March 12, 2013

Via Electronic Mail

Ms. Bridgit Koller
Warmington Residential California
2400 Camino Ramon, Suite 234
San Ramon, CA 94583
Bridgit.Koller@warmingtongroup.com

Re: Toxic Air Contaminant Analysis for Warmington Development, Milpitas, California

Dear Ms. Koller,

At the request of Warmington Residential California (Warmington), ENVIRON International Corporation (ENVIRON) conducted a screening-level evaluation of cancer risks associated with nearby roadways for the proposed Warmington development in Milpitas, California (herein referred to as the "Project" or the "Site").

From this analysis, we determined that the combined impacts from nearby roadways do not result in an exceedance of the applicable risk threshold (i.e., cancer risk of 10 in a million). The Project understanding, approach for evaluating roadway emissions and screening results are described in the following sections.

Project Understanding and Regulatory Framework

The proposed Warmington development is a residential housing project located in the City of Milpitas, situated southeast of Montague Expressway, north of Trade Zone Boulevard, and west of Lundy Avenue. Figure 1 shows the proposed site plan overlaid on an aerial photo of the current site. This analysis is being conducted for the proposed development to meet the requirements put forth in Policy 5.25 of the 2008 City of Milpitas Transit Area Specific Plan (TASP)[1], which requires the following:

> *For new residential development that is proposed within 500 feet of active rail lines where vehicles emit diesel exhaust, or roadways where total daily traffic volumes from all roadways within 500 feet of such location exceed 100,000 vehicles per day, will, as part of its CEQA review, include an analysis of toxic air contaminants (which includes primarily diesel particulate matter [DPM]). If the results show that the carcinogenic human health risk ["cancer risk"] exceeds the 10 people in a million standard for carcinogenic human health impacts established by the Bay Area Air Quality Management District (BAAQMD), the City may require upgraded ventilation systems with high efficiency filters, or other equivalent mechanisms, to minimize exposure of future residents.*

[1] City of Milpitas. 2011. Milpitas Transit Area Specific Plan. December. Available online at http://www.ci.milpitas.ca.gov/_pdfs/plan_plan_tasp_chapter5.pdf.

This analysis evaluates the estimated cancer risk to future residents from exposure to DPM emissions from all roadways within 500 feet of the Project. There are no railways within 500 feet of the Project.

Roadway Screening Analysis and Results

A layout of the Project showing the roadways within a 500-foot buffer is shown in Figure 2.

As stated above, Policy 5.25 of the 2008 City of Milpitas TASP requires an analysis of the impact of roadways within 500 feet of new residential receptors if traffic on the roadways exceeds 100,000 vehicles per day. The roadways within 500 feet of the proposed Project are Montague Expressway, Trade Zone Boulevard, Ringwood Avenue, Lundy Avenue, Houret Drive, Sango Court, and Tarob Court. Total traffic on these roads is less than 100,000 vehicles per day, but the traffic on Montague Expressway and Trade Zone Boulevard and their proximity to the proposed Project suggest that these roads should be analyzed.

The roadways with daily traffic greater than 10,000 vehicles within 500 feet of the proposed Project are Montague Expressway and Trade Zone Boulevard. The impacts of these roadways were analyzed consistent with the guidance described by BAAQMD in their 2012 California Environmental Quality Act (CEQA) Air Quality Guidelines.[2]

As a supplement to the guidelines, BAAQMD provides screening tools to assess the impact of roadways on nearby residential receptors. The estimated cancer risks from the roadways obtained using the screening tool for surface streets depends on the distance between the receptor and the nearest travel lane of the roadway, the average number of vehicles that travel on the roadway in a day, and the orientation of the roadway. A grid with 15-meter spacing of potential residential receptors was arrayed across the Project, also shown in Figure 2. The distance between each residential receptor and each roadway was determined using geographical information software. The average daily traffic (ADT) data reported by California Environmental Health Tracking Program (CEHTP)[3] were selected for use over the ADT data reported by the City of Milpitas[4] for Montague Expressway given that the data were based on the same year of traffic information and the CEHTP ADT data were reported for the roadway segment within 500 feet of the Site, that is, the CEHTP data were more site-specific.

For other roadways within 500 feet of the proposed Project—Houret Drive, Sango Court, and Tarob Court—the ADT were unknown at the time of this report, so were assumed to be 2,000 vehicles per day. This volume is determined to be conservative, that is, health protective, because these are small residential roadways that would likely not have higher volume than the nearby Lundy Avenue. Since the ADT on Ringwood Avenue, Lundy Avenue, Houret Drive, Sango Court, and Tarob Court are below 10,000 vehicles per day, these roadways were not included in the evaluation per BAAQMD guidance.

When a roadway's ADT or distance between a receptor and a roadway is between two values in the screening tables, linear interpolation was performed to obtain the cancer risk at the reported distance and ADT.

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[2] BAAQMD. 2012. CEQA Air Quality Guidelines. May. Available online at: http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en

[3] California Environmental Health Tracking Program (CEHTP) traffic spatial linkage web service. Available online at: http://www.ehib.org/traffic_tool.jsp

[4] http://www.ci.milpitas.ca.gov/_pdfs/trans_traffic_volume_map.pdf

Cumulative Health Risk Results

To evaluate the cumulative cancer risks from roadways, the cancer risk from each roadway at each evaluated residential receptor location was combined. The combined cancer risk at each residential receptor was then evaluated against the threshold of 10 in a million as outlined in Policy 5.25 of the 2008 City of Milpitas TASP.

The cumulative cancer risks from the roadways at any residential receptor location were determined to be below the threshold of 10 in a million without any mitigation. The screening level cancer risks evaluated for the maximum exposed individual resident (MEIR) location from the two roadways, Montague Expressway and Trade Zone Boulevard, are summarized in Table 1. The maximum estimated cancer risk, at a location in the northwest of the Site, is 6.8 in a million. Risks from the roadways not included in this analysis are assumed to be negligible and would not increase roadway impacts at the Site to above the TASP threshold of 10 in one million.

Summary

This analysis determined that the combined impacts from roadways within 500 feet of the proposed Project would not result in an exceedance of the applicable risk threshold (i.e., cancer risk of 10 in a million), and therefore do not require mitigation measures.

There are some uncertainties associated with this analysis. First, this analysis is subject to the limitations of the BAAQMD screening tables for roadways which assume occupancy as early as 2014. If occupancy occurs later than 2014, emissions of diesel exhaust will be lower than estimated here due to continued implementation of California Air Resources Board (CARB) and United States Environmental Protection Agency (USEPA) regulations which mandate increasing strict emissions requirements for diesel engines.

If you have any questions or need further information, please contact Michael (415.796.1934) at your convenience. Thank you for the opportunity to assist you with this matter.

Sincerely,

Michael Keinath, PE
Senior Manager

Elizabeth A. Miesner, MS
Principal

Attachments:

Tables:

Table 1. Roadway Screening Cancer Risks at MEIR

Figures:

Figure 1. Proposed Site Layout

Figure 2. Site Layout, Source Locations, and Receptor Grid

Tables

Table 1
Roadway Screening Cancer Risks at MEIR
Warmington Residential California
Milpitas, California

Roadway	Approximate Distance from Roadway to MEIR[1]	Reported Average Daily Traffic (ADT)[2]	Direction	Interpolated Lifetime Excess Cancer Risk[3,4]
	[ft]	[vehicles/day]		[in a million]
Montague Expressway	262	54,600	Either	6.00
Trade Zone Boulevard	867	25,600	East-West	0.81

Notes:

1. The distances between the maximum exposed individual resident (MEIR) and the nearest travel lane of the surface streets are reported. The distances were measured using geographical information software. The MEIR is located at Universal Transverse Mercator (UTM) coordinates 597,838 north, 4,140,496 east.
2. Average daily traffic data (ADT) for the surface streets were obtained from the California Environmental Health Tracking Program (CEHTP) traffic spatial linkage web service.
3. Screening values for the surface streets were obtained from BAAQMD Roadway Screening Analysis Tables (BAAQMD 2011).
4. Distance and ADT-interpolated estimate was completed according to BAAQMD guidance (BAAQMD 2012).

Abbreviations:

ADT: Average Daily Traffic
BAAQMD: Bay Area Air Quality Management District
CEHTP: California Environmental Health Tracking Program
CEQA: California Environmental Quality Act
ft: feet
MEIR = maximum exposed individual resident
UTM = Universal Transverse Mercator

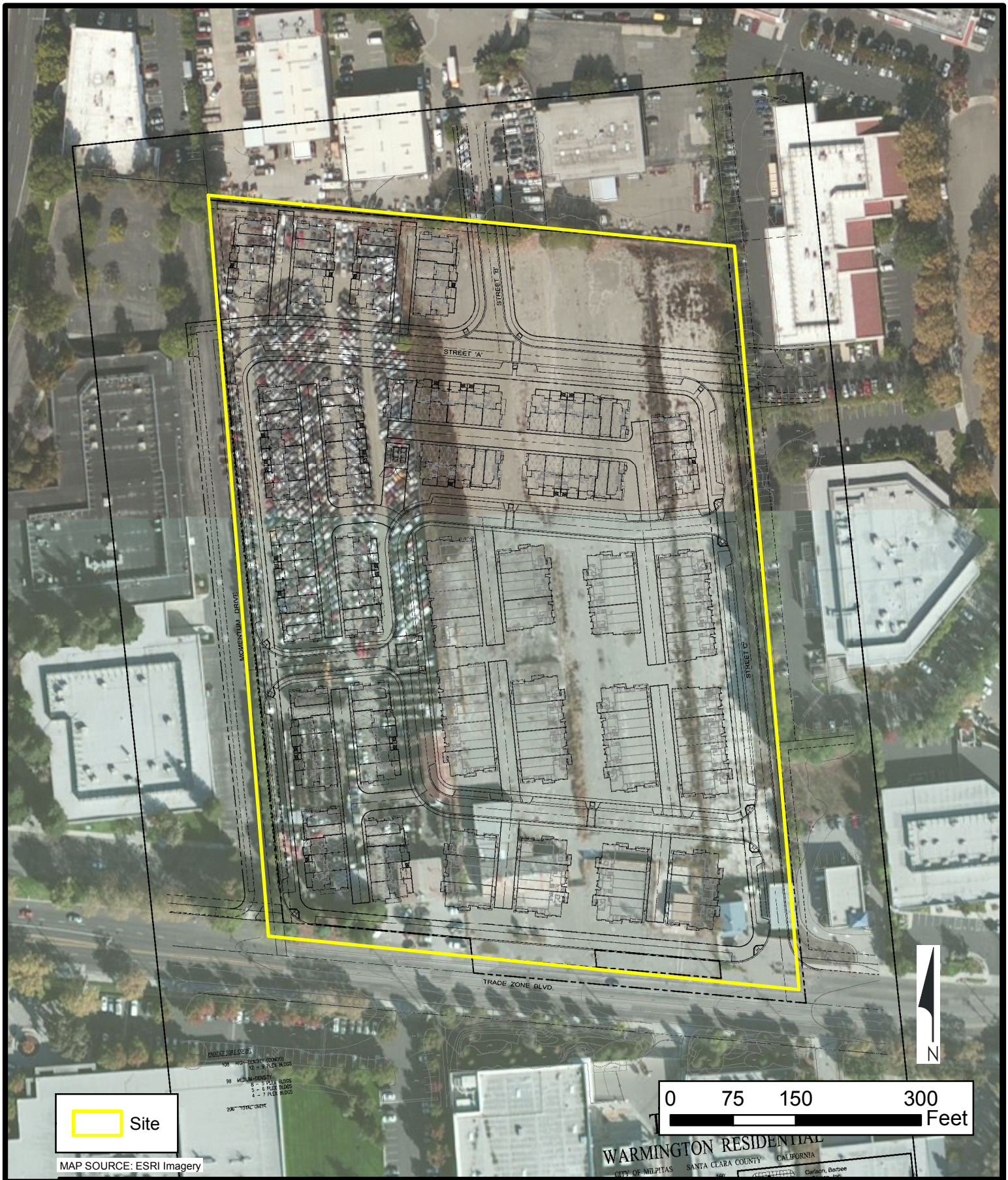
Sources:

BAAQMD. 2011. Roadway Screening Analysis Tables. Available online at: http://baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/County%20Surface%20Street%20Screening%20Tables%20Dec%202011.ashx?la=en.

BAAQMD. 2012. CEQA Air Quality Guidelines. May.

California Environmental Health Tracking Program (CEHTP) traffic spatial linkage web service. Available online at : http://www.ehib.org/traffic_tool.jsp.

Figures



ENVIRON

Site Layout

Warmington Residential California
Milpitas, California

Figure
1

Drafter: EBL Date: 3/12/2013 Contract Number: 03-32326A Approved: Revised:

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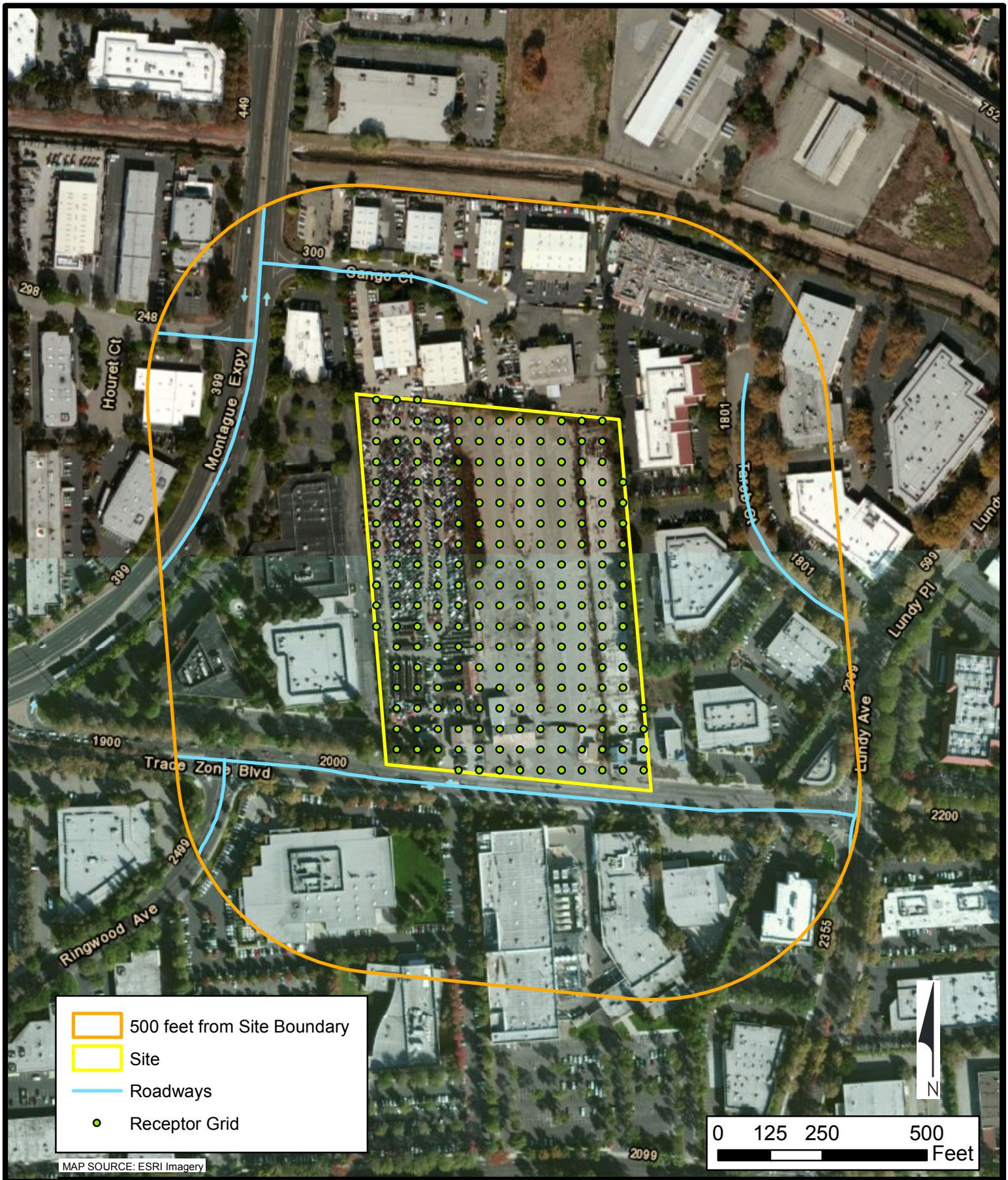

ENVIRON

Site Layout, Source Locations, and Receptor Grid

Warmington Residential California
Milpitas, California

Figure **2**

Drafter:	EBL	Date:	3/12/2013	Contract Number:	03-32326A	Approved:	Revised:

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