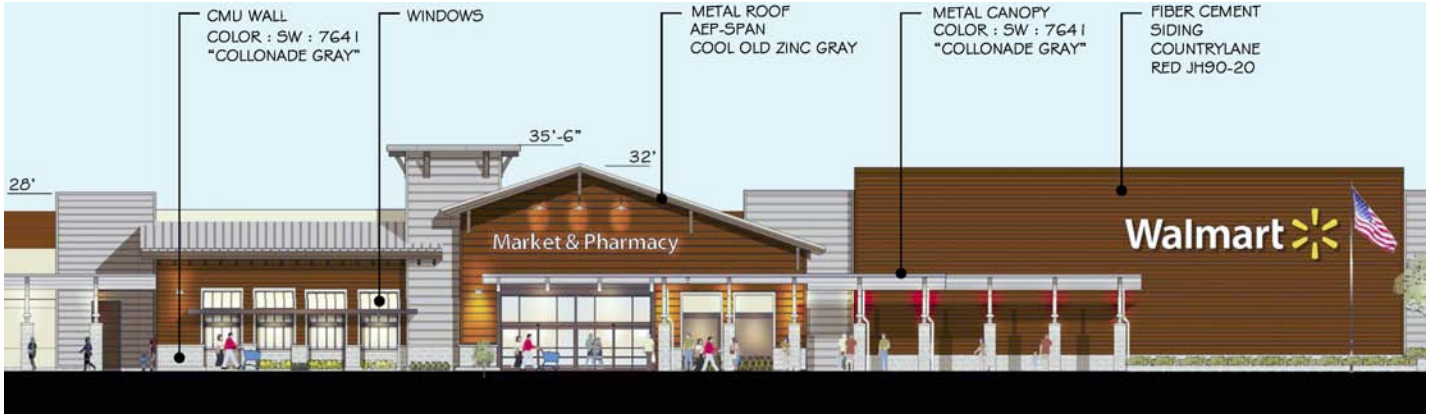
Milpitas Walmart Expansion Project
Draft Environmental Impact Report

SCH No. 2009032018



City of Milpitas ▪ November 5, 2009

Michael Brandman Associates
Bishop Ranch 3
2633 Camino Ramon, Suite 460
San Ramon, CA 94583

DRAFT
Environmental Impact Report
Milpitas Walmart Expansion Project
City of Milpitas, Santa Clara County, California
SCH No. 2009032018

Prepared for:

City of Milpitas
Planning and Neighborhood Services Department
455 E. Calaveras Boulevard
Milpitas, CA 95035
Phone: 408.586.3279

Contact: Cindy Hom, Assistant Planner

Prepared by:

Michael Brandman Associates
Bishop Ranch 3
2633 Camino Ramon, Suite 460
San Ramon, CA 94583

Contact: Jason Brandman, Project Director

Michael Brandman Associates

November 5, 2009

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ACE	Altamont Commuter Express
ADA	Americans with Disabilities Act
ADT	average daily traffic
AM Peak	weekday morning peak hour (7 a.m. to 9 a.m.)
AST	aboveground storage tank
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
Bcf	billion cubic feet
BMP	Best Management Practices
BOE	State of California Board of Equalization
BVOC	biogenic volatile organic compound
C	Celsius
CAFE	Corporate Average Fuel Economy program
Cal OSHA	California Occupational Health and Safety Administration
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Quality Board
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
CH_4	methane

CHMIRS	California Hazardous Material Incident Report System
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
dB	decibel
dBA	A-weighted decibel
DDT	dichloro-diphenyl-trichloroethane
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EDR	Environmental Data Resources, Inc.
EIR	Environmental Impact Report
EMF	electromagnetic field
EPA	United States Environmental Protection Agency
ERNS	Emergency Response Notification System
F	Fahrenheit
FAR	floor area ratio
FHWA	Federal Highway Administration
GWh/y	gigawatt-hours per year
HCM	Highway Capacity Manual
HFC	hydrofluorocarbon
HOV	High Occupancy Vehicle

HVAC	heating, ventilation, and air conditioning
ICSC	International Council of Shopping Centers
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
kWH	kilowatt hour
LAFCO	Local Agency Formation Commission
L_{dn}	day/night average sound level
LED	light emitting diode
L_{eq}	equivalent sound level
LOS	Level of Service
MBA	Michael Brandman Associates
mgd	million gallons per day
MMI	Modified Mercalli Intensity
mph	miles per hour
MTBE	Methyl Tertiary Butyl Ether
$MTCO_2e$	metric tons of carbon dioxide equivalents
N_2O	nitrous oxide
N/A	Not available
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOC	Notice of Completion
NOP	Notice of Preparation
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System

NWIC	Northwest Information Center
O_3	ozone
OEHHA	California Office of Environmental Health Hazard Assessment
PCB	polychlorinated biphenyl
pCi/l	picoCuries per liter
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric Company
PM_x	particulate matter
PM Peak	weekday afternoon peak hour (4 p.m. to 6 p.m.)
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PVC	polyvinyl chloride
RCNM	Roadway Construction Noise Model
RCRA	Federal Resource Conservation and Recovery Act
REMEL	Reference Energy Mean Emission Level
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SCVWD	Santa Clara Valley Water District
SF_6	sulfur hexafluoride
SFPUC	San Francisco Public Utilities Commission
SO_2	sulfur dioxide
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board

TAC	toxic air contaminant
TCM	transportation control measures
TDS	total dissolved solids
TDV	Time Dependent Valuation
Tg	teragram
therms/y	therms per year
TMDL	Total Maximum Daily Load
TPHg	Total Petroleum Hydrocarbons as gasoline
TPO	thermoplastic polyolefin-type
TRU	transportation refrigeration unit
$\mu g/m^3$	micrograms per cubic meter
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
V/C	volume-to-capacity ratio
VOC	volatile organic compound
VPD	vehicles per day
VTA	Santa Clara Valley Transportation Authority
$W\ m^{-2}$	watts per square meter

SECTION 1: INTRODUCTION

1.1 - Overview, Purpose, and Authority of the EIR

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the Milpitas Walmart Expansion Project (State Clearinghouse No. 2009032018). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.). This Draft EIR is intended to serve as an informational document for the public agency decision makers and the public regarding the proposed project.

1.1.1 - Overview

The proposed project consists of expanding the existing 131,725-square-foot Walmart store in the McCarthy Ranch Marketplace by a maximum of 19,000 square feet. The expanded store would retail groceries and operate 24 hours a day. Section 3, Project Description provides a complete description of the project.

1.1.2 - Purpose and Authority

This Draft EIR provides a project-level analysis of the environmental effects of the Milpitas Walmart Expansion Project. The environmental impacts of the proposed project are analyzed in the EIR to the degree of specificity appropriate, in accordance with CEQA Guidelines Section 15146. This document addresses the potentially significant adverse environmental impacts that may be associated with the planning, construction, or operation of the project. It also identifies appropriate and feasible mitigation measures and alternatives that may be adopted to significantly reduce or avoid these impacts.

CEQA requires that an EIR contain, at a minimum, certain specific elements. These elements are contained in this Draft EIR and include:

- Table of Contents
- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Significant Environmental Impacts, and Mitigation Measures
- Cumulative Impacts
- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Found Not To Be Significant
- Areas of Known Controversy

1.1.3 - Lead Agency Determination

The City of Milpitas is designated as the lead agency for the project. CEQA Guidelines Section 15367 defines the lead agency as ". . . the public agency, which has the principal responsibility for carrying out or approving a project." Other public agencies may use this Draft EIR in the decision-making or permit process and consider the information in this Draft EIR along with other information that may be presented during the CEQA process.

This Draft EIR was prepared by Michael Brandman Associates, an environmental consultant. Prior to public review, it was extensively reviewed and evaluated by the City of Milpitas. This Draft EIR reflects the independent judgment and analysis of the City of Milpitas as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel are provided in Sections 8 and 9 of this Draft EIR, respectively.

1.2 - Scope of the EIR

This Draft EIR addresses the potential environmental effects of the proposed project. The City of Milpitas issued a Notice of Preparation (NOP) for the proposed project on March 5, 2009, which circulated between March 5, 2009 and April 3, 2009 for the statutory 30-day public review period. The scope of this Draft EIR includes the potential environmental impacts identified in the NOP and issues raised by agencies and the public in response to the NOP. The NOP is contained in Appendix A of this Draft EIR.

Five comment letters were received in response to the NOP. They are listed in Table 1-1 and provided in Appendix A of this Draft EIR. In addition, the sign-in sheet from the scoping meeting is provided in Appendix A.

Table 1-1: NOP Comment Letters

Status	Affiliation	Signatory	Date
Public Agencies	County of Santa Clara, Department of Roads and Airports	David R.L. Boyd, Project Engineer	March 16, 2009
	California Department of Transportation, District 4	Lisa Carboni, District Branch Chief	April 6, 2009 April 30, 2009*
Private Parties	—	D. Cindy Martinez	March 16, 2009
	—	Virginia Fujii	March 18, 2009

Notes:
* Caltrans submitted a second letter on April 30, 2009 to expand on comments provided in the April 6, 2009 letter.
Source: City of Milpitas, 2009.

1.2.1 - Scoping Meeting

Pursuant to CEQA Guidelines Section 15082(c)(1), the City of Milpitas held a scoping meeting for the proposed project on Monday, March 16, 2009 at the Milpitas Community Center. Three attendees provided oral comments on the scope of the EIR. The speakers are listed below. The sign-in sheet from the meeting is provided in Appendix A.

- Bradford Alexander
- Cindy Martinez
- Virginia Fujii

1.2.2 - Environmental Issues Determined Not To Be Significant

The NOP identified topical areas that were determined not to be significant. An explanation of why each area is determined not to be significant is provided in Section 7, Effects Found Not To Be Significant. These topical areas are as follows:

- Agriculture Resources
- Cultural Resources
- Mineral Resources
- Recreation

In addition, certain subjects within various topical areas were determined not to be significant and have been scoped out to Section 7, Effects Found Not To Be Significant. These subjects include:

- Scenic Vistas (Section 4.1, Aesthetics, Light, and Glare)
- State Scenic Highways (Section 4.1, Aesthetics, Light, and Glare)
- Sensitive Natural Communities or Riparian Habitat (Section 4.3, Biological Resources)
- Wetlands or Jurisdictional Features (Section 4.3, Biological Resources)
- Wildlife Movement (Section 4.3, Biological Resources)
- Conservation Plans (Section 4.3, Biological Resources)
- Septic or Alternative Wastewater Disposal Systems (Section 4.4, Geology, Soils, and Seismicity)
- Exposure of Schools to Hazardous Materials (Section 4.5, Hazards and Hazardous Materials)
- Airports (Section 4.5, Hazards and Hazardous Materials)
- Private Airstrips (Section 4.5, Hazards and Hazardous Materials)
- Wildland Fires (Section 4.5, Hazards and Hazardous Materials)
- 100-Year Flood Hazards (Section 4.6, Hydrology and Water Quality)
- Levee or Dam Failure (Section 4.6, Hydrology and Water Quality)
- Seiches, Tsunamis, or Mudflows (Section 4.6, Hydrology and Water Quality)
- Division of an Established Community (Section 4.7, Land Use)
- Conservation Plans (Section 4.7, Land Use)

- Aviation Noise (Section 4.8, Noise)
- Schools (Section 4.9, Public Services and Utilities)
- Parks (Section 4.9, Public Services and Utilities)
- Other Public Facilities (Section 4.9, Public Services and Utilities)
- Air Traffic Patterns (Section 4.10, Transportation)

1.2.3 - Potentially Significant Environmental Issues

The NOP found that the following topical areas may contain potentially significant environmental issues that will require further analysis in the EIR. These sections are as follows:

- Aesthetics, Light, and Glare
- Air Quality (includes Greenhouse Gas Emissions)
- Biological Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Public Services and Utilities
- Transportation
- Urban Decay

1.3 - Organization of the EIR

This Draft EIR is organized into the following main sections:

- **Section 1: Introduction.** This section provides an introduction and overview describing the purpose of this Draft EIR, its scope and components, and its review and certification process.
- **Section 2: Executive Summary.** This section includes a summary of the proposed project and alternatives to be addressed in the Draft EIR. A brief description of the areas of controversy and issues to be resolved, and overview of the Mitigation Monitoring and Reporting Program, in addition to a table that summarizes the impacts, mitigation measures, and level of significance after mitigation, are also included in this section.
- **Section 3: Project Description.** This section includes a detailed description of the proposed project, including its location, site, and project characteristics. A discussion of the project objectives, intended uses of the Draft EIR, responsible agencies, and approvals that are needed for the proposed project are also provided.
- **Section 4: Environmental Impact Analysis.** This section analyzes the environmental impacts of the proposed project. Impacts are organized into major topic areas. Each topic area includes

a description of the environmental setting, methodology, significance criteria, impacts, mitigation measures, and significance after mitigation. The specific environmental topics that are addressed within Section 4 are as follows:

- **Section 4.1 - Aesthetics, Light, and Glare:** Addresses the potential visual impacts of development intensification and the overall increase in illumination produced by the project.
- **Section 4.2 - Air Quality:** Addresses the potential air quality impacts associated with project implementation, as well as consistency with the Bay Area Air Quality Management District 2005 Ozone Strategy. In addition, the section also evaluates project emissions of greenhouse gases.
- **Section 4.3 - Biological Resources:** Addresses the project's potential impacts on habitat, vegetation, and wildlife; the potential degradation or elimination of important habitat; and impacts on special-status species.
- **Section 4.4 - Geology, Soils, and Seismicity:** Addresses the potential impacts the project may have on soils and assesses the effects of project development in relation to geologic and seismic conditions.
- **Section 4.5 - Hazards and Hazardous Materials:** Addresses the potential for the presence of hazardous materials or conditions on the project site and in the project area that may have the potential to impact human health.
- **Section 4.6 - Hydrology and Water Quality:** Addresses the potential impacts of the project on local hydrological conditions, including drainage areas, and changes in the flow rates.
- **Section 4.7 - Land Use:** Addresses the potential land use impacts associated with consistency with the City of Milpitas General Plan and Milpitas Municipal Code.
- **Section 4.8 - Noise:** Addresses the potential noise impacts during construction and at project buildout from mobile and stationary sources. The section also addresses the impact of noise generation on neighboring uses.
- **Section 4.9 - Public Services and Utilities:** Addresses the potential impacts upon service providers, including fire protection, law enforcement, water supply, wastewater, solid waste, and energy providers.
- **Section 4.10 - Transportation:** Addresses the impacts on the local and regional roadway system, public transportation, bicycle, and pedestrian access.
- **Section 4.11 - Urban Decay:** Addresses the potential for store closures and long-term vacancies resulting from the implementation of the proposed project.

- **Section 5: Alternatives to the Proposed Project.** This section compares the impacts of the proposed project with three land-use project alternatives: the No Project Alternative, the 50-Percent Reduction Alternative, and the Inline Retail/Restaurant Alternative. An environmentally superior alternative is identified. In addition, alternatives initially considered but rejected from further consideration are discussed.

- **Section 6: Other CEQA Considerations.** This section provides a summary of significant environmental impacts, including unavoidable and growth-inducing impacts. This section discusses the cumulative impacts associated with the proposed project, including the impacts of past, present, and probable future projects. In addition, the proposed project's energy demand is discussed.
- **Section 7: Effects Found Not To Be Significant.** This section contains analysis of the topical sections not addressed in Section 4.
- **Section 8: Persons and Organizations Consulted.** This section contains a full list of persons and organizations that were consulted during the preparation of this Draft EIR.
- **Section 9: List of Preparers.** This section lists the authors who assisted in the preparation of the Draft EIR, by name and affiliation.
- **Section 10: References.** This section contains a full list of references that were used in the preparation of this Draft EIR.
- **Appendices:** This section includes all notices and other procedural documents pertinent to the Draft EIR, as well as all technical material prepared to support the analysis.

1.4 - Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Draft EIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the Draft EIR has also been described. The documents and other sources that have been used in the preparation of this Draft EIR include, but are not limited to:

- City of Milpitas General Plan
- Milpitas Municipal Code
- City of Milpitas 2005 Urban Water Management Plan
- Santa Clara Valley Water District 2005 Urban Water Management Plan

These documents are specifically identified in Section 10, References, of this Draft EIR. In accordance with CEQA Guidelines Section 15150(b), the General Plan, Municipal Code, and the City of Milpitas Urban 2005 Water Management Plan and other sources used in the preparation of the Draft EIR are available for review at the Milpitas City offices at the address shown in Section 1.6 below. In addition, the documents are also posted online at http://www.ci.milpitas.ca.gov/.

The Santa Clara Valley Water District 2005 Urban Water Management Plan is available online at http://www.valleywater.org.

1.5 - Technical Studies Prepared for the Project

The following technical studies and analyses were prepared for the proposed project:

- Air Quality Analysis, prepared by Michael Brandman Associates. (The analysis is wholly contained in Section 4.2, Air Quality; modeling data is provided in Appendix B.)
- Health Risk Assessment, prepared by Michael Brandman Associates (Appendix B).
- Biological Resources Analysis, prepared by Michael Brandman Associates. (The analysis is wholly contained in Section 4.3, Biological Resources; supporting information is provided in Appendix C).
- Geotechnical Engineering Investigation, prepared by Krazan & Associates, Inc. (Appendix D).
- Phase I Environmental Site Assessment, prepared by Tait Environmental Management (Appendix E).
- Noise Analysis, prepared by Michael Brandman Associates (The analysis is wholly contained in Section 4.8, Noise; modeling data is provided in Appendix F.).
- Traffic Impact Analysis, prepared by Kimley-Horn and Associates, Inc. (Appendix H).
- Retail Economic Impact/Urban Decay Analysis, prepared by CBRE Consulting (Appendix I).

1.6 - Review of the Draft EIR

Upon completion of the Draft EIR, the City of Milpitas filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the filing of the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the City of Milpitas Planning and Neighborhood Services Department offices and the Milpitas Library. The address for each location is provided below:

City of Milpitas
Planning and Neighborhood Services Department
455 E. Calaveras Boulevard
Milpitas, CA 95035
Hours:
Monday – Friday: 8 a.m. to 5 p.m.

Milpitas Library
160 N. Main Street
Milpitas, CA 95035
Hours:
Monday – Thursday: 10 a.m. to 9 p.m.
Friday – Saturday: 10 a.m. to 6 p.m.
Sunday: 12 p.m. to 6 p.m.

In addition, the Draft EIR and technical appendices are available electronically on the City of Milpitas' website: http://www.ci.milpitas.ca.gov/.

Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Ms. Cindy Hom, Assistant Planner
City of Milpitas
Planning and Neighborhood Services Department
455 E. Calaveras Boulevard
Milpitas, CA 95035
Phone: 408.586.3284
Fax: 408.586.3293
Email: chom2@ci.milpitas.ca.gov

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the Milpitas Planning Commission on the project, at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

SECTION 2: EXECUTIVE SUMMARY

2.1 - Purpose

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential significant environmental impacts associated with the implementation of the proposed Milpitas Walmart Expansion Project (State Clearinghouse No. 2009032018). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.).

The purpose of this Draft EIR is to inform decision makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential significant environmental effects that may result from implementation of the proposed project. This Draft EIR describes potential impacts relating to a wide variety of environmental issues and methods by which these impacts can be mitigated or avoided, and reasonable alternatives to the project.

2.2 - Project Summary

2.2.1 - Project Location

The project site is located in the City of Milpitas, Santa Clara County, California (Exhibit 3-1). The project site consists of one parcel totaling 14.56 acres, bounded by McCarthy Boulevard (west), Ranch Drive (north and east), and the McCarthy Ranch Marketplace (south) (Exhibit 3-2).

2.2.2 - Project Description

The proposed project consists of the expansion and alteration of the existing Walmart store. The existing 131,725-square-foot store would be expanded by a maximum of 19,000 square feet to 150,725 square feet. The expanded Walmart store would retail groceries and operate 24 hours a day, 7 days a week. A total of 751 parking spaces would be provided. All existing vehicular access points would be maintained. The elevations would be upgraded and all existing wall signage would be replaced with new signs.

2.2.3 - Project Objectives

The objectives of the proposed project are to:

- Positively contribute to the local economy.
- Enhance commercial retail opportunities available in the City of Milpitas.
- Create new job opportunities for local residents.

- Expand the existing Walmart store to provide the market area with an affordable shopping alternative that offers a wide variety of products to the City of Milpitas as well as the surrounding communities.
- Provide a retail establishment that serves local residents and visitors with essential goods and services, in a safe and secure, 24-hour shopping environment.
- Promote economic growth and development that is consistent with the policies of the City of Milpitas General Plan.
- Generate tax revenues to accrue to the various agencies within the project area.
- Minimize travel lengths and utilize existing infrastructure to the maximum extent possible by expanding an existing Walmart store.

2.3 - Significant Unavoidable Adverse Impacts

The proposed project would result in the following significant unavoidable impact:

- **Roadway Operations:** The proposed project would contribute trips to four roadway segments that would operate at unacceptable levels. Although all four segments would operate at unacceptable levels without the proposed project, the proposed project would increase traffic volumes by more than 1 percent of the roadway's capacity, which is considered a significant impact. Mitigation is proposed that would require the project applicant to provide fees for roadway improvements. However, the proposed improvements may not fully mitigate the impact to a level of less than significant and, therefore, the residual significance is significant and unavoidable. This is also considered a significant cumulative effect.

2.4 - Summary of Project Alternatives

CEQA Guidelines Section 15126.6 requires EIRs to evaluate a reasonable range of feasible project alternatives. Below is a summary of the alternatives to the proposed project considered in Section 5, Alternatives.

2.4.1 - No Project Alternative

The existing Walmart store would remain in its existing condition and no expansion would occur. The store would continue to operate as a conventional Walmart discount store under this alternative.

2.4.2 - 50-Percent Reduction Alternative

The Walmart store would be expanded by 9,500 square feet, which represents a 50-percent reduction in expansion square footage relative to the proposed project. The store would retail groceries and operate 24 hours a day under this alternative. The 50-Percent Reduction Alternative is identified as the Environmentally Superior Alternative.

2.4.3 - Inline Retail/Restaurant Alternative

The existing Walmart store would remain unchanged and 15,000 square feet of inline retail and restaurant uses would be developed on the south side of the existing Walmart store.

2.5 - Areas of Controversy

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

A Notice of Preparation (NOP) for the proposed project was issued on March 5, 2009. The NOP describing the original concept for the project and issues to be addressed in the EIR was distributed to the State Clearinghouse, responsible agencies, and other interested parties for a 30-day public review period extending from March 5, 2009 through April 3, 2009. The NOP identified the potential for significant impacts on the environment related to the following topical areas:

- Aesthetics, Light, and Glare
- Air Quality
- Biological Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Public Services and Utilities
- Transportation
- Urban Decay

2.5.1 - Disagreement Among Experts

This Draft EIR contains substantial evidence to support all the conclusions presented herein. It is possible that there will be disagreement among various parties regarding these conclusions, although the City of Milpitas is not aware of any disputed conclusions at the time of this writing. Both the CEQA Guidelines and case law clearly provide the standards for treating disagreement among experts. Where evidence and opinions conflict on an issue concerning the environment, and the lead agency knows of these controversies in advance, the EIR must acknowledge the controversies, summarize the conflicting opinions of the experts, and include sufficient information to allow the public and decision makers to make an informed judgment about the environmental consequences of the proposed project.

2.5.2 - Potentially Controversial Issues

Below is a list of potentially controversial issues that may be raised during the public review and hearing process of this Draft EIR.

- Air Quality (including Greenhouse Gas Emissions)
- Land Use
- Noise
- Public Services
- Traffic
- Urban Decay

It is also possible that evidence will be presented during the 45-day, statutory Draft EIR public review period that may create disagreement. Decision makers would consider this evidence during the public hearing process.

In rendering a decision on a project where there is disagreement among experts, decision makers are entitled to weigh the evidence relating to the accuracy and sufficiency of the information and to decide whether to accept it. Decision makers need not resolve a dispute among experts. However, in their proceedings, decision makers must consider comments received concerning the adequacy of the Draft EIR and address any objections raised in these comments. In addition, where experts disagree on data or methodology, the Draft EIR should acknowledge the differing opinions and explain why a certain approach was rejected, supporting that explanation with substantial evidence.

2.6 - Public Review of the Draft EIR

The Draft EIR will be available for public review for the statutory 45-day review period at the following locations:

City of Milpitas
Planning and Neighborhood Services Department
455 E. Calaveras Boulevard
Milpitas, CA 95035
Hours:
Monday – Friday: 8 a.m. to 5 p.m.

Milpitas Library
160 N. Main Street
Milpitas, CA 95035
Hours:
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Friday – Saturday: 10 a.m. to 6 p.m.
Sunday: 12 p.m. to 6 p.m.

In addition, the Draft EIR and technical appendices are available electronically on the City of Milpitas' website: http://www.ci.milpitas.ca.gov/.

During the 45-day review period, agency representatives and members of the public will be able to submit written comments on the Draft EIR to the address provided below:

Ms. Cindy Hom, Assistant Planner
City of Milpitas
Planning and Neighborhood Services Department
455 E. Calaveras Boulevard
Milpitas, CA 95035
Phone: 408.586.3284
Fax: 408.586.3293
Email: chom2@ci.milpitas.ca.gov

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the Milpitas Planning Commission on the project, at which the

certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

2.7 - Executive Summary Matrix

Table 2-1 below summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated for the proposed project. The table is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding sections of this EIR. Table 2-1 is included in the EIR as required by CEQA Guidelines Section 15123(b)(1).

Table 2-1: Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.1 - Aesthetics, Light, and Glare		
Impact AES-1: The proposed project may substantially degrade the visual character of the project site or its surroundings.	**MM AES-1a**: Prior to issuance of building permits, the project applicant shall prepare and submit a sign program to the City of Milpitas for review and approval. The sign program shall demonstrate compliance with the applicable requirements with Milpitas Municipal Code Title XI, Chapter 30. The approved sign program shall be implemented into the proposed project. **MM AES-1b**: Prior to issuance of grading or building permits, whichever comes first, the project applicant shall obtain a tree removal permit from the City of Milpitas for any trees slated for removal with a trunk circumference of 37 inches or more measured at 4.5 feet above ground level. Replacement of such trees shall be performed in accordance with the requirements of the Tree Maintenance and Protection Ordinance. Removed trees that are not covered by the Tree Maintenance and Protection Ordinance (i.e., less than 37 inches in circumference at 4.5 feet above ground level) shall be replaced onsite with a similar tree species at no less than a 1:1 ratio. All replacement trees shall be planted within 30 days of issuance of the final certificate of occupancy. **MM AES-1c**: Prior to issuance of the final certificate of occupancy, the project applicant shall do one of the following: 1) permanently remove all shipping containers from the project site; or 2) install screening measures in accordance with Zoning Ordinance requirements. If the second option is pursued, outdoor storage of containers shall occur in a completely enclosed building or behind a visually obscure solid wall or tight board fence a minimum 6 feet in height and outside any front or street side yard setback area.	Less than significant impact.
Impact AES-2: The proposed project may result in the addition of new sources of substantial light and glare that would adversely affect daytime or nighttime views.	**MM AES-2**: Prior issuance building permits, the project applicant shall ensure that all exterior lighting fixtures associated with the Walmart store (building-mounted and freestanding) are shielded, recessed, or directed downward to prevent unwanted illumination of neighboring properties.	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.2 - Air Quality		
Impact AIR-1: The proposed project may conflict with or obstruct implementation of the applicable air quality plan.	Implement Mitigation Measure AIR-3.	Less than significant impact.
Impact AIR-2: The proposed project would not significantly contribute to a carbon monoxide hotspot that would exceed federal or state air quality standards.	No mitigation is necessary.	Less than significant impact.
Impact AIR-3: The proposed project may result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).	**MM AIR-3**: The following measures shall be implemented during all construction activities: • Water all active construction areas and exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) at least two times per day. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard. • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. • Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. • Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). 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	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	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 City of Milpitas regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of the Bay Area Air Quality Management District shall also be visible to ensure compliance with applicable regulations.	
Impact AIR-4: The proposed project would not expose sensitive receptors to substantial toxic air pollutant concentrations.	No mitigation is necessary.	Less than significant impact.
Impact AIR-5: The proposed project would not create objectionable odors affecting a substantial number of people.	No mitigation is necessary.	Less than significant impact.
Impact AIR-6: The proposed project would not significantly impact sensitive receptors by disturbing naturally occurring asbestos.	No mitigation is necessary.	Less than significant impact.
Impact AIR-7: The proposed project may emit significant amounts of greenhouse gases or conflict with an applicable plan, policy, or regulation concerning greenhouse gas reduction.	**MM AIR-7a:** The project applicant shall use paving materials with increased solar reflectivity in areas at the back of the store where pavement is replaced. Such materials shall use light-colored aggregate or other appropriate methods to achieve high solar reflectivity. **MM AIR-7b:** Prior to issuance of the final certificate of occupancy, the project applicant shall post signs in the Walmart loading docks advising truck drivers to turn off engines when not in use and advising truck drivers of state law prohibiting diesel idling of more than 5 minutes. **MM AIR-7c:** Prior to issuance of the final certificate of occupancy, the applicant shall do the following: • The project applicant shall maintain the refrigeration system at least once per year to ensure that refrigerant leaks remain minimal. The maintenance records shall be kept onsite for review by the City of Milpitas. • During installation of the new refrigerators and freezers, effort shall be made to reuse the existing refrigerants in the new system, unless the old refrigerant is not the same type as is proposed in the new system or more leakage would occur if the refrigerants are reused.	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	• A secondary closed loop system shall be evaluated and implemented, if found to be technically and economically feasible. **MM AIR-7d:** Prior to issuance of the final certificate of occupancy, the project applicant shall provide the following Transportation Demand Management measures: • Public transit information in the employee breakroom. Store management shall post information such as Santa Clara Valley Transportation Authority bus and light rail schedules, maps, and fares. • Ride sharing information in the employee breakroom. Store management shall facilitate ride sharing by providing sign-up sheets or other measures to allow interested employees to identify carpooling opportunities. • Bicycling information. Store management shall post information such as bicycle route maps and information about taking bikes on public transportation. **MM AIR-7e:** To reduce construction related greenhouse gas impacts, the following measures are required: • At least 15 percent of the construction vehicles/equipment shall be fueled by an alternative source such as biodiesel and/or electric. • At least 10 percent of all building materials shall be local (within 100 miles); and • At least 50 percent of construction and demolition materials shall be recycled. This latter provision shall be coordinated with Mitigation Measure PSU-6a.	
Impact AIR-8: The proposed project would not be subject to significant adverse effects as a result of global climate change.	No mitigation is necessary.	Less than significant impact.
Section 4.3 - Biological Resources		
Impact BIO-1: Development of the proposed project may adversely affect special-status species.	**MM BIO-1:** If vegetation removal associated with development of the property is to occur during the nesting bird season (February 15 through August 31), a qualified biologist shall conduct a pre-construction survey for nesting birds to identify any potential nesting activity. The pre-construction surveys for nesting birds shall be conducted within 14 days	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	prior to any construction-related activities (grading, ground clearing, etc.). If nesting birds are identified on the site, a 100-foot buffer shall be maintained around the nests; no construction-related activities shall be permitted within the 100-foot buffer. A qualified biologist shall monitor the nests, and construction activities may commence within the buffer area at the discretion and presence of the biological monitor. The pre-construction survey for nesting birds shall not be required if construction activities occur outside of the nesting bird season (September 1 through February 14).	
Impact BIO-2: The proposed project may conflict with the City of Milpitas tree maintenance and protection ordinance.	Implement Mitigation Measure AES-1b.	Less than significant impact.
Section 4.4 - Geology, Soils, and Seismicity		
Impact GEO-1: The development of the proposed project may expose persons or structures to seismic hazards.	**MM GEO-1a:** Prior to issuance of building permits, the project applicant shall submit a seismic hazards technical study prepared by a qualified geotechnical engineer to the City of Milpitas for review and approval. The report shall be prepared in accordance with the requirements of the Seismic Hazards Mapping Act and shall identify necessary design measures to reduce potential seismic ground shaking impacts to acceptable levels. The project applicant shall incorporate the approved design measures into the project plans. **MM GEO-1b:** Prior to issuance of building permits, the project applicant shall submit a design-level geotechnical investigation to the City of Milpitas for review and approval. The design-level investigation shall address the potential for ground failure to occur onsite and identify abatement measures to reduce the potential for such an event to acceptable levels. The abatement measures shall be incorporated into the project design. **MM GEO-1c:** Prior to issuance of building permits, the project applicant shall submit plans to the City of Milpitas for review and approval that demonstrate that the proposed project is designed in accordance with all state and local seismic safety requirements. Such requirements shall include the California Building Standards Code and Milpitas Municipal Code, Title II. The approved plans shall be incorporated into the project design.	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact GEO-2: Construction activities associated with the project may result in substantial soil erosion or the loss of topsoil.	Implement Mitigation Measure HYD-1.	Less than significant impact.
Impact GEO-3: The development of the proposed project would not expose persons or structures to hazards associated with unstable geologic units or soils.	No mitigation is necessary.	Less than significant impact.
Impact GEO-4: The development of the proposed project may expose persons or structures to hazards associated with expansive soils.	**MM GEO-4:** During grading and construction, the project applicant shall adhere to all applicable recommendations for abating expansive soil conditions contained in the Geotechnical Engineering Investigation or comparable geotechnical study. This includes the excavation of expansive soils and the subsequent replacement of such soils with non-expansive engineered fill.	Less than significant impact.
Section 4.5 - Hazards and Hazardous Materials		
Impact HAZ-1: The development of the proposed project would not result in the exposure of persons or the environment to hazardous materials associated with past and current uses of the project site.	No mitigation is necessary.	Less than significant impact.
Impact HAZ-2: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions.	No mitigation is necessary.	Less than significant impact.
Impact HAZ-3: The proposed project would not interfere with emergency response or evacuation.	No mitigation is necessary.	Less than significant impact.
Section 4.6 - Hydrology and Water Quality		
Impact HYD-1: Construction activities associated with the proposed project have the potential to degrade water quality in downstream water bodies.	**MM HYD-1:** Prior to the issuance of grading permits for the proposed project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the City of Milpitas that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include, but not be limited to, the following	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	elements: • Temporary erosion control measures shall be employed for disturbed areas. • No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.	
Impact HYD-2: Operational activities associated with the proposed project have the potential to degrade water quality in downstream water bodies.	**MM HYD-2:** Prior to the issuance of building permits for the proposed project, the project applicant shall submit a stormwater management plan to the City of Milpitas for review and approval. The stormwater management plan shall comply with the requirements of Milpitas Municipal Code Title XI, Chapter 16 and identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. Examples of stormwater pollution prevention measures and practices to be contained in the plan include, but are not limited to: • Strategically placed bioswales and landscaped areas that promote percolation of runoff • Pervious pavement • Roof drains that discharge to landscaped areas	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	• Trash enclosures with screen walls • Stenciling on storm drains • Curb cuts in parking areas to allow runoff to enter landscaped areas • Rock-lined areas along landscaped areas in parking lots • Catch basins • Oil/water separators • Regular sweeping of parking areas and cleaning of storm drainage facilities • Employee training to inform store personnel of stormwater pollution prevention measures The project applicant shall also prepare and submit an Operations and Maintenance Agreement to the City identifying procedures to ensure that stormwater quality control measures work properly during operations.	
Impact HYD-3: The proposed project does not have any characteristics that would contribute to groundwater overdraft or contamination.	No mitigation is necessary.	Less than significant impact.
Impact HYD-4: The proposed project would not increase impervious surface coverage and, therefore, would not have the potential to contribute to downstream flooding.	No mitigation is necessary.	Less than significant impact.
Section 4.7 - Land Use		
Impact LU-1: The proposed project would be consistent with applicable provisions of the City of Milpitas General Plan.	No mitigation is necessary.	Less than significant impact.
Impact LU-2: The proposed project may conflict with the applicable ordinances of the City of Milpitas Municipal Code.	Implement Mitigation Measure AES-1a, Mitigation Measure AES-1b, and Mitigation Measure TRANS-5.	Less than significant impact.
Section 4.8 - Noise		
Impact NOI-1: Construction activities associated with the proposed project would not expose nearby land uses to excessive noise levels.	No mitigation is necessary.	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact NOI-2: Nearby sensitive receptors would not be exposed to substantial vibration.	No mitigation is necessary.	Less than significant impact.
Impact NOI-3: The proposed project's vehicular trips would not cause a substantial permanent increase in ambient noise levels.	No mitigation is necessary.	Less than significant impact.
Impact NOI-4: The proposed project would not generate stationary noise levels that cause significant impacts at nearby receptors.	No mitigation is necessary.	Less than significant impact.
Impact NOI-5: The proposed project would not generate combined stationary and transportation noise levels that cause significant impacts at nearby receptors.	No mitigation is necessary.	Less than significant impact.
Section 4.9 - Public Services and Utilities		
Impact PSU-1: The proposed project would not adversely impact fire protection and emergency medical services.	No mitigation is necessary.	Less than significant impact.
Impact PSU-2: The proposed project would not adversely impact police protection.	No mitigation is necessary.	Less than significant impact.
Impact PSU-3: The proposed project may not be served with adequate long-term water supplies.	**MM PSU-3:** Prior to issuance of the final certificate of occupancy, the project applicant shall install the following indoor water conservation measures: • Low-flow or ultra-low-flow toilets and urinals • Sensor-activated faucets in restrooms	Less than significant impact.
Impact PSU-4: The proposed project would not result in the need for additional wastewater treatment facilities or offsite conveyance facilities.	No mitigation is necessary.	Less than significant impact.
Impact PSU-5: The proposed project would provide adequate onsite storm drainage facilities and would not require the construction of offsite facilities.	No mitigation is necessary.	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact PSU-6: The proposed project may generate substantial amounts of solid waste during both construction and operations.	**MM PSU-6a**: Prior to issuance of building permits, the project applicant shall retain a qualified contractor to perform construction and demolition debris recycling. The project applicant shall provide documentation to the satisfaction of the City of Milpitas demonstrating that construction and demolition debris was recycled. **MM PSU-6b:** Prior to issuance of occupancy permits, the project applicant shall provide onsite facilities necessary to collect and store recyclable materials. The facilities shall include receptacles in public spaces that are of high-quality design and identify accepted materials.	Less than significant impact.
Impact PSU-7: The proposed project would not result in the inefficient, unnecessary, or wasteful consumption of energy.	No mitigation is necessary.	Less than significant impact.
Section 4.10 - Transportation		
Impact TRANS-1: The proposed project would contribute trips to intersections that would operate at unacceptable levels of service under near-term conditions.	**MM TRANS-1a:** Prior to the issuance of building permits, the project applicant shall provide fair-share fees to the City of Milpitas for improvements to the Dixon Landing Road/N. Milpitas Boulevard intersection and the widening of Dixon Landing Road. The intersection improvements shall consist of 1) modifying the signal operation to include a southbound right-turn overlap and subsequent signal timing optimization or 2) adding a northbound left turn lane, a southbound right-turn lane, and eastbound left-turn and right-turn lanes. The widening shall consist of adding an additional lane in each direction between I-880 and N. Milpitas Boulevard. Both improvements are identified in the Valley Transportation Plan 2035. The applicant is responsible for fair-share amounts of $3,000 for the intersection improvements and $28,960 for the roadway widening. **MM TRANS-1b:** Prior to the issuance of final certificate of occupancy, the project applicant shall provide the City of Milpitas the full cost of signal timing modifications at the N. McCarthy Boulevard/Ranch Drive (south) intersection. The modifications shall consist of re-timing the signal to increase the current cycle length. This mitigation measure shall not apply if the signal timing is modified prior to the applicant seeking the final certificate of occupancy.	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact TRANS-2: The proposed project would not contribute a substantial number of trips to freeway ramp junctions directly causing unacceptable levels of service under near-term conditions.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-3: The proposed project may substantially contribute to unacceptable roadway operations.	**MM TRANS-3:** Prior to issuance of building permits, the project applicant shall provide a traffic management fee in the amount of $180,000 to the City of Milpitas. The fees shall be used for circulation and traffic operation improvements within the City of Milpitas, including signal coordination and intersection improvements. Specific improvements that shall be fully funded by funds collected shall include: • McCarthy Boulevard/Technology Drive: The eastbound approach shall be re-striped to provide two left-turn lanes and one shared through/right lane. • McCarthy Boulevard/SR-237 Westbound Ramps: An additional westbound right-turn lane shall be constructed to provide two left-turn lanes, two through lanes, and two right-turn lanes for the westbound approach. • Ranch Drive: The roadway shall be restriped to extend the existing two-way left-turn lane from the northern Walmart driveway to the end of the existing westbound left-turn lane at the McCarthy Boulevard/Ranch Drive (North) intersection.	Significant unavoidable impact.
Impact TRANS-4: The proposed project would contribute to deficient queuing.	Implement Mitigation Measure TRANS-3.	Less than significant impact.
Impact TRANS-5: The proposed project may not provide adequate off-street parking.	**MM TRANS-5:** Prior to issuance of building permits, the project applicant shall prepare and submit a site plan to the City of Milpitas that demonstrates that off-street parking is provided onsite at no less than 5.0 spaces per 1,000 gross square feet of building coverage. The approved site plan shall be incorporated into the proposed project.	Less than significant impact.
Impact TRANS-6: The proposed project's design features would not create any roadway hazards.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-7: The proposed project would not result in inadequate emergency access to the project site or its surroundings.	No mitigation is necessary.	Less than significant impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact TRANS-8: The proposed project may not provide adequate public transit, bicycle, and pedestrian access.	**MM TRANS-8:** Prior to issuance of the final certificate of occupancy, the project applicant shall install bicycle storage facilities. Bicycle storage facilities shall consist of at least one rack located in a visible and convenient location (e.g., near the store entrance) and that provides storage equivalent to 2 percent of the proposed project's minimum parking requirement.	Less than significant impact.
Impact TRANS-9: Construction activities associated with the proposed project may adversely affect traffic and circulation in the project vicinity.	**MM TRANS-9:** Prior to commencement of construction activities, the project applicant shall submit a Construction Traffic Control Plan to the City of Milpitas for review and approval. The plan shall identify the timing and routing of all major construction equipment and materials deliveries to avoid potential traffic congestion and delays on the local street network and the McCarthy Ranch Marketplace, and to encourage the use of I-880 and SR-237. If necessary, construction equipment and materials deliveries shall be limited to off-peak hours (e.g., mornings or evenings) to avoid conflicts with local traffic circulation. The plan shall also identify suitable locations for construction worker parking.	Less than significant impact.
Section 4.11 - Urban Decay		
Impact UD-1: The proposed project would not divert enough sales from competing businesses to cause store closures and, therefore, would not have the potential to create urban decay conditions.	No mitigation is necessary.	Less than significant impact.
Impact UD-2: The proposed project, in conjunction with other planned and approved projects, would not divert enough sales from competing businesses to cause store closure, but urban decay is not a foreseeable consequence.	No mitigation is necessary.	Less than significant impact.

SECTION 3: PROJECT DESCRIPTION

This Environmental Impact Report (EIR) analyzes the potential environmental effects of the proposed Milpitas Walmart Expansion Project in the City of Milpitas, California.

3.1 - Project Location and Setting

3.1.1 - Location

The project site is located in the City of Milpitas, Santa Clara County, California; refer to Exhibit 3-1. The project site consists of one parcel totaling 14.56 acres located at 301 Ranch Drive. The site is bounded by N. McCarthy Boulevard (west), Ranch Drive (north and east), and the McCarthy Ranch Marketplace (south); refer to Exhibit 3-2. The project site is located on the Milpitas, California, United States Geologic Survey 7.5-minute quadrangle, Township 6 South, Range 1 West, Unsectioned (Latitude: 37°25’45” North; 121°55’15” West).

3.1.2 - Project Site Existing Conditions

The project site contains a 131,725-square-foot conventional Walmart store (Store No. 2119), located in the northern portion of the McCarthy Ranch Marketplace. The store opened in 1994 and contains a general merchandise sales floor area, a food tenant area (McDonald’s), a stockroom receiving area, loading dock, an ancillary area, an outdoor garden center, and a two-bay Tire & Lube Express. The garden center, Tire & Lube Express, and loading dock are located on the north side of the existing store. The store has a main entrance, a garden center entrance, and one loading dock with two doors.

The store appearance is characterized by contemporary architectural design elements. The main entrance employs a gabled salmon-colored vestibule canopy with a large illuminated “Walmart” sign. The store façade is characterized by beige-colored concrete masonry blocks with white trim along the roofline. Signage for additional services provided within the store (e.g., pharmacy, McDonald’s, 1-hour photos) is also provided on the front façade.

The main customer parking area is located on the east side of the store, in front of the store entrance, and an ancillary parking area is located on the south side of the store. A total of 835 vehicular spaces are provided onsite. Ornamental trees and landscaping are provided throughout the parking area and along the frontages with Ranch Drive and N. McCarthy Boulevard. The western portion of the ancillary parking area is used for storage of 40-foot shipping containers at various times of the year. The parking areas are accessible to other parking areas in the McCarthy Ranch retail center. The existing store conducts temporary outdoor seasonal sales in the parking lot during various times of the year.

Dumpsters, pallet storage, and trash compactor are located on the north side of the store. The pallet storage area consists of a masonry block enclosure.

Source: Census 2000 Data, The CaSIL, MBA GIS 2009.

Michael Brandman Associates

NORTH

5 2.5 0 5 Miles

Exhibit 3-1
Regional Location Map

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CITY OF MILPITAS • MILPITAS WALMART EXPANSION PROJECT
ENVIRONMENTAL IMPACT REPORT

Source: National Agricultural Imagery Program for Santa Clara County (2005).

Michael Brandman Associates

NORTH

1,000 500 0 1,000 Feet

Exhibit 3-2
Local Vicinity Map
Aerial Base

Access to the Walmart store is taken via three unsignalized driveways on Ranch Drive and two internal drive aisle connections with the McCarthy Ranch retail center. All access points allow full access.

A pedestrian walkway links the Walmart entrance with the McCarthy Ranch retail center to the south and Ranch Drive to the north.

Photographs of the project site are provided in Exhibits 3-3a through 3-3b.

3.1.3 - Surrounding Land Uses

West

N. McCarthy Boulevard forms the western boundary of the project site. N. McCarthy Boulevard is a four-lane divided arterial roadway with a landscaped median. West of the roadway is undeveloped land designated for Industrial Park uses by the City of Milpitas General Plan. This land was recently entitled for an office park campus (The Campus at McCarthy Ranch) by the City of Milpitas in 2008. Coyote Creek is located west of the undeveloped land. The Coyote Creek Trail, a Class I bicycle/pedestrian trail, parallels the east side of the creek.

North

Ranch Drive forms the northern boundary of the project site. Ranch Drive is a two-lane, undivided collector roadway. The intersection of N. McCarthy Boulevard/Ranch Drive is located northwest of the project site. The McCarthy Center office complex is located north of Ranch Drive. The 68-acre complex contains approximately 1 million square feet of office and Research and Development (R&D) uses spread amongst 19 two-story buildings in a campus setting.

East

Ranch Drive forms the eastern boundary of the project site. East of Ranch Drive is Interstate 880 (I-880), an eight-lane divided freeway. On- and off-ramps for the State Route 237 (SR-237) interchange are present along this segment of I-880. East of I-880 are single-family residential uses. The residential uses are protected by a sound wall located along the I-880 frontage.

South

The balance of the McCarthy Ranch Marketplace is located south of the project site. The McCarthy Ranch Marketplace contains 560,000 square feet of retail (including Walmart, which is located at the north end of the shopping center) and features inline mid-boxes (such as Best Buy, Borders, PetSmart, and Sports Authority), small shops, restaurants, and small, freestanding pads occupied by restaurants (such as Black Angus, Macaroni Grill, and Applebee's).

3.1.4 - Land Use Designations

The project site, along with the balance of the McCarthy Ranch Marketplace, is designated "General Commercial" by the City of Milpitas General Plan and zoned "General Commercial (C2), Site and

View of existing Walmart main entrance.

View of existing Tire & Lube Express.

View of existing loading dock.

View of rear of existing Walmart store.

Source: Michael Brandman Associates, 2009.

Michael Brandman Associates

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Exhibit 3-3a
Site Photographs

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View of store expansion area from northeast corner.

View of store expansion area from northwest corner.

View of store expansion area from southwest corner.

View of store expansion area from southeast corner.

Source: Michael Brandman Associates, 2009.

Michael Brandman Associates

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Exhibit 3-3b
Site Photographs

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ENVIRONMENTAL IMPACT REPORT

Architectural Review Overlay District (S)" by the Milpitas Zoning Ordinance. The existing uses of the Walmart store are consistent with both land use designations.

3.2 - Project Characteristics

3.2.1 - Proposed Project

The proposed project consists of the expansion and alteration of the existing Walmart store. The project would include the addition of approximately 18,457 square feet of building area to the south side of the existing store. For the purposes of providing a conservative evaluation of project impacts, this EIR will analyze the additional square footage at 19,000 square feet, which is larger than the anticipated expansion square footage. Furthermore, in the context of urban decay, this EIR will use the net changes in food sales and support (+32,600 square feet) and general merchandise (-14,062 square feet) as the basis for assessing impacts on competing retailers. Table 3-1 summarizes the expanded Walmart square footage. The conceptual site plan is shown in Exhibit 3-4.

Table 3-1: Walmart Square Footage

Store Component	Square Footage		
	Existing	Proposed	Change
General Merchandise Sales (including indoor Garden Center)	101,069	87,007	(14,062)
Food Sales	0	23,191	23,191
Food Sales Support	0	9,409	9,409
Stockroom/Receiving	9,560	8,423	(1,137)
Ancillary Area (office, breakrooms, etc.)	8,847	10,583	1,736
Tire & Lube Express	5,170	5,170	0
Food Tenant (McDonald's)	1,744	1,064	(680)
Indoor Subtotal	**126,390**	**144,847**	**18,457**
Outdoor Garden Center	5,335	5,335	0
Total	**131,725**	**150,182**	**18,457**
Square Footage to be Analyzed in EIR	**131,725**	**150,725**	**19,000**
Source: Tait & Associates, Inc., 2009.			

Store Characteristics

The expanded Walmart store would total 150,725 square feet. Interior areas would increase to 144,847 square feet, while the outdoor garden center would be maintained at the existing 5,335 square feet. Square footage for food sales and support and ancillary would be added, while square footage for general merchandise sales, stockroom receiving, and the food tenant (McDonald's), would be reduced. The expanded store may also include a medical clinic use, which would be included in the proposed additional 18,457 square feet. The medical clinic would provide basic services, such as

check-ups, and would not offer more advanced services such as surgical procedures. An additional truck loading bay would be added to the rear of the building. No changes would occur to the existing Tire & Lube Express.

The expanded Walmart store would operate 24 hours a day, 7 days a week and would retail general merchandise and groceries. (Note that the existing Walmart operates between 7 a.m. and 11 p.m., every day.) The store would retail alcohol for offsite consumption.

Parking

The existing store has 835 parking spaces. The store expansion would eliminate a number of existing spaces on the south side of the building. The expanded store would provide 779 parking spaces, of which 751 parking spaces would be available for vehicles. The remainder would be occupied by moveable shopping cart corrals.

Vehicular Access

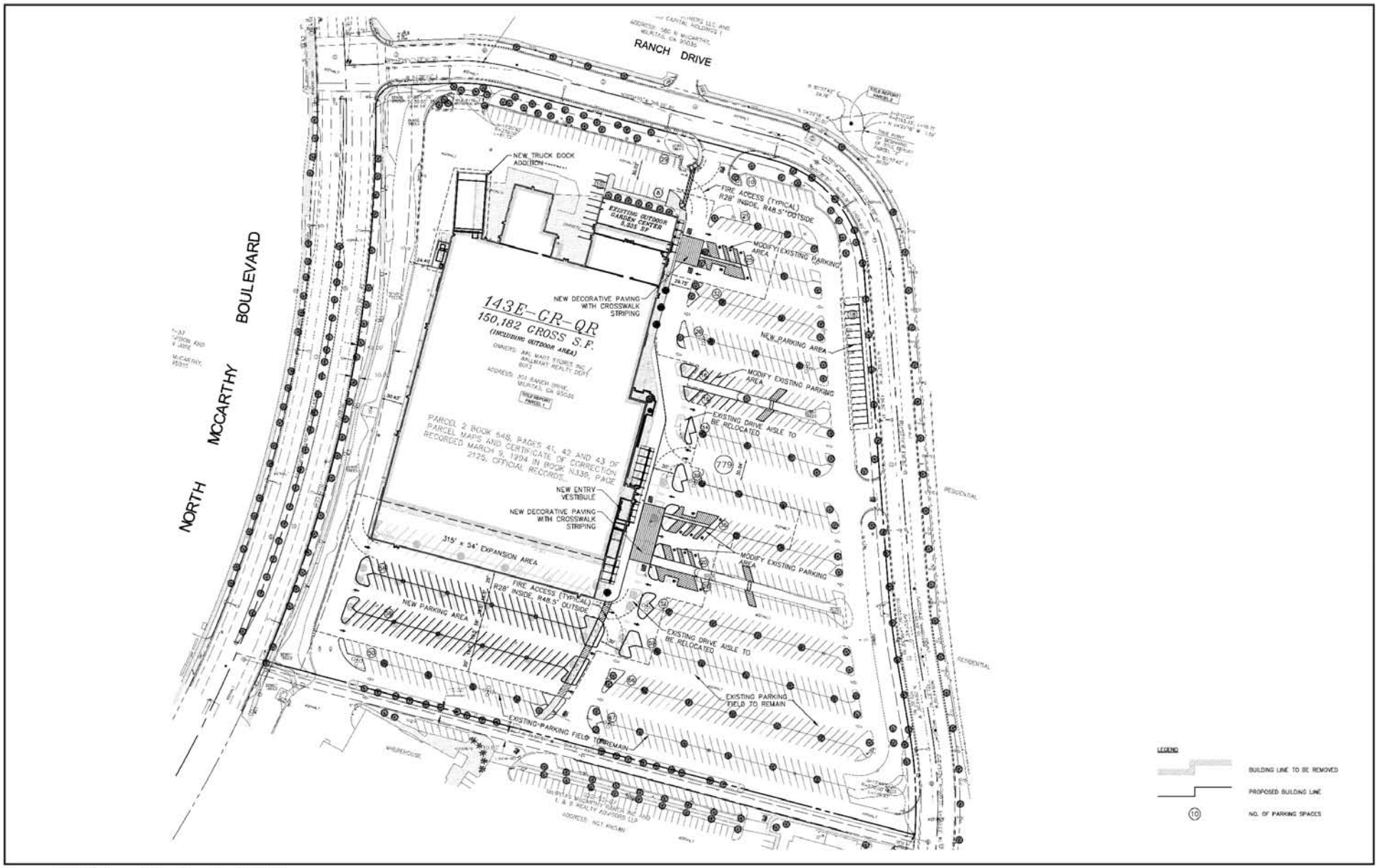
The store expansion would maintain the three existing driveways with Ranch Drive and the internal drive aisle connections with the McCarthy Ranch Marketplace. Trucks would continue to access the site primarily via the northern driveway on Ranch Drive.

Design and Appearance

The Walmart store's elevations would be upgraded as part of the store expansion. The elevations would incorporate design features to reflect the "California ranch" design theme of the McCarthy Ranch Marketplace, including "salt box" style metal roofs and canopies, faux wood siding, corrugated metal cladding, and the use of colors such as Colonnade Gray, Cool Old Zinc Gray, and Countrylane Red. Exhibit 3-5a provides conceptual elevations of the expanded Walmart store. Exhibit 3-5b depicts the colors and materials proposed for the expanded Walmart store. Note that these elevations are provided for illustrative purposes, and minor changes may occur to the design elements.

The roofline of the expanded store would range from 18 feet, 6 inches to 35 feet, 6 inches above grade. Most of the roofline would be between 25 feet and 32 feet above grade, and only architectural projections would exceed 32 feet in height. Note that the Milpitas Zoning Ordinance does not establish any height limits for the General Commercial (C2) zoning district.

The expanded Walmart store would have a Floor Area Ratio (FAR) of 0.24 (150,725 square feet/14.56 acres [634,233.6 square feet]), which would be consistent with both the General Plan's and the Zoning Ordinance's maximum allowable FAR of 0.5 for the General Commercial designation and the General Commercial (C2) zoning district, respectively.



Source: Tait & Associates, Inc., April 2009.

NORTH

180 90 0 180 Feet

Michael Brandman Associates

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Exhibit 3-4
Conceptual Site Plan

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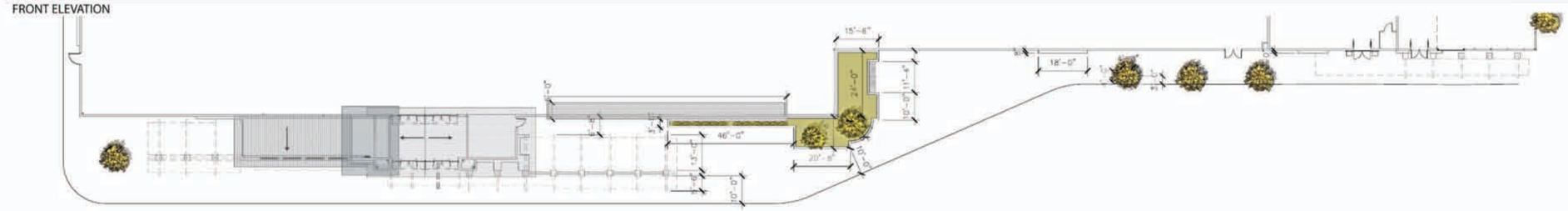
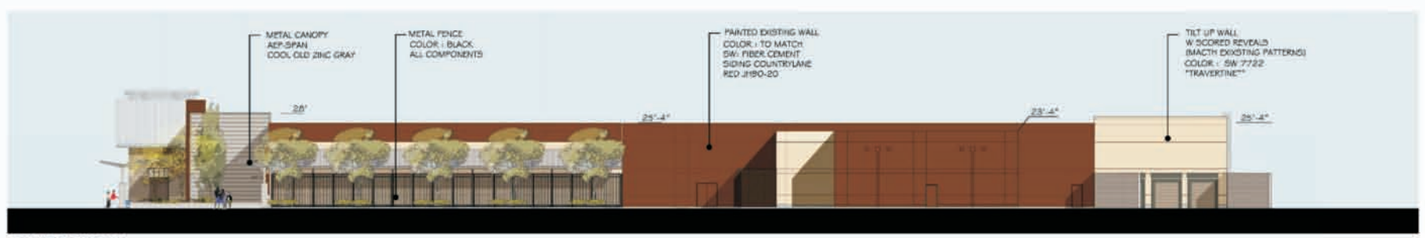
ENVIRONMENTAL IMPACT REPORT

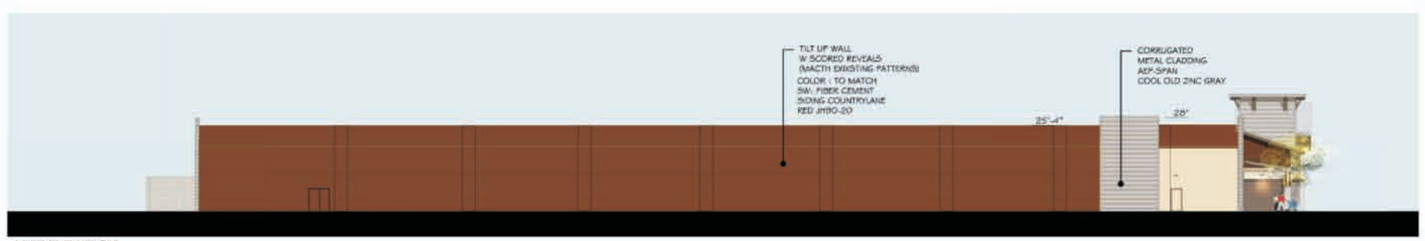
FRONT ELEVATION



REAR ELEVATION



RIGHT ELEVATION



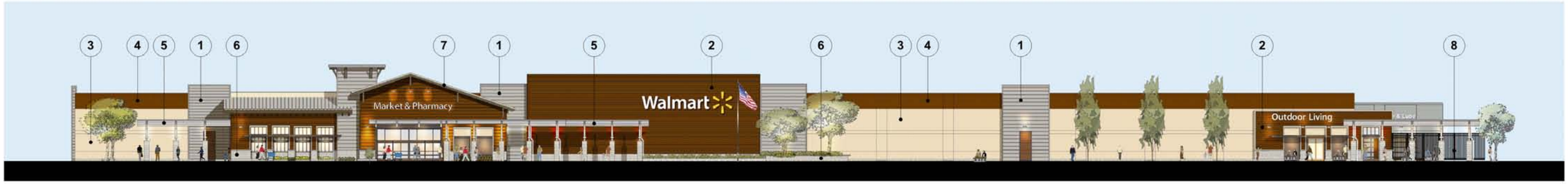
LEFT ELEVATION

Source: Perkowitz + Ruth Architects, April 2009.

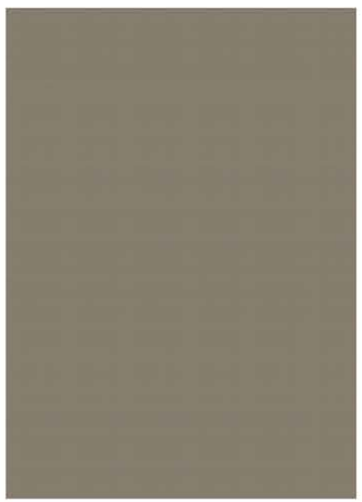
NORTH

Michael Brandman Associates

Exhibit 3-5a
Conceptual Elevations - Expanded Walmart Store



FRONT ELEVATION



1, 7

2, 4

3

5, 6

8

MATERIALS:

1 Corrugated Metal Cladding
AEP-Span
Color: "Cool Old Zinc Gray"

2 Fiber Cement Siding
James Hardie Siding Products
Color: JH 90-20 "Countrylane Red

3 Painted Existing Wall
Paint Match: SW 7722 "Travertine"

4 Painted Existing Wall
Sherwin-Williams
Paint Match: JH 90-20 "Countrylane Red"

5 Metal Canopy/Trellis
Paint Match: SW 7641 "Collonade Gray"

6 CMU Wall
Paint Match: SW 7641 "Collonade Gray"

7 Metal Roof
AEP-Span
Color: "Cool Old Zinc Gray"

8 Metal Fencing
Color: "Black"

Source: Perkowitz + Ruth Architects, April 2009.

Michael Brandman Associates

Exhibit 3-5b
Conceptual Elevations - Colors and Materials

Signage

The existing primary Walmart white sign will be replaced with a new white sign and yellow spark, and the existing red signs will be replaced with new white signs that will be more compatible with the new color scheme and building architecture. Signage on the expanded Walmart building would be updated and simplified to include ancillary signs that describe new products and services to be offered, such as "Market & Pharmacy" and "Outdoor Living." All signs will be non-illuminated, except the "Walmart" signs at the front and rear elevations, which will be internally lit by light emitting diodes (LEDs).

In addition, the "Walmart" panel on the existing McCarthy Ranch Marketplace north pylon sign facing I-880 would be replaced to reflect Walmart's new corporate branding.

Landscaping

Landscaping currently exists along the project site frontage with N. McCarthy Boulevard and Ranch Drive and within parking areas. This landscaping is characterized as mature trees and shrubs. The project site is almost entirely screened from view by the landscaping along N. McCarthy Boulevard. The existing landscaping is irrigated with recycled water.

New planter areas would be installed along the south side of the store to provide stormwater treatment for the store expansion area. The balance of the landscaping would remain unchanged. Exhibit 3-6 depicts the preliminary landscaping plan. Note that the new landscaping would be irrigated with recycled water

Lighting

Existing outdoor lighting in the store expansion area would be removed. The project would modify all remaining lighting within store parking areas to provide 1.8 foot-candles over the parking field. All lights are currently shielded and directed downward, a condition the proposed project would maintain.

Infrastructure and Utilities

Drainage

The existing store includes a storm drainage system. The store expansion would include downspouts that would tie into the existing drainage system. Because the expansion footprint is within the area currently drained by the storm drainage system, no expansion or upsizing of the system would be necessary.

Wet Utilities

The existing Walmart store is served with potable water service and wastewater collection and treatment service provided by the City of Milpitas. In addition, the site is connected to the South Bay Water Recycling Program recycled water system. These connections would be maintained as part of the proposed project. The City of Milpitas indicates that because the proposed project would not

exceed the allowable FAR for the project site, the increased demand and effluent generation attributable to the store expansion would not adversely impact water or sewer systems.

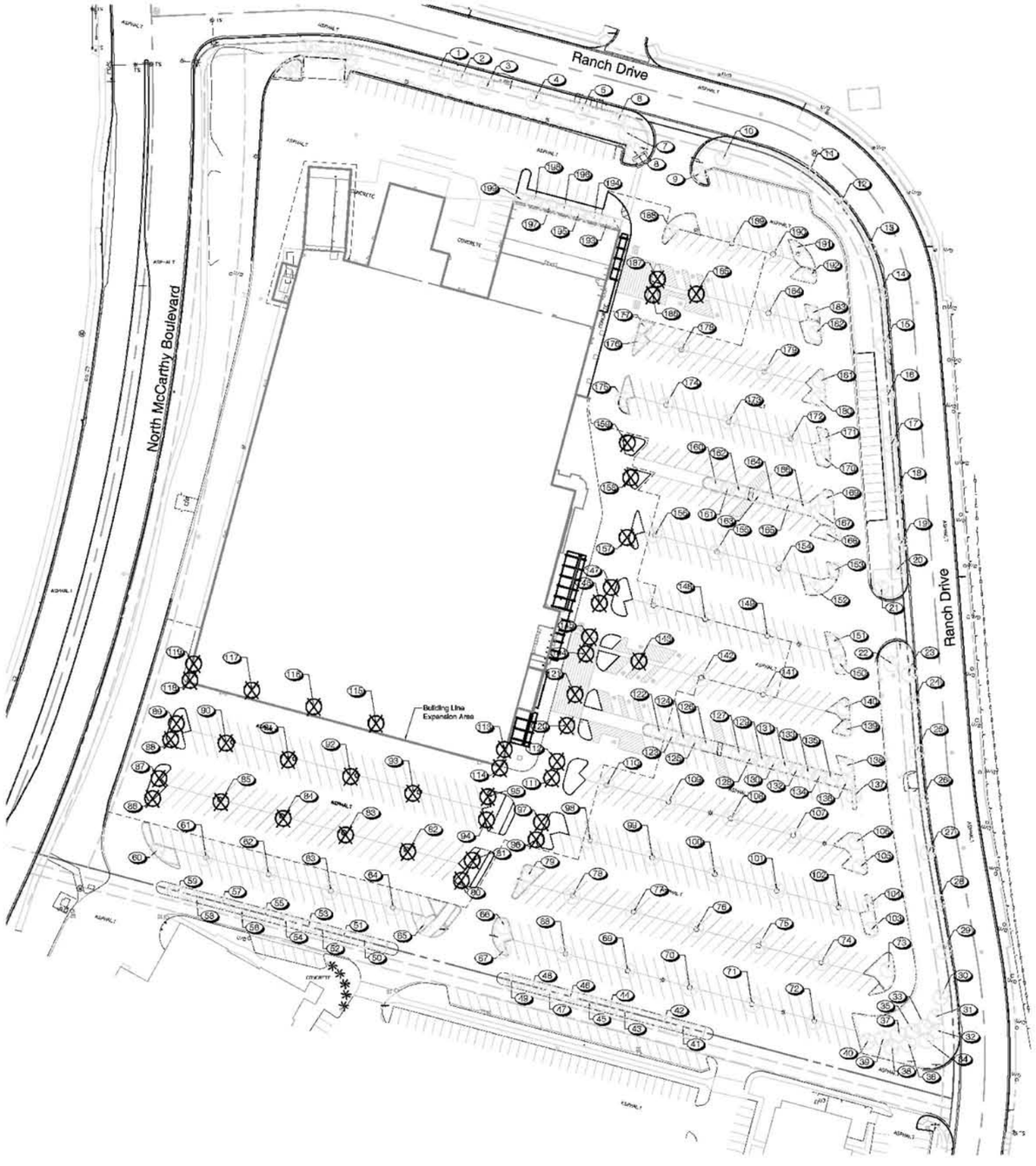
Dry Utilities

The existing Walmart store is served with electricity and natural gas service provided by Pacific Gas and Electric Company (PG&E). The existing electrical and natural gas connections would be maintained as part of the proposed project and have adequate capacity to serve the store expansion.

Sustainability Features

As set forth below, the proposed project would incorporate a variety of sustainability features that would reduce its demand for resources, utilize non-toxic materials, and promote waste reduction. All of these sustainability features are standard design features included in the Walmart store prototype.

- Lighting: Occupancy sensors would be installed in most non-sales areas as part of its standard prototype. The sensors automatically turn the lights off when the space is unoccupied. These areas include restrooms, breakrooms, and offices.
- LEDs: Exterior building signage and many refrigerated food cases would be illuminated LEDs. LED technology is up to 52 percent more energy efficient than fluorescent lights. Total estimated energy savings for LED lighting in an average Walmart grocery section is more than 59,000 kilowatt-hours per year, enough energy to power five single-family homes. Furthermore, LED lights are projected to last at least six years beyond conventional lighting, reducing maintenance costs. In refrigerated food cases, LEDs perform well in the cold and produce less heat than fluorescent bulbs—heat that must be compensated for by the refrigeration equipment.
- Energy Management System: Walmart utilizes a centralized Energy Management System to monitor and control the heating, air conditioning, refrigeration and lighting systems for all stores and Sam's Club locations in its U.S. operations, from Walmart's corporate headquarters in Arkansas.
- Heating, Ventilation, and Air Conditioning (HVAC): HVAC units would be installed that are among the most efficient in the industry.
- Dehumidification: Walmart actively dehumidifies its newly constructed expansion and existing areas. Lower humidity allows the refrigeration system to operate more efficiently and mitigates condensation on refrigerated glass doors.
- White Roofs: The existing building has a white membrane roof, which will also be employed with the store expansion. White membrane roofs, which has a higher reflectivity and helps reduce building energy consumption in most climate zones and have a lower heat island effect than a darker roofing color.



Preliminary Plant Legend

Symbol	Botanical Name	Common Name	Size	Notes	Water Use	Mature Size
Existing Trees to Remain						
	Eriobotrya deflexa	Loquat	See Tree Survey	Standard	Low	See Tree Survey
	Lagerstroemia x. Fauriei 'Natchez'	Crape Myrtle	See Tree Survey	Multi-Trunk	Medium	See Tree Survey
	Olea europea	Olive	See Tree Survey	Standard	Low	See Tree Survey
	Platanus acerifolia 'Bloodgood'	London Plane Tree	See Tree Survey	Standard	Medium	See Tree Survey
	Pyrus c. 'Aristocrat'	Aristocrat Pear	See Tree Survey	Standard	Medium	See Tree Survey
	Rhus lancea	African Sumac	See Tree Survey	Multi-Trunk	Low	See Tree Survey
	Tristania Conferta	Brisbane Box	See Tree Survey	Standard	Low	See Tree Survey
Existing Trees to be Removed - See Tree Survey sheet L-2 for location						
	Eriobotrya deflexa	Loquat	See Tree Survey	Standard	Low	See Tree Survey
	Pyrus c. 'Aristocrat'	Aristocrat Pear	See Tree Survey	Standard	Medium	See Tree Survey
	Tristania Conferta	Brisbane Box	See Tree Survey	Standard	Low	See Tree Survey
Proposed Trees						
	Eriobotrya deflexa Size in 5 years - 8' w. x 15' h. Years to maturity - 15	Loquat	24" Box	Standard	Low	15' w. x 25'h.
	Tristania Conferta Size in 5 years - 10' w. x 20' h. Years to maturity - 15	Brisbane Box	24" Box	Standard	Low	20' w. x 40'h.
Existing Shrubs to Remain						
	Dietes vegeta	Fortnight Lily	Existing		Low	30" w. x 30" h.
	Hemerocallis 'Stella Doro'	Daylily	Existing		Medium	24" w. x 30" h.
	Hebe species	Hebe	Existing		Medium	24" w. x 24" h.
	Pittosporum undulatum	Victorian Box	Existing		Low	60"w. x 60'h.
	Rhaphiolepis species	India Hawthorne	Existing		Low	36"w. x 36'h.
Proposed Shrubs						
	Dietes vegeta	Fortnight Lily	5 Gallon		Low	30" w. x 30" h.
	Hemerocallis 'Stella Doro'	Daylily	5 Gallon		Medium	24" w. x 30" h.
	Rhaphiolepis i. 'Pinkie'	Dwarf India Hawthorne	1 Gallon		Low	24"w. x 18'h.
	Rhaphiolepis i. 'Jack Evans'	India Hawthorne	5 Gallon		Low	36"w. x 36' h.

Source: The HLA Group Landscape Architects and Planners, Inc., April 2009.

NORTH

130 65 0 130 Feet

Michael Brandman Associates

32660002 • 07/2009 | 3-6_landscape_plan.cdr

Exhibit 3-6
Preliminary Landscape Plan

- Refrigeration: The expansion area will use refrigeration equipment that employs non-ozone-depleting refrigerants. Refrigeration equipment is typically roof-mounted close to the refrigerated cases. This reduces the amount of copper refrigerant piping, insulation, potential for leaks and refrigerant charge needed.

- Heat Reclamation: The new grocery area only will reclaim waste heat from onsite refrigeration equipment to supply approximately 70% of the hot water needs for the store.

- Water Conservation: The following water conservation fixtures will be installed in the existing and expansion areas:
    - High-efficient urinals that use only 1/8 gallon (one pint) of water per flush. This fixture reduces water use by 87 percent compared to the conventional one gallon per flush urinal. The 1/8 gallon urinal also requires less maintenance than waterless urinals, making this the better option for Walmart.
    - All new restroom sinks will use sensor-activated 1/2 gallon per minute high-efficiency faucets. These faucets reduce water usage by 75 percent compared to mandated 1992 EPA Standards. During use, water flows through turbines built into the faucets to generate the electricity needed to operate the motion sensors.
    - All new restroom toilets are highly efficient and reduce water use. The fixture uses 20 percent less water compared to mandated EPA Standards, of 1.6 gallon per flush fixtures. The toilets utilize built-in water turbines to generate the power required to activate the flush mechanism. These turbines save energy and material by eliminating electrical conduits required to power automatic flush valve sensors.
    - In total, it is estimated the store's water conservation measures could save up to 530,000 gallons of water annually.

- Fly Ash: The Walmart expansion area will require 15-20 percent replacement of cement with fly ash, a waste product of coal-fired electrical generation, or a 25-30 percent replacement with slag, a waste product of steel manufacturing, in its concrete mixes. By incorporating these materials, Walmart offsets the greenhouse gases emitted in the cement manufacturing process

- Non-Reinforced Thermoplastic Panel: The expansion area will use Non-Reinforced Thermoplastic Panel in lieu of Fiber Reinforced Plastic sheets on the walls of its kitchen areas. Non-Reinforced Thermoplastic Panel can be recycled, has better impact resistance and, like Fiber Reinforced Plastic, is easy to keep clean.

- Plant Based Oil Extract: The expansion area will use a plant-based oil extracted from a renewable resource as a concrete form release agent (a product sprayed on concrete forms to allow ease of removal after the concrete has set). This release agent is non-petroleum based non-toxic and a biodegradable agent.

- Low Volatile Organic Compound (VOC) Paint: Paint with lower VOC content limits would be used for exterior and interior field paint coatings, which reduces VOC emissions would by approximately 40 percent.
- Paint Bucket Reuse: Paint products are primarily purchased in 55-gallon drums and 275 gallon totes, reducing the number of one gallon and five gallon buckets needed. These plastic buckets are filled from the drums and totes and then returned to the paint supplier for cleaning and reuse.
- Construction and Demolition Recycling: The goal of the construction and demolition program is to capture and recycle as much of the metals, woods, floor and ceiling tiles, concretes, asphalts and other materials generated as part of Walmart's demolition and construction process as possible. Walmart works with a waste management company to fully research all available construction and demolition recycling facilities in the area where construction activities occur and provide a system designed to capture the widest possible range of materials recovery options for that particular location and type of construction.

Employment

The existing Walmart store employs approximately 330 workers. The expanded store would be expected to increase employment by as many as 75 jobs, for a total of 405 positions. Most of the new employment opportunities created by the proposed project would be entry-level, both full-time and part-time.

Truck Deliveries

The existing Walmart store receives approximately four to six eighteen-wheeler trucks each day, 7 days per week, and eight to ten smaller vendor trucks each day, 5 days per week. It is anticipated that the expansion would increase the total number of eighteen-wheeler deliveries to approximately seven to nine trucks, 7 days per week (two to three of which will include refrigeration units) and would not add any additional smaller vendor truck deliveries.

Security Measures

The security measures listed below would be undertaken by the expanded Walmart store. Note that many of these measures are currently employed by the existing Walmart store.

- Conduct a risk analysis (crime survey) of the area to evaluate the security needs for the store and implement a security plan based upon this analysis.
- As appropriate and based upon the crime survey, establish a parking lot patrol that assists customers, ensures safety, and takes action to identify and prevent any suspicious activity (such as loitering and vandalism) during both daylight and nighttime hours; and a plainclothes patrol inside the store to ensure safety and security.
- Install closed-circuit camera systems (surveillance cameras) inside and outside the store.

- Establish a Risk Control Team, a team of associates responsible and trained to identify and correct safety and security issues at the site.
- Provide lighting in the parking areas that will ensure public safety.
- Prohibit consumption of alcohol in the parking lots by having associates regularly patrol the parking areas while collecting shopping carts, and report any inappropriate activity to the store managers. (Also, in accordance with state law, alcohol sales will be prohibited between 2 a.m. and 6 a.m.)

Project Implementation

Construction could begin as early as 2010. Construction activities are expected to last approximately 9 to 12 months, and the expanded store would open in 2011. For the purposes of this EIR, construction would be assumed to occur in 2010 and 2011 and expanded store operations would begin in 2011.

Construction activities would include removing the southern wall of the store, grading the building pad, and construction of the store expansion. In addition, the store façade would be upgraded and new landscaping would be installed.

3.3 - Project Objectives

The objectives of the proposed project are to:

- Positively contribute to the local economy.
- Enhance commercial retail opportunities available in the City of Milpitas.
- Create new job opportunities for local residents.
- Expand the existing Walmart store to provide the market area with an affordable shopping alternative that offers a wide variety of products to the City of Milpitas as well as the surrounding communities.
- Provide a retail establishment that serves local residents and visitors with essential goods and services, in a safe and secure, 24-hour shopping environment.
- Promote economic growth and development that is consistent with the policies of the City of Milpitas General Plan.
- Generate tax revenues to accrue to the various agencies within the project area.
- Minimize travel lengths and utilize existing infrastructure to the maximum extent possible by expanding an existing Walmart store.

3.4 - Intended Uses of This Draft EIR

This Draft EIR is being prepared by the City of Milpitas to assess the potential environmental impacts that may arise in connection with actions related to implementation of the proposed project. Pursuant to CEQA Guidelines Section 15367, the City of Milpitas is the lead agency for the proposed project and has discretionary authority over the proposed project and project approvals. The Draft EIR is intended to address all public infrastructure improvements and all future development that are within the parameters of the proposed project.

3.4.1 - Discretionary and Ministerial Actions

Discretionary approvals and permits are required by the City of Milpitas for implementation of the proposed project. The project application would require the following discretionary approvals and actions, including:

- Site and Architectural Review - Planning Commission
- Conditional Use Permit (grocery sales within 1,000 feet of residential uses; alcohol sales) - Planning Commission
- Sign Permit - City Staff

Subsequent ministerial actions would be required for the implementation of the proposed project including issuance of building permits.

3.4.2 - Responsible and Trustee Agencies

A number of other agencies in addition to the City of Milpitas will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This Draft EIR will provide environmental information to these agencies and to other public agencies, which may be required to grant approvals or coordinate with other agencies as part of project implementation. These agencies may include, but are not limited to, the following:

- California Department of Transportation (Caltrans)
- San Francisco Bay Regional Water Quality Control Board (RWQCB)

Actions that are necessary to implement the project that must be taken by other agencies are:

- Obtain coverage under the General Construction Permit. Project construction would require coverage under the General Construction Permit issued by the State Water Quality Control Board. A Storm Water Pollution Prevention Plan must be submitted in order to obtain coverage.

SECTION 4: ENVIRONMENTAL IMPACT ANALYSIS

Organization of Issue Areas

This Draft Environmental Impact Report (Draft EIR) provides analysis of impacts for those environmental topics where it was determined in the Notice of Preparation, or through subsequent analysis, that the proposed project would result in potentially significant impacts. Sections 4.1 through 4.11 discuss the environmental impacts that may result with approval and implementation of the proposed project.

Issues Addressed in This EIR

The following environmental issues are addressed in Section 4:

- Aesthetics, Light, and Glare
- Air Quality
- Biological Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Public Services and Utilities
- Transportation
- Urban Decay

Each environmental issue area in Sections 4.1 through 4.11 contains a description of:

1. The environmental setting as it relates to the specific issue
2. The regulatory framework governing that issue
3. The methodology used in identifying the issues
4. The significance criteria
5. An evaluation of the project-specific impacts and identification of mitigation measures
6. A determination of the level of significance after mitigation measures are implemented

Level of Significance

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the Final EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers in approving a project to adopt a

statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed using criteria from the CEQA Guidelines and checklist; state, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

Impact Analysis and Mitigation Measure Format

The format adopted in this EIR to present the evaluation of impacts is described and illustrated below.

Summary Heading of Impact

Impact AES-1:	**An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact abbreviation identifies the section of the report (AES for Aesthetics, Light, and Glare in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.**

Impact Analysis

A narrative analysis follows the impact statement.

Significance Before Mitigation

This section identifies the level of significance of the impact before any mitigation is proposed.

Mitigation Measures

In some cases, following the impact discussion, reference is made to state and federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures, beyond those contained in other documents, are set off with a summary heading and described using the format presented below:

MM AES-1a Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible. The mitigation number links the particular mitigation to the impact with which it is associated (**AES-1** in this example); the letter identifies the sequential order of that mitigation for that impact (**a** in this example).

Significance After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

Abbreviations used in the mitigation measure numbering are:

Code	Environmental Issue
AES	Aesthetics, Light, and Glare
AIR	Air Quality
BIO	Biological Resources
GEO	Geology, Soils, and Seismicity
HAZ	Hazards and Hazardous Materials
HYD	Hydrology and Water Quality
LU	Land Use
NOI	Noise
PSU	Public Services and Utilities
TRANS	Transportation
UD	Urban Decay

4.1 - Aesthetics, Light, and Glare

4.1.1 - Introduction

This section describes the existing aesthetics, light, and glare setting and potential effects from project implementation on visual resources of the site and its surroundings. Descriptions and analysis in this section are based on site reconnaissance performed by Michael Brandman Associates, as well as review of the City of Milpitas General Plan and Milpitas Zoning Ordinance.

4.1.2 - Environmental Setting

Aesthetic Character

Regional Setting

Milpitas is a suburban community located at the southern tip of San Francisco Bay between San Jose and Fremont. The City is bounded by baylands to the west and foothills to the east, with urban development located in the plain between the two features. The Mission Hills are the primary backdrop to the Milpitas area. Monument Peak (2,594 feet) is the highest point in the Mission Hills above Milpitas. Coyote Creek is the most prominent waterway in the city limits, paralleling the west side of Interstate 880 (I-880). Several smaller creeks, including Calera Creek, Arroyo de Los Coches, and Piedmont Creek, meander from the foothills through Milpitas to San Francisco Bay.

The City of Milpitas encompasses 13.6 square miles and has a population of 66,770. Within the city limits, residential uses generally occupy the northern and eastern portions of the City, while commercial and industrial uses occupy the western and southern portions. Notable land uses within the city limits include the Great Mall of the Bay Area, McCarthy Ranch Marketplace, the Union Pacific rail yard, and the Jose Higuera Adobe.

Project Site

The project site contains a 131,725-square-foot conventional Walmart store, located in the northern portion of the McCarthy Ranch Marketplace. The store contains a general merchandise sales floor area, a food sales area, a food tenant area (McDonald's), a stockroom receiving area, a loading dock, an ancillary area, a food sales support area, an outdoor garden center, and a two-bay Tire & Lube Express. The garden center, Tire & Lube Express, and loading dock are located on the north side of the existing store. The store has a main entrance, a garden center entrance, and one loading dock with two doors.

The store appearance is characterized by contemporary architectural design elements. The main entrance employs a gabled, salmon-colored vestibule canopy with a large, illuminated "Walmart" sign. The store façade is characterized by beige-colored concrete masonry blocks with white trim along the roofline. Signage for additional services provided within the store (such as pharmacy, McDonald's, 1-hour photos) is also provided on the front façade.

The main customer parking area is located on the east side of the store, in front of the store entrance, and an ancillary parking area is located on the south side of the store. Ornamental trees and landscaping are provided throughout the parking area and along the frontages with Ranch Drive and N. McCarthy Boulevard. The western portion of the ancillary parking area is used for storage of 40-foot shipping containers at various times of the year. The parking areas are accessible to other parking areas in the McCarthy Ranch retail center. The existing store conducts temporary outdoor seasonal sales in the parking lot during various times of the year.

Dumpsters, pallet storage, and a trash compactor are located on the north side of the store. The pallet storage consists of a masonry block enclosure.

Access to the Walmart store is taken via three unsignalized driveways on Ranch Drive and two internal drive aisle connections with the McCarthy Ranch retail center. All access points allow full access.

A pedestrian walkway links the Walmart entrance with the McCarthy Ranch Marketplace to the south and Ranch Drive to the north.

Photographs of the project site are provided in Exhibits 3-3a and 3-3b.

Surrounding Land Uses

West

N. McCarthy Boulevard forms the western boundary of the project site. N. McCarthy Boulevard is a four-lane, divided arterial roadway with a landscaped median. West of the roadway is undeveloped land designated for Industrial Park uses by the City of Milpitas General Plan. This land was recently entitled for an office park campus (The Campus at McCarthy Ranch) by the City of Milpitas in 2008. Coyote Creek is located west of the undeveloped land. The Coyote Creek Trail, a Class I bicycle/pedestrian trail, parallels the east side of the creek.

North

Ranch Drive forms the northern boundary of the project site. Ranch Drive is a two-lane, undivided collector roadway. The intersection of N. McCarthy Boulevard/Ranch Drive is located northwest of the project site. The McCarthy Center office complex is located north of Ranch Drive. The 68-acre complex contains approximately 1 million square feet of office and Research and Development (R&D) uses spread among 19 two-story buildings in a campus setting.

East

Ranch Drive forms the eastern boundary of the project site. East of Ranch Drive is I-880, an eight-lane, divided freeway. On- and off-ramps for the State Route 237 (SR-237) interchange are present along this segment of I-880. East of I-880 are single-family residential uses. The residential uses are protected by a sound wall located along the I-880 frontage.

South

The balance of the McCarthy Ranch Marketplace is located south of the project site. The McCarthy Ranch Marketplace contains 560,000 square feet of retail (including Walmart, which is located at the north end of the shopping center) and features inline mid-boxes (e.g., Best Buy, Borders, PetSmart, Sports Authority); small shops and restaurants; and small, freestanding pads occupied by restaurants (Black Angus, Macaroni Grill, Applebee's, etc.).

Views

Below is a description of surrounding land uses, including views to and from the project site. Exhibit 4.1-1 depicts views of surrounding land uses from the project site. Exhibit 4.1-2 illustrates views of the project site from surrounding land uses.

West

Views from the project site looking west are obstructed by the landscaped berm located along N. McCarthy Boulevard.

Views of the project site from the west are also obstructed by the berm as well as by mature street trees located along N. McCarthy Boulevard.

North

Views of the office complex north of the project site are mostly unobstructed. Landscaping does obstruct views from the loading dock area, the Tire & Lube Express, and garden center portions of the project site.

Views of the project site from Ranch Drive and the office complex are mostly unobstructed. The aforementioned landscaping largely screens views of the loading dock area, the Tire & Lube Express, and the garden center.

East

Views of I-880 and the residential uses to the east are completely obstructed by a sound wall located between Ranch Drive and the freeway.

Views of the project site from I-880 are mostly obstructed by the sound wall. However, the existing Walmart store is visible from portions of I-880 north of the project site where no sound wall is present. The residential uses on the east side of I-880 do not have views of the project site.

South

Views of the other uses in the McCarthy Ranch Marketplace are largely unobstructed from the project site.

Views of the project site from the other uses in the McCarthy Ranch Marketplace are largely unobstructed.

Light and Glare

Project Site

The project site contains an existing source of light or glare from the existing store parking area; illuminated signage; and passing vehicles on Ranch Drive, N. McCarthy Boulevard, and I-880.

Surrounding Areas

The developed commercial, industrial, and residential uses in the project vicinity have exterior sources of lighting (such as illuminated signage, and building-mounted and freestanding light fixtures). Street lighting and vehicular lighting are present on Ranch Road, N. McCarthy Boulevard, and I-880. Exterior building lighting and street lighting are also located in the McCarthy Ranch Marketplace and include illuminating signage from the marketplace facing I-880, and building-mounted and freestanding light fixtures from additional developed commercial and industrial land uses in the project vicinity.

The nearest sensitive receptors to the project site are the residential uses on the east side of I-880. However, these uses are not directly exposed to light and glare emitted on the project site because of the presence of the sound wall along the freeway.

4.1.3 - Regulatory Framework

Local

City of Milpitas

General Plan

The General Plan establishes a maximum Floor Area Ratio (FAR) of 0.50 for the General Commercial land use designation.

The City of Milpitas General Plan establishes the following principles and policies related to aesthetics, light, and glare that are applicable to the proposed project:

- **Principle 2.a-G-2:** Maintain a relatively compact urban form.
- **Policy 2.a-I-1:** New developments should not exceed the building intensity limits established in the General Plan.
- **Principle 4.g-G-1:** Preserve and enhance the natural beauty of the Milpitas area.
- **Principle 4.g-G-3:** Enhance the visual impact of the gateways to Milpitas.

Municipal Code

General Commercial (C2) District Standards

The Milpitas Zoning Ordinance establishes development requirements for the General Commercial (C2) zoning district. Building heights within the General Commercial (C2) zone are not limited and are subject to compliance with all applicable Zoning Ordinance requirements. The Zoning Ordinance establishes a maximum FAR of 0.50 for the General Commercial (C2) zoning district.

Photograph 1: View of landcaped berm that obstructs views to the west.

Photograph 2: View of the office complex located north of the project site.

Photograph 3: View of the I-880 sound wall east of the project site.

Photograph 4: View of the other uses in the McCarthy Ranch Marketplace to the south.

Source: Michael Brandman Assciates, 2009.

Michael Brandman Associates

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Exhibit 4.1-1
View From Project Site

Photograph 1: View of the existing Walmart from the north.

Photograph 2: View of the existing Walmart from Ranch Drive to the east.

Photograph 3: View of the existing Walmart from the southeast.

Photograph 4: View of the store expansion area from the south.

Source: Michael Brandman Assciates, 2009.

Michael Brandman Associates

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Exhibit 4.1-2
View of Project Site

The Zoning Ordinance requires that outdoor storage of materials and trash be completely enclosed within a building or behind a visually obscure solid wall or tight board fence a minimum 6 feet in height and outside any front or street side yard setback area.

Site and Architectural Overlay (S) District Standards

The project site is located within the Site and Architectural Overlay District. New development within this district is required to obtain a Site Development Permit, which includes architectural review. The purpose of the process is intended to encourage site and structural development which:

- Respects the physical and environmental characteristics of the site.
- Ensures safe and convenient access and circulation for pedestrians and vehicles.
- Exemplifies the best professional design practices.
- Encourages individual identity for specific uses and structures.
- Encourages a distinct community or neighborhood identity.
- Minimizes visual impacts.

View Points

The Zoning Map, contained in the Municipal Code, identifies nine View Points. All of the View Points are located on the east side of I-880; the nearest to the project site is located at Calaveras Boulevard and N. Hillview Drive, approximately 1.25 miles to the east.

Signage

Milpitas Municipal Code Title XI, Chapter 30 establishes regulations for signs. For signs associated with commercial sales in a single building, the Municipal Code limits sign coverage either to:

- No more than 1 square foot of sign for each 2 lineal feet of building perimeter; or
- No more than 2 square feet of sign for each 1 lineal foot of public street frontage.

The Municipal Code requires that a sign permit be obtained for architectural signs, which are defined as signs used for advertising purposes that constitute an integral part of the building roof or marquee and are designed with the intent of relating to the architectural style of the structure.

Tree Maintenance and Protection Ordinance

Milpitas Municipal Code Chapter 2 contains the Tree Maintenance and Protection Ordinance of the City of Milpitas. The ordinance requires that new development projects must receive a tree removal permit from the Public Works Department prior to removal and replacement. All trees which have a 37-inch or greater circumference of any trunk measured 4.5 feet from the ground and located on developed commercial or industrial property are protected. Street trees or other plantings that are required to be planted by a new development in accordance with plans and specifications approved by the City may be planted without a permit, provided, however, that such trees and plantings shall

conform to City approved plans and specifications and shall be planted under the supervision of the Public Works Department.

4.1.4 - Methodology

Michael Brandman Associates (MBA) evaluated potential project impacts on aesthetics, light, and glare through site reconnaissance and review of applicable plans and policies. Michael Brandman Associates personnel visited the project site in October 2008 and March 2009, and documented site conditions and relationships to surrounding land uses with photographs. Michael Brandman Associates personnel also reviewed aerial photographs, topographical maps, street maps, project plans, and elevations to identify surrounding land uses and evaluate potential impacts from project development. The City of Milpitas General Plan and the Milpitas Zoning Ordinance were reviewed to determine applicable policies and design requirements for the proposed project.

4.1.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist of the CEQA Guidelines, aesthetics impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a.) Have a substantial adverse effect on a scenic vista? (Refer to Section 7, Effects Found Not To Be Significant.)

b.) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway? (Refer to Section 7, Effects Found Not To Be Significant.)

c.) Substantially degrade the existing visual character or quality of the site and its surroundings?

d.) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

4.1.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Visual Character

Impact AES-1:	**The proposed project may substantially degrade the visual character of the project site or its surroundings.**

Impact Analysis

This impact assesses the proposed project's impacts on the visual character of the project site and its surroundings.

Project Site

The proposed project would expand the existing 131,725-square-foot Walmart store by a maximum of 19,000 square feet. The project site expansion would occur on the south side of the store, within an area currently used as a parking lot and temporary storage area for 40-foot shipping containers.

Design and Appearance

As part of the store expansion, the Walmart store's elevations would be upgraded. The elevations would incorporate design features to reflect the "California ranch" design theme of the McCarthy Ranch Marketplace, including "salt box" style metal roofs and canopies, faux wood siding, corrugated metal cladding, and the use of colors such as Colonnade Gray, Cool Old Zinc Gray, and Countrylane Red. Exhibit 3-5a provides elevations of the expanded Walmart store. Exhibit 3-5b depicts the colors and materials proposed for the expanded Walmart store. Note that these elevations are provided for illustrative purposes, and minor changes may occur to the design elements.

The upgraded and enhanced elevations would be consistent with the objectives of the Site and Architectural Review Overlay District (S), which sets forth various goals related to providing for high quality, visually appealing structures that are compatible with the surrounding aesthetic environment.

Building Height

The roofline of the expanded store would range from 18 feet, 6 inches to 35 feet, 6 inches above grade. Most of the roofline would be between 25 feet and 32 feet above grade; only architectural projections would exceed 32 feet in height. Note that the Milpitas Zoning Ordinance does not establish any height limits for the General Commercial (C2) zoning district.

Building Coverage

The expanded Walmart store would have a Floor Area Ratio (FAR) of 0.24 (150,725 square feet/14.56 acres [634,233.6 square feet]), which would be consistent with the both the General Plan's and Zoning Ordinance's maximum allowable FAR of 0.50 for the General Commercial designation and General Commercial (C2) zoning district, respectively.

Signage

New wall signage would be installed on the front elevation of the expanded Walmart and the "Walmart" panel on the existing McCarthy Ranch Marketplace pylon sign would be replaced. Milpitas Municipal Code Title XI Chapter 30 establishes regulations for signs. For signs associated with commercial sales in a single building, the Municipal Code limits the sign coverage either to:

- No more than 1 square foot of sign for each 2 lineal feet of building perimeter; or
- No more than 2 square feet of sign for each 1 lineal foot of public street frontage.

At the time of this writing, a sign program demonstrating compliance with the above listed requirements is not available. Accordingly, Mitigation Measure AES-1a is proposed requiring the applicant to prepare and submit plans to the City demonstrating that the signage complies with

Municipal Code requirements. The implementation of this mitigation measure would ensure that the visual impacts of signage are reduced to a level of less than significant.

Landscaping

Landscaping currently exists along the project site frontage with N. McCarthy Boulevard and Ranch Drive and within parking areas. This landscaping is characterized as mature trees and shrubs. The project site is almost entirely screened from view by the landscaping along N. McCarthy Boulevard.

New planter areas would be installed along the south side of the store to provide stormwater treatment for the store expansion area. The balance of the landscaping would remain unchanged. Exhibit 3-6 depicts the preliminary landscaping plan.

The proposed project would remove several ornamental trees located within the store expansion footprint. Several of these trees may be eligible for protection under the Tree Maintenance and Protection Ordinance. Accordingly, Mitigation Measure AES-1b is proposed requiring compliance with the tree removal and replacement requirements. For trees not eligible for protection under the ordinance, the mitigation measure stipulates that they shall be replaced onsite at no less than a 1:1 ratio with a similar trees species. The implementation of this mitigation measure would ensure that the visual impacts of tree removal are reduced to a level of less than significant.

Shipping Containers

Shipping containers are currently stored in outdoor areas of the project site during various times of the year. The Zoning Ordinance requires that outdoor storage of materials (e.g., shipping containers) be completely enclosed within a building or behind a visually obscure wall or fence a minimum of 6 feet in height. To bring the proposed project into conformance with this Zoning Ordinance requirement, Mitigation Measure AES-1c is proposed requiring the project applicant to either permanently remove shipping containers from the project site or install screening measures around areas where such containers would be stored. The implementation of this mitigation measure would ensure that the visual impacts of outdoor storage of shipping containers are reduced to a level of less than significant.

Surrounding Area

The project site is located within a commercial area of the City of Milpitas. Land uses in the project vicinity consist of agricultural land contemplated to be developed as commercial and industrial development, and existing developed commercial uses. As previously mentioned, the McCarthy Ranch Marketplace employs a “ranch” design theme, which the proposed project would incorporate into the upgraded elevations and which is intended to promote aesthetic compatibility. In addition, the Walmart expansion would maintain the landscaping along N. McCarthy Boulevard, which screens views of the rear of the store from the roadway and neighboring land uses. Furthermore, the proposed project would not affect any views from designated View Points shown on the Zoning Map. The nearest View Point is located approximately 1.25 miles to the east at E. Calaveras Boulevard and N.

Hillview Drive. The project site is not visible from this location because of intervening structures and improvements. Therefore, the development of the proposed project would not alter the visual character of designated View Points in Milpitas.

Conclusion

In summary, the proposed project would expand the existing Walmart store within an area currently used for parking. The visual character of the expanded store would be compatible with other structures in the vicinity and the overall urban character of the City of Milpitas. Mitigation measures are proposed that establish performance standards for signage, tree replacement, and outdoor storage of shipping containers to ensure that visual impacts associated with these activities are reduced to a level of less than significant. Finally, the proposed project would maintain and enhance the existing landscaping onsite. For these reasons, the proposed project would not substantial degrade the visual character of the project site or its surroundings. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AES-1a Prior to issuance of building permits, the project applicant shall prepare and submit a sign program to the City of Milpitas for review and approval. The sign program shall demonstrate compliance with the applicable requirements with Milpitas Municipal Code Title XI, Chapter 30. The approved sign program shall be implemented into the proposed project.

MM AES-1b Prior to issuance of grading or building permits, whichever comes first, the project applicant shall obtain a tree removal permit from the City of Milpitas for any trees slated for removal with a trunk circumference of 37 inches or more measured at 4.5 feet above ground level. Replacement of such trees shall be performed in accordance with the requirements of the Tree Maintenance and Protection Ordinance. Removed trees that are not covered by the Tree Maintenance and Protection Ordinance (i.e., less than 37 inches in circumference at 4.5 feet above ground level) shall be replaced onsite with a similar tree species at no less than a 1:1 ratio. All replacement trees shall be planted within 30 days of issuance of the final certificate of occupancy.

MM AES-1c Prior to issuance of the final certificate of occupancy, the project applicant shall do one of the following: 1) permanently remove all shipping containers from the project site; or 2) install screening measures in accordance with Zoning Ordinance requirements. If the second option is pursued, outdoor storage of containers shall occur in a completely enclosed building or behind a visually obscure solid wall or tight board fence a minimum 6 feet in height and outside any front or street side yard setback area.

Level of Significance After Mitigation

Less than significant impact.

Light and Glare

Impact AES-2:	**The proposed project may result in the addition of new sources of substantial light and glare that would adversely affect daytime or nighttime views.**

Impact Analysis

The existing Walmart store provides freestanding and building-mounted lighting that is illuminated during the nighttime hours. The proposed project would largely maintain the locations of the existing light fixtures on the project site, albeit with the elimination of parking lot lighting in the expansion footprint and the addition of new building-mounted lighting on the store expansion. Although the proposed project will expand the Walmart store's hours of operation to 24 hours a day, this would not introduce significant new sources of nighttime lighting, because the existing store already employs parking lot lighting and building-mounted lighting that is illuminated during the nighttime, even when the store is closed to the public. Therefore, the proposed would not represent the introduction of new sources of nighttime lighting to the project site.

As part of the proposed project, parking lot lighting would be upgraded to 1,000-watt bulbs and a minimum 1.8 foot-candles of light. Because these lighting fixtures have the potential to create unwanted spillover effects on surrounding properties, mitigation is proposed that would require the project applicant to ensure that all exterior light fixtures are shielded, recessed, or directed downward to prevent light spillage onto adjoining properties. The implementation of this mitigation measure would minimize the amount of light and glare to the ambient environment and, therefore, would ensure that impacts are reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AES-2 Prior to issuance of building permits, the project applicant shall ensure that all exterior lighting fixtures associated with the Walmart store (building-mounted and freestanding) are shielded, recessed, or directed downward to prevent unwanted illumination of neighboring properties.

Level of Significance After Mitigation

Less than significant impact.

4.2 - Air Quality

4.2.1 - Introduction

This section describes the existing air quality setting and potential effects from project implementation on the site and its surrounding area. Michael Brandman Associates performed air quality analysis for the proposed project, which included construction and operational air quality modeling, a Health Risk Assessment, and greenhouse gas emissions modeling. The Health Risk Assessment and modeling output are contained in Appendix B.

4.2.2 - Environmental Setting

San Francisco Bay Area Air Basin

The project site is located in the City of Milpitas, which is within the San Francisco Bay Area Air Basin (Air Basin), which comprises all or portions of the nine Bay Area counties. Air quality in the Air Basin is regulated by the United States Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the Bay Area Air Quality Management District (BAAQMD). The regulatory responsibilities of these agencies are discussed in the Regulatory Framework section.

Regional and local air quality is impacted by dominant airflows, topography, atmospheric inversions, location, season, and time of day. These characteristics are discussed in relation to the Air Basin.

Regional Climate

Meteorology is the study of weather and climate. Weather refers to the state of the atmosphere at a given time and place relating to temperature, air pressure, humidity, cloudiness, and precipitation. Weather refers to conditions over short periods; conditions over long periods, generally at least 30 to 50 years, are referred to as climate. Climate in a narrow sense is usually defined as the “average weather,” or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period ranging from months to thousands or millions of years. These quantities most often are surface variables such as temperature, precipitation, and wind.

A semi-permanent, high-pressure area centered over the northeastern Pacific Ocean dominates the summer climate of the West Coast. Because this high-pressure cell is quite persistent, storms rarely affect the California coast during the summer. Thus, the conditions that persist along the coast of California during summer are a northwest airflow and negligible precipitation. A thermal low-pressure area from the Sonoran-Mojave Desert also causes air to flow onshore over the San Francisco Bay Area much of the summer.

The steady northwesterly flow around the eastern edge of the Pacific High (a high-pressure cell) exerts stress on the ocean surface along the west coast. This induces upwelling of cold water from below. Upwelling produces a band of cold water off San Francisco that is approximately 80 miles wide. During July, the surface waters off San Francisco are 3 degrees Fahrenheit (°F) cooler than those off Vancouver, British Columbia, more than 900 miles to the north. Air approaching the

California coast, already cool and moisture-laden from its long trajectory over the Pacific, is further cooled as it flows across this cold bank of water near the coast, thus accentuating the temperature contrast across the coastline. This cooling is often sufficient to produce condensation—a high incidence of fog and stratus clouds along the Northern California coast in summer.

Topography

The San Francisco Bay Area is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays. Elevations of 2,000 feet are common in the higher terrain of this area.

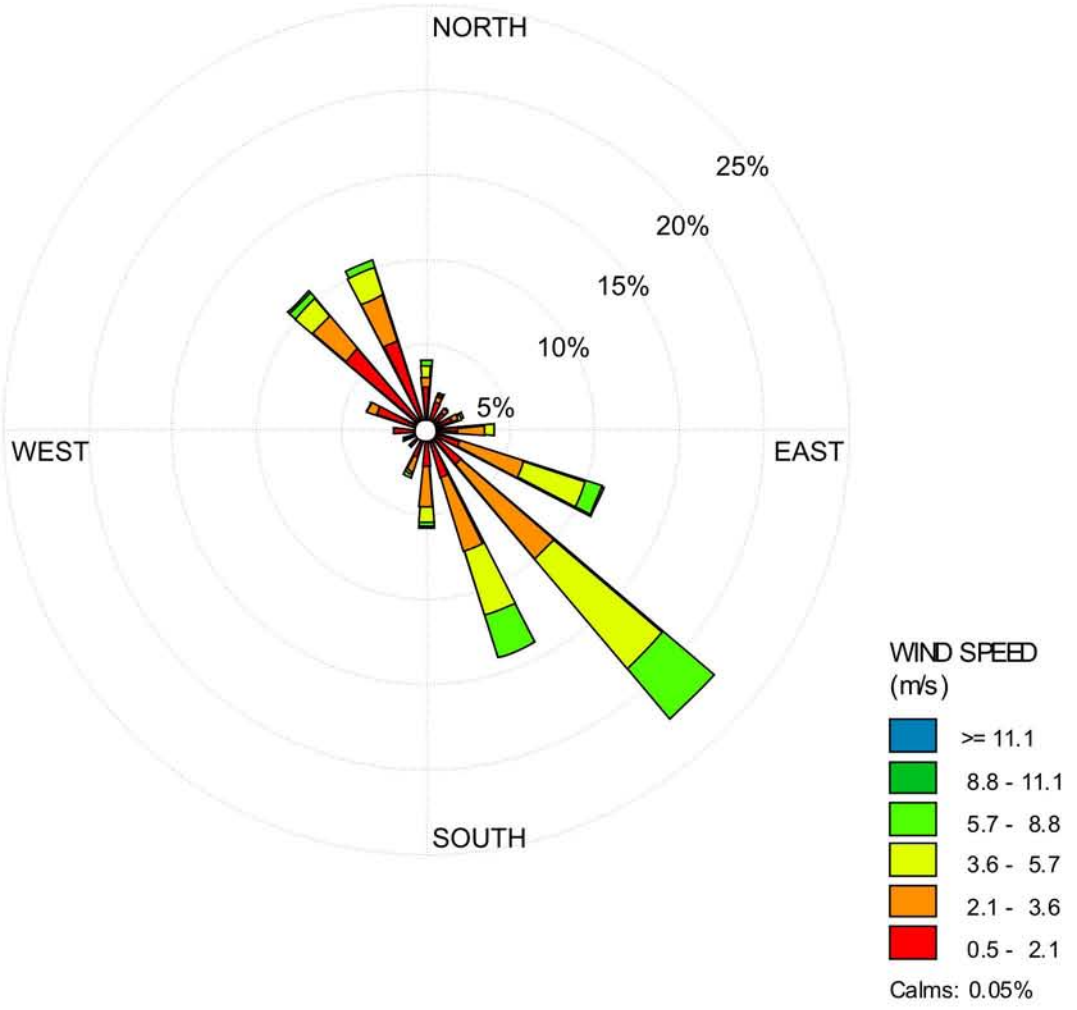
Winds

In summer, the northwest winds to the west of the Pacific coastline are drawn into the interior through the gap in the western Coast Ranges, known as the Golden Gate, and over the lower portions of the San Francisco Peninsula. Immediately to the south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more nearly from the west as they stream through the Golden Gate. This channeling of the flow through the Golden Gate produces a jet that sweeps eastward but widens downstream, producing southwest winds at Berkeley and northwest winds at San Jose; a branch curves eastward through the Carquinez Straits and into the Central Valley. Wind speeds may be locally strong in regions where air is channeled through a narrow opening such as the Golden Gate, the Carquinez Strait, or San Bruno Gap. For example, the average wind speed at San Francisco International Airport from 3 a.m. to 4 p.m. in July is about 20 miles per hour (mph), compared with only about 8 mph at San Jose and less than 7 mph at the Farallon Islands.

The sea breeze between the coast and the Central Valley commences near the surface along the coast in late morning or early afternoon; it may first be observed only through the Golden Gate. Later in the day, the layer deepens and intensifies while spreading inland. As the breeze intensifies and deepens, it flows over the lower hills farther south along the peninsula. This process frequently can be observed as a bank of stratus clouds “rolling over” the coastal hills on the west side of the bay. The depth of the sea breeze depends in large part upon the height and strength of the inversion. The generally low elevation of this stable layer of air prevents marine air from flowing over the coastal hills. It is unusual for the summer sea breeze to flow over terrain exceeding 2,000 feet in elevation.

In winter, the Air Basin experiences periods of storminess, moderate-to-strong winds, and periods of stagnation with very light winds. Winter stagnation episodes are characterized by outflow from the Central Valley, nighttime drainage flows in coastal valleys, weak onshore flows in the afternoon, and otherwise light and variable winds.

A wind rose that presents an average of the wind speeds and directions in the project area is presented in Exhibit 4.2-1. As shown in the wind rose, winds blow primarily to the southeast and northwest.



Direction: Flow vector (blowing to)
Data: Bay Area Air Quality Management District, www.baaqmd.gov/tec/data/
Data Site: Alviso, located approximately one mile west of project site, year 2000
Program to Convert Data to Wind Rose: WRPLOTView - Lakes Environmental Software

Source: WRPLOTView, Lake Environmental Software.

Michael Brandman Associates

Exhibit 4.2-1
Alviso Wind Rose

Inversions

A primary factor in air quality is the mixing depth (i.e., the vertical air column available for dilution of contaminant sources). Generally, the temperature of air decreases with height, creating a gradient from warmer air near the ground to cooler air at elevation. This is caused by most of the sun's energy being converted to sensible heat at the ground, which, in turn, warms the air at the surface. The warm air rises in the atmosphere, where it expands and cools. Sometimes, however, the temperature of air actually increases with height. This condition is known as temperature inversion, because the temperature profile of the atmosphere is "inverted" from its usual state. Over the Air Basin, the frequent occurrence of temperature inversions limits mixing depth and, consequently, limits the availability of air for dilution.

Precipitation

Moderately wet winters and dry summers characterize the San Francisco Bay Area climate. Winter rains (December through March) account for about 75 percent of the average annual rainfall. Annual totals exceed 40 inches in the mountains and less than 15 inches in the sheltered or "shadowed" valleys. The frequency of winter rain is more uniform, however, with 10 days per month (December through March) being typical. During rainy periods, ventilation and vertical mixing are usually high, and, consequently, pollution levels are low.

Local Climate

The Milpitas area is characterized as a Mediterranean climate, with warm summers, mild winters, and low precipitation. Temperatures in the project area range from an average high of 81.9°F in July to an average low of 40.8°F in January. Rainfall averages 14.70 inches annually. General meteorological data for the project area, as measured at the San Jose weather station, are presented in Table 4.2-1.

Table 4.2-1: Milpitas Meteorological Summary

Month	Temperature (°F)		Average Precipitation (inches)
	Average High	Average Low	
January	58.0	40.8	2.89
February	61.9	43.5	2.69
March	65.4	45.2	2.32
April	69.6	46.8	1.21
May	74.3	50.5	0.46
June	79.1	53.7	0.08
July	81.9	56.0	0.03
August	81.4	56.1	0.07

Table 4.2-1 (Cont.): Milpitas Meteorological Summary

Month	Temperature (°F)		Average Precipitation (inches)
	Average High	Average Low	
September	80.4	55.1	0.20
October	74.3	51.2	0.75
November	65.2	45.3	1.52
December	58.5	41.5	2.46
Annual Average	**70.8**	**48.8**	**14.70**

Notes:
Measurements recorded between 1893 and 2007.
Source: Western Regional Climate Center, 2009.

Local Air Quality

Existing local air quality, historical trends, and projections of air quality are best evaluated by reviewing relevant air pollutant concentrations from near the project area. The BAAQMD operates an air monitoring station in San Jose, located at Jackson Street, approximately 4 miles south of the project site. Table 4.2-2 summarizes 2006 through 2008 published monitoring data from CARB's Aerometric Data Analysis and Management System. As shown in Table 4.2-2, ambient air pollution concentrations in the project area have exceeded the state 1-hour ozone standard six times in last 3 years. Likewise, the state 8-hour standard has been exceeded six times in the last 3 years. The project area has exceeded the state daily PM_{10} standard six times during the last 3 years. The project area has exceeded the state daily $PM_{2.5}$ standard 21 times during the last 3 years.

Table 4.2-2: Air Quality Monitoring Summary

Air Pollutant	Averaging Time (units)	2006	2007	2008
Ozone	Max 1 Hour (ppm)	0.118	0.083	0.118
	Days > State Standard (0.09 ppm)	5	0	1
	Max 8 Hour (ppm)	0.087	0.068	0.080
	Days > State Standard (0.07 ppm)	5	0	3
	Days > Federal Standard (0.075 ppm)	3	0	2
Carbon monoxide	Max 1 Hour (ppm)*	4.1	3.5	ND
	Days > State Standard (20 ppm)	0	0	ND
	Days > Federal Standard (35 ppm)	0	0	ND
	Max 8 Hour (ppm)	2.92	2.71	2.48
	Days > State Standard (9.0 ppm)	0	0	0
	Days > Federal Standard (9 ppm)	0	0	0

Table 4.2-2 (Cont.): Air Quality Monitoring Summary

Air Pollutant	Averaging Time (units)	2006	2007	2008
Nitrogen dioxide	Mean (ppm)	0.018	0.017	0.017
	Max 1 Hour (ppm)	0.074	0.065	0.080
	Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide	Max 24 Hour (ppm)	0.007	0.006	0.004
	Days > State Standard (0.04 ppm)	0	0	0
	Days > Federal Standard (0.14 ppm)	0	0	0
Course particulate matter (PM_{10})	Mean ($\mu g/m^3$)	21.0	22.0	23.4
	24 Hour ($\mu g/m^3$)	68.9	64.7	55.0
	Days > State Standard (50 $\mu g/m^3$)	2	3	1
	Days > Federal Standard (150 $\mu g/m^3$)	0	0	0
Fine particulate matter ($PM_{2.5}$)	Mean ($\mu g/m^3$)	11.4	11.1	11.0
	24 Hour ($\mu g/m^3$)	64.4	57.5	41.9
	Days > Federal Standard (35 $\mu g/m^3$)	7	9	5

Abbreviations:
> = exceed ppm = parts per million $\mu g/m^3$ = micrograms per cubic meter
ND = no data max = maximum Mean = Annual Arithmetic Mean
All data is from San Jose, Jackson Street, except the sulfur dioxide from San Francisco, Arkansas Street.
Sources: California Air Resources Board, 2008; Bay Area Air Quality Management District, 2006 and 2007.

Sensitive Receptors

Certain populations are particularly sensitive to the health impacts of air pollution. For purposes of CEQA, the BAAQMD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The nearest receptors to the project are as follows:

- Workers at an office building (McCarthy Center) 0.1 mile north of the project
- Anthony Spangler School, 0.3 mile east of the project site
- Residences, 0.2 mile east of the project site
- Milpitas Community Church, 0.36 mile to the northeast of the project site
- Workers at a commercial building (McCarthy Ranch Marketplace) 0.1 mile south of the project site

Alternative Forms of Transportation

Several different forms of alternative transportation serve the City of Milpitas, including passenger rail and bus operations. The availability of alternate transportation provides alternatives to single-occupancy vehicle trips.

Santa Clara Valley Transportation Authority (VTA) provides bus and light rail service in Milpitas and throughout Santa Clara County. Route 33 passes northbound on N. McCarthy Boulevard directly adjacent to the project site and loops clockwise around Ranch Drive, where it returns to the south and provides connections to many locations in Milpitas and San Jose. Additionally, VTA operates a shuttle (Route 825) for connections to the Great America train station, which serves both the Altamont Commuter Express (ACE) and the Amtrak Capitol Corridor. ACE provides weekday commuter rail service between Stockton and San Jose, while the Amtrak Capitol Corridor provides daily intercity service between San Jose and the Sacramento area.

Routes 33 and 825 operate on a frequency of 30 and 75 minutes, respectively, during the weekday commute peaks. Weekend service for Route 33 is provided on a frequency of 30 minutes, while operating only from 9 a.m. to 6 p.m. Route 825 is not in service during the weekends, as it is a limited service commuter route.

The nearest light rail station to the project site is the I-880 station, located at the intersection of Tasman Drive and Alder Drive, approximately 1.5 miles to the south.

4.2.3 - Regulatory Framework

Air pollutants are regulated at the national, state, and air basin level; each agency has a different degree of control. The EPA regulates at the national level, CARB regulates at the state level, and the BAAQMD regulates at the air basin level.

Federal and State

The EPA handles global, international, national, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance in air pollution programs, and sets National Ambient Air Quality Standards, also known as federal standards. There are National Ambient Air Quality Standards for six common air pollutants, called criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970. The six criteria pollutants are:

- Ozone
- Particulate matter (PM_{10} and $PM_{2.5}$)
- Nitrogen dioxide
- Carbon monoxide (CO)
- Lead
- Sulfur dioxide

The National Ambient Air Quality Standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants.

The State Implementation Plan for the State of California is administered by CARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain National Ambient Air Quality Standards. The implementation plan incorporates the individual federal attainment plans for regional air districts. Regional air quality attainment plans prepared by individual regional air districts are sent to CARB to be approved and incorporated into the California State Implementation Plan. Implementation plans include the technical foundation for understanding the air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

CARB also administers California ambient air quality standards for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six national criteria pollutants listed above plus visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. Visibility-reducing particles are suspended particulate matter. Visibility is the distance through the air that an object can be seen without the use of instrumental assistance. Visibility-reducing particles and vinyl chloride are not assessed in this analysis because the project would not be exposed to or generate those pollutants.

The national and state ambient air quality standards, the most relevant effects, pollutant properties, and pollutant sources are summarized in Table 4.2-3.

Other Pollutants

Reactive organic gases (ROGs) are organic compounds that readily evaporate. ROGs consist of non-methane and oxygenated hydrocarbons. Although volatile organic compounds (VOCs) are not necessarily ROGs, the terms are often interchanged. There are no state or national ambient air quality standards for ROGs; however, they are regulated because they are involved in chemical reactions that contribute to the formation of ozone. In addition, some hydrocarbon components classified as ROGs (i.e., benzene) are thought or known to be hazardous. Sources of ROGs include adhesives, solvents, paints, cooking, fuel, and combustion. ROGs can interfere with oxygen uptake and can cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis.

Ammonia is an odorous, colorless, water-soluble gas. It is released during manure storage and decomposition and in urine. It has a distinctive odor at levels of 5 ppm. High levels (2,500 ppm) of ammonia can be fatal. Exposure to ammonia can occur through inhalation, ingestion, and skin contact. Ammonia is an eye and respiratory tract irritant. At high concentrations, ammonia can cause conjunctivitis, laryngitis, and pulmonary edema, possibly accompanied by a feeling of suffocation. Sensitive populations include people with asthma. Ammonia is listed under the California Air Toxics

Table 4.2-3: Ambient Air Quality Standards and Pollutant Descriptions

Air Pollutant	Averaging Time	California Standard	National Standard	Health Effects and Other Effects	Properties	Sources
Ozone	1 Hour	0.09 ppm	—	(a) Decrease of pulmonary function and localized lung edema in humans and animals; (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) increased mortality risk; (d) risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) vegetation damage; (f) property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), oxides of nitrogen (NO_x), and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.	Ozone is a secondary pollutant, thus it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO_x) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hour	0.070 ppm	0.075 ppm			
Carbon monoxide (CO)	1 Hour	20 ppm	35 ppm	(a) Aggravation of angina pectoris (chest pain or discomfort) and other aspects of coronary heart disease; (b) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) impairment of central nervous system functions; (d) possible increased risk to fetuses.	CO is a colorless, odorless, toxic gas. CO is a primary pollutant. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential woodburning, and natural sources.
	8 Hour	9.0 ppm	9 ppm			
Nitrogen dioxide (NO_2)	1 Hour	0.18 ppm	—	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes;	During combustion of fossil fuels, oxygen reacts with nitrogen to produce NO_x (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). NO_x is a precursor to ozone, PM_{10}, and $PM_{2.5}$ formation. NO_x can react with moisture, ammonia, and other compounds to form nitric acid and related particles.	NO_x is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Natural sources of NO_x include lightning, soils, wildfires, stratospheric intrusion, and the oceans. Natural sources accounted for approximately
	Mean	0.030 ppm	0.053 ppm			

Table 4.2-3 (Cont.): Ambient Air Quality Standards and Pollutant Descriptions

Air Pollutant	Averaging Time	California Standard	National Standard	Health Effects and Other Effects	Properties	Sources
Nitrogen dioxide (NO_2) *cont.*				(c) contribution to atmospheric discoloration.	This deposition can harm natural resources and materials.	7 percent of 1990 emissions of NO_x for the United States.
Sulfur dioxide (SO_2)	1 Hour	0.25 ppm	—	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO_x) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and national standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_{10}.	Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.
	24 Hour	0.04 ppm	0.14 ppm			
	Mean	—	0.030 ppm			
Particulate matter (PM_{10})	24 hour	50 µg/m^3	150 µg/m^3	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) declines in pulmonary function growth in children; (c) increased risk of premature death from heart or lung diseases in the elderly.	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} refers to	Stationary sources include fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators
	Mean	20 µg/m^3	—			
Particulate matter ($PM_{2.5}$)	24 Hour	—	35 µg/m^3			
	Mean	12 µg/m^3	15.0 µg/m^3			

Table 4.2-3 (Cont.): Ambient Air Quality Standards and Pollutant Descriptions

Air Pollutant	Averaging Time	California Standard	National Standard	Health Effects and Other Effects	Properties	Sources
				Daily fluctuations in $PM_{2.5}$ levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma.	particulate matter that is 10 microns or less in diameter (1 micron is one-millionth of a meter). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter.	used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust.
Hydrogen sulfide	1 Hour	0.03 ppm	—	It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and cough.	Hydrogen sulfide is a flammable, colorless, poisonous gas that smells like rotten eggs.	Sources include the combustion of sulfur containing fuels (oil and coal) and organic matter that undergo putrefaction.
Sulfates	24 Hour	25 $\mu g/m^3$	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardio-pulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO_4^{2-}.	Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. Sulfates can also be formed by dissolving a metal in sulfuric acid. The lead-acid battery typically uses sulfuric acid.
Lead	30-day	1.5 $\mu g/m^3$	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction. The more serious effects of lead poisoning include behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs. Lead may also contribute to high blood pressure and heart disease.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. Lead was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or national air quality standards at any monitoring station since 1982.	Lead ore crushing, lead ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering. The mechanisms by which lead can be removed from the atmosphere (sinks) include deposition to soils, ice caps, and oceans, and inhalation.
	Quarter	—	1.5 $\mu g/m^3$			
	Rolling 3-month average	—	0.15 $\mu g/m^3$			
Vinyl chloride	24 Hour	0.01 ppm (26 $\mu g/m^3$)	—	Short-term exposure to high levels of vinyl chloride in the air causes	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a	Most vinyl chloride is used to make polyvinyl chloride (PVC)

Table 4.2-3 (Cont.): Ambient Air Quality Standards and Pollutant Descriptions

Air Pollutant	Averaging Time	California Standard	National Standard	Health Effects and Other Effects	Properties	Sources
				central nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure may cause liver angiosarcoma and lung and brain cancers.	colorless gas with a mild, sweet odor. In 1990, CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances decompose in solid waste landfills.

Abbreviations:
ppm = parts per million (concentration) $\mu g/m^3$ = micrograms per cubic meter Mean = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter
National standard = National Ambient Air Quality Standard = the levels of air quality necessary, with an adequate margin of safety to protect the public health.
Source: California Air Resources Board, 2008. South Coast Air Quality Management District, 2007.

Hot Spots Information and Assessment Act (AB 2588), which means that stationary sources are required to report the quantity of ammonia that is released into the air. The goals of the Hot Spots Act are to collect emission data, identify stationary sources (facilities), determine health risks, and notify nearby residents of significant risks. AB 2588 does not regulate emissions, but quantifies the emissions and prioritizes facilities that emit over a certain threshold. High priority facilities must conduct health risk assessments. If thresholds are violated, the results are to be presented to the public. The level of risk determines necessary risk reduction measures. The chronic reference exposure level for ammonia is 200 $\mu g/m^3$ and the acute reference exposure level is 3200 $\mu g/m^3$ (1-hour averaging time).

Naturally Occurring Asbestos is present in certain rock formations such as serpentinite or ultramafic rocks. Crushing or breaking these rocks, through construction or other means, can release the asbestos fibers into the air. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs).

Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. According to the California Almanac of Emissions and Air Quality, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter (DPM) from diesel-fueled engines. DPM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, no ambient monitoring data are available for DPM because no routine measurement method currently exists. However, the CARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of DPM. In addition to DPM, benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene pose the greatest existing ambient risk, for which data are available, in California.

DPM poses the greatest health risk among the 10 TACs listed above. The State of California, after a 10-year research program, determined in 1998 that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches,

lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

Mobile sources, including trucks, buses, automobiles, trains, ships and farm equipment, are the largest source of diesel emissions in the Bay Area. Studies show that diesel particulate matter concentrations are much higher near heavily traveled highways and intersections. BAAQMD analysis shows that the cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other toxic air pollutant routinely measured in the region.

Activities associated with the project operations that require the use of diesel-fueled vehicles for extended periods, such as delivery vehicles to and from the Walmart building, would generate DPM emissions that could expose sensitive receptors to DPM. The DPM emissions generated by these uses would be produced at several points within the project (e.g., travel route within the project to the Walmart building and at the Walmart loading docks) on a regular basis. The existing residences and schools to the east of the project site may be exposed to elevated levels of DPM emissions on a recurring basis. The extent of this exposure is assessed in Impact AIR-4 of this analysis.

Recent Air Quality Standard Actions

In 2006, the EPA tightened the 24-hour $PM_{2.5}$ standard from 65 micrograms per cubic meter ($\mu g/m^3$) to 35 $\mu g/m^3$ and retained the existing annual standard of 15.0 $\mu g/m^3$. The EPA promulgated a new 8-hour standard for ozone on March 12, 2008, effective March 27, 2008. On October 15, 2008, the EPA reduced the federal lead standard from 1.5 $\mu g/m^3$ to 0.15 $\mu g/m^3$. In addition, the EPA revised the averaging time and form of the lead standard. The EPA will retain the existing 1978 lead standard until 1 year after designations for the new 2008 standard. CARB is required to make recommendations for areas to be designated attainment, nonattainment, or unclassifiable by October 2009. Final designations will be effective no later than 2012.

A more stringent state 1-hour nitrogen dioxide standard and a new annual state nitrogen dioxide standard became effective March 20, 2008.

Naturally Occurring Asbestos Regulation

In July 2001, CARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize naturally occurring asbestos emissions. The regulation requires application of best management practices to control fugitive dust in areas known to have naturally occurring asbestos, and it requires notification to the local air district prior to commencement of ground-disturbing activities.

Bay Area Air Quality Management District

The BAAQMD regulates air quality in the Air Basin, which consists of the entirety of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the western portion

of Solano County; and the southern portion of Sonoma County. The BAAQMD is responsible for controlling and permitting industrial pollution sources (such as power plants, refineries, and manufacturing operations) and widespread, areawide sources (such as bakeries, dry cleaners, service stations, and commercial paint applicators), and for adopting local air quality plans and rules.

Attainment Status

There are three terms used to describe if an air basin is exceeding or meeting federal and state standards: Attainment, Nonattainment, and Unclassified. Entire air basins, or portions thereof, are assessed for each applicable standard and receive a designation for each standard based on that assessment. If an ambient air quality standard is exceeded, the air basin is designated as "nonattainment" for that pollutant. An air basin is designated as "attainment" for pollutants for which the standards are met. If there is inadequate or inconclusive data to make a definitive attainment designation for an air quality standard, the air basin is considered "unclassified." When an area is in nonattainment for a pollutant, a State Implementation Plan is required, which outlines how the National Ambient Air Quality Standards will be achieved.

Federal nonattainment areas are further divided into classifications—severe, serious, or moderate—as a function of deviation from standards. As of June 15, 2005, the EPA revoked the 1-hour ozone standard in all areas except the 8-hour ozone nonattainment Early Action Compact areas. Therefore, the federal 1-hour ozone standard is only applicable to certain areas. The Air Basin is not listed as an Early Action Compact area; therefore, the federal 1-hour ozone standard does not apply to the BAAQMD. However, the BAAQMD is still subject to anti-backsliding requirements. The anti-backsliding provision of the Clean Air Act provides that in the event "the Administrator relaxes a [primary National Ambient Air Quality Standard after the 1990 Clean Air Act Amendments], the Administrator shall. . .provide for controls which are not less stringent than the controls applicable to areas designated nonattainment before such relaxation."

The current attainment designations for the project area, shown in Table 4.2-4, indicate that the Air Basin is in nonattainment for the state 1-hour and 8-hour ozone standards, daily and annual PM_{10} standards, and annual $PM_{2.5}$ standard. The Air Basin is also in nonattainment for the federal 8-hour ozone standard.

Table 4.2-4: Bay Area Air Basin Attainment Status

Pollutant	State Status	Federal Status
Ozone	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Nitrogen dioxide	Attainment	Attainment
Sulfur dioxide	Attainment	Attainment

Table 4.2-4 (Cont.): Bay Area Air Basin Attainment Status

Pollutant	State Status	Federal Status
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Nonattainment	Nonattainment[1]
Lead	Attainment	Attainment
Sulfates	Attainment	No federal standards
Hydrogen Sulfide	Unclassified	
Visibility-reducing particles	Unclassified	

Notes:
[1] The EPA lowered the 24-hour $PM_{2.5}$ standard from 65 µg/m^3 to 35 µg/m^3 in 2006. EPA issued attainment status designations for the 35 µg/m^3 standard on December 22, 2008, which took effect in April 2009. The EPA has designated the Air Basin as nonattainment for the 35 µg/m^3 $PM_{2.5}$ standard. The EPA order became effective in April 2009, 90 days after publication of the EPA findings in the Federal Register.
Source: Bay Area Air Quality Management District, 2008.

Current Air Quality Plans

As described above under federal and state regulatory agencies, a State Implementation Plan is a federal requirement; each state prepares a implementation plan to describe existing air quality conditions and measures that will be followed to attain and maintain the National Ambient Air Quality Standards. In addition, in California, state ozone standards have planning requirements. However, state PM_{10} standards have no attainment planning requirements, but air districts must demonstrate that all measures feasible for the area have been adopted.

Particulate Matter Plans

The Air Basin is designated nonattainment for the state PM_{10} and $PM_{2.5}$ standards, but is currently in attainment for the federal PM_{10} and $PM_{2.5}$ standards. Therefore, the BAAQMD is not required to develop a particulate matter plan at this time. The EPA lowered the 24-hour $PM_{2.5}$ standard from 65 µg/m^3 to 35 µg/m^3 in 2006. The EPA is required to designate the attainment status of the Air Basin for the new standard by December 2009. A plan for the new national standard would then be prepared if the region is designated nonattainment. The EPA has recommended that the Air Basin be classified as nonattainment for $PM_{2.5}$, as was published in a Federal Register notice on December 22, 2008. President Obama has ordered a freeze on all pending rules; therefore, the effective data of the designation is unknown at the time of this writing.

Ozone Plans

Because the Air Basin is nonattainment for the federal and state ozone standards, the BAAQMD prepared an Ozone Attainment Demonstration Plan to satisfy the federal 1-hour ozone planning requirement and a Clean Air Plan to satisfy the state 1-hour ozone planning requirement.

As stated above in Attainment Status, the EPA revoked the 1-hour ozone standard and adopted an 8-hour standard. The EPA is currently finalizing planning requirements for the new standard. The

BAAQMD will address the new federal 8-hour ozone planning requirements once they are established.

The most recent applicable Clean Air Plan is the 2005 Bay Area Ozone Strategy (Ozone Strategy), which was prepared by BAAQMD in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments and was adopted on January 4, 2006. The Ozone Strategy identifies how the Air Basin will achieve compliance with the state 1-hour air quality standard for ozone as expeditiously as practicable and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. In mid-2008, BAAQMD began the process to update the Ozone Strategy, in accordance with the requirements of the California Clean Air Act. The 2009 Clean Air Plan will do the following:

- Update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone.
- Consider the impacts of ozone control measures on particulate matter, air toxics, and greenhouse gases in a single, integrated plan.
- Review progress in improving air quality in recent years.
- Establish emission control measures to be adopted or implemented in the 2009-2012 timeframe.

Rules Applicable to the Project

The project would be required to comply with all of the BAAQMD's applicable rules and regulations, including (but not limited to):

- **Regulation 2, Rule 2**. New Source Review. This rule requires any new source resulting in an increase of any criteria pollutant to be evaluated for adherence to Best Available Control Technology control technologies. For compression internal combustion engines, Best Available Control Technology requires that the generator be fired on "California Diesel Fuel" (fuel oil with a sulfur content less than 0.05 percent by weight and less than 20 percent by volume of aromatic hydrocarbons). All stationary internal combustion engines larger than 50 horsepower must obtain a Permit to Operate. If the engine is diesel fueled, then it must also comply with the BAAQMD-administered Statewide Air Toxics Control Measure for Stationary Diesel Engines.
- **Regulation 2, Rule 5.** New Source Review of Toxic Air Contaminants. This rule applies to preconstruction review of new and modified sources of toxic air contaminants, contains project health risk limits, and requires Toxics Best Available Control Technology.

- **Regulation 6, Rule 2.** Commercial Cooking Equipment. The purpose of this rule is to reduce emissions from commercial cooking equipment, and it applies to chain-driving or under-fired charbroilers.
- **Regulation 8, Rule 3.** Architectural Coatings. This rule governs the manufacture, distribution, and sale of architectural coatings and limits the ROG content in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the ROG content of paint available for use during the construction.
- **Regulation 8, Rule 15.** Emulsified and Liquid Asphalts. Although this rule does not directly apply to the project, it does dictate the ROG content of asphalt available for use during the construction through regulating the sale and use of asphalt and limits the ROG content in asphalt.

Climate Change

Climate change is a change in the average weather of the earth that may be measured by changes in wind patterns, storms, precipitation, and temperature. According to the California Climate Change Center's 2006 report "Our Changing Climate, Assessing the Risks to California," climate change effects in California may result in consequences such as loss of snow-pack, increased risk of large wildfires, and reductions in the quality and quantity of certain agricultural products.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter ($W\ m^{-2}$). The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a greenhouse gas compared with the reference gas, carbon dioxide.

Individual greenhouse gases have varying global warming potential and atmospheric lifetimes. The reference gas for the global warming potential is carbon dioxide, which has a potential of 1. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions, since it normalizes various greenhouse gas emissions to a consistent metric. Methane's warming potential of 21 indicates that methane has a warming effect 21 times greater than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential. Greenhouse gases are often presented in the unit, metric tons of carbon dioxide equivalents ($MTCO_2e$).

Gases that trap heat in the atmosphere are greenhouse gases, analogous to the way a greenhouse retains heat. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature to be suitable for life. The presence of greenhouse gases in the atmosphere affects the earth's temperature. Without the natural heat-trapping effect of greenhouse gas, the earth's surface

would be about 34°C cooler. However, human activities have increased the amount of greenhouse gases in the atmosphere. Some greenhouse gases can remain in the atmosphere for hundreds of years.

In 2004, total worldwide greenhouse gas emissions were estimated to be 20,135 million $MTCO_2e$, excluding emissions/removals from land use, land use change, and forestry. In 2004, greenhouse gas emissions in the U.S. were 7,074.4 million $MTCO_2e$. In 2004, California emitted 500 million $MTCO_2e$, including imported electricity and excluding combustion of international fuels and carbon sinks or storage. The major source of greenhouse gases in California is transportation, contributing 41 percent of the State's total greenhouse gas emissions. Electricity generation is the second largest source, contributing 22 percent of the State's greenhouse gas emissions.

The BAAQMD published Source Inventory of Bay Area Greenhouse Gas Emissions on December 2008. In 2007, Santa Clara County emitted 18.8 million $MTCO_2e$, which is 18.3 percent of the greenhouse gases in the Bay Area. Approximately 7.9 million $MTCO_2e$ was from the transportation sector, 4.7 million $MTCO_2e$ was from the industrial/commercial sector, 3.6 million $MTCO_2e$ was from the electricity/co-generation sector, and 2.6 million $MTCO_2e$ from other sectors.

Select greenhouse gases are summarized in Table 4.2-5.

Climate change is caused by greenhouse gases emitted all around the world from a variety of sources, including the combustion of fuel for transportation and heat, cement manufacturing, and refrigerant emissions. International and federal agreements have been enacted to deal with climate change issues. The State of California has enacted key legislation in an effort to reduce its contribution to climate change, as discussed below.

International and Federal

In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess "the scientific, technical and socio economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation."

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

A particularly notable result of the United Nations Framework Convention on Climate Change efforts is a treaty known as the Kyoto Protocol, which went into effect on February 16, 2005. When countries sign the Protocol, they demonstrate their commitment to reduce their emissions of greenhouse gases or engage in emissions trading. More than 170 countries are currently participating

Table 4.2-5: Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Health Effects	Sources
Water Vapor	Water vapor is the most abundant, important, and variable greenhouse gas. In the atmosphere, it maintains the climate necessary for life.	There are no adverse health effects from water vapor. Some pollutants dissolve in it, which can enter the human body through the water vapor.	Sources include evaporation from the ocean and other water bodies, sublimation of ice and snow, and transpiration from plants.
Ozone (O3)	Ozone is a short-lived local greenhouse gas and photochemical pollutant. Tropospheric ozone changes contribute to radiative forcing on a global scale. Global warming potentials for short-lived greenhouse gases, such as ozone and aerosols, are not defined by the IPCC.	Respiratory system irritation, reduction of lung capacity, asthma aggravation, inflammation of and damage to lung cells, aggravated cardiovascular disease, and/or permanent lung damage. Ozone also damages natural ecosystems such as forests and agricultural crops.	Ozone is formed from reactions of ozone precursors (nitrogen oxides [NOx] and volatile organic compounds [VOC]) and sunlight in the atmosphere. VOC and NOx are emitted from automobiles, solvents, and fuel combustion.
Aerosols	Aerosols are particulate matter suspended in the air. They are short-lived and remain in the atmosphere for about a week. Aerosols warm the atmosphere by absorbing heat and cool the atmosphere by reflecting light, with radiative forcing cooling effects of –1.2 W m-2. There is a low scientific understanding of the radiative forcing of individual aerosols, such as black carbon. Black carbon can cause warming from deposition on snow (+0.1 W m-2) and from suspensions in air (+0.2 W m-2). A global warming potential of 761 for black carbon has been identified in a journal article. Global cooling potentials for other aerosols in a metric similar to the global warming potential are not available.	Particulate matter can be inhaled directly into the lungs where it can be absorbed into the bloodstream. It is a respiratory irritant and can cause coughing, bronchitis, lung disease, respiratory illnesses, increased airway reactivity, and exacerbation of asthma. Particulate matter may have direct effects on the health, capacity, and productivity of the heart. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health adverse effects include reduced visibility and soiling of property.	Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning and incomplete combustion of fossil fuels (such as diesel fuel).
Methane (CH_4)	Methane is a flammable gas and is the main component of natural gas. Global warming potential = 21.	There are no ill health effects from methane. Methane is violently reactive with oxidizers, halogens, and some halogen-containing compounds. Methane is an asphyxiant and may displace oxygen in an enclosed space.	A natural source of methane is from the anaerobic decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from landfills, fermentation of manure, and cattle.

Table 4.2-5 (Cont.): Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Health Effects	Sources
Nitrous oxide (N2O)	Nitrous oxide is also known as laughing gas and is a colorless greenhouse gas. Global warming potential = 310.	Higher concentrations can cause dizziness, euphoria, and sometimes-mild hallucinations.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Carbon dioxide (CO_2)	Carbon dioxide is an odorless, colorless, natural greenhouse gas. Global warming potential = 1.	Outdoor levels of carbon dioxide are not high enough to result in negative health effects. The National Institute for Occupational Safety and Health reference exposure levels of 5,000 ppm (averaged over 10 hours in a 40-hour workweek) and 30,000 ppm (averaged over 15 minutes), where health problems could include headache; dizziness; skin tingling; breathing difficulty; increased heart rate, cardiac output, or blood pressure; coma; asphyxia; and/or convulsions.	Carbon dioxide is emitted from natural and anthropogenic sources. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The concentration in 2005 was 379 ppm, which is an increase of about 1.4 ppm per year since 1960.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	CFCs are no longer being used; therefore, it is not likely that adverse health effects would be experienced. Nonetheless, in confined indoor locations, working with CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.	CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, the Montreal Protocol on Substances that Deplete the Ozone Layer stopped their production in 1987.
Hydrofluorocarbons (HFCs)	The HFCs with the largest measured atmospheric concentrations are HFC-23 and HFC-134a (10 ppt) and HFC-152a (1 ppt). Global warming potentials: HFC-23 = 11,700, HFC-134a = 1,300, HFC-152a = 140.	Most HFCs do not have health effects associated with them. However, HFC-134a has a chronic inhalation exposure of 80 mg/m3; the critical effect is Leydig cell hyperplasia.	HFCs are synthetic manmade chemicals that are used as a substitute for CFCs in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	High concentrations of CF4 may cause confusion, headache, and effects on the cardiovascular system, resulting in cardiac disorders. Concentrations of CF4 in the atmosphere are 70 ppt, which are too low to cause health effects.	Two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Table 4.2-5 (Cont.): Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Health Effects	Sources
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, gas. Concentrations in the 1990s were about 4 ppt. It has the highest global warming potential of any gas evaluated, 23,900.	High concentrations in confined areas can present a hazard of suffocation because it displaces the oxygen needed for breathing.	It is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.

Notes:
ppm = parts per million; ppt = parts per trillion (measure of concentration in the atmosphere)
Source: United Nations Intergovernmental Panel on Climate Change, 2007.

in the Kyoto Protocol. Industrialized countries are required to reduce their greenhouse gas emissions by an average of 5 percent below their 1990 levels by 2012. In 1998, United States Vice President Al Gore symbolically signed the Protocol; however, in anticipation of the signing, the U.S. Senate approved a non-binding "Sense of the Senate" resolution in July 1997 by a margin of 95-0 that expressed opposition to the treaty's provisions, most notably the disparity in greenhouse gas emissions reduction obligations between industrialized nations and developing nations. In 2001, President, George W. Bush, indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders will meet in Copenhagen to address the future of international climate change commitments post-Kyoto.

The EPA currently does not regulate greenhouse gas emissions from vehicles. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that EPA regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court held that petitioners have a standing to challenge the EPA and that the EPA has statutory authority to regulate greenhouse gases emissions from new motor vehicles.

In April 2009, EPA published a Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act. EPA is proposing to find that the current and projected concentrations of the mix of six key greenhouse gases—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)—in the atmosphere threaten the public health and welfare of current and future generations. EPA is further proposing to find that the combined emissions of CO_2, CH_4, N_2O, and HFCs from new motor vehicles and motor vehicle engines contribute to the atmospheric concentrations of these key greenhouse gases and hence to the threat of climate change. The proposed action does not itself impose any requirements on industry or other entities. However, the finding, if finalized by the EPA, is a key step in regulating greenhouse gases under the federal Clean Air Act.

However, federal regulation of greenhouse gases can occur through other means, such as fuel efficiency standards. President Barrack Obama put into motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. The new standards would cover model years 2012 through 2016 and would require an average fuel economy standard of 35.5 miles per gallon in 2016. A new Corporate Average Fuel Economy law was passed by Congress in 2007, which required an average fuel economy of 35 miles per gallon in 2020. EPA and the National Highway Traffic Safety Administration, on behalf of the U.S. Department of Transportation, released a notice of intent to conduct joint rulemaking to establish vehicle greenhouse gas emissions and fuel economy standards in May 2009. It should be noted, however, that EPA's involvement in the joint rulemaking is dependent upon finalizing the endangerment finding discussed above, thereby providing regulatory authority over greenhouse gas emissions to the EPA.

California Regulation

There have been significant legislative and regulatory activities that affect climate change and greenhouse in California. Relevant legislation is discussed below.

Title 24. Although it was not originally intended to reduce greenhouse gas emissions, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. The latest amendments were made in October 2005 and currently require new homes to use half the energy they used only a decade ago. The 2005 standards are in effect through July 31, 2009. The 2008 standards will become effective August 1, 2009. The requirement for when the 2008 standards must be followed is dependent on when the application for the building permit is submitted. Energy-efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

AB 1493. California Assembly Bill 1493 (Pavley), enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light-duty trucks. Regulations adopted by the CARB would apply to 2009 and later-model-year vehicles. The CARB estimates that the regulation would reduce climate change emissions from the light-duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030. However, the regulation was stalled by automaker lawsuits and by EPA's refusal to grant California an implementation waiver. However, President Obama asked the EPA to review its denial of the waiver. EPA granted California's waiver June 30, 2009, enabling California to enforce AB 1493.

Executive Order S-3-05. California Governor Arnold Schwarzenegger signed Executive Order S-3-05 on June 1, 2005, which established the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target. To meet these targets, the Governor directed the Secretary of the California EPA to lead a Climate Action Team (CAT) made up of representatives from the Business, Transportation, and Housing Agency; the Department of Food and Agriculture; the Resources Agency; the CARB; the Energy Commission; and the Public Utilities Commission. The CAT's Report to the Governor in 2006 contains recommendations and strategies to help ensure the targets in Executive Order S-3-05 are met.

Executive Order S-01-07 was signed by the Governor on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It also requires that a Low Carbon Fuel Standard for transportation fuels be established for California.

SB 97 was passed in August 2007 and added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)."

AB 32. In 2006, the California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing greenhouse gas emissions in California. Greenhouse gases, as defined under AB 32, include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. CARB is the state agency charged with monitoring and regulating sources of emissions that cause global warming in order to reduce emissions of greenhouse gases.

The CARB Governing Board approved the 1990 greenhouse gas emissions level of 427 $MMTCO_2e$ on December 6, 2007. Therefore, in 2020, emissions in California are required to be at or below 427 $MMTCO_2e$.

Under the current "business as usual" scenario, statewide emissions are increasing at a rate of approximately 1 percent per year as noted below.

- 1990: 427 $MMTCO_2e$
- 2004: 480 $MMTCO_2e$
- 2008: 495 $MMTCO_2e$
- 2020: 596 $MMTCO_2e$

Under AB 32, the CARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. The CARB must adopt regulations mandating early reduction measures. Early action measures are regulatory or non-regulatory and are currently in progress or to be initiated by the CARB in the 2007 to 2012 timeframe. The CARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of those early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The CARB estimates that the 44 recommendations are expected to

result in reductions of at least 42 $MMTCO_2e$ by 2020, representing approximately 25 percent of the 2020 target.

CEQA is only mentioned once in the Early Action Measures report. The California Air Pollution Control Officer's Association suggested that CARB work with local air districts on approaches to review greenhouse gas impacts under the CEQA process, including significance thresholds for projects and to develop a process for capturing reductions that result from CEQA mitigations. CARB's response to this recommendation in the report is as follows: "the Governor's Office of Planning and Research is charged with providing statewide guidance on CEQA implementation. With respect to quantifying any reductions that result from project level mitigation of greenhouse gas emissions, we would like to see air districts take a lead role in tracking such reductions in their regions."

The CARB Board approved the Climate Change Proposed Scoping Plan (Scoping Plan) in December 2008. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health." The measures in the Scoping Plan will be developed over the next 2 years through rule development at the CARB and other agencies, and are expected to be in place by 2012.

As noted in the Scoping Plan, the projected total business-as-usual emissions for year 2020 (estimated as 596 $MMTCO_2e$) must be reduced approximately 30 percent to achieve the CARB's approved 2020 emission target of 427 $MMTCO_2e$. The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and

- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

SB 375 In September of 2008, the California legislature adopted SB 375, legislation which: (1) relaxes CEQA requirements for some housing projects that meet goals for reducing greenhouse-gas emissions and (2) requires the regional governing bodies in each of the state's major metropolitan areas to adopt, as part of their regional transportation plan, "sustainable community strategies" that will meet the region's target for reducing greenhouse gas emissions. SB 375 creates incentives for implementing the sustainable community strategies by allocating federal transportation funds only to projects that are consistent with the emissions reductions.

SB 375 also directs CARB to develop regional greenhouse gas emission reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035. CARB will determine the level of emissions produced by cars and light trucks, including S.U.V.s, in each of California's 17 metropolitan planning areas. Emissions-reduction goals for 2020 and 2035 would be assigned to each area. CARB appointed a Regional Targets Advisory Committee on January 23, 2009 to provide recommendations on factors to consider and methodologies to use in this target setting process. CARB must propose draft targets by June 10, 2010 and adopt final targets by September 30, 2010.

Local governments would then devise strategies for housing development, road-building and other land uses to shorten travel distances, reduce driving and meet the new targets. If regions develop these integrated land use, housing, and transportation plans, residential projects that conform to the sustainable community strategy (and therefore contribute to GHG reduction) can have more streamlined environmental review process.

Non-Legislative

Governor's Office of Planning and Research Technical Advisory and Draft CEQA Guidelines. The Governor's Office of Planning and Research (OPR) published a technical advisory on CEQA and Climate Change, as required under SB 97, on June 19, 2008. The guidance did not include a suggested threshold, but it stated that the OPR has asked CARB to "recommend a method for setting thresholds which will encourage consistency and uniformity in the CEQA analysis of greenhouse gas emissions throughout the state." The OPR does recommend that CEQA analyses include the following components:

- Identify greenhouse gas emissions
- Determine significance
- Mitigate impacts

On January 8, 2009, OPR released preliminary draft CEQA Guideline amendments for greenhouse gas emissions. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its final

proposed amendments to the CEQA Guidelines for greenhouse gas emissions, as required by Senate Bill 97 (Chapter 185, 2007). Of note, the final proposed guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis of performance based standards. These proposed CEQA Guidelines amendments would provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in draft CEQA documents. The Natural Resources Agency will conduct formal rulemaking in 2009, prior to certifying and adopting the amendments, as required by Senate Bill 97. The Draft Greenhouse Gas Guidelines fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

Proposed CEQA Guideline Section 15064.4(a)("A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which methodology to use…; or (2) Rely on a qualitative analysis or performance based standards."

In its draft CEQA Guideline amendments, OPR does not identify a threshold of significance for greenhouse gas emissions, nor does it prescribe assessment methodologies or specific mitigation measures. Instead, it calls for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The draft amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The draft amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

The Natural Resources Agency will begin a formal rulemaking process to certify and adopt the amendments as part of the state regulations implementing CEQA. Consistent with SB 97, the Natural Resources Agency should complete this process by January 2010. Until these Guidelines are approved, OPR's June 2008 Technical Advisory provides interim advice to lead agencies regarding the analysis of greenhouse gas emissions in environmental documents. The Technical Advisory encourages lead agencies to follow three basic steps: (1) identify and quantify the greenhouse gas emissions that could result from the proposed project; (2) analyze the effects of those emissions and determine whether the effect is significant, and (3) if the impact is significant, identify feasible mitigation measures or alternatives that will reduce the impact below a level of significance.

CARB's Preliminary Draft Staff Proposal for Interim Significance Threshold

Although OPR was tasked with updating the CEQA guidelines for greenhouse gases, OPR asked CARB in its Technical Advisory to recommend greenhouse gas-related significance thresholds to assist lead agencies in their significance determination. CARB Staff released a draft proposal on October 24, 2008 with interim guidance on significance thresholds. In its proposal, Staff noted that non-zero thresholds can be supported by substantial evidence, but thresholds should nonetheless be

sufficiently stringent to meet the State's interim (2020) and long-term (2050) emissions reduction targets. The proposal takes different approaches for industrial projects and residential and commercial projects. Although CARB Staff proposed a numerical threshold for the greenhouse gas emissions of industrial projects, none were proposed for commercial (and residential) projects.

For residential and commercial projects, CARB Staff recommends that if a project complies with a previously approved plan that addresses greenhouse gas emissions, would not have a cumulatively considerable incremental contribution to impacts identified in the previously approved plan, and has a number of specific attributes related to meeting and monitoring greenhouse gas targets, then it will not be considered to have significant greenhouse gas emissions. Alternatively, if those standards cannot be met, Staff recommends a threshold based on implementation of performance standards, or equivalent mitigation measures, addressing energy use, transportation, water use, waste and construction. Specific performance standards are not presented for water, waste, construction, or transportation; however, CARB Staff recommends the California Energy Commission's Tier II Energy Efficiency standards (specified as 35 percent above Title 24 requirements) for the energy performance standard, and references existing greenhouse gas -reducing programs, such as the United States Green Building Council's Leadership in Environmental and Energy Design (LEED), GreenPoint Rated, and the California Green Building Code, as possible reference sources for the other performance standards.

A key preliminary conclusion from the draft thresholds is that CARB Staff, in setting a numerical threshold for industrial projects and suggesting performance standards, does not believe a "zero threshold" is mandated by CEQA. Similarly, South Coast Air Quality Management District Staff, in proposing interim industrial thresholds, explicitly stated in a December 5, 2009 report that zero threshold would not be feasible to implement.

In addition, the amendments propose revisions to Appendix F of the CEQA Guidelines, which focuses on Energy Conservation, and to Appendix G, which includes the sample Environmental Checklist Form. OPR would amend the Checklist to include the following questions:

> *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*
>
> *And,*
>
> *Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHG?*

CAPCOA. On January 8, 2008, the California Air Pollution Control Officers Association (CAPCOA) released a paper to provide a common platform of information and tools for public agencies. The disclaimer states that it is not a guidance document but a resource to enable local decision makers to make the best decisions they can in the face of incomplete information during a

period of change. The paper indicates that it is an interim resource and does not endorse any particular approach. It discusses three groups of potential thresholds, including a no significance threshold, a threshold of zero, and a non-zero threshold. The non-zero quantitative thresholds as identified in the paper range from 900 to 50,000 metric tons per year. The CAPCOA paper also identified non-zero qualitative thresholds.

The Scoping Plan states on page 4 that "The 2020 goal was established to be an aggressive, but achievable, mid-term target, and the 2050 greenhouse gas emissions reduction goal represents the level scientists believe is necessary to reach levels that will stabilize climate." The 2050 goal is in Executive Order S-3-05.

Attorney General. The Office of the California Attorney General maintains a list of CEQA Mitigations for Global Warming Impacts on its website. The Attorney General's Office has listed some examples of types of mitigations that local agencies may consider to offset or reduce global warming impacts from a project. The Attorney General's Office states that the lists are examples and not intended to be exhaustive but instead are provided as measures and policies that could be undertaken. Moreover, the measures cited may not be appropriate for every project, so the Attorney General suggests that the lead agency should use its own informed judgment in deciding which measures it would analyze, and which measures it would require, for a given project. The mitigation measures are divided into two groups: generally applicable measures and general plan measures. The Attorney General presents "generally applicable" measures in the following areas:

- Energy efficiency
- Renewable energy
- Water conservation and efficiency
- Solid waste measures
- Land use measures
- Transportation and motor vehicles
- Carbon offsets

However, this project does not involve the development of a general plan, nor does it contain the land uses targeted by the Attorney General's measures.

Local

City of Milpitas

General Plan

The General Plan establishes the following principles and policies associated with air quality that are relevant to the proposed project:

- **Principle 3.c-G-1:** Promote measures that increase transit use and lead to improved utilization of the existing transportation system.

- **Principle 3.d-G-2:** Provide adequate bicycle parking and end-of-trip support facilities for bicyclists at centers of public and private activity.
- **Principle 3.d-G-3:** Promote intermodal commuting options.
- **Principle 3.d-G-4:** Encourage a mode shift to non-motorized transportation by expanding current pedestrian and bicycle facilities.
- **Policy 3.d-I-3:** View all public capital improvement projects as opportunities to enhance the bicycle and pedestrian systems, and incorporate bicycle and pedestrian facilities into the design of such projects wherever feasible.
- **Policy 3.d-I-9:** Require developers to make new projects as bicycle and pedestrian "friendly" as feasible, especially through facilitating pedestrian and bicycle movements within sites and between surrounding activity centers.
- **Policy 3.d-I-10:** Encourage developer contributions toward pedestrian and bicycle capital improvement projects and end-of-trip support facilities.
- **Policy 3.d-I-13:** Where appropriate, install bicycle lockers and/or racks at public parks, civic buildings and other community facilities.
- **Policy 3.d-I-14:** Include evaluation of bicycle facility needs in all planning applications for new developments and major remodeling or improvement projects.
- **Policy 3.d-I-15:** Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc.

4.2.4 - Methodology

The analysis was prepared using the Traffic Impact Study for the project, prepared by Kimley-Horn and Associates, which includes intersection volumes and average daily trip generation. This information was used to determine the operational vehicular emissions of the proposed project. Daily increases in vehicular and area emissions associated with the project were estimated using the CARB-approved URBEMIS2007 Version 9.2.4 (URBEMIS) computer program. Construction emissions for the project were also modeled using URBEMIS2007. This analysis follows guidance presented by the BAAQMD in its 1999 CEQA Guidelines. The BAAQMD has published Draft CEQA Guidelines in September 2009, which are also used where applicable.

4.2.5 - Thresholds of Significance

For the purposes of this EIR, to determine whether impacts to air quality are significant environmental effects, the following questions are analyzed and evaluated. Appendix G of the CEQA guidelines presents recommended impact questions to assist lead agencies in evaluating environmental impacts. The following are the applicable air quality questions from Appendix G. Would the project:

a.) Conflict with or obstruct implementation of the applicable air quality plan?

b.) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c.) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

d.) Expose sensitive receptors to substantial pollutant concentrations?

e.) Create objectionable odors affecting a substantial number of people?

There were no adopted thresholds of significance for greenhouse gas emissions on the date of NOP issuance (March 3, 2009). However, in April 2009, OPR transmitted the two proposed greenhouse gas thresholds listed below to the Natural Resources Agency, which will be used in this analysis. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments, which will be completed by January 1, 2010. Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

While the final determination of whether or not a project is significant is within the purview of the lead agency pursuant to CEQA Guidelines Section 15064(b), the BAAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. These thresholds are discussed under each impact section below.

4.2.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Air Quality Plan Consistency

Impact AIR-1:	**The proposed project may conflict with or obstruct implementation of the applicable air quality plan.**

Threshold

The BAAQMD Draft 2009 CEQA Guidelines does not provide guidance regarding *project* consistency with an air quality plan. It does provide recommendations for a proposed *plan* (such as a General Plan) to be consistent with an air quality plan. The Draft Guidelines state that proposed plans must show over the planning period of the plan that:

- The plan incorporates current air quality plan control measures as appropriate to the plan area; and

- The rate of increase in vehicle miles traveled or vehicle trips (either measure may be used) within the plan area is equal to or lower than the rate of increase in population projected for the proposed plan.

Considering the information presented above, the project would be consistent with the current air quality plan if it complies with the following three criteria:

1. The project complies with applicable air quality control measures.
2. The rate of increase in vehicle miles traveled or vehicle trips within the project is equal to or lower than the rate of increase in population projected for the project site.
3. Project emissions would not result in an exceedance of ambient air quality standards at a nearby air monitoring station.

Impact Analysis

Control Measures

The project would comply with applicable control measures, including but not limited to rules listed above in the section, Rules Applicable to the Project: Regulation 2/Rule 2, Regulation 2/Rule 5, Regulation 6/Rule 2, Regulation 8/Rule 3, and Regulation 8/Rule 15. Therefore, the project complies with this criterion.

Vehicle Miles Traveled

The BAAQMD Clean Air Plan is the regional air quality plan for the San Francisco Bay Area. The 2005 Ozone Strategy, the regional Clean Air Plan, accounts for projections of population growth provided by Association of Bay Area Governments and vehicle miles traveled provided by the Metropolitan Transportation Commission, and it identifies strategies to bring regional emissions into compliance with federal and state air quality standards. Because population growth and vehicle miles traveled projections are the basis of the Clean Air Plan's strategies, a project would conflict with the plan if it results in more growth or vehicle miles traveled relative to the plan's projections.

One way to determine if a project would result in more growth or vehicle miles traveled than in the Clean Air Plan is to determine consistency with the applicable General Plan to ensure that the project's population density and land use are consistent with the growth assumptions used in the Clean Air Plan.

Growth estimates used in a General Plan for jurisdictions located in the Air Basin often come from either the California Department of Finance or the Association of Bay Area Governments. The Association of Bay Area Governments uses the growth projections and land use information in adopted general plans to estimate future average daily trips and then vehicle miles traveled, which are provided to the BAAQMD to estimate future emissions in the Clean Air Plan. It is assumed that the

existing and future pollutant emissions computed in the Clean Air Plan were based on land uses from area general plans that were prepared prior to the Clean Air Plan's adoption.

The applicable general plan for the project is the City of Milpitas General Plan. The project site, along with the balance of the McCarthy Ranch Marketplace is designated General Commercial by the City of Milpitas General Plan. The existing uses of the Walmart store are consistent with the General Commercial land use designation. The proposed expansion of the Walmart store would also be consistent with the allowed uses and development intensity of the General Commercial land use designation. Accordingly, it can be concluded the proposed project's uses are consistent with the growth and vehicle miles traveled projections contained in the 2005 Ozone Strategy. Impacts would be less than significant according to this criterion.

Air Pollutant Emissions

Attainment status in the Air Basin is based on data obtained from air pollutant monitoring stations (see Table 4.2-2 for recent air quality data at nearby monitoring stations). The BAAQMD significance thresholds are used to determine if the project would result in an exceedance of ambient air quality standards. As shown in Impact AIR-3, the project's emissions during construction and operation would not exceed the BAAQMD significance thresholds. However, mitigation measure AIR-3 is required to ensure that dust emissions (PM_{10} and $PM_{2.5}$) are less than significant. Therefore, Mitigation Measure AIR-3 is required to ensure that project emissions during construction do not cause an exceedance of PM_{10} or $PM_{2.5}$ at a nearby monitoring station.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure AIR-3.

Level of Significance After Mitigation

Less than significant impact.

Carbon Monoxide Hot Spot

Impact AIR-2:	**The proposed project would not significantly contribute to a carbon monoxide hotspot that would exceed federal or state air quality standards.**

Threshold

A carbon monoxide (CO) hotspot analysis is the appropriate tool to determine if project emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from offsite motor vehicles traveling on the roads surrounding the project site.

Project emissions may be considered significant if project generated emissions cause or substantially contribute to a localized violation of the either the 8-hour or 1-hour state CO standards. The BAAQMD provides screening criteria to determine when to quantify local carbon monoxide concentrations. Localized carbon monoxide concentrations should be estimated for projects in which:

(1) Vehicle emissions of CO would exceed 550 pounds per day; or,

(2) Project traffic would significantly impact intersections or roadway links operating at Level of Service (LOS) D, E, or F or would cause LOS to decline to D, E, or F; or,

(3) Project traffic would increase traffic volumes on nearby roadways by 10 percent or more unless the increase in traffic volume is less than 100 vehicles per hour.

Impact Analysis

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles.

As shown in Table 4.2-11, the estimated net new emissions of CO would not exceed the 550 pounds per day screening threshold provided by the BAAQMD. Therefore, step two of the BAAQMD guidelines is assessed. There are intersections and roadway links that are expected to operate at LOS D, E, and F. Of these intersections with LOS D, E, and F, the 10 with the worst LOS are evaluated as potential CO hot spots.

To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections, where the concentrations would be the greatest. This analysis follows guidelines recommended by the CO Protocol prepared by Caltrans in 1997. Using the CALINE4 model, potential CO hotspots were analyzed at the 10 intersections with the worst LOS assessed in the Traffic Impact Study prepared for this project. If no violations of the ambient air quality standards are observed at the intersections with the worse LOS, it follows that the other intersections would not observe violations. The traffic volumes from the Traffic Impact Study for the year 2011 baseline with project (weekday afternoon peak hour) were used in the CALINE4 model. The emission factors were generated using the EMFAC2007 model for the year 2011 for the BAAQMD.

As shown in Table 4.2-6, the estimated 1-hour and 8-hour average CO concentrations in combination with background concentrations under near-term with project conditions (unmitigated) are below the state and national ambient air quality standards. No CO hotspots are anticipated as a result of traffic-generated emissions by the project in combination with other anticipated development in the area. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO. Impacts would be less than significant.

Table 4.2-6: Carbon Monoxide Concentrations at Intersections

Intersection	CO Concentration (ppm)		Significant Impact?***
	1 Hour*	8 Hour**	
Dixon Landing Road./I-880 Northbound Ramps	6.7	4.8	No
Dixon Landing Road/Milmont Drive	6.1	4.4	No
Dixon Landing Road/N. Milpitas Boulevard	6.2	4.4	No
W. Calaveras Boulevard/N. Abel Street	7.0	5.0	No
N. McCarthy Boulevard/Ranch Drive (South)	6.4	4.6	No
N. McCarthy Boulevard/SR-237 Westbound Ramps	6.4	4.6	No
McCarthy Boulevard/Technology Drive	6.6	4.7	No
McCarthy Boulevard/Sandisk Drive	5.4	3.9	No
McCarthy Boulevard/Alder Drive	6.2	4.4	No
McCarthy Boulevard/Tasman Drive	5.8	4.2	No

Notes:
* Caline4 output (see Appendix B for model output) plus the highest 1-hour background concentration during the past three years of 4.3 ppm (Table 4.2-2).
** The 8-hour Project + cumulative traffic caused increment was calculated by multiplying the 1-hour Caline4 output by 0.7 (persistence factor), then adding the highest 8-hour background concentration during the past 3 years of 3.11 ppm (from Table 4.2-2).
*** Comparison of the 1-hour concentration to the state standard of 20 ppm and the 8-hour concentration to the state/national standard of 9 ppm.
Source: Michael Brandman Associates, 2009.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Cumulative Air Quality

Impact AIR-3: **The proposed project may result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).**

Impact Analysis

CEQA Guidelines Section 15355, as amended, provides the following definition of cumulative impacts:

> "Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

The BAAQMD has set the threshold for cumulative significance as any proposed project that would individually have a significant air quality impact and would also be considered to have a significant cumulative air quality impact. Additionally, for any project that does not individually have significant operational air quality impacts, the determination of significant cumulative impact should be based on an evaluation of the consistency of the project with the local general plan and of the general plan with the regional air quality plan.

In addition, the BAAQMD's 1999 CEQA Guidelines state:

> *If a project is proposed in a city or county with a general plan that is consistent with the Clean Air Plan and the project is consistent with that general plan (i.e., it does not require a general plan amendment), then the project will not have a significant cumulative impact (provided, of course, the project does not individually have any significant impacts).*

According to the BAAQMD's 1999 CEQA Guidelines, a project may have a cumulative impact if it individually has a significant impact.

Construction

Thresholds

Construction-related emissions are generally short-term in duration but may still cause adverse air quality impacts. The BAAQMD considers PM_{10} the pollutant of greatest concern from construction activities. PM_{10} emissions can result from a variety of construction activities, including excavation, grading, demolition, pile driving, vehicle travel on paved and unpaved surfaces, and vehicle and equipment exhaust. BAAQMD is concerned that construction-related emissions can cause substantial increases in localized concentrations of PM_{10} and can lead to adverse health effects, as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces.

Historically, the BAAQMD had identified a set of feasible PM_{10} control measures for construction activities that were considered the determining factor of significance for construction activities. The BAAQMD 1999 CEQA Guidelines indicate that Basic Measures should be implemented regardless of construction size. Construction sites with disturbed areas greater than 4 acres should implement the Optional Measures. The 2009 BAAQMD Draft CEQA Guidelines[1] also indicate that Basic

[1] Although the 2009 CEQA Guidelines have not been formally adopted at the time of this writing, they are presented for informational purposes. Note that the BAAQMD is scheduled to consider adoption of the 2009 CEQA Guidelines on December 2, 2009.

Construction Mitigation Measures be applied whether or not the emissions exceed the applicable thresholds of significance.

The BAAQMD 1999 CEQA Guidelines do not have thresholds of significance for construction emissions. Therefore, the thresholds in the 2009 BAAQMD Draft CEQA Guidelines are used in this analysis. If emissions are greater than the following thresholds, then the emissions would be potentially significant:

- ROG - 54 pounds per day
- NO_x - 54 pounds per day
- PM_{10} - 82 pounds per day (applies to exhaust emissions only)
- $PM_{2.5}$ - 54 pounds per day (applies to exhaust emissions only)

Impact Analysis

Construction impacts include fugitive dust and other particulate matter, as well as exhaust emissions generated by earthmoving activities, and operation of grading equipment during site preparation. Construction emissions are caused by onsite or offsite activities. Onsite emissions principally consist of exhaust emissions from heavy-duty construction equipment, motor vehicle operation, and fugitive dust from disturbed soil. Offsite emissions are caused by motor vehicle exhaust from delivery vehicles, as well as worker traffic, but also include road dust.

Construction equipment used on the project site will result in exhaust emissions consisting of NO_x, ROG, CO, PM_{10}, $PM_{2.5}$, and minor amounts of sulfur dioxide. Construction activities are carried out in discrete steps, each of which has a unique mix of equipment. Therefore, the construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and the prevailing weather conditions. The analysis used URBEMIS 2007 v. 9.2.4 to estimate emissions from the construction of the project.

Paving operations and architectural coatings will release ROG emissions. Impervious surfaces (including buildings, asphalt, and concrete) will cover the development site. Since buildings and paved area currently occupy a large part of the site, there will be limited paving activity.

Construction is anticipated to begin as early as the third quarter of 2010 and to be completed in 9 to 12 months. The exact construction schedule, including timing of construction phases, is not known at this time. For the purposes of this EIR, it was assumed that construction begins in 2010 and is completed in 2011. Five phases of construction are anticipated, including demolition, fine site grading, building construction, architectural coating, and paving.

Demolition will consist of removing the portions of the building that will be expanded and rebuilt. The south side of the current building and the removal of portions of the parking lot are the main components of the demolition phase. The area of building expansion over existing asphalt pavement

is 315 feet by 54 feet, equal to 17,010 square feet. Estimating a 3-foot depth of removal for building over excavation and building foundation section, the building expansion will need to remove approximately 51,030 cubic feet. Other areas in the parking lot will require the pavement or landscaping to be removed for new additional parking, regrading of handicap accessible parking due to new vestibule and code requirements, regrading of parking area adjacent to building expansion, and the new truck dock. This area is estimated to be 130,435 square feet. Assuming a1-foot depth of removal for the new pavement section, parking lot improvements will need to remove approximately 130,435 cubic feet. The south wall is approximately 10,000 square feet and the depth of the demolition is conservatively estimated at 6 feet, resulting in 60,000 cubic feet.

In summary, approximately 241,465 cubic feet would be removed. It is assumed for the purposes of this analysis that a maximum of 25,530 cubic feet would be demolished in one day. In addition to the URBEMIS default equipment for demolition activities, an excavator and a crusher/processor were added to the demolition equipment list.

Fine site grading will consist of grading the building pad after demolition. The estimated total disturbed area is 147,445 square feet, or 3.4 acres. All other grading variables are URBEMIS default values. The BAAQMD's CEQA Guidelines contain control measures to reduce fugitive particulate matter emissions from construction activity. The measures are not assumed to be in place in the "baseline" construction analysis to provide a conservative estimation of construction emissions.

It is assumed that the building construction phase will occur from November 2010 to May 2011. In addition to the default construction equipment, a concrete mixer and two other pieces of diesel construction equipment were added to the URBEMIS prescribed list.

It is assumed that the architectural coating and paving phases would overlap and would be completed by the end of June 2011. No changes were made from the URBEMIS default for architectural coating. It is assumed that the entire parking lot (5 acres) will be paved after completion of construction.

Table 4.2-7 provides the emissions output from URBEMIS in total tons. Table 4.2-8 displays the daily emissions, which do not exceed the daily significance thresholds. The BAAQMD recommends that Basic Measures be incorporated to ensure that construction emissions remain less than significant; therefore, mitigation measures are required.

Table 4.2-7: Construction Emissions (Total Tons)

Construction Phase	Emissions (tons)			
	ROG	NO_x	PM_{10}	$PM_{2.5}$
Demolition	0.04	0.35	0.13	0.04

Table 4.2-7 (Cont.): Construction Emissions (Total Tons)

Construction Phase	Emissions (tons)			
	ROG	NO_x	PM_{10}	$PM_{2.5}$
Fine Grading	0.01	0.06	0.17	0.04
Building Construction (2010)	0.05	0.42	0.02	0.02
Building Construction (2011)	0.11	1.04	0.05	0.04
Paving	0.04	0.21	0.02	0.02
Architectural Coating	0.20	<0.01	<0.01	<0.01
Total*	**0.45**	**2.08**	**0.39**	**0.16**

Notes:
* The BAAQMD does not have annual thresholds for construction emissions; the emissions are presented for informational purposes.
<0.01 refers to less than 0.01 tons.
Source: Michael Brandman Associates, 2009.

Table 4.2-8: Construction Emissions (Maximum Daily)

Source	Emissions (pounds per day)					
	ROG	NO_x	PM_{10}		$PM_{2.5}$	
			Dust	Exhaust	Dust	Exhaust
Demolition	3.76	**32.88**	10.78	**1.82**	2.25	**1.68**
Fine Grading	3.04	25.05	**68.00**	1.25	**14.20**	1.15
Building Construction	2.30	21.07	0.01	0.97	0.00	0.89
Paving and Architectural Coating	**22.09**	18.95	0.02	1.57	0.01	1.44
Maximum Daily Emissions*	**22.09**	**32.88**	**68.00**	**1.82**	**14.20**	**1.68**
BAAQMD Draft Threshold	54	54	None**	82	None**	54
Significant Impact?	No	No	No	No	No	No

Notes:
* Maximum daily emissions refers to the maximum emissions that would occur in one day. Not all phases will be occurring concurrently; therefore, the maximum daily emissions are not a summation of the daily emission rates of all phases.
** There are no thresholds for dust; however, basic measures are required for dust emissions to be less than significant.
Source: Michael Brandman Associates, 2009.

Sulfur dioxide, CO, and lead are not included in this analysis because they are in attainment and the BAAQMD has not issued significance thresholds for those pollutants. Lead would not be emitted during construction. Only minor amounts of sulfur dioxide are emitted during construction, as shown in the URBEMIS output contained in Appendix B; CO emissions during construction are also in the appendix. CO emissions would not be significant during construction because the background concentration of CO is low in the project area (see Table 4.2-2) and CO would disperse rapidly by the

wind and would not reach a concentration to evoke negative health effects to the nearby residences. NO_x contains nitrogen dioxide; therefore, nitrogen dioxide is assessed through the estimation of NOx. Ozone is assessed through the estimation of ROG and NO_x. Because it was shown that emissions of ROG and NO_x would be below the regional significance thresholds, it can be assumed that ozone formed as a result of project ozone precursor emissions would also be less than significant.

Other pollutants regulated by the State of California, including hydrogen sulfide, sulfates, and vinyl chloride, would not be emitted during construction. Visibility-reducing particles would be generated through emissions of fugitive dust; however, they are assessed through the analysis of PM_{10} and $PM_{2.5}$, as standards for those pollutants are more stringent than for visibility-reducing particles.

Operation

Thresholds

Pursuant to the 1999 BAAQMD CEQA Guidelines, regional impact thresholds are determined by whether the project-generated emissions would be in excess of 15 tons per year or 80 pounds per day for NO_x, ROG, or PM_{10}. Pursuant to the 2009 BAAQMD Draft CEQA Guidelines, the regional impact thresholds are 10 tons per year or 54 pounds per day for NO_x, ROG, or $PM_{2.5}$ and 15 tons per year or 82 pounds per day for PM_{10}. Even though the 2009 Guidelines are in draft form, the thresholds are more stringent than the 1999 Guidelines; therefore, the 2009 draft thresholds are used in this analysis.

Impact Analysis

Operational, or long-term, emissions occur over the life of the project. Operational emissions include mobile and area source emissions. Area source emissions are from consumer products, heaters that consume natural gas, gasoline-powered landscape equipment, and architectural coatings (painting). Mobile emissions are from motor vehicles, which are often the largest, single, long-term source of air pollutants from development projects.

This analysis used the daily trip generation rates provided in the Traffic Impact Study for the project. Daily trip rates encompass all Walmart-related vehicle trips that occur during a 24-hour period. The trip lengths are from the 1999 BAAQMD CEQA Guidelines, which indicate that in Santa Clara County in 2010, the trip length will be 6.9 miles per trip. The buildout year is assumed to be 2011.

Table 4.2-9 presents the annual emissions, Table 4.2-10 presents the daily summer emissions, and Table 4.2-11 presents the estimated daily winter emissions from operation of the existing uses and the proposed project. Both summer and winter daily emissions are provided, as mobile emissions can vary depending on temperature. Winter emissions of CO are presented to determine if a CO hotspot analysis is warranted because CO emissions are greater in colder temperatures (see Impact AIR-2 for more information). The air emissions from the existing Walmart are subtracted from the emissions from the expanded store. The net new emissions are shown in the tables and are compared with the BAAQMD significance thresholds.

Table 4.2-9: Annual Operational Emissions

Source	Type	Emissions (tons per year)			
		ROG	NO_x	PM_{10}	$PM_{2.5}$
Existing Walmart Store	Area	0.17	0.22	0.00	0.00
	Vehicle	7.75	10.93	15.65	2.99
	Subtotal	7.92	11.15	15.65	2.99
Expanded Walmart Store	Area	0.19	0.26	0.00	0.00
	Vehicle	8.29	11.67	16.71	3.19
	Subtotal	8.48	11.93	16.71	3.19
Net New Emissions		**0.56**	**0.78**	**1.06**	**0.20**
Significance Threshold*		10	10	15	10
Significant Impact?		No	No	No	No

Notes:
* From the 2009 BAAQMD Draft CEQA Guidelines
Source: Michael Brandman Associates, 2009.

Table 4.2-10: Operational Emissions (Summer, Daily)

Source	Type	Emissions (pounds per day)			
		ROG	NO_x	PM_{10}	$PM_{2.5}$
Existing Walmart Store	Area	0.95	1.24	0.01	0.01
	Vehicle	39.63	51.54	85.78	16.36
	Subtotal	40.58	52.78	85.79	16.37
Expanded Walmart Store	Area	1.07	1.43	0.01	0.01
	Vehicle	42.42	55.03	91.59	17.47
	Subtotal	43.49	56.46	91.60	17.48
Net New Emissions		**2.91**	**3.68**	**5.81**	**1.11**
Significance Threshold*		54	54	82	54
Significant Impact?		No	No	No	No

Notes:
* From the 2009 BAAQMD Draft CEQA Guidelines
Source: Michael Brandman Associates, 2009.

Table 4.2-11: Operational Emissions (Winter, Daily)

Source	Type	Emissions (pounds per day)				
		ROG	NO_x	PM_{10}	$PM_{2.5}$	CO*
Existing Walmart Store	Area	0.83	1.22	0.00	0.00	N/A
	Vehicle	48.10	76.56	85.78	16.36	561.82
	Subtotal	48.93	77.78	85.78	16.36	561.82
Expanded Walmart Store	Area	0.95	1.41	0.00	0.00	N/A
	Vehicle	51.36	81.75	91.59	17.47	599.87
	Subtotal	52.31	83.16	91.59	17.47	599.87
Net New Emissions		**3.38**	**5.38**	**5.81**	**1.11**	**38.05**
Significance Threshold**		54	54	82	54	*
Significant Impact?		No	No	No	No	*

Notes:
* There is no significance threshold for CO. CO emissions are provided for the CO hotspot screening analysis. The BAAQMD indicates that CO hotspot analyses should be conducted for projects with emissions of CO greater than 500 pounds per day. Because project emissions are greater than 500 pounds per day, a CO hotspot analysis is warranted (see Impact AIR-2).
** From the 2009 BAAQMD Draft CEQA Guidelines
Source: Michael Brandman Associates, 2009.

Potential impacts of 24-hour operation were accounted for in the tables above. Net new project emissions would not exceed the BAAQMD's daily or annual significance thresholds. Potential impacts to adjacent air districts were not analyzed because the majority of the emissions would be emitted within the Bay Area. There could be minor emissions from the Walmart delivery trucks generated in adjacent air districts; however, the quantity would be minimal. In addition, as shown in Impact AIR-1, the project is consistent with the applicable Clean Air Plan. Therefore, the project would have a less than significant cumulative impact on air quality.

Sulfur dioxide, CO, and lead are not included in this analysis because they are in attainment and the BAAQMD has not issued significance thresholds for those pollutants. Lead would not be emitted during operation. Only minor amounts of sulfur dioxide would be emitted during operation, as shown in the URBEMIS output contained in Appendix B. CO emissions during construction are also shown in the URBEMIS output contained in Appendix B. CO emissions would not be significant during construction because the background concentration of CO is low in the project area (see Table 4.2-2) and CO would disperse rapidly by the wind thus would not be at a concentration to evoke negative health effects to the nearby residences. The localized impact of CO is addressed under impact AIR-2. NO_x contains nitrogen dioxide; therefore, nitrogen dioxide is assessed through the estimation of NO_x. It was shown above that emissions of NO_x would not exceed the regional significance thresholds and are therefore less than significant. Ozone is assessed through the estimation of ROG and NO_x. Because it was shown that emissions of ROG and NO_x would be below the regional significance

thresholds, it can be assumed that ozone formed as a result of project ozone precursor emissions would also be less than significant.

Other pollutants regulated by the State of California, including hydrogen sulfide, sulfates, and vinyl chloride, would not be emitted. Visibility-reducing particles would be generated through emissions of PM_{10} and $PM_{2.5}$; however, they are assessed through the analysis of PM_{10} and $PM_{2.5}$, as standards for those pollutants are more stringent than for visibility-reducing particles. It follows that the impact from visibility-reducing particles would be less than significant as well.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AIR-3 The following measures shall be implemented during all construction activities:

- Water all active construction areas and exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) at least two times per day.
- Cover all trucks hauling soil, sand, and other loose materials.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). 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 City of Milpitas regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of the Bay Area Air

Quality Management District shall also be visible to ensure compliance with applicable regulations.

Level of Significance After Mitigation

Less than significant.

Toxic Air Contaminants

Impact AIR-4:	**The proposed project would not expose sensitive receptors to substantial toxic air pollutant concentrations.**

Threshold

The following is an excerpt from the BAAQMD CEQA Guidelines (1999):

> *Any project with the potential to expose sensitive receptors (including residential areas) or the general public to substantial levels of toxic air contaminants would be deemed to have a significant impact. This applies to receptors locating near existing sources of toxic air contaminants, as well as sources of toxic air contaminants locating near existing receptors. Proposed development projects that have the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact. These thresholds are based on the District's Risk Management Policy.*
>
> *Thresholds of Significance for Toxic Air Contaminants*
>
> 1. *Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million.*
> 2. *Ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index greater than 1 for the MEI.*

The 2009 BAAQMD Draft CEQA Guidelines indicates that the following would result in a significant impact:

- For impacted communities identified under the BAAQMD's CARE Program, and for projects within 500 feet of a K-12 school, an excess cancer risk level of more than 5 in 1 million, a chronic Hazard Index of more than 0.5 or an acute Hazard Index of more than 1.0 would be a cumulatively considerable contribution;
- For impacted communities, an incremental increase of greater than 0.2 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$ would be a cumulatively considerable contribution.
- For all other areas, an excess cancer risk level of more than 10 in 1 million or a chronic or acute Hazard Index greater than 1.0 would be a cumulatively considerable contribution;

- For all other areas, an incremental increase of greater than 0.3 µg/m^3 annual average $PM_{2.5}$ would be a cumulatively considerable contribution.

Impact Analysis

Health Risk Assessment

Diesel particulate matter (DPM) is a carcinogenic toxic air contaminant that would be emitted from the additional delivery trucks that would visit the project site during project operations. A Health Risk Assessment was prepared to assess potential health risks from operational DPM (see Appendix B). As discussed in Section 4.2.3 above, DPM is a toxic air contaminant. Criteria pollutants are regulated through the Clean Air Act, and toxic air contaminants, also known as hazardous air pollutants, are pollutants known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.

The emissions from onsite idling and onsite travel from three heavy-duty (4+ axle) trucks with transportation refrigeration units were estimated. Note that Walmart trucks are equipped with devices that automatically shut off idling engines after 3 minutes. The emission sources were input into the EPA ISCST3 dispersion model to assess the concentration of DPM at the nearby sensitive receptors. The modeled concentration of DPM at those sensitive receptors was converted into a cancer risk and a non-cancer risk using formulas shown in the Health Risk Assessment.

A summary of the cancer risks from DPM associated with the proposed project is shown in Table 4.2-12. As shown in the table, the cancer risk would be under the significance threshold of 10 in 1 million. Therefore, no significant cancer risks are anticipated from implementation of the project. This impact is less than significant.

Table 4.2-12: Cancer Risks from Diesel Particulate Matter Emissions

Type of Receptor	Location	Cancer Risk (risk per 1 million)	Significance Threshold (risk per 1 million)
Residential	0.2 mile east of project site	1.0	10
Worker	0.1 mile north of project site	0.3	10
Student - Anthony Spangler Elementary	0.5 mile east of project site	<0.1	10
Point of Maximum Impact[(1)]	85 meters north of project site	2.1	10

Notes:
(1) The Point of Maximum Impact is a location without people present at which the total cancer risk has the highest numerical value. Risks at the Point of Maximum Impact are calculated using residential exposure assumptions. Location of the Point of Maximum Impact is approximately 85 meters (281 feet) north of the project boundary of the proposed loading dock in what is now a parking lot for an adjacent commercial building. There are no sensitive receptors at that location. It is unlikely that there will be sensitive receptors at the Point of Maximum Impact in the future.
Source: Michael Brandman Associates, 2009.

The chronic non-cancer Hazard Index was calculated to be 0.001, which is three orders of magnitude less than the threshold of 1. Therefore, non-cancer risks (runny nose, coughing, etc.) would be less than significant.

Localized $PM_{2.5}$

The 2009 BAAQMD Draft CEQA Guidelines indicate that an incremental increase of greater than 0.3 $\mu g/m^3$ annual average $PM_{2.5}$ would be a cumulatively considerable contribution. The Health Risk Assessment contains the annual average PM_{10} concentrations at the nearest sensitive receptors, which were used previously to convert to the cancer and non-cancer risks. Those PM_{10} concentrations are shown in Table 4.2-13, which were converted to $PM_{2.5}$ concentrations. As shown in the table, the concentrations do not exceed the BAAQMD Draft thresholds. Therefore, this potential impact is less than significant and significant localized $PM_{2.5}$ impacts are not anticipated.

Table 4.2-13: Localized Particulate Matter Concentrations

Category	Location	Concentration ($\mu g/m^3$)		
		PM_{10}	$PM_{2.5}$	Threshold
Residential	0.2 mile east of project site	0.0016	0.0015	0.3
Worker	0.1 mile north of project site	0.0029	0.0027	0.3
Student - Anthony Spangler Elementary	0.5 mile east of project site	0.0004	0.0004	0.3
Point of Maximum Impact	85 meters north of project site	0.0065	0.0060	0.3
Sources: Michael Brandman Associates, 2009; South Coast Air Quality Management District, 2006.				

Location of Sensitive Receptors

One of the most important variables is the distance to the nearest sensitive receptors. The concentration of pollutants decreases as distance increases from the pollution source. As previously discussed, the nearest worker receptors are located at commercial buildings 0.1 mile north and south of the project. The nearest sensitive receptors are residences located 0.2 mile east of the project site. The nearest school is Anthony Spangler School, 0.5 mile east of the project site.

The CARB adopted the Air Quality and Land Use Handbook: A Community Health Perspective (Land Use Handbook) in 2005. The Land Use Handbook provides information and guidance on siting sensitive receptors in relation to sources of toxic air contaminants. The sources of toxic air contaminants identified in the Land Use Handbook are high traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gas dispensing facilities. If the project involves siting a sensitive receptor or source of toxic air contaminant discussed in the Land Use Handbook, siting mitigation may be added to avoid potential land use conflicts, thereby reducing the potential for health impacts to the sensitive receptors. The proposed project does not involve the siting of sensitive receptors. Additionally, the proposed project does not

include a source of TACs identified in the Land Use Handbook, listed as distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaning facilities, and fueling stations.

Benzene is a carcinogenic VOC, which would be emitted from gasoline-powered vehicles that would access the project site. Additionally, DPM would be emitted from the onsite construction equipment. Health effects to the nearby sensitive receptors from those sources are less than significant for the following reasons: (1) the sensitive receptors are of sufficient distance from the proposed project such that the concentrations would be dispersed to low levels prior to reaching the sensitive receptors; (2) the quantities of benzene during operation and DPM during construction are minimal; and (3) emissions during construction are short-term and the California Office of Environmental Health Hazard Assessment, in its Air Toxics Hot Spots Program Risk Assessment Guidelines, recommends exposure duration of 70 years for residences, 40 years for workers, and 9 years for students to form risk management decisions.

Therefore, the proposed project would not conflict the guidance established in the Land Use Handbook. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Objectionable Odors

Impact AIR-5:	**The proposed project would not create objectionable odors affecting a substantial number of people.**

Impact Analysis

While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the BAAQMD. Any project with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.

The BAAQMD's CEQA Guidelines establish a two-step odor impact screening process. First, it should be determined if the project would result in a sensitive receptor and odor source being located within the screening distances provided by the CEQA Guidelines. Land uses listed as sources of odor include, but are not exclusive to, wastewater treatment plants, asphalt batch plants, rendering plants, and coffee roasters. If a project would result in an odor source and a receptor being located closer

than the screening level distances, a detailed analysis should be conducted to determine if the project may generate a substantial odor impact.

Second, if the project would result in an odor source and receptors being located closer than the screening level distances indicated in the BAAQMD's CEQA Guidelines, a more detailed analysis should be conducted. The analysis would involve contacting the BAAQMD's Enforcement Division for information regarding odor complaints. For a project locating near an existing source of odors, the project should be identified as having a significant odor impact if it is proposed for a site that is closer to an existing odor source than any location where there have been:

- More than one *confirmed* complaint per year averaged over a three-year period, or
- Three *unconfirmed* complaints per year averaged over a three-year period.

The BAAQMD's 1999 CEQA Guidelines recommend that odor complaints be mapped in relation to the odor source to establish a general boundary of any existing impacts, and the location of the proposed project should be identified. In assessing potential odor impacts, consideration also should be given to local meteorological conditions, particularly the intensity and direction of prevailing winds.

Background Information

Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of interacting factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged, and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the population, typically presented as the mean (or 50 percent of the population) but sometimes indicated as 100 percent or 10 percent. The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality by *x* percent (usually 50 percent) of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration.

Project Impacts

Two circumstances have the potential to cause odor impacts:

- A source of odors is proposed to be located near existing or planned receptors.
- A receptor land use is proposed near an existing or planned source of odor.

Odors from Project

There are existing receptors (residences) located within 0.25 mile east of the project boundary. The proposed project does not contain land uses typically associated with emitting objectionable odors. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and, therefore, should not be at a level to induce a negative response. The BAAQMD was contacted to determine if there were any odor complaints within the past 3 years for the existing Walmart store. According to BAAQMD Public Record Request number 09-01-72, there have been no complaints within the past 3 years. This potential impact is less than significant.

Odors from Surrounding Uses

Several land uses are associated with odor near the project site. The City of Milpitas prepared an Odor Control Action Plan in June 2008. The plan calls for the ongoing monitoring of odors and provides guidance for responding to excessive odor complaints exceeding baseline benchmarks established during the period of October 2003 to June 2008. The objective is to ensure that odor generators continue to maintain their best management practices and controls to keep odor incidents as low as practicable.

The San Jose/Santa Clara Water Pollution Control Plant is located 1.1 miles west of the proposed project at 700 Los Esteros Road in the City of San Jose. Evaporation ponds associated with the plant are located approximately 0.5 mile west of the project site. The plant treats sewage from Milpitas, San Jose, Santa Clara, and other Santa Clara County communities. Odors are generated through the sewage treatment and solids handling processes. The treatment process first separates solids and liquids. Solids are treated by anaerobic digestion for about 30 days, stored in open air lagoons for 3 to 4 years, and then air-dried in open drying beds. Finally, the solids are hauled to the adjacent Newby Island landfill for use as alternative daily cover. Odor controls include the use of chemicals such as chlorine, hydrogen peroxide, ferric chloride, and odor-masking agents.

The plant is currently in the process of creating a new Plant Master Plan, which will consist of a technical component to address operations and a land-use component to address how to utilize the plant's 2,600-acre property.

The plant has implemented a Best Management Practices plan, which includes extended solids stabilization enclosing process areas and ventilation through scrubbing or dispersion stacks, use of water trucks to control dust, completion of biosolids removal by each afternoon, and use of mobile

misting neutralizing chemicals, among other measures. An onsite weather station provides wind speed and direction data, which assists in making operational decisions. The plant implemented several changes to its practices to control generation of odors from the sludge drying and hauling operations, including:

- Increased monitoring of meteorological conditions at the facility and use of meteorological data that affect odor generating operations and, hence, minimize potential impacts of odor beyond the site boundary.
- More attention paid by plant personnel to hauling dried sludge during periods of the year and under meteorological conditions that were not conducive to odor dispersion and to dispersion over areas of high population density.

The Zanker Road Landfill/Compost Facility is located at 675 Los Esteros Road in the City of San Jose, approximately 1.5 miles west of the project. The landfill began operations in 1985 and has an estimated life until 2023. It covers about 70 acres, with 46 acres of permitted disposal and 24 acres established as wetlands. Operations include processing and disposal of non-hazardous, non-compostable, inert mixed wastes, as well as recycling residuals from the onsite resource recovery activities. It handles about 300,000 tons of material each year. The landfill composts yard waste by conventional open-windrow composting. Windrows are watered and turned daily, and the compost process is completed in 12 weeks. Approximately 100 tons of grass and leaves are composted on a daily basis.

The Calpine Los Esteros Critical Energy Facility is located at 1515 Alviso-Milpitas Road in the City of San Jose, approximately 0.6 mile southwest of the project site. The facility is a natural gas power plant that began operations in 2003.

According to the Preliminary Determination of Compliance for the plant issued by BAAQMD in 2004, the facility also is required to implement Best Available Control Technology pursuant to the New Source Review for emissions of CO, precursor organic compounds, sulfur dioxide, and PM_{10}. Regulation 7-302 prohibits the discharge of odorous substances that remain odorous beyond the facility property line after dilution with four parts odor-free air. Regulation 7-302 limits ammonia emissions to 5,000 ppm. Because the ammonia emissions from the facility will be limited by permit condition to 10 ppm, the facility is expected to comply with the requirements of Regulation 7.

Analysis

The proposed project consists of the expansion of an existing non-sensitive receptor use. As such, the proposed project would not make the Walmart store any more susceptible to odors than the existing condition. Moreover, any sensitive individuals who may access the project site (such as children or the elderly) who find there are objectionable odors have the option of avoiding the adverse impact by moving away from the area when the offending odors are present.

Nevertheless, Table 4.2-14 presents a summary of the potential odor sources in the project area. As shown in the table, two odor sources require further analysis.

Table 4.2-14: Odor Sources

Odor Source	Type of Odor Source	Screening Distance (miles)		Distance from Project (miles)	Analysis Required?
		BAAQMD 1999 CEQA Guidelines	2009 BAAQMD Draft CEQA Guidelines		
San Jose/Santa Clara Water Pollution Control Plant	Wastewater treatment plant	1	2	0.5	Yes
Zanker Road Landfill and Compost Facility	Composting facility	1	1	1.5	No
	Sanitary landfill	1	2	1.5	Yes
Los Esteros Critical Energy Facility	Natural gas power plant	Not listed	Not listed	0.6	No
Sources: Michael Brandman Associates, 2009; Bay Area Air Quality Management District, 1999 and 2009.					

The BAAQMD was contacted to determine if there have been (a) more than one confirmed complaint per year averaged over a three-year period or (b) three unconfirmed complaints per year averaged over a three-year period.

The BAAQMD indicated on January 26, 2009 via Public Record Request number 09-01-43 that there were no odor complaints, episodes, or complaints for the Los Esteros Critical Energy Facility between January 2006 and December 2008, the most recent 3-year period available.

The BAAQMD indicated in Public Record Request number 09-01-75 that there were the following numbers of unconfirmed complaints associated with the Water Pollution Control Plant:

- 2006: 5
- 2007: 1
- 2008: 1

The average number of unconfirmed odor complaints per year is 2.3. Because there are fewer than three unconfirmed complaints averaged over the 3-year period, this impact is less than significant.

The BAAQMD indicated in Public Record Request number 09-09-54 that there were no odor complaints, episodes, or complaints for the Zanker Road Landfill and Compost Facility between January 2006 and December 2008, the most recent 3-year period available (see Appendix B for the Public Records Request Form).

Using guidance issued by the BAAQMD, odor impacts are less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Naturally Occurring Asbestos

Impact AIR-6:	**The project would not significantly impact receptors by disturbing naturally occurring asbestos.**

Impact Analysis

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. Asbestos is classified as a known human carcinogen by state, federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986. All types of asbestos are hazardous and may cause lung disease and cancer.

Construction in areas of rock formations that contain naturally occurring asbestos could release asbestos into the air and pose a health hazard.

The Governor's Office of Planning and Research published a memorandum on August 1, 2007 entitled Addressing Naturally Occurring Asbestos in CEQA Documents. The memorandum indicates that the CEQA process provides an opportunity for Lead Agencies to identify whether serpentinite or ultramafic rocks will be disturbed by the proposed project and to investigate ways to avoid, control, or otherwise mitigate the impacts of naturally occurring asbestos.

The Department of Conservation, Division of Mines and Geology published a guide entitled A General Location Guide For Ultramafic Rocks In California - Areas More Likely To Contain Naturally Occurring Asbestos, dated August 2000, for generally identifying areas that are likely to contain naturally occurring asbestos. The screening criterion for determining if a project has the potential to disturb naturally occurring asbestos is to identify if the project location is in an area likely to contain such substances.

A review of a map containing areas more likely to have rock formations containing naturally occurring asbestos in California indicates that the project site is not in an area that is likely to contain naturally occurring asbestos. The nearest location of naturally occurring asbestos is approximately 10 miles northeast of the project site near the Calaveras Reservoir. Furthermore, the Geotechnical Engineering Investigation prepared by Krazan & Associates dated August 2008 indicated that soils underlying the project site predominantly consist of engineered fill and other non-native materials.

Therefore, it can be reasonably concluded that naturally occurring asbestos is not present on the project site. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Greenhouse Gas Emissions

Impact AIR-7:	**The proposed project may emit significant amounts of greenhouse gases or conflict with an applicable plan, policy or regulation concerning greenhouse gas reduction.**

Threshold

CEQA requires lead agencies to evaluate potential environmental effects based on, to the fullest extent possible, scientific and factual data (CEQA Guidelines Section 15064(b)). Significance conclusions must be based on substantial evidence, which includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (CEQA Guidelines Section 15064f(5)).

In June 2008, the OPR published a Technical Advisory, which offers informal guidance regarding the steps lead agencies should take to address climate change in their CEQA documents. The paper indicates that each public agency needs to develop its own approach for climate change analyses. The steps for the analysis include the following: identify and quantify greenhouse gas emissions, assess the significance of impact, and identify alternatives and/or mitigation measures to reduce the impacts. The advisory does not specify thresholds or approaches for the analysis. This project analysis follows the guidance presented in the advisory.

The OPR transmitted proposed SB 97 CEQA Guidelines Amendments to the Natural Resources Agency on April 13, 2009. The Natural Resources Agency will go through a formal rulemaking process to certify and adopt the amendments as part of the state regulations implementing CEQA. The rulemaking process will be completed by January 1, 2010, as required by Public Resources Code section 21083.05(b). In its transmittal, the OPR included two new checklist questions: Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Among the new language proposed in the Guidelines, a new section, 15064.4, Determining the Significance of Impacts from Greenhouse Gas Emissions, states the following:

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or (2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment: (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project. (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

In January 2008, the California Air Pollution Control Officers Association (CAPCOA) released a paper called CEQA & Climate Change to provide a common platform of information and tools for public agencies. It is not a guidance document but a resource to enable local decision makers to make the best decisions they can in the face of incomplete information during a period of change. The paper indicates that it is an interim resource and does not endorse any particular approach. It discusses three groups of potential thresholds, including a no significance threshold, a threshold of zero, and a non-zero threshold. The non-zero quantitative thresholds identified in the paper range from 900 to 50,000 metric tons per year.

The 2009 BAAQMD Draft CEQA Guidelines threshold of significance for construction related greenhouse gas emissions is the presence of the following performance-based best management practices, as applicable:

1. Alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet;
2. Use local (within 100 miles) building materials of at least 10 percent; and
3. Recycle at least 50 percent of construction waste or demolition materials.

The 2009 BAAQMD Draft CEQA Guidelines threshold of significance for operational related greenhouse gas emissions is 1,100 $MTCO_2e$ per year.

The California State Legislature adopted AB 32 in 2006. AB 32 states that "global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." AB 32 focuses on reducing greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, a Scoping Plan was adopted. The Scoping Plan outlines actions recommended to obtain that goal.

The Scoping Plan states that "The 2020 goal was established to be an aggressive, but achievable, mid-term target, and the 2050 greenhouse gas emissions reduction goal represents the level scientists believe is necessary to reach levels that will stabilize climate." The 2050 goal is in Executive Order S-3-05. The year 2020 greenhouse gas emission reduction goal of AB 32 corresponds with the mid-term target established by S-3-05, which aims to reduce California's fair-share contribution of greenhouse gases in 2050 to levels that will stabilize the climate.

In summary, two criteria are used in this analysis to determine significance: 2009 BAAQMD Draft CEQA Guidelines thresholds and a determination of whether the project would conflict with any applicable plan, policy, or regulation of an agency adopted to reduce emissions of greenhouse gases. Because the City of Milpitas does not have an adopted plan, policy, or regulation to reduce emissions of greenhouse gases, the Scoping Plan will be used in this analysis.

Project Impacts

The project will generate greenhouse gas emissions from short-term construction activity as well as from operational activities.

Construction Emissions Inventory

The project would emit greenhouse gases during construction of the project from combustion of fuels in worker vehicles accessing the site as well as from construction equipment. Exhaust emissions of carbon dioxide during construction for the project were estimated using URBEMIS2007 Version 9.2.4 and are presented in Table 4.2-15.

Table 4.2-15: Construction Greenhouse Gas Estimates

Phase	Carbon Dioxide Emissions (tons)	Emissions ($MTCO_2e$)
Demolition	38.78	35
Fine grading	5.87	5
Building	186.95	170
Asphalt paving	21.11	19
Architectural coating	0.24	<1
Total	**252.95**	**229**

Notes:
$MTCO_2e$ = metric tons of carbon dioxide equivalent, converted from tons per year by multiplying the global warming potential of the gas (carbon dioxide = 1) and 0.9072.
Source: Michael Brandman Associates, 2009.

Operational Emissions Inventory

The unmitigated emissions estimations from operation of the existing Walmart store are presented in Table 4.2-16. This list is not exhaustive and does not contain all of the greenhouse gas emissions associated with the project (such as emissions from waste decomposition and landscaping); however, it does attempt to present the major sources of greenhouse gas emissions. This emission estimation does not present real data but is based on assumptions regarding the existing store.

Table 4.2-16: Existing Greenhouse Gas Estimates

Source	Emissions (tons per year)			Emissions ($MTCO_2e$ per year)
	Carbon Dioxide	Nitrous Oxide	Methane	
Vehicles	8,398	NG	NG	7,619
Natural gas	458	0.00	0.04	416
Electricity	1,011	0.01	0.04	921
Water transport and treatment	5	0.00	0.00	4
Total existing	**9,871**	**0.01**	**0.08**	**8,960**

Notes:
NG = negligible (the 2009 BAAQMD Draft CEQA Guidelines do not require estimating these emissions)
$MTCO_2e$ = metric tons of carbon dioxide equivalent, converted to tons per year by multiplying by the global warming potential of the gas and by 0.9072. Global Warming Potentials: carbon dioxide = 1, nitrous oxide = 310, methane = 21
The carbon dioxide emissions for motor vehicles were estimated using URBEMIS2007; the other emissions were estimated by methodology shown in the spreadsheets attached as Appendix B.
Source: Michael Brandman Associates, 2009.

The emissions with the project and the net new emissions are shown in Table 4.2-17. As shown in the table, net new emissions would be approximately 710 $MTCO_2e$ per year, which is below the BAAQMD threshold as published in its Draft CEQA Guidelines.

Table 4.2-17: Net New Operational Greenhouse Gas Estimates

Source	With Project Emissions (tons per year)			Emissions ($MTCO_2e$ per year)
	Carbon Dioxide	Nitrous Oxide	Methane	
Vehicles	8,967	NG	NG	8,135
Natural gas	524	0.00	0.05	476
Electricity	1,156	0.01	0.05	1,054
Water transport and treatment	6	0.00	0.00	5
Subtotal with Project	*10,652*	*0.01*	*0.10*	*9,670*
Existing	*9,871*	*0.01*	*0.08*	*8,960*
Net New Emissions	**781**	**0.00**	**0.02**	**710**
BAAQMD Threshold	—	—	—	1,100
Significant impact?	—	—	—	No

Notes:
NG = negligible (the 2009 BAAQMD Draft CEQA Guidelines do not require estimating these emissions)
$MTCO_2e$ = metric tons of carbon dioxide equivalent, converted to tons per year by multiplying by the global warming potential of the gas and by 0.9072. Global Warming Potentials: carbon dioxide = 1, nitrous oxide = 310, methane = 21
The carbon dioxide emissions for motor vehicles were estimated using URBEMIS2007; the other emissions were estimated by methodology shown in the spreadsheets attached as Appendix B.
Source: Michael Brandman Associates, 2009.

The 2009 BAAQMD Draft CEQA Guidelines recommends that only emissions from motor vehicles, area sources, electricity generation, and water conveyance be estimated. The project may also emit other greenhouse gases such as water vapor, ozone precursors, hydrofluorocarbons from refrigerant leakage, and aerosols from diesel particulate matter. The emissions of those greenhouse gases are considered to be less than significant.

Project Design Features to Reduce Greenhouse Gas Emissions

The proposed project would incorporate a variety of features that would reduce its energy and water demand, promote waste reduction, and create opportunities for reductions in vehicle miles traveled, which will have the effect of helping reduce greenhouse gases either directly onsite, indirectly by reducing the need for electricity generation, or offsite in materials production and materials disposal. These design features are described in Table 4.2-18.

Table 4.2-18: Project Design Features that Reduce Emissions

Project Design Feature	Reductions in Emissions
A existing pedestrian walkway links the Walmart entrance with the other uses; McCarthy Ranch Marketplace to the south would be maintained.	This feature may encourage people to walk from one use to the other, thereby reducing vehicle trips.
The expanded store would employ occupancy sensors in back room areas to shut off lights when rooms are unoccupied.	This feature would reduce energy use.
High Efficiency Heating, Ventilation, and Air Conditioning (HVAC) units: The new HVAC units would be among the must efficient in the industry.	This feature would reduce energy use.
Central Energy Management: The store would continue to employ an energy management system that is monitored and controlled from corporate headquarters in Bentonville, Arkansas. This energy management system enables corporate headquarters to monitor energy usage, analyze refrigeration temperatures, and observe HVAC and lighting performance. It also allows corporate headquarters to adjust lighting, temperature, or refrigeration set points from a central location.	Though this feature is being utilized by the existing store, it would continue to ensure that energy is used efficiently.
White Roofs: The entire building would have a white Thermoplastic polyolefin-type (TPO) membrane roof.	The existing store has a white roof. The store expansion would also employ a white roof. The high solar reflectivity of this membrane results in lowering the cooling load by approximately 10 percent. Furthermore, the expansion area contains a blacktop parking and, therefore, the store expansion would be a net increase in high solar reflectivity coverage onsite.
Light Emitting Diode (LED) Signage Illumination: All internally illuminated building signage would use LED lighting. LEDs significantly reduce the need to manufacture and dispose of fluorescent lamps.	This feature would reduce electricity and would reduce waste.
Restroom sinks would continue to use sensor-activated, low-flow faucets.	The low flow faucets reduce water usage by 84 percent, while the sensors, which regulate the amount of time the faucets flow, save approximately 20 percent in water usage over similar, manually operated systems.
Urinals would continue to use 0.125 gallon per flush, and toilets would continue to use 1.28 gallons per flush.	The urinals have water savings of approximately 87.5 percent and toilets have savings of 25 percent compared with typical systems.
Most of the store expansion would be constructed using fly ash concrete. In addition, all of the plastic baseboards and much of the plastic shelving are manufactured from recycled material.	This feature reduces emissions from upstream sources.

Table 4.2-18 (Cont.): Project Design Features that Reduce Emissions

Project Design Feature	Reductions in Emissions
Minimize travel lengths and utilize existing infrastructure to the maximum extent possible through the logical extension of urban development.	The provision of onsite grocery uses would provide a close grocery location to the surrounding uses, thereby potentially reducing trips and vehicle miles traveled.
Walmart trucks are equipped with devices that automatically shut off idling engines after 3 minutes.	This feature would reduce onsite emissions of greenhouse gas emissions from delivery trucks.
Source: Michael Brandman Associates, 2009.	

CARB Scoping Plan

The CARB Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman and child in California down to about 10 tons per person by 2020.

Project consistency or applicability with the measures in the plan is assessed in Table 4.2-19. As shown, most of the reduction measures are not applicable to the project. The project is consistent with the feasible measures.

Table 4.2-19: Scoping Plan Reduction Measures

CARB Scoping Plan Reduction Measure	Project Consistency or Applicability
1. California Cap-and-Trade Program Linked to Western Climate Initiative Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap–and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not Applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this cap-and-trade system begins, products or services (such as electricity) would be covered and the cost of the cap-and-trade system would be transferred to the consumers.
2. California Light-Duty Vehicle Greenhouse Gas Standards Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Not Applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.

Table 4.2-19 (Cont.): Scoping Plan Reduction Measures

CARB Scoping Plan Reduction Measure	Project Consistency or Applicability
3. Energy Efficiency Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	**Consistent.** Project design features include high-efficiency lighting, HVAC, and other systems.
4. Renewable Portfolio Standard Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Not Applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. However, PG&E, which provides electricity and natural gas to the existing Walmart store, has been increasing its renewable energy mix over time. In 2007, PG&E provided a power mix of natural gas (47 percent); non-emitting nuclear generation (23 percent); large hydroelectric facilities (13 percent); renewable resources (12 percent) such as wind, geothermal, biomass and small hydro; coal (4 percent); and other fossil-based resources (1 percent).
5. Low Carbon Fuel Standard Develop and adopt the Low Carbon Fuel Standard.	**Not Applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standard would be applicable to the fuel used by vehicles that would access the project site.
6. Regional Transportation-Related Greenhouse Gas Targets Develop regional greenhouse gas emissions reduction targets for passenger vehicles.	**Not Applicable.** This measure applies to regional planning agencies.
7. Vehicle Efficiency Measures Implement light-duty vehicle efficiency measures.	**Not Applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.
8. Goods Movement Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not Applicable.** The proposed project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
9. Million Solar Roofs Program Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Not Feasible.** Although Walmart Stores, Inc. is exploring the feasibility of using solar technology to power its stores through its Solar Power Pilot Project, it has not yet been determined if the technology can reliably provide enough electricity to be economical. Current solar technology can provide between 10 to 30 percent of a store's electrical needs and is only economically feasible in the short term with the use of subsidies and incentives. Moreover, Walmart Stores, Inc. purchases electricity from renewable sources in lieu of generating it onsite at its stores. Finally, as

Table 4.2-19 (Cont.): Scoping Plan Reduction Measures

CARB Scoping Plan Reduction Measure	Project Consistency or Applicability
	previously noted, PG&E currently obtains more than half of its electricity from non-carbon sources, and this figure will increase in the coming years because of the Renewable Portfolio Standards established in AB 32. For these reasons, onsite solar generation is not considered feasible for the proposed project.
10. Medium/Heavy-Duty Vehicles Adopt medium and heavy-duty vehicle efficiency measures.	**Not Applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. When this measure is initiated, the standards would be applicable to the vehicles that access the project site.
11. Industrial Emissions Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	**Not Applicable.** The proposed project is not an industrial use.
12. High Speed Rail Support implementation of a high-speed rail system.	**Not Applicable.** This is a statewide measure that is outside the jurisdiction of the City of Milpitas. Nonetheless, the high speed rail system is proposed to stop in downtown San Jose, approximately 8 miles from the project site and the proposed project would be accessible to VTA bus service that would provide connections to Diridon Station.
13. Green Building Strategy Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Consistent.** Project design features include high-efficiency lighting, HVAC, and other systems.
14. High Global Warming Potential Gases Adopt measures to reduce high global warming potential gases.	**Consistent.** The high global warming potential gases of most concern as they relate to the proposed project are those associated with refrigeration equipment (HFCs). Mitigation Measure AIR-7c requires refrigeration systems to be inspected prior to project occupancy and on an annual basis for leaks.
15. Recycling and Waste Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	**Consistent.** Mitigation Measures PSU-6a and PSU-6b require the implementation of construction and operational recycle and waste reduction measures, respectively.
16. Sustainable Forests Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not Applicable.** There are no forested lands onsite.

Table 4.2-19 (Cont.): Scoping Plan Reduction Measures

CARB Scoping Plan Reduction Measure	Project Consistency or Applicability
17. Water Continue efficiency programs and use cleaner energy sources to move and treat water.	**Consistent.** Mitigation Measure PSU-3 requires the installation of indoor water conservation measures. Furthermore, the existing store uses recycled water for irrigation, a condition that would be maintained by the proposed project.
18. Agriculture In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not Applicable.** No grazing, feedlot, or other agricultural activities that generate manure occur onsite or are proposed to be implemented by the project.
Source: Michael Brandman Associates, 2009.	

CARB Early Action Measures

The CARB published its Expanded Early Actions to Mitigate Climate Change in California, which describes recommendations for discrete early action measures to reduce greenhouse gas emissions. A review of the CARB's reduction measures underway or to be initiated by the CARB in the 2007 to 2012 timeframe indicates that only one measure would be applicable to the project. This program is recommended to be a non-regulatory voluntary program with guidelines to foster the establishment or transition to cool communities in California. The following is a brief description of the strategies to be adopted in the Cool Communities Program guidelines:

- **Cool Roofs.** Cool roof programs as part of the Building Energy Efficiency standards (Title 24) can save as much as 15 percent of cooling energy use during hot months of the year.
- **Cool Pavements.** Cool pavements can reduce the ambient air temperature by 1 degree Fahrenheit, thereby reducing energy cooling demand.
- **Shade Trees and Urban Forest.** Shade trees can reduce the urban heat island effect and could reduce energy requirements for the store.

The proposed project would employ a white membrane with high solar reflectively, which is the definition of a Cool Roof. Furthermore, the store expansion, which would be covered with a white roof, would replace an existing blacktop parking area, resulting in a net increase in high solar reflectively coverage on the project site. In addition, cool paving has been incorporated into the proposed project as Mitigation Measure AIR-7a. As shown in Exhibit 3-6, the proposed project would provide landscaping throughout the project site, including shade trees along street frontages and in the store's main parking area. Additionally, Mitigation Measure AES-1b requires that removed trees be replaced either in accordance with Municipal Code standards or at no less than a 1:1 ratio. Accordingly, the proposed project would implement feasible greenhouse gas emissions strategies identified in the CARB Early Action Measures.

Attorney General Mitigation

The Office of the California Attorney General maintains a list of CEQA Mitigation for Global Warming Impacts on its website. The Attorney General's Office has listed some examples of types of mitigation that local agencies may consider to offset or reduce greenhouse gas emissions from a project. The Attorney General's Office states that the presented lists are examples and not intended to be exhaustive but are instead provided as measures and policies that could be undertaken. Moreover, the measures cited may not be appropriate for every project, so the Attorney General suggests that the lead agency should use its own informed judgment in deciding which measures it would analyze, and which measures it would require, for a given project. The mitigation measures are divided into two groups—generally applicable measures and general plan measures. As this project does not involve the development of a general plan, only the generally applicable measures were reviewed. The Attorney General presents "generally applicable" measures in the following areas:

- Energy efficiency
- Renewable energy
- Water conservation and efficiency
- Solid waste measures
- Transportation and motor vehicles
- Carbon offsets

The proposed project incorporates design features and mitigation measures that would conserve energy and water; promote recycling and waste reduction; and make the store accessible to public transit, bicycles, and pedestrians. In addition, the project site contains an existing Walmart store and is located within the McCarthy Ranch Marketplace. Therefore, it would not result in any significant changes in vehicle miles traveled and may actually reduce vehicle miles traveled for nearby residents who would now be close to a store that sold groceries. As discussed in Table 4.2-19, the proposed project would obtain electricity from PG&E, which is increasing its share of energy generated by renewable sources as mandated by AB 32. A few of the suggested measures are applied as mitigation measures, in particular, encouraging ridesharing for employees (Mitigation Measure AIR-7d) and recycling construction debris (Mitigation Measure PSU-6a).

Carbon offsets are not proposed to be used because of the unregulated nature of the offset market, which does not provide reasonable certainty that credits would actually result in greenhouse gas reductions. Accordingly, the proposed project would implement all feasible greenhouse gas emissions strategies identified by the Attorney General's Office.

CAPCOA Mitigation Measures

As discussed in the Threshold section above, CAPCOA released a "white paper" in January 2008 to provide tools for public agencies. Appendix B of the white paper listed a number of greenhouse gas mitigation strategies. Relevant strategies are assessed in Table 4.2-20. As shown in the table, the proposed project implements all feasible strategies.

Table 4.2-20: CAPCOA Greenhouse Gas Mitigation Measure Consistency Analysis

No.	CAPCOA White Paper Strategy	Project Consistency or Applicability
T-1	Non-Residential Bicycle Parking: Provide plentiful short- and long-term bicycle parking facilities to meet peak season maximum demand	**Consistent:** Mitigation Measure TRANS-8b requires the provision of onsite bicycle storage facilities.
T-2	End of Trip Facilities: Provide showers, lockers, or changing space	**Consistent:** The existing Walmart store provides employee lockers and restroom facilities suitable for changing in the rear of the store. These facilities would be maintained by the proposed project.
T-4	Bicycle Facility Connections: For projects with 0.5 mile of bicycle facilities, provide connections from site to facilities.	**Consistent:** Class II bicycle lanes exist on N. McCarthy Boulevard and the Class I Coyote Creek trail is located 0.25 mile west of the project site. Bicyclists can travel to and from these facilities via Ranch Drive.
T-5	Pedestrian Facilities: Provide pedestrian connections between internal uses and external facilities (i.e., sidewalks)	**Consistent:** An existing direct pedestrian connection links the Walmart store entrance with the other uses within the McCarthy Ranch Marketplace to the south and the Ranch Drive sidewalk to the north. A VTA bus stop is located along the Ranch Drive sidewalk. This connection would be maintained by the proposed project.
T-6	Minimize Pedestrian Barriers: Remove or minimize barriers (i.e., walls, berms, and landscaping) to pedestrian access	**Consistent:** There are no barriers along the existing direct pedestrian connection.
T-7	Bus Shelters: For projects within 0.25 mile of existing or planned bus service, provide a shelter.	**Not Feasible:** An existing VTA bus stop exists on Ranch Drive. However, it is not possible to upgrade the stop to provide a shelter because there is insufficient room to accommodate such a facility along this portion of Ranch Drive.
T-8	Traffic Calming: Install traffic calming devices to reduce vehicle speeds and promote bicycling and walking	**Not Feasible:** Ranch Drive and N. McCarthy Ranch Boulevard provide access to the McCarthy Ranch Marketplace and surrounding office uses. Traffic calming devices would impair efficient circulation on these roadways and increase congestion. Furthermore, City of Milpitas General Plan Policy 3.d-I-12 discourages speed bumps and other street features that may hinder bicycling.
T-9	Paid Parking: Customers and employees must pay for parking.	**Not Feasible:** Neither the existing Walmart store, nor any other surrounding uses employ paid parking. Such a system requires participation by most surrounding land uses in order to be effective.

Table 4.2-20: CAPCOA Greenhouse Gas Mitigation Measure Consistency Analysis

No.	CAPCOA White Paper Strategy	Project Consistency or Applicability
T-10	Minimum Parking: Provide the minimum amount of parking required	**Consistent:** The existing Walmart parking area would be reduced from 835 vehicular spaces to 751 vehicular spaces. The new total would the minimum amount of parking required by the Milpitas Municipal Code.
T-11	Parking Reduction/Shared Parking: Provide parking reduction less than code through shared parking arrangement.	**Not Applicable:** Shared parking is not proposed as part of the project, as the parking configuration for the McCarthy Ranch Marketplace was established when the shopping center was originally developed in the 1990s.
T-12	Pedestrian Pathway Through Parking Lot: Provide a parking lot design that includes clearly marked and shaded pedestrian pathways between transit facilities and building entrances	**Consistent:** An existing direct pedestrian connection links the Walmart store entrance with the other uses within the McCarthy Ranch Marketplace to the south and the Ranch Drive sidewalk to the north. A VTA bus stop is located along the Ranch Drive sidewalk. This connection would be maintained by the proposed project.
T-13	Off-Street Parking: Parking facilities are not adjacent to street frontage.	**Consistent:** Landscaping abuts the project frontages with N. McCarthy Boulevard and Ranch Drive. A sidewalk is also present along the N. McCarthy Boulevard frontage and along a portion of a the Ranch Drive frontage.
T-14	Parking Area Tree Cover: Provide parking lot areas with 50 percent tree cover within 10 years of construction, in particular low emitting, low maintenance, native drought resistant trees.	**Consistent:** The existing main parking area features trees that provide substantial shade coverage. These trees would be maintained and new trees would also be planted. It is anticipated that tree cover would reach 50 percent in the future.
T-17	Preferential Parking for Electric Vehicles/Compressed Natural Gas Vehicles: Provide preferential parking space locations for such vehicles.	**Not Feasible:** The Walmart store experiences a high amount of parking space turnover. Dedicating a set number of spaces near the building entrance for Electric Vehicles and Compressed Natural Gas Vehicles, which are used by a very small number of individuals, would be in conflict with the objective of providing convenient and readily available parking, particularly for senior citizens and parents with small children.
D-2	Orientation to Existing/Planned Transit, Bikeway, or Pedestrian Corridor: Project is oriented towards existing transit, bicycle, or pedestrian corridor. Setback distance between project and existing or planned adjacent uses is minimized or nonexistent.	**Consistent:** The existing Walmart store would be expanded. The proposed project would maintain the existing direct pedestrian connection links the Walmart store entrance with the other uses within the McCarthy Ranch Marketplace to the south and the Ranch Drive sidewalk to the north. A VTA bus stop is located along the Ranch Drive (North) sidewalk.
D-3	Onsite Employee Services: Project provides on-site shops and services for employees.	**Consistent:** Store employees can patronize the Walmart during break times or before and after work shifts. Additionally, other uses within the

Table 4.2-20: CAPCOA Greenhouse Gas Mitigation Measure Consistency Analysis

No.	CAPCOA White Paper Strategy	Project Consistency or Applicability
		McCarthy Ranch Marketplace are within walking distance.
D-12	Infill Development: Project site is on a vacant infill site, redevelopment area, or brownfield or greyfield lot that is highly accessible to regional destinations	**Consistent:** The proposed project is considered an infill project, as it would expand the existing Walmart store located in the McCarthy Ranch Marketplace. The expansion would occur within an existing parking lot. The McCarthy Ranch Marketplace is a regional commercial retail center, and is adjacent to existing and planned office parks.
D-14	Enhanced Recycling/Waste Reduction, Reuse, Composting: Provide infrastructure/education that promotes the avoidance of products with excessive packaging, recycle, buying of refills, separating of food and yard waste for composting, and using rechargeable batteries.	**Consistent:** Mitigation Measures PSU-6a and PSU-6b require construction and operational waste reduction and recycling measures. Additionally, Walmart has corporate programs to reduce product packaging and promote the use of reusable shopping bags. Walmart also retails rechargeable electronic devices and batteries.
D-16	Retro-Commissioning: The process ensures that all building systems perform interactively according to the contract documents, the design intent and the owner's operational needs to optimize energy performance.	**Consistent:** The expanded Walmart store would employ high efficiency lighting, HVAC, and refrigeration systems that are centrally monitored from corporate headquarters. Central monitoring ensures that systems operate efficiently.
D-17	Landscaping: Use drought resistant native trees, trees with low emissions and high carbon sequestration potential (i.e., evergreen trees).	**Consistent:** The existing landscaping along N. McCarthy Boulevard includes mature evergreen trees. Additionally, Mitigation Measure AES-1b requires that all removed trees be replaced either in accordance with Municipal Code requirements or at a ratio of no less than 1:1.
E-4	Energy Star Roof: Project installs Energy Star labeled roof materials	**Consistent:** As part of the store expansion, the existing roof would be replaced with a white membrane roof, which meets or exceed Energy Star standards.
E-5	Onsite Renewable Energy System: Project provides onsite renewable energy system(s) such as solar, wind, geothermal, low-impact hydro, biomass and bio-gas strategies.	**Not Feasible:** As discussed previously, solar is not feasible at the time of this writing. Other renewable energy sources (e.g., wind, geothermal, or biomass) are not possible to develop onsite because of health and safety concerns, incompatibility with project operations, or lack of suitable energy sources.
E-8	Nonroof Surfaces: Provide shade or use light-colored/high albedo materials or open grid pavement for nonroof impervious surfaces, including parking lots, walkways, and plazas.	**Consistent:** Mitigation Measure AIR-7a requires that light-colored aggregate or other materials that achieve increased solar reflectivity be used in areas where pavement is replaced. In addition, shade trees currently exist in the main parking area and additional trees would be planted.
E-9	Low Energy Cooling: Project optimizes building's thermal distribution by separating ventilation and thermal conditioning systems.	**Consistent:** The expanded Walmart store would employ a high efficiency HVAC system that is centrally monitored from corporate headquarters.

Table 4.2-20: CAPCOA Greenhouse Gas Mitigation Measure Consistency Analysis

No.	CAPCOA White Paper Strategy	Project Consistency or Applicability
		Central monitoring ensures that the HVAC system would operate efficiently.
E-11	Electric Vehicle Charging Facilities: Project installs electric vehicle charging facilities.	**Not Feasible:** As discussed previously, the store parking area experiences high turnover. Dedicating a set number of spaces for electric vehicle charging would be in conflict with the objective of providing convenient and readily accessible parking for customers.
E-12	Light Colored Paving: Project provides light-colored paving (e.g., increased albedo pavement).	**Consistent:** Mitigation Measure AIR-7a requires that light-colored aggregate or other materials that achieve increased solar reflectivity be used in areas where pavement is replaced.
E-13	Cool Roofs: Project provides cool roofs that are highly reflective and composed of highly emissive roofing materials	**Consistent:** The existing store employs and white roof. The store expansion would also use a white roof. Furthermore, the expansion area currently contains a blacktop parking area and, therefore, the store expansion would result in a net increase in high solar reflectivity coverage onsite.
E-20	Programmable Thermostats: Install energy-reducing programmable thermostats that automatically adjust temperature settings.	**Consistent:** The Walmart store features, and the expanded store would continue to use, a centrally monitored climate control system. The system allows for the thermostat to be remotely adjusted to maximize energy efficiency.
E-23	Low-Water Use Appliances: Require the installation of low water use appliances.	**Consistent:** Mitigation Measure PSU-3 requires indoor water conservation measures be installed, including low water use fixtures.
C-4	Recycle Demolished Construction Material: Recycle/Reuse demolished construction material.	**Consistent:** Mitigation Measure PSU-6a requires construction waste reduction and recycling measures.
Source: California Air Pollution Control Officers Association, 2008; Michael Brandman Associates, 2009.		

Conclusion

The proposed project would expand an existing Walmart store located within the McCarthy Ranch Marketplace. The existing store is adjacent to existing retail and office uses and is within a relatively short distance of established residential areas. The proposed project would retail general merchandise and groceries 24 hours a day, 7 days a week and, therefore, would be convenient to nearby residents and employees. The project site is designated for commercial uses by the City of Milpitas General Plan and Zoning Ordinance, and the proposed project would be consistent with all applicable provisions of these land use policy documents. The existing store is served by public transit and accessible to bicycles and pedestrians. Collectively, these characteristics indicate that the proposed project is planned growth within the urban footprint of Milpitas and is well positioned to reduce travel lengths.

The proposed project would implement a number of mitigation measures that either would directly or indirectly reduce emissions of greenhouse gases:

- **Mitigation Measure AES-1b** requires that removed trees be replaced either in accordance with City standards or onsite at no less than a 1:1 ratio.
- **Mitigation Measure PSU-3** requires that indoor water conservation measures be implemented.
- **Mitigation Measure PSU-6a** requires that construction and demolition debris recycling be performed.
- **Mitigation Measure PSU-6b** requires the installation of onsite facilities necessary to collect and store recyclable materials.
- **Mitigation Measure TRANS-8** requires the provision of onsite bicycle storage facilities.

AB 32's goals of reducing greenhouse gas emissions are such that projects, jurisdictions, and residents of the State of California should reduce their greenhouse gas emissions by all methods feasible. For these reasons, it is determined that the project could implement additional features to reduce its emissions of greenhouse gas emissions. Mitigation Measures AIR-7a through AIR-7e propose specific measures to reduce greenhouse gas emissions.

In summary, the proposed project incorporates a number of features and mitigation measures that would minimize greenhouse gas emissions. The project's net new operational emissions are below the BAAQMD significance thresholds in the 2009 Draft CEQA Guidelines. In addition, pursuant to the 2009 Draft CEQA Guidelines, the project's construction emissions are less than significant after implementation of mitigation measure AIR-7e. The project's features and mitigation measures reduce greenhouse gas emissions to the maximum extent practicable. These features and mitigation measures are consistent with all project-level strategies identified by the CARB's Early Action Measures, the CARB's Scoping Plan, the Attorney General's Office, and California Air Pollution Control Officers Association White Paper. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AIR-7a The project applicant shall use paving materials with increased solar reflectivity in areas at the back of the store where pavement is replaced. Such materials shall use light-colored aggregate or other appropriate methods to achieve high solar reflectivity.

MM AIR-7b Prior to issuance of the final certificate of occupancy, the project applicant shall post signs in the Walmart loading docks advising truck drivers to turn off engines when

not in use and advising truck drivers of state law prohibiting diesel idling of more than 5 minutes.

MM AIR-7c To reduce fugitive emissions from refrigerants, the applicant shall do the following:

- The project applicant shall maintain the refrigeration system at least once per year to ensure that refrigerant leaks remain minimal. The maintenance records shall be kept onsite for review by the City of Milpitas.
- During installation of the new refrigerators and freezers, effort shall be made to reuse the existing refrigerants in the new system, unless the old refrigerant is not the same type as is proposed in the new system or more leakage would occur if the refrigerants are reused.
- A secondary closed loop system shall be evaluated and implemented, if found to be technically and economically feasible.

MM AIR-7d Prior to issuance of the final certificate of occupancy, the project applicant shall provide the following Transportation Demand Management measures:

- Public transit information in the employee breakroom. Store management shall post information such as Santa Clara Valley Transportation Authority bus and light rail schedules, maps, and fares.
- Ride sharing information in the employee breakroom. Store management shall facilitate ride sharing by providing sign-up sheets or other measures to allow interested employees to identify carpooling opportunities.
- Bicycling information. Store management shall post information such as bicycle route maps and information about taking bikes on public transportation.

MM AIR-7e To reduce construction related greenhouse gas impacts, the following measures are required:

- At least 15 percent of the construction vehicles/equipment shall be fueled by an alternative source such as biodiesel and/or electric.
- At least 10 percent of all building materials shall be local (within 100 miles); and
- At least 50 percent of construction and demolition materials shall be recycled. This latter provision shall be coordinated with Mitigation Measure PSU-6a.

Level of Significance After Mitigation

Less than significant impact.

Climate Change Effects

Impact AIR-8: **The proposed project would not be subject to significant adverse effects as a result of global climate change.**

Impact Analysis

Although human understanding of the Earth's climate is constantly evolving, it is accepted by most respected climate change researchers that anthropogenic sources of greenhouse gases are influencing climate patterns. There are several negative potential environmental effects associated with climate change. Worldwide, average temperatures are estimated by some researchers to increase by 1.8°C to 4°C, or approximately 3°F to 7°F by the end of the 21st century. However, a global temperature increase does not translate to a uniform increase in temperature in all locations on the earth. Regional climate changes are dependent on multiple variables, such as topography. One region of Earth may experience increased temperature, increased incidents of drought, and similar warming effects, whereas another region may experience a relative cooling. According to the United Nations Intergovernmental Panel on Climate Change's Working Group II Report, climate change impacts to North America may include:

- Diminishing snowpack
- Increasing evaporation
- Exacerbation of shoreline erosion
- Exacerbation of inundation from sea level rising
- Increased risk and frequency of wildfire
- Increased risk of insect outbreaks
- Increased experiences of heat waves
- Rearrangement of ecosystems as species and ecosystems shift northward and to higher elevations

AB 32 indicates that "the potential effects of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snow pack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidence of infections, disease, asthma, and other health-related problems" (State of California 2006, AB 32, Section 38501(a)).

The California Climate Change Center published a report that assesses the risks of climate change to California. The following is a summary of the potential risks to California from that report.

- A reduction in the Sierra snow pack could result in a reduction in hydropower, which comprises about 15 percent of California's in-state electricity production.
- A reduction in the Sierra snow pack could result in a loss of winter recreation from insufficient snow for skiing and snowboarding.

- A decrease in water supply could also negatively impact the food supply that depends on that water for use.
- Climate change could also increase temperatures, leading to decreased supply of certain agricultural products such as wine, fruit, nuts, and milk. California farmers may also have to face increasing threats from pests and pathogens.
- Climate change could also result in increasing wildfires. If temperatures rise into the medium range of what was predicted, the risk of fires in California could increase as much as 55 percent.
- Climate change could result in plant and animal species relocating to cooler, more habitable "up-slope" locations.
- Climate change could negatively affect the health and productivity of California's forests. The productivity of mixed conifer forests is expected to diminish as much as 18 percent by the end of the century.
- A rise in sea levels could result in increased coastal floods and shrinking beaches.

The relevant climate change effects to the proposed project are discussed below.

Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The California Climate Change Center report indicates that large wildfires could become up to 55 percent more frequent if greenhouse gas emissions are not significantly reduced. In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

The project would not significantly be impacted by these effects. The project has energy-efficient HVAC units, which would maintain a comfortable interior temperature for the customers and employees.

Rise in Sea Levels

Climate change could result in sea level rises and increased flooding. Sea level rise is already affecting much of California's coastal region, including the Southern California coast, the Central California open coast, and the San Francisco Bay and upper estuary. During the past century, sea levels along California's coast have risen about seven inches. The rate of sea level rise observed at the gauges along the California coast is similar to the estimate for global mean sea level. Sea levels are likely to increase by up to 35 inches by the year 2100, depending on the magnitude of climate warming. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

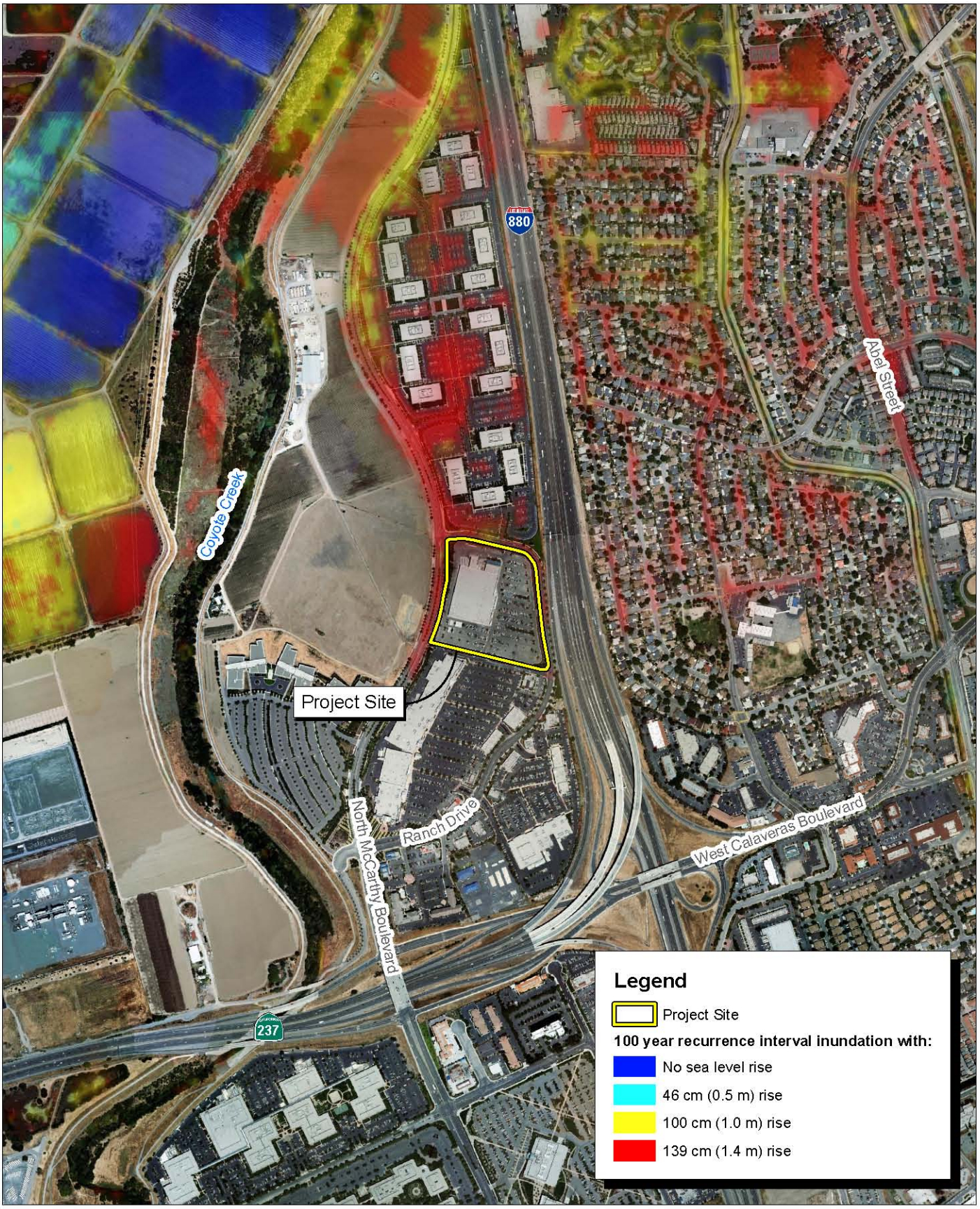
Exhibit 4.2-2 depicts sea level rise under a number of different scenarios. As shown in the exhibit, under the most extreme event, waters would rise to the perimeter of the project site, but not enter it because it is at a higher elevation. Therefore, the proposed project would not be susceptible to flooding from sea level rise.

Wildfires

The project site is located within the McCarthy Ranch Marketplace and is surrounded by existing urban development and infrastructure on four sides. The Milpitas Fire Department was consulted about the proposed project's fire protection requirements and did not indicate that wildfires were a potential concern. Therefore, the proposed project would not be at risk of wildfires.

Water Supply

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. If greenhouse gas emissions continue unabated, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as is possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta—a major state fresh water supply.



Sources: 1) Knowles, Noah. August 2009. Potential Inundation Due to Rising Sea Levels in the San Francisco Bay Region. California Climate Change Center. www.energy.ca.gov/2009publications/CEC-500-2009-023/CEC-500-2009-023-F.pdf. Data from website: http://cascade.wr.usgs.gov/data/Task2b-SFBay/ 2) Google Earth Pro (Background Aerial, July 2007).

NORTH

1,000 500 0 1,000 Feet

Michael Brandman Associates

Exhibit 4.2-2
Potential Sea Level Rise in Project Area

The City of Milpitas currently supplies the existing Walmart store with potable water, and this connection would be maintained by the proposed project. As discussed in Section 4.9, Public Services and Utilities, the City of Milpitas obtains its water from the Santa Clara Valley Water District. The Santa Clara Valley Water District relies on both surface water and groundwater sources. The City of Milpitas confirmed that it has enough water supplies to serve the proposed project. Nonetheless, the proposed project would implement indoor water efficiency mitigation measures to reduce water demand. Finally, the proposed project consists of a commercial retail project, a type of land use that is not considered water-intensive. For these reasons, the proposed project would not be adversely affected by changes in water supply availability attributable to climate change.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.3 - Biological Resources

4.3.1 - Introduction

This section describes the existing biological setting and evaluates potential effects on these resources that may result from project implementation. This evaluation includes a review of potentially occurring special-status species, wildlife habitats, and vegetation communities. The results of this evaluation are based on a reconnaissance survey performed by Michael Brandman Associates (MBA), literature searches, and data base queries. Supporting documentation is provided in Appendix C.

4.3.2 - Environmental Setting

Project Site Conditions

The 14.56-acre project site contains an existing 131,725-square-foot Walmart store and associated parking areas. Most of the project site is covered with impervious surfaces (the existing Walmart store and paved parking areas). The approximately 19,000-square-foot store expansion area abuts the south side of the existing Walmart store. Mature ornamental trees and landscaping are located throughout the parking lot and along the frontages with Ranch Drive and N. McCarthy Boulevard.

Vegetation

The project site is developed and is landscaped with horticultural low growing shrubs, tree rows, and single planter trees located in the parking areas and along the periphery of the Walmart building. The ornamental trees include some tall species (up to approximately 20 feet above ground level), while the non-native shrubs are generally 5 feet or less in height.

Wildlife

Based on the absence of natural habitat and aquatic resources, there was no indication of wildlife species except for birds that are commonly associated with urbanized areas (e.g., house sparrow, starling, crow, etc.) Wildlife typically associated with developed commercial buildings such as opossums and small rodents would be expected to occur on the property.

Special-Status Species

Special-status species are those animal and plant species that, in the judgment of the resource agencies, trustee agencies, and certain non-governmental organizations, warrant special consideration in the California Environmental Quality Act (CEQA) process. This includes the following:

- Officially designated “threatened,” “endangered,” or “candidate” species federally listed by the United States Fish and Wildlife Service (USFWS) and protected under the Federal Endangered Species Act.
- Officially designated “rare,” “threatened,” “endangered,” or “candidate” species state listed by the California Department of Fish and Game (CDFG) and protected under the California Endangered Species Act. CDFG also maintains a list of “Fully Protected” species as well as

"California Species of Special Concern" that are also generally included as special-status species under CEQA.

- Species considered rare, threatened, or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as plant species identified on lists 1A, 1B, and 2 in the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California.
- Other species considered sensitive, such as birds protected under the Migratory Bird Treaty Act, which includes most native birds. A species may also be designated as special concern at the local level.

Special-Status Plant Species

The special-status plant species considered for review in this document are included in a table provided in Appendix C. This list was compiled based upon query results from the California Natural Diversity Database (CNDDB) and the CNPS online inventory, as well as a list obtained from USFWS. CNDDB-recorded occurrences of special-status plant species within 5 miles of the project site are shown in Exhibit 4.3-1.

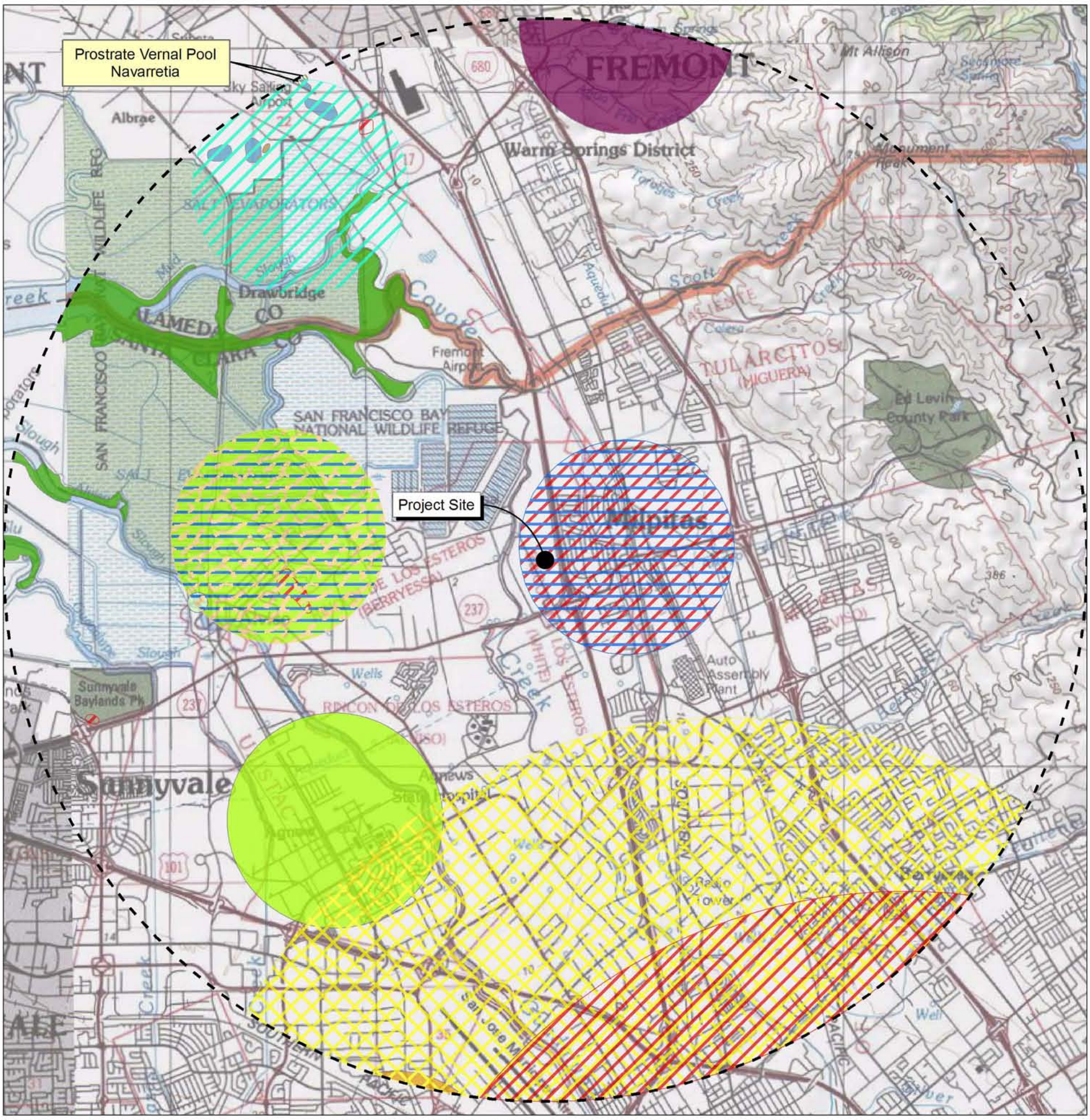
Several regionally occurring species were determined not to have potential to occur with the project site, either because the distribution of the species does not extend into the project site vicinity, or because the habitat or microsite conditions (e.g., serpentine soils, mesic sites) required by the species are not present.

Based upon results of the species review, there are no special-status plant species with potential to occur within the project site.

Special-Status Wildlife Species

The special-status wildlife species considered for review in this document are included in a table provided in Appendix C. This list was compiled from the USFWS list and query results from CNDDB and California Wildlife Habitat Relationship System. The latter is a predictive model that lists species likely to occur in a given location under certain habitat conditions. It also predicts the suitability of those conditions for reproduction, cover, and feeding for each modeled species. Information fed into the model for this project site includes location (Santa Clara County) and habitat type (urban). The California Wildlife Habitat Relationship System does not include any information on plants, fish, invertebrates, or rare natural communities.

Several regionally occurring species were determined not to have potential to occur within the project site, either because the distribution of the species does not extend into the project site vicinity, or because the habitat or habitat elements (e.g., caves, tall snags) required by the species are not present.



Source: TOPO! USGS 100K Scale DRG, and CA Dept. of Fish and Game, October 2008 CNDDB Data.

Michael Brandman Associates

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Exhibit 4.3-1
CNDDB-Recorded Occurrences of
Special-Status Plant Species Within 5 Miles of the Project

Based upon results of the species review, there are no special-status wildlife species with potential to occur within the project. Recorded occurrences of special-status wildlife species within 5 miles of the project site are shown in Exhibit 4.3-2.

Nesting Birds

The project site supports immature trees that could potentially provide nesting habitat for small songbirds. Nesting birds are protected by the Migratory Bird Treaty Act and the California Fish and Game Code (refer to the Regulatory Framework section below).

Waters of the U.S., Including Wetlands

No wetlands or drainage features were identified during the reconnaissance-level survey conducted by MBA.

4.3.3 - Regulatory Framework

Federal

Endangered Species Act

The Endangered Species Act of 1973 establishes a framework for protecting and facilitating the recovery of threatened and endangered populations of animal and plant species. Under the act, the Secretary of the Interior is required to list species of animals and plants that are both threatened and endangered, a task that is delegated to the USFWS and the National Marine Fisheries Service (NMFS). A species can become threatened or endangered as a result of the following factors:

- Present or threatened destruction
- Modification or curtailment of its habitat range
- Over-utilization for commercial recreation, scientific, or educational purposes
- Disease or predation
- Inadequacy of existing statutory mechanisms
- Other natural or man-made factors affecting its continued existence

Section 3 of the Endangered Species Act defines an endangered species as any species or subspecies of fish, wildlife, or plants “in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as any species or subspecies “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Designated endangered and threatened species, as listed through publication of a final rule in the Federal Register, are fully protected from a “take” without an incidental take permit administered by the USFWS under Section 10 of the ESA. “Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap capture, or collect, or to attempt to engage in any such conduct (50 Code of Federal Regulations [CFR] 17.3). The term “harm” in the definition of take means an action that actually kills or injures wildlife. Such action may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns,

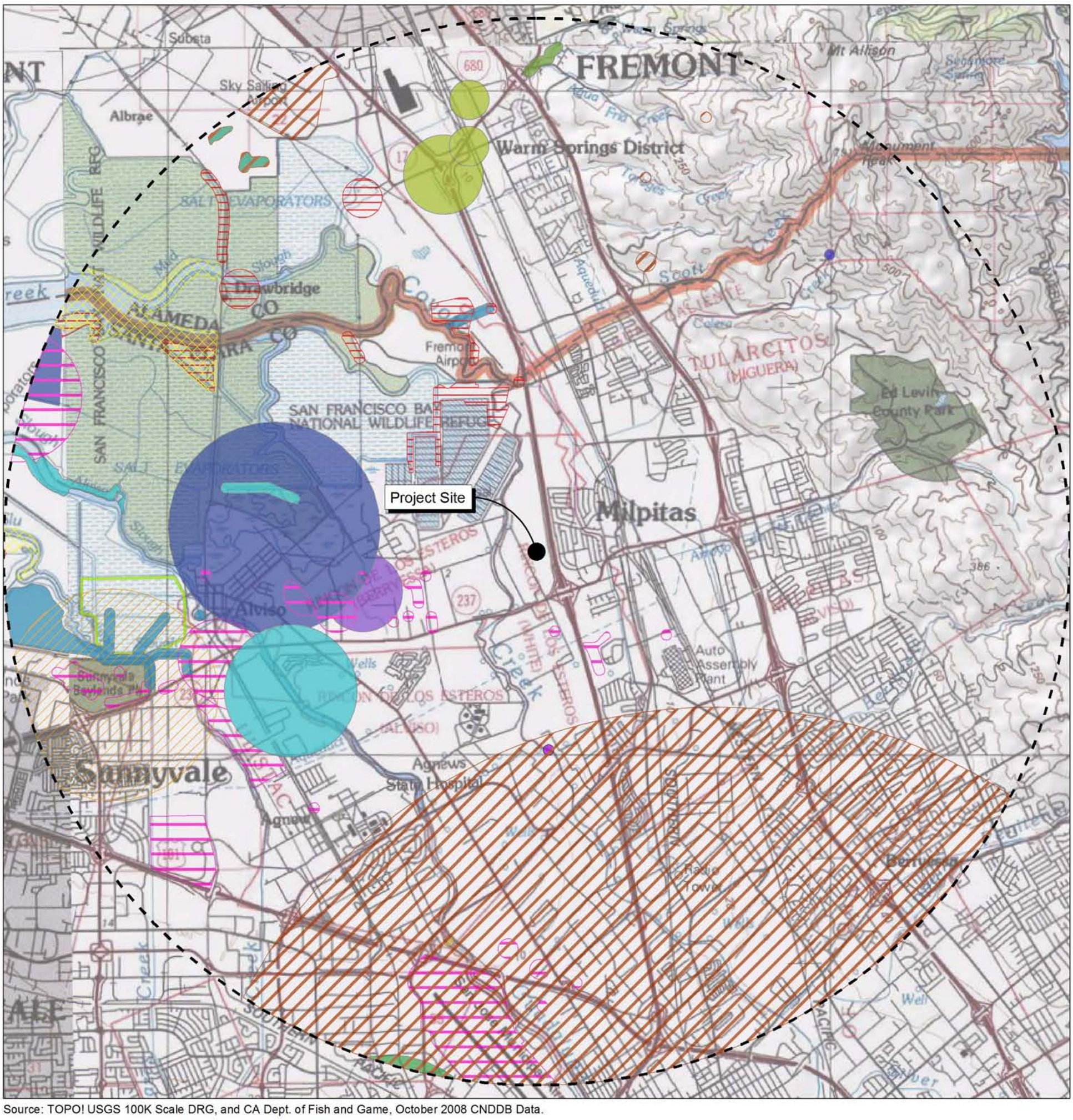
including breeding, feeding, or sheltering (50 CFR 17.3). The term "harass" in the definition of take means an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3). Proposed endangered or threatened species are those for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Section 7 of the act requires that federal agencies ensure that their actions are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its critical habitat. This obligation requires federal agencies to consult with the USFWS or the NMFS on any actions (issuing permits including Section 404 permits, issuing licenses, providing federal funding) that may affect listed species to ensure that reasonable and prudent measures will be undertaken to mitigate impacts on listed species. Consultation with USFWS or NMFS can be either formal or informal, depending on the likelihood of the action to adversely affect listed species or critical habitat. Once a formal consultation is initiated, USFWS or NMFS will issue a Biological Opinion (either a "jeopardy" or a "no jeopardy" opinion) indicating whether the proposed agency action will or will not jeopardize the continued existence of a listed species or result in the destruction or modification of its critical habitat. A permit cannot be issued for a project with a jeopardy opinion unless the project is redesigned to lessen impacts.

In the absence of any federal involvement, as in a privately funded project on private land with no federal permit, only Section 10(a) of the act can empower the USFWS or NMFS to authorize incidental take of a listed species provided a habitat conservation plan is developed. To qualify for a formal Section 10(a) permit, strict conditions must be met, including a lengthy procedure involving discussions with USFWS, NMFS, and local agencies; preparation of an habitat conservation plan; and a detailed Section 10(a) permit application.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 makes it unlawful to take (kill, harm, harass, etc.) any migratory bird listed in 50 CFR 10, including their nests, eggs, or products. The Migratory Bird Treaty Act protects more than 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species, and it was originally drafted to put an end to the commercial trade in birds and their feathers that, by the early years of the 20th century, had wreaked havoc on the populations of many native bird species. The Migratory Bird Treaty Act implements the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protects selected species of birds that are common to both countries (i.e., they occur in both countries at some point during their annual life cycle). The act requires that the removal of any trees, shrubs, or any other potential nesting habitat be conducted outside the avian nesting season, which is generally between early February and late August.



Source: TOPO! USGS 100K Scale DRG, and CA Dept. of Fish and Game, October 2008 CNDDB Data.

Legend

- Project Location
- 5-Mile Buffer

Common Name

- Alameda song sparrow
- California clapper rail
- California red-legged frog
- California tiger salamander
- burrowing owl
- golden eagle
- great blue heron
- hoary bat
- mimic tryonia (=California brackishwater snail)
- salt-marsh harvest mouse
- salt-marsh wandering shrew
- saltmarsh common yellowthroat
- tricolored blackbird
- vernal pool tadpole shrimp
- western pond turtle
- western snowy plover
- white-tailed kite

Michael Brandman Associates

NORTH

1 0.5 0 1 Miles

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Exhibit 4.3-2
CNDDB-Recorded Occurrences of
Special-Status Wildlife Species Within 5 Miles of the Project

State

California Endangered Species Act

Signed into law in 1984, the California Endangered Species Act declares that deserving plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. The act established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. Under State law, the California Fish and Game Commission may formally designate plant and animal species rare, threatened, or endangered by official listing. Listed species are generally given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

The California Endangered Species Act prohibits the take of any species that the California Fish and Game Commission determines to be an endangered species or a threatened species. The act defines a take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CDFG enforces the act, which authorizes that take of a plant or wildlife species listed as endangered or threatened under the federal and state acts may occur pursuant to a federal incidental take permit issued in accordance with Section 10 of the federal Endangered Species Act, provided CDFG is notified and certifies that the incidental take statement or incidental take permit is consistent with California Endangered Species Act (Fish and Game Code Section 2080.1(a)).

The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project-caused losses of listed species populations and their essential habitats.

California Environmental Quality Act - Treatment of Listed Plant and Animal Species

Both the federal and State Endangered Species Acts protect only those species formally listed as threatened or endangered (or rare, in the case of the State list). CEQA Guidelines Section 15380, however, independently defines "endangered" species of plants, fish or wildlife as those whose survival and reproduction in the wild are in immediate jeopardy, and "rare" species as those which are in such low numbers that they could become endangered if their environment worsens. Therefore, a project will normally have a significant effect on the environment if it will substantially affect a rare or endangered species or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

California Fish and Game Code

Sections 3503, 3503.5, and 3800 of the California Fish and Game Code prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a take.

Local

City of Milpitas

General Plan

The City of Milpitas General Plan establishes the following principles and policies related to biological resources that are applicable to the proposed project:

- **Principle 4.b-G-2:** Preserve and protect populations and supporting habitat of special-status species within the Planning Area, including species that are state or federally listed as Rare, Threatened, or Endangered, all federal "candidate" species for listing and other species proposed for listing, and all California Species of Special Concern.
- **Policy 4.b-I-4:** Require a biological assessment of any project site where sensitive species are present, or where habitats that support known sensitive species are present.

Milpitas Municipal Code

Milpitas Municipal Code Chapter 2 contains the Tree Maintenance and Protection Ordinance of the City of Milpitas. The ordinance requires that new development projects must receive a tree removal permit from the Public Works Department prior to removal and replacement. All trees which have a 37-inch or greater circumference of any trunk measured 4.5 feet from the ground and located on developed commercial or industrial property are protected. Street trees or other plantings that are required to be planted by a new development in accordance with plans and specifications approved by the City may be planted without a permit, provided, however, that such trees and plantings shall conform to City approved plans and specifications and shall be planted under the supervision of the Public Works Department.

4.3.4 - Methodology

MBA evaluated the biological resource characteristics of the project site through a site reconnaissance and literature review. MBA reviewed the following information sources to identify special status species with the potential to occur on the project site:

- The Milpitas, California USGS 7.5-minute topographic quadrangle
- Aerial photography of the project site
- A Natural Resource Conservation Service soils map of the project site
- CNDDB records for the Milpitas, California 7.5-minute topographic quadrangle and the surrounding eight quadrangles
- California Wildlife Habitat Relationship System
- USFWS list of endangered and threatened species that may occur or be affected by the project, in the Milpitas, California quadrangle
- CNPS online Inventory of Rare and Endangered Vascular Plants of California

- The Western Bat Working Group Regional Bat Species Priority Matrix
- The Jepson Manual, Higher Plants of California

An MBA biologist visited the project site on October 7, 2008 and documented the existing conditions through site photographs and field notes.

In addition, the City of Milpitas General Plan and Municipal Code were reviewed to identify local biological policies and ordinances that may be applicable to the proposed project.

4.3.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, biological resources impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a.) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

b.) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Refer to Section 7, Effects Found Not To Be Significant.)

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? (Refer to Section 7, Effects Found Not To Be Significant.)

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 wildlife nursery sites? (Refer to Section 7, Effects Found Not To Be Significant.)

e.) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f.) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (Refer to Section 7, Effects Found Not To Be Significant.)

4.3.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Special-Status Species

Impact BIO-1: Development of the proposed project may adversely affect special-status species.

Impact Analysis

This impact assesses the potential for the proposed project to adversely impact special-status plant and wildlife species.

Special-Status Plant Species

As shown in Exhibit 4.3-1, the project site is within an area with recorded occurrences of Congdon's tarplant and alkali milk vetch. However, the project site is in an urban, built-up condition and does not contain suitable habitat for either of these special-status plant species. Furthermore, neither species was observed during the site visit conducted by the biologist. As such, the proposed project would not impact special-status plant species. Impacts would be less than significant.

Special-Status Wildlife Species

As shown in Exhibit 4.3-1, the project site is not located within an area where special-status wildlife species have been recorded. However, the project site does contain ornamental trees and shrubs that are suitable for use as nesting habitat for migratory songbirds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Construction activities that may result in nest abandonment or destruction would be considered significant under CEQA. Therefore, standard construction mitigation is proposed for nesting birds that would ensure that no occupied trees are removed until the birds have fledged. With the implementation of this mitigation measure, impacts would be reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-1 If vegetation removal associated with development of the property is to occur during the nesting bird season (February 15 through August 31), a qualified biologist shall conduct a pre-construction survey for nesting birds to identify any potential nesting activity. The pre-construction surveys for nesting birds shall be conducted within 14 days prior to any construction-related activities (grading, ground clearing, etc.). If nesting birds are identified on the site, a 100-foot buffer shall be maintained around the nests; no construction-related activities shall be permitted within the 100-foot buffer. A qualified biologist shall monitor the nests, and construction activities may commence within the buffer area at the discretion and presence of the biological monitor. The pre-construction survey for nesting birds shall not be required if construction activities occur outside of the nesting bird season (September 1 through February 14).

Level of Significance After Mitigation

Less than significant impact.

Local Biological Ordinances and Policies

Impact BIO-2:	**The proposed project may conflict with the City of Milpitas tree maintenance and protection ordinance.**

Impact Analysis

This impact assesses the proposed project's consistency with the General Plan and Municipal Code requirements associated with protection of biological resources.

General Plan

Principle 4.b-G-2 requires the preservation and protection of special status species. The proposed project achieves consistency with this principle through the implementation of Mitigation Measure BIO-1.

Policy 4b-I-4 requires a biological assessment of any project site where sensitive species are present. This EIR fulfills this requirement.

Therefore, the proposed project is consistent with all applicable General Plan policies associated with biological resources.

Municipal Code

Mature trees are located along the southern portion of the expansion pad and in landscaped planters in the parking area. Construction activities associated with the store expansion would result in the removal of these trees. Because tree removal may occur, the proposed project would be required to comply with the City's Tree Maintenance and Protection Ordinance (Municipal Code Chapter 2). Mitigation Measure AES-1b requires compliance with the tree removal and replacement requirements of the Municipal Code. For trees not eligible for protection under the Municipal Code, the mitigation measure stipulates that they shall be replaced onsite at no less than a 1:1 ratio with a similar trees species. With the implementation of this mitigation measure, impacts would be reduced to a level of less than significant.

Note that the project applicant submitted a landscaping plan to the City of Milpitas as part of the application submittal. This plan may satisfy the requirements of this mitigation measure, although such a determination is at the discretion of the City of Milpitas.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure AES-1b.

Level of Significance After Mitigation

Less than significant impact.

4.4 - Geology, Soils, and Seismicity

4.4.1 - Introduction

This section describes the existing geology, soils, and seismicity setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the Geotechnical Engineering Investigation, dated August 2008, prepared by Krazan & Associates, Inc., and included in this EIR as Appendix D, Geotechnical Report. Additional information was provided by the Geotechnical Investigation Report prepared by Geotechnical Engineering Inc., dated March 1993.

4.4.2 - Environmental Setting

Regional Geologic Setting

San Francisco Bay is a broad, shallow, alluvial depression within the Coast Ranges that has been subsequently filled with sedimentary or alluvial deposits. The project site lies within the relatively flat, urbanized floor of Santa Clara Valley, in the northern part of Santa Clara County. The Santa Clara Valley is a broad, northwesterly trending, alluvial-filled basin between the Santa Cruz Mountains to the south and the Diablo Range to the northeast. The alluvial sediments forming the valley floor are divided into older alluvial deposits that make up the majority of the valley fill, with younger deposits of alluvium confined to active stream channels. The Quaternary age-old alluvium consists of inter-layered, poorly sorted gravel, sand, silt, and clay. The thickness of the alluvial soil increases westward from zero at the base of the Mission Hills to 1,000 feet or more at the western edge of Milpitas. Beneath the project site, alluvium is estimated to be more than 300 feet thick.

Regional Seismicity

The term seismicity describes the effects of seismic waves that are radiated from an earthquake as it ruptures. While most of the energy released during an earthquake results in the permanent displacement of the ground, as much as 10 percent of the energy may dissipate immediately in the form of seismic waves. The probability of one or more earthquakes of magnitude 6.7 (Richter scale) or higher occurring in the project area has been evaluated by the United States Geological Survey (USGS). Based on the results of the USGS evaluation, there is a 62-percent likelihood that such an earthquake event will occur in the Bay Area between 2003 and 2032. The faults with the greater probability of movement with a magnitude of 6.7 or higher earthquake are the Hayward Fault at 27 percent, the San Andreas Fault at 21 percent, and the Calaveras Fault at 11 percent. To understand the implications of seismic events, a discussion of faulting and seismic hazards is provided below.

Faulting

Faults form in rocks when stresses overcome the internal strength of the rock, resulting in a fracture. Large faults develop in response to large, regional stresses operating over a long time, such as those stresses caused by the relative displacement between tectonic plates. According to the elastic rebound theory, these stresses cause strain to build up in the earth's crust until enough strain has built up to

exceed the strength along a fault and cause a brittle failure. The slip between the two stuck plates or coherent blocks generates an earthquake. Following an earthquake, strain will build once again until the occurrence of another earthquake. The magnitude of slip is related to the maximum allowable strain that can be built up along a particular fault segment. The greatest buildup in strain that is due to the largest relative motion between tectonic plates or fault blocks over the longest period of time will generally produce the largest earthquakes. The distribution of these earthquakes is a study of much interest for both hazard prediction and the study of active deformation of the earth's crust. Deformation is a complex process, and strain caused by tectonic forces is not only accommodated through faulting but also by folding, uplift, and subsidence, which can be gradual or in direct response to earthquakes.

Faults are mapped to determine earthquake hazards, since they occur where earthquakes tend to recur. A historic plane of weakness is more likely to fail under stress and strain than a previously unbroken block of crust. Faults are, therefore, a prime indicator of past seismic activity, and faults with recent activity are presumed to be the best candidates for future earthquakes. However, since slip is not always accommodated by faults that intersect the surface along traces, and since the orientation of stresses and strain in the crust can shift, predicting the location of future earthquakes is complicated. Earthquakes sometimes occur in areas with previously undetected faults or along faults previously thought inactive. The Hayward fault is the closest fault to the proposed project and is located approximately 2.5 miles northeast of the site.

The Hayward, Calaveras, San Andreas, San Gregorio-Seal Cove-Hosgri, Concord, Greenville, Las Positas, and Verona are the eight active faults nearest to Milpitas. These faults and their characteristics are summarized in Table 4.4-1.

Table 4.4-1: Fault Summary

Fault	Distance from Milpitas (miles/direction)	Maximum Historic Earthquake (date)	Maximum Moment Magnitude
Hayward	2.5/Northeast	6.8 (1868)	7.0
Calaveras	6.5/East	6 + (1861) 6.2 (1984)	7.0 ± 0.25
San Andreas	15.0/Southwest	8.25 (1906) 7.1 (1989)	8.3
San Gregorio - Seal Cove-Hosgri	28.0/Southwest	6.1 (1926)	7.4
Concord	23.0/North	5.4 (1954)	6.3
Greenville	23.0/Northeast	5.8 (1980)	6.6 ± 0.2
Las Positas	18.0/Northeast	5.5 (1903)	6.0 ± 0.5
Verona	14.0/East	None	6.0
Source: Geotechnical Engineering Inc., 1993; United States Geologic Survey, 2008.			

Seismic Hazards

Seismicity describes the effects of seismic waves that are radiated from an earthquake as it ruptures. While most of the energy released during an earthquake results in the permanent displacement of the ground, as much as 10 percent of the energy may dissipate immediately in the form of seismic waves. To understand the implications of seismic events, a discussion of faulting and seismic hazards is provided below.

Seismic hazards pose a substantial danger to property and human safety and are present because of the risk of naturally occurring geologic events and processes impacting human development. Therefore, the hazard is influenced as much by the conditions of human development as by the frequency and distribution of major geologic events. Seismic hazards present in California include ground rupture along faults, strong seismic shaking, liquefaction, ground failure, landsliding, and slope failure.

Fault Rupture

Fault rupture is a seismic hazard that affects structures sited above an active fault. The hazard from fault rupture is the movement of the ground surface along a fault during an earthquake. Typically, this movement takes place during the short time of an earthquake, but it also can occur slowly over many years in a process known as creep. Most structures and underground utilities cannot accommodate the surface displacements of several inches to several feet commonly associated with fault rupture or creep.

Ground Shaking

The severity of ground shaking depends on several variables such as earthquake magnitude, epicenter distance, local geology, thickness, seismic wave-propagation properties of unconsolidated materials, groundwater conditions, and topographic setting. Ground shaking hazards are most pronounced in areas near faults or with unconsolidated alluvium.

The most common type of damage from ground shaking is structural damage to buildings, which can range from cosmetic stucco cracks to total collapse. The overall level of structural damage from a nearby large earthquake would likely be moderate to heavy, depending on the characteristics of the earthquake, the type of ground, and the condition of the building. Besides damage to buildings, strong ground shaking can cause severe damage from falling objects or broken utility lines. Fire and explosions are also hazards associated with strong ground shaking.

While Richter magnitude provides a useful measure of comparison between earthquakes, the moment magnitude is more widely used for scientific comparison since it accounts for the actual slip that generated the earthquake. Actual damage is due to the propagation of seismic or ground waves as a result of initial failure, and the intensity of shaking is as much related to earthquake magnitude as is the condition of underlying materials. Loose materials tend to amplify ground waves, while hard rock can quickly attenuate them, causing little damage to overlying structures. For this reason, the

Modified Mercalli Intensity (MMI) Scale provides a useful qualitative assessment of ground shaking. The MMI Scale is a 12-point scale of earthquake intensity based on local effects experienced by people, structures, and earth materials. Each succeeding step on the scale describes a progressively greater amount of damage at a given point of observation. The MMI Scale is shown in Table 4.4-2, along with relative ground velocity and acceleration.

Table 4.4-2: Modified Mercalli Intensity Scale

Richter Magnitude	Modified Mercalli Intensity	Effects	Average Peak Ground Velocity (centimeters/seconds)	Average Peak Acceleration
0.1–0.9	I	Not felt. Marginal and long-period effects of large earthquakes	—	—
1.0–2.9	II	Felt by only a few persons at rest, especially on upper floors of building. Delicately suspended objects may swing.	—	—
3.0–3.9	III	Felt quite noticeable in doors, especially on upper floors of building, but many people do not recognize it as an earthquake. Standing cars may rock slightly. Vibration like passing a truck. Duration estimated.	—	0.0035–0.007 g
4.0–4.5	IV	During the day, felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensations like heavy truck striking building. Standing cars rocked noticeably.	1–3	0.015–0.035 g
4.6–4.9	V	Felt by nearly everyone, many awakened. Some dishes, windows, broken; cracked plaster in a few places; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.	3–7	0.035–0.07 g
5.0–5.5	VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of falling plaster and damaged chimneys. Damage slight.	7–20	0.07–0.15 g
5.6–6.4	VII	Everyone runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well built, ordinary	20–60	0.15–0.35 g

Table 4.4-2 (Cont.): Modified Mercalli Intensity Scale

Richter Magnitude	Modified Mercalli Intensity	Effects	Average Peak Ground Velocity (centimeters/seconds)	Average Peak Acceleration
cont.	*cont.*	structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.		
6.5–6.9	VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monument walls, and heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving in cars disturbed.	60–200	0.35–0.7 g
7.0–7.4	IX	Damage considerable in specially designed structures; well-designed frame strictures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	200–500	0.7–1.2 g
7.5–7.9	X	Some well-built structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Railway lines bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed, slopped over banks.	≥ 500	>1.2 g
8.0–8.4	XI	Few, if any masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.		
≥ 8.5	XII	Total damage. Waves seen on ground. Lines of sight and level distorted. Objects thrown into the air.		
Source: United States Geological Survey.				

Ground Failure

Ground failure includes liquefaction and the liquefaction-induced phenomena of lateral spreading, and lurching.

Liquefaction is a process by which sediments below the water table temporarily lose strength during an earthquake and behave as a viscous liquid rather than a solid. Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sand and silt in areas with high groundwater levels. The process of liquefaction involves seismic waves passing through saturated granular layers, distorting the granular structure, and causing the particles to collapse. This causes the granular layer to behave temporarily as a viscous liquid, resulting in liquefaction.

Liquefaction can cause the soil beneath a structure to lose strength, which may result in the loss of foundation-bearing capacity. This loss of strength commonly causes the structure to settle or tip. Loss of bearing strength can also cause light buildings with basements, buried tanks, and foundation piles to rise buoyantly through the liquefied soil.

Lateral spreading is lateral ground movement, with some vertical component, caused by liquefaction. In effect, the soil rides on top of the liquefied layer. Lateral spreading can occur on relatively flat sites with slopes less than 2 percent, under certain circumstances, and can cause ground cracking and settlement.

Lurching is the movement of the ground surface toward an open face when the soil liquefies. An open face could be a graded slope, stream bank, canal face, gully, or other similar feature.

Landslides and Slope Failure

Landslides and other forms of slope failure form in response to the long-term geologic cycle of uplift, mass wasting, and disturbance of slopes. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides and rock fall—processes that are commonly triggered by intense precipitation, which varies according to climactic shifts. Often, various forms of mass wasting are grouped together as landslides, which are generally used to describe the downhill movement of rock and soil.

Geologists classify landslides into several different types that reflect differences in the type of material and type of movement. The four most common types of landslides are translational, rotational, earth flow, and rock fall. Debris flows are another common type of landslide similar to earth flows, except that the soil and rock particles are coarser. Mudslide is a term that appears in non-technical literature to describe a variety of shallow, rapidly moving earth flows.

Subsurface Conditions

Krazan & Associates drilled borings on the project site to evaluate the subsurface profile. Twenty-six borings were drilled in December 2007, with 14 drilled to depths of 45 feet below ground surface and 12 drilled to depths of 5 to 6 feet below ground surface. Boring samples were field and laboratory

tested to evaluate attributes, including relative density, cohesion, natural moisture, gradation, shear strength, unconfined compressive strength, expansion index, plasticity index, R-Value, soil/cement reactivity, and buried material reactivity. The findings of these investigations are summarized below.

Project Site Conditions

Table 4.4-3 summarizes the soil profile below the proposed store expansion area. Laboratory testing of the soils beneath the expansion area indicated that expansive properties were present.

Table 4.4-3: Store Expansion Area Soil Profile

Depth Below Surface (feet)	Soil Attributes
0 to 1.0	Asphalt (3 inches) and aggregate base (4 to 8 inches)
1.0 to 3.0	Stiff sandy clay soils that appear to have been treated with chemical stabilizers (e.g., lime)
3.0 to 6.5	Loose to medium dense silty sand
6.5 to 21.5	Firm to stiff clayey silt
21.5 to 27.0	Loose/soft sandy silt
27.0 to 45.0	Stiff to soft silty clay and clayey silt
Source: Krazan & Associates, Inc., 2008.	

Groundwater

Groundwater was encountered in two borings at depths of 17.50 feet (Boring B-14) and 24.00 feet (Boring B-1) below ground surface. The groundwater level rose to 13.25 feet below ground surface in Boring B-1 after sitting overnight.

4.4.3 - Regulatory Framework

State

Alquist-Priolo Earthquake Fault Zoning Act

In response to the severe fault rupture damage of structures by the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972. This act required the State Geologist to delineate Earthquake Fault Zones along known active faults that have a relatively high potential for ground rupture. Faults that are zoned under the Alquist-Priolo Act must meet the strict definition of being “sufficiently active” and “well-defined” for inclusion as an Earthquake Fault Zones. The Earthquake Fault Zones are revised periodically, and they extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction in an Earthquake Fault Zone is permitted only following the completion of a fault location report prepared by a California Registered Geologist.

California Building Standards Code

The California Building Standards Code establishes building requirements for construction and renovation. The most recent version of the California Building Standards Code was adopted in 2007 by the California Building Standards Commission and took effect January 1, 2008, and it is based on the International Code Council's Building and Fire Codes. Included in the California Building Standards Code are the Electrical Code, Mechanical Code, Plumbing Code, Energy Code, and Fire Code.

Local

City of Milpitas General Plan

The General Plan establishes the following goal and policies related to geology, soils, and seismicity that are applicable to the proposed project:

- **Principle 5.a-G-1:** Minimize threat to life and property from seismic and geologic hazards.
- **Policy 5.a-I-1:** Require all projects within the Alquist-Priolo Special Studies Zone to have geologic investigations performed to determine the locations of active fault traces before structures for human occupancy are built.
- **Policy 5.a-I-2:** Require applications of all projects in the Hillside area and the Special Studies Zone to be accompanied by geotechnical reports ensuring safety from seismic and geologic hazards.
- **Policy 5.a-I-3:** Require projects to comply with the guidelines prescribed in the City's Geotechnical Hazards Evaluation manual.

4.4.4 - Methodology

Krazan & Associates prepared a Geotechnical Engineering Investigation, dated August 15, 2008, that evaluated the geotechnical characteristics of the project site. Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing placed emphasis on the evaluation of natural moisture, density, gradation, shear strength, unconfined compressive strength, expansion index, plasticity index, and R-value of the material encountered. Soil samples were visually classified in the field as drilling progressed and were recorded in a boring log. Visual classification of the soils encountered was made in accordance with the Unified Soil Classification System. Two samples were sent to the Dellavalle Laboratory for testing to assess the potential for soil/cement reactivity and reactivity with buried metals.

The field investigations were conducted on December 13 and 14, 2007 and consisted of a surface reconnaissance and a subsurface exploratory program. Subsurface soil conditions were explored by conventional auger drilling and sampling and though the performance of Cone Penetrometer Tests. Pavement sections were determined by coring through the asphalt concrete and hand augering through the aggregate base section. Fourteen borings were drilled using a truck-mounted CME-45 drill rig. The proposed truck widening and building expansion areas were drilled to a depth of 45

feet. These borings were drilled using hollow stem augers with an inside diameter of 3.25 inches. The remaining twelve borings were drilled within the existing pavement areas to depths of 5 to 6 feet using continuous flight, solid-stem augers with 4.5-inch-outside-diameter flights.

During drilling operations, penetration tests were performed at regular intervals to evaluate the soil consistency and to obtain information regarding the engineering properties of the soils. Samples were obtained from the boring by driving a 2.5-inch-inside-diameter Modified California sampler with brass liners or a 1-3/8-inch-inside-diameter Stand Penetration split-spoon sampler filled with brass liners. The samplers were driven into the underlying soil to a depth of 18 inches using a 140-pound hammer falling 30 inches. The hammer used was an automatic (auto-trip) hammer. The number of blows required to drive the sampler was recorded for each 6-inch penetration interval. Laboratory testing consisted of the following:

- Hydrometer Analysis
- Grain Size Analysis
- Direct Shear (ASTM D-3080/AASHTO T – 236)
- Expansion Index Test (ASTM D- 4829/UBC Std. 18-2
- Atterberg Limits Determination (ASTM D-4318)
- Unconfined Compressive Strength of Cohesive Soil (D2166-98a)
- Soil Resistivity (Cal 643 & 417)
- R-Value Test (ASTM D-2844/CAL 301)

4.4.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, geology, soils, and seismicity impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a.) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

   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.
   ii. Strong seismic ground shaking?
   iii. Seismic-related ground failure, including liquefaction?
   iv. Landslides?

b.) Result in substantial soil erosion or the loss of topsoil?

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?

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?

e.) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (Refer to Section 7, Effects Found Not To Be Significant.)

4.4.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Seismic Hazards

Impact GEO-1:	**The development of the proposed project may expose persons or structures to seismic hazards.**

Impact Analysis

Potential seismic hazards include fault rupture, strong ground shaking, ground failure, and landsliding. Each of these hazards is discussed below.

Fault Rupture

There are no faults or fault traces located within the project site boundaries. In addition, no Alquist-Priolo zones are designated within the project site. This condition precludes the possibility of fault rupture from occurring on the project site. No impacts would occur.

Strong Ground Shaking

The project site may be exposed to moderate to severe ground shaking during an earthquake, particularly one that occurs on either the Hayward fault or the Calaveras fault. If unabated, structures may be at risk of failure during a seismic event.

Mitigation is proposed requiring the project applicant to submit a seismic hazards technical report prepared by a qualified geotechnical engineer to the City of Milpitas for review and approval. This report would identify potential ground shaking impacts and identify structural design measures necessary to reduce the risks of strong seismic ground shaking to acceptable levels. Following the City's approval of the report, the structural design measures would be incorporated into the proposed project's plans. The implementation of this mitigation measure would ensure that potential ground shaking impacts are reduced to a level of less than significant.

Seismic-Related Ground Failure

The Seismic Hazard Zone Report for Milpitas indicates that the project site is within a liquefaction hazard zone. The Liquefaction Susceptibility Map for the San Francisco Bay Area indicates that the project site is located within a moderate liquefaction susceptibility zone. If unabated, ground failure may occur during a seismic event, causing structures to fail.

Mitigation is proposed that would require the project applicant to conduct a design-level geotechnical investigation of potential ground failure hazards and implement those recommendations into the project design. Additionally, a second mitigation measure requires the applicant to submit project plans demonstrating that the project complies with all applicable state and local seismic safety requirements. With the implementation of mitigation, impacts would be reduced to a level of less than significant.

Landsliding

The project site is characterized by flat relief and is not located within an area identified as being susceptible to landslides. This condition precludes the possibility of earthquake-induced landslides inundating the project site. No impacts would occur.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM GEO-1a Prior to issuance of building permits, the project applicant shall submit a seismic hazards technical study prepared by a qualified geotechnical engineer to the City of Milpitas for review and approval. The report shall be prepared in accordance with the requirements of the Seismic Hazards Mapping Act and shall identify necessary design measures to reduce potential seismic ground shaking impacts to acceptable levels. The project applicant shall incorporate the approved design measures into the project plans.

MM GEO-1b Prior to issuance of building permits, the project applicant shall submit a design-level geotechnical investigation to the City of Milpitas for review and approval. The design-level investigation shall address the potential for ground failure to occur onsite and identify abatement measures to reduce the potential for such an event to acceptable levels. The abatement measures shall be incorporated into the project design.

MM GEO-1c Prior to issuance of building permits, the project applicant shall submit plans to the City of Milpitas for review and approval that demonstrate that the proposed project is designed in accordance with all state and local seismic safety requirements. Such requirements shall include the California Building Standards Code and Milpitas

Municipal Code, Title II. The approved plans shall be incorporated into the project design.

Level of Significance After Mitigation

Less than significant impact.

Erosion Hazards

Impact GEO-2:	**Construction activities associated with the project may result in substantial soil erosion or the loss of topsoil.**

Impact Analysis

Construction activities associated with the proposed project would involve grading and excavation activities that could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the project site. National Pollutant Discharge Elimination System (NPDES) stormwater permitting programs regulate stormwater quality from construction sites, which includes erosion and sedimentation. Under the NPDES permitting program, the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) are required for construction activities that would disturb an area of 1 acre or more. The SWPPP must identify potential sources of erosion or sedimentation that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement Best Management Practices (BMPs) that ensure the reduction of these pollutants during stormwater discharges. Typical BMPs intended to control erosion include sand bags, detention basins, silt fencing, storm drain inlet protection, street sweeping, and monitoring of water bodies.

These requirements have been incorporated into the proposed project as mitigation. The implementation of an SWPPP and its associated BMPs would reduce potential erosion impacts to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1.

Level of Significance After Mitigation

Less than significant impact.

Unstable Geological Units or Soils

Impact GEO-3:	**The development of the proposed project would not expose persons or structures to hazards associated with unstable geologic units or soils.**

Impact Analysis

The Geotechnical Engineering Investigation prepared by Krazan & Associates indicates that the deep-surface soils beneath the project site consist of approximately 300 feet of alluvium, which is regarded as a very stable geologic unit. Near the surface, the Geotechnical Engineering Investigation indicates that the sub-surface soil profile consists of materials that are suitable to support the proposed project. Moreover, the project site is in a developed condition and the proposed store expansion area consists of a paved parking area. The project site was previously graded and soil engineered as part of the development of the existing Walmart store in the early 1990s. Accordingly, the development of the proposed project would not expose persons or structures to hazards associated with unstable geologic units or soils. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Expansion Soils

Impact GEO-4:	**The development of the proposed project may expose persons or structures to hazards associated with expansive soils.**

Impact Analysis

The Geotechnical Engineering Investigation prepared by Krazan & Associates indicated that expansive clay soils are located within the proposed store expansion area. The investigation provided recommendations for abatement of expansive soil conditions, including excavation and replacement with non-expansive engineered fill. These recommendations have been incorporated as mitigation. With the implementation of the recommendations, the impacts would be reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM GEO-4 During grading and construction, the project applicant shall adhere to all applicable recommendations for abating expansive soil conditions contained in the Geotechnical Engineering Investigation or comparable geotechnical study. This includes the excavation of expansive soils and the subsequent replacement of such soils with non-expansive engineered fill.

Level of Significance After Mitigation

Less than significant impact.

4.5 - Hazards and Hazardous Materials

4.5.1 - Introduction

This section describes the existing hazards and hazardous materials setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Phase I Environmental Site Assessment, prepared in November 2008 by Tait Environmental Management and included in this EIR as Appendix E, Phase I Environmental Site Assessment.

4.5.2 - Environmental Setting

Hazardous Materials

Hazardous materials, as defined by the California Code of Regulations, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

- Toxic - causes human health effects
- Ignitable - has the ability to burn
- Corrosive - causes severe burns or damage to materials
- Reactive - causes explosions or generates toxic gases

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that define a material as hazardous also define a waste as hazardous. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contain technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Phase I Environmental Site Assessment

A Phase I ESA dated November 5, 2008 was prepared by Tait Environmental Management to determine the presence or absence of hazardous materials on the project site. The findings of the Phase I ESA are summarized below.

Records Search

Environmental Data Resources, Inc. (EDR) performed a search of federal, state, and local databases listing contaminated sites, Brownfield sites (a development site having the presence or potential presence of a hazardous substance, pollutant, or contaminant), underground storage tank (UST) sites, waste storage sites, toxic chemical sites, contaminated well sites, clandestine drug lab sites, and other sites containing hazardous materials. The record search results are discussed below.

Project Site

The existing Walmart store is listed on four databases: HAZNET, CHMIRS, ERNS, and SWEEPS UST. Each listing discussed below.

- **HAZNET:** The HAZNET database compiles data contained in hazardous waste manifests. This database indicates that hazardous wastes were transported from the project site for offsite disposal. In two instances, the waste consisted of an aqueous solution; in the third instance, the waste consisted of "unspecified oil-containing waste." This listing simply reports that hazardous wastes were transported from the project site for disposal. Therefore, it does not provide any information indicating the presence of hazardous materials on the project site.
- **CHMIRS:** The California Hazardous Material Incident Report System (CHMIRS) records reported hazardous materials incidents (accidental releases or spills). This listing indicates that a caller to the Santa Clara County Health Department reported witnessing raw sewage bubbling up in the Walmart parking lot on September 10, 1997. No further details are available; therefore, it cannot be confirmed if this incident actually did occur. Regardless, even if a sewage leak did occur, given the amount of time that has elapsed since September 1997, such an incident would not pose a threat to human health or the environment today.
- **ERNS:** The Emergency Response Notification System (ERNS) database lists reports of release of oil and hazardous substances. There are no details about this listing; therefore, it is unknown why the project site is listed on this database.
- **SWEEPS UST:** The SWEEPS UST database lists UST locations and is no longer updated. The database listing, dated June 7, 1994, indicates that the project site contains a 1,000-gallon waste oil UST. As will be discussed later in this section, the UST was removed in the late 1990s. There are no USTs on the project site today.

In summary, none of the four database listings provides evidence that the project site is contaminated by hazardous wastes.

Surrounding Land Uses

Table 4.5-1 summarizes recorded sites within 0.5 mile of the project site.

Table 4.5-1: Records Search Summary

Name	Location	Database(s)	Remarks
PG&E Facility	66 Ranch Drive	RCRA-SQG, LUST, HIST LUST, UST, AST	Databases indicate presence of USTs. Case closed in 2004.
McCarthy Ranch	783 Alviso-Milpitas Road	CORTESE, LUST, HIST LUST, VCP	Databases indicate presence of USTs. Case closed in 1998. Site was also tested for pesticides in soil as part of Voluntary Clean-

Table 4.5-1 (Cont.): Records Search Summary

Name	Location	Database(s)	Remarks
cont.	*cont.*	*cont.*	Up Program. Soil concentrations found to be within acceptable levels.
Marylinn Well Pump Station	350 Marylinn Drive	CORTESE, LUST, HIST LUST	Databases indicate presence of USTs. Case closed in 1998.
Arco	43 S. Abbott Avenue	CORTESE, LUST, HIST LUST, Notify 65	Databases indicate presence of USTs. Cases closed in 1996 and 2005.
Mobil	97 S. Abbott Avenue	CORTESE, LUST, HIST LUST	Databases indicate presence of USTs. Case listed as active.
Chevron	342 W. Calaveras Boulevard	CORTESE, LUST, HIST LUST	Databases indicate presence of USTs. Case closed in 2008.

Notes:
AST = Aboveground Petroleum Storage Tank Facilities. Registered aboveground storage tanks.
CHMIRS = California Hazardous Material Incident Report System. Contains information on reported hazardous materials incidents (accidental releases or spills).
CORTESE = Cortese Hazardous Waste and Substances Site List. Encompasses sites listed on the LUST, SWF/LF, and Cal-Sites databases. No longer updated.
HIST UST = Hazardous Substance Storage Container Database. Historical listing of underground storage tank sites.
LUST = Leaking Underground Fuel Tank Report. Contains records of reported leaking underground storage tank incidents.
Notify 65 = Proposition 65 Records. Contains facility notifications about any release that could impact drinking water .
RCRA-SQG = Resource Conservation and Recovery Act Small Quantity Generator. Small quantity generator of hazardous wastes governed by RCRA.
SWEEPS UST = Statewide Environmental Evaluation and Planning System. Lists underground storage tank locations. No longer updated.
VCP = Voluntary Clean-Up Properties. Lists low threat-level properties with releases in which the property owners have requested that the State Department of Toxic Substances Control oversee cleanup efforts.
Source: Environmental Data Resources, 2008.

All six sites listed in Table 4.5-1 currently contain or formerly contained USTs. Of the six sites, the two of most concern as they relate to the project site are the PG&E facility and McCarthy Ranch, because they are closest to the project site. The other four sites are separated by sufficient distance and physical barriers (i.e., Interstate 880 [I-880]) to prevent any contamination that may be present to affect the project site. The PG&E facility and McCarthy Ranch are discussed in detail below.

PG&E Facility

The PG&E facility, known as the Milpitas Natural Gas Terminal, is located adjacent to State Route 237 (SR-237). According to records accessed on the State Water Resources Control Board GeoTracker website, two 3,000-gallon USTs were removed from the site in 2003, and soil sampling indicated that concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg) and Methyl Tertiary Butyl Ether (MTBE) were within acceptable limits. The San Francisco Bay Regional Water Quality Control Board (RWQCB) provided a closure letter to PG&E confirming that no further action

was necessary. Therefore, it can be reasonably concluded that the PG&E facility does not pose a hazard to the project site.

McCarthy Ranch

The McCarthy Ranch consists of the farm complex located on the west side of N. McCarthy Boulevard, northwest of the project site. According to records accessed on the State Water Resources Control Board GeoTracker website, the site contained four gasoline USTs, ranging from 750 to 6,000 gallons. Two USTs were removed in 1988 and the other two were removed in 1989. Subsequent soil and water testing indicated that elevated concentrations of TPHg and benzene were present in the 6,000-gallon UST pit and within a 30-foot radius of the pit. Follow-up testing indicated that concentrations had decreased over time and, in 1998, the RWQCB issued a closure letter to the property owner confirming that no further action was necessary.

In addition, the McCarthy Ranch is listed on the Voluntary Clean-Up database for pesticides. An environmental assessment performed in the mid-1990s (presumably in anticipation of development), indicated that pesticides including DDT, DDE, and DDD were present in the soil. The detected concentrations of these pesticides were below standards for residential development and no further action was required.

Therefore, it can be reasonably concluded that the McCarthy Ranch does not pose a hazard to the project site.

Aerial Photographs

Aerial photographs of the project area dating to 1939 were obtained as part of the Phase I ESA process. The changes that occur to the project site and surroundings are summarized in Table 4.5-2.

Table 4.5-2: Aerial Photograph Summary

Year	Scale (inches:feet)	Summary
1939	1:555	The project vicinity is characterized by agricultural uses, with orchards and fields. The project site contains cultivated field crops. Several mature trees appear to be visible. Two residential structures are located east of the project site. Farm-related structures are located southeast and northwest of the project site. A two-lane, north-south-trending road is visible east of the project site and provides access to the residential and farm structures. A two-lane east-west road, following the present-day SR-237 alignment, is visible south of the project site.
1956	1:555	The project vicinity is still characterized by agricultural uses. The project site is still used for field crops. A four-lane, divided freeway following the present-day I-880 alignment is visible east of the project site. The freeway has a partial interchange at present-day SR-237. The residence and the farm structure east of the project site are now east of the freeway. Structures are

Table 4.5-2 (Cont.): Aerial Photograph Summary

Year	Scale (inches:feet)	Summary
cont.	*cont.*	visible at the present-day PG&E Milpitas Natural Gas Facility south of the project site.
1965	1:333	The project vicinity is urbanized considerably, but agricultural uses are still present west of I-880. The project site is still used for field crops. A single-family residential subdivision is visible east of the freeway. Additional lanes appear visible on the freeway.
1982	1:690	The project site is still in agricultural production. The area on the east side of the freeway is now almost entirely urban. The I-880/SR-237 interchange is now a full cloverleaf interchange. The evaporation ponds associated with the San Jose/Santa Clara Water Pollution Control Plant are visible northwest of the project site. Changes have occurred to PG&E Milpitas Natural Gas Facility.
1993	1:666	The project site and surrounding area has been graded and a dirt road is visible along the boundary with I-880. The McCarthy Boulevard interchange with SR-237 is under construction. Development has occurred south of SR-237, including the multi-story hotel adjacent to the 1-880/SR-237 interchange.
1998	1:666	The completed McCarthy Ranch Marketplace is visible, including the Walmart store. N. McCarthy Boulevard terminates at Ranch Drive (North) and the extension to Dixon Landing Road is under construction. More development is visible south of SR-237.
2005	1:484	The project site is unchanged. An office complex is now visible north of the project site. N. McCarthy Boulevard extends to Dixon Landing Road. A new office complex is visible southwest of the project site on the west side of N. McCarthy Boulevard.
Source: Environmental Data Resources, 2008; Michael Brandman Associates, 2009.		

Topographical Maps

Historic United States Geological Survey topographical maps of the Milpitas Quadrangle dating to 1953 were obtained as part of the Phase I ESA process. The changes that occur to the project site and surroundings are summarized in Table 4.5-3.

Table 4.5-3: Topographical Map Summary

Year	Scale (inches:feet)	Summary
1953	1:24,000	The project site is shown as undeveloped. The present day I-880 freeway is labeled as being under construction. Agricultural land is shown west, north, and south of the project site. The urban areas of Milpitas are concentrated along a road labeled “Oakland Road.”
1961	1:24,000	No changes have occurred to the project site. The PG&E gas terminal is now shown south of the project site. More development has occurred in the east of

Table 4.5-3 (Cont.): Topographical Map Summary

Year	Scale (inches:feet)	Summary
cont.	*cont.*	the freeway, including a new residential subdivision immediately east of the project site.
1968	1:24,000	No changes have occurred to the project site. The San Jose/Santa Clara Water Pollution Control Plant is visible northwest of the project site. The Milpitas sewage disposal site is visible north of the project site. More development has occurred on the east side of I-880. SR-237 has been upgraded to a highway.
1973	1:24,000	No changes have occurred to the project site. The San Jose/Santa Clara Water Pollution Control Plant has increased in size and appears to connect to the Milpitas sewage disposal site. More development has occurred on the east side of I-880.
1980	1:24,000	No changes have occurred to the project site. Urban development is visible on the west side of Coyote Creek and south of SR-237. More development has occurred on the east side of I-880.
Source: Environmental Data Resources, 2008; Michael Brandman Associates, 2009.		

Site Reconnaissance

Tait Environmental Management personnel performed site reconnaissance in August 2008. The store is a conventional Walmart discount store that was constructed in 1993. The store structure is primarily composed of concrete, with a slab-on-grade foundation.

No USTs are present on the project site; however, a 1,000-gallon waste oil UST associated with the Tire & Lube Express was previously located onsite. Several aboveground storage tanks (ASTs) were observed in the Tire & Lube Express with secondary containment features. Oil staining was observed on the concrete pad in the Tire & Lube Express; however, Tait Environmental Management concluded that the structural integrity of the pad prevented soil contamination. A hazardous waste storage area was observed adjacent to the Tire & Lube Express. A waste oil AST and lead batteries stored on pallets resting on secondary containment were observed. Staining was observed on the concrete floor of this structure; however, Tait Environmental Management concluded that the structural integrity of the pad prevented soil contamination. An aboveground oil/water tank was observed in the Tire & Lube Express. This vessel captures oil and other substances that enter a floor drain in the Tire & Lube Express. The vessel is periodically pumped from the tank and disposed of at a recycling facility.

Another hazardous waste storage area was observed inside the store building. This facility contained a container with spent absorbent material used to soak up spills of hazardous retail products and store maintenance products. The containers used to store the absorbent material were store in secondary containment. No floor staining was observed in this area.

Floor drains were located in various places in the store. Most drains serve to capture condensation from refrigeration equipment.

Heating, ventilation, and air conditioning (HVAC) equipment is located on the roof of the store. An air compressor and trash compactor are located near the loading docks. A pad-mounted electrical transformer is also located near the loading docks. All mechanical equipment appeared to be in good condition.

Hazardous Materials Survey

The Phase I ESA included a survey of hazardous materials present on the project site. A summary of the findings follows.

Asbestos

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is commonly used as an acoustic insulator, thermal insulation, fireproofing, and in other building materials. Asbestos is made up of microscopic bundles of fibers that may become airborne when asbestos-containing materials are damaged or disturbed. When these fibers get into the air, they may be inhaled into the lungs, where they can cause significant health problems. The California Occupational Health and Safety Administration (CalOSHA) defines asbestos-containing construction materials as any material that contains more than 0.1 percent asbestos by weight.

LA Testing performed asbestos analysis of bulk materials to determine if the existing Walmart store contains asbestos-containing materials. Nineteen samples of building materials, including drywall and joint compound, were analyzed using polarized light microscopy. Asbestos was not detected in any of the samples. Therefore, it can be reasonably concluded that asbestos is not present onsite.

Lead

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably in paint. Lead may cause a range of health effects, from behavioral problems and learning disabilities to seizures and death. Primary sources of lead exposure are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated soil. Both the U.S. Environmental Protection Agency and the California Department of Health Services define lead paint as containing a minimum of 0.5 percent by weight. Lead-containing waste materials with a concentration greater than 0.1 percent are considered hazardous waste by California law.

A Tait Environmental Management state-certified lead inspector/assessor conducted a visual inspection of the existing Walmart store in August 2008. The inspector determined that lead-based paint was not likely to be present because of the age of the store.

Polychlorinated Biphenyls (PCBs)

Polychlorinated biphenyls (PCBs) are mixtures of synthetic chemicals with similar chemical structures. PCBs can range from oily liquids to waxy solids. Because of their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications, including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper; and many other applications. More than 1.5 billion pounds of PCBs were manufactured in the United States prior to cessation of production in 1977.

Tait Environmental Management personnel inspected readily accessible light ballasts, hydraulic fluid-containing equipment, and electrical transformers for indications (e.g., labels) of PCBs. No indications were found; furthermore, no leaks from any inspected equipment were observed.

Mercury

Mercury is a naturally occurring element that is found in air, water, and soil that has traditionally been used to make products such as fluorescent lamps, switches, and thermometers. Mercury exposure at high levels can harm the brain, heart, kidneys, lungs, and immune system of people of all ages. Scientific studies have shown that high levels of mercury in the bloodstream of unborn babies and young children may harm the developing nervous system, making a child less able to think and learn.

Tait Environmental Management personnel inspected readily accessible electrical switches and HVAC units for indications (e.g., labels) of mercury. No indications were found; furthermore, no leaks from any inspected equipment were observed.

Chlorofluorocarbons (CFCs)

CFCs were developed in the early 1930s and are used in a variety of industrial, commercial, and household applications. These substances are non-toxic, non-flammable, and non-reactive with other chemical compounds. These desirable safety characteristics, along with their stable thermodynamic properties, make them ideal for many applications—as coolants for commercial and home refrigeration units, aerosol propellants, electronic cleaning solvents, and blowing agents. CFCs contribute to depletion of the ozone layer and, consequently, to skin cancer and cataracts. CFCs also are greenhouse gases and contribute to global climate change.

Tait Environmental Management personnel inspected readily accessible refrigerators, coolers, and air conditioning equipment for indications (e.g., labels) of CFCs. No indications were found; furthermore, no leaks from any inspected equipment were observed.

Radon

Radon is a carcinogenic, radioactive gas resulting from the natural breakdown of uranium in soil, rock, and water. Radon gas enters a building through cracks in foundations and walls. Once inside the building, radon decay products may become attached to dust particles and inhaled, or the decayed

radioactive particles alone may be inhaled and cause damage to lung tissue. The U.S. EPA has established a safe radon exposure threshold of 4 picoCuries per liter of air (pCi/l).

The California Department of Health Services indicates that indoor radon tests in the 95035 zip code, in which the project site is located, found that none of five samples contained radon concentrations above 4.0 pCi/l. In addition, samples taken from nearby zip codes (94539 – Fremont/Warm Springs; 95132 – San Jose/Berryessa; and 95054 – Santa Clara/Great America) also revealed no samples that exceeded 4.0 pCi/l. The California Department of Public Health classifies zip codes with 0 to 6 percent of samples exceeding 4.0 pCi/l to be areas of low radon potential.

High-Voltage Power Lines

High-voltage power lines emit electromagnetic fields (EMFs), which have been alleged to be a cause of cancer. However, scientific research has never conclusively established a link between EMFs and cancer.

High-voltage power lines are present 0.5 mile east of the project site. For the purposes of comparison, the State requires new schools to be located a minimum of 350 feet from a 500- to 550-kilovolt overhead power line to minimize EMF exposure. Therefore, it can be reasoned that the project site would not be exposed to substantial EMF exposure.

Surrounding Land Uses

Below are summaries of two nearby land uses in the project vicinity that are relevant in the context of hazards and hazardous materials.

San Jose/Santa Clara Water Pollution Control Plant

The San Jose/Santa Clara Water Pollution Control Plant is located west of the project site at 700 Los Esteros Road. Evaporation ponds associated with the plant are located approximately 0.5 mile west of the project site and the treatment works are located approximately 1.1 miles west. The plant uses 19 percent aqueous ammonia in the treatment process and stores in near the treatment works. Aqueous ammonia is a hazardous material, and the plant has a Risk Management Plan that addresses potential safety concerns associated with the use of this substance.

Los Esteros Critical Energy Facility

The Calpine Los Esteros Critical Energy Facility is located at 1515 Alviso-Milpitas Road in San Jose, approximately 0.6 mile southwest of the project site. The facility is a 180-megawatt natural gas power plant that is served by two PG&E natural gas pipelines. The natural gas power plant began operations in 2003. This facility is not considered a hazard to the project site because of its recent age and the clean-burning attributes of natural gas.

4.5.3 - Regulatory Framework

Federal

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

The 1984 RCRA amendments provided the framework for a regulatory program designed to prevent releases from USTs. The program establishes tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to ensure that the stored material will not corrode the tanks. Owners and operators of USTs had until December 1998 to meet the new tank standards. As of 2001, an estimated 85 percent of USTs were in compliance with the required standards.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The act was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous substances releases. The act deals with environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

State

California Health and Safety Code

The California Environmental Protection Agency has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Sections 25531, et seq. incorporate the requirements of Superfund Amendments and Reauthorization Act and the Clean Air Act as they pertain to hazardous materials. Health and Safety Code Section 25534 directs facility owners storing or handling acutely hazardous materials in reportable quantities to develop a Risk Management Plan. The plan must be submitted to the appropriate local authorities, the designated local administering agency, and the EPA for review and approval.

Local

City of Milpitas

General Plan

The General Plan establishes the following policy related to public services and utilities that are applicable to the proposed project City of Milpitas General Plan.

- **Policy 4.h-I-1:** Implement measures specified in the City's Source Reduction and Recycling Element and the City's Household Hazardous Waste Element.

County of Santa Clara

The Santa Clara County Department of Environmental Health's Hazardous Materials Compliance Division is the Certified Unified Program Agency for most of the County, with the exception of Gilroy, Santa Clara, and Sunnyvale. Certified Unified Program Agencies are entities certified by the California Environmental Protection Agency to administer the following six hazardous materials program areas:

- Hazardous Materials Release Response Plans and Inventories (i.e., Business Plans)
- California Accidental Release Prevention Program
- UST Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control and Countermeasure Plans
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (i.e., Tiered Permit) Programs
- California Fire Code: Hazardous Materials Management Plans and Hazardous Materials Inventory Statements

4.5.4 - Methodology

Tait Environmental Management prepared a Phase I ESA to document potential hazardous conditions on the project site and surrounding land uses. The Phase I ESA was prepared in accordance with the American Society for Testing and Materials "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-05." The Phase I ESA consisted of a review of local, state, and federal regulatory agency lists as compiled by EDR; a review of historic aerial photographs and topographic maps; completion of questionnaires by the current landowners and the project civil engineer; and site reconnaissance. Tait Environmental Management personnel performed site reconnaissance of the project site on August 27, 2008 to document existing conditions and potential environmental hazards.

Tait Environmental Management also conducted an asbestos survey and lead paint inspection on August 6, 2008. Bulk samples of suspected asbestos containing materials were sent to LA Testing in Los Alamitos, California for analysis. LA Testing is certified by the State and accredited by the National Voluntary Laboratory Accreditation Program. LA Testing evaluated the bulk samples using polarized light microscopy. Lead paint was evaluated by visual inspection by a state certified lead inspector/assessor.

4.5.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hazards and hazardous materials impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a.) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b.) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?

c.) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Refer to Section 7, Effects Found Not To Be Significant.)

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?

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 the project area? (Refer to Section 7, Effects Found Not To Be Significant.)

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? (Refer to Section 7, Effects Found Not To Be Significant.)

g.) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

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? (Refer to Section 7, Effects Found Not To Be Significant.)

4.5.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Past and Present Site Usage

Impact HAZ-1:	**The development of the proposed project would not result in the exposure of persons or the environment to hazardous materials associated with past and current uses of the project site.**

Impact Analysis

This impact addresses the potential for the development of the proposed project to expose persons or the environment to hazardous materials associated with past and current uses of the project site.

Project Site

The Phase I ESA prepared by Tait Environmental Management concluded that there are no recognized environmental conditions on the project site that would affect the development of the proposed project. This includes known contamination from spills or leaks of hazardous materials in conjunction with the past or present uses of the site; the presence of asbestos, lead, PCBs, mercury, or CFCs in materials or equipment; or naturally occurring radon in the soil. Furthermore, the project site is not located on a list of hazardous waste materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the proposed project would not be susceptible to hazardous materials or contamination associated with the past or present uses of the project site. Impacts would be less than significant.

Surrounding Land Uses

The Phase I ESA prepared by Tait Environmental Management concluded that there no recognized environmental conditions in the project vicinity that would affect the development of the proposed project. This includes leaking USTs and pesticides associated with the McCarthy Ranch operations.

The project site is located approximately 1.1 miles to the east of the San Jose/Santa Clara Water Pollution Control Plant treatment works. The plant uses 19 percent aqueous ammonia in the treatment process, which is a hazardous material. The Santa Clara County Department of Environmental Health indicates that the worst-case offsite release scenario for aqueous ammonia would extend 0.01 mile from the release point or only 45 feet from the plant's fence line. Under the alternate scenario, which is considered a more realistic scenario for an accidental release, the zone of vulnerability would be less than 0.01 mile from the release point. Accordingly, the proposed project would not be susceptible to an accidental release of aqueous ammonia from the San Jose/Santa Clara Water Pollution Control Plant.

Therefore, the proposed project would not be susceptible to hazardous materials or contamination associated with the past or present uses of surrounding land uses. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Risk of Upset

Impact HAZ-2:	**The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions.**

Impact Analysis

This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, Mitigation Measure HYD-1 requires the project applicant to implement a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site. Therefore, no significant impacts would occur during construction activities.

The proposed project would not be a large-quantity user of hazardous materials. Small quantities of hazardous materials would be used onsite, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (such as many cleaners), disinfectants, and fertilizers. These substances would be stored in secure areas and would comply with all applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are primarily limited to the immediate vicinity of the materials. Transport of these materials would be performed by commercial vendors who would be required to comply with various federal and state laws regarding hazardous materials transportation.

The proposed store may also include a medical clinic that would generate various medical wastes. These wastes would be regularly picked up and disposed of by commercial vendors who would be required to comply with various federal and state laws regarding hazardous materials transportation.

In summary, the proposed project would not potentially create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through the reasonably foreseeable upset and accident conditions. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Emergency Response and Evacuation

Impact HAZ-3: The proposed project would not interfere with emergency response or evacuation.

Impact Analysis

The proposed project consists of an expansion of an existing Walmart store located on a commercial corridor. The project site is located in an area where existing emergency response times for fire protection, emergency medical services, and police protection meet adopted standards. Both the Milpitas police and fire departments have indicated that the proposed project would not impair their ability to respond to emergencies at the project site or in other parts of the community. In addition, the proposed project does not include any characteristics (e.g., permanent road closures) that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity. Therefore, the proposed project would not impair or obstruct emergency response or evacuation. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.6 - Hydrology and Water Quality

4.6.1 - Introduction

This section describes the existing hydrology and water quality setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analyses in this section are based on information provided by the City of Milpitas General Plan, the Santa Clara County General Plan, and the Western Regional Climate Center.

4.6.2 - Environmental Setting

Climate

Milpitas is characterized by a Mediterranean climate, with warm summers, mild winters, and low precipitation. Temperatures in the Milpitas area range from an average high of 81.9 degrees Fahrenheit (°F) in July to an average low of 40.8°F in January. Rainfall averages 14.70 inches annually. General meteorological data for the Milpitas area, as measured at the San Jose weather station, are presented in Table 4.6-1.

Table 4.6-1: Milpitas Meteorological Summary

Month	Temperature (°F)		Precipitation (inches)
	Average High	Average Low	
January	58.0	40.8	2.89
February	61.9	43.5	2.69
March	65.4	45.2	2.32
April	69.6	46.8	1.21
May	74.3	50.5	0.46
June	79.1	53.7	0.08
July	81.9	56.0	0.03
August	81.4	56.1	0.07
September	80.4	55.1	0.20
October	74.3	51.2	0.75
November	65.2	45.3	1.52
December	58.5	41.5	2.46
Annual Average	**70.8**	**48.8**	**14.70**

Notes:
Measurements recorded between 1893 and 2007.
Source: Western Regional Climate Center, 2009.

Surface Water Bodies

Surface water includes streams, drainage channels, ponds, lakes, and other water on the surface of the land. Rainfall is the source of most surface water in Milpitas. Rainfall occurs during a short season in relatively intense storms. The amount of water flowing on the surface depends on how much water soaks into the ground, which in turn is dependent on the characteristics of the soil and the amount of land made impermeable by development (roads, roofs, parking lots, etc.). These impervious surface areas, generally associated with urbanization, prevent water from infiltrating into the soil, resulting in stormwater runoff, which can become polluted as it flows over urbanized areas. This untreated runoff typically enters a storm drain system and is conveyed to local waterways and eventually to the San Francisco Bay. Below is a description of the surface water bodies in the project vicinity.

San Francisco Bay

San Francisco Bay is the most prominent water feature in the nine-county San Francisco Bay Area region and covers approximately 1,600 square miles. The bay is the largest estuary on the west coast of North America and drains approximately 40 percent of the land area of California. The southern portion of the bay is located approximately 1 mile west of the project site.

Coyote Creek

Coyote Creek is the nearest waterway to the project site, located approximately 0.25 mile to the west. Coyote Creek spans the length of the Santa Clara Valley, originating at Anderson Reservoir near Morgan Hill and emptying into San Francisco Bay. The Coyote Creek watershed encompasses 350 square miles and drains Milpitas including the project area, the eastern portion of San Jose, and the Coyote Valley. Downstream of the project site, Coyote Creek splits into “New” and “Old” branches. New Coyote Creek is a man-made channel that skirts the south side of the Newby Island Sanitary Landfill, while Old Coyote Creek meanders around the east and north sides of the landfill.

Drainage

The project site is served by existing storm drainage infrastructure (inlets and piping) that discharges runoff into the City’s municipal storm drain system. The City’s storm drain system includes lines located within Ranch Drive and N. McCarthy Boulevard. The City’s system outlets into Coyote Creek.

Surface Water Quality

South San Francisco Bay and Coyote Creek are listed on the United States Environmental Protection Agency (EPA) 303(d) list of impaired water bodies. Table 4.6-2 summarizes the pollutants and stressors that impair each water body. As shown in the table, Total Maximum Daily Load (TMDL) completion dates for the various pollutants ranges from 2005 (high priority) to 2019 (low priority).

Table 4.6-2: Impaired Water Body Summary

Water Body	Pollutant/Stressor	Source(s)	TMDL Completion Date
South San Francisco Bay	Chlordane	Nonpoint source	2008
	DDT	Nonpoint source	2008
	Dieldrin	Nonpoint source	2008
	Dioxin Compounds	Atmospheric deposition	2019
	Exotic Species	Ballast water	2019
	Furan Compounds	Atmospheric deposition	2019
	Mercury	Industrial point source; municipal point source; resource extraction; atmospheric deposition; natural source; nonpoint source	2006
	PCBs (non-dioxin)	Nonpoint source	2006
	Dioxin-like PCBs	Nonpoint source	2019
	Selenium	Agriculture; domestic use of groundwater	2019
	Trash	Urban runoff/Storm sewers	2021
Coyote Creek	Diazinon	Urban runoff/Storm sewers	2005
	Trash	Urban runoff/Storm sewers	2021

Notes:
TMDL = Total Maximum Daily Load
DDT = Dichloro-Diphenyl-Trichloroethane
PCBs = polychlorinated biphenyls
Source: San Francisco Bay Regional Water Quality Control Board, 2009.

Groundwater

Groundwater information for the Santa Clara Valley subbasin was obtained from the California Department of Water Resources Bulletin 118. Below is a summary of the relevant information.

Santa Clara County is located at the southern tip of the San Francisco Bay and is divided into three interconnected subbasins that transmit, filter, and store water. It encompasses approximately 1,300 square miles, making it the largest of the nine Bay Area counties. Groundwater is primarily located in unconsolidated gravel, sand, silt, and clay within a series of convergent alluvial fans of streams. Groundwater is transported through the gravelly alluvial fan into the deeper confined aquifer of the central part of the valley. The County's subbasins filter water, making it suitable for drinking and for municipal, industrial, and agricultural uses. In general, the groundwater conditions throughout the County are very good.

Basin Boundaries and Hydrology

The project site is located within the Santa Clara Valley subbasin in the northern part of the County. The Santa Clara Valley subbasin extends from Coyote Narrows at Metcalf Road in south San Jose to

the County's northern boundary. The Diablo Range bounds the subbasin on the east and the Santa Cruz Mountains on the west. These two ranges converge at the Coyote Narrows to form the southern limits of the subbasin. The Santa Clara Valley subbasin is approximately 22 miles long and 15 miles wide, with a surface area of 225 square miles. A confined zone within the northern areas of the subbasin is overlaid with a series of clay layers resulting in a low permeability zone. The southern area is an unconfined zone, or forebay, where the clay layer does not restrict recharge.

Groundwater Level Trends

Groundwater levels fluctuate annually in response to extraction, recharge from precipitation, stream percolation, infiltration of applied irrigation water, and subsurface inflow and outflow. Levels are usually highest in the spring and lowest during the summer months. Longer-term fluctuations occur when discharge exceeds or is less than recharge over several seasons. Precipitation, applied water, rivers, and local creeks recharge groundwater in Santa Clara County. Groundwater from Coyote Creek, the Guadalupe River, and Los Gatos Creek generally flows northward and discharges into the San Francisco Bay.

Groundwater Storage

The Santa Clara Valley subbasin has a vast storage capacity supplying as much as half of the annual water needs of the County. The operational storage capacity of the Santa Clara Valley subbasin, based on an area defined by the Santa Clara Valley Water District (SCVWD), is estimated to be 350,000 acre-feet.

Groundwater Quality

Santa Clara County reserves of groundwater occur among three subbasins: Santa Clara Valley, Llagas, and Hollister Areas. Groundwater quality samples have been collected in the County since the 1940s. High mineral salt concentrations have been identified in the upper aquifer zone along San Francisco Bay, the lower aquifer zone underlying Palo Alto, and the southern portion of the forebay area of the Santa Clara Valley subbasin. High nitrate concentrations are also sporadically measured in the Santa Clara Valley subbasin. However, because of the SCVWD groundwater protection programs—which include well permitting, well destruction, and leaking underground storage tank programs—the groundwater basin has been effectively protected against contamination. Additionally, the drinking water standards are met at public water supply wells without the use of treatment methods. As such, the overall quality of the Santa Clara Valley subbasin is high.

Project Site Groundwater

Krazan & Associates conducted subsurface borings as part of the Geotechnical Engineering Investigation. Groundwater was encountered between 13 feet, 3 inches and 24 feet below ground surface.

4.6.3 - Regulatory Framework

Federal

Clean Water Act

Section 303 of the Clean Water Act requires states to adopt water quality standards for all surface waters of the United States. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. See a description of State Porter-Cologne Water Quality Control Act, below. Standards are based on the designated beneficial use(s) of the water body. Where multiple uses exist, water quality standards must protect the most sensitive use.

Section 402 of the Clean Water Act mandates that certain types of construction activity comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase II Rule, issued in 1999, requires that construction activities that disturb land equal to or greater than 1 acre require permitting under the NPDES program. In California, permitting occurs under the General Permit for Stormwater Discharges Associated with Construction Activity, issued to the State Water Resources Control Board (SWRCB) and implemented and enforced by the nine Regional Water Quality Control Boards (RWQCBs). The project site is within the boundaries of the San Francisco Bay RWQCB.

This General Permit requires all dischargers, where construction activity disturbs one (1) or more acres, to take the following measures:

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP), which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off site into receiving waters.
2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.
3. Perform inspections of all BMPs.

To obtain coverage, the landowner must file a Notice of Intent with the SWRCB. The notice is required to include the requirements listed above. When project construction is completed, the landowner must file a notice of termination.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 authorized the SWRCB to provide comprehensive protection for California's waters through water allocation and water quality

protection. The SWRCB implements the requirement of the Clean Water Act Section 303, indicating that water quality standards have to be set for certain waters by adopting water quality control plans under the Porter-Cologne Act. The Porter-Cologne Act established the responsibilities and authorities of the nine RWQCBs, which include preparing water quality plans for areas in the region, identifying water quality objectives, and issuing NPDES permits and Waste Discharge Requirements. Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of nuisance. The Porter-Cologne Act was later amended to provide the authority delegated from EPA to issue NPDES permits.

Water Quality Control Plan for the San Francisco Bay Basin

The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the RWQCB's master water quality control planning document. The Basin Plan designates beneficial uses and water quality objectives for waters of the State located within the 4,603-square-mile basin, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives.

Local

City of Milpitas

General Plan

The General Plan establishes the following principles and policies related to water quality and conservation that are applicable to the proposed project:

- **Principle 4.d-G-1:** Protect and enhance the quality of water resources in the Planning Area.
- **Principle 4.d-G-2:** Promote conservation and efficiency in the use of water.
- **Policy 4.d-I-1:** Continue implementing the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Board.

Municipal Code

Municipal Code Title XI, Chapter 16 provides regulations and gives legal effect to certain requirements of the NPDES permit No. CAS029718, as amended by Order No. 01-119, issued to the City of Milpitas regarding municipal stormwater and urban runoff requirements. Projects that result in an increase or replacement of impervious surface of a previously existing development are required to include Permanent Stormwater Pollution Prevention Measures in the design to sufficiently reduce water quality impacts of urban runoff from the affected portion of the site for the life of the project.

4.6.4 - Methodology

Michael Brandman Associates (MBA) analyzed the proposed project's potential to cause adverse impacts on hydrology and water quality utilizing several resources. MBA used the Western Regional Climate Center for meteorology and climate information and the California Department of Water Resources Bulletin 118: San Francisco Bay Hydrologic Region, Santa Clara Valley Groundwater

Basin for groundwater information. MBA referenced the City of Milpitas General Plan to identify waterways in the project vicinity. MBA reviewed project plans to determine what changes would occur to existing drainage facilities.

4.6.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hydrology and water quality impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a.) Violate any water quality standards or waste discharge requirements?

b.) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?

c.) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d.) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

e.) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f.) Otherwise substantially degrade water quality?

g.) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (Refer to Section 7, Effects Found Not To Be Significant.)

h.) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows? (Refer to Section 7, Effects Found Not To Be Significant.)

i.) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (Refer to Section 7, Effects Found Not To Be Significant.)

j.) Inundation by seiche, tsunami, or mudflow? (Refer to Section 7, Effects Found Not To Be Significant.)

4.6.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Short-Term Water Quality

Impact HYD-1:	**Construction activities associated with the proposed project have the potential to degrade water quality in downstream water bodies.**

Impact Analysis

This analysis evaluates the proposed project impact on short-term water quality. The analysis considers individual impacts associated with the implementation of the project.

Development of the proposed project would require extensive grading and construction activities that could easily disturb more than one acre. During these activities, there would be the potential for surface water to carry sediment from onsite erosion and small quantities of pollutants into the stormwater system and local waterways. Soil erosion may occur along project boundaries during construction in areas where temporary soil storage is required. Small quantities of pollutants have the potential for entering the storm drainage system, thereby potentially degrading water quality.

Construction of the proposed project would also require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would likely be utilized during construction. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The NPDES stormwater permitting programs regulate stormwater quality from construction sites. Under the NPDES permitting program, the preparation and implementation of SWPPPs are required for construction activities more than 1 acre in area. The SWPPP must identify potential sources of pollution that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement BMPs that ensure the reduction of these pollutants during stormwater discharges.

Mitigation is proposed that would require the project applicant to prepare and implement a SWPPP. The implementation of the mitigation measure would ensure that potential, short-term, construction water quality impacts are reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HYD-1 Prior to the issuance of grading permits for the proposed project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the City of Milpitas that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include, but not be limited to, the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.
- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains.
- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

Level of Significance After Mitigation

Less than significant impact.

Long-Term Water Quality

Impact HYD-2: Operational activities associated with the proposed project have the potential to degrade water quality in downstream water bodies.

Impact Analysis

This analysis evaluates the proposed project impact on long-term water quality. The analysis considers individual impacts associated with the implementation of the project.

The proposed project would not result in a net increase in impervious surface coverage of the project site. Currently, the project site contains mostly impervious surfaces, with landscaped areas accounting for the only pervious surfaces. The proposed project would maintain the existing

impervious surface coverage and uses of the project site. Such characteristics would create the potential for additional discharge of urban pollutants into downstream waterways. Leaks of fuel or lubricants, tire wear, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff being transported to receiving waters. Runoff from the landscaped areas may contain residual pesticides and nutrients.

Mitigation is proposed that would require the project applicant to prepare and submit a stormwater quality management plan to the City of Milpitas for review and approval. The plan would require the project applicant to document various stormwater quality control measures that would be in effect during project operations to ensure that water quality in downstream water bodies is not degraded. The implementation of this mitigation measure would ensure that potential, long-term, operational water quality impacts are reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HYD-2 Prior to the issuance of building permits for the proposed project, the project applicant shall submit a stormwater management plan to the City of Milpitas for review and approval. The stormwater management plan shall comply with the requirements of Milpitas Municipal Code Title XI, Chapter 16 and identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. Examples of stormwater pollution prevention measures and practices to be contained in the plan include, but are not limited to:

- Strategically placed bioswales and landscaped areas that promote percolation of runoff
- Pervious pavement
- Roof drains that discharge to landscaped areas
- Trash enclosures with screen walls
- Stenciling on storm drains
- Curb cuts in parking areas to allow runoff to enter landscaped areas
- Rock-lined areas along landscaped areas in parking lots
- Catch basins
- Oil/water separators
- Regular sweeping of parking areas and cleaning of storm drainage facilities
- Employee training to inform store personnel of stormwater pollution prevention measures

The project applicant shall also prepare and submit an Operations and Maintenance Agreement to the City identifying procedures to ensure that stormwater quality control measures work properly during operations.

Level of Significance After Mitigation

Less than significant impact.

Groundwater

Impact HYD-3:	**The proposed project does not have any characteristics that would contribute to groundwater overdraft or contamination.**

Impact Analysis

This analysis evaluates the proposed project impact on groundwater. The analysis considers individual impacts associated with the implementation of the project.

The proposed project would be served by the City of Milpitas potable water system. The City of Milpitas Public Works Department has indicated that it can serve the project site from existing supplies. In addition, no groundwater wells would be located on the project site. Therefore, the project would not contribute to groundwater overdraft.

The proposed project would not involve the installation of underground storage tanks (USTs) or handle bulk quantities of hazardous liquid materials that could potentially contaminate groundwater.

Finally, the project site is not used for groundwater recharge and the proposed project would not interfere with such activities.

Therefore, impacts on groundwater would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Drainage

Impact HYD-4:	**The proposed project would not increase impervious surface coverage and, therefore, would not have the potential to contribute to downstream flooding.**

Impact Analysis

The footprint of the proposed store expansion contains a parking lot that is drained by the existing storm drainage system serving the project site. The existing drainage infrastructure would be modified to accommodate the expansion; however, the system itself would not need to be upsized to provide additional capacity because the store expansion would not increase the amount of impervious surface coverage onsite. Accordingly, the proposed project would not increase the amount of runoff

leaving the project site and, therefore, it would not have the potential to contribute to downstream flooding conditions. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.7 - Land Use

4.7.1 - Introduction

This section describes the existing land use and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on site reconnaissance performed by Michael Brandman Associates personnel and review of the City of Milpitas General Plan and the Milpitas Municipal Code.

4.7.2 - Environmental Setting

Land Use

Project Site

The project site contains a 131,725-square-foot conventional Walmart store (Store No. 2119), located in the northern portion of the McCarthy Ranch Marketplace. The store opened in 1994 and contains a general merchandise sales floor area, a food sales area, a food tenant area (McDonald's), a stockroom receiving area, loading dock, an ancillary area, a food sales support area, an outdoor garden center, and a two-bay Tire & Lube Express. The garden center, Tire & Lube Express, and loading dock are located on the north side of the existing store. The store has a main entrance, a garden center entrance, and one loading dock with two doors.

The main customer parking area is located on the east side of the store, in front of the store entrance, and an ancillary parking area is located on the south side of the store. The western portion of the ancillary parking area is used for storage of 40-foot shipping containers at various times of the year. The parking areas are accessible to other parking areas in the McCarthy Ranch retail center. The existing store conducts temporary outdoor seasonal sales in the parking lot during various times of the year.

Dumpsters, pallet storage, and a trash compactor are located on the north side of the store. The pallet storage area consists of a masonry block enclosure. Access to the Walmart store is taken via three unsignalized driveways on Ranch Drive and two internal drive aisle connections with the McCarthy Ranch retail center. All access points allow full access.

A pedestrian walkway links the Walmart entrance with the McCarthy Ranch retail center to the south and Ranch Drive to the north.

Photographs of the project site are provided in Exhibits 3-3a and 3-3b.

Surrounding Area

West

McCarthy Boulevard forms the western boundary of the project site. McCarthy Boulevard is a four-lane, divided arterial roadway with a landscaped median. West of the roadway is undeveloped land designated for Industrial Park uses by the City of Milpitas General Plan. This land was recently

entitled for an office park campus (The Campus at McCarthy Ranch) by the City of Milpitas in 2008. Coyote Creek is located west of the undeveloped land. The Coyote Creek Trail, a Class I bicycle/pedestrian trail, parallels the east side of the creek.

North

Ranch Drive forms the northern boundary of the project site. Ranch Drive is a two-lane, undivided collector roadway. The intersection of McCarthy Boulevard/Ranch Drive is located northwest of the project site. The McCarthy Center office complex is located north of Ranch Drive. The 68-acre complex contains approximately 1 million square feet of office and Research and Development (R&D) uses spread among 19 two-story buildings in a campus setting.

East

Ranch Drive forms the eastern boundary of the project site. East of Ranch Drive is Interstate 880 (I-880), an eight-lane divided freeway. On- and off-ramps for the State Route 237 (SR-237) interchange are present along this segment of I-880. East of I-880 are single-family residential uses. The residential uses are protected by a sound wall located along the I-880 frontage.

South

The balance of the McCarthy Ranch Marketplace is located south of the project site. The McCarthy Ranch Marketplace contains 560,000 square feet of retail (including Walmart, which is located at the north end of the shopping center) and features inline mid-boxes (such as Best Buy, Borders, PetSmart, and Sports Authority); small shops and restaurants; and small, freestanding pads occupied by restaurants (such as Black Angus, Macaroni Grill, and Applebee's).

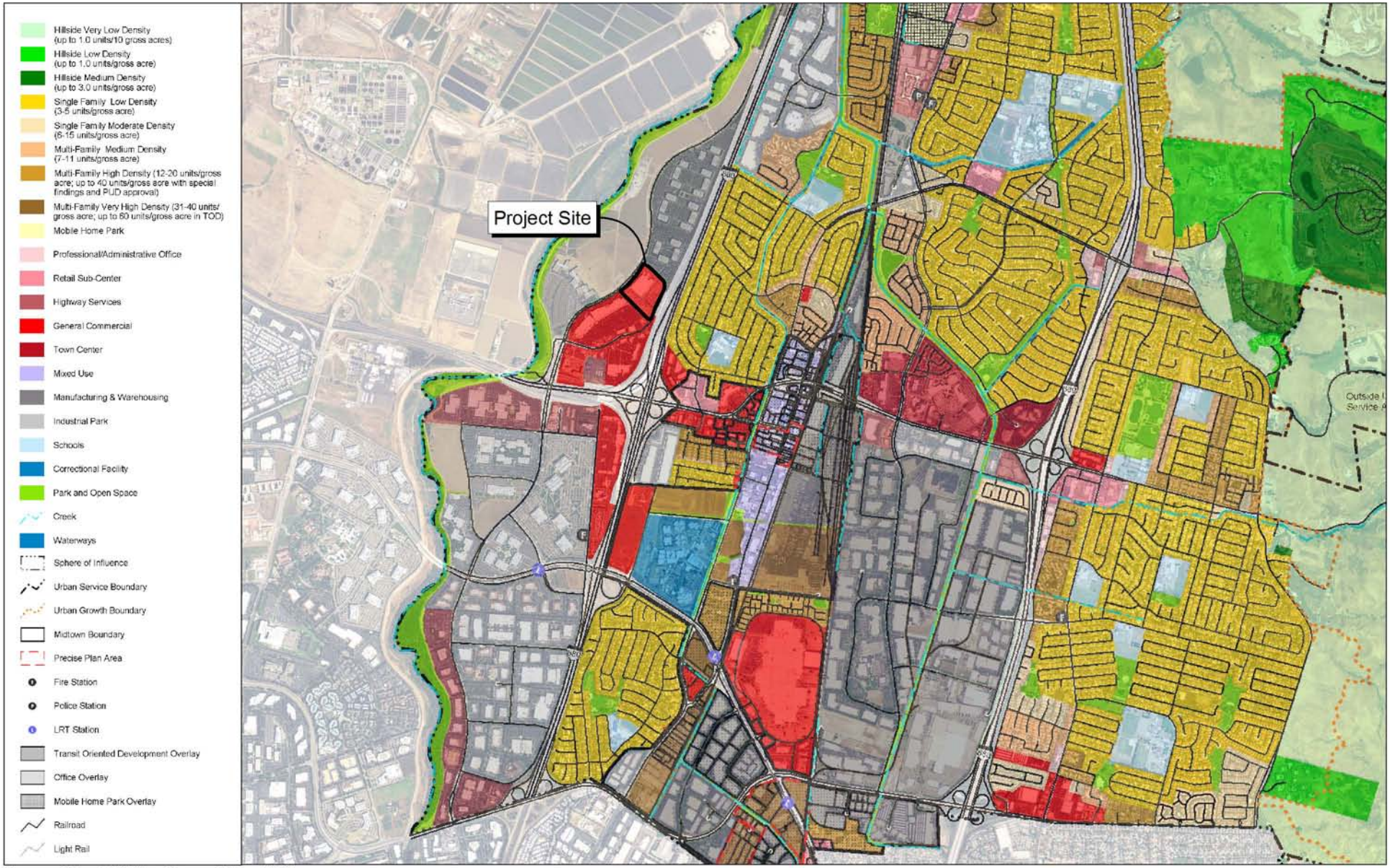
Land Use Designations

Project Site

The Milpitas General Plan designates the McCarthy Ranch Marketplace, including the 14.56-acre Walmart portion, for General Commercial (C2) uses. The Milpitas Zoning Ordinance designates the shopping center General Commercial (C2), Site and Architectural Review Overlay District (S). The existing Walmart store is consistent with the land use designation.

Surrounding Land Use Designations

Table 4.7-1 provides the General Plan and Zoning designations for surrounding land uses. The City of Milpitas General Plan map for the project vicinity is provided in Exhibit 4.7-1. The Milpitas Zoning Map for the project vicinity is provided in Exhibit 4.7-2.



Source: City of Milpitas General Plan, 2005.

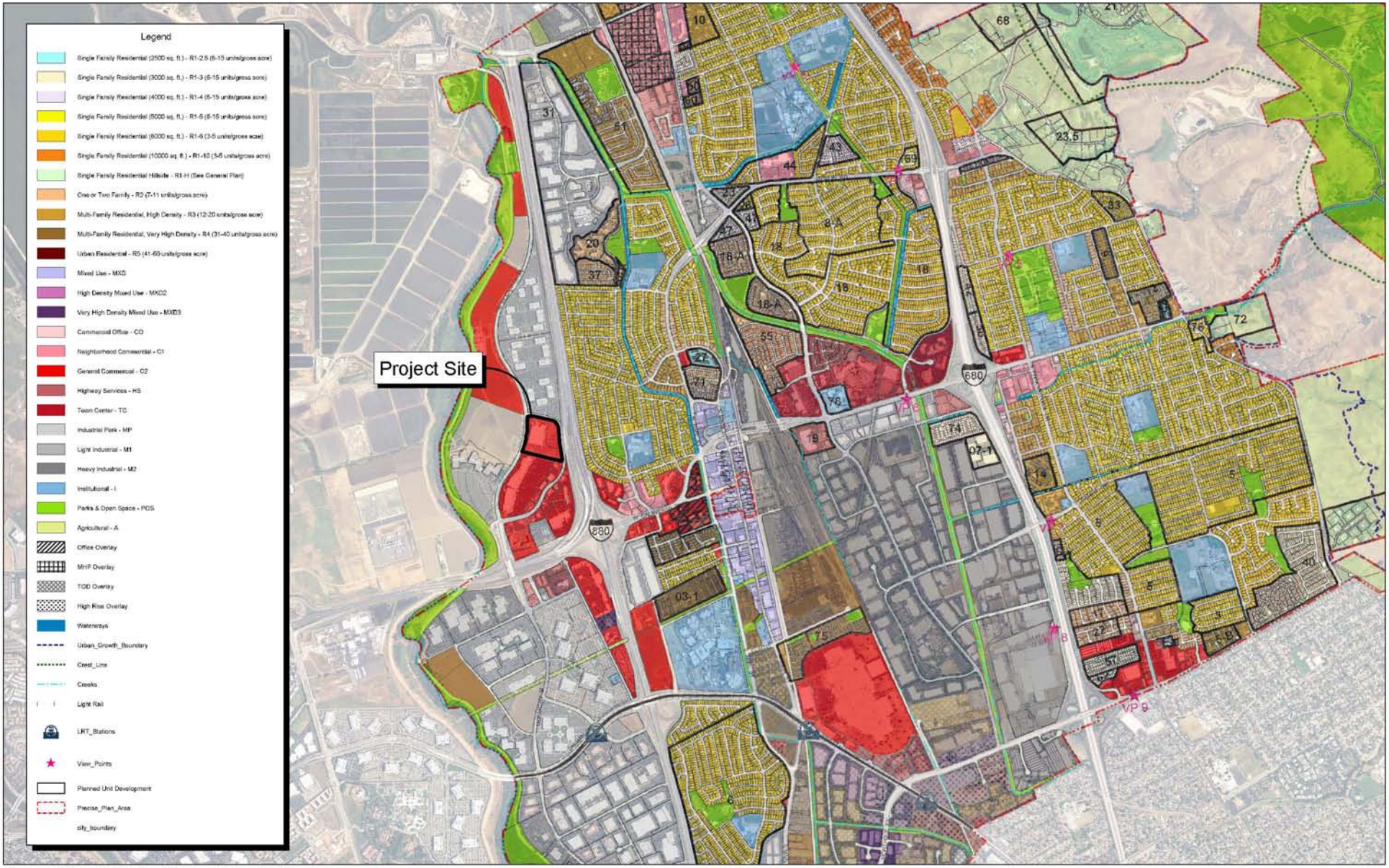
NORTH

3,000 1,500 0 3,000 Feet

Michael Brandman Associates

32660002 • 02/2009 | 4.7-1_gp.mxd

Exhibit 4.7-1
General Plan Map



Source: City of Milpitas General Plan, 2009.

NORTH

3,000 1,500 0 3,000 Feet

Michael Brandman Associates

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Exhibit 4.7-2
Zoning Map

Table 4.7-1: Surrounding Land Use Designations

Land Use	Relationship to Project Site	Land Use Designation	
		General Plan	Zoning
Agricultural and Undeveloped Land	West	Industrial Park	Light Industry (M1); General Commercial (C2)
Coyote Creek	West	Park and Open Space	Park and Open Space (POS)
McCarthy Center Office Complex	North	Manufacturing & Warehousing Industrial Park	Industrial Park (MP)
I-880	East	No Designation	No Designation
Residential Neighborhood	East	Single-Family Low Density	Single-Family, Minimum 6,000 square feet (R1-6)
McCarthy Ranch Marketplace	South	General Commercial	General Commercial (C2)
Source: Michael Brandman Associates, 2008.			

4.7.3 - Regulatory Framework

Local

City of Milpitas General Plan

The City of Milpitas General Plan provides a blueprint for growth within the Milpitas city limits and the Sphere of Influence. The Milpitas City Council adopted the most recent General Plan in 2002. The General Plan contains six topical chapters: Introduction and Overview, Land Use Element, Circulation Element, Open Space & Environmental Conservation Elements, Seismic & Safety Elements, and Noise Elements. Each chapter establishes goals and policies to guide future land use activities and development within the General Plan boundaries.

General Commercial Land Use Designation

The project site is designated General Commercial by the General Plan. The General Plan describes the purpose and intent of the General Commercial land use designation as follows:

> This classification provides for a wide range of retail sales, and personal and business services accessed primarily by the automobile. It includes commercial uses in which shopping may be conducted by people walking to several stores as in a center, and may include uses customarily of a single-purpose character served from an adjacently parked automobile. (Page 2-14)

The General Plan establishes a maximum Floor Area Ratio (FAR) of 0.50 for the General Commercial land use designation.

Milpitas Municipal Code

The Milpitas Municipal Code provides regulation of land and structures in order to protect and promote health, safety, and welfare of the public, and to insure the orderly development of the City. The project site is zoned General Commercial (C2), which is described below.

General Commercial (C2) Zoning District

Milpitas Municipal Code Title XI, Chapter 10-19 describes the General Commercial (C2) zone as follows:

> The C2 District is intended to provide for the wide range of retail sales and personal and business services primarily oriented to the automobile customer to provide for general commercial needs of the City and to promote stable, attractive commercial development which will afford a pleasant shopping environment. It is intended to include those commercial uses in which shopping may be conducted by people walking to several stores as in a center and may include uses customarily of a single-purpose character served from an immediately parked automobile. Special development standards are incorporated in the district regulations in order to provide for orderly development and to minimize potential traffic hazards. The C2 District, when appropriate, will be located along major thoroughfares and in accordance with the adopted City of Milpitas General Plan.

Retail stores are listed as a principal permitted use within the General Commercial (C2) zoning district. Alcohol sales and food stores (e.g., supermarkets) located within 1,000 feet of residential uses require a Conditional Use Permit.

The Zoning Ordinance requires that outdoor storage of materials and trash be completely enclosed within a building or behind a visually obscure solid wall or tight board fence a minimum 6 feet in height and outside any front or street side yard setback area.

The Zoning Ordinance establishes a maximum FAR of 0.50 for the General Commercial (C2) zoning district. There are no height limits for structures in this zoning district.

Site and Architectural Review Overlay (S)

The project site is within the Site and Architectural Review Overlay District (S). New development within this district is required to obtain a Site Development Permit, which includes architectural review. The purpose of the process is intended to encourage site and structural development which:

- Respects the physical and environmental characteristics of the site.
- Ensures safe and convenient access and circulation for pedestrians and vehicles.
- Exemplifies the best professional design practices.
- Encourages individual identity for specific uses and structures.

- Encourages a distinct community or neighborhood identity.
- Minimizes visual impacts.

Parking Standards

Municipal Code Title XI, Chapter 10-19 establishes standards for off-street parking. The chapter requires that off-street parking for retail development be provided a rate of one space per 200 square feet of gross building area (five spaces per 1,000 square feet of gross building area).

Signage Standards

Milpitas Municipal Code Title XI, Chapter 30 establishes regulations for signs. For signs associated with commercial sales in a single building, the Municipal Code limits the sign coverage to either:

- No more than 1 square foot of sign for each 2 lineal feet of building perimeter; or
- No more than 2 square feet of sign for each 1 lineal foot of public street frontage.

The Municipal Code requires that a sign permit be obtained for architectural signs, which are defined as signs used for advertising purposes that constitute an integral part of the building roof or marquee and are designed with the intent of relating to the architectural style of the structure.

4.7.4 - Methodology

Michael Brandman Associates (MBA) evaluated the potential for land use impacts through site reconnaissance and review of applicable land use policy documents. MBA personnel performed site reconnaissance on the project site and surrounding land uses in October 2008 and March 2009. Photographs were taken of the project site and surrounding land uses to document existing conditions. MBA reviewed the City of Milpitas General Plan and Milpitas Municipal Code to identify applicable policies and provisions that pertain to the proposed project.

4.7.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, land use impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a.) Physically divide an established community? (Refer to Section 7, Effects Found Not To Be Significant.)

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?

c.) Conflict with any applicable habitat conservation plan or natural communities conservation plan? (Refer to Section 7, Effects Found Not To Be Significant.)

4.7.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

General Plan Consistency

Impact LU-1: **The proposed project would be consistent with applicable provisions of the City of Milpitas General Plan.**

Impact Analysis

This impact evaluates the proposed project's consistency with the City of Milpitas General Plan.

The project site is designated General Commercial by the General Plan. Retail uses are identified as allowable activities within the General Commercial land use designation. Therefore, the proposed project would be consistent with allowed uses of the General Commercial land use designation.

The General Plan establishes a maximum FAR of 0.50 for the General Commercial land use designation. The expanded store would total a maximum of 150,725 square feet. The expanded Walmart store would have a FAR of 0.24 (150,725 square feet ÷ 14.56 acres [634,233.6 square feet]), which would be within the General Plan's maximum allowable FAR of 0.50.

Accordingly, the proposed project would be consistent with the requirements of the General Commercial land use designation.

General Plan Consistency Analysis

Table 4.7-2 evaluates the proposed project's consistency with the applicable principles and policies of the City of Milpitas General Plan. As shown in the table, the proposed project is consistent with all applicable principles and policies. Impacts would be less than significant.

Table 4.7-2: General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
2 - Land Use	Principle 2.a-G-1	Maintain a land use program that balances Milpitas' regional and local roles by providing for a highly amenable community environment and a thriving regional industrial center.	**Consistent:** The proposed project consists of a 19,000-square-foot expansion of the existing Walmart store in the McCarthy Ranch Marketplace. The expansion would be consistent with the General Plan's development standards and would be compatible with the neighboring commercial retail and office uses in McCarthy Ranch Marketplace.

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
2 - Land Use *cont.*	Principle 2.a-G-1 *cont.*		Accordingly, the proposed project would contribute to a highly amenable community environment.
	Principle 2.a-G-2	Maintain a relatively compact urban form.	**Consistent:** The project site is within the McCarthy Ranch Marketplace. The proposed project would expand the existing Walmart store, which is consistent with the objective of maintaining a compact urban form.
	Policy 2.a-I-1	New developments should not exceed the building intensity limits established in the General Plan.	**Consistent:** The expanded Walmart would have a FAR of 0.24, which is within the 0.50 limit established by the General Plan.
	Policy 2.a I-2	Promote development within the incorporated limits which acts to fill-in the urban fabric rather than providing costly expansion of urban services into outlying areas.	**Consistent:** The proposed project would expand the existing Walmart store and, therefore, is infill development. As such, it would not require expansion into outlying areas.
	Policy 2.a-I-3	Encourage economic pursuits which will strengthen and promote development through stability and balance.	**Consistent:** The proposed project would create new employment opportunities and offer 24-hour grocery and general merchandise sales in a safe and secure environment. These characteristics are consistent with the objective of providing stable and balanced economic development.
	Policy 2.a-I-5	Maintain policies that promote a strong economy which provides economic opportunities for all Milpitas residents within existing environmental, social fiscal and land use constraints.	**Consistent:** The proposed project consists of the expansion of the existing Walmart store in the McCarthy Ranch Marketplace. The project would create new employment opportunities and provide 24-hour grocery and general merchandise sales in a safe and secure environment. These characteristics would be consistent with the objective of enhancing economic opportunities, while also minimizing adverse environmental, social, fiscal, and land use impacts.
	Policy 2.a-I-6	Endeavor to maintain a balanced economic base that can resist	**Consistent:** The proposed project consists of expanding and upgrading

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
		downturns in any one economic sector.	the existing Walmart store to offer grocery sales and enhance general merchandise sales. The proposed project would enhance Milpitas' commercial retail offerings, particularly for everyday household items, and would contribute to maintaining a balanced economic base that can resist downturns in any one economic sector.
	Policy 2.a-I-7	Provide opportunities to expand employment, participate in partnerships with local business to facilitate communication, and promote business retention.	**Consistent:** The proposed project is anticipated to create as many as 75 new jobs, which is consistent with the objective of expanding employment opportunities.
	Policy 2.a-I-10	Foster community pride and growth through beautification of existing and future development.	**Consistent:** The proposed project would include new façade treatments for the Walmart store's front elevation that would enhance its appearance. In addition, new landscaping would be installed around the store and in the parking areas.
	Principle 2.b-G-1	Support jobs/housing balance programs at the local and regional scale intended to reduce the distance needed to commute.	**Consistent:** The proposed project would create as many as 75 new jobs, most of which (if not all) are anticipated to be filled from the local workforce.
	Principle 2.d-G-1	Provide all possible community facilities and utilities of the highest standards commensurate with the present and anticipated needs of Milpitas, as well as any special needs of the region.	**Consistent:** The proposed project would maintain the existing utility connections (e.g., potable water, sewer, storm drainage), all of which have adequate capacity to serve the store expansion. Therefore, the proposed project would be served with adequate utilities.
	Policy 2.d-I-1	Coordinate capital improvement planning for all municipal service infrastructure with the location and timing of growth.	**Consistent:** The project applicant would provide the full cost of all onsite improvements and fair-share costs for all offsite improvements needed to serve the project. To the extent feasible, all infrastructure improvements would be in place prior to significant impacts occurring.
3 - Circulation	Principle 3.a-G-1	Continue to utilize the City's adopted Level of Service standards	**Consistent:** The proposed project's traffic impacts were evaluated using

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
		in evaluating development proposals and capital improvements.	the City's adopted Level of Service standards. Refer to Section 4.10, Transportation for further discussion.
	Principle 3.a-G-2	Maintain acceptable service standards for a major streets and intersections.	**Consistent:** In accordance with the objective of maintaining acceptable service standards, the proposed project would implement all feasible mitigation for its traffic impacts. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.a-I-1	Strive to maintain CMP LOS standards and goals for the CMP Roadway System in Milpitas.	**Consistent:** In accordance with the objective of maintaining acceptable CMP service standards, the proposed project would implement all feasible mitigation for its traffic impacts. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.a-I-2	For collectors and arterials east of Interstate 880 operating at baseline (1991) LOS F, require any development project that impacts the facility at or greater than one percent of facility capacity to implement mitigation measures to reduce the development project's impacts below the one percent level. If an identified location cannot be mitigated, measures designed to improve system-wide levels of service can be implemented. These system-wide improvement strategies will be contained in the Citywide Deficiency Plan.	**Consistent:** The intersection of Dixon Landing Road and Milpitas Boulevard would operate at LOS F with the addition of the proposed project's traffic. Mitigation is proposed that would improve operations to LOS E and, therefore, mitigate the proposed project's impact. Note that improvements to this intersection, as well as the Dixon Landing Road corridor, are programmed into the Valley Transportation Plan 2035 and the City of Milpitas has been collecting fees to fund these improvements.
	Policy 3.a-I-4	On streets where substandard service levels are anticipated, investigate and implement improvement projects that will enhance traffic operations.	**Consistent:** The proposed project would implement all feasible mitigation measures to mitigate for its impact on intersection operations, roadway operations, and queuing. Refer to Section 4.10, Transportation for further discussion.
	Principle 3.b-G-1	Develop a street network integrated with the pattern of living, working and shopping areas, and which provides for safe, convenient, and	**Consistent:** The proposed project would implement mitigation measures to mitigate for its impact on intersection operations, roadway

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
		efficient vehicular movement within the City and to other parts of the region.	operations, and queuing. This mitigation would contribute to safe, convenient, and efficient vehicular movement. Refer to Section 4.10, Transportation for further discussion.
	Principle 3.b-G-4	Use the "Major Improvements Needed" subsection as a basis for identifying, scheduling, and implementing roadway improvements as development occurs in the future.	**Consistent:** The proposed project would implement mitigation measures to mitigate for its impact on intersection operations, roadway operations, and queuing. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.b-I-1	Require new development to pay its share of street and other traffic improvements based on its impacts.	**Consistent:** The proposed project would either install necessary improvements or pay fair-share fees to be used to assist with street and other traffic improvements. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.b-I-2	Require all projects that generate more than 100 peak-hour (A.M. or P.M.) trips to submit a transportation impact analysis that follows guidelines established by CMP.	**Consistent:** Kimley-Horn and Associates evaluated the proposed project's traffic impacts in a Traffic Impact Analysis that was prepared in accordance with VTA guidelines. The findings of the analysis are summarized in Section 4.10, Transportation.
	Principle 3.c-G-1	Promote measures that increase transit use and lead to improved utilization of the existing transportation system.	**Consistent:** The project site is currently served by VTA bus service. The proposed project would maintain the existing bus stop, as well as the direct pedestrian connection between the stop and the Walmart store entrance.
	Principle 3.c-G-2	Cooperate with other agencies to promote local and regional transit serving Milpitas.	**Consistent:** The project site is currently served by VTA bus service. The proposed project would maintain the existing bus stop, as well as the direct pedestrian connection between the stop and the Walmart store entrance.
	Principle 3.d-G-1	Promote walking and bicycling for transportation and recreation purposes by providing a comprehensive system of sidewalks, bicycle lanes, and routes and off-	**Consistent:** The existing Walmart store is currently accessible to pedestrians via sidewalks along Ranch Drive and McCarthy Boulevard and internal walkways

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
		street trails that connects all parts of the City.	within the McCarthy Ranch Marketplace. The existing Walmart store is currently accessible to bicycles, and Class II bicycle lanes exist on McCarthy Boulevard. The proposed project would maintain and enhance access for pedestrians and bicycles and, therefore, would be consistent with the objective of promoting walking and bicycling.
	Principle 3.d-G-2	Provide adequate bicycle parking and end-of-trip support facilities for bicyclists at centers of public and private activity.	**Consistent:** Mitigation is proposed requiring the installation of bicycle storage facilities near the store entrance. There are existing employee lockers in the rear of the store, which are considered end-of-trip support facilities and would be maintained by the proposed project. Refer to Section 4.10, Transportation for further discussion.
	Principle 3.d-G-3	Promote intermodal commuting options.	**Consistent:** The existing Walmart store is accessible to public transit, bicycles, and pedestrians. The proposed project would maintain and enhance accessibility to these modes of transportation and, therefore, would contribute to the objective of promoting intermodal commuting options.
	Principle 3.d-G-4	Encourage a mode shift to non-motorized transportation by expanding current pedestrian and bicycle facilities.	**Consistent:** The existing Walmart store is currently accessible to pedestrians via sidewalks along Ranch Drive and McCarthy Boulevard and internal walkways within the McCarthy Ranch Marketplace. The existing Walmart store is currently accessible to bicycles, and Class II bicycle lanes exist on McCarthy Boulevard. Mitigation is proposed requiring the installation of bicycle storage facilities near the store entrance. The proposed project would maintain and enhance access for pedestrians and bicycles and, therefore, would be consistent with the objective of promoting walking and bicycling. Refer to Section

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
			4.10, Transportation for further discussion.
	Policy 3.d-I-2	Develop connections between the off-street trail system and on-street bicycle system to fully integrate these facilities. Maximize linkages to other trail and bikeway systems to provide alternative transportation routes for pedestrians and bicyclists.	**Consistent:** The existing Walmart store provides direct pedestrian connections to other uses in the McCarthy Ranch Marketplace and the Ranch Drive sidewalk. These connections would be maintained by the proposed project and would be consistent with the objective of providing and enhancing pedestrian linkages. Note that the proposed project would not alter the existing bicycle facilities on N. McCarthy Boulevard. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.d-I-9	Require developers to make new projects as bicycle and pedestrian "friendly" as feasible, especially through facilitating pedestrian and bicycle movements within sites and between surrounding activity centers.	**Consistent:** The existing Walmart store is accessible to pedestrians and bicycles. The proposed project would maintain and enhance access for pedestrians and bicycles; therefore, the project would be bicycle and pedestrian friendly. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.d-I-10	Encourage developer contributions toward pedestrian and bicycle capital improvement projects and end-of-trip support facilities.	**Consistent:** The proposed project would provide bicycle storage facilities near the store entrance and continue to provide employee lockers in the rear of the store, which would be considered end-of-trip support facilities. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.d-I-11	Make improvements to roads, signs, and traffic signals as needed to improve bicycle travel.	**Consistent:** The existing Walmart store is accessible to pedestrians and bicycles. The various traffic improvements required for the proposed project would provide accommodation for bicycles to the extent appropriate.
	Policy 3.d-I-12	Discourage speed bumps and other street features that hinder bicycling on public streets and private parking lots.	**Consistent:** There are no existing speed bumps in the Walmart parking area, a condition that would remain unchanged by the proposed project. No speed bumps are proposed to be

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
			installed on Ranch Drive, McCarthy Boulevard, or any other street as part of the proposed project.
	Policy 3.d-I-13	Where appropriate, install bicycle lockers and/or racks at public parks, civic buildings and other community facilities.	**Consistent:** Mitigation is proposed requiring the provision of bicycle storage facilities near the store entrance. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.d-I-14	Include evaluation of bicycle facility needs in all planning applications for new developments and major remodeling or improvement projects.	**Consistent:** This EIR includes an evaluation of bicycle facility needs, and mitigation is proposed requiring the provision of bicycle storage facilities near the store entrance. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.d-I-15	Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc.	**Consistent:** Mitigation is proposed requiring the provision of bicycle storage facilities near the store entrance. In addition, employee lockers and restrooms are located in the rear of the store and would be maintained by the proposed project. Refer to Section 4.10, Transportation for further discussion.
	Policy 3.d-I-26	Require sidewalks on both sides of the street as a condition of development approval, where appropriate with local conditions.	**Consistent:** Sidewalks currently exist along the project site frontage with N. McCarthy Boulevard and along Ranch Drive to the North Driveway. No sidewalks exist along the balance of the Ranch Drive frontage and none are proposed, because safer and more direct pedestrian facilities exist between the Walmart entrance and nearby buildings in the McCarthy Ranch Marketplace. The proposed project would maintain these existing pedestrian facilities.
	Principle 3.e-G-1	Provide adequate circulation and off-street parking and loading facilities for trucks.	**Consistent:** The existing Walmart store receives daily truck deliveries and has adequate circulation, parking, and loading facilities for current operations. An additional loading dock would be installed as part of the proposed project, which

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
			would be sufficient to accommodate the additional truck deliveries associated with the proposed store expansion.
	Policy 3.e-I-1	Restrict trucks to designated non-restricted routes.	**Consistent:** Trucks access the existing Walmart store from N. McCarthy Boulevard and Ranch Drive. Both routes are designated truck routes. Deliveries associated with the expanded store would continue to use these roadways.
	Policy 3.e-I-2	Ensure that adequate pavement depth, lane widths, bridge capacities, loading areas, and turn radii are maintained on the permitted streets.	**Consistent:** N. McCarthy Boulevard and Ranch Drive were constructed in the early 1990s and meet current standards for truck routes.
4 - Open Space and Environmental Conservation	Principle 4.b-G-2	Preserve and protect populations and supporting habitat of special status species within the Planning Area, including species that are state or federally listed as Rare, Threatened, or Endangered, all federal "candidate" species for listing and other species proposed for listing, and all California Species of Special Concern.	**Consistent:** Nesting birds protected by the Migratory Bird Treaty Act are the only special-status species with the potential to occur on the project site. Mitigation is proposed that would require pre-construction surveys and, if necessary, avoidance of occupied nests until the birds have fledged. Refer to Section 4.3, Biological Resources for further discussion.
	Policy 4.b-I-4	Require a biological assessment of any project site where sensitive species are present, or where habitats that support known sensitive species are present.	**Consistent:** A biologist assessed the potential for the project site to support special-status species and habitats and found that only nesting birds have the potential to occur onsite. Mitigation is proposed requiring a standard pre-construction nesting bird survey. Refer to Section 4.3, Biological Resources for further discussion.
	Principle 4.d-G-1	Protect and enhance the quality of water resources in the Planning Area.	**Consistent:** The proposed project would implement construction and operational stormwater quality protection measures to protect downstream water resources from pollution. Refer to Section 4.6, Hydrology and Water Quality for further discussion.
	Principle 4.d-G-2	Promote conservation and efficiency in the use of water.	**Consistent:** The proposed project would implement indoor water conservation measures to promote

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
			the efficient use of potable water. Note that the existing Walmart store uses recycled water for outdoor irrigation, a condition that would be maintained by the proposed project. Refer to Section 4.9, Public Services and Utilities for further discussion.
	Policy 4.d-I-1	Continue implementing the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Control Board.	**Consistent:** The proposed project would implement construction and operational stormwater quality protection measures consistent with NPDES requirements to protect downstream water resources from pollution. Refer to Section 4.6, Hydrology and Water Quality for further discussion.
	Principle 4.g-G-1	Preserve and enhance the natural beauty of the Milpitas area.	**Consistent:** The project site is in a built-up condition and contains an existing Walmart store. The proposed project would include new elevations that enhance the visual appearance of the store and, therefore, contribute to the overall improvement of visual quality in the project vicinity.
	Principle 4.g-G-3	Enhance the visual impact of the gateways to Milpitas.	**Consistent:** The existing store is visible from I-880, a gateway to Milpitas. The proposed project would include new elevations that enhance the visual appearance of the store and, therefore, contribute to the overall improvement of visual quality from the freeway.
	Principle 4.h-G-1	Undertake efforts to reduce the generation of waste, increase recycling and slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989.	**Consistent:** Mitigation is proposed that would require the project applicant to recycle construction and demolition debris and provide onsite recycling facilities. These measures would be in accordance with the California Integrated Waste Management Act. Refer to Section 4.9, Public Services and Utilities for further discussion.
	Policy 4.h-I-1	Implement measures specified in the City's Source Reduction and Recycling Element and the City's Household Hazardous Waste Element.	**Consistent:** Mitigation is proposed that would require the project applicant to recycle construction and demolition debris and provide onsite recycling facilities. These measures

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
			are consistent with objectives of the City's Source Reduction and Recycling Element. Refer to Section 4.9, Public Services and Utilities for further discussion.
5 - Seismic and Safety	Principle 5.a-G-1	Minimize threat to life and property from seismic and geologic hazards.	**Consistent:** The proposed project would comply with the applicable seismic design criteria contained in the California Building Standards Code and, therefore, minimize the threat to life and property from seismic and geologic hazards. Refer to Section 4.4, Geology, Soils, and Seismicity for further discussion.
	Policy 5.a-I-3	Require projects to comply with the guidelines prescribed in the City's Geotechnical Hazards Evaluation manual.	**Consistent:** Krazan & Associates prepared a Geotechnical Engineering Investigation for the proposed project. The investigation was prepared in accordance with the guidelines prescribed in the City's Geotechnical Hazards Evaluation manual. Refer to Section 4.4, Geology, Soils, and Seismicity for further discussion.
	Principle 5.b-G-1	Minimize threat to life and property from flooding and dam inundation.	**Consistent:** Coyote Creek is located west of the project site. This reach of Coyote Creek underwent extensive flood control improvements in the 1990s including levee construction, excavation of a parallel overflow channel, and the development of a bypass channel by the Newby Island Sanitary Landfill. Accordingly, flooding risks in the project vicinity have been minimized to the extent possible. Refer to Section 7.0, Effects Found Not To Be Significant for further discussion.
	Policy 5.b-I-1	Ensure that new construction or substantial improvements to any existing structure result in adequate protection from flood hazards. This includes ensuring that: • New residential development within the 100-year Flood Zone locate the lowest floor, including basement, above the base flood	**Consistent:** The project site is not located within a 100-year flood zone.

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
		elevation; and • New non-residential development locate the lowest floor, including basement, above the base flood elevation or incorporate flood-proofing and structural requirements as spelled out in the Municipal Code.	
	Principle 5.c-G-1	Provide high quality, effective and efficient fire protection services for the Milpitas area residents.	**Consistent:** The Milpitas Fire Department indicated that adequate resources are available to maintain levels of fire services and other emergency services. Refer to Section 4.9, for further discussion.
6 - Noise	Principle 6-G-1	Maintain land use compatibility with noise levels similar to those set by State guidelines.	**Consistent:** The proposed project's noise levels would not exceed the State's land use compatibility noise standards. Refer to Section 4.8 Noise for further discussion.
	Principle 6-G-2	Minimize unnecessary, annoying, or injurious noise.	**Consistent:** The proposed project's construction and operational activities would not result in significant noise impacts at nearby land uses. Therefore, unnecessary, annoying, or injurious noise impacts would not occur. Refer to Section 4.8, Noise for further discussion.
	Policy 6-I-1	Use the guidelines in Table 6-1 (Noise and Land Use Compatibility) [General Plan Noise Element] as review criteria for development projects.	**Consistent:** The proposed project's noise impacts were assessed against the guidelines in General Plan Table 6-1 and found to be consistent with the land use compatibility standards. Refer to Section 4.8, Noise for further discussion.
	Policy 6-I-2	Require an acoustical analysis for projects located within a "conditionally acceptable" or "normally unacceptable" exterior noise exposure area. Require mitigation measures to reduce noise to acceptable levels.	**Consistent:** An acoustical analysis was prepared as part of this EIR and evaluated potential noise impacts against the standards set forth in the General Plan. Refer to Section 4.8, Noise for further discussion.
	Policy 6-I-3	Prohibit new construction where the exterior noise exposure is considered "clearly unacceptable" for the use proposed.	**Consistent:** As shown in Exhibit 4.8-2, the project site is exposed to noise levels between 60 to 70 dBA L_{dn}, which is considered acceptable by the General Plan for commercial uses. Accordingly, the proposed

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
			project would not be located in an area where the exterior noise exposure is considered "clearly unacceptable" for the use proposed. Refer to Section 4.8, Noise for further discussion.
	Policy 6-I-7	Avoid residential DNL exposure increases of more than 3 dB or more than 65 dB at the property line, whichever is more restrictive.	**Consistent:** This EIR evaluated the potential for nearby residential areas to be exposed to DNL increases of more than 3 dB or more than 65 dB at the property line and found that no such impacts would occur. Refer to Section 4.8, Noise for further discussion.
	Policy 6-I-9	Enforce the provisions of the City of Milpitas Noise Ordinance and the use of established truck routes.	**Consistent:** The noise analysis in this EIR identifies applicable portions of the Milpitas Noise Ordinance. In addition, Walmart truck deliveries will continue to use established truck routes to serve the store (i.e., N. McCarthy Boulevard and Ranch Drive). Refer to Section 4.8, Noise for further discussion.
	Policy 6-I-10	Reduce the noise impact in existing residential areas where feasible. Noise mitigation measures should be implemented with the cost shared by public and private agencies and individuals.	**Consistent:** The proposed project's stationary and transportation-related noise sources would not expose residential land uses to excessive noise levels. Refer to Section 4.8, Noise for further discussion.
	Policy 6-I-11	Minimize noise impacts on neighbors caused by commercial and industrial projects.	**Consistent:** The proposed project's construction and operational activities would not result in significant noise impacts at nearby residential uses. Refer to Section 4.8, Noise for further discussion.
	Policy 6-I-12	New noise-producing facilities introduced near sensitive land uses which may increase noise levels in excess of "acceptable" levels will be evaluated for impact prior to approval; adequate mitigation at the noise source will be required to protect noise-sensitive land uses.	**Consistent:** The proposed project's stationary and transportation-related noise sources would not expose sensitive land uses to excessive noise levels. Refer to Section 4.8, Noise for further discussion.
	Policy 6-I-13	Restrict the hours of operation, technique, and equipment used in all public and private construction activities to minimize noise impact.	**Consistent:** As a standard condition of approval, the proposed project would be subject to these noise abatement requirements. Note that

Table 4.7-2 (Cont.): General Plan Consistency Analysis

Chapter	Principle/Policy		Consistency Determination
	No.	Text	
		Include noise specifications in requests for bids and equipment information.	the proposed project's construction and operational activities would not result in significant noise impacts at nearby land uses. Refer to Section 4.8, Noise for further discussion.
Source: City of Milpitas, 2002; Michael Brandman Associates, 2009.			

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Municipal Code Consistency

Impact LU-2: The proposed project may conflict with the applicable ordinances of the City of Milpitas Municipal Code.

Impact Analysis

This impact evaluates the proposed project's consistency with the Milpitas Municipal Code. Given the project characteristics, the Zoning Ordinance requirements for the General Commercial (C2) zoning district, the Site and Architectural Review Overlay zoning district, conditional use permit requirements, parking, and signage constitute the relevant portion of the Municipal Code that applies to the proposed project.

General Commercial (C2) Zoning District Requirements

The proposed project would expand the existing Walmart store by a maximum of 19,000 square feet. The expanded store would retail groceries and general merchandise. Retail sales are allowed land use activities within the General Commercial (C2) zoning district and, therefore, the proposed project would be consistent with the intended uses of this zoning district.

The expanded store would total a maximum of 150,725 square feet and, therefore would have a 0.24 FAR (150,725 square feet/14.56 acres [634,233.6 square feet]), which would be within the Zoning Ordinance's limit of 0.50 FAR. The Zoning Ordinance does not establish a height limit for buildings in the General Commercial (C2) zoning district.

Site and Architectural Review Overlay (S) Zoning District Requirements

New development projects located with Site and Architectural Review Overlay District (S) are subject to architectural review. The Zoning Ordinance sets forth the following objectives for new development in Site and Architectural Review Overlay District (S):

- Respects the physical and environmental characteristics of the site
- Ensures safe and convenient access and circulation for pedestrians and vehicles
- Exemplifies the best professional design practices
- Encourages individual identity for specific uses and structures
- Encourages a distinct community or neighborhood identity
- Minimizes visual impacts

The proposed project consists of a 19,000-square-foot expansion of the existing Walmart store. As part of the project, the store elevations would be upgraded and enhanced; refer to Exhibit 3-5a and Exhibit 3-5b. As shown in the exhibits, the new elevations incorporate the "California ranch" design theme of the McCarthy Ranch Marketplace and are intended to provide a high-quality, visually appealing design. In addition, the proposed project would maintain the existing pedestrian facilities and vehicular access points. Accordingly, the proposed project would be consistent with the objectives of the Site and Architectural Review Overlay District (S).

Conditional Use Permits

The Zoning Ordinance identifies alcohol sales and grocery sales within 1,000 feet of residential uses as conditional uses. As discussed in Section 3, Project Description, the proposed project is seeking approval of conditional use permits for these activities. Should these permits be approved by the City of Milpitas, these activities would be in compliance with Municipal Code requirements.

Parking

The Municipal Code requires that retail development provide one space per 200 square feet of gross building area (5.0 spaces per 1,000 square feet of gross building area). The proposed project would provide 779 off-street parking spaces, of which 751 would be available for vehicular parking. Although the actual square footage of the expanded store total 150,182 square feet and, therefore, provide off-street parking at exactly 5.0 spaces per 1,000 square feet, the store square footage being evaluated in the Draft EIR is 150,725, which translates to a minimum parking requirement of 754 spaces. As such, Mitigation Measure TRANS-5 requires that off-street parking be provided at no less than 5.0 spaces per 1,000 square feet to satisfy Municipal Code requirements. With the implementation of this mitigation measure, impacts would be reduced to a level of less than significant.

Signage

New wall signage would be installed on the front and rear elevations of the expanded Walmart and the "Walmart" panel on the existing McCarthy Ranch Marketplace pylon sign would be replaced.

Milpitas Municipal Code Title XI, Chapter 30 establishes regulations for signs. For signs associated with commercial sales in a single building, the Municipal Code limits the sign coverage to either:

- No more than 1 square foot of sign for each 2 lineal feet of building perimeter; or
- No more than 2 square feet of sign for each 1 lineal foot of public street frontage.

At the time of this writing, a sign program demonstrating compliance with the above listed requirements is not available. Accordingly, Mitigation Measure AES-1a is proposed requiring the applicant to prepare and submit plans to the City demonstrating complies with Municipal Code requirements. With the implementation of this mitigation measure, impacts would be reduced to a level of less than significant.

Tree Removal

The proposed project would remove several ornamental trees located within the store expansion footprint. Several of these trees may be eligible for protection under the Tree Maintenance and Protection Ordinance. Mitigation Measure AES-1b requires compliance with the Municipal Code tree removal and replacement requirements. For trees not eligible for protection under the ordinance, the mitigation measure stipulates that they shall be replaced onsite at no less than a 1:1 ratio with a similar trees species. With the implementation of this mitigation measure, impacts would be reduced to a level of less than significant.

Shipping Containers

Shipping containers are currently stored in outdoor areas of the project site during various times of the year. The Zoning Ordinance requires that outdoor storage of materials (e.g., shipping containers) be completely enclosed within a building or behind a visually obscure wall or fence a minimum of 6 feet in height. To bring the proposed project into conformance with this Zoning Ordinance requirement, Mitigation Measure AES-1c is proposed requiring the project applicant to either permanently remove shipping containers from the project site or install screening measures around areas where such containers would be stored. The implementation of this mitigation measure would ensure that the visual impacts of outdoor storage of shipping containers is reduced to a level of less than significant.

Conclusion

With the implementation of the aforementioned mitigation measures, the proposed project would be consistent with the applicable requirements of the Municipal Code. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure AES-1a, Mitigation Measure AES-1b, Mitigation Measure AES-1c, and Mitigation Measure TRANS-5.

Level of Significance After Mitigation

Less than significant impact.

4.8 - Noise

4.8.1 - Introduction

This section describes the existing noise setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on noise modeling performed in July 2009 by Michael Brandman Associates, included in this EIR as Appendix F.

4.8.2 - Introduction

Noise Fundamentals

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit that expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating between very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies that are audible to the human ear. The scale value of zero is the threshold of human hearing. Generally, a change of 3.5 decibels is perceptible to humans.

Noise Descriptors

Noise equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. The peak traffic hour L_{eq} is the noise metric used by California Department of Transportation (Caltrans) for all traffic noise impact analyses.

The Day-Night Average Level (L_{dn}) is the weighted average of the intensity of a sound, with corrections for time of day and averaged over 24 hours. The time of day corrections require the addition of 10 decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the L_{dn}, it has another addition of 4.77 decibels to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these periods because, compared with daytime hours, there is a decrease in the ambient noise levels during the evening and nighttime hours, which creates an increased sensitivity to sounds. For this reason, the sound seems louder in the evening and nighttime hours and is weighted accordingly. The City of Milpitas relies on the L_{dn} noise standard to assess the impact of noise.

Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise

reduces with distance depends on whether the source is a point or line source, ground absorption, atmospheric effects and refraction, and shielding by natural and man-made features. Sound from point sources such as air conditioning condensers radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD). Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models: soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone, and very hard, packed earth. For line sources, a 4.5 dBA/DD is typically observed for soft-site conditions compared with the 3.0 dBA/DD drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis. In addition, since the majority of the roadways in the project vicinity have landscaped buffer areas along the sides of the roads as well as landscaped medians, soft-site conditions were used in this analysis.

Traffic Noise Prediction

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of traffic noise levels, a doubling of the traffic noise (acoustic energy) results in a noise level increase of 3 dBA. Based on the FHWA community noise assessment criteria, this change is “barely perceptible”; as a reference, a doubling of perceived noise levels would require an increase of approximately 10 dBA. In other words, doubling the traffic volume (assuming that the speed and truck mix do not change) results in a noise increase of 3 dBA. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. For a noise barrier to work, it must be high enough and long enough to block the view of a road. A noise barrier is most effective when placed close to the noise source or receiver. A noise barrier can achieve a 5-dBA noise level reduction when it is tall enough to break the line of sight. When the noise barrier is a berm instead of a wall, the noise attenuation can be increased by another 3 dBA.

Construction Noise Assumptions

The Federal Highway Administration (FHWA) compiled noise measurement data regarding the noise generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel project in Boston. Table 4.8-1 provides a list of the construction equipment measured along with the associated noise emissions and measured percentages of typical equipment use per day. From this acquired data, the FHWA developed the Roadway Construction Noise Model (RCNM), which may be used for the prediction of construction noise. For the purposes of this analysis, the RCNM will be used to calculate the construction equipment noise emissions.

Table 4.8-1: Construction Equipment Noise Emissions and Usage Factors

Equipment	Acoustical Use Factor (percent)[1]	Spec 721.560 L_{max} @ 50 feet (dBA, slow)[2]	Actual Measured L_{max} @ 50 feet (dBA, slow)[3]
Auger Drill Rig	20	85	84
Backhoe	40	80	78
Bar Bender	20	80	N/A
Compactor (ground)	20	80	83
Compressor (air)	40	80	78
Concrete Batch	15	83	N/A
Concrete Mixer Truck	40	85	79
Concrete Pump	20	82	81
Concrete Saw	20	90	90
Crane	16	85	81
Dozer	40	85	82
Dump Truck	40	84	76
Excavator	40	85	81
Flat Bed Truck	40	84	74
Front End Loader	40	80	79
Generator	50	82	81
Grader	40	85	N/A

Table 4.8-1 (Cont.): Construction Equipment Noise Emissions and Usage Factors

Equipment	Acoustical Use Factor (percent)[1]	Spec 721.560 L_{max} @ 50 feet (dBA, slow)[2]	Actual Measured L_{max} @ 50 feet (dBA, slow)[3]
Jackhammer	20	85	89
Paver	50	85	77
Pneumatic Tools	50	85	85
Pumps	50	77	81
Roller	20	85	80
Tractor	40	84	N/A
Vibrating Hopper	50	85	87
Vibratory Concrete Mixer	20	80	80
Welder/Torch	40	73	74

Notes:
[1] Acoustical Use Factor is the percentage of time each piece of equipment is operational during a typical day.
[2] Spec 721.560 is the equipment noise level utilized by the RCNM program.
[3] Actual Measured is the average noise level measured of each piece of equipment during the Central Artery/Tunnel project in Boston, Massachusetts, primarily during the 1990s.
Source: Federal Highway Administration, 2006.

Groundborne Vibration Fundamentals

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

Vibration Descriptors

Several different methods are used to quantify vibration amplitude, such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels; it is denoted as (L_v) and is based on the rms velocity amplitude. A commonly used abbreviation is “VdB,” which in this text, is when L_v is based on the reference quantity of 1 microinch per second.

Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans, whose threshold of perception is around 65 VdB. Offsite sources that may produce perceptible vibrations are usually caused by construction

equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration.

Vibration Propagation

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a push-pull fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly, depending on the soil, but it has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

Construction-Related Vibration Level Prediction

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table 4.8-2 gives approximate vibration levels for particular construction activities. The data in the table provides a reasonable estimate for a wide range of soil conditions.

Table 4.8-2: Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v) at 25 feet
Pile driver (impact)	1.518 (upper range) 0.644 (typical)	112 104
Pile driver (sonic)	0.734 (upper range) 0.170 (typical)	105 93
Clam shovel drop (slurry wall)	0.202	94

Table 4.8-2 (Cont.): Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v) at 25 feet
Hydromill (slurry wall)	0.008 (in soil) 0.017 (in rock)	66 75
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
Source: Federal Transit Administration, 2006.		

Existing Noise Environment

To determine the existing noise level environment, short-term peak-hour noise measurements were taken at three locations in the project study area. The number of noise measurement locations to adequately assess the noise impacts created by the proposed project was determined in the field and was based on the professional experience of the noise consultant. Exhibit 4.8-1 depicts the noise measurement locations.

Short-Term Peak Noise Measurements

The results of the short-term peak hour noise level measurements are presented in Table 4.8-3. The noise level measurements were monitored for a minimum time period of 10 minutes. The noise level measurements were taken during both the peak morning and afternoon traffic periods. The morning noise measurements were taken after the majority of stores were open in McCarthy Ranch Marketplace. The noise monitoring data printouts are included in Appendix F. The existing noise level measurements ranged from 56.5 to 63.5 dBA L_{eq}, with the highest noise measurement at Site M3. According to Section N-2230 of the California Department of Transportation (Caltrans) Technical Noise Supplement, the L_{dn} values are generally within ± 2 dBA of the measured peak-hour L_{eq} dBA.

LEGEND

● M1 Noise Measurement Location

Source: GlobeXplorer, April 1, 2007.

NORTH

NOT TO SCALE

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Exhibit 4.8-1
Noise Measurement Locations

Table 4.8-3: Existing (Ambient) Short-Term Noise Level Measurements

Site No.	Site Description	Primary Noise Source	Start Time and Measurement (minutes)	Noise Level (dBA L_{eq})
M1	Located along the project site's southern shared property line with McCarthy Ranch Marketplace.	Traffic noise from I-880, parking lot noise and truck loading noise.	9:47 a.m. (13:30)	57.5
			4:38 p.m. (11:00)	56.5
M2	Located approximately 100 feet west of the centerline of Ranch Drive and approximately 320 feet west of the centerline of I-880 on the northeastern corner of the project site.	Traffic noise from I-880 and Ranch Drive.	10:04 a.m. (11:00)	60.2
			4:52 p.m. (11:00)	60.7
M3	Located approximately 90 feet east of the centerline of N. McCarthy Boulevard, approximately 200 feet south of the centerline of Ranch Drive and approximately 80 feet west of Walmart's truck loading area on top of a berm.	Traffic noise from N. McCarthy Boulevard	10:19 a.m. (11:00)	59.2
			5:06 p.m. (12:30)	63.5

Notes:
Noise measurements taken on Monday, June 2, 2008.
Source: Michael Brandman Associates, 2008.

Modeled Existing Noise Levels

Table 4.8-4 provides the SoundPlan-modeled noise levels at the façades of nearby land uses. The SoundPlan model was also used to produce a noise contour map (Exhibit 4.8-2) showing the existing dBA L_{dn} in the project vicinity. Table 4.8-4 indicates that Receivers 2, 3, and 4 currently exceed the City of Milpitas's 65 dBA L_{dn} residential standard. The SoundPlan Model printouts for the existing condition are provided in Appendix F.

Table 4.8-4: Existing Noise Levels at Nearby Land Uses

Receiver	Description	dBA L_{dn}[1]	dBA L_{eq} Day	dBA L_{eq} Night
1	Office building north of Ranch Drive[2]	64.3	60.0	58.0
2	Residential east of I-880	66.5	62.3	60.1
3	Residential east of I-880	65.3	61.0	58.9
4	Residential east of I-880	65.4	61.1	59.1
5	Office building west of N. McCarthy Boulevard[2]	64.8	59.5	58.7
6	Rural residential west of N. McCarthy Boulevard	48.1	43.3	41.9

Notes:
[1] Noise level includes a 10-dBA penalty to account for the noise sensitive nighttime hours (10 p.m. to 7 a.m.).
[2] Receiver noise levels are based on worst-case noise for either the first or second floor.
Source: SoundPlan Model Version 6.5 and Michael Brandman Associates, 2009.

4.8.3 - Regulatory Framework

Federal

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce;
- Assisting state and local abatement efforts; and
- Promoting noise education and research.

The Federal Office of Noise Abatement and Control was initially tasked with implementing the Noise Control Act. However, the Office of Noise Abatement and Control has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The United States Department of Transportation assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration and Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately, that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

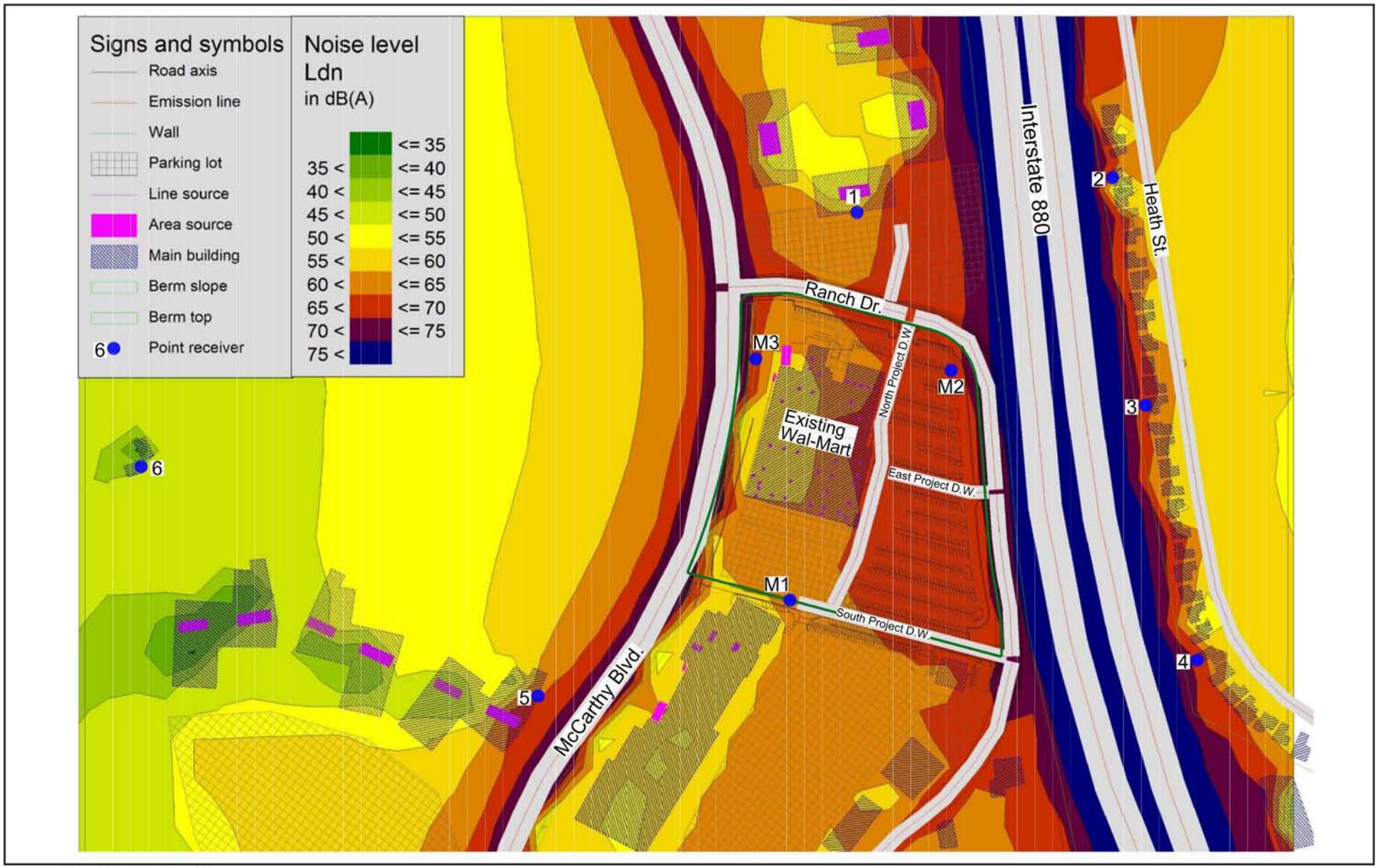
Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

State

Noise

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing tools for use by local agencies to control and abate noise. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise, shown in Exhibit 4.8-3.

Article 4 of the California Administrative Code (California Noise Insulation Standards, Title 24, Chapter 1) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an



Source: SoundPlan Version 6.5.

NORTH

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Michael Brandman Associates

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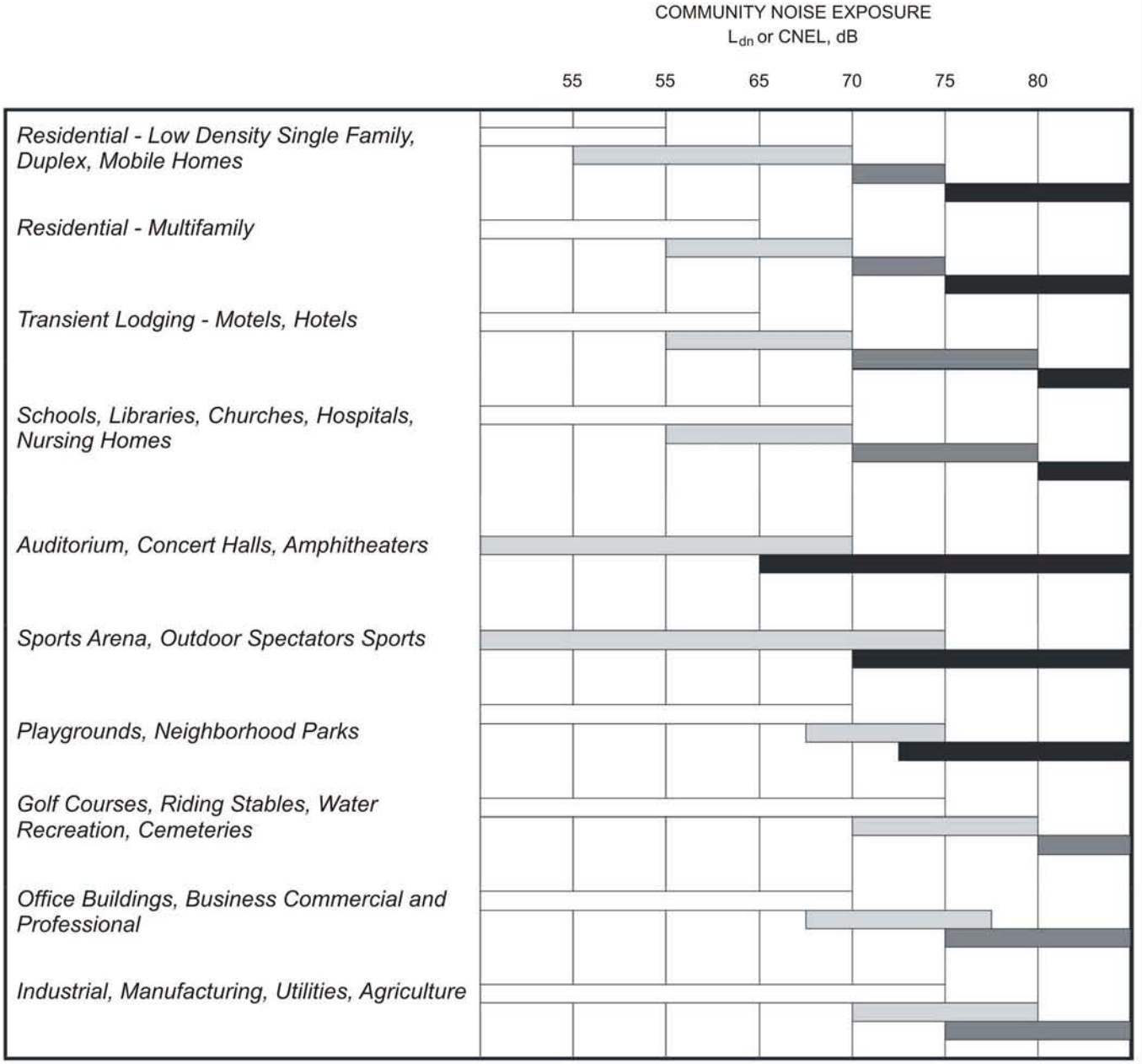
Exhibit 4.8-2
Existing Noise Contour Map (dBA Ldn)



LEGEND:

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any building involved are of normal conventional construction without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needs noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

Source: California Department of Health. Guidelines for the Preparation and Content of Noise Elements of the General Plan. November, 1990.

Source: California Department of Health, Guidelines for the Preparation and Content of Noise Elements of the General Plan., November 1990.

Michael Brandman Associates

Exhibit 4.8-3
Land Use Compatibility Matrix

acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold.

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

Vibration

Title 14 of the California Administrative Code Section 15000 requires that all state and local agencies implement the California Environmental Quality Act (CEQA) Guidelines, which requires the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the state that quantifies the level at which excessive groundborne vibration occurs.

The California Department of Transportation (Caltrans) prepared the Transportation- and Construction-Induced Vibration Guidance Manual, June 2004, in order to provide vibration analysis guidance for Caltrans projects. The report found that damage to fragile buildings would occur when vibration levels from transient sources exceeded 0.2 inches per second PPV and that the human response to vibration from transient sources became distinctly perceptible at 0.25 inches per second PPV.

Local

City of Milpitas

General Plan

To control transportation-related noise sources such as arterial roads, freeways, airports, and railroads, the City has established guidelines for acceptable community noise levels in the General Plan Noise Element. The Noise Element outlines the land use compatibility for community noise exposure by land use category. For development of a site with exterior noise levels less than 70 dBA L_{dn}, commercial-retail development is normally acceptable, with typically no noise analysis or mitigation required. For development of a site with exterior noise levels in the 68- to 78-dBA L_{dn} range, commercial-retail development is conditionally acceptable upon further analysis through a noise impact analysis and possible mitigation. For exterior noise levels in excess of 75 dBA L_{dn}, development of a site for commercial-retail uses is usually unacceptable. Exhibit 4.8-3 provides the Land Use Compatibility Matrix, which identifies compatibility of land uses with noise levels.

The General Plan establishes the following goals and policies related to noise that are applicable to the proposed project:

- **Policy 6-I-1:** Use the guidelines in Table 6-1 (Noise and Land Use Compatibility) [presented in this Draft EIR as Exhibit 4.8-3] as review criteria for development projects.

- **Policy 6-I-2:** Require an acoustical analysis for projects located within a "conditionally acceptable" or "normally unacceptable" exterior noise exposure area. Require mitigation measures to reduce noise to acceptable levels.
- **Policy 6-I-3:** Prohibit new construction where the exterior noise exposure is considered "clearly unacceptable" for the use proposed.
- **Policy 6-I-7:** Avoid residential DNL exposure increases of more than 3 dB or more than 65 dB at the property line, whichever is more restrictive.
- **Policy 6-I-11:** Minimize noise impacts on neighbors caused by commercial and industrial projects.
- **Policy 6-I-13:** Restrict the hours of operation, technique, and equipment used in all public and private construction activities to minimize noise impact. Include noise specifications in requests for bids and equipment information.

Municipal Code

Section V-213-3 of the Municipal Code provides restriction on the time of day noise can be produced in residential areas and limits construction noise to only occur within the hours of 7:00 a.m. to 7:00 p.m. daily except holidays.

4.8.4 - Methodology

Michael Brandman Associates evaluated the proposed project's noise impacts through noise measurements and modeling of project noise impacts. The analysis is described below.

Measurement Procedure and Criteria

To ascertain the existing noise at and adjacent to the project site, field monitoring was conducted on Monday, June 2, 2008. The field survey noted that noise within the proposed project area is generally characterized by vehicle traffic on the local roadways and from I-880. In addition, no aircraft over-flights were observed during the noise measurements.

The noise measurements were taken using a Larson-Davis Model 824 Type 1 precision sound level meter programmed in "slow" mode to record noise levels in "A" weighted form as well as the frequency spectrum of the noise broken down into 1/3 octaves. The sound level meter and microphone were mounted on a tripod 5 feet above the ground and were equipped with a windscreen during all measurements. The sound level meter was calibrated before and after the monitoring using a Larson-Davis calibrator, Model CAL 200. The accuracy of the calibrator is maintained through a program established through the manufacturer and is traceable to the National Bureau of Standards. The unit meets the requirements of the ANSI Standard S1.4-1984 and the IEC Standard 942: 1988 for Class 1 equipment. All noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

All traffic noise measurement durations were measured according to the standards stated in Section N-3320 of the Caltrans Technical Noise Supplement, which specifies that the measurements be a duration of at least 10 minutes and shall be continued past 10 minutes until the fluctuations in the displayed L_{eq} are less than 0.5 dBA.

Noise Measurement Locations

The noise monitoring locations were selected in order to obtain noise measurements of the current noise sources located on the project site and to provide a baseline for any potential noise impacts that may be created by development of the proposed project. The sites are described in Table 4.8-3 and shown in Exhibit 4.8-1. Appendix F includes a photo index of the study area and noise level measurement locations.

Noise Measurement Timing and Climate

The noise measurements were recorded between 9:45 a.m. and 5:15 p.m. on June 2, 2008. When the short-term noise measurements were started in the morning, the sky was clear, temperature was 55 degrees Fahrenheit (°F), barometric pressure was 30.09 inches of mercury, and the wind was calm. When the afternoon noise measurements were started, the sky was clear, temperature was 70°F, barometric pressure was 30.07 inches of mercury, and the wind was approximately 6 miles per hour.

SoundPlan Noise Modeling Software

Because noise in the project vicinity is created by multiple roadways, parking lots, and stationary sources, the SoundPlan Version 6.5 noise modeling software was used. SoundPlan's road noise, parking lot noise, and stationary noise source algorithms are based on the FHWA Traffic Noise Model (FHWA TNM Model). The FHWA TNM Model is a more sophisticated model than the FHWA-ROAD-77-108 Model; unlike the FHWA-ROAD-77-108 Model, it is capable of providing a relatively accurate prediction of noise from trucks traveling less than 25 miles per hour. The SoundPlan Model requires the input of roadways and the locations of the noise measurement receivers. Stationary noise sources with associated frequency spectrums, sound barriers, terrain contour lines, building placement, and specific ground coverage zones may be incorporated as well. The site plan and aerial photos were used to determine the placement of the roadways, parking lots, and stationary sources as well as to establish the terrain in the project vicinity. The ground coverage of loose soil was used for all areas in the SoundPlan Model that were not defined by buildings, parking lots, or roadways. In addition, the default temperature and humidity were used in the SoundPlan Model.

Roadway Assumptions

The model analyzed the noise impacts from the nearby roadways onto the project vicinity. All roadways were based on a single-lane-equivalent noise source combining both directions of travel. The roadway parameters used for the SoundPlan modeling are presented in Table 4.8-5. The roadway classifications are based on the City of Milpitas General Plan Circulation Element. The roadway speed is based on posted speed limits. The existing average daily trip volumes were based on the

afternoon (PM) peak hour volumes provided in the Traffic Impact Analysis and multiplied by a peak-hour factor of 12.

Table 4.8-5: SoundPlan Model Roadway Parameters

Roadway	Segment	Vehicle Speed (miles per hour)	Existing Average Daily Trip Volumes
N. McCarthy Boulevard	North of Ranch Drive (North)	45	17,300
N. McCarthy Boulevard	South of Ranch Drive (North)	45	17,200
Ranch Drive	East of N. McCarthy Boulevard	30	4,900
Ranch Drive	East of North Project Driveway	30	2,500
Ranch Drive	South of East Project Driveway	30	5,400
Ranch Drive	South of South Project Driveway	30	7,300
North Project Driveway	North of Ranch Drive	15	1,600
North Project Driveway	South of Ranch Drive	15	1,900
East Project Driveway	West of Ranch Drive	15	3,000
South Project Driveway	West of Ranch Drive	15	3,100
I-880 Northbound	North of SR-237	65	88,000
I-880 Southbound	North of SR-237	65	88,000
Heath Street	North of Valley Way	25	500
Source: California Department of Transportation, 2008; Kimley-Horn and Associates, 2009.			

Table 4.8-6 presents the hourly traffic flow distributions (vehicle mixes) used in this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA and SoundPlan Models.

Table 4.8-6: Roadway Vehicle Mixes

Roadway Classification	Vehicle Type	Hourly Traffic Flow Distributions (percent)			
		Day (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)	Overall
I-880	Automobiles	65.3	13.4	15.6	94.3
	Medium Trucks	1.5	0.3	0.8	2.5
	Heavy Trucks	1.7	0.2	1.3	3.2

Table 4.8-6 (Cont.): Roadway Vehicle Mixes

Roadway Classification	Vehicle Type	Hourly Traffic Flow Distributions (percent)			
		Day (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)	Overall
SR-237	Automobiles	66.5	13.6	15.9	96.0
	Medium Trucks	1.2	0.2	0.6	2.0
	Heavy Trucks	1.1	0.1	0.8	2.0
Major Arterial and Major Collector	Automobiles	69.5	12.9	9.6	92.0
	Medium Trucks	1.4	0.1	1.5	3.0
	Heavy Trucks	2.4	0.1	2.5	5.0
Minor Collector and Local	Automobiles	73.6	13.6	10.2	97.4
	Medium Trucks	0.9	0.9	0.0	1.8
	Heavy Trucks	0.4	0.0	0.4	0.7
Source: California Department of Transportation, 2008; Michael Brandman Associates, 2009.					

In order to determine the height above the road grade from where the noise is being emitted, each type of vehicle has been analyzed independently, with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires, and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

Parking Lot Assumptions

The SoundPlan model provides a sound emission source specific to parking lots. The parking lot emission source is based on the different tonal contents typically created from parking lots and is primarily from engine and tire noise, slamming of car doors, shopping cart noise, pedestrians, and street sweepers. No amplified sound systems are located in the parking lot. The existing Walmart parking lot and nearby existing parking lots have been analyzed in the SoundPlan model, which requires input on the placement of the parking lots, the number of parking spaces in each lot and the average number of car movements per hour that occur per space for both the daytime and nighttime.

The existing Walmart parking lots were modeled on the Traffic Impact Analysis trip generation rate of 7,235 vehicles per day and 835 parking spaces, which produced an average 0.72 vehicle movements per space per hour during the daytime and 0.07 vehicle movements per space per hour during the nighttime. The parking lot to the south of the project site in the McCarthy Ranch Marketplace was based on the same turning movement volumes used for the existing Walmart parking lots. The parking lot to the north of the project site for the nearby office buildings was based on the Traffic Impact Analysis driveway turning movements, which found that approximately 1,600 vehicles per day access this parking lot, producing an average of 0.48 movement per space per hour

during the daytime and 0.05 movement per space per hour during the nighttime. The parking lot to the west of McCarthy Boulevard for the nearby office buildings was based on the turning movement volumes used for the offsite parking lot to the north.

Truck Loading Areas

The SoundPlan model also analyzed the noise impacts from the truck loading areas at the existing Walmart and at the McCarthy Ranch Marketplace south of the project site. A field noise measurement of a truck loading area was previously taken at the existing Laguna Niguel Walmart (Store No. 2206) and was used to calibrate the truck loading area noise level. In order to determine noise levels from the truck loading area, a field noise measurement was taken 100 feet away from the truck delivery area. During the extent of the noise measurement, the truck refrigeration unit was operational. The entire truck visit lasted for approximately 30 minutes with a noise level of 56.4 dBA L_{eq}. The truck loading areas were modeled as area sources located 8 feet above ground level and were based on a noise level of 78 dB per meter.

The existing Walmart currently has one loading dock with two loading bays and approximately 12 to 16 trucks per day utilizing the truck loading area, with each remaining for approximately 30 minutes, it was estimated that truck loading area would operate 43 percent of the time during the daytime and 18 percent of the time during the nighttime. The nearby offsite truck loading area in McCarthy Ranch Marketplace was modeled on eight truck visits per day, which was based on field observations during the noise measurements.

HVAC Unit Assumptions

The SoundPlan model also analyzed the noise impacts from the rooftop HVAC units on the existing Walmart and nearby buildings. The HVAC noise levels were calibrated to noise measurements of similar units at the San Bernardino Highland Avenue Walmart (Store No. 1914), which found the rooftop units produced a noise emission level of 88 dB at the edge of the unit. Each HVAC unit was modeled for running 30 percent of each hour between the hours of 7 a.m. and 7 p.m. and 10 percent of each hour between 7 p.m. and 7 a.m., which was based on the number of operational units during the noise measurement of the rooftop HVAC unit. Placement of the rooftop units was based on an aerial photo, which found that the existing Walmart has approximately 34 rooftop units. Each rooftop HVAC unit was modeled as an area placed 3 feet above the roof level.

Trash Compactor Assumptions

The SoundPlan model also analyzed the noise impacts from the trash compactors at the existing Walmart and other nearby commercial retail areas. A field noise measurement of a trash compactor was previously taken at the Sonora Walmart (Store No. 2030) and was used to calibrate the trash compactor noise level. The field noise measurement recorded the sound power spectrum in 1/3 octaves and found that a trash compactor produced a noise level of 80.0 dB and ran for approximately 1 minute per cycle. The trash compactors noise sources were placed 4 feet off the ground and were modeled on running three cycles per hour.

Walmart Tire & Lube Express

The SoundPlan model also analyzed the noise impacts from the existing Tire & Lube Express on the east side of Milpitas Walmart store. The Tire & Lube Express has two parallel car bays with drive through doorways on the north and south sides of the Tire & Lube Express. These doorways are open during the Tire & Lube Express hours of operation from 7 a.m. to 7 p.m. A field noise measurement of a Tire & Lube Express was previously taken at another Walmart and was used to calibrate the noise emission level. The Walmart Tire & Lube Express was modeled as a line source and placed at the position of the northern doorways and 8 feet off the ground. The line source was modeled on a noise level of 82 dB per meter operating 50 percent from 6 a.m. to 9 p.m.

Walmart Garden Center

A field noise measurement of an existing garden center was previously taken at the San Bernardino Highland Avenue Walmart. Field observations during the noise measurement found that noise created from the adjacent parking lot and nearby roadways were greater than the noise created from the garden center, which consisted of shopping carts and an occasionally used amplified speaker system. Because of the low noise level created from the garden center, the garden center noise was not modeled in the SoundPlan model.

Noise Barriers

There is an approximately 10-foot-high landscaped berm located between N. McCarthy Boulevard and the project site that was modeled in the SoundPlan model. In addition, the approximately 8-foot sound wall on the east side of I-880 and adjacent to the existing single-family homes was also incorporated into the SoundPlan model.

Modeling Calibration

Receivers were placed at the location of the noise measurement sites that were in the immediate vicinity of the project site in order to assist in the calibration of the model as well as to verify the accuracy of the SoundPlan Model. Table 4.8-7 provides a summary of the calculated results and a comparison with the measured results shown above in Table 4.8-4.

Table 4.8-7: Model Calibration of Existing Short-Term Noise Levels

Site No.	Primary Noise Source	Calculated Daytime Noise Level[1] (dBA L_{eq})	Measured Noise Level[2] (a.m./p.m.) (dBA L_{eq})	Difference (a.m./p.m.)
M1	Traffic noise from I-880, parking lot noise and truck loading noise.	56.8	57.5/56.5	-0.7/0.3
M2	Traffic noise from I-880 and Ranch Drive.	63.9	60.2/60.7	3.7/3.2

Table 4.8-7 (Cont.): Model Calibration of Existing Short-Term Noise Levels

Site No.	Primary Noise Source	Calculated Daytime Noise Level[1] (dBA L_{eq})	Measured Noise Level[2] (a.m./p.m.) (dBA L_{eq})	Difference (a.m./p.m.)
M3	Traffic noise from N. McCarthy Boulevard.	62.8	59.2/63.5	3.6/-0.7

Notes:
[1] Noise level calculated from SoundPlan Version 6.5
[2] Noise measurements taken on June 2, 2008
Source: Michael Brandman Associates, 2009.

Table 4.8-7 shows that the largest difference between the calculated and measured noise levels occurred with the noise measurements at Site M2, which had up to a 3.7-dBA difference. Most likely, this is due to Site M2 being located on the existing Walmart parking lot, which was modeled as a noise source. The remainder of the sites calculated by the SoundPlan Model were within the range of variation between the morning and afternoon noise measurements. Therefore, based on the field noise measurements, the SoundPlan Model provides an accurate representation of the project area noise levels.

FHWA-ROAD-77-108 Traffic Noise Prediction Model

The projected roadway noise impacts from vehicular traffic were projected using a computer program that replicates the FHWA Traffic Noise Prediction Model FHWA-ROAD-77-108. The FHWA-ROAD-77-108 Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the reference energy mean emission level to account for the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway); the total average daily traffic (ADT) and the percentage of ADT that flows during the day, evening, and night; the travel speed; the vehicle mix on the roadway, which is a percentage of the volume of automobiles, medium trucks, and heavy trucks; the roadway grade; the angle of view of the observer exposed to the roadway; and the site conditions (“hard” or “soft”) as they relate to the absorption of the ground, pavement, or landscaping.

Traffic Noise Prediction Model Inputs

The roadway parameters used for this study are presented below in Table 4.8-8. The roadway classifications are based on the City of Milpitas General Plan Circulation Element. The roadway speed is based on the posted speed limits. Since the analyzed roadways have landscaped areas adjacent to the roadways, soft-site conditions were used to develop noise contours and analyze noise impacts to the project site. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees.

Table 4.8-8: FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (miles per hour)
McCarthy Boulevard	North of Dixon Landing Road	Major Collector	45
N. McCarthy Boulevard	North of Ranch Drive (North)	Major Collector	45
N. McCarthy Boulevard	South of Ranch Drive (North)	Major Collector	45
N. McCarthy Boulevard	South of Ranch Drive (South)	Major Collector	45
McCarthy Boulevard	South of Technology Drive	Major Collector	35
McCarthy Boulevard	South of Sandisk Drive	Major Collector	35
McCarthy Boulevard	South of Alder Drive	Major Collector	45
McCarthy Boulevard	South of Tasman Drive	Major Collector	45
N. Abel Street	North of W. Calaveras Boulevard	Major Collector	45
S. Abel Street	South of W. Calaveras Boulevard	Major Collector	45
N. Milpitas Boulevard	North of Dixon Landing Road	Major Collector	45
N. Milpitas Boulevard	South of Dixon Landing Road	Major Collector	45
N. Milpitas Boulevard	North of E. Calaveras Boulevard	Major Collector	45
S. Milpitas Boulevard	South of E. Calaveras Boulevard	Major Collector	45
Dixon Landing Road	West of I-880 Southbound Ramps	Major Collector	45
Dixon Landing Road	East of California Circle	Major Collector	40
Dixon Landing Road	East of Milmont Drive	Major Collector	40
Dixon Landing Road	East of N. Milpitas Boulevard	Major Collector	40
Ranch Drive (North)	East of N. McCarthy Boulevard	Minor Collector	30
Ranch Drive (South)	West of N. McCarthy Boulevard	Minor Collector	30
Ranch Drive (South)	East of N. McCarthy Boulevard	Major Arterial	50
W. Calaveras Boulevard	East of I-880 Northbound Ramps	Major Arterial	50
W. Calaveras Boulevard	East of N. Abel Street	Major Arterial	50
E. Calaveras Boulevard	East of N. Milpitas Boulevard	Major Arterial	50
Technology Drive	West of McCarthy Boulevard	Minor Collector	30
Technology Drive	East of McCarthy Boulevard	Minor Collector	30
Sandisk Drive	West of McCarthy Boulevard	Local	25
Alder Drive	East of McCarthy Boulevard	Minor Collector	30
Tasman Drive	West of McCarthy Boulevard	Major Arterial	50
Tasman Drive	East of McCarthy Boulevard	Major Arterial	50
Source: Kimley-Horn and Associates, 2009; City of Milpitas, 2002.			

In order to determine the offsite project generated traffic noise impacts, the ADT volumes on the study area roadways were obtained from the Traffic Impact Analysis, prepared by Kimley-Horn and Associates. The ADT volumes were provided for the existing year, near-term baseline, and near-term plus project scenarios. The ADT volumes were calculated by multiplying the PM peak-hour (4 p.m. to 6 p.m.) intersection volumes by 12 and are shown below in Table 4.8-9.

Table 4.8-9: Average Daily Traffic

Roadway	Segment	Average Daily Traffic		
		Existing Year	Near-Term Baseline	Near-Term With Project
McCarthy Boulevard	North of Dixon Landing Road	0	18,200	18,200
N. McCarthy Boulevard	North of Ranch Drive (North)	17,300	30,200	30,300
N. McCarthy Boulevard	South of Ranch Drive (North)	17,200	30,800	31,000
N. McCarthy Boulevard	South of Ranch Drive (South)	34,800	54,700	56,200
McCarthy Boulevard	South of Technology Drive	20,600	34,500	34,500
McCarthy Boulevard	South of Sandisk Drive	21,600	25,300	25,400
McCarthy Boulevard	South of Alder Drive	14,200	19,300	19,400
McCarthy Boulevard	South of Tasman Drive	10,400	14,900	14,900
N. Abel Street	North of W. Calaveras Boulevard	15,400	18,800	18,800
S. Abel Street	South of W. Calaveras Boulevard	14,400	16,800	16,900
N. Milpitas Boulevard	North of Dixon Landing Road	26,300	35,300	35,400
N. Milpitas Boulevard	South of Dixon Landing Road	23,500	26,700	26,700
N. Milpitas Boulevard	North of E. Calaveras Boulevard	22,300	23,900	23,900
S. Milpitas Boulevard	South of E. Calaveras Boulevard	21,500	22,900	22,900
Dixon Landing Road	West of I-880 Southbound Ramps	16,700	37,800	37,900
Dixon Landing Road	East of California Circle	33,600	43,300	43,300
Dixon Landing Road	East of Milmont Drive	25,400	34,200	34,200
Dixon Landing Road	East of Milpitas Boulevard	11,100	12,100	12,100
Ranch Drive (North)	East of McCarthy Boulevard	4,900	6,800	7,100
Ranch Drive (South)	West of McCarthy Boulevard	300	4,500	4,500
Ranch Drive (South)	East of McCarthy Boulevard	18,800	19,300	19,500
W. Calaveras Boulevard	East of I-880 Northbound Ramps	64,400	69,300	69,500
W. Calaveras Boulevard	East of N. Abel Street	56,100	63,600	63,800
E. Calaveras Boulevard	East of N. Milpitas Boulevard	44,900	53,700	53,800
Technology Drive	West of McCarthy Boulevard	3,300	5,600	5,600

Table 4.8-9 (Cont.): Average Daily Traffic

Roadway	Segment	Average Daily Traffic		
		Existing Year	Near-Term Baseline	Near-Term With Project
Technology Drive	East of McCarthy Boulevard	13,900	27,100	27,100
Sandisk Drive	West of McCarthy Boulevard	2,200	2,700	2,700
Alder Drive	East of McCarthy Boulevard	10,200	20,700	20,700
Tasman Drive	West of McCarthy Boulevard	32,600	35,900	35,900
Tasman Drive	East of McCarthy Boulevard	25,600	28,800	28,800
Source: Kimley-Horn and Associates, 2009.				

The vehicle mixes used in the FHWA-ROAD-77-108 Model have been provided previously in Table 4.8-6. The FHWA-ROAD-77-108 Model utilized the SR-237, Arterial and Local vehicle mixes, which are based on the vehicles mixes provided in the 2007 Annual Average Daily Truck Traffic on the California State Highway System, prepared by Caltrans, September 2008, and on typical vehicle mixes observed in California.

Source Assumptions

To assess the roadway noise generation in a uniform manner, all vehicles were analyzed at the single-lane-equivalent acoustic center of the roadway being analyzed. In order to determine the height above the road grade from where the noise is being emitted, each type of vehicle has been analyzed independently with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires, and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

Long-Term Stationary Noise Impacts

Onsite noise impacts have been analyzed separately from the offsite vehicular noise impacts, since onsite noise sources may be directly regulated by local jurisdictions and are typically defined as stationary source noise regulations.

In order to determine the proposed project impacts onto the nearby residences, the proposed project's stationary noise only and near-term without and with project scenarios were analyzed using the SoundPlan model. The scenarios were based on the SoundPlan modeling methodology presented above for the existing conditions. The following describes the input parameters of the SoundPlan model that were modified from the existing scenario for the with project stationary noise scenario.

Onsite Roadway Assumptions

All of the onsite roads have been analyzed as stationary noise sources. A list of the onsite roads that have been modeled in SoundPlan, along with the near-term with project average daily traffic volumes obtained from the Traffic Impact Analysis and modeled vehicle speed, is provided in Table 4.8-10.

Table 4.8-10: SoundPlan Model Onsite Roadway Parameters

Roadway	Segment	Vehicle Speed (mph)	Average Daily Traffic With Project
North Project Driveway	South of Ranch Drive	15	2,300
East Project Driveway	West of Ranch Drive	15	3,600
South Project Driveway	West of Ranch Drive	15	3,300
Source: Kimley-Horn and Associates, 2009; Michael Brandman Associates, 2009.			

The hourly traffic flow distributions (vehicle mixes) used for the onsite roadways have been provided above in Table 4.8-6. The onsite roadways were based on either the local or truck route vehicle mixes.

In order to determine the height above the road grade from where the noise is being emitted, each type of vehicle has been analyzed independently with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires, and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

Parking Lot Assumptions

The with project Walmart parking lots were modeled on the Traffic Impact Analysis trip generation rate of 7,725 vehicles per day and 751 parking spaces, which produced an average 0.8 vehicle movement per space per hour during the daytime and 0.08 vehicle movement per space per hour during the nighttime. In addition, 56 parking spaces were removed from the parking area located south of the store, 52 parking spaces were removed from the parking area located southeast of the store, and 28 new parking spaces were added on the east side of the store and adjacent to Ranch Road. All other parking lot parameters remained identical to parameters used for the existing condition described above.

Truck Loading Areas

The SoundPlan model also analyzed the noise impacts from the proposed enlarged truck loading dock, which would be increased from one dock with two loading bays to two docks with a total of three loading bays (the new dock will have one bay). It has been estimated that the number of trucks utilizing the loading areas would increase by an additional three large delivery trucks (18-wheelers) to 19 trucks per day, which include a mixture of small and large trucks; however, in order to provide a worst-case scenario, all 19 trucks have been analyzed as large trucks. In order to account for the

increased truck traffic at the loading area, the operating time was increased to 44 percent of the time during the daytime and 32 percent of the time during the nighttime. A greater percentage increase occurred to the nighttime deliveries, since the proposed selling of produce would require deliveries to be made during the nighttime. In addition, the truck loading source area was moved and enlarged to encompass the area of the proposed third loading dock and the relocation of the small vendor truck delivery area from the north side to the east side of the structure. All other parameters remained identical to parameters used for the existing condition described above.

HVAC Unit Assumptions

The SoundPlan model also analyzed the noise impacts from the rooftop HVAC units on the existing Walmart and the rooftop units on the proposed expansion area. The existing Walmart is approximately 131,725 square feet and has approximately 34 rooftop HVAC units, which equates to approximately one unit per 3,900 square feet of building space. Based on the same spacing of units, five rooftop HVAC units were modeled in the SoundPlan model to accommodate the proposed additional 19,000 square feet of building space. Each HVAC unit was modeled on the same parameters described above for the existing condition.

Trash Compactor Assumptions

The SoundPlan model also analyzed the noise impacts from the Walmart trash compactor that would be used with greater frequency with the proposed project. It has been estimated that the frequency that the Walmart trash compactor would be operated would increase from 3 cycles per hour to 5 cycles per hour. Other than increasing the running time to 8 percent of each hour, all other parameters remained identical to parameters used for the existing condition.

Stationary and Transportation Noise Impacts

In order to determine the combined stationary and transportation noise impacts created by the proposed project, the SoundPlan Model modeling software was utilized. The following section provides a discussion of the modeling input parameters used in this analysis and a discussion of the resultant combined stationary and transportation noise impacts.

Approach

Although it is typical under CEQA to use existing conditions as the baseline for analysis of project impacts, lead agencies have the discretion to use an alternative baseline when conditions are expected to change before a project is constructed. In this case, the Near-Term scenario represents a more appropriate baseline than currently existing conditions because it takes into account the additional traffic noise and stationary source noise associated with approved projects that are expected to be built by the time the proposed project is constructed.

In order to determine the proposed project combined stationary and transportation impacts onto the nearby receptors, a near-term without project scenario and a near-term with project scenario were analyzed using the SoundPlan model. Both scenarios were based on the SoundPlan modeling

methodology presented above for the stationary-only analysis and the existing scenario. The stationary noise sources were modeled identically to those described above for the stationary-only analysis. The following describes the input parameters of the SoundPlan model for the transportation noise sources that were modified from the existing scenario for the near-term without project and near-term with project scenarios.

Offsite Roadway Assumptions

The roadways that were not included in the stationary-only noise levels but were included in the existing analysis have been analyzed from the parameters shown in Table 4.8-11 for both the near-term without project and near-term with project scenarios.

Table 4.8-11: SoundPlan Model Offsite Near-Term Roadway Parameters

Roadway	Segment	Vehicle Speed (miles per hour)	Average Daily Traffic	
			Near-Term Without Project	Near-Term With Project
N. McCarthy Boulevard	North of Ranch Drive (North)	45	30,200	30,300
N. McCarthy Boulevard	South of Ranch Drive (North)	45	30,800	31,000
Ranch Drive	East of N. McCarthy Boulevard	30	6,800	7,100
Ranch Drive	East of North Project Driveway	30	2,800	3,000
Ranch Drive	South of East Project Driveway	30	5,500	5,600
Ranch Drive	South of South Project Driveway	30	7,500	7,600
North Project Driveway	North of Ranch Drive	15	1,600	1,600
I-880 Northbound	North of SR-237	65	91,600	91,600
I-880 Southbound	North of SR-237	65	91,600	91,600
Heath Street	North of Valley Way	25	500	500
Source: Kimley-Horn and Associates, 2008.				

The hourly traffic flow distributions (vehicle mixes) used in this analysis have been provided above in Table 4.8-6, and the roadways were assigned the same vehicle mixes used for the existing scenario.

4.8.5 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether noise impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project result in:

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?

b.) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

c.) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d.) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

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? (Refer to Section 7, Effects Found Not To Be Significant.)

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? (Refer to Section 7, Effects Found Not To Be Significant.)

The CEQA Guidelines and the City's General Plan provide no definition of what constitutes a substantial noise increase; however, the California Department of Transportation provides guidance that can be used to define substantial changes in noise levels that may be caused by a project. The thresholds below apply to transportation noise that is usually expressed in terms of average noise exposure during a 24-hour period, such as the L_{dn} or CNEL. Project-generated increases in noise levels that exceed those outlined in the thresholds below, and that affect existing noise-sensitive land uses (receptors), are considered substantial and, therefore, would constitute a significant noise impact. The project will create a significant noise-related impact if it would:

- Increase noise levels by 5 dB or more where the without project noise level is less than 60 dB.
- Increase noise levels by 3 dB or more where the without project noise level is 60 to 65 dB.
- Increase noise levels by 1.5 dB or more where the without project noise level is greater than 65 dB.

The City of Milpitas General Plan Policies 6-I-1, 6-I-2, 6-I-3, and 6-I-4 require that the noise level at the location of the new development be lower than the "clearly unacceptable" noise levels shown in the Land Use Compatibility Matrix in Exhibit 4.8-3 for the associated land use. According to the Land Use Compatibility Matrix, commercial-retail development is normally acceptable with exterior noise levels less than 65 dBA L_{dn}. For development of a site with exterior noise levels in the 65- to 78-dBA L_{dn} range, commercial-retail development is conditionally acceptable upon further analysis through a noise impact analysis and possible mitigation. For exterior noise levels in excess of 75 dBA L_{dn}, development of a site for commercial-retail uses is usually unacceptable.

The City of Milpitas General Plan Policy 6-I-7 requires that nearby residential L_{dn} noise exposure increases be limited to either 3 dB or less than 65 dB at the property line, whichever is more restrictive.

For construction and operation-related vibration levels, the Federal Transit Administration's vibration impact thresholds presented in the Transportation Noise and Vibration Impact Analysis, May 2006, were utilized. The report recommends a threshold of 0.2 inch per second or 94 VdB (dB re: 1 micro-inch per second) as the significance level for potential damage to any nearby non-engineered timber and masonry buildings.

Pursuant to Section V-213-3 of the City of Milpitas Municipal Code, construction noise is considered a nuisance, and the Municipal Code places restrictions on the time when construction noise may occur. However, since neither the General Plan nor the Municipal Code provides quantitative construction noise, construction noise impacts have been analyzed according to the same regulations as stated above for stationary noise.

4.8.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Construction Noise

Impact NOI-1:	**Construction activities associated with the proposed project would not expose nearby land uses to excessive noise levels.**

Impact Analysis

Construction noise and vibration represent a short-term increase in ambient noise and vibration levels. Noise and vibration impacts from construction activities associated with the proposed project would be a function of the noise and vibration generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

The construction activities for the proposed Walmart expansion project is anticipated to include demolition of a parking lot and existing walls, ground clearing/excavation and grading of approximately 1 acre of land, and construction of a maximum of 19,000 square feet of building space and reconfiguration of a portion of the parking area. The following section provides a discussion of construction noise and vibration assumptions and an analysis of potential short-term construction impacts associated with the proposed project.

Short-term noise impacts could occur during construction activities either from the noise impacts created by the transport of workers and movement of construction materials to and from the project site, or from the noise generated onsite during ground clearing/excavation, grading, and building construction activities.

The project site is bounded by Ranch Drive and a business park to the north; Ranch Drive, I-880 and single-family residential to the east; McCarthy Ranch Marketplace to the south; and N. McCarthy Boulevard and undeveloped land to the west. The closest noise-sensitive land uses are office buildings as close as 240 feet to the north of the project site and single-family residential as close as

460 feet east of the project site. There is a school located approximately 0.3 mile to the east of the project site. Because of this distance, no noise impacts are anticipated at the nearest school.

Construction noise impacts to the nearby sensitive receptors have been calculated according to the equipment noise levels listed in Table 4.8-12 and using the SoundPlan Model. The greatest noise impacts to the nearby office and residential uses would be anticipated to occur during the demolition phase. Construction noise has been modeled on the equipment assumption used in Section 4.2, Air Quality, which assumed that the simultaneous operation of one concrete saw; one crushing/processing equipment; one excavator; one rubber-tired dozer; and two of either a tractor, a loader, or a backhoe during the demolition phase. The equipment was placed along the edge of the areas to be demolished that are closest to the nearby sensitive receptors in order to create the worst-case noise levels at the nearby sensitive receptors. The noise level emitted from each piece of equipment was based on the default emission values for this type of equipment in the SoundPlan Model. A summary of the results of the noise impacts associated with the construction of the proposed project is shown in Table 4.8-12, and the SoundPlan Model printouts are provided in Appendix F.

Table 4.8-12: Construction Noise Impacts at Nearby Receptors

Receiver	Description	Existing dBA L_{eq} Day	Existing Plus Construction dBA L_{eq} Day	Increase Over Existing
1	Office building north of Ranch Drive[1]	60.0	60.3	0.3
2	Residential east of I-880	62.3	62.3	0.0
3	Residential east of I-880	61.0	61.0	0.0
4	Residential east of I-880	61.1	61.2	0.1
5	Office building west of N. McCarthy Boulevard[1]	59.5	60.2	0.7
6	Rural residential west of N. McCarthy Boulevard	43.3	44.0	0.7

Notes:
[1] Receiver noise level based on worst-case noise for either first or second floor.
Source: Michael Brandman Associates, 2009.

Table 4.8-12 shows that construction activities would increase the noise levels by a maximum of 0.7 dBA L_{eq} at the nearby sensitive receptors during construction activities. The construction-related noise impacts at the nearby sensitive receptors would not exceed the City standards of a noise increase of 3.0 dB or more or a maximum noise level of 65 dB. In addition, construction activities are subject to the requirements of Municipal Code Section V-213-3, which limits construction activities to occur between 7 a.m. and 7 p.m. daily except holidays. Therefore, construction noise impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Construction and Operational Vibration

Impact NOI-2:	Nearby sensitive receptors would not be exposed to substantial vibration.

Impact Analysis

This impact addresses construction and operational vibration associated with the proposed project. Each issue is addressed separately.

Construction Vibration

Construction activities can produce vibration that may be felt by adjacent uses. The construction of the proposed project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary sources of vibration during construction would be from bulldozers and excavators. From Table 4.8-2, a large bulldozer would be the piece of equipment that would produce the largest amount of vibration on the project site: 0.089 PPV at 25 feet.

The closest vibration sensitive land uses are the office buildings to the north, with the nearest structure located approximately 360 feet from the proposed loading dock expansion area. It is anticipated that the vibration levels caused by a large bulldozer operating on the edge of the loading dock area during construction of the proposed project at the nearest structure will be around 0.005 inch per second. This vibration level would not exceed the 0.2-inch-per-second threshold. Therefore, construction-related vibration impacts would be less than significant.

Operational Vibration

The proposed project would result in the addition of 19,000 square feet to the existing Walmart store. The proposed project would increase the number of daily truck trips from approximately 16 to 19 trucks per day.

From Table 4.8-2, a loaded truck would typically produce a vibration level of 0.076 inch per second PPV at 25 feet. This would result in a vibration level of 0.005 inch per second PPV at the nearest sensitive receptor to the truck route. This vibration level would not exceed the 0.2-inch-per-second threshold. Therefore, vibration impacts from the ongoing operations of the proposed project would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Roadway Noise

Impact NOI-3:	**The proposed project's vehicular trips would not cause a substantial permanent increase in ambient noise levels.**

Impact Analysis

The proposed project would generate additional vehicular trips on roadways in the project vicinity. Noise from motor vehicles is generated by engine vibrations, the interaction between tires and the road, and the exhaust system.

The potential offsite noise impacts caused by the increase in vehicular traffic from the ongoing operations from the proposed project onto the project study area roadways have been analyzed for the following three traffic scenarios:

- **Existing Condition:** This scenario refers to the existing traffic noise conditions, without construction of the proposed project.
- **Near-Term Without Project Condition:** This scenario refers to the future year 2011 traffic noise conditions consisting of existing plus growth from approved but not yet constructed developments in the project vicinity, without construction of the proposed project.
- **Near-Term With Project Condition:** This scenario refers to the future year 2011 traffic noise conditions consisting of existing plus growth from approved but not yet constructed developments in the project vicinity, with construction of the proposed project.

In order to quantify the traffic noise impacts along the analyzed roadways, the roadway noise contours were calculated. Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. For analysis comparison purposes, the L_{dn} and CNEL noise levels are calculated at 100 feet from the centerline. In addition, the distance from the centerline to the 55-, 60-, 65-, and 70-dBA noise levels are calculated for both L_{dn} and CNEL standards.

Existing Conditions

The calculated existing condition noise contours are shown below in Table 4.8-13. The calculated noise measurements show that currently N. McCarthy Boulevard south of Ranch Drive (South), N.

Milpitas Boulevard north of Dixon Landing Road, Ranch Drive (South) east of N. McCarthy Boulevard, and all analyzed segments of Calaveras Boulevard and Tasman Drive would exceed the City's 65-dBA L_{dn} standard. The noise levels from all analyzed roadway segments range from 40.3 to 71.4 dBA L_{dn}.

Table 4.8-13: Existing Offsite Traffic Noise Contours

Roadway	Segment	L_{dn} at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}	55 dBA L_{dn}
N. McCarthy Boulevard	North of Ranch Drive (North)	63.4	RW	78	168	361
N. McCarthy Boulevard	South of Ranch Drive (North)	63.3	RW	77	167	360
N. McCarthy Boulevard	South of Ranch Drive (South)	66.4	58	124	267	575
McCarthy Boulevard	South of Technology Drive	61.4	RW	57	123	266
McCarthy Boulevard	South of Sandisk Drive	61.6	RW	59	127	274
McCarthy Boulevard	South of Alder Drive	62.5	RW	68	147	317
McCarthy Boulevard	South of Tasman Drive	61.2	RW	55	119	257
N. Abel Street	North of W. Calaveras Boulevard	62.9	RW	72	155	334
S. Abel Street	South of W. Calaveras Boulevard	62.6	RW	69	148	320
N. Milpitas Boulevard	North of Dixon Landing Road	65.2	RW	103	222	477
N. Milpitas Boulevard	South of Dixon Landing Road	64.7	RW	95	206	443
N. Milpitas Boulevard	North of E. Calaveras Boulevard	64.5	RW	92	199	428
S. Milpitas Boulevard	South of E. Calaveras Boulevard	64.3	RW	90	194	417
Dixon Landing Road	West of I-880 Southbound Ramps	63.2	RW	76	164	353
Dixon Landing Road	East of California Circle	64.9	RW	99	213	460
Dixon Landing Road	East of Milmont Drive	63.7	RW	82	177	381
Dixon Landing Road	East of N. Milpitas Boulevard	60.1	RW	RW	102	220
Ranch Drive (North)	East of N. McCarthy Boulevard	52.5	RW	RW	31	68

Table 4.8-13 (Cont.): Existing Offsite Traffic Noise Contours

Roadway	Segment	L_{dn} at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}	55 dBA L_{dn}
Ranch Drive (South)	West of N. McCarthy Boulevard	40.3	RW	RW	RW	RW
Ranch Drive (South)	East of N. McCarthy Boulevard	65.1	RW	102	219	473
W. Calaveras Boulevard	East of I-880 Northbound Ramps	71.4	124	267	576	1240
W. Calaveras Boulevard	East of N. Abel Street	70.8	113	244	525	1131
E. Calaveras Boulevard	East of N. Milpitas Boulevard	69.8	97	210	453	975
Technology Drive	West of McCarthy Boulevard	50.7	RW	RW	RW	52
Technology Drive	East of McCarthy Boulevard	57.0	RW	RW	63	136
Sandisk Drive	West of McCarthy Boulevard	46.7	RW	RW	RW	28
Alder Drive	East of McCarthy Boulevard	55.6	RW	RW	51	110
Tasman Drive	West of McCarthy Boulevard	67.5	68	147	317	682
Tasman Drive	East of McCarthy Boulevard	66.5	RW	125	270	581

Notes:
RW = Noise contour is located within right-of-way of roadway.
Source: Michael Brandman Associates, 2009.

Near-Term Without Project Condition

The calculated near-term baseline condition noise contours are shown below in Table 4.8-14. As shown in the table, at 100 feet from the centerline, N. McCarthy Boulevard north of Ranch Drive (South), N. Milpitas Boulevard south of Dixon Landing Road, and all analyzed segments of Dixon Landing Road would exceed the City's 65-dBA L_{dn} standard in addition to those segments previous identified under existing conditions. The noise levels from all analyzed roadway segments would range from 47.6 to 71.7 dBA L_{dn}.

Table 4.8-14: Near-Term Without Project Offsite Traffic Noise Contours

Roadway	Segment	L_{dn} at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}	55 dBA L_{dn}
McCarthy Boulevard	North of Dixon Landing Road	63.6	RW	80	173	374
N. McCarthy Boulevard	North of Ranch Drive (North)	65.8	52	113	243	524
N. McCarthy Boulevard	South of Ranch Drive (North)	65.9	53	114	246	530
N. McCarthy Boulevard	South of Ranch Drive (South)	68.4	78	168	361	778
McCarthy Boulevard	South of Technology Drive	63.6	RW	81	174	375
McCarthy Boulevard	South of Sandisk Drive	62.3	RW	66	141	305
McCarthy Boulevard	South of Alder Drive	63.8	RW	84	180	388
McCarthy Boulevard	South of Tasman Drive	62.7	RW	70	152	327
N. Abel Street	North of W. Calaveras Boulevard	63.7	RW	82	177	382
S. Abel Street	South of W. Calaveras Boulevard	63.2	RW	76	164	354
N. Milpitas Boulevard	North of Dixon Landing Road	66.5	58	125	270	581
N. Milpitas Boulevard	South of Dixon Landing Road	65.2	RW	104	224	482
N. Milpitas Boulevard	North of E. Calaveras Boulevard	64.8	RW	97	208	448
S. Milpitas Boulevard	South of E. Calaveras Boulevard	64.6	RW	94	202	435
Dixon Landing Road	West of I-880 Southbound Ramps	66.8	61	131	282	608
Dixon Landing Road	East of California Circle	66.0	54	117	253	544
Dixon Landing Road	East of Milmont Drive	65.0	RW	100	216	465
Dixon Landing Road	East of N. Milpitas Boulevard	60.5	RW	50	108	233
Ranch Drive (North)	East of N. McCarthy Boulevard	53.9	RW	RW	39	84
Ranch Drive (South)	West of N. McCarthy Boulevard	52.1	RW	RW	RW	64
Ranch Drive (South)	East of N. McCarthy Boulevard	65.2	RW	104	223	481

Table 4.8-14 (Cont.): Near-Term Without Project Offsite Traffic Noise Contours

Roadway	Segment	L_{dn} at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}	55 dBA L_{dn}
W. Calaveras Boulevard	East of I-880 Northbound Ramps	71.7	130	281	604	1302
W. Calaveras Boulevard	East of N. Abel Street	71.3	123	265	571	1230
E. Calaveras Boulevard	East of N. Milpitas Boulevard	70.6	110	237	510	1098
Technology Drive	West of McCarthy Boulevard	53.0	RW	RW	34	74
Technology Drive	East of McCarthy Boulevard	59.9	RW	46	98	212
Sandisk Drive	West of McCarthy Boulevard	47.6	RW	RW	RW	32
Alder Drive	East of McCarthy Boulevard	58.7	RW	38	82	177
Tasman Drive	West of McCarthy Boulevard	67.9	73	157	338	728
Tasman Drive	East of McCarthy Boulevard	67.0	RW	135	292	628

Notes:
RW = Noise contour is located within right-of-way of roadway.
Source: Michael Brandman Associates, 2009.

Near-Term With Project Condition

The calculated near-term with project condition noise contours are shown below in Table 4.8-15. As shown in the table, at 100 feet from the centerline, no additional roadway segments would exceed the City's 65-dBA L_{dn} standard when compared with the near-term without project condition. The noise levels from all analyzed roadway segments would range from 47.6 to 71.7 dBA L_{dn}.

Table 4.8-15: Near-Term With Project Offsite Traffic Noise Contours

Roadway	Segment	L_{dn} at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}	55 dBA L_{dn}
McCarthy Boulevard	North of Dixon Landing Road	63.6	RW	80	173	374
N. McCarthy Boulevard	North of Ranch Drive (North)	65.8	52	113	244	525

Table 4.8-15 (Cont.): Near-Term With Project Offsite Traffic Noise Contours

Roadway	Segment	L_{dn} at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}	55 dBA L_{dn}
N. McCarthy Boulevard	South of Ranch Drive (North)	65.9	53	115	247	533
N. McCarthy Boulevard	South of Ranch Drive (South)	68.5	79	171	368	792
McCarthy Boulevard	South of Technology Drive	63.6	RW	81	174	375
McCarthy Boulevard	South of Sandisk Drive	62.3	RW	66	142	305
McCarthy Boulevard	South of Alder Drive	63.9	RW	84	181	390
McCarthy Boulevard	South of Tasman Drive	62.7	RW	70	152	327
N. Abel Street	North of W. Calaveras Boulevard	63.7	RW	82	177	382
S. Abel Street	South of W. Calaveras Boulevard	63.3	RW	77	165	356
N. Milpitas Boulevard	North of Dixon Landing Road	66.5	58	125	270	582
N. Milpitas Boulevard	South of Dixon Landing Road	65.2	RW	104	224	482
N. Milpitas Boulevard	North of E. Calaveras Boulevard	64.8	RW	97	208	448
S. Milpitas Boulevard	South of E. Calaveras Boulevard	64.6	RW	94	202	435
Dixon Landing Road	West of I-880 Southbound Ramps	66.8	61	131	283	609
Dixon Landing Road	East of California Circle	66.0	54	117	253	544
Dixon Landing Road	East of Milmont Drive	65.0	RW	100	216	465
Dixon Landing Road	East of N. Milpitas Boulevard	60.5	RW	50	108	233
Ranch Drive (North)	East of N. McCarthy Boulevard	54.1	RW	RW	40	87
Ranch Drive (South)	West of N. McCarthy Boulevard	52.1	RW	RW	RW	64
Ranch Drive (South)	East of N. McCarthy Boulevard	65.3	RW	104	225	484
W. Calaveras Boulevard	East of I-880 Northbound Ramps	71.7	130	281	606	1305
W. Calaveras Boulevard	East of N. Abel Street	71.4	123	265	572	1232

Table 4.8-15 (Cont.): Near-Term With Project Offsite Traffic Noise Contours

Roadway	Segment	L_{dn} at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}	55 dBA L_{dn}
E. Calaveras Boulevard	East of N. Milpitas Boulevard	70.6	110	237	511	1100
Technology Drive	West of McCarthy Boulevard	53.0	RW	RW	34	74
Technology Drive	East of McCarthy Boulevard	59.9	RW	46	98	212
Sandisk Drive	West of McCarthy Boulevard	47.6	RW	RW	RW	32
Alder Drive	East of McCarthy Boulevard	58.7	RW	38	82	177
Tasman Drive	West of McCarthy Boulevard	67.9	73	157	338	728
Tasman Drive	East of McCarthy Boulevard	67.0	RW	135	292	628

Notes:
RW = Noise contour is located within right-of-way of roadway.
Source: Michael Brandman Associates, 2009.

Summary of Impacts

The proposed project's potential offsite noise impacts have been calculated by comparing the near-term without project scenario with the near-term with project scenario. The results of this comparison shown below in Table 4.8-16 indicate that the noise level contributions from the proposed project to the study area roadways would range from 0.0 to 0.2 dBA L_{dn}. The greatest contribution of 0.2 dBA L_{dn} would occur on Ranch Drive (North) east of N. McCarthy Boulevard. A 0.2-dBA L_{dn} noise increase would be below the thresholds of significance described above. Therefore, no significant, long-term offsite noise impacts from project-related vehicle noise would occur along the study area roadways segments.

Table 4.8-16: Near-Term Offsite Traffic Noise Contributions

Roadway	Segment	L_{dn} at 100 feet			
		No Project	With Project	Project Contribution	Potential Significant Impact?
McCarthy Boulevard	North of Dixon Landing Road	63.6	63.6	0.0	No
N. McCarthy Boulevard	North of Ranch Drive (North)	65.8	65.8	0.0	No

Table 4.8-16 (Cont.): Near-Term Offsite Traffic Noise Contributions

Roadway	Segment	L_{dn} at 100 feet			
		No Project	With Project	Project Contribution	Potential Significant Impact?
N. McCarthy Boulevard	South of Ranch Drive (North)	65.9	65.9	0.0	No
N. McCarthy Boulevard	South of Ranch Drive (South)	68.4	68.5	0.1	No
McCarthy Boulevard	South of Technology Drive	63.6	63.6	0.0	No
McCarthy Boulevard	South of Sandisk Drive	62.3	62.3	0.0	No
McCarthy Boulevard	South of Alder Drive	63.8	63.9	0.1	No
McCarthy Boulevard	South of Tasman Drive	62.7	62.7	0.0	No
N. Abel Street	North of W. Calaveras Boulevard	63.7	63.7	0.0	No
S. Abel Street	South of W. Calaveras Boulevard	63.2	63.3	0.1	No
N. Milpitas Boulevard	North of Dixon Landing Road	66.5	66.5	0.0	No
N. Milpitas Boulevard	South of Dixon Landing Road	65.2	65.2	0.0	No
N. Milpitas Boulevard	North of E. Calaveras Boulevard	64.8	64.8	0.0	No
S. Milpitas Boulevard	South of E. Calaveras Boulevard	64.6	64.6	0.0	No
Dixon Landing Road	West of I-880 Southbound Ramps	66.8	66.8	0.0	No
Dixon Landing Road	East of California Circle	66.0	66.0	0.0	No
Dixon Landing Road	East of Milmont Drive	65.0	65.0	0.0	No
Dixon Landing Road	East of N. Milpitas Boulevard	60.5	60.5	0.0	No
Ranch Drive (North)	East of N. McCarthy Boulevard	53.9	54.1	0.2	No
Ranch Drive (South)	West of N. McCarthy Boulevard	52.1	52.1	0.0	No
Ranch Drive (South)	East of McCarthy Boulevard	65.2	65.3	0.1	No
W. Calaveras Boulevard	East of I-880 Northbound Ramps	71.7	71.7	0.0	No

Table 4.8-16 (Cont.): Near-Term Offsite Traffic Noise Contributions

Roadway	Segment	L_{dn} at 100 feet			
		No Project	With Project	Project Contribution	Potential Significant Impact?
W. Calaveras Boulevard	East of N. Abel Street	71.3	71.4	0.1	No
E. Calaveras Boulevard	East of N. Milpitas Boulevard	70.6	70.6	0.0	No
Technology Drive	West of McCarthy Boulevard	53.0	53.0	0.0	No
Technology Drive	East of McCarthy Boulevard	59.9	59.9	0.0	No
Sandisk Drive	West of McCarthy Boulevard	47.6	47.6	0.0	No
Alder Drive	East of McCarthy Boulevard	58.7	58.7	0.0	No
Tasman Drive	West of McCarthy Boulevard	67.9	67.9	0.0	No
Tasman Drive	East of McCarthy Boulevard	67.0	67.0	0.0	No
Source: Michael Brandman Associates, 2009.					

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Stationary Noise

Impact NOI-4: The proposed project would not generate stationary noise levels that cause significant impacts at nearby receptors.

Impact Analysis

The proposed project would have potential stationary noise impacts on the nearby residences from the proposed rooftop HVAC units, the trash compactor, the truck loading area, parking lot areas, and onsite vehicular traffic. In order to assess the proposed project's stationary noise impacts onto the nearby residences, the SoundPlan modeling software was utilized.

In order to determine if the proposed project would exceed the City of Milpitas stationary source noise standards, the stationary noise sources were modeled from the existing noise sources and then compared with the existing noise levels. The results are summarized in Table 4.8-17.

Table 4.8-17: Onsite Noise Impacts at Nearby Receptors

Receiver[1]	Description	dBA L_{dn}[1]		
		Existing	Project Onsite Plus Existing	Change
1	Office building north of Ranch Drive[2]	64.3	64.3	0.0
2	Residential east of I-880	66.5	66.5	0.0
3	Residential east of I-880	65.3	65.3	0.0
4	Residential east of I-880	65.4	65.4	0.0
5	Office building west of N. McCarthy Boulevard[2]	64.8	64.8	0.0
6	Rural residential west of N. McCarthy Boulevard	48.1	47.7	-0.4

Notes:
[1] Noise level includes a 10-dBA penalty to account for the noise-sensitive nighttime hours (10 p.m. to 7 a.m.).
[2] Receiver noise level is based on worst-case noise for either the first or second floor.
Source: SoundPlan Version 6.5 and Michael Brandman Associates, 2009.

Table 4.8-17 shows that for the with project stationary only noise impacts, no increase over the existing noise levels is anticipated at any of the nearby sensitive receptors. The stationary with project noise level at Receiver 6 was found to decrease by 0.4 dBA over existing noise levels. This is due to the additional noise shielding from I-880 the proposed addition would provide, which is the primary noise source in the project vicinity. Therefore, no significant stationary noise impact would be anticipated to occur at any of the nearby sensitive receptors, even taking into account the 24-hour operations that would result from the store expansion.

Other sources of noise on the project site may include delivery trucks doors slamming in the loading area, car doors slamming in the parking lot, landscaping equipment usage (e.g., leaf blowers), parking lot sweepers, and shopping cart movements. These sound events are infrequent, intermittent, and localized, and would not represent a substantial contribution to ambient noise levels. Accordingly, it can be reasonably concluded that these types of noise sources associated with the proposed project would not expose nearby receptors to excessive noise levels. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Combined Stationary and Transportation Noise

Impact NOI-5: **The proposed project would not generate combined stationary and transportation noise levels that cause significant impacts at nearby receptors.**

Impact Analysis

This impact evaluates the proposed project's potential to cause a substantial permanent increase in ambient noise levels because of combined stationary and transportation noise.

In order for combined stationary and transportation-related noise impacts created by the proposed project's operations to be considered significant, the proposed project would need to exceed 65 dBA L_{dn} or a 1.5-dBA L_{dn} increase for roadways with the no project noise levels greater than 65 dBA L_{dn}.

The combined stationary and transportation noise levels created by the near-term without project and near-term with project scenarios were calculated for the façades of the same nearby receptors that were analyzed for the existing conditions. The results are summarized below in Table 4.8-18, and the SoundPlan Model printouts for the combined stationary and transportation noise levels are provided in Appendix F. Exhibit 4.8-4 shows the near-term without project combined noise contours. Exhibit 4.8-5 shows the near-term with project combined noise contours.

Table 4.8-18: Combined Stationary and Transportation Noise Impacts at Nearby Receptors

Receiver	Description	dBA L_{dn}[1]		
		Near Term Without Project	Near Term With Project	Change
1	Office building north of Ranch Drive[2]	64.7	64.7	0.0
2	Residential east of I-880	66.7	66.7	0.0
3	Residential east of I-880	65.5	65.5	0.0
4	Residential east of I-880	65.6	65.6	0.0
5	Office building west of N. McCarthy Boulevard[2]	67.3	67.3	0.0
6	Rural residential west of N. McCarthy Boulevard	49.3	49.0	-0.3

Notes:
[1] Noise level includes a 10-dBA penalty to account for the noise sensitive nighttime hours (10 p.m. to 7 a.m.).
[2] Receiver noise levels are based on worst-case noise for either the first or second floor.
Source: SoundPlan Version 6.5 and Michael Brandman Associates, 2009.

Table 4.8-18 shows that the proposed project's combined 24-hour transportation and stationary noise impacts would not create a noise increase over the near-term without project conditions, even taking into account the 24-hour operations that would result from the store expansion. The combined with project noise level at Receiver 6 was found to decrease by 0.3 dBA over existing noise levels. This is because of the additional noise shielding the proposed addition would provide from I-880, which is

the primary noise source in the project vicinity. Therefore, no significant combined stationary and transportation-related offsite noise impact would occur.

Level of Significance Before Mitigation

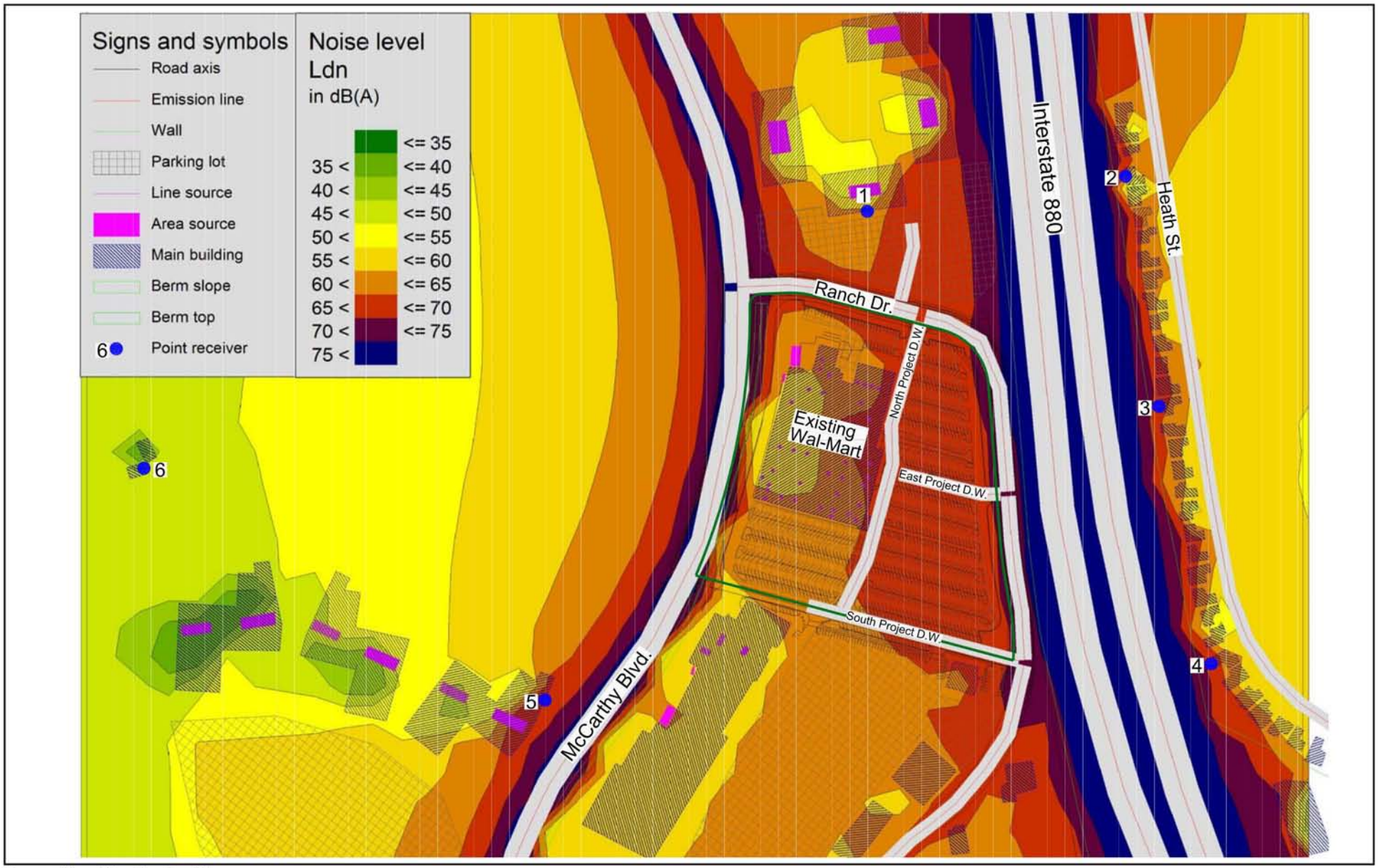
Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.



Source: SoundPlan Version 6.5.

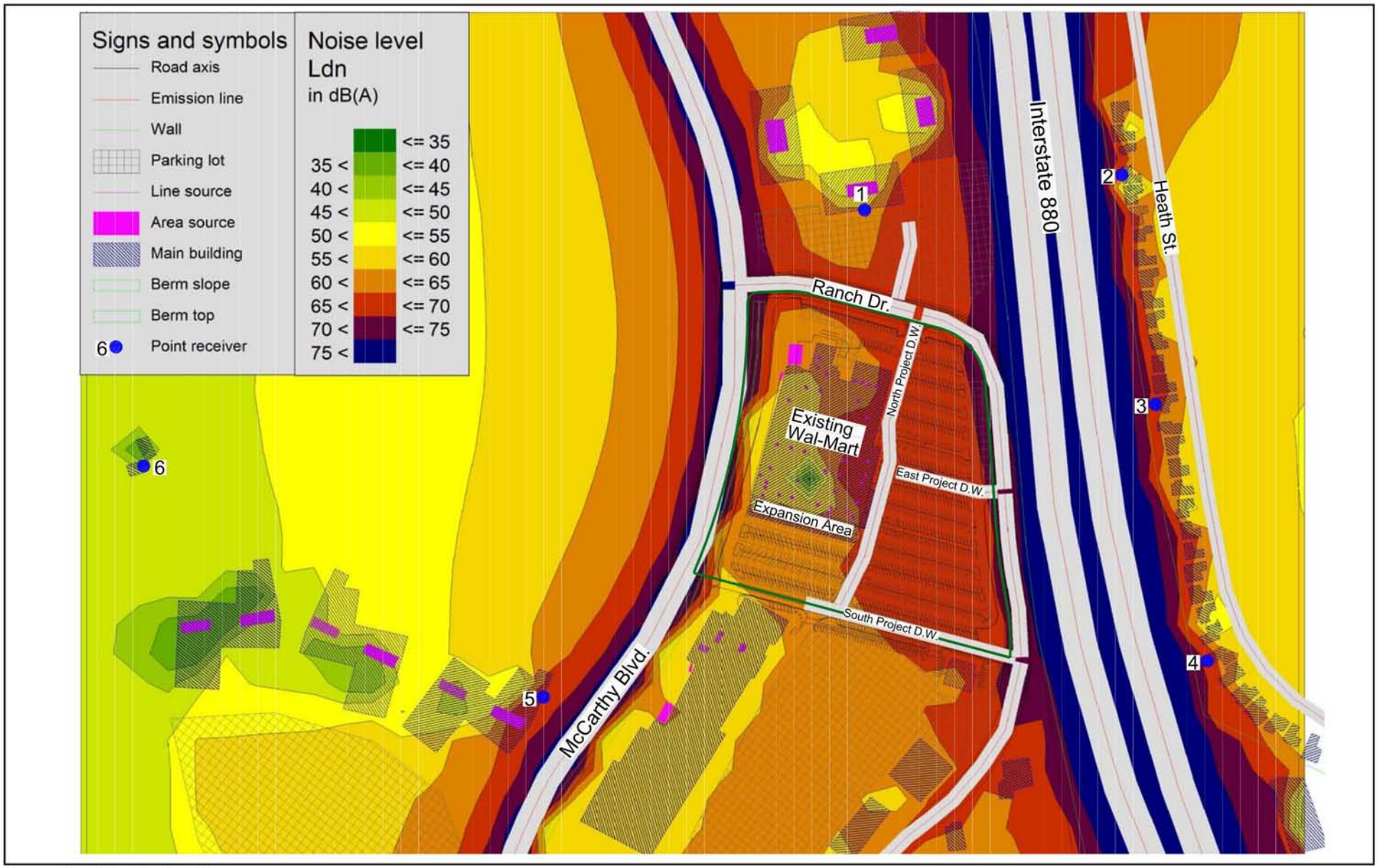
NORTH

NOT TO SCALE

Michael Brandman Associates

32660002 • 02/2009 | 4.8-4_near_term_wo_project_contour.cdr

Exhibit 4.8-4
Near-Term Without Project Noise Contour Map (dBA Ldn)



Source: SoundPlan Version 6.5.

NORTH

NOT TO SCALE

Michael Brandman Associates

32660002 • 02/2009 | 4.8-5_near_term_w_project_contour.cdr

Exhibit 4.8-5
Near-Term With Project Noise Contour Map (dBA Ldn)

4.9 - Public Services and Utilities

4.9.1 - Introduction

This section describes the existing public services and utilities and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information provided by the City of Milpitas General Plan, Municipal Code, Sewer Master Plan, Urban Water Management Plan, and Public Works Department. Additional information was provided by the Local Agency Formation Commission (LAFCO) of Santa Clara County, the San Jose/Santa Clara Water Pollution Control Plant and the Santa Clara Valley Water District, the Pacific Gas and Electric Company 10-K Annual Report, the California Integrated Waste Management Board website, and responses to questionnaires sent to public service and utility providers. Public service and utility response letters are provided in Appendix G: Public Service and Utility Letters.

4.9.2 - Environmental Setting

Fire Protection and Emergency Medical Services

The Milpitas Fire Department (Fire Department) provides fire protection and emergency medical services to the City of Milpitas. The Fire Department's service area within the city limits is approximately 13.6 square miles, containing a population of approximately 65,000. The Fire Department is headquartered at Station No. 1, located at 777 S. Main Street in Milpitas.

Stations

The Fire Department operates four fire stations. The nearest station to the project site is Station No. 4, located at 775 Barber Lane on the south side of State Route 237 (SR-237). Table 4.9-1 summarizes Station No. 4's characteristics.

Table 4.9-1: Fire Station Summary

Station No.	Address	Approximate Distance from Project Site (miles)	Remarks
4	775 Barber Lane	1.50	Typically staffed with three personnel; equipped with a combined engine/ladder company and a Hazardous Materials response team.

Notes:
Distances calculated using Google Maps.
Source: Milpitas Fire Department, 2009; Michael Brandman Associates, 2009.

Organization and Staffing

The Fire Department employs 68 people in two divisions: the Response and Preparedness Division and Fire Prevention Division.

The Response and Preparedness Division is responsible for responding to emergency incidents, safety, training, disaster preparedness, and public information. The Response and Preparedness Division is staffed with 58 positions.

The Fire Prevention Division oversees fire and panic safety plan review, inspection and enforcement for new construction, fire extinguishing and detection systems, annual inspections, hazardous materials regulation, and investigations and prosecution. The Fire Prevention Division is staffed with 10 positions.

Apparatus

The Fire Department operates four engines and one truck.

Response Times

The emergency response time goal of the Fire Department is to deploy one engine to the scene of an emergency within 4 minutes. The Fire Department's average response time to all calls is currently below the 4-minute response time goal.

Calls for Service

In 2008, the Fire Department responded to 4,320 calls for service.

Existing Walmart Store

The Fire Department responded to 21 calls for service at the existing Walmart store in 2008.

Mutual Aid

The Fire Department has mutual joint response agreements with the cities of San Jose and Fremont as well as the Spring Valley Volunteer Fire Department through the Santa Clara County Local Mutual Aid Plan. In addition to local joint response, all fire departments in the State are signatory to a master mutual aid agreement. This agreement was established to provide assistance for major incidents.

Police Protection

The Milpitas Police Department (Police Department) provides police protection to the City of Milpitas. The Police Department is headquartered at 1275 N. Milpitas Boulevard.

Staffing and Assignments

The Police Department is staffed by 123 employees. Of this figure, 95 positions are sworn law enforcement officers and 28 are non-sworn civilians.

The Field Services Division provides 24-hour patrols of the City of Milpitas. The Field Services Division is organized into three patrol shifts, each of which is supervised by a lieutenant and two sergeants. The City is divided into six geographical beats, and on most shifts and most days, each beat is filled. The Traffic Safety Unit of the Field Services Division is responsible for traffic enforcement and is staffed by a lieutenant, a sergeant, and 13 officers.

The Special Operations Division oversees the Investigations Bureau. Ten detectives investigate crimes, with five assigned to general crimes and five assigned to street crimes.

Response Times

In 2008, the Police Department's average response time for emergency calls was 2 minutes, 46 seconds, and average response time for priority calls was 5 minutes, 11 seconds. The Police Department has adopted a standard response time of 4 minutes or less for all emergency calls.

Calls for Service

The Police Department responded to 81,710 calls for service in 2008.

Existing Walmart Store

The Police Department responded to 222 calls for service at the existing Walmart store in 2008. In the four-year period between 2005 and 2008, the existing Walmart store generated an average of 252 calls for service on an annual basis.

Potable Water

The City of Milpitas provides potable water supply and distribution to a service area of approximately 15 square miles.

Water Infrastructure

Milpitas's water distribution system includes 203 miles of water main, 1,755 fire hydrants, 5 water tanks totaling 15.64 million gallons of capacity, five pump stations, 16 pressure regulator valves, and one well.

Water Supply

According to the 2005 Urban Water Management Plan for Milpitas, the City purchases treated water from two wholesalers, the San Francisco Public Utilities Commission (SFPUC) and the Santa Clara Valley Water District (SCVWD), and receives recycled water from the San Jose/Santa Clara Water Pollution Control Plant. In addition, the City also maintains an emergency well system. The City anticipates relying on these water sources over the next 25 years. The project site is located within an area receiving water from the Santa Clara Valley Water District and recycled water from the San Jose/Santa Clara Water Pollution Control Plant. Table 4.9-2 summarizes future projections for each source.

Table 4.9-2: City of Milpitas Water Supply Sources (2009–2030)

Source	Million Gallons per Day				
	2009–2010	2014–2015	2019–2020	2024–2025	2029–2030
San Francisco Public Utilities Commission	7.20	7.43	7.68	7.94	8.20
Santa Clara Valley Water District	5.78	6.37	6.63	6.88	7.13
Water Pollution Control Plant (recycled)	1.08	1.25	1.42	1.60	1.77
Total Supply	**14.06**	**15.05**	**15.73**	**16.42**	**17.10**

Notes:
mgd = million gallons per day
Data provided from Table 3-1 of the Urban Water Management Plan.
Source: City of Milpitas, 2005.

Santa Clara Valley Water District (SCVWD)

Approximately 40 percent of Milpitas's drinking water originates from the SCVWD. SCVWD water is provided primarily to the commercial and industrial areas of the City (west of I-880, south of Calaveras Boulevard, and west of I-680), including the project site. Most of the City's future water-use increases are projected to occur within the SCVWD service area. SCVWD's water supply comes from a variety of sources. Approximately half of the water is from local groundwater aquifers, while the other half is imported from the Sierra Nevada Mountains through pumping stations in the Sacramento-San Joaquin River Delta. Small amounts of local surface water and recycled water are also utilized. According to the 2003 Integrated Water Resources Planning Study, the SCVWD can provide approximately 440,800 acre-feet during a year of average weather conditions. According to the Santa Clara Valley Water District Urban Water Management Plan, countywide water demand is projected to increase by about 70,000 acre-feet or 18 percent over the next 25 years.

Groundwater

The City has one emergency well which meets all drinking water standards and is permitted for unlimited use. City practice is that groundwater is utilized during emergencies only. A second emergency well is currently under design. Groundwater is not included as an existing or planned source of water available to the City of Milpitas.

Recycled Water

The City of Milpitas is a member agency in the South Bay Water Recycling Program and receives recycled water from the San Jose/Santa Clara Water Pollution Control Plant for non-potable irrigation, industrial use, and other purposes. Recycled water accounts for approximately 7 percent of Milpitas's water usage. As of 2005, the City's recycled water system consisted of 19 miles of pipeline serving 160 irrigation customers.

Recycled Water Conveyance Facilities

Recycled water lines are located within N. McCarthy Boulevard and Ranch Drive adjacent to the project site. The existing Walmart is connected to the recycled water distribution system.

The City of Milpitas indicates that the existing store used an average of 3,800 gallons per day in the 12-month period between June 2008 and June 2009.

Water Use

Table 4.9-3 shows the projected water use between 2009 and 2030.

Table 4.9-3: Projected Water Use (2009–2030)

Million Gallons per Day				
2009-2010	**2014-2015**	**2019-2020**	**2024-2025**	**2029-2030**
14.06	15.05	15.73	16.42	17.10

Notes:
Data provided from Table 4-2 of Urban Water Management Plan.
Source: City of Milpitas, 2005.

Water Balance

Table 4.9-4 summarizes Milpitas's projected water balance between 2009 and 2030. The table indicates that sufficient water is available to meet the projected demand during the indicated time period under normal water years. However, demand is expected to exceed supply under both single dry year and multiple dry year scenarios. The Urban Water Management Plan identifies various water shortage contingency strategies, including voluntary and mandatory rationing and supplemental groundwater pumping.

Potable Water Conveyance Facilities

Potable water distribution lines are located within N. McCarthy Boulevard and Ranch Drive adjacent to the project site. The existing Walmart is served by a lateral to the line located in Ranch Drive.

The City of Milpitas indicates that the existing store used an average of 4,500 gallons per day in the 12-month period between June 2008 and June 2009.

Wastewater

The City of Milpitas collects wastewater flows from approximately 6,000 acres within the City planning area. Effluent is transmitted through 172.5 miles of sewer main to the San Jose/Santa Clara Water Pollution Control Plant.

Treatment Plant

The San Jose/Santa Clara Water Pollution Control Plant provides wastewater treatment and disposal services to a 300-square-mile service area encompassing the cities of San Jose, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno. The plant is located in San Jose, at the southernmost tip of the San Francisco Bay, west of Milpitas. The plant has the capacity to treat 167 million gallons of wastewater per day. The majority of treated water is discharged as fresh water through Artesian Slough into South San Francisco Bay. Approximately 10 percent of treated water is

Table 4.9-4: Projected Citywide Supply and Demand – Normal Water Year, Single-Dry Water Year, and Multiple Dry Water Year Scenarios

Year	Normal Water Year (mgd)			Single-Dry Water Year (mgd)			Multiple Dry Water Year (mgd)		
	Supply	Demand	Difference	Supply	Demand	Difference	Supply	Demand	Difference
2009/2010	14.06	14.06	0.00	14.06	14.06	0.00	12.80	14.06	-1.26
2014/2015	15.05	15.05	0.00	15.05	15.05	0.00	14.74	15.05	-0.31
2019/2020	15.73	15.73	0.00	15.73	15.73	0.00	15.73	15.27	-0.46
2024/2025	16.42	16.42	0.00	16.42	16.42	0.00	15.93	16.42	-0.49
2029/2030	17.10	17.10	0.00	16.80	17.10	-0.30	16.58	17.10	-0.52

Notes
Data provided by Tables 5.-2, 5-3, and 5-4 for the Urban Water Management Plan.
Source: City of Milpitas, 2005.

diverted to South Bay Water Recycling pipelines for use in landscaping, agricultural irrigation, and industrial applications. The plant receives 116.6 million gallons per day on average.

Wastewater treatment services are governed by an agreement between the cities of San Jose and Santa Clara (as joint owners of the plant) and the City of Milpitas. Under terms of the agreement, the City pays a capital share (in proportion to the City's capacity rights and the total plant capacity). In 2006, Milpitas increased its capacity allocation from 12.5 million gallons per day to 13.5 million gallons per day of the plant's 167 million gallons per day capacity.

Wastewater Conveyance Facilities

A wastewater trunk line is located in N. McCarthy Boulevard from SR-237 to the Milpitas Pump Station located at Dixon Landing Road. The trunk line ranges in diameter from 36 to 48 inches. The existing Walmart store ties into the trunk line via a lateral.

Storm Drainage

The City of Milpitas collects and disposes its stormwater via a storm drainage network consisting of catch basins, conveyance piping, pump stations, and outfalls to creeks. Storm drainage infrastructure within the City includes 123 miles of piping, 3,490 catch basins, approximately 4.5 miles of drainage ditches and creeks, and 13 stormwater pump stations. Note that the SCVWD has jurisdiction over creeks, including Coyote Creek.

Storm Drainage Conveyance Facilities

The existing Walmart store and parking areas are served by existing inlets and piping that discharge runoff into a storm drain main located within N. McCarthy Boulevard. This main ranges from 24 to 48 inches in diameter and discharges stormwater into Coyote Creek northwest of the project site.

Solid Waste

The City of Milpitas Public Works department oversees solid waste and recycling services in the City. Republic Services is contracted with the City to provide solid waste and recycling collection. Accepted materials include aluminum cans, plastics, corrugated cardboard, newspapers, magazines, tin and steel cans, and mixed paper.

Landfill Capacity

Solid waste from Milpitas is landfilled at the Newby Island Landfill, located on Dixon Landing Road in San Jose. The landfill characteristics are summarized in Table 4.9-5. As shown in the table, Newby Island Land fill has approximately 10.7 million cubic yards of remaining capacity. Note that the landfill operator has applied to the City of San Jose to increase disposal capacity by 15 million cubic yards.

Table 4.9-5: Newby Island Landfill Summary

Landfill	Location	Permitted Daily Throughput (tons)	Cubic Yards		Anticipated Closure Date
			Permitted Capacity	Remaining Capacity	
Newby Island Landfill	San Jose	4,000	50.8 million	10.7 million	2025
Source: City of San Jose, 2007.					

Waste Diversion

Table 4.9-6 provides the City of Milpitas's waste diversion rates for the 5-year period between 2002 and 2006, based on information provided by the California Integrated Waste Management Board. As shown in the table, Milpitas's annual waste diversion rate has steadily increased from 47 percent in 2002 to 60 percent in 2006.

Table 4.9-6: Waste Diversion Rates

Year (Percent of Waste Diverted)				
2002	2003	2004	2005	2006
47	54	54	57	60
Source: California Integrated Waste Management Board, 2008.				

Energy

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to Milpitas. Each energy source is discussed below.

Electricity

PG&E provides electricity to all or part of the 47 counties in California, constituting most of the northern and central portions of the State. In 2008, PG&E obtained 30 percent of electricity from its own generation sources and the remaining 70 percent from outside sources. PG&E-owned generating facilities include nuclear, natural gas, and hydroelectric, with a net generating capacity of more than 6,200 megawatts. Outside suppliers to PG&E include the California Department of Water Resources, irrigation districts, renewable energy suppliers, and other fossil fuel-fired suppliers. PG&E operates approximately 159,000 circuit miles of transmission and distribution lines. PG&E is interconnected with electric power systems in the western Electricity Coordinating Council, which includes 14 western states; Alberta and British Columbia, Canada; and parts of Mexico.

In 2008, PG&E delivered 88,127 gigawatt-hours of electricity to its customers. Commercial customers accounted for largest segment of demand, with 39 percent of the total.

Natural Gas

PG&E provides natural gas to all or part of 40 counties in California, comprising most of the northern and central portions of the State. PG&E obtains more than 60 percent of its natural gas supplies from western Canada and the balance from U.S. sources. PG&E operates approximately 48,000 miles of transmission and distribution pipelines.

In 2008, PG&E delivered 839 billion cubic feet (Bcf) of natural gas to its customers. Commercial customers accounted for the smallest segment of demand, with 11 percent of the total.

4.9.3 - Regulatory Framework

State

California Building Standards Code

The California Building Standards Code establishes building requirements for construction and renovation. The most recent version of the California Building Standards Code was adopted in 2007 by the California Building Standards Commission and took effect January 1, 2008. It is based on the International Code Council's Building and Fire Codes. Included in the California Building Standards Code are the Electrical Code, Mechanical Code, Plumbing Code, Energy Code, and Fire Code.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610-10656) requires that all urban water suppliers prepare urban water management plans and update them every 5 years.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed Assembly Bill 939, the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent in 1995 and 50 percent in 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to (1) assure California utility customers safe, reliable utility service at reasonable rates; (2) protect utility customers from fraud; and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2005 and set

a goal of reducing growth in electricity use by 478 gigawatt-hours per year (GWh/y) and growth in natural gas use by 8.8 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 163.2 GWh/y of electricity savings and 0.5 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs.

Recycled Water Policy

In February 2009, the State Water Resources Control Board issued the Recycled Water Policy. The purpose of the new policy is to increase the beneficial use of recycled water from municipal wastewater sources in a manner that fully implements state and federal water quality laws. As a part of the new recycled water policy, the Water Board adopted the following four goals for California:

- Increase the use of recycled water over 2002 levels by at least 1 million acre-feet by 2020 and by at least 2 million acre-feet by 2030.
- Increase the use of stormwater over use in 2007 by at least 500,000 acre-feet by 2020 and by at least 1 million acre-feet by 2030.
- Increase the amount of water conserved in urban and industrial uses by comparison to 2007 by at least 20 percent by 2020.
- Included in these goals is the substitution of as much recycled water for potable water as possible by 2030.

Local

City of Milpitas General Plan

The General Plan establishes the following guiding principles and implementing policies associated with public services and utilities that are applicable to the proposed project:

- **Guiding Principal 4.d-G-1:** Protect and enhance the quality of water resources in the Planning Area.
- **Guiding Principle 4.d-G-2:** Promote conservation and efficiency in the use of water.
- **Implementing Policy 4.d-I-1:** Continue implementing the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Control Board.
- **Guiding Principle 4.h-G-1:** Undertake efforts to reduce the generation of waste, increase recycling and slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989.
- **Implementing Policy 4.h-I-1:** Implement measures specified in the City's Source Reduction and Recycling Element and the City's Household Hazardous Waste Element.
- **Guiding Principle 5.c-G-1:** Provide high quality, effective and efficient fire protection services for the Milpitas area residents.

- **Implementing Policy 5.c-I-1**: Maintain a response time of four minutes or less for all urban service areas.
- **Guiding Principle 2.d-G-1:** Provide all possible community facilities and utilities of the highest standards commensurate with the present and anticipated needs of Milpitas, as well as any special needs of the region.
- **Implementing Policy 2.**d-I-1: Coordinate capital improvement planning for all municipal service infrastructure with the location and timing of growth.

Milpitas Municipal Code

Chapter 200 of Title V of the Milpitas municipal code provides regulations regarding the accumulation, preparation, storage, collection, transportation, and disposal or processing of solid waste, recyclables, and yard trimmings.

Also included in the municipal code is the Water Efficient Landscape Ordinance. Prompted by the recent drought and water shortages, the City adopted the Ordinance in order to promote conservation and efficient use of water. The Ordinance restricts new and rehabilitated landscaping for public agency projects, private commercial and industrial projects, common-area landscaping in single-family and multi-family subdivisions, and planned unit developments to maximum applied water allowances. It also requires the preparation of landscape documentation packages for new and rehabilitated landscapes.

4.9.4 - Methodology

Michael Brandman Associates (MBA) consulted with public service and utility providers regarding their ability to serve the proposed project. Letters were sent to the Milpitas Fire Department, the Milpitas Police Department, the Milpitas Public Works Department, and PG&E. The agency responses are provided in Appendix G.

Additionally, MBA reviewed relevant City documents, including the General Plan, the Municipal Code, the Sewer Master Plan, and the Urban Water Management Plan. MBA also reviewed documents and websites produced by Santa Clara County LAFCO, the San Jose/Santa Clara Water Pollution Control Plant, the SCVWD, the California Integrated Waste Management Board, and PG&E.

4.9.5 - Thresholds of Significance

To determine whether impacts to public services are significant environmental effects, the following questions are analyzed and evaluated in accordance with Appendix G, Environmental Checklist of the CEQA Guidelines:

> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental

impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire Protection?
b) Police Protection?
c) Schools? (Refer to Section 7, Effects Found Not To Be Significant.)
d) Parks? (Refer to Section 7, Effects Found Not To Be Significant.)
e) Other public facilities? (Refer to Section 7, Effects Found Not To Be Significant.)

To determine whether impacts to utilities and services are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- 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?
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
- 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?
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- Comply with federal, state, and local statutes and regulations related to solid waste?
- Result in inefficient, wasteful, or unnecessary consumption of energy?

4.9.6 - Project Impacts and Mitigation Measures

Fire Protection and Emergency Medical Services

Impact PSU-1:	**The proposed project would not adversely impact fire protection and emergency medical services.**

Impact Analysis

The proposed project would expand the existing Walmart store by a maximum of 19,000 square feet. The Fire Department indicated in a letter dated April 6, 2009 (Appendix G) that it does not anticipate that the proposed expansion would present any significant challenges to providing emergency

medical services or fire protection to its service area. This includes impacts to response times, staffing, apparatus, or other resources. Therefore, no new or expanded fire protection facilities would be necessary to serve the proposed project. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Police Protection

Impact PSU-2: The proposed project would not adversely impact police protection.

Impact Analysis

The proposed project consists of expanding the existing Walmart by 19,000 square feet. The Police Department indicated in a letter dated April 2, 2009 (Appendix G) that it does not expect the proposed project, which would operate 24 hours a day, to generate any more calls for service than the annual average of 252 calls from the past 4 years. In addition, the Police Department stated that it does not have any other concerns about providing police protection to the proposed project. This includes impacts to response times, staffing, or other resources.

The Police Department provided the following recommendations for the proposed project:

- Security cameras should monitor the store entrance, cash registers, and safe.
- The store should be equipped with a monitored burglar, robbery, and panic alarm.
- Parking areas should be adequately lighted and should be clearly marked to allow for safe circulation.
- Onsite security should be present 24 hours a day during construction to prevent theft or vandalism of construction materials.

All of these recommendations are either currently implemented at the existing store or would be implemented by the proposed project. The store has an existing video surveillance system that monitors all interior and exterior areas. The store is staffed by security personnel who monitor cameras and patrol parking lots 24 hours a day. Security cameras and patrol personnel would be able to monitor the construction area around the clock. Parking areas are currently illuminated by freestanding lights. As described in Section 3, Project Description, lighting within store parking areas would be modified to provide 1.8 foot-candles over the parking field, which would provide adequate

illumination. The existing parking area contains pavement markings to identify drive aisles and parking stalls. Any modifications to the parking area would include the installation of replacement markings.

Therefore, no new or expanded police protection facilities would be necessary to serve the proposed project. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Water

Impact PSU-3: The proposed project may not be served with adequate long-term water supplies.

Impact Analysis

This impact addresses the adequacy of existing and future sources of water supplies, as well as infrastructure.

The proposed project would expand the existing 131,725-square-foot Walmart store by a maximum of 19,000 square feet; landscaped areas would largely remain unchanged. Table 4.9-7 summarizes the net change in potable and recycled water demand that is projected to occur relative to existing demand. As shown in the table, potable water demand, which represents domestic consumption, would increase by 2,600 gallons per day, while recycled water demand would remain unchanged.

Table 4.9-7: Water Demand Estimate

Category	Gallons per Day		Net Increase (gallons)	
	Existing Store Demand	Expanded Store Demand	Daily	Annually
Potable Water (Domestic)	4,500	7,100	2,600	949,000
Recycled Water (Irrigation)	3,800	3,800	—	—
Total	**8,300**	**10,900**	**2,600**	**949,000**

Notes:
Existing store demand provided by City of Milpitas; expanded store demand estimate provided by TAIT.
Source: City of Milpitas, 2009; TAIT, 2009.

As shown in Table 4.9-4, the 2005 Urban Water Management Plan indicates that under normal water years, water supplies are sufficient to serve demands within the City through 2030. However, under the multiple dry year scenario, demand is expected to surpass supply as soon as 2010. The existing Walmart store's water demand is accounted for in these projections. Furthermore, the City of Milpitas indicates that because the proposed project would not exceed the allowable Floor Area Ratio (FAR) for the project site, the increased potable water demand attributable to the store expansion would not adversely impact the water system.

Nonetheless, because the proposed project would result in a net increase in potable water consumption, indoor water conservation measures are proposed as mitigation. These measures would reduce overall project demand for potable water. Given the relatively small increase in potable water demand (2.91 acre-feet annually), these measures would be considered adequate to mitigate the project's impacts on long-term water supply. Note that no increase in irrigation water demand is expected, as the proposed project would result in only minimal changes to landscaping onsite and, therefore, no outdoor water conservation measures are proposed. As such, impacts on water would be reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM PSU-3 Prior to issuance of the final certificate of occupancy, the project applicant shall install the following indoor water conservation measures:

- Low-flow or ultra-low-flow toilets and urinals
- Sensor-activated faucets in restrooms

Level of Significance After Mitigation

Less than significant impact.

Wastewater

Impact PSU-4:	**The proposed project would not result in the need for additional wastewater treatment facilities or offsite conveyance facilities.**

Impact Analysis

The proposed project's estimated change in wastewater generation is shown in Table 4.9-8. As shown in the table, the proposed project is expected to result in a 2,340-gallon-per-day increase in wastewater generation.

Table 4.9-8: Wastewater Generation Estimate

Gallons per Day				Wastewater Net Increase (gallons)	
Existing Store		Expanded Store			
Domestic Water Use	Wastewater Generation	Domestic Water Use	Wastewater Generation	Daily	Annually
4,500	4,050	7,100	6,390	2,340	854,100

Notes:
Domestic water use figures obtained from Table 4.9-7.
Wastewater generation represents 90 percent of domestic water use, based on observed rates at other Walmart stores.
Source: TAIT, 2009.

Wastewater produced by the expanded Walmart would continue to be collected by the City of Milpitas via existing sewer lines and directed to the San Jose/Santa Clara Water Pollution Control Plant. On average, the plant receives 116.6 million gallons per day. The plant has a total capacity of 167 million gallons per day, of which Milpitas is allocated 13.5 million gallons per day. In 2009, the City increased its allotment to 14.25 million gallons per day.

The City of Milpitas indicates that because the proposed project would not exceed the allowable FAR for the project site, the increased effluent generation attributable to the store expansion would not adversely impact the sewer system or treatment plan capacity. As such, no additional wastewater treatment or offsite conveyance facilities would be needed as a result of project implementation. Impacts would be less than significant.

Note that the project applicant will be required to pay a Treatment Plant Fee, a standard requirement for new development projects.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation necessary.

Level of Significance After Mitigation

Less than significant impact.

Storm Drainage

Impact PSU-5: **The proposed project would provide adequate onsite storm drainage facilities and would not require the construction of offsite facilities.**

Impact Analysis

The footprint of the proposed store expansion contains a parking lot that is drained by the existing storm drainage system serving the project site. The existing drainage infrastructure would be

modified to accommodate the expansion; however, the system itself would not need to be upsized to provide additional capacity because the store expansion would not increase the amount of impervious surface coverage onsite. Accordingly, the proposed project would not increase the amount of runoff leaving the project site; therefore, it would not require new or expanded offsite storm drainage facilities. Impacts would be less than significant.

Note that the project applicant will be required to pay a Storm Drain Connection Fee, a standard requirement for new development projects.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Solid Waste

Impact PSU-6: The proposed project may generate substantial amounts of solid waste during both construction and operations.

Impact Analysis

Solid waste would be generated by construction and operational activities. Each is discussed below.

Construction Waste Generation

Short-term construction waste generation is summarized in Table 4.9-9. The estimate of 5,737 tons was calculated using standard construction waste generation rates.

Table 4.9-9: Construction Waste Generation

Category	Waste Generation Rate	Quantity	Construction Waste Generation (tons)
Building Demolition	0.45 ton/cubic yard	60,000 cubic feet	1,000
Asphalt Removal	0.7 ton/cubic yard	181,465 cubic feet	4,700
Building Construction	3.89 pounds/square foot	19,000 square feet	37
		Total	**5,737**

Notes:
1 ton = 2,000 pounds
Source: U.S. Environmental Protection Agency, 1998; TAIT, 2009; Michael Brandman Associates, 2009.

Given the amount of construction waste tonnage, mitigation is proposed that would require the project applicant to retain a contractor to recycle construction and demolition debris. The implementation of this mitigation measure would reduce potential impacts to a level of less than significant.

Operational Waste Generation

The operational solid waste generation estimate was calculated by using a standard commercial waste generation rate provided by the California Integrated Waste Management Board. As shown in Table 4.9-10, the proposed project is estimated to generate 362 tons of solid waste annually, which would represent a net increase of 45.6 tons over the existing store's estimated solid waste generation.

Table 4.9-10: Operational Waste Generation

Waste Generation Rate	Existing Store Square Footage	Annual Existing Store Waste Generation (tons)	Expanded Store Square Footage	Annual Expanded Store Waste Generation (tons)	Net Increase (tons)
4.8 pounds/square foot	131,725	316.1	150,725	361.7	45.6

Notes:
1 ton = 2,000 pounds
Source: California Integrated Waste Management Board, 2006; Michael Brandman Associates, 2009.

Mitigation is proposed that would require the project applicant to provide onsite recycling facilities prior to issuance of occupancy permits. The implementation of this mitigation measure would reduce solid waste generation and reduce demand for landfill capacity. Therefore, solid waste impacts would be reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM PSU-6a Prior to issuance of building permits, the project applicant shall retain a qualified contractor to perform construction and demolition debris recycling. The project applicant shall provide documentation to the satisfaction of the City of Milpitas demonstrating that construction and demolition debris was recycled.

MM PSU-6b Prior to issuance of occupancy permits, the project applicant shall provide onsite facilities necessary to collect and store recyclable materials. The facilities shall include receptacles in public spaces that are of high-quality design and identify accepted materials.

Level of Significance After Mitigation

Less than significant impact.

Energy

Impact PSU-7: **The proposed project would not result in the inefficient, unnecessary, or wasteful consumption of energy.**

PG&E currently serves the existing Walmart store with electricity and natural gas and would continue to serve the expanded store. Table 4.9-11 provides an estimate of the Walmart expansion's additional annual electricity and natural gas consumption. These figures were derived from energy consumption rate provided by the United States Energy Information Administration. The consumption rates are based on national consumption figures for commercial buildings that operate continuously and, therefore, likely overstate actual consumption, because they include structures located in different climate regions or states with less stringent energy efficiency standards than those of California. As shown in the table, the proposed project is anticipated to increase electricity usage by 310,000 kilowatt hours annually and increase natural gas usage by 1.11 million cubic feet annually.

Table 4.9-11: Estimated Energy Demand

Source	Annual Consumption Rate	Existing Store Square Footage	Existing Store Annual Consumption	Expanded Store Square Footage	Expanded Store Annual Consumption	Net Increase
Electricity	15.7 kWH/ square foot	131,725	2.06 million kWH	150,725	2.37 million kWH	310,000 kWH
Natural Gas	58.3 cubic feet/ square foot		7.68 million cubic feet		8.79 million cubic feet	1.11 million cubic feet

Notes:
kWH = kilowatt hours
Source: California Energy Commission 2006 and Michael Brandman Associates, 2009.

PG&E provided a will-serve letter dated March 16, 2009 (Appendix G) indicating that it had available electricity and natural gas supplies with appropriate transmission capacity to serve the proposed project.

The proposed project's structure would be designed in accordance with Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. The incorporation of the 2005 Title 24 standards into the project would ensure that the project would not result in the inefficient, unnecessary, or wasteful consumption of energy.

In addition to the 2005 Title 24 standards and as discussed in Section 3, Project Description, the Walmart expansion project is anticipated to contain the following energy conservation features:

- **High Efficiency Heating, Ventilation, and Air Conditioning (HVAC) units:** The HVAC units would be among the most efficient in the industry.

- **Central Energy Management:** The store would continue to employ an energy management system that is monitored and controlled from corporate headquarters in Bentonville, Arkansas. This energy management system enables corporate headquarters to monitor energy usage, analyze refrigeration temperatures, and observe HVAC and lighting performance. It also allows corporate headquarters to adjust lighting, temperature, or refrigeration set points from a central location.
- **White Roofs:** The entire building would have a white membrane roof. The high solar reflectivity of this membrane results in lowering the cooling load by approximately 10 percent.
- **Light Emitting Diode (LED) Signage Illumination:** All internally illuminated building signage would use LED lighting. With lamp life ranging to 100,000 hours, using LEDs significantly reduces the need to manufacture and dispose of fluorescent lamps.

Collectively, these design features would ensure that the project would not result in the inefficient, unnecessary, or wasteful consumption of energy. Impacts would be less than significant.

Energy conservation is discussed in detail in Section 6.4 of this EIR.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.10 - Transportation

4.10.1 - Introduction

This section describes the existing transportation setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Traffic Impact Analysis, prepared in October 2009 by Kimley-Horn and Associates, Inc. and included in this EIR as Appendix H.

4.10.2 - Environmental Setting

Roadway Network

The City of Milpitas roadway network consists of freeways, arterials, parkways, collector streets and local streets. Exhibit 4.10-1 illustrates the roadway network. Regional access to the project site is provided via Interstate 880 (I-880) and State Route 237 (SR-237). Local access to the site vicinity is provided by Dixon Landing Road, N. McCarthy Boulevard, Ranch Drive, and Tasman Drive.

Interstate 880 (I-880)

The project site is located along I-880 in western Milpitas. I-880, known as the Nimitz Freeway, runs in a north-south direction and provides regional access throughout the East Bay. I-880 stretches north to Interstate 980 in Oakland and south to San Jose, where it becomes State Route 17. In the project vicinity, I-880 provides six lanes in each direction, including a High Occupancy Vehicle (HOV) lane in each direction, and accommodates approximately 181,000 vehicles per day (VPD). It has a posted speed limit of 65 miles per hour (mph). The nearest access to and from the proposed project site is provided at the SR-237/N. McCarthy Boulevard interchange.

State Route 237 (SR-237)

SR-237 is located approximately 0.3 mile south of the project site. SR-237 provides east-west regional access throughout northern Santa Clara County. SR-237 connects Mountain View to the west and Milpitas to the east. It is a six-lane highway with HOV lanes in both directions. In the vicinity of the proposed project, SR-237 accommodates approximately 158,000 VPD. Between I-880 and I-680, SR-237 (known as Calaveras Boulevard east of I-880) is a major arterial providing east-west connectivity to the aforementioned major freeways. Calaveras Boulevard is generally a 6-lane divided roadway with a posted speed limit of 35 mph. Access to and from the proposed project site is provided at the SR-237/N. McCarthy Boulevard interchange.

Dixon Landing Road

Dixon Landing Road is located approximately 1.5 miles to the north of the project site. It is an east-west major collector roadway connecting N. McCarthy Boulevard to the west and N. Milpitas Boulevard to the east, where it then becomes Dixon Road. It is generally a 4-lane divided roadway, except for the segment between Milmont Drive and Village Parkway, which is a 4-lane undivided roadway with a center two-way left-turn lane. The posted speed limit along Dixon Landing Road is

40 mph. Northbound and southbound Interstate 880 (I-880) access points are provided at the Dixon Landing Road/I-880 interchange.

North McCarthy Boulevard

N. McCarthy Boulevard is a north-south major collector roadway connecting Dixon Landing Road to the north and Montague Expressway to the south, where it then becomes O'Toole Avenue. It is a 4-lane divided roadway that primarily serves adjacent commercial uses north of SR-237 and office parks south of SR-237. The posted speed limit along N. McCarthy Boulevard is 35 mph north of Technology Drive, while south of Technology Drive, the posted speed limit is 40 mph. The project site is directly adjacent to and east of N. McCarthy Boulevard.

Ranch Drive

Ranch Drive is an east-west minor collector roadway that intersects N. McCarthy Boulevard at two locations. Between the southern N. McCarthy Boulevard intersection and the Best Buy/Michaels driveway, Ranch Drive is a four-lane divided roadway. Between the Best Buy/Michaels driveway and the Southeast Walmart Access, it is a four-lane undivided roadway. North of the southeast Walmart access, it provides one lane in each direction with a center two-way left-turn lane. Ranch Drive is the main access roadway to the retail uses within the McCarthy Ranch Marketplace where the Walmart is located. The posted speed limit along the entire roadway is 30 mph. All of the Walmart access points are along Ranch Drive.

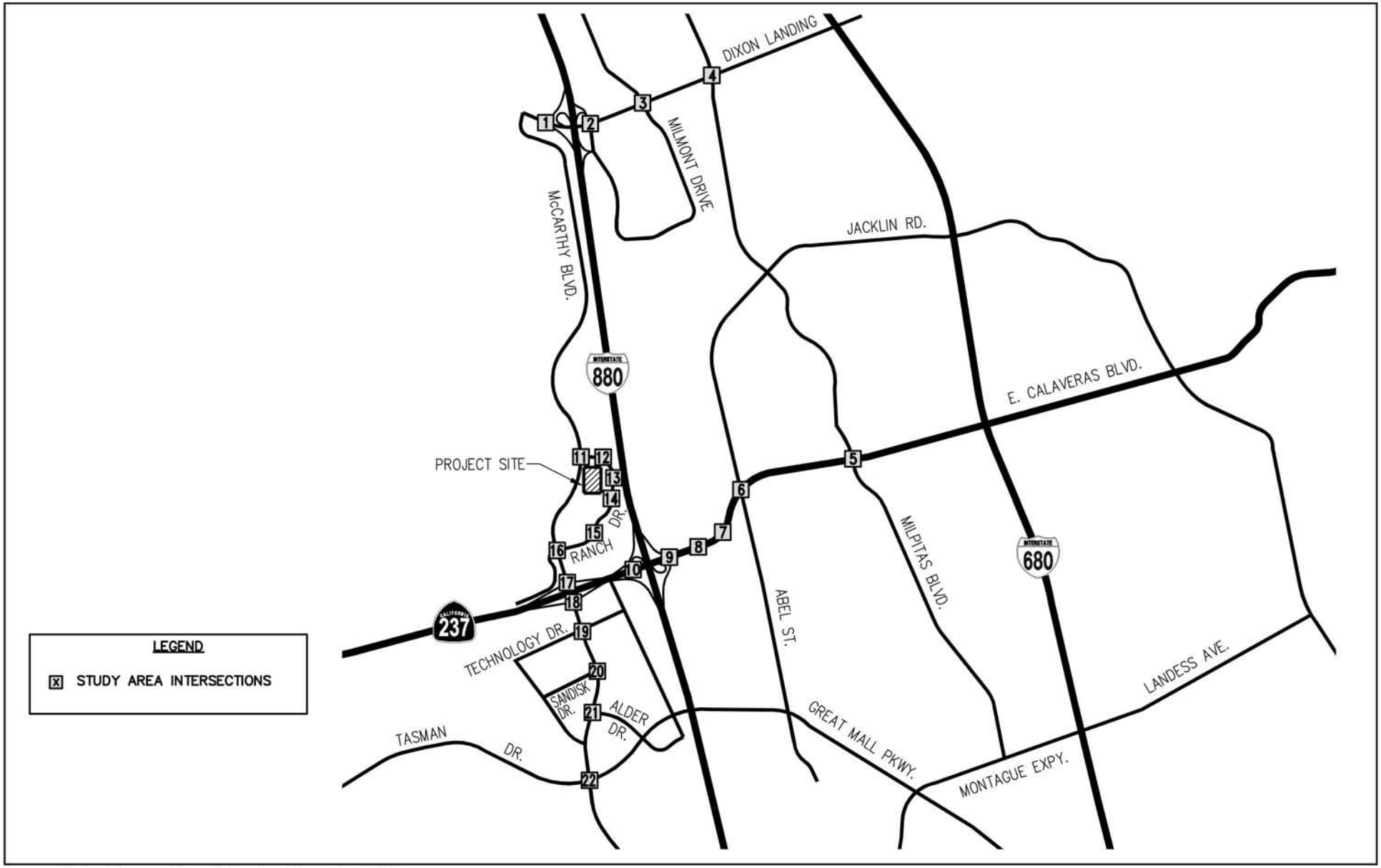
Tasman Drive

Tasman Drive is located approximately 1 mile south of the proposed project. It is an east-west arterial roadway stretching from Sunnyvale to the west to I-880 to the east, where it then becomes Great Mall Parkway. Near the project, it is a six-lane divided roadway surrounded by large business parks. Santa Clara Valley Transportation Authority (VTA) operates light rail service along Tasman Drive, with tracks located in the center median of the roadway. The posted speed limit along Tasman Drive is 40 mph.

Intersection Operations

Analysis of significant environmental impacts at intersections and roadway facilities is based on the concept of Level of Service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and an intersection that is operating at or near its functional capacity. Levels of Service for this study were determined using methods defined in the Highway Capacity Manual, 2000 (HCM) and appropriate traffic analysis software.

The HCM includes procedures for analyzing two-way stop controlled, all-way stop-controlled, and signalized intersections. The two-way stop control procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the all-way stop-controlled and signalized intersection procedures define LOS as a function of average control delay for the



Source: Kimley-Horn and Associates, Inc., December 2008.

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Exhibit 4.10-1
Study Intersections

intersection as a whole. Table 4.10-1 and Table 4.10-2 relate the operational characteristics associated with each LOS category for unsignalized and signalized intersections, respectively. For signalized intersection analysis, adjusted saturation flow rates consistent with VTA guidelines were utilized.

Table 4.10-1: Intersection Level of Service Definitions for Unsignalized Intersections

Level of Service	Average Control Delay (second/vehicle)	Description
A	≤10.0	Little or no delay
B	10.1 - 15.0	Short traffic delays
C	15.1 - 25.0	Average traffic delays
D	25.1 - 35.0	Long traffic delays
E	35.1 - 50.0	Very long traffic delays
F	>50.0	Extreme traffic delays with intersection capacity exceeded
Source: Transportation Research Board, 2000.		

Table 4.10-2: Intersection Level of Service Definitions for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	Description
A	≤ 10.0	Progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all.
B+ B B-	10.1 – 12.0 12.1 – 18.0 18.1 – 20.0	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher average delays.
C+ C C-	20.1 – 23.0 23.1 – 32.0 32.1 – 35.0	Higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D+ D D-	35.1 – 39.0 39.1 – 51.0 51.1 – 55.0	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progress, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E+ E E-	55.1 – 60.0 60.1 – 75.0 75.1 – 80.0	This is considered to be the limit of capacity delay. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.
F	> 80.0	This is considered unacceptable to most drivers. This condition occurs with over-saturation (when arrival flow rates exceed the capacity of the intersection). Poor progression and long cycle lengths may also be major contributing causes to such delay levels.
Source: Santa Clara County Congestion Management Agency, 2006.		

Study Intersections

The proposed project would generate new vehicular trips that would increase traffic volumes on the nearby street network. To assess changes in traffic conditions associated with the proposed project, the intersections summarized in Table 4.10-3 and illustrated in Exhibit 4.10-1 were selected by the City of Milpitas for evaluation. The intersections were chosen from the configuration of the roadway network serving the project vicinity. Additionally, the City of Fremont was consulted about study intersections, and it requested that Dixon Landing Road/N. McCarthy Boulevard be evaluated.

Table 4.10-3: Study Intersections

No.	Intersection	Existing Traffic Control
1	Dixon Landing Road/I-880 Southbound Ramps	Signal
2	Dixon Landing Road/I-880 Northbound Ramps	Signal
3	Dixon Landing Road/Milmont Drive	Signal
4	Dixon Landing Road/N. Milpitas Boulevard	Signal
5	E. Calaveras Boulevard/N. Milpitas Boulevard*	Signal
6	W. Calaveras Boulevard/N. Abel Street*	Signal
7	W. Calaveras Boulevard/Serra Way	Signal
8	W. Calaveras Boulevard/S. Abbott Avenue	Signal
9	W. Calaveras Boulevard/I-880 Northbound Ramps	Signal
10	W. Calaveras Boulevard/I-880 Southbound Ramps	Signal
11	N. McCarthy Boulevard/Ranch Drive (north)	Signal
12	North Walmart Driveway/Ranch Drive	Two-way stop control
13	East Walmart Driveway at Ranch Drive	Two-way stop control
14	Southeast Walmart Driveway/Ranch Drive	Two-way stop control
15	Best Buy/Michaels Driveway/Ranch Drive	Signal
16	N. McCarthy Boulevard/Ranch Drive (south)	Signal
17	N. McCarthy Boulevard/SR-237 Westbound Ramps	Signal
18	N. McCarthy Boulevard/SR-237 Eastbound Ramps	Signal
19	McCarthy Boulevard/Technology Drive	Signal
20	McCarthy Boulevard/Sandisk Drive	Two-way stop control
21	McCarthy Boulevard/Alder Drive	Signal
22	McCarthy Boulevard/Tasman Drive	Signal
23	Dixon Landing Road/McCarthy Boulevard**	Signal

Notes:
Intersection numbering corresponds with Exhibit 4.10-1.
* = Included in Congestion Management Program
** = Intersection located in City of Fremont
Two-Way Stop Control = stop sign
Source: Kimley-Horn and Associates, 2008.

Existing Intersection Operations

Weekday intersection turning movement volumes were collected at 22 of the 23 project study area intersections in May 2008. The weekday morning (AM) and afternoon (PM) peak-period traffic counts were collected between 7 a.m. to 9 a.m. and 4 to 6 p.m., respectively. Additionally, supplementary weekday midday traffic counts were conducted at all of the Ranch Drive intersections, as well as the SR-237/McCarthy Boulevard ramp intersections, between 11 a.m. to 1:00 p.m. All traffic counts were conducted on typical weekdays (Tuesday through Thursday) while local schools were in session. The Dixon Landing Road/McCarthy Boulevard peak-hour turning movement volumes were obtained from the traffic study performed for the Creekside Landing project.

The existing lane geometry and traffic control is shown in Exhibit 4.10-2. Existing AM peak-hour and PM peak-hour volumes are shown in Exhibit 4.10-3. Existing weekday midday peak-hour volumes are shown in Exhibit 4.10-4. Results of the analysis are presented in Table 4.10-4.

As shown in Table 4.10-4, the following intersections are currently performing below acceptable levels:

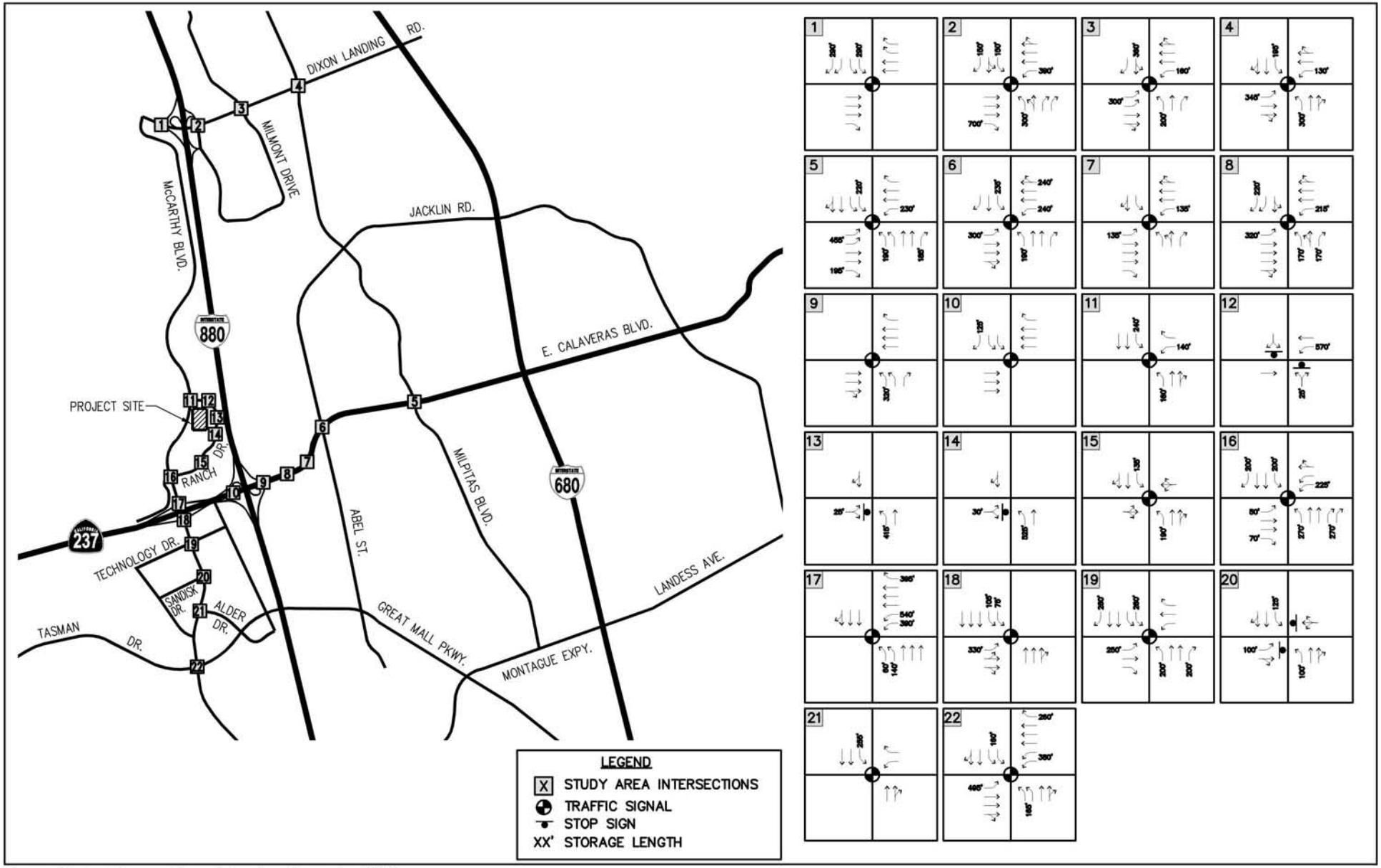
- Dixon Landing Road/Milmont Drive (AM peak)
- Dixon Landing Road/N. Milpitas Boulevard (AM peak, PM peak)
- McCarthy Boulevard at Ranch Drive (South) (midday peak)
- McCarthy Boulevard/Sandisk Drive (AM, PM peaks)
- McCarthy Boulevard/Tasman Drive (AM peak)

Roadway Operations

LOS at roadway facilities are determined by volume to capacity (V/C). Table 4.10-5 presents roadway segment LOS definitions.

Table 4.10-4: Existing Intersection Levels of Service Summary

Intersection	Existing Traffic Control	AM Peak				Midday Peak				PM Peak			
		LOS	Delay	Critical V/C	Critical Delay	LOS	Delay	Critical V/C	Critical Delay	LOS	Delay	Critical V/C	Critical Delay
Dixon Landing Road/ I-880 Southbound Ramps	Signal	B+	10.5	0.28	9.0	—	—	—	—	B+	10.4	0.44	10.6
Dixon Landing Road/ I-880 Northbound Ramps	Signal	B-	19.5	0.66	17.9	—	—	—	—	C	24.4	0.7	32.5
Dixon Landing Road/ Milmont Drive	Signal	**E**	**63.2**	1.02	73.5	—	—	—	—	D	40.8	0.92	47.4
Dixon Landing Road/ N. Milpitas Boulevard	Signal	**E+**	**58.1**	0.91	73.0	—	—	—	—	**E-**	77.3	1.1	117.0
E. Calaveras Boulevard/ N. Milpitas Boulevard	Signal	D	42.7	0.84	44.6	—	—	—	—	D	44.3	0.77	50.5
W. Calaveras Boulevard/ N. Abel Street	Signal	D	48.6	0.90	54.0	—	—	—	—	D	46.4	0.88	42.6
W. Calaveras Boulevard/ Serra Way	Signal	B	14.2	0.66	14.8	—	—	—	—	B-	18.9	0.74	19.9
W. Calaveras Boulevard/ S. Abbott Avenue	Signal	C+	20.6	0.78	22.6	—	—	—	—	B-	19.8	0.71	29.9
W. Calaveras Boulevard/ I-880 Northbound Ramps	Signal	C	30.3	0.85	31.3	—	—	—	—	D+	37.3	0.89	43.3
W. Calaveras Boulevard/ I-880 Southbound Ramps	Signal	B	16.5	0.73	18.1	—	—	—	—	A	8.8	0.67	9.9
N. McCarthy Boulevard/ Ranch Drive (North)	Signal	A	7.7	0.21	11.4	B-	18.1	0.49	20.7	B	13.3	0.56	14.0
North Walmart Driveway/ Ranch Drive	Two-way stop control	B	11.2	—	4.0	C	22.6	—	5.8	B	13.2	—	5.1
East Walmart Driveway/ Ranch Drive	Two-way stop control	A	9.0	—	3.9	C	15.5	—	4.1	B	10.5	—	4.6



Source: Kimley-Horn and Associates, Inc., December 2008.

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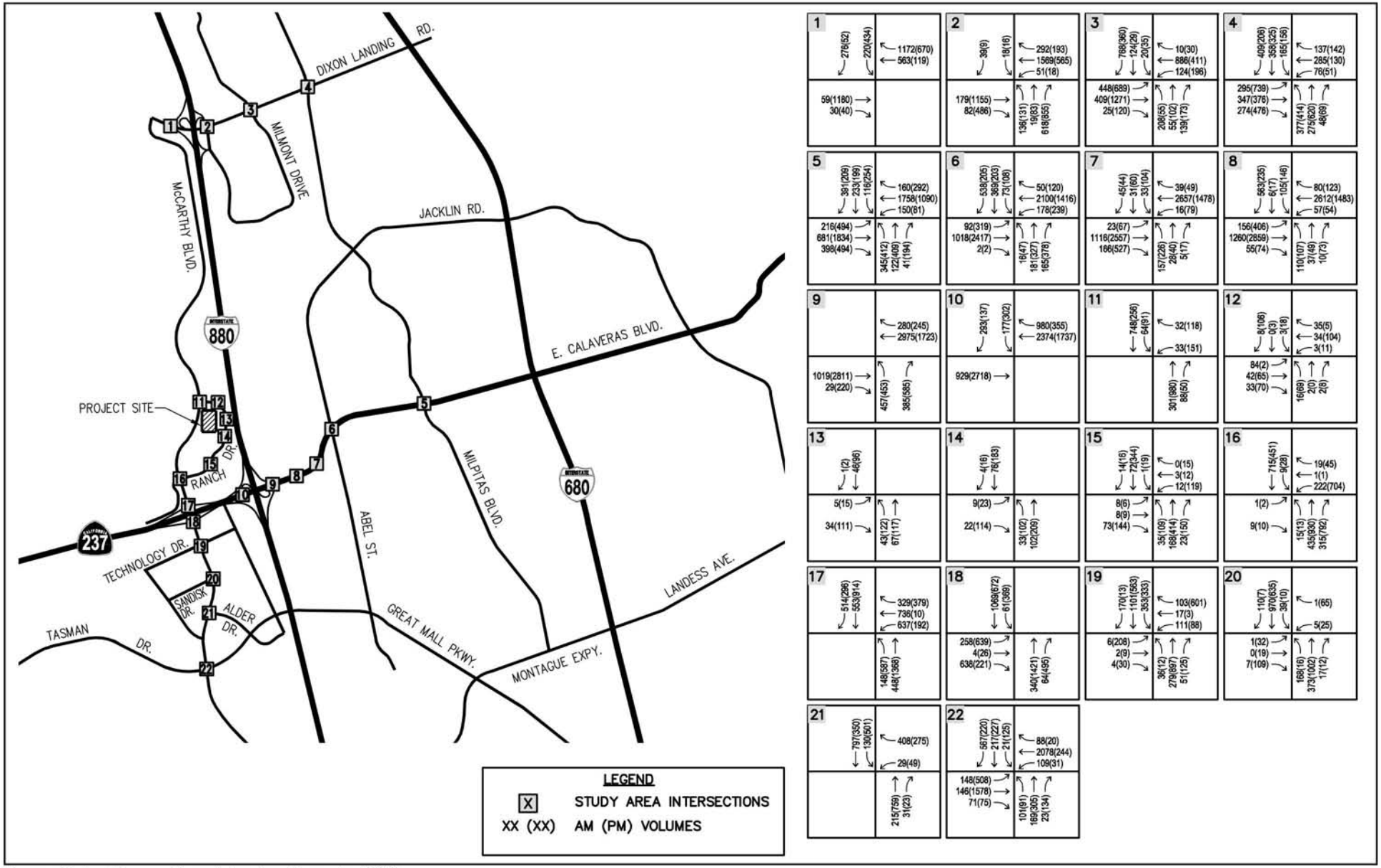
Exhibit 4.10-2
Existing Geometry and Traffic Control



Source: Kimley-Horn and Associates, Inc., December 2008.

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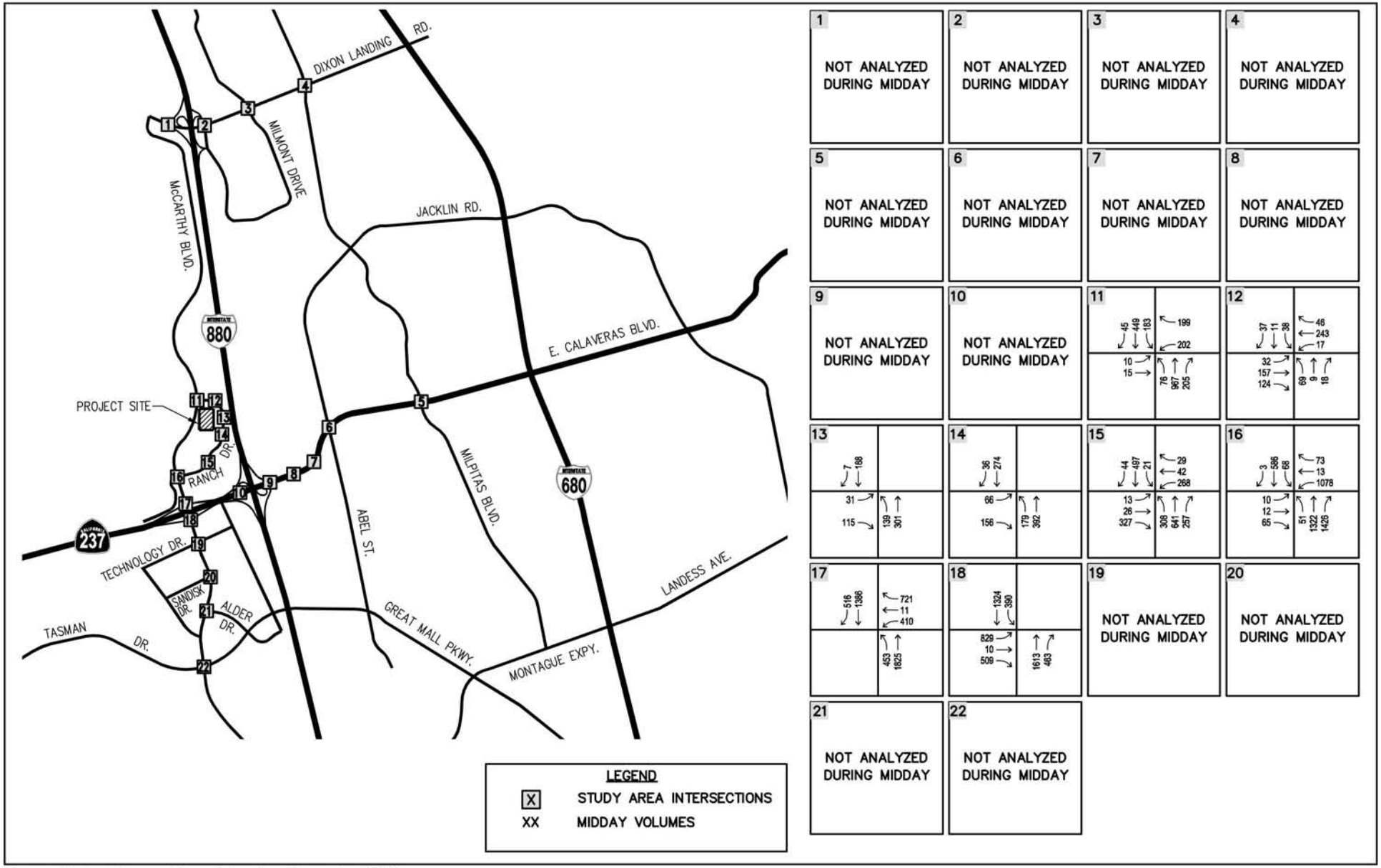
Exhibit 4.10-3
Existing Weekday AM and PM Peak Hour Traffic Volumes



Source: Kimley-Horn and Associates, Inc., December 2008.

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Exhibit 4.10-4
Existing Weekday Midday Peak Hour Traffic Volumes

Table 4.10-4 (Cont.): Existing Intersection Levels of Service Summary

Intersection	Existing Traffic Control	AM Peak				Midday Peak				PM Peak			
		LOS	Delay	Critical V/C	Critical Delay	LOS	Delay	Critical V/C	Critical Delay	LOS	Delay	Critical V/C	Critical Delay
Southeast Walmart Driveway/ Ranch Drive	Two-way stop control	A	9.4	—	2.4	D	33.0	—	8.9	B	12.0	—	3.9
Best Buy/Michaels Driveway/ Ranch Drive	Signal	B-	19.0	0.13	15.9	C	26.0	0.64	30.5	B-	18.5	0.29	14.5
N. McCarthy Boulevard/ Ranch Drive (south)	Signal	B-	18.4	0.38	20.2	**E**	**61.4**	0.74	96.1	D+	35.9	0.69	52.0
N. McCarthy Boulevard/ SR-237 Westbound Ramps	Signal	B-	19.5	0.78	21.4	C+	20.5	0.87	26.9	B-	18.6	0.81	25.0
N. McCarthy Boulevard/ SR-237 Eastbound Ramps	Signal	B-	18.3	0.61	15.6	C	27.5	0.97	37.9	B-	18.1	0.82	21.1
McCarthy Boulevard/ Technology Drive	Signal	C+	20.7	0.52	22.4	—	—	—	—	D	50.0	1.01	60.4
McCarthy Boulevard/ Sandisk Drive	Two-way stop control	**F**	**52.8**	—	2.1	—	—	—	—	**F**	**281.0**	—	20.7
McCarthy Boulevard/ Alder Drive	Signal	B-	19.2	0.48	18.6	—	—	—	—	C	28.2	0.87	33.9
McCarthy Boulevard/ Tasman Drive	Signal	**E+**	**58.9**	0.96	65.8	—	—	—	—	D+	37.0	0.58	45.2
Dixon Landing Road/ N. McCarthy Boulevard	Signal	A	9.3	0.31	10.1	—	—	—	—	A	8.1	0.53	8.1

Notes:
Intersections that are operating below acceptable levels are shown in **Bold**.
Two-Way Stop Control = stop sign
Source: Kimley-Horn and Associates, 2008.

Table 4.10-5: Roadway Segment LOS Criteria

Level of Service	Maximum Volume to Capacity Ratio (V/C)
A	0.6
B	0.7
C	0.8
D	0.9
E	1.0
F	>1.0
Source: City of Milpitas, 2002.	

Study Roadway Segments

The proposed project would generate new vehicular trips that would increase traffic volumes on the nearby street network. To assess changes in traffic conditions associated with the proposed project, the following roadway segments between the study intersections were evaluated under Long Term conditions, in accordance with direction from City of Milpitas staff. These segments are shown in Table 4.10-6.

Table 4.10-6: Roadway Segments Included in Analysis

Road	Segment
Dixon Landing Road	N. McCarthy Ranch Boulevard to I-880
Dixon Landing Road	I-880 to Milmont Drive
Dixon Landing Road	Milmont Drive to N. Milpitas Boulevard
N. McCarthy Boulevard	Dixon Landing Road to Ranch Drive (north)
N. McCarthy Boulevard	Ranch Drive (north) to Ranch Drive (south)
N. McCarthy Boulevard	Ranch Drive (south) to SR-237
McCarthy Boulevard	SR-237 to Technology Drive
McCarthy Boulevard	Technology Drive to Tasman Drive
N. Milpitas Boulevard	Scott Creek Road to Dixon Landing Road
N. Milpitas Boulevard	Dixon Landing Road to Jacklin Road
N. Milpitas Boulevard	Jacklin Road to E. Calaveras Boulevard
Ranch Drive	N. McCarthy Boulevard to North Walmart Driveway
Ranch Drive	North Walmart Driveway to East Walmart Driveway
Ranch Drive	East Walmart Driveway to Southeast Walmart Driveway
Ranch Drive	Southeast Walmart Driveway to Best Buy/Michaels Driveway

Table 4.10-6 (Cont.): Roadway Segments Included in Analysis

Road	Segment
Ranch Drive	Best Buy/Michaels Driveway to N. McCarthy Boulevard
SR-237/W. Calaveras Boulevard	N. McCarthy Boulevard to I-880
SR-237/W. Calaveras Boulevard	I-880 to S. Abbott Avenue
SR-237/W. Calaveras Boulevard	S. Abbott Avenue to N. Abel Avenue
SR-237/E. Calaveras Boulevard	N. Abel Avenue to N. Milpitas Boulevard
Source: Kimley-Horn and Associates, 2008.	

Queuing

Queue lengths indicated the distance that vehicles would back up in each direction approaching an intersection. Existing queue lengths were evaluated at each of the study intersections during a.m. and p.m. peak hours, as well as midday peak hours at intersections nearest to the proposed project. Table 4.10-7 compares the existing available queue space to peak-hour 95th percentile traffic queue lengths. Queue lengths exceed their storage limits when they exceed the available queue space by more than 25 feet or approximately one vehicle length. Several of the intersections currently operate beyond available queue space during peak hours.

Table 4.10-7: Existing Queuing at Study Intersections

Road	Intersection	Movement	Available (feet)	Peak-Hour 95th Percentile Queue Length (feet)		
				AM	MID	PM
Dixon Landing Road	I-880 Southbound Ramp	Southbound Left	290	62	—	125
	I-880 Northbound Ramp	Westbound Left	390	45	—	<25
		Northbound Left	300	56	—	71
		Southbound Left	150	<25	—	<25
	Milmont Drive	Eastbound Left	600	**890**	—	**826**
		Westbound Left	160	**452**	—	**667**
		Northbound Left	200	**842**	—	186
		Southbound Left	360	335	—	182
	Milpitas Boulevard	Eastbound Left	345	**861**	—	**523**
		Westbound Left	130	**250**	—	41
		Northbound Left	300	**912**	—	322
		Southbound Left	195	**492**	—	**240**

Table 4.10-7 (Cont.): Existing Queuing at Study Intersections

Road	Intersection	Movement	Available (feet)	Peak-Hour 95th Percentile Queue Length (feet)		
				AM	MID	PM
SR-237/ Calaveras Boulevard	I-880 Southbound Ramp	Southbound Left	330	109	—	153
	I-880 Northbound Ramp	Northbound Left	320	**763**	—	**368**
	S. Abbott Avenue	Eastbound Left	320	242	—	**408**
		Westbound Left	215	81	—	71
		Northbound Left	170	157	—	102
	Serra Way	Eastbound Left	135	25	—	105
		Westbound Left	135	17	—	122
	N. Abel Street	Eastbound Left	300	**326**	—	241
		Westbound Left	240	**627**	—	175
		Northbound Left	190	65	—	40
		Southbound Left	235	**303**	—	110
	N. Milpitas Boulevard	Eastbound Left	910	196	—	259
		Westbound Left	230	228	—	93
		Northbound Left	190	**312**	—	**229**
		Southbound Left	220	104	—	147
McCarthy Boulevard	Ranch Drive (north)	Westbound Left	140	31	**201**	104
		Northbound Left	160	<25	69	<25
		Southbound Left	240	29	174	63
	Ranch Drive (south)	Eastbound Left	50	<25	<25	<25
		Westbound Left	225	104	**479**	250
		Northbound Left	270	<25	43	<25
		Northbound Left	270	81	**484**	260
		Southbound Left	200	<25	62	25
	SR-237 Westbound Ramps	Westbound Left	930	192	129	93
		Westbound Left	395	178	**452**	349
		Northbound Left	200	57	171	**299**
	SR-237 Eastbound Ramps	Eastbound Left	330	65	250	168
		Southbound Left	180	26	178	135

Table 4.10-7 (Cont.): Existing Queuing at Study Intersections

Road	Intersection	Movement	Available (feet)	Peak-Hour 95th Percentile Queue Length (feet)		
				AM	MID	PM
	Technology Drive	Eastbound Left	250	<25	—	183
		Westbound Left	215	82	—	72
		Northbound Left	200	<25	—	<25
		Southbound Left	260	26	—	146
	Sandisk Drive	Eastbound Left	100	<25	—	66
		Northbound Left	100	32	—	**218**
		Southbound Left	125	<25	—	<25
	Alder Drive	Westbound Left	285	<25	—	56
		Southbound Left	255	83	—	**512**
	Tasman Drive	Eastbound Left	495	355	—	278
		Westbound Left	760	114	—	<25
		Northbound Left	330	110	—	39
		Southbound Left	320	25	—	57
Ranch Drive	North Walmart Driveway	Westbound Left	570	<25	<25	<25
		Northbound Left	25	<25	44	<25
	East Walmart Driveway	Eastbound Left	25	<25	38	<25
		Northbound Left	415	<25	<25	<25
	Southeast Walmart Driveway	Eastbound Left	30	<25	**135**	<25
		Northbound Left	525	<25	<25	<25
	Best Buy/Michaels Driveway	Northbound Left	190	<25	**262**	68
		Southbound Left	135	<25	<25	<25
South Walmart Access	McCarthy Ranch Market Place	Eastbound Left	25	<25	<25	<25
		Westbound Left	25	<25	<25	<25
		Northbound Left	25	<25	<25	<25
		Southbound Left	25	<25	<25	<25

Notes:
Bold denotes 95th percentile queue exceeding available storage capacity.
Source: Kimley-Horn and Associates, 2008.

Freeway Operations

The determination of freeway ramp junction (merge and diverge) LOS is based on the density of vehicles within the corresponding merge or diverge influence area. Table 4.10-8 presents freeway ramp junction LOS definitions.

As stated in its traffic study guidelines, Caltrans ". . .endeavors to maintain a target LOS at the transition between LOS C and LOS D." If an existing state highway facility is operating at less than the appropriate target LOS, the existing measure of effectiveness (i.e., the maximum density for freeway ramp junctions) should be maintained.

Table 4.10-8: Freeway Ramp Merge and Diverge LOS Criteria

Level of Service (LOS)	Density Passenger Cars per Mile per Lane (pc/mi/ln)
A	≤ 10
B	> 10 – 20
C	> 20 – 28
D	> 28 – 35
E	> 35
F	Demand exceeds capacity
Source: Transportation Research Board, 2000.	

Study Freeway Ramp Junction Facilities

The proposed project would generate new vehicular trips that would increase traffic volumes at the merge and diverge points at the SR-237/McCarthy Ranch Boulevard interchange. This study includes LOS analysis at the merge and diverge points where the proposed project would contribute the greatest amount of trips. Because SR-237 east of McCarthy Ranch Boulevard is Calaveras Boulevard, which functions as a major arterial and not a freeway facility, the SR-237 eastbound merge and SR-237 westbound diverge points are not applicable for this analysis. Furthermore, only the SR-237 westbound merge and SR-237 eastbound diverge points were evaluated in this study under existing and near-term traffic conditions.

Existing Freeway Ramp Junction Operations

Traffic operations were evaluated at the SR-237/N. McCarthy Boulevard ramp junction facilities under existing traffic conditions. Results of the analysis are presented in Table 4.10-9.

Table 4.10-9: Existing Freeway Ramp Junction Level of Service Summary

Segment	Junction Type	Analysis Scenario	AM Peak-Hour		PM Peak-Hour	
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
N. McCarthy Boulevard to Westbound SR-237	Merge	Existing	N/A[1]	F	37.1	E
Eastbound SR-237 to N. McCarthy Boulevard.	Diverge	Existing	26.1	C	N/A[1]	F

Notes:
[1] Density not computed for oversaturated flow conditions (LOS F)
Source: Kimley-Horn and Associates, 2008.

As shown in Table 4.10-9, the westbound merge is performing at unacceptable levels during both AM and PM peak hours. The eastbound diverge is performing at LOS C and F during the AM and PM peak hours, respectively. Poor operation in the westbound direction is a result of a downstream bottleneck that limits traffic flow at the ramp merge area. Conversely, heavy freeway congestion and oversaturated flow conditions are experienced in the eastbound direction during the PM peak hour. Consequently, poor operating conditions result at the diverge point for the SR-237 Eastbound off-ramp to McCarthy Boulevard.

Mainline Analysis

Other than ramp merge/diverge analysis near the project site, analysis of freeway mainline facilities was not performed for this traffic study because of the proposed project's minimal effect to the freeway system. During the AM and PM peak hours, the adjacent freeway system is congested, with observed travel speeds ranging from 0 to 15 mph along certain segments of I-880 and SR-237 in the vicinity of the proposed project. As a result, a majority of trips generated by the proposed project that are within the store's market area are anticipated to bypass the freeway and access the site using parallel arterials and collector roadways. The market area, shown in Exhibit 4.11-1, is generally bounded by the Sunnyvale/Santa Clara boundary to the west, U.S. 101 to the south, the eastern limits of Milpitas to the east, and Mission Boulevard in Fremont to the north. This market area accounts for nearby stores of similar use, including other Walmart stores, and encompasses an approximately 3.5-mile radius. Trips from within this relatively small market area would likely find using the parallel arterial and collector streets a more convenient alternative.

Existing Site Access

As illustrated in Exhibit 3-4, access to the site is provided primarily from two existing driveways onto Ranch Drive and a McCarthy Ranch Marketplace driveway entrance located to the southeast of the Walmart store. The southeastern driveway entrance at Ranch Drive provides access to and from the Walmart store and three locations along the project site's southern boundary. The shopping center driveway also serves the adjacent retail stores to the south. Two additional driveways onto Ranch

Drive serve the retail stores within the McCarthy Ranch Marketplace, both of which are further south of the Walmart store. Because of the distance of these access points to the Walmart site, it is assumed that few, if any, Walmart patrons would use these driveways for direct access.

All three Walmart driveways on Ranch Drive are stop-controlled and provide single-lane ingress and egress. The northern Walmart driveway is the closest access point to the Tire & Lube Express.

Existing throat depths at the site's driveways are as follows:

- North Walmart Driveway at Ranch Drive – 25 feet
- East Walmart Driveway at Ranch Drive – 25 feet
- South Walmart Access at Ranch Market Place – 25 feet

Parking

The existing store has 835 off-street parking spaces. The Milpitas Municipal Code requires that parking be provided for commercial retail land uses at a ratio of no less than 1 space per 200 gross square feet. When this ratio is applied to the existing building area of 131,725 square feet, it yields a minimum requirement of 659 spaces. Accordingly, the existing store complies with the Municipal Code's parking requirements.

On-street parking is prohibited on N. McCarthy Boulevard and Ranch Drive.

Transit Service

VTA provides bus and light rail service in Milpitas and throughout Santa Clara County. Route 33 passes northbound on N. McCarthy Boulevard directly adjacent to the project site and loops clockwise around Ranch Drive, where it returns to the south and provides connections to many locations in Milpitas and San Jose. Additionally, VTA operates a shuttle (Route 825) for connections to the Santa Clara Great America station, which serves both the Altamont Commuter Express (ACE) and the Amtrak Capitol Corridor. ACE provides weekday commuter rail service between Stockton and San Jose, while the Amtrak Capitol Corridor provides daily intercity service between San Jose and the Sacramento area.

Routes 33 and 825 operate on a frequency of 30 and 75 minutes, respectively, during the weekday commute peaks. Weekend service for Route 33 is provided on a frequency of 30 minutes, while operating only from 9 a.m. to 6 p.m. Route 825 is not in service during the weekends, as it is a limited service commuter route.

The nearest light rail station to the project site is the I-880 station, located at the intersection of Tasman Drive and Alder Drive approximately 1.5 miles to the south.

Exhibit 4.10-5 depicts the various transit routes in the project vicinity.

Bicycles

There are three classifications of bicycle facilities:

- **Class I (bike path):** Bicycle facilities are completely separated, with a paved right-of-way (shared with pedestrians) that excludes general motor vehicle traffic.
- **Class II (bike lane):** Bicycle facilities consist of a striped and stenciled lane for one-way bike travel on a street or highway.
- **Class III (bike route):** Bicycles share the roadway with motor vehicle traffic and facilities are identified only by signage.

A Class II bike lane is present along N. McCarthy Boulevard, north of the southern Ranch Drive intersection. This bike lane continues as a Class III bike route south of the southern Ranch Drive intersection with N. McCarthy Boulevard. A Class I bike path parallels nearby Coyote Creek, providing connections to Dixon Landing Road to the north and Tasman Drive to the south.

There is a bicycle rack in front of the existing store for Walmart patrons and employees.

Pedestrian Access

Sidewalks are present along the N. McCarthy Boulevard and Ranch Drive frontages with the project site. A direct pedestrian connection links the Walmart store entrance with the balance of the McCarthy Ranch Marketplace to the south and Ranch Drive to the north.

4.10.3 - Regulatory Framework

State

California Department of Transportation

Caltrans has established performance standard for all state highway facilities as the transition between LOS C and D. If a state highway facility operates below the transition between LOS C and D, the Caltrans threshold is to maintain the measure of effectiveness.

Local

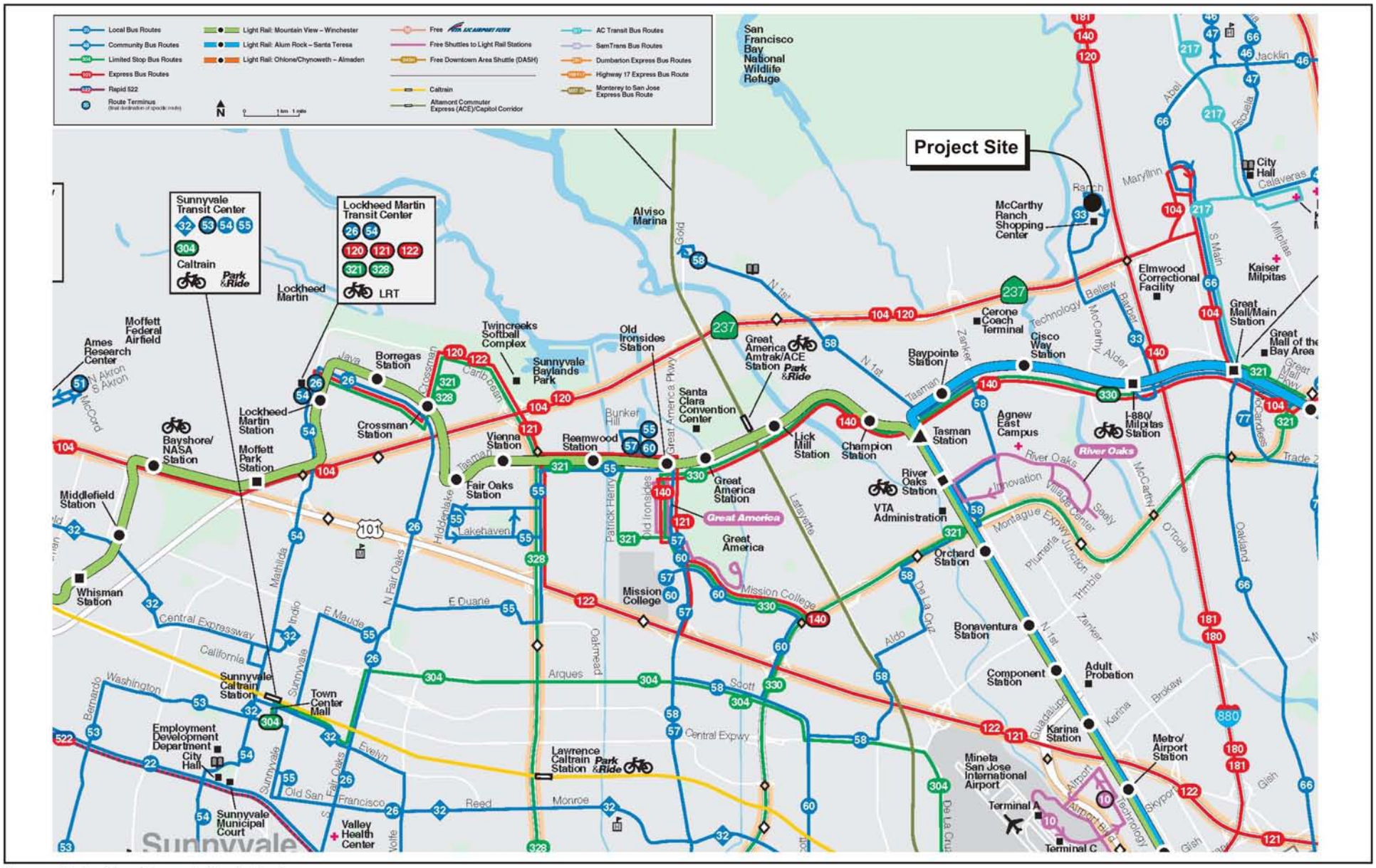
City of Milpitas

General Plan

The City of Milpitas General Plan establishes the following principles and policies related to transportation that are applicable to the proposed project:

- **Principle 2.b-G-1:** Support jobs/housing balance programs at the local and regional scale intended to reduce the distance needed to commute.
- **Policy 2.d-I-1:** Coordinate capital improvement planning for all municipal service infrastructure with the location and timing of growth.

- **Principle 3.a-G-1:** Continue to utilize the City's adopted Level of Service standards in evaluating development proposals and capital improvements.
- **Principle 3.a-G-2:** Maintain acceptable service standards for a major streets and intersections.
- **Policy 3.a-I-1:** Strive to maintain CMP LOS standards and goals for the CMP Roadway System in Milpitas.
- **Policy 3.a-I-2:** For collectors and arterials east of Interstate 880 operating at baseline (1991) LOS F, require any development project that impacts the facility at or greater than one percent of facility capacity to implement mitigation measures to reduce the development project's impacts below the one percent level. If an identified location cannot be mitigated, measures designed to improve system-wide levels of service can be implemented. These system-wide improvement strategies will be contained in the Citywide Deficiency Plan.
- **Policy 3.a-I-3:** Recognize that the City's development pattern and deficiencies in the regional network have resulted in substandard service levels on certain streets where capacity cannot be increased.
- **Policy 3.a-I-4:** On streets where substandard service levels are anticipated, investigate and implement improvement projects that will enhance traffic operations.
- **Principle 3.b-G-1:** Develop a street network integrated with the pattern of living, working and shopping areas, and which provides for safe, convenient, and efficient vehicular movement within the City and to other parts of the region.
- **Principle 3.b-G-4:** Use the "Major Improvements Needed" subsection as a basis for identifying, scheduling, and implementing roadway improvements as development occurs in the future.
- **Policy 3.b-I-1:** Require new development to pay its share of street and other traffic improvements based on its impacts.
- **Policy 3.b-I-2:** Require all projects that generate more than 100 peak-hour (AM or PM) trips to submit a transportation impact analysis that follows guidelines established by CMP.
- **Principle 3.c-G-1:** Promote measures that increase transit use and lead to improved utilization of the existing transportation system.
- **Principle 3.c-G-2:** Cooperate with other agencies to promote local and regional transit serving Milpitas.
- **Principle 3.d-G-1:** Promote walking and bicycling for transportation and recreation purposes by providing a comprehensive system of sidewalks, bicycle lanes, and routes and off-street trails that connects all parts of the City.
- **Principle 3.d-G-2:** Provide adequate bicycle parking and end-of-trip support facilities for bicyclists at centers of public and private activity.
- **Principle 3.d-G-3:** Promote intermodal commuting options.
- **Principle 3.d-G-4:** Encourage a mode shift to non-motorized transportation by expanding current pedestrian and bicycle facilities.



Source: Santa Clara Trasportation Authority.

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Exhibit 4.10-5
Existing Transit Service

- **Policy 3.d-I-2:** Develop connections between the off-street trail system and on-street bicycle system to fully integrate these facilities. Maximize linkages to other trail and bikeway systems to provide alternative transportation routes for pedestrians and bicyclists.
- **Policy 3.d-I-3:** View all public capital improvement projects as opportunities to enhance the bicycle and pedestrian systems, and incorporate bicycle and pedestrian facilities into the design of such projects wherever feasible.
- **Policy 3.d-I-9:** Require developers to make new projects as bicycle and pedestrian "friendly" as feasible, especially through facilitating pedestrian and bicycle movements within sites and between surrounding activity centers.
- **Policy 3.d-I-10:** Encourage developer contributions toward pedestrian and bicycle capital improvement projects and end-of-trip support facilities.
- **Policy 3.d-I-11:** Make improvements to roads, signs, and traffic signals as needed to improve bicycle travel.
- **Policy 3.d-I-12:** Discourage speed bumps and other street features that hinder bicycling on public streets and private parking lots.
- **Policy 3.d-I-13:** Where appropriate, install bicycle lockers and/or racks at public parks, civic buildings and other community facilities.
- **Policy 3.d-I-14:** Include evaluation of bicycle facility needs in all planning applications for new developments and major remodeling or improvement projects.
- **Policy 3.d-I-15:** Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc.
- **Policy 3.d-I-20:** Monitor proposed developments and work with applicants to design projects that preserve the integrity of the identified trail routes.
- **Policy 3.d-I-24:** Where appropriate, require new development provide public access points to the trail system and/or contribute to staging areas.
- **Policy 3.d-I-25:** Encourage existing businesses to provide access to the trail system.
- **Policy 3.d-I-26:** Require sidewalks on both sides of the street as a condition of development approval, where appropriate with local conditions.
- **Principle 3.e-G-1:** Provide adequate circulation and off-street parking and loading facilities for trucks.
- **Policy 3.e-I-1:** Restrict trucks to designated non-restricted routes.
- **Policy 3.e-I-2:** Ensure that adequate pavement depth, lane widths, bridge capacities, loading areas, and turn radii are maintained on the permitted streets.

Municipal Code

Milpitas Municipal Code Title XI, Section 10-53 establishes vehicular parking requirements based on type of use. Off-street parking for retail uses is required at 1 space per 200 square feet (5 spaces per 1,000 square feet) of gross floor area.

The Municipal Code does not establish any minimum requirements for bicycle parking.

4.10.4 - Methodology

Analysis in this section was based on the Traffic Impact Study prepared by Kimley-Horn and Associates in October 2009. Five development condition scenarios are included in the traffic operations analysis. These scenarios are as follows:

- Existing Conditions – Based on current traffic counts and existing roadway geometry and traffic control.
- Near-Term Conditions – Based on traffic volumes and traffic added by approved (but not completed) and pending developments anticipated to occur at the time the project is constructed.
- Near-term plus Proposed Project Conditions – Based on existing traffic volumes, traffic added by approved and pending (but not yet completed developments), and traffic generated by the Walmart expansion
- Long-Term (2030) Conditions – Based on future year traffic forecasts from the VTA Congestion Management Program (CMP) Year 2030 Travel Demand Forecast model. Future year will correspond with approximate buildout of the City of Milpitas General Plan.
- Long-Term (2030) plus Proposed Project Conditions – Based on the VTA model traffic forecasts and traffic generated by the Walmart expansion.

Trip Generation

The trip generation of the proposed project was based on the Institute of Transportation Engineers (ITE) Trip Generation Manual 8th Edition (2008). The Trip Generation Manual is a standard reference used by jurisdictions throughout the country for estimating trip-generation potential of proposed developments.

A trip is defined in the Trip Generation Manual as a single or one-directional vehicle movement with either the origin or destination at the project site. In other words, a trip can be either “to” or “from” the site. In addition, a single customer visit to a site is counted as two trips (one to and one from the site).

For purposes of determining the worst-case impacts of traffic on the surrounding street network, the trips generated by a proposed development are typically estimated between the hours of 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m. While the project itself may generate more traffic occurring at some other time of the day, the peak of “adjacent street traffic” represents the period when the uses generally contribute to the greatest amount of congestion, with the PM peak commonly being the greatest congestion period. However, because of the abundance of restaurants (both fast food and sit-down facilities) within the McCarthy Ranch Marketplace coupled with the concentration of retail uses, the intersections along Ranch Drive may experience atypical peak traffic patterns. Therefore, traffic counts were also conducted between 11:00 a.m. and 1:00 p.m. at selected

intersections surrounding the project site for weekday midday analysis. As such, the evaluation focused on the weekday AM and PM peaks at all intersections, with weekday midday analysis conducted only at selected intersections. Although the trips generated by the expanded store may be greater during certain hours of the night or even on weekends, the background volumes on the street network would be relatively low when compared with weekday peak traffic volumes. The weekday peaks include commute traffic associated with the nearby business parks, which are largely unoccupied on weekday nights and on weekends. For this reason, this evaluation focused on the weekday peaks, and no analysis of weekend traffic was included. This methodology is in harmony with direction provided by City of Milpitas staff and typical City practice in the preparation of other traffic impact studies.

The existing Walmart store is most appropriately classified by the Trip Generation manual as a Free-Standing Discount Store (Land Use 815). This use is characterized by ITE as being a freestanding store that offers "a variety of customer services, centralized cashiering, and a wide range of products. They typically maintain long store hours 7 days a week."

After expansion, the Walmart store would be most appropriately classified as a Free-Standing Discount Superstore (ITE Land Use 813). This use is defined by ITE as being ". . .similar to the free-standing discount stores described in Land Use 815, with the exception that they also contain a full service grocery department under the same roof that shares entrances and exits with the discount store area." The major difference between Land Use 813 and Land Use 815 is that Free-Standing Discount Stores do not have a full service grocery department.

According to ITE, superstores have a higher average trip rate than discount stores during the weekday AM peak hours, and discount stores have a higher average rate than superstores during the weekday PM peak hours. The recently released Trip Generation Manual, 8th Edition contains data from 92 more trip generation studies of Free-Standing Discount Superstores than the 7th Edition. This substantial increase in data further validates the accuracy of the trip rates for the Free-Standing Discount Superstore (Land Use 813), which in the previous edition was a newly regarded land-use type at the time of its publication.

The proposed project would add a maximum of 19,000 square feet of building space to the existing Walmart. To accurately portray the change in trips, the existing discount store trips were estimated (based on 126,390 square feet) and subtracted from the street network, and the proposed superstore trips were estimated (based on 145,390 square feet) and added onto the network. Furthermore, because no ITE data are available for the midday period, the observed midday rate for the existing store was used for the calculation of midday trip generation of the expanded store.

Table 4.10-10 summarizes the peak-hour trip generation rates used in this analysis.

Table 4.10-10: Trip Generation Rates

ITE Land Use Code	Daily	AM Peak Hour			Midday Peak Hour*			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
815 - Free-Standing Discount Store (Existing Store)	57.24	0.72	0.34	1.06	3.41	3.03	6.44	2.50	2.50	5.00
813 – Free-Standing Discount Superstore (Expanded Store)	53.13	0.94	0.73	1.67	3.41	3.03	6.44	2.26	2.35	4.61

Notes:
* Midday rate is based on counts taken at existing store.
Trip generation rates are applied using 1,000-square-foot units.
Source: Institute of Transportation Engineers, 2008.

Trip generation calculations prepared according to ITE methodology are based on gross floor area of the building. Gross floor area includes the sum of the floor area in square feet "including cellars, basements, mezzanines, penthouses, corridors, lobbies, stores, and offices that are within the principle outside faces of exterior walls." ITE specifies that "unroofed areas and unenclosed roofed-over spaces, except those contained within the principle outside faces of exterior walls, should be excluded from the area calculations." Outdoor or fenced-in areas such as the outdoor garden center at the existing Walmart are specifically not included in the definition of gross floor area and are excluded from the calculations.

Excluding the areas outside the principle walls does not suggest that they do not generate trips to or from the project site; rather, it means that the ITE methodology already incorporates these trips in the trip generation rates reported by ITE for the areas within the "principle outside faces of exterior walls."

Therefore, consistent with ITE methodology as specifically noted in Trip Generation, 8th Edition, the square footage associated with outdoor and seasonal garden sales areas and other incidental outside areas was not included in the floor area calculation for this study. Trip generation was calculated as previously discussed and is presented in Table 4.10-11.

Table 4.10-11: Project Trip Generation

Category	Square Feet	Daily	AM Peak Hour			Midday Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Existing Store	126,390	7,235	91	43	134	431	383	814	316	616	632
Expanded Store	145,390	7,725	136	107	243	496	440	936	328	342	670
Net Increase	**19,000**	**490**	45	64	**109**	65	57	**122**	12	26	**38**

Table 4.10-11 (Cont.): Project Trip Generation

Category	Square Feet	Daily	AM Peak Hour			Midday Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total

Notes:
Trip generation rates shown in Table 4.10-10 were applied using 1,000-square-foot units (e.g., 126,390 = 126.390).
Source: Kimley-Horn and Associates, 2008.

As noted in Table 4.10-11, the project would generate approximately 109 new weekday AM peak-hour trips, 122 new weekday midday peak-hour trips, and 38 new weekday PM peak-hour trips. These trip generation figures include all trips generated during these periods, including passenger vehicles and trucks.

Pass-by trip reductions are typically considered to account for trips that would already be on the road and would likely stop as they pass by the site. Data published in ITE's Trip Generation Manual, 2nd Edition suggests that a Free-Standing Discount store (Land Use 815) typically has a weekday PM pass-by rate of 17 percent, while a Free-Standing Discount Superstore (Land Use 813) typically has a weekday PM pass-by rate of 28 percent. This higher pass-by rate for superstores is likely a result of the increased variety of merchandise and services available in a Supercenter.

Diverted link trip reductions typically are also considered to account for trips that are attracted from adjacent roadways but require a diversion from that primary roadway to another roadway to access the site. The location of the project site suggests that the Walmart may attract a greater amount of diverted link trips than pass-by trips, as it is not located along a primary roadway. Nevertheless, this analysis conservatively assumes that the Walmart expansion would not attract a greater percentage of pass-by or diverted link trips; therefore, the application of these reductions were omitted for inclusion in this study.

Project Trip Distribution and Assignment

Because of the nature of the development, most customers of this Walmart are expected to travel from nearby locations throughout Milpitas as well as southern Fremont and northern San Jose. There are nearby Walmart stores in neighboring cities of Fremont, San Jose, and Mountain View; therefore, it is unlikely that the expansion project would draw shoppers from these areas. The Fremont Walmart is located at the southwestern corner of the Auto Mall Parkway/Osgood Road intersection, approximately 8 miles from the Milpitas store. The San Jose store is located off Story Road in the vicinity of the I-280/US 101 connector, approximately 10 miles from the Milpitas store. The Mountain View store is located at the northeastern corner of the El Camino Real/Showers Drive intersection, approximately 12 miles from the Milpitas store. Although these Walmart stores are not "supercenters" and do not provide the grocery sales component, patrons of these stores are likely closer to other shopping centers that include discount stores and discount supermarkets. Therefore, it

is unlikely that these patrons, who may reside in areas outside the market area of the proposed project, would travel to the Milpitas Walmart.

Project distribution was based on distributions prepared in previous traffic reports for other development projects that have been approved by the City, existing traffic count information, and the general orientation of population sources to the site. Exhibit 4.10-6 presents the traffic distribution assumed for this traffic study. Based on the assumed trip distribution, new vehicle trips generated by the Walmart expansion were assigned to the street network, as shown in Exhibits 4.10-7 and 4.10-8.

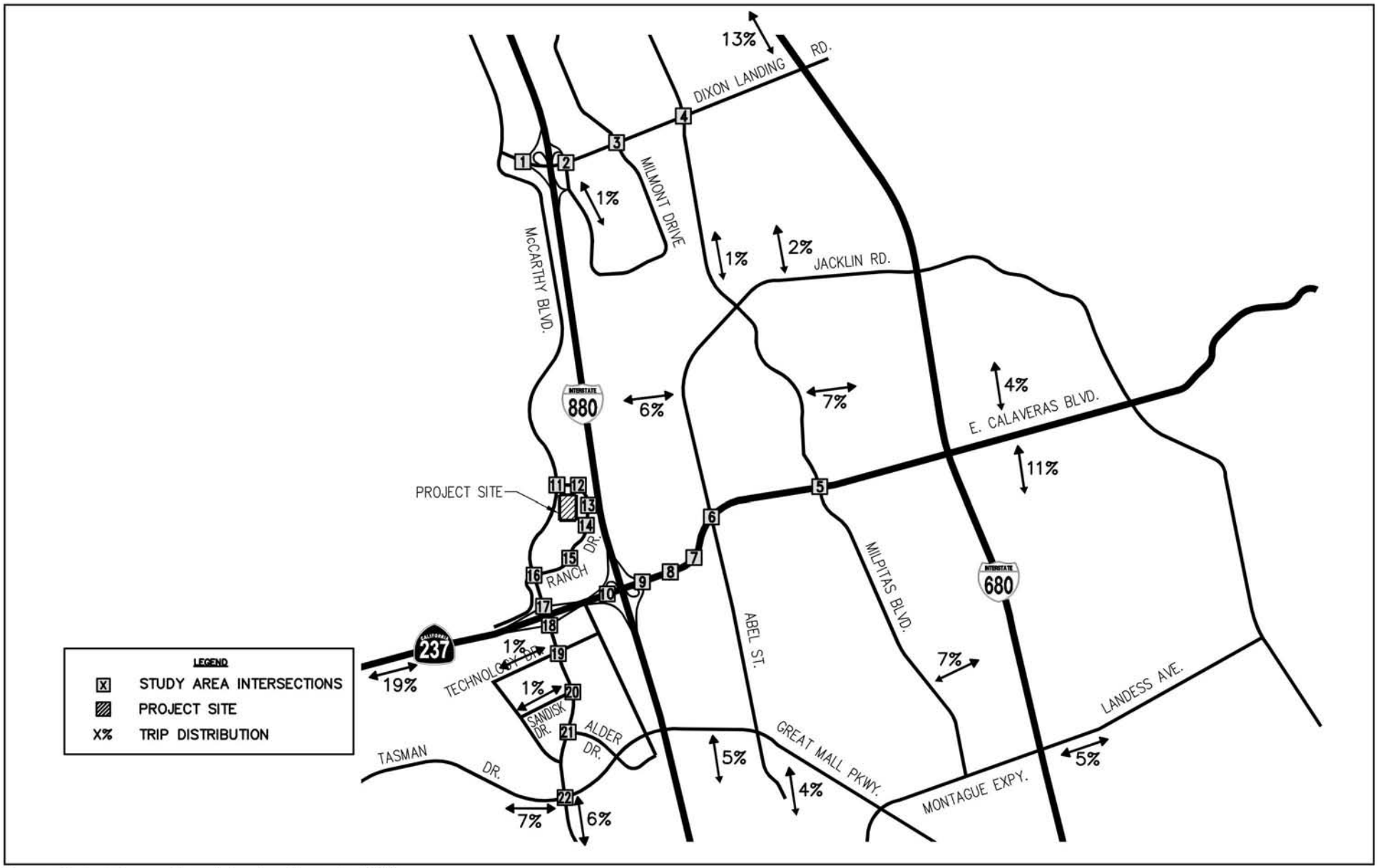
Although project trips from within the market area would primarily use the parallel arterial and collector streets because of freeway congestion, the trip distribution patterns conservatively assume that some trips would use the freeway. These trips are assumed to be primarily from neighborhoods located along the perimeter of the market area, such as eastern Sunnyvale. The freeway segment assigned the greatest percentage of project traffic is the SR-237 segment west of the McCarthy Boulevard interchange. The westbound SR-237 segment during the AM peak hour carries the greatest amount of project traffic. This segment is anticipated to carry 12 AM peak-hour project trips under Existing conditions, which would amount to 0.3 percent of the peak-hour trips along this particular segment. Therefore, the project's effect on operations along the freeway mainline facilities is expected to be nominal.

Nearby Roadway and Development Projects

Planned Roadway Projects in Vicinity of Site

As part of the Creekside Landing Project, Fremont Boulevard would be extended from its current terminus at Flood Channel B south to the existing Dixon Landing Road/McCarthy Boulevard intersection. The Fremont Boulevard extension would form the northern leg of the intersection and the geometry would be modified as follows:

- The eastbound approach would be widened to accommodate a dedicated left-turn lane, while converting the existing multi-use lane to a shared through/right-turn lane. The resulting geometry at this approach would be one left-turn lane and one shared through/right-turn lane.
- The westbound approach would be widened to accommodate a dedicated right-turn lane, while converting the existing through lane to a shared through/right-turn lane. The resulting geometry at this approach would be two left-turn lanes, one shared through/right-turn lane, and one right-turn lane.
- One of existing right-turn lanes at the northbound approach would be converted to a shared through/right-turn lane. The resulting geometry at this approach would be one left-turn lane, one shared through/right-turn lane, and one right-turn lane.
- The new alignment of Fremont Boulevard would become the southbound approach, which would provide two left-turn lanes, one through lane, and one shared through/right-turn lane.



Source: Kimley-Horn and Associates, Inc., December 2008.

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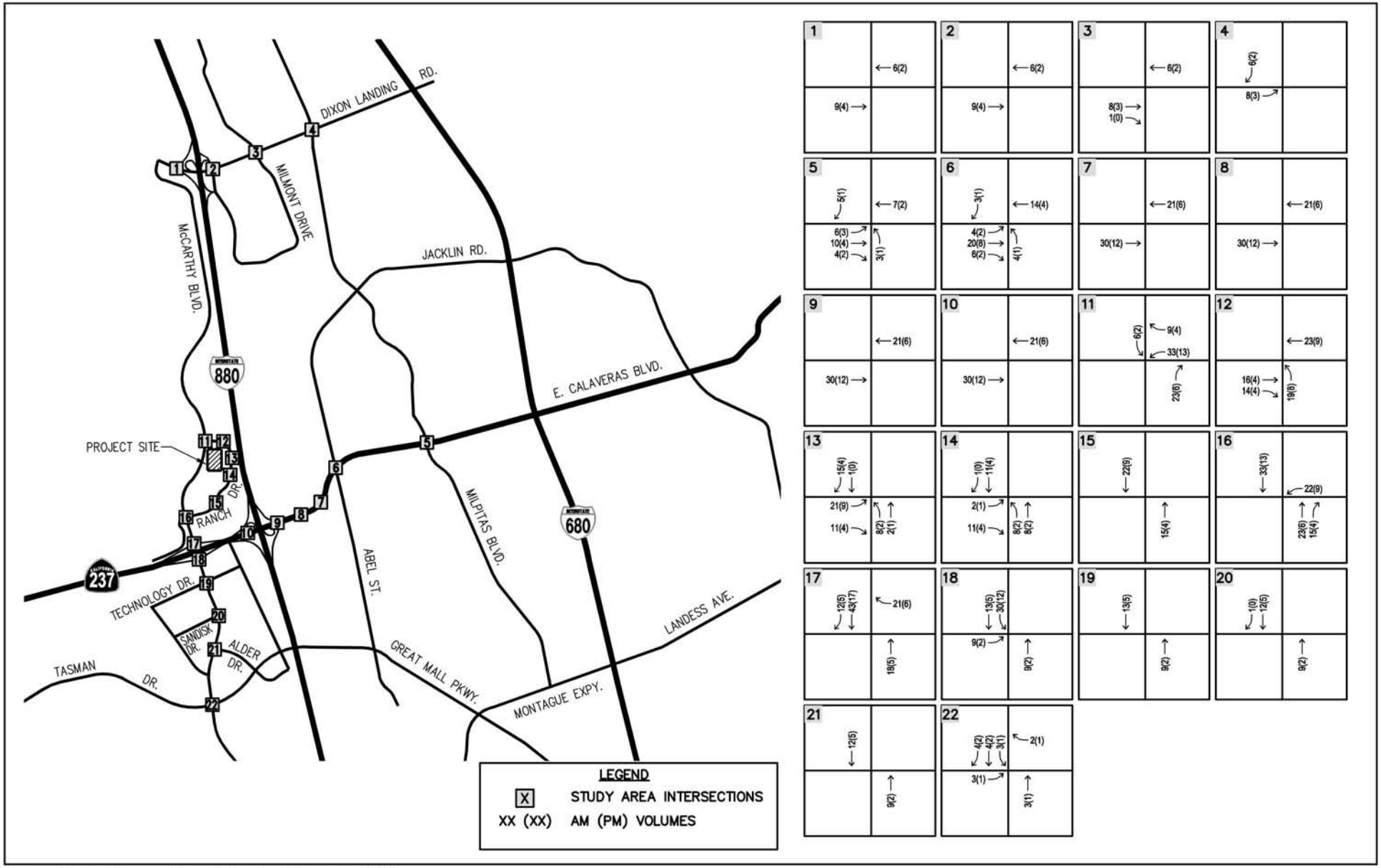
Exhibit 4.10-6
Project Trip Distribution



Source: Kimley-Horn and Associates, Inc., December 2008.

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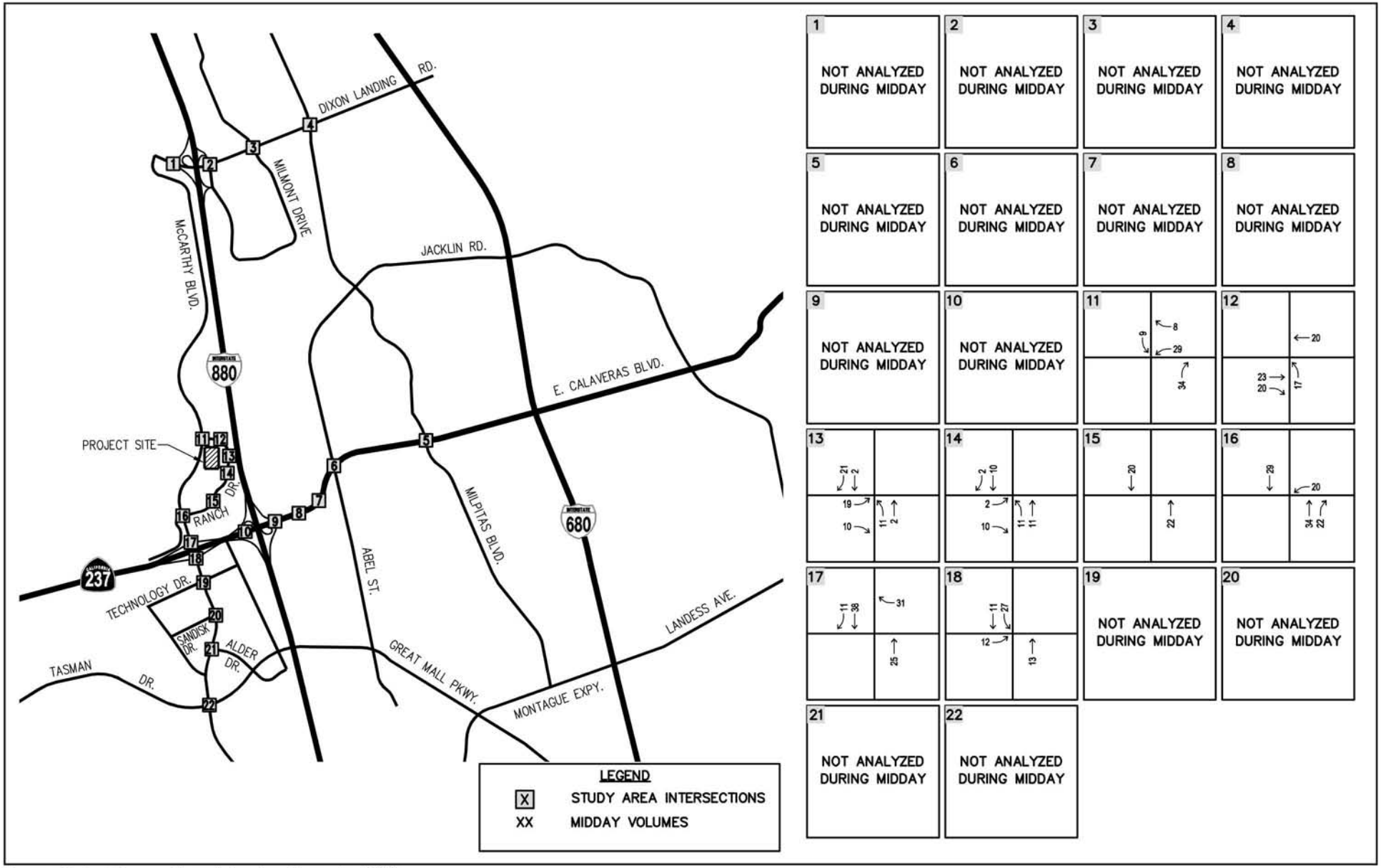
32660002 • 02/2009 | 4.10-7_total_proj_gen_weekday_am_pm.cdr

Exhibit 4.10-7
Total Project Generated Weekday AM and PM Peak Hour Traffic Volumes



Source: Kimley-Horn and Associates, Inc., December 2008.

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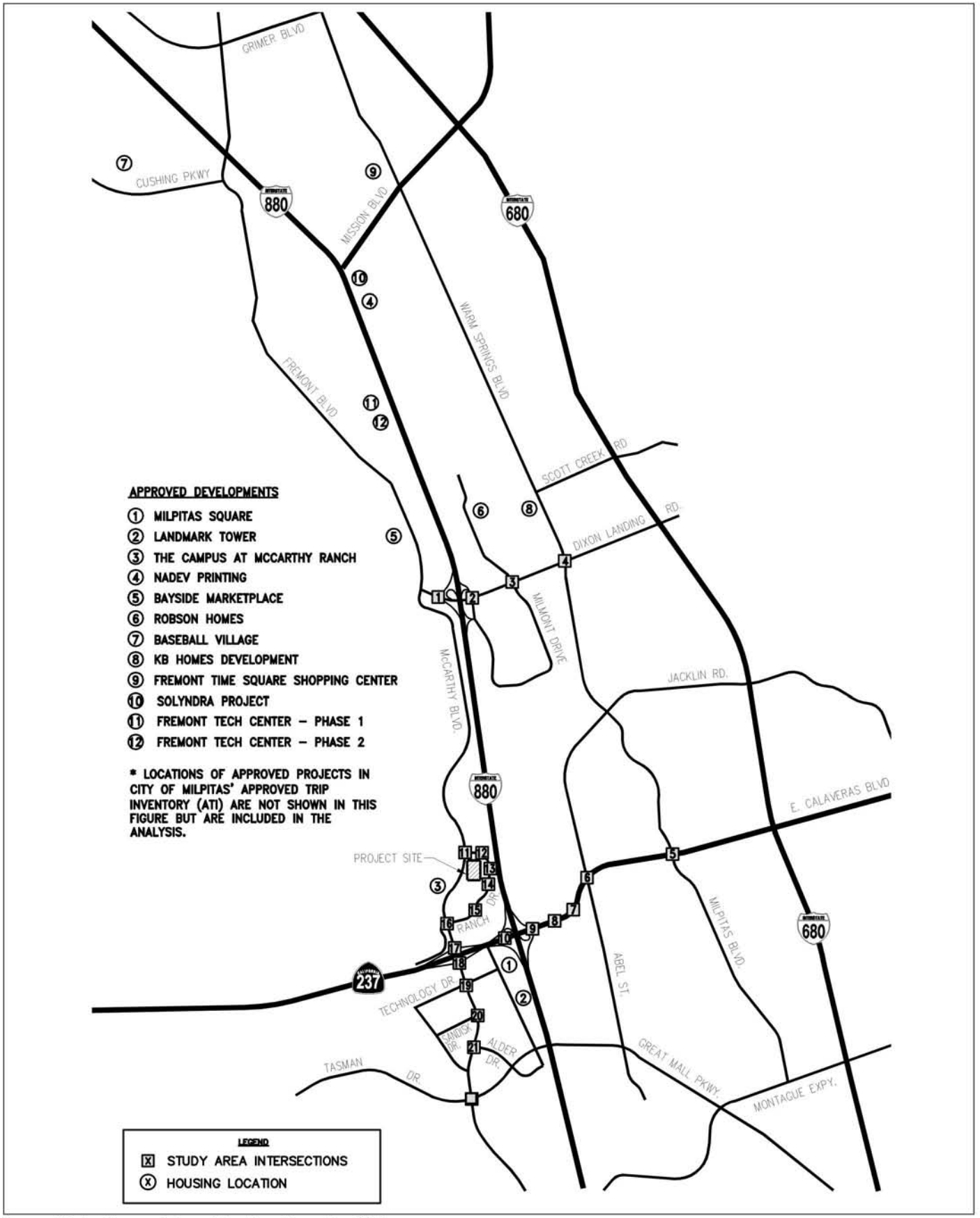
Exhibit 4.10-8
Total Project Generated Weekday Midday Peak Hour Traffic Volumes



Source: Kimley-Horn and Associates, Inc., December 2008.

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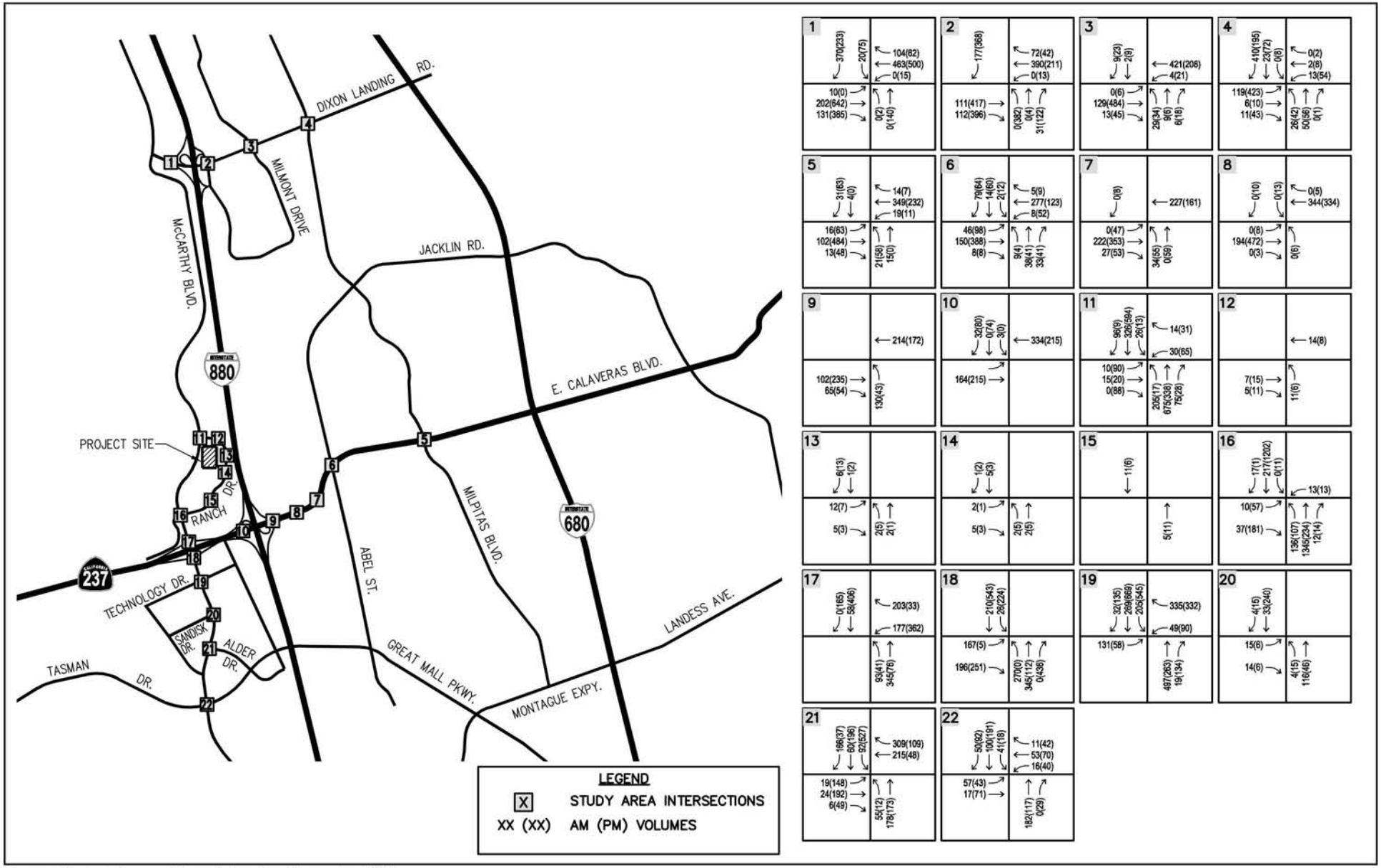
Exhibit 4.10-9
Approved and Pending Projects Map



Source: Kimley-Horn and Associates, Inc., December 2008.

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Exhibit 4.10-10
Approved and Pending Projects Weekday AM and PM Peak Hour Traffic Volumes

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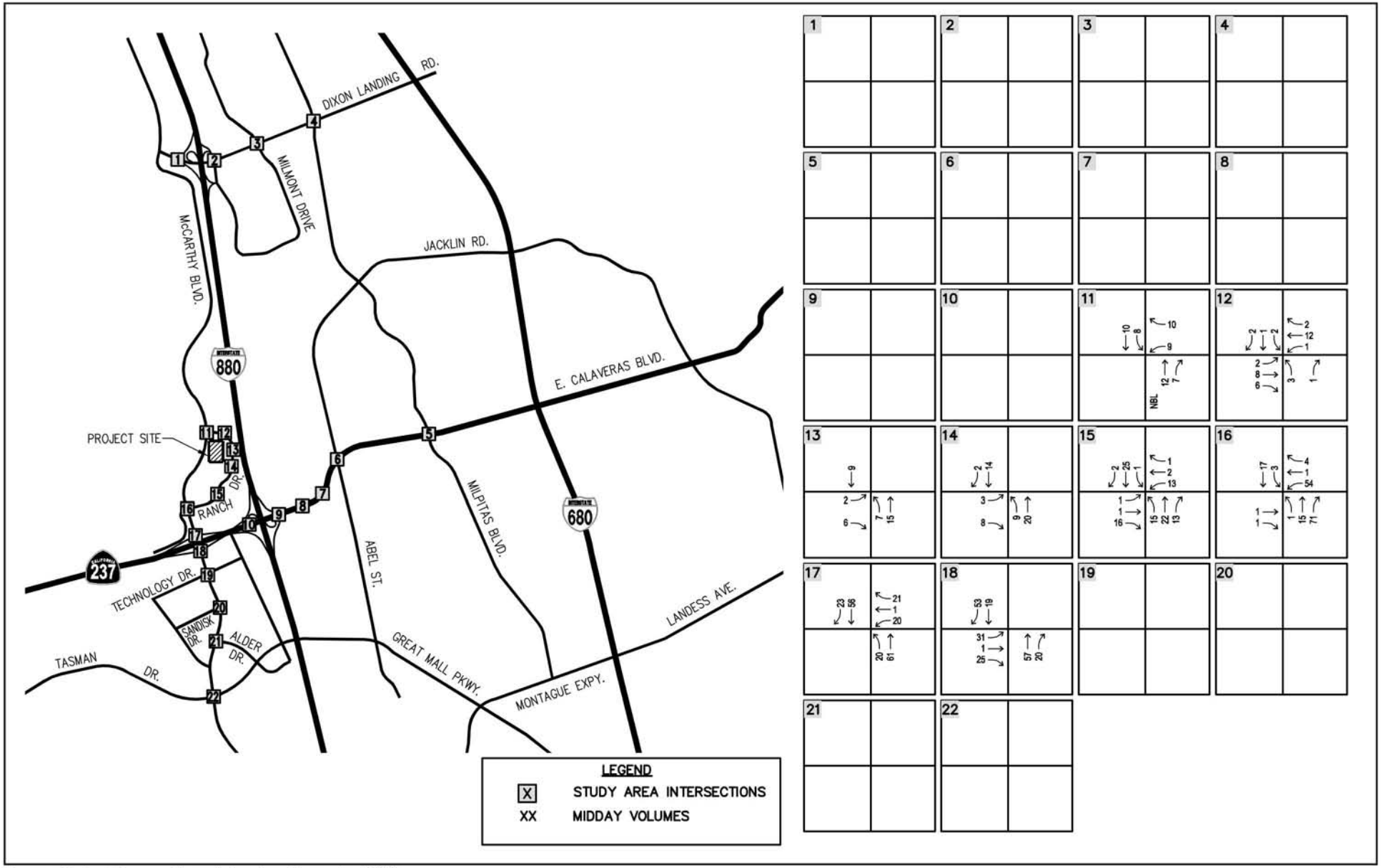

Source: Kimley-Horn and Associates, Inc., December 2008.

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32660002 • 02/2009 | 4.10-11_approved_pending_project_weekday_midday.cdr

Exhibit 4.10-11
Approved and Pending Projects Weekday Midday Peak Hour Traffic Volumes

These are the only planned improvements within the study area that are anticipated to be in place prior to or at the same time as the completion of the Walmart expansion.

Approved and Pending Development Projects in Vicinity of Site

Several development projects in the vicinity of the Walmart site are in various stages of planning, approval, or development. These projects would be developed at approximately the same time as the Walmart store expansion. Information on nearby approved and pending projects was obtained from the Cities of Milpitas and Fremont, and is included in Appendix H.

All approved development projects located in Milpitas were included in this traffic analysis. Pending projects located in Milpitas and Fremont are within reasonable proximity to the project site. These include development projects located close to the study area and are anticipated to contribute peak-hour trips to the study intersections. However, some of the Fremont projects either are too far away or are expected to generate too little traffic to have a notable effect on traffic in the vicinity of Walmart; therefore, only Fremont projects in reasonable proximity or of comparable size to the Walmart store were included in this analysis. Projects considered for this traffic study were identified by Milpitas and Fremont as having been approved or having submitted a development application at the time of issuance of the Notice of Preparation in March 2009.

Approved and pending projects considered in this study are listed in Table 4.10-12, and their locations relative to the project site are illustrated in Exhibit 4.10-9.

Approved and Pending Development Traffic Volumes

An estimate of trips generated by approved and pending projects was calculated from information provided by the cities of Milpitas and Fremont. Where available, traffic volumes for these projects were obtained directly from published traffic reports. Midday peak-hour volumes for the approved and pending projects were approximated from the ratio between approved and pending weekday PM peak-hour trips to existing weekday PM peak-hour volumes. The PM peak was determined to more closely resemble the midday traffic patterns, rather than the AM peak, when commercial uses typically do not generate a significant amount of traffic. It was determined that the PM peak-hour trips generated by the approved and pending projects were approximately 5 percent of the existing PM peak-hour volumes along Ranch Drive. Therefore, the existing midday volumes were increased by 5 percent to establish Near Term weekday midday volumes.

Traffic volumes from approved and pending projects, when combined with the proposed project, represent the near term plus project analysis condition. Exhibit 4.10-10 and Exhibit 4.10-11 depict the traffic volumes associated with the approved and pending development projects.

Table 4.10-12: Approved and Pending Developments

No.[1]	Project Name	Location[2]	Size (land use)[3]	Status[4]
1	Milpitas Square	(M) East of the Bellew Drive/Barber Lane intersection	12,800 square feet retail 900 dwelling units (condos)	Pending
2	Landmark Tower	(M) East of Barber Lane, between Bellew Drive and Tasman Drive	148,800 square feet retail 49,000 square feet office 375 dwelling units (condos)	Approved
3	The Campus at McCarthy Ranch	(M) West of N. McCarthy Boulevard, between Ranch Drive (north) and Ranch Drive (south)	1,416,000 square feet office	Approved
4	Tasman/McCarthy Business Center	Varies: Refer to ATI	Refer to ATI[5]	Approved
5	Irvine Company R&D – Phase 1			
6	Irvine Company R&D – Phase 2			
7	Veritas Software			
8	Apton Plaza Mixed Use Development			
9	Elmwood Residential Project			
10	Elmwood Commercial – Auto Dealerships			
11	North Main Street – Library			
12	North Main Street – Senior Housing			
13	North Main Street – County Medical Center			
14	Fairfield Residential Project			
15	RGC Residential Project			
16	Aspen Family Apartments			
17	Starlight Center – Mixed Use			
18	Everlasting Private Foundation Religious Facility			
19	Matteson Residential Project			

Table 4.10 12 (Cont.): Approved and Pending Developments

No.[1]	Project Name	Location[2]	Size (land use)[3]	Status[4]
20	Alexan Residential Project	Varies: Refer to ATI *cont.*	Refer to ATI[5] *cont.*	Approved *cont.*
21	Murphy Ranch Residential Project			
22	Perry-Arrilaga			
23	Sinclair Horizon Residential Project			
24	Nadev Printing	(F) 47422 Kato Road	335,700 square feet light industrial	Under construction
25	Creekside Landing	(F) North of Dixon Landing Road, east of future Fremont Boulevard extension	524,000 square feet retail	Pending
26	Robson Homes	(F) 48835 Kato Road	114 dwelling units (single-family)	Under construction–16 dwelling units occupied at time of counts
28	KB Homes Development	(F) 48921 Warm Springs Boulevard	142 dwelling units (single-family) 95 dwelling units (townhomes) 105 dwelling units (condos)	Under construction–none occupied at time of counts
29	Fremont Time Square Shopping Center	(F) 46408 Warm Springs Boulevard	93,500 square feet retail	Approved
30	Solyndra Project	(F) 47422 Kato Road	609,000 square feet manufacturing	Pending–projected occupancy in 2010
31	Fremont Tech Center – Phase 1	(F) 2703 Lakeview Court	76,800 square feet retail R&D 59,900 square feet light industrial	Constructed–unoccupied
32	Fremont Tech Center – Phase 2	(F) South of proposed Fremont Tech Center - Phase 1 project site	76,500 square feet light industrial	Approved

Notes:
1 Numbers keyed to general project locations are shown in Exhibit 4.10-9.
2 (M) = Milpitas, (F) = Fremont
3 R&D = Research and Development
4 Status changes to the projects occurred subsequent to the traffic analysis. Project status at the time of the traffic analysis is in parentheses.
5 Refer to Approved Trip Inventory (ATI) in Appendix H. ATI was provided by the City of Milpitas.
No. 27 was the proposed Baseball Village project, which was abandoned by the project applicant in March 2009 and removed from this analysis.
Source: Kimley-Horn and Associates, 2008.

4.10.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, transportation impacts resulting from the implementation of the proposed project would be considered significant if the project would:

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)?

b.) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

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?

d.) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e.) Result in inadequate emergency access?

f.) Result in inadequate parking capacity?

g.) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

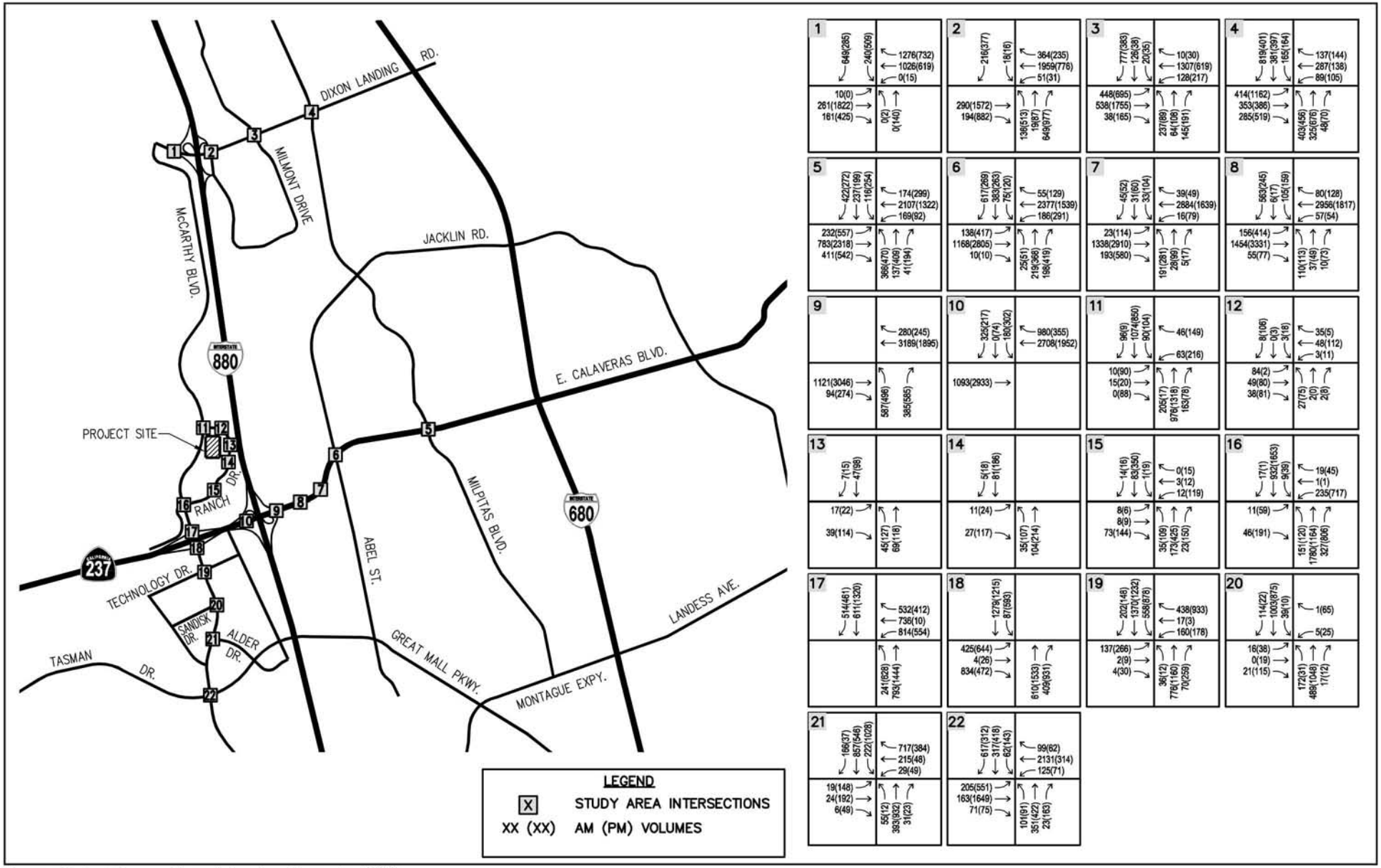
Intersection Operations

Relative to thresholds a) and b), project impacts were determined by comparing conditions with the proposed project with those without the proposed project. The City of Milpitas General Plan has established a minimum acceptable operating level of LOS D- for intersections excluded from the Congestion Management Program (CMP). Further, a significant impact occurs if the proposed project causes one of the following:

1. Intersection operations to degrade from an acceptable level (LOS D- or better) under without project conditions to an unacceptable level (LOS E or F) under with project conditions.

2. Exacerbation of unacceptable operations (LOS E or F) by increasing the critical delay by more than 4 seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more. Critical delay and critical V/C represents the delay and V/C associated with the critical movements of the intersection, or the movements that require the most traffic signal green time.

3. An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable operations (LOS E or F) when the change in critical delay is negative (decreases). This can occur if the critical movements change.



Source: Kimley-Horn and Associates, Inc., December 2008.

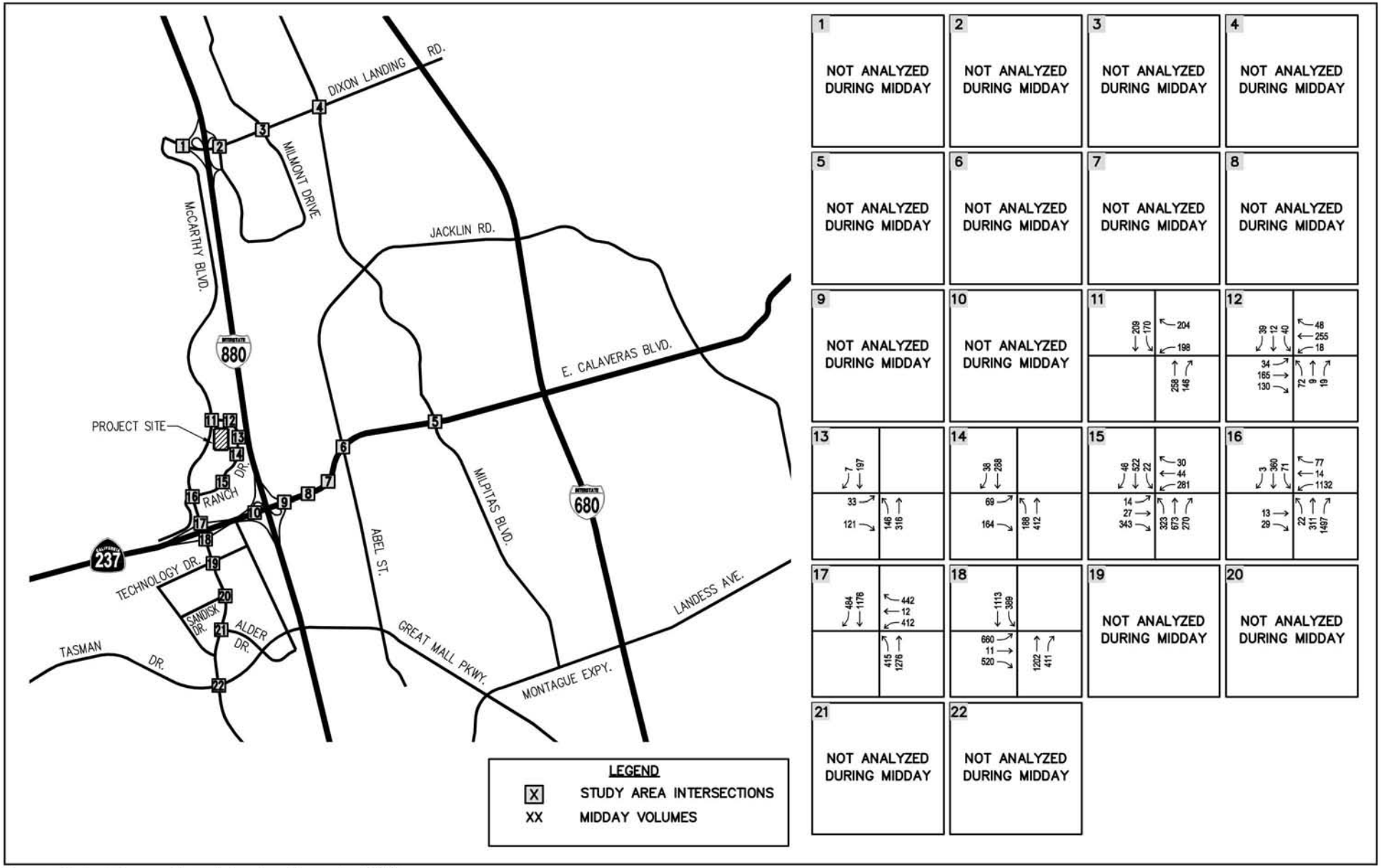
NORTH

NOT TO SCALE

Michael Brandman Associates

32660002 • 02/2009 | 4.10-12_near_term_wo_weekday_am_pm.cdr

Exhibit 4.10-12
Near-Term Without Project Weekday AM and PM Peak Hour Traffic Volumes



Source: Kimley-Horn and Associates, Inc., December 2008.

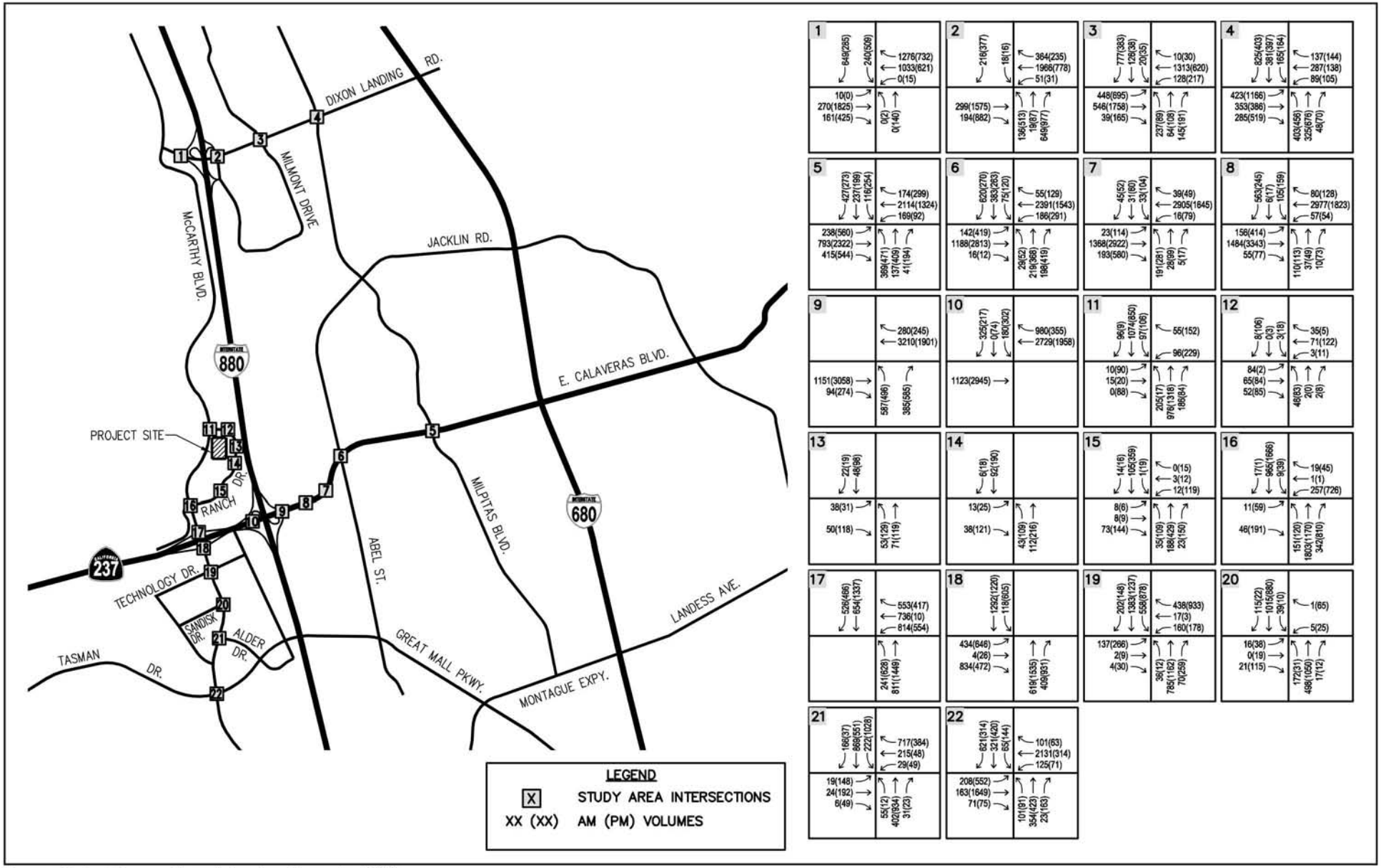
NORTH

NOT TO SCALE

Michael Brandman Associates

32660002 • 02/2009 | 4.10-13_near_term_wo_weekday_midday.cdr

Exhibit 4.10-13
Near-Term Without Project Weekday Midday Peak Hour Traffic Volumes



Source: Kimley-Horn and Associates, Inc., December 2008.

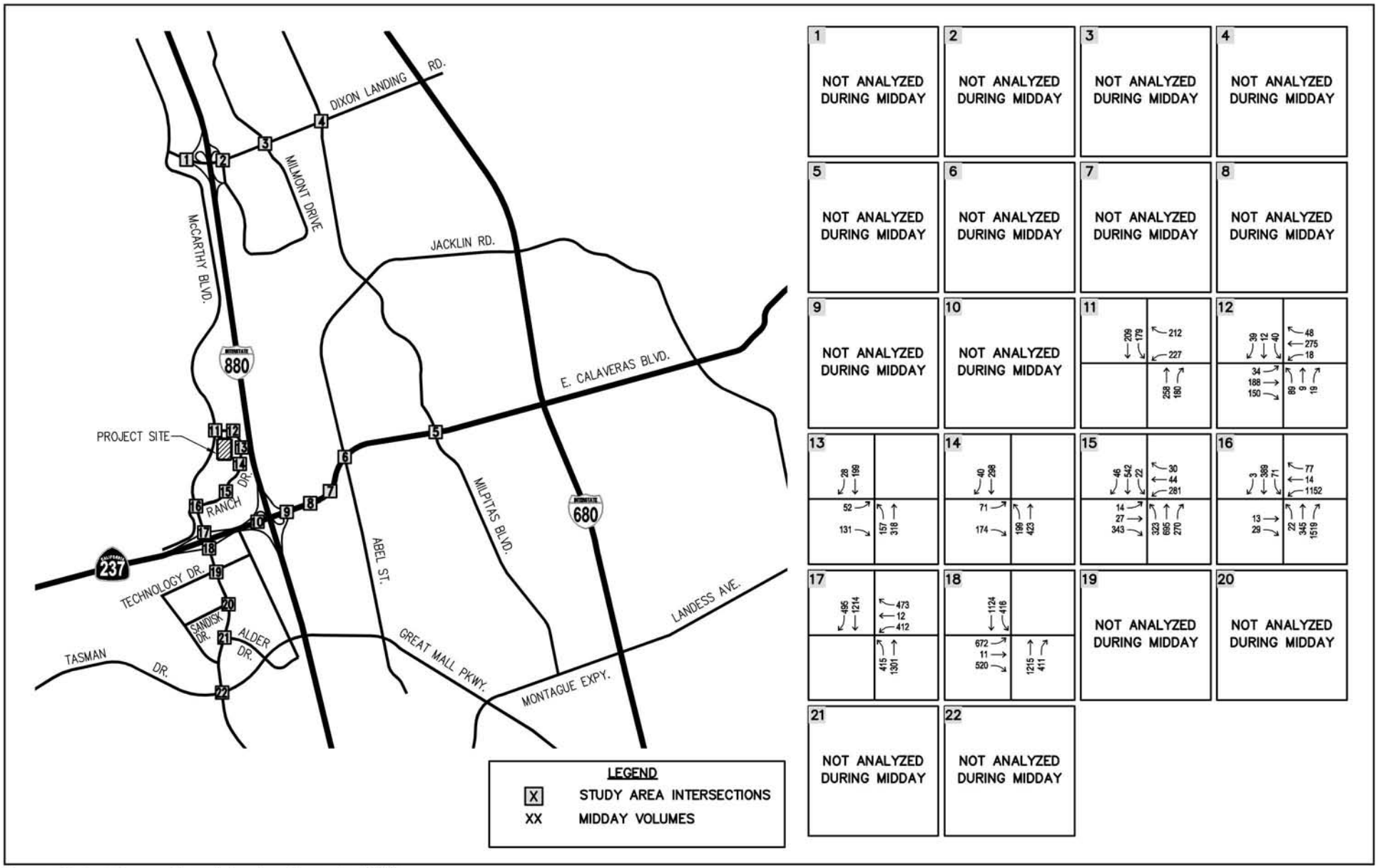
NORTH

NOT TO SCALE

Michael Brandman Associates

32660002 • 02/2009 | 4.10-14_near_term_w_weekday_am_pm.cdr

Exhibit 4.10-14
Near-Term With Project Weekday AM and PM Peak Hour Traffic Volumes



Source: Kimley-Horn and Associates, Inc., December 2008.

NORTH

NOT TO SCALE

Michael Brandman Associates

32660002 • 02/2009 | 4.10-15_near_term_w_weekday_midday.cdr

Exhibit 4.10-15
Near-Term With Project Weekday Midday Peak Hour Traffic Volumes

Table 4.10-13: Near-Term Intersection Level of Service Summary

No.	Intersection	Intersection Control	Near-Term Without Project						Near-Term With Project											
			AM Peak		Midday Peak		PM Peak		AM Peak				Midday Peak				PM Peak			
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Δ Critical V/C	Δ Critical Delay	LOS	Delay	Δ Critical V/C	Δ Critical Delay	LOS	Delay	Δ Critical V/C	Δ Critical Delay
1	Dixon Landing Road/I-880 Southbound Ramps	Signal	B	15.3	—	—	B	17.3	B	15.3	0.00	0.2	—	—	—	—	B	17.3	0.00	0.10
2	Dixon Landing Road/I-880 Northbound Ramps	Signal	C	30.1	—	—	**F**	**114.1**	C	30.1	0.00	0.1	—	—	—	—	**F**	**114.0**	0.00	0.00
3	Dixon Landing Road/Milmont Drive	Signal	**F**	**89.2**	—	—	**E**	**73.8**	**F**	**89.5**	0.00	0.4	—	—	—	—	**E**	**74.0**	0.00	0.30
4	Dixon Landing Road/N. Milpitas Boulevard	Signal	**F**	**131.9**	—	—	**F**	**183.8**	**F**	**134.7**	**0.01**	**4.6**	—	—	—	—	**F**	**185.0**	0.00	1.90
5	E. Calaveras Boulevard/N. Milpitas Boulevard	Signal	D-	51.0	—	—	D	47.9	D-	51.9	0.01	1.3	—	—	—	—	D	48.0	0.00	0.30
6	W. Calaveras Boulevard/N. Abel Street	Signal	E-	75.8	—	—	E	72.6	E-	77.7	0.01	3.2	—	—	—	—	E	73.2	0.00	1.00
7	W. Calaveras Boulevard/Serra Way	Signal	B	15.4	—	—	C	24.4	B	15.4	0.00	0.0	—	—	—	—	C	24.5	0.00	0.10
8	W. Calaveras Boulevard/S. Abbott Avenue	Signal	C+	21.6	—	—	C+	20.7	C+	21.6	0.00	0.1	—	—	—	—	C+	20.7	0.00	0.10
9	W. Calaveras Boulevard/I-880 Northbound Ramps	Signal	C-	33.5	—	—	D	41.6	C-	33.7	0.00	0.4	—	—	—	—	D	41.9	0.00	0.50
10	W. Calaveras Boulevard/I-880 Southbound Ramps	Signal	B-	18.3	—	—	B+	10.8	B-	18.4	0.00	0.1	—	—	—	—	B+	10.8	0.00	0.00
11	N. McCarthy Boulevard/Ranch Drive (north)	Signal	B	14.4	B-	18.4	C	28.4	B	14.9	0.05	1.1	B-	19.2	0.05	0.9	C	29.5	0.01	1.60
12	North Walmart Driveway/Ranch Drive	Two-say stop	B	11.8	D	25.3	B	14.0	B	12.9	0.00	0.2	D	34.8	0.00	1.5	B	14.7	0.00	0.10
13	East Walmart Driveway/Ranch Drive	Two-say stop	A	9.5	C	16.5	B	11.0	B	10.3	0.00	0.9	C	22.3	0.00	1.5	B	11.6	0.00	0.20
14	Southeast Walmart Driveway/Ranch Drive	Two-say stop	A	***9.5***	**E**	**42.5**	B	12.2	A	9.7	0.00	0.3	**F**	**54.8**	0.00	3.0	B	12.4	0.00	0.10
15	Best Buy/Michaels Driveway/Ranch Drive	Signal	B-	19.0	C	26.6	B-	18.3	C	23.6	0.00	5.8	C	26.6	0.01	0.1	B-	18.3	0.00	0.00
16	N. McCarthy Boulevard/Ranch Drive (south)	Signal	**F**	**94.5**	**E-**	**75.7**	**F**	**147.5**	**F**	**98.3**	**0.02**	**6.6**	**F**	**80.7**	**0.02**	**5.9**	**F**	**151.0**	**0.01**	**5.40**
17	N. McCarthy Boulevard/SR-237 Westbound Ramps	Signal	C	24.3	C+	22.9	C	30.4	C	26.3	0.03	6.8	C	26.1	0.04	5.1	C	31.7	0.01	2.20
18	N. McCarthy Boulevard/SR-237 Eastbound Ramps	Signal	D+	35.1	C-	34.3	**E**	**65.9**	D+	38.0	0.01	-0.6	D+	37.2	0.02	5.0	**E**	**67.1**	0.00	2.00
19	McCarthy Boulevard/Technology Drive	Signal	D	48.8	—	—	**F**	**158.1**	D	50.1	0.01	2.6	—	—	—	—	**F**	**158.4**	0.00	0.30
20	McCarthy Boulevard/Sandisk Drive	Two-say stop	**F**	**189.1**	—	—	**F**	**2054.8**	**F**	**200.3**	0.00	0.4	—	—	—	—	**F**	**2216.4**	0.00	7.30
21	McCarthy Boulevard/Alder Drive	Signal	**E+**	**57.6**	—	—	**F**	**280.1**	**E+**	**59.3**	0.01	2.6	—	—	—	—	**F**	**280.1**	0.00	0.30
22	McCarthy Boulevard/Tasman Drive	Signal	**E-**	**79.0**	—	—	D	42.7	**F**	**80.5**	0.01	2.1	—	—	—	—	D	42.8	0.00	0.00
23	Dixon Landing Road/N. McCarthy Boulevard	Signal	B	17.1	—	—	C-	32.7	B	17.2	0.00	0.1	—	—	—	—	C-	32.9	0.00	0.6

Notes:
Bold denotes unacceptable intersection operations; **Bold underline** denotes significant project contribution
Source: Kimley-Horn and Associates, 2009.

The City of Fremont General Plan has established a minimum acceptable operating level of LOS D for intersections excluded from the CMP. A significant impact occurs if the proposed project causes one of the following:

1. Intersection operations to degrade from an acceptable level (LOS D- or better) under without project conditions to an unacceptable level (LOS E or F) under with project conditions.
2. Exacerbation of unacceptable operations (LOS E or F) by increasing the average delay by more than 4 seconds.

The minimum acceptable level for CMP monitored intersections is LOS E-. A significant impact at a CMP monitored intersection occurs if the proposed project causes one of the following:

1. Intersection operations to degrade from an acceptable level (LOS E- or better) under without project conditions to an unacceptable level (LOS F) under with project conditions.
2. Exacerbation of unacceptable LOS F operations by increasing the critical delay by more than 4 seconds and increasing the V/C ratio by 0.01 or more. Critical delay and critical V/C represent the delay and V/C associated with the critical movements of the intersection, or the movements that require the most traffic signal green time.
3. An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable LOS F operations when the change in critical delay is negative (decreases). This can occur if the critical movements change.

Roadway Operations

The City of Milpitas General Plan has established a minimum acceptable operating level of LOS D for City roadway segments. Further, a significant impact occurs if the proposed project causes one of the following:

1. The addition of traffic from the proposed project degrades operations under Year 2030 conditions from an acceptable level to an unacceptable level.
2. The proposed project results in a 1-percent increase of a segment's volume-to-capacity ratio when the segment is already operating unacceptably under without-project conditions.

Freeway Ramp Junctions

Caltrans accepts a minimum level of service of LOS C at state-maintained facilities. Furthermore, if an existing state facility is operating at less than acceptable LOS without the proposed project, then the existing measure of effectiveness should be maintained. This approach is applicable for the freeway ramp merge and diverge facilities.

Queuing

A significant queuing impact would occur if:

- The project causes a 95th percentile queue to exceed available storage capacity; or
- If a 95th percentile queue is projected to exceed available storage capacity without the project, the project extends the queue by 25 feet or more.

4.10.6 - Project Impacts and Mitigation Measures

Near-Term Intersection Operations

Impact TRANS-1: The proposed project would contribute trips to intersections that would operate at unacceptable levels of service under near-term conditions.

Impact Analysis

Existing traffic volumes were combined with vehicle trips expected to be generated by the approved and pending development projects and evaluated at the study intersection. Results of the analysis are presented in Table 4.10-13.

Exhibit 4.10-12 illustrates the near-term without project weekday AM and PM peak-hour traffic volumes at each study intersection, while Exhibit 4.10-13 illustrates near-term without project weekday midday peak-hour traffic volumes. Exhibit 4.10-14 illustrates the near-term with project weekday AM and PM peak-hour traffic volumes at each study intersection, while Exhibit 4.10-15 illustrates near-term with project weekday midday peak-hour traffic volumes.

As shown in Table 4.10-13, several study intersections would not function within acceptable standards under the analysis scenario. The intersections listed in Table 4.10-14 would operate below acceptable thresholds regardless of the proposed Walmart expansion project.

Also shown in Table 4.10-13, the addition of the proposed project does not cause any intersections that are performing at acceptable levels without the proposed project to drop below acceptable levels. Some intersections previously operating below acceptable thresholds are nominally affected by project traffic; however, only the following intersections are expected to experience an increase in critical delay and critical V/C above the allowable thresholds with the addition of the proposed project:

- Dixon Landing Road/N. Milpitas Boulevard (AM peak)
- N. McCarthy Boulevard/Ranch Drive South (AM peak, midday peak, PM peak)

Table 4.10-14: Intersections Below Acceptable LOS Without Project

Intersection	Below Acceptable LOS (Without Project Scenario)		
	AM Peak	Midday Peak	PM Peak
Dixon Landing Road/I-880 Northbound Ramps			X
Dixon Landing Road/Milmont Drive	X		X
Dixon Landing Road/N. Milpitas Boulevard	X		X
Ranch Drive/Southeast Walmart Driveway		X	
N. McCarthy Boulevard/Ranch Drive (south)	X	X	X
McCarthy Boulevard/SR-237 Eastbound Ramps			X
McCarthy Boulevard/Technology Drive			X
McCarthy Boulevard/Sandisk Drive	X		X
McCarthy Boulevard/Alder Drive	X		X
McCarthy Boulevard/Tasman Drive	X		X
Source: Kimley-Horn and Associates, 2009.			

The Dixon Landing Road/Milpitas Boulevard intersection would operate at LOS F during the weekday AM peak hour under the near-term traffic conditions and would experience a 2.6-second increase in delay during the weekday AM peak hour due to the proposed project. Furthermore, the addition of the proposed project trips would result in an increase in critical delay of 4.6 seconds and a 1-percent increase in critical V/C, which is above the allowable thresholds and, therefore, results in a significant impact.

The N. McCarthy Boulevard/Ranch Drive (south) intersection would operate at LOS E or F during the weekday AM, midday, and PM peak hours under the near-term traffic conditions and would experience a 6.6-second increase in delay (2-percent increase in V/C) during the AM peak hour, a 5.9-second increase in delay (2-percent increase in V/C) during the midday peak hour, and a 5.4-second increase in delay (1-percent increase in V/C) during the PM peak hour. Furthermore, the addition of the proposed project trips would result in an increase in critical delay and critical V/C above the allowable thresholds. As such, a significant impact would result.

Potential Mitigation

Potential mitigation measures have been identified to mitigate project impacts under near-term with project conditions at the signalized intersections of Dixon Landing Road/N. Milpitas Boulevard, and N. McCarthy Boulevard/Ranch Drive (south). Each is discussed below.

Dixon Landing Road/N. Milpitas Boulevard

The significant impact at this intersection can be mitigated by modifying the signal phasing to include a southbound right-turn overlap and subsequent signal timing optimization. As shown in

Table 4.10-15, these signal modifications would result in this intersection operating at improved levels compared with the without proposed project conditions during the weekday AM peak hour, thus reducing the impact to a less than significant level.

Because this intersection already operates at unacceptable LOS without the contribution of the proposed project, the project would be required to pay only its fair share of the cost of improvements to restore intersection operations to acceptable levels of service. The VTA Valley Transportation Plan 2035 has identified improvements to this intersection, including the construction of a northbound left-turn lane, a southbound right-turn lane, and eastbound left-turn and right-turn lanes. As shown in Table 4.10-15, these improvements would result in this intersection operating at LOS C during the AM peak-hour, thus reducing the impact to be less than significant. The City of Milpitas has collected fees for these improvements and the proposed project would be required to contribute a "fair share" in the amount of $3,000 for this improvement.

Additionally, Dixon Landing Road is contemplated to be widened between I-880 and N. Milpitas Boulevard. This project involves widening the roadway from four to six travel lanes, providing bike lanes and sidewalks throughout the segment, as well as improvements to the Union Pacific Railroad at-grade crossing near Milmont Road. The City of Milpitas will require the project applicant to pay a "fair share" in the amount of $28,960 towards this project.

N. McCarthy Boulevard/Ranch Drive (South)

The significant impact at this intersection can be mitigated by re-timing the signal to increase the current cycle length. As shown in Table 4.10-15, this signal timing modification would result in this intersection operating at LOS C during the weekday AM and midday peak hours, thus reducing the impact to a less than significant level. Furthermore, this signal timing modification would result in this intersection operating at improved levels compared with the without proposed project conditions during the weekday PM peak hour, thus reducing the impact to a less than significant level.

Because this intersection already operates at unacceptable LOS without the contribution of the proposed project, the project would be required to pay only its fair share of the cost of improvements to restore intersection operations to acceptable levels of service. The proposed improvements are not included in the City's Capital Improvement Program.

Conclusion

The proposed project would contribute significantly to unacceptable intersection operations at two intersections. The proposed project can fully mitigate its impacts through fair share payments for improvements to the Dixon Landing Road/N. Milpitas Boulevard intersection and Dixon Landing Road and providing the full cost of signal timing improvements at N. McCarthy Boulevard/Ranch Drive (South). Because the Dixon Landing Road improvements are contained in an "actual plan for mitigation" (e.g., Valley Transportation Plan 2035) and the applicant would provide the full cost of the at N. McCarthy Boulevard/Ranch Drive (South) intersection improvements, there is a reasonable

Table 4.10-15: Near-Term Mitigated Level of Service

Intersection	AM Peak Hour				Midday Peak Hour				PM Peak Hour			
	LOS	Delay	Δ Critical V/C	Δ Critical Delay	LOS	Delay	Δ Critical V/C	Δ Critical Delay	LOS	Delay	Δ Critical V/C	Δ Critical Delay
Dixon Landing Road/ N. Milpitas Boulevard	E+	59.4	-0.27	-121.4	—	—	—	—	—	—	—	—
N. McCarthy Boulevard/Ranch Drive (south)	C	25.8	-0.07	-115.2	C	25.9	-0.07	-84.4	**F**	**92.0**	-0.2	-95.7

Notes:
Bold denotes unacceptable intersection operation
Source: Kimley-Horn and Associates, 2009.

degree of certainty that the improvements would be fully funded and implemented as contemplated. Therefore, the residual significance of this impact is less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-1a Prior to the issuance of building permits, the project applicant shall provide fair-share fees to the City of Milpitas for improvements to the Dixon Landing Road/N. Milpitas Boulevard intersection and the widening of Dixon Landing Road. The intersection improvements shall consist of 1) modifying the signal operation to include a southbound right-turn overlap and subsequent signal timing optimization or 2) adding a northbound left turn lane, a southbound right-turn lane, and eastbound left-turn and right-turn lanes. The widening shall consist of adding an additional lane in each direction between I-880 and N. Milpitas Boulevard. Both improvements are identified in the Valley Transportation Plan 2035. The applicant is responsible for fair-share amounts of $3,000 for the intersection improvements and $28,960 for the roadway widening.

MM TRANS-1b Prior to the issuance of final certificate of occupancy, the project applicant shall provide the City of Milpitas the full cost of signal timing modifications at the N. McCarthy Boulevard/Ranch Drive (south) intersection. The modifications shall consist of re-timing the signal to increase the current cycle length. This mitigation measure shall not apply if the signal timing is modified prior to the applicant seeking the final certificate of occupancy.

Level of Significance After Mitigation

Less than significant impact.

Near-Term Freeway Ramp Junction Analysis

Impact TRANS-2: The proposed project would not contribute a substantial number of trips to freeway ramp junctions directly causing unacceptable levels of service under near-term conditions.

Impact Analysis

This impact analyzes the proposed project's effects on nearby freeway ramp junctions during near-term traffic conditions.

Traffic operations were evaluated at the SR-237/N. McCarthy Boulevard ramp junction facilities under Near-Term traffic conditions. Results of the analysis are provided in Table 4.10-16.

As shown in Table 4.10-16, the SR-237 westbound ramp merge would perform at unacceptable LOS F during both weekday AM and PM peak hours under near-term conditions. Caltrans establishes LOS C as the minimum acceptable level for state facilities (e.g., freeways); however, in instances where facilities operate at unacceptable levels, Caltrans requires that new projects maintain the measure of effectiveness. The proposed project would contribute up to 12 AM and five PM weekday peak-hour trips to this ramp. The increase in ramp volumes due to the proposed project would account for less than 0.9 percent of the total peak-hour trips on the ramp during the AM and PM weekday peak hours. This is considered a nominal increase in ramp volume and, therefore, would not be considered a worsening of the measure of effectiveness. As a result, this impact is less than significant.

The SR-237 Eastbound Ramp diverge would perform at acceptable LOS C during the weekday AM peak hour under near-term conditions. The proposed project would not cause this facility to perform below Caltrans's acceptable levels. Furthermore, during the weekday PM peak hour, this diverge would perform at unacceptable LOS F, with or without the proposed project. The project would contribute up to two weekday PM peak-hour trips to this ramp. The increase in ramp volumes due to the proposed project would account for less than 0.2 percent of the total peak-hour trips on the ramp during the weekday PM peak hour. This is considered a nominal increase in ramp volume and, therefore, would not be considered a worsening of the measure of effectiveness. As a result, this impact is less than significant.

Table 4.10-16: Near-Term Freeway Ramp Junction Level of Service Summary

Location	Junction Type	Analysis Scenario	AM Peak-Hour		PM Peak-Hour	
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
N. McCarthy Boulevard to Westbound SR-237	Merge	Near-Term Without Project	N/A[1]	F	N/A[1]	F
		Near-Term With Project	N/A[1]	F	N/A[1]	F
Eastbound SR-237 to N. McCarthy Boulevard	Diverge	Near-Term Without Project	26.3	C	N/A[1]	F
		Near-Term With Project	26.3	C	N/A[1]	F

Notes:
[1] Density not computed for existing, oversaturated flow conditions (LOS F)
Source: Kimley-Horn and Associates, 2009.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Roadway Operations

Impact TRANS-3: The proposed project may substantially contribute to unacceptable roadway operations.

Impact Analysis

This impact assesses the proposed project's impacts on roadway operations under long-term (year 2030) plus project conditions.

Long-Term Lane Configurations and Traffic Control

Within the study area, only one roadway improvement is anticipated by City of Milpitas to occur prior to year 2030. This roadway improvement project involves the widening of Calaveras Boulevard, between Milpitas Boulevard and Abel Street, which is planned to become a six-lane facility. Operational improvements (such as traffic signal optimization) are also anticipated to be performed along this segment of Calaveras Boulevard in conjunction with the capacity improvements. The VTA Congestion Management Program Year 2030 Travel Demand Forecast model incorporates this future roadway improvement, as well as other improvements throughout Santa Clara County.

Year 2030 Forecast

Future (Year 2030) AM and PM peak-hour traffic volumes, which were provided by the City, are based on future year traffic forecasts from the VTA Congestion Management Program Year 2030 Travel Demand Forecast model. However, future volumes along Ranch Drive were not available. Therefore, 5-percent growth from existing traffic volumes was assumed, to account for minimal background growth along Ranch Drive. The McCarthy Ranch Marketplace is already built out; therefore, a slight increase in traffic can account for an increase in patrons to the existing shopping center.

Long-Term Roadway Operations

Long-term roadway operations during the weekday AM, PM, and midday peak hours are provided in Table 4.10-17 through Table 4.10-19.

Table 4.10-17: Long-Term Roadway Segment Level of Service Summary (AM Peak Hour)

Roadway	Segment	Direction	Long-Term Conditions			Project Trips	Long-Term plus Proposed Project Conditions			Percent Change	Impact?
			Volume	V/C	LOS		Volume	V/C	LOS		
Dixon Landing Road	N. McCarthy Boulevard - I-880	Eastbound	1,316	0.49	A	9	1,325	0.49	A	0.33	N
		Westbound	2,187	0.81	D	6	2,193	0.81	D	0.22	N
	I-880 - Milmont Drive	Eastbound	1,293	0.72	C	9	1,302	0.72	C	0.50	N
		Westbound	2,070	1.15	F	6	2,076	1.15	F	0.33	N
	Milmont Drive - N. Milpitas Boulevard	Eastbound	1,123	0.62	B	8	1,131	0.63	B	0.44	N
		Westbound	2,209	1.23	F	6	2,215	1.23	F	0.33	N
McCarthy Boulevard	Dixon Landing Road - Ranch Drive (north)	Northbound	1,044	0.58	A	9	1,053	0.59	A	0.50	N
		Southbound	1,872	1.04	F	6	1,878	1.04	F	0.33	N
	Ranch Drive (north) - Ranch Drive (south)	Northbound	1,331	0.74	C	23	1,354	0.75	C	1.28	N
		Southbound	1,722	0.96	E	33	1,755	0.98	E	1.83	**Y**
	Ranch Drive (south) - SR-237 Westbound Ramps	Northbound	1,848	1.03	F	38	1,886	1.05	F	2.11	**Y**
		Southbound	1,880	1.04	F	55	1,935	1.08	F	3.06	**Y**
	SR-237 Westbound Ramps - Technology Drive	Northbound	1,107	0.62	B	18	1,125	0.63	B	1.00	N
		Southbound	1,943	1.08	F	43	1,986	1.10	F	2.39	**Y**
	Technology Drive - Tasman Drive	Northbound	1,086	0.60	A	9	1,095	0.61	B	0.50	N
		Southbound	1,461	0.81	D	13	1,474	0.82	D	0.72	N
N. Milpitas Boulevard	Scott Creek Road - Dixon Landing Road	Northbound	1,510	0.84	D	8	1,518	0.84	D	0.44	N
		Southbound	1,955	1.09	F	6	1,961	1.09	F	0.33	N
	Dixon Landing Road - Jacklin Road	Northbound	1,996	1.11	F	0	1,996	1.11	F	0.00	N
		Southbound	1,737	0.97	E	0	1,737	0.97	E	0.00	N
	Jacklin Road - E. Calaveras Boulevard	Northbound	876	0.49	A	6	882	0.49	A	0.33	N
		Southbound	1,130	0.63	B	5	1,135	0.63	B	0.28	N

Table 4.10-17 (Cont.): Long-Term Roadway Segment Level of Service Summary (AM Peak Hour)

Roadway	Segment	Direction	Long-Term Conditions			Project Trips	Long-Term plus Proposed Project Conditions			Percent Change	Impact?
			Volume	V/C	LOS		Volume	V/C	LOS		
Ranch Drive	N. McCarthy Boulevard - North Walmart Driveway	Eastbound	167	0.19	A	30	197	0.22	A	3.33	N
		Westbound	61	0.07	A	42	103	0.11	A	4.67	N
	North Walmart Driveway - East Walmart Driveway	Northbound	76	0.08	A	23	99	0.11	A	2.56	N
		Southbound	49	0.05	A	16	65	0.07	A	1.78	N
	East Walmart Driveway - Southeast Walmart Driveway	Northbound	117	0.13	A	10	127	0.14	A	1.11	N
		Southbound	84	0.09	A	12	96	0.11	A	1.33	N
	Southeast Walmart Driveway - Best Buy/Michaels Driveway	Northbound	185	0.21	A	16	201	0.22	A	1.78	N
		Southbound	91	0.10	A	22	113	0.13	A	2.44	N
	Best Buy/Michaels Driveway - N. McCarthy Boulevard	Eastbound	340	0.19	A	15	355	0.20	A	0.83	N
		Westbound	254	0.14	A	22	276	0.15	A	1.22	N
SR-237/Calaveras Boulevard	N. McCarthy Boulevard - I-880	Eastbound	2,171	0.54	A	30	2,201	0.55	A	0.75	N
		Westbound	5,566	1.39	F	21	5,587	1.40	F	0.53	N
	I-880 - S. Abbott Avenue	Eastbound	1,817	0.50	A	30	1,847	0.51	A	0.83	N
		Westbound	3,028	1.12	F	21	3,049	1.13	F	0.78	N
	S. Abbott Avenue - N. Abel Street	Eastbound	1,857	0.69	B	30	1,887	0.70	B	1.11	N
		Westbound	2,909	1.08	F	21	2,930	1.09	F	0.78	N
	N. Abel Street - N. Milpitas Boulevard	Eastbound	1,027	0.38	A	20	1,047	0.39	A	0.74	N
		Westbound	3,150	1.17	F	14	3,164	1.17	F	0.52	N

Source: Kimley-Horn and Associates, 2008.

Table 4.10-18: Long-Term Roadway Segment Level of Service Summary (PM Peak Hour)

Roadway	Segment	Direction	Long-Term Conditions			Project Trips	Long-Term plus Proposed Project Conditions			Percent Change	Impact?
			Volume	V/C	LOS		Volume	V/C	LOS		
Dixon Landing Road	N. McCarthy Boulevard - I-880	Eastbound	1,594	0.59	A	4	1,598	0.59	A	0.15	N
		Westbound	1,105	0.41	A	2	1,107	0.41	A	0.07	N
	I-880 - Milmont Drive	Eastbound	2,253	1.25	F	3	2,256	1.25	F	0.17	N
		Westbound	1,694	0.94	E	2	1,696	0.94	E	0.11	N
	Milmont Drive - N. Milpitas Boulevard	Eastbound	2,190	1.22	F	3	2,193	1.22	F	0.17	N
		Westbound	1,540	0.86	D	2	1,542	0.86	D	0.11	N
McCarthy Boulevard	Dixon Landing Road - Ranch Drive (north)	Northbound	2,040	1.13	F	4	2,044	1.14	F	0.22	N
		Southbound	1,383	0.77	C	2	1,385	0.77	C	0.11	N
	Ranch Drive (north) - Ranch Drive (south)	Northbound	1,771	0.98	E	6	1,777	0.99	E	0.33	N
		Southbound	1,554	0.86	D	13	1,567	0.87	D	0.72	N
	Ranch Drive (south) - SR-237 Westbound Ramps	Northbound	2,180	1.21	F	10	2,190	1.22	F	0.56	N
		Southbound	2,110	1.17	F	22	2,132	1.18	F	1.22	**Y**
	SR-237 Westbound Ramps - Technology Drive	Northbound	2,209	1.23	F	5	2,214	1.23	F	0.28	N
		Southbound	1,903	1.06	F	17	1,920	1.07	F	0.94	N
	Technology Drive - Tasman Drive	Northbound	1,668	0.93	E	2	1,670	0.93	E	0.11	N
		Southbound	1,292	0.72	C	5	1,297	0.72	C	0.28	N
Milpitas Boulevard	Scott Creek Road - Dixon Landing Road	Northbound	2,022	1.12	F	3	2,025	1.13	F	0.17	N
		Southbound	1,726	0.96	E	2	1,728	0.96	E	0.11	N
	Dixon Landing Road - Jacklin Road	Northbound	1,946	1.08	F	0	1,946	1.08	F	0.00	N
		Southbound	2,094	1.16	F	0	2,094	1.16	F	0.00	N
	Jacklin Road - E. Calaveras Boulevard	Northbound	1,324	0.74	C	3	1,327	0.74	C	0.17	N
		Southbound	1,032	0.57	A	1	1,033	0.57	A	0.06	N

Table 4.10-18 (Cont.): Long-Term Roadway Segment Level of Service Summary (PM Peak Hour)

Roadway	Segment	Direction	Long-Term Conditions			Project Trips	Long-Term plus Proposed Project Conditions			Percent Change	Impact?
			Volume	V/C	LOS		Volume	V/C	LOS		
Ranch Drive	N. McCarthy Boulevard - North Walmart Driveway	Eastbound	144	0.16	A	8	152	0.17	A	0.89	N
		Westbound	293	0.33	A	17	310	0.34	A	1.89	N
	North Walmart Driveway - East Walmart Driveway	Northbound	139	0.15	A	9	148	0.16	A	1.00	N
		Southbound	103	0.11	A	4	107	0.12	A	0.44	N
	East Walmart Driveway - Southeast Walmart Driveway	Northbound	244	0.27	A	3	247	0.27	A	0.33	N
		Southbound	209	0.23	A	4	213	0.24	A	0.44	N
	Southeast Walmart Driveway - Best Buy/Michaels Driveway	Northbound	457	0.51	A	4	461	0.51	A	0.44	N
		Southbound	398	0.44	A	9	407	0.45	A	1.00	N
	Best Buy/Michaels Driveway - N. McCarthy Boulevard	Eastbound	861	0.48	A	4	865	0.48	A	0.22	N
		Westbound	788	0.44	A	9	797	0.44	A	0.50	N
SR-237/Calaveras Boulevard	N. McCarthy Boulevard - I-880	Eastbound	4,855	1.21	F	12	4,867	1.22	F	0.30	N
		Westbound	3,311	0.83	D	6	3,317	0.83	D	0.15	N
	I-880 - S. Abbott Avenue	Eastbound	4,074	1.13	F	12	4,086	1.14	F	0.33	N
		Westbound	2,472	0.92	E	6	2,478	0.92	E	0.22	N
	S. Abbott Avenue - N. Abel Street	Eastbound	3,842	1.42	F	12	3,854	1.43	F	0.44	N
		Westbound	2,458	0.91	E	6	2,464	0.91	E	0.22	N
	N. Abel Street - N. Milpitas Boulevard	Eastbound	3,407	1.26	F	9	3,416	1.27	F	0.33	N
		Westbound	1,778	0.66	B	4	1,782	0.66	B	0.15	N

Source: Kimley-Horn and Associates, 2008.

Table 4.10-19: Long-Term Roadway Segment Level of Service Summary (Midday Peak Hour)

From	To	Direction	Long-Term Conditions			Project Trips	Long-Term plus Proposed Project Conditions			Percent Change	Impact?
			Volume	V/C	LOS		Volume	V/C	LOS		
Ranch Drive	N. McCarthy Boulevard - North Walmart Driveway	Eastbound	329	0.37	A	43	372	0.41	A	4.78	N
		Westbound	366	0.41	A	37	403	0.45	A	4.11	N
	North Walmart Driveway - East Walmart Driveway	Northbound	349	0.39	A	20	369	0.41	A	2.22	N
		Southbound	205	0.23	A	23	228	0.25	A	2.56	N
	East Walmart Driveway - Southeast Walmart Driveway	Northbound	481	0.53	A	13	494	0.55	A	1.44	N
		Southbound	326	0.36	A	12	338	0.38	A	1.33	N
	Southeast Walmart Driveway - Best Buy/Michaels Driveway	Northbound	717	0.80	C	22	739	0.82	D	2.44	N
		Southbound	590	0.66	B	20	610	0.68	B	2.22	N
	Best Buy/Michaels Driveway – N. McCarthy Boulevard	Eastbound	1,581	0.88	D	22	1,603	0.89	D	1.22	N
		Westbound	1,222	0.68	B	20	1,242	0.69	B	1.11	N

Source: Kimley-Horn and Associates, 2008.

Summary of Impacts

As shown in Table 4.10-17 through Table 4.10-19, under long-term conditions, the addition of the proposed project does not cause a study roadway segment that is performing at acceptable levels without the proposed project to drop below acceptable levels. However, 13 of the 20 study roadway segments do not function within acceptable standards under long-term conditions. For four of these 13 roadway segments, which are listed below, the addition of the proposed project's trips causes an increase in traffic greater than 1 percent of the roadway's capacity. This results in a significant impact.

- McCarthy Boulevard Southbound – between Ranch Drive (North) and Ranch Drive (South) (AM peak)
- McCarthy Boulevard Northbound – between Ranch Drive (South) and SR-237 Westbound Ramps (AM peak)
- McCarthy Boulevard Southbound – between Ranch Drive (South) and SR-237 Westbound Ramps (AM peak, PM peak)
- McCarthy Boulevard Southbound – between SR-237 Westbound Ramps and Technology Drive (AM peak)

Potential Mitigation

Potential mitigation measures have been identified to mitigate project impacts under long-term plus project conditions on affected roadway segments. Each is discussed below.

N. McCarthy Boulevard Southbound – Between Ranch Drive (North) and Ranch Drive (South)

The McCarthy Boulevard segment between Ranch Drive (North) and Ranch Drive (South) in the southbound direction would operate at LOS E during the AM peak hour under the Long Term traffic conditions and would experience an increase in traffic greater than 1 percent of the roadway's capacity due to the Walmart expansion. This would result in a significant impact.

The significant impact at this roadway segment could be mitigated with increased capacity such as an additional southbound lane. However, there is insufficient right-of-way to accommodate an additional lane and the City of Milpitas has deemed this improvement infeasible. In lieu of widening McCarthy Boulevard, City staff has proposed that the applicant pay a traffic management fee in the amount of $180,000 that would be used for intersection and traffic operations improvements on roadways in Milpitas. Several of the improvements would occur on McCarthy Boulevard, including at the intersections with Tasman Drive, Alder Drive, Technology Drive, SR-237 Eastbound Ramps, SR-237 Westbound Ramps, Ranch Drive (South), Ranch Drive (North), and Dixon Landing Road.

N. McCarthy Boulevard Northbound – between Ranch Drive (South) and SR-237 Westbound Ramps
The McCarthy Boulevard segment between Ranch Drive (South) and SR-237 Westbound Ramps in the northbound direction would operate at LOS F during the AM peak hour under the Long Term traffic conditions and would experience an increase in traffic greater than 1 percent of the roadway's capacity due to the Walmart expansion. This would result in a significant impact.

The significant impact at this roadway segment could be mitigated with increased capacity such as an additional northbound lane. However, there is insufficient right-of-way to accommodate an additional lane and the City of Milpitas has deemed this improvement infeasible. In lieu of widening McCarthy Boulevard, City staff has proposed that the applicant pay a traffic management fee in the amount of $180,000 that would be used for intersection and traffic operations improvements on roadways in Milpitas. Several of the improvements would occur on McCarthy Boulevard, including at the intersections with Tasman Drive, Alder Drive, Technology Drive, SR-237 Eastbound Ramps, SR-237 Westbound Ramps, Ranch Drive (South), Ranch Drive (North), and Dixon Landing Road.

N. McCarthy Boulevard Southbound – between Ranch Drive (South) and SR-237 Westbound Ramps
The McCarthy Boulevard segment between Ranch Drive (South) and SR-237 Westbound Ramps in the southbound direction would operate at LOS F during the AM and PM peak hours under the Long Term traffic conditions and would experience an increase in traffic greater than 1 percent of the roadway's capacity due to the Walmart expansion. This would result in a significant impact.

The significant impact at this roadway segment could be mitigated with increased capacity such as an additional lane in the southbound direction. However, there is insufficient right-of-way to accommodate an additional lane and the City of Milpitas has deemed this improvement infeasible. In lieu of widening McCarthy Boulevard, City staff has proposed that the applicant pay a traffic management fee in the amount of $180,000 that would be used for intersection and traffic operations improvements on roadways in Milpitas. Several of the improvements would occur on McCarthy Boulevard, including at the intersections with Tasman Drive, Alder Drive, Technology Drive, SR-237 Eastbound Ramps, SR-237 Westbound Ramps, Ranch Drive (South), Ranch Drive (North), and Dixon Landing Road.

McCarthy Boulevard Southbound – between SR-237 Westbound Ramps and Technology Drive
The McCarthy Boulevard segment between SR-237 Westbound Ramps and Technology Drive in the southbound direction would operate at LOS F during the AM peak hour under the Long Term traffic conditions and would experience an increase in traffic greater than 1 percent of the roadway's capacity due to the Walmart expansion. This results in a significant impact.

The significant impact at this roadway segment could be mitigated with increased capacity such as an additional lane in the southbound direction. However, there is insufficient right-of-way to accommodate an additional lane and the City of Milpitas has deemed this improvement infeasible. In lieu of widening McCarthy Boulevard, City staff has proposed that the applicant pay a traffic

management fee in the amount of $180,000 that would be used for intersection and traffic operations improvements on roadways in Milpitas. Several of the improvements would occur on McCarthy Boulevard, including at the intersections with Tasman Drive, Alder Drive, Technology Drive, SR-237 Eastbound Ramps, SR-237 Westbound Ramps, Ranch Drive (South), Ranch Drive (North), and Dixon Landing Road.

Conclusion

The proposed project would contribute significantly to unacceptable roadway operations on four roadway segments. The proposed project can mitigate its impacts through payment of a traffic management fee in the amount of $180,000 that would fund intersection and traffic operations improvements on Milpitas roadways, including McCarthy Boulevard. However, these improvements may not be able to fully mitigate the impacts to the same degree as widening the roadway, which has been deemed infeasible by the City. As such, the residual significance of this impact is significant and unavoidable.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-3 Prior to issuance of building permits, the project applicant shall provide a traffic management fee in the amount of $180,000 to the City of Milpitas. The fees shall be used for circulation and traffic operation improvements within the City of Milpitas, including signal coordination and intersection improvements. Specific improvements that shall be fully funded by funds collected shall include:

- McCarthy Boulevard/Technology Drive: The eastbound approach shall be re-striped to provide two left-turn lanes and one shared through/right lane.
- McCarthy Boulevard/SR-237 Westbound Ramps: An additional westbound right-turn lane shall be constructed to provide two left-turn lanes, two through lanes, and two right-turn lanes for the westbound approach.
- Ranch Drive: The roadway shall be restriped to extend the existing two-way left-turn lane from the northern Walmart driveway to the end of the existing westbound left-turn lane at the McCarthy Boulevard/Ranch Drive (North) intersection.

Level of Significance After Mitigation

Significant unavoidable impact.

Queuing

Impact TRANS-4: The proposed project would contribute to deficient queuing.

Impact Analysis

As congestion increases, it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. Queue lengths were determined for each lane and measurements taken of the distance that vehicles would back up in each direction approaching an intersection. The 95th percentile queue is calculated by using 95th percentile traffic to account for fluctuations in traffic and represents a condition where 95 percent of the time during the peak period, traffic volumes and related queuing would be at or less than determined by the analysis. Average queuing is generally less. Ninety-fifth percentile queuing was checked under the various development conditions and in consideration of the planned intersection and signal timing improvements. A typical vehicle length of 25 feet was used in the queuing analysis. A summary of the queuing results is included in Appendix H. The results indicate dedicated turn lanes where queuing may exceed their storage limits.

As seen in the Table 4.10-20 and Table 4.10-21, queuing exceeds the turn bay length at several intersections under near term plus proposed project conditions during weekday AM, midday, and PM peak hours. However, in most cases the inadequate turn bays are not associated with the Walmart expansion but are a result of pre-existing deficiencies.

Significant queuing impacts would occur as a result of one of two scenarios: (1) the proposed project would cause an acceptable near-term 95th percentile queue to exceed available storage, or (2) the near-term without project 95th percentile queue already exceeds available storage and the proposed project would increase the exceeded queue by 25 feet.

Table 4.10-20: Queuing Analysis - AM and PM Peak Hours

Roadway	Intersection	Movement	Available Storage (feet)	95th Percentile Queue (feet)			
				AM Peak Hour		PM Peak Hour	
				Near-Term Without Project	Near-Term With Project	Near-Term Without Project	Near-Term With Project
Dixon Landing Road	I-880 Southbound Ramps	Southbound Left	290	68	68	220	220
	I-880 Northbound Ramps	Westbound Left	390	198	198	28	28
		Northbound Left	300	243	243	204	204
		Southbound Left	150	38	38	<25	<25
	Milmont Drive	Eastbound Left	600	198	198	311	311
		Westbound Left	160	101	101	**189**	**189**
		Northbound Left	200	198	198	71	71

Table 4.10-20 (Cont.): Queuing Analysis - AM and PM Peak Hours

Roadway	Intersection	Movement	Available Storage (feet)	95th Percentile Queue (feet)			
				AM Peak Hour		PM Peak Hour	
				Near-Term Without Project	Near-Term With Project	Near-Term Without Project	Near-Term With Project
Dixon Landing Road *cont.*	Milmont Drive *cont.*	Southbound Left	360	115	115	58	58
	N. Milpitas Boulevard	Eastbound Left	345	343	351	**847**	**851**
		Westbound Left	130	78	78	84	84
		Northbound Left	300	294	294	**374**	**374**
		Southbound Left	195	136	136	136	136
SR-237/ Calaveras Boulevard	I-880 Southbound Ramps	Southbound Left	330	169	174	**397**	**405**
	I-880 Northbound Ramps	Northbound Left	320	**1,012**	**1,014**	186	186
	S. Abbott Avenue	Eastbound Left	320	117	117	**766**	**771**
		Westbound Left	215	42	42	131	132
		Northbound Left	170	70	70	**196**	**198**
	Serra Way	Eastbound Left	135	36	38	**422**	**422**
		Westbound Left	135	<25	25	**295**	**295**
	N. Abel Street	Eastbound Left	300	103	106	312	313
		Westbound Left	240	143	143	213	213
		Northbound Left	190	<25	<25	44	45
		Southbound Left	235	66	66	123	123
	N. Milpitas Boulevard	Eastbound Left	910	494	506	491	498
		Westbound Left	230	**601**	**602**	180	181
		Northbound Left	190	**777**	**784**	**442**	**446**

Table 4.10-20 (Cont.): Queuing Analysis - AM and PM Peak Hours

Roadway	Intersection	Movement	Available Storage (feet)	95th Percentile Queue (feet)			
				AM Peak Hour		PM Peak Hour	
				Near-Term Without Project	Near-Term With Project	Near-Term Without Project	Near-Term With Project
		Southbound Left	220	**246**	**246**	**252**	**254**
McCarthy Boulevard	Technology Drive	Eastbound Left	250	**613**	**<u>641</u>**	240	240
		Westbound Left	215	**372**	**389**	146	146
		Northbound Left	200	92	96	<25	<25
		Southbound Left	470	**699**	**<u>730</u>**	**381**	**381**
	Sandisk Drive	Eastbound Left	100	109	111	**138**	**139**
		Northbound Left	100	35	<25	<25	<25
		Southbound Left	125	<25	35	<25	<25
	Alder Drive	Westbound Left	285	175	178	65	65
		Southbound Left	255	210	213	**640**	**640**
	Tasman Drive	Eastbound Left	495	**906**	**919**	361	267
		Westbound Left	760	246	246	39	39
		Northbound Left	330	208	208	47	47
		Southbound Left	320	138	145	77	79

Notes:
Bold denotes near-term 95th percentile queue exceeding available storage capacity.
<u>Bold underline</u> denotes instances of significant impacts that would result from near-term with project 95th percentile queue lengths (i.e., the project causes an acceptable 95th percentile queue to become unacceptable or increases an unacceptable 95th percentile queue by 25 feet or more).
Source: Kimley-Horn and Associates, 2008.

Table 4.10-21: Queuing Analysis - AM, Midday, and PM Peak Hours

Roadway	Intersection	Movement	Available Storage (feet)	95th Percentile Queue (feet)					
				AM Peak Hour		Midday Peak Hour		PM Peak Hour	
				Near-Term Without Project	Near-Term With Project	Near-Term Without Project	Near-Term With Project	Near-Term Without Project	Near-Term With Project
N. McCarthy Boulevard	Ranch Drive (north)	Westbound Left	140	60	91	159	**176**	**316**	**363**
		Northbound Left	160	128	129	<25	<25	27	30
		Southbound Left	240	56	61	134	139	158	176
	Ranch Drive (south)	Eastbound Left	50	<25	<25	<25	<25	**88**	**88**
		Westbound Left	225	128	147	**509**	**512**	**287**	**291**
		Northbound Left	270	125	132	<25	<25	99	99
		Northbound Right	270	71	77	**517**	**513**	251	252
		Southbound Left	200	<25	<25	65	65	35	35
	SR-237 Westbound Ramps	Westbound Left	930	309	337	330	429	941	940
		Westbound Right	395	368	420	**665**	**930**	**1,284**	**1,299**
		Northbound Left	200	136	153	**390**	**525**	**1,098**	**1,101**
	SR-237 Eastbound Ramps	Eastbound Left	330	121	125	210	203	180	181

Table 4.10-21 (Cont.): Queuing Analysis - AM, Midday, and PM Peak Hours

Roadway	Intersection	Movement	Available Storage (feet)	95th Percentile Queue (feet)					
				AM Peak Hour		Midday Peak Hour		PM Peak Hour	
				Near-Term Without Project	Near-Term With Project	Near-Term Without Project	Near-Term With Project	Near-Term Without Project	Near-Term With Project
N. McCarthy Boulevard *cont.*	SR-237 Eastbound Ramps *cont.*	Southbound Left	180	52	70	176	187	**214**	**218**
Ranch Drive	North Walmart Driveway	Westbound Left	570	<25	<25	<25	<25	<25	<25
		Northbound Left	25	<25	<25	**53**	**83**	<25	26
	East Walmart Driveway	Northbound Left	25	<25	<25	44	**74**	<25	<25
		Northbound Left	415	<25	<25	<25	<25	<25	<25
	Southeast Walmart Driveway	Eastbound Left	30	<25	<25	**171**	**210**	26	28
		Northbound Left	525	<25	<25	<25	<25	<25	<25
	Best Buy/Michaels Driveway	Northbound Left	190	<25	<25	**300**	**305**	68	68
		Southbound Left	135	<25	<25	<25	<25	<25	<25
South Walmart Access	McCarthy Ranch Market Place	Eastbound Left	25	<25	<25	<25	<25	<25	<25
		Westbound Left	25	<25	<25	<25	<25	<25	<25
		Northbound Left	25	<25	<25	<25	<25	<25	<25

Table 4.10-21 (Cont.): Queuing Analysis - AM, Midday, and PM Peak Hours

Roadway	Intersection	Movement	Available Storage (feet)	95th Percentile Queue (feet)					
				AM Peak Hour		Midday Peak Hour		PM Peak Hour	
				Near-Term Without Project	Near-Term With Project	Near-Term Without Project	Near-Term With Project	Near-Term Without Project	Near-Term With Project
		Southbound Left	25	<25	<25	<25	<25	<25	<25

Notes:
Bold denotes near-term 95th percentile queue exceeding available storage capacity.
Bold underline denotes instances of significant impacts that would result from near-term plus project 95th percentile queue lengths (i.e., the project causes an acceptable 95th percentile queue to become unacceptable or increases an unacceptable 95th percentile queue by 25 feet or more).
Source: Kimley-Horn and Associates, 2008.

As indicated in Table 4.10-20 and Table 4.10-21, the proposed project would have significant impacts on queuing at the following turning movements:

- McCarthy Boulevard/Technology Drive – Eastbound Left and Southbound Left
- N. McCarthy Boulevard/SR-237 Westbound Ramps – Westbound Right and Northbound Left
- N. McCarthy Boulevard/Ranch Drive (North) – Westbound Left

Potential Mitigation

Potential mitigation measures have been identified for the five queuing movements listed above. Mitigation is discussed by intersection below.

McCarthy Boulevard/Technology Drive

The eastbound left-turn and southbound left-turn movements at the McCarthy Boulevard/Technology Drive intersection would experience queuing in excess of the available storage during the weekday AM peak hour, and would experience an increase in queuing greater than 25 feet from the proposed project.

The significant impact could be mitigated by re-striping the eastbound approach to provide two left-turn lanes and one shared through/right-turn lane. The re-striping of this approach would provide sufficient storage capacity for the eastbound left-turn movement, thus reducing the impact to less than significant.

Furthermore, the re-striping of the eastbound approach would allow the green time allocation to be refined. The eastbound left-turn movement would not require as much green time with the above-mentioned lane modifications, which would result in more green time for other critical movements. The southbound left-turn movement would then have adequate storage capacity to accommodate expected queues. This results in the impact for the southbound left-turn movement to also be less than significant.

This improvement would be fully funded by the fees required by Mitigation Measure TRANS-3. Because the improvement would be fully funded by the project applicant, there is certainty that the improvement would be implemented.

N. McCarthy Boulevard/SR-237 Westbound Ramps

The westbound right-turn and northbound left-turn movements at the N. McCarthy Boulevard/SR-237 Westbound Ramps intersection would experience queuing in excess of the available storage during the midday peak hour, and would experience an increase in queuing greater than 25 feet due to the Walmart expansion.

The significant impact can be mitigated by adding an additional westbound right-turn lane. The westbound approach would then provide two left-turn lanes, two through lanes, and two right-turn lanes. Roadway widening to accommodate the additional right-turn lane would likely require the

relocation of traffic signal equipment at the northeastern corner of the N. McCarthy Boulevard/SR-237 Westbound Ramps intersection. It appears that widening at this approach can be performed within the Caltrans right-of-way. The improvements at this approach would provide sufficient storage capacity for the westbound right-turn movement, thus reducing the impact to less than significant.

Furthermore, the additional capacity for the westbound right-turn movement would allow the green time allocation to be refined. The heavy right-turn movement would not require as much green time with the abovementioned lane modifications, thus resulting in more green time for other critical movements. The northbound left-turn movement would then have adequate storage capacity to accommodate expected queues with the refinement of the signal timing. This results in the impact to the northbound left-turn movement also to be less than significant.

This improvement would be fully funded by the fees required by Mitigation Measure TRANS-3. Because the improvement would be fully funded by the project applicant, there is certainty that the improvement would be implemented.

McCarthy Boulevard/Ranch Drive (North)

The westbound left-turn movement at the McCarthy Boulevard at Ranch Drive (North) intersection would experience queuing in excess of the available storage during the weekday PM peak hour, and would experience an increase in queuing greater than 25 feet due to the Walmart expansion. Furthermore, the Walmart expansion is expected to cause this deficient movement, which has sufficient storage capacity without the project, to experience queuing in excess of the available storage during the midday peak hour.

The significant impact can be mitigated by restriping the roadway to extend the two-way left-turn lane along Ranch Drive, which currently terminates at the northern site driveway, further west to the end of the existing westbound left-turn lane at the McCarthy Boulevard/Ranch Drive (North) intersection. The extension of this two-way left-turn lane would provide approximately 420 feet of storage capacity for the westbound left-turn movement, thus reducing the impact to be less than significant

This improvement would be fully funded by the fees required by Mitigation Measure TRANS-3. Because the improvement would be fully funded by the project applicant, there is certainty that the improvement would be implemented.

Post-Mitigated Queuing

Table 4.10-22 summarizes the mitigated queuing values following the implementation of the aforementioned mitigation measures. As shown in the table, impacts at all five turning movements can be fully mitigated.

Table 4.10-22: Mitigated Queuing

Roadway	Intersection	Movement	Peak Hour	Near-Term Without Project		Near-Term With Project		Mitigated Near-Term With Project	
				Available Storage	95th Percentile Queue	Available Storage	95th Percentile Queue	Available Storage	95th Percentile Queue
McCarthy Boulevard	Technology Drive	Eastbound Left	AM	250	**613**	250	**641**	250	248
		Southbound Left	AM	470	**699**	470	**730**	470	494
	SR-237 Westbound Ramps	Westbound Right	Mid	395	**665**	395	**930**	395	243
		Northbound Left	Mid	200	**390**	200	**525**	200	207
	Ranch Drive (North)	Westbound Left	Mid	140	159	140	**176**	420	176

Source: Kimley-Horn and Associates, 2008.

Conclusion

The proposed project would have significant impacts at five queuing movements. Improvements have been identified that would fully mitigate the proposed project's impact to a level of less than significant and the applicant would provide the full cost of the improvements. Because the improvement would be fully funded, there is certainty that the improvement would be implemented as contemplated and, therefore, the residual significance would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure TRANS-3.

Level of Significance After Mitigation

Less than significant impact.

Parking

Impact TRANS-5: The proposed project may not provide adequate off-street parking.

Impact Analysis

The existing store has 835 parking spaces. The store expansion would reduce the number of parking spaces to 779, with 751 available for vehicles and the balance occupied by cart corrals. The City of Milpitas Municipal Code requires that off-street parking for retail land uses be provided at a ratio of 5.0 spaces per 1,000 gross square feet.

Table 4.10-23 compares the parking requirements and proposed spaces using both the actual expanded store square footage (150,182) and the expanded store square footage used in this EIR (150,725). As shown in the table, the store as proposed to be constructed would comply with the Municipal Code requirements, while the store square footage used in this EIR would not. As such, mitigation is proposed that requires off-street parking be provided at no less than 5.0 spaces per 1,000 square feet to satisfy Municipal Code requirements. With the implementation of this mitigation measure, impacts would be reduced to a level of less than significant.

Note that even if the store was constructed at 150,725 square feet, 754 spaces would need to be provided, which is only three spaces more than the proposed total of 751 spaces. Adding three spaces to the site could be readily accommodated through minor reconfiguration of parking areas (i.e. re-striping). Therefore, the implementation of Mitigation Measure TRANS-5 would not require substantial revisions to the proposed site plan.

Table 4.10-23: Parking Analysis

Scenario	Square Feet	Municipal Code Parking Standard	Parking Spaces Required
Actual Proposed Store Square Footage	150,182	5.0 spaces/1,000 square feet	751
Store Square Footage Used in EIR	150,725		754
Source: Michael Brandman Associates, 2009.			

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-5 Prior to issuance of building permits, the project applicant shall prepare and submit a site plan to the City of Milpitas that demonstrates that off-street parking is provided onsite at no less than 5.0 spaces per 1,000 gross square feet of building coverage. The approved site plan shall be incorporated into the proposed project.

Level of Significance After Mitigation

Less than significant impact.

Roadway Safety

Impact TRANS-6: The proposed project's design features would not create any roadway hazards.

Impact Analysis

The proposed project would maintain the three existing access points to Ranch Drive. All three access points have clear lines of sight and are considered safe. Each access point is stop controlled and provides single-lane ingress and egress.

The project site provides ample circulation aisles and layout that is generally consistent with driver expectations. The aisles are oriented toward the Walmart entrance, which allows shoppers to push shopping carts from the store to their vehicles without having to pass between parked vehicles. In addition, as shown in Exhibit 3-4, proposed and existing onsite pedestrian walkways would provide connectivity to Ranch Drive and to the adjacent retail centers south of the Walmart store. The main Drive aisle in front of the entrance to the Walmart store provides two marked crossing areas for patrons. These crossings are located at an appropriate distance from the site driveways, thus reducing the likelihood of queues caused by vehicles yielding to pedestrians to back up onto any offsite roadway facility.

The Walmart expansion would result in an increase in large delivery trucks (e.g., 18-wheelers) of approximately three trucks per day. All heavy vehicles serving the Walmart site, including large delivery trucks and smaller vendor trucks, would continue to use the existing loading dock at the

northwestern corner of the building, as well as the new loading dock that would serve the expansion area. Similar to existing operations, trucks would enter via the northern Walmart Driveway along Ranch Drive and immediately turn right and travel westbound towards the loading dock. To exit the site, the trucks retrace their path to the northern Walmart Driveway. The parking and circulation layout provides convenient access to the loading docks and allows the trucks to avoid traversing the parking lot where there is potential for conflicts with most Walmart patrons.

In summary, current site access and internal site circulation are appropriate for their intended uses and would not be altered or impacted by expansion of the existing store. The addition of two marked crossing areas and two internal pedestrian walkways would increase existing safety. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Emergency Access

Impact TRANS-7:	**The proposed project would not result in inadequate emergency access to the project site or its surroundings.**

Impact Analysis

The proposed project would maintain the three existing Ranch Drive access points and two internal access points to the McCarthy Ranch Marketplace. All access points are capable of accommodating large emergency vehicles such as fire engines and ladder trucks. The access points do not contain any potential obstructions to emergency vehicle ingress, such as roundabouts. No changes resulting from project implementation would obstruct emergency vehicle access. Therefore, the proposed project would not result in inadequate emergency access to the proposed project site or surroundings. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Public Transit, Bicycles, and Pedestrians

Impact TRANS-8: The proposed project may not provide adequate public transit, bicycle, and pedestrian access.

Impact Analysis

This impact addresses public transit, bicycle, and pedestrian accessibility to the proposed project. Each issue is discussed separately.

Public Transit

VTA Routes 33 and 825 provide bus service to the existing Walmart store. The closest bus stop to the store is located along Ranch Drive (north) near N. McCarthy Boulevard. A direct pedestrian connection links the Walmart entrance with the Ranch Drive sidewalk, allowing for safe and convenient access between the store and the bus stop.

The 2000 U.S. Census indicated that 2.3 percent of Milpitas residents use transit to travel to work. If it is conservatively assumed that 2.3 percent of the additional customers associated with the Walmart expansion would use transit during the peak hours of the day, it represents approximately 3 additional passengers in the weekday AM and midday peak periods, and approximately 1 additional passenger in the weekday PM peak period. Data was not readily available for peak-hour ridership levels on the VTA system, but during the weekday periods, the routes operate every 30 to 75 minutes. Dispersion of the project-generated riders to the bus routes would result in a minimal effect on transit capacity.

Based on these characteristics, the proposed project would not impair access to VTA bus operations in the project vicinity. Impacts would be less than significant.

Bicycles

Cyclists are currently able to use the Class II and Class III bicycle facilities on Ranch Drive and N. McCarthy Boulevard as well as several other streets in the vicinity of the project site that serve the overall street network in Milpitas. A Class I bicycle path is also available for use along Coyote Creek for cyclists destined for areas beyond the immediate project vicinity. Furthermore, the existing Class III bike route along N. McCarthy Boulevard, south of Ranch Drive (south) is proposed to be upgraded to a Class II bike lane.

It is anticipated that the number of customers and employees who use bicycles to travel to the expanded store would increase. To facilitate bicycle access, mitigation is proposed that would require bicycle storage to be provided in front of the store. The provision of this bicycle storage facilities would ensure that adequate storage is available. Therefore, impacts would be less than significant.

Pedestrians

There is an existing, designated pedestrian connection between the Walmart entrance and the balance of the McCarthy Ranch Marketplace to the south and Ranch Drive to the north. These pedestrian facilities would be maintained by the proposed project. In addition, the existing sidewalks on N.

McCarthy Boulevard and Ranch Drive would not be altered by the proposed project. Accordingly, the proposed project would provide safe and convenient accessibility for pedestrians. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-8 Prior to issuance of the final certificate of occupancy, the project applicant shall install bicycle storage facilities. Bicycle storage facilities shall consist of at least one rack located in a visible and convenient location (e.g., near the store entrance) and that provides storage equivalent to 2 percent of the proposed project's minimum parking requirement.

Level of Significance After Mitigation

Less than significant impact.

Construction Traffic and Parking

Impact TRANS-9: Construction activities associated with the proposed project may adversely affect traffic and circulation in the project vicinity.

Impact Analysis

Project construction is anticipated to take 9 to 12 months to complete and would require regular deliveries of equipment and materials to the project site, as well as daily trips by construction workers. These activities have the potential to create congestion and parking problems on nearby roadways, as well as within the McCarthy Ranch Marketplace.

Much of the construction traffic, especially trucks and equipment delivery vehicles, would be expected to travel via I-880, Dixon Landing Road, N. McCarthy Boulevard, and Ranch Drive or SR-237, N. McCarthy Boulevard, and Ranch Drive. This routing would avoid residential areas and would minimize potential congestion on the local street system.

Project construction activities are not expected to result in any temporary lane closures along N. McCarthy Boulevard or Ranch Drive. However, store expansion construction activities may cause congestion and impair circulation within the Walmart parking lot. Furthermore, the delivery of construction equipment and materials during the afternoon period may cause increased site congestion during peak shopping hours. Accordingly, mitigation is proposed requiring the project applicant to implement a Construction Traffic Control Plan during construction activities to minimize impacts on surrounding roadways and nearby parking areas. The implementation of this mitigation measure would reduce potential impacts to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-9 Prior to commencement of construction activities, the project applicant shall submit a Construction Traffic Control Plan to the City of Milpitas for review and approval. The plan shall identify the timing and routing of all major construction equipment and materials deliveries to avoid potential traffic congestion and delays on the local street network and the McCarthy Ranch Marketplace, and to encourage the use of I-880 and SR-237. If necessary, construction equipment and materials deliveries shall be limited to off-peak hours (e.g., mornings or evenings) to avoid conflicts with local traffic circulation. The plan shall also identify suitable locations for construction worker parking.

Level of Significance After Mitigation

Less than significant impact.

4.11 - Urban Decay

4.11.1 - Introduction

This section describes the existing setting regarding urban decay and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Urban Decay Analysis prepared in April 2009 by CBRE Consulting, included in this EIR as Appendix I.

Overview of Urban Decay

For the purpose of this analysis, urban decay is defined as physical deterioration that is so prevalent and substantial it impairs the proper utilization of affected real estate or the health, safety, and welfare of the surrounding community. Physical deterioration includes, but is not limited to, abnormally high business vacancies, abandoned buildings and commercial sites, boarded doors and windows, parked trucks and long-term unauthorized use of properties and parking lots, extensive gang or offensive graffiti painted on buildings, dumping of refuse or overturned dumpsters on properties, dead trees or shrubbery, and uncontrolled weed growth or homeless encampments.

CEQA Guidelines Section 15131(b) establishes that a project's economic impacts on a community are considered significant only if they can be tied to direct physical impacts. In *Bakersfield Citizens for Local Control v. City of Bakersfield* (5th Dist. 2005) 124 Cal. App.4th 1184, the appellate court generally described urban decay as "land use decisions that cause a chain reaction of store closures and long-term vacancies, ultimately destroying existing neighborhoods and leaving decaying shells in their wake."

CBRE Consulting was retained to prepare an economic analysis of the existing conditions of the Market Area and evaluate the expected effects of the development of the proposed project. The findings of the Urban Decay Analysis are contained herein. Note that this section evaluates primarily considers impacts on competing food retailers (i.e., grocery stores) because the store expansion would allow for the addition of food sales. Impacts on competing general merchandise retailers are not assessed in detail because the proposed project would result in a net reduction in general merchandise retail space relative to existing conditions.

Retail Market Characterization

The City of Milpitas is a major retail attraction market, drawing consumers from northern Santa Clara County and southern Alameda County. Situated in the well-populated Silicon Valley, the City of Milpitas contains three major freeways: State Route 237 (SR-237), Interstate 680 (I-680), and Interstate 880 (I-880). The Milpitas Walmart's ability to capture the demand of local city residents, residents of the northern Santa Clara County and southern Alameda county, and workers in the Silicon Valley passing through the area renders the retail market large and healthy.

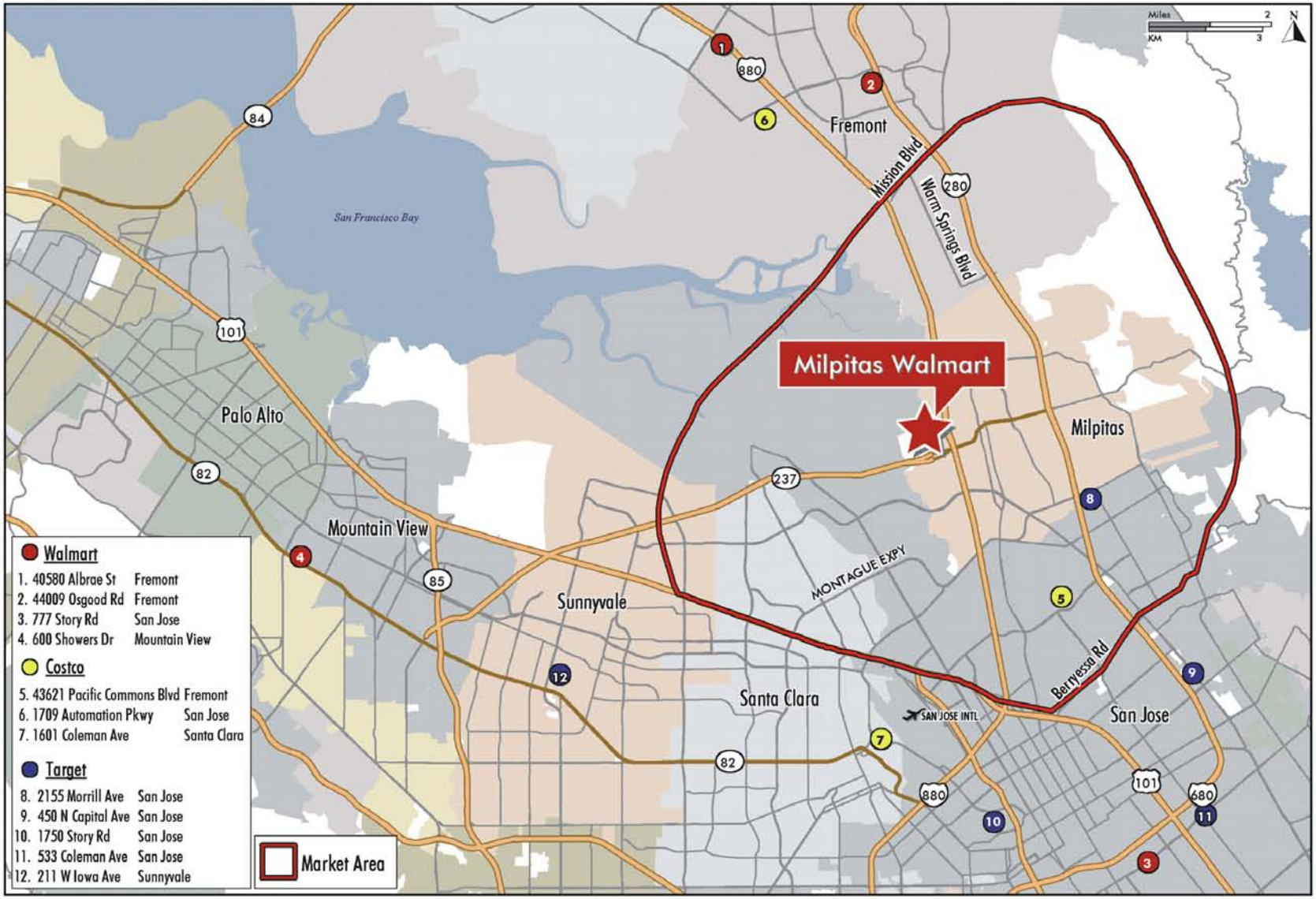
Market Area Definition

CBRE Consulting conducted research to develop an estimate of the market area for the expanded Walmart store, i.e., the area from which the majority of shoppers will originate. This was primarily accomplished by mapping the location of the nearest competitive retailers. Major competitors were defined as stores with similar formats to large Walmart stores that retail groceries such as SuperTarget and conventional Walmart and Target stores. The locations of Costco were also considered. A discussion with an economic development official at the City of Milpitas also informed the definition of the market area.

The map results are presented in Exhibit 4.11-1. The map indicates that there are no major competitors in the City of Milpitas. The closest competitors are a Target store and Costco store in northern San Jose. There are no nearby large Walmart stores that retail groceries, but there are four conventional Walmart discount stores: one in northern San Jose, two in Fremont, and one in Mountain View. Two other Costco stores are located nearby in southern Fremont and Santa Clara. There are also three additional Target stores in northern San Jose and a fourth in Sunnyvale. None of the Target stores is a SuperTarget, so their grocery offerings are smaller than what will be offered at the expanded Milpitas Walmart store.

Most consumers will travel to the shopping destination closest to their homes; therefore, the market area was defined to be sensitive to this pattern. Exhibit 4.11-1 shows that the market area includes all of the City of Milpitas and parts of Fremont, San Jose, Santa Clara, and Sunnyvale. The northern boundary of the market area goes into south Fremont along Mission Boulevard. The southern boundary of the market area goes along U.S. 101 and Berryessa Road. The western boundary extends to the northeastern corner of Sunnyvale and the eastern boundary extends to the east of the City of Milpitas where population becomes scarce in the Diablo Range foothills.

The most competitive stores in the region are the three Walmart discount stores; therefore, the market area does not contain any of these other Walmart stores. Since the Milpitas Walmart will have a large grocery component, it is likely to draw some current customers of these Walmart discount stores, especially those customers living closest to Milpitas. The market area reflects this reality. Although the boundary of the market area cuts in half the distance between the Milpitas and Mountain View Walmart stores, the market area extends beyond the halfway mark between the Milpitas and Fremont Walmart stores and between the Milpitas and San Jose Walmart stores. This is because the Fremont and San Jose Walmart stores are in closer proximity to the Milpitas Walmart than the Mountain View store. In general, if the Walmart stores offered the same products it would be expected that customers would drive to the store closest to where they live. However, the Milpitas Walmart is the only Walmart store in this area that will be offering a full grocery selection. Therefore, it is expected that some customers will drive to the Milpitas store even if the Fremont or San Jose store is closer. Given the longer distance to the Mountain View Walmart, it is expected that very few customers living closer to the Mountain View store will drive to Milpitas to do their grocery shopping.



Source: CBRE Consulting, Inc., September 2009.

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Michael Brandman Associates

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Exhibit 4.11-1
Milpitas Walmart Market Area and Competitive General Merchandise Retailers

CITY OF MILPITAS • MILPITAS WALMART EXPANSION PROJECT
ENVIRONMENTAL IMPACT REPORT

CBRE Consulting estimates that market area residents will generate 90 percent of the Milpitas Walmart Supercenter's sales. Thus, shoppers coming from outside the market area will generate the remaining 10 percent, or $803,200, of the total $8.0 million in sales attributed to the Walmart expansion space. These shoppers are likely to be travelers passing through Milpitas on the major roadways I-880 and SR-237.

Retail Distribution and Major Retail Centers

The major centers in and near the market area are mapped out on Exhibit 4.11-2, and information regarding size, year built, distance from the Milpitas Walmart, center anchors and major stores, and vacancy is detailed in Table 4.11-1.

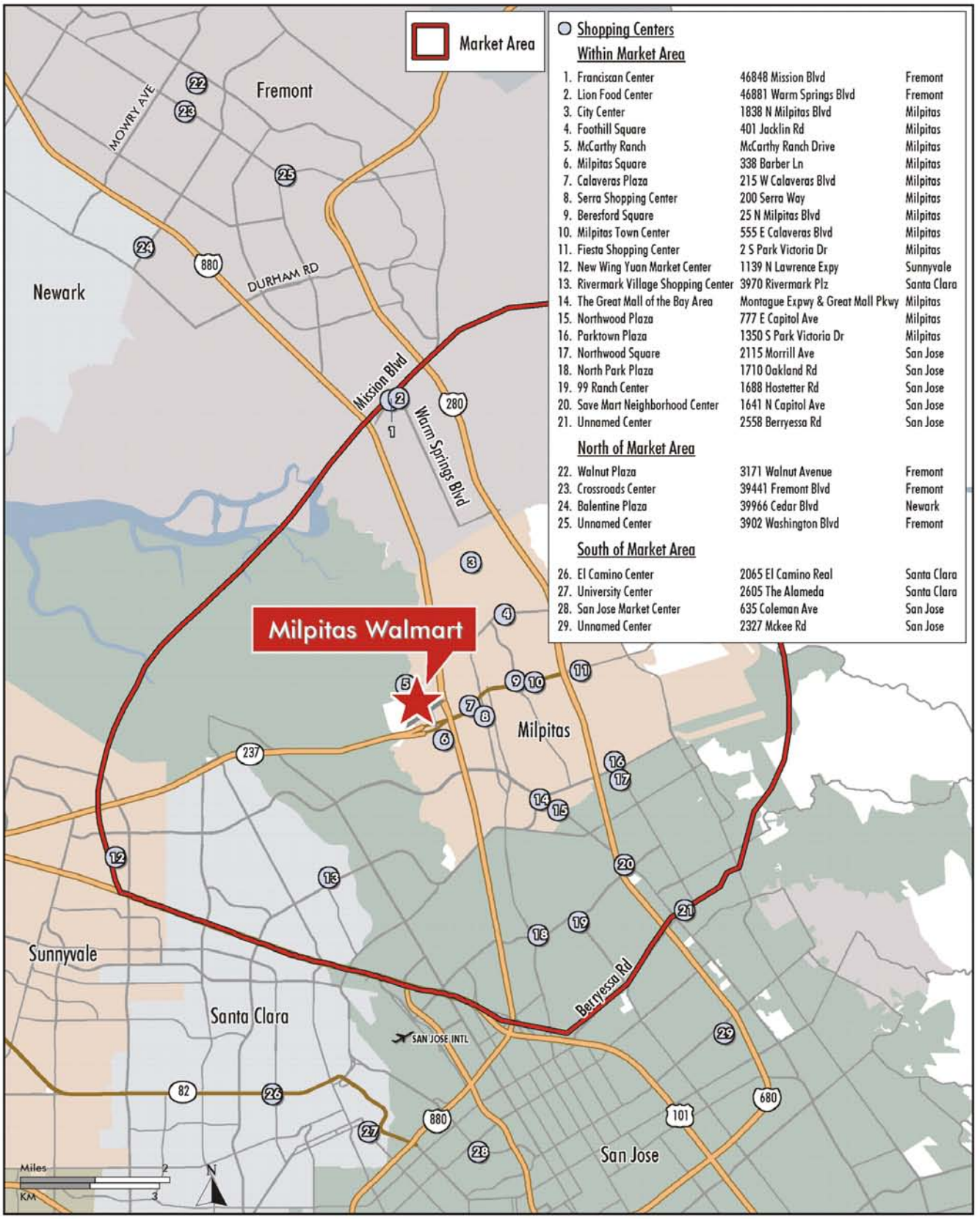
Table 4.11-1: Market Area Major Retail Center Summary

Location	Retail Center (Map No.)	Miles from Walmart	Year Built / Renovated	Square Feet	Major Tenant(s)	Vacancy
Milpitas	McCarthy Ranch Market Place (#5)	0.0	1993	497,600	Best Buy, Sports Authority, PetSmart, Office Max, Borders	1 space (15,000 square feet)
	The Great Mall of the Bay Area (#14)	3.3	1994 / 2007	1,381,000	Burlington Coat Factory, Kohl's, Sports Authority, Dave & Busters	Unknown
	Milpitas Square (#6)	1.1	1996	168,100	Ranch 99	One small pad space
	Serra Shopping Center (#8)	1.5	1967 / 1992	120,739	Walgreens, Big Lots, Chili's, Travelodge, and Serra Twin Theaters	1 space (20,000 square feet)
	Beresford Square (#9)	2.3	1980	219,400	Longs Drugs and Orchard Supply Hardware	Lucky closed at the end of March 2009, will re-open as Marina's Food Market in October 2009.
	Parktown Plaza (#16)	4.5	1980 / 1997	100,300	Lucky, Rite Aid, Dollar Tree, Kragen Auto Parts	One small space
	Calaveras Plaza (#7)	1.9	1978	74,400	Save Mart	None visible
	Fiesta Shopping Center (#11)	3.2	1962	38,800	Ocean Supermarket	None visible
	City Center (#3)	3.3	2000	52,200	Lion Supermarket	None visible
	Foothill Square (#4)	4.4	1988	78,400	Nob Hill Foods	None visible

Table 4.11-1 (Cont.): Market Area Major Retail Center Summary

Location	Retail Center (Map No.)	Miles from Walmart	Year Built / Renovated	Square Feet	Major Tenant(s)	Vacancy
Milpitas *cont.*	Northwood Plaza (#15)	3.8	1967	33,000	Lucky 7 Supermarket	None visible
San Jose	Northwood Square (#17)	5.2	1971 / 1991	156,300	California Ranch, Target, Walgreens, Radio Shack	None visible
	Unnamed Center (#21)	7.3	1975	237,300	Safeway, Longs Drugs	None visible
	North Park Plaza (#18)	4.9	1997	86,500	PW Super Market	One vacant pad space
	Save Mart Neighborhood Center (#20)	5.8	1975	55,900	Save Mart	None visible
	99 Ranch Center (#19)	5.8	Unknown	Unknown	99 Ranch	One small vacant space
Santa Clara	Rivermark Village Shopping Center (#13)	4.5	2003	229,300	Safeway, Staples, Big 5 Sporting Goods	Former Mervyn's space
Sunnyvale	New Wing Yuan Market Center (#12)	6.0	1959 / 1984	56,200	New Wing Yuan Market	None visible
Fremont	Franciscan Center (#1)	5.9	1996	95,500	Safeway, Walgreens	None visible
	Lion Food Center (#2)	6.1	1964	42,000	Lion Food	Unknown
North of Market Area	Balentine Plaza (#24)	9.3		129,100	Food Maxx	Unknown
	Unnamed Center (#25)	9.3	Unknown	Unknown	Safeway	None visible
	Crossroads Center (#23)	11.2	1983	91,200	Food Maxx	One small vacant space
	Walnut Plaza (#22)	11.7	1979	90,000	Smart & Final	Unknown
South of Market Area	San Jose Market Center (#28)	8.5	2006	447,500	Trader Joe's, Target, Cost Plus Word Market, PetSmart, Office Depot	None visible
	Unnamed Center (#29)	8.7	1970	165,000	Chavez Supermarket, Kohl's	None visible
	El Camino Center (#26)	8.2	1957 /1988	75,000	Smart & Final, Kragen Auto Parts	None visible
	University Center (#27)	8.2	1968	33,800	Safeway	None visible

Notes
Map No. corresponds with Exhibit 4.11-2.
Source: CBRE Consulting, 2009.



Shopping Centers

Within Market Area

1. Franciscan Center	46848 Mission Blvd	Fremont
2. Lion Food Center	46881 Warm Springs Blvd	Fremont
3. City Center	1838 N Milpitas Blvd	Milpitas
4. Foothill Square	401 Jacklin Rd	Milpitas
5. McCarthy Ranch	McCarthy Ranch Drive	Milpitas
6. Milpitas Square	338 Barber Ln	Milpitas
7. Calaveras Plaza	215 W Calaveras Blvd	Milpitas
8. Serra Shopping Center	200 Serra Way	Milpitas
9. Beresford Square	25 N Milpitas Blvd	Milpitas
10. Milpitas Town Center	555 E Calaveras Blvd	Milpitas
11. Fiesta Shopping Center	2 S Park Victoria Dr	Milpitas
12. New Wing Yuan Market Center	1139 N Lawrence Expy	Sunnyvale
13. Rivermark Village Shopping Center	3970 Rivermark Plz	Santa Clara
14. The Great Mall of the Bay Area	Montague Expwy & Great Mall Pkwy	Milpitas
15. Northwood Plaza	777 E Capitol Ave	Milpitas
16. Parktown Plaza	1350 S Park Victoria Dr	Milpitas
17. Northwood Square	2115 Morrill Ave	San Jose
18. North Park Plaza	1710 Oakland Rd	San Jose
19. 99 Ranch Center	1688 Hostetter Rd	San Jose
20. Save Mart Neighborhood Center	1641 N Capitol Ave	San Jose
21. Unnamed Center	2558 Berryessa Rd	San Jose

North of Market Area

22. Walnut Plaza	3171 Walnut Avenue	Fremont
23. Crossroads Center	39441 Fremont Blvd	Fremont
24. Balentine Plaza	39966 Cedar Blvd	Newark
25. Unnamed Center	3902 Washington Blvd	Fremont

South of Market Area

26. El Camino Center	2065 El Camino Real	Santa Clara
27. University Center	2605 The Alameda	Santa Clara
28. San Jose Market Center	635 Coleman Ave	San Jose
29. Unnamed Center	2327 Mckee Rd	San Jose

Source: CBRE Consulting, Inc., September 2009.

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Michael Brandman Associates

Exhibit 4.11-2
Milpitas Walmart and Proximate Shopping Centers

Market Area - City of Milpitas

The City of Milpitas has many existing shopping nodes and other select retail locations. During the fieldwork conducted in late October 2008, it was observed that the centers had little to no vacancy; the centers that had vacancy generally only had one small space available. Serra Way Center is the exception. This 121,000-square-foot center has one large vacancy of 20,000 square feet that was previously occupied by a furniture store. This space was vacated approximately 4 to 5 years ago. Overall, the property is not particularly well-maintained, looks run down, and appears to be in need of redevelopment. The shopping center was purchased in February 2008 by a developer that plans to redevelop the older portions of the property into new retail shops and residential condominiums. Given that objective, ownership is currently offering leases on a short-term basis only, which has contributed to the difficulty in backfilling spaces as they become available.

Follow-up calls determined vacancy information as of the filing of the NOP on March 5, 2009. From largest to smallest, the major shopping centers located in Milpitas include the following:

- The Great Mall of the Bay Area (which does not contain a food store)
- McCarthy Ranch (which contains the Milpitas Walmart)
- Beresford Square
- Milpitas Town Center
- Serra Way Shopping Center (which does not contain a food store)
- Milpitas Square
- Parktown Plaza
- Foothill Square
- Calaveras Plaza
- City Center
- Fiesta Shopping Center
- Northwood Plaza

Except for the Serra Way Shopping Center, none of the existing shopping locations in Milpitas appears to be in poor condition, such that one would consider them to be deteriorating or examples of urban decay. Some of the centers are newer and fresher than others, but none have visible signs of neglect, abandonment, or poor maintenance. The few vacancies in the area consist of a 15,000-square-foot space at McCarthy Ranch, one small pad space at Milpitas Square, and one small space at Parktown Plaza, and the 20,000-square-foot space at the Serra Way Shopping Center. In addition, the Mervyn's store at the Milpitas Town Center closed in 2008 after liquidation and as of April 2009 the space is still vacant.

Market Area - Outside of Milpitas

Outside of the City of Milpitas but still within the market area, there are nine major, grocery-anchored centers. One community center in Santa Clara, Rivermark Village, is anchored by a Safeway. Two community centers in San Jose, Northwood Square, are anchored by a Target and a California Ranch

grocery store, and an unnamed center is anchored by a Safeway. The rest are neighborhood-oriented centers, each less than 100,000 square feet in area. Several have grocery store anchors with an Asian orientation. There are only two vacant spaces, one small and one medium-sized, in these centers.

Outside of the Market Area

There are four centers north of the market area fairly close to the market area border. Three neighborhood centers in Fremont are each anchored by a food store, including Safeway, Food Maxx, and Smart & Final. Another Food Maxx store anchors the community center in Balentine Plaza in Newark. There is only one small vacant space among these centers.

There are four centers south of the market area located near the market area border. In San Jose, there is the San Jose Market Center, a regional center anchored by Target and Trader Joe's. Also in San Jose is an unnamed community center anchored by a Chavez Supermarket and Kohl's store. There are two neighborhood-oriented centers in Santa Clara, one anchored by a Smart & Final and the other by a Safeway. At the time the fieldwork was done, no vacancy at any of these four centers was observed.

Overall Findings

The market area has an extensive and diverse supply of retail stores located in a variety of settings, including shopping centers and small strip centers. CBRE Consulting visited many of these stores, viewing product mixes, customer volume, level of service, and unique attributes. The grocery stores cater to diverse types of target consumers. Some are high-end stores that focus on providing extensive product selection, others offer a conventional supermarket setting, and many are ethnic-oriented.

While the grocery stores visited were distributed across a number of different communities, all of the market sources queried in this region affirm that this is a strong retail market in a densely populated area with high incomes. They indicate that as of March 2009, vacancies remain moderate at around 5 to 10 percent and are expected to remain at that level. Since October 2008, several major retail chains have filed for bankruptcy and have held liquidation sales. These closings increase the vacancy rate in the market area. However, in the past when vacancies do occur, they tend to be smaller spaces, typically not more than 2,500 square feet. With only a few notable exceptions, vacancies tend to lease up within a year. This is not an inordinate amount of time. Even in the strongest of markets, from outreach to negotiations to refurbishment often take this long or longer to refill vacant spaces. Sources indicated that centers in the area are doing well despite the recession in the economy; one source did note, however, that centers with anchors are performing better than those without, as is typically the case.

Exceptions to the market tendency toward small vacancies are the 15,000-square-foot vacant space at McCarthy Ranch, the 20,000-square-foot space at Serra Way Center, and the vacant former Meryvn's store in Milpitas. One market source indicated that the space at McCarthy Ranch has been vacant for

about 2 years and that the length of this vacancy is attributable to the odd shape of the space, which is long and narrow. However, while the space is vacant, the management has kept the building in good condition. As of April 2009, the Mervyn's space has been vacant for less than 4 months. One broker noted that there have been a number of 2008 retail sales in the market. For example, there is an apparent large vacancy on Landess Avenue and S. Park Victoria, but this former home improvement store space was sold to a developer early in 2008 and is being developed as a retail shopping center called Season's Marketplace that will be anchored by an Asian-themed grocery store called Seafood City. Since this project was approved by the Planning Commission in mid-2008, no forward movement has progressed and building permits have not yet been issued. However, Seafood City has ensured the developer that it is committed to opening a store in Season's Marketplace as planned. These sales indicate a strong retail market where most vacancies do not remain vacant for long, because they are either re-tenanted or sold for possible redevelopment. How this might change during the current recession is uncertain. However, it is clear this market has favorable characteristics and strong fundamentals, positioning the area well to withstand the recession.

Retail Sales Base Characterization

A retail sales base characterization analyzes the retail sales attraction and spending leakage profile of a market area, meaning the extent to which the market area captures household spending as well as sales generated by households from outside the areas. This analysis provides a characterization of the sales performance of the proximate retail base, an estimate of the size of the sales base, and an estimate of existing demand for retail. CBRE Consulting conducted this analysis as a first step to determining the extent to which the proposed project may or may not divert sales away from existing market area retailers.

Demographic Characteristics

The Retail Demand, Sales Attraction, and Spending Leakage Analysis requires household and average household income inputs for the various areas of study. The demographic data assumptions for these areas are presented in Table 4.11-2.

Household Growth

The results in Table 4.11-3 depict household growth in the geographic components of the market area. In order to match the household counts with the annual sales data, households for the end of the second quarter of 2007 were estimated. Overall, between July 1, 2007 and 2011, the various geographies are expected to change household counts between -1.9 and 12.0 percent. In the market area as a whole, an additional 2,461 new households are expected.

Table 4.11-2: Population and Households Estimates and Projections Market Area 2000 – 2013[1]

Market Area[2]	2000	2006	2007	July 1, 2007	2008	2011	2012	2013	Aggregate Growth		Average Annual Growth Rate	
									2008–13	2000–08	2008–13	2000–08
Population												
Milpitas	62,698	64,987	65,377	65,573	65,769	67,271	67,779	68,291	3,071	2,522	0.6%	0.8%
San Jose[3]	76,370	82,973	84,128	84,714	85,299	88,849	90,065	91,298	8,929	5,999	1.4%	1.4%
Santa Clara[3]	13,003	16,170	16,768	17,078	17,388	18,885	19,412	19,954	4,385	2,566	3.7%	2.8%
Fremont[3]	13,312	13,265	13,257	13,253	13,249	13,326	13,351	13,377	-63	128	-0.1%	0.2%
Sunnyvale[3]	9,441	9,237	9,203	9,187	9,170	9,127	9,112	9,098	-271	-72	-0.4%	-0.2%
Total Market Area	174,824	186,632	188,733	189,804	190,875	197,458	199,720	202,018	16,051	11,143	1.1%	1.1%
Households												
Milpitas	17,132	17,706	17,803	17,852	17,901	18,285	18,414	18,545	769	644	0.6%	0.7%
San Jose[3]	23,643	25,946	26,352	26,557	26,763	27,944	28,350	28,761	3,120	1,998	1.6%	1.5%
Santa Clara[3]	4,268	5,497	5,734	5,857	5,981	6,560	6,765	6,977	1,713	996	4.3%	3.1%
Fremont[3]	4,386	4,333	4,325	4,320	4,316	4,324	4,327	4,330	-70	14	-0.2%	0.1%
Sunnyvale[3]	3,625	3,492	3,471	3,460	3,449	3,394	3,376	3,358	-176	-91	-0.6%	-0.5%
Total Market Area	53,054	56,975	57,684	58,047	58,410	60,508	61,233	61,971	5,356	3,561	1.2%	1.2%

Notes:
(1) Claritas provided estimates for 2000 and 2008, and projections for 2013 (columns in bold). Interim years were interpolated based on annual average growth rates. Estimates were then calculated for the end of the second quarter of 2007 to correspond with the timeframe of other study data points.
(2) The market area is shown in Exhibit 4.11-1. It contains all of the City of Milpitas and portions of the cities of San Jose, Santa Clara, Fremont, and Sunnyvale. The data shown in this exhibit reflect the demographics from these city portions. According to Claritas, unincorporated areas within the market area are very sparsely populated. These areas are not included because they comprise less then one percent of the total market area population and household base and are thus immaterial to the analysis.
(3) Partial city demographics, according to footnote (2)
Source: CBRE Consulting, Inc., 2009.

Table 4.11-3: Market Area Household Estimates and Projections[(1)] (2007 – 2011)

Area	July 1, 2007	January 1, 2011	Aggregate Change	Percentage Change
City of Milpitas	17,852	18,285	433	2.4%
City of San Jose (portion)	26,557	27,944	1,387	5.2%
City of Santa Clara (portion)	5,857	6,560	703	12.0%
City of Fremont (portion)	4,320	4,324	4	0.1%
City of Sunnyvale (portion)	3,460	3,394	-66	-1.9%
Total Market Area	**58,047**	**60,508**	**2,461**	**4.2%**

Notes:
Numbers may not total due to rounding error.
(1) The market area contains all of the City of Milpitas and portions of the cities of San Jose, Santa Clara, Fremont, and Sunnyvale. The data shown reflect the demographics from these city portions.
Source: CBRE Consulting, Inc., 2009.

Households in the market area are projected to grow 4.2 percent between July 1, 2007 and 2011. The bulk of the household growth will come from the northern San Jose portion of the market area, followed by northeastern Santa Clara. In Milpitas there is expected to be an increase of 433 households in the same time period. Household estimates and projections for all cities came from Claritas. The July 1, 2007 household estimate is an interpolation between the 2000 and 2008 estimates. The 2011 projection for households is an interpolation between the 2008 estimate and 2013 projection.

Household Incomes

Average household income used in the Retail Demand, Sales Attraction, and Spending Leakage Analyses for the market area is estimated at $111,067 in 2007 dollars. The City of Milpitas has a slightly higher average household income estimated at $115,761 for 2007. The market area's estimated average household income is 42 percent higher than the State of California average in 2007 of $78,353. This difference reflects the influence of household incomes in Silicon Valley that are much higher than most other parts of California.

The market area's household growth and income affects the demand for retail goods. These implications are discussed below in the findings of the Retail Demand, Sales Attraction, and Spending Leakage Analysis.

Market Area Sales Base

CBRE Consulting estimated sales for the market area by utilizing State Board of Equalization (BOE) data. BOE publishes taxable sales figures for counties and major cities; its most recent full-year taxable sales figures are for 2007. No more recent data through BOE are available as of April 2009, when this study was completed. CBRE Consulting used BOE's figures for cities located in the market area as published in its publication "Taxable Sales in California" for each quarter in 2007.

The sales estimation process is documented in Table 4.11-4 through Table 4.11-8. (Additional information is provided in Appendix I). The total sales base is $2.6 billion. The portion of the market area in San Jose comprises 44 percent, or $1.2 billion of the sales base. The City of Milpitas contributes 36 percent, or $1.0 billion. The portion of the market area in the City of Santa Clara comprises 17 percent, or less than $500 million. The portions of the market area in the City of Fremont and the City of Sunnyvale together contribute less than three percent of the total sales base.

Table 4.11-4: City of Milpitas Taxable Retail Sales (2007)

Retail Category	In $000s				
	1st Quarter 2007	2nd Quarter 2007	3rd Quarter 2007	4th Quarter 2007	Total
Apparel Stores	$39,104	$41,531	$45,215	$56,028	$181,878
General Merchandise Stores	$30,699	$32,059	$30,805	$38,031	$131,594
Food Stores	$7,757	$8,618	$8,699	$9,288	$34,362
Eating and Drinking Places	$45,346	$45,104	$45,610	$45,608	$181,668
Home Furnishings and Appliances	$9,777[(2)]	$9,908[(2)]	$9,844[(2)]	$12,161[(2)]	$41,691
Building Materials	$20,177	$23,592	$21,193	$14,398	$79,360
Auto Dealers and Auto Supply	$3,194	$3,210	$3,072	$3,816[(3)]	$13,292
Service Stations	$18,927	$24,081	$21,100	$21,360	$85,468
Other Retail	$46,845[(2)]	$47,238[(2)]	$42,700[(2)]	$75,151[(2)]	$211,933
Total	**$221,826**	**$235,341**	**$228,238**	**$275,840**	**$961,245**

Notes
(1) Sales based on the most current data provided by the BOE as of January 2009.
(2) The California State Board of Equalization (BOE) omitted home furnishings and appliances sales because their publication would result in the disclosure of confidential information. Instead, the BOE includes these sales in an "other retail stores" BOE category. To avoid overstating the "other retail stores" category's taxable sales and understating those categories where information was not disclosed by BOE, CBRE Consulting made adjustments to the sales data. CBRE Consulting calculated Santa Clara County's home furnishings and appliances category as a percent of its total taxable sales, which ranged from 4.2 to 4.6 percent, to serve as a benchmark. These percentages were applied to the City's total sales to estimate the home furnishings and appliances sales. This amount was then subtracted from "other retail" for the city's overstatement of that category.
(3) Auto Dealers and Supply was not disclosed for the 4th Quarter of 2007; these sales were calculated using the average percentage of Auto Dealers and Supply's portion of the total, 1.38 percent, from 2007 Quarters 1-3.
Sources: California State Board of Equalization, 2008; CBRE Consulting, 2009.

Table 4.11-5: City of San Jose Taxable Retail Sales - Market Area Portion (2007)[1]

Retail Category	2008 Claritas Data		Ratio of Market Area Portion to Entire City [C = B/A]	2007 BOE Data	
	City of San Jose's Sales[2]	San Jose's Portion of the Market Area Sales[3] [A] [B]		City of San Jose Sales[4] D	San Jose's Portion of the Market Area Sales [E = D x C]
Apparel Stores	$802,300	$18,100	2.3%	$537,902	$12,135
General Merchandise Stores	$2,300,500	$180,000	7.8%	$1,425,777	$111,558
Food Stores	$2,086,700	$237,600	11.4%	$427,237	$48,647
Eating and Drinking Places	$1,421,300	$134,900	9.5%	$1,206,390	$114,502
Home Furnishings and Appliances	$514,100	$117,500	22.9%	$360,402	$82,372
Building Materials	$999,600	$111,100	11.1%	$781,551	$86,865
Auto Dealers and Auto Supplies	$1,765,300	$151,100	8.6%	$1,548,373	$132,532
Service Stations	$964,800	$115,300	12.0%	$1,245,967	$148,901
Other Retail Stores	$1,765,700	$444,000	25.1%	$1,700,093	$427,503
Totals	**$12,620,300**	**$1,509,600**	**12.0%**	**$9,233,692**	**$1,165,015**

Notes:
(1) Claritas data in columns A and B are in 2008 dollars. BOE data in column D pertain to 1st through 4th quarter 2007.
(2) See Appendix I (C-1).
(3) See Appendix I (D-1).
(4) Appendix I (E-1).
Sources: California State Board of Equalization, 2008; CBRE Consulting, Inc, 2009.

Table 4.11-6: City of Santa Clara Taxable Retail Sales (Market Area Portion) (2007)

Retail Category	2008 Claritas Data		Ratio of Market Area Portion to Entire City [C = B/A]	2007 BOE Data	
	City of Santa Clara Sales[2] [A]	Santa Clara's Portion of the Market Area Sales[3] [B]		City of Santa Clara Sales[4] D	Santa Clara's Portion of the Market Area Sales [E = D x C]
Apparel Stores	$37,100	$14,100	38.0%	$72,960	$27,729
General Merchandise Stores	$203,300	$23,400	11.5%	$226,093	$26,023
Food Stores	$238,000	$18,800	7.9%	$64,404	$5,087
Eating and Drinking Places	$219,400	$44,500	20.3%	$266,955	$54,145
Home Furnishings and Appliances	$125,600	$42,600	33.9%	$111,913	$37,958
Building Materials	$267,100	$52,100	19.5%	$119,806	$23,369
Auto Dealers and Auto Supplies	$560,400	$9,500	1.7%	$595,477	$10,095
Service Stations	$79,200	$19,000	24.0%	$157,751	$37,844
Other Retail Stores	$975,700	$655,600	67.2%	$327,940	$220,352
Totals	**$2,705,800**	**$879,600**	**32.5%**	**$1,943,299**	**$442,603**

Notes:
(1) Claritas data in columns A and B are in 2008 dollars. BOE data in column D pertain to 1st through 4th quarter 2007.
(2) See Appendix I (C-2).
(3) See Appendix I (D-2).
(4) See Appendix I (E-2).
Sources: California State Board of Equalization, 2008; CBRE Consulting, Inc., 2009.

Table 4.11-7: City of Fremont Taxable Retail Sales - Market Area Portion (2007)[1]

Retail Category	2008 Claritas Data		Ratio of Market Area Portion to Entire City [C = B/A]	2007 BOE Data	
	City of Fremont Sales[2] [A]	Fremont's Portion of the Market Area Sales[3] [B]		City of Fremont Sales[4] D	Fremont's Portion of the Market Area Sales [E = D x C]
Apparel Stores	$35,000	$400	1.1%	$39,344	$450
General Merchandise Stores	$361,000	$12,100	3.4%	$289,368	$9,699
Food Stores	$343,200	$3,000	0.9%	$90,527	$791
Eating and Drinking Places	$235,900	$3,800	1.6%	$207,088	$3,336
Home Furnishings and Appliances	$175,900	$1,800	1.0%	$64,292	$658
Building Materials	$279,000	$2,300	0.8%	$174,616	$1,439
Auto Dealers and Auto Supplies	$560,300	$6,100	1.1%	$515,500	$5,612
Service Stations	$152,300	$3,200	2.1%	$209,275	$4,397
Other Retail Stores	$1,277,100	$17,800	1.4%	$443,704	$6,184
Totals	**$3,419,700**	**$50,500**	**1.5%**	**$2,033,714**	**$32,567**

Notes:
(1) Claritas data in columns A and B are in 2008 dollars. BOE data in column D pertain to 1st through 4th quarter 2007.
(2) See Appendix I (C-3).
(3) See Appendix I (D-3).
(4) See Appendix I (D-3).
Sources: California State Board of Equalization, 2008; CBRE Consulting, Inc., 2009.

Table 4.11-8: City of Sunnyvale Taxable Retail Sales – Market Area Portion (2007)[1]

Retail Category	2008 Claritas Data		Ratio of Market Area Portion to Entire City [C = B/A]	2007 BOE Data	
	City of Sunnyvale Sales[2] [A]	Sunnyvale's Portion of the Market Area Sales[3] [B]		City of Sunnyvale Sales[4] D	Sunnyvale's Portion of the Market Area Sales [E = D x C]
Apparel Stores	$39,800	$900	2.3%	$17,560	$397
General Merchandise Stores	$325,700	$6,400	2.0%	$214,827	$4,221
Food Stores	$275,000	$5,900	2.1%	$61,171	$1,312
Eating and Drinking Places	$185,200	$7,200	3.9%	$205,469	$7,988
Home Furnishings and Appliances	$114,200	$2,300	2.0%	$28,963	$583
Building Materials	$256,100	$6,200	2.4%	$205,614	$4,978
Auto Dealers and Auto Supplies	$522,300	$3,500	0.7%	$441,466	$2,958
Service Stations	$165,800	$1,300	0.8%	$147,416	$1,156
Other Retail Stores	$344,800	$21,600	6.3%	$250,521	$15,694
Totals	$2,228,900	$55,300	2.5%	$1,573,007	$39,288

Notes:
(1) Claritas data in columns A and B are in 2008 dollars. BOE data in column D pertain to 1st through 4th quarter 2007.
(2) See Appendix I (C-4).
(3) See Appendix I (D-4).
(4) See Appendix I (E-4).
Sources: California State Board of Equalization, 2008; CBRE Consulting, Inc., 2009.

Given the current recession, which started in December 2007, and the associated decrease in retail sales, CBRE Consulting considered adjusting the sales estimates for the market area downward. Actual sales tax collected by the City of Milpitas was obtained from the City and analyzed. The most recent data available were for second quarter of 2008. Table 4.11-9 compares this most recent quarter with the second quarters of the previous 2 years.

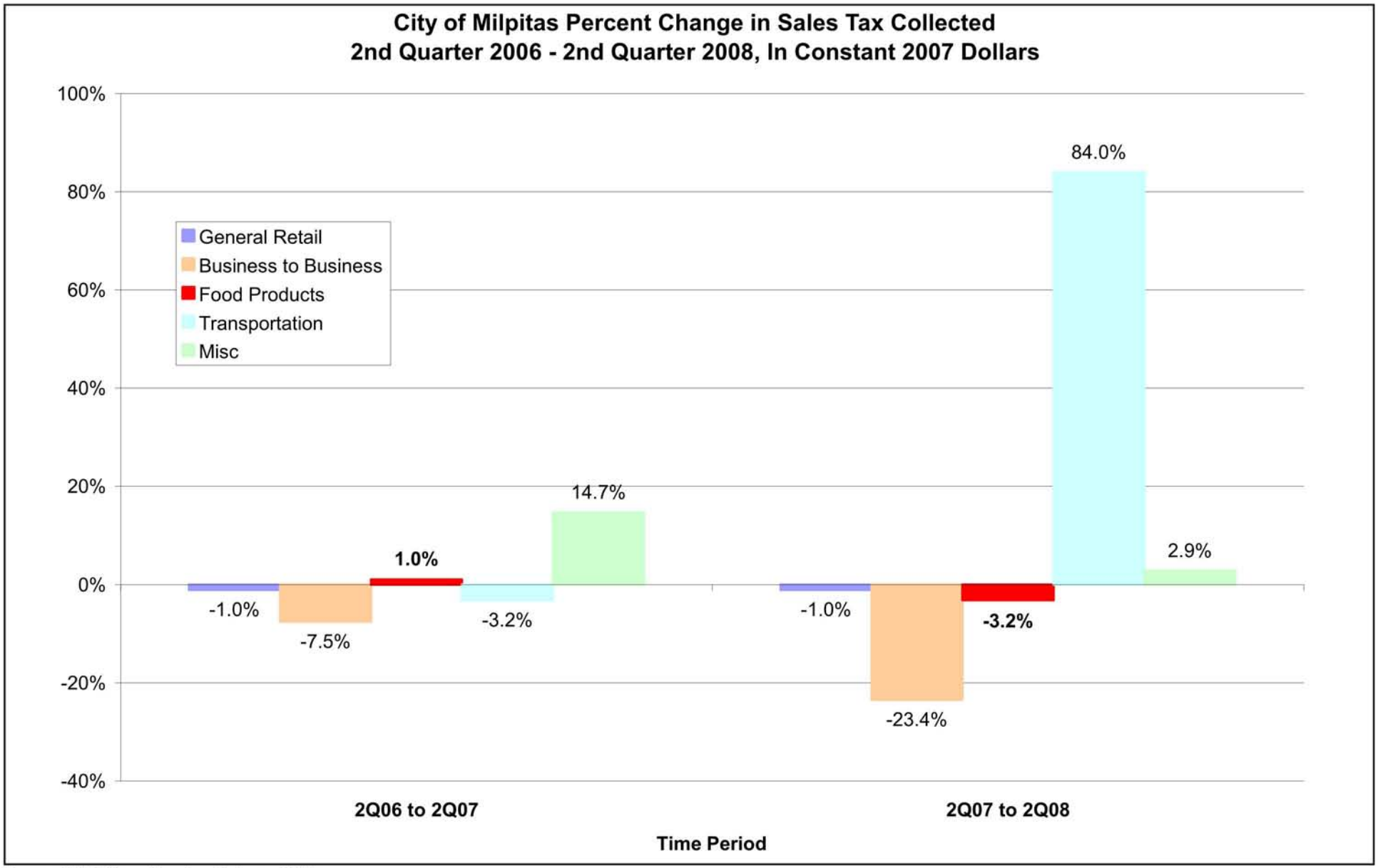
Table 4.11-9: City of Milpitas Sales Tax Collected – 2nd Quarters of 2006, 2007, and 2008

Type of Retail[1]	2nd Quarter 2006	2nd Quarter 2007	2nd Quarter 2008	Change 2006 to 2007	Change 2007 to 2008
General Retail	$4,500,000	$4,600,000	$4,700,000	2%	2%
Business to Business	$4,500,000	$4,300,000	$3,400,000	-4%	-21%
Food Products	$2,300,000	$2,400,000	$2,400,000	4%	0%
Transportation	$1,000,000	$1,000,000	$1,900,000	0%	90%
Construction	$1,300,000	$1,300,000	$1,000,000	0%	-23%
Miscellaneous	$54,000	$64,000	$68,000	19%	6%

Notes:
[1] These categories are not directly comparable to the BOE retail categories.
Sources: City of Milpitas; and CBRE Consulting.

Sales tax collected at grocery stores are accounted for in the food products category. Although retail sales tax collected for food products within the City of Milpitas have not fallen, these figures have not been adjusted for inflation. Exhibit 4.11-3 shows the percent change in retail sales tax by category, with all figures in constant 2007 dollars. Adjusted for inflation, food product sales tax in the City of Milpitas fell 3.2 percent from the second quarter of 2007 to the second quarter of 2008, while general retail sales fell only 1.0 percent. The market area grocery store sales base was not adjusted for these declines. If an adjustment were made, it would not materially change the results.

When BOE publicly reports data, it will not report data for a sales category if it does not meet certain disclosure requirements. For example, if there are only one or two stores in a category or if one retailer dominates the category sales in a single city, then the sales in that category will not be released. Instead, BOE generally combines those sales with the sales in the “other retail sales” category. This is more prone to occur in retail markets where the number of retailers is small or one large retailer comprises most of the sales in a category. This issue arose for the home furnishings and appliances category and the auto dealers and auto supplies category in the City of Milpitas. Table 4.11-4 details how CBRE Consulting made adjustments to avoid understating the nondisclosed retail category and overstating the “other retail stores” category.



Source: CBRE Consulting, Inc., February 2009.

Exhibit 4.11-3
City of Milpitas Percent Change in Sales Tax Collected
2nd Quarter 2006-2nd Quarter 2008, In Constant 2007 Dollars

Michael Brandman Associates

The result of this analysis is an estimation of total taxable retail sales in the market area in 2007 of $2.6 billion. After this result is adjusted for non-taxable sales in grocery stores and drug stores, the total retail sales in the market area is $2.9 billion.

Findings of Retail Base Characterization

A Retail Demand, Sales Attraction, and Spending Leakage Analysis was prepared for the market area to examine its retail sales performance relative to its own household base in order to assess the degree to which it is serving the resident household's retail needs. The results for the market area are presented in Table 4.11-10. The only category relevant to the Walmart expansion is food stores, but for benchmark purposes, and to support the cumulative analysis, detailed results for all retail categories are presented.

The overall market area attracts more spending than is estimated being spent by current residents. In 2007, households in the market area generated an estimated retail demand of $1.7 billion, representing an average per household retail expenditure of $29,640. This compares with the total actual sales experienced in the market area in 2007 of roughly $2.9 billion, or $50,350 per household. The disparity between the level of resident household retail demand and the actual retail sales in the market area represents attraction of roughly 41 percent of sales, or $1.2 billion, in 2007. All of the retail categories, with the exception of auto dealers and auto supplies stores, experienced attraction in sales.

The category relevant to the Walmart expansion space is food stores. In 2007, the market area attracted 14 percent of food store sales, or $42.5 million from non-residents. Total food sales were estimated at $300.7 million. These results indicate that there is no excess demand for grocery stores that is currently not being met by retailers in the market area.

Table 4.11-10: Market Area Retail Demand, Sales Attraction, and Spending Analysis

Type of Retailer	Market Area Per Household[(2) (3)]		Market Area Total (In $ 000's)			
	Spending[(4)]	Sales[(5)]	Spending[(4)]	Sales[(5)]	Attraction/(Leakage)	Percent
Apparel Stores	$1,600	$3,835	$92,878	$222,589	$129,711	58.3
General Merchandise Stores[(6)]	$4,037	$6,109	$234,330	$354,634	$120,304	33.9
Food Stores[(7)]	$4,447	$5,180	$258,118	$300,665	$42,546	14.2
Eating and Drinking Places	$4,332	$6,230	$251,443	$361,639	$110,196	30.5
Home Furnishings and Appliances	$964	$2,813	$55,960	$163,262	$107,302	65.7
Building Materials[(8)]	$2,737	$3,377	$158,852	$196,011	$37,159	19.0
Auto Dealers and Auto Supplies	$5,476	$2,834	$317,872	$164,489	($153,383)	(48.3)
Service Stations	$2,496	$4,785	$144,910	$277,766	$132,856	47.8
Other Retail Stores[(9)]	$3,550	$15,189	$206,051	$881,666	$675,615	76.6
Total	**$29,638**	**$50,351**	**$1,720,414**	**$2,922,721**	**$1,202,307**	**41.1**

Notes:
(1) All figures are expressed in constant 2007 dollars.
(2) Household figure for the market area at the end of the second quarter of 2007 is 58,047, according to Claritas data. See Table 4.11-2.
(3) Product line control area defined as the San Francisco Consolidated Metropolitan Statistical Area. Consumer expenditure control area defined as the western states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.
(4) Analysis assumes 2007 average household income for the market area of $111,067 as reported by Claritas.
(5) Sales based on data from 1st quarter through 4th quarter 2007. See Table 4.11-4 through Table 4.11-8 for market area sales calculations. See Appendix I (E-5) for control area sales calculations.
(6) Includes general merchandise and drug stores. Drug stores are assumed to comprise 12.4 percent of total general merchandise sales based on CBRE Consulting's analysis of the reference area, the nine-county Bay Area, which is defined as the counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. Taxable sales for drug stores have been adjusted to account for the estimated two-thirds of drug store sales that are non-taxable.
(7) Sales for grocery stores have been adjusted to account for non-taxable sales; only 30 percent of all food store sales are estimated to be taxable.
(8) Building materials group includes hardware stores, plumbing and electrical supplies, paint and wallpaper products, glass stores, farm implement dealers, and lumber.
(9) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationery and books, jewelry, office and school supplies, second-hand merchandise, farm and garden supply stores, farm implement dealers, mobile homes/trailers and campers, boat and motorcycle dealers, and miscellaneous other retail stores.
Sources: California State Board of Equalization, 2008; Association of Bay Area Governments, 2007; CBRE Consulting, Inc., 2009.

4.11.2 - Regulatory Framework

State

California State Health and Safety Code

California State Health and Safety Code Sections 33031(a) and 33031(b) define economic and physical conditions that constitute "blight."

Economic conditions that constitute blight include:

- Depreciated or stagnant property values or impaired investments, including as a result of hazardous wastes.
- Abnormally high business vacancies, abnormally low lease rates, high turnover rates, abandoned buildings, or excessive vacant lots within an area developed for urban uses and served by utilities.
- A lack of necessary commercial facilities that are normally found in neighborhoods, including grocery stores, drug stores, banks, and other lending institutions.
- Residential overcrowding or an excess of bars, liquor stores, or other businesses that cater exclusively to adults, which has led to problems of public safety and welfare.
- A high crime rate that constitutes a serious threat to the public safety and welfare.

Physical conditions that constitute blight include:

- Buildings in which it is unsafe or unhealthy for persons to live or work. These conditions can be caused by serious building code violations, dilapidation and deterioration, defective design or physical construction, faulty or inadequate utilities, or other similar factors.
- Factors that prevent or substantially hinder the economically viable use or capacity of buildings or lots. This condition can be caused by a substandard design, inadequate size given present standards and market conditions, lack of parking, or other similar factors.
- Adjacent or nearby uses that are incompatible with each other and which prevent the economic development of those parcels or other portions of the project area.
- The existence of subdivided lots of irregular form and shape and inadequate size for proper usefulness and development that are in multiple ownership.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that significant effects on the environment be analyzed, disclosed, and mitigated, if feasible, prior to the approval of discretionary land use approvals. The CEQA Guidelines require that both direct and reasonably foreseeable indirect physical changes be evaluated during the environmental review process. A direct physical

change is caused by—and is immediately related to—the project. Examples of direct physical changes are construction-related dust, noise, and traffic. An indirect physical change is not immediately related to the project but is caused indirectly by the project. An example of an indirect physical change would be the construction of a new sewage treatment plant that provides additional wastewater treatment capacity that may facilitate population growth and may lead to an increase in air pollution.

In the context of CEQA, blight is considered an indirect physical impact. The development of new commercial retail space in a retail market has the potential to result in the closure of competing business, which, in turn, may result in vacant storefronts that meet the California Health and Safety Code definition of blight.

Local

City of Milpitas

General Plan

The General Plan establishes the following principle and policies relevant to urban decay:

- **Principle 2.a-G-1:** Maintain a land use program that balances Milpitas' regional and local roles by providing for a highly amenable community environment and a thriving regional industrial center.
- **Policy 2.a-I-3:** Encourage economic pursuits which will strengthen and promote development through stability and balance.
- **Policy 2.a-I-5:** Maintain policies that promote a strong economy which provides economic opportunities for all Milpitas residents within existing environmental, social fiscal and land use constraints.
- **Policy 2.a-I-6:** Endeavor to maintain a balanced economic base that can resist downturns in any one economic sector.
- **Policy 2.a-I-7:** Provide opportunities to expand employment, participate in partnerships with local business to facilitate communication, and promote business retention.
- **Policy 2.a-I-10:** Foster community pride and growth through beautification of existing and future development.

Municipal Code

Milpitas Municipal Code Title V, Chapter 202 sets forth requirements for weed, rubbish, and refuse control and abatement. The chapter prohibits the accumulation of weeds, rubbish, and refuse on private property and sets for penalties for violation of the code.

Milpitas Municipal Code Title V, Chapter 203 establishes requirements for graffiti abatement. Property owners are required to remove graffiti no more than 10 days after it appears.

4.11.3 - Methodology

CBRE Consulting prepared an Urban Decay Analysis to evaluate the potential for the proposed project to cause urban decay. The Urban Decay Analysis is described below.

Study Tasks

CBRE Consulting performed numerous tasks during the course of this assignment, which include the following:

- Identified the nearest major competitive retailers
- Conducted fieldwork to evaluate existing market conditions
- Estimated the sales of the expansion
- Defined the expanded Walmart store's market area
- Estimated market area retail sales
- Conducted retail demand, sales attraction, and spending leakage analysis for the Walmart Supercenter's market area
- Estimated the share of the expansion's sales to be generated by market area residents
- Estimated the amount of sales that will be generated by residents added to the market area by 2011, the year when the expansion will be complete
- Estimated the maximum impacts on existing market area retailers
- Assessed the competitiveness of existing market area stores and likely impacts on these stores
- Identified competitive planned retail projects that could contribute to cumulative impacts
- Assessed the cumulative impacts of planned retail projects
- Assessed the potential impacts to grocery stores outside of but near the market area
- Assessed the extent to which the expansion of the Walmart store and the cumulative projects may or may not contribute to urban decay

Study Resources

CBRE Consulting used a number of resources in the preparation of the Urban Decay Analysis. The BOE provided retail sales information for each of the cities within the market area. Demographic resources prepared by Claritas, Inc., a national provider of demographic and economic data, were relied upon for household estimates, household projections, mean household income trend data, and in some cases, detailed information about local shopping centers. The City of Milpitas confirmed that Claritas is an acceptable demographic data source.

Business-specific data identifying retailers in the market area and beyond were obtained from the Shopping Center Directory for the Western United States, Claritas, Inc., internet research, and individual retailers and shopping center owners. Retail MAXIM's "Perspectives on Retail Real Estate and Finance," July 2008 and September-August 2006 were used for historical sales-per-square-foot trends. Finally, local commercial real estate brokers and government officials provided insight and information.

In conducting research on the retail market, CBRE Consulting relied on a number of different sources including real estate brokers and government officials. Various offices of CBRE Consulting's parent company, CB Richard Ellis, provided insight into the retail market's strengths and weaknesses, as did personnel from Biagini Properties, Colliers International, and other local brokers. Planning departments from the cities of Milpitas, Fremont, San Jose, Santa Clara, and Sunnyvale were contacted as well.

Projected Sales

CBRE Consulting's findings relative to the anticipated retail sales for the proposed Walmart expansion are presented below. These include estimates of the total sales generated by the expansion. This estimate is necessary to facilitate analysis of the expansion's economic impacts.

The existing Walmart store has limited grocery space in the total 131,725-square-foot store. The proposed project would expand the existing Walmart by 19,000 square feet. In addition, sales area within the existing store would be reallocated to food sales, resulting in a net increase of 32,600 square feet for grocery sales and a net decrease of 14,062 square feet for general merchandise sales. This urban decay analysis will use these two figures as the basis for assessing impacts.

In order to determine the annual sales performance of the proposed expansion, CBRE Consulting benchmarked the analysis to the 2007 average sales per square foot for all Walmart stores at $422.73. Table 4.11-11 shows the sales-per-square-foot calculations. Data from the Walmart Stores, Inc. Form 10-K report was used to estimate sales per square foot. This is the most recent annualized published data available as of April 2009.

Table 4.11-11: Estimated Walmart Sales per Square Foot (2007 Dollars)

All Walmart Stores	
Description	**Amount**
Net sales, 2007	$239,529,000,000[(1)]
Total square feet of retail stores, 2007	566,629,000
Average sales per square foot	$422.73

Notes:
[(1)] Total Walmart sales for Fiscal Year 2007 were $374,526,000,000. However, only $239,529,000,000 were attributable to retail stores, which includes supercenters, discount stores, and neighborhood stores.
Source: Walmart Stores, Inc., 2008.

Construction of the expansion is to be completed in January 2011. The most recent full calendar year State of California Board of Equalization (BOE) sales data are for 2007. The most recent quarterly data are for the fourth quarter of 2007; more current data reflecting 2008 sales are not available from the BOE. Given the uncertain retail sales environment, where many stores are suffering from lower than normal sales, the sales estimate was calculated in 2007 dollars rather than inflated to 2011 dollars, the year the store is expected to open. In general, because most grocery products fill basic household needs and are not discretionary, grocery store sales tend to continue to grow even during recessionary periods. However, experience shows that even in non-recessionary times, retail sales do not necessarily increase by the same rate as inflation, including Walmart sales. Given the difficulty in predicting trends in an uncertain market, keeping the sales estimate in 2007 dollars is reasonable. Table 4.11-12 shows the estimate of expansion sales at approximately $8.0 million total in 2007 dollars.

Table 4.11-12: Expanded Milpitas Walmart Sales Estimate (2007 Dollars)

Store Characteristic	Milpitas Walmart
Net square footage of expansion	32,600
Sales per square foot	$422.73[(1)]
Projected new food store sales for Milpitas supercenter	$13,780,998[(2)]
Less sales from outside market area	($1,378,100)[(3)]
Milpitas Supercenter food store sales originating from market area residents	$12,402,898
Net square footage of decreased general merchandise sales area	(14,062)
Sales per square foot	$422.73[(1)]
Projected decrease in general merchandise sales	($5,944,429)[(2)]
Less sales from outside market area	$594,443[(3)]
Milpitas Supercenter food store sales originating from market area residents	($5,349,986)
Total Net Walmart Expansion Sales	**$7,052,912**

Notes:
(1) See Table 4.11-11.
(2) The expansion of the Walmart store involves adding floor space for grocery sales only and decreasing the general merchandise space. Therefore, $13,780,998 of new sales are allocated to the Food Sales group and -$5,944,429 are allocated to the General Merchandise group, as defined by the State of California Board of Equalization (BOE).
(3) CBRE Consulting estimates that 10 percent of food sales at the Walmart Supercenter will be attributed to consumers residing outside of the store's market area. This estimate is based on industry standards for defining shopping center market areas, the location of the Supercenter, its proximity to major highways, and the City of Milpitas' general position as a retail attraction market.
Source: CBRE Consulting, Inc., 2009.

Materials published by major industry organizations support the premise that a retail store's trade area generally supplies 70 to 90 percent of the store's sales, while the remaining 10 to 30 percent of sales are attributed to consumers residing outside of the store's market area. In its Shopping Center Development Handbook, Third Edition, the Urban Land Institute (ULI) states the following:

> A site generally has a primary and a secondary trade area, and it might have a tertiary area. The primary trade area should generally supply 70 to 80 percent of the sales generated by the site. These boundaries are set by geographical and psychological obstacles. (Page 44)

ULI is a nonprofit research and education organization representing the entire spectrum of land use and real estate development disciplines. Among real estate, retail, and economic development professionals, this organization is considered a preeminent educational forum. Information published by the International Council of Shopping Centers (ICSC), a trade association for the shopping center industry, also provides instructional information about market area definitions. In the recent publication Developing Successful Retail in Secondary & Rural Markets, the ICSC stated:

> A trade area is the geographic market that you will be offering to potential retailers as a consumer market . . . Defining a retail trade area is an art and a science. In general, a trade area should reflect the geography from which 75-90 percent of retail sales are generated. Different stores can have different trade areas based on their individual drawing power and the competitive market context. (Page 7)

Given the Milpitas expanded Walmart's proximity to major roadways, including I-880 and State Route 237, it is conservatively assumed that 10 percent of food sales, or $1.4 million, will be attributed to consumers residing outside of the store's market area. Therefore, the estimated net increased food sales originating from market area residents is $12.4 million. For the loss in general merchandise sales, 10 percent, or $594,443, likely come from purchases by customers living outside the market area. Therefore, the net amount of general merchandise sales given up by Walmart in the market area is estimated at $5.3 million. Thus, the net change in Walmart's store sales to market area residents is $7.1 million, calculated by subtracting the $5.3 million decrease in General Merchandise sales from the $12.4 million increase in Food Store sales estimated to be achieved by virtue of the Walmart expansion.

Sales Impacts

CBRE Consulting has developed an analytic approach that estimates the maximum impact of new store space on existing retailers. For this analysis, the approach assumes that if the Walmart expansion is adding sales to a category in an amount greater than any market area leakage in the category as well as expected demand from new households, then at worst, the amount of sales in that category in excess of any recaptured leakage and new households demand will be diverted away from existing market area retailers.

Note that the analysis of population growth juxtaposed against potential shifting consumer patterns is parallel to a comparable analysis based on sales. There would be no change in the study results if projected sales were used instead of projected increased demand from population growth, since

spending demand estimates in the Economic Impact Analysis were based on per capita spending estimates. The same analysis would apply based on projected sales growth as was conducted based on projected population growth. According to industry literature, forecasting population growth is an industry-standard approach to gauging demand. As stated in the book, "Shopping Centers and Other Retail Properties," published by the Urban Land Institute:

> For most retailers, demand is generated by individuals or by households, so these are the most common measures of a market's depth and adequacy, while anticipated household or population growth is indicative of future opportunity. Many retailers set threshold population requirements for a trade area. (Page 129)

Thus, the use of population count information to assess prospective store impacts is an accepted industry approach.

Urban Decay Potential

CBRE Consulting engaged in several tasks to assess the probability of urban decay ensuing from the Walmart expansion and the identified cumulative projects. These tasks revolved around assessing the potential for closed retail store spaces, if any, to either (a) remain vacant for a prolonged period of time such that they contribute to the multitude of causes that could eventually lead to urban decay, or (b) be leased to other retailers within a reasonable marketing period. The purpose of this research was to determine if sufficient retailer demand exists to absorb vacated space in the event existing retailers close because of any negative economic impacts of the Walmart expansion and the development of other planned retail. CBRE Consulting contacted real estate brokers and the planning departments of the market area cities of Milpitas, San Jose, Santa Clara, Sunnyvale, and Fremont to determine the health of the market area. In conducting research on the retail market, CBRE Consulting relied on brokers from CB Richard Ellis, Biagini Properties, Topline, and other retail center management. All of the professionals contacted have experience working with tenants and landlords in the market area.

4.11.4 - Thresholds of Significance

Implementation of the proposed project would result in significant urban decay impacts if it would:

- Create multiple long-term store vacancies or result in the abandonment of multiple buildings within the retail market served by the proposed project, which results in the physical deterioration of properties or structures that impairs the proper utilization of the properties or structures, or the health, safety, and welfare of the surrounding community.

4.11.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Project-Level Urban Decay Impacts

Impact UD-1: **The proposed project would not divert enough sales from competing businesses to cause store closures and, therefore, would not have the potential to create urban decay conditions.**

Impact Analysis

The following analysis examines the extent to which the Walmart expansion would attract new sales to the market area and/or divert sales from existing retailers. If some sales are diverted, the maximum level of impact on existing market area retailers is identified.

Demand for the Proposed Project

Based on the characterization of the respective retail bases, demand for the Walmart expansion will partially come from new household growth. The components of this demand are discussed below.

Total New Household Demand

As shown in Table 4.11-2, there are projected to be 2,098 new households added to the market area between 2008 and 2011. Table 4.11-13 shows spending per household for food stores in the market area in 2007 dollars. CBRE Consulting estimated the aggregate new demand for food store sales that will be created by the addition of households to the market area at $9.3 million in 2007 dollars.

Table 4.11-13: New Market Area Food Store Demand Generated by Household Growth (2008 – 2011)

Retail Category	Per Household Demand(1) [A]	Demand From New Households - 2008–2011 [B = A x 2,098](2)
Apparel Stores	$1,600	$3,356,532
General Merchandise Stores	$4,037	$8,468,506
Food Stores	$4,447	$9,328,184
Eating and Drinking Places	$4,332	$9,086,949
Home Furnishings and Appliances	$964	$2,022,332
Building Materials	$2,737	$5,740,770
Other Retail Stores	$3,550	$7,446,501
Total	$21,666	$45,449,776

Notes:
(1) See Table 4.11-10.
(2) See Table 4.11-1.
Source: CBRE Consulting, Inc. 2009.

Walmart Expansion New Households Demand Capture Rate

CBRE Consulting developed assumptions regarding the percentage of new households demand for food store sales that the Walmart expansion could reasonably expect to capture out of the total new households spending that is captured within the market area. In Table 4.11-14, the capture rate is

calculated by dividing the Walmart expansion sales estimate by estimated total sales in the market area. The resulting capture rate of 2.4 percent is equal to expansion sales of $7.2 million divided by the $300.7 million market area food store sales estimate in 2007. This capture rate is applied to new demand generated by household growth. This 2.4-percent capture rate is conservative, as it does not consider the potential for the Walmart Supercenter to have a greater than proportionate market draw.

Table 4.11-14: Expanded Walmart Capture Rates for New Demand

Retail Category	Market Area Existing Store Sales(1) [A]	Market Area Sales From Walmart Expansion(2) [B]	Walmart Market Area Capture Rate(3) [C = B/A]
Apparel Stores	$222,589,400	$0	0.0%
General Merchandise Stores	$354,634,087	($5,349,986)	N/A
Food Stores	$300,664,667	$12,402,898	4.1%
Eating and Drinking Places	$361,639,000	$0	0.0%
Home Furnishings and Appliances	$163,262,000	$0	0.0%
Building Materials	$196,011,000	$0	0.0%
Other Retail Stores	$881,666,000	$0	0.0%
Total	$2,480,466,154	$7,052,912	—

Notes:
(1) See Table 4.11-10.
(2) See Table 4.11-12.
(3) The Walmart market area capture rate indicates the Walmart's expansion as a share of the sales base. It is assumed that the expansion will capture a similar amount of new household demand.
Source: CBRE Consulting, Inc. 2009.

Market Area Capture Rate

Residents of the market area shop within the market area to varying degrees depending upon the retail goods being purchased. Recognizing that other shopping opportunities exist outside the market area, CBRE Consulting developed assumptions regarding the percentage of new household demand for food store sales that the market area could reasonably expect to capture. The capture rate estimates for new demand in the market area is an assumption developed by CBRE Consulting based on the likelihood that residents will make food store purchases within the market area versus outside the market area. Typically, people will not travel far to shop for groceries. Given the large market area containing portions of both Santa Clara and Alameda counties, it is assumed that 95 percent of new demand for food store sales will be captured by the market area.

New Household Demand

Taking into account the capture rates detailed previously, Table 4.11-15 documents the new households demand assumed to be captured by the Walmart expansion space. Given a market area capture rate of 95 percent and a Walmart expansion capture rate of 2.4 percent, the Walmart

Table 4.11-15: Sales Captured by Household Growth (2007 Dollars)

Retail Category[1]	New Market Area Demand 2008-2011[2] [A]	Market Area Capture Rate[3] [B]	Captured Market Area Sales [C = A x B]	Walmart Supercenter Capture Rate[4] [D]	Walmart Expansion New Demand Captured [E = C x D]	Remaining Potential Demand (Captured by Other Stores) [F = C - E]
Apparel Stores	$3,356,532	80.0%	$2,685,226	0.0%	$0	$2,685,226
General Merchandise Stores	$8,468,506	75.0%	$6,351,380	N/A	$0	$6,351,380
Food Stores	$9,328,184	95.0%	$8,861,775	4.1%	$365,562	$8,496,213
Eating and Drinking Places	$9,086,949	90.0%	$8,178,254	0.0%	$0	$8,178,254
Home Furnishings and Appliances	$2,022,332	50.0%	$1,011,166	0.0%	$0	$1,011,166
Building Materials	$5,740,770	50.0%	$2,870,385	0.0%	$0	$2,870,385
Other Retail Stores	$7,446,501	65.0%	$4,840,226	0.0%	$0	$4,840,226
Total	$45,449,776	—	$34,798,412	—	$365,562	$34,432,849

Notes:
(1) Excludes automotive-related categories, as they are not germane to the analysis.
(2) See Table 4.11-13.
(3) CBRE Consulting estimated the market area capture rate based on shopping patterns, available retail within the market area, and professional judgment.
(4) See Table 4.11-14.
Source: CBRE Consulting, Inc., 2009.

expansion is estimated to capture $213,060 in demand from new households. The remaining potential food store demand from new households is approximately $8.6 million.

Potential Sales Impacts Within Market Area

Food Stores

Absorption of the Walmart expansion sales into the growing consumer base will be accounted for, in a small part, by household growth. Table 4.11-16 presents the Walmart expansion's sales and then estimates the offsetting effects to the potential sales impacts of new household growth in the area. Of the $12.4 million in Walmart increased grocery sales projected to be generated from within the market area, $365,562 is projected to result from household growth. The intermediary potential sales impacts, absent new household demand that would be generated for retailers other than Walmart, total $12.0 million in the food stores category, or 4.0 percent of the sales base. The remaining available new household demand for food stores totals $8.5 million. Applying that demand to intermediary potential grocery sales diversions results in impacts of $3.5 million, or 1.2 percent of the sales base.

General Merchandise Store Impacts

Because the Walmart store is losing space devoted to general merchandise sales, the sales associated with this space will be available to other market area retailers. Table 4.11-16 shows the estimated general merchandise sales of the lost space at $5.4 million. In addition, due to population growth in the market area, there is estimated to be $6.4 million in new household demand for general merchandise by 2011. The combination of new household demand and sales associated with the lost space at the Walmart store total $11.7 million in general merchandise sales available to other retailers. This infusion of potential sales to market area retailers is a positive impact that equals 3.3 percent of the market area sales base in general merchandise.

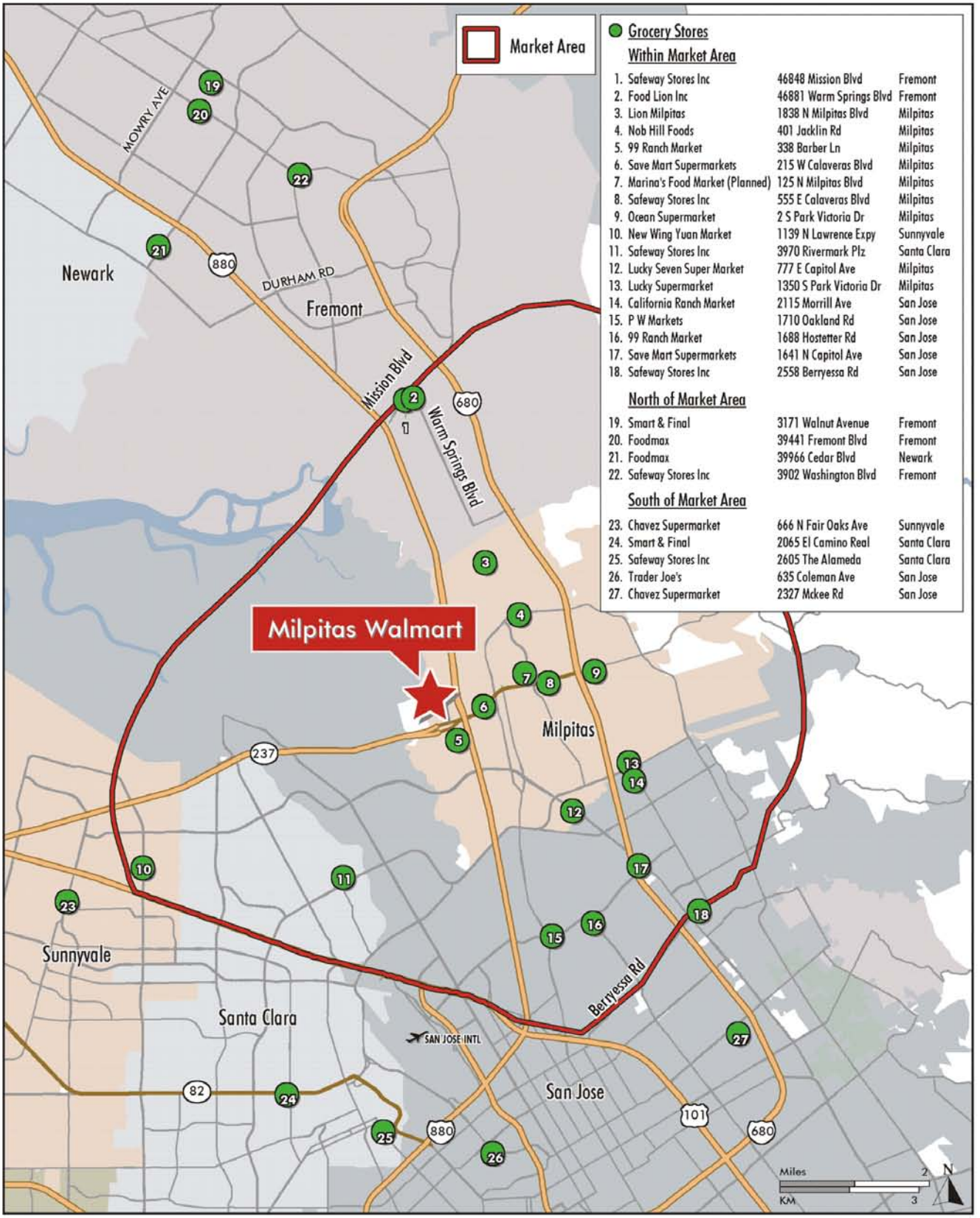
Retailers Potentially Impacted

CBRE Consulting visited the Milpitas area retail market in October 2008 to visually assess market performance, to determine market niches, and to qualitatively assess the degree to which stores might incur lost sales because of the Walmart expansion. The locations of the competitive food stores are mapped on Exhibit 4.11-4, which also depicts the location of the Walmart. These stores are also listed in Table 4.11-17. CBRE Consulting did not visit general merchandise stores since the Walmart expansion is decreasing the general merchandise sales from the store, prospectively adding sales back into the market area. General merchandise stores such as Big Lots! and Dollar Tree are expected to experience a positive net sales impact as a result of the Walmart expansion, as shown in Table 4.11-16.

Table 4.11-16: Potential Sales Impacts (2007 Dollars)

Retail Category	Walmart Market Area Sales[1] [A]	New Walmart Demand Captured[2] [B]	Market Area Sales Base[3] [C]	Intermediary Potential Sales Impacts		Remaining Potential Demand from New Households[2] [F]	Sales Diverted From Existing Market Area Retailers	
				Amount [D = A - B]	Percent [E = D/C]		Amount [G = A - B - F]	Percent [H = G/C]
Apparel Stores	$0	$0	$222,589,400	$0	0.0	$2,685,226	$0	0.0
General Merchandise Stores	($5,349,986)	$0	$354,634,087	($5,349,986)	(1.5)	$6,351,380	($11,701,366)[5]	(3.3)
Food Stores	$12,402,898	$365,562	$300,664,667	$12,037,336	4.0	$8,496,213	$3,541,123	1.2
Eating and Drinking Places	$0	$0	$361,639,000	$0	0.0	$8,178,254	$0	0.0
Home Furnishings and Appliances	$0	$0	$163,262,000	$0	0.0	$1,011,166	$0	0.0
Building Materials	$0	$0	$196,011,000	$0	0.0	$2,870,385	$0	0.0
Other Retail Stores	$0	$0	$881,666,000	$0	0.0	$4,840,226	$0	0.0
Total	**$7,052,912**	**$365,562**	**$2,480,466,154**	**$6,687,349**	**0.3**	**$34,432,849**	**($8,160,243)**	**(2.1)**

Notes:
(1) See Table 4.11-12.
(2) See Table 4.11-15.
(3) See Table 4.11-14.
Source: CBRE Consulting, Inc., 2009.



Source: CBRE Consulting, Inc., September 2009.

NORTH

NOT TO SCALE

Michael Brandman Associates

Exhibit 4.11-4
Milpitas Walmart and Proximate Grocery Stores

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CITY OF MILPITAS • MILPITAS WALMART EXPANSION PROJECT
ENVIRONMENTAL IMPACT REPORT

Table 4.11-17: Market Area Select Grocery Stores

Food Store, Center, City	Market Orientation	Miles from Walmart
Save Mart, Calaveras Plaza, Milpitas	Conventional	1.4
Nob Hill Foods, Foothill Square, Milpitas	Conventional	3.0
Lucky, Parktown Plaza, Milpitas	Conventional	4.4
Save Mart, Save Mart Neighborhood Center, San Jose	Conventional	5.8
Safeway, Franciscan Center, Fremont	Conventional	5.9
Safeway, Berryessa Street, San Jose	Conventional	7.3
Safeway, Milpitas Town Center, Milpitas	Upscale	2.4
Safeway, Rivermark Village Shopping Center, Santa Clara	Upscale	4.5
PW Super Market, North Park Plaza, San Jose	Upscale	4.9
Ranch 99, Milpitas Square, Milpitas	Ethnic	1.1
Marina Food, Beresford Square, Milpitas*	Ethnic	2.1
Lion Food, City Center, Milpitas	Ethnic	3.0
Ocean Supermarket, Fiesta Shopping Center, Milpitas	Ethnic	3.0
Lucky 7 Supermarket, Northwood Plaza, Milpitas	Ethnic	3.5
California Ranch, Northwood Square, San Jose	Ethnic	5.2
Ranch 99, Hostetter Road, San Jose	Ethnic	5.8
New Wing Yuan Market, Sunnyvale	Ethnic	6.0
Lion Food, Warm Springs Boulevard, Fremont	Ethnic	6.1

Notes:
* Marina Food is planned to open in October 2009.
Source: CBRE Consulting, Inc., 2009.

Identification of Competitive Food Stores

These stores listed in Table 4.11-17 represent a range of market orientations, including conventional, upscale, and ethnic. In addition to serving a variety of market niches, the stores are situated at various distances from the Walmart. Many of the stores are located in either neighborhood- or community-serving shopping centers. Given the market orientation and locational distribution of the food stores relative to Walmart, CBRE Consulting believes it is most meaningful to classify the competitive food stores by niche and location, with typical niches including discount, conventional, upscale, and ethnic. Accordingly, the individualized store discussion and analyses are presented in this manner.

Discount Stores

Discount stores are characterized by lower-than-average price points. Sometimes these are manifested by bulk sales, which allow customers to get more for their dollar relative to most other grocery stores. The Walmart expansion falls into the Discount Stores category by virtue of pricing

levels at Walmart stores and the bulk food items that will be offered there. There are no discount grocery stores located within the market area.

Conventional Stores

Conventional Stores are full-service grocery stores that offer most or all of the following: a fresh bakery; fresh meat and seafood; frozen foods, including frozen meat; fresh produce; a deli counter; and prepared foods. Other specialties sometimes include organic foods, a flower selection, a pharmacy, or a photo center.

- **Save Mart, Calaveras Plaza, Milpitas.** This grocery store is located in an older shopping center. Save Mart offers some major product types such as a fresh bakery, a deli-counter, and a small ethnic foods section. Because of its proximity to Walmart, this store will be in competition with the expanded grocery section at Walmart and likely will experience some negative sales impacts. However, the greater selection at Save Mart, including a fresh bakery and deli counter, will keep the store competitive with Walmart's smaller grocery section.
- **Nob Hill Foods, Foothill Square, Milpitas.** Foothill Square is located in a more residential area compared with the other centers visited. The center and store are of good quality and had moderate shopper volume. Nob Hill Foods is owned by the same company that owns Raley's and Bel-Air food stores. The Nob Hill store is similar to a conventional Safeway. There is a fresh bakery, a deli counter, a florist, fresh meat and seafood, and packaged meat and seafood. Given its conventional orientation and the residential location, this Nob Hill Foods is not expected to compete with the Walmart expansion and will not likely experience negative impacts.
- **Lucky, Parktown Plaza, Milpitas.** This Lucky store is undersized compared with conventional grocery stores. The quality of the store is similar to that of the former Lucky at Beresford Square in Milpitas, which is planned to re-open as Marina Food in October 2009. There is a bank inside the Parktown Plaza Lucky store, as well as a fresh bakery, fresh meat and seafood, and packaged meat and seafood. The store and center had very high shopper volume. Given its conventional orientation and size, this store is not expected to compete with the Walmart expansion, nor is it expected to experience negative impacts.
- **Save Mart, Save Mart Neighborhood Center, San Jose.** This grocery store is located in an older strip center and includes a fresh bakery and a video rental area. Located almost 6 miles from the Milpitas Walmart, this store is less likely to experience negative impacts. In addition, this neighborhood center is occupied with local retail that does not generally compete with regional power centers, such as the one where the Walmart is located.
- **Safeway, Franciscan Center, Fremont.** This Safeway store has a fresh bakery, a deli counter, fresh and packaged meat and seafood, and prepared food. This Safeway also has a pharmacy, a Starbucks, a digital photo center, a DVDPlay Kiosk, and a bank located inside. It is located in an older style center that is well maintained. The store had moderate to high

shopper volume. Given the conventional orientation and distance from Walmart (5.9 miles), this store is not expected to compete with the Walmart expansion and will most likely not have any negative impacts.

- **Safeway, Berryessa Street, San Jose.** This Safeway is located in an old-style center that is well maintained. The store has a fresh bakery, a deli counter, fresh meat, and a florist. The store had moderate to high shopper volume. Given its conventional orientation and over 7-mile distance from Walmart, this store is not expected to compete with the Walmart expansion and will most likely not experience any negative impacts.

Note that the former Lucky in Beresford Square in Milpitas closed in March 2009. According to the City of Milpitas Economic Development Department, Marina Food will take over the 45,000-square-foot space. The new store is estimated to open in October 2009. Marina Food is an Asian-oriented grocery store. Given its ethnic orientation, it is not expected to be competitive with the Walmart expansion, though it may experience some negative impacts due to its proximity. Since the space is being filled with another grocery store, no adjustment was made to the sales base. It is assumed that the magnitude of sales achieved by the new store will be similar to that of the previous tenant.

Upscale Stores

Upscale stores have higher than average prices and generally do not offer products in bulk quantities. Many brands sold at these stores are not stocked at mid-market stores like Save Mart. There is usually an emphasis on fresh foods, gourmet products, and organic foods at upscale stores. These stores have wider aisles and nicer decors, such as wood flooring in the produce section.

- **Safeway, Milpitas Town Center, Milpitas.** Located at the newly renovated Milpitas Town Center approximately 2.5 miles from Walmart, this is a high-end grocery store with lots of selection. There is a Starbucks inside the store with an eating area, fresh bakery, a deli counter, prepared foods, fresh coffee, fresh meat and seafood, packaged meat and seafood, organic/health foods, a florist, a DVD kiosk, a pharmacy, and an area that sells home supplies such as flatware and cooking utensils. Given the upscale orientation, this store is not expected to be impacted by the expansion of the Walmart store.

- **Safeway, Rivermark Village Shopping Center, Santa Clara.** This 24-hour grocery store is located at the new Rivermark Village Shopping Center, approximately 4.5 miles from Walmart. This is a high-end grocery store with lots of selection. The store offers the standard fare of a full-service grocery store such as a fresh bakery, a deli counter, prepared foods, fresh meat and seafood, packaged meat and seafood, a florist, and a pharmacy, but there is also a wider selection of prepared food options such as a sushi bar and an olive bar. It provides a digital photo center and DVD kiosk as well. Given the upscale orientation, this store is not expected to be impacted by the expansion of the Walmart store.

- **PW Super Market, North Park Plaza, San Jose.** The PW Super Market is located in North Park Plaza. The store sells upscale products and is a large store with wide aisles. This store has a very large deli counter with an olive bar and an in-store eating area. There is also a large wine area, a fresh bakery, fresh meat and seafood, packaged meat and seafood, fresh coffee, a florist, and a bank inside the store. Although the store is deemed upscale, it could use a remodel. This store is oriented towards providing convenient shopping for the surrounding neighborhood; therefore, it is not expected to be impacted by the expansion of the Walmart store.

Ethnic-Oriented Stores

Ethnic-Oriented Stores are distinguished from other stores by selling a wide selection of ethnic-oriented groceries not usually found in standard grocery stores. Ethnic-oriented stores are generally geared toward an Asian, Mexican, or Latin-American consumer. Products carried include special spices and sauces, unusual vegetables and seafood, and brands typically sold outside of the United States. Commonly, the staff of these stores speaks the native language of its primary customers and signs are printed in this language. Although Walmart and other grocery stores may sell some ethnic-oriented products such as tortillas and fish sauce, ethnic-oriented stores have much deeper selection.

- **Ranch 99, Milpitas Square, Milpitas.** Ranch 99 in Milpitas is a large, excellent quality, Asian-oriented grocery store located in a center dominated by Asian-oriented stores. This store has a fresh bakery, a deli counter, and fresh meat and seafood. The store and center had moderate to high shopper volume. Even though this store is only about a mile away from the Walmart store, the store is not likely to compete with Walmart because of the store and center's ethnic orientation. Therefore, it is not likely to experience any negative impacts.
- **Lion Food, City Center Shopping Center, Milpitas.** This Asian-oriented store is located at the City Center Shopping Center, a mainly Asian-oriented center. The store is dirty and of low quality with narrow aisles. Lion Food has a deli and fresh meat and seafood. Despite the poor quality of the store, the store had moderate to high shopper volume. Given its ethnic orientation, this store is not likely to compete with Walmart; therefore, it will not likely experience negative impacts from the Walmart expansion.
- **Ocean Supermarket, Fiesta Shopping Center, Milpitas.** This is a medium to large Asian-oriented store located in the Fiesta Shopping Center. The store is dirty and of poor quality. It has fresh meat and seafood and even a small, Latin-American foods section. Despite the poor quality of the store, it had moderate to high shopper volume. Given its ethnic orientation, this store is not likely to compete with Walmart; therefore, it will not likely experience negative impacts from the Walmart expansion.
- **Lucky 7 Supermarket, Northwood Plaza, Milpitas.** This medium-sized, Asian-oriented store is located near the Great Mall in Northwood Plaza, a small strip center. The store quality varies from decent to good quality. It has fresh meat and seafood. The shopper volume was

high. Given its ethnic orientation, this store is not likely to compete with Walmart; therefore, it will not likely experience negative impacts from the Walmart expansion.

- **California Ranch, Northwood Square, San Jose.** This large, Asian-oriented store, similar to the Ranch 99 concept, is located in Northwood Square. The store is well maintained and has fresh bakery and fresh meat and seafood. The store and center had moderate shopper volume. Given its ethnic orientation and over 5-mile distance from the Walmart store, this store is not deemed competitive. This store is highly unlikely to experience negative impacts from the Walmart expansion.

- **Ranch 99, Hostetter Road, San Jose.** This Ranch 99 is a large, Asian-oriented grocery store located in an Asian-oriented strip mall. The store has fresh bakery, a deli counter, and fresh meat and seafood. The store and center had very high shopper volume. Given the store's and center's ethnic orientation and almost 6-mile distance from the Walmart store, this store is not deemed competitive. This store will not likely experience negative impacts from the Walmart expansion.

- **New Wing Yuan Market, Lawrence Expressway, Sunnyvale.** This Asian-oriented store is located in a small strip center. The store quality varies from decent to good. It has fresh meat and seafood and moderate shopper volume. Given the store's ethnic orientation and 6-mile distance from the Walmart store, it is not deemed competitive. This store will not likely experience negative impacts from the Walmart expansion.

- **Lion Food, Warm Springs Boulevard, Fremont.** This Asian-oriented store is located at the Lion Food Center, a mainly Asian-oriented center. The store quality varies from decent to poor. Given the store's ethnic orientation and over 6-mile distance from the Walmart store, it is not deemed competitive. This store will not likely experience negative impacts from the Walmart expansion.

Other Food Stores Near the Market Area

There are a few other grocery stores located outside but near the market area that were evaluated by CBRE Consulting. These stores were examined because, given their proximity to the Walmart market area boundary, it is likely that they draw some of their shoppers from within the Walmart market area, and they may be vulnerable to negative sales impacts if some of these shoppers shift their grocery shopping to the expanded Walmart store.

- **Chavez Supermarket.** There are two Chavez Supermarkets near the Milpitas Walmart market area. Chavez Supermarket is a Mexican- and Latin-American-oriented grocery store. The first store near the market area is located in Sunnyvale, approximately 7.1 miles from the Milpitas Walmart. This store is not likely to compete with Walmart because of its distance and ethnic orientation. The second Chavez Supermarket is a stand-alone grocery store located in San

Jose, approximately 8.7 miles from the Milpitas Walmart. This store is not likely to compete with Walmart because of its distance and ethnic orientation.

- **Safeway.** There are two Safeways located near the Milpitas Walmart market area. The first is located in an unnamed shopping center in San Jose, approximately 7.3 miles from the Milpitas Walmart. The second is located in the University Center in Santa Clara, approximately 8.2 miles from the Milpitas Walmart. Both stores have a conventional, neighborhood orientation and are not likely to compete with Walmart.
- **Smart & Final.** Smart & Final is a discount, small warehouse-type grocery store located in El Camino Center in Santa Clara, approximately 8.2 miles from the Milpitas Walmart. Since the store has a discount orientation, it could be competitive with Walmart, but this store is unlikely to compete with the Milpitas Walmart because of its distance.
- **Trader Joe's.** Trader Joe's is located in the San Jose Market Center, approximately 8.5 miles from the Milpitas Walmart. This is a smaller, niche market-type grocery store not likely to compete with Walmart.

Food Stores Most Susceptible

CBRE Consulting believes that grocery stores with a discount orientation are most at risk of sales impacts from the expanded Walmart store. There are no discount grocery stores in the market area. The closest one is the Smart & Final in Santa Clara located approximately 8.2 miles away. Besides grocery stores with a discount orientation, conventional stores located close to the Milpitas Walmart store are most likely to experience negative sales impacts from the Walmart expansion. The store in close proximity most likely to experience negative sales impacts is the Save Mart on Calaveras Boulevard. Even though the 99 Ranch Market and the Marina Food store set to open in October 2009 are very close to Walmart, these stores' ethnic orientation means that the products they sell are unique enough not to compete with the types of products sold at Walmart.

Other conventional grocery stores within the market area may also experience some negative sales impacts, but this store is most susceptible to negative sales impacts. The earlier analysis, however, found that potential sales diversions will be largely offset by grocery demand from new households in the market area. The remaining potential sales diversions are fairly low, at only 1.2 percent of the market area sales base. Therefore, no stores are anticipated to close.

Potential Sales Impacts Outside of Market Area

This section discusses potential sales impacts to existing retailers outside of but near the defined boundaries of the market area that may result from the expansion of the Walmart discount store and associated changes in consumer shopping patterns.

Retailers Near Market Area

In October 2008, CBRE Consulting identified and visited select grocery stores located outside but near the border of the Walmart market area. These grocery stores could be susceptible to potential sales diversions resulting from the expansion of the Milpitas Walmart. The diversions to these retailers would be attributable to changed consumer shopping patterns, with some shoppers shifting their spending instead to the Milpitas Walmart. Since grocery stores typically draw customers from a 3-mile radius, stores farther than 3 miles from the border of the Walmart market area were considered not to compete for the same customers. This 3-mile radius assumption is primarily based on the criteria supported by the International Council of Shopping Centers (ICSC), which estimates that the trade area for a grocery-anchored neighborhood center is about 3 miles.

There are five grocery stores whose 3-mile trade area overlaps with the Walmart market area. Four competitive grocery stores are located to the south (Smart & Final, Safeway, Trader Joe's, and Chavez Supermarket), and one competitive grocery store, Chavez Supermarket, is located to the west of the market area. There is very little retail to the east of the market area. To the north, the nearest major grocery stores (Food Maxx and Safeway) are over 3 miles away. Thus, there are five food retailers outside of the market area that may experience negative sales impacts from the Walmart expansion. Exhibit 4.11-4 maps the locations of competitive food stores near the market area.

Potential Sales Impacts

As previously discussed, the intermediary potential sales impacts, absent new household demand that would be generated for retailers other than Walmart, total approximately $7.0 million in the food stores category. The remaining demand not captured by Walmart from the forecasted 2,100 new households in the market area between 2008 and 2011 completely offsets the impacts of the expansion of the Walmart. In other words, by 2011, when the Walmart expansion opens, there should be enough new households shopping at existing grocery stores to compensate for any loss of customers attracted to the new grocery offerings at Walmart. Therefore, diverted sales from existing retailers are not likely to occur. Although closer stores within the market area are more likely to experience negative sales impacts—even just interim impacts—for the completeness of this report, this section explores the possible impacts to stores outside of but near the market area.

Grocery Stores with Overlapping Trade Areas

In order to assess the potential sales impacts to existing grocery stores outside of but near the market area, CBRE Consulting analyzed the household base within a 3-mile trade area of five supermarkets:

- Chavez Supermarket (Sunnyvale)
- Smart & Final (Santa Clara)
- Safeway (Santa Clara)
- Trader Joe's (San Jose)
- Chavez Supermarket (San Jose)

These five stores were identified as close enough to the Milpitas Walmart market area to potentially depend in part on households living in the market area.

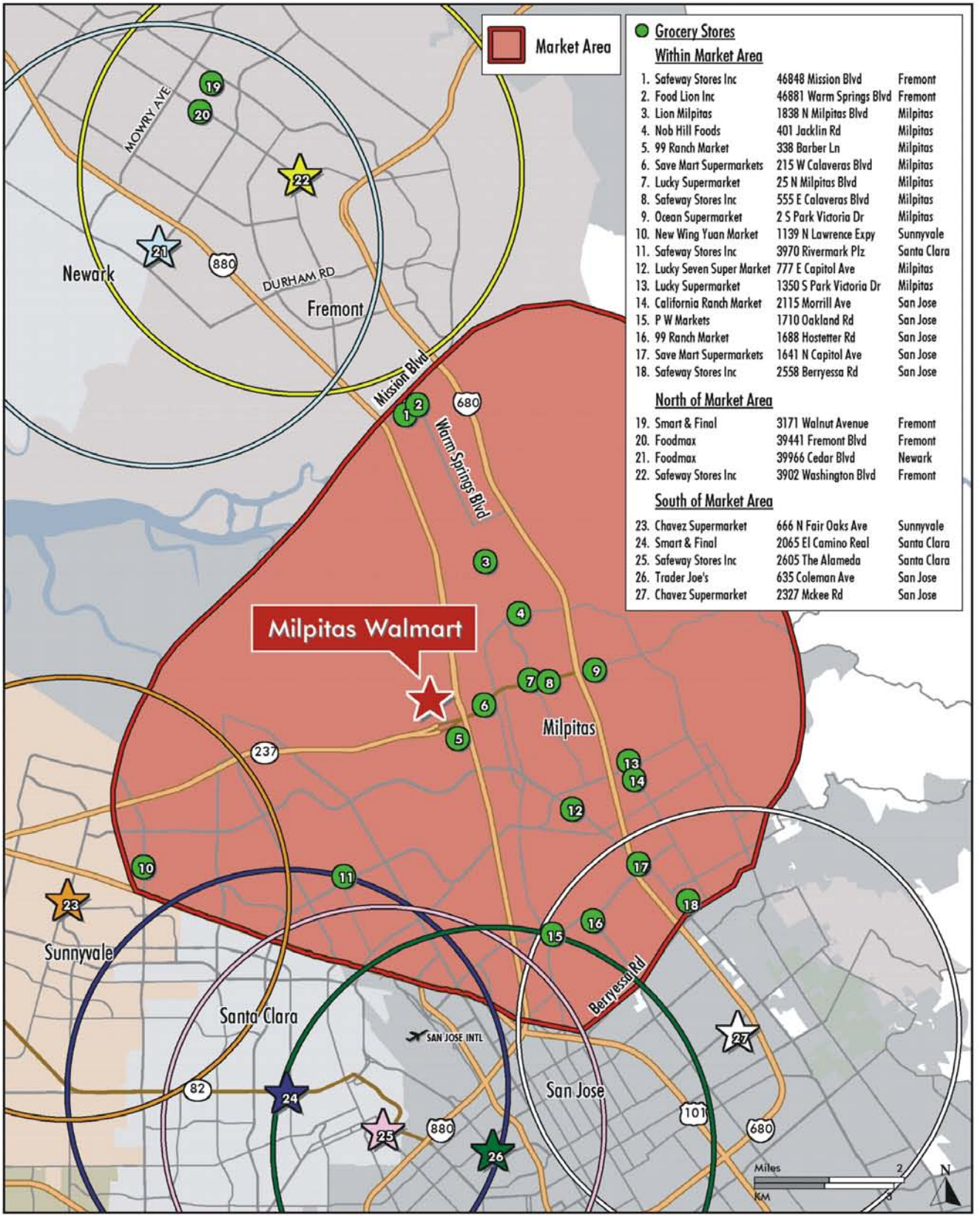
Findings

For each of the five stores identified, CBRE Consulting estimated the household base within a 3-mile radius. A map of these stores and their 3-mile radii is shown in Exhibit 4.11-5. The portion of the households in the 3-mile rings within the Milpitas Walmart market area ranges between 0.4 and 17.1 percent, depending on the store, as shown in Table 4.11-18. If each store were to lose 50 percent of its trade-area households that overlap with the Walmart market area from the expansion of the Walmart store, each store could lose between 0.2 to 8.5 percent of its trade area consumer base, as shown in Table 4.11-19. The 50-percent assumption is used for illustrative purposes, since the actual number of residents currently shopping at the five grocery stores is unknown. As shown in Table 4.11-20, the potential consumer base at risk, both as a percent of the store's trade area consumer base and in terms of absolute numbers, is highest for the Chavez Supermarket in Sunnyvale and the Chavez Supermarket in San Jose. The potential consumer base at risk at the Chavez Supermarket in Sunnyvale is 2,480 customers, and 6,219 customers are at risk at the Chavez Supermarket in San Jose.

Table 4.11-18: Selected Supermarkets Overlapping Households – 3-Mile Radii (2008 – 2011)

Store	3-Mile Radius Households 2008[2]		Percent Overlapping With Walmart Market Area	3-Mile Radius Households 2011[2] [3]	
	Total	Overlapping Within Walmart Market Area		Total	Overlapping Within Walmart Market Area
Chavez Supermarket (Sunnyvale)	55,824	4,959	8.9	56,545	5,033
Smart & Final (Santa Clara)	66,418	1,863	2.8	68,159	1,976
Safeway (Santa Clara)	68,155	254	0.4	70,260	269
Trader Joe's (San Jose)	69,534	2,202	3.2	71,700	2,295
Chavez Supermarket (San Jose)	72,789	12,437	17.1	74,456	12,719

Notes:
(1) For the purposes of analysis, the trade area for each store is defined as the area within a 3-mile radius of the store. Household estimates and projections provided by Claritas, Inc.
(2) The first column indicates the total households in each grocery store's market area. The second column displays the number of households in each grocery store's market area that also reside in the Milpitas Walmart's market area.
(3) Claritas provided estimates for 2008 and projections for 2013; 2011 figures were interpolated based on annual average growth rates.
Source: CBRE Consulting, Inc., 2009.



Source: CBRE Consulting, Inc., September 2009.

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Exhibit 4.11-5
Select Grocery Stores Bordering the Market Area and 3-Mile Trade Area

Table 4.11-19: Offsetting Effects of Household Growth for Selected Supermarkets (2008 – 2011)

Store	3-Mile Households 2008[1]		Potential Consumer Base at Risk[2]		Households Gain 2008-2011[3] Radius Total	Net Potential Customer Loss 2011[4]	
	Radius Total	Percent Overlapping with Walmart Market Area	Total	Percent		Amount	Percent
Chavez Supermarket (Sunnyvale)	55,824	8.9	2,480	4.4	721	1,759	3.1
Smart & Final (Santa Clara)	66,418	2.8	932	1.4	1,741	0	0.0
Safeway (Santa Clara)	68,155	0.4	127	0.2	2,105	0	0.0
Trader Joe's (San Jose)	69,534	3.2	1,101	1.6	2,166	0	0.0
Chavez Supermarket (San Jose)	72,789	17.1	6,219	8.5	1,667	4,552	6.1

Notes:
(1) See Table 4.11-18.
(2) Reflects the potential loss in the store's trade area households should one-half (50 percent) of those households divert their potential shopping to the Milpitas Walmart Supercenter.
(3) Derived from 2008 and 2011 household count data in Table 4.11-18.
(4) Comprises "Potential Consumer Base at Risk" less "Household Gain 2008-2011."
Source: CBRE Consulting, Inc., 2009.

Table 4.11-20: Selected Supermarkets Overlapping Households Summary (2008 – 2011)

Store	3-Mile Radius Household 2008	Portion of Households in the Milpitas Walmart Market Area	Potential Consumer Base at Risk (50% of Overlap)	New Households Gain 2008-2011	Net Potential Customer Loss 2011
Chavez Supermarket (Sunnyvale)	55,824	8.9%	2,480	721	3.1%
Smart & Final (Santa Clara)	66,418	2.8%	932	1,741	0.0%
Safeway (Santa Clara)	58,155	0.4%	127	2,105	0.0%
Trader Joe's (San Jose)	69,534	3.2%	1,101	2,166	0.0%
Chavez Supermarket (San Jose)	72,789	17.1%	6,219	1,667	6.1%
Source: CBRE Consulting, Inc., 2009.					

The above discussion is based on the potential outcome if the Walmart expansion were to be completed in 2011. Household gains from 2008 to 2011 will create additional demand for grocery stores throughout the region, helping to offset potential sales diversions to Walmart. By the time the expansion opens in 2011, any potential loss of customers is likely to be fully offset by new household growth for all stores with the exception of the two Chavez Supermarkets (refer to Table 4.11-19). The number of remaining customers at risk are 1,759 for the Chavez Supermarket in Sunnyvale and 4,552 for the Chavez Supermarket in San Jose. However, the Chavez Supermarkets fall into a specific niche catering to the Latin-American customer. These stores offer many products not offered at Walmart. Therefore, these stores are much less likely to lose customers to Walmart than conventionally oriented or discount-oriented stores. Based on these findings, CBRE Consulting concludes that no existing grocery stores outside of but near the Walmart market area are likely to face sales losses so great that it would put these stores at risk of closure.

It should be noted that there are limitations to the above analysis, as the exact trade areas of the grocery stores are not known. In addition, the analysis does not factor in other potential planned projects that have the potential to divert sales from existing grocery stores. CBRE Consulting has identified a number of planned grocery stores in and near the market area. Impact UD-2 examines the potential impacts of these planned stores.

Conclusion

Ultimately, many factors will determine whether existing grocery stores located near but outside of the Milpitas Walmart market area would be at risk of potential sales diversion or closure. These factors include, but are not limited to, store management and quality, market strength, levels of service, ability to respond to changing market conditions, and location relative to the Walmart. Overall, CBRE Consulting believes that impacts to these stores will be limited. Potential sales are more likely to be diverted from the many existing grocery stores in the market area that are located closest to the expanded Walmart. In addition, previous analysis concluded that household growth

within the market area would completely offset negative impacts to existing stores within the market area.

The above analysis indicates that of the five grocery stores examined, the two Chavez Supermarkets in Sunnyvale and San Jose have the most overlap between their trade areas and the Milpitas Walmart market area. New households in their market areas will offset some but not all of that possible loss of customers. However, because the Chavez Supermarkets are ethnic-oriented stores, they are less likely to compete directly with Walmart. Though Walmart stores carry some Latin-American food products, Chavez Supermarkets have a much deeper selection. The other stores have less overlap between their trade areas and the Walmart market area. In addition, household projections show that new household growth would more than offset any potential loss of customers at the Smart & Final, Safeway, and Trader Joe's. Based on these findings, CBRE Consulting concludes that no existing grocery stores located outside but near the Milpitas Walmart market area are likely to face a loss in their customer base so great that it would put these stores at risk of closure.

Conclusion

The proposed project itself is not anticipated to cause closure of any competing grocery stores, either within the market area or outside of the market area. This is primarily attributable to the lack of discount grocery stores within the market area or within a reasonable distance of the market area. Conventional grocery stores in the market area (such as Save Mart in Calaveras Plaza) would likely experience negative sales impacts from the Walmart expansion; however, the sales diversions attributable to the Walmart expansion are not anticipated to be significant enough to cause store closure. Other grocery stores cater to market niches that have minimal to no overlap with the discount orientation of Walmart (upscale or ethnic) or are sufficiently far enough from the project site to be negligibly impacted by the proposed project. Therefore, project-level urban decay impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Cumulative Urban Decay Impacts

Impact UD-2:	**The proposed project, in conjunction with other planned and approved projects, would not divert enough sales from competing businesses to cause store closure, and urban decay is not a foreseeable consequence.**

Impact Analysis

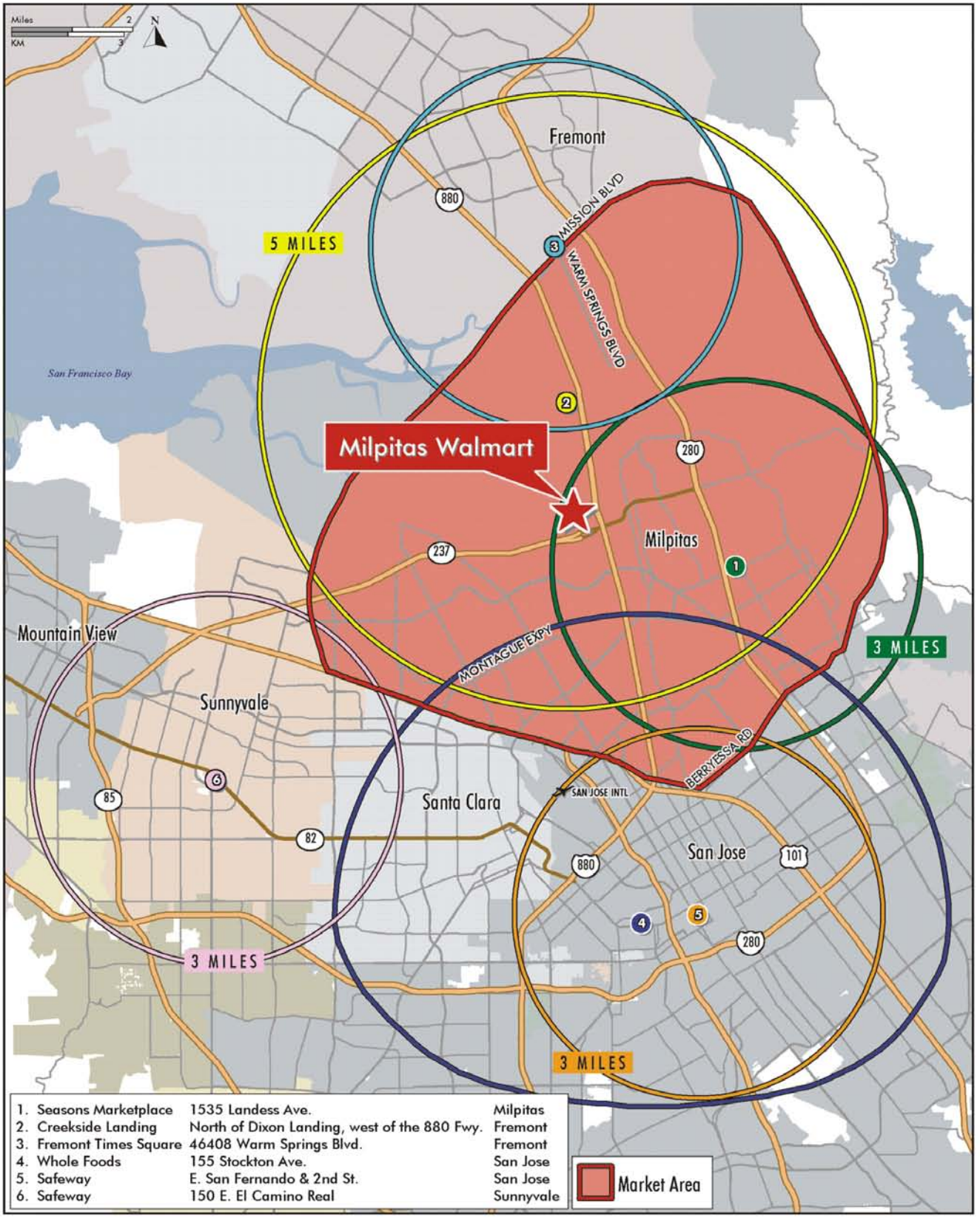
This analysis quantifies the impact of the Walmart expansion taking into consideration other planned competitive retail projects. The cumulative projects that have been assessed for impacts include retail developments with a grocery store component that are reasonably likely to be open and fully operational by 2011, the same timeframe as the Walmart expansion. Other large projects were also considered, given their possible impacts on other categories of retail and the general level of vacancy within the market area.

Identified Cumulative Projects

There are six identified projects with the potential for cumulative impacts. These projects are described in Table 4.11-21 and their locations are shown in a map in Exhibit 4.11-6. In the market area there are two proposed projects: Season's Marketplace in Milpitas and Creekside Landing in Fremont. Also within the market area is the planned Marina Food, which is expected to open in the former Lucky space in Beresford Square in October 2009. Marina Food is not expected to contribute to the cumulative project impacts, however, because it is estimated that this store's prospective sales will be similar in magnitude to those achieved by the former Lucky store, which are already accounted for in the market area sales base estimate. Outside, but near the market area Fremont Times Square is under construction in Fremont, a Whole Foods is under construction in San Jose, and two Safeway's have been approved, one in San Jose and one in Sunnyvale.

The San Francisco 49ers are pursuing the development of a football stadium within the Walmart expansion market area near the Great America theme park in Santa Clara. The project, which requires voter approval, involves the construction of a 68,500-seat football stadium and associated parking facilities with an estimated completion date of 2014. The stadium is planned to have 10,000-square-feet of retail space on its ground floor, which is estimated to include stadium-related restaurants and retailers. These stores and restaurants will be supported by customers attending stadium events such as football games and concerts, in contrast to the Walmart expansion project or other existing or planned commercial retail projects, which are estimated to draw the majority of customers from residents of their respective market areas. Therefore, this project is not competitive with the Walmart expansion and was excluded from the cumulative projects analysis.

Seasons Marketplace. The first proposed project within the market area is called Season's Marketplace. The proposed location is 1535 Landess Avenue in Milpitas, approximately 4.5 miles southeast of the Milpitas Walmart. Season's Marketplace is a proposed conversion of an 89,704-square-foot commercial building into a two-story, 107,000-square-foot neighborhood retail center with retail on the first floor and offices on the second. Approximately 32,975 square feet of the retail portion of the center are reserved for a Seafood City, an Asian-oriented supermarket; 21,000 square feet of restaurant space; 3,100 square feet of fast food; and 17,000 square feet of retail. The remaining space would be allocated for office uses.



Source: CBRE Consulting, Inc., September 2009.

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Exhibit 4.11-6
Cumulative Major Retail Developments (10,000+ Square Feet)

Creekside Landing. The second proposed project within the market area is Creekside Landing Shopping Center, a 524,000-square-foot power center. One anchor is planned to be a 151,000-square-foot Target. The second anchor planned is a 142,000-square-foot home improvement center. The remaining 231,000 square feet are unknown, but it is assumed they will consist of inline retail typical of a regional center. The proposed center will be located in Fremont, north of Dixon Landing Road, west of I-880, and east of the future Fremont Boulevard extension. This center will be approximately 2.0 miles from the Milpitas Walmart.

Outside but near the market area, there are four identified projects. Fremont Times Square is under construction at 46408 Warm Springs Boulevard, approximately 5.2 miles north of the Milpitas Walmart. This shopping center will have 93,511 square feet of Asian-oriented retail and will be anchored by Marina Foods. Whole Foods is under construction at 155 Stockton Avenue in San Jose, approximately 9.0 miles south of the Milpitas Walmart. This store is will be 44,000 square feet, including an outdoor eating area. Also in San Jose, a smaller, 23,620-square-foot Safeway has been approved. This grocery store is to be located at E. San Fernando and 2nd Street, beneath Tower 88, a luxury condominium building. This store will be approximately 8.0 miles south of the Milpitas Walmart. In Sunnyvale, a 64,535-square-foot Safeway has been approved at 150 E. El Camino Real, approximately 9.7 miles southwest of the Milpitas Walmart. This store will be part of a neighborhood retail center totaling 110,025 square feet.

Cumulative Projects Sales Estimates and Sales Impacts

Sales Estimate

The cumulative projects are presumed to compete with the Milpitas Walmart only to the extent that their market areas overlap. Exhibit 4.11-6 shows the approximate market areas for each of the cumulative projects. As stated in the last section, the International Council of Shopping Centers defines the typical market area of a grocery-anchored neighborhood center to be approximately a 3-mile radius. For four of the cumulative projects—Season's Marketplace, Fremont Times Square, the Safeway in San Jose, and the Safeway Center in Sunnyvale—a typical 3-mile market area was assumed. Given the size and orientation of Creekside Landing as a regional center, it was assigned an approximate market area of a 5-mile radius. For the Whole Foods store, the locations of the nearest Whole Foods stores were considered in the definition of the market area. To the south of the Whole Foods are three existing Whole Foods stores. Another is being constructed almost 7 miles south on The Alameda in San Jose. There are two stores to the west, both of which are over 18 miles away. Since there are no Whole Foods stores to the north or east and the stores to the west are a lengthy distance away, the market area was defined as a 5-mile radius to the north, east, and west, and a 3-mile radius to the south.

The overlap between the cumulative projects' market areas and the Milpitas Walmart's market area are calculated in Table 4.11-22 using the households as estimated by Claritas. Season's Marketplace in Milpitas is estimated to overlap with the Milpitas Walmart's market area by 88 percent. Creekside Landing's market area is estimated to overlap with the Walmart's market area by 84 percent. The

four stores that are located outside of Walmart's market area have much less overlap. Around 44 percent of households in the market area of Fremont Times Square also live in the Walmart's market area. Only 10 percent of households in the Whole Foods market area also live in the Walmart's market area. Less than 3 percent of households that live in either of the two Safeway stores' market areas, also live in the Walmart's market area.

CBRE Consulting estimated sales for the planned market area retail developments in Table 4.11-23. As with the Milpitas Walmart itself, sales were estimated using available 10-Ks or the Retail MAXIM publication. The results in Table 4.11-23 indicate that these planned projects are anticipated to generate an additional $328.7 million in total sales. Table 4.11-23 adjusts these sales estimates to account only for the how much each store's market area overlaps with the Walmart market area. The result is an estimate of $181.5 million of sales. These sales are distributed into retail categories on Table 4.11-24. Food store sales comprise $27.2 million of the total.

Table 4.11-21: Cumulative Retail Projects

Project (1)	City	Description	Status	Location	Distance from Milpitas Walmart	Expected Opening/ Completion
Market Area						
1. Season's Market Place	Milpitas	Conversion of an 89,704-square-foot commercial building into a 107,000-square-foot retail center. The new center is proposed to include Seafood City, 21,000 square feet of restaurant space, 3,100 square feet of fast food, and 17,000 square feet of retail. This will be a two-story building with the remaining square footage to be office space.	Proposed	1535 Landess Avenue	4.5 miles	2010
2. Creekside Landing	Fremont	Creekside Landing will include a proposed 151,000-square-foot Target, a 142,000-square-foot home improvement center, and the remaining square footage will be a mix of restaurants, apparel stores, home furnishings stores, other retail, and non-retail. Creekside Landing will have a total of 524,000 square feet.	Proposed	North of Dixon Landing, west of the 880 Freeway	2.0 miles	2011
Bordering the Market Area						
3. Fremont Times Square	Fremont	This is an Asian-oriented shopping center totaling 93,511 square feet. The center will be anchored by a 30,000-square-foot Marina Foods.	Under Construction	46408 Warm Springs Boulevard	5.9 miles	2009
4. Whole Foods	San Jose	A 44,000-square-foot Whole Foods Market including outdoor eating area.	Under Construction	155 Stockton Avenue	9.0 miles	2009
5. Safeway	San Jose	This Safeway will be a 23,620-square-foot neighborhood market located beneath Tower 88, a luxury condominium building.	Approved	E. San Fernando and 2nd Street	8.0 miles	2009
6. Safeway	Sunnyvale	This 64,535-square-foot Safeway will be a part of a retail center totaling 110,025 square feet.	Approved	150 E. El Camino Real	9.7 miles	2011

Notes:
(1) Numbers match site numbering on the Exhibit 4.11-6 companion map.
Source: CBRE Consulting, Inc., 2009.

Table 4.11-22: Cumulative Projects Market Area Share Overlap (2008)

Project Name/Location	Radius Households (2)		Share Overlapping with Walmart Market Area
	Total	Overlapping Within Walmart Market Area	
Market Area			
1. Season's Market Place/Milpitas	40,543	35,816	88.3%
2. Creekside Landing/Fremont	50,802	42,872	84.4%
Bordering the Market Area			
3. Fremont Times Square/Fremont	17,369	7,615	43.8%
4. Whole Foods/San Jose	164,908	16,278	9.9%
5. Safeway/San Jose	76,558	2,123	2.8%
6. Safeway/Sunnyvale	79,635	1,920	2.4%

Notes:
(1) For the purposes of analysis, the trade area for the Safeway stores, Market Place, and Fremont Times Square is defined as the area within a 3-mile radius of the store, the trade area for Creekside Landing is defined as the area within a 5-mile radius of the center and the trade area for the Whole Foods is defined as the area within a 3-mile radius to the south, east, and west and a 5-mile radius to the north of the store. These trade areas are analytical approximations based on ICSC Shopping Center Definitions by type of center and CBRE Consulting's area research. Household estimates and projections are provided by Claritas, Inc.
(2) The first column indicates the total households in each center or store's market area. The second column displays the number of households in each center or store's market area that also reside in the Milpitas Walmart's market area.
Sources: Claritas; and CBRE Consulting.

Table 4.11-23: Cumulative Projects Sales Estimates (2007 Dollars)

Project Name/Location	Estimated Square Feet	Sales per Square Foot	Total Sales	Share Overlapping with Market Area(1)	Total Sales Originating From the Market Area
Market Area					
Season's Market Place					
Seafood City	32,975	$482(2)	$15,893,950	88.3%	$14,040,838
Restaurant	21,000	$430(3)	$9,030,000	88.3%	$7,977,172
Fast Food	3,100	$461(4)	$1,428,713	88.3%	$1,262,136
Unknown Retail	17,000	$392(5)	$6,664,000	88.3%	$5,887,029
Office Space	32,925	N/A(6)	N/A	88.3%	N/A
Sub-Total	107,000	—	$33,016,663	—	$29,167,175
Creekside Landing					
Target	151,000	$296(5)	$44,696,000	84.4%	$37,719,123

Table 4.11-23 (Cont.): Cumulative Projects Sales Estimates (2007 Dollars)

Project Name/Location	Estimated Square Feet	Sales per Square Foot	Total Sales	Share Overlapping with Market Area[1]	Total Sales Originating From the Market Area
Home Improvement Center	142,000	$304[6]	$43,168,000	84.4%	$36,429,639
Unknown Retail[7]	219,450	$300[8]	$65,835,000	84.4%	$55,558,406
Non-Retail[9]	11,550	N/A	N/A	84.4%	N/A
Sub-Total	524,000	—	$153,699,000	—	$129,707,168
Bordering the Market Area					
Fremont Times Square					
Marina Foods	30,000	$482[10]	$14,445,000	43.8%	$6,333,046
Unknown Retail	63,511	$392[3]	$24,896,312	43.8%	$10,915,160
Sub-Total	93,511	—	$39,341,312	—	$17,248,206
Whole Foods	44,000	$871[11]	$38,324,000	9.9%	$3,782,946
Safeway - San Jose	23,620	$527[12]	$12,447,740	2.8%	$345,183
Unnamed Center - Sunnyvale					
Safeway	64,535	$527[12]	$34,009,945	2.4%	$819,980
Unknown Retail	45,490	$392[3]	$17,832,080	2.4%	$429,931
Sub-Total	110,025	—	$51,842,025	—	$1,249,911
Total	**902,156**		**$328,670,740**		**$181,500,590**

Notes:
(1) See Table 4.11-22.
(2) Retail MAXIM average for all supermarkets.
(3) The sales per square foot assumption is based on the Neighborhood Center retail category as reported by Retail MAXIM.
(4) There are no retail sales allocated to the office space portion of Market Place.
(5) Based on information from the Target Corporation 10-K Report dated February 2, 2008, Target's sales per square foot is $296, based on sales of $6.5 billion and 207,945,000 square feet.
(6) The sales-per-square-foot assumption is based on the Home Improvement retail category as reported by Retail MAXIM.
(7) It is unknown what types of stores will be leased. However, based on the mix of retailers at typical regional centers it was assumed that 40 percent of the space will be apparel, 20 percent home furnishings, 10 percent restaurants, and 30 percent other retail.
(8) An average retail sales per square foot of $300 was assumed for the unknown retail space.
(9) It is assumed that approximately 5 percent of the total 231,000 square feet of unknown retail space will be leased to non-retail uses such as banks and hair salons, of which no sales are allocated.
(10) The Marina Foods sales-per-square-foot assumption is based on the average of all Foreign-Owned Supermarkets as reported by Retail MAXIM.
(11) The Whole Foods sales-per-square-foot assumption is as reported by Retail MAXIM.
(12) The Safeway sales-per-square-foot assumption is as reported by Retail MAXIM.
Source: CBRE Consulting, Inc., 2009.

Food Sales Impact Analysis

Sales from cumulative projects were assessed using the same analytical process as sales from the Walmart expansion alone. In Table 4.11-15, market area capture rates were assumed by retail category to determine how much new household demand the market area will capture. For food store sales, this capture rate was set at 95 percent, given the propensity of residents to shop at their nearest store. CBRE Consulting compared the total estimated sales from the Walmart expansion plus the cumulative projects, with captured demand from new households in the market area, to arrive at potential sales impacts in the food stores category. As shown in Table 4.11-25, the market area may experience a total of $31.1 million in food stores impacts from the Walmart expansion plus cumulative projects. These total impacts of $31.1 million reflect the fact that additional household demand of $8.6 million is available to offset any impacts on other retailers.

Table 4.11-25 also shows the level of the sales impacts as a percent of the sales base. Displaying impacts in this manner is useful in interpreting findings. Historic fluctuations in retail sales nationally suggest that a 3± percent variation in sales is common. This 3-percent figure is representative of industry trends, particularly during recessionary periods, as documented by Retail MAXIM's "Perspectives on Retail Real Estate and Finance." This publication tracked retail sales by store type on a per-square-foot basis for four time periods: 1995-1999 (Late Boom), 2000-2003 (Recovery), 2003-2005 (Transition), and 2006-2007 (Recession). As detailed in Exhibit 17 in Appendix I, retail is a dynamic industry with periodic fluctuations in sales performance, which are common and vary significantly by sector. Sales declines of up to 5 and 6 percent on an annual basis were common during recessionary periods (the Retail MAXIM Recovery period), while sales increases averaging 3 to 5 percent were common for prosperous periods (the R tail MAXIM Late Boom period). For example, teen brand stores had an average annual sales increase of 2.8 percent between 1995 and 1999, followed by a 2.9 percent annual sales decline between 2000 and 2003, but rebounded with a 4.1 percent annual sales increase between 2003 and 2005. For supermarkets specifically, annual growth has reached 8.6 percent in recent years.

Based on the Retail MAXIM data, it is most relevant to evaluate the percentage impacts above the 3.0-percent threshold. Table 4.11-25 shows that the percentage sales impacts in the food stores category in excess of this 3.0-percent threshold are $22.1 million, or 7.3 percent above the range of sales variation retailers should expect given the dynamic nature of the retail industry, with new retailers constantly entering the market and older retailers leaving, and annual fluctuations in the economy.

Given the $480 average sales per square foot at supermarkets given by Retail MAXIM, the estimated $17.6 million in diverted food stores sales is equivalent to approximately 46,040 square feet of supportable space; the potential impacts will not necessarily result in vacant square footage. Any store sales declines that occur as a result are likely to be spread among a number of stores and are unlikely to be severe enough to trigger store closure. However, if one store disproportionately experiences negative sales impacts, this could lead to its closure.

Table 4.11-24: Cumulative Projects Sales by Category

Planned Store Type	Estimated Market Area Sales[2]	Apparel	%	General Merchandise	%	Food Stores	%	Eating and Drinking Places	%	Home Furnishings and Appliances	%	Building Materials	%	Other Retail	%
		MARKET AREA													
Season's Market Place															
Seafood City	$14,040,838	$0	0	$0	0	$14,040,838	100	$0	0	$0	0	$0	0	$0	0
Restaurants	$7,977,172	$0	0	$0	0	$0	0	$7,977,172	100	$0	0	$0	0	$0	0
Fast Food	$1,262,136	$0	0	$0	0	$0	0	$1,262,136	100	$0	0	$0	0	$0	0
Unknown Retail[3]	$5,887,029	$0	0	$1,471,757	25	$0	0	$1,471,757	25	$0	0	$0	0	$2,943,515	50
Office Space	N/A	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0
Sub-Total	$29,167,175														
Creekside Landing															
Target[4]	$37,719,123	$8,298,207	22	$10,938,546	29	$1,885,956	5	$0	0	$7,166,633	19	$0	0	$9,429,781	25
Home Improvement Center	$36,429,639	$0	0	$0	0	$0	0	$0	0	$12,750,373	35	$18,214,819	50	$5,464,446	15
Unknown Retail	$55,558,406	$22,223,362	40	$0	0	$0	0	$5,555,841	10	$11,111,681	20	$0	0	$16,667,522	30
Non-Retail	N/A	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0
Sub-Total	$129,707,168														
		BORDERING THE MARKET AREA													
Fremont Times Square															
Marina Foods	$6,333,046	$0	0	$0	0	$6,333,046	100	$0	0	$0	0	$0	0	$0	0
Unknown Retail[3]	$10,915,160	$0	0	$2,728,790	25	$0	0	$2,728,790	25	$0	0	$0	0	$5,457,580	50
Sub-Total	$17,248,206														
Whole Foods	$3,782,946	$0	0	$0	0	$3,782,946	100	$0	0	$0	0	$0	0	$0	0
Safeway - San Jose	$345,183	$0	0	$0	0	$345,183	100	$0	0	$0	0	$0	0	$0	0
Unnamed Center - Sunnyvale															
Safeway	$819,980	$0	0	$0	0	$819,980	100	$0	0	$0	0	$0	0	$0	0
Unknown Retail[3]	$429,931	$0	0	$107,483	25	$0	0	$107,483	25	$0	0	$0	0	$214,966	50
Sub-Total	$1,249,911														
Total[6]	**$181,500,590**	**$30,521,569**	**—**	**$15,246,576**	**—**	**$27,207,950**	**—**	**$19,103,178**	**—**	**$31,028,688**	**—**	**$18,214,819**	**—**	**$40,177,809**	**—**

Notes:
(1) Retail categories to which no sales are allocated are not shown in this exhibit.
(2) See Table 4.11-23.
(3) Neighborhood center Unknown Retail sales allocation estimated by CBRE Consulting.
(4) Allocation of sales by category for Target store were allocated to BOE Categories by CBRE Consulting's analysis of the Target sales categories stated in the Form 10-K report.
(5) Home Improvement Center sales allocation were estimated by CBRE Consulting based on the analysis of other existing Home Improvement Centers.
(6) Figures may not total due to rounding.
Source: CBRE Consulting, Inc., 2009.

Table 4.11-25: Cumulative Projects Potential Sales Impacts (2007 Dollars)

Retail Category	Walmart Expansion Market Area Sales[1] [A]	Other Cumulative Projects Market Area Sales[2] [B]	Market Area Sales Base[3] [C]	Remaining Potential Demand from New Households[4] [D]	Potential Sales Impacts[5]		Potential Sales Impacts Less 3.0% Fluctuation	
					Amount	Percent	Amount	Percent
					[E = A + B - D]	[F = E/C]	[G = (F - .03) x C]	[H = G/C]
Apparel Stores	$0	$30,521,569	$222,589,400	$2,685,226	$27,836,344	12.5	$21,158,662	9.5
General Merchandise Stores	($5,349,986)	$15,246,576	$354,634,087	$6,351,380	$3,545,210	1.0	$0	0.0
Food Stores	$12,402,898	$27,207,950	$300,664,667	$8,496,213	$31,114,636	10.3	$22,094,696	7.3
Eating and Drinking Places	$0	$19,103,178	$361,639,000	$8,178,254	$10,924,924	3.0	$75,754	0.0
Home Furnishings and Appliances	$0	$31,028,688	$163,262,000	$1,011,166	$30,017,522	18.4	$25,119,662	15.4
Building Materials	$0	$18,214,819	$196,011,000	$2,870,385	$15,344,434	7.8	$9,464,104	4.8
Other Retail Stores	$0	$40,437,531	$881,666,000	$4,840,226	$35,597,305	4.0	$9,147,325	1.0
Total	$7,052,912	$181,500,590	$2,480,466,154	$34,432,849	$154,120,652	6.2	$86,800,480	3.5

Notes:
(1) See Table 4.11-12.
(2) See Table 4.11-24.
(3) See Table 4.11-14.
(4) See Table 4.11-15.
(5) Includes proposed Walmart Expansion
Source: CBRE Consulting, Inc. 2009.

Non-Food Sales Impact Analysis

Table 4.11-15 shows the market area capture rates for new household demand assumed for non-food sales categories. These rates range from 50 percent in home furnishings and appliances and building materials to 90 percent in restaurants. These capture rates were applied to determine how much new household demand the cumulative projects will capture. CBRE Consulting compared the total estimated sales from the Walmart expansion plus the cumulative projects with captured demand from new households in the market area, to arrive at potential sales impacts in all relevant retail categories. Findings are presented below by retail category.

- **Home Furnishings and Appliances.** This category, as shown in Table 4.11-25, will experience the highest estimated impacts, with $30.0 million in potential sales impacts, or 18.4 percent of the sales base in that category. Excluding the typical 3.0-percent variation, this category could experience $25.1 million in potential sales impacts, or 15.4 percent of the sales base. This is a high impact that could lead to store closures in the market area.
- **Apparel.** This category could experience the next highest potential impacts, with $27.8 million in potential sales impacts, or 12.5 percent of the apparel sales base. Impacts over the typical 3.0 percent variation are $21.2 million, or 9.5 percent of the sales base. This is also a high impact that could lead to store closures in the market area.
- **Building Materials.** This category could experience $15.3 million in negative sales impacts, or 7.8 percent of the building materials sales base. Impacts over the typical 3.0 percent variation are $9.5 million, or 4.8 percent of the sales base. These impacts may also be high enough to lead to store closures.
- **Other Retail Stores.** This category could experience $35.3 million in negative sales impacts, or 4.0 percent of the sales base. Impacts over the typical 3.0 percent variation are $8.9 million, or 1.0 percent of the sales base. These impacts are relatively low, but could still lead to store closures if impacts are concentrated on a few stores.
- **General Merchandise.** In general merchandise the decrease in sales at the Walmart store partially offsets impacts from cumulative projects. Impacts in general merchandise are estimated at $3.5 million, or 1.0 percent of the general merchandise sales base. This impact is less than the typical 3.0 percent variation in retail sales. Consequently, impacts are not likely to be large enough to lead to store closures.
- **Restaurants.** Impacts on restaurants are estimated at $10.9 million, or 3.0 percent of the eating and drinking places sales base. This impact is less than the typical 3.0 percent variation in retail sales. Thus, impacts are not likely to be large enough to lead to store closures.

Given the cumulative projects planned within and nearby the Walmart market area, it is possible that store closures will occur because of an oversupply of retail in food stores, home furnishings and appliances, apparel, building materials, and other retail stores. New household demand forecast from

2011 to 2013 is not large enough to fully offset these impacts. It should be kept in mind that the Walmart expansion will only contribute to impacts in the food stores category. Impacts in all other categories will be due to the cumulative projects only.

These cumulative impact figures are conservative and are presented as an analytical benchmark. They are considered conservative for several reasons. Foremost, they assume the maximum diversion away from existing retailers upon stabilization of the Walmart expansion and the six cumulative projects. Thus, they do not take into account any prospective market corrections or enhancements following the introduction of these projects into the marketplace, including competitive retailer repositioning. In addition, it is unlikely that the full magnitude of the negative impacts will be experienced by just one or several stores in the market area. Therefore, the impacts could be more realistically spread among a wider number of stores. If this occurs, then some store sales declines may not be severe enough to trigger store closure. This is also a conservative analysis in that it assumes the stores achieve stabilized sales in year one. However, retail stores typically achieve stabilized sales after about two to three years. This may especially be the case during the current economic recession. Therefore, the initial impact is likely overstated.

The extent to which the potential store closures discussed above become problematic for the primary market area's retail market depends upon the strength of that market. This strength, and the resulting likelihood of the potential vacancies causing urban decay, are discussed below.

Urban Decay Determination

The findings from the preceding analysis indicate that if the identified cumulative projects are built as proposed, there are likely to be sales impacts 5.8 percent above the typical variation of 3.0 percent in the food stores category. There also are high impacts estimated in the apparel, home furnishings and appliances, building materials, and other retail stores categories. Such impacts can lead to any one or more of the following consequences:

1. Sales diversion from existing market area retailers
2. Lower initial sales volumes for the Walmart expansion and other proposed retail developments
3. A longer-than-anticipated period of time to reach stabilized sales in new developments, including the Walmart expansion and other proposed grocery stores and centers

In other words, the estimated sales impacts will be felt by two categories of businesses/retailers: existing retailers (#1 above); and the developers and future tenants of the other competitive grocery stores and centers proposed for the market area (#2 and 3 above). Some existing stores could sustain a short-term reduction in sales, while others may not be able to do so and would be at risk of closing.

Vulnerable Food Stores

Existing market area food stores are abundant and diverse. The market area contains many conventional food stores, a few upscale food stores, and an ample supply of ethnic food stores. The one niche missing is discount food stores. Despite the different orientations, all of the above food stores in the market area likely serve as neighborhood markets attracting most of their customers from the typical 3-mile radius. The Walmart expansion space would be most competitive with discount grocery stores, of which there are none. CBRE Consulting believes that impacts from the Walmart expansion will not result in store closures. However, given the number of cumulative grocery stores planned, sales diversions experienced by the food stores may be high enough to result in one or more store closures. The stores likely to experience the highest impacts because of their proximity to the Milpitas Walmart are the Save Mart in Calaveras Plaza and the Safeway in Milpitas Town Center.

The Save Mart store is a full-service conventional grocery store, yet relatively small, around 27,900 square feet, and is situated in a smaller neighborhood shopping center. Customers would not be inclined to travel out of their way to shop at this Save Mart store or center because of the smaller store size and neighborhood orientation. Consequently, this store's customers are most likely people doing their regular weekly grocery shopping. Some of the current customers of the Save Mart store may shift some of their grocery shopping to Walmart in order to take advantage of the lower prices. However, this store will still serve as a convenient option for food purchases. This Save Mart store, because of its proximity, will probably experience the most impacts from the Milpitas Walmart, and diverted sales may be enough to lead to the store's closure.

The Safeway in the Milpitas Town Center is a large, newly renovated, high-end grocery store located in a community shopping center that has also been newly renovated. This store and center will draw customers looking for a more high-quality atmosphere, not bargain hunters who shop at Walmart as mentioned above. This Safeway may see sales diversion due to its proximity, but given its upscale niche, it is not expected to experience strong impacts by the expansion of the Walmart store.

These most vulnerable stores are unlikely to experience impacts from all of the cumulative projects given their location near the Milpitas Walmart. These stores are located within the trade areas of Creekside Landing and the Market Place project in Milpitas, but outside of the trade areas of the rest of the cumulative projects (Fremont Times Square, Whole Foods, and the two Safeways). Consequently, impacts from cumulative projects will likely affect a larger group of stores and impacts will likely be more dispersed.

Summary

Most of the grocery stores currently serving the market area occupy specific market niches, which suggests they may be able to survive even if they experience a decline in sales due to Walmart expanding. Moreover, the high shopper volume observed during the site visit in market area grocery stores suggests that stores are likely performing at better-than-average levels. For example, one local commercial real estate broker opined that grocery is underrepresented in the City of Milpitas.

Although the Retail Demand, Sales Attraction, and Spending Leakage analysis found that estimated resident demand is met and even exceeded by actual grocery sales, the lack of discount-oriented grocery stores suggests that the Walmart expansion may fill an important market niche.

Other Vulnerable Stores

Besides food stores, stores in the home furnishings and appliances, apparel, building materials, and "other retail" stores categories may close due to cumulative impacts. Given the current economic climate, however, it is possible that some of the cumulative projects, especially the two that have not been approved, may not go forward. It is also possible that projects that are developed will take longer to lease up and longer for stores that are leased to reach a level of stabilized sales. This will lessen the impacts and likelihood of store closures.

Conclusion

CBRE Consulting relied on the definition of urban decay presented earlier in this section, which focused on determining whether or not physical deterioration in the market area would likely result from the expansion of Walmart. CBRE Consulting's conclusion is based on consideration of market area conditions, findings regarding diverted sales, and the potential to backfill vacant space, as summarized below:

- Current Market Conditions—In general, the market area's retail market is strong with low vacancy. The few vacancies that do exist are well distributed across the market area and well maintained. Milpitas continues to be a regional retail node and with very few exceptions, vacant spaces have backfilled at a healthy rate. The market area grocery store market, more specifically, is a robust market with diverse offerings and store types. While some stores may perform better than others, each store attracts a distinct customer base that sustains that store's health. The current national recession, which began in December 2007, has led some major retailers to slow their expansions or even close stores in some instances. However, little evidence of this type of activity was observed in the market area.
- Diverted Sales—CBRE Consulting estimates that the Walmart expansion may divert sales from other market area grocery stores; however, this sales diversion will be offset by new demand from household growth.
- Cumulative Impacts—If the other cumulative projects within and near the market area are developed as planned, the sales impacts could be high enough to create oversupply in the food stores market equivalent to 10.3 percent of the current food stores sales base, or 7.3 percent above typical variation. Although there may be impacts and diverted sales, the square footage at risk of closure is equal to only one grocery store. However, sales impacts to other categories such as apparel, home furnishings and appliances, building materials, and other retail stores categories could also result in store closures. Although this would not affect grocery stores directly, it could increase vacancy in grocery-anchored centers.

- Backfilling Potential—Existing shopping centers in the market area have few vacancies, which is an indication of the market area's stable performance and ability to backfill vacancies as they occur. This market strength strongly suggests that vacated retail spaces have the potential to be successfully backfilled. However, larger spaces, such as grocery stores, can take longer to backfill. If the grocery market becomes saturated and a grocery store closes, that store may need to be re-tenanted by a different type of retailer.

CBRE Consulting's retail market fieldwork indicated that the retail markets in the region are very healthy. The study findings conclude that the stores in the market area most likely to be affected are the conventional grocery stores located in closer proximity to the Walmart store. Although grocery stores throughout the market area and even beyond may experience negative sales impacts, grocery stores generally attract most of their customers from residents within a 3-mile radius. Therefore, stores without a niche different enough from the typical Walmart shopper (i.e. ethnic-oriented or upscale grocery stores) located close to the Walmart store are most vulnerable. Although the market area is currently very healthy with low vacancy, the current economic conditions could lead to vacancies taking longer to backfill when closures occur.

It should be noted that when tenants vacate prior to lease expiration, they continue to be responsible for rent and their share of building operating expenses. While not all tenants will have the wherewithal to continue these payments, national retailers are more likely to have this capability. This is an important consideration because landlords will continue to receive income on these vacated spaces, which means they would have available financial resources to continue to maintain their properties. More importantly, city ordinances, such as the City of Milpitas Municipal Code Chapters 202, 203, and 500, require property owners to maintain their properties so as not to create a nuisance by creating a health and safety problem. Enforcement of these ordinances can help prevent physical deterioration due to any long-term closures of retail spaces. One other possible outcome of retail store closures and prolonged vacancies is that existing property owners, or buyers, might decide to redevelop these spaces with other uses, thereby preventing physical deterioration and the threat of urban decay. While the poor economic conditions may in turn limit the rate of growth of these alternate uses, nonetheless the potential will exist, with properties positioned for alternate use when market demands pick up concurrent with the return of economic growth. Based upon these findings, CBRE Consulting concludes that the Walmart expansion and the identified cumulative projects will not contribute to urban decay in the market area. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

SECTION 5: ALTERNATIVES TO THE PROPOSED PROJECT

5.1 - Introduction

In accordance with CEQA Guidelines Section 15126.6, this Environmental Impact Report (EIR) contains a comparative impact assessment of alternatives to the proposed project. The primary purpose of this section is to provide decision makers and the general public with a range of reasonable project alternatives that could feasibly attain most of the basic project objectives, while avoiding or substantially lessening any of the project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6).

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
    - Failure to meet most of the basic project objectives;
    - Infeasibility; or
    - Inability to avoid significant environmental effects.

5.1.1 - Significant Unavoidable Impacts

The proposed project would result in the following significant unavoidable impact:

- **Roadway Operations:** The proposed project would contribute trips to four roadway segments that would operate at unacceptable levels. Although all four segments would operate at unacceptable levels without the proposed project, the proposed project would increase traffic volumes by more than 1 percent of the roadway's capacity, which is considered a significant impact. Mitigation is proposed that would require the project applicant to provide fees for roadway improvements. However, the proposed improvements may not fully mitigate the impact to a level of less than significant and, therefore, the residual significance is significant and unavoidable.

5.1.2 - Alternatives to the Proposed Project

The three alternatives to the proposed project analyzed in this section are as follows:

- **No Project Alternative:** The existing Walmart store would remain in its existing condition and no expansion would occur.
- **50-Percent Reduction Alternative:** The Walmart store would be expanded by 9,500 square feet, which represents a 50-percent reduction in expansion square footage relative to the

proposed project. The store would retail groceries and operate 24 hours a day under this alternative.

- **Inline Retail/Restaurant Alternative:** The existing Walmart store would remain unchanged and 15,000 square feet of inline retail and restaurant uses would be developed on the south side of the existing Walmart store.

The three alternatives to the proposed project are analyzed below. These analyses compare the proposed project and each individual project alternative. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both the project and the alternative would result in a less than significant impact). The actual degree of impact may be slightly different between the proposed project and each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

5.2 - Project Objectives

As stated in Section 3, Project Description, the objectives of the proposed project are to:

- Positively contribute to the local economy.
- Enhance commercial retail opportunities available in the City of Milpitas.
- Create new job opportunities for local residents.
- Expand the existing Walmart store to provide the market area with an affordable shopping alternative that offers a wide variety of products to the City of Milpitas as well as the surrounding communities.
- Provide a retail establishment that serves local residents and visitors with essential goods and services, in a safe and secure, 24-hour shopping environment.
- Promote economic growth and development that is consistent with the policies of the City of Milpitas General Plan.
- Generate tax revenues to accrue to the various agencies within the project area.
- Minimize travel lengths and utilize existing infrastructure to the maximum extent possible by expanding an existing Walmart store.

5.3 - Alternative 1 - No Project Alternative

Under the No Project Alternative, the existing Walmart store would remain unchanged and no expansion would occur. The existing store would maintain its current configuration and hours of operation (7 a.m. to 11 p.m., every day) and it would not retail groceries.

5.3.1 - Impact Analysis

The project site would remain in its existing condition, and no changes in land use intensity would occur. The proposed project would result in one significant unavoidable impact associated with transportation, which would be avoided by the No Project Alternative. In addition, the proposed project would result in potentially significant impacts on aesthetics, light, and glare; air quality; biological resources; cultural resources; geology, soils, and seismicity; hydrology and water quality; noise; public services and utilities; and transportation, all of which could be mitigated to a level of less than significant. None of these potentially significant impacts would occur under the No Project Alternative.

5.3.2 - Conclusion

The No Project Alternative would avoid the proposed project's significant unavoidable impact and have less impact on all environmental topical areas. However, this alternative would not advance any of the project objectives, including enhancing enhance retail opportunities available in the City of Milpitas, creating new job opportunities, promoting economic growth and development consistent with the policies of the General Plan, increasing tax revenues for agencies within the project area, reducing trip lengths, or allowing shoppers to purchase essential goods in a safe and secure, 24-hour shopping environment. As such, the No Project Alternative would not achieve any of the benefits of the proposed project.

5.4 - Alternative 2 - 50-Percent Reduction Alternative

Under the 50-Percent Reduction Alternative, the Walmart store would be expanded by 9,500 square feet, which represents a 50-percent reduction in expansion square footage relative to the proposed project. The expanded store would total 141,225 square feet. Similar to the proposed project, the expansion would be used for food sales and the store would operate 24 hours a day, 7 days a week.

This alternative would reconfigure the parking lot to provide 706 off-street parking spaces, for a ratio of 5 spaces per 1,000 square feet. This represents a reduction of 45 spaces relative to the proposed project and a reduction of 129 spaces relative to existing conditions. The removed parking spaces would be replaced with additional landscaping and pedestrian facilities. This alternative would maintain all the proposed project's vehicular access points and utility connections.

The purpose of the 50-Percent Reduction Alternative is to reduce trip generation, building square footage, and store sales, which would lessen potential impacts associated with air quality, noise, public services and utilities, transportation, and urban decay. Table 5-1 summarizes the 50-Percent Reduction Alternative.

Table 5-1: 50-Percent Reduction Alternative Summary

Scenario	Category	Square Footage
50-Percent Reduction Alternative	Existing	131,725
	Expansion	9,500
	Total	141,225
Proposed Project	Existing	131,725
	Expansion	19,000
	Total	150,725
Difference	**Total**	**(9,500)**
Source: Michael Brandman Associates, 2009.		

5.4.1 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would expand the existing Walmart store by a maximum of 9,500 square feet. The appearance and height of the structure would be similar to the proposed project but would have slightly less building massing. Similar mitigation as the proposed project would be implemented for signage, tree removal, and outdoor storage of shipping containers. This alternative would reduce the size of the existing parking area by 129 spaces and replace parking spaces with additional landscaping and pedestrian facilities, which would result in less severe impacts relative to the proposed project. Exterior lighting fixtures would be installed and would require mitigation similar to that of the proposed project to reduce potential light spillage impacts to a level of less than significant. Because this alternative would provide more landscaping and less building massing, this alternative would have fewer aesthetics, light, and glare impacts than the proposed project.

Air Quality

This alternative would result in a net decrease of 9,500 square feet relative to the proposed project. Construction activities would be similar to the proposed project and would result in a comparable amount of pollutant emissions. However, the proposed project's construction emissions were not found to be significant; therefore, this alternative's emissions would not be significant. From an operational emissions perspective, this alternative would generate 505 fewer daily trips relative to the proposed project. This would result in fewer emissions of criteria pollutants on a daily basis. Although the proposed project's daily operational emissions were found not to be significant, this alternative would still result in fewer overall emissions and, therefore, would lessen the severity of this impact. Similar to the proposed project, this alternative would not expose surrounding sensitive receptors to substantial diesel particulate matter (DPM) emissions. Finally, this alternative would result in fewer greenhouse gas emissions relative to the proposed project. While the proposed project's greenhouse gas emissions were found to add no cumulatively considerable amounts to global greenhouse gas emission concentrations, this alternative would still result in fewer overall

emissions and would be considered less severe. Therefore, this alternative would have fewer air quality impacts than the proposed project.

Biological Resources

This alternative would necessitate the removal of mature trees and shrubs and therefore, would result in potential impacts on nesting birds. Mitigation similar to that of the proposed project would be implemented to ensure that nesting birds would not be adversely affected by this alternative's construction activities. Therefore, this alternative would have biological resources impacts similar to the proposed project.

Geology, Soils, and Seismicity

This alternative would result in the development of a 9,500-square-foot expansion of the existing Walmart store. Similar to the proposed project, mitigation would be implemented requiring compliance with the California Building Standards Code's seismic design criteria to reduce impacts associated with ground shaking. Construction activities associated with this alternative would result in ground disturbance that could create erosion. Mitigation similar to that of the proposed project would be implemented to ensure that standard erosion control measures are implemented to reduce potential impacts to a level of less than significant. Therefore, this alternative would have geology, soils, and seismicity impacts similar to the proposed project.

Hazards and Hazardous Materials

This alternative would result in similar construction and operational activities as the proposed project. The existing store and surrounding areas do not contain any recognized environmental constraints and, therefore, this alternative would not be susceptible to hazards associated with the past and present use. As with the proposed project, this alternative would not handle substantial quantities of hazardous materials or impair emergency response or evacuation. Impacts related to hazards and hazardous materials resulting from this alternative would be similar to the proposed project.

Hydrology and Water Quality

This alternative would result in ground disturbance that could cause stormwater pollution. Site development (e.g., grading) and operational activities (e.g., maintenance) may cause stormwater pollution. Mitigation similar to that of the proposed project would be implemented to ensure that standard stormwater quality control measures are implemented during construction and operations to reduce potential impacts to a level of less than significant. This alternative would install an onsite drainage system with water quality treatment measures that would be similar to the proposed project. This system would ensure that offsite discharges of stormwater do not cause downstream flooding or degrade water quality. As with the proposed project, this alternative would be entirely contained within a hardscaped area served by the existing drainage system and, therefore, would not result in a net increase in runoff leaving the site, which would avoid any impacts associated with downstream

flooding. Accordingly, this alternative would have hydrology and water quality impacts similar to the proposed project.

Land Use

This alternative would expand the existing Walmart store by a maximum of 9,500 square feet. The size of this alternative would be consistent with the allowable standards of the City of Milpitas General Plan designation of General Commercial and the Milpitas Zoning Ordinance designation of General Commercial (C2), Site and Architectural Review Overlay (S). Similar mitigation would be implemented for signage, tree removal, and outdoor storage to ensure that this alternative complies with applicable Municipal Code requirements. In addition, this alternative would be consistent with surrounding land uses and would not divide an established community. Therefore, this alternative would have land use impacts similar to the proposed project.

Noise

This alternative would result in a net decrease of 9,500 square feet relative to the proposed project. Construction activities would be similar to the proposed project and, therefore, would not have the potential to expose the nearby land uses to excessive noise levels. Construction and operational vibration would occur at similar distances from the nearest structures; however, as with the proposed project, groundborne vibration impacts would not be significant. This alternative would result in 505 fewer daily trips and, therefore, would result in a corresponding decrease in offsite vehicular noise. Although the proposed project's offsite vehicular noise impacts were found not to be significant, this alternative would lessen the severity of this impact. This alternative would generate combined stationary and transportation onsite noise levels similar to the proposed project and, therefore, would have similar impacts, which were found not to be significant. Because this alternative would generate fewer vehicular trips, it is considered to have fewer noise impacts than the proposed project.

Public Services and Utilities

This alternative would result in a net decrease of 9,500 square feet relative to the proposed project. The reduction in store size would be expected to result in less demand for fire protection, emergency medical services, police protection, potable water, electricity, and natural gas, and the generation of less wastewater and solid waste relative to the proposed project. This alternative would be expected to increase recycled water demand because of the provision of additional landscaped areas. However, increased recycled water demand would not be considered a significant impact, since adequate supplies are available. To promote indoor water conservation and waste diversion, this alternative would implement mitigation similar to the proposed project. While the residual significance of the proposed project's public services and utilities impacts were found to be less than significant, this alternative would demand fewer resources, generate less effluent, and, consequently, lessen the severity of these impacts. Therefore, this alternative would have less impact on public services and utilities than the proposed project.

Transportation

This alternative would result in a net decrease of 9,500 square feet relative to the proposed project. Table 5-2 summarizes the difference in trip generation between the 50-Percent Reduction Alternative and the proposed project. As shown in the table, this alternative would generate 505 fewer daily trips relative to the proposed project, including 16 fewer weekday morning (AM) peak-hour trips, 61 fewer weekday midday peak-hour trips, and 44 fewer weekday afternoon (PM) peak-hour trips. While peak-hour trips would be reduced under this alternative, significant intersection operations, roadway operations, and queuing impacts would still occur, and the project applicant would be required to mitigate for this impact by installing necessary improvements or providing impact fees. Although the mitigation would be similar, if not identical, to that of the proposed project, this alternative would be considered less severe because it would contribute fewer vehicular trips to intersections, roadways, and queues operating at unacceptable levels.

Table 5-2: 50-Percent Reduction Alternative Trip Generation

Scenario	Category	Square Footage	Trip Generation							
			Daily		AM Peak Hour		Midday Peak Hour		PM Peak Hour	
			Rate	Trips	Rate	Trips	Rate	Trips	Rate	Trips
50-Percent Reduction Alternative	Existing Store	(126,390)	57.24	(7,235)	1.06	(134)	6.44	(814)	5.00	(632)
	Expanded Store	135,890	53.13	7,220	1.67	227	6.44	875	4.61	626
	Unadjusted Total	**9,500**	**—**	**(15)**	**—**	**93**	**—**	**61**	**—**	**(6)**
Proposed Project	Unadjusted Total	19,000	—	490	—	109	—	122	—	38
Difference	**Unadjusted Total**	**(9,500)**	**—**	**(505)**	**—**	**(16)**	**—**	**(61)**	**—**	**(44)**

Notes:
Trip generation was calculated using 1,000-square-foot units (e.g., 9,500 = **9.500**).
The garden center was excluded from trip generation calculation, consistent with guidance in ITE Trip Generation, 8th Edition.
Source: Michael Brandman Associates, 2009.

This alternative would also provide 706 off-street parking spaces, for a ratio of 5.0 spaces per 1,000 square feet, which would meet the City's parking requirement of 5.0 spaces per 1,000 square feet. Finally, similar to the proposed project, this alternative would maintain the existing Valley Transportation Authority (VTA) bus stop and provide bicycle storage and enhanced pedestrian facilities. Therefore, this alternative would have less impact on transportation.

Urban Decay

This alternative would reduce the size of the area devoted to grocery sales and would support 16,300 square feet, a 50-percent reduction relative to the proposed project. Table 5-3 summarizes the 50-Percent Reduction Alternative's sales compared with the proposed project's sales. As shown in the

table, this alternative would have $6.9 million or 50 percent fewer sales relative to the proposed project. The reduction in square footage would reduce the Walmart's capture of sales from competing food stores retailers. However, as with the proposed project, store closure is not considered a foreseeable consequence of this alternative because of the anticipated growth in food sales in the Market Area. Therefore, this alternative would have similar urban decay impacts as the proposed project.

Table 5-3: 50-Percent Reduction Alternative Sales

Scenario	Square Feet	2011 Sales per Square Foot	2011 Sales
50-Percent Reduction Alternative	16,300	$422.73	$6.9 million
Proposed Project	32,600	$422.73	$13.8 million
Difference	**(16,300)**	**—**	**($6.9 million)**

Notes:
Square footage uses area devoted to grocery sales, which is greater than the expansion square footage.
Sales estimates rounded
Source: Michael Brandman Associates, 2009.

5.4.2 - Conclusion

The 50-Percent Reduction Alternative would result in the same significant unavoidable traffic impact as the proposed project, although the severity of the impacts would be less because it would generate fewer trips. In addition, this alternative would lessen the severity of impacts associated with aesthetics, light, and glare; air quality; noise; public services and utilities; and transportation. This alternative would have similar impacts on all other areas as the proposed project.

This alternative would not further all of the project objectives to the same degree as the proposed project. For example, the smaller store size would have less positive economic impact, would not enhance retail opportunities to the same extent, would not create as many jobs, and would not increase tax revenue by the same amount. Reinforcing these points, this alternative would generate $6.9 million in fewer sales. As such, the 50-Percent Reduction Alternative would not achieve as many of the economic benefits of the proposed project.

5.5 - Alternative 3 - Inline Retail/Restaurant Alternative

The Inline Retail/Restaurant Alternative consists of the development of 15,000 square feet of inline retail and restaurant uses in one building on the Walmart expansion pad. Retail (e.g., apparel, electronics, novelties, telecommunications) would occupy half the space and restaurant uses (e.g., quick-serve and sit-down) would occupy the other half. No food retailer tenants (e.g., grocery) would occupy the structure. The building would be attached to the south side of Walmart structure, but the tenants would operate independently of the Walmart. The Walmart store would remain unchanged and maintain its current hours of operation (7 a.m. to 11 p.m.). In total, there would be 146,725 square feet of developed uses on the project site. Retail and restaurant uses are allowed under the

current General Plan designation of General Commercial and zoning designation of General Commercial (C2); therefore, no land use designation changes would be necessary

This alternative would reconfigure the parking lot to provide 734 off-street parking spaces, for a ratio of 5 spaces per 1,000 square feet. This represents a reduction of 17 spaces relative to the proposed project and a reduction of 101 spaces relative to existing conditions. The removed parking spaces would be replaced with additional landscaping and pedestrian facilities. The main parking area would serve both the Walmart and the inline retail/restaurant uses. Two loading docks would be provided in the rear of the structure for the common use of all building tenants.

This alternative would reduce new square footage by 4,000, which represents a 21-percent reduction relative to the proposed project. The purpose of the Inline Retail/Restaurant Alternative is to provide an alternate, compatible commercial use that can be developed under the current General Plan and zoning designations in place of the expanded Walmart, which may lessen potential impacts associated with air quality, noise, public services and utilities, transportation, and urban decay. Table 5-4 summarizes the Inline Retail/Restaurant Alternative.

Table 5-4: Inline Retail/Restaurant Alternative Summary

Scenario	Category	Square Footage
Inline Retail/Restaurant Alternative	Retail	7,500
	Restaurant	7,500
	New Square Footage Subtotal	15,000
	Total Square Footage	146,725
Proposed Project	New Square Footage Subtotal	19,000
	Total Square Footage	150,725
Difference	**Total Square Footage**	**(4,000)**
Source: Michael Brandman Associates, 2009.		

5.5.1 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would result in the construction of 15,000 square-feet of retail and restaurant uses. The appearance and height of the structure would be different, reflecting the multiple uses, but would be a contemporary urban development project; therefore, the underlying change in visual character would be similar to the proposed project. Similar mitigation as the proposed project would be implemented for signage, tree removal, and outdoor storage of shipping containers. This alternative would reduce the size of the existing parking area by 101 spaces and replace parking spaces with additional landscaping and pedestrian facilities, which would lessen the severity of aesthetic impacts relative to the proposed project. Exterior lighting fixtures would be installed and would require mitigation similar to that of the proposed project to reduce potential light spillage impacts to a level of

less than significant. Because this alternative would provide more landscaping and less building massing, this alternative would have fewer aesthetics, light, and glare impacts than the proposed project.

Air Quality

This alternative would result in a net decrease of 4,000 square feet relative to the proposed project. Construction activities would be similar to the proposed project and would result in a comparable amount of pollutant emissions. However, the proposed project's construction emissions were not found to be significant; therefore, this alternative's emissions would not be significant. From an operational emissions perspective, this alternative would generate 789 more daily trips relative to the proposed project. This would result in greater emissions of criteria pollutants on a daily basis and, therefore, would be considered to have more severe impacts on air quality than the proposed project. Similar to the proposed project, this alternative would not expose surrounding sensitive receptors to substantial diesel particulate matter (DPM) emissions. Finally, this alternative would result in more greenhouse gas emissions relative to the proposed project because it would generate a greater number of vehicle trips. Therefore, it would be considered more severe from a greenhouse gas reduction standpoint. As such, this alternative would have greater air quality impacts than the proposed project.

Biological Resources

This alternative would necessitate the removal of mature trees and shrubs and, therefore, would result in potential impacts on nesting birds. Mitigation similar to that of the proposed project would be implemented to ensure that nesting birds would not be adversely affected by this alternative's construction activities. Therefore, this alternative would have biological resources impacts similar to the proposed project.

Geology, Soils, and Seismicity

This alternative would result in the construction of 15,000 square feet of retail and restaurant uses. Similar to the proposed project, mitigation would be implemented requiring compliance with the California Building Standards Code's seismic design criteria to reduce impacts associated with ground shaking. Construction activities associated with this alternative would result in ground disturbance that could create erosion. Mitigation similar to that of the proposed project would be implemented to ensure that standard erosion control measures are implemented to reduce potential impacts to a level of less than significant. Therefore, this alternative would have geology, soils, and seismicity impacts similar to the proposed project.

Hazards and Hazardous Materials

This alternative consists of the development of 15,000 square feet of retail and restaurant uses in one building on the south side of the existing Walmart store. This alternative would result in construction and operational activities similar to the proposed project. The existing store and surrounding areas do not contain any recognized environmental constraints; therefore, this alternative would not be

susceptible to hazards associated with the past and present use. As with the proposed project, this alternative would not handle substantial quantities of hazardous materials or impair emergency response or evacuation. Impacts related to hazards and hazardous materials resulting from this alternative would be similar to the proposed project.

Hydrology and Water Quality

This alternative would result in ground disturbance that could cause stormwater pollution. Site development (e.g., grading) and operational activities (e.g., maintenance) may cause stormwater pollution. Mitigation similar to that of the proposed project would be implemented to ensure that standard stormwater quality control measures are implemented during construction and operations to reduce potential impacts to a level of less than significant. This alternative would install an onsite drainage system with water quality treatment measures that would be similar to the proposed project. This system would ensure that offsite discharges of stormwater do not cause downstream flooding or degrade water quality. As with the proposed project, this alternative would be entirely contained within a hardscaped area served by the existing drainage system and, therefore, would not result in a net increase in runoff leaving the site, which would avoid any impacts associated with downstream flooding. Accordingly, this alternative would have hydrology and water quality impacts similar to the proposed project.

Land Use

This alternative would result in the addition of 15,000 square feet of retail and restaurant uses on the Walmart expansion pad. Retail and restaurant uses are allowed uses by the General Plan in the General Commercial land use designation and by the Zoning Ordinance in the General Commercial (C2) zoning district. Similar mitigation would be implemented for signage and tree removal, and outdoor storage to ensure that this alternative complies with applicable Municipal Code requirements. In addition, this alternative would be consistent with existing retail and restaurant uses in the McCarthy Ranch Marketplace. Therefore, this alternative would have land use impacts similar to the proposed project.

Noise

This alternative would result in a net decrease of 4,000 square feet relative to the proposed project. Construction activities would be similar to the proposed project and, therefore, would not have the potential to expose the nearby land uses to excessive noise levels. Construction and operational vibration would occur at similar distances from the nearest structures; however, as with the proposed project, groundborne vibration impacts would not be significant. This alternative would result in 789 more daily trips and, therefore, would result in a corresponding increase in offsite vehicular noise. Because this alternative would generate more daily vehicle trips than the proposed project, it would have more severe impacts in this regard and may trigger significant impacts. This alternative would generate combined stationary and transportation onsite noise levels similar to the proposed project and, therefore, would have similar impacts, which were found not to be significant. Because this

alternative would generate more vehicular trips, it is considered to have greater noise impacts than the proposed project.

Public Services and Utilities

This alternative would result in a net decrease of 4,000 square feet relative to the proposed project. The reduction in square footage would be expected to result in less demand for fire protection, emergency medical services, police protection, potable water, electricity, and natural gas, and the generation of less wastewater and solid waste relative to the proposed project. This alternative would be expected to increase recycled water demand because of the provision of additional landscaped areas. However, increased recycled water demand would not be considered a significant impact, since adequate supplies are available. To promote indoor water conservation and waste diversion, this alternative would implement mitigation similar to the proposed project. While the residual significance of the proposed project's public services and utilities impacts were found to be less than significant, this alternative would demand fewer resources, generate less effluent, and, consequently, lessen the severity of these impacts. Therefore, this alternative would have less impact on public services and utilities than the proposed project.

Transportation

This alternative would result in a net decrease of 4,000 square feet relative to the proposed project. Table 5-5 summarizes the difference in trip generation between the Inline Retail/Restaurant Alternative and the proposed project. As shown in the table, this alternative would generate 789 more daily trips relative to the proposed project, 15 fewer trips during the weekday AM peak hour, and 74 more trips during the weekday PM peak hour. Overall, there would be a substantial increase in traffic under the Inline Retail/Restaurant Alternative relative to the proposed project. Because more PM peak-hour trips would be generated under this alternative, it would be expected that greater intersection, roadway segment, and queuing impacts would occur. Although the mitigation would likely be similar, if not identical, to that of the proposed project, this alternative would have more severe impacts because it would contribute more vehicular trips to congested intersections and roadways during the PM peak hour.

Table 5-5: Inline Retail/Restaurant Alternative Trip Generation

Scenario	Category	Square Footage	Trip Generation					
			Daily		AM Peak Hour		PM Peak Hour	
			Rate	Trips	Rate	Trips	Rate	Trips
Inline Retail/ Restaurant Alternative	Retail (ITE Code 820)	7,500	42.94	322	1.00	8	3.73	28
	Restaurant (ITE Code 932)	7,500	127.15	957	11.52	86	11.15	84

Table 5-1 (Cont.): 50-Percent Reduction Alternative Summary

Scenario	Category	Square Footage	Trip Generation					
			Daily		AM Peak Hour		PM Peak Hour	
			Rate	Trips	Rate	Trips	Rate	Trips
Inline Retail/ Restaurant Alternative *cont.*	**Unadjusted Total**	**15,000**	**—**	**1,279**	**—**	**94**	**—**	**112**
Proposed Project	Unadjusted Total	19,000	—	490	—	109	—	38
Difference	**Unadjusted Total**	**(4,000)**	**—**	**789**	**—**	**(15)**	**—**	**74**

Notes:
Trip generation was calculated using 1,000-square-foot units (e.g., 7,500 = 7.500).
The midday peak hour was excluded from the table because of the lack of midday trip generation rates for retail and restaurants.
Source: Michael Brandman Associates, 2009.

This alternative would provide 734 off-street parking spaces for both the Walmart and the inline retail/restaurant uses. This translates to a ratio of 5.0 spaces per 1,000 square feet, which would meet the City's parking requirement of 5.0 spaces per 1,000 square feet. Finally, similar to the proposed project, this alternative would maintain the existing VTA bus stop and would install bicycle storage facilities and enhanced pedestrian facilities. Therefore, this alternative would have greater impact on transportation than the proposed project.

Urban Decay

This alternative would maintain the existing Walmart store in its current condition and develop 15,000 square feet of inline retail and restaurant uses. Table 5-6 summarizes the Inline Retail/Restaurant Alternative's sales compared with the proposed project's sales. As shown in the table, this alternative would have $3.0 million or 38 percent fewer sales relative to the proposed project. Note that this alternative would primarily generate sales in the general merchandise, apparel, and eating and drinking categories and would not generate sales in the food sales category. Therefore, it would not have the potential to divert sales from competing food stores. However, as with the proposed project, store closure is not considered a foreseeable consequence of this alternative because of the anticipated growth in demand for all retail categories in the Market Area. Therefore, this alternative would have similar urban decay impacts as the proposed project.

Table 5-6: Inline Retail/Restaurant Alternative Sales

Scenario	Square Feet	2011 Sales per Square Foot	2011 Sales
Inline Retail/Restaurant Alternative	15,000	$336	$5.0 million
Proposed Project	19,000	$422.73	$8.0 million
Difference	**(4,000)**	**—**	**($3.0 million)**

Notes:
Inline Retail/Restaurant Alternative 2011 sales-per-square-foot rate was provided by Retail MAXIM, an industry publication.
Proposed Project 2011 sales-per-square-foot rate was provided in Table 4.11-11.
Source: Michael Brandman Associates, 2009.

5.5.2 - Conclusion

The Inline Retail/Restaurant Alternative would result in the same significant unavoidable traffic impact as the proposed project, although the severity of the impacts would be greater because it would generate more PM peak hour trips. In addition, this alternative would increase the severity of impacts associated with air quality, noise, and transportation but lessen the severity of impacts associated with aesthetics, light, and glare, and public services and utilities. This alternative would have similar impacts on all other areas as the proposed project.

This alternative either would not meet or would not further all of the project objectives to the same degree as the proposed project. For example, the inline retail/restaurant uses would have a less positive economic impact; would not enhance retail opportunities to the same extent; would not create as many jobs; would not increase tax revenue by the same amount; and would not provide a safe and secure, 24-hour shopping environment. Reinforcing these points, this alternative would generate $3.0 million in fewer sales. As such, the Inline Retail/Restaurant Alternative would not achieve as many of the economic benefits of the proposed project.

5.6 - Environmentally Superior Alternative

The qualitative environmental effects of each alternative in relation to the proposed project are summarized in Table 5-7.

Table 5-7: Summary of Alternatives

Environmental Topic Area	No Project Alternative	50-Percent Reduction Alternative	Inline Retail/Restaurant Alternative
Aesthetics, Light, and Glare	Less Impact	Less Impact	Less Impact
Air Quality	Less Impact	Less Impact	Greater Impact
Biological Resources	Less Impact	Similar Impact	Similar Impact
Geology, Soils, and Seismicity	Less Impact	Similar Impact	Similar Impact

Table 5-7 (Cont.): Summary of Alternatives

Environmental Topic Area	No Project Alternative	50-Percent Reduction Alternative	Inline Retail/Restaurant Alternative
Hazards and Hazardous Materials	Less Impact	Similar Impact	Similar Impact
Hydrology and Water Quality	Less Impact	Similar Impact	Similar Impact
Land Use	Less Impact	Similar Impact	Similar Impact
Noise	Less Impact	Less Impact	Greater Impact
Public Services and Utilities	Less Impact	Less Impact	Less Impact
Transportation	Less Impact	Less Impact	Greater Impact
Urban Decay	Less Impact	Similar Impact	Similar Impact
Source: Michael Brandman Associates, 2009.			

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an environmentally superior alternative. If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

The No Project Alternative is the environmentally superior alternative, as the project site would remain in its existing condition, thereby avoiding any potentially adverse environmental impacts.

As stated above, if the No Project Alternative is environmentally superior, the EIR must also identify another environmentally superior alternative among the remaining alternatives. In this case, the proposed project would result in one significant unavoidable impact associated with traffic; therefore, the alternative that would generate the fewest new trips would be considered most beneficial. Table 5-8 provides a comparison of net change trip generation for each alternative relative to the proposed project. The 50-Percent Reduction Alternative would achieve reductions in daily, AM peak, and PM peak trip generation, while the Inline Retail/Restaurant Alternative would only achieve a reduction in AM peak hour trip generation.

Table 5-8: Trip Generation Comparison

Alternative	Net Change in Trips Relative to Proposed Project		
	Daily	AM Peak	PM Peak
50-Percent Reduction	(505)	(16)	(44)
Inline Retail/Restaurant	789	(15)	74
Source: Michael Brandman Associates, 2009.			

Because the 50-Percent Reduction Alternative achieves the greatest reductions in trip generation during both the AM and PM peak hour, it would be considered environmentally superior, as these are

the periods when significant traffic impacts occur. Furthermore, the 50-Percent Reduction Alternative also lessens the severity of air quality and noise impacts, while the Inline Retail/Restaurant Alternative increases the severity of these impacts and, therefore, may result in new significant impacts.

Therefore, the 50-Percent Reduction Alternative is the Environmentally Superior Alternative.

5.7 - Alternatives Rejected From Further Consideration

In accordance with CEQA Guidelines Section 15126.6(c), this section identifies alternatives that were initially considered but rejected from further consideration.

5.7.1 - Alternative Project Location

An alternative location for the proposed project would be consistent with most of the project objectives, with the exception of the one that concerns reducing trip lengths and utilizing existing infrastructure by expanding the existing Walmart store. However, an alternative project location would not avoid or substantially lessen any of the proposed project impacts for the following reasons:

- **Location:** The existing store is located in the McCarthy Ranch Marketplace, which is the second largest commercial retail node in Milpitas. The McCarthy Ranch Marketplace is a modern, well-kept retail center located on a major arterial roadway with convenient access to both State Route 237 and Interstate 880 (I-880). The shopping center contains a number of complementary businesses to Walmart (such as dining establishments, sporting goods and apparel, office supplies, and electronics). The existing Walmart store is readily accessible from surrounding residential areas in Milpitas, and is adjacent to nearby office complexes. Accordingly, few, if any, alternative locations in Milpitas possess superior attributes relative to the project site. Likewise, other locations may be served by roadways with inadequate capacity to support a project of this size and intensity or may be much further away from freeway access.
- **Cost and Timing:** Expanding an existing store is much less expensive than acquiring land, entitling it for development, performing any necessary site remediation, installing infrastructure, and implementing other necessary improvements to make a site suitable for a commercial project of this size. Given the presence of suitable land on the project site, it is far more cost-effective to expand the existing store than to develop a new store elsewhere. Related to cost, it would be expected that it would take much longer to acquire, entitle, and develop another site than it would to expand the existing store.
- **Urban Infrastructure:** The site is currently served by urban infrastructure, including potable water, recycled water, wastewater, storm drainage, electricity, natural gas, and telecommunications. The existing utility connections serving the project site all have sufficient capacity to accommodate the proposed project. Connections to these utility systems are

necessary for a commercial project of this size and are expensive to extend to a site not served by urban infrastructure. In addition, substantial roadway improvements would likely be necessary in order to support the traffic volumes associated with a Walmart store.

- **Disposal of Existing Site:** If an alternative site for the project were pursued, the existing store would have to be re-tenanted, left vacant, or demolished because the Market Area would be unlikely to support two Walmart stores. Re-tenanting the building with another single-tenant, big-box retailer may not be possible because there are a number of existing big-box retailers within 3 miles of the project site (e.g., Best Buy, Home Depot, and Kohl's) and a planned Target at the Creekside Landing project, located north of the site at I-880 and Dixon Landing Road. Multiple tenants may be a possibility, but the building was designed to be occupied by a single tenant; therefore, subdividing the building into smaller tenant spaces may create awkward and inconvenient configurations that diminish the economic viability of this approach. Vacating the store without re-tenanting it would create a "ghost box," which would be unappealing and likely discouraged by the City of Milpitas. Demolition of the store would be the least preferable option because of the expense and the associated environmental impacts (e.g., air emissions, waste disposal, etc.). As such, disposing of the existing site is considered a formidable obstacle to an alternative location.

For these reasons, evaluating an alternative location was rejected from further consideration.

5.7.2 - Mixed Use Alternative

A common alternative considered for retail-only projects is incorporating a residential component to create a mixed-use project. The intent of such an alternative is to maximize land use efficiency and reduce trip generation, which would theoretically result in corresponding benefits associated with air quality, noise, and transportation, as well as create opportunities for project employees to live onsite.

In this case, a mixed-use alternative would face the following obstacles for implementation:

- The General Plan does not allow residential development within the General Commercial land use designation.
- The Zoning Ordinance does not allow residential development within the General Commercial (C2) zoning district.
- The project site is part of the McCarthy Ranch Marketplace, a large, regional, commercial retail node. The City of Milpitas contemplates further development of office park and industrial uses in the project vicinity. Regional commercial retail, office park, and industrial uses are generally not compatible with nearby or onsite residential uses because of traffic volumes, truck trips, and early morning and late night hours of operation.
- There are no residential-supporting facilities within walking distance (0.5 mile or less) of the project site (such as schools, neighborhood parks, and libraries).

- The California Air Resources Board Air Quality and Land Use Handbook recommends that new residential uses be sited a minimum distance of 500 feet from freeways. A significant portion of the project site is within 500 feet of the I-880 right-of-way.
- The expansion pad is currently exposed to noise associated with N. McCarthy Boulevard, I-880, and the Walmart loading docks (i.e., truck movements). As shown in Exhibit 4.8-2, existing ambient noise levels on almost all portions of the project site exceed 60 dBA L_{dn}, which is the "normally acceptable" exterior noise level for residential uses established by the City of Milpitas General Plan. Accordingly, the project site's existing ambient noise levels would not be well suited for new residential uses.
- The Walmart store currently operates between 7 a.m. and 11 p.m. and the expanded store would operate 24 hours a day. Such operations may not be compatible with onsite residential uses in terms of noise, traffic, and truck trips.

For these reasons, evaluating a mixed-use alternative was rejected from further consideration.

SECTION 6: OTHER CEQA REQUIRED SECTIONS

6.1 - Significant Unavoidable Impacts

CEQA Guidelines Section 15126.2(a)(b) requires an EIR to identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented.

This section describes significant impacts, including those that can be mitigated but not reduced to a level of less than significant. Where there are impacts that cannot be alleviated without imposing a project alternative, their implications, and the reason why the project is being proposed, notwithstanding their effect, are described. With implementation of the proposed project, one significant impact associated with transportation that cannot be avoided would occur:

- **Roadway Operations:** The proposed project would contribute trips to four roadway segments that would operate at unacceptable levels. Although all four segments would operate at unacceptable levels without the proposed project, the proposed project would increase traffic volumes by more than 1 percent of the roadway's capacity, which is considered a significant impact. Mitigation is proposed that would require the project applicant to provide fees for roadway improvements. However, the proposed improvements may not fully mitigate the impact to a level of less than significant and, therefore, the residual significance is significant and unavoidable. This is also considered a significant cumulative effect.

6.2 - Growth-Inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the project's characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines Section 15126.2[d]).

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area. Also included in this category are projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth may provide a catalyst for future unrelated development in an area such as a new residential community that requires additional commercial uses to support residents.

The project site contains an existing Walmart store and associated parking areas. The proposed project does not contain any residential uses and, therefore, would not directly induce population growth through the provision of new dwelling units. The existing Walmart store employs approximately 330 workers. The expanded store would be expected to increase employment by as many as 75 jobs, for total of 405 positions. Most of the new employment opportunities created by the proposed project would be entry-level, both full-time and part-time. The California Employment Development Department indicates that, as of September 2009, there were 3,900 unemployed persons in Milpitas and 104,400 unemployed persons in Santa Clara County. Given the nature of the job opportunities and the availability of labor, it would be expected that the new employment opportunities could be readily filled from the local labor force.

The project site is surrounded by urban development and infrastructure on four sides. The site has existing utility connections (e.g., potable water, wastewater, recycled water, storm drainage, electricity, and natural gas), and the development of proposed project would not require the extension or upsizing of such services. Therefore, the development of the proposed project would not remove an obstacle to growth.

For these reasons, the project would not induce substantial population growth. No impacts would occur.

6.3 - Cumulative Impacts

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effects are cumulatively considerable. Cumulatively considerable means that ". . .the incremental effects of an individual 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." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those which are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), ". . .the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone." The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact.

The proposed project's cumulative impacts were considered in conjunction with other proposed and approved projects in the cities of Milpitas, San Jose, Santa Clara, and Fremont. Table 6-1 provides a list of the other projects considered in the cumulative analysis.

Table 6-1: Cumulative Projects

Jurisdiction	Project	Status
City of Milpitas	Milpitas Square	Pending
	Landmark Tower	Approved
	The Campus at McCarthy Ranch	Approved
	Tasman/McCarthy Business Center	Approved
	Irvine Company R&D – Phase 1	Approved
	Irvine Company R&D – Phase 2	Approved
	Veritas Software	Approved
	Apton Plaza Mixed Use Development	Approved
	Elmwood Residential Project	Approved
	Elmwood Commercial – Auto Dealerships	Approved
	North Main Street – Library	Approved
	North Main Street – Senior Housing	Approved
	North Main Street – County Medical Center	Approved
	Fairfield Residential Project	Approved
	RGC Residential Project	Approved
	Aspen Family Apartments	Approved
	Starlight Center – Mixed Use	Approved
	Everlasting Private Foundation Religious Facility	Approved
	Matteson Residential Project	Approved
	Alexan Residential Project	Approved
	Murphy Ranch Residential Project	Approved
	Perry-Arrilaga	Approved
	Sinclair Horizon Residential Project	Approved
	Citation Homes	Approved
	Transit Area Specific Plan	Approved
City of Fremont	Nadev Printing	Under construction
	Creekside Landing	Pending
	Robson Homes	Under construction
	KB Homes Development	Under construction
	Fremont Time Square Shopping Center	Approved
	Solyndra Project	Pending
	Fremont Tech Center – Phase 1	Completed

Table 6-1 (Cont.): Cumulative Projects

Jurisdiction	Project	Status
City of Fremont *cont.*	Fremont Tech Center – Phase 2	Approved
City of San Jose	Newby Island Sanitary Landfill and Recyclery Expansion	Pending
City of Santa Clara	49ers Santa Clara Stadium	Pending
Source: City of Milpitas, 2009; City of Fremont, 2009; City of San Jose, 2009; City of Santa Clara, 2009.		

6.3.1 - Cumulative Impact Analysis

The cumulative impact analysis below is guided by the requirements of CEQA Guidelines Section 15130. Key principles established by this section include:

- A cumulative impact only occurs from impacts caused by the proposed project and other projects. An EIR should not discuss impacts that do not result from the proposed project.
- When the combined cumulative impact from the increment associated with the proposed project and other projects is not significant, an EIR need only briefly explain why the impact is not significant; detailed explanation is not required.
- An EIR may determine that a project's contribution to a cumulative effect impact would be rendered less than cumulatively considerable if a project is required to implement or fund its fair share of mitigation intended to alleviate the cumulative impact.

The cumulative impact analysis that follows relies on the principles as the basis for determining the significance of the proposed project's cumulative contribution to various impacts.

Aesthetics, Light, and Glare

The geographic scope of the cumulative aesthetics, light, and glare analysis is the area surrounding the project site. This is the area within view of the project and, therefore, most likely to experience changes in visual character or experience light and glare impacts.

As shown in Table 6-1, there are a number of proposed development projects in the project vicinity, all of which have the potential to alter the visual character of the area. These projects would be subject to design and landscaping requirements to ensure that they do not degrade visual character. The proposed project consists of the expansion and alteration of the existing Walmart, including the addition of 19,000 square-feet of retail space. The expansion would occur on the south side of the store, within a paved parking area. The expansion area contains asphalt, concrete, and several trees. The Walmart store's elevations would be upgraded as part of the store expansion. The elevations would incorporate design features to reflect the "ranch" design theme of the McCarthy Ranch Marketplace, including metal roofs and canopies, corrugated metal cladding, and the use of colors

such as Colonnade Gray, Cool Old Zinc Gray, and Countrylane Red. The height of the expanded store would range from 18 feet, 6 inches to 35 feet, 6 inches above grade. The Milpitas Zoning Ordinance does not have a height limit for the General Commercial (C2) zoning district. Furthermore, the building height would be similar to other building heights in the McCarthy Ranch Marketplace. The expanded Walmart store would have a Floor Area Ratio (FAR) of 0.24 (150,725 square feet/14.56 acres [634,233.6 square feet]), which would be consistent with both the General Plan's and the Zoning Ordinance's maximum allowable FAR of 0.5 for the General Commercial designation and the General Commercial (C2) zoning district, respectively. Mitigation is proposed requiring the proposed project to replace removed trees in accordance with Municipal Code requirements and also comply with code requirements pertaining to outdoor storage. Therefore, the proposed project, in conjunction with other planned or approved projects, would not have cumulatively considerable aesthetic impacts.

The proposed development projects in the project vicinity have the potential to introduce new sources of light and glare. It is reasonable to assume that other projects would be required to reduce spillover light pursuant to City standards. The proposed project would largely maintain the existing exterior light fixtures on the project site and, therefore, would not have the potential to have a cumulative contribution to light and glare.

Air Quality

The geographic scope of the cumulative air quality analysis is the San Francisco Bay Area Air Basin. Air pollution is regarded as a regional issue; therefore, this would be the area most likely to be impacted by project emissions.

The uses of the project would be consistent with the land use and vehicle miles traveled assumptions contained in the Bay Area Quality Management District (BAAQMD) 2005 Ozone Strategy. Other development projects may or may not be consistent with the 2005 Ozone Strategy land use and vehicle miles traveled assumptions. However, because the proposed project would be consistent with the assumptions, it would not have a cumulative contribution to inconsistency with the 2005 Ozone Strategy.

The proposed project's construction emissions would not exceed BAAQMD daily emissions thresholds. Construction activities associated with other development projects would make a minimal contribution to cumulative emissions because the timing of those activities would overlap minimally, if at all, with the proposed project. Therefore, it is reasonable to conclude that construction emissions from the proposed project would not combine with emissions from other development projects to cause cumulatively considerable air quality impacts.

The proposed project's operational emissions would not exceed the BAAQMD's significance thresholds for criteria pollutants, would not create any carbon monoxide hotspots on surrounding roadways, and would not expose sensitive receptors to unhealthy levels of toxic air contaminants.

Operational activities associated with other planned and approved projects would emit air pollutants, which, depending on the nature of the project, may or may not exceed BAAQMD thresholds. However, because the proposed project's operational emissions would not exceed BAAQMD thresholds, its air emissions would be within the regional air emissions budget and, therefore, can be assumed not to be cumulatively considerable.

The proposed project would receive additional truck deliveries on a daily basis. However, based on distances from sensitive receptors and prevailing wind patterns, sensitive populations would not be exposed to harmful concentrations of toxic air contaminants (such as diesel particulate matter [DPM]). Other development projects such as The Campus at McCarthy Ranch or the Irvine Company R&D projects (located within 0.5 mile of the project site) may also receive diesel truck deliveries; however, DPM exposure is highly localized because of wind dispersion patterns, and it is unlikely that the proposed project's DPM emissions would combine with DPM emissions from other projects. Furthermore, adverse health effects from DPM exposure requires sustained exposed for decades by nearby sensitive receptors. As discussed in Section 4.2, Air Quality, no sensitive receptors are close enough to the project site or the surrounding cumulative projects to be adversely affected by DPM. Therefore, the proposed project, in conjunction with other projects that receive diesel truck deliveries, would not create cumulatively considerable health risks.

The proposed project would result in a net increase of greenhouse gas emissions. Mitigation is proposed that would require implementation of greenhouse gas reduction measures that are consistent with applicable emissions reduction strategies issued by the Climate Action Team, the California Air Resources Board (Early Action Measures), the Attorney General's Office, and the California Air Pollution Control Officers Association white paper. Other planned and approved projects would emit greenhouse gases, and it is reasonable to assume that such projects would implement greenhouse gas emissions reduction measures. With the implementation of these measures, the proposed project and other planned or approved projects would not emit cumulatively considerable amounts of greenhouse gas emissions.

Biological Resources

The geographic scope of the cumulative biological resources analysis is the project vicinity. Biological impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Development projects in the project vicinity may have the potential to impact special-status species. These projects would be required to mitigate for impacts. The proposed project would have the potential to adversely affect special-status species (nesting birds). Mitigation is proposed to reduce potential impacts on species to a level of less than significant. Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable special-status species impacts.

Development projects in the project vicinity may result in tree removal activities that would be subject to the City of Milpitas tree preservation ordinance. These projects would be required to comply with the ordinance requirements, including providing replacement trees. The proposed project would result in tree removal, and mitigation is proposed to ensure the replacement or proper landscaping of the proposed project as specified by the tree preservation ordinance. A provision of the mitigation measure requires that removed trees be replaced at a ratio of no less than 1:1. Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable conflicts with local biological ordinances and policies.

Geology, Soils, and Seismicity

The geographic scope of the cumulative geology, soils, and seismicity analysis is the project vicinity. Geologic, soil, and seismic impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Development projects in the project vicinity may have the potential to be exposed to seismic hazards. These projects would be required to mitigate for impacts through compliance with applicable laws and geotechnical study recommendations. The project site may be exposed to strong ground shaking during an earthquake. Mitigation is proposed requiring the proposed project to comply with the California Building Standards Code seismic design criteria. Seismic design criteria account for Peak Ground Acceleration, soil profile, and other site conditions, and they establish corresponding design standards intended primarily to protect public safety and secondly to minimize property damage. Project construction activities would implement standard stormwater pollution prevention mitigation measures to ensure that earthwork activities do not result in substantial erosion offsite and, therefore, would not contribute to area-wide erosion problems. It is reasonable to assume that other development projects would implement mitigation measures for erosion that would reduce project-level impacts to a less than significant level. Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable geologic, seismic, or soil impacts.

Hazards and Hazardous Materials

The geographic scope of the cumulative hazards and hazardous materials analysis is the project vicinity. Adverse affects of hazards and hazardous materials tend to be localized; therefore, the area near the project site would be most affected by project activities.

There are no recognized environmental constraints within the project site or surrounding sites. Construction activities associated with other development projects would make a minimal contribution to cumulative hazards from past and present uses, because such effects are highly localized and would have no possibility to overlap with the proposed project. Therefore, it is reasonable to conclude that any potential contamination present on other sites would not have the potential to cause cumulatively considerable impacts.

The proposed project would not result in the use of substantial quantities of hazardous materials or impair emergency response or evacuation; therefore, the proposed project would not have cumulatively considerable effects on these issue areas. As such, the proposed project would not have the potential to cause an incremental contribution to hazards in the Milpitas area. It is reasonable to assume that other projects would implement mitigation that would require proper abatement of potential hazards; therefore, cumulative impacts are anticipated to be less than significant, and the proposed project, in conjunction with other projects, would not have cumulatively considerable hazards and hazardous materials impacts.

Hydrology and Water Quality

The geographic scope of the cumulative hydrology and water quality analysis is the project vicinity. Hydrologic and water quality impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Development projects in the project vicinity may have the potential to create sources of short-term and long-term water pollution. These projects would be required to mitigate for impacts by providing stormwater pollution prevention measures. The proposed project would involve short-term construction and long-term operational activities that would have the potential to degrade water quality in downstream water bodies. Mitigation is proposed that would require implementation of various construction and operational water quality control measures that would prevent the release of pollutants into downstream waterways.

Development projects in the project vicinity may have the potential to increase impervious surface coverage and, therefore, may result in increased runoff volumes in downstream waterways. These projects would be required to provide drainage facilities that collect and detain runoff such that offsite releases are controlled and do not create flooding. The proposed project would largely maintain the existing impervious surface coverage of the site and, therefore, would not create the potential for additional discharge of urban pollutants into downstream waterways. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on hydrology and water quality.

Land Use

The geographic scope of the cumulative land use analysis is the Milpitas area. Land-use decisions are made at the City-level; therefore, the Milpitas area is an appropriate geographic scope.

Development projects in the Milpitas area would be required to demonstrate consistency with all applicable General Plan and Zoning Ordinance requirements. This would ensure that these projects comply with applicable planning regulations. The project site is designated General Commercial by the General Plan, and it is zoned General Commercial (C2), Site and Architectural Review Overlay (S) by the Zoning Ordinance. The proposed project would expand the existing Walmart store by a maximum of 19,000 square feet and would include adding grocery sales and implementing 24-hour

operations. The expanded Walmart store would have a FAR of 0.24 (150,725 square feet/14.56 acres [634,233.6 square feet]), which would be consistent with both the General Plan's and the Zoning Ordinance's maximum allowable FAR of 0.5 for the General Commercial designation and the General Commercial (C2) zoning district, respectively. Furthermore, the proposed project's land use activities are consistent with existing retail activities in the McCarthy Ranch Marketplace and, therefore, would be consistent with the intended uses of the General Commercial designation and the General Commercial (C2) zoning standards. There are no height limits for the General Commercial (C2) zoning district. Mitigation is proposed requiring compliance with Municipal Code requirements for tree removal, outdoor storage, and parking to ensure that impacts are reduced to a level of less than significant. As such, the proposed project would be consistent with applicable provisions and ordinances of both the City of Milpitas General Plan and Municipal Code. The proposed project, in conjunction with other planned or approved projects, would not have a cumulatively considerable impact on land use.

Noise

The geographic scope of the cumulative noise analysis is the project vicinity, including surrounding sensitive receptors. Noise impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Construction activities associated with the proposed project would not result in substantial sources of noise at nearby receptors. Other planned and approved projects would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. In addition, the timing of construction activities associated with other development projects would overlap minimally, if at all, with the proposed project. Furthermore, because noise is a highly localized phenomenon, even if construction activities did overlap in time with the proposed project, distance would diminish any additive effects. Finally, construction noise would generally be limited to daytime hours and would be short-term in duration. Therefore, it is reasonable to conclude that construction noise from the proposed project would not combine with noise from other development projects to cause cumulatively considerable noise impacts.

The proposed project's construction and operational vibration levels would not exceed annoyance thresholds. Because vibration is a highly localized phenomenon, there would be no possibility for vibration associated with the project to combine with vibration from other projects because of their distances from the project site. Therefore, the proposed project would not contribute to a cumulatively considerable vibration impact.

As discussed in Section 4.8, Noise, the proposed project's vehicular trips would not make a substantial incremental contribution to ambient noise levels under near-term with-project conditions. In addition, other projects would be required to evaluate offsite roadway noise and, if necessary, mitigate for such impacts. Furthermore, the proposed project's contribution to vehicular noise levels would not exceed the applicable thresholds of significance, which take into account the existing noise

levels. Thus, the proposed project would not combine with other projects to cause a cumulatively considerable increase in ambient roadway noise.

As shown in Section 4.8, Noise and Table 4.8-18, combined stationary and transportation noise levels under near-term with project conditions would not result in significant noise increases at nearby sensitive receptors. In addition, other projects would be required to mitigate for stationary- and transportation-related noise impacts at nearby sensitive receptors. Moreover, stationary noise and transportation noise are localized phenomena, and there is very limited potential for other projects to contribute to cumulative noise impacts, beyond the transportation-related noise that is already analyzed above and found not to be cumulatively significant. As such, the proposed project, in conjunction with other projects, would not cause a cumulatively considerable, permanent increase in ambient noise levels in the project vicinity.

Public Services and Utilities

The geographic scope of the cumulative public services analysis is the service area of each of the providers serving the proposed project. Because of differences in the nature of the public service and utility topical areas, they are discussed separately.

Fire Protection and Emergency Medical Services

The geographic scope of the cumulative fire protection and emergency medical services analysis is the Milpitas Fire Department service area, which encompasses the City of Milpitas.

The Fire Department indicated that it would have adequate resources to meet the demand generated by the expanded Walmart. The proposed project would not create a need for new or expanded fire protection facilities, and, therefore, would not result in a physical impact on the environment. Other development projects in Milpitas would be reviewed for impacts on fire protection and emergency medical services and would be required to address any potential impacts with mitigation. Because demand for fire protection and emergency medical services is highly dependent on a number of factors that vary substantially by project (hours of operation, fire prevention measures, occupancy by sensitive populations, etc.), it is unlikely that there would be substantial overlap in demand between these projects and the proposed project that would result in a cumulatively considerable impact. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on fire protection and emergency medical services.

Police Protection

The geographic scope of the cumulative police protection analysis is the Milpitas Police Department jurisdictional area, which encompasses the City of Milpitas.

The Police Department indicates that it has adequate existing resources to serve the proposed project, and it does not anticipate any adverse impacts on its ability to provide police protection services to the community as a result of project implementation. The proposed project, therefore, would not create a

need for new or expanded police protection facilities and would not result in a physical impact on the environment. Other development projects in Milpitas would be reviewed for impacts on police protection and would be required to address any potential impacts with mitigation. Because demand for police protection is highly dependent on a number of factors that vary substantially by project (clientele, hours of operation, crime prevention measures, etc.), it is unlikely that there would be substantial overlap in demand that would result in a cumulatively considerable impact. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on police protection.

Potable Water

The geographic scope of the cumulative potable water analysis is the Santa Clara Valley Water District (SCVWD) service area, which encompasses the urbanized portions of Santa Clara County. SCVWD is the wholesale water provider for a significant portion of the City of Milpitas, including where most of the projects listed in Table 6-1 are located. SCVWD is projected to have adequate supplies under normal year conditions through 2030 but may have minor shortfalls under dry year conditions.

The expanded Walmart store is estimated to demand 7,100 gallons per day of potable water, which is a net increase of 2,600 gallons per day over the existing store's usage; the existing recycled water consumption figure of 3,800 gallons per day would remain unchanged. To minimize the proposed project's potential cumulative impacts on long-term water supply, indoor water conservation measures would be implemented. All future projects also would be required to demonstrate that potable water supply sources are available, and these projects may be required to implement water conservation measures. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on potable water supply.

Wastewater

The geographic scope of the cumulative wastewater analysis is the San Jose/Santa Clara Water Pollution Control Plant service area, which collects wastewater from Milpitas, San Jose, and Santa Clara.

All future projects would be required to demonstrate that sewer service is available to ensure that adequate sanitation can be provided. The estimated wastewater generation of the proposed Walmart expansion project, which is based on similar Walmart store prototypes, would increase by 2,340 gallons to approximately 6,390 gallons per day. Based on the current and planned future available capacity, the plant could readily accommodate the proposed project's wastewater flows without a need for new or expanded facilities. Furthermore, the sewer system servicing the existing Walmart was designed with the store expansion in mind and has adequate capacity to accommodate the additional effluent on a daily basis. Accordingly, the proposed project would be served by adequate wastewater treatment and conveyance. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on wastewater.

Storm Drainage

The geographic scope of the cumulative storm drainage analysis is the downstream waterways that receive runoff from the project site.

All future development projects in the project vicinity would be required to provide drainage facilities that collect and detain runoff such that offsite releases are controlled and do not create flooding. The store expansion area currently contains a parking area that is drained by existing storm drainage facilities. Accordingly, the proposed project would not increase impervious surface coverage and would not increase the volume of runoff entering downstream waterways; therefore, no incremental contribution to potential cumulative impacts would occur. The proposed project would implement standard pollution prevention measures during construction to ensure that downstream water quality impacts are minimized to the greatest extent possible. In addition, the proposed project would provide water quality measures to prevent pollution during store operations. Therefore, the proposed project, in conjunction with other projects, would not have a cumulatively considerable impact on storm drainage.

Solid Waste

The geographic scope of the cumulative solid waste analysis is the City of Milpitas.

Future development projects would generate construction and operational solid waste and, depending on the volumes and end uses, would be required to implement recycling and waste reduction measures. The proposed project is anticipated to generate 37.0 tons of solid waste during construction and 361.7 tons (a net increase of 45.6 tons) annually during operations. Mitigation is included that would require the project applicant to retain a qualified contractor to perform construction and demolition debris recycling and to provide the installation of onsite facilities necessary to collect and store recyclable materials. These practices would divert substantial quantities of materials from the solid waste stream and contribute to conserving landfill capacity, thereby extending the operational life of such facilities. Accordingly, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on solid waste.

Energy

The geographic scope of the cumulative electricity analysis is the Pacific Gas and Electric (PG&E) service area, which encompasses all or part of 47 counties in California, constituting most of the northern and central portions of the State.

Future development projects in the PG&E service area would be required to comply with Title 24 energy efficiency standards. The proposed project would demand an estimated 3.5 million kWh of electricity (a net increase of 623,776 kWh) on an annual basis. The proposed project would demand an estimated 8.79 million cubic feet of natural gas (a net increase of 1.11 million cubic feet) on an annual basis. The proposed project's structures would be designed in accordance with Title 24,

California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. The proposed project also would incorporate a number of energy conservation measures that exceed Title 24 requirements, as described in Section 3, Project Description and Section 4-9, Public Services and Utilities. The incorporation of the Title 24 standards and other energy conservation measures into the project would ensure that the project would not result in the inefficient, unnecessary, or wasteful consumption of energy. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on energy consumption.

Transportation

The geographic scope of the cumulative transportation analysis is the roadway network in Milpitas and adjacent portions of Fremont. These are the roadways that were evaluated in Section 4.10, Transportation.

All new development projects listed in Table 6-1 would generate new vehicle trips that may trigger or contribute to unacceptable intersection operations, roadway operations, freeway operations, or queuing. All projects would be required to mitigate for their fair share of impacts. The expanded Walmart store would result in a net increase of 490 daily trips, including 109 trips during the weekday morning peak hour, 122 trips during the weekday midday peak hour, and 38 trips during the weekday afternoon peak hour. The expanded Walmart store would contribute trips to intersections, roadways, and queues that would operate at unacceptable levels. Mitigation is proposed that would mitigate the impacts on intersection operations, roadway operations, and queuing. The intersection operations and queuing impacts would be fully mitigated to a level of less than significant and, therefore, the proposed project's cumulative contribution would also be less than significant. However, the roadway operations impacts may not be fully mitigated to a level of less than significant and, as such, the proposed project, in conjunction with other projects, would have a cumulatively considerable contribution in this regard.

The proposed project would provide 751 off-street parking spaces, which translates to a ratio of 5.0 spaces per 1,000 square feet using the actual proposed square footage of 150,182. The City of Milpitas requires retail uses to provide 5.0 spaces per 1,000 square feet of gross floor area. However, because this EIR is using 150,725 as the store square footage, mitigation is proposed requiring off-street parking to provided at no less than 5.0 spaces per 1,000 square feet of gross floor area. Accordingly, the proposed project would comply with this standard, thereby providing adequate off-street parking. Other projects would be required to provide adequate off-street parking facilities. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable effect on parking.

The proposed project would provide adequate emergency access and would not create any roadway hazards. The project would maintain the existing vehicular access points to the project site from

Ranch Drive and, therefore, would provide sufficient access for delivery trucks and emergency response vehicles such as fire trucks. The proposed project would maintain the existing Santa Clara Valley Transportation Authority bus stop and provide new onsite bicycle storage facilities, thereby maintaining and improving accessibility to alternative transportation. Other projects would also be required to demonstrate that adequate emergency access is available; roadway safety hazards are not created; and public transit, bicycle, and pedestrian access are provided. Therefore, the proposed project, in conjunction with other projects, would not have any cumulatively considerable impacts on these transportation-related areas.

Urban Decay

The geographic scope of the cumulative urban analysis is the Market Area shown on Exhibit 4.11-1. The market area boundaries are explained in Section 4.11, Urban Decay.

Several of the projects listed in Table 6-1 would introduce new food sales and general merchandise sales to the market area. As shown in Table 4.11-12, the expanded Walmart is expected to generate a $13.8-million increase in grocery sales and experience a $5.9-million decrease in general merchandise sales, for a net increase of $7.1 million. As indicated in Impact UD-2, the proposed project, in conjunction with these planned and approved projects, may divert enough sales from the Save Mart located in Calaveras Plaza to cause store closure. However, urban decay is not a foreseeable consequence of store closure because of low commercial retail vacancy rates in the Market Area (indicating strong re-tenanting potential) and the overall lack of physical deterioration at retail centers in the Market Area (indicating active maintenance and upkeep by property owners and enforcement of anti-blight ordinances by local government). It is reasonable to expect that these market conditions and enforcement of ordinances would continue, which would prevent urban decay from occurring in the future even if the combined effects of the proposed project and other planned and approved projects lead to future store closures. Accordingly, the proposed project would not have any cumulatively considerable impacts on urban decay.

6.4 - Energy Conservation

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct State responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR

preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project will not result in the wasteful, inefficient, and unnecessary consumption of energy; will not cause the need for additional natural gas or electrical energy-producing facilities; and, therefore, will not create a significant impact on energy resources.

6.4.1 - Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the state level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. Some of the more relevant federal and state energy-related laws and plans are discussed below.

Federal Energy Policy and Conservation Act

The Federal Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the United States Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by United States Environmental Protection Agency, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The United States Environmental Protection Agency calculates a CAFE value for each manufacturer, based on city and highway fuel economy test results and vehicle sales. On the basis of the information generated under the CAFE program, the United States Department of Transportation is authorized to assess penalties

for noncompliance. In the course of its over 30-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) such as ABAG were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values that were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, state, and local energy goals. Through this requirement, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy

efficiency standards went into effect in 1978, it is estimated that California residential and nonresidential consumers have reduced their utility bills by at least $15.8 billion. The CEC further estimates that by 2011, residential and nonresidential consumers will save an additional $43 billon in energy costs.

In 2005, the CEC adopted new energy efficiency standards. All projects that apply for a building permit on or after October 2005 must adhere to the new 2005 standards. A copy of the 2005 Energy Efficiency Standards may be reviewed online at www.energy.ca.gov/title24/2005standards/ index/html.

Because the adoption of Title 24 post-dates the adoption of AB 1575, it has generally been the presumption throughout the State that compliance with Title 24 (as well as compliance with the federal and state regulations discussed above) ensures that projects will not result in the inefficient, wasteful, and unnecessary consumption of energy. As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State while ensuring that the efficient and non-wasteful consumption of energy is carried out through design features. Large infrastructure transportation projects that cannot adhere to Title 24 design-build performance standards may, depending on the circumstances, undertake a more involved assessment of energy conservation measures in accordance with some of the factors set forth in Appendix F of the CEQA Guidelines. As an example, pursuant to the California Department of Transportation CEQA implementation procedures and FHWA Technical Advisory 6640.8A, a detailed energy study is generally required only for large-scale infrastructure projects. However, for the vast majority of residential and nonresidential projects, adherence to Title 24 is deemed necessary to ensure that no significant impacts occur from the inefficient, wasteful, and unnecessary consumption of energy. As a further example, the adoption of federal vehicle fuel standards, which have been continually improved since their original adoption in 1975, have also protected against the inefficient, wasteful, and unnecessary use of energy.

According to the CEC, reducing energy use has been a benefit to all. Building owners save money, Californians have a more secure and healthy economy, the environment is less negatively impacted, and our electrical system can operate in a more stable state. The 2005 Standards (for residential and nonresidential buildings) are expected to reduce the growth in electricity use by 479 gigawatt-hours per year (GWh/y) and reduce the growth in natural gas use by 8.9 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 143 GWh/y of electricity savings and 0.5 million therms. Additional savings result from the application of the Standards on building alterations. In particular, requirements for cool roofs, lighting, and air distribution ducts are expected to save about 175 GWh/y of electricity. These savings are cumulative—doubling in two years, tripling in three, etc. Table 6-2 provides a summary of the electricity savings envisioned by the 2005 standards.

Table 6-2: Electricity Savings Projected from the 2005 Standards

Category	2001 Standard (GWh)	2005 Standard (GWh)	Savings (GWh)	Percent Reduction
Lighting	861.6	777.5	84.1	9.8
Heating	38.8	36.9	1.9	4.9
Cooling	537.5	501.5	35.9	6.7
Fans	424.7	403.6	21.1	5.0
Total	**1,862.6**	**1,719.5**	**143.0**	**7.7**

Notes:
GWh = gigawatt hours
Source: California Energy Commission, 2005.

Since the California 2000–2001 electricity crisis, the CEC has placed greater emphasis on demand reductions. Changes in 2001 (following the electricity crisis) reduced electricity demand for newly constructed residential and nonresidential buildings by about 110.3 megawatts (MW) each year. Newly constructed nonresidential buildings account for 44 MW of these savings. Like energy savings, demand savings accumulate each year. The 2005 Standards are expected to reduce electricity demand by another 180 MW each year. Table 6-3 provides a summary of the demand savings envisioned by the 2005 standards.

Table 6-3: Demand Savings Projected from the 2005 Standards

Category	2001 Standard (MW)	2005 Standard (MW)	Savings (MW)	Percent Reduction
Lighting	157.9	142.6	15.3	9.7
Heating	3.6	3.5	0.1	2.2
Cooling	276.7	253.1	23.6	8.5
Fans	79.7	74.6	5.0	6.3
Total	**517.9**	**473.9**	**44.0**	**8.5**

Notes:
MW = megawatts
Source: California Energy Commission, 2005.

Many experts believe that burning fossil fuel is a major contributor to global warming; carbon dioxide is being added to an atmosphere already containing 25 percent more than it did two centuries ago. Carbon dioxide and other greenhouse gases create an insulating layer around the Earth that leads to global climate change. CEC research shows that most of the sectors of the State economy face significant risk from climate change, including agriculture, forests, and the natural habitats of a number of indigenous plants and animals.

Scientists recommend that actions be taken to reduce emissions of carbon dioxide and other greenhouse gases. While adding scrubbers to power plants and catalytic converters to cars are steps

in the right direction (both of which are currently enforced as part of existing regulatory schemes), the use of energy-efficient standards can be an effective action to limit the carbon dioxide that is emitted into the atmosphere. According to the CEC, using energy efficiently, in accordance with Title 24 Energy Efficiency standards, is a proven, far-reaching strategy that can and does present an important contribution to the significant reduction of greenhouse gases.

In fact, the National Academy of Sciences has urged the country to follow California's lead on such efforts, and it has recommended that energy efficiency building codes modeled after Title 24 be adopted nationwide. The CEC's Title 24 program has played a vital, if not the most important, role in maximizing energy efficiency and preventing the wasteful, inefficient, and unnecessary use of energy throughout the State.

The CEC's 2005 Energy Efficiency Standards include the following:

- Time Dependent Valuation (TDV). Source energy was replaced with TDV energy. TDV energy values energy savings greater during periods of likely peak demand, such as hot summer weekday afternoons, and values energy savings less during off-peak periods. TDV gives more credit to measures such as daylighting and thermal energy storage that are more effective during peak periods.
- New Federal Standards. Coincident with the 2005 Standards, new standards for water heaters and air conditioners took effect. These changes affect all residential buildings, but they also affect many nonresidential buildings that use water heaters and/or residential-size air conditioners.
- Cool Roofs. The nonresidential prescriptive standards require cool roofs—high-reflectance, high-emittance roof surfaces or exceptionally high-reflectance and low-emittance surfaces—in all low-slope applications. The cool-roof requirements also apply to roof replacements for existing buildings.
- Acceptance Requirements. Basic "building commissioning," at least on a component basis, is required for electrical and mechanical equipment that is prone to improper installation.
- Demand Control Ventilation. Controls that measure CO_2 concentrations and vary outside air ventilation are required for spaces such as conference rooms, dining rooms, lounges, and gyms.
- T-bar Ceilings. Placing insulation directly over suspended ceilings is not permitted as a means of compliance, except for limited applications.
- Duct Efficiency. R-8 duct insulation and duct sealing with field verification is required for ducts in unconditioned spaces in new buildings. Duct sealing is also required in existing buildings when the air conditioner is replaced. Performance methods may be used to substitute a high-efficiency air conditioner in lieu of duct sealing.

- Indoor Lighting. The lighting power limits for indoor lighting are reduced in response to advances in lighting technology.
- Skylights for Daylighting in Buildings. The prescriptive standards require that skylights with controls to shut off the electric lights are required for the top story of large, open spaces (spaces larger than 25,000 feet with ceilings higher than 15 feet).
- Thermal Breaks for Metal Building Roofs. Continuous insulation or thermal blocks at the supports are required for metal building roofs.
- Efficient Space Conditioning Systems. A number of measures are required that improve the efficiency of heating, ventilation, and air conditioning (HVAC) systems, including variable-speed drives for fan and pump motors greater than 10 horsepower, electronically commutated motors for series fan boxes, improved controls, efficient cooling towers, and water-cooled chillers for large systems.
- Compliance Credits. Procedures are added for gas cooling, underfloor ventilation.
- Lighting Power Limits. The Standards set limits on the power that can be used for outdoor lighting applications such as parking lots, driveways, pedestrian areas, sales canopies, and car lots. The limits vary by lighting zones or ambient lighting levels. Lighting power tradeoffs are not permitted between outdoor lighting and indoor lighting.
- Shielding. Luminaires in hardscape areas larger than 175 watts are required to be cutoff luminaires, which will save energy by reducing glare.
- Bi-level Controls. In some areas, outdoor lighting controls are required, including the capability to reduce lighting levels to 50 percent.
- Lighting Power Limits. Lighting power limits (or alternative equipment efficiency requirements) apply to externally and internally illuminated signs used either indoors or outdoors.

Pursuant to the California Building Standards Code and the Title 24 Energy Efficiency Standards, the City will review the design and construction components of the project's Title 24 compliance when specific building plans are submitted.

6.4.2 - Energy Requirements of the Proposed Project

Short-term construction and long-term operational energy consumption are discussed below.

Short-Term Construction

The United States Environmental Protection Agency (EPA) regulates non-road diesel engines. The EPA has no formal fuel economy standards for non-road (e.g., construction) diesel engines but does regulate diesel emissions, which indirectly affects fuel economy. In 1994, the EPA adopted the first set of emissions standards (Tier 1) for all new non-road diesel engines greater than 37 kilowatts (50

horsepower). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing nitrogen oxide (NO_x) emissions from these engines by 30 percent. The EPA has since adopted more stringent emission standards for NO_x, hydrocarbons, and particulate matter from new non-road diesel engines. This program includes the first set of standards for non-road diesel engines less than 37 kW. It also phases in more stringent Tier 2 emission standards from 2001 to 2006 for all engine sizes and adds yet more stringent Tier 3 standards for engines between 37 and 560 kW (50 and 750 hp) from 2006 to 2008. These standards will further reduce non-road diesel engine emissions by 60 percent for NO_x and 40 percent for particulate matter (PM) from Tier 1 emission levels. In 2004, the EPA issued the Clean Air Non-road Diesel Rule. This rule will cut emissions from non-road diesel engines by more than 90 percent, and it will take effect beginning in 2008 and will be fully phased in by 2014. These emission standards are intended to promote advanced clean technologies for non-road diesel engines that improve fuel combustion, but they also result in slight decreases in fuel economy.

The proposed project is anticipated to break ground in 2010 and be completed in 12 months. Table 6-4 provides an estimate of the proposed project's construction fuel consumption. The construction assumptions contained in the tables are the same assumptions used in the construction air quality analysis in Section 4.2, Air Quality.

Table 6-4: Construction Fuel Consumption

Phase	Fuel Consumption (gallons)
Demolition	43,240
Fine Grading	11,769
Paving	32,025
Construction	403,332
Total	**490,366**
Source: Michael Brandman Associates, 2009.	

As shown in Table 6-4, construction activities would be estimated to consume 490,366 gallons of diesel. The proposed project consists of a 19,000-square-foot expansion of an existing Walmart store. This is considered a very modest Walmart expansion by industry standards and would not necessitate the use of a large construction fleet or non-standard equipment. Accordingly, it is expected that construction fuel consumptions associated with the proposed project would be similar to those of other, comparable construction sites in the region and, therefore, would not be inefficient, wasteful, or unnecessary.

Long-Term Operations

Transportation Energy Demand

Vehicle fuel efficiency is regulated at the federal level. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. As discussed above, since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Table 6-5 provides an estimate of the daily fuel consumed by vehicles traveling to and from the proposed project. These estimates were derived using the same assumptions used in the operational air quality analysis in Section 4.2, Air Quality.

Table 6-5: Daily Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Daily Vehicle Miles Traveled	Average Fuel Economy (miles per gallon)	Daily Consumption (gallons)
Passenger cars	53.8	26,856	21.6	1,243.3
Light trucks	32.6	16,274	17.2	946.2
Heavy trucks/other	10.4	5,192	6.1	851.1
Motorcycles	3.2	1,597	50.0	31.9
Total	**100.0**	**49,919**	**—**	**3,072.5**

Notes:
Daily trips and vehicle miles traveled provided by URBEMIS Air Quality Modeling output contained in Appendix B.
Average fuel economy provided by the United States Department of Transportation, Bureau of Transportation Statistics.
"Other" consists of urban buses, school buses, and motor homes.
Source: Michael Brandman Associates, 2009.

As shown in the above table, daily vehicular fuel consumption is estimated to be 3,072.5 gallons of both gasoline and diesel. As discussed in Section 4.2, Air Quality, the estimated 2010 Santa Clara County average trip length is 6.9 miles. Since the proposed project would primarily cater to residents living in Milpitas, southern Fremont, and the northern portions of San Jose, Santa Clara, and Sunnyvale (refer to Section 4.11, Urban Decay for further discussion), it can be reasoned that the proposed project's trips would not be significantly greater than the aforementioned average trip length. Furthermore, the expanded store would retail groceries and general merchandise, provide in-store services such as a medical clinic and Tire & Lube Express, and would operate 24 hours a day. Therefore, the store would be well-positioned to reduce trip lengths by providing a one-stop shopping

destination within an existing regional shopping node and nearby regional employment centers. As such, it would be expected that vehicular fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use in the region.

Building Energy Demand

The proposed project is estimated to demand 2.37 million kWh of electricity on annual basis, which represents a net increase of 310,000 kWh above existing demand. The proposed project is estimated to demand 8.79 million cubic feet of natural gas on annual basis, which represents a net increase of 1.11 million cubic feet above existing demand. These figures were derived from energy consumption rate provided by the United States Energy Information Administration. Refer to Impact PSU-8 in Section 4.9, Public Services and Utilities, for further discussion about the calculation used to arrive at this consumption estimate.

The expanded Walmart would be designed in accordance with Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. The incorporation of the 2005 Title 24 standards into the project would ensure that the project would not result in the inefficient, unnecessary, or wasteful consumption of energy.

In addition, the expanded Walmart store would provide the following energy conservation features:

- **High Efficiency Heating, Ventilation, and Air Conditioning (HVAC) units:** The HVAC units among the most efficient in the industry.
- **Central Energy Management:** The store would continue to employ an energy management system that is monitored and controlled from corporate headquarters in Bentonville, Arkansas. This energy management system enables corporate headquarters to monitor energy usage, analyze refrigeration temperatures, and observe HVAC and lighting performance. It also allows corporate headquarters to adjust lighting, temperature, or refrigeration set points from a central location.
- **White Roofs:** The entire building would have a white membrane roof. The high solar reflectivity of this membrane results in lowering the cooling load by approximately 10 percent.
- **Light Emitting Diode (LED) Signage Illumination:** All internally illuminated building signage would use LED lighting. With lamp life ranging to 100,000 hours, using LEDs significantly reduces the need to manufacture and dispose of fluorescent lamps.

In summary, the proposed project's building energy demand incorporates energy-efficient measures that would exceed the Title 24 standards and, therefore, would prevent the inefficient, unnecessary, or wasteful use of energy.

SECTION 7: EFFECTS FOUND NOT TO BE SIGNIFICANT

7.1 - Introduction

This section is based on the Notice of Preparation (NOP), dated March 5, 2009, and contained in Appendix A of this Environmental Impact Report (EIR). The NOP was prepared to identify the potentially significant effects of the proposed projects and was circulated for public review between March 5 and April 3, 2009. In the course of this evaluation, certain impacts were found to be less than significant because the proposed project's characteristics would not create such impacts. This section provides a brief description of effects found not to be significant or less than significant, based on the NOP comments or more detailed analysis conducted as part of the EIR preparation process. Note that a number of impacts that are found to be less than significant are addressed in the various EIR topical sections (Sections 4.1 through 4.11) to provide more comprehensive discussion of why impacts are less than significant, in order to better inform decision makers and the general public.

7.2 - Effects Found Not To Be Significant

7.2.1 - Aesthetics, Light, and Glare

Scenic Vistas

The project site contains an existing 131,725-square-foot Walmart store, parking areas, landscaping, and developed land. The project site does not contain any scenic vistas or features associated with scenic vistas (e.g., ridgelines, peaks, overlooks). The proposed project would expand the existing store by a maximum of 19,000 square feet. The expansion would occur on an area currently used as a store parking lot. Accordingly, no scenic features would be adversely affected by the proposed project. Therefore, no impacts would occur.

State Scenic Highways

The nearest state highway to the project site is Interstate 880 (I-880), located to the east. In Santa Clara County, I-880 is neither an officially designated state scenic highway nor eligible for such a designation. Therefore, the proposed project would not adversely affect views from a state scenic highway.

The City of Milpitas General Plan designates I-880 as a Scenic Corridor. The project site is visible from I-880 and views consist of the store's front elevation, the main parking area, and landscaping. Note that views of the project site are partially obstructed by landscaping located along the I-880 and Ranch Drive frontages. Although the appearance of the store would change, it would not dramatically alter views of the project site from I-880 because the store expansion would occur on the south side of the store and would be partially obscured by landscaping. Therefore, no impacts to views from I-880 would occur.

7.2.2 - Agriculture Resources

Important Farmland

The project site contains an existing Walmart store and associated parking areas. Exhibit 7-1 indicates that the Farmland Mapping and Monitoring Program designates the project site as urban, built-up land. Therefore, the development of the proposed project would not result in the conversion of Important Farmland to non-agricultural use. No impacts would occur.

Williamson Act Contacts or Agricultural Zoning

The project site does not contain active agricultural land and, therefore, would not be eligible for a Williamson Act contract. The project site is designated "General Commercial (C2)" by the Milpitas Zoning Ordinance, which is a non-agricultural zoning designation. These conditions preclude the possibility of the proposed project conflicting with an active Williamson Act contract or an agricultural zoning designation. No impacts would occur.

Conversion of Farmland to Non-Agricultural Use

Exhibit 7-1 indicates that the undeveloped land on the opposite side of McCarthy Boulevard from the project site is designated as Prime Farmland by the Farmland Mapping and Monitoring Program. However, this property is designated for Industrial Park uses by the City of Milpitas General Plan and was recently entitled for an office park campus (The Campus at McCarthy Ranch) by the City of Milpitas in 2008. Accordingly, conversion of this farmland to non-agricultural use has been approved by the City of Milpitas. Therefore, the proposed project would not create pressures to convert farmland to non-agricultural use. No impacts would occur.

7.2.3 - Biological Resources

Sensitive Natural Communities or Riparian Habitat

The project site is in an urban, built-up condition, with ornamental landscaping provided in the parking area and along roadway frontages. The expansion footprint contains asphalt, concrete, and landscaping. No sensitive natural or riparian communities are located within the project site. This condition precludes the possibility of the project causing adverse impacts to such communities. No impacts would occur.

Wetlands or Jurisdictional Features

The project site is in an urban, built-up condition, with ornamental landscaping provided in the parking area and along roadway frontages. The expansion footprint contains asphalt concrete, and landscaping. No wetland or jurisdictional feature is located within the project site. This condition precludes the possibility of the project causing adverse impacts to wetland or jurisdictional features. No impacts would occur.

Wildlife Movement

The project site is surrounded on four sides by urban development and infrastructure. No wildlife movement features exist on the project site (such as waterways, arroyos, or ridgelines). No wildlife nurseries exist on the project site. This condition precludes the possibility of adverse impacts on wildlife movement. No impacts would occur.

Conservation Plans

The proposed project site is not within the boundaries of any adopted Habitat Conservation Plans or Natural Community Conservation Plans. This condition precludes the possibility of adverse impacts resulting from implementation of the project. No impacts would occur.

7.2.4 - Cultural Resources

Michael Brandman Associates requested a cultural resources record search for the project site from the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park, on October 2, 2008. A response was received on October 31, 2008 (NWIC Response No. 08-0415). The record search results are provided in Appendix J.

The record search indicated that the project area was previously surveyed by Basin Research Associates in August 1984 (S-6822). In addition, seven surveys (S-6072, S-8977, S-14220, S-22304, S-23441, S-24981, and S-34215) had previously been conducted within a 0.25-mile radius of the project area. None of the seven surveys included the project area. No historic or prehistoric resources, sites, or burials have previously been recorded within the project area or a 0.25-mile radius.

Review of three historic maps—Thompson and West 1876, and United States Geological Survey San Jose topographic maps dated 1895 and 1897—indicate that the project area was undeveloped during those years.

Historic Resources

The project site does not contain any historical resources listed on federal, state, or local registers. The project site contains an existing Walmart store with paved parking areas. Construction of the existing Walmart store involved extensive grading and earthwork activities, including removal of native soils and placement of fill material to support the new buildings and parking areas. Excavation activities for the store expansion are anticipated to occur at depths of no greater than 3 feet below grade. The Krazan & Associates Geotechnical Engineering Investigation indicated that the upper 3 feet of the soil profile contain materials that are consistent with the characteristics of engineered fill (e.g., stiff sandy clay soils that have been treated with chemical stabilizers). As such, native soils, which have the greatest potential for occurrences of historic resources, would not be affected by project earthwork activities. Accordingly, it is considered highly unlikely that historic resources would be encountered during construction activities associated with the proposed expansion project. Therefore, impacts to historic resources would not occur.

Archaeological Resources

The project site contains an existing Walmart store and paved parking areas. Because the development of the McCarthy Ranch Marketplace in the early 1990s involved extensive grading and earthwork activities, including the removal of native soils from the project site and the placement of fill to support buildings and parking areas, no archaeological resources are anticipated to be encountered during construction activities associated with the proposed project. No impacts would occur.

Paleontological Resources

The project site contains an existing Walmart store and paved parking areas. The development of the McCarthy Ranch Marketplace in the early 1990s involved extensive grading and earthwork activities, including the removal of native soils from the project site and the placement of fill to support buildings and parking areas. Accordingly, the expansion of the store would result in disturbance only to fill layers, which do not have the potential to contain paleontological resources. Therefore, the expansion of the store would not adversely affect paleontological resources. No impacts would occur.

Burial Sites

There are no known burial sites on the project site. The project site contains an existing Walmart store and paved parking areas. The development of the McCarthy Ranch Marketplace in the early 1990s involved extensive grading and earthwork activities that resulted in the removal of native soils from the project site and the placement of fill to support buildings and parking areas. Accordingly, the expansion of the store would result in disturbance only to fill layers, which do not have the potential to contain human remains. Therefore, the expansion of the store would not adversely affect burial sites. No impacts would occur.

7.2.5 - Geology, Soils, and Seismicity

Septic or Alternative Wastewater Disposal Systems

The existing Walmart store is served by sanitary sewer service provided by the City of Milpitas. The proposed project would maintain this connection. No septic or alternative wastewater disposal systems exist onsite and none would be installed as part of the project. No impacts would occur.

7.2.6 - Hazards and Hazardous Materials

Exposure of Schools to Hazardous Materials

There are no schools located within a 0.25-mile radius of the project site. The nearest school to the project site is Anthony Spangler Elementary School, located approximately 0.30 mile east of the project site. This distance precludes the possibility of activities associated with the proposed project exposing schools within a 0.25-mile radius of the project site to hazardous materials. No impacts would occur.

Airports

The proposed project site is approximately 4 miles north of the San Jose International Airport, the nearest airport to Milpitas. In addition, the project site is not located within the boundaries of an airport land use plan. This distance precludes the possibility of the proposed project exposing persons residing or working in the project vicinity to aviation hazards. No impacts would occur.

Private Airstrips

There are no private airstrips in the project vicinity. Therefore, the development of the proposed project would not expose persons residing or working in the project area to aviation hazards associated with private airstrips. No impacts would occur.

Wildland Fires

The project site is surrounded by developed urban uses. The Cal Fire Very High Fire Hazard Severity Zone Map for Santa Clara County indicates that the project site is not located in an area designated as having a high susceptibility to wildland fires. Therefore, the development of the proposed project would not expose persons or structures to wildland fire hazards. No impacts would occur.

7.2.7 - Hydrology and Water Quality

100-Year Flood Hazards

As shown in Exhibit 7-2, Flood Insurance Rate Map No. 0603440001G indicates that the project site is not located within a 100-year flood hazard area. This condition precludes the possibility of the proposed project being exposed to 100-year flood hazards. No impacts would occur.

Levee or Dam Failure

Flood Insurance Rate Map No. 0603440001G indicates that the project site is protected by a levee along Coyote Creek located approximately 300 feet to the west. The Santa Clara Valley Water District (SCVWD) owns and maintains Coyote Creek and the levee. During the 1990s, SCVWD implemented a number of flood protection improvements to the reach of Coyote Creek near the project site, including levee construction, excavation of a parallel overflow channel, and the development of a bypass channel by the Newby Island Sanitary Landfill. All improvements were completed by 2000. Since the implementation of the flood protection improvements, no flooding on the reach of Coyote Creek near the project site has occurred. Therefore, it can be reasoned that the Coyote Creek levee and associated flood protection improvements have substantially eliminated the risk of both flooding to the project site due to inadequate flood protection and structural failure of the levee itself. No impacts would occur.

General Plan Figure 5-3 indicates that the project site is not located in the dam failure inundation area of Sandy Wool Lake Dam, located in Ed Levine County Park. Therefore, the proposed project would not be susceptible to flooding as a result of dam failure. No impacts would occur.

Seiches, Tsunamis, or Mudflows

There are no inland water bodies that could potentially be susceptible to a seiche in the project vicinity. This precludes the possibility of a seiche inundating the project site.

The Association of Bay Area Government's interactive tsunami mapping feature indicates that only the coastal portions of Sonoma, Marin, San Francisco, and San Mateo counties are susceptible to tsunamis. Areas located near the bay are not considered susceptible to tsunami inundation. This condition precludes the possibility of a tsunami inundating the project site.

There are no steep slopes that would be susceptible to a mudflow in the project vicinity, nor are there any volcanically active features that could produce a mudflow in the City of Milpitas. This precludes the possibility of a mudflow inundating the project site. No impacts would occur.

7.2.8 - Land Use

Division of an Established Community

The project site contains an existing Walmart store and associated parking areas. The project site does not contain any residential structures and does not serve as a linkage between nearby communities. Therefore, the development of the proposed project would not divide an established community. No impacts would occur.

Conservation Plans

The project site is not within the boundaries of a habitat conservation plan or a natural community conservation plan. This condition precludes the possibility of the proposed project conflicting with the provisions of such a plan. No impacts would occur.

7.2.9 - Mineral Resources

Mineral Resources of Statewide or Local Importance

General Plan Figure 4-5 indicates that there are no mineral resource zones within the project site. Therefore, the development of the proposed project would not result in the loss of mineral resources of statewide or local importance. No impacts would occur.

7.2.10 - Noise

Aviation Noise

The project site is 4 miles from the San Jose International Airport, the nearest airport to Milpitas. In addition, the project site is not located within the boundaries of an airport land use plan. This distance precludes the possibility of the proposed project exposing persons residing or working in the project vicinity to excessive aviation noise. No impacts would occur.

7.2.11 - Population and Housing

Growth Inducement

The project site contains an existing Walmart store and associated parking areas. The proposed project does not contain any residential uses and, therefore, would not directly induce population growth through the provision of new dwelling units. The existing Walmart store employs approximately 330 workers. The expanded store would be expected to increase employment by as many as 75 jobs, for total of 405 positions. Most of the new employment opportunities created by the proposed project would be entry-level, both full-time and part-time. The California Employment Development Department indicates that, as of September 2009, there were 3,900 unemployed persons in Milpitas and 104,400 unemployed persons in Santa Clara County. Given the nature of the job opportunities and the availability of labor, it would be expected that the new employment opportunities could be readily filled from the local labor force. For these reasons, the project would not induce substantial population growth. No impacts would occur.

Displacement of Persons or Housing

There are no dwelling units on the project site. Therefore, the project would not result in the displacement of persons or housing. No impacts would occur.

7.2.12 - Public Services

Schools

The proposed project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the proposed project would not induce substantial population growth into the Milpitas area from outside areas. Therefore, the project would not result in the need for new or expanded school facilities. No impacts would occur.

Parks

The proposed project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the proposed project would not induce substantial population growth into the Milpitas area from outside areas. Therefore, the project would not result in the need for new or expanded park facilities. No impacts would occur.

Other Public Facilities

The proposed project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the project would not induce substantial population growth into the Milpitas area from outside areas. Therefore, the project would not result in the need for new or expanded library or other public facilities. No impacts would occur.

7.2.13 - Recreation

New or Expanded Recreational Facilities

The proposed project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the proposed store expansion would not induce substantial population growth into the Milpitas area from outside areas. Therefore, the project would not result in the need for new or expanded recreational facilities. No impacts would occur.

Physical Deterioration of Recreational Facilities

The proposed project does not contain any residential uses and would not directly induce population growth. The new employment opportunities created by the store expansion would not induce substantial population growth into the Milpitas area from outside areas. Therefore, the project would not cause physical deterioration of existing recreational facilities from increased usage. No impacts would occur.

7.2.14 - Transportation

Air Traffic Patterns

The proposed project site is approximately 4 miles north of the San Jose International Airport, the nearest airport to the project site. The roofline of the expanded store would be a maximum of 35 feet, 6 inches above grade. Given the distance from the airport and the proposed height of the expanded store, there would be no possibility of the proposed project altering air traffic patterns. No impacts would occur.

SECTION 8: PERSONS AND ORGANIZATIONS CONSULTED

8.1 - Lead Agency

8.1.1 - City of Milpitas

Planning & Neighborhood Services Department

Director.....James Lindsay
Senior Planner .....Sheldon Ah Sing
Assistant Planner ..... Cindy Hom

Building and Safety Department

Permit Center Manager..... Leyon Sheyman

Fire Department

Interim Chief .....Ruben Grijalva
Fire Marshall ..... Patricia Joki

Police Department

Acting Chief ..... Charlotte Pang

Public Works Department

Utility Supervisor .....Steve Smith

8.2 - Public Agencies

8.2.1 - State Agencies

Department of Transportation, District 4

District Branch Chief, Intergovernmental Review / CEQA ..... Lisa Carboni

8.2.2 - Local Agencies

City of Fremont

Senior Planner .....Kelly Diekmann

County of Santa Clara

Department of Environmental Health

California Accidental Release Prevention Program Coordinator..... Ruben Williams

Department of Roads and Airports

Project Engineer .....David R.L. Boyd

Santa Clara Valley Transportation Authority

Senior Environmental Planner.....Roy Molseed

8.3 - Private Businesses, Organizations, and Individuals

8.3.1 - Businesses

Pacific Gas and Electric Company

Project Manager ..... Tim Cusseaux

8.3.2 - Individuals

Bradford Alexander

Virginia Fujii

D. Cindy Martinez

SECTION 9: LIST OF PREPARERS

9.1 - Lead Agency

9.1.1 - City of Milpitas

Planning & Neighborhood Services Department

Director.....James Lindsay
Senior Planner .....Sheldon Ah Sing
Assistant Planner ..... Cindy Hom

9.2 - Lead Consultant

9.2.1 - Michael Brandman Associates

Project Director ..... Jason M. Brandman
Project Manager .....Grant Gruber
Air Quality Scientist.....Cori Wilson
Air Quality Scientist.....Elliot Mulberg
Senior Noise Analyst..... Gregory Tonkovich, AICP, INCE
Senior Project Archaeologist.....Carrie Wills, RPA
Environmental Analyst..... Janna Waligorski
Environmental Analyst..... Kathryn Longabaugh
Staff Biologist..... T'Shaka Toure
Technical Editor ..... Ed Livingston
GIS Technician and Supervisor..... Mike Serrano
Executive Assistant .....Jayne Ingram
Administrative Assistant .....Alicia Yuen
Reprographics.....José Morelos
Reprographics.....Cole Forbes

9.3 - Technical Subconsultants

9.3.1 - CBRE Consulting

Managing Director .....Amy L. Herman
Senior Real Estate Analyst .....Pipi Ray Diamond
Real Estate Analyst .....Kate M. Barry

9.3.2 - Kimley-Horn and Associates Inc.

Project Manager ..... James E. West, P.E.
Transportation Engineer ..... Robert Paderna
Transportation Engineer ..... Erica McKinnon, E.I.T.

9.4 - Applicant's Consultants

9.4.1 - Krazan & Associates, Inc.

Managing Engineer..... Dave R. Jarosz, II, P.E., G.E.
Senior Engineer..... Ryan K. Privett, P.E.

9.4.2 - Tait Environmental Management, Inc.

Senior Engineer..... Steve Mulligan
Senior Geologist.....Ann M. Hillyard, P.G., C.A.C.

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