9 7.0 45.1 45.1 10.0 0.0 10.0 17.1 17.1 17.1
Volume/Cap: 0.03 0.50 0.50 0.33 0.44 0.44 0.06 0.00 0.06 0.50 0.21 0.21
Delay/Veh: 35.6 14.7 14.7 45.9 19.0 19.0 40.9 0.0 40.9 38.4 35.7 35.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 35.6 14.7 14.7 45.9 19.0 19.0 40.9 0.0 40.9 38.4 35.7 35.7
LOS by Move: D+ B B D B- B- D A D D+ D+
HCM2kAVGQ: 0 10 10 2 8 8 0 0 0 5 2 2

Note: Queue reported is the number of cars per lane.

TIRE Index Table

Existing Volume Range (Vehicles per Day)	TIRE Index	Minimum Daily Volume Increase to Produce	
		a .1 Change in the TIRE Index	a .2 Change in the TIRE Index
29-35	1.5	+6	+15
36-44	1.6	+8	+20
45-56	1.7	+10	+25
57-70	1.8	+13	+32
71-89	1.9	+17	+41
90-110	2.0	+22	+52
111-140	2.1	+29	+65
141-180	2.2	+40	+80
181-220	2.3	+52	+100
221-280	2.4	+65	+125
281-350	2.5	+79	+160
351-450	2.6	+94	+205
451-560	2.7	+114	+260
561-710	2.8	+140	+330
711-890	2.9	+170	+415
891-1,100	3.0	+220	+520
1,101-1,400	3.1	+290	+650
1,401-1,800	3.2	+380	+800
1,801-2,200	3.3	+500	+1,000
2,201-2,800	3.4	+650	+1,300
2,801-3,500	3.5	+825	+1,700
3,501-4,500	3.6	+1,025	+2,200
4,501-5,600	3.7	+1,250	+2,800
5,601-7,100	3.8	+1,500	+3,500
7,101-8,900	3.9	+1,800	+4,300
8,901-11,000	4.0	+2,300	+5,300
11,001-14,000	4.1	+3,000	+6,500
14,001-18,000	4.2	+4,000	+8,000
18,001-22,000	4.3	+5,200	+10,000
22,001-28,000	4.4	+6,600	+13,000
28,001-35,000	4.5	+8,200	+17,000
35,001-45,000	4.6	+10,000	+22,000
45,001-56,000	4.7	+12,200	+28,000
56,001-71,000	4.8	+14,800	+35,000
71,001-89,000	4.9	+18,000	+43,000

Source: Goodrich Traffic Group, based on curve shapes found in work by Donald Appleyard at the University of California at Berkeley and consider earlier thought by Buchanan of the Ministry of Transport, England.



Winchester Blvd

Kennedy Ave

El Caminito Ave

STOP

 <p>Whitlock & Weinberger Transportation, Inc 490 Mendocino Ave, Suite 201 Santa Rosa, CA (707)542-9500 Fax (707)542-9590</p>	<h1>FIGURE 1</h1> <h2>Existing Configuration</h2>	<small>DRAWN:</small> WJP	<small>SCALE:</small> 1"=40'
		<small>DESIGN:</small> STL	<small>DATE:</small> 8/26/14
	<small>SHEET</small> 1 of 4		<small>JOB NO.</small> CMP013

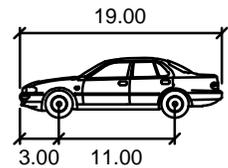


Winchester Blvd

Kennedy Ave

El Caminito Ave

P
ASHTO 2011 (LB)



P	feet
Width	: 7.00
Track	: 6.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.6

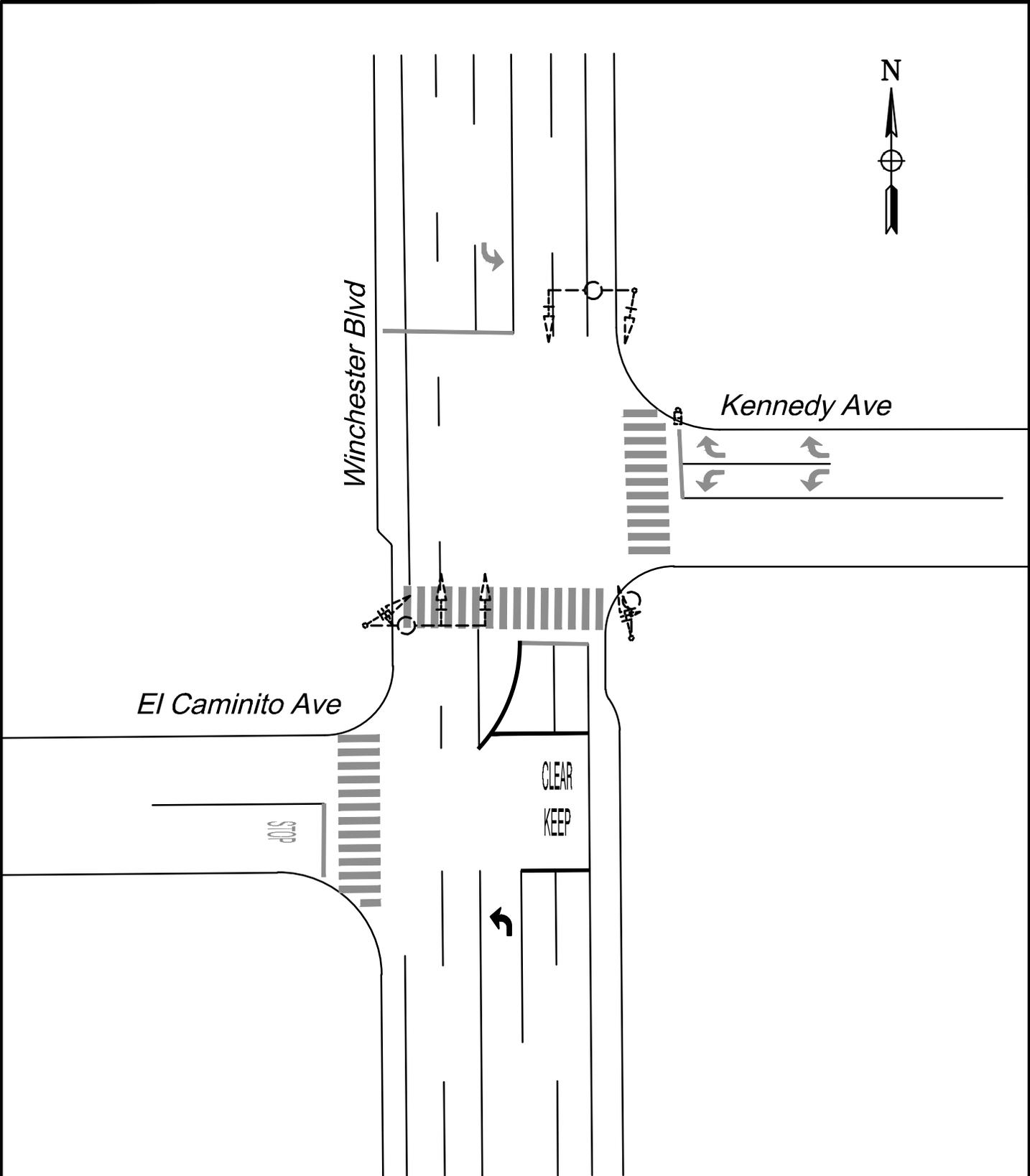


**Whitlock & Weinberger
Transportation, Inc**
490 Mendocino Ave, Suite 201
Santa Rosa, CA
(707)542-9500 Fax (707)542-9590

FIGURE 2

AutoTURN Analysis
Two-Stage Left-Turns

DRAWN: WJP	SCALE: 1"=40'
DESIGN: STL	DATE: 8/26/14
SHEET 2 of 4 <small>SHEETS</small>	JOB NO. CMP013



Winchester Blvd

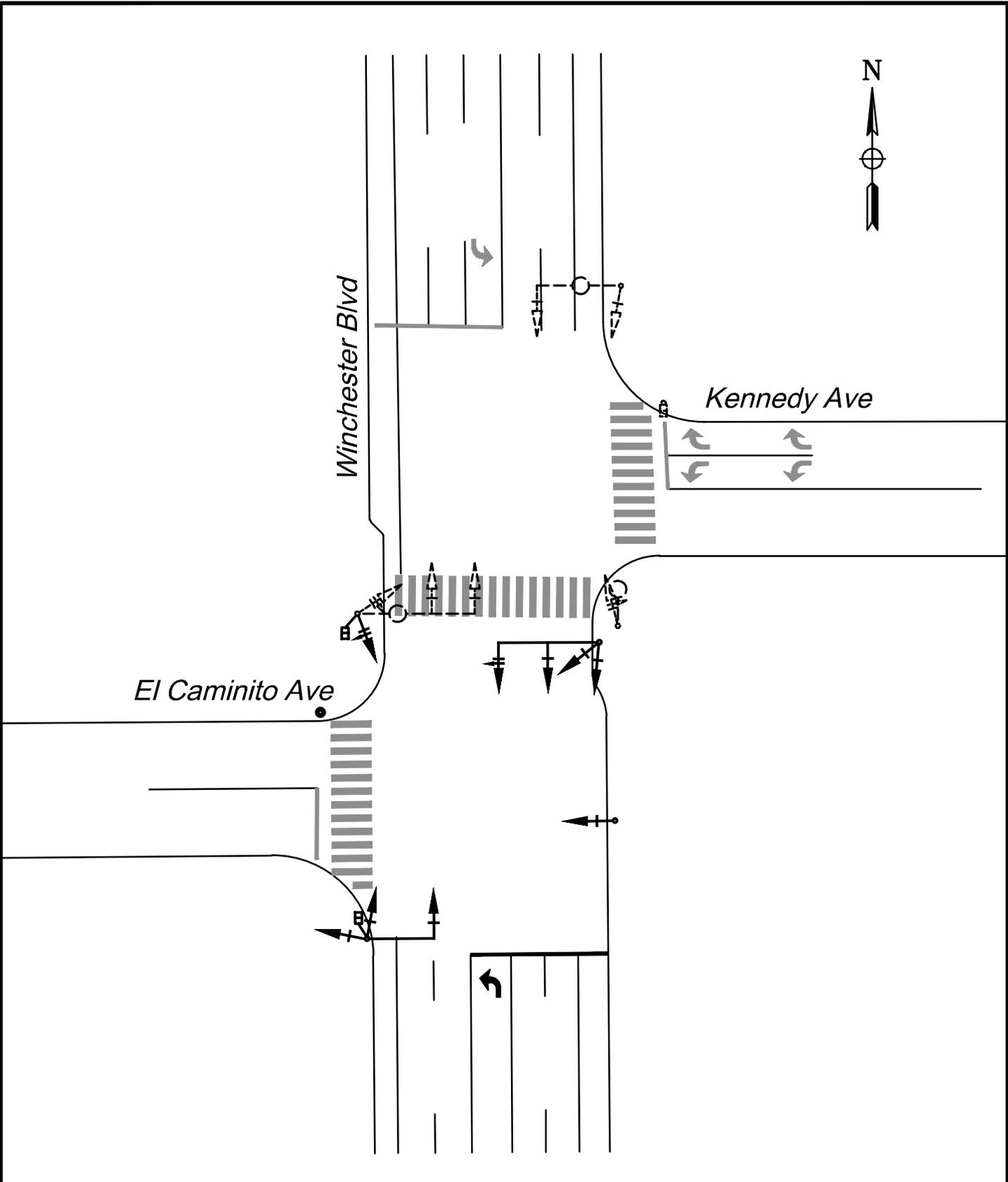
Kennedy Ave

El Caminito Ave

CLEAR
KEEP

STOP

 <p>Whitlock & Weinberger Transportation, Inc 490 Mendocino Ave, Suite 201 Santa Rosa, CA (707)542-9500 Fax (707)542-9590</p>	<h1>FIGURE 3</h1>	<p>DRAWN: WJP</p>	<p>SCALE: 1"=40'</p>
		<p>DESIGN: STL</p>	<p>DATE: 8/26/14</p>
	<p>Striping Modification Alternative</p>	<p>SHEET 3 of 4</p>	<p>JOB NO. CMP013</p>
		<p>SHEETS</p>	<p>CMP013</p>



Winchester Blvd

Kennedy Ave

El Caminito Ave

 <p>Whitlock & Weinberger Transportation, Inc 490 Mendocino Ave, Suite 201 Santa Rosa, CA (707)542-9500 Fax (707)542-9590</p>	<h1>FIGURE 4</h1>		DRAWN: WJP	SCALE: 1"=40'
	<h2>Combined Signal Alternative</h2>		DESIGN: STL	DATE: 8/26/14
	SHEET 4 of 4 SHEETS		JOB NO. CMP013	

Enclosure: Shared Parking Analysis

Time	Weekday						Weekend						
	Condominiums		Retail		Shared Demand		Condominiums		Retail		Shared Demand		
	% Peak Demand	Parking Demand	% Peak Demand	Parking Demand			% Peak Demand	Parking Demand	% Peak Demand	Parking Demand			
12 a.m. to 6 a.m.	100	22	0	0	22		100	18	0	0	18		
6 a.m. to 7 a.m.	100	22	1	0	22		100	18	0	0	18		
7 a.m. to 8 a.m.	90	20	5	0	20		90	16	10	1	17		
8 a.m. to 9 a.m.	85	19	15	1	20		85	15	20	2	17		
9 a.m. to 10 a.m.	80	18	35	3	21		80	14	20	2	16		
10 a.m. to 11 a.m.	75	17	65	5	22		75	14	20	2	16		
11 a.m. to 12 p.m.	70	15	85	7	22		70	13	20	2	15		
12 p.m. to 1 p.m.	65	14	95	8	22		65	12	20	2	14		
1 p.m. to 2 p.m.	70	15	100	8	23		70	13	20	2	15		
2 p.m. to 3 p.m.	70	15	95	8	23		70	13	20	2	15		
3 p.m. to 4 p.m.	70	15	90	7	22		70	13	20	2	15		
4 p.m. to 5 p.m.	75	17	90	7	24		75	14	20	2	16		
5 p.m. to 6 p.m.	85	19	95	8	27		85	15	40	4	19		
6 p.m. to 7 p.m.	90	20	95	8	28		90	16	60	5	21		
7 p.m. to 8 p.m.	97	21	95	8	29		97	17	100	9	26		
8 p.m. to 9 p.m.	98	22	80	6	28		98	18	100	9	27		
9 p.m. to 10 p.m.	99	22	50	4	26		99	18	100	9	27		
10 p.m. to 11 p.m.	100	22	30	2	24		100	18	100	9	27		
11 p.m. to 12 a.m.	100	22	10	1	23		100	18	80	7	25		
Shared Parking Maximum Demand:											29		27

ATTACHMENT 7

"WILL SERVE" LETTERS



Pacific Gas and Electric Company
De Anza Division

10900 N. Blaney Ave
Cupertino, Ca 95014

Date: September 5, 2014

Mr. Jeff Warmoth
SREA, Inc.
P.O. Box 1001
Los Altos, Ca 94023

RE: 2295 & 2305 S. Winchester Blvd., Campbell

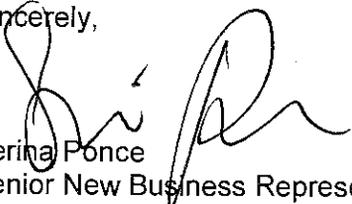
This letter has been created to satisfy your request of a Will Serve Letter to the referenced subdivision.

Pacific Gas & Electric will be designing and providing the requested utilities per the standard application process and under the correct Tariff rules set forth by the California Public Utilities Commission.

Application, contract, right-of-way, and moneys are due prior to construction. Be certain to keep in close contact with your PG&E Representative. This will insure that any changes or delays in your plans will not affect PG&E's ability to design and construct your service facilities in a manner that best meets your needs.

Please call if there are any questions.

Sincerely,


Serina Ponce
Senior New Business Representative
408-725-2146



**San Jose
Water
Company**

110 W. Taylor Street
San Jose, CA 95110-2131

**San Jose Water Company
Water Services Administration**

1265 S. Bascom Ave., San Jose, CA 95128
Facsimile: 408-279-7889
Writer's Direct Dial: 408-279-7879

August 25, 2014

City of Campbell
Department of Public Works
70 North First Street
Campbell, CA 95008

Reference: 2295 & 2305 South Winchester Boulevard, Campbell

Gentlemen:

This letter is being written at the request of Jeff Warmoth with SREA, Inc.

Please be informed that the above-referenced property is within the jurisdiction of San Jose Water Company, and that we will serve further development of the site in accordance with our rules and regulations in effect and on file with the California Public Utilities Commission.

If you have any questions, or require further information, please contact this office at the number indicated above.

Sincerely,

A handwritten signature in cursive script that reads "Wanda E. Folk".

Wanda E. Folk
Water Services Representative

WEF
winchester2295&2305.doc



August 26, 2014

Jeff Warmoth - President
SREA, Inc.
PO Box 1001
Los Altos, CA 94023

RE: 2295 S. Winchester Blvd – Will Serve Letter

Dear Mr. Warmoth:

This letter will serve as the West Valley Sanitation District's (District) "WILL SERVE" for the proposed 16 residential units and 3,200 square feet of retail space located at 2295 and 2305 S. Winchester Blvd in the City of Campbell.

The District has determined the existing sewer system in the area has adequate capacity for the proposed development. Sanitary sewer service is available from the 6-inch sewer along El Caminito Ave as shown in the attached map.

Pursuant to District Ordinance Code Section 10.130, the owner is required to pay all applicable fees prior to the recordation of the Final Map. The District will issue a clearance letter for the recording of the Final Map after the fees are paid.

Please contact me at (408)385-3030 if you have any further questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Alan Kam', is written over a light blue circular stamp.

Alan Kam
Senior Civil Engineer

Attachment: WVSD System Map

