BASEBALL STADIUM IN THE DIRIDON/ARENA AREA (MODIFIED PROJECT) SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

STATE CLEARINGHOUSE #2005112126

PROJECT #PP05-214

City of San José

February 2010

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STATE CLEARINGHOUSE #2005112126

PROJECT #PP05-214

Submitted to the:

City of San José Planning Division
200 East Santa Clara Street, 3rd Floor
San José, CA 95113

Prepared by:

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2215 Fifth Street
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February 2010

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Department of Planning, Building and Code Enforcement
JOSEPH HORWEDEL, DIRECTOR

February 12, 2010

Ladies and Gentlemen:

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT, FILE NO. PP05-214

The Planning Commission of the City of San José will hold a Public Hearing to consider the Draft Supplemental Environmental Impact Report (DSEIR) prepared for the project described below. A copy of the DSEIR is attached for your review.

Your comments regarding the significant environmental effects of this project and the adequacy of the DSEIR are welcome. Written comments, submitted to the Department of Planning, Building and Code Enforcement by 5:00 p.m., March 29, 2010, will be included in the SEIR and be considered by the Planning Commission at this public hearing. If we receive no comments (nor a request for an extension of time) from you by the specified date, we will assume you have none to make.

Project Description and Location: In February 2007, the City certified an EIR for the Baseball Stadium in the Diridon/Arena Area Project (2006 Stadium Proposal), which included a maximum seating capacity of 45,000. The stadium and parking structure components would be constructed in the area generally bounded by Autumn Street, Bird Avenue and Los Gatos Creek to the east and south, railroad tracks to the west, and Julian Street to the north. However, due to an error in the traffic data that were used in the 2006 Stadium Proposal traffic study, the City has determined that it is necessary to update the traffic analysis for the modified project using corrected traffic data to disclose a new significant impact to freeways.

In early 2009, the City began exploring the development of a modified stadium project. Key components of the modified project proposal that differ from the 2006 Stadium Proposal include: a smaller maximum seating capacity of up to 36,000; a lower structure that would extend to a maximum height of 155 feet above finished grade including scoreboards and lights; relocation or elimination of the parking structure; an option to enlarge the stadium site to the south by narrowing Park Avenue from four to two lanes; and the realignment of South Autumn Street and South Montgomery Street near their intersection with Park Avenue. Council District: 3

Tentative Hearing Date: May 12, 2010

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I. INTRODUCTION

A. PURPOSE OF THE SUPPLEMENTAL EIR

The purpose of an Environmental Impact Report (EIR) is to inform decision-makers and the general public of the environmental effects of a proposed project that an agency may implement or approve. The EIR process is intended to provide information sufficient to evaluate a project and its potential for significant impacts on the environment; to examine methods of reducing adverse impacts; and to consider alternatives to the project.

A Supplemental Environmental Impact Report (SEIR) is prepared when an EIR has previously been certified and changes are proposed to a project or new information becomes available, which was not known and could not have been known when the EIR was certified, *and* the changes to the project or new information will result in 1) new significant effects, and/or 2) a substantial increase in the severity of previously identified significant effects. The SEIR need contain only the information necessary to make the previous EIR adequate for the project as revised. In this case, the EIR being supplemented is the Baseball Stadium in the Diridon/Arena Area EIR (State Clearinghouse #2005112126), which was certified by the San José Planning Commission on February 28, 2007.

This SEIR evaluates the environmental impacts that might reasonably be anticipated to result from several modifications to the Baseball Stadium in the Diridon/Arena Area Project (2006 Stadium Proposal) as evaluated in the Baseball Stadium in the Diridon/Arena Area EIR. The proposed modifications include a reduction in the maximum seating capacity of the stadium; three additional options for stadium event parking; and realignment of S. Autumn Street and S. Montgomery Street near their intersection with Park Avenue. The net result of these modifications is referred to as the *modified project* in this SEIR.

The City of San José is the lead agency for the environmental review of the proposed modified project. This SEIR has been prepared to conform to the requirements of the Public Resources Code, California Environmental Quality Act (CEQA Statutes); the California Code of Regulations Section 15000 et. seq. (*CEQA Guidelines*); and the regulations and policies of the City of San José. The previous EIR, as revised by this SEIR, will be used by the City of San José in its consideration of the proposed project and the various approvals required as described in Chapter III, Project Description.

B. PROPOSED PROJECT

The 2006 Stadium Proposal consisted of the development of an approximately 1.5 million square-foot major league baseball stadium and a parking structure with ground floor commercial uses on approximately 23.1 acres in the City of San José. The 2006 Stadium Proposal included a maximum seating capacity of 45,000 and a maximum height of 165 feet, with scoreboards up to approximately 200 feet and lights approximately 235 feet above finished grade. In early 2009, the City began exploring the development of a modified stadium project. Key components of the modified project proposal that differ from the 2006 Stadium Proposal include: a smaller maximum seating capacity; a

lower structure that would extend to a maximum height of 155 feet above finished grade including scoreboards and lights; relocation or elimination of the parking structure; an option to enlarge the stadium site to the south by narrowing Park Avenue from four to two lanes; and the realignment of South Autumn Street and South Montgomery Street near their intersection with Park Avenue. An in-depth description of the modified project as compared to the 2006 Stadium Proposed appears in Chapter III, Project Description.

C. SEIR SCOPE

On November 16, 2009 the City circulated a Notice of Preparation (NOP) to help identify the types of impacts that could result from the proposed modified project, as well as potential areas of controversy. The NOP was mailed to public agencies (including the State Clearinghouse) and neighborhood organizations considered likely to be interested in the proposed project and its potential impacts. Additionally, a community meeting/public scoping session was held on December 16, 2009, to introduce the modified project and CEQA process. Comments received by the City on the NOP were taken into account during the preparation of this SEIR. The NOP, verbal comments taken at the scoping meeting, written comments, and the distribution list are provided in Appendix A.

As part of the preliminary analysis of the modified project, the City prepared an Initial Study (included in Appendix B) to determine the appropriate level of analysis to be undertaken for evaluation of the potential environmental effects that could result from implementation of the modified project. Based on this preliminary analysis, the City concluded that the modified project does not propose substantial changes to the Baseball Stadium in the Diridon/Arena Area Project; result in any new significant impacts or substantially increase the severity of previously identified impacts; or decline to adopt feasible mitigation measures or alternatives that would reduce identified significant impacts. In addition, most existing conditions have not substantially changed since the Baseball Stadium in the Diridon/Arena Area EIR was certified.

Due to an error in the traffic data for a segment of I-280 between 10th Street and State Route (SR) 87 that were used in the previous traffic study for the 2006 Stadium Proposal the City has determined that it is necessary to update the traffic analysis for the modified project using corrected traffic data to disclose a new significant impact to freeways. In addition, the City has elected to address two other issues – noise generated during ballgames, concerts and other events at the proposed stadium and global climate change – in the SEIR because of the number and nature of comments received on the NOP with regard to the former issue and because of recent changes to State laws and regulations in the latter case. Therefore, the City has prepared this SEIR for the purpose of analyzing and disclosing the environmental impacts of the proposed revisions to the project on 1) traffic, 2) noise and 2) global climate change.

D. REPORT ORGANIZATION

This SEIR is organized into the following chapters:

- *Chapter I – Introduction*: Discusses the overall purpose of the SEIR; provides a summary of the proposed action and environmental review process; identifies potentially significant issues and concerns; and summarizes the organization of the SEIR.

- *Chapter II – Summary*: Provides a summary of the impacts that would result from implementation of the proposed project, and describes mitigation measures recommended to reduce or avoid significant impacts.
- *Chapter III – Project Description*: Provides a description of the modified project's objectives, location and site conditions, details of the modified project itself, required approval process, and uses of the SEIR.
- *Chapter IV – Setting, Impacts and Mitigation Measures*: Describes the following for each environmental technical topic: existing conditions (setting); potential environmental impacts and their level of significance; and mitigation measures recommended to mitigate identified impacts. Potential adverse impacts are identified by levels of significance, as follows: less-than-significant impact (LTS), significant impact (S), and significant and unavoidable impact (SU). The significance of each impact is categorized before and after implementation of any recommended mitigation measure(s).
- *Chapter V – Alternatives:* Provides an evaluation of two alternatives to the proposed project.
- *Chapter VI – CEQA-Required Assessment Conclusions:* Provides additional specifically-required analyses of the proposed project's growth-inducing effects, significant irreversible changes, cumulative impacts, and effects found not to be significant.
- *Chapter VII – Report Preparation:* Identifies preparers of the SEIR and references used.

E. CEQA PROCESS

The SEIR is being circulated for public review and comment for 45 days. During this review period, all interested parties are encouraged to read the document to inform their understanding of the project and its anticipated environmental effects, and to submit written comments regarding the environmental issues and analysis presented in the SEIR.

Every comment letter received on the SEIR during the 45-day comment period will be reviewed by City staff and the environmental consultant team, and the City will provide a written response for every substantive comment received addressing environmental issues associated with the baseball stadium. The SEIR will be revised as appropriate in response to comments received, and the City will prepare a Final SEIR, consisting of the SEIR, the public comments received, the City's responses to substantive environmental issues raised in the public comments, and any text revisions resulting from the responses to comments. The Final SEIR will act as a supplement to the previously certified EIR.

The Final SEIR will be released, and a copy provided to all commentors, a minimum 10 days prior to the public hearing before the Planning Commission of the City of San José to consider certification of the Final EIR. If the Planning Commission certifies the Final EIR as complete and in compliance with CEQA, the Commission may then hold a public hearing regarding any recommendations related to the proposed baseball stadium. The decision of the Planning Commission to certify the Final EIR may be appealed to the City Council. Instructions on filing an EIR Appeal can be obtained by calling (408) 535-3555 or at http://www.sanjoseca.gov/planning/applications/.

The City Council will hold a public hearing to consider certification of the SEIR, in the event of an appeal. If the Council upholds the Planning Commission decision and certifies the SEIR as complete

and in compliance with CEQA, the Council can then consider approval of actions for a stadium project as described in the Baseball Stadium in the Diridon/Arena Area EIR, as revised by this SEIR. It is anticipated that the City Council will place a ballot measure before the San José electorate regarding the use of public funds for construction of a stadium. Pursuant to provisions of the San José Municipal Code, the City may utilize tax dollars to participate in the building of the stadium only after obtaining a majority vote of the electorate approving that expenditure.

II. SUMMARY

A. PROJECT UNDER REVIEW

This SEIR evaluates the environmental impacts that might reasonably be anticipated to result from several modifications to the Baseball Stadium in the Diridon/Arena Area Project (2006 Stadium Proposal) as evaluated in the Baseball Stadium in the Diridon/Arena Area EIR. The 2006 Stadium Proposal consisted of the development of an approximately 1.5 million square-foot major league baseball stadium and a parking structure with ground floor commercial uses on approximately 23.1 acres in the City of San José. The 2006 Stadium Proposal included a maximum seating capacity of 45,000 and a maximum height of 165 feet, with scoreboards up to approximately 200 feet and lights approximately 235 feet above finished grade. The EIR for that project was certified by the San José Planning Commission on February 28, 2007.

In early 2009, the City began exploring the development of a modified stadium project. Key components of the modified project proposal that differ from the 2006 Stadium Proposal include: a smaller maximum seating capacity of up to 36,000 seats; relocation or elimination of the parking structure; an option to enlarge the stadium site to the south by narrowing Park Avenue from four to two lanes; and the realignment of South Autumn Street and South Montgomery Street near their intersection with Park Avenue. An in-depth description of the modified project as compared to the 2006 Stadium Proposed appears in Chapter III, Project Description.

B. SUMMARY OF IMPACTS AND MITIGATION MEASURES

This summary provides an overview of the analysis contained in Chapter IV, Setting, Impacts, and Mitigation Measures. *CEQA Guidelines* §15123(b) requires a summary to include discussion of: (1) each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) areas of controversy known to the Lead Agency including issues raised by agencies and the public; and (3) issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.

The following section is organized as follows: (1) a summary of the Initial Study findings; (2) potential areas of controversy; (3) significant and significant unavoidable impacts; and (4) alternatives to the proposed project that would reduce or avoid the environmental impacts of the project. A summary is also required to discuss issues to be resolved, including the choice among alternatives, and whether or how to mitigate significant environmental effects.

1. Findings of the Initial Study

The City prepared an Initial Study to identify potential impacts that could occur with development of the modified project, as compared to those that would occur with the 2006 Stadium Proposal. The Initial Study concluded that there would be no additional impacts to the following environmental issues, beyond those considered in the Baseball Stadium in the Diridon/Arena Area EIR:

- aesthetics
- agricultural resources
- air quality
- biological resources
- cultural resources
- geology and soils
- hazards and hazardous materials
- hydrology and water quality
- land use and planning
- mineral resources
- population and housing
- public services
- recreation
- utilities and service systems

Additional mitigation is recommended in the Initial Study for one impact previously identified in the certified 2007 EIR – protection of buried archaeological resources (see Table II-1 and section 4.5 of the Initial Study). For a complete description of the Initial Study findings, please refer to the specific discussion in the Initial Study, included as Appendix B to this SEIR.

2. Potential Areas of Controversy

Letters received as comments on the Notice of Preparation (NOP) raised a number of topics that the writers wanted addressed in the SEIR, including: traffic, parking, project compatibility with existing and future plans for transit and alternative modes of transportation; pedestrian movements and bicycle circulation; noise generated during ballgames and other events; urban decay in the area surrounding the Oakland Coliseum, greenhouse gas emissions and global climate change; and the project site's proximity to the Norman Y. Mineta San José International Airport.

Verbal comments offered by those in attendance at the CEQA Scoping Session, held on December 16, 2009, included many of those offered in writing as comments on the NOP and generally fell into one of three categories: 1) the scope and content of the environmental document;, 2) procedural questions with regard to providing comments and the environmental review process; and 3) merits of the project. The issues raised with regard to the scope and content of the SEIR included: the project description; the selection and analysis of alternatives, particularly alternative sites; the impact of the project on traffic circulation, transit and parking in the Diridon/Arena area and surrounding neighborhoods; the noise and lighting impacts of the modified project; the impacts of the modified project on flight operations at the Norman Y. Mineta San José International Airport; and cumulative impacts of the project, recently completed projects, and future projects, such as the California High Speed Rail (HSR) and the BART Extension projects.

3. Significant, Significant Unavoidable and Cumulative Impacts

Under CEQA, a significant impact on the environment is defined as, "…a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."[1] In addition to the significant impacts identified in Chapter V of the certified EIR for the 2006 Stadium Proposal, implementation of the modified project has the potential to result in adverse environmental impacts in several environmental areas, including transportation, circulation and parking, noise, and global climate change. The SEIR identifies the following impacts for the modified project in addition to those identified in the certified EIR:

[1] Remy, Thomas, Moose, and Manley, *Guide to the California Environmental Quality Act*, 1999, p.158; Public Resources Code 15382; Public Resources Code 21068.

- State Route 87 would experience a significant impact from project traffic along four of the analyzed segments; I-280 would experience a significant impact from project traffic along five of the analyzed segments; I-680 would experience a significant impact from project traffic along one of the analyzed segments; and I-880 would experience a significant impact from project traffic along five of the analyzed segments.
- The project option that would utilize vacated right of way by narrowing Park Avenue would include an Amendment to the San Jose 2020 General Plan Transportation Diagram for a reduction in capacity of Park Avenue from four to two lanes in the City's long-term transportation model (CUBE) would result in significant and unavoidable traffic impacts.
- The generation of greenhouse gas emissions, which would represent a cumulatively considerable contribution to climate change impacts.

4. Alternatives to the Proposed Project

Seven alternatives were analyzed in Chapter VII of the certified EIR. The No Development, Existing Plan and Submerged Stadium alternatives and three of the four location alternatives (FMC/Coleman Avenue Location, Berryessa Flea Market Location, and Reed and Graham Location) remain potentially feasible and an updated analysis of each is provided in Chapter V of the SEIR. The Del Monte Location alternative is no longer feasible because the site has been developed with a residential project. No additional potentially feasible sites have been identified that would meet the identified project objectives, including site and location criteria. In this SEIR, each alternative is compared to the modified project, and discussed in terms of its various mitigating or adverse effects on the environment. Analysis of the alternatives follows the same topical order as for the proposed Project in Chapter IV, and focuses on those topics for which significant adverse impacts would result from the proposed project.

C. SUMMARY TABLE

Information in Table II-1, Summary of Impacts and Mitigation Measures, has been organized to correspond with environmental issues discussed in Chapter IV. The table is arranged in four columns: (1) impacts; (2) level of significance prior to mitigation; (3) mitigation measures; and (4) level of significance after mitigation. Levels of significance are categorized as follows: SU = Significant and Unavoidable; S = Significant; and LTS = Less Than Significant. A series of mitigation measures is noted where more than one mitigation measure is required to achieve a less-than-significant impact, and alternative mitigation measures are identified when available. For a complete description of potential impacts and recommended mitigation measures associated with the modified project, please refer to the specific discussions in Chapter IV. Refer to Table II-2 of the Baseball Stadium in the Diridon/Arena Area EIR for a complete list of potential impacts and mitigation measures identified for the 2006 Stadium Proposal.

Table II-1: Summary of Impacts and Mitigation Measures

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
A. TRANSPORTATION, CIRCULATION AND PARKING			
TRANS-1: State Route 87 would experience a significant impact from project traffic along four of the analyzed segments; I-280 would experience a significant impact from project traffic along five of the analyzed segments; I-680 would experience a significant impact from project traffic along one of the analyzed segments; and I-880 would experience a significant impact from project traffic along five of the analyzed segments.	S	TRANS-1: To lessen the impacts to the identified freeway segments, Transportation Demand Management (TDM) measures will be implemented to lessen the impacts to the identified freeway segments, although the measures would not reduce the impact to a less than significant level. Potential TDM measures include the following: • Provide incentives for carpoolers (e.g., four or more people per vehicle) such as preferential parking. • Charge for parking or increase set parking rates if already charging for parking. • Provide on-site ticket sales for transit services (e.g., bus, LRT, Caltrain, etc.). • Make information readily available regarding ridesharing/carpooling programs and transit services, and designate an on-site TDM coordinator to assist with this task. • Develop a stadium employee trip reduction program that includes the following for employees: shuttle service to transit, subsidized transit passes and Eco-passes, cash-out program for non-drivers, carpooling/ridesharing program, bike lockers, and on-site showers.	SU
TRANS-2: The project option that would narrow Park Avenue from four to two lanes involves a General Plan Transportation Diagram Amendment that would result in significant long-term transportation impacts upon build out of the current San Jose 2020 General Plan.	S	TRANS-2: There is no feasible mitigation available to reduce this impact given that the transportation model assumes that all planned roadways and other planned transportation improvements have been built to their maximum capacity, therefore the impact is significant and unavoidable.	SU

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
B. NOISE			
NOISE-2: (as identified in the certified 2007 EIR): Baseball game events could result in noise impacts on adjacent residential uses.	S	NOISE-2a: (added text is underlined and deleted text is shown in ~~strikethrough~~ text) The stadium public address system shall be comprised of a distributed speaker system on-site, which would locate speakers around each section of the park to minimize the need for extra-loud and high-mounted units. NOISE-2b: After the ballpark design is finalized and p~~P~~rior to the first ballpark event, a detailed acoustic study shall be conducted by the City of San José to confirm the predictions of the long-term noise levels at noise sensitive uses within the 60 dBA Leq contour line shown in ~~Figure V.E-2~~ Figure IV.B-2 of the ballpark, which have been made in this SEIR. The study shall be used to determine noise attenuation measures to achieve a 45 dBA Leq interior noise level at nearby residences located within the 60 dBA Leq contour line. Attenuation measures at the stadium shall include, but not be limited to, distributed speakers for the public address system and limitations placed on sound levels associated with various activities. Measures taken with affected property owner's consent, at receptor locations may include, but are not limited to installation of dual-pane windows, mechanical air conditioning, sound walls and improved ceiling and wall insulation. Necessary remedial measures shall be implemented, or otherwise assured to be implemented within one year to the satisfaction of the City Manager. Implementation of mitigation measures NOISE-2~~1~~a and NOISE-2~~1~~b would reduce impacts associated with baseball games. However, impacts would remain significant and unavoidable.	SU
NOISE-3 (as identified in the certified 2007 EIR): Proposed on-site concert and other events could result in noise impacts on adjacent residential uses.	S	NOISE-3: (added text is underlined and deleted text is shown in ~~strikethrough~~ text) A maximum sound level of 95 dB Leq shall be maintained at the sound board for concerts. Implementation of the multipart mitigation measure~~s NOISE-1 and~~ NOISE-2 would reduce impacts from concert noise. However, noise impacts would ~~be~~ remain significant and unavoidable.	SU

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
C. GLOBAL CLIMATE CHANGE			
GCC-1: Construction and operation of the project would result in greenhouse gas emissions that would have a significant physical adverse impact and cumulatively contribute to global climate change.	S	GCC-1: To lessen the project's greenhouse gas emissions and potential impact on climate change, measures shall be implemented to lessen the impacts, although the measures would not reduce the impact to a less than significant level. Unless determined to be infeasible by the City, the following measures shall be incorporated into the design and construction of the project: ***Construction and Building Materials*** • Use locally produced and/or manufactured building materials of at least 10 percent for construction of the project; • Recycle/reuse at least 50 percent of demolished construction material; and • Use "Green Building Materials," such as those materials which are resource efficient, and recycled and manufactured in an environmentally friendly way. ***Energy Efficiency Measures*** • Design, construct and operate all newly constructed and renovated commercial structures, including the Baseball Stadium as certified to "LEED Silver" or higher per the City of San José (Policy 6-32, effective October 7, 2008); • Design buildings to facilitate use of solar energy for electricity, water heating and/or space heating/cooling; • Provide a landscape and development plan for the project that takes advantage of shade, prevailing winds, and landscaping; • Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems; • Install light colored "cool" roofs and cool pavements; • Install energy efficient heating and cooling systems, appliances and equipment, and control systems; and • Install energy-efficient, solar or light emitting diodes (LEDs) for outdoor lighting, as appropriate.	SU

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
GCC-1 *continued*		***Water Conservation and Efficiency Measures*** • Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include the following, plus other innovative measures that might be appropriate: • Create water-efficient landscapes within the development, including drought tolerant landscaping; • Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls; • Design buildings to be water-efficient. Install water-efficient fixtures and appliances, including low-flow faucets, dual-flush toilets and waterless urinals; • Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff; and • Install a separate, non-potable distribution system (i.e. "purple pipe") to accommodate the use of recycled water for landscape irrigation needs of large areas with irrigated landscaping. ***Transportation and Motor Vehicle Measures*** • Develop a transportation demand management (TDM) program that includes trip reduction components such as free transit passes, a dedicated employee transportation coordinator, and carpool matching program; • Provide transit facilities (e.g., bus bulbs/turnouts, benches, shelters); • Provide bicycle lanes and/or paths, incorporated into the proposed street systems and connected to a community-wide network; and • Provide sidewalks and/or paths, connected to adjacent land uses, transit stops, and/or community-wide network.	

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
CULT-3 (as identified in the certified 2007 EIR): The project area may contain buried archaeological resources.	S	CULT-3b (additional text added to Mitigation Measure CULT-3 in the certified 2007 EIR, see Initial Study in Appendix B of this SEIR): The HP Pavilion parking structure option contains three archaeological "locations or areas" (*BART Extension to Milpitas, San José, and Santa Clara Draft Supplemental Environmental Impact Report* [January 2007], Appendix F, Map 36, Features H52, H53A, and H53B) identified as containing archaeological deposits that may qualify as historical or unique archaeological resources under CEQA. Preconstruction archaeological test excavation shall occur at these "locations or areas" prior to ground disturbing construction. The purpose of the excavation shall be to identify the nature, extent, and status under CEQA of these archaeological features. The excavation shall also inform recommendations for the treatment of the features, should they be intact and qualify as significant. Feasible measures shall be implemented to avoid, reduce, or offset significant impacts to resources that so qualify. Feasible measures may include, but are not limited to, capping the resource to prevent further localized ground disturbance; documentation on state of California DPR 523 form records; or data recovery excavation pursuant to a research design approved by the City. The measures will avoid further impacts to the resource, minimize the amount of project-related disturbance necessary, or provide documentation of the data potential that would be lost through the deposit's destruction. The test excavation shall be directed by an individual who meets the Secretary of the Interior's Professional Qualifications Standards for historical and prehistoric archaeology. If prehistoric archaeological resources are suspected, a Native American monitor shall observe the excavation. A report shall be prepared that documents the methods and results of the excavations, and shall be submitted to the City of San José and the Northwest Information Center.	LTS

Source: LSA Associates, Inc., 2010.

III. PROJECT DESCRIPTION

A. OVERVIEW OF THE MODIFIED PROJECT

The 2006 Stadium Proposal consisted of the development of an approximately 1.5 million square-foot major league baseball stadium and a parking structure with ground floor commercial uses on approximately 23.1 acres in the City of San José. The 2006 Stadium Proposal included a maximum seating capacity of 45,000 and a maximum height of 165 feet, with scoreboards up to approximately 200 feet and lights approximately 235 feet above finished grade.

Key components of the modified project proposal that differ from the 2006 Stadium Proposal include: a smaller maximum seating capacity; a lower structure that would extend to a maximum height of 155 feet above finished grade including scoreboards and lights; relocation or elimination of the parking structure; an option to enlarge the stadium site to the south by narrowing Park Avenue from four to two lanes; and the realignment of South Autumn Street and South Montgomery Street near their intersection with Park Avenue. In addition, the commercial component South of Park Avenue is no longer proposed. A complete description of the differences between the 2006 Stadium Proposal and the modified project are described in this section. Refer to the February 2006 Baseball Stadium in the Diridon/Arena Area Draft EIR for a complete description of the various project components that remain unchanged.

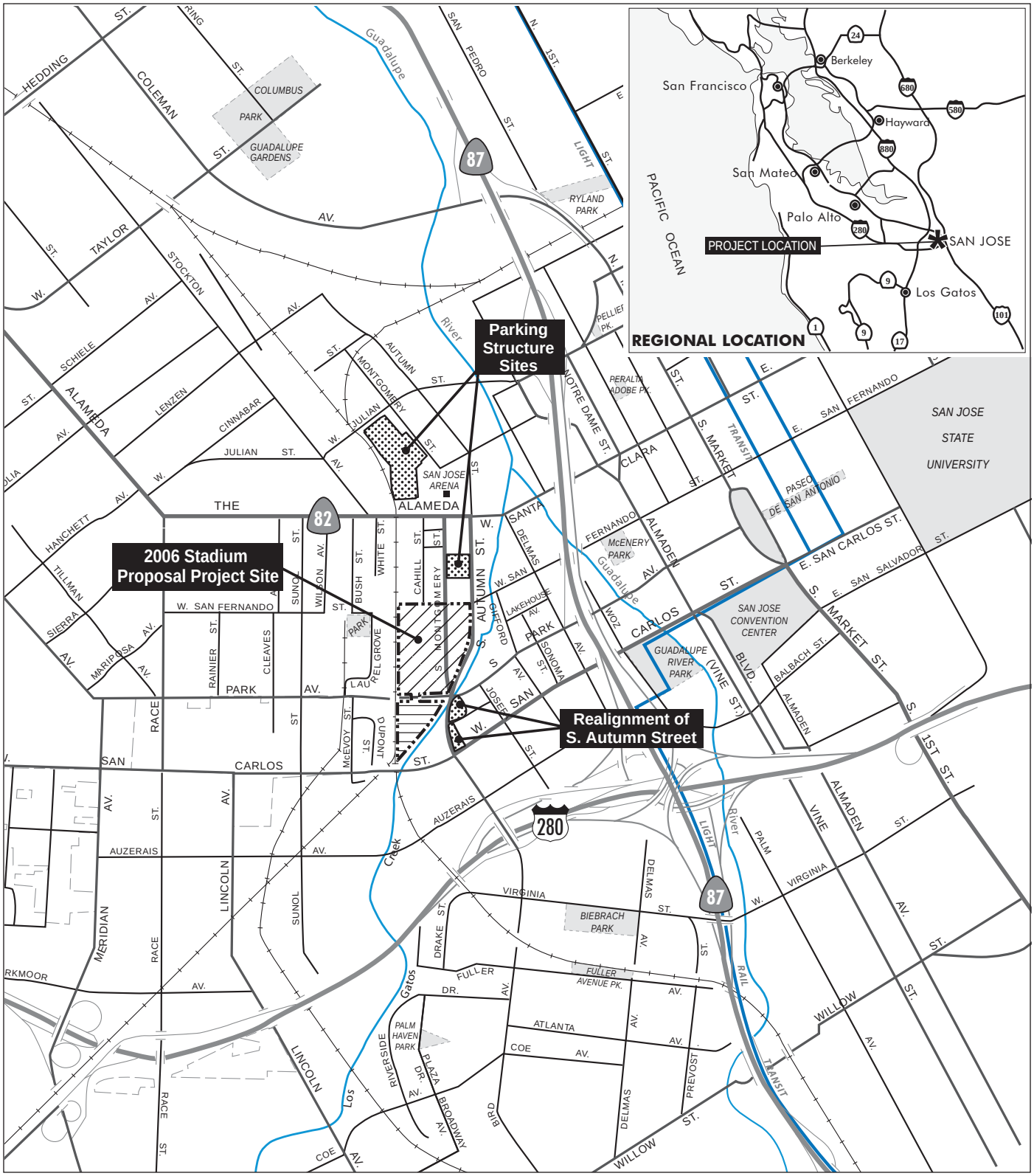
B. PROJECT OBJECTIVES

The City of San José's primary objective is the construction of a downtown baseball stadium in the event that Major League Baseball revises the territory for the A's baseball team. All other objectives remain the same, except the target stadium seating capacity, which is reduced from 45,000 seats; the modified project would have a maximum seating capacity of up to 36,000 (the lowest maximum seating capacity would be 32,000).

C. PROJECT LOCATION

The proposed modified project would be located in the Diridon Station Planning Area along the western edge of downtown San Jose in Santa Clara County. Figure III-1 shows the project's regional location. The stadium and parking structure components of the proposed modified project would be constructed in the area generally bounded by Autumn Street, Bird Avenue and Los Gatos Creek to the east and south, the Caltrain railroad tracks to the west, and Julian Street to the north. Figures III-2 and III-3 show the stadium and parking structure components of the project in their local contexts.

The stadium would be located on the same site as proposed in 2006. As an option, the stadium site may be enlarged approximately 100 feet to the south, which would also result in the narrowing of Park Avenue from four lanes to two south of the stadium site between Josefa and McEvoy streets.



LSA

FIGURE III-1

2006 STADIUM PROPOSAL PROJECT SITE

NEW SITES ADDED AS PART OF THE MODIFIED PROJECT

SITE DELETED AS PART OF THE MODIFIED PROJECT

N

0 800 1600
FEET

Baseball Stadium in the Diridon/Arena Area Supplemental EIR

Project Site Location and Regional Vicinity

SOURCE: CALIFORNIA STATE AUTOMOBILE ASSN., 2005; LSA ASSOCIATES, INC., 2009

I:/SJO0903 Ballpark Addendum/figures/Supplemental EIR/Fig_III1.ai (1/22/10)

LSA

FIGURE III-2

SITES ADDED AS PART OF THE MODIFIED PROJECT

SITE DELETED AS PART OF THE MODIFIED PROJECT

EXISTING OR RECONFIGURED PG&E SUBSTATION

N

0 150 300

FEET

Baseball Stadium in the Diridon/Arena Area Supplemental EIR

Conceptual Site Plan

SOURCE: CITY OF SAN JOSE, REDEVELOPMENT AGENCY, 2006.

I:/SJO0901 Ballpark Addendum/figures/Supplemental EIR/Fig_III2.ai (1/29/10)

LSA

FIGURE III-3

N

0 50 100

FEET

SITE ADDED AS PART OF THE MODIFIED PROJECT

Baseball Stadium in the Diridon/Arena Area Supplemental EIR
Modified Project Site Detail (Montgomery/Autumn Street Parking Structure Site)

SOURCE: GOOGLE EARTH, 2007; LSA ASSOCIATES, INC., 2009.

I:/SJO0903 Ballpark Addendum/figures/Supplemental EIR/Fig_III3.ai (12/9/09)

Parking for the modified project would be provided in existing parking lots or structures in the downtown San Jose area and/or within a new parking structure that would be constructed at one of the locations shown in Figure III-1. One option would locate a parking structure north of the proposed stadium on a site that is bounded by S. Montgomery Street to the west, S. Autumn Street to the east, the Valley Transportation Authority (VTA) light rail tunnel to the south and an existing surface parking lot to the north. Another option would locate a parking structure on the site of the surface parking lot located west of the HP Pavilion. These options are shown in Figures III-2, III-3 and III-4. A third option would rely on existing parking lots and structures in the greater downtown San Jose area; no new parking structure would be constructed. The area south of Park Avenue that was the proposed site of a parking structure in the 2006 Stadium Proposal would not be developed under the modified project. This area would remain a Fire Training Facility. By not developing this site as a parking structure, its future development as a park as envisioned in the Midtown Specific Plan would not be precluded should the Fire Training Facility be relocated.

Figure III-5 identifies the location of three properties south of Park Avenue and east of S. Montgomery Street that would be acquired to allow realignment of S. Autumn Street and S. Montgomery Street near their intersection with Park Avenue.

D. PROPOSED MODIFIED PROJECT

Both the 2006 Stadium Proposal and modified project would reconfigure 16 parcels located on the project site (shown in Figure V.A-3 of the Draft EIR) in order to develop a major league baseball stadium. As noted previously, key differences between the 2006 Stadium Proposal and modified project are that the modified project would have a smaller seating capacity and the stadium site may be enlarged approximately 100 feet to the south, which would result in the narrowing of Park Avenue from four lanes to two between Josefa and McEvoy streets. The maximum seating capacity for the modified project would be up to 36,000 as compared with a maximum seating capacity of 45,000 for the 2006 Stadium Proposal. The maximum height of the stadium would be 155 feet above finished grade including scoreboards and lights. The site of the parking structure included in the 2006 Stadium Proposal would not be developed. Instead, parking for the modified project would be provided by one of three options as described in subsection D.3.a below. The modified project would include the potential reconfiguration of the Pacific Gas and Electric (PG&E) substation located at the northwest corner of the proposed stadium site and the realignment of S. Autumn Street to the east. Existing structures on the stadium and parking structure sites would be demolished or relocated.

The various components of the modified project are summarized below. Key differences between the 2006 Stadium Proposal and modified project are highlighted.

1. Baseball Stadium

The proposed baseball stadium would include baseball-related facilities, as well as associated restaurant and retail/commercial uses, for both the 2006 Stadium Proposal and modified project. This subsection describes the proposed baseball stadium facilities and their uses, highlighting the differences between the 2006 Stadium Proposal and the modified project.

a. Baseball Facilities. The types of baseball-related facilities to be located within the proposed stadium would be the same for the modified project as for the 2006 Stadium Proposal. Baseball-

related facilities would include the playing field, spectator facilities, food service and retail, home and visiting team facilities, press facilities, service and operation facilities, administrative facilities, on-site parking, loading docks, lighting/scoreboard, sound system, and public access and plazas as described in Section III.D of the EIR. Table III-1 of the EIR lists the proposed uses within the stadium and the associated square feet. While square footages have not been calculated for the modified project because the project design remains at a conceptual phase they are expected to be the same as those calculated for the 2006 Stadium Proposal or possibly less because of the smaller seating capacity of the stadium proposed under the modified project. Specifically, the square footages associated with spectator facilities and food services may be lower for the modified project than for the 2006 Stadium Proposal.

b. Baseball Stadium Uses. The proposed ballpark complex would be used for major league baseball games and associated activities, as well as events other than baseball. The proposed uses are the same for the modified project as for the 2006 Stadium Proposal.

2. Commercial Development South of Park Avenue

The commercial development south of Park Avenue that is envisioned as part of the 2006 Stadium Proposal would not be constructed as part of the modified project and the building on this area of the site, which houses a water pump, would not require relocation. This area would remain a Fire Training Facility. By not developing this site as a parking structure, its future development as a park as envisioned in the Midtown Specific Plan would not be precluded should the Fire Training Facility be relocated.

3. Parking Facilities and Roadways

This subsection describes the new parking facilities proposed as part of the modified project and changes to the existing roadway network that would result from development of the modified project.

a. Parking Facilities. Parking for the modified project, which would have a smaller parking demand than the 2006 Stadium Proposal because of the modified project's smaller maximum seating capacity, would be provided by one of three options – a Montgomery/Autumn Street parking structure, an HP Pavilion parking structure, or a "no parking structure" option. The capacity of the proposed parking structure options (1,200 or 1,300 spaces) would be the same or greater than the 2006 Stadium Proposal although there would be a lower demand for parking (by approximately 3,000 to 5,000 fewer spaces). In part because of the lower demand, a "no parking structure" option is also being considered. In addition, the Montgomery/Autumn Street parking structure site is proposed as a possible location for a similarly sized parking structure that would serve the proposed Diridon/Arena BART station. If a parking structure is built here, it may serve either both facilities (BART and the ballpark) or only one.

The Montgomery/Autumn Street parking structure would be located on a site north of the proposed stadium that is bounded by S. Montgomery Street to the west, S. Autumn Street to the east, the Valley Transportation Authority (VTA) light rail tunnel to the south and a parking lot to the north, as shown in Figure III-2. The parking structure would include approximately 1,200 parking spaces – the

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FIGURE III-4

APPROXIMATE FOOTPRINT OF "SECOND-DECK" PARKING STRUCTURE

APPROXIMATE FOOTPRINT OF NORTHERN CONFIGURATION PARKING STRUCTURE

APPROXIMATE FOOTPRINT OF SOUTHERN CONFIGURATION PARKING STRUCTURE

N

0 150 300

FEET

Baseball Stadium in the Diridon/Arena Area Supplemental EIR

HP Pavilion Parking Structure Site

SOURCE: GOOGLE EARTH; LSA ASSOCIATES, INC., 2009.

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LSA

FIGURE III-5

N

SITES ADDED AS PART OF THE MODIFIED PROJECT

0 50 100
FEET

Baseball Stadium in the Diridon/Arena Area Supplemental EIR
Modified Project Site Detail
(S. Autumn Street Realignment)

SOURCE: GOOGLE EARTH, 2007; LSA ASSOCIATES, INC., 2009.

I:/SJO0903 Ballpark Addendum/figures//Supplemental EIR/Fig_III5.ai (12/9/09)

same number as the 2006 Stadium Proposal – and would have up to eight levels of parking. Vehicle access to the parking structure would be provided from S. Montgomery Street and S. Autumn Street. Once parked, pedestrians would cross from the parking structure to the stadium by descending to street-level and crossing to the entry plaza. The ground floor of the parking structure would have commercial uses facing S. Montgomery Street and possibly S. Autumn Street. Access and egress for the parking structure would be provided on S. Montgomery Street and S. Autumn Street.

The HP Pavilion parking structure would be located on the parking lot west of the HP Pavilion. The parking structure would increase the number of parking spaces in this area by approximately 1,300 to a total capacity of approximately 2,750 spaces. Three possible configurations are being considered for the parking structure on the HP Pavilion site. The three configurations include: 1) a four- to six-level parking structure at the south end of the parking lot on W. Santa Clara Street, 2) a five- to six-level parking structure located on the north end of the parking lot on W. Julian Street, and 3) the addition of a second deck of parking across the entire parking lot. Access and egress for the HP Pavilion parking lot may need to be modified with ramps within the HP Pavilion parking lot.

The no parking structure option would rely upon existing parking in downtown San José and not construct a parking structure as part of the modified project. If no parking structure is constructed as part of the project, vehicles would be accommodated by the approximately 18,520 parking spaces currently located within ¾ miles of the stadium site to the north and east (shown in Table 21 and Figure 5 of the Traffic Impact Analysis).[1]

b. Roadways. The same roadways that would be abandoned or realigned as part of the 2006 Stadium Proposal would be abandoned or realigned as part of the modified project. The proposed realignment and setback of S. Autumn Street are the same for the modified project as for the 2006 Stadium Proposal. In addition, if the stadium site were enlarged to the south, Park Avenue would be narrowed from four lanes to two between Josefa and McEvoy streets.

A series of transportation-related changes are planned for the S. Montgomery Street/S. Autumn Street corridor, either as background improvements (something already planned without the stadium) or as part of the stadium project. These improvements are described in detail in the transportation technical background report (Appendix C of the EIR). The proposed transportation-related uses are the same for the modified project as for the 2006 Stadium Proposal, except that the intersection of S. Autumn Street and S. Montgomery Street with Park Avenue would be modified. Realignment of the streets and modification of the intersection would require acquisition of three parcels (259-47-059, -068, and -080) on the east side of S. Montgomery Street, between Park Avenue and W. San Carlos Street.

4. PG&E Substation

An existing PG&E substation located adjacent to the railroad tracks northwest on the stadium site would be modified or partly relocated as part of the 2006 Stadium Proposal. This approximately 1.5-acre facility includes 115-kilovolt transmission lines, underground electrical distribution lines, distribution transformers and electrical switch gear that serve the electrical needs in the downtown area. Two options were considered in the EIR: (1) reconfiguration of the existing substation to

[1] Hexagon Transportation Consultants, Inc., *San José Ballpark Supplemental Traffic Impact Analysis*, January 8, 2010.

accommodate the relocation of underground electrical distribution lines or (2) relocation of the sub-station south to the existing Fire Training Center site. Relocation of the substation south to the existing Fire Training Center site has subsequently been determined by PG&E to be infeasible due to cost and flooding issues. Under the modified project the PG&E substation may be reconfigured as previously described in the 2006 Stadium Proposal.

5. Site Acquisition, Demolition/Relocation and Preparation

The Redevelopment Agency is in the process of working with individual property owners to purchase properties within the project site to assemble viable sites for potential mixed-use development as envisioned in the Strategy 2000 plan. To date 8 of 16 properties are owned by, and the remaining properties are in discussions with, the San José Redevelopment Agency.

The modified project would include the demolition or relocation of five buildings on the site of the proposed Montgomery/Autumn Street parking structure and two buildings on the parcels south of Park Avenue and east of S. Montgomery Street that are needed to allow realignment of S. Autumn Street. Both the 2006 Stadium Proposal and modified project would include the demolition or relocation of at least two known historic resources, the former KNTV Broadcast Facility located at 645 Park Avenue and the Sunlite Baking Company building located at 145 S. Montgomery Street. Both the 2006 Stadium Proposal and modified project would include the removal of 12 buildings south of San Fernando Street to Park Avenue and east of the railroad tracks to Los Gatos Creek, on the location of the proposed stadium. Removal of the Fire Training Center buildings south of Park Avenue and west of S. Montgomery would not be required under the modified project. Abandonment and demolition of a portion of Park Avenue would be required if the proposed stadium site were enlarged to the south.

Grading and excavation activities required for construction of the modified project would be the same as for the 2006 Stadium Proposal.

Approximately 45 trees located within the project site as proposed in 2006 meet the City's definition of ordinance-size trees.[2] The removal of ordinance-size trees would be required under the modified project, although an estimated 11 fewer trees would be removed than under the 2006 Stadium Proposal.

6. Project Construction and Schedule

If a City-sponsored ballot initiative were to be approved in November 2010, site preparation, infra-structure development, road abandonment and relocation would begin in the spring of 2011. Opening day would be in April 2014 or later.

7. Employment

Employment for the modified project would be less than the 2006 Stadium Proposal due to the reduction in maximum seating capacity of the stadium and the possibly smaller number of employees needed to operate and maintain the spectator and food service facilities. A recent economic analysis

[2] An ordinance-size tree measures 56-inches or more in circumference or 18 inches in diameter at 2 feet above ground.

estimated that the modified project would generate 980 full- or part-time and seasonal jobs in a stabilized year of operations as compared to the previously estimated 1,500 to 1,800 jobs that would be generated by the 2006 Stadium Proposal.[3]

E. USES OF THE SEIR

The City of San José may use the SEIR, in conjunction with the previously approved EIR, for actions necessary to implement the project, including the following approvals for a publicly funded project:

- Ballot Initiative to facilitate or allow the project.
- Contracts for public infrastructure improvements.
- Site and right-of-way acquisition.
- Demolition, grading, building, encroachment and other construction permits.
- Stormwater Pollution Prevention Plan (SWPPP).
- Vacation or deletion of streets including Montgomery Street between San Fernando and Park Avenue and all of Otterson Street.
- Relinquishment or rerouting of SR 82.
- General Plan Amendment for Park Avenue.
- Rezoning, land use permits, and related lot line adjustments to create a development site.
- Disposition Development Agreement(s).
- Any documents or approvals necessary to implement the project described in this EIR.
- Relocation of utilities including storm, sanitary, electrical, a private utilities cable, etc.

The SEIR, in conjunction with the previously approved EIR, may also be used by the following agencies for other regulatory reviews and approvals that may be necessary to implement the project:

- City of San José/Redevelopment Agency/Board/City Council.
- Valley Transportation Authority (VTA).
- Bay Area Regional Water Quality Control Board (RWQCB).
- Santa Clara Valley Water District (SCVWD).
- California Public Utilities Commission (PUC).
- Bay Area Air Quality Management District (BAAQMD).
- California Department of Transportation (Caltrans).
- PG&E substation relocation and or redevelopment
- Joint Powers Board (Caltrain)

[3] Convention, Sports and Leisure, 2009. *Economic Impact Analysis: Proposed Major League Ballpark*, prepared for the Redevelopment Agency of the City of San José. September 9.

IV. SETTING, IMPACTS AND MITIGATION MEASURES

This chapter contains an analysis of each potentially significant environmental issue that has been identified in the Notice of Preparation (NOP) and Initial Study prepared for the modified project. Copies of the NOP and Initial Study are included as Appendix A and B, respectively, in this SEIR. The sections of this chapter describe the environmental setting of the proposed project site as it relates to each specific issue. The impacts resulting from implementation of the proposed project and mitigation measures that would reduce impacts of the project, if necessary, are also presented in each of the sections.

DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial, or potentially substantial, adverse change in the environment.[1] The *CEQA Guidelines* direct that this determination be based on scientific and factual data. Each impact and mitigation measure section of this chapter is prefaced by a summary of criteria of significance. These criteria have been developed using the *CEQA Guidelines* and applicable City policies, such as the *San José 2020 General Plan* (General Plan).

1. Issues Addressed in the Draft EIR

The following environmental issues are addressed in this chapter: (A) Transportation, Circulation and Parking, (B) Noise, and (C) Global Climate Change. Preliminary analysis included in the Initial Study (included as Appendix B to this EIR) determined that the proposed modified project would not result in significant impacts to all other environmental topics. Consequently, these issues are not examined in this chapter of the EIR.

2. Format of Issue Sections

Each environmental topic considered in this chapter is comprised of two primary sections: (1) Setting, and (2) Impacts and Mitigation Measures. An overview of the general organization and the information provided in the two sections is provided below:

- *Setting*. The Setting section for each environmental topic generally provides a description of the applicable physical setting for the project site and its surroundings at the beginning of the environmental review process (e.g., existing traffic conditions). An overview of regulatory considerations that are applicable to the specific environmental topic is also provided.
- *Impacts and Mitigation Measures*. The Impacts and Mitigation Measures section for each environmental topic presents a discussion of the impacts that could result from implementation of the proposed modified project. The section begins with the criteria of significance, establishing the thresholds to determine whether an impact is significant. The latter part of this section presents the impacts from the proposed project and mitigation measures, if required. The impacts of the proposed modified project are delineated into separate categories based on their significance

[1] Public Resources Code 21068.

according to the criteria listed in each topical section: less-than-significant impacts, which do not require mitigation measures, and significant impacts, which do require mitigation measures.

Impacts are numbered and shown in bold type, and the corresponding mitigation measures are numbered and indented. Impacts and mitigation measures are numbered consecutively within each topic and begin with an acronymic reference to the impact section (e.g., TRANS). The following symbols are used for individual topics:

TRANS: Transportation, Circulation and Parking
NOISE: Noise
GCC: Global Climate Change

Impacts are also categorized by type of impact, as follows: Less-than-Significant (LTS), Significant (S), and Significant and Unavoidable (SU). These notations are provided following each impact and each mitigation measure to identify their significance before and after mitigation.

A. TRANSPORTATION, CIRCULATION AND PARKING

The following discussion of transportation, circulation and parking is based on a Supplemental Traffic Impact Analysis (TIA) prepared for the modified project.[1] A copy of the Supplemental TIA is provided in Appendix C of this SEIR. The Supplemental TIA is an update of the traffic analysis prepared for the certified EIR in 2006 and as such it reflects the reduced seating capacity of the stadium and other modifications to the proposed project as described in the Chapter III, Project Description of this SEIR. The Supplemental TIA also includes updated existing and background data, as data used in the TIA for the certified EIR are now outdated, and its cumulative analysis considers projects that were not reasonably foreseeable when the EIR was certified in early 2007, including the BART-to-San José extension and the California High Speed Rail (HSR) projects.

1. Setting

The project site, regional and local roadway system and study intersections are shown on Figure IV.A-1.

a. Scope of Study. The Supplemental TIA is based on much of the same methodology and uses many of the same assumptions as the 2006 traffic analysis. The 2006 TIA upon which the traffic, circulation and parking analysis for the certified EIR was based should be referenced for additional information regarding the standard methods and assumptions used in the supplemental traffic analysis. When different methods or assumptions are used in the supplemental analysis, they are noted.

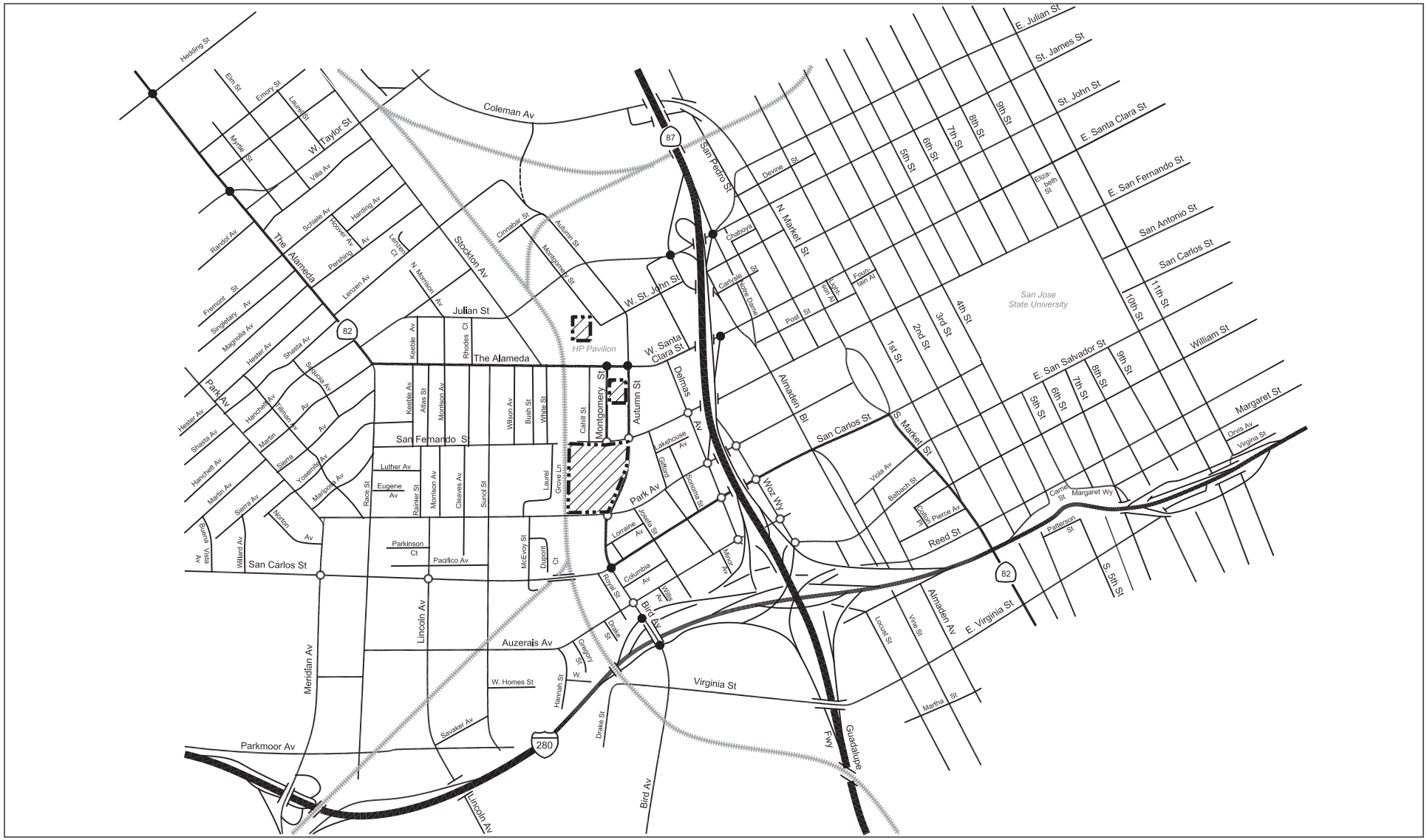
The same facilities that were studied as part of the 2006 traffic analysis were included in the supplemental analysis. Additionally, four intersections that were evaluated as part of the response to comments for the 2006 traffic analysis and two intersections that may be affected by the newly proposed locations of the parking structure, if constructed, are included in the updated analysis. The additional intersections are included because they were shown to operate at LOS D conditions in the 2006 analysis and may be affected by the modified project. The level of service definitions are shown on Table IV.A-1.

As requested as part of the NOP process and to account specifically for the relocation of the A's an additional 46 directional freeway segments identified below are also analyzed as part of the supplemental analysis. The list of study freeway segments was expanded to evaluate the effects of ballpark traffic on I-880 and I-680 as well as additional segments on I-280 and SR 87 (for which the 2006 TIA examined select segments). The study intersections and freeway segments are identifed below. Intersections and freeway segments studied in the supplemental analysis but not in the 2006 analysis are shown in italics. Study intersections within the Congestion Management Program (CMP) of the of the Santa Clara Valley Transportation Authority (VTA) are denoted with an asterisk (*).

Study Intersections

NB SR 87 Ramps and W. Julian St.*
SB SR 87 Ramps and W. Julian St.*

[1] Hexagon Transportation Consultants, Inc., *San José Ballpark Supplemental Traffic Impact Analysis*, February 10, 2010.



LSA

FIGURE IV.A-1

= Project Site

= CMP Study Intersection

= Non-CMP Study Intersection

= Future Roadway

NOT TO SCALE

Baseball Stadium in the Diridon/Arena Area Supplemental EIR
Study Area and Intersections

SOURCE: HEXAGON TRANSPORTATION CONSULTANTS, JANUARY 2010.

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Table IV.A-1: Intersection Level of Service Definitions Based on Delay

Level of Service	Description	Average Control Delay Per Vehicle (seconds)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low delay.	Less than 10.0
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop that with LOS A, causing higher levels of average delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop, and individual cycle failures occur frequently.	35.1 to 55.0
E	This is considered to be the limit of acceptable by most delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, 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.	Greater than 80.0

Source: Transportation Research Board, *Highway Capacity Manual*, 2000.

NB SR 87 Ramp and Santa Clara St.*
NB I-280 Ramps and Bird Ave.*
SB I-280 Ramps and Bird Ave.*
Autumn St. and Santa Clara St.*
Autumn St. and W. San Fernando St.
Autumn St. and Park Ave.
Bird Ave and W. San Carlos St.*
Bird Ave. and Auzerais Ave.
Delmas Ave. and W. San Fernando St.
Delmas Ave. and Park Ave.
Delmas Ave. and W. San Carlos St.
Delmas Ave. and Auzerais Ave.
Woz Way and Park Ave.
Woz Way and W. San Carlos St.
Woz Way and Auzerais Ave.
SR 87 and Woz Way
*Montgomery Street and Santa Clara Street**
Montgomery Street and San Fernando Street
Lincoln Avenue and San Carlos Street
Meridian Avenue and San Carlos Street
*The Alameda and Naglee Avenue**
*The Alameda and Hedding Street**

Study Freeway Segments

SR 87 northbound between Capitol Expressway and Curtner Avenue
SR 87 southbound between Capitol Expressway and Curtner Avenue
SR 87 northbound between Curtner Avenue and Almaden Expressway
SR 87 southbound between Curtner Avenue and Almaden Expressway
SR 87 northbound between Almaden Expressway and Alma Avenue
SR 87 southbound between Almaden Expressway and Alma Avenue
SR 87 northbound between Alma Avenue and I-280
SR 87 southbound between Alma Avenue and I-280
SR 87 northbound between I-280 and Julian Street
SR 87 southbound between I-280 and Julian Street
SR 87 northbound between Julian Street and Coleman Avenue
SR 87 southbound between Julian Street and Coleman Avenue
SR 87 northbound between Coleman Avenue and Taylor Street
SR 87 southbound between Coleman Avenue and Taylor Street
SR 87 northbound between Taylor Street and Skyport Drive
SR 87 southbound between Taylor Street and Skyport Drive
SR 87 northbound between Skyport Drive and US 101
SR 87 southbound between Skyport Drive and US 101
I-280 eastbound between Saratoga Avenue and Winchester Boulevard
I-280 westbound between Saratoga Avenue and Winchester Boulevard
I-280 eastbound between Winchester Boulevard and I-880
I-280 westbound between Winchester Boulevard and I-880
I-280 eastbound between I-880 and Meridian Avenue
I-280 westbound between I-880 and Meridian Avenue
I-280 eastbound between Meridian Avenue and Bird Avenue
I-280 westbound between Meridian Avenue and Bird Avenue
I-280 eastbound between Bird Avenue and SR 87
I-280 westbound between Bird Avenue and SR 87
I-280 eastbound between SR 87 and 10th Street
I-280 westbound between SR 87 and 10th Street
I-280 eastbound between 10th Street and McLaughlin Avenue
I-280 westbound between 10th Street and McLaughlin Avenue
I-280 eastbound between McLaughlin Avenue and US 101
I-280 westbound between McLaughlin Avenue and US 101
I-680 northbound between US 101 and King Road
I-680 southbound between US 101 and King Road
I-680 northbound between King Road and Capitol Expressway
I-680 southbound between King Road and Capitol Expressway
I-680 northbound between Capitol Expressway and Alum Rock Avenue
I-680 southbound between Capitol Expressway and Alum Rock Avenue
I-680 northbound between Alum Rock Avenue and Mckee Road
I-680 southbound between Alum Rock Avenue and Mckee Road
I-880 northbound between I-280 and Stevens Creek Boulevard
I-880 southbound between I-280 and Stevens Creek Boulevard
I-880 northbound between Stevens Creek Boulevard and North Bascom Avenue
I-880 southbound between Stevens Creek Boulevard and North Bascom Avenue

I-880 northbound between North Bascom Avenue and The Alameda
I-880 southbound between North Bascom Avenue and The Alameda
I-880 northbound between The Alameda and Coleman Avenue
I-880 southbound between The Alameda and Coleman Avenue
I-880 northbound between Coleman Avenue and SR 87
I-880 southbound between Coleman Avenue and SR 87
I-880 northbound between SR 87 and North 1st Street
I-880 southbound between SR 87 and North 1st Street
I-880 northbound between North 1st Street and US 101
I-880 southbound between North 1st Street and US 101
I-880 northbound between US 101 and East Brokaw Road
I-880 southbound between US 101 and East Brokaw Road
I-880 northbound between East Brokaw Road and Montague Expressway
I-880 southbound between East Brokaw Road and Montague Expressway

(1) Event Scenarios. The event scenarios are the same as those analyzed in the 2006 traffic analysis. As noted then, the major league baseball season and the regular national hockey league season have 2 weeks overlap in April and 1 to 2 weeks overlap in September/October. If the Sharks were to advance to the league playoffs, as they did in the 2003-2004 season, then the games could continue through May and there would be further overlap between the hockey and baseball seasons, which could result in approximately an 8-week period of some potential simultaneous events at the HP Pavilion and the proposed ballpark.

In addition, it is acknowledged that there is some potential for future basketball games to be held at the HP Pavilion. Since the National Basketball Association (NBA) season runs concurrently with the National Hockey League (NHL) season (and their use of the HP Pavilion at any given time would be mutually exclusive), the simultaneous-event scenario captures the occurrence of basketball (or hockey) and baseball games occurring simultaneously. It is anticipated the seating capacity for a hockey game at the HP Pavilion and a basketball game at the HP Pavilion would be the same, and so therefore, the use of the HP Pavilion for basketball games would not result in additional impacts, but would result in more frequent impacts from simultaneous events.

There is also the potential for events or festivals to be held at the Arena Green and other public places where festivals and events occur throughout the downtown concurrently with baseball games or events at the HP Pavilion. These events, which would require permits from the City and are currently managed by the City, are already designed to plan for expected traffic and parking demands. Based on the history of past events, most of those public events occur on weekends, while a lesser number occur on Thursday and Friday evenings, with the fewest events occurring Monday through Wednesday evenings. A fundamental objective of the Downtown Strategy 2000 Plan, which was the subject of an EIR and approved by City Council June 21, 2005 with Resolution No. 72767, is to promote the development of a prominent and vital 24-hour downtown that is a catalyst to bring new investment, residents, and visitors to the center of the City. The Plan envisions Downtown as a regional focus for employment, cultural activities, entertainment, civic uses and retail activity at the hub of an expanding transit network and proximate to existing and planned residential areas. Therefore, it is a desired outcome, addressed in the 2005 Downtown Strategy 2000 Final EIR, for the Downtown to host multiple events, festivals, and cultural activities, some of which will occur concurrently with baseball and/or HP Pavilion events, reflecting a Downtown that is a major

entertainment destination. The operations of multiple concurrent Downtown events would be coordinated by the City and the event operators through the Traffic, Parking, and Management Plan process, as has successfully occurred in the past.

The traffic analysis for the single-event scenario is based on the occurrence of a weekday evening baseball game without a simultaneous event at the HP Pavilion. The traffic analysis for the simultaneous-events scenario is based upon the occurrence of a weekday evening baseball game with a simultaneous event at the HP Pavilion.

(2) Study Time Periods. The supplemental analysis includes the evaluation of traffic conditions for the same three scenarios studied in the 2006 traffic analysis:

- Single-Event (Baseball Game) 5 p.m. to 6 p.m.
- Single-Event (Baseball Game) 6 p.m. to 7 p.m.
- Simultaneous Events (Baseball and Hockey/Basketball Games) 6 p.m. to 7 p.m.

The ingress period preceding a weekday evening game represents the time of highest combined traffic with the project. Traffic impacts after a weekday evening game ends or before a weekday afternoon game begins are expected to be lower than those during the time periods analyzed because background traffic volumes are substantially lower during those hours.

In addition to the analysis of study intersections and freeway segments, this section of the SEIR also includes the following analyses: potential parking impacts; adequacy of pedestrian facilities; and potential impacts on nearby neighborhoods.

(3) Analysis Scenarios. Traffic conditions were evaluated for the following four scenarios:

Scenario 1: Existing Conditions. Existing conditions reflect the traffic volumes obtained from new manual turning-movement counts conducted in May 2009 on days with no event at the HP Pavilion. Existing volumes for the simultaneous-event scenario, with a hockey game at the HP Pavilion, were developed by adding the difference between counts collected in November 2005 on days with and without a hockey game to the new manual turning-movement counts conducted in May 2009. New counts for the simultaneous-event scenario could not be completed as part of the updated analysis because the hockey season had ended by the time this analysis was undertaken. However, the seating capacity for the HP Pavilion has not changed since 2005, so there is no reason to believe the traffic counts would be materially different.

Senario 2: Background Conditions. Background traffic volumes were estimated by adding to existing volumes the projected volumes from approved but not yet completed developments. The traffic volumes associated with approved developments were obtained from the most recent City of San José TRAFFIX database. Background conditions also reflect planned changes to the roadway network, including the extension of Autumn Street northward to Coleman Avenue.

Scenario 3: Project Conditions. Traffic volumes with the project (hereafter called project traffic volumes) were estimated by adding to background traffic volumes the additional traffic generated by the proposed ballpark and the changes in traffic patterns resulting from the proposed roadway network changes. Project conditions were evaluated relative to background conditions in order to determine potential project impacts.

Scenario 4: Cumulative Conditions. Cumulative conditions include traffic added by all potential development in the area. For this study the traffic generated by buildout of Downtown San José in accordance with the *Strategy 2000 Plan* along with the planned extension of BART to San Jose were added to represent cumulative conditions.

b. Methodology. Traffic conditions at the study intersections were evaluated using the level of service methodology. Level of service is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. Signalized study intersections located in the City of San José are usually subject to both the City of San José and CMP level of service standards. Both methods are described below.

(1) City of San José Signalized Intersections. The City of San José level of service methodology uses the TRAFFIX software program, which is based on the Highway Capacity Manual (HCM) 2000 method for signalized intersections. TRAFFIX evaluates signalized intersection operations on the basis of average delay for all vehicles at a specified intersection. Since TRAFFIX is also the CMP-designated intersection level of service methodology, the City of San José methodology employs the CMP default values for the analysis parameters. The City of San José level of service standard for signalized intersections is LOS D or better. The correlation between average delay and level of service is shown in Table IV.A-1. The City's Downtown Core Policy states …the Downtown Core Area is exempted from traffic mitigation requirements. Intersections within and on the boundary of this area are also exempted from the LOS "D" Performance Criteria. Nevertheless, for this study, the intersections are evaluated following standard level of service policy procedures in order to disclose the level of service of the surrounding signalized intersections under the project traffic conditions.

(2) CMP Intersections. Since TRAFFIX is the designated level of service methodology for both the CMP and the City of San José, the CMP study intersections are not analyzed separately, but rather are among the City of San José signalized study intersections analyzed using TRAFFIX. The only difference between the San José and CMP analyses is that project impacts are determined on the basis of different level of service standards – the CMP level of service standard for signalized intersections is LOS E or better.

(3) Freeway Segments. As prescribed in the CMP technical guidelines, the level of service for freeway segments is estimated based on vehicle density. Density is calculated by the following formula:

$$D = V / (N*S)$$

where:

D = density, in vehicles per mile per lane (vpmpl)
V = peak hour volume, in vehicles per hour (vph)

N = number of travel lanes
S = average travel speed, in miles per hour (mph)

The vehicle density on a segment is correlated to level of service as shown in Table IV.A-2. The CMP requires that mixed-flow lanes and auxiliary lanes be analyzed separately from HOV (carpool) lanes. The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for segments six lanes or wider in both directions and a capacity of 2,200 vphpl be used for segments four lanes wide in both directions. The CMP defines an acceptable level of service for freeway segments as LOS E or better.

Table IV.A-2: Freeway Segment Level of Service Definitions Based on Delay

Level of Service	Description	Density (vehicles/mile/lane)
A	Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver with the traffic stream.	Less than 11.0
B	Speeds at the free-flow speed are generally maintained. The ability of maneuver with the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high.	11.1 to 18.0
C	Speeds at or near the free-flow speed of the freeway prevail. Freedom to maneuver within the traffic stream noticeably restricted, and lane changes require more vigilance on the part of the driver.	18.1 to 26.0
D	Speeds begin to decline slightly with increased flows at this level. Freedom to maneuver with the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.	26.1 to 46.0
E	At this level, the freeway operates at or near capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream, leaving little room to maneuver with the traffic stream.	46.1 to 58.0
F	Vehicular flow breakdowns occur. Large queues form behind breakdown points.	Greater than 58.0

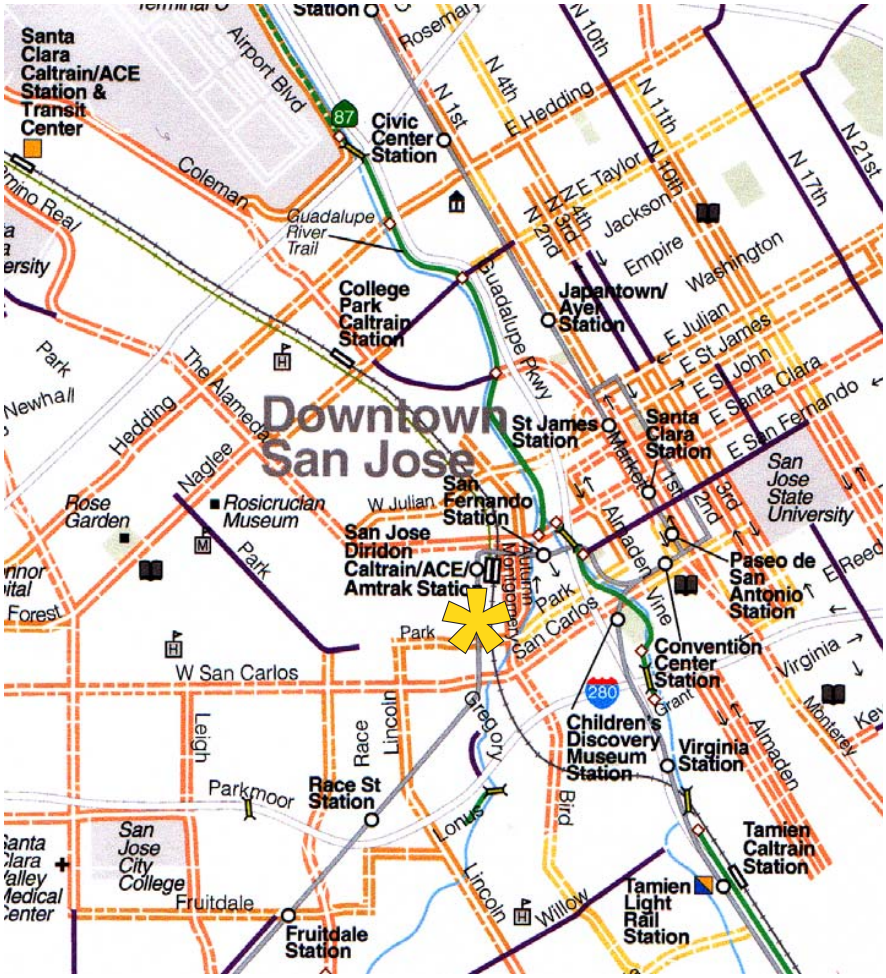
Source: Transportation Research Board, *Highway Capacity Manual* (2000), Washington, D.C.; and *Traffic Level of Service Analysis Guidelines* (June 2003), Santa Clara Valley Transportation Authority.

c. Existing Traffic, Transit and Parking Setting. This section describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, parking facilities, and bicycle and pedestrian facilities.

(1) Existing Roadway Network. Regional access to the project site is provided via I-280, I-880, and SR 87. The roadway system is the same as that analyzed in the 2006 traffic analysis, although as noted previously, additional intersections and freeway segments are included in the supplemental analysis.

(2) Existing Bicycle Facilities. The existing bicycle facilities in the project area are shown in Figure IV.A-2. The facilities are the same as those analyzed in the 2006 analysis, with the addition of bicycle facilities on the following streets:

- San Fernando Street, between 10th Street and SR 87
- Coleman Avenue, between Taylor Street and SR 87
- 3rd Street, between Julian Street and Jackson Street



SOURCE: VTA Santa Clara Valley Bikeways Map, May 2008.

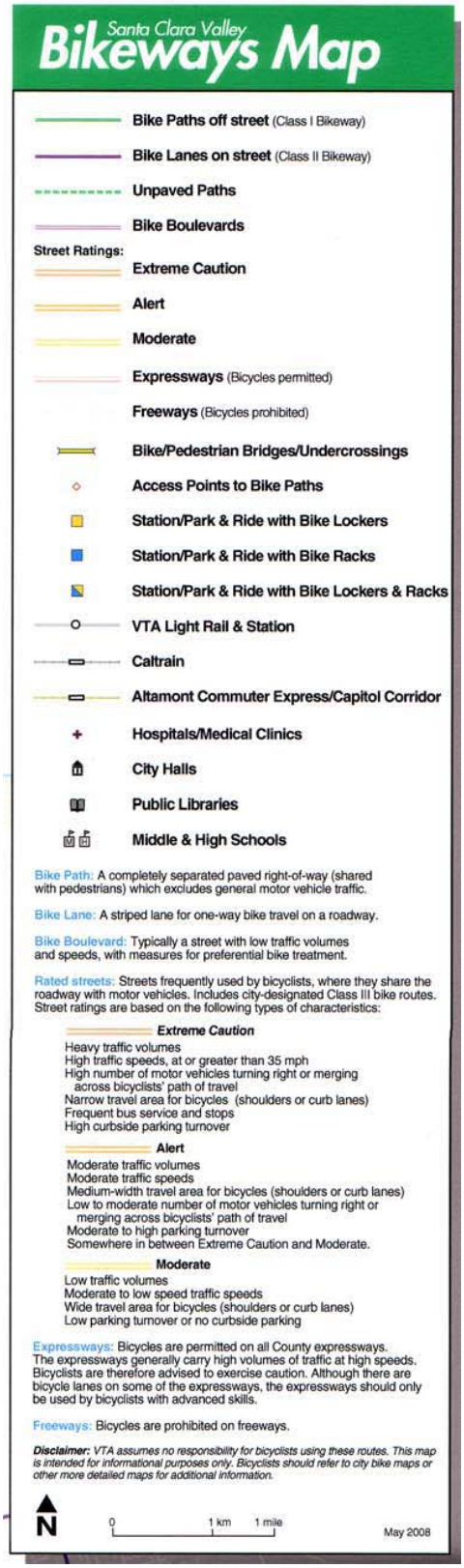


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FIGURE IV.A-2

= PROJECT SITE

Baseball Stadium in the Diridon/Arena Area Supplemental EIR

Existing Bicycle Facilities

SOURCE: HEXAGON TRANSPORTATION CONSULTANTS, JANUARY 2010.

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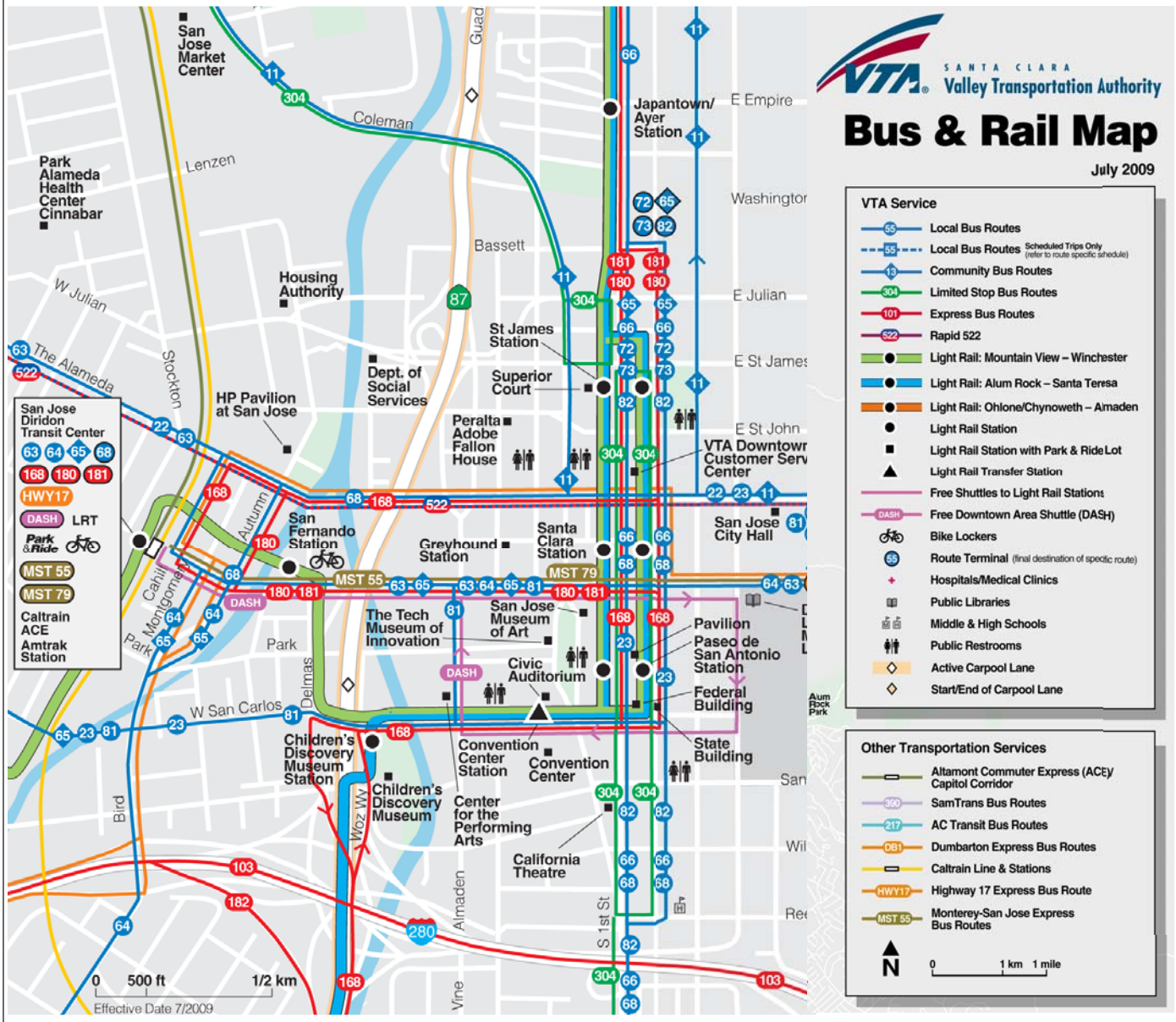

SOURCE: VTA Santa Clara Valley Bus and Rail Map, July 2009.

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FIGURE IV.A-3

Baseball Stadium in the Diridon/Arena Area Supplemental EIR

Existing Transit Services

SOURCE: HEXAGON TRANSPORTATION CONSULTANTS, JANUARY 2010.

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- 4th Street, between Julian Street and Jackson Street

Existing Transit Service. The stadium site is adjacent to Diridon Station, which is served by numerous bus, LRT, and commuter rail routes. These transit services are described below and shown in Figure IV.A-3.

Bus Service. Diridon Station is served by eight bus routes and the DASH shuttle (see Table IV.A-3). In addition, two more bus routes are only two blocks away on The Alameda. Most routes are the same as those included in the 2006 analysis with a few exceptions; current headways are noted in Table IV.A-3. Route 305, which was included in the 2006 analysis, was discontinued in January 2008. Route 180 now operates only on weekends in the project area and Route 181, which follows a route similar to that of Route 180, now serves the project area on weekdays. Route 168 provides express service between the Gilroy Transit Center and Diridon Station during weekday morning and afternoon commute hours with 30-minute headways; the last bus leaves Diridon Station at about 5:30 p.m.

Table IV.A-3: Existing Bus Lines

Location /Route	Route Description	Commute Hour Headways
At Diridon Station		
63	Almaden Valley to San José State University	30
64	Almaden LRT Station to Penitencia Creek Transit Center	15 – 20
65	Almaden LRT Station to San José State University	60
68	Gilroy/Gavilan College to Diridon Station	15 – 30
168	*Gilroy Transit Center to Diridon Station*	*30*
180	Fremont BART Station to Diridon Station	--
181	*Fremont BART Station to Diridon Station*	*15*
970 Hwy 17	Santa Cruz/Scotts Valley to San José	10 – 45
DASH	Downtown Shuttle	10
On the Alameda (two blocks)		
22	Eastridge Transit Center to Palo Alto/Menlo Park	10 – 15
522	Eastridge Transit Center to Palo Alto Transit Center	15 – 20

Note: Headways are based on July, 2009 VTA Bus Route Schedule; "--" Indicates no service; New routes are shown in italics. Route 305, which was included in the 2006 analysis, was discontinued in January 2008; Route 180 provides only weekend service.

Source: Hexagon Transportation Consultants, 2010.

Light Rail Transit (LRT) Service. LRT service is unchanged; Diridon Station is served by the Vasona LRT line. The Vasona line operates until midnight seven days a week, generally on 15-minute headways on weekdays and 30-minute headways on the weekend.

Rail Service. Diridon Station is served by Caltrain, ACE, and AMTRAK trains. The ACE service presently does not run at night, so it would not be an option for most ball games. Amtrak operates seven days a week until midnight, usually on 2-hour headways. Caltrain operates seven days a week until midnight, usually on 5- to 25-minute headways on weekdays and on 1-hour headways on the weekend.

(3) Existing Traffic Conditions. New manual turning-movement counts were conducted in May 2009 at all study intersections on a night with no event at the HP Pavilion. All study intersections were counted in November 2005 on nights with and without events at the HP Pavilion as part of the 2006 traffic analysis. At the time of the update of the traffic analysis, the NHL hockey season had ended. Since it was not possible to complete new intersection counts on a night of a hockey game as part of the updated analysis, the November 2005 counts were utilized to develop the updated existing volumes for the simultaneous-event scenario. The differences between the November 2005 hockey and no-hockey counts were applied to the new May 2009 no-hockey counts

to represent the updated existing volumes with hockey. The new traffic count data and detailed volume summary tables, which include the existing traffic volumes and count dates for all study intersections, are included in the Supplemental TIA (Appendix C of this SEIR).

The traffic counts were used to calculate existing levels of service at the study intersections. The existing lane configurations were provided by City staff and confirmed by field observations. Table IV.A-4 shows that all the study intersections currently operate at LOS D or better, which is acceptable by City and CMP standards, both with and without a hockey game.

Table IV.A-4: Existing Intersection Level of Service Summary

	Existing 5 to 6 p.m.		Existing 6 to 7 p.m. No Hockey		Existing 6 to 7 p.m. With Hockey	
Intersection	**Average Delay**	**LOS**	**Average Delay**	**LOS**	**Average Delay**	**LOS**
NB SR 87 Ramps and W. Julian St.*	41.3	D	39.8	D	41.4	D
SB SR 87 Ramps and W. Julian St.*	18.5	B	15.3	B	18.5	B
NB SR 87 Ramp and Santa Clara St.*	16.1	B	16.2	B	16.4	B
NB I 280 Ramps and Bird Ave.*	30.6	C	26.6	C	28.1	C
SB I 280 Ramps and Bird Ave.*	29.4	C	29.2	C	31.2	C
S. Autumn St. and Santa Clara St.*	20.5	C	18.0	B	25.2	C
Bird Ave and W. San Carlos St.*	38.8	D	37.2	D	35.5	D
SR 87 and Woz Way	10.7	B	10.1	B	8.0	A
S. Autumn St. and W. San Fernando St.	10.4	B	10.0	B	8.5	A
Bird Ave. and Auzerais Ave.	27.5	C	26.3	C	20.9	C
Delmas Ave. and Auzerais Ave.	17.7	B	17.8	B	17.1	B
Woz Way and Auzerais Ave.	25.8	C	23.9	C	18.6	B
Delmas Ave. and Park Ave.	24.5	C	23.5	C	24.6	C
Delmas Ave. and W. San Carlos St.	18.8	B	16.9	B	17.7	B
S. Autumn St. and Park Ave.	32.1	C	33.0	C	31.0	C
Woz Way and Park Ave.	18.9	B	20.5	C	20.1	C
Woz Way and W. San Carlos St.	23.7	C	23.7	C	23.0	C
Delmas Ave. and W. San Fernando St.	14.6	B	15.2	B	16.0	B
*Montgomery St. and Santa Clara St. **	19.0	B	19.8	B	25.1	C
Montgomery St. and San Fernando St.	13.3	B	13.2	B	15.7	B
San Carlos St. and Lincoln Ave.	40.0	D	36.7	D	34.7	C
San Carlos St. and Meridian Ave.	43.6	D	41.0	D	41.0	D
*The Alameda and Taylor St./ Naglee Ave. **	41.0	D	36.7	D	34.1	C
*The Alameda and Hedding St. **	30.7	C	27.3	C	28.4	C

Note: All counts were made in May 2009; Intersections studied in the supplemental analysis but not in the 2006 analysis are shown in italics.
* Denotes CMP Intersection
Source: Hexagon Transportation Consulting 2010.

The existing peak hour traffic volumes for the study freeway segments were updated utilizing the 2008 CMP Monitoring Report. The freeway segment analysis includes directional segments along SR 87, I-280, I-680, and I-880. The study freeway segments were evaluated for the 5:00 to 6:00 p.m. hour. Although project traffic is expected to peak after 6:00 p.m., the overall traffic and worst case scenario on the freeway system is greatest before 6:00 p.m. due to heavy commute traffic.

(4) Existing Parking Facilities. The available parking inventory in the Diridon/Arena and Downtown area compiled for the 2006 traffic analysis was updated along with revised parking demands for the two lower stadium seating capacities that are now proposed. The proposed project would include on-site parking (approximately 150 spaces) for players and staff and three possible parking options for ballgame attendees – a 1,200-space garage located south of Santa Clara Street between Montgomery and Autumn streets, a 1,300-space garage located on the HP Pavilion parking lot, or a "no parking structure" option. Under all options, ballpark patrons would utilize existing parking garages and lots in the Diridon/Arena area and parking facilities within the downtown core area east of SR 87. An inventory of existing parking facilities in these areas (stratified by distance from the project) is provided in Table IV.A-5. Figure IV.A-4 shows the location and capacity of existing off-street parking facilities. Within ¾ miles from the stadium, a total of 18,463 parking spaces currently exist to the north and east of the project site. Assuming that these spaces are 25 percent occupied in the evening without an event at the HP Pavilion, there are an estimated 13,847 available parking spaces for the stadium. Table IV.A-5 also shows an additional 10,406 spaces available beyond the ¾-mile radius zone.

d. Background Conditions. Background conditions are defined as conditions just prior to completion of the proposed development. Background transportatation network conditions assume the completion of the Autumn Street extension to Coleman Avenue, as described in the 2006 traffic analysis and SEIR. Background traffic volumes were calculated by adding to the existing volumes the traffic reassignment resulting from the planned Autumn Street Extension and the estimated traffic from approved but not yet constructed developments in the vicinity of the site. Estimates of the added traffic from approved but not yet constructed developments were provided by the City in the form of the Approved Trips Inventory (ATI). The ATI data are included in Appendix C. Trips added from the above-described sources were added to the existing volumes and background traffic volumes were calculated. The level of service results for background conditions (Table IV.A-6) indicate that all the study intersections are projected to operate at LOS D or better, which is within the City and CMP standard, both with and without a hockey game.

2. Project Impacts and Mitigation Measures

This section describes significant project impacts, and measures that are recommended to mitigate project impacts. Included are descriptions of the significance criteria that define an impact, estimates of project-generated traffic, identification of the impacts, and descriptions of the mitigation measures. Project conditions are represented by background traffic conditions with the addition of traffic generated by the project.

a. Criteria of Significance. For the purposes of this SEIR, the proposed project would be said to create a significant adverse impact if it were to exceed any of the thresholds described below.

(1) City of San José Definition of Significant Intersection Impacts. The project is said to create a significant adverse impact on traffic conditions at a study intersection in the City of San José if for either peak-hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better under background conditions to an unacceptable LOS E or F under project conditions, or

Table IV.A-5: Existing Parking Facilities

Lot Number	Facility Name	Type	Unrestricted Parking Capacity
Off-Street Parking Facilities Within 1/3 Mile Radius			
18	Arena Lot D	Public	228
19	San José Water Lot (west)	Private w/Public Access	280
20	San José Water Lot (east)	Private w/Public Access	575
21	Santa Clara/87	Public	232
42	Park Center Plaza III	Private w/Public Access	1,320
47	Cahill Lot 4	Public	149
49	Cahill Lot 1	Public	180
50	Cahill Lot 2	Public	162
51	Cahill Lot 3	Public	90
56	Palermo Lot	Private w/Public Access	26
57	Power Play Hockey Lot	Private w/Public Access	14
59	CCW Properties	Private w/Public Access	70
		Subtotal	*3,326*
Off-Street Parking Facilities Within 1/3- to 2/3-Mile Radius			
1	Market/San Pedro Garage	Public	1,393
4	Ernst & Young Garage	Private w/Public Access	400
10	Comerica - 333 W. Santa Clara	Private w/Public Access	736
14	Auzerais Lot	Private w/Public Access	71
24	Fairmont Plaza	Private w/Public Access	626
25	10 Almaden	Private w/Public Access	700
26	Opus West-225 W. Santa Clara	Private w/Public Access	805
27	160 W. Santa Clara	Private w/Public Access	461
29	95 S. Market Street	Private w/Public Access	95
32	Park Center Plaza I	Private w/Public Access	1,066
33	Adobe	Private w/Public Access	1,104
34	Riverpark	Private w/Public Access	1,413
35	San Pedro Square	Private w/Public Access	118
37	California Bank & Trust-84 W. Santa Clara	Private w/Public Access	35
38	National Lot (1 South Market St.)	Private w/Public Access	82
40	Plaza Lot (San Pedro/St. James)	Private w/Public Access	195
43	Terraine Lot	Private w/Public Access	75
44	Arena Lots A, B and C	Public	1,447
45	Crowne Plaza Garage	Private w/Public Access	276
46	Notre Dame Lot (nw c/o Notre Dame/St John)	Private w/Public Access	99
48	Almaden/Woz Lot	Public	365
55	Milligan Lot	Private w/Public Access	45
58	Woz/87 Lot	Public	283
60	Convention Center	Public	675
		Subtotal	*12,565*
Off-Street Parking Facilities Within 2/3 to 3/4 Mile Radius			
5	2nd/San Fernando (Block 2)	Public	154
7	Market/San Carlos (Block 8)	Public	92
17	Autumn St. Lot (Akatiff Lot)	Private w/Public Access	523
22	Pavilion Garage	Private w/Public Access	261
28	60 S. Market Street	Private w/Public Access	814
30	Community Towers	Private w/Public Access	89
39	Victory Parking	Private w/Public Access	439

Lot Number	Facility Name	Type	Unrestricted Parking Capacity
66	South Hall Lot	Public	155
61	Almaden/Balbach Lot	Public	45
		Subtotal	*2,572*
Off-Street Parking Facilities Outside 3/4 Mile Radius			
2	Third Street Garage	Public	837
3	2nd/S. Carlos Garage	Public	544
6	Central Place Lot (Block 3)	Public	156
9	4th Street Garage	Public	750
12	2nd/St. James (Oaisis Lot)	Public	138
13	First/St. James Lot	Public	37
15	San Pedro/Bassett Lot	Public	118
23	Colonade (201 S. Fourth)	Private w/Public Access	145
31	Second/San Carlos(behind McDonalds)	Private w/Public Access	100
36	Fountain Alley	Public	160
41	Valley Title	Private w/Public Access	294
52	SJ State University 10th Street Garage	Public	1,927
53	SJ State University 4th Street Garage	Public	1,136
54	SJ State University 7th Street Garage	Public	1,980
64	First Street and I-280 Lot	Public	113
67	New City Hall Garage	Public	372
68	City Hall Employee Garage	Public	1,117
69	Central Place Garage (The 88)	Public	330
70	Third & Santa Clara (The Globe)	Public	67
71	10 S. Third Street	Private w/Public Access	85
		Subtotal	*10,406*
		TOTAL	**28,869**

Notes: Compilation does not include parking facilities west of the project site. The numbers of parking spaces in the various lots are based on data available in the summer of 2009. Numbers may vary over time.

Source: Hexagon Transportation Consultants, 2010.

Table IV.A-6: Background Intersection Level of Service Summary

	5 to 6 p.m.				6 to 7 p.m. No Hockey				6 to 7 p.m. With Hockey			
	Existing		Background		Existing		Background		Existing		Background	
Intersection	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS
NB SR 87 Ramps and W. Julian St.*	41.3	D	43.5	D	39.8	D	40.8	D	41.4	D	44.0	D
SB SR 87 Ramps and W. Julian St.*	18.5	B	18.4	B	15.3	B	17.9	B	18.5	B	18.9	B
NB SR 87 Ramp and Santa Clara St.*	16.1	B	16.8	B	16.2	B	16.3	B	16.4	B	16.8	B
NB I 280 Ramps and Bird Ave.*	30.6	C	41.1	D	26.6	C	26.8	C	28.1	C	28.9	C
SB I 280 Ramps and Bird Ave.*	29.4	C	41.0	D	29.2	C	32.4	C	31.2	C	36.8	D
S. Autumn St. and Santa Clara St.*	20.5	C	32.1	C	18.0	B	29.4	C	25.2	C	36.3	D
Bird Ave and W. San Carlos St.*	38.8	D	41.0	D	37.2	D	37.4	D	35.5	D	37.0	D
SR 87 and Woz Way	10.7	B	10.9	B	10.1	B	10.6	B	8.0	A	10.2	B
S. Autumn St. and W. San Fernando St.	10.4	B	11.4	B	10.0	B	11.0	B	8.5	A	11.8	B
Bird Ave. and Auzerais Ave.	27.5	C	32.1	C	26.3	C	29.4	C	20.9	C	27.6	C
Delmas Ave. and Auzerais Ave.	17.7	B	17.0	B	17.8	B	17.1	B	17.1	B	16.4	B
Woz Way and Auzerais Ave.	25.8	C	27.1	C	23.9	C	25.3	C	18.6	B	20.9	C
Delmas Ave. and Park Ave.	24.5	C	29.2	C	23.5	C	25.8	C	24.6	C	26.7	C
Delmas Ave. and W. San Carlos St.	18.8	B	25.5	C	16.9	B	23.4	C	17.7	B	24.3	C
S. Autumn St. and Park Ave.	32.1	C	35.4	D	33.0	C	34.6	C	31.0	C	34.5	C
Woz Way and Park Ave.	18.9	B	23.2	C	20.5	C	23.1	C	20.1	C	22.0	C
Woz Way and W. San Carlos St.	23.7	C	26.8	C	23.7	C	25.5	C	23.0	C	25.4	C
Delmas Ave. and W. San Fernando St.	14.6	B	34.3	C	15.2	B	21.0	C	16.0	B	22.9	C
Montgomery St. and Santa Clara St. *	19.0	B	21.2	C	19.8	B	21.1	C	25.1	C	27.6	C
Montgomery St. and San Fernando St.	13.3	B	13.2	B	13.2	B	13.1	B	15.7	B	17.2	B
San Carlos St. and Lincoln Ave.	40.0	D	41.9	D	36.7	D	38.2	D	34.7	C	36.7	D
San Carlos St. and Meridian Ave.	43.6	D	45.5	D	41.0	D	42.0	D	41.0	D	42.1	D
*The Alameda and Taylor St./ Naglee Ave.**	41.0	D	44.1	D	36.7	D	37.8	D	34.1	C	36.3	D
The Alameda and Hedding St. *	30.7	C	32.5	C	27.3	C	28.3	C	28.4	C	29.9	C

Note: All counts were made in May 2009; Intersections studied in the supplemental analysis but not in the 2006 analysis are shown in italics.
* Denotes CMP Intersection
Source: Hexagon Transportation Consulting 2010.

LSA

FIGURE IV.A-4

Baseball Stadium in the Diridon/Arena Area Supplemental EIR

Off-Street Parking Facilities

SOURCE: HEXAGON TRANSPORTATION CONSULTANTS, JANUARY 2010.

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Back of Figure IV.A-4: Off-Street Ballpark Parking Facilities

2. The level of service at the intersection is an unacceptable LOS E or F under background conditions and the addition of project trips causes both the critical-movement delay at the intersection to increase by four or more seconds *and* the demand-to-capacity ratio (V/C) to increase by .01 or more.

All study intersections were evaluated following standard LOS policies and procedures in order to disclose the level of service of the surrounding signalized intersections under the project traffic conditions. However, all of the intersections located within the Downtown Core Area are exempt from the City's LOS policy. The policy states … the Downtown Core Area is exempted from traffic LOS "D" performance criteria.

A significant freeway impact by City of San José standards is said to be satisfactorily mitigated when measures are implemented that would restore freeway conditions level of service to background conditions or better.

(2) CMP Definition of Conformance. A CMP intersection is out of conformance with the acceptable LOS standard when the level of service falls below LOS E. That is, a project is considered in violation of the CMP level of service standard when the addition of project traffic causes the intersection's level of service to deteriorate from an acceptable LOS E or better under background conditions to an unacceptable LOS F under project conditions or the level of service at the intersection is an unacceptable F under background conditions and the addition of project trips causes both the critical-movement delay at the intersection to increase by four or more seconds and the volume-to-capacity ratio (V/C) to increase by 0.01 or more. The CMP standard is said to be in conformance when measures are implemented that would restore intersection conditions to LOS E or better.

(3) CMP Definition of Significant Freeway Segment Impacts. According to the CMP, a project is said to create a significant adverse impact on traffic conditions on a CMP freeway segment if for either peak-hour:

1. The level of service on the freeway segment degrades from an acceptable LOS E or better under existing conditions to an unacceptable LOS F under project conditions, or

2. The level of service on the frewway segment is an unacceptable LOS F under project conditions, and the number of project trips on that segment constitutes at least one percent of capacity on that segment.

A significant freeway impact by CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore freeway conditions to LOS E or better.

(4) Additional City of San José significance criteria follow:

- Substantially increase hazards due to a design feature or incompatible uses;
- Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks, pedestrian paths or trails);

- Result in inadequate parking capacity for existing land uses or cause parking intrusion into existing residential neighborhoods; or
- Result in inadequate emergency access.

b. Transportation Network Under Project Conditions. The modified project would include the same changes to the existing transportation network that are necessary to accommodate the ballpark design and associated traffic as described in the certified EIR, which include:

- Montgomery Street, between W. San Fernando Street and Park Avenue would be abandoned;
- Otterson Street, west of Montgomery Street also would be abandoned;
- Autumn Street, between W. Santa Clara Street and Park Avenue would be converted from a one-way (northbound) street to a two-way street; and
- The remaining segment of Montgomery Street, between W. Santa Clara Street and W. San Fernando Street, would also be converted from a one-way (southbound) street to a two-way street.

The latter two roadway modifications above were addressed in the Autumn Street Extension/Coleman Avenue Widening Final EIR, for which a Resolution of Findings (#74870) was adopted by City Council on April 7, 2009. Project-sponsored improvements also include modifications to the Bird Avenue corridor from Park Avenue to I-280. In addition, as part of the modified project, the intersection of S. Autumn Street and S. Montgomery Street with Park Avenue would be modified and, if the stadium site were enlarged to the south, Park Avenue would be narrowed from four lanes to two between Josefa and McEvoy streets. The changes in vehicular traffic patterns associated with these network changes were estimated based on existing travel patterns in the vicinity.

The transit network is assumed to remain unchanged under project conditions but includes the BART-to-San José extension and the HSR system under cumulative conditions.

c. Project Trip Estimates. The magnitude of traffic produced by new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip *generation*; (2) trip *distribution*; and (3) trip *assignment*. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the two analyses time periods. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described further in the following sections.

(1) Trip Generation. Project trip generation estimates were prepared based on the capacity of each of the stadium seating capacity options (32,000 and 36,000 seats) and a no-show rate of 6 percent. The no-show rate is consistent with the actual attendance observed at other baseball stadiums during a sell-out game. Including players, coaches, staff, concession employees, and media personnel (approximately 1,560 people), the total attendance for a sell-out game is estimated to be 31,640 for the 32,000-seat option and 35,400 for the 36,000-seat option.

The travel characteristics, such as modal split (private vehicle, transit, walk/bike) and arrival patterns, of fans attending a weeknight Major League Baseball game at the proposed ballpark estimated in the 2006 traffic analysis were based on data and surveys of fans attending a weeknight NHL game at the HP Pavilion. No changes to the travel characteristics (i.e., mode of transportation) of fans were made

as part of the updated project-level analysis. It is believed that the travel characteristics of fans attending baseball and hockey games would be similar due to the close proximity of arena and ballpark locations and a fan base being drawn from the same general area resulting in similar mode choice characteristics. Additionally, with the substantial amount of parking located near the ballpark, it is unlikely that mode of travel to the arena and ballpark would be substantially different. The commercial space to be located on the ground floor of the proposed new parking garage is assumed to be occupied by ancillary uses that on game nights would be entirely supported by game attendees. Thus, the commercial space is not expected to add to the number of vehicle trips generated by the project during the pre-game period. Table IV.A-7 presents the project trip generation estimates for each of the stadium capacity options during the ingress period for a weekday evening game.

Table IV.A-7: Project Trip Generation Estimates for a Weekday Evening Game (Arrivals)

Stadium Attendance by Mode[a]		Persons	Average Occupancy (persons/ vehicle)	Pre-Game Vehicle Trips	
				In	**Out**
32,000-Seat Alternative:					
Auto	90.5%	28,634	2.3	12,450	0
Public Transit	4.5%	1,424	--	--	--
Walk/Bicycle	3.3%	1,044	--	--	--
Charter Bus, Taxi & Limo	1.1%	348	3.0	116	116
Drop-Off/Pick-Up	0.6%	190	2.3	83	83
Total		**31,640**		**12,649**	**199**
36,000-Seat Alternative:					
Auto	90.5%	32,037	2.3	13,929	0
Public Transit	4.5%	1,593	--	--	--
Walk/Bicycle	3.3%	1,168	--	--	--
Charter Bus, Taxi & Limo	1.1%	389	3.0	130	130
Drop-Off/Pick-Up	0.6%	212	2.3	92	92
Total		**35,400**		**14,151**	**222**

[a] Total projected attendance for sold out weekday night game, including fans, team personnel, concessions employees, and media personnel

Source: Hexagon Transportation Consultants, 2010.

The planned BART-to-San José extension and HSR system would locate stations within one block of the HP Pavilion and the stadium. These future transit options are not assumed in the project-level analysis but are considered in the cumulative analysis.

Because the attendance at a sell-out Major Leage Baseball game would be approximately twice the size that of a hockey game, the parking facilities used by baseball fans would need to include many downtown parking facilities that are more distant than those typically used by hockey fans arriving at the HP Pavilion. The longer walking times from these more distant parking facilities would encourage some fans to take public transit rather than driving. Thus, as noted in the certified EIR, it is likely that with no change in transit services, a higher percentage of baseball fans would choose public transit than is currently observed for a hockey game. However, to be conservative (i.e., in order to ensure that adverse impacts are not underestimated) the baseball stadium traffic analysis assumes the same mode split and vehicle occupancy as observed for a weekday evening hockey game.

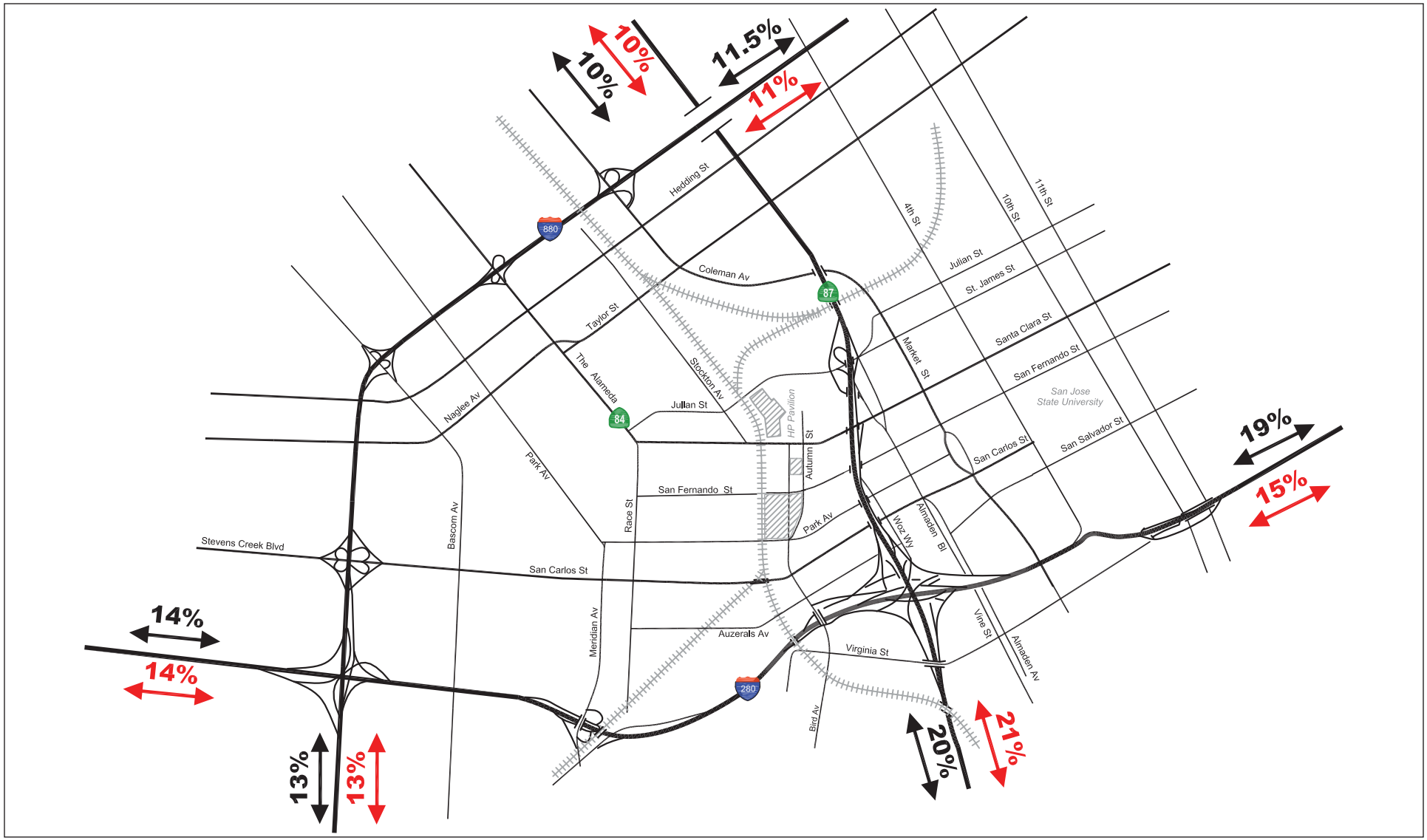
(2) Trip Distribution and Assignment. The distribution of trips generated by the proposed ballpark utilized in the 2006 traffic analysis was estimated based on the residence zip codes of existing San José Sharks season ticket holders and a comparison of the existing traffic volumes on weekday evenings without and with a hockey game. San Jose Sharks fans were the best available proxy for San Jose/South Bay baseball fans given the 2006 traffic study analysis was not contemplating the A's as the specific team that would occupy the proposed stadium, since the A's ownership was actively pursuing a stadium in Fremont and had not expressed interest in relocating to San Jose. Therefore, the 2006 traffic study relied upon the best available sports fan distribution methodology at the time, namely existing Sharks fans. The distribution pattern for the stadium was developed manually

utilizing the zip code data and professional traffic engineers' detailed knowledge of existing travel patterns in the stadium area. Utilizing the Sharks fan-derived baseball fan distribution, a majority of baseball stadium trips are expected to arrive and depart via I-280 and/or SR 87 (65%).

Subsequent to the 2006 traffic analysis, the A's have been identified as the baseball team that would occupy the proposed ballpark, if MLB adjusts territorial rights. Therefore, as part of this supplemental analysis, the trip distribution of the original traffic analysis was re-evaluated utilizing data from the existing fan base of Oakland A's baseball games. Zip code data that provides information regarding the origins of fans attending games in Oakland was obtained from credit card receipt information for ticket purchases of the 2007 season. Utilizing the zip code data to determine the distance traveled to games in Oakland and socio-economic data for northern California, formulas were derived by professional traffic engineers to be used by a traffic forecasting model to predict the travel patterns of existing and potential future A's fans arriving at the new San Jose ballpark. The location of a baseball stadium in San Jose would result in an adjustment of origins of fans attending games when compared to that of fans attending games in Oakland. The formulas and model account for the adjustment of the origins of fans based upon the zip code data, distance traveled to games in Oakland versus San Jose, and population and socio-economic data changes due to the stadium location in San Jose. Because this method is objective, reproducible, and is based on actual A's fan base statistics, it provides a credible, logical estimate of trip distribution of the proposed ballpark.

Results of the supplemental traffic model forecast runs based upon A's fan base information resulted in a trip distribution on regional facilities (freeways) that was similar to that which was utilized in the original 2006 Sharks fan-derived traffic analysis, with one exception. The supplemental A's fan-based traffic model indicated that less traffic than that which was originally estimated using Shark's data would utilize I-680. I-680 is one of two travel corridors that serves the existing A's fan base in the East Bay, along with I-880. The City has completed two independently derived trip distribution models to attempt to predict the travels patterns of existing and potential future A's fans following relocation of the A's to San Jose. Each is based on a logically sound set of assumptions and methodology, and produces essentially similar results for having been prepared independently of each other. In an abundance of caution, it was decided that the use of the original 2006 trip distribution would produce the most conservative estimate (in terms of the highest number of East Bay A's fans who would continue to attend A's games upon relocation to San Jose) of trip distribution for the proposed stadium, and therefore fully disclose the greatest potential impacts to I-880 and I-680 freeways. Figure IV.A-5 presents a comparison of the distribution utilized in the 2006 traffic study and the trip distribution pattern estimated by the traffic forecasting model for the supplemental traffic study.

d. Project Traffic Volumes. Tables IV.A-8a-c and IV.A-9a-c present a breakdown of project trips for a 32,000-seat and a 36,000-seat stadium by location and time period for a baseball game under the single-event scenario based on the assignment of project trips to the roadway system in accordance with the trip distribution patterns discussed above and the three proposed parking scenarios. Peak-hour traffic volumes for project conditions were produced by adding the stadium project trips to background condition traffic volumes to obtain background plus project traffic volumes for each of the stadium capacity options and parking scenarios. Project-generated trips as well as peak-hour intersection volumes at each of the study intersections are presented in tabular and graphical forms in Appendix B of the Supplemental TIA (Appendix C of the SEIR).



LSA

N

NOT TO SCALE

XX% = Original Distribution

XX% = Model Distribution

= Project Site

FIGURE IV.A-5

Baseball Stadium in the Diridon/Arena Area Supplemental EIR
Trip Distribution Re-evaluation

SOURCE: HEXAGON TRANSPORTATION CONSULTANTS, JANUARY 2010.

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Table IV.A-8a: Project Trip Estimates for a Weekday Evening Game
32,000-Seat Stadium Option / 1,200-Space Parking Structure

		Pre-Game Vehicle Trips	
Destination/Time Period		**In**	**Out**
On-Site Ballpark Parking	150 Spaces		
Prior to 5 p.m.	100%	150	0
After 5 p.m.	0%	0	0
Montgomery/Autumn Street Parking Structure	1,200 Spaces		
Prior to 5 p.m.	7%	84	0
5 p.m. – 6 p.m.	28%	336	0
6 p.m. – 7 p.m.	56%	672	0
After 7 p.m.	9%	108	0
HP Pavilion Main Lot	1,447 Spaces		
Prior to 5 p.m.	3%	43	0
5 p.m. – 6 p.m.	29%	420	0
6 p.m. – 7 p.m.	59%	854	0
After 7 p.m.	9%	130	0
Cahill Lots 1-4	581 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	168	0
6 p.m. – 7 p.m.	59%	343	0
After 7 p.m.	9%	52	0
HP Pavilion Lot D + Private Lots w/o Los Gatos Creek	338 Spaces		
Prior to 5 p.m.	3%	10	0
5 p.m. – 6 p.m.	29%	98	0
6 p.m. – 7 p.m.	59%	199	0
After 7 p.m.	9%	30	0
SJ Water Company Lots	855 Spaces		
Prior to 5 p.m.	3%	26	0
5 p.m. – 6 p.m.	29%	248	0
6 p.m. – 7 p.m.	59%	504	0
After 7 p.m.	9%	77	0
Akatiff & Milligan Lots	568 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	165	0
6 p.m. – 7 p.m.	59%	335	0
After 7 p.m.	9%	51	0
Downtown Parking east of SR 87	7,311 Spaces		
Prior to 5 p.m.	3%	219	0
5 p.m. – 6 p.m.	29%	2,120	0
6 p.m. – 7 p.m.	59%	4,313	0
After 7 p.m.	9%	658	0
Passenger Loading Zone	199 Vehicles		
Prior to 5 p.m.	1%	2	2
5 p.m. – 6 p.m.	10%	20	20
6 p.m. – 7 p.m.	80%	159	159
After 7 p.m.	9%	18	18
Total Trips by Time Period			
Prior to 5 p.m.	4%	569	2
5 p.m. – 6 p.m.	28%	3,575	20
6 p.m. – 7 p.m.	58%	7,380	159
After 7 p.m.	9%	1,125	18
Total	**100%**	**12,649**	**199**

Source: Hexagon Transportation Consultants, 2010.

Table IV.A-8b: Project Trip Estimates for a Weekday Evening Game
32,000-Seat Stadium Option / 1,300-Space Parking Structure at HP Pavilion

		Pre-Game Vehicle Trips	
Destination/Time Period		**In**	**Out**
On-Site Ballpark Parking	150 Spaces		
Prior to 5 p.m.	100%	150	0
After 5 p.m.	0%	0	0
HP Pavilion Parking Lot and HP Pavilion Parking Structure	2,747 Spaces		
Prior to 5 p.m.	3%	82	0
5 p.m. – 6 p.m.	29%	797	0
6 p.m. – 7 p.m.	59%	1,621	0
After 7 p.m.	9%	247	0
Cahill Lots 1-4	581 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	168	0
6 p.m. – 7 p.m.	59%	343	0
After 7 p.m.	9%	52	0
HP Pavilion Lot D + Private Lots w/o Los Gatos Creek	338 Spaces		
Prior to 5 p.m.	3%	10	0
5 p.m. – 6 p.m.	29%	98	0
6 p.m. – 7 p.m.	59%	199	0
After 7 p.m.	9%	30	0
SJ Water Company Lots	855 Spaces		
Prior to 5 p.m.	3%	26	0
5 p.m. – 6 p.m.	29%	248	0
6 p.m. – 7 p.m.	59%	504	0
After 7 p.m.	9%	77	0
Akatiff & Milligan Lots	568 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	165	0
6 p.m. – 7 p.m.	59%	335	0
After 7 p.m.	9%	51	0
Downtown Parking east of SR 87	7,211 Spaces		
Prior to 5 p.m.	3%	216	0
5 p.m. – 6 p.m.	29%	2,091	0
6 p.m. – 7 p.m.	59%	4,254	0
After 7 p.m.	9%	649	0
Passenger Loading Zone	199 Vehicles		
Prior to 5 p.m.	1%	2	2
5 p.m. – 6 p.m.	10%	20	20
6 p.m. – 7 p.m.	80%	159	159
After 7 p.m.	9%	18	18
Total Trips by Time Period			
Prior to 5 p.m.	4%	521	2
5 p.m. – 6 p.m.	28%	3,587	20
6 p.m. – 7 p.m.	59%	7,416	159
After 7 p.m.	9%	1,125	18
Total	**100%**	**12,649**	**199**

Source: Hexagon Transportation Consultants, 2010.

Table IV.A-8c: Project Trip Estimates for a Weekday Evening Game
32,000-Seat Stadium Option / No Parking Structure

		Pre-Game Vehicle Trips	
Destination/Time Period		**In**	**Out**
On-Site Ballpark Parking	150 Spaces		
Prior to 5 p.m.	100%	150	0
After 5 p.m.	0%	0	0
HP Pavilion Main Lot	1,447 Spaces		
Prior to 5 p.m.	3%	43	0
5 p.m. – 6 p.m.	29%	420	0
6 p.m. – 7 p.m.	59%	854	0
After 7 p.m.	9%	130	0
Cahill Lots 1-4	581 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	168	0
6 p.m. – 7 p.m.	59%	343	0
After 7 p.m.	9%	52	0
HP Pavilion Lot D + Private Lots w/o Los Gatos Creek	338 Spaces		
Prior to 5 p.m.	3%	10	0
5 p.m. – 6 p.m.	29%	98	0
6 p.m. – 7 p.m.	59%	199	0
After 7 p.m.	9%	30	0
SJ Water Company Lots	855 Spaces		
Prior to 5 p.m.	3%	26	0
5 p.m. – 6 p.m.	29%	248	0
6 p.m. – 7 p.m.	59%	504	0
After 7 p.m.	9%	77	0
Akatiff & Milligan Lots	568 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	165	0
6 p.m. – 7 p.m.	59%	335	0
After 7 p.m.	9%	51	0
Downtown Parking east of SR 87	8,511 Spaces		
Prior to 5 p.m.	3%	255	0
5 p.m. – 6 p.m.	29%	2,468	0
6 p.m. – 7 p.m.	59%	5,021	0
After 7 p.m.	9%	766	0
Passenger Loading Zone	199 Vehicles		
Prior to 5 p.m.	1%	2	2
5 p.m. – 6 p.m.	10%	20	20
6 p.m. – 7 p.m.	80%	159	159
After 7 p.m.	9%	18	18
Total Trips by Time Period			
Prior to 5 p.m.	4%	521	2
5 p.m. – 6 p.m.	28%	3,587	20
6 p.m. – 7 p.m.	59%	7,416	159
After 7 p.m.	9%	1,125	18
Total	**100%**	**12,649**	**199**

Source: Hexagon Transportation Consultants, 2010.

Table IV.A-9a: Project Trip Estimates for a Weekday Evening Game 36,000-Seat Stadium Option / 1,200-Space Parking Structure

		Pre-Game Vehicle Trips	
Destination/Time Period		**In**	**Out**
On-Site Ballpark Parking	150 Spaces		
Prior to 5 p.m.	100%	150	0
After 5 p.m.	0%	0	0
Montgomery/Autumn Street Parking Structure	1,200 Spaces		
Prior to 5 p.m.	7%	84	0
5 p.m. – 6 p.m.	28%	336	0
6 p.m. – 7 p.m.	56%	672	0
After 7 p.m.	9%	108	0
HP Pavilion Main Lot	1,447 Spaces		
Prior to 5 p.m.	3%	43	0
5 p.m. – 6 p.m.	29%	420	0
6 p.m. – 7 p.m.	59%	854	0
After 7 p.m.	9%	130	0
Cahill Lots 1-4	581 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	168	0
6 p.m. – 7 p.m.	59%	343	0
After 7 p.m.	9%	52	0
HP Pavilion Lot D + Private Lots w/o Los Gatos Creek	338 Spaces		
Prior to 5 p.m.	3%	10	0
5 p.m. – 6 p.m.	29%	98	0
6 p.m. – 7 p.m.	59%	199	0
After 7 p.m.	9%	30	0
SJ Water Company Lots	855 Spaces		
Prior to 5 p.m.	3%	26	0
5 p.m. – 6 p.m.	29%	248	0
6 p.m. – 7 p.m.	59%	504	0
After 7 p.m.	9%	77	0
Akatiff & Milligan Lots	568 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	165	0
6 p.m. – 7 p.m.	59%	335	0
After 7 p.m.	9%	51	0
Downtown Parking east of SR 87	8,790 Spaces		
Prior to 5 p.m.	3%	264	0
5 p.m. – 6 p.m.	29%	2,549	0
6 p.m. – 7 p.m.	59%	5,186	0
After 7 p.m.	9%	791	0
Passenger Loading Zone	222 Vehicles		
Prior to 5 p.m.	1%	2	2
5 p.m. – 6 p.m.	10%	22	22
6 p.m. – 7 p.m.	80%	178	178
After 7 p.m.	9%	20	20
Total Trips by Time Period			
Prior to 5 p.m.	4%	614	2
5 p.m. – 6 p.m.	28%	4,006	22
6 p.m. – 7 p.m.	58%	8,271	178
After 7 p.m.	9%	1,260	20
Total	**100%**	**14,151**	**222**

Source: Hexagon Transportation Consultants, 2010.

Table IV.A-9b: Project Trip Estimates for a Weekday Evening Game
36,000-Seat Stadium Option / 1,300-Space Parking Structure at HP Pavilion

		Pre-Game Vehicle Trips	
Destination/Time Period		**In**	**Out**
On-Site Ballpark Parking	150 Spaces		
Prior to 5 p.m.	100%	150	0
After 5 p.m.	0%	0	0
HP Pavilion Parking Lot and			
HP Pavilion Parking Structure	2,747 Spaces		
Prior to 5 p.m.	3%	82	0
5 p.m. – 6 p.m.	29%	797	0
6 p.m. – 7 p.m.	59%	1,621	0
After 7 p.m.	9%	247	0
Cahill Lots 1-4	581 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	168	0
6 p.m. – 7 p.m.	59%	343	0
After 7 p.m.	9%	52	0
HP Pavilion Lot D + Private			
Lots w/o Los Gatos Creek	338 Spaces		
Prior to 5 p.m.	3%	10	0
5 p.m. – 6 p.m.	29%	98	0
6 p.m. – 7 p.m.	59%	199	0
After 7 p.m.	9%	30	0
SJ Water Company Lots	855 Spaces		
Prior to 5 p.m.	3%	26	0
5 p.m. – 6 p.m.	29%	248	0
6 p.m. – 7 p.m.	59%	504	0
After 7 p.m.	9%	77	0
Akatiff & Milligan Lots	568 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	165	0
6 p.m. – 7 p.m.	59%	335	0
After 7 p.m.	9%	51	0
Downtown Parking east of SR 87	8,690 Spaces		
Prior to 5 p.m.	3%	261	0
5 p.m. – 6 p.m.	29%	2,520	0
6 p.m. – 7 p.m.	59%	5,127	0
After 7 p.m.	9%	782	0
Passenger Loading Zone	222 Vehicles		
Prior to 5 p.m.	1%	2	2
5 p.m. – 6 p.m.	10%	22	22
6 p.m. – 7 p.m.	80%	178	178
After 7 p.m.	9%	20	20
Total Trips by Time Period			
Prior to 5 p.m.	4%	566	2
5 p.m. – 6 p.m.	28%	4,018	22
6 p.m. – 7 p.m.	59%	8,307	178
After 7 p.m.	9%	1,260	20
Total	**100%**	**14,151**	**222**

Source: Hexagon Transportation Consultants, 2010.

Table IV.A-9c: Project Trip Estimates for a Weekday Evening Game 36,000-Seat Stadium Option / No Parking Structure

		Pre-Game Vehicle Trips	
Destination/Time Period		**In**	**Out**
On-Site Ballpark Parking	150 Spaces		
Prior to 5 p.m.	100%	150	0
After 5 p.m.	0%	0	0
HP Pavilion Main Lot	1,447 Spaces		
Prior to 5 p.m.	3%	43	0
5 p.m. – 6 p.m.	29%	420	0
6 p.m. – 7 p.m.	59%	854	0
After 7 p.m.	9%	130	0
Cahill Lots 1-4	581 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	168	0
6 p.m. – 7 p.m.	59%	343	0
After 7 p.m.	9%	52	0
HP Pavilion Lot D + Private Lots w/o Los Gatos Creek	338 Spaces		
Prior to 5 p.m.	3%	10	0
5 p.m. – 6 p.m.	29%	98	0
6 p.m. – 7 p.m.	59%	199	0
After 7 p.m.	9%	30	0
SJ Water Company Lots	855 Spaces		
Prior to 5 p.m.	3%	26	0
5 p.m. – 6 p.m.	29%	248	0
6 p.m. – 7 p.m.	59%	504	0
After 7 p.m.	9%	77	0
Akatiff & Milligan Lots	568 Spaces		
Prior to 5 p.m.	3%	17	0
5 p.m. – 6 p.m.	29%	165	0
6 p.m. – 7 p.m.	59%	335	0
After 7 p.m.	9%	51	0
Downtown Parking east of SR 87	9,990 Spaces		
Prior to 5 p.m.	3%	300	0
5 p.m. – 6 p.m.	29%	2,897	0
6 p.m. – 7 p.m.	59%	5,894	0
After 7 p.m.	9%	899	0
Passenger Loading Zone	222 Vehicles		
Prior to 5 p.m.	1%	2	2
5 p.m. – 6 p.m.	10%	22	22
6 p.m. – 7 p.m.	80%	178	178
After 7 p.m.	9%	20	20
Total Trips by Time Period			
Prior to 5 p.m.	4%	566	2
5 p.m. – 6 p.m.	28%	4,018	22
6 p.m. – 7 p.m.	59%	8,307	178
After 7 p.m.	9%	1,260	20
Total	**100%**	**14,151**	**222**

Source: Hexagon Transportation Consultants, 2010.

e. Project Intersection Level of Service Analysis. Tables IV.A-10a and -10b present the single-event 5:00 to 6:00 p.m. levels of service summary for a 32,000 or 36,000-seat stadium for each of the three parking options. The level of service calculation sheets are included in Appendix C. **The results show that under all combinations of seating capacity and parking options, according to the City of San José and CMP level of service standards for signalized intersections, the modified project would not have a significant impact on any of the selected study intersections.**

The 2006 intersection level of service analysis indicated that the 2006 Stadium Proposal would have impacts to the signalized study intersections of Delmas and Park avenues and Delmas Avenue and W. San Fernando Street. As a result of the down sizing of the ballpark from 45,000 to 36,000 seats and the signal timing and lane configuration adjustments that have been made to each of the previously impacted intersections, background and project operation levels have improved.

f. Project Freeway Segment Analysis. The study freeway segments were evaluated for the 5:00 to 6:00 p.m. hour. Although project-generated traffic is expected to peak after 6:00 p.m., due to heavy commute traffic the overall traffic and worst case scenario on the freeway system is expected to be greatest before 6:00 p.m. Traffic volumes on the study freeway segments between 5:00 and 6:00 p.m. were estimated for each project scenario by adding trips generated by the proposed project to existing volumes obtained from the 2008 CMP Annual Monitoring Report. The freeway segment analysis includes the same 14 directional freeway segments analyzed in the 2006 traffic analysis as well as an additional 46 directional segments along SR 87, I-280, I-680, and I-880. At the study freeway segments, the traffic generated by the HP Pavilion and by the ballpark is relatively low in comparison to the background commute traffic volumes, causing the peak volume with the project to occur between 5:00 and 6:00 PM. Therefore, the study

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Other Scenarios

The City of San José Transportation Policy (CSJTP) defines the peak travel period to be the hour between 5:00 and 6:00 p.m. The analysis of potential adverse traffic impacts of the proposed stadium is based on a single event at the stadium occurring during that peak hour. Two other scenarios have been analyzed and are presented in Chapter 4 of the transportation technical background report (provided as Appendix C of this SEIR). Those scenarios are referred to as the "Project Peak Hour (6:00 – 7:00 p.m.)" scenario and the "Simultaneous Events" scenario.

While these two scenarios are not required to be analyzed under the CSJTP and would not result in impacts that require mitigation in the SEIR, the following discussions briefly summarize the findings of those analyses. Please see Chapter 4 of Appendix C for detailed presentations of these scenarios.

Project Peak Hour (6:00 – 7:00 p.m.) Scenario. This scenario represents the period of highest trips for the proposed stadium project (but not the surrounding transportation network, which, by definition in the CSJTP, occurs between 5:00 and 6:00 p.m.). Similar trip generation, trip assignment and trip distribution steps were taken for this scenario as for the proposed project in the 5:00 to 6:00 p.m. peak hour. Study intersections were analyzed in terms of their levels of service. The results of that analysis show that three intersections would exhibit operational deficiencies under this scenario for either a 32,000 or 36,000-seat stadium under each of the three parking options:

Autumn Street and San Fernando Street
Delmas Avenue and Park Avenue
Autumn Street and Park Avenue

Simultaneous-Events Scenario. The major league baseball season and the regular NHL season (and potentially the NBA season) have 2 weeks overlap in April and 1 to 2 weeks overlap in September/October. Taking in account the potential for playoff games and other large (non-San José Sharks) events at the HP Pavilion, the number of large events occurring simultaneously can be calculated. This scenario examines the effects on traffic based upon the occurrence of a weekday evening baseball game with a simultaneous event at the HP Pavilion. It was determined that because of the typical arrival times, the 6:00 – 7:00 p.m. time period would experience the greatest impact from stadium traffic. Therefore, for the simultaneous-events scenario, only the 6:00 – 7:00 p.m. time period was analyzed. The results of that analysis show that the same three intersections, plus the Delmas Avenue and San Fernando Street intersection, would exhibit operational deficiencies under this scenario as under the single-event Project Peak Hour (6:00 – 7:00)

Table IV.A-10a: Project Intersection Levels of Service – 32,000-Seat Stadium, Single-Event, 5:00 to 6:00 p.m.

	Background		Project Conditions											
			Montgomery/Autumn Street Parking Structure – 1,200 Spaces				HP Pavilion Parking Structure 1,300 Spaces				No Parking Structure			
Intersection	**Average Delay**	**LOS**	**Average Delay**	**LOS**	**Incr. In Crit. Delay**	**Incr. In Crit. V/C**	**Average Delay**	**LOS**	**Incr. In Crit. Delay**	**Incr. In Crit. V/C**	**Average Delay**	**LOS**	**Incr. In Crit. Delay**	**Incr. In Crit. V/C**
NB SR 87 Ramps and W. Julian St.*	43.5	D	46.0	D	2.5	0.039	46.1	D	2.6	0.041	46.2	D	2.6	0.041
SB SR 87 Ramps and W. Julian St.*	18.4	B	20.1	C	2.6	0.054	20.3	C	2.9	0.058	19.7	B	2.2	0.055
NB SR 87 Ramp and Santa Clara St.*	16.8	B	18.3	B	1.4	0.174	18.5	B	1.4	0.172	18.5	B	1.6	0.202
NB I 280 Ramps and Bird Ave.*	41.1	D	39.8	D	1.6	0.005	39.9	D	1.3	0.004	40.2	D	1.3	0.004
SB I 280 Ramps and Bird Ave.*	41.0	D	31.3	C	-25.0	-0.202	31.2	C	-25.0	-0.203	31.3	C	-24.5	-0.196
S. Autumn St. and Santa Clara St.*	32.1	C	33.1	C	1.9	0.045	32.0	C	3.1	0.055	31.9	C	-0.2	-0.036
Bird Ave and W. San Carlos St.*	41.0	D	39.9	D	-2.6	-0.039	39.9	D	-2.6	-0.039	39.9	D	-2.3	-0.035
SR 87 and Woz Way	10.9	B	11.2	B	0.1	0.062	11.2	B	0.1	0.061	11.2	B	0.0	0.072
S. Autumn St. and W. San Fernando St.	11.4	B	19.0	B	6.4	0.224	19.0	B	6.4	0.224	18.7	B	6.4	0.224
Bird Ave. and Auzerais Ave.	32.1	C	31.1	C	0.0	0.002	31.2	C	0.0	0.002	31.3	C	0.0	0.002
Delmas Ave. and Auzerais Ave.	17.0	B	16.9	B	0.0	0.001	16.9	B	0.0	0.001	16.9	B	0.0	0.001
Woz Way and Auzerais Ave.	27.1	C	23.8	C	0.0	0.000	23.8	C	0.0	0.000	23.4	C	0.0	0.000
Delmas Ave. and Park Ave.	29.2	C	30.2	C	2.0	0.035	30.0	C	1.8	0.031	30.2	C	2.1	0.035
Delmas Ave. and W. San Carlos St.	25.5	C	26.0	C	0.8	0.031	26.0	C	0.8	0.030	26.1	C	0.9	0.036
S. Autumn St. and Park Ave.	35.4	D	34.9	C	0.4	0.014	35.0	C	0.4	0.014	35.1	D	0.5	0.016
Woz Way and Park Ave.	23.2	C	23.2	C	0.0	0.001	23.2	C	0.0	0.001	23.2	C	-0.3	-0.004
Woz Way and W. San Carlos St.	26.8	C	27.5	C	2.1	0.091	27.5	C	2.1	0.090	27.8	C	2.4	0.105
Delmas Ave. and W. San Fernando St.	34.3	C	44.9	D	10.3	0.054	43.0	D	10.1	0.053	44.0	D	11.9	0.061
*Montgomery St. and Santa Clara St. **	21.2	C	18.0	B	-15.9	0.033	19.0	B	-13.8	0.137	18.1	B	-15.9	0.033
Montgomery St. and San Fernando St.	13.2	B	11.9	B	-2.4	-0.197	11.9	B	-2.4	-0.197	11.9	B	-2.4	-0.197
San Carlos St. and Lincoln Ave.	41.9	D	41.4	D	-0.1	0.038	41.4	D	-0.1	0.038	41.4	D	-0.1	0.038
San Carlos St. and Meridian Ave.	45.5	D	46.0	D	0.4	0.040	46.0	D	0.4	0.040	46.0	D	0.4	0.040
*The Alameda and Taylor St./ Naglee Ave.**	44.1	D	44.7	D	0.5	0.032	44.8	D	0.5	0.032	44.8	D	0.5	0.032
*The Alameda and Hedding St. **	32.5	C	32.7	C	-0.3	0.020	32.7	C	-0.3	0.021	32.7	C	-0.3	0.021

Note: Intersections studied in the supplemental analysis but not in the 2006 analysis are shown in italics.
* Denotes CMP intersection.
Note: Bold indicates a significant project impact.
Note: As documented above, the various parking structure options, including size and location, and not constructing a new parking structure, do not result in any difference in terms of the project's traffic impacts, and therefore there is no need to consider the various parking structure options as part of the Chapter VI. Alternatives analysis.
Source: Hexagon Transportation Consultants, 2010.

Table IV.A-10b: Project Intersection Levels of Service – 36,000-Seat Stadium, Single-Event, 5:00 to 6:00 p.m.

	Background		Project Conditions											
			Montgomery/Autumn Street Parking Structure – 1,200 Spaces				HP Pavilion Parking Structure 1,300 Spaces				No Parking Structure			
Intersection	Average Delay	LOS	Average Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Average Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Average Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
NB SR 87 Ramps and W. Julian St.*	43.5	D	46.2	D	2.7	0.043	46.3	D	2.8	0.044	46.4	D	2.8	0.045
SB SR 87 Ramps and W. Julian St.*	18.4	B	20.2	C	2.7	0.057	20.3	C	2.9	0.061	19.7	B	2.3	0.059
NB SR 87 Ramp and Santa Clara St.*	16.8	B	18.5	B	1.6	0.209	18.6	B	1.6	0.207	18.8	B	1.9	0.238
NB I 280 Ramps and Bird Ave.*	41.1	D	39.8	D	1.6	0.005	39.9	D	1.3	0.004	40.2	D	1.3	0.004
SB I 280 Ramps and Bird Ave.*	41.0	D	31.4	C	-24.3	-0.194	31.4	C	-24.4	-0.194	31.4	C	-23.8	-0.187
S. Autumn St. and Santa Clara St.*	32.1	C	32.8	C	0.7	0.011	32.1	C	-3.0	0.057	32.0	C	0.0	-0.029
Bird Ave and W. San Carlos St.*	41.0	D	40.0	D	-2.3	-0.033	40.0	D	-2.3	-0.034	40.0	D	-2.1	-0.029
SR 87 and Woz Way	10.9	B	11.2	B	0.0	0.075	11.2	B	0.0	0.074	11.2	B	-0.1	0.085
S. Autumn St. and W. San Fernando St.	11.4	B	19.1	B	6.4	0.224	19.1	B	6.4	0.224	18.7	B	6.4	0.224
Bird Ave. and Auzerais Ave.	32.1	C	31.1	C	0.0	0.002	31.1	C	0.0	0.002	31.3	C	0.0	0.002
Delmas Ave. and Auzerais Ave.	17.0	B	16.9	B	0.0	0.001	13.9	B	0.0	0.001	16.9	B	0.0	0.001
Woz Way and Auzerais Ave.	27.1	C	23.3	C	0.0	0.000	23.3	C	0.0	0.000	22.9	C	0.0	0.000
Delmas Ave. and Park Ave.	29.2	C	30.3	C	2.3	0.040	30.2	C	2.1	0.036	30.4	C	2.4	0.041
Delmas Ave. and W. San Carlos St.	25.5	C	26.1	C	0.9	0.037	26.1	C	0.9	0.037	26.2	C	1.0	0.042
S. Autumn St. and Park Ave.	35.4	D	35.0	D	0.6	0.017	35.0	D	0.5	0.017	35.2	D	0.6	0.019
Woz Way and Park Ave.	23.2	C	23.1	C	-0.3	-0.002	23.1	C	-0.3	-0.003	22.9	C	-0.4	0.008
Woz Way and W. San Carlos St.	26.8	C	27.8	C	2.5	0.109	27.8	C	2.5	0.107	28.0	C	2.8	0.122
Delmas Ave. and W. San Fernando St.	34.3	C	45.8	D	12.5	0.063	44.3	D	12.4	0.063	45.5	D	14.5	0.071
Montgomery St. and Santa Clara St. *	21.2	C	18.1	B	-15.9	0.033	19.0	B	-13.8	0.137	18.1	B	-15.9	0.033
Montgomery St. and San Fernando St.	13.2	B	11.9	B	-2.4	-0.197	11.9	B	-2.4	-0.197	11.9	B	-2.4	-0.197
San Carlos St. and Lincoln Ave.	41.9	D	41.4	D	0.1	0.044	41.4	D	0.1	0.044	41.4	D	0.1	0.044
San Carlos St. and Meridian Ave.	45.5	D	46.0	D	0.5	0.045	46.0	D	0.5	0.045	46.0	D	0.5	0.045
*The Alameda and Taylor St./ Naglee Ave.**	44.1	D	44.9	D	0.5	0.036	44.9	D	0.6	0.036	44.9	D	0.6	0.036
The Alameda and Hedding St. *	32.5	C	32.7	C	-0.3	0.023	32.7	C	-0.3	0.023	32.7	C	-0.3	0.023

Note: Intersections studied in the supplemental analysis but not in the 2006 analysis are shown in italics.
* Denotes CMP intersection.
Note: Bold indicates a significant project impact.
Source: Hexagon Transportation Consultants, 2010.

freeway segments were evaluated for the hour between 5:00 and 6:00 PM. The freeway segment levels of service results are presented in Chapter 4 of the Supplemental TIA (Appendix C).

Impact TRANS-1: State Route 87 would experience a significant impact from project traffic along four of the analyzed segments; I-280 would experience a significant impact from project traffic along five of the analyzed segments; I-680 would experience a significant impact from project traffic along one of the analyzed segments; and I-880 would experience a significant impact from project traffic along five of the analyzed segments. (S)

According to the CMP's definition of significance, all combinations of a 32,000 or 36,000-seat stadium and the three parking options would cause significant adverse impacts on the following 15 freeway segments (freeway segments not analyzed in 2006 are shown in italics):

- SR 87 southbound between Coleman Avenue and Julian Street
- *SR 87 southbound between Coleman Avenue and Taylor Street*
- *SR 87 southbound between Taylor Street and Skyport Drive*
- *SR 87 southbound between Skyport Drive and U.S. 101*
- *I-280 eastbound between Winchester Boulevard and I-880*
- *I-280 eastbound between I-880 and Meridian Avenue*
- I-280 eastbound between Meridian Avenue and Bird Avenue
- I-280 eastbound between Bird Avenue and SR 87
- I-280 eastbound between SR 87 and 10th Street (this freeway segment was incorrectly identified as not impacted in the certified 2007 EIR)
- *I-680 southbound between Alum Rock Avenue and McKee Road*
- *I-880 southbound between Coleman Avenue and SR 87*
- *I-880 southbound between SR 87 and North 1st Street*
- *I-880 southbound between North 1st Street and US 101*
- *I-880 southbound between U.S. 101 and East Brokaw Road*
- *I-880 southbound between East Brokaw Road and Montague Expressway*

Mitigation Measure TRANS-1: To lessen the impacts to the identified freeway segments, Transportation Demand Management (TDM) measures will be implemented to lessen the impacts to the identified freeway segments, although the measures would not reduce the impact to a less than significant level. Potential TDM measures include the following:

- Provide incentives for carpoolers (e.g., four or more people per vehicle) such as preferential parking.
- Charge for parking or increase set parking rates if already charging for parking.
- Provide on-site ticket sales for transit services (e.g., bus, LRT, Caltrain, etc.).

- Make information readily available regarding ridesharing/carpooling programs and transit services, and designate an on-site TDM coordinator to assist with this task.
- Develop a stadium employee trip reduction program that includes the following for employees: shuttle service to transit, subsidized transit passes and Eco-passes, cash-out program for non-drivers, carpooling/ridesharing program, bike lockers, and on-site showers.

A future BART station is planned adjacent to the ballpark site as part of the planned BART extension from Fremont, through San Jose, to Santa Clara. BART service, at some future date, would provide another transit option for baseball fans.

Improvements to mitigate significant project impacts on freeway segments are infeasible due to right-of-way constraints and the land use impacts associated with acquiring additional right-of-way. Widening to create additional freeway capacity would involve the acquisition and demolition of hundreds, if not thousands, of homes and businesses and the relocation of infrastructure for water, sewer, electrical, communications and other types of service, along many miles of the multiple freeways impacted by the project. The City is not in a position to propose multiple freeway widening programs on its own, independent of Caltrans, and while in theory the project could pay 'fair share' impact fees to Caltrans for the widening of these impacted freeways, the payment and collection of these traffic impact fees without an actual, identified plan for specific freeway widening projects on these freeways that would reduce these identified impacts to a less than significant level would not serve as adequate or feasible mitigation. Caltrans has not identified any freeway capacity capital plans that would that would serve to mitigate the project's freeway impacts. These impacts are therefore considered significant and unavoidable. The same freeway impacts would be experienced with or without a concurrent Sharks game at the HP Pavilion. This is true because a Sharks hockey game does not add much traffic to the freeways between 5:00 p.m. and 6:00 p.m. (the games start at 7:30 p.m.). (SU)

g. Project Impacts on Transit, Bicycle and Pedestrian Facilities. Although the reduced stadium size would result in less demand on transit, bicycle and pedestrian facilities in the area of the ballpark, it is assumed that the same improvements to transit, bicycle and pedestrian facilities would still be necessary. Therefore, the improvements described in the 2006 traffic analysis remain unchanged.

The parking option for the ballpark that consists of the addition of 1,300 spaces on the HP Pavilion lot, would result in additional pedestrian crossings of Santa Clara Street. Pedestrians would cross Santa Clara Street in the southbound direction before games and northbound after games along the HP Pavilion's south side between Autumn and Cahill Streets. The number of pedestrians would be dependent on availability and management of parking in the HP Pavilion parking structure. On days of simultaneous hockey and baseball games, it is likely that as many as 2,990 ballpark pedestrians (2.3 persons per vehicle times 1,300 spaces) could cross Santa Clara Street. On days with only baseball games and full utilization of the HP Pavilion parking structure, as many as 6,320 ballpark pedestrians (2.3 persons per vehicle times 2,747 spaces) could cross Santa Clara Street. Pedestrian crossing of Santa Clara Street would be spread over a two-hour period based upon the arrival of fans. There are three signalized intersections with crosswalks along Santa Clara Street at Cahill, Montgomery, and Autumn Streets that can accommodate the pedestrian crossings.

h. Project Impacts on Parking Facilities. As stated previously under **Criteria of Significance**, the baseball stadium would have a significant impact on parking facilities if it would result in inadequate parking capacity for existing land uses or cause parking intrusion into existing residential neighborhoods. Accordingly, the following discussion addresses 1) the anticipated baseball stadium parking demand, 2) the existing and foreseeable parking inventory in and around Downtown San Jose, 3) the parking needs of existing uses that rely upon that parking inventory at the same time baseball patrons would be parking in and around Downtown, and 4) the potential for parking intrusion from baseball patrons in existing residential neighborhoods within walking distance of the proposed baseball stadium.

The modified project includes three parking options – a 1,200-space Montgomery/Autumn Street parking structure, a 1,300-space HP Pavilion parking structure, and a "no parking structure" option. Under the "no parking structure" option, as well as the two options that would include a parking structure, stadium patrons are expected to utilize existing parking facilities in the Diridon/Arena area and parking garages and lots within the Downtown Core Area east of SR 87. Like the 2006 Stadium Proposal, the proposed modified project would include limited on-site parking (approximately 150 spaces) for players and staff. There would be no parking facilities located west of the ballpark. The adequacy of the proposed and existing parking facilities was evaluated for a sell-out weekday evening baseball game. The analysis was done with and without a concurrent event at the HP Pavilion.

As was the case for the 2006 analysis the parking demand generated by the proposed baseball stadium was estimated based on a survey of San José Sharks fans attending a weekday evening hockey game at the HP Pavilion. Table IV.A-11 presents a summary of how the projections were derived. Based on these travel characteristics, the total parking demand generated by the proposed modified project is estimated to be 12,450 spaces for a 32,000-seat stadium or 13,929 for a 36,000-seat stadium.

Table IV.A-11: Project Transportation Mode Split and Total Parking Demand

Mode Share[a]	Percent	Persons
32,000-Seat Alternative:		
Auto	90.5%	28,634
Public Transit	4.5%	1,424
Walk/ Bicycle	3.3%	1,044
Charter Bus, Tax & Limo	1.1%	348
Drop-Off/Pick-Up	0.6%	190
Average Vehicle Occupancy		2.3 persons/vehicle
Ballpark Vehicle Parking Demand		12,450
Projected Ballpark Attendance		31,640
36,000-Seat Alternative:		
Auto	90.5%	32,037
Public Transit	4.5%	1,593
Walk/ Bicycle	3.3%	1,168
Charter Bus, Tax & Limo	1.1%	389
Drop-Off/Pick-Up	0.6%	212
Average Vehicle Occupancy		2.3 persons/vehicle
Ballpark Vehicle Parking Demand		13,929
Projected Ballpark Attendance		35,400

[a] Total projected attendance for sold-out weekday night game, including fans, team personnel, concessions employees, and media personnel

Source: Hexagon Transportation Consultants, 2010.

Within ¾ miles from the stadium, a total supply of 18,463 parking spaces currently exists to the north and east of the project site. Assuming these spaces normally are 25 percent occupied in the evening without an event at the HP Pavilion, there are an estimated 13,847 available spaces for the stadium. Put another way, it is apparent from parking surveys that the existing Downtown land uses (excluding an HP Pavilion event) generate a parking demand that can be satisfied by 25 percent of the available parking inventory in that the parking facilities are 25 percent full on a typical weekday evening when baseball patrons would be seeking parking.

Inadequate parking can reduce the viability of land uses by making it difficult for building occupants or customers/clients to park within a reasonable distance of their intended destination, thereby reducing the relative convenience and attractiveness of accessing the building. This can manifest in reduced rents or revenues, occupancy by less economically vital land uses, and in the worst case, business closure and ongoing difficulty to tenant buildings, which over time can, in the extreme, lead to the physical deterioration of vacant buildings, resulting in blight, an acknowledged environmental effect. However, given the substantial amounts of on-street, public off-street, and publicly-available privately owned off-street parking in the Downtown, the City is aware of no substantial evidence to suggest urban decay or blight is a foreseeable outcome due to parking supply for any existing land uses in Downtown San Jose.

In most cases in San José, parking for a land use is provided on the site of, and under the direct control of, the land use itself. However, in certain urban environments, it is not uncommon for parking to be provided at off-site locations within a convenient walking distance of a given land use, a situation authorized in Title 20 of the Municipal Code (Section 20.90.200). Such is the case at the existing HP Pavilion, whereby only a modest percentage of the facility's parking is provided on-site and is under the control of the City or the Arena Management (as discussed in more detail below under **Simultaneous-Events Scenario)**. For a use such as a large sports stadium or arena in Downtown San Jose, the past two decades of operations at the Arena/HP Pavilion have demonstrated that it is feasible and appropriate for a large percentage of the available parking to be provided by the private market in the form of independently owned and operated surface lots and parking garages.

Therefore, adequate parking is not defined as satisfying 100 percent of the baseball stadium parking demand on-site or within parking facilities that are within the direct control of the City or the baseball stadium operator. Rather, from an environmental impacts analysis standpoint, inadequate parking means that the baseball stadium would consume such a disproportionate share of the available Downtown parking inventory that existing uses (including the HP Pavilion) that rely upon that parking become non-viable. As explained in more detail in the following pages, there is no substantial evidence to support a conclusion that such an outcome is foreseeable or anticipated. It is acknowledged that business owners might think there is a 'real problem' if there were a serious financial impact to their business, maybe well short of non-viability, due to increased competition for parking. However, this SEIR addresses environmental impacts, and a situation (considered highly unlikely for the reasons discussed throughout this Chapter) whereby increased competition for parking causes a serious impediment or disruption in the ability to carry on business on game nights is not an environmental impact, rather it is an arguably remote and speculative economic impact issue for the City to consider as it weighs the merits of the baseball stadium.

Proposed as an urban ballpark in a Downtown setting, it is understood and anticipated based upon San Jose's own local sports arena experience as well as the experience of other urban ballpark venues that the available parking inventory to support the HP Pavilion and the proposed baseball stadium will consist primarily of private, fee-based parking facilities not controlled by the City or the operators of either sports facility, and that the parking space inventory will be dynamic over time as properties redevelop, but with the overall trend of increased parking supply as surface parking lots are replaced with urban uses with structured parking.

(1) Single-Event Scenario. Not including fans that are dropped off at the game by someone who is not attending the game, it is estimated that 90.5 percent of attendees to the ballpark would arrive by auto and need parking.

Sharks Fans Auto Occupancy. Assuming baseball fans would utilize automobiles as a mode of transporation in the same manner as Sharks fans, the auto occupancy for attendees at a weekday evening baseball game would equal that observed for a weekday evening hockey game (2.3 persons per vehicle). Based on these travel characteristics, the total parking demand generated by the proposed ballpark is estimated to be 12,450 spaces for the 32,000-seat alternative and 13,929 spaces for the 36,000-seat alternative. Subtracting the number of parking spaces at the proposed ballpark (150) from the total ballpark parking demand yields estimated parking demands of 12,300 spaces for a 32,000-seat stadium and 13,779 spaces for a 36,000-seat stadium.

Major League Baseball Auto Occupancy. The suggested auto occupancy provided by MLB, based on occupancies observed at other ballparks, for attendees at a weekday evening baseball game is 2.8 persons per vehicle. Based on these travel characteristics, the total parking demand generated by the proposed ballpark is estimated to be 10,227 spaces for the 32,000-seat alternative and 11,442 spaces for the 36,000-seat alternative. Subtracting the number of parking spaces at the proposed ballpark (150) from the total ballpark parking demand yields estimated parking demands of 10,077 spaces for a 32,000-seat stadium and 11,292 spaces for a 36,000-seat stadium. However, to be conservative, this SEIR evaluates the proposed baseball stadium parking demand and the available Downtown inventory using the more conservative assumption of 2.3 persons per vehicle, which yields the highest parking demand projection as described above.

As noted above, for the single-event scenario the modified project would rely on existing parking facilities in the Diridon/Arena area as well as garages and lots in the downtown core area east of SR 87. An inventory of existing parking facilities in these areas, as of the summer of 2009, is provided in Table IV.A-5 and graphically presented in Figure IV.A-4. Some of the surface parking lots are approved for redevelopment with other uses. This could increase or decrease the availability of parking, although the parking supply is likely to increase. For example, the approved San Jose Water/Adobe project, after redevelopment with an office use, would increase from approximately 875 surface lot spaces to approximately 3,000 structured parking spaces.

For the 2006 Stadium Proposal and certified EIR, Hexagon Transportation Consultants and the City of San José conducted occupancy counts of downtown parking garages in the fall of 2005. The counts showed that the public garages, which were free after 6:00 p.m., had occupancies of up to 50 percent at 7:00 p.m. Occupancy in the private garages, which are not free, was less than 5 percent. In January 2008, the city implemented paid parking after 6:00 p.m. in public garages that had previously offered free parking after 6:00 p.m. Although new occupancy counts were not completed as part of the supplemental analysis, it is likely that occupancy within downtown is less than that surveyed in 2005 due to the elimination of free parking. Based upon the occupancies of 50 percent and 5 percent for the public and private garages, respectively, a reasonable assumption would be an ambient average occupancy of 25 percent for parking spaces downtown when there is not an event at the HP Pavilion. This calculates to 13,847 off-site spaces available to the ballpark within ¾ mile. This would be adequate to meet the estimated project off-site parking demand without the construction of a new parking structure (Table IV.A-12). Additional parking supply would be provided should either a 1,200-space or 1,300-space garage be constructed. The ¾ mile maximum walking distance is

considered a reasonable distance for most fans to walk and is intended as a guideline to assess available parking supply. It is not an absolute distance beyond which baseball patrons would refuse to walk, nor is the need for some small percentage of baseball fans (as discussed under the **Simultaneous-Events Scenario)** to potentially walk beyond ¾ miles between available parking and the ballpark evidence of a substantive parking shortfall. This would be adequate to meet the estimated project parking demand created by any of the three parking options under the single-event scenario (Table IV.A-12).

Table IV.A-12: Project Parking Demand and Availability

Stadium and Parking Options	Total Demand	Available Spaces[a]
32,000-seat Stadium		
Montgomery/Autumn Street Parking Structure	12,450	15,197
HP Pavilion Parking Structure	12,450	15,297
No Parking Structure	12,450	13,997
36,000-seat Stadium		
Montgomery/Autumn Street Parking Structure	13,929	15,197
HP Pavilion Parking Structure	13,929	15,297
No Parking Structure	13,929	13,997

Note: [a]Available spaces are located within a ¾-mile radius of the stadium. Project spaces include 150 on-site spaces and 0 to 1,300 spaces provided by the parking structure options. An additional 10,406 spaces would be available within downtown San José, but outside of the ¾-mile radius.

Source: Hexagon Transportation Consultants, 2010.

(2) Simultaneous-Events Scenario. A concurrent HP Pavilion event would reduce the amount of parking available to the patrons of the stadium. The HP Pavilion has an agreement with the City of San José to make available a sufficient number of parking spaces near the arena. In order to maintain this availability, it would be necessary to monitor the parking lots and garages nearest the HP Pavilion so that no baseball attendees would park there. This could be accomplished by supplying special parking passes with HP Pavilion tickets or by having patrons show tickets to parking operators in order to access the lots and garages made availablefor the HP Pavilion under the agreement.

It is assumed, based on past history with large HP Pavilion events, that public and private parking facilities would be made available to HP Pavilion Arena and ballpark patrons based on demand. During simultaneous events, it is likely that the owners of additional parking facilities (that are not normally available due to reduced demand for HP Pavilion events alone) would take advantage of the opportunity to charge for parking and open their facilities to serve the additional event parking demand.

The HP Pavilion agreement with the City of San José requires that there be 6,650 spaces (6,350 patron and 300 employee) available to the arena within ½-mile, and that 3,475 of these spaces be within ⅓-mile. The parking lots nearest the HP Pavilion are the HP Pavilion main lot, HP Pavilion Lot D, Cahill Lots 1-4, SJ Water Company lots, and the Akatiff & Milligan lots, several of which are privately owned and operated. These all are within ⅓-mile and have a combined capacity of 3,791 spaces (see Table IV.A-5). To satisfy the agreement, another 2,859 spaces would need to be available. These spaces could be found in the following lots and garages: Market/San Pedro garage (1,393 spaces), Comerica garage (736 spaces), and Park Center Plaza III garage (1,320 spaces). As stated above, to ensure adequate available parking for the HP Pavilion when both facilities host a major event, it will be necessary to monitor the parking lots and garages nearest the HP Pavilion so that no baseball attendees would park there.

The reduction of parking available to the ballpark in the simultaneous-event scenario would mean the utilization of spaces in lots and garages farther than ¾-mile from the ballpark. This ¾-mile provision is only a guideline and patrons may then decide to use shuttles, walk further to other parking facilities, or take mass transit. Counting parking facilities outside this radius, but still within

downtown San Jose, adds another 10,406 spaces to the inventory (see Table IV.A-5). The combined parking demand of the HP Pavilion and the ballpark would be about 19,000 spaces, assuming no shift in travel mode or vehicle occupancy. This demand essentially could be met within downtown San José, where there are about 21,652 existing spaces available (75 percent of 28,869) exclusive of the parking spaces added by the ballpark. In that event, some ballpark patrons would experience walk times of 20 to 30 minutes, which is typical of that experienced by San Francisco Giants fans walking approximately one mile from the several Market Street BART stations to AT&T Park. Under such circumstances, it might be desirable to operate a shuttle bus from outlying parking areas to the ballpark. Alternatively, the City might wish to encourage transit usage and carpooling as a way to reduce the number of cars brought downtown. Additional parking supply would be provided should either a 1,200-space or 1,300-space garage would be constructed. It is expected that as garages closer to the HP Pavilion and baseball stadium become full, fans seeking parking would drive throughout Downtown seeking the closest available parking, which would cause some additional congestion on those Downtown streets and intersections used to access parking garages. This will be addressed through 'dynamic wayfinding' (currently in operation) to direct fans to available parking and through the Traffic and Parking Management Plan (TPMP), discussed in more detail below. As discussed previously in this Chapter under the local intersection level-of-service analysis, the Downtown is exempt from the Citywide level of service standard, and thus any incremental increase in congestion from fans driving within Downtown seeking a garage with available parking is considered acceptable under, and by, City policy.

As discussed above, adequate parking is *not* defined as satisfying 100 percent of the baseball stadium parking demand on-site or within parking facilities that are within the direct control of the City or the baseball stadium operator. To do so would require a parking arrangement akin to the A's current situation at the Oakland Coliseum with a large surface parking field surrounding the ballpark and little else (which situation the A's owner specifically seeks to leave), or a large group of parking structures (6 to 12) in the immediate vicinity. Both scenarios are at odds with the City's vision for the Diridon Station Area, which is planned to have enhanced multimodal network connections to support a 24-hour/7-day-a-week commercial and entertainment center as part of the expanded Downtown Core. Already a major transit hub, Diridon Station may become one of the busiest multimodal stations in California and the western region of the United States with the proposed BART extension to Silicon Valley and the proposed HSR project to San Francisco and Los Angeles. (See Cumulative chapter discussion of the Diridon Station Area Plan effort underway).

Rather, the proposed baseball stadium seeks to follow the model of urban ballparks that reinforce the vitality of a commercial and entertainment district, as found in San Francisco, Seattle, Boston, Chicago, New York, San Diego, Pittsburg, Cincinnati, and Denver, among others. As with the Sharks and other large events at the HP Pavilion currently, these sports facilities introduce tens of thousands of fans who park or take transit, dine and/or shop at Downtown businesses, and walk to the facility, taking full advantage of the substantial public and private investment in parking and transit infrastructure that has already been made in Downtown San Jose. To the extent baseball patrons would need to walk more than ¾ mile to the baseball stadium from available parking under a simultaneous event scenario, it is not a question of adequate parking for existing uses, including the HP Pavilion, since the parking needs for those uses have been accounted for in the baseball stadium parking analysis, and a sufficient number of parking spaces have been identified within the Downtown area generally.

The need for baseball fans to potentially walk more than ¾ mile under this simultaneous event scenario instead highlights the question about whether fans would shift their behavior so that a higher percentage take transit, or by increasing vehicle occupancies closer to the 2.8 per car (up from the assumed 2.3 per vehicle) anticipated by MLB. The transit assumption for the baseball stadium has only accounted for existing transit options, and makes no assumption for future BART and HSR ridership, likely resulting in an ultimately very conservative assumption regarding transit usage once those options exist. Transit usage at several of the urban ballparks identified above has been observed between 11 percent and 23 percent, substantially higher than the conservative estimate of 4.5 percent assumed for the baseball stadium.

(3) Preventing Parking Intrusion. It is not the intent of the City to rely on any on-street parking, especially west of Bird Avenue, to serve the stadium. To prevent parking in the neighborhoods, the City may need to implement time limit or permit parking as noted in the certified 2007 EIR. Nevertheless, patrons new to the area might think that there is parking available west of Bird Avenue and drive through the neighborhoods looking for parking. Therefore, initially the City could place temporary barricades at neighborhood street entrances and signs directing vehicles to parking garages to control parking and traffic in this area. Once stadium patrons learn that parking is not available west of Bird Avenue, it may be possible to dispense with the barricades. However, it still would be necessary to continue parking enforcement to ensure that the permits and time limits are being observed.

A detailed TPMP should be prepared that describes initial short-term traffic controls as well as the long-term traffic management. This is the same procedure that was followed for the opening of the Arena. The Arena TPMP has been refined over the years, and now Arena events do not result in substantial, recurring traffic, parking or pedestrian access impacts. The purpose of the TPMP would be to provide for efficient ingress and egress of vehicles, pedestrians, and transit services to and from the ballpark, Arena, and identified parking facilities and minimize the effects of stadium/arena traffic and parking on surrounding neighborhoods. The TPMP would implement the following strategies:

- Motorist information system
- Dispersed/decentralized parking plan
- Neighborhood protection
- Promotion of public transit options
- Traffic and pedestrian control
- Utilize a transportation management and communications center

The majority of the strategies would be implemented via a traffic control plan that would be developed as part of the TPMP and serve to move vehicular traffic associated with the stadium efficiently from regional transportation facilities to arterials and into identified parking locations. The traffic control plan would identify road closures, intersection lane configuration changes, and locations that would be controlled by uniformed officers. The measures that would be taken as part of the traffic control plan to facilitate the efficient ingress and egress of stadium traffic are as follows:

- A transportation management communications center would be utilized to coordinate officers, signal operations, monitor parking availability and the changeable message signs (CMS). The

center would be connected and integrated into the City of San José's existing electronic traffic control system.

- Motorists would be directed to available parking from local and regional transportation facilities via CMS that are currently in place at several locations. Additional temporary CMS may be utilized to notify non-stadium traffic of events and associated road closures and delays.
- Parking facilities throughout the Downtown area would be utilized by the stadium. The availability of dispersed parking would result in a dispersal of stadium traffic to several freeway interchanges, arterials and local streets rather than one single access route leading to one centralized parking location.
- Neighborhood surrounding the stadium would be protected from parking intrusion by permit parking and signage restricting stadium parking. Officer parking enforcement would also be utilized during events.
- The availability of public transit in the immediate vicinity of the stadium would be promoted.
- Officers would be located at key locations to facilitate traffic flow, minimize traffic congestion, and manage pedestrians to minimize conflicts with vehicular traffic. Officers would communicate with the traffic control center to request signal timing adjustments as needed.
- Lane configuration adjustments and turn restrictions would be implemented at intersections surrounding the stadium and where there are heavy pedestrian volumes. And, signal timing at all intersections surrounding the stadium and those at major gateways to the stadium would be adjusted to provide adequate green time to serve inbound/outbound stadium traffic.

With an overlap of the MLB and NHL seasons as well as the occurrence of festivals in the downtown area, there would be days with simultaneous events. The following actions would be undertaken as part of the TPMP to minimize the effects of the increased traffic and pedestrian demand on transportation facilities and surrounding neighborhoods:

- Minimize same day event occurrences
- Staggered start/end times for events
- Monthly coordination with event venues
- Promotion of increased transit usage on simultaneous event days
- Increase transit service capacity

Changes in nearby land uses, available parking locations, and residential concerns, would necessitate a re-evaluation of the TPMP annually to evaluate the effectiveness of the TPMP and address any concerns that may arise from implementation of the TPMP.

i. Analysis on Neighborhood Streets. Though no significant impacts on neighborhood streets were identified in the 2006 traffic analysis, it can be expected that any increases in traffic volumes and/or parking issues on neighborhood streets surrounding the ballpark site would be reduced with the reduction in stadium size. To manage any adverse effects on neighborhood streets, a detailed TPMP should be prepared that describes initial short-term traffic controls as well as the long term traffic management.

j. Bird Avenue/Autumn Street Design. The planned improvements for the Bird Avenue/ Autumn Street corridor either as background improvements (something already planned without the ballpark) or as part of the ballpark project that were described in the 2006 traffic analysis remain unchanged. The improvements include the extension of Autumn Street to Coleman Avenue, the realignment of Autumn Street (and abandonment of Montgomery Street) along the ballpark site, and transportation operational improvements on Bird Avenue between I-280 and Park Avenue.

k. Potential Narrowing of Park Avenue. In addition to the roadway adjustments described above, the supplemental traffic analysis includes the evaluation of the potential narrowing of Park Avenue to accommodate the stadium and associated facilities. Because it is uncertain at this point whether the adjustments to the roadways would be necessary, the narrowing of Park Avenue is treated within the supplemental traffic analysis as a project variant.

An analysis was completed to evaluate the effects of the roadway adjustments on each of the affected roadway facilities for each of the potential stadium seating capacities and parking options.

The narrowing of Park Avenue would occur between McEvoy Street and Josefa Street, and reduce the travel lanes in each direction from two lanes to one lane. The narrowing of Park Avenue would reduce the through lanes along Park Avenue at its intersection with Bird Avenue and Autumn Street. Bike lanes are planned along Park Avenue along the section to be narrowed, but the potential narrowing would not prohibit the implementation of the planned bike lanes. Bird Avenue would also be narrowed between San Carlos Street and Park Avenue and reduce travel lanes in each direction from three to two lanes for that specific street segment. The narrowing of Bird Avenue would result in the reduction of through lanes along Bird Avenue/Autumn Street at its intersections with San Carlos Street and Park Avenue. The resulting lane configurations and results of the intersection level of service analysis are provided in Appendix C. The City of San José also completed a General Plan Amendment (GPA) analysis for the proposed narrowing of Park Avenue. That analysis is also included in Appendix C. The GPA analysis and the effects on traffic of narrowing Park Avenue are summarized below.

Long-term General Plan Amendment Analysis Summary. While Park Avenue today consists of two and four lane segments, it is planned in the current San Jose 2020 General Plan Land Use/ Transportation Diagram for ultimate improvement to four lanes, for purposes of accommodating future traffic volumes from build out of all planned land uses in the vicinity per the General Plan. The Park Avenue adjustment would consist of a roadway network adjustment that may redistribute traffic on surrounding roadways. Therefore, a GPA analysis was performed to evaluate the effects of the proposed roadway adjustment. Because the proposed Park Avenue narrowing would not change land use, it would not result in a change in peak hour trips. The GPA analysis utilizes the City of San José traffic forecasting model and CUBE transportation planning software. The determination of significance is based on the extent to which the proposed roadway change contributes to projected peak hour travel and congestion in the vicinity of the proposed amendment. The GPA analysis includes a quantification of effects of the roadway adjustment on vehicle miles traveled (VMT), vehicle hours traveled (VHT), trips across regional screenlines,[2] and a congested proximity analysis.[3]

[2] Screenlines are imaginary lines drawn across several parallel roadways in order to evaluate the combined capacity and travel demand. In San José, the screenlines often represent existing physical constrictions on travel at that location – such as a freeway or a creek.

[3] Proximity area is used to refer to the geographic area near the site of a proposed GPA.

Impact TRANS-2: The project option that would narrow Park Avenue from four to two lanes involves a General Plan Transportation Diagram Amendment that would result in significant long-term transportation impacts upon build out of the current San Jose 2020 General Plan. (S)

The results of the GPA analysis indicate that the proposed reduction in planned Park Avenue capacity from four to two lanes would shift travel patterns and lead to an increase traffic volumes on surrounding roadways that would result in increases to congestion through regional screenlines and roadways within its proximity that are beyond the identified impact thresholds. Based on the impact criteria for the GPA analysis, the increases constitute a significant adverse traffic impact.

Impacts from a proposed General Plan Amendment can be reduced by conformance with General Plan policies as outlined in the City's General Plan Amendment report, but not to a less than significant level since the General Plan Amendment analysis assumes that all planned transportation improvements identified in the Land Use/Transportation Diagram exist, meaning no additional improvements are available to offset the loss of roadway capacity from a narrowed Park Ave. As an example, the City could consider re-designating a parallel roadway to add more vehicular capacity (i.e. add more lanes to San Carlos Avenue or Auzerais Avenue), but there are significant right-of-way constraints that make that infeasible. The challenge of mitigating for General Plan level transportation impacts is substantially more complex than 'improving' an intersection by adding a turn lane so it can handle more traffic, rather it involves upgrading an entire roadway segment and is considered infeasible due to right-of-way constraints, substantial cost, and unacceptable land use impacts, i.e. acquisition and demolition of homes, businesses, etc., similar to the difficulties involved in creating additional freeway segment capacity. There is no feasible mitigation available to reduce this impact given that the transportation model assumes that all planned roadways and other planned transportation improvements have been built to their maximum capacity, therefore the impact is significant and unavoidable. (SU)

The General Plan policies primarily require that a near-term traffic analysis for the proposed roadway change be completed. The results of the near-term traffic analysis are as follows:

Near-term Ballpark Traffic Under Narrowed Park Avenue Traffic Condition. Intersection level of service analysis was completed to evaluate the effects of the Park Avenue and Bird Avenue roadway adjustments for each of the project alternatives and parking scenarios. The level of service results under project conditions for each of the study scenarios indicate that the roadway adjustments would have little or no effect on the intersection level of service reported without the roadway adjustments at the intersections of Park Avenue and San Carlos Street with Bird Avenue and Autumn Street. The intersection of Bird Avenue and San Carlos Street would continue to operate at LOS D or better conditions under each of the study scenarios. The intersection of Autumn Street and Park Avenue would operate at LOS F conditions, but improve to LOS D conditions with the improvements described as project mitigation.

l. Summary. The proposed project, whether 32,000 or 36,000 seating capacity, and regardless of parking option (no parking, 1,200 space Montgomery/Autumn Street structure, or 1,300 HP Pavilion structure), would not have a significant impact on any study intersections and would have significant, unavoidable freeway impacts to the identified segments of State Route 87, I-280, I-680, and I-880. The proposed project, regardless of seating capacity and parking option, would not result in inadequate parking capacity for existing Downtown uses, including the HP Pavilion, and would not

cause significant parking intrusion to surrounding residential neighborhoods. The proposed reduction in Park Avenue lane capacity from four to two lanes would not cause any additional near-term local intersection impacts when combined with baseball stadium traffic, but would cause significant congestion on surrounding roadways over the long term assuming build out of planned land uses in the San Jose 2020 General Plan land use diagram.

B. NOISE

In part because of comments made during the scoping period with regard to noise generated by ballgames and other events that would be held at the stadium, the City has elected to update the noise analysis, utilizing more sophisticated modeling technology than in 2006, from the certified 2007 EIR for events for which the proposed modified stadium would be used. This section describes existing noise conditions relevant to events that would be held at the proposed stadium, identifies criteria for determining the significance of noise impacts, and estimates the likely noise that would result from project events. The remaining topics related to noise that were addressed in the certified EIR, including traffic-related noise and construction noise, require no additional evaluation for the reasons provided in the Initial Study, which is attached as Appendix B to this SEIR.

1. Setting

The characteristics of sound and the federal, State and City regulations related to noise are unchanged from those described in Chapter V.E, Noise of the certified EIR and thus are not repeated here. The existing noise sources in and adjacent to the project area are described below.

The project is located in an urban area and is, therefore influenced by several surrounding noise sources. Primary noise sources that affect the baseline noise level of the area are unchanged from those described in the certified 2007 EIR and include the following:

- Aircraft noise from the San José International Airport located approximately 2.5 miles northeast of the project site.
- Railroad noise from railroad tracks adjacent to the western boundary of the project site as well as the light rail line.
- Vehicle traffic on State Route 87 (SR 87), State Route 280 (SR 280), W. San Carlos Street, Park Avenue and W. San Fernando Street.

Results of the monitoring conducted for the certified EIR indicate noise levels at the project site fall within the acceptable range of up to 75 dBA L_{dn} for outdoor spectator sports as established by the City of San José. The residential areas surrounding the project area are generally above normally acceptable noise levels for residential uses established in the General Plan. As measured in January 2006 all monitor sites have a L_{max} level that exceed 55 dB due to existing noise sources observed to be airplane flyovers; bus, truck and vehicle traffic on surrounding roadways; and trains on the railroad tracks west of the project site. Additional sources of noise observed during the evening measurements included dogs barking in the residential neighborhoods. Live music from the bar located adjacent to the four-plex located on Montgomery Street affected the results on noise monitoring at that location. The existing noise environment is graphically depicted in Figure IV.B-1.

2. Impacts and Mitigation Measures

a. Criteria of Significance. A project would normally have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of the community in which it is located. The applicable noise standards governing the project area are the criteria in the City's Noise Element of the General Plan. For the purposes of this project, a noise impact is considered significant if the project results in:

- Exposure of persons to or generation of noise levels in excess of standards established in the San Jose General Plan, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;
- A substantial temporary, periodic, or permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

c. Significant Noise Impacts. Significant noise impacts related to potential future ballgames and other events that could be held at the proposed stadium are discussed below.

Impact NOISE-2 (as identified in the certified 2007 EIR): Baseball game events could result in noise impacts on adjacent residential uses. (S)

Impact NOISE-3 (as identified in the certified 2007 EIR): Proposed on-site concert and other events could result in noise impacts on adjacent residential uses. (S)

As noted in the certified 2007 EIR, during baseball games and on-site concert events at the proposed stadium, potential noise impacts would be created. Sources of noise would include the sounds of the crowd cheering, the public address systems, music and firework displays. These are considered isolated peak noises and are not an averaged calculation, such as CNEL measurements. Rather, these types of noise impacts would be most appropriately measured and reported in terms of dBA L_{max} or L_{eq}.

Previously, the potential noise impacts from baseball games and other events were evaluated by referencing noise analyses that were performed for similar projects. Baseball stadium event noise had been monitored for a number of facilities that are similar to the proposed project. Specific noise estimates for the new ballpark were based on measurements taken at Qualcomm Stadium[1] at a baseball game with an attendance of approximately 40,000 (slightly less than the design capacity of the propose project at 45,000). For the analysis in this SEIR a different approach was used.[2] A computer model (SoundPLAN Version 7) was used to calculate noise levels that would be received in the community that surrounds the site for the stadium. SoundPLAN is a three-dimensional ray tracing program that takes into account the characteristics of the noise source, including its location, size and shape, sound level, and frequency spectrum; locations of the receivers of the sound; and conditions in the sound transmission paths that affect sound propagation primarily including absorption by the ground and air, and effects of intervening barriers (such as buildings) or topography, and reflections from the ground and other surfaces. Neutral atmospheric conditions were assumed for the modeling. Wind and temperature gradients can cause increases or decreases in sound levels of 5 to 8 decibels at distant receptors that can affect the audibility of sounds.

[1] San Diego, California

[2] Illingworth & Rodkin, Inc.. 2010. San José Baseball Stadium – Noise Modeling. February 8. The entire memorandum is provided in Appendix D of this SEIR.

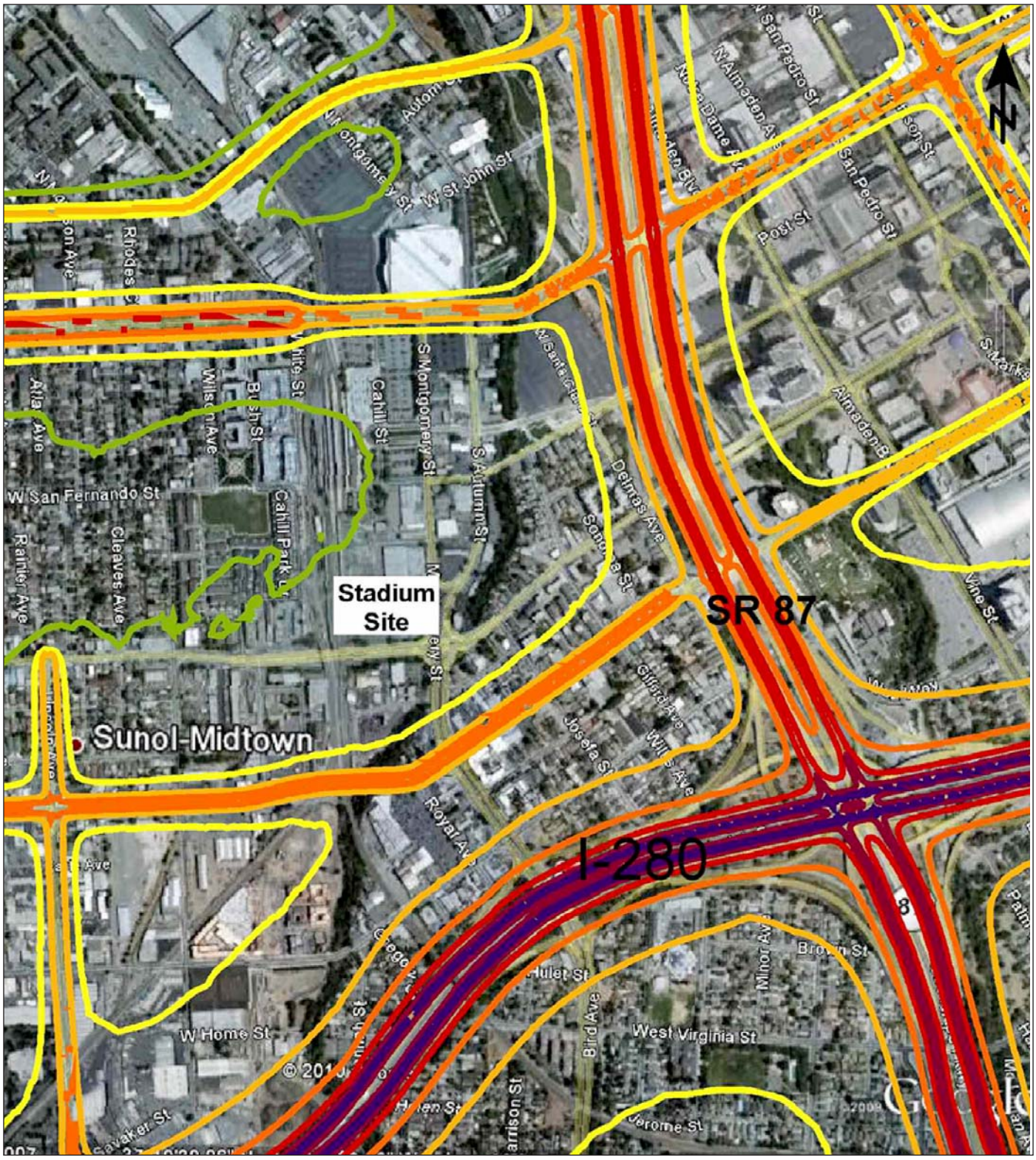

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FIGURE IV.B-1

Baseball Stadium in the Diridon/Arena Area Supplemental EIR
Existing Noise Exposure (Traffic Sources)

SOURCE: GOOGLE MAPS; ILLINGWORTH & RODKIN, INC., FEBRUARY 2010.

I:/SJO0903 Ballpark Addendum/figures/Supplemental EIR/Fig_IVB1.ai (2/10/10)

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Back of Figure IV.B-1: Existing Noise Exposure (Traffic Sources)

Base geometrical files, including topographical information, were taken from existing files available to the consultant performing the noise analysis. The preliminary design for the stadium was then added to the base geometrical files. A capacity crowd of 36,000 spectators was distributed throughout the stadium seating area. The crowd is the most significant source of noise associated with a baseball game and determines the hourly average noise level. The sound level and frequency spectrum for a cheering crowd was assumed as the noise source. For the musical concert, a typical rock and roll sound spectrum was utilized as the sound source. The model was calibrated by assuming that the noise level at the mixing board would be 95 dBA Leq as stated as mitigation measure NOISE-3 in the EIR. This is to represent a credible worst-case assumption for sound inside the stadium. Two loudspeaker arrays with a relatively broad directivity pattern were assumed in the analysis to, again, create a credible worst-case scenario for predicting noise radiation into the community. The project area was visited to confirm existing conditions in the area.

Baseball Game Noise Analysis. Figure IV.B-2 shows the noise exposure map for a capacity baseball game. The highest noise levels would be predicted toward the northeast where the stadium structure is open and does not include seating. At a distance of approximately 800 feet from the center of the field, the predicted noise level would reach a maximum of about 65 dBA Leq. Shielding from the anticipated scoreboard can be seen with the approximate 5 dBA reduction in noise levels as indicated by the 70 dBA Leq and 75 dBA Leq contour lines behind the scoreboard. Noise levels to the west and south would be substantially lower because of the shielding provided by the stadium rim.

On-Site Concert Event Noise Analysis. Figure IV.B-3 shows the model output for a rock and roll concert. Noise levels inside the stadium were modeled at 90 to 95 dBA in the seating areas. Because the speakers would be oriented away from the opening (that is, to the southwest) towards the seating area, noise levels in the community to the northeast would not be elevated with a concert as much as they could be assuming an opposite speaker orientation (i.e., toward the northeast). Nonetheless, a much larger area would experience higher noise levels as compared to a baseball game. The character of the sound would, of course, be completely different.

The SoundPLAN model predicts noise levels about 3 to 5 dBA higher than the previous analysis for baseball games and 5 to 7 dBA higher for concerts, and shows a larger geographical area affected by the noise from baseball games and concerts. For example, the 60 dBA Leq noise contour would extend approximately 1,350 feet to the northeast during a baseball game and approximately 1,700 feet to the northeast during a concert. The 50 dBA Leq noise contour would extend approximately 3,600 feet to the northeast during a baseball game and approximately 5,100 feet to the northeast during a concert. This more refined analysis also shows that areas to the west would be exposed to lower noise levels because of the shielding provided by the stadium building. Variations in weather conditions, as previously mentioned, could cause variations in the level of sound and the audibility of the sound in the areas surrounding the proposed stadium. Mitigation Measures NOISE-2a, NOISE-2b and NOISE-3 from the certified 2007 EIR would reduce the noise impacts of the project, but not to a level that is less than significant. The mitigation measures are revised to reflect the additional information developed as part of the noise study that was prepared for this SEIR (added text is underlined and deleted text is shown in ~~strikethrough~~ text).

> NOISE-2a: The stadium public address system shall be comprised of a distributed speaker system on-site, which would locate speakers around each section of the park to minimize the need for extra-loud and high-mounted units.

NOISE-2b: After the ballpark design is finalized and p~~P~~rior to the first ballpark event, a detailed acoustic study shall be conducted by the City of San José to confirm the predictions of the long-term noise levels at noise sensitive uses within the 60 dBA Leq contour line shown in ~~Figure V.E-2~~ Figure IV.B-2 of the ballpark, which have been made in this SEIR. The study shall be used to determine noise attenuation measures to achieve a 45 dBA Leq interior noise level at nearby residences located within the 60 dBA Leq contour line. Attenuation measures at the stadium shall include, but not be limited to, distributed speakers for the public address system and limitations placed on sound levels associated with various activities. Measures taken with affected property owner's consent, at receptor locations may include, but are not limited to installation of dual-pane windows, mechanical air conditioning, sound walls and improved ceiling and wall insulation.

Necessary remedial measures shall be implemented, or otherwise assured to be implemented within one year to the satisfaction of the City Manager. Implementation of mitigation measures NOISE-2~~1~~a and NOISE-2~~1~~b would reduce impacts associated with baseball games. However, impacts would remain significant and unavoidable.

NOISE-3: A maximum sound level of 95 dB Leq shall be maintained at the sound board for concerts.

Implementation of the multipart mitigation measure~~s NOISE-1 and~~ NOISE-2 would reduce impacts from concert noise. However, noise impacts would ~~be~~ remain significant and unavoidable.

No additional measures that would reduce the noise impacts of baseball games or concerts at the stadium were identified in the updated analysis. The analysis supports the previous findings from the certified 2007 EIR that the noise impact from the stadium would be significant and unavoidable, but predicts noise exposures above the identified thresholds would extend further from the baseball stadium than previously disclosed in the certified 2007 EIR. (SU)

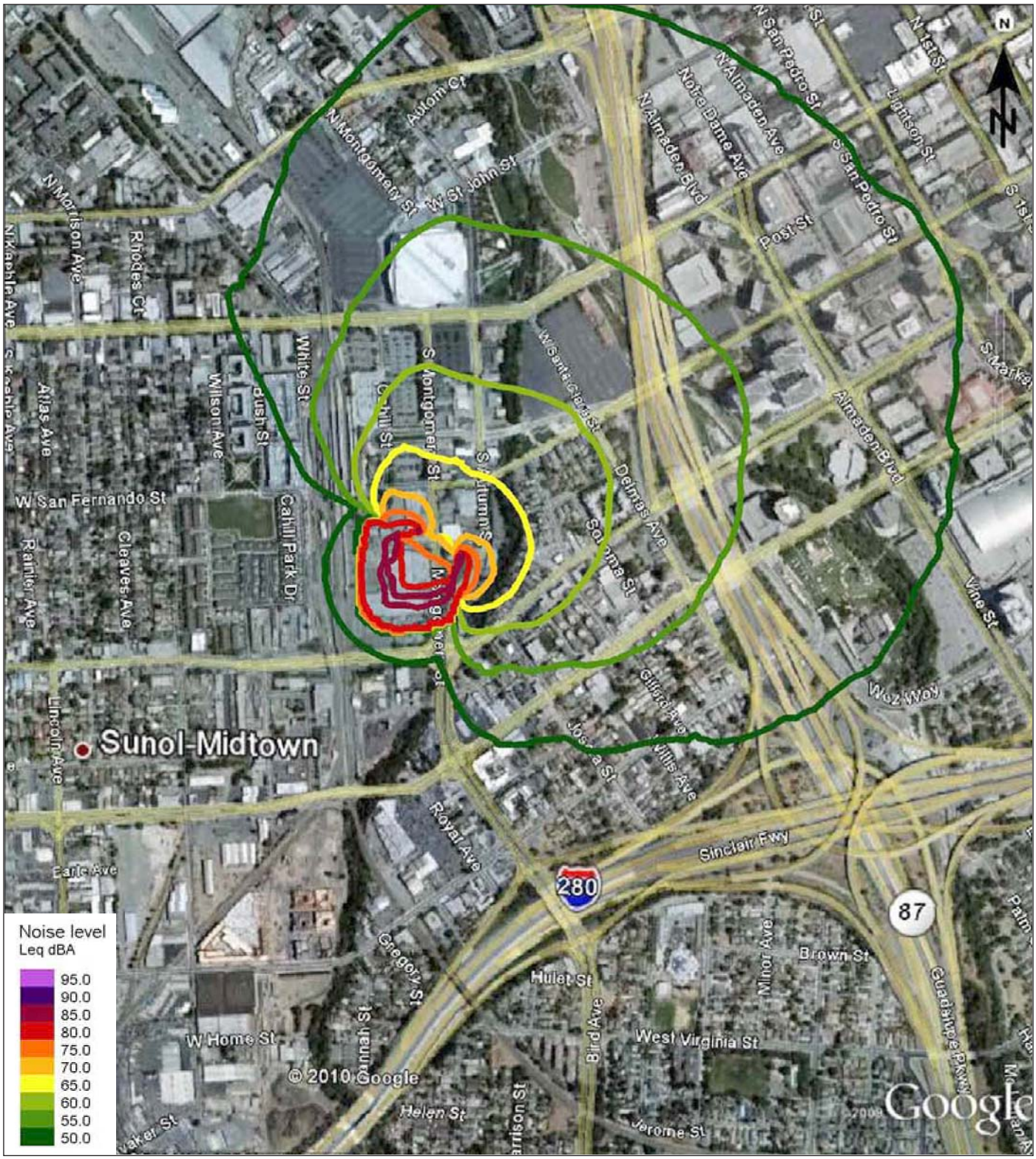

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FIGURE IV.B-2

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Baseball Stadium in the
Diridon/Arena Area Supplemental EIR
Noise Exposure Map for a Baseball Game

SOURCE: GOOGLE MAPS; ILLINGWORTH & RODKIN, INC., FEBRUARY 2010.

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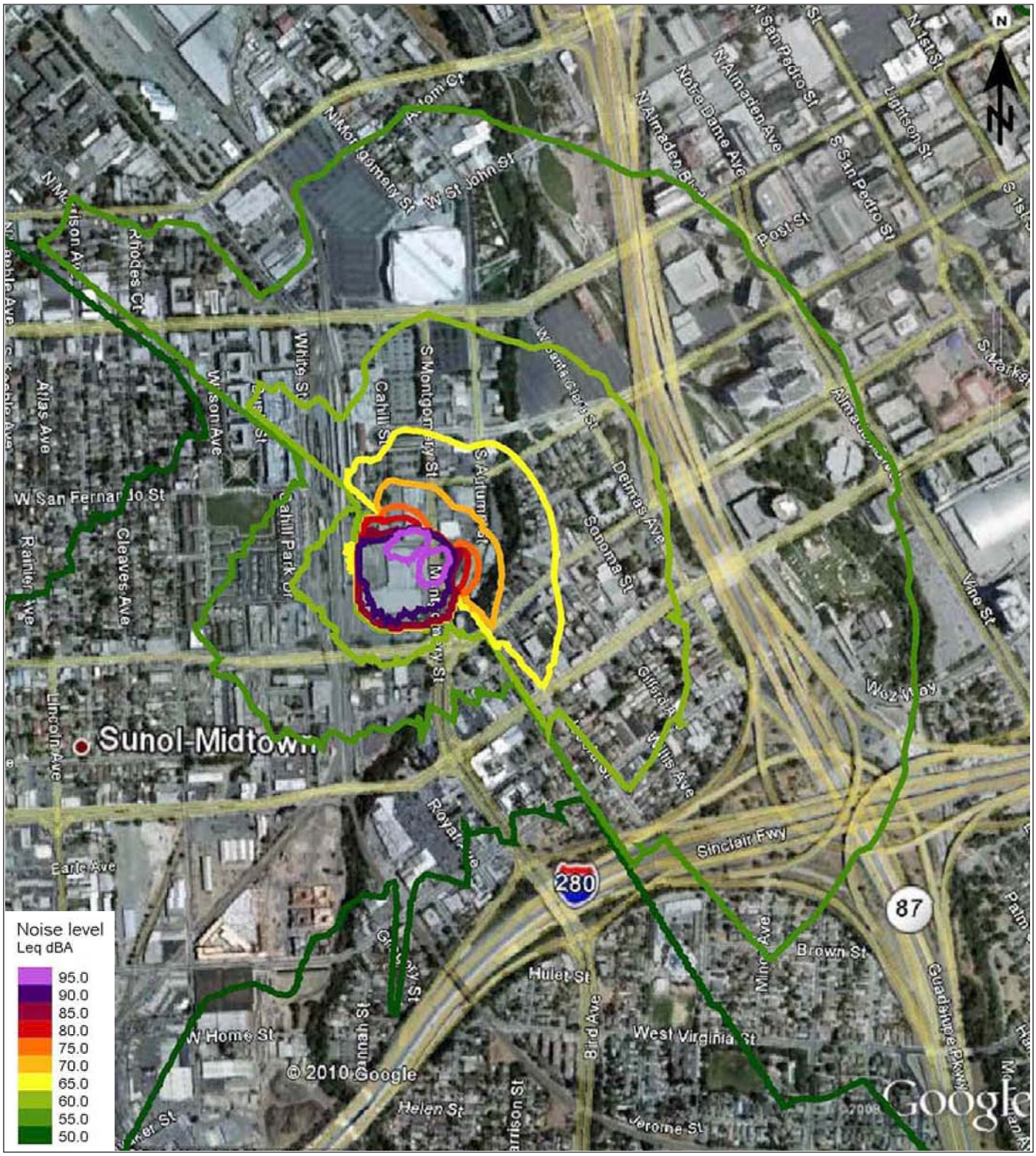

LSA

FIGURE IV.B-3

0 750 1500
FEET

Baseball Stadium in the
Diridon/Arena Area Supplemental EIR
Noise Exposure Map for a Concert

SOURCE: GOOGLE MAPS; ILLINGWORTH & RODKIN, INC., FEBRUARY 2010.

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C. GLOBAL CLIMATE CHANGE

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended period of time. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities that have lead to increased amounts of carbon dioxide (CO_2) and other greenhouse gases (GHGs) in the atmosphere. Because global growth continues to contribute large amounts of GHGs across the world any given development project contributes only a small portion of any net increase in GHGs in the atmosphere.

CEQA requires that lead agencies consider the reasonably foreseeable adverse environmental effects of projects considered for approval, including cumulative impacts. Cumulative impacts are the collective impacts of one or more past, present, or future projects, that when combined, result in adverse changes to the environment. Global climate change is considered an "effect on the environment" and an individual project or plan's incremental contribution to global climate change, although small, can have a cumulatively significant impact when considered collectively with past present and future projects. Therefore, climate change is addressed primarily as a cumulative impact for purposes of CEQA.

This section begins by providing general background information on climate change and meteorology. It then discusses the regulatory framework for global climate change, provides data on the existing global climate setting, and evaluates potential GHG emissions associated with the proposed project. This section also discusses and evaluates the potential impacts of climate change on the Baseball Stadium in the Diridon/Arena Area. The information and analysis provided in this report rely primarily on the Climate Action Team 2006 Final Report, Intergovernmental Panel on Climate Change (IPCC) Assessment Reports, various California Air Resources Board (ARB) staff reports, and other related global climate change documents that provide background information on the impacts of GHG emissions.

1. Setting

The following discussion provides an overview of the setting for global climate change, its causes, and its potential effects; and emission sources and inventories. The regulatory framework relating to global climate change is summarized.

a. Global Climate Change Setting and Background. Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended period of time. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures. Global surface temperatures have risen by 1.33°F ± 0.32°F over the last 100 years (1906 to 2005). The rate of warming over the last 50 years is almost double that over the last 100 years.[1] The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of CO_2 and other GHGs are the primary causes of the human-induced component of warming. GHGs are released

[1] Intergovernmental Panel on Climate Change (IPCC), 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.*

by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[2]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:[3]

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF_6)

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO_2, CH_4, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere. Water vapor also has heat trapping properties but is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this SEIR, the term "GHGs" will refer collectively to the gases listed above only.

GHGs vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). As noted in Table IV.C-1, certain gases are short-lived in the atmosphere, while others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2eq). Table IV.C-1 shows the GWPs for each type of GHG. For example, SF_6 is 22,800 times more potent at contributing to global warming than CO_2. The following discussion summarizes the characteristics of the six primary GHGs.

[2] The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduce the amount of heat that escapes, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

[3] The greenhouse gases listed are consistent with the definition in Assembly Bill (AB) 32 (Government Code 38505), as discussed later in this section.

Table IV.C-1: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoromethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Source: IPCC, 2007. *Climate Change 2007: The Physical Science Basis.* Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

Carbon Dioxide (CO_2). In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals and plants, volcanic outgassing, decomposition of organic matter and evaporation from the oceans. Human-caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. The Earth maintains a natural carbon balance and when concentrations of CO_2 are upset, the system gradually returns to its natural state through the natural processes. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO_2 to the atmosphere. Natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO_2, and consequently, the gas is building up in the atmosphere. The concentration of CO_2 in the atmosphere has risen about 30 percent since the late 1800s.[4]

In 2002, CO_2 emissions from fossil fuel combustion accounted for approximately 98 percent of man-made CO_2 emissions and approximately 84 percent of California's overall GHG emissions (CO_2eq). The transportation sector accounted for California's largest portion of CO_2 emissions, with gasoline consumption making up the greatest portion of these emissions. Electricity generation was California's second largest category of GHG emissions.

Methane (CH_4). CH_4 is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (burning of coal, oil, natural gas, etc.). Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California, followed by enteric fermentation (emissions from the digestive processes of livestock).[5] Agricultural processes such as manure management and rice cultivation are also significant sources of human-generated CH_4 in California. CH_4 accounted for approximately 6 percent of gross climate change emissions (CO_2eq) in California in 2002.[6]

[4] California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

[5] California Air Resources Board, Greenhouse Gas Inventory Data - 1990 to 2004. http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed November 2008.

[6] Ibid.

It is estimated that over 60 percent of global CH_4 emissions arise from human-related activities.[7] As with CO_2, the major removal process of atmospheric CH_4 – a chemical breakdown in the atmosphere – cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.

Nitrous Oxide (N_2O). N_2O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N_2O is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N_2O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California. N_2O emissions accounted for nearly 7 percent of man-made GHG emissions (CO_2eq) in California in 2002.

Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF_6). HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.[8] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry, which is active in California, leads to greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 3.5 percent of man-made GHG emissions (CO_2eq) in California in 2002.[9]

b. Emissions Sources and Inventories. An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, California, and local GHG emission inventories.

(1) Global Emissions. Worldwide emissions of GHGs in 2004 were 27 billion metric tons of CO_2eq per year.[10] Global estimates are based on country inventories developed as part of programs of the United Nations Framework Convention on Climate Change.

(2) U.S. Emissions. In 2005, the United States emitted about 7.1 billion metric tons[11] of CO_2eq or about 25 tons/year/person. Of the four major sectors nationwide – residential, commercial, industrial and transportation – transportation accounts for the highest amount of GHG emissions (approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel

[7] IPCC, 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

[8] The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

[9] California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

[10] Combined total of Annex I and Non-Annex I Country CO_2eq emissions. United Nations Framework Convention on Climate Change (UNFCCC), 2007. *Greenhouse Gas Inventory Data.* Information available at http://unfccc.int/ghg_data/ghg_data_unfccc/time_series_annex_i/items/3814.php and http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf.

[11] A metric ton is equivalent to approximately 1.1 tons.

combustion. Between 1990 and 2006, total United States GHG emissions rose approximately 14.7 percent.[12]

(3) State of California Emissions. According to ARB emission inventory estimates, California emitted approximately 475 million metric tons (MMT) of CO_2eq emissions in 2005 – about 6.5 percent of total United States GHG emissions.[13] Although this is a large number due primarily to the sheer size of California as compared to other States, California has the fourth lowest per-capita CO_2 emission rate from fossil fuel combustion in the country. The low emission rate is due to the success of California's energy efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than half of what it would have been otherwise.[14]

The California EPA Climate Action Team stated in its March 2006 report that the composition of gross climate change pollutant emissions in California in 2002 (expressed in terms of CO_2eq) was as follows:

- CO_2 accounted for 83.3 percent;
- CH_4 accounted for 6.4 percent;
- N_2O accounted for 6.8 percent; and
- HFCs, PFC, and SF_6 accounted for 3.5 percent.[15]

The ARB estimates that transportation was the source of approximately 38 percent of the State's GHG emissions in 2004, followed by electricity generation (both in-State and out-of-State) at 23 percent, and industrial sources at 20 percent. The remaining sources of GHG emissions are residential and commercial activities at 9 percent, agriculture at 6 percent, high global warming potential gases at 3 percent, and recycling and waste at 1 percent.[16]

ARB is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted to and removed from the atmosphere by human activities within the State of California and supports the AB 32 Climate Change Program. ARB's current GHG emission inventory covers the years 1990-2004 and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, agricultural lands, etc.). The emission inventory estimates are based on the actual amount of all fuels combusted in the State, which accounts for over 85 percent of the GHG emissions within California.

[12] U.S. Environmental Protection Agency (EPA). 2008. The U.S. Greenhouse Gas Emissions and Sinks: Fast Facts. http://www.epa.gov/climatechange/emissions/downloads/2008_GHG_Fast_Facts.pdf.

[13] California Air Resources Board, California Greenhouse Gas Inventory by Scoping Plan Categories 2000-2006, website: http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_2009-03-13.pdf.

[14] California Energy Commission (CEC), 2007. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007 update to that report.

[15] California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

[16] California Air Resources Board (ARB), 2008. http://www.climatechange.ca.gov/inventory/index.html. September.

ARB staff has projected 2020 unregulated GHG emissions, which represent the emissions that would be expected to occur in the absence of any GHG reduction actions. ARB staff estimates the State-wide 2020 unregulated GHG emissions will be 596 MMT of CO_2eq. GHG emissions in 2020 from the transportation and electricity sectors as a whole are expected to increase, but remain at approximately 38 percent and 23 percent of total CO_2eq emissions, respectively. The industrial sector consists of large stationary sources of GHG emissions and the percentage of the total 2020 emissions is projected to be 17 percent of total CO_2eq emissions. The remaining sources of GHG emissions in 2020 are high global warming potential gases at 8 percent, residential and commercial activities at 8 percent, agriculture at 5 percent, and recycling and waste at 1 percent.[17]

(4) Bay Area Emissions. The BAAQMD established a climate protection program in 2005 to acknowledge the link between climate change and air quality. The Air District regularly prepares inventories of criteria and toxic air pollutants to support planning, regulatory and other programs. The most recent BAAQMD inventory also estimates GHG emissions produced by the San Francisco Bay Area in 2007.[18] The inventory updates the Air District's previous GHG emission inventory for base year 2002, which was published November 2006.

In 2007, the San Francisco Bay Area emitted 102.6 MMT of CO_2eq. Fossil fuel consumption in the transportation sector was the single largest source of the San Francisco Bay Area's GHG emissions. The transportation sector, including on-road motor vehicles, locomotives, ships and boats, and aircraft, contributed over 40 percent of GHG emissions in the Bay Area. The industrial and commercial sector (excluding electricity and agriculture) was the second largest contributor with 34 percent of total GHG emissions. Energy production activities such as electricity generation and co-generation were the third largest contributor with approximately 15 percent of the total GHG emissions. Off-road equipment such as construction, industrial, commercial, and lawn and garden equipment contributed 3 percent of GHG emissions.

(5) City of San José. At the time this SEIR was drafted, the GHG emissions inventory shown in Table IV.C-2 represents the best available emissions estimates for the City of San José. Table IV.C-3 shows the emissions among large U.S. metropolitan areas for per capita carbon missions from transportation and residential energy use in 2005.

The City of San José is preparing a Climate Action Plan in conjunction with the Envision San Jose 2040 General Plan Update to address existing and forecast emissions in compliance with California's AB 32 goals. The Envision 2040 General Plan Update process is anticipated to conclude in 2011.

[17] California Air Resources Board (ARB), 2008. http://www.arb.ca.gov/cc/inventory/data/forecast.htm. September.

[18] Bay Area Air Quality Management District, 2008. *Source Inventory of Bay Area Greenhouse Gas Emissions.* December.

Table IV.C-2: San José Greenhouse Gas Emissions as compared to National and State Levels

Location	Greenhouse Gas Emissions (MMT CO2e)	Percent of U.S. Emissions	Percent of California Emissions
United States	7,147.2 [1]	100	N/A
California	475.70 [2]	7.80	100
San Jose citywide	3.83 [3]	0.06	0.8

Source: (1) U.S. EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007; (2) California Greenhouse Gas Inventory by Scoping Plan Categories 2000-2006, California Air Resources Board website: http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_2009-03-13.pdf; (3) Report generated for San Jose, CA using STAPPA/ALAPCO and ICLEI's Clean Air and Climate Associates Inc.
Note: Values are based on 2005 data.

Table IV.C-3: Carbon Emissions by Major Metropolitan Areas

Rank	Lowest Emitters	Carbon Footprint (metric tons)
1	Honolulu, HI	1.356
2	Los Angeles-Lon Beach-Santa Ana, CA	1.413
3	Portland-Vancouver-Beaverton, OR-WA	1.446
4	New York-Northern New Jersey-Long Island, NY-NJ	1.495
5	Boise City-Nampa, ID	1.507
6	Seattle-Tacoma-Bellevue, WA	1.556
7	**San Jose-Santa Clara-Sunnyvale, CA**	**1.573**
8	San Francisco-Oakland-Fremont, CA	1.585
9	El Paso, TX	1.613
10	San Diego-Carlsbad-San Marcos, CA	1.630
Highest Emitters		
98	Cincinnati-Middletown, OH-KY-IN	3.28
99	Indianapolis, IN	3.36
100	Lexington-Fayette, KY	3.46

Source: Brookings Institute, "Shrinking the Carbon Footprint of Metropolitan America," May 2008

c. Regulatory Framework. The regulatory framework and other governmental activities addressing GHG emissions and global climate change are discussed in this section.

(1) Federal Regulations. The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the Environmental Protection Agency (EPA) has the authority to regulate CO_2 emissions under the federal Clean Air Act (CAA). While there currently are no adopted federal regulations for the control or reduction of GHG emissions, EPA commenced several actions in 2009 that are required to implement a regulatory approach to global climate change.

On September 15, 2009, EPA proposed national GHG emissions standards under the CAA, and the Department of Transportation's National Highway Traffic Safety Administration proposed Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. These standards would apply to model year 2012 through 2016 light-duty vehicles and would reduce GHG emissions and improve fuel economy.

On September 30, 2009, EPA announced a proposal that focuses on large facilities emitting over 25,000 tons of GHG emissions per year. These facilities would be required to obtain permits that would demonstrate they are using the best practices and technologies to minimize GHG emissions.

On December 7, 2009, the EPA Administrator signed a final action under the CAA, finding that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change. This EPA action does not impose any requirements on industry or other entities. However, the findings are a prerequisite to finalizing the GHG emission standards for light-duty vehicles mentioned above.

(2) State Regulations. In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals for the State of California: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The ARB has established the level of GHG emissions in 1990 at 427 MMT of CO_2eq. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires ARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by ARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures.[19] Emission reductions that are projected to result from the recommended measures in the Scoping Plan are expected to total 174 MMT of CO_2eq, which would allow California to attain the emissions goal of 427 MMT of CO_2eq by 2020. The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until they are adopted through the normal rulemaking process. The ARB rulemaking process includes preparation and release of each of the draft measures, public input through workshops and a public comment period, followed by an ARB Board hearing and rule adoption.

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed ARB and the newly created Climate Action Team (CAT) [20] to identify a list of "discrete early action GHG reduction measures" that can be adopted and made enforceable by January 1, 2010. The measures that would result in a reduction of GHG emissions associated with the proposed project include the Low Carbon Fuel Standard (LCFS), limitation of high GWP use in consumer products, aerodynamic efficiency in

[19] California Air Resources Board. 2008. *Climate Change Proposed Scoping Plan: a framework for change*. October.

[20] CAT is a consortium of representatives from State agencies who have been charged with coordinating and implementing GHG emission reduction programs that fall outside of ARB's jurisdiction.

heavy-duty vehicles, and the tire pressure program. The combination of all early action measures is estimated to reduce State-wide GHG emissions by nearly 16 MMT.[21]

To assist public agencies in the mitigation of GHG emissions or analyzing the effects of GHGs under CEQA, including the effects associated with transportation and energy consumption, Senate Bill 97 (SB 97) requires the Governor's Office of Planning and Research (OPR) to develop CEQA guidelines on how to minimize and mitigate a project's GHG emissions. On April 13, 2009, OPR submitted proposed CEQA guideline amendments to the Natural Resources Agency. The proposed amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations. The Natural Resources Agency adopted the CEQA Amendments on December 30, 2009 and transmitted the Amendments to the Office of Administrative Law on December 31, 2009. The Adopted Amendments will become effective 30 days after Office of Administrative Law completes its review and submits them to the Secretary of State for inclusion in the California Code of Regulations.

SB 375, signed into law on October 1, 2008, is intended to enhance ARB's ability to reach AB 32 goals by directing ARB to develop regional GHG emissions reduction targets to be achieved within the automobile and light truck sectors for 2020 and 2035. ARB must provide emission reduction targets to the State's 18 metropolitan planning organizations (MPOs) by September 30, 2010. ARB will work with the MPOs, including the Metropolitan Transportation Commission (MTC), to align their regional transportation, housing, and land use plans and prepare a "Sustainable Communities Strategy" to reduce the number of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its greenhouse gas reduction targets. MTC will address the requirements of SB 375 in the next scheduled update of the Regional Transportation Plan in 2013.

(3) Local Policies. The City of San José has the following goals and policies related to the proposed project that would reduce GHG emissions and address global climate change:

- *Air Quality Goal*. Maintain acceptable levels of air quality for the residents of San José and minimize the air pollution produced by new development.
- *Air Quality Policy 1*. The City should take into consideration the cumulative air quality impacts from proposed developments and should establish and enforce appropriate land uses and regulations to reduce air pollution consistent with the region's Clean Air Plan and State law.
- *Air Quality Policy 2*. Expansion and improvement of public transportation services and facilities should be promoted, where appropriate, to both encourage energy conservation and reduce air pollution.
- *Air Quality Policy 3*. The City should urge effective regulation of those sources of air pollution, both inside and outside of San José, which affect air quality. In particular, the City should support Federal and State regulations to improve automobile emission controls.
- *Air Quality Policy 4*. The City should foster educational programs about air pollution problems and their solutions.
- *Air Quality Policy 5*. In order to reduce vehicle miles traveled and traffic congestion, new development within 1,000 feet of an existing or planned transit station should be designed to encourage the usage of public transit and minimize the dependence on the automobile through the application of site design guidelines.

[21] California Air Resources Board. 2007. "ARB approves tripling of early action measures required under AB 32". News Release 07-46. http://www.arb.ca.gov/newsrel/nr102507.htm. October 25.

- *Energy Goal*. Consistent with Sustainable City Strategy Goals, the City should foster development which, by its location and design, reduces the use of non-renewable energy resources in transportation, buildings and urban services (utilities) and expands the use of renewable energy resources.
- *Energy Policy 1*. The City should promote development in areas served by public transit and other existing services. Higher residential densities should be encouraged to locate in areas served by primary public transit routes and close to major employment centers.
- *Energy Policy 2*. Decisions on land use should consider the proximity of industrial and commercial uses to major residential areas in order to reduce the energy used for commuting.
- *Energy Policy 3*. Public facilities should be encouraged to locate in areas easily served by public transportation.
- *Energy Policy 4*. The energy-efficiency of proposed new development should be considered when land use and development review decisions are made. The City's design techniques include provisions for solar access, for siting structures to maximize natural heating and cooling, and for landscaping to aid passive cooling protection from prevailing winds and maximum year-round solar access.
- *Energy Policy 5.* The City should encourage owners and residents of existing developments to implement programs to use energy more efficiently in buildings and in their transportation choices, to reduce dependency on automobiles, and to explore alternative energy sources.
- *Energy Policy 9*. The City should encourage the development of renewable energy sources and alternative fuels and cooperate with other public and quasi-public agencies in furthering this policy.

The City of San José has adopted a Green Building Policy, which fosters long-term environmental sustainability in public building and development while making green building the standard practice in San José and sustainability as a core value to the community. In October 2008, the City Council adopted the Private Sector Green Building Policy (Policy 6-32) that establishes baseline green building standards for private sector new construction. Policy 6-32 took effect January 1, 2009. The Policy and Draft Ordinance apply to new construction and promote Green Building practices in the design, construction, and maintenance of buildings to minimize the use and waste of energy, water and other resources in the City of San José. Policy 6-32 requires that applicable projects achieve minimum green building performance levels using the Council adopted standards. The proposed Baseball Stadium project is a "commercial project greater than 25,000 square feet" and would be required to achieve a Leadership in Energy and Environmental Design (LEED) Silver rating. [22]

2. Impacts and Mitigation Measures

This section evaluates significant impacts to global climate change that could result from implementation of the proposed project. Mitigation measures are identified as appropriate.

a. Significance Criteria. As mentioned earlier, SB 97 requires OPR to develop CEQA guidelines on how to minimize and mitigate a project's GHG emissions. The Natural Resources Agency adopted the CEQA Amendments on December 30, 2009 and transmitted the Amendments to the Office of Administrative Law on December 31, 2009.

[22] MLB has been working to support and coordinate environmentally-sensitive practices at league facilities, including the reduction of GHG emissions. The Nationals Park in Washington, D.C. is certified LEED Silver, for example, and a new ballpark under construction for the Minnesota Twins is seeking to be certified LEED gold (Prager, Michael, 2009. Fields of Green, Designing Baseball Stadiums with the Environment in Mind, Emagazine (www.emagazine.com), Volume 20, no. 3, May/June).

BAAQMD currently does not have an adopted threshold of significance for GHG emissions. However, BAAQMD is in the process of developing GHG thresholds and held hearings in late 2009 and January 2010. BAAQMD released draft CEQA Air Quality Guidelines in December 2009, which are an update to its current CEQA Guidelines. Approval of the CEQA Guidelines by the BAAQMD Board of Directors, including the draft GHG threshold of significance, has been scheduled for Spring 2010. BAAQMD currently recommends that lead agencies quantify GHG emissions resulting from new development and apply all feasible mitigation measures to lessen the potentially adverse impacts, which the City of San José fully intends to do.

Under the proposed BAAQMD GHG threshold, if a project would result in operational-related greenhouse gas emissions of 1,100 metric tons of CO_2eq a year or more, it would make a cumulatively considerable contribution to greenhouse gas emissions and result in a cumulatively significant impact to global climate change.

The City of San José shares BAAQMD's goals to minimize GHG emissions consistent with AB 32. The City is concerned, however, that the GHG emissions threshold proposed by BAAQMD will inhibit the City's attempts to focus growth in transit-rich urban infill locations by unfairly penalizing large projects that are appropriately located and supported by transit. The City believes that instead of establishing a GHG emissions standard on its own, the BAAQMD should instead direct its resources to participate in the development of a statewide (or potentially federal) threshold for GHG emissions. Consistency across California (or the nation) should be sought rather than a patchwork of inconsistent standards adopted by each air district, recognizing that CEQA is applied across the state, and that GHG emissions are ultimately a cumulative impact issue for the state (and perhaps nation) as a whole.

Individual projects incrementally contribute toward the potential for global climate change on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect global climate change, each of these projects incrementally contribute toward the potential for global climate change on a cumulative basis, in concert with all other past, present, and probable future projects. This SEIR analyzes whether the project's emissions should be considered cumulatively significant. Accordingly, for purposes of this analysis, the project would result in significant adverse impacts on global climate change if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may exceed 1,100 metric tons of CO_2eq per year.

The City is not in a position to develop a numeric threshold of its own on this more global, or at least national, issue. As discussed above, the City is using the regional BAAQMD draft GHG emissions threshold in an abundance of caution to ensure the public and decision-makers are fully informed of the project's emissions and their relationship to a currently proposed, draft standard proposed by the BAAQMD, even though the City has serious concerns with the GHG emissions threshold itself as noted above. Should BAAQMD ultimately adopt this GHG threshold, this SEIR will have correctly disclosed the project's emissions against that standard.

b. Impact Analysis. The following section provides an evaluation and analysis for the potential impacts of the project for the criterion of significance listed above.

Impact GCC-1: Construction and operation of the project would result in greenhouse gas emissions that would have a significant physical adverse impact and cumulatively contribute to global climate change. (S)

Emissions estimates for the proposed project are discussed below. Development associated with the project would generate GHG emissions, with the majority of energy consumption (and associated generation of GHG emissions) occurring during the project's operation (as opposed to its construction). Typically, more than 80 percent of the total energy consumption takes place during the use of buildings and other facilities and less than 20 percent is consumed during construction.[23]

GHG emissions associated with the project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with project-related vehicular trips and stationary source emissions, such as natural gas used for heating. Recognizing that the field of global climate change analysis is rapidly evolving, the approaches advocated most recently indicate that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the project area.

Greenhouse gas emissions were calculated for the proposed Baseball Stadium in the Diridon/Arena Area based on the assumption of approximately 111 days of usage for the baseball stadium and associated facilities, including 80 home games, 20 special events, and the possibility of 11 playoff games. As noted in the project description, approximately 17,000 square feet of food services, 15,000 square feet of retail, and 60,000 square feet of office space are assumed to operate on a year-round basis.

It should be further noted that the project involves construction and operation of a baseball stadium to accommodate the relocation of an existing major league team, so, to a certain extent, existing GHG emissions would be relocated, as discussed in more detail below. Put another way, the A's play currently in Oakland, and the emissions associated with their current operations in Oakland are now contributing to climate change. What is relevant is the incremental increase in GHG emissions that would result from the A's relocating to a new stadium in San Jose.

Construction Activities. Construction activities, such as demolition, site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew would produce combustion emissions from various sources. During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

[23] United Nations Environment Programme (UNEP), 2007. *Buildings and Climate Change: Status, Challenges and Opportunities*, Paris, France.

Project construction is anticipated to commence in the Spring of 2011, and the opening day for the proposed baseball stadium is anticipated in April 2014. Precise construction timelines are not known, and a development timeline calculator was used to estimate the timeline of each of the individual construction phases.[24] Using the URBEMIS 2007 model, it is estimated that the total project construction emissions would be approximately 4,222 metric tons of CO_2.

Transportation. Transportation associated with the project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips. Transportation is the largest source of GHG emissions in California and represents approximately 38 percent of annual CO_2 emissions generated in the State. For land use development projects, vehicle miles traveled (VMT) and vehicle trips are the most direct indicators of GHG emissions associated with the project. CO_2 and CH_4 emissions were estimated using trip generation data[25] and EMFAC 2007 emission factors; estimates of N_2O were based on EPA emission factors. Transportation-related GHG emissions are already occurring while the A's play in Oakland, and so to a certain extent this would be a relocation of those existing emissions. The proposed stadium location is a transit-rich location in the South Bay and San José that is currently served by Caltrain, LRT and bus operations and would be served in the future by proposed BART and High Speed Rail (see related Cumulative Impacts discussion in Chapter 5 concerning existing and planned transit in the Diridon Area). While this project would relocate a percentage of existing transportation-related emissions from the Oakland Coliseum, it is difficult to accurately quantify this percentage; therefore, this analysis does not subtract existing emissions. This analysis conservatively assumes that all project-related emissions are net "new" emissions.

Electricity and Natural Gas. Buildings represent 39 percent of United States primary energy use and 70 percent of electricity consumption.[26] Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. The project would increase the demand for electricity and natural gas; annual consumption was estimated using information from the Energy Information Administration. PG&E provides electricity and natural gas service to the City of San José; therefore, PG&E emission factors were used to estimate total CO_2 emissions. Emission factors for CH_4 and N_2O from ARB's Local Government Operations Protocol were used for calculating CH_4, and N_2O emissions related to electricity use. PG&E emission factors were also used to estimate CO_2eq emissions from natural gas usage. These would be largely net new GHG emissions as the new stadium is operated. While there could be a reduction in the existing GHG emissions from reduced use of the Oakland Coliseum, it is difficult to predict; therefore, this analysis assumes no change in Coliseum electricity and natural gas GHG emissions if/when the A's are no longer an occupant.

Water Use. California's water conveyance system is energy intensive. Water-related energy use consumes 19 percent of California's electricity every year.[27] Energy use and related GHG emissions are based on water supply and conveyance, water treatment, water distribution, and wastewater

[24] San Joaquin Valley Air Pollution Control District, 2008. Development Timeline Calculator. Available at http://www.valleyair.org/ISR/ISRResources.htm. While the calculator was developed for the Indirect Source Review program in the San Joaquin Valley, it is not location-specific and is applicable to projects located in other areas. Outputs are designed to be used in URBEMIS 2007.

[25] Hexagon Transportation Consultants, Inc., 2010. San José Ballpark Supplemental Traffic Impact Analysis. January 8.

[26] United States Department of Energy. 2003. *Buildings Energy Data Book.*

[27] California, State of, 2005. California Energy Commission. California's Water-Energy Relationship. November.

treatment. Each element of the water use cycle has unique energy intensities (kilowatt hours [kWh]/million gallons). Recognizing that the actual energy intensity in each component of the water use cycle will vary by utility, the California Energy Commission (CEC) assumes that approximately 3,950 kWh per million gallons are consumed for water that is supplied, treated, consumed, treated again, and disposed of in Northern California. GHG emissions related to water usage are included in the electricity estimates. The water supply assessment (WSA) for the proposed project estimated the water demand to be approximately 165 acre-feet per year.[28] These would be net new GHG emissions as the new stadium is operated. This analysis assumes no change in Oakland Coliseum GHG emissions associated with water use if/when the A's are no longer an occupant.

Other GHG Sources. The project may emit HFCs from leakage and service of refrigeration and air conditioning equipment and from disposal at the end of the life of the equipment. However, the details regarding refrigerants to be used within the project site are unknown at this time because the project is still in the conceptual design phase. PFCs and SF_6 are typically used in industrial applications, none of which is anticipated to be used within the project site. URBEMIS 2007 was used to estimate CO_2 emissions related to other area sources, including landscape equipment emissions. These would be net new GHG emissions as the new stadium is operated. This analysis assumes no change in Oakland Coliseum GHG emissions associated with other GHG sources if/when the A's are no longer an occupant.

The proposed project could result in the removal of 45 ordinance-sized trees on the project site. Tree removal would result in a loss of carbon sequestration in the project area. Carbon sequestration is the process through which GHGs are absorbed by trees, plants and crops through photosynthesis, and stored as carbon in biomass (tree trunks, branches, foliage and roots) and soils.[29] A mature tree can absorb carbon dioxide at a rate of 48 pounds per year.[30] Removal of trees on the project site would result in a temporary loss of carbon sequestration of approximately 1 ton per year. As trees are removed, there would be an interim loss of carbon sequestration and cooling due to loss of shading of the mature trees. However, the proposed project is required to develop landscape plans in conformance with City of San José Landscape and Irrigation Guidelines and City of San José Planning Department specifications. The City requires tree replacement for trees greater than 18 inches in diameter with 24-inch box trees at a ratio of 4:1 (trees planted to trees removed). Tree removal and replacement, including implementation of mitigation measures discussed in Chapter V.F, Biological Resources of the certified EIR, would not have a significant negative effect on GHG emissions.

As shown in Table IV.C-4, motor vehicle emissions are the largest source of GHG emissions at approximately 77 percent of the total project emissions. Energy use, including electricity and natural gas, are the next largest category at a combined 23 percent of CO_2eq emissions.

[28] Dunbar, Nicole, 2006. San José Baseball Stadium Water Supply Assessment.

[29] U.S. EPA, 2009. Carbon Sequestration in Agriculture and Forestry. http://www.epa.gov/sequestration/faq.html. December 30.

[30] McAliney, Mike, 1993. Arguments for Land Conservation: Documentation and Information Sources for Land Resources Protection, Trust for Public Land, Sacramento, CA, December.

Table IV.C-4: Baseball Stadium GHG Emissions

	Emissions (Metric Tons Per Year)				
Emission Source	**CO_2**	**CH_4**	**N_2O**	**CO_2eq**	**Percent of Total**
Vehicles	9,977	0.310	1.000	10,282	77
Electricity Production	1,940	0.12	0.046	1,957	15
Natural Gas Combustion	1,167	0.023	0.022	1,200	9
Other Area Sources	0.23	--	--	0.23	0
Total Annual Emissions	13,084	0.450	1.100	13,439	100

Note: Column totals may vary slightly due to independent rounding of input data.
-- Estimates not available for this pollutant and/or category.
Source: LSA Associates, Inc., January 2010.

Annual emissions of operational-related GHGs for the proposed project are estimated at 13,439 metric tons of CO_2eq per year and exceed the proposed BAAQMD significance threshold of 1,100 metric tons of CO_2eq per year; therefore, the project's impact on GHG emissions would be significant.

The following mitigation measure would reduce GHG emissions:

Mitigation Measure GCC-1: To lessen the project's GHG emissions and potential impact on climate change, measures shall be implemented to lessen the impacts, although the measures would not reduce the impact to a less than significant level. Unless determined to be infeasible by the City, the following measures shall be incorporated into the design and construction of the project:

Construction and Building Materials

- Use locally produced and/or manufactured building materials of at least 10 percent for construction of the project;
- Recycle/reuse at least 50 percent of demolished construction material; and
- Use "Green Building Materials," such as those materials which are resource efficient, and recycled and manufactured in an environmentally friendly way.

Energy Efficiency Measures

- Design, construct and operate all newly constructed and renovated commercial structures, including the Baseball Stadium as certified to "LEED Silver" or higher per the City of San José (Policy 6-32, effective October 7, 2008);
- Design buildings to facilitate use of solar energy for electricity, water heating and/or space heating/cooling;
- Provide a landscape and development plan for the project that takes advantage of shade, prevailing winds, and landscaping;
- Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems;
- Install light colored "cool" roofs and cool pavements;
- Install energy efficient heating and cooling systems, appliances and equipment, and control systems; and

- Install energy-efficient, solar or light emitting diodes (LEDs) for outdoor lighting, as appropriate.

Water Conservation and Efficiency Measures

- Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include the following, plus other innovative measures that might be appropriate:
    - Create water-efficient landscapes within the development, including drought tolerant landscaping;
    - Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls;
    - Design buildings to be water-efficient. Install water-efficient fixtures and appliances, including low-flow faucets, dual-flush toilets and waterless urinals;
    - Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff; and
    - Install a separate, non-potable distribution system (i.e. "purple pipe") to accommodate the use of recycled water for landscape irrigation needs of large areas with irrigated landscaping.

Transportation and Motor Vehicle Measures

- Develop a transportation demand management (TDM) program that includes trip reduction components such as free transit passes, a dedicated employee transportation coordinator, and carpool matching program;
- Provide transit facilities (e.g., bus bulbs/turnouts, benches, shelters);
- Provide bicycle lanes and/or paths, incorporated into the proposed street systems and connected to a community-wide network; and
- Provide sidewalks and/or paths, connected to adjacent land uses, transit stops, and/or community-wide network.

The extent to which Mitigation Measure GCC-1 would reduce GHG emissions has not been determined at this time. The BAAQMD draft Air Quality Guidelines contain ranges of reductions that would be anticipated for each individual measure. For example, providing transit service to a proposed project could reduce transportation-related GHG emissions by 0 to 15 percent. In addition, the proposed project would include a variety of features to meet LEED certification requirements; therefore, the emission benefits associated with this measure cannot be accurately estimated. The individual measures included within Mitigation Measure GCC-1 would reduce construction and operational-related GHG emissions below the numbers presented in Table IV.C-4. While implementation of the Mitigation Measure GCC-1 would reduce GHG emissions and the severity of the impact on global climate change, no additional mitigation measures are available to reduce this impact to a less-than-significant level. This impact is considered significant and unavoidable. (SU)

3. Impacts to the Proposed Project from Global Climate Change

The climate in the San Francisco Bay Area is Mediterranean with rainy, mild winters November through March and warm, sunny and nearly dry summers, April through October. It is uncertain how the local or regional climate might change over time as a result of global climate change. Local temperatures could increase over time as a result of global climate change with or without the development envisioned by the proposed project. This increase in temperature could lead to other climate effects, including, but not limited to, increased flooding due to increased precipitation and runoff, and a reduction in the Sierra snowpack. At present, the extent of climate change impacts is uncertain, and more extensive monitoring of runoff and snowpack is necessary for an understanding of pending changes in hydrologic patterns. Studies indicate that increased temperatures could result in a greater portion of peak streamflows occurring earlier in the spring, with decreases in late spring and early summer.[31] These changes could have implications for water supply, flood management, and ecosystem health.

a. Temperature Increase. The latest projections, based on state-of-the art climate models, indicate that temperatures in California are expected to rise 3 to 10.5°F by the end of the century.[32] Because GHGs persist for a long time in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere cannot be tied to a specific point of emission.

The primary effect of global climate change has been a rise in the average global temperature. The impact of human activities on global climate change is readily apparent in the observational record. For example, surface temperature data show that 11 of the 12 years from 1995 to 2006 rank among the 12 warmest since 1850, the beginning of the instrumental record for global surface temperature. [33] Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include, but are not limited to:

- The loss of sea ice and mountain snow pack, resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;
- Rise in global average sea level primarily due to thermal expansion and melting of glaciers and ice caps in the Greenland and Antarctic ice sheets;
- Changes in weather that include widespread changes in precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;
- Decline of the Sierra Nevada snowpack, which accounts for a significant amount of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years;

[31] United States Global Change Research Program. 2001. Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change.

[32] California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California.* July.

[33] California, State of. California Energy Commission's Public Interest Energy Research Program, 2008. *The Future is Now: An Update on Climate Change Science, Impacts, and Response Options for California*. September.

- Increase in the number of days conducive to ozone formation by 25 to 85 percent (depending on the future temperature scenario) in high ozone areas of Los Angeles and the San Joaquin Valley by the end of the 21st century; and
- High potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level.

b. Precipitation and Water Supply. Global average precipitation is expected to increase overall during the 21st century as the result of climate change, but will vary in different parts of the world. However, global climate models are generally not well suited for predicting regional changes in precipitation because of the scale of regionally important factors, such as the proximity of mountain ranges, that affect precipitation.[34]

Most of California's precipitation falls in the northern part of the State during the winter. A vast network of man-made reservoirs and aqueducts capture and transport water throughout the State from northern California rivers, as the greatest demand for water comes from users in the southern part of the State during the spring and summer.[35] The current distribution system relies on Sierra Nevada mountain 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.

Some models predict drier conditions and decreased water flows, while others predict wetter conditions in various parts of the world. If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent over the next 100 years.

The extent to which various meteorological conditions will impact groundwater supply is unknown. Warmer temperatures could increase the period when water is on the ground by reducing soil freeze. However, warmer temperatures could also lead to higher evaporation or shorter rainfall seasons, shortening the recharge season. Warmer winters could increase the amount of runoff available for groundwater recharge. However, the additional runoff would occur at a time when some basins, particularly in Northern California, are being recharged at their maximum capacity.

Where precipitation is projected to increase in California, the increases are focused in Northern California. However, various California climate models provide mixed results regarding changes in total annual precipitation in the State through the end of this century; therefore, no conclusion on an increase or decrease can be drawn. Considerable uncertainties about the precise effects of climate change on California hydrology and water resources will remain until there is more precise and consistent information about how precipitation patterns, timing, and intensity will change.[36]

The San José Water Company supplies water to the project area, and is an investor owned public utility that serves over 1 million people in the greater San José metropolitan area. The San José Water

[34] IPCC, 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

[35] California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California.* July.

[36] California, State of. Department of Water Resources, 2006. *Progress on Incorporating Climate Change into Management of California's Water Resources*. July.

Company provides water from three major sources: (1) Groundwater pumped from the Santa Clara Groundwater Basin; (2) Surface water imported from the Sacramento-San Joaquin Delta and purchased from the Santa Clara Valley Water district; and (3) Local mountain surface water collected on our watershed in the Santa Cruz Mountains. The San José Water Company is a signatory to the Memorandum of Understanding (MOU) with the California Urban Water Conservation Council (CUWCC), which was created to increase efficient water use statewide through partnerships among urban water agencies, public interest organizations, and private entities. The MOU pledges support to develop and implement 14 comprehensive Best Management Practices in conservation. Continued conservation efforts are necessary to ensure that water supply will be available in future years. The Water Supply Assessment indicated that sufficient water supply is available for the proposed project.[37]

c. Sea Level Rise. Rising sea level is one of the major areas of concern related to global climate change. Two of the primary causes for a sea level rise are the thermal expansion of ocean waters (water expanding as it heats up) and the addition of water to ocean basins by the melting of land-based ice. From 1961 to 2003, global average sea level rose at an average rate of 0.07 inches per year, and at an accelerated average rate of about 0.12 inches per year during the last decade of this period (1993 to 2003).[38] Over the past 100 years, sea levels along California's coasts and estuaries have risen about seven inches.[39]

Sea levels could rise an additional 22 to 35 inches by the end of the century as global climate change continues.[40] Although these projections are on a global scale, the rate of sea level rise along California's coast is relatively consistent with the worldwide average rate observed over the past century. Therefore, it is reasonable to assume that changes in worldwide sea level rise will also be experienced along California's coast.[41]

Sea level rise of this magnitude would increasingly threaten California's coastal regions with more intense coastal storms, accelerated coastal erosion, threats to vital levees, and disruption of inland water systems, wetlands and natural habitats. Rising sea levels and more intense storm surges could increase the risk for coastal flooding. The San Francisco Bay Conservation and Development Commission (BCDC) employed geographic information system software to identify the shoreline areas likely to be most impacted by a one meter rise in sea level.[42] The map of South San Francisco Bay shows that the proposed project would not be in a location that would be affected by a one meter rise in sea level.[43]

[37] Dunbar, Nicole, 2006. San José Baseball Stadium Water Supply Assessment.

[38] California, State of. California Energy Commission's Public Interest Energy Research Program, 2008. *The Future is Now: An Update on Climate Change Science, Impacts, and Response Options for California*. September.

[39] Ibid.

[40] California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California.* July.

[41] California, State of. Department of Water Resources, 2006. *Progress on Incorporating Climate Change into Management of California's Water Resources*. July.

[42] California, State of. San Francisco Bay Conservation and Development Commission, 2009. Climate Change website. http://www.bcdc.ca.gov/planning/climate_change/climate_change.shtml.

[43] Ibid.

d. Water Quality. Water quality depends on a wide range of variables such as water temperature, flow, runoff rates and timing, waste discharge loads, and the ability of watersheds to assimilate wastes and pollutants. Climate change could alter water quality in a variety of ways, including higher winter flows that reduce pollutant concentrations (through dilution) or increase erosion of land surfaces and stream channels, leading to higher sediment, chemical, and nutrient loads in rivers. Water temperature increases and decreased water flows can result in increasing concentrations of pollutants and salinity. Increases in water temperature alone can likely to lead to adverse changes in water quality, even in the absence of changes in precipitation.

Land and resource use changes can have impacts on water quality comparable to or even greater than those from global climate change. The net effect on water quality for rivers, lakes, and groundwater in the future is dependent not just on climate conditions, but also on a wide range of other human actions and management decisions. Therefore, the specific impact to the proposed project is unknown at this time.

V. CEQA-REQUIRED ASSESSMENT CONCLUSIONS

As required by CEQA, this chapter discusses the following types of impacts that could result from development of the modified project, as compared to the development scenario evaluated in the Baseball Stadium in the Diridon/Arena Area Draft EIR: growth-inducing impacts; significant irreversible changes; cumulative impacts; effects found not to be significant; and significant unavoidable effects.

A. GROWTH INDUCEMENT

A project is considered growth-inducing if it would: directly or indirectly foster economic or population growth or the construction of additional housing; if it would remove obstacles to population growth or tax community service facilities to the extent that the construction of new facilities would be necessary; or if it would encourage or facilitate other activities that cause significant environmental effects.[1]

The project site is located within the City and would not result in an expansion of urban services or the pressure to expand beyond the City's existing Sphere of Influence. Construction of the modified project would not open additional undeveloped land to future growth or provide expanded utility capacity that would be available to serve future development. Instead, it would facilitate the anticipated revitalization of underutilized land in an existing urban setting that is conveniently served by transit facilities and services. The modified project would not cause any direct population growth and the scale of employment growth would not induce substantial indirect growth in population or employment.

In addition, the proposed project would encourage transit and pedestrian-oriented redevelopment activity and associated growth in the Diridon Area. This would benefit the region by promoting the redevelopment and revitalization of the area with infill development. In addition to benefiting the Diridon Area, the proposed stadium would benefit the Greater Downtown Area as a whole by better connecting the Downtown to the major transit center and by expanding and enhancing entertainment activities within the City.

B. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

An EIR must identify any significant irreversible environmental changes that would be caused by the proposed project being analyzed. Irreversible environmental changes may include current or future commitments to the use of non-renewable resources, or secondary or growth-inducing impacts that commit future generations to similar uses. Irreversible commitments of resources should be evaluated

[1] *CEQA Guidelines*, 2005, Section 15126.2(d).

to assure that such current consumption is justified.[2] The *CEQA Guidelines* describe three categories of significant irreversible changes that should be considered, as further detailed below.

1. Changes in Land Use Which Would Commit Future Generations

As described throughout the certified EIR, a Baseball Stadium in the Diridon/Arena Area Project would allow for the redevelopment and intensification of land uses in an area that is underutilized. This land use change would occur in the form of infill development of urbanized parcels that have been developed since the late 1800s. In the same manner that the current uses and structures are being proposed for redevelopment after years of usefulness, so too could a baseball stadium undergo renovation or change after another 50 to 100 years. In this way, the modified project, like the 2006 Stadium Proposal would commit 2 to 3 generations to this land use change. Such a commitment would not constitute a significant adverse effect.

2. Irreversible Changes From Environmental Actions

The loss of two historic structures from the project site and the alteration of the character of an adjacent historic structure would result in a significant irreversible change in the environment under either the 2006 Stadium Proposal or the modified project. As discussed in the certified EIR, these are significant unavoidable impacts of the proposed project.

The only other irreversible changes to the physical environment that could occur as a result of a project like this one would stem from the accidental release of hazardous materials associated with development. However, compliance with hazardous materials regulations and policies, and the remediation of existing conditions within the project site, as outlined in Chapter V.I, Hazards and Hazardous Materials of the certified EIR, are expected to maintain this potential impact at a less-than-significant level. No other irreversible changes – such as those which might result from construction of a large-scale mining project, a hydroelectric dam project, or other industrial project – would result from development of a baseball stadium.

3. Consumption of Nonrenewable Resources

Consumption of nonrenewable resources includes increased energy consumption, conversion of agricultural lands to urban uses, and lost access to mineral reserves. No agricultural lands would be converted and no access to mining reserves would be lost with construction of either the 2006 Stadium Proposal or the modified project. The project would redevelop underutilized parcels and construct public infrastructure and amenities and expand an entertainment serving district on the western side of the Greater Downtown Area. While this would require additional energy of several types for construction and for on-going use, it would not require the construction of major new lines to deliver energy, and service providers anticipate being able to provide the capacity to serve these levels of development. Furthermore, to the extent that growth throughout San José is partly an expression of regional demand, the redevelopment of existing neighborhoods would represent a more efficient allocation of non-renewable resources than would some other types or patterns of growth.

[2] *CEQA Guidelines*, 2005, Section 15126.2(c).

C. SIGNIFICANT UNAVOIDABLE IMPACTS

Chapter V of the certified EIR for the Baseball Stadium in the Diridon/Arena Area Project identified the following significant unavoidable adverse impacts, which would also result from implementation of the modified project:

- State Route 87 would experience a significant impact from project traffic along two of the analyzed segments; I-280 would experience a significant impact from project traffic along two of the analyzed segments.
- Long-term project-related regional emissions would exceed the BAAQMD thresholds of significance for ozone precursors.
- Traffic noise levels along W. San Fernando Street would exceed the City's short-range noise standards.
- Stadium events would increase the ambient noise level resulting in impacts to nearby residential land uses.
- Construction activities would result in short-term increases in noise.
- Temporary fireworks displays would result in isolated increases in noise.
- Two structures listed on the *City of San José Historic Resources Inventory* as Structures of Merit, the KNTV Broadcast Facility located at 645 Park Avenue and the Sunlite Baking Company building located at 145 South Montgomery Street, which also appear to be candidate City Landmarks and eligible for the California Register, would be demolished.
- The San José Diridon Station, a City landmark listed in the National Register, would sustain indirect impacts due to demolition of adjacent buildings and direct impacts due to the alteration of the character of the Station's setting.
- Nighttime operation of the stadium would increase light and glare in the area and present a nuisance to surrounding land uses.

In addition, as discussed in the various topical sections of Chapter IV of the SEIR, the following significant unavoidable adverse impacts were identified for the modified project:

- I-680 would experience a significant impact from project traffic along one of the analyzed segments and I-880 would experience a significant impact from project traffic along five of the analyzed segments.
- The project option that would utilize vacated right of way by narrowing Park Avenue would include an Amendment to the San Jose 2020 General Plan Transportation Diagram for a reduction in capacity of Park Avenue from four to two lanes in the City's long-term transportation model (CUBE) would result in significant and unavoidable traffic impacts.

The certified EIR also found that in conjunction with other foreseeable projects, the 2006 Stadium Proposal would result in significant unavoidable cumulative impacts to transportation and circulation, air quality, noise, visual resources, light and glare, and historic resources. These significant unavoidable cumulative impacts would also result from the modified project and, in addition, the

modified project would result in the following significant unavoidable adverse impact not previously identified:

- The generation of greenhouse gas emissions, which would represent a cumulatively considerable contribution to climate change impacts.

All other significant impacts associated with the baseball stadium project could be mitigated to a less-than-significant level with implementation of mitigation measures identified in the certified EIR or the SEIR.

D. CUMULATIVE IMPACTS

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the *CEQA Guidelines* requires that an EIR evaluate potential environmental impacts when the project's incremental effect is 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. These impacts can result from a combination of the proposed project together with other projects causing related impacts. "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects."

When evaluating cumulative impacts, CEQA allows the use of either a list of past, present, and probable future projects, including projects outside the control of the lead agency, or a summary of projections in an adopted planning document. Subsequent to certification of the EIR in 2007, several projects, including the BART Extension to Silicon Valley project proposed by the Valley Transportation Authority (VTA), the California High Speed Rail (HSR) project proposed by the High Speed Rail Authority, and the Diridon Station Area Plan proposed by the City of San José, have advanced to stages where they would now be considered reasonably foreseeable. The list of projects considered in the cumulative analysis of the EIR has been updated to include these projects, which are listed in Table V-1 and shown in Figure V-1. Potentially significant cumulative impacts to which the modified project may contribute are discussed below for each topic evaluated in subsections 4.1 through 4.16 of the Initial Study, Chapter IV of the SEIR, and Chapter V of the certified EIR.

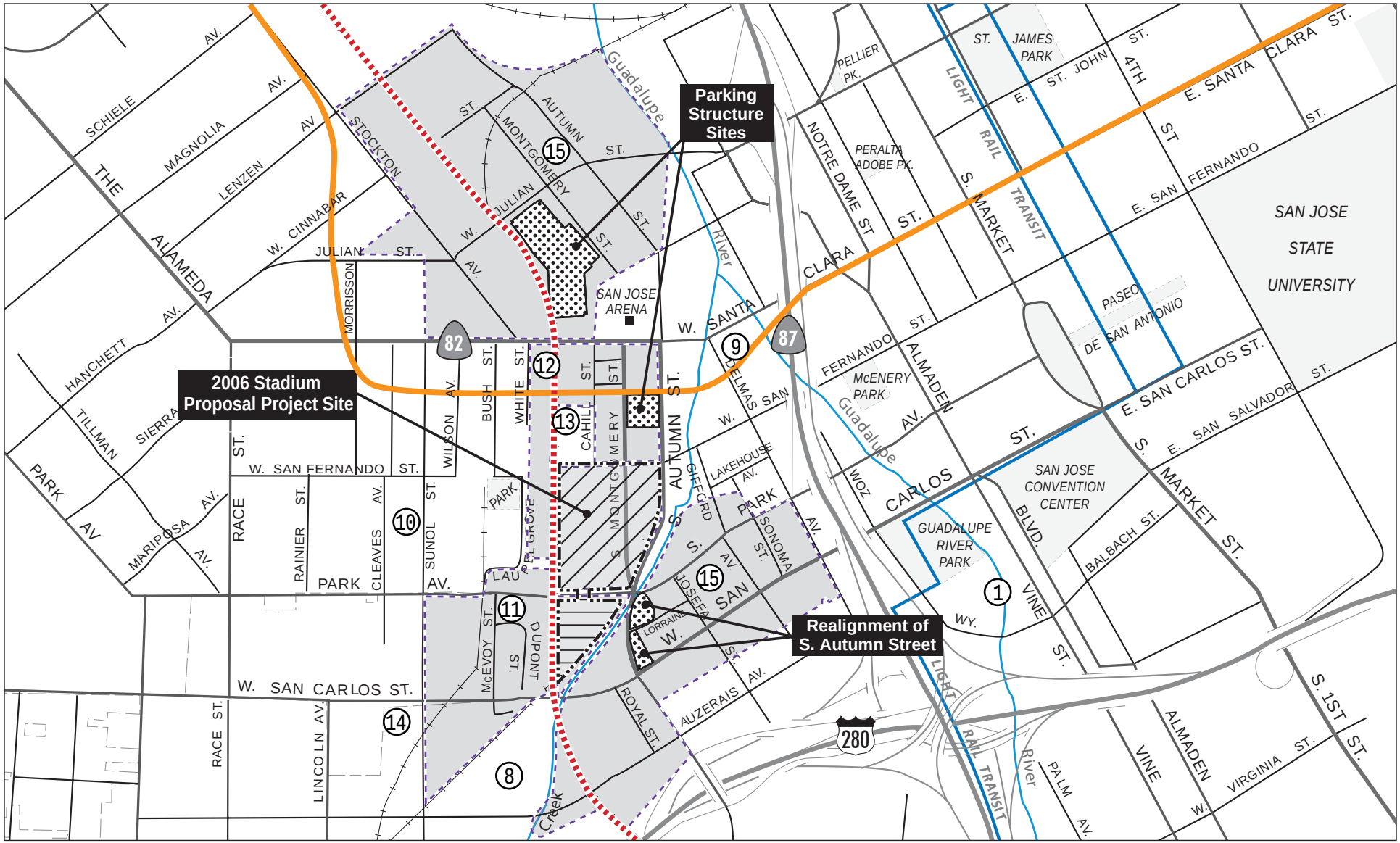
(1) BART Extension to Silicon Valley. The BART to Silicon Valley Project consists of an extension of the existing BART regional heavy rail system to Milpitas, San José and Santa Clara. The BART Extension to Silicon Valley will extend over 16 miles along the existing Union Pacific Railroad alignment south of the planned BART Warm Springs Station in Fremont. When completed, this fully grade-separated project will include: six stations – one in Milpitas, four in San José and one in Santa Clara; a 5-mile tunnel in downtown San Jose; and a new maintenance and storage facility in Santa Clara. The BART extension from Fremont to Warm Springs is now under construction. This project is being managed by the Valley Transportation Authority on behalf of BART. The 5-mile extension to Warm Springs is planned to be complete by 2014.

Table V-1: List of Cumulative Projects (Updated)

Project # (See Figures)	Project Name/Location	Project Size (acres)	Description
1	Downtown San José/Strategy 2000	1,920	Allow for 45,000 jobs, 10,000 dwelling units, 2,500 hotel rooms.
2	Marburg Way at U.S. 101 (GP03-03-16)	3	Δ industrial to residential
3	Berryessa Rd., west of UPRR (GP03-04-08)	13	Δ industrial to residential
4	Murphy Ave., east of Oakland (GP04-04-08)	4	Δ industrial to industrial/commercial
5	Tully Rd. at S. 10th St. (GP02-07-03)	14	Δ public to mixed use
6	Lewis Rd., east of Garden (GP03-07-06)	6	Δ industrial to residential
7	Story Rd. at McLaughlin Ave. (GP04-07-02)	1	Δ industrial to commercial
8	Del Monte Residential Projects (PDC03-071)	11.1	Development of a high density residential project.
9	San José Water Project (PDC02-046)	7.7	Development of a mixed use retail and residential center
10	Cahill South, north of Park Ave. /west of UPRR (PDC00-116)	4	Development of a high density residential project
11	Park Avenue Townhomes, immediately west of UPRR tracks (PDC05-037)	1.9	Development of a mixed use retail and residential project.
12	*High-speed Rail*	*N.A.*	*Development and operation of transportation facilities to provide high speed rail service between northern and southern California.*
13	*Diridon BART Station*	*N.A.*	*Development and operation of transportation facilities to provide BART service to the South Bay, including San José.*
14	*Ohlone Mixed-Use Development*	*8.23*	*Development of a mixed use retail and residential project.*
15	*Diridon Station Area Plan*	*N.A.*	*Entitlement of Diridon Station Area with high density residential uses, mixed use development opportunities and regional transit facilities.*

Notes: Additional projects that weren't reasonably foreseeable in 2005 are shown in *italics*.
Projects #2, 4, 6, 7, 8, 9, 10, and 11 have either been approved or constructed since the cumulative list was prepared, and therefore some projects have also been accounted for in either existing conditions or background conditions, as discussed elsewhere in this SEIR. Project # 3 has been withdrawn. However, to be conservative, the projects in Table V-I continue to be included in this cumulative analysis as a 'worst'-case' cumulative condition, recognizing their environmental effects may have already been considered under existing or background conditions.
N.A. – Not applicable.

Source: City of San José, 2005 and 2010.



LSA

FIGURE V-1

Baseball Stadium in the Diridon/Arena Area Supplemental EIR

Location of Cumulative Projects (Updated)

SOURCE: CSAA, 2005; LSA ASSOCIATES, INC., 2010.

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The current efforts by VTA are focused on obtaining $900 million in Federal funding for the extension from Warm Springs to Berryessa. This $2 billion, 10-mile project is in final design and is planned to start construction in 2012 and be complete by 2018. The remaining gap in the BART to Silicon Valley project is the 6-mile, $4 billion link from Berryessa to Downtown San Jose, Diridon Station, and Santa Clara (near the Mineta San Jose International Airport). This section includes 5 miles of tunnel construction. The project is at 65 percent design completion, but is "on hold" until construction funding is secured. The financing strategies are based on: improvement in the local economy (sales tax revenues are the source of local BART funds); seeking additional Federal funds (once the Berryessa extension funds are secured); increased Federal funding opportunities for urban transit as part of new Federal transportation policy bill (expected in 2011); and increased BART ridership projections based on connectivity with HSR service at Diridon Station (not accounted for in current BART studies). Overall, the goal is to secure funding to allow the Downtown San Jose BART segment to be complete sometime between 2020 and 2025.

Given how far along VTA is in its planning process, BART is included at a *quantitative* level in this cumulative analysis for the proposed ballpark. One issue still being explored by the VTA is the BART parking structure location, including potentially utilizing the Montgomery/Autumn Street parking structure also being analyzed in this SEIR.

(2) High Speed Rail (HSR). The project-level EIR/Environmental Impact Statement (EIS) for the northern California segment of the HSR that would serve downtown San José is under preparation by the California High-Speed Rail Authority and anticipated to be complete in December 2010. The EIR/EIS for the HSR would address the environmental effects of the project, including noise, vibration, light, and visual impacts of the HSR.

The HSR program-level EIR was decertified by the High Speed Rail Board at the end of 2009 in response to an earlier adverse court ruling. Once the HSR program-level EIR is recirculated, new information will become available concerning options for how the trains might go from Gilroy to San José, and the resulting environmental impacts. For the Diridon Station Area planning process, the HSR Authority is completing an Alternative Analysis Study that will look at seven different alignments to access the Diridon Station. These alignment alternatives include four above-grade and three tunnel options. The HSR Authority has yet to determine which will be carried through the project level EIR/EIS. Once the program-level EIR is re-certified and the project is approved, the project-level EIR/EIS for the various HSR segments can move forward for certification and approval, and that information can be incorporated in the City's planning and environmental review processes. In addition to the alternative alignments at the Diridon Station, the HSR Authority is still considering the amount of parking necessary to support the HSR project at the Diridon Station and the location and design of the parking.

Given how early the HSR Authority is in its design process, HSR can only be considered at a *qualitative* level in this cumulative analysis for the proposed ballpark.

(3) Diridon Station Area Plan. The Diridon Station Area Plan was initiated in June 2009, and will ultimately entail (as yet undefined) General Plan and Zoning Ordinance amendments, as appropriate, to provide a policy and code framework for implementation of the Plan. The Diridon Station Plan study area consists of approximately 240 acres located near the historic center of Downtown San Jose, just west of Highway 87 and the Guadalupe River, and 1.5 miles south of the

Mineta San José International Airport, and centered north-south on the existing Diridon Station as shown in Figure V-1. The Diridon Station Area planning process involves the creation of several scenarios for the appropriate expansion of the existing Diridon Station to embrace possible future BART and HSR, and sets forth recommendations for a land use vision with implementation strategies, and transit-oriented design guidelines. Diridon Station is planned to have enhanced multimodal network connections to support a 24-hour/7-day-a-week commercial and entertainment center as part of the expanded Downtown Core. Already a major transit hub, Diridon Station may become one of the busiest multimodal stations in California and the western region of the United States with the proposed BART extension to Silicon Valley and the proposed HSR project to San Francisco and Los Angeles.

The Diridon Station Area planning process is currently undertaking the following key next steps:

- Work with the team of multi-agency transportation staff and engineers to design an expanded Diridon Station footprint to function with any preferred alignments being explored and provide well-integrated transit functions.
- Refine land use scenarios, and work with stakeholder groups and the larger community to recommend a preferred scenario for confirmation by the City Council.
- Prepare a Draft Plan for public review and comment.
- Prepare an EIR to provide environmental clearance for the Draft Plan and to facilitate subsequent environmental review to support changes to existing policy/regulatory documents, capital improvement projects, and private development proposals subsequently needed to implement the Plan.

Given where the Diridon Station Area planning effort is in its process, it can only be discussed at a *qualitative* level in this cumulative analysis for the proposed ballpark.

Aesthetics. As noted in Chapter V.K, Visual and Aesthetic Resources of the certified EIR and in subsection 4.1 of the Initial Study the alteration of the visual setting and feeling of historic buildings within the project vicinity would cause indirect damage to scenic resources (i.e., Diridon Station) in the area resulting in significant unavoidable visual resources impacts for both the 2006 Stadium Proposal and the modified project. This, in combination with the alteration of other existing visually significant historic structures, would be a significant unavoidable cumulative impact. Also, the modified project would remove ordinance-size trees from the project site (although fewer than the 2006 Stadium Proposal). Ordinance-size trees are considered significant visual resources; however, as discussed below in the biology subsection, the removal of ordinance-size trees would not be a cumulatively considerable impact. No additional mitigation measures, beyond those identified in Chapter V.K, Visual and Aesthetic Resources, of the certified EIR would reduce impacts to historic visual resources to less-than-significant levels.

The modified project, along with cumulative projects, would increase the amount of shade and shadow cast in and around the project site, including shade and shadows that would fall upon Diridon Station, a historic visual resource. While the impact of most shade and shadows would not be cumulatively considerable for the reasons provided in the certified EIR, shade and shadows that fall upon Diridon Station would be a cumulatively considerable significant impact. Implementation of mitigation measures identified in the certified EIR, including Mitigation Measures CULT-2a and

CULT-2b, would reduce the impact on Diridon Station; however, the cumulative impact would remain significant and unavoidable, as it was for the 2006 Stadium Proposal.

The modified project, along with cumulative projects, would increase the amount of light and glare in and around the project site. Implementation of mitigation measures identified in the certified EIR, including Mitigation Measure CUMULATIVE SHADE-1 would reduce the impact; however, the cumulative impact would remain significant and unavoidable, as it was for the 2006 Stadium Proposal.

The modified project in combination with the updated list of cumulative projects, including BART to Silicon Valley, the HSR, and Diridon Station Area Plan would not create additional cumulatively considerable significant impacts beyond those described in the certified EIR. The removal of ordinance-size trees would remain a less-than-significant impact for the reasons provided in the certified EIR, which include the City's requirement to replace trees at a 4:1 ratio. The indirect impacts to a scenic resource (i.e., Diridon Station) and the impacts caused by shade and shadow and light and glare would remain significant and unavoidable.

Agricultural Resources. There are no agricultural resources located on the project site and the modified project would not result in any cumulatively considerable impacts to farmland.

Air Quality. Projects in the San José area that could be under construction simultaneously with the modified project are listed in Table V-1. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction may result in substantial short-term increases in air pollutants. The cumulative construction of projects could contribute to short-term air quality impacts. However, each individual project would be subject to the rules and regulations, and other mitigation requirements during construction that are recommended by the BAAQMD to reduce the cumulative impact of all construction-related emissions to a less-than-significant level.

As noted in Chapter V.D, Air Quality of the certified EIR, the San Francisco Air Basin is currently in non-attainment for PM_{10} and Ozone. Construction and operation of the modified project, in conjunction with other planned developments within the cumulative study area and the subregion, would contribute to the existing non-attainment status. Thus, the modified project, like the 2006 Stadium Proposal, would exacerbate non-attainment of air quality standards within the subregion and air basin and contribute to adverse cumulative air quality impacts. Implementation of mitigation measures identified in the certified EIR, including Mitigation Measure CUMULATIVE AIR-1 would reduce the modified project's cumulative contribution to construction period impacts to a less-than-significant impact. However, the modified project's contribution to cumulative ozone precursor emissions would remain significant and unavoidable, as it was for the 2006 Stadium Proposal.

Biological Resources. As discussed in subsection 4.4 of the Initial Study, the modified project would require the removal of fewer ordinance-size trees than the 2006 Stadium Proposal. The modified project, as well as the updated list of cumulative projects identified in this analysis, would be required to develop landscape plans that conform to City of San José Landscape and Irrigation Guidelines and City of San José Planning Department specifications. The City requires tree replacement for trees greater than 18 inches in diameter with 24-inch box trees at a ratio of 4:1 (trees planted to trees removed). In addition, ordinance-size trees on the project site are located in an urban downtown area

designated for substantial redevelopment. Their removal, with implementation of mitigation measures discussed in the EIR, would represent a less-than-significant cumulative impact. No mitigation measures besides those identified in Chapter V.F, Biological Resources of the certified EIR would be necessary.

Cultural Resources. As discussed in subsection 4.5 of the Initial Study, both the 2006 Stadium Proposal and the modified project could result in the removal of two structures, the KNTV and Sunlite Baking Company buildings, that are considered historical resources under CEQA. In addition, both the 2006 Stadium Proposal and the modified project would alter the character of the setting of the Diridon Station, a City Landmark listed on the National Register. The alteration of the setting and character of a structure listed on the National Register is a significant unavoidable impact that would result from the modified project. These impacts to historic resources would have a cumulatively considerable impact on historic resources within the Diridon Area. The modified project in combination with the updated list of cumulative projects would have the same level of impact as the 2006 Stadium Proposal.

Projects on the updated cumulative project list may also result in the alteration of historic structures. While it is unlikely that the individual impacts associated with these projects and the modified project would combine to create a cumulative impact of greater severity upon any one historic period or type of resource (the BART station, for example, would be underground and its parking structure, if any, is proposed for the same area as the parking structure for the modified project), the cumulative alteration or loss of historic structures within the City, especially the Downtown Area, would be significant. The combined impacts to historic resources that would result from implementation of the modified project and the cumulative projects listed would result in a cumulatively significant loss of historic resources. The modified project, like the 2006 Stadium Proposal, would contribute to that cumulatively significant impact.

No significant unavoidable impacts related to archeological or paleontological resources would result from the modified project. No additional mitigation measures, beyond those identified in Chapter V.J, Cultural and Paleontological Resources of the certified EIR, would reduce impacts to historic resources to a less-than-significant level. The alteration of a historic resource within the project site vicinity would result in a significant unavoidable cumulative impact.

Geology and Soils. Implementation of the modified project in conjunction with other cumulative development would increase the number of people and employees that could be exposed to regional seismic risks in the seismically active San Francisco Bay Area, but this impact would not be significant with incorporation of standard geotechnical mitigation measures, and no other impact related to geology, soils or seismicity would result from the modified project. Construction of some nearby components of the updated list of cumulative projects, such as the underground station for the BART extension, would add new elements to be considered during the site-specific, design-level geotechnical investigations and other mitigation measures (GEO-1, GEO-2, GEO-3, and GEO-4) recommended in the certified EIR, but the impacts would be reduced to less-than-significant levels by the mitigation measures and would not be cumulatively considerable. The changes in the project and the cumulative projects list do not alter the conclusion of the certified EIR, which found that the project would not create cumulatively considerable impacts related to geology, soils and seismicity. No additional mitigation measures besides those identified in Chapter V.G, Geology, Soils and Seismicity of the certified EIR would be necessary.

Hazards and Hazardous Materials. Under both the 2006 Stadium Proposal and the modified project, development of the project site could expose construction workers and/or the public to hazardous materials releases during and following construction activities. Operation of the proposed baseball stadium could also result in the release of hazardous materials. Construction activities at the site as well as operation of the stadium complex and any other businesses at the project site that use, store, or dispose of hazardous materials would be required to comply with federal, State, and local requirements for managing hazardous materials. The transport, storage and use of hazardous materials in accordance with these requirements would apply to the modified project and cumulative projects alike, ensuring that the project would not contribute to a cumulatively considerable impact associated with hazards or hazardous materials. No additional mitigation measures besides those identified in Chapter V.I, Hazards and Hazardous Materials of the certified EIR would be necessary.

Hydrology and Water Quality. Stormwater from the modified project site discharges into Los Gatos Creek, which in turn flows into the Guadalupe River a short distance north of the project site. As noted in the certified EIR, both water bodies are listed as water quality impaired by the RWQCB. The RWQCB has designated Los Gatos Creek as water quality impaired for diazinon (a pesticide); the Guadalupe River has been designated water quality impaired for diazinon and mercury.[3] No use or discharge of these chemicals is proposed as part of the modified project and therefore, like the 2006 Stadium Proposal, the modified project would not result in a cumulatively considerable impact to surface water quality. Construction of the modified project, in addition to other projects, could create an increase in volume of stormwater runoff and sediments carried in the runoff, which would adversely affect the waters of Los Gatos Creek, the Guadalupe River and the San Francisco Bay. However, as noted in the certified EIR, project-level measures required for each of the projects considered in the cumulative scenario, such as compliance with the City's Post-Construction Urban Runoff Management Policy and Santa Clara County's NPDES permit requirements, would be reduce impacts to a less-than-significant level and the project's impact would not be cumulatively considerable. No additional mitigation measures besides those identified in Chapter V.H, Hydrology and Water Quality of the certified EIR would be necessary.

Land Use and Planning. In cumulative impact terms, land use compatibility can be divided into short-term and long-term impacts. Short-term impacts occur during construction and primarily affect existing sensitive land uses, such as hospitals, schools, and residential development near the construction site. These impacts include the noise and dust generated by grading and excavation activities and the use of heavy machinery, and the use of hazardous materials such as solvents. These specific impacts are discussed in greater detail in Chapter V, Sections V.D, Noise; V.E, Air Quality; and V.I, Hazards and Hazardous Materials, of the certified EIR and subsections 4.3, Air Quality, 4.7, Hazards and Hazardous Materials, and 4.11, Noise of the Initial Study.

Locating incompatible land uses within close proximity of one another also creates the potential for long-term conflicts between the two land uses. The General Plan comprises an integrated, internally consistent and compatible statement of the City's official land use policy. The General Plan must always be considered in its entirety with no single policy, principle, standard or plan read and considered in isolation. The modified project, like the 2006 Stadium Proposal, would appear to be

[3] Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, 2003. 2002 CWA Section 303(d) List of Water Quality Limited Segment, Approved by USEPA. July.

consistent with the General Plan when balancing the project overall, as discussed in subsection 4.9 of the Initial Study. The modified project would be generally consistent with existing entertainment-related land uses in the Diridon Area. The development of the stadium does not preclude the development of future transit, including BART and the HSR, as envisioned in planning documents for the Diridon Station Area.[4] As such, operation of the modified project would not result in long-term land use impacts per se. While the modified project, and those cumulative projects listed in Table V-1, would result in land use changes, such changes are generally consistent with the City's goals and policies that are found in the General Plan and *Strategy 2000*. Like the 2006 Stadium Proposal, the modified project, along with the cumulative projects discussed in this analysis would have a less-than-significant cumulative land use impact. No mitigation measures would be necessary for cumulative land use impacts.

Mineral Resources. There are no mineral resources located on the project site and the modified project would not result in any cumulatively considerable impacts to mineral resources.

Noise. Noise levels generated during the construction of the modified project would be the same as those generated during construction of the 2006 Stadium Proposal. Implementation of construction-period Mitigation Measure NOISE-5 as described on page 171 of the EIR would reduce construction noise impacts to a less-than-significant level. Construction noise from the modified project would not make a cumulatively considerable contribution to off-site noise impacts from cumulative projects, which would be occurring at different times and often at widely separated locations. No additional mitigation measures for construction noise besides those identified in Chapter V.E, Noise of the certified EIR would be necessary.

Project-related noise generated by traffic for the modified project would be the same as for the 2006 Stadium Proposal (or slightly less due to the reduced stadium seating capacity) but would still contribute to cumulative traffic noise impacts in the vicinity of the project site when considered in combination with the updated list of cumulative projects including the BART extension and HSR. Implementation of mitigation measures identified in the certified EIR, including Mitigation Measure CUMULATIVE NOISE-1 would reduce the impact; however, the cumulative impact would remain significant and unavoidable, as it was for the 2006 Stadium Proposal.

Noise associated with stadium events such as baseball games, concerts and fireworks displays would contribute to the cumulative ambient noise in the vicinity of the project site. As listed in Table V-1, additional development is planned for the area which will result in additional noise sources typical of urban areas such as night club music, public address systems at restaurants, or noise from people on active streets and from additional transit and train service. Such cumulative noise sources are to be expected in a downtown area as envisioned by the City's *Strategy 2000* plan. The BART and HSR systems would add cumulative operational noise not considered in the certified EIR. Both systems would produce some noise in the project area as trains approach and depart from their respective stations (e.g., horn blowing). Implementation of mitigation measures identified in the certified EIR, including Mitigation Measure CUMULATIVE NOISE-2 would reduce the impact of the modified project; however, the cumulative impact would remain significant and unavoidable, as it was for the 2006 Stadium Proposal.

[4] City of San José, 2009. Diridon Area Specific Plan, Briefing Book for the TOD Technical Assistance Panel, July.

Population and Housing. The modified project would generate fewer jobs on the project site than the 2006 Stadium Proposal, and no housing units. One additional residential unit would be displaced by the modified project. Projects on the updated cumulative projects list would provide both jobs and housing within the project vicinity. While the modified project and cumulative projects would contribute to the number of jobs and households in San José, the increase would not be substantial enough to adversely impact the projected balance between jobs and housing within the City. The changes in the project and the cumulative projects list do not alter the conclusion of the certified EIR, which found that the project would not have a significant cumulative impact on population and housing. No mitigation measures would be necessary for cumulative population, employment, and housing impacts.

Public Services. The modified project, in addition to the projects listed in Table V-1, would increase the demand for police and fire services. As noted in the certified EIR, these services go through an annual budgeting process during which citywide priorities are established and service levels monitored, allowing for adjustment where needed. The cumulative impact to public services and facilities would be less than significant. No mitigation measures would be necessary for cumulative public services and facilities impacts.

Recreation. One potential effect of the 2006 Stadium Proposal is that it would preclude development of the site of the proposed parking structure south of the Park Avenue as a public park. Because the parking structure for the modified project would be constructed on a different site, this effect would not occur under the modified project. Other potential impacts of the project within the cumulative scenario would be unchanged with regards to parks and recreation. Because the impact of the modified project on recreation would be less than that of the 2006 Stadium Proposal the cumulative impact to recreation would remain less than significant. No mitigation measures would be necessary for cumulative recreation impacts.

Transportation, Circulation and Parking. To represent other potential development, buildout of downtown San José as outlined with the *Strategy 2000* plan was assumed. The *Strategy 2000* plan identifies projected levels of development that may occur over the next 20 years in and surrounding the downtown area. The potential development levels were based upon existing parcels that may be developed or redeveloped, but did not identify specific development for individual parcels. Thus, the *Strategy 2000* plan provides for a maximum development thresholds. Trips associated with the projected development were developed with a traffic forecasting model which included future development growth throughout the Bay Area. The trips associated with the *Strategy 2000* projected development were added to the simultaneous-events project scenario to represent cumulative conditions. It should be noted that under the *Strategy 2000* buildout, intensified development was assumed for the stadium site: mostly residential development. This intensified development was not subtracted from the overall level of development modeled here (i.e., this cumulative scenario includes a small component of double-counted trips).

Additionally, trips associated with the planned extension of the BART to San Jose were also included under cumulative conditions. At present, the BART project is further along in its environmental review process than the HSR project and thus detailed information regarding BART's effect on traffic is now available. Therefore, the BART project is included within the cumulative analysis, whereas, the HSR project is not because the necessary environmental studies for the HSR project are only in the preliminary stages of preparation. The detailed information regarding HSR station and parking

facility locations necessary to complete a quantitative analysis of the HSR project under cumulative conditions is not available at this time.

The added trips due to downtown buildout were taken from the *Strategy 2000* study, dated January 7, 2005. Trips for the BART extension were taken from the traffic study completed for the proposed Diridon Station, dated December 23, 2008. These trips were added to the simultaneous-event project scenario to represent cumulative conditions. The cumulative scenario includes the recommended improvements described under project conditions, but does not include any other transportation network improvements. The peak-hour intersection volumes at each study intersection are presented in tabular and graphical forms in the Supplemental Traffic Impact Analysis (TIA), which is included as Appendix C of this SEIR.

(1) Intersection Level of Service Analysis. Tables V-2 and V-3 present the simultaneous-event levels of service summary for the 32,000 and 36,000-seat alternatives, respectively, for each of the three parking options. Under the 1,200-space Montgomery/Autumn Street parking structure option, five intersections would operate worse than LOS D under cumulative conditions for either a 32,000- or 36,000-seat stadium. Under the 1,300 spaces HP Pavilion parking structure option, four and five intersections would operate worse than LOS D under cumulative conditions for a 32,000- or 36,000-seat stadium, respectively. With the elimination of any parking structure as part of the modified project, four intersections would operate worse than LOS D under cumulative conditions for either a 32,000- or 36,000-seat stadium.

All intersections experiencing significant cumulative impacts are within the San José Downtown area and, thus, are exempt from the City's Level of Service policy, therefore, the significant congestion forecast under cumulative conditions, regardless of seating capacity and parking structure option, is acceptable under City policy. These intersections also were shown to operate at LOS E or F in the *Strategy 2000* study. Mitigation measures to address these intersection LOS shortcomings were described in that study and are as follows:

Julian and SR 87 NB Ramps. Implementation of the *Strategy 2000* study improvements that include the addition of exclusive through and right-turn lanes on Notre Dame Street, the addition of an exclusive westbound right-turn lane on Julian Street, and changes to the signal phasing would mitigate the ballpark impact at this intersection under cumulative conditions. The improvements also are part of the Julian Realignment project that is currently being studied.

Autumn Street and Santa Clara Street. The mitigation in the *Strategy 2000* study is the construction of two westbound left-turn lanes. The improvement already has been assumed in this ballpark cumulative analysis, and the Level of Service still is LOS E. Though the intersection of Santa Clara Street and S. Autumn Street is exempt from the City's Level of Service Policy and the project is not required to provide mitigation, there are operational improvements that can be

Table V-2: Cumulative Intersection Levels of Service Summary – 32,000-Seat Stadium

	Background		Cumulative Conditions					
			Montgomery/Autumn Street Parking Structure 1,200 Spaces		HP Pavilion Parking Structure 1,300 Spaces		No Parking Structure	
Intersection	**Average Delay**	**LOS**	**Average Delay**	**LOS**	**Average Delay**	**LOS**	**Average Delay**	**LOS**
NB SR 87 Ramps and W. Julian St.*	44.0	D	**66.9**	**E**	**66.0**	**E**	**72.3**	**E**
SB SR 87 Ramps and W. Julian St.*	18.9	B	24.3	C	24.8	C	24.0	C
NB SR 87 Ramp and Santa Clara St.*	16.8	B	23.1	C	23.4	C	25.1	C
NB I 280 Ramps and Bird Ave.*	28.9	C	31.0	C	30.9	C	31.1	C
SB I 280 Ramps and Bird Ave.*	36.8	D	37.4	D	36.6	D	36.5	D
S. Autumn St. and Santa Clara St.*	36.3	D	**58.0**	**E**	**74.6**	**E**	48.0	D
Bird Ave and W. San Carlos St.*	37.0	D	**55.2**	**E**	54.9	D	**56.0**	**E**
SR 87 and Woz Way	10.2	B	11.1	B	11.1	B	11.1	B
S. Autumn St. and W. San Fernando St.	11.8	B	45.6	D	44.7	D	43.6	D
Bird Ave. and Auzerais Ave.	27.6	C	31.1	C	31.2	C	31.5	C
Delmas Ave. and Auzerais Ave.	16.4	B	16.5	B	16.5	B	16.5	B
Woz Way and Auzerais Ave.	20.9	C	20.9	C	21.0	C	20.3	C
Delmas Ave. and Park Ave.	26.7	C	**75.0**	**E**	**73.8**	**E**	**79.5**	**E**
Delmas Ave. and W. San Carlos St.	24.3	C	27.6	C	27.6	C	27.8	C
S. Autumn St. and Park Ave.	34.5	C	18.0	B	18.0	B	18.5	B
Woz Way and Park Ave.	22.0	C	25.4	C	25.3	C	26.1	C
Woz Way and W. San Carlos St.	25.4	C	29.1	C	29.0	C	30.0	C
Delmas Ave. and W. San Fernando St.	22.9	C	26.1	C	25.5	C	25.9	C
*Montgomery St. and Santa Clara St. **	27.6	C	**74.3**	**E**	**88.1**	**F**	**76.9**	**E**
Montgomery St. and San Fernando St.	17.2	B	16.2	B	16.2	B	16.2	B
San Carlos St. and Lincoln Ave.	36.7	D	43.0	D	43.0	D	43.0	D
San Carlos St. and Meridian Ave.	42.1	D	47.9	D	47.9	D	47.9	D
*The Alameda and Taylor St./ Naglee Ave.**	36.3	D	46.8	D	46.8	D	46.8	D
*The Alameda and Hedding St. **	29.9	C	32.9	C	32.9	C	32.9	C

Note: Intersections studied in the supplemental analysis but not in the 2006 analysis are shown in italics.
* Denotes CMP intersection.
Note: **Bold** indicates a significant cumulative impact. However, these intersections are located within the Downtown Core and are therefore exempt from the City's Level of Service Policy, and the identified levels of congestion are considered acceptable under that policy.
Source: Hexagon Transportation Consultants, 2010.

Table V-3: Cumulative Intersection Levels of Service Summary – 36,000-Seat Stadium

	Background		Cumulative Conditions					
			Montgomery/Autumn Street Parking Structure 1,200 Spaces		HP Pavilion Parking Structure 1,300 Spaces		No Parking Structure	
Intersection	**Average Delay**	**LOS**	**Average Delay**	**LOS**	**Average Delay**	**LOS**	**Average Delay**	**LOS**
NB SR 87 Ramps and W. Julian St.*	44.0	D	**74.0**	**E**	**73.0**	**E**	**80.7**	**F**
SB SR 87 Ramps and W. Julian St.*	18.9	B	24.8	C	25.2	C	24.6	C
NB SR 87 Ramp and Santa Clara St.*	16.8	B	25.6	C	25.6	C	29.4	C
NB I 280 Ramps and Bird Ave.*	28.9	C	31.0	C	31.0	C	31.2	C
SB I 280 Ramps and Bird Ave.*	36.8	D	38.7	D	37.7	D	37.6	D
S. Autumn St. and Santa Clara St.*	36.3	D	**59.9**	**E**	**75.4**	**E**	49.1	D
Bird Ave and W. San Carlos St.*	37.0	D	**56.9**	**E**	**56.6**	**E**	**57.8**	**E**
SR 87 and Woz Way	10.2	B	11.1	B	11.1	B	11.1	B
S. Autumn St. and W. San Fernando St.	11.8	B	48.0	D	46.7	D	45.2	C
Bird Ave. and Auzerais Ave.	27.6	C	31.1	C	31.2	C	31.5	C
Delmas Ave. and Auzerais Ave.	16.4	B	16.5	B	16.5	B	16.5	B
Woz Way and Auzerais Ave.	20.9	C	20.2	C	20.3	C	19.4	B
Delmas Ave. and Park Ave.	26.7	C	**81.6**	**F**	**80.2**	**F**	**87.3**	**F**
Delmas Ave. and W. San Carlos St.	24.3	C	27.8	C	27.8	C	28.0	C
S. Autumn St. and Park Ave.	34.5	C	18.0	B	18.1	B	18.6	B
Woz Way and Park Ave.	22.0	C	26.3	C	26.2	C	27.5	C
Woz Way and W. San Carlos St.	25.4	C	30.3	C	30.1	C	31.6	C
Delmas Ave. and W. San Fernando St.	22.9	C	26.6	C	26.0	C	26.4	C
*Montgomery St. and Santa Clara St. **	27.6	C	**77.4**	**E**	**90.6**	**F**	**80.1**	**F**
Montgomery St. and San Fernando St.	17.2	B	16.2	B	16.2	B	16.2	B
San Carlos St. and Lincoln Ave.	36.7	D	43.1	D	43.1	D	43.1	D
San Carlos St. and Meridian Ave.	42.1	D	48.4	D	48.4	D	48.4	D
*The Alameda and Taylor St./ Naglee Ave.**	36.3	D	47.8	D	47.9	D	47.9	D
*The Alameda and Hedding St. **	29.9	C	33.1	C	33.2	C	33.2	C

Note: Intersections studied in the supplemental analysis but not in the 2006 analysis are shown in italics.
* Denotes CMP intersection.
Note: **Bold** indicates a significant cumulative impact. However, these intersections are located within the Downtown Core and are therefore exempt from the City's Level of Service Policy, and the identified levels of congestion are considered acceptable under that policy.
Source: Hexagon Transportation Consultants, 2010.

implemented to improve operating levels. The addition of a second left-turn lane from northbound S. Autumn Street to westbound Santa Clara Street would improve operating levels of the intersection to LOS D.

Bird Avenue and San Carlos Street. The *Strategy 2000* study showed this intersection to operate at LOS F with downtown buildout, improving to LOS E with the addition of a second northbound to westbound left turn lane. This analysis includes the additional left turn lane as part of the Bird Avenue improvements that will be completed by the project. This analysis shows the same LOS E as the *Strategy 2000* study for this intersection with the improvement. Since LOS E still does not meet the City's LOS D standard, the *Strategy 2000* study includes the following language: "this intersection would continue to operate at an unacceptable level of service during the PM peak hour. The impact at this intersection is significant and unavoidable."

Montgomery Street and Santa Clara Street. The mitigation in the *Strategy 2000* study is the Autumn Street connection to Coleman. This already has been assumed in this ballpark cumulative analysis, and the Level of Service still is LOS F. However, this intersection is located within the Downtown Core and is therefore exempt from the City's Level of Service Policy, and the identified level of congestion is considered acceptable under that policy.

Delmas Avenue and Park Avenue. The mitigation in the *Strategy 2000* study is the addition of a second southbound through lane. This already has been assumed in this ballpark cumulative analysis, and the Level of Service still is LOS F. However, this intersection is located within the Downtown Core and is therefore exempt from the City's Level of Service Policy, and the identified level of congestion is considered acceptable under that policy.

(2) Freeway Analysis. The peak hour traffic volumes for the study freeway segments for cumulative conditions were developed by applying a growth factor to the existing peak hour traffic volumes. The growth factor was calculated utilizing CMP annual data for the years 2004 to 2008. Historical growth along the studied freeway segments indicates a 1 percent average annual growth rate in traffic volumes along the studied freeway segments. Therefore, the 1 percent growth rate was applied to the 2008 CMP freeway segment traffic volumes for a period of ten years.

The freeway segment levels of service under cumulative conditions for the 32,000- and 36,000-seat capacity stadium options are presented in the Supplemental TIA (Appendix C of this SEIR). According to the CMP's definition of significance, each of the project options with each of the three parking scenarios would contribute to a cumulatively significant adverse impact on the following 16 freeway segments:

- SR 87 southbound between Coleman Avenue and Julian Street
- SR 87 southbound between Coleman Avenue and Taylor Street
- SR 87 southbound between Taylor Street and Skyport Drive
- SR 87 southbound between Skyport Drive and U.S. 101
- I-280 eastbound between Saratoga Avenue and Winchester Boulevard
- I-280 eastbound between Winchester Boulevard and I-880

- I-280 eastbound between I-880 and Meridian Avenue
- I-280 eastbound between Meridian Avenue and Bird Avenue
- I-280 eastbound between Bird Avenue and SR 87
- I-280 eastbound between SR 87 and 10th Street
- I-680 southbound between Alum Rock Avenue and McKee Road
- I-880 southbound between Coleman Avenue and SR 87
- I-880 southbound between SR 87 and North 1st Street
- I-880 southbound between North 1st Street and U.S. 101
- I-880 southbound between U.S. 101 and East Brokaw Road
- I-880 southbound between East Brokaw Road and Montague Expressway

Improvements to mitigate significant cumulative impacts on freeway segments are infeasible due to right-of-way constraints and the land use impacts associated with acquiring additional right-of-way as described under project conditions in Section IV.A, Traffic, Circulation and Parking. Therefore, these impacts would be significant and unavoidable.

Utilities and Service Systems. The modified project, and those projects listed in Table V-1, would increase the demand for water service, wastewater service, and other utilities. However, as concluded in the certified EIR for the 2006 Stadium Proposal, given the size of the service area and overall demand, the cumulative impact on utilities would be less-than-significant. In addition, utility service providers maintain long-term projections for demand for their services within the City based on the City's General Plan, and have developed strategies to meet anticipated future demand levels. No mitigation measures would be necessary for cumulative utilities impacts.

The development of the modified project, in addition to the cumulative projects identified in Table V-1, would require connection to electrical and natural gas transmission and distribution systems maintained and served by Pacific Gas & Electric (PG&E). All expansion of electrical or natural gas facilities and services would be undertaken in accordance with Title 24 and the City's General Plan policies related to energy savings. The application of these policies would ensure that the cumulative effect of this development on energy would be less than significant. No mitigation measures would be necessary for cumulative energy impacts.

Summary. In summary, the 2006 Stadium Proposal and the modified project would have significant cumulative impacts on freeway traffic, air quality, noise, and shade as discussed in Section VI of the certified EIR and in the preceding paragraphs of this subsection. All four cumulative impacts (there are two for noise) would be significant and unavoidable for the 2006 Stadium Proposal after implementation of Mitigation Measures CUMULATIVE AIR-1, CUMULATIVE NOISE-1, CUMULATIVE NOISE-2, and CUMULATIVE SHADE-1. The cumulative impacts to air quality and noise would be less for the modified project than for the 2006 Stadium Proposal, because fewer vehicles would drive to and from the site as a result of the reduced stadium seating capacity and thus there would fewer air emissions from vehicles and less noise from traffic. Nevertheless, as described above, the cumulative impacts of the modified project would still be significant and unavoidable, as they would be for the 2006 Stadium Proposal. The modified project would not result in any new

significant impacts to aesthetics, air quality or shade, nor would it increase the severity of impacts analyzed in the certified EIR for the 2006 Stadium Proposal.

Global Climate Change. Climate change and the emission of greenhouse gases (GHG) by the modified project are addressed in Chapter IV. The construction and operation of the modified project would result in GHG emissions that would have a significant physical adverse impact and cumulatively contribute to global climate change. While implementation of Mitigation Measure GCC-1 would reduce GHG emissions and the severity of the impact on global climate change, no additional mitigation measures are available to reduce this impact to a less-than-significant level. This impact is considered significant and unavoidable.

Conclusion. The modified project would have the following cumulatively considerable impacts, as described in the certified EIR and the SEIR:

- The increase in project traffic on SR-87, I-680, I-880, and I-280 would contribute to an increase in freeway traffic in the City;
- The project option that would utilize vacated right of way by narrowing Park Avenue would include an Amendment to the San Jose 2020 General Plan Transportation Diagram for a reduction in capacity of Park Avenue from four to two lanes in the City's long-term transportation model (CUBE) would result in significant and unavoidable traffic impacts;
- Project construction activities and operation would exacerbate non-attainment of air quality standards within the subregion and air basin;
- The increase in noise levels from project-related traffic would contribute to increases in traffic noise in the Downtown Area;
- The loss of two structures listed on the *City of San José Historic Resources Inventory* as Structures of Merit, the KNTV Broadcast Facility located at 645 Park Avenue and the Sunlite Baking Company building located at 145 South Montgomery Street which appear to be candidate City Landmarks and eligible for the California Register;
- The alteration of the setting and feeling of a structure listed on the National Register would substantially damage cultural resources;
- The increase in light and glare from nighttime operation of the stadium would contribute to the amount of light and glare in the area; and
- The generation of greenhouse gas emissions, which would represent a cumulatively considerable contribution to climate change impacts.

These effects constitute significant cumulative impacts. In all other environmental topical areas, the project's contribution would be reduced or eliminated by project mitigation measures to the point that the project would not contribute considerably to any other significant cumulative impacts.

VI. ALTERNATIVES

The *CEQA Guidelines* require analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project's basic objectives and avoid or substantially lessen any of the significant effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.[1] The Baseball Stadium in the Diridon/Arena Area project has been described and analyzed in the certified EIR and in this SEIR with an emphasis on significant impacts and recommended mitigation measures to avoid these impacts. The following discussion is intended to inform the public and decision-makers of feasible alternatives to the proposed modified project.

The objectives of the proposed project are an important part of the context for evaluating alternatives to the proposed project. The City of San José's primary objective is the construction of a downtown baseball stadium in the event that Major League Baseball revises the territory for the A's baseball team. All other objectives remain the same as identified in the certified EIR, except the target stadium seating capacity, which is reduced from 45,000 seats; the modified project would have a maximum seating capacity of up to 36,000 (the lowest maximum seating capacity would be 32,000).

As discussed earlier in this SEIR, the proposed project includes options for seating capacity (32,000 up to 36,000 seats), and parking structure size and location options, including not constructing a parking garage. As disclosed in this SEIR, the various seating and parking options do not translate to a difference in the number and severity of the project's significant environmental impacts. Therefore, the City Council and other decision-makers can choose among the various seating and parking options, and this SEIR need not consider alternatives to those specific options, other than the alternatives to the overall project itself, as discussed in more detail below.

Additionally, while the project, as discussed in the Cumulative Impacts chapter, would make a cumulatively considerable contribution to several local intersection cumulative traffic impacts, all of the affected intersections are located within the Downtown Core Area, meaning they are exempt from the Level of Service Policy, and therefore, the following alternatives discussion need not consider alternatives that avoid the project's contribution to the local intersection cumulative impacts.

Finally, the project also includes an option to narrow Park Avenue from four to two lanes and use the vacated right of way to provide additional site area for the ballpark. The narrowing of Park Avenue would entail an Amendment to the San Jose 2020 General Plan Transportation Diagram to reflect two rather than four lanes. As discussed previously in this SEIR, the reduction in capacity of Park Avenue from four to two lanes would result in significant and unavoidable impacts in the City's long-term transportation model (CUBE). Therefore, this SEIR discloses that the option to develop the ballpark using vacated Park Avenue right of way would result in significant environmental impacts that would be avoided by not narrowing Park Avenue and using the available site area discussed in the 2007 EIR

[1] *CEQA Guidelines*, 2006, Section 15126.6.

and as discussed in this SEIR. Given that the two site options (original site area, and expanded site area utilizing narrowed Park Avenue right of way) are discussed equally and thoroughly throughout this SEIR, there is no further discussion in this Alternatives chapter of the environmental choices inherent in deciding whether to proceed with either option.

Should the City Council choose to approve the ballpark option that entails a narrowed Park Avenue, the City Council would need to conclude, based on substantial evidence, that developing the ballpark without the additional Park Avenue right of way was infeasible, and that the benefits of the ballpark outweighed the significant environmental impacts, including those to the City's long-term transportation network that would result from a narrowed Park Avenue. Additional information that could serve as substantial evidence may be introduced once a specific ballpark design has been presented to the City. Therefore, the feasibility of the project option to construct the ballpark without utilizing a narrowed Park Avenue is currently unknown and will be determined prior to a decision to implement a specific ballpark design.

A. DESCRIPTION OF ALTERNATIVES

Seven alternatives were analyzed in Chapter VII of the certified EIR. Among these, the No Development, Existing Plan and Submerged Stadium alternatives and three of the four location alternatives (FMC/Coleman Avenue Location, Berryessa Flea Market Location, and Reed and Graham Location) remain feasible. The Del Monte Location alternative is no longer feasible because the site has been developed with a residential project. This chapter briefly discusses the alternatives to the modified project that remain feasible. The alternatives as proposed in 2006 include:

The **No Development** alternative would involve the multi-parcel site remaining physically as it presently is. The multiple-block site would maintain its commercial, light industrial, transportation, utility and office uses. The fire training center south of Park Avenue would continue to operate in its current location. Autumn Street would maintain its current alignment, and Otterson and Montgomery Streets would not be vacated. Note that elements of the modified project, such as the modification of the intersection of S. Autumn Street and S. Montgomery Street with Park Avenue and, if the stadium site were enlarged to the south, the narrowing of Park Avenue, would not be implemented under the No Development alternative.

The **Existing Plan** alternative would involve the development of the site in accordance with the development outlined in the Diridon/Arena Strategic Development Plan, the Midtown Specific Plan and the Burbank/Del Monte Neighborhood Improvement Plan. The project site north of Park Avenue would be developed with transit oriented mixed use development. The project site south of Park Avenue would be developed with a public park.

The **Submerged Stadium** alternative would involve the excavation of the site by 24 to 28 feet to submerge the stadium and achieve a consequent reduction in overall height by the same 24 to 28 feet. The (150 space on-site) parking garage, as proposed in 2006, would also be submerged to a similar level. Pedestrian access to the interior of the stadium facilities would vary from the proposed (at-grade) concept, but this alternative assumes that the remainder of the project's characteristics would not change.

As discussed in the certified 2007 EIR, over the past several years the City of San José has considered many locations for a baseball stadium. **Alternate Locations Considered and Rejected** addresses locations that have been considered by the City, but which do not meet the basic size requirements or other critical project objectives, or which have other fatal flaws. These locations include: San José Water Company, Delmas Avenue and W. Santa Clara Street; Arcadia Property, 2218 Quimby Road; Old Landfill, north of Story Road, east of 12th Street, south of I-280; County Parking/National Guard, 950 N. San Pedro; and Municipal Stadium, 588 E. Alma Avenue/Central Service Yard, 1660 Center Road. As noted above, the Del Monte Location alternative is no longer feasible because it has been developed. No additional potentially feasible sites have been identified that would meet the identified project objectives, including site and location criteria.

In order to most clearly distinguish the trade-off in potential impacts – both *beneficial* and *adverse* – several alternate locations for the project have been selected.

The **FMC/Coleman Avenue Location** alternative evaluates the same development program as the proposed project, but at another location within the City of San José. The FMC/Coleman Avenue Location alternative is an approximately 92.5-acre site bounded by Coleman Avenue to the northeast, Newhall Street to the southeast, Southern Pacifica Railroad lines to the southwest and the jurisdictional boundary of the City of Santa Clara to the northwest. This site was analyzed (for another type of development project) in the EIR prepared for the FMC/Coleman Avenue Planned Development Rezoning (July 2003), and is currently being analyzed for use as an 18,000-seat open-air Major League Soccer stadium to host the San Jose Earthquakes.[2] The San Jose Earthquakes and Oakland A's have a common owner and the possibility of the two teams inhabiting the same sports stadium is discussed in more detail below.

The **Berryessa Flea Market Location** alternative evaluates the same development program as the proposed project, but at another location within the City of San José. The Berryessa Flea Market Location alternative is an approximately 120-acre site at 1590 Berryessa Road, generally south of Chessington Drive and Bellemade Street, north of Maybury Street, west of Caltrain tracks and east of Coyote Creek. This site was analyzed (for another type of development project) in the EIR prepared for the San José Flea Market General Plan Amendment (November 2002).

The **Reed and Graham Location** alternative evaluates the same development program as the proposed project, but at another location within the City of San José. The Reed and Graham Location alternative is an approximately 16-acre site at 854 Savaker Avenue, generally bounded by Los Gatos Creek to the west, I-280 to the south, railroad lines to the west and Savaker Avenue to the north. This site was analyzed as an alternative in the EIR prepared for the KB Home Monte Vista Residential Planned Development Zoning Project (March 2005).

Each alternative is compared to the proposed modified project, and discussed in terms of its various mitigating or adverse effects on the environment to the extent that the analysis is different from that contained in the certified EIR for the 2006 Stadium Proposal. Analysis of the alternatives focuses on those topics for which significant adverse impacts would result from the proposed project.

[2] San Jose, City of, 2009. *Airport West Stadium and Great Oaks Place Project Draft Environmental Impact Report*. Available at: http://www.sanjoseca.gov/planning/eir/EIR.asp. September.

B. ANALYSIS OF ALTERNATIVES

The **No Development** alternative is the circumstance under which the project does not proceed, and the comparison involves the effects of the property remaining in its existing state versus the effects which would occur if the project were implemented. As noted in the certified EIR, while this alternative would be environmentally superior in the technical sense that the impacts associated with the 2006 Stadium Proposal would not occur, it would also fail to achieve any of the project's objectives summarized at the beginning of this chapter. The same conclusion is reached for the modified project. The creation of a baseball stadium in this area as proposed in 2006 or as modified, in the greater downtown area, with access to public transit as well as existing parking, and on an site that could be readily assembled and secured, would be foregone.

The **Existing Plan** alternative would involve the development of the site in accordance with the development outlined in the Diridon/Arena Strategic Development Plan, the Midtown Specific Plan and the Burbank/Del Monte Neighborhood Improvement Plan as described in the certified EIR. As noted in the certified EIR, this alternative would have greater impacts than the proposed project related to traffic and air quality, but it would have fewer impacts related to: land use; population, employment and housing; noise; visual resources; shade/shadow and light/glare. The same conclusion is reached for the modified project. However, it would not meet the City's objectives for the proposed project, which is to develop a Major League Baseball stadium and associated facilities.

The **Submerged Stadium** alternative would involve the excavation of 75 to 80 percent of the site by 24 to 28 feet to submerge the stadium and achieve a consequent reduction in overall height by the same 24 to 28 feet. The parking garage would also be submerged to a similar level. As noted in the certified EIR, this alternative generally represents the next-best alternative after the No Development alternative in terms of the fewest impacts. The Submerged Stadium alternative would have greater short-term impacts than the proposed project and the modified project related to: construction traffic, noise and air quality; hydrology and water quality; and cultural resources. If the HP Pavilion parking option were selected the modified project would have greater short-term impacts related to hazards and hazardous materials than the Submerged Stadium alternative or the 2006 Stadium proposal. The Submerged Stadium alternative would have reduced long-term impacts related to: land use; operational noise; visual resources; shade/shadow and light/glare. It would meet the City's objectives to the same extent as the 2006 Stadium Proposal and the modified project.

Over the past several years the City of San José has considered many locations for a baseball stadium. Some of the locations that have been considered by the City simply do not meet the basic size requirements or other critical project objectives, or which have other fatal flaws. **Alternate Locations Considered and Rejected** were discussed in the certified 2007 EIR. All of the sites were rejected as infeasible for the reasons provided in the certified EIR. In addition, the **Del Monte Location** alternative, previously analyzed in the certified EIR, is no longer feasible because it has been developed for residential use.

In order to most clearly distinguish the trade-off in potential impacts – both *beneficial* and *adverse* – several feasible alternate locations for the project were selected for analysis in the certified EIR. Among these, three alternatives, the FMC/Coleman Avenue Location, Berryessa Flea Market Location, and Reed and Graham Location remain feasible. As noted above, all three alternatives would implement the same development program as the proposed project, but at another location within the

City of San José. Among the alternative locations, the **FMC/Coleman Avenue Location** alternative would generally lead to the fewest impacts. The FMC/Coleman Avenue Location alternative would not have any greater impacts than the 2006 Stadium Proposal or the modified project, and it would have fewer impacts related to: land use; noise; biological resources; cultural resources; visual resources; shade/shadow and light/glare.

Although the FMC/Coleman Avenue Location alternative presents the fewest environmental impacts of the off-site alternatives, the site is currently under consideration for development of a soccer stadium. If development of the soccer stadium does not move forward, this alternative could be feasible. However, if the soccer stadium does move forward, a combined soccer stadium and major league ballpark is not a desirable option. From both a functional and economic perspective, the uses are incompatible. The shapes of the baseball and soccer fields are entirely different, with the soccer field closely resembling the rectangular size and shape of an American football field. A baseball field is essentially a triangle with different dimensions from a soccer field. These two sports require field designs with different patron seating areas and sight lines. Soccer's primary and most expensive seating is mid-field on either side of the field. Baseball's primary seating is focused on the infield and that is where the largest concentration of seating and highest priced seating is also located.

There have been many attempts to develop multipurpose baseball and football stadiums in the past. Based on the problems noted above, these past experiments have not been successful and most multipurpose stadiums have been demolished and replaced with single purpose baseball and football facilities. The Oakland Coliseum, the A's current home, is an example of a multi-purpose facility that is considered by many to be substandard for baseball. A desire for a single-purpose facility has been publicly stated as one of the primary reasons the owner of the A's would like to relocate the team. Further, the City of Oakland has made, and continues to make, attempts to locate a site for a new A's single-purpose baseball stadium in Oakland. As an additional example, the San Francisco Giants left a multi-purpose stadium (Candlestick) for the own single-purpose ballpark. The City Council would determine whether or not this is a feasible alternative when making a decision on the project.

C. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Designation of the environmentally superior alternative can be a complicated task for an in-fill project, proposed for development on a historically urbanized site. The complications revolve around the very definitions of "impacts" as well as the likelihood that some impacts would occur, or continue to occur, if they are already present in the existing condition. Some impacts are forecast to occur under baseline future conditions, with or without the proposed project. Such is the case with the stadium project.

As noted in the Initial Study (Appendix B) for the modified project and the SEIR, the impacts of the modified project would be similar or slightly less than those of the 2006 Stadium Proposal for many topics due to the reduced scale of the stadium proposed as part of the modified project. The overall impact of the 2006 Stadium Proposal and modified project are similar. The No Development alternative is considered the environmentally superior alternative in the strict sense that its implementation would result in the smallest number of and least noticeable environmental impacts of all the scenarios examined (including the 2006 Stadium Proposal and the modified project). To maintain the project site as it is today would avoid each of the significant and unavoidable impacts that would result from the proposed project.

In cases like this where the No Development alternative is technically the environmentally superior alternative, CEQA requires that the second most environmentally superior alternative be identified. Comparison of the environmental impacts associated with each alternative as described above, indicates that each of the other "build" alternatives (i.e., Existing Plan, Alternate Location) would lead to a complex mix of impacts that would be greater and/or lesser than the proposed project, depending on the topic.

As noted in the certified EIR and the preceding section, the Submerged Stadium alternative would generally represent the next-best alternative in terms of the fewest impacts and it would meet the City's objectives to the same extent as the 2006 Stadium Proposal and the modified project. The Existing Plan alternative would come close to the Submerged Stadium alternative in terms of the fewer impacts but it would not meet the City's objectives for the proposed project, which is to develop a Major League Baseball stadium and associated facilities. Among the alternative locations, the FMC/Coleman Avenue Location alternative would generally lead to the fewest impacts; however, as noted above, this off-site alternative may not be feasible given that the site is currently under consideration for development of a soccer stadium. If the soccer stadium project moves forward at this location, the owner of the San José Earthquakes and the Oakland A's has indicated that it would not be feasible to house both teams in a single stadium at this location, as the quality of the game experience would likely be substantially reduced and housing a baseball and soccer team within the same venue may not be functionally feasible. The City Council would determine whether or not this is a feasible alternative when making a decision on the project.

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VIII. REFERENCES

Bay Area Air Quality Management District, 2008. *Source Inventory of Bay Area Greenhouse Gas Emissions.* December.

Brookings Institute, *Shrinking the Carbon Footprint of Metropolitan America,* May 2008

California Air Resources Board. 2008. *Climate Change Proposed Scoping Plan: a framework for change*. October.

California Air Resources Board, Greenhouse Gas Inventory Data - 1990 to 2004. Website: http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed November 2008.

California Air Resources Board. 2007. "ARB approves tripling of early action measures required under AB 32". News Release 07-46. Website: http://www.arb.ca.gov/newsrel/nr102507.htm. October 25.

California Air Resources Board, 2008. Website: http://www.climatechange.ca.gov/inventory/index.html. September.

California Air Resources Board, 2008. Website: http://www.arb.ca.gov/cc/inventory/data/forecast.htm. September.

California Air Resources Board, 2009. California Greenhouse Gas Inventory by Scoping Plan Categories 2000-2006, Website: http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_2009-03-13.pdf

California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California.* July.

California Energy Commission, 2007. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007 update to that report.

California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

California, State of. 1998. California, Governor's Office of Planning and Research, *General Plan Guidelines, 1998* (Appendix A, Figure 2).

California, State of, 2005. California Energy Commission. California's Water-Energy Relationship. November.

California, State of, 2006. Department of Water Resources. *Progress on Incorporating Climate Change into Management of California's Water Resources*. July.

California, State of, 2008. California Energy Commission's Public Interest Energy Research Program. *The Future is Now: An Update on Climate Change Science, Impacts, and Response Options for California*. September.

California, State of, 2008. Governor's Office of Planning and Research. *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*. June 19.

California, State of, 2009. San Francisco Bay Conservation and Development Commission. Climate Change. Website: http://www.bcdc.ca.gov/planning/climate_change/climate_change.shtml.

Convention, Sports and Leisure, 2009. *Economic Impact Analysis: Proposed Major League Ballpark*, prepared for the Redevelopment Agency of the City of San José. September 9.

Dunbar, Nicole, 2006. *San José Baseball Stadium Water Supply Assessment*.

Hexagon Transportation Consultants, Inc., 2010. *San José Ballpark Supplemental Traffic Impact Analysis*. February 10.

Intergovernmental Panel on Climate Change, 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.*

LSA Associates, Inc., 2006. *Baseball Stadium in the Diridon/Arena Area Draft Environmental Impact Report*. February.

LSA Associates, Inc., 2006. *Baseball Stadium in the Diridon/Arena Area Environmental Impact Report, First Amendment to the Environmental Impact Report (Response to Comments).* January.

McAliney, Mike, 1993. *Arguments for Land Conservation: Documentation and Information Sources for Land Resources Protection, Trust for Public Land, Sacramento, CA*. December.

Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, 2003. 2002 CWA Section 303(d) List of Water Quality Limited Segment, Approved by USEPA. July.

Remy, Thomas, Moose, and Manley, *Guide to the California Environmental Quality Act*, 1999, p.158; Public Resources Code 15382; Public Resources Code 21068.

San Francisco, City of, 1997. *San Francisco Giants Ballpark at China Basin, Draft Environmental Impact Report*.

San Joaquin Valley Air Pollution Control District, 2008. Development Timeline Calculator. Website: http://www.valleyair.org/ISR/ISRResources.htm.

United Nations Environment Programme (UNEP), 2007. *Buildings and Climate Change: Status, Challenges and Opportunities*, Paris, France.

United Nations Framework Convention on Climate Change, 2007. *Greenhouse Gas Inventory Data.* Website: http://unfccc.int/ghg_data/ghg_data_unfccc/time_series_annex_i/items/3814.php and http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf.

United States Department of Energy. 2003. *Buildings Energy Data Book.*

United States Environmental Protection Agency, 1974. "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety." March.

United States Environmental Protection Agency. 2008. The U.S. Greenhouse Gas Emissions and Sinks: Fast Facts. Website: http://www.epa.gov/climatechange/emissions/downloads/2008_GHG_ Fast_Facts.pdf.

United States Environmental Protection Agency, 2009. Carbon Sequestration in Agriculture and Forestry. Website: http://www.epa.gov/sequestration/faq.html. December 30.

United States Global Change Research Program, 2001. Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change.