

## CITY OF TRACY GENERAL PLAN DRAFT SUPPLEMENTAL EIR

STATE CLEARINGHOUSE NUMBER: 2008092006



City of Tracy | April 22, 2009



DESIGN, COMMUNITY & ENVIRONMENT



**CITY OF TRACY GENERAL PLAN  
DRAFT SUPPLEMENTAL EIR**

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## I FOREWORD

This Draft Supplemental Environmental Impact Report (EIR) has been prepared to provide an assessment of the potential environmental consequences of adoption and implementation of the proposed City of Tracy General Plan Amendment, which is an amendment to the City of Tracy's General Plan (adopted in 2006). This assessment is designed to inform City of Tracy decision-makers, other responsible agencies and the public-at-large of the nature of the proposed General Plan Amendment and its effect on the environment. This Supplemental EIR is a supplement to the City of Tracy General Plan EIR certified by the City of Tracy in 2006, and has been prepared in accordance with and in fulfillment of California Environmental Quality Act (CEQA) requirements. The City of Tracy is the Lead Agency for the project.

This chapter describes the history of the proposed General Plan Amendment, proposed changes to the General Plan, as well as the organization of this Draft Supplemental EIR.

### *A. History of the General Plan Amendment*

In 2006, the City of Tracy adopted the General Plan, which was an update to the City's 1993 General Plan. Prior to adoption of the General Plan, the City of Tracy certified the General Plan EIR (SCH# 1992122069). Following the City Council adoption of the General Plan, the City submitted its proposed Sphere of Influence (SOI) to the Local Agency Formation Commission (LAFCO) for approval. The SOI is the area outside of the City limits that the City expects to annex and urbanize in the future.

The primary focus of LAFCO is to ensure efficient public services delivery and avoid duplication of services across jurisdictional boundaries. When a city submits a boundary change to LAFCO, the city is also required to submit a corresponding Municipal Services Review (MSR). LAFCO uses the MSR to determine whether the city, in its role as a service provider, has the physical capacity and financial ability to accommodate the planned growth in its proposed SOI. In early 2007, LAFCO informed City staff that Tracy's MSR review would be subject to new LAFCO policies and guidelines, which

were adopted on September 21, 2007. The LAFCO policy changes regarding SOIs necessitated that the SOI proposed by the City of Tracy in 2006 be reduced to show a 30-year development horizon and a 10-year development horizon.

On December 12, 2007, City staff conducted a community meeting to discuss the new LAFCO policies and to receive feedback. City staff presented the revised draft SOI at City Council meetings held on January 15, February 5, April 1 and June 3, 2008. In addition, a workshop was held with the City Council on July 15, 2008. The City Council accepted it with minor modifications, and directed staff to prepare a General Plan Amendment to formalize the revised SOI. This Draft Supplemental EIR addresses the resulting General Plan Amendment. In addition to the SOI changes described above, the General Plan Amendment incorporates new State legislation regarding flooding policies and enhanced goals, objectives, policies and actions regarding sustainability and the reduction of greenhouse gas emissions.

The City of Tracy has prepared this Draft Supplemental EIR to analyze the potential environmental consequences associated with this proposed General Plan Amendment. Because this amendment reflects only minor changes to the General Plan, this document is a supplement to the General Plan EIR.

In 2007, the City of Tracy commissioned an economic development report that was prepared by Gruen Gruen + Associates (“the Gruen report”). Using market research and analysis, this report forecasts demand for retail, office and industrial space through 2022, a similar period to that covered by the Tracy General Plan. The City’s SOI Amendment Application to LAFCO relies on the development projections contained in the Gruen report.

In general, this EIR projects a greater amount of development than the Gruen report because it is based on past development trends, which have been high in recent years. Therefore, this EIR uses a conservative approach by analyzing a greater amount of development than is estimated in the Gruen report. However, the industrial projections in this EIR are lower than those shown



in the Gruen report because this EIR reflects City policy to permit a wider mix of uses in industrial areas, such as retail and office uses that will help to make the industrial development successful. Therefore, this EIR's industrial development assumption is less intense than the assumptions used in the Gruen report, but is more accurate because it accounts for City policy.

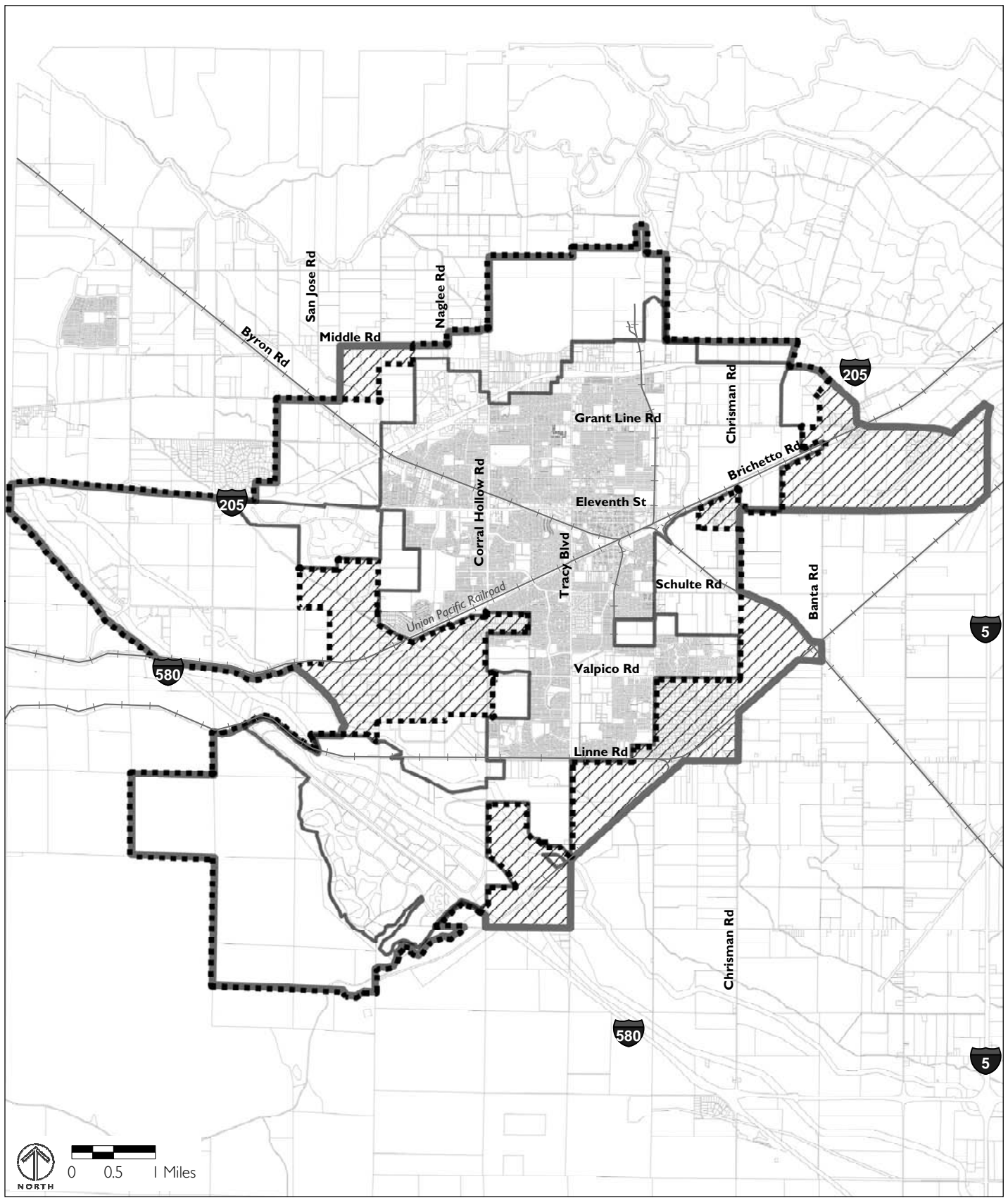
### ***B. General Plan Amendment Description***

This section describes the proposed General Plan Amendment. For a full description of the General Plan Amendment, readers should review the General Plan Amendment itself, which is being published separately and is available on the City's website, [www.ci.tracy.ca.us](http://www.ci.tracy.ca.us). A summary of the General Plan Amendment is also shown in Appendix A.

The General Plan Amendment is an amendment to the General Plan, which is the principal policy document for guiding future conservation and development of the City of Tracy. The General Plan Amendment is primarily aimed at revising the General Plan to comply with new LAFCO policies regarding the City's MSR and SOI. The General Plan Amendment proposes to contract the SOI drafted by approximately 10 square miles from the SOI contained in the General Plan. Figure 1-1 shows those areas in which the SOI is proposed to be reduced to comply with new LAFCO policies.





The revised SOI is 19 square miles, which is 10 square miles smaller than previously planned and drafted by the Tracy City Council. This represents a decrease of approximately 20,000 residential units. To comply with the new LAFCO policies, the City of Tracy has identified a 30-year SOI, as well as a 10-year horizon. The SOI and 10-year horizon are shown in Figure 1-2.

Because the SOI included in the proposed General Plan Amendment is 10 square miles smaller than the previously drafted SOI, there are several areas outside of City limits that were included in the planning process for the General Plan (in 2006) that will no longer be subject to the General Plan under the General Plan Amendment. These areas are described below:



**FIGURE 1-1**

**CONTRACTIONS TO THE 2006  
PROPOSED SPHERE OF INFLUENCE**

-  City Limits
-  2006 Draft Sphere of Influence
-  Proposed 2009 Sphere of Influence
-  Contraction

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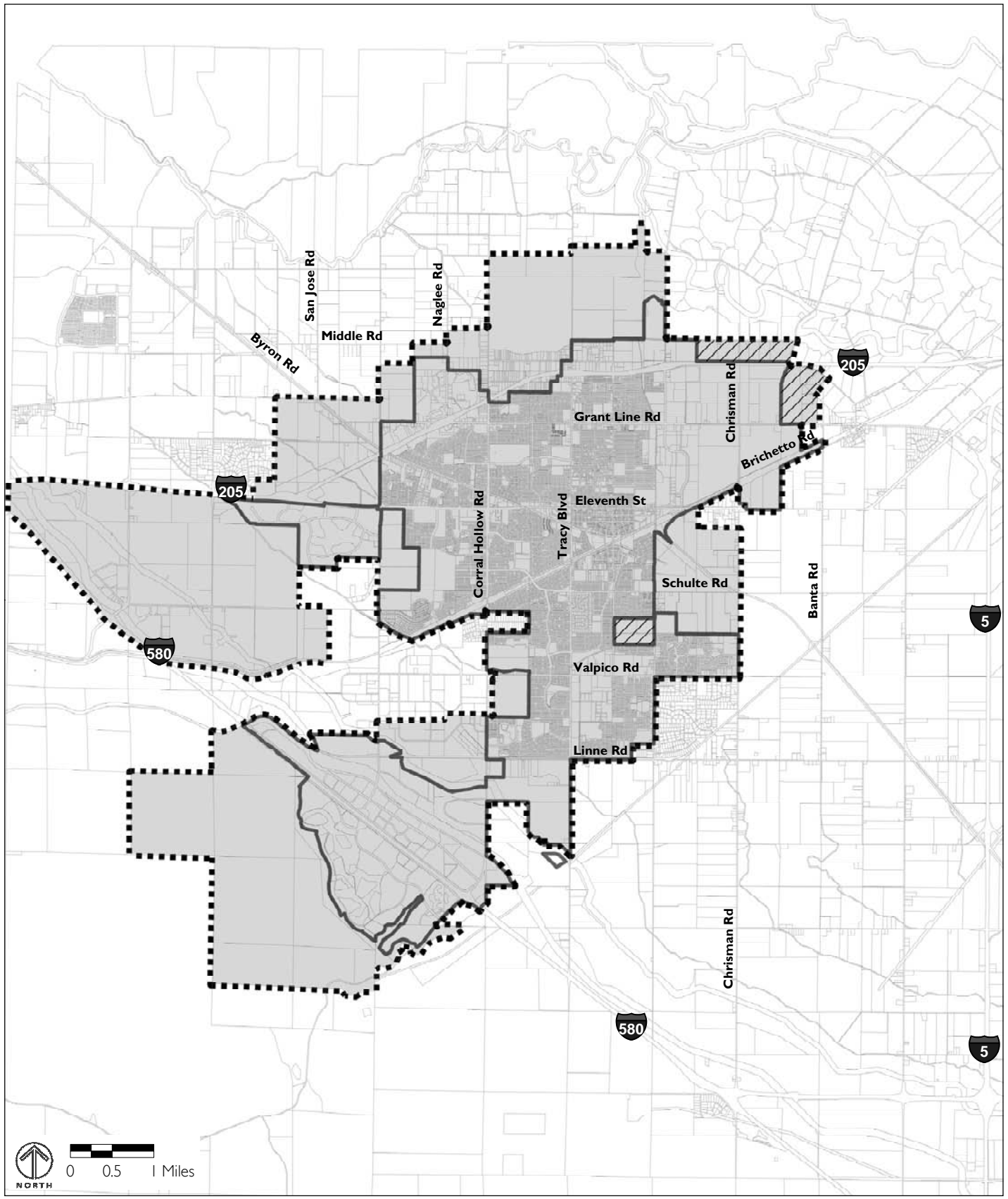
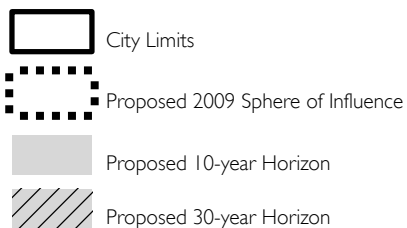


FIGURE 1-2



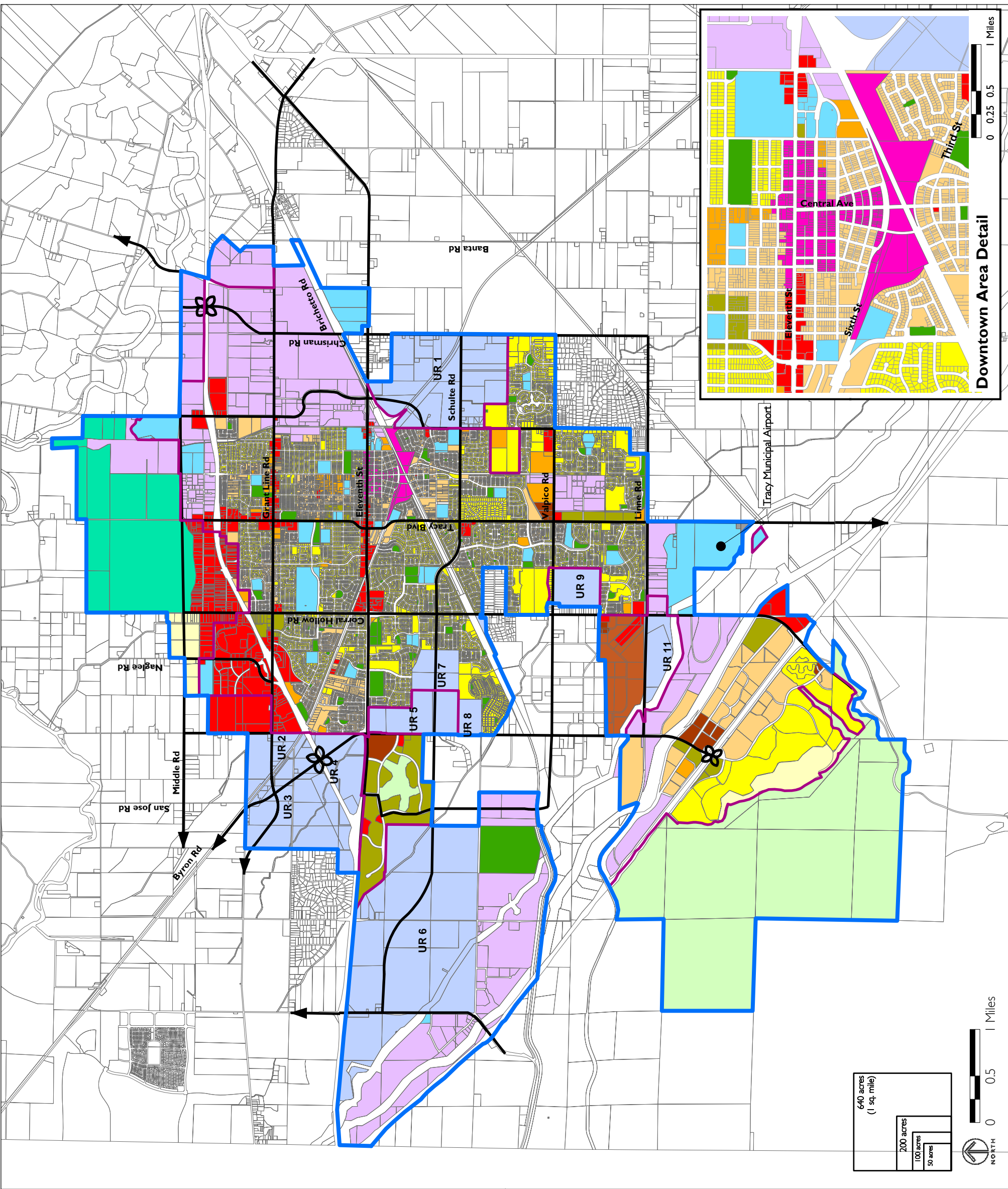
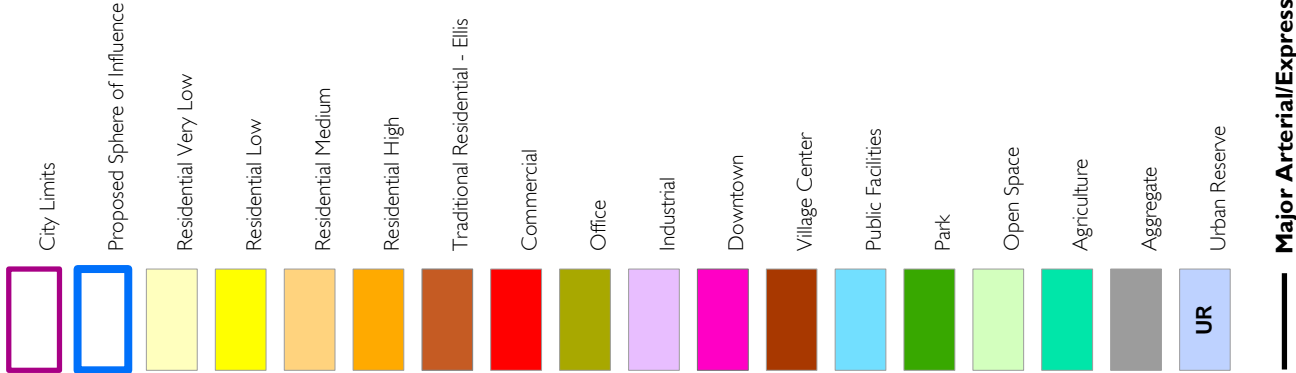
# PROPOSED 30-YEAR SPHERE OF INFLUENCE AND 10-YEAR HORIZON

- ◆ **Area to the West of City Limits.** This contraction area includes approximately 2,000 acres of land that is roughly located west of Corral Hollow Road, between Eleventh Street and Linne Road. These lands were previously designated in the General Plan as Residential Very Low and Urban Reserve.
- ◆ **Area to the Northwest of City Limits.** This contraction area includes approximately 270 acres of land that is located south of Middle Road, between San Jose Road and Naglee Road. The area is located to the west of the I-205 Regional Commercial area and was previously designated as Urban Reserve.
- ◆ **Area to the Northeast of City Limits.** This contraction area includes approximately 1,600 acres of land that is located south of Interstate 205 and to the east of Chrisman Road, which was previously designated as Urban Reserve. This area includes the area commonly known as “Banta” that is situated around an existing agricultural town at the intersection of Grant Line Road and the Union Pacific Railroad. In addition, this contraction area includes approximately 130 acres of land to the west of Chrisman Road and south of Brichetto Road that was previously designated as Commercial, Industrial and Residential Medium.
- ◆ **Area to the Southeast of City Limits.** This contraction area includes approximately 2,400 acres of land that was previously designated as Aggregate, Commercial, Industrial, Public Facilities and Residential Very Low. These lands are located to the south of Schulte Road and to the north of Interstate 580, between Corral Hollow Road and Banta Road.

As a result of the proposed SOI contraction, some of the acreages of the land use designations in the SOI would be reduced. The land use designations are shown in Figure 1-3, below. Table 1-1 presents a comparison of the amount of acres and percentage of each land use designation between the General Plan and the proposed General Plan Amendment. The proposed SOI contraction would eliminate the need for the previously planned extension of Valpico Road connecting a north-south arterial and Eleventh Street. This roadway extension was included in the General Plan and would be eliminated through

FIGURE 1-3

PROPOSED GENERAL PLAN  
LAND USE DESIGNATIONS







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FOREWORD

TABLE I-1 **LAND USE DESIGNATION CHANGES (CITY LIMITS AND SOI)**

<b>Land Use Designation</b>	<b>General Plan (adopted in 2006) (Acres)</b>	<b>% of Total</b>	<b>General Plan Amendment (proposed 2009) (Acres)</b>	<b>% of Total</b>
Residential Very Low	1,138	3.9%	405	1.8%
Residential Low	3,808	13.5%	3,778	16.4%
Residential Medium	1,529	5.3%	1,505	6.5%
Residential High	247	0.9%	247	1.1%
Commercial	1,253	4.3%	1,244	5.4%
Office	546	1.9%	546	2.4%
Downtown	116	0.4%	116	0.5%
Village Center	123	0.4%	123	0.5%
Industrial	4,121	14.3%	3,973	17.3%
Urban Reserve	7,946	27.5%	4,543	19.7%
Public	1,433	5.0%	964	4.2%
Park	461	1.6%	462	2.0%
Open Space	3,834	13.3%	3,833	16.7%
Aggregate	1,042	3.6%	10	0.0%
Agriculture	1,230	4.3%	1,230	5.3%

the General Plan Amendment. The roadway extensions and classifications proposed under the General Plan Amendment are shown in Figure 1-4. The General Plan Amendment also adds new goals, objectives, policies and actions to strengthen the City's sustainability-related policy framework. A list of proposed policy revisions to the General Plan is included in this Draft Supplemental EIR as Appendix A. Additionally, the "Golden Valley Parkway," which was intended as a potential Interstate 205 alternative roadway, has been removed from the Circulation map, General Plan Land Use Designations map, and related Circulation Element policies. This is in response to ongoing efforts with the San Joaquin Council of Governments (SJCOC) to alleviate Interstate 205 traffic with alternative expressways.

Overall, there is a decrease in the intensity of impacts in most environmental topics from the 2006 General Plan EIR as a result of the proposed General Plan Amendment. As discussed in Section D, below, the only new impact as a result of the proposed General Plan Amendment is Impact AIR-3, which is related to greenhouse gas (GHG) emissions. This impact was not found in the 2006 General Plan EIR because GHG emissions were not yet evaluated under CEQA in 2006.

As described in Chapter 4.15, the Governor's Office of Planning and Research (OPR) is in the process of developing CEQA guidelines addressing GHGs. In April 2009, OPR released draft CEQA guidelines, which included GHG emissions. These draft guidelines encourage agencies to consider a number of factors in evaluating GHG emissions, including the impact of the project on attaining the State's goal of reducing GHG emissions to 1990 levels by 2020, as directed in Assembly Bill (AB) 32; the project's impact on the level of fuel and energy consumption; and any potential reduction in GHG emissions from an existing facility.

The State is expected to experience population growth that would include increased vehicle usage and energy demand. As a result, long-term emissions would require substantial reductions to achieve AB 32 goals of reducing GHG emissions to 1990 levels by 2020, which is within the timeframe of the Gen-



eral Plan Amendment. Therefore, action to reduce emissions is necessary in order to reach that goal. As a result, in order to reduce a GHG impact to a less-than-significant level, an alternative would need to demonstrate how future growth would result in no additional GHG emissions, at a minimum.

The 2006 General Plan Draft EIR considered a Concentrated Growth Alternative, in which future growth would be in a denser development pattern than under both the 2006 General Plan and the proposed General Plan Amendment. Under this alternative, new residents might choose to use alternative means of transportation to reach their destinations, resulting in a corresponding but insubstantial reduction in local emissions. Under this alternative, GHG emissions would still increase, causing a significant and unavoidable impact.

The 2006 General Plan Draft EIR also considered three additional alternatives: the No Project Alternative, which would maintain the 1993 General Plan; the City Limits Alternative, which would limit growth to the existing city limits; and the existing Sphere of Influence (SOI) Alternative, which would limit development to the existing SOI. Increased vehicle miles traveled (VMT) under these alternatives would lead to substantial GHG emission increases, resulting in significant and unavoidable impacts that are similar to the GHG impact resulting from the proposed project.

CEQA Guidelines §15126.6 requires that an EIR include the description and a comparative analysis of alternatives to the proposed project, including both a No Project Alternative and a reasonable range of alternatives that could feasibly attain the project's objectives and avoid or substantially lessen any of the significant effects of the project. However, CEQA Guidelines §15163(2b) states that a Supplemental EIR "need contain only the information necessary to make the previous EIR adequate for the project as revised." Because there is no feasible alternative that would reduce the GHG impact to a less-than-significant level, this Supplemental EIR does not include any additional alternatives analysis. However, it should be noted that there are a number of greenhouse gas reduction efforts underway at local, regional and State levels.

Such efforts are described in detail in the Air Quality Element of the General Plan Amendment and Chapter 4.15, Air Quality, of this Supplemental EIR. For a full alternatives analysis of the 2006 General Plan, please see Chapter 5, Alternatives to the Proposed Project, of the 2006 General Plan Draft EIR.

### *C. EIR Scope and Organization*

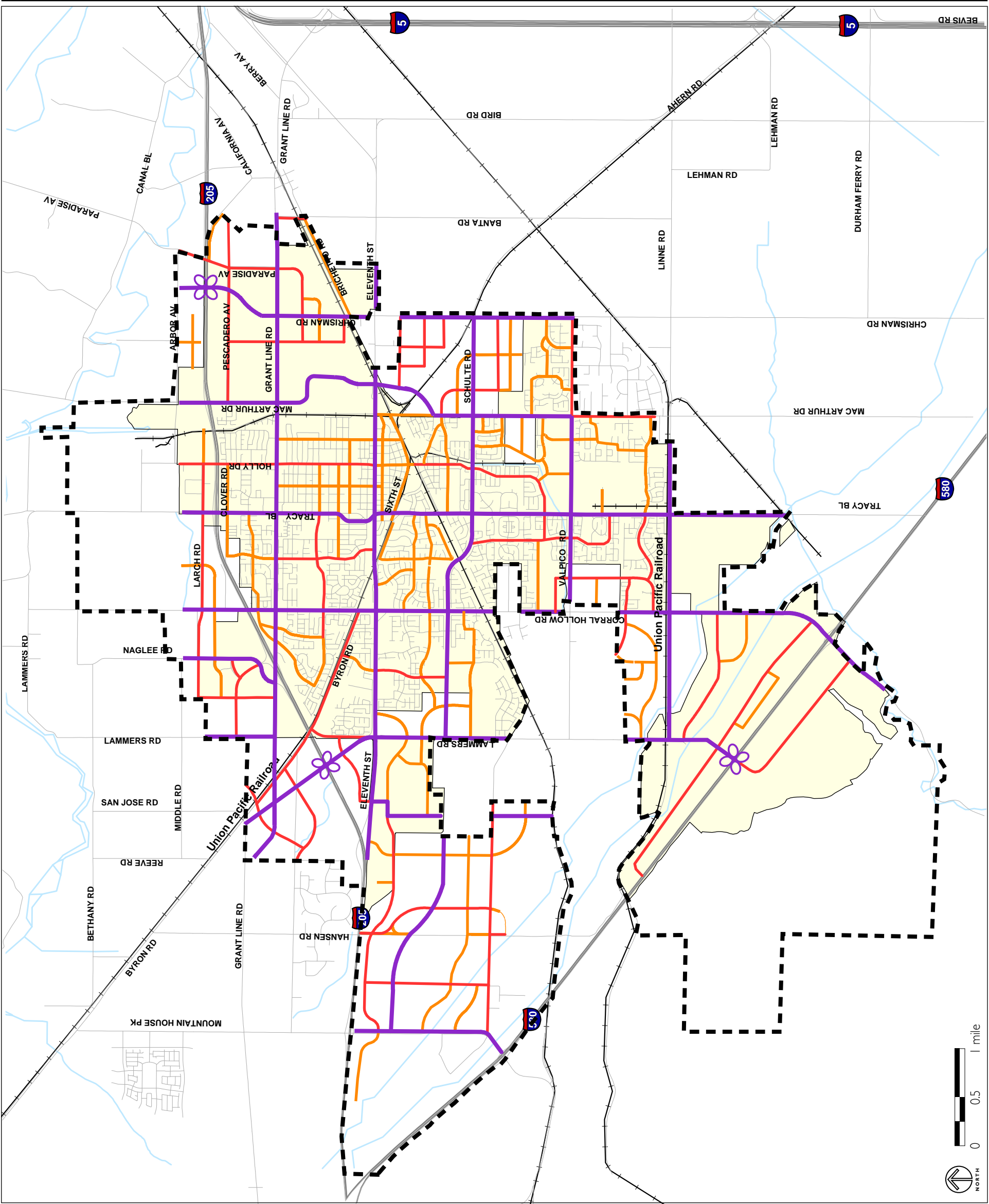
CEQA Guidelines §15162 and §15163 contain provisions regarding Supplemental EIRs, and when they may be used in place of a full EIR or Subsequent EIR. According to CEQA Guideline §15162, a Subsequent EIR shall be prepared if changes are made to a project following certification of an EIR. According to CEQA Guideline §15163, a Supplemental EIR may be prepared in lieu of a Subsequent EIR if only minor changes would be needed to make the previous EIR adequately apply to the revised project. Because the changes contained in the proposed General Plan Amendment do not significantly change the General Plan, this EIR has been prepared as a Supplemental EIR.

As a Program EIR, this Supplemental EIR is not project-specific. It does not evaluate the impacts of specific projects that may be proposed under the General Plan. Such projects will require separate environmental review to secure the necessary discretionary development permits. While future environmental review may be tiered off this Supplemental EIR, this Supplemental EIR is not intended to address impacts of individual projects.

While the 2006 General Plan Draft EIR evaluated 15 environmental topics, this Draft Supplemental EIR contains only those environmental analysis chapters for which the findings of the 2006 General Plan Draft EIR would change as a result of the General Plan Amendment. As a result, no changes to the ten other chapters of the GP EIR have been made. The issues addressed in this Draft Supplemental EIR include the following:

- ◆ Land Use
- ◆ Population, Employment and Housing
- ◆ Traffic and Circulation

FIGURE 1-4  
ROADWAY CLASSIFICATION  
AND CONCEPTUAL ALIGNMENTS





- ◆ Noise
- ◆ Air Quality

All chapters that follow this Forward chapter in this Supplemental EIR are intended to replace their respective chapters from the 2006 General Plan EIR in their entirety. To facilitate this process, the chapters in this Supplemental EIR use the same chapter numbers as the chapters that they are to replace from the 2006 General Plan EIR. As indicated in Section B, above, this Supplemental EIR does not include an additional alternatives analysis, so Chapter 5, Alternatives to the Proposed Project, from the 2006 General Plan Draft EIR is maintained. Figure 1-5 below summarizes the process leading from the 2006 General Plan and EIR to the General Plan Amendment and this Draft Supplemental EIR.

This Draft Supplemental EIR is organized into the following chapters:

- ◆ *Chapter 1, Foreword*, provides a preface and overview of the document and a description of the General Plan Amendment.
- ◆ *Chapter 2, Report Summary*, summarizes environmental consequences that would result from the proposed project, describes recommended mitigation measures, and indicates the level of significance of environmental impacts before and after mitigation. A Summary Table is also included for clarity.
- ◆ *Chapter 3, Project Description*, describes the proposed General Plan in detail, including a summary of the chapters of the General Plan and a listing of proposed land use designation changes.
- ◆ *Chapter 4, Environmental Evaluation*, provides an analysis of the potential environmental impacts of the proposed project and presents recommended mitigation measures, if required, to reduce their significance. As noted above, it includes five subsections, on the subjects of land use; population, employment and housing; traffic and circulation; noise and air quality.

**POLICY DOCUMENT**

**GENERAL PLAN (2006)**



**GENERAL PLAN AMENDMENT (2009)**

**ENVIRONMENTAL DOCUMENT**

**GENERAL PLAN**

**GENERAL PLAN AMENDMENT (2009)**



**Draft EIR analyzed these impact areas:**

Land Use  
Population, Employment and Housing  
Visual Quality  
Traffic and Circulation  
Cultural Resources  
Biological Resources  
Agricultural Resources  
Mineral Resources  
Community Services  
Infrastructure  
Geology, Soils and Seismic Hazards  
Hydrology and Flooding  
Hazardous Materials  
Noise  
Air Quality

**Amended Draft EIR provided an amended analysis of these impact areas:**

Land Use  
Population, Employment and Housing  
Visual Quality  
Biological Resources  
Agricultural Resources  
Community Services  
Infrastructure  
Hydrology and Flooding

**Final EIR Certified July 2006**

**Draft Supplemental EIR analyzed these impact areas that may have changed due to the General Plan amendment:**

Land Use  
Population, Employment and Housing  
Traffic and Circulation  
Noise  
Air Quality

**Final Supplemental EIR**

**FIGURE 1-5**

**HISTORY OF THE GENERAL PLAN AMENDMENT**

- ◆ *Chapter 6, CEQA-Required Assessment Conclusions*, discusses growth inducement, cumulative impacts, unavoidable significant effects and significant irreversible changes as a result of the General Plan.
- ◆ *Chapter 7, Report Preparers*, identifies the preparers of the Draft Supplemental EIR.

#### *D. New Impacts Related to the General Plan Amendment*

The analysis in this EIR evaluates the environmental impacts associated with the General Plan, as amended in 2009. Therefore, this Draft Supplemental EIR includes environmental impacts that were also found in the 2006 General Plan Draft EIR.

There is one new significant impact found in this Draft Supplemental EIR that was not found in the 2006 General Plan Draft EIR. Impact AIR-3, which is related to an increase in greenhouse gas emissions, is found to be significant and unavoidable. Impact AIR-3 was not found in the 2006 General Plan EIR because greenhouse gas emissions were not analyzed in 2006. This new impact could not be reduced to a less-than-significant level by any mitigation measure, as is discussed in detail in Chapter 4.15.

Overall, the intensity of environmental impacts as a result of the General Plan Amendment would decrease when compared to the General Plan because the SOI area is contracted, resulting in less growth, as well as new policies that address some of the environmental analysis topics.

#### *E. Environmental Review Process*

This Draft Supplemental EIR will be available for review by the public and interested parties, agencies and organizations for a period of at least 45 days, as required by State law. A public hearing on the Draft Supplemental EIR will be held during the review period, during which oral comments are wel-

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FOREWORD

come. Written comments on the Draft Supplemental EIR are also encouraged for incorporation into the Final Supplemental EIR and should be submitted to:

Victoria Lombardo, Senior Planner  
Development & Engineering Services, City of Tracy  
333 Civic Center Drive  
Tracy, CA 95376

Following the close of the public comment period, a Final Supplemental EIR will be prepared to respond to all substantive comments regarding the Draft Supplemental EIR. The Final Supplemental EIR will be made available for public review prior to Planning Commission review and consideration of its certification by the Tracy City Council. Once the City Council certifies the Final Supplemental EIR, the Council will also consider adoption of the Tracy General Plan Amendment itself, which may be approved as drafted or modified.



## 2 REPORT SUMMARY

This summary presents an overview of the analysis contained in Chapter 4, Environmental Evaluation. It also summarizes the analysis of alternatives to the project and cumulative significant impacts discussed in Chapters 5 and 6, respectively. CEQA requires that this chapter summarize the following: 1) areas of controversy; 2) significant impacts; 3) unavoidable significant impacts; 4) implementation of mitigation measures; and 5) alternatives to the project.

### *A. Project Under Review*

This EIR provides an assessment of the potential environmental consequences of adoption of the City of Tracy General Plan. The General Plan serves as the principal policy document for guiding future development and conservation in and around the City. The proposed General Plan includes goals, objectives, policies and actions which have been designed to implement the City's and the community's vision for Tracy. The policies and actions would be used by the City to guide day-to-day decision-making so there is continuing progress toward the attainment of the Plan's goals. The proposed General Plan proposes land use designations that would implement the overall goals and vision of the General Plan. The General Plan is further detailed in Chapter 3, Project Description.

### *B. Areas of Controversy*

The proposed General Plan is largely self-mitigating with regard to environmental impacts. However, there has been controversy in the past regarding several issues related to the General Plan, which are provided below. In addition, the City of Tracy received comment letters in response to the Notice of Preparation that was issued on September 2, 2008 for this EIR that highlight several issues related to the General Plan, as summarized below.

- ◆ Rate, location and type of growth planned in the SOI.
- ◆ Potential congestion on County roads as development occurs in the SOI.

- ◆ Traffic impacts of development under the General Plan.
- ◆ SOI contractions that remove lands previously designated for development.
- ◆ Loss of agricultural lands and open space around the city and potential related impacts on income, jobs, food production, and vegetation.
- ◆ Buffers between agricultural lands and new urban uses.
- ◆ Availability of infrastructure to support new development.
- ◆ Availability of rail transit to support transportation needs.
- ◆ Protection and enhancement of the unique qualities and urban design character of the community.
- ◆ Preservation of existing communities outside of Tracy as growth occurs in the SOI.
- ◆ Provision of adequate parks and recreation facilities for the community.
- ◆ Opportunities for sustainable development on SOI properties.
- ◆ Balance between jobs and housing in Tracy.
- ◆ Pedestrian and vehicular safety at railroad crossings.
- ◆ Conversion of industrial lands to residential uses.
- ◆ Impacts of new growth on water supply.

These issues were addressed in the proposed General Plan. To the extent that they have environmental impacts, they are also addressed in this EIR.

### *C. Significant 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 and aesthetic significance.

Implementation of the proposed General Plan has the potential to generate 22 environmental impacts in a number of areas, including both plan level and cumulative impacts. These topic areas are listed below.

- ◆ Population, Employment and Housing
- ◆ Visual Quality
- ◆ Traffic and Circulation
- ◆ Cultural Resources
- ◆ Agricultural Resources
- ◆ Infrastructure
- ◆ Noise
- ◆ Air Quality

Some of the impacts can be reduced to a less-than-significant level with mitigation measures, while others are significant unavoidable impacts. Each are discussed in the following two sections and summarized in Table 2-1.

#### *D. Mitigation Measures*

This EIR suggests specific mitigation measures that would reduce four of the impacts in the topic areas identified above to a less-than-significant level. Topic areas where impacts are mitigated to a less-than-significant level area:

- ◆ Visual Quality
- ◆ Cultural Resources
- ◆ Noise
- ◆ Air Quality

The mitigation measures in this EIR will form the basis of a Mitigation Monitoring Program to be implemented in accordance with State law.

### *E. Significant Unavoidable Impacts*

The proposed General Plan would have 18 significant and unavoidable impacts, as follows. These impacts are discussed further in Sections 4.2, 4.3, 4.4, 4.7, 4.10, 4.14 and 4.15 and in Chapter 6, which addresses cumulative impacts.

#### **1. Population, Employment and Housing**

There would be two significant and unavoidable impacts to population and housing growth as a result of the proposed General Plan. Despite policies and regulations designed to reduce impacts to future population and housing growth, development under the proposed General Plan at total buildout would result in significant increases in residential and employee populations, relative to existing conditions, which would result in a project-level and a cumulative impact.

#### **2. Visual Quality**

There would be three significant unavoidable visual quality impacts under the proposed General Plan for the Tracy Planning Area and under cumulative conditions in the region as a whole. Despite policies in the proposed General Plan policies to preserve open space and agricultural lands, scenic resources and community character, policies in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and the City's Agricultural Mitigation Fee Ordinance, development occurring within the city and its Sphere of Influence would result in a change in visual character from an agricultural appearance to a more urban appearance and a deterioration of views from scenic roadways.

#### **3. Traffic and Circulation**

The increase from current conditions in population and employment under the proposed General Plan would result in two significant unavoidable impacts on the regional roadway system, as is discussed in Section 4.4 and Chapter 6. The five regional roadways that will be impacted are: Interstate 205, Interstate 580, Interstate 5, Patterson Pass Road and Tesla Road. The signifi-

cant and unavoidable impacts would occur at the project and cumulative level.

#### **4. Agricultural Resources**

Four significant and unavoidable impacts to agricultural resources would occur under the proposed General Plan. Development under the General Plan would result in conversion of Prime and Unique Farmland, and Farmland of Statewide importance to urban uses. Buildout of the proposed Plan may also result in conversion of land under active Williamson Act contracts to urban uses. The proposed General Plan could also result in the development of incompatible urban uses adjacent to agricultural uses, which could result in the conversion of these lands from farmland. Finally, there would be a cumulative significant unavoidable impact associated with the proposed General Plan, which would contribute to the on-going loss of agricultural lands in the region as a whole. The permanent loss of farmland is considered, in each of these cases, to be a significant and unavoidable impact.

#### **5. Infrastructure**

Two significant and unavoidable impacts related to infrastructure would result under the proposed General Plan. While the project would not contribute to significant project-level or cumulative impacts associated with water services during the 20-year planning horizon, it would contribute to a project-level and a cumulative significant and unavoidable impact at total buildout. Despite policies included in the proposed General Plan calling for the acquisition of reliable, additional sources of water, current supplies are insufficient for the projected development at total buildout of the proposed General Plan; regional water supplies are also not ensured into the future beyond a 20-year planning horizon.

#### **6. Noise**

There would be two significant and unavoidable noise impacts under the proposed General Plan. As discussed in detail in Section 4.14, future noise level increases (3 dBA  $L_{dn}$  or greater) from increased traffic associated with new roadways facilitated by the proposed General Plan would occur adjacent to

existing noise sensitive uses. This would result in a significant impact at the project and cumulative level.

## 7. Air Quality

There would be three significant and unavoidable air quality impacts as a result of the project. First, the proposed General Plan would be inconsistent with applicable air quality plans of the San Joaquin Valley Air Pollution Control District (SJVAPCD), since it results in a higher level of vehicle miles traveled than accounted for in the District's clean air planning efforts. The proposed General Plan is also expected to lead to substantial greenhouse gas emission increases, conflicting with State efforts to reduce greenhouse gas emissions and meet AB 32 targets by 2020. This would also result in a significant impact at the cumulative level, as discussed in Chapter 6.

### *F. Alternatives to the Project*

This EIR analyzes alternatives to the proposed General Plan. The following four alternatives to the proposed project are considered and described in detail in Chapter 5 of the 2006 Draft EIR:

- ◆ No Project Alternative
- ◆ Concentrated Growth Alternative
- ◆ City Limits Alternative
- ◆ Existing SOI Alternative

As discussed in Chapter 5 of the 2006 Draft EIR, the Concentrated Growth Alternative is environmentally superior to both the proposed General Plan and the other alternatives. This alternative would offer a substantial improvement with respect to visual quality, community character and agriculture, although it would not avoid the significant and unavoidable impacts associated with those areas for the proposed General Plan. The Concentrated Growth Alternative would also offer an insubstantial improvement with respect to land use; population, employment and housing; traffic and circula-

tion; biology; infrastructure; hydrology and flooding; hazardous materials and other hazards; and air quality.

The City Limits Alternative is also environmentally superior to the proposed General Plan, but on balance it is marginally inferior to the Concentrated Growth Alternative. As shown in Table 5-1 of the 2006 Draft EIR, the City Limits Alternative does not offer as much of an improvement as the Concentrated Growth Alternative with respect to visual quality and it also does not offer improvements with respect to land use, hazardous materials and hazards, and air quality.

The City of Tracy has developed the proposed General Plan to represent the best possible balance between on-going residential growth, development of employment areas, and open space and agricultural preservation. Although two of the alternatives each have the potential of substantially reducing significant impacts that have been identified in this EIR, overall, the alternatives analysis shows that none of the alternatives would result in a level of improvement that would completely avoid a significant impact that is associated with the proposed General Plan.

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
LAND USE			
<i>There are no significant land use impacts, therefore, no mitigation measures are necessary.</i>			
POPULATION, EMPLOYMENT AND HOUSING			
POP-1: Despite policies in the Community Character Element of the proposed General Plan to maintain and enhance quality of life as future growth occurs, development permitted under the proposed General Plan would result in approximately an additional 43,000 to 70,000 residents, 163,000 employees and 13,225 to 21,300 housing units for a total of 124,500 to 151,500 residents, 193,000 employees and 38,700 to 46,700 housing units at total buildout.	SU	This is a <i>significant and unavoidable</i> impact. No additional mitigation is available.	
POP-2: Despite processes to plan for and control future growth by the City of Tracy and other jurisdictions, significant growth will occur under the proposed General Plan and in other communities in the region, constituting a significant cumulative impact on population and employment.	SU	No mitigation measures have been identified for this impact. Therefore, it is a <i>significant and unavoidable</i> cumulative impact.	

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact



TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
VISUAL QUALITY			
V-1: In addition to policies in the SJMSCP and the City's Agricultural Mitigation Fee Ordinance, the proposed General Plan contains policies to preserve open space and agricultural lands and community character. Despite such policies to enhance "hometown feel" and preserve open space, development permitted under the proposed General Plan for both the 2025 and total buildout of the City limits and SOI will result in a significant impact to the existing visual identity and character of the City.	SU	No additional mitigation is available for this impact, since the permanent visual change from rural, agricultural lands to urban use is considered <i>significant and unavoidable</i> .	
V-2: Despite policies in the proposed General Plan to protect scenic resources, including those along state designated scenic highways for development projected through 2025, a significant and unavoidable impact would occur with regards to scenic resources along the state designated scenic routes I-580 (between I-205 and I-5) and I-5 (south of I-205) at total buildout of the proposed General Plan.	SU	This is a <i>significant and unavoidable</i> impact. No additional mitigation is available.	
V-3: Development permitted under the proposed General Plan would increase levels of light and glare to a significant level resulting in adverse impacts to the visual quality of Tracy.	S	<u>V-3:</u> The City should include a policy under Objective CC-1.1 to require that lighting on private and public property should be designed to provide safe and adequate lighting while minimizing light spillage to adjacent properties.	LTS
V-4: The proposed General Plan, in combination with cumulative growth in San Joaquin County, would convert the visual character from the current rural/agricultural character to a more urban visual character. This change in visual quality will constitute a significant cumulative impact.	SU	No mitigation measures have been identified for this impact. Therefore, it is a <i>significant and unavoidable</i> cumulative impact.	

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRAFFIC AND CIRCULATION			
<b>CIR-1:</b> The General Plan incorporates a range of features to help reduce the potential impact of future growth on regional roadways. However, traffic levels along regional roadways listed below will increase, creating a significant and unavoidable impact. <ul style="list-style-type: none"><li>♦ I-205</li><li>♦ I-580</li><li>♦ I-5</li><li>♦ Patterson Pass Road</li><li>♦ Tesla Road</li></ul>	SU	This is a <i>significant and unavoidable</i> impact. No additional mitigation is available.	
<b>CIR-2:</b> Despite measures in the proposed General Plan to help reduce the potential impact of future growth in Tracy to regional roadways, traffic levels along regional roadways will increase. Significant regional roadway impacts are anticipated to continue to occur after 2030. This will constitute a significant cumulative impact.	SU	No mitigation measures have been identified for this impact. Therefore, it is a <i>significant and unavoidable</i> cumulative impact.	

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance		Significance With Mitigation
	Before Mitigation	Mitigation Measures	
CULTURAL RESOURCES			
CUL-1: Undiscovered archaeological and paleontological sites in the Planning Area, including human burial sites that could be impacted from development activities involving soil removal or disturbance.	S	<p><u>CUL-1a:</u> The City shall include a policy under Objective CC-3.1 (Policy 4) to require, as part of the development review process, a standard condition of approval that if any resources are found during construction, all operations within the project area shall halt until an assessment can be made by appropriate professionals regarding the presence of archaeological and paleontological resources and the potential for adverse impacts on these resources.</p> <p><u>CUL-1b:</u> The City shall include a policy under Objective CC-3.1 (Policy 5) to require that any archaeological or paleontological resources on private property be either preserved on their sites or adequately documented and conserved as a condition of removal. The policy shall further require that if any resources are found unexpectedly during development, then construction must cease immediately until accurate study and conservation measures are implemented.</p> <p><u>CUL-1c:</u> The City shall include a policy under Objective CC-3.1 (Policy 6) requiring that if Native American artifacts are discovered on a site, the City shall consult representatives of the Native American community to ensure the respectful treatment of Native American sacred places.</p>	LTS
BIOLOGICAL RESOURCES			
There are no significant biological impacts, therefore, no mitigation measures are necessary.			

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AGRICULTURAL RESOURCES			
AG-1: The proposed General Plan contains policies to preserve agricultural lands, in addition to policies in the SJMSCP and the City's Agricultural Mitigation Fee Ordinance. Despite these policies and regulations, development permitted under the proposed General Plan would result in the conversion of Prime Farmland, Unique Farmland and Farmland of Statewide Importance to urban uses.	SU	No additional mitigation is available, since the permanent loss of farmland is considered <i>significant and unavoidable</i> .	
AG-2: Despite policies in the proposed General Plan to support and encourage preservation of Williamson Act lands and the voluntary nature of the Williamson Act program, total buildout of the City limits and SOI may result in the conversion of land under active contracts to urban uses.	SU	No additional mitigation is available, since the permanent loss of farmland is considered <i>significant and unavoidable</i> .	
AG-3: The proposed General Plan contains several policies to mitigate impacts to agricultural resources due to the conversion of additional farmland to urban uses. However, implementation of the proposed General Plan would result in additional and incompatible urban development adjacent to agricultural uses.	SU	No additional mitigation is available, since the permanent loss of farmland is considered <i>significant and unavoidable</i> .	
AG-4: Significant growth will occur under the proposed General Plan and in other communities in the region, constituting a significant cumulative impact on agricultural resources.	SU	No mitigation measures have been identified for this impact. Therefore, it is a <i>significant and unavoidable</i> cumulative impact.	
MINERAL RESOURCES			
There are no significant impacts on mineral resources; therefore, no mitigation measures are necessary.			

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

**CITY OF TRACY**  
**GENERAL PLAN DRAFT SUPPLEMENTAL EIR**  
 REPORT SUMMARY

TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
COMMUNITY SERVICES			
There are no significant impacts to community services, including police, fire, schools, solid waste collection and disposal, and parks and recreation facilities; therefore, no mitigation measures are necessary.			
INFRASTRUCTURE			
INF-1: No significant water-related impacts have been identified for development projected through 2025. However, despite policies in the Land Use and Public Facilities Elements of the proposed General Plan directing the City to acquire reliable, additional sources of water supplies to meet the city’s future demand as new development occurs, there is currently insufficient water supply secured to serve projected development under total buildout of the proposed General Plan.  No additional mitigation is available. Despite policies in the proposed General Plan to ensure infrastructure is in place or planned to support growth, current water supplies would be insufficient to accommodate projected development at total buildout. However, no significant impacts would occur related to development through 2025, since current water supply could accommodate projected development through this period.	SU	No mitigation measures have been identified for this impact. Therefore, it is a <i>significant and unavoidable</i> cumulative impact.	
INF-2: The proposed General Plan at total buildout, in combination with cumulative growth in San Joaquin County, would not have ensured water supplies. This will constitute a significant cumulative impact.	SU	No mitigation measures have been identified for this impact. Therefore, it is a <i>significant and unavoidable</i> cumulative impact.	

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
GEOLOGY, SOILS AND SEISMIC HAZARDS			
There are no significant impacts to geology, soils and seismic hazards; therefore, no mitigation measures are necessary.			
HYDROLOGY AND FLOODING			
There are no significant impacts to hydrology and flooding; therefore, no mitigation measures are necessary.			
HAZARDOUS MATERIALS AND OTHER HAZARDS			
There are no significant impacts to hazardous materials and other hazards; therefore, no mitigation measures are necessary.			
NOISE			
NOI-1: The City's Noise Ordinance and policies in the proposed General Plan serve to control excessive sources of noise in the city and ensure that noise impacts from new projects are evaluated when they are reviewed. Despite these policies and regulations, significant noise levels increases (3 dBA L <sub>dn</sub> or greater) associated with increased traffic would occur adjacent to existing noise sensitive uses along portions of I-205, Grant Line Road, Schulte Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive. New roadways facilitated by the General Plan would also increase existing noise levels at receivers in Tracy.	SU	This is a significant and unavoidable impact. No additional mitigation is available.	

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

**CITY OF TRACY**  
**GENERAL PLAN DRAFT SUPPLEMENTAL EIR**  
REPORT SUMMARY

TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)**

Significant Impact	Significance		Mitigation Measures	Significance With Mitigation
	Before Mitigation			
<b>NOI-2:</b> Construction associated with development projected during the planning horizon of the proposed General Plan would temporarily elevate noise levels at adjacent land uses by 15 to 20 dBA or more.	S	<p><u>Mitigation Measure NOI-2:</u> In addition to the time-of-day restriction and construction noise control measures in Objective N-1.2, Policy 4, the following standard construction noise control measures should be included as requirements at construction sites to minimize construction noise impacts:</p> <ul style="list-style-type: none"><li>◆ When necessary, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. Such noise control blanket barriers can be rented and quickly erected.</li><li>◆ Foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. The pre-drilling of foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile.</li><li>◆ All construction projects shall comply with the Article 9 of the City of Tracy Municipal Code, the City's Noise Control Ordinance.</li></ul>	LTS	
<b>NOI-3:</b> Increases in traffic associated with new roadways facilitated by the proposed General Plan would contribute to significant noise levels increases adjacent to existing noise sensitive uses. These noise level increases related to regional traffic are anticipated to continue to occur after 2030. This will constitute a significant cumulative impact.	SU	No mitigation measures have been identified for this impact. Therefore, it is a <i>significant and unavoidable</i> cumulative impact.		

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation		Mitigation Measures	Significance With Mitigation	
AIR QUALITY					
AIR-1: The General Plan would not be consistent with applicable clean air planning efforts of the SJVAPCD, since vehicle miles traveled that could occur under the proposed General Plan would exceed that projected by the SJCOG, which are used in projections for air quality planning. The projected growth could lead to an increase in the region's VMT beyond that anticipated in the SJCOG and SJVAPCD clean air planning efforts. Development in Tracy would contribute to the on-going air quality issues in the San Joaquin Valley Air Basin.	SU		AIR-1: The City of Tracy will facilitate development applicants' participation in the San Joaquin Valley Air Pollution Control District's Indirect Source Review program. The Indirect Source Review program requires developers of larger projects to reduce emissions and provides on-site mitigation measures to help developers reduce air impacts. However, the mitigation measure identified above may not completely mitigate this impact. Therefore, it is considered a <i>significant and unavoidable</i> impact.	SU	
AIR-2: The proposed General Plan does not provide adequate buffers between new or existing sources of toxic air contaminants and new or existing residences or sensitive receptors.	S		AIR-2: Add a new Action under Objective AQ-1.2 as follows: "Require supplemental project studies that evaluate air quality health risks for proposed developments that place sensitive receptors within 400 feet of Interstate 205, within 230 feet of Interstate 580, or within 1,000 feet of large truck warehousing facilities or truck facilities where trucks with transportation refrigeration units operate almost continuously. Mitigation measures to reduce significant health risks shall be included in final project designs."	LTS	

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact



TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Before Mitigation		Significance With Mitigation
		Mitigation Measures	
<b>AIR-3:</b> Buildout in Tracy under the proposed General Plan is projected to substantially increase vehicle travel and lead to substantial GHG emission increases. The projected rate of GHG emissions and VMT is greater than the rate of population growth. This conflicts with State efforts to reduce GHG emissions and meet AB 32 targets by 2020, resulting in a cumulatively significant impact.	SU	<u>AIR-3:</u> Senate Bill (SB) 375 requires that metropolitan planning organizations (MPO's) include sustainable communities strategies in their regional transportation plans for the purposes of reducing greenhouse gases and meeting the goals of Assembly Bill (AB) 32. In compliance with SB 375, and as directed under Objective AQ-1.4, Action 3, of the proposed General Plan, the City shall develop a citywide sustainability strategy to implement the regional sustainability strategy released by SJCOG, which is the MPO for the Tracy region. The sustainability strategy will identify current and future GHG emissions from each sector (e.g. transportation, energy use and water consumption), and establish emission reduction targets. The strategy will also identify specific planning measures or requirements that the City would adopt to reduce emissions so that they would not conflict with State efforts to meet AB 32 goals, including the goal to reduce greenhouse gas emissions to 1990 levels by 2020.  Because the City has not yet developed a citywide sustainable strategy, this impact is treated as <i>significant and unavoidable</i> at this time. The City may revisit this conclusion after such a strategy is developed. It should be noted that local and regional plans to reduce GHG emissions are in the process of being developed.	SU

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance		Mitigation Measures	Significance With Mitigation
	Before	Mitigation		
<b>AIR-4:</b> Buildout under the proposed General Plan is projected to lead to substantial increases in vehicle miles traveled and greenhouse gas emissions and contribute to existing air quality issues in the San Joaquin Valley Air Basin. These air quality impacts associated with increases in regional traffic are anticipated to occur after 2030, constituting a cumulatively significant impact.	SU	No mitigation measures have been identified for this impact. Therefore, it is a <i>significant and unavoidable</i> cumulative impact.		

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

### 3 PROJECT DESCRIPTION

The proposed City of Tracy General Plan (General Plan) contains the following elements: Land Use, Community Character, Economic Development, Circulation, Open Space and Conservation, Public Facilities and Services, Safety, Noise, and Air Quality. The Housing Element was prepared and reviewed under a separate environmental review process. This chapter describes the proposed General Plan and the planning process that created it.

#### *A. Location and Setting*

Tracy is located in San Joaquin County, east of the Coastal Range that separates California's Central Valley from the San Francisco Bay Area. The city lies 68 miles south of Sacramento and 60 miles east of San Francisco. Interstate 205 runs through the northern-most part of the city, and connects Interstate 580 to Interstate 5, a major north-south interstate corridor east of Tracy. Figure 3-1 shows Tracy's regional location.

Tracy began as an agricultural community centered on several rail lines, and eventually became the San Joaquin Valley headquarters for the Central Pacific Railroad. The City was incorporated in 1910 and grew rapidly after the first irrigation district was established in 1915. Towards the latter part of the twentieth century, the city transitioned into a primarily residential community, as more people arrived from the Bay Area seeking affordable housing, a small-town feel, and respite from the highly-urbanized San Francisco region.

Today, Tracy is one of the fastest growing cities in California. Between 1990 and 2008, the population has increased 143 percent, from 33,500 to 81,548<sup>1</sup> residents. This growth has brought proportionally more families to Tracy and increased percentages of home ownership and household size. From 1990 to 2006, Tracy became more racially and ethnically diverse, as the percentage

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<sup>1</sup> California Department of Finance estimate for January, 2008.

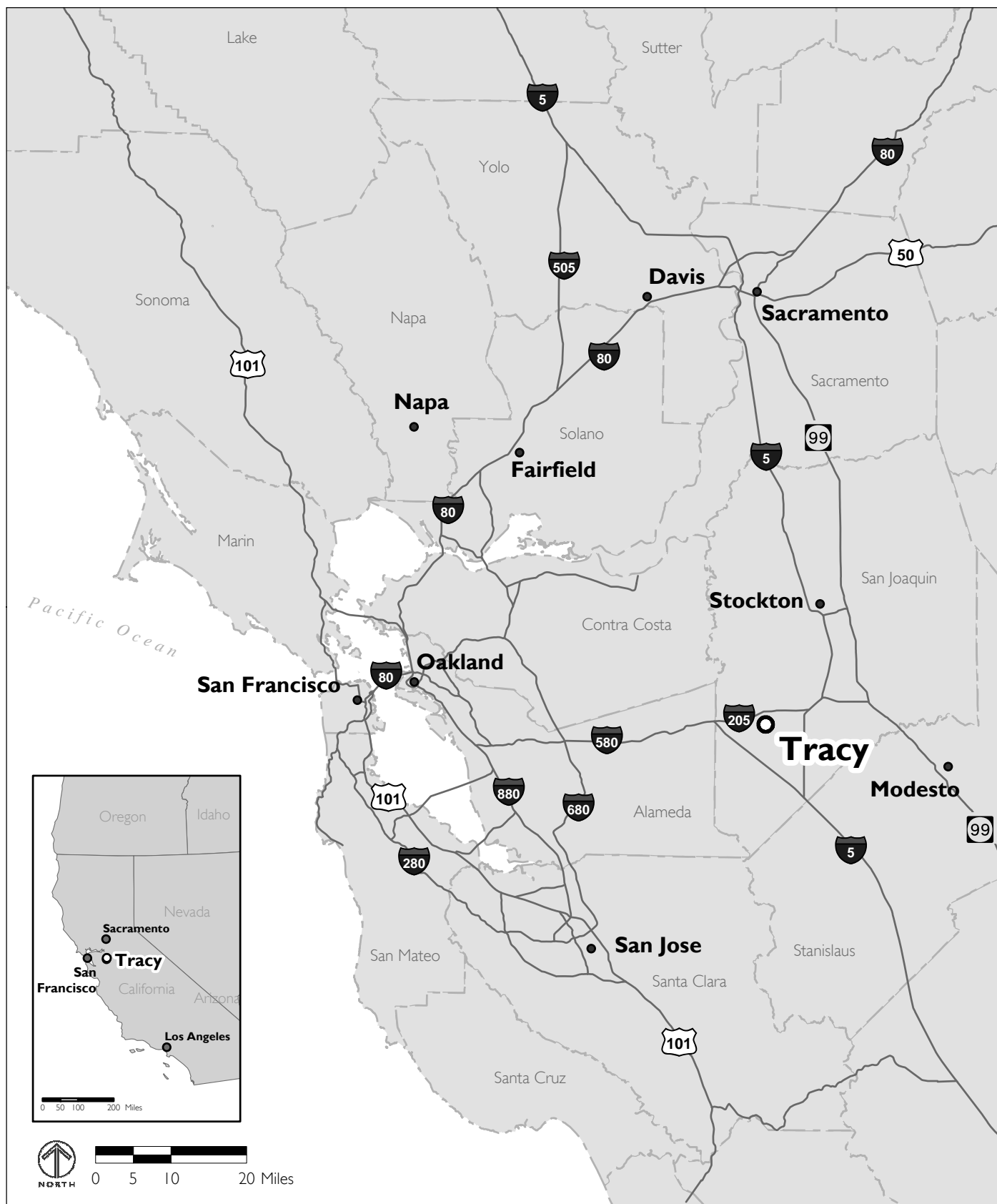


FIGURE 3-1

## REGIONAL LOCATION

of Caucasians dropped from 86 to 53 percent and African Americans, Asians and Hispanics each increased by 7 to 9 percent.<sup>2</sup>

During this period of growth, the percentage of owner-occupied housing increased from 60 percent to 67 percent<sup>3</sup> and the average household size increased from 3.0<sup>4</sup> to 3.27 persons.<sup>5</sup> This trend has been attributed in part to the increase of families with children and the shift in racial and ethnic composition, since Asian and Hispanic households are typically 30 percent larger than white households.<sup>6</sup> Between 1990 and 2006, the median household income also increased from \$65,488<sup>7</sup> to \$79,976<sup>8</sup> and the city became proportionally more educated as the percentage of the population with associate, college or graduate degrees increased from 21 percent to 29 percent.<sup>9</sup>

As the population has grown and diversified, so too has the economy, aided in part by numerous companies that have established facilities in Tracy to take advantage of inexpensive land and proximity to three major freeways.

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<sup>2</sup> U.S. Census, 1990 Decennial Census (STF 3) Table P008 and P010. U.S. Census, 2006 American Community Survey Fact Sheet for Tracy, California.

<sup>3</sup> U.S. Census, 1990 Decennial Census (STF 3) Table PH008. U.S. Census, 2006 American Community Survey Fact Sheet for Tracy, California.

<sup>4</sup> California Department of Finance, estimate for April, 1990, [http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Estimates/E8/documents/E-8\\_90-00main.xls](http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Estimates/E8/documents/E-8_90-00main.xls), accessed on September 15, 2008.

<sup>5</sup> California Department of Finance, estimate for January, 2008, [http://www.dof.ca.gov/research/demographic/reports/estimates/e-5\\_2001-06/](http://www.dof.ca.gov/research/demographic/reports/estimates/e-5_2001-06/), accessed on September 15, 2008.

<sup>6</sup> U.S. Census 2000.

<sup>7</sup> U.S. Census, 1990 Decennial Census (STF 3) Table P080A. Adjusted to 2006 dollars using Bureau of Labor Services Consumer Price Index Calculator.

<sup>8</sup> U.S. Census, 2006 American Community Survey Fact Sheet for Tracy, California.

<sup>9</sup> U.S. Census, 1990 Decennial Census (STF 3) Table P057. U.S. Census, 2006 American Community Survey Selected Social Characteristics Table for Tracy, California.

Between 1990 and 2003, the number of jobs in Tracy increased from 11,112 to 29,758.<sup>10</sup> There is also a greater diversity of job types in the city, with over 8,000 jobs in each of the professional services and retail sectors and over 4,000 jobs in the manufacturing sector.

The existing incorporated area of the city is approximately 22 square miles as of 2008.<sup>11</sup> The majority of the city is located on flat land at the intersection of several Interstate highways (Interstates 205, 580 and 5). The city also contains two large undeveloped areas to the southwest (the future Tracy Hills development) and the northeast (the expansion area for the Northeast Industrial Area).

The State of California encourages cities to look beyond their borders when undertaking the sort of comprehensive planning required of a General Plan. For this reason, the General Plan assesses two delineated areas known as the Sphere of Influence (SOI) and the Planning Area, both of which are larger than the City limits. Figure 3-2 depicts the boundaries for each area, as proposed in the updated General Plan.

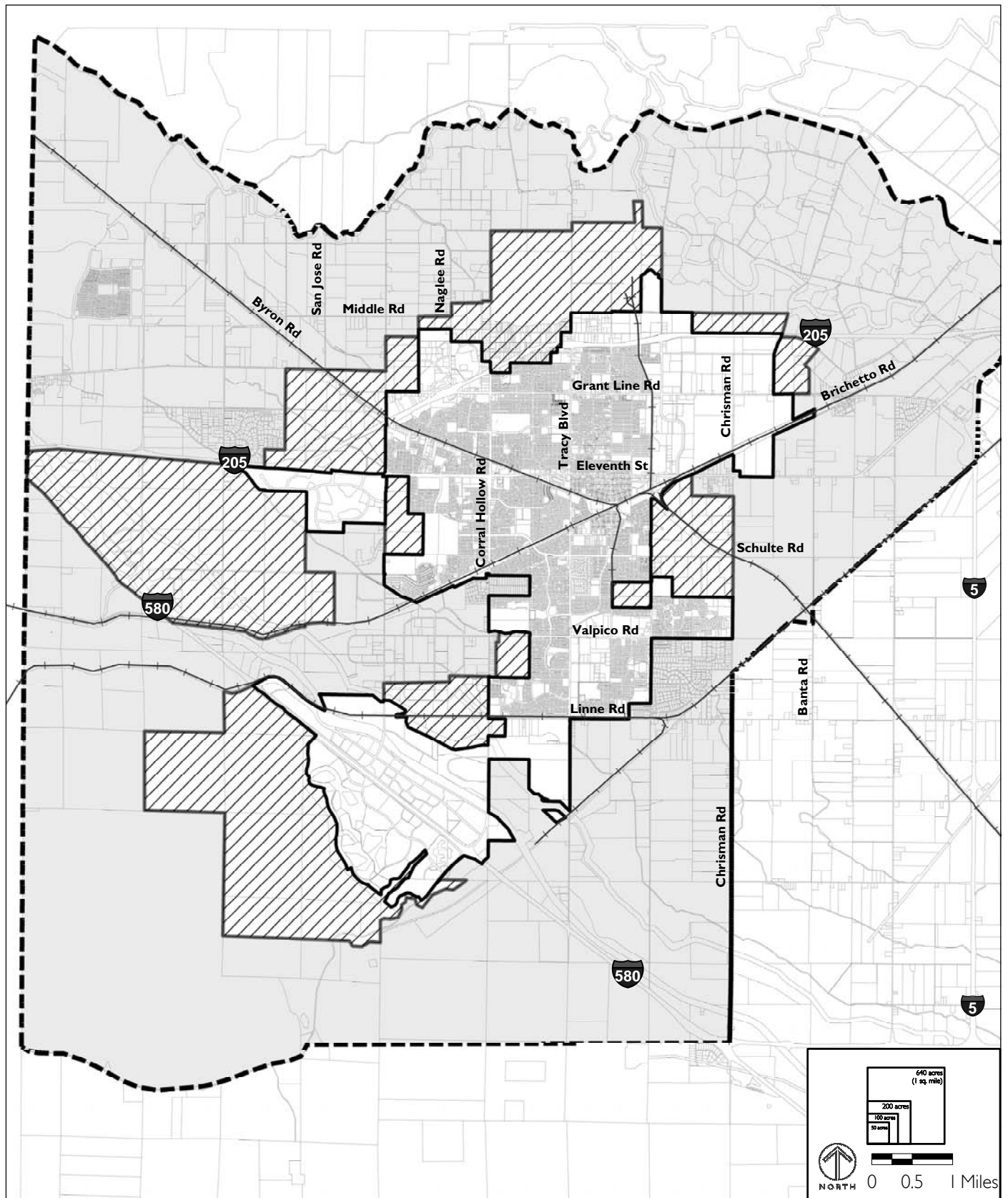
The SOI is the area outside of the City limits that the City expects to annex and urbanize in the future. As in many communities, the SOI can accommodate more growth than is expected during the planning horizon of the General Plan. The proposed General Plan would make some changes to the existing SOI, as described further in Section F.1 below. The proposed SOI is approximately 41 square miles and is 19 square miles larger than the City limits.

State law also allows cities to identify a Planning Area. This is an area outside of its boundaries that bears a relation to the City's planning. While Tracy does not have any regulatory authority within the Planning Area, it is included in the General Plan as a signal to the County and to other nearby local

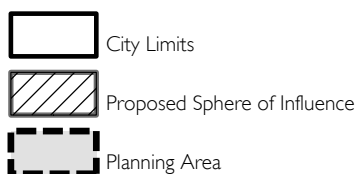
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<sup>10</sup> *State of the City*, Presentation by Andrew Malik, City of Tracy Economic Development Director, 2004.

<sup>11</sup> City of Tracy GIS, 2008.



**FIGURE 3-2**



**TRACY CITY LIMITS,  
PROPOSED SPHERE OF INFLUENCE  
AND PLANNING AREA**

**CITY OF TRACY**  
GENERAL PLAN  
DRAFT SUPPLEMENTAL EIR

and regional authorities that Tracy recognizes that development within this area has an impact on the future of the city. Under State law, the City is invited to comment on development within the Planning Area that is subject to review by the County. The unincorporated portion of the Tracy Planning Area will remain under the jurisdiction of San Joaquin County. The Planning Area contains approximately 114 square miles and is 92 square miles larger than the City limits and 73 square miles larger than the SOI.

#### *B. What is the General Plan?*

The City of Tracy's General Plan is the principal policy and planning document for guiding future conservation, enhancement and development in the city. It represents the basic policy direction of the Tracy City Council on community values, ideals and aspirations to govern a shared environment through 2025. The General Plan addresses all aspects of development including land use, transportation, housing, economic development, public facilities and infrastructure, and open spaces, among other topics.

State planning and zoning law requires that the General Plan must be comprehensive, internally consistent and long-term. Although required to address the issues specified in State law, the General Plan may be organized in a way that best suits the City. The plan must be clearly written, available to all those concerned with the community's development, and easy to administer.

The City of Tracy General Plan meets these requirements. The Plan articulates a vision for the city's long-term physical form and development. It also brings a deliberate overall direction to the day-to-day decisions of the City Council, its commissions and City staff.

The overall role of the City of Tracy General Plan is to:

- ◆ Define a realistic vision of what the City intends to be in 20 years.
- ◆ Express the desires of Tracy residents in regard to the physical, social, economic, cultural and environmental character of the city.



- ◆ Serve as a comprehensive guide for making decisions about land use, community character, economic development, circulation, protecting open space and the environment, and public health and safety.
- ◆ Chart the course of coordinated development and conservation that will preserve the character and heritage of Tracy.
- ◆ Serve as the City's "constitution" for land use and community development by providing the legal foundation for all zoning, subdivision and public facilities, decisions and projects, all of which must be consistent with the General Plan.

### *C. The General Plan Update Process*

The General Plan Update process began in 2002. At that time, a consultant team working for the City conducted an assessment of existing conditions in the City of Tracy and its environs on five major topic areas to help identify key issues:

- ◆ Land Use, Population and Housing
- ◆ Environmental Conditions
- ◆ Transportation and Circulation
- ◆ Infrastructure and Services
- ◆ Assessment of the 1993 General Plan

To complete these assessments, the consultant team conducted field observations, interviews, and database and archival research. Planning documents, government laws and regulations, and City codes and ordinances were also reviewed.

Concurrently, City staff and the consultant team worked closely with the City Council and Planning Commission to determine the scope and direction on policy issues to be addressed in the General Plan. Twenty-one joint City Council/Planning Commission workshops were held on the topics listed below. Members of the public were invited to comment at the end of each of the workshops.

- ◆ General Plan Update Process, Urban Design Principles, Vision Development (April 22, 2003)
- ◆ Urban Design and Transportation (May 12, 2003)
- ◆ Housing Element (May 20, May 25 and October 6, 2003 and May 10, 2004)
- ◆ Community Character (June 30 and November 3, 2003)
- ◆ Land Use Element (December 1, 2003)
- ◆ Land Use Designations (February 2 and March 1, 2004)
- ◆ Transportation and Circulation (April 5 and May 3, 2004)
- ◆ Open Space (April 12, 2004)
- ◆ Vision Statement and Open Space and Conservation Element (July 12, 2004)
- ◆ Presentation of City Council/Planning Commission Review Draft General Plan (November 15, 2004)
- ◆ Major Policies Discussion (December 16, 2004)
- ◆ Residential Growth Priorities (January 11, 2005)
- ◆ Affordable Housing (January 27, 2005)
- ◆ Jobs and Open Space (January 31, 2005)
- ◆ Final Comments to City Council/Planning Commission Review Draft General Plan (May 16, 2005)

In addition to the joint Planning Commission/City Council workshops, three community workshops were held on the following topics:

- ◆ Introduction to the General Plan Update Planning Process (September 17, 2003)
- ◆ Land Use Designations within the City limits (January 13, 2004)
- ◆ Land Use Designations within the SOI (February 18, 2004)

After the General Plan was adopted in 2006, the City submitted its proposed SOI to the Local Agency Formation Commission (LAFCO) for approval. In early 2007, LAFCO informed City staff that Tracy's Municipal Services Review (MSR) would be subject to new LAFCO policies and guidelines, which were adopted on September 21, 2007. The LAFCO policy changes regarding SOIs necessitated that the SOI proposed by the City of Tracy in 2006 be reduced to show a 30-year development horizon and a 10-year development horizon. The following meetings and workshops were conducted in order to draft a new SOI that complies with LAFCO policies:

- ◆ Community meeting to discuss new LAFCO policies and receive feedback (December 12, 2007)
- ◆ Revised draft SOI presentation to City Council (January 15, February 5, April 1 and June 3, 2008)
- ◆ City Council workshop to accept draft SOI with minor modifications (July 15, 2008)

#### ***D. General Plan Vision***

The General Plan is based on a vision to enable the City of Tracy to retain its small-town character and provide a high-quality of life for its residents, while continuing to grow new opportunities for businesses, job creation for local employment and housing development. The following vision statement is included in the General Plan:

*Through the year 2025, the City of Tracy will continue to enhance its place as a great community in which to live, work and play. Drawing on its small town character, the City will grow in a manner that provides a high quality of life for all current and future residents and employees. In the coming years, Tracy will:*

- 1. Balance the development of new retail, job creating commercial, office and industrial development with the development of new housing so that residents have the opportunity to work in Tracy.*

2. *Continue to provide a healthy setting for existing businesses while actively facilitating the establishment of new businesses, particularly those that reflect community aspirations.*
3. *Preserve its “hometown feel” by creating residential neighborhoods with a sense of place and that are diverse, attractive, safe, walkable and affordable and by preserving significant historic and cultural resources.*
4. *Meet the transportation challenges of the future, so that people can travel safely and conveniently on foot or by car, bicycle and transit.*
5. *Require development and redevelopment to adhere to basic principles of high quality urban design.*
6. *Strengthen its downtown and develop the cultural, retail and civic amenities of a vibrant city, without losing the spirit of a small town.*
7. *Protect its unique identity and preserve buffers from neighboring cities with open spaces, parks and agricultural lands.*
8. *Protect public health, safety and the environment by taking steps to reduce noise and air pollution, conserve water and energy, and prepare for natural and man-made disasters.*
9. *Provide beautiful parks, exciting cultural amenities and civic institutions that inspire community pride.*
10. *Encourage high quality schools.*
11. *Enhance the cultural environment in the city by promoting arts and cultural activities.*
12. *Welcome people from all backgrounds, ages, income levels and physical capabilities and invite them to put down roots and stay awhile.*

*The City will achieve its vision through bold civic leadership, citizen participation and assistance, and responsive, accountable government.*

The vision statement is intended to guide the goals, objectives, policies and actions of the General Plan, which in turn guide growth and preservation in the city through 2025.

### *E. Proposed General Plan*

The City of Tracy General Plan is guided by the vision statement and includes an introduction and a brief overview of Tracy, as well as ten separate “elements” that set goals, objectives, policies and actions for a given subject. Seven of these elements cover the topics required by State law, while the remaining three elements have been prepared by the City to meet local needs and concerns.

#### **1. General Plan Elements**

The ten elements that form the General Plan are briefly described below. Nine of the ten elements form the *General Plan Update*, which are reviewed in this document and are listed below.

- ◆ *Land Use Element.* The required Land Use Element designates all lands within the city for a specific use such as residential, office, commercial, industry, open space, recreation or public uses. The Land Use Element provides development regulations for each land use category, and also provides overall land use policies for the City.
- ◆ *Community Character Element.* The Community Character Element is not required by State law. However, due to the importance of Tracy’s hometown feel, the community has decided to include this optional element to identify, protect and enhance the urban design character of the community.
- ◆ *Economic Development Element.* This optional element contains goals, objectives, policies and actions to encourage the development of desired economic activities throughout the city. The information in this element is derived from the City’s Economic Development Strategy prepared in 2002.
- ◆ *Circulation Element.* This required element specifies the general location and extent of existing major streets, level of service, transit facilities, and bicycle and pedestrian network. As required by law, all facilities in the Circulation Element are correlated with the land uses foreseen in the Land Use Element.

- ◆ *Open Space and Conservation Element.* The Open Space Element and the Conservation Element are required under State law and are combined in this General Plan. Issues addressed include the preservation of open space and agricultural land; the conservation, development and utilization of natural resources; and the provision of parks and recreational facilities. Open Space goals for public health and safety are covered in the Safety Element.
- ◆ *Public Facilities and Services Element.* This optional element covers a wide range of topics related to the provision of public services and infrastructure in the city. Topics covered include law enforcement; fire protection; schools; public buildings; solid waste, including diversion; and the provision of water, wastewater and stormwater infrastructure.
- ◆ *Safety Element.* State law requires the development of a Safety Element to protect the community from risks associated with the effects of flooding, seismic and other geologic hazards, and wildland fires.
- ◆ *Noise Element.* This required element addresses noise in the community and analyzes and quantifies current and projected noise levels from a variety of sources, such as traffic, industry, rail and the airport. The Noise Element includes goals, objectives, policies and actions to address current and foreseeable noise problems.
- ◆ *Air Quality Element.* All jurisdictions in the San Joaquin Valley Air Pollution Control District are required to address air quality impacts in their general plan. Therefore, this Element outlines goals, objectives, policies and actions to mitigate the air pollution impacts of land use, the transportation system and other activities that occur in the City of Tracy.

A tenth element, the *Housing Element*, is being prepared and reviewed as part of a separate environmental review process. Each city and county has an obligation to contribute its part by including a Housing Element as one of the seven mandatory elements of the General Plan. The Housing Element provides a long-term, comprehensive plan to address the housing needs for all economic segments of the community. The Housing Element addresses existing and projected housing demand and establishes goals, objectives, policies

and actions to assist the City in implementing the plan in accordance with other General Plan policies. Copies of the Housing Element and its environmental document will be available at the City of Tracy Development and Engineering Services Department.

## **2. Organization of the Elements**

Each element of the General Plan contains background information and goals, objectives, policies and actions. Some elements also have additional sections that are specific to them. For example, the Land Use Element contains a series of land use designations that guide overall development in the city and the Circulation Element contains information on the network and hierarchy of streets in the city.

### ***F. Proposed Land Use Changes***

As part of the General Plan Update process, jurisdictions typically revisit the extent of the SOI and land use designations, and modify both as necessary to meet the vision for the future of the city, and to meet City goals. The following is a summary of the proposed changes to the SOI, land use designation categories and land use designations on specific parcels.

#### **1. Changes to the Sphere of Influence**

The draft General Plan proposes to revise the City's existing SOI to more accurately reflect locations where the City may grow in the future. The proposed SOI in the updated General Plan consists of approximately 41 square miles, approximately 19 square miles of which are outside of the existing City limits. Although the proposed SOI includes some expansion areas, other areas are contracted, resulting in a proposed SOI that is approximately 8 square miles smaller than the current SOI. Figure 3-3 shows both the existing and the proposed boundary for the SOI.

##### **a. Proposed Expansion Areas**

The draft General Plan includes areas where the SOI would expand. These areas are described below and identified in Figure 3-3.

- ◆ **Cordes Ranch.** In August 2003, the West Tracy Owners Group approached the City with a proposal to modify the SOI and annex Cordes Ranch. The proposed Plan calls for industrial and flex office uses with supporting commercial development. This area is 1,730 acres in size, approximately 1,512 acres of which is outside of the existing City limits, and is referred to as Urban Reserve 6 in the proposed General Plan.
- ◆ **Holly Sugar.** In 2003, the City purchased a portion of the Holly Sugar plant. The former Holly Sugar property is included in the proposed SOI and will be designated as Agriculture with provisions to allow for the land application of treated effluent and effluent cooling. This area is an addition of approximately 350 acres.
- ◆ **North of Larch Clover.** A small expansion of 50 acres is proposed to rectify the SOI line which cut across property boundaries. The area added to the SOI is designated as Residential Very Low and will help to create a smooth transition between the urbanized area of Tracy and rural county land.
- ◆ **Northeast Expansion.** The proposed General Plan includes an expansion of the SOI east of MacArthur Drive and north of Interstate 205. This area is designated as Industrial and represents an increase of 139 acres.
- ◆ **Tracy Hills Open Space.** A small expansion of approximately 43 acres is proposed in an area south of the Tracy Hills Specific Plan that is designated as Open Space.

b. Proposed Contraction Areas

The draft General Plan also includes areas where the SOI would contract. These areas are described below and identified in Figure 3-3.

- ◆ **Aggregate.** A contraction of nearly 1,000 acres is proposed to the south of City limits. This contraction area was previously designated as Aggregate in the 1993 General Plan.



- ◆ **Banta.** A contraction of approximately 1,650 acres is proposed in the Banta area east of City limits. This area was designated as Low Density Residential, Industrial and Commercial under the 1993 General Plan.
- ◆ **Defense Depot and Country Residential.** A large contraction of nearly 1,700 acres is proposed along the southeastern City limit. This area was designated as Aggregate, Commercial, Industrial and Residential Very Low under the 1993 General Plan.
- ◆ **East Side Acreage.** Approximately 130 acres to the east of City limits along the Union Pacific Railroad is proposed to be removed from the SOI. This area was designated as Public and Commercial under the 1993 General Plan.
- ◆ **I-205 Expansion.** A 270-acre area to the northwest of City limits is proposed to be removed from the SOI. The area was designated as Low Density Residential under the 1993 General Plan.
- ◆ **South Schulte and South of Patterson Pass.** A large 2,700-acre area to the west of City limits is proposed to be removed from the SOI under the General Plan. Part of this area consists of 575 acres south of Patterson Pass Business Park, which is proposed for removal from the SOI because of its location between Interstate 580, the Delta Mendota Canal and the California Aqueduct. This area is isolated and would likely be difficult and expensive to provide with urban services. This contraction area was designated as a variety of land use designations under the 1993 General Plan.
- ◆ **South of Tracy Hills.** This contraction area is south of the Tracy Hills Specific Plan and east of Interstate 580. The area consists of approximately 230 acres and contains a 44-acre former landfill; the remaining area consists of land that is vacant or in agricultural use. This area was designated as Public under the 1993 General Plan.

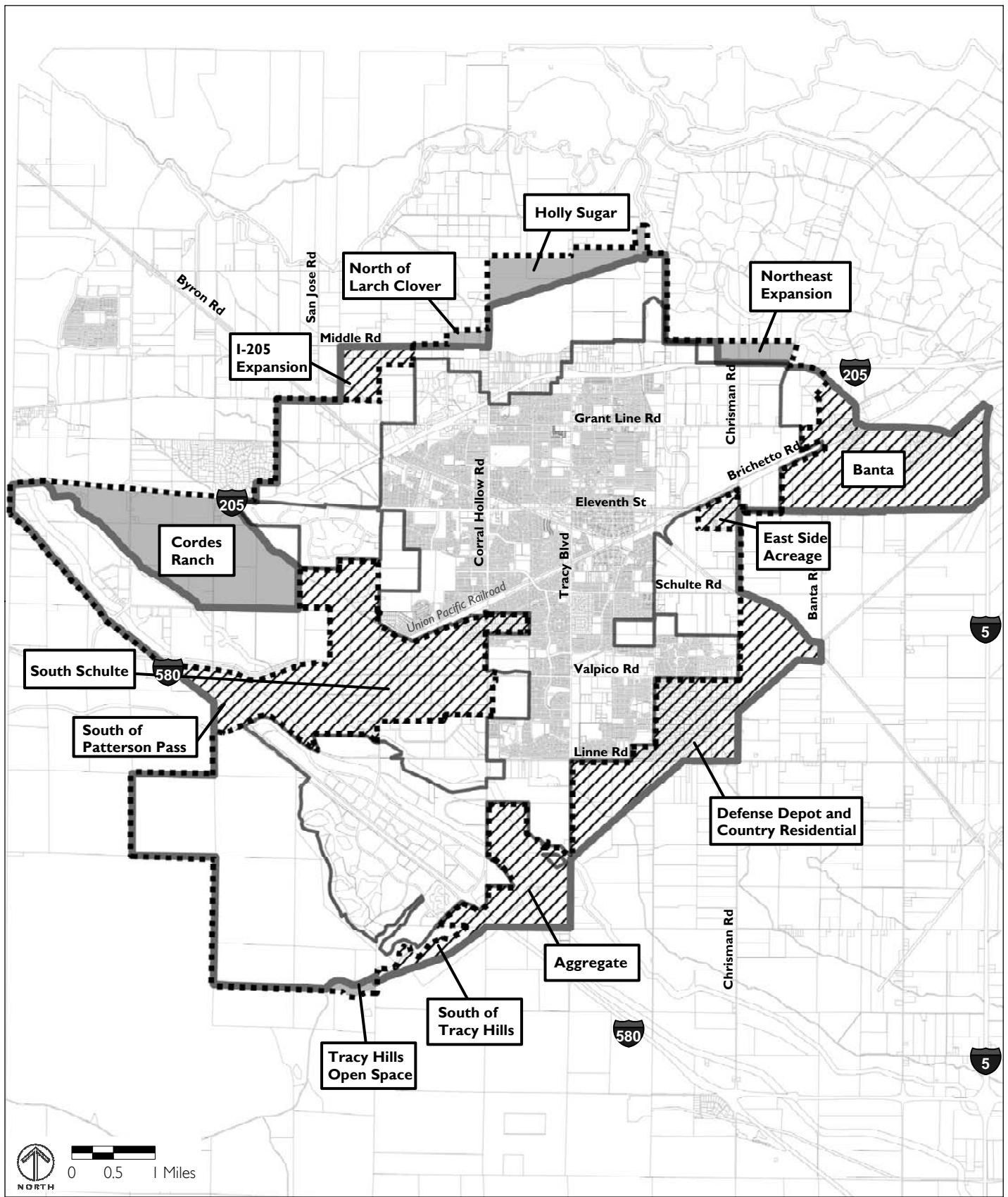
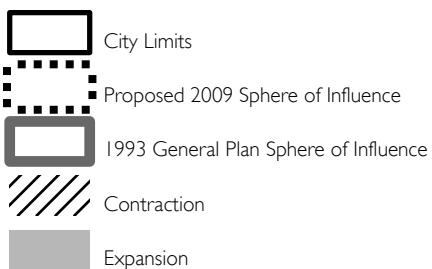


FIGURE 3-3

## 1993 AND PROPOSED SPHERES OF INFLUENCE



## 2. Proposed Land Use Designations

The General Plan proposes to retain most of the land use categories in the 1993 General Plan. Figure 3-4 shows a map of the proposed land use designations. The land use categories from the 1993 General Plan that are also in the proposed General Plan are as follows:

- ◆ Residential Very Low (VL)
- ◆ Residential Low (L)
- ◆ Residential Medium (RM)
- ◆ Residential High (RH)
- ◆ Commercial (C)
- ◆ Industrial (I)
- ◆ Public Facilities (Pub)
- ◆ Park (P)
- ◆ Open Space (OS)
- ◆ Aggregate (Agg)
- ◆ Agriculture (Ag)

The General Plan also proposes the addition of several new land use categories, as described below:

- ◆ **Office (O).** The Office designation specifies a density/building intensity of 0.4 FAR<sup>12</sup> and applies to medium- to large-scale office, such as research and development uses that accommodate high-tech, medical/hospital, legal, insurance and similar uses.
- ◆ **Downtown (D).** A density of 15 to 40 dwelling units per gross acre for residential development or up to 50 units per gross acre for senior housing is allowed within the Downtown designation. Non-residential (e.g. retail, service commercial and office) may have a maximum FAR of 1.0. Characteristics of areas with the proposed Downtown designation include pedestrian-oriented environment, vertical mixed-use development, a diverse mix of public and private uses, streets on a grid or modified grid,

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<sup>12</sup> Floor Area Ratio (FAR) describes the relationship between the total floor area contained in a building as compared to the area of the land under the building. Cities often establish minimum and maximum FARs as part of a zoning ordinance.

multi-modal street design, and direct pedestrian and bicycle connections to residential neighborhoods.

- ◆ **Traditional Residential (TR).** Traditional Residential (TR) areas consist of a mix of residential densities and housing types reminiscent of traditional neighborhoods, ranging from single-family detached housing to attached medium and high density housing types, sometimes adjacent to or above retail, commercial or other compatible uses. At least four important residential criteria are required to be established at the time a property is designated to "TR" through a General Plan Amendment so that dwelling unit and population density, design, and neighborhood compatibility standards can be established: (1) the maximum and minimum number of residential units allowed in the TR area and the average number of people per unit; (2) the density ranges allowed in terms of dwelling units per acre, and the maximum and minimum numbers of each such residential housing type allowed in the TR area; (3) a "Design Book" to ensure design quality, interesting and diverse architectural treatments, and an attractive streetscape; and (4) the criteria that will be used to establish the location/mix of residential design and housing types in the TR area to encourage an interesting and compatible neighborhood and to discourage the domination of a sub-area with only one or a few residential housing types and designs. Park and recreation uses are also required as part of the TR planning process. The re-designation of a property to the TR designation can be implemented only in combination with the particular project's development-level planning process (e.g. Specific Plan process, or if no Specific Plan is required, through the City's zoning process) that addresses the residential criteria set forth above.
- ◆ **Traditional Residential – Ellis (TR-Ellis).** The Traditional Residential – Ellis (TR-Ellis) designation includes between 1,200 and 2,250 total residential units, for an overall site density of between 4 and 7 units per gross acre. This designation also includes three residential sub-designations: "Residential Mixed Low," "Residential Mixed Medium," and "Residential Mixed High." Between 256 and 976 residential units and approximately 122 acres are allowed for the Residential Mixed Low designation (2.1 to 8 units per gross acre), between 372 and 1,488 residential units and



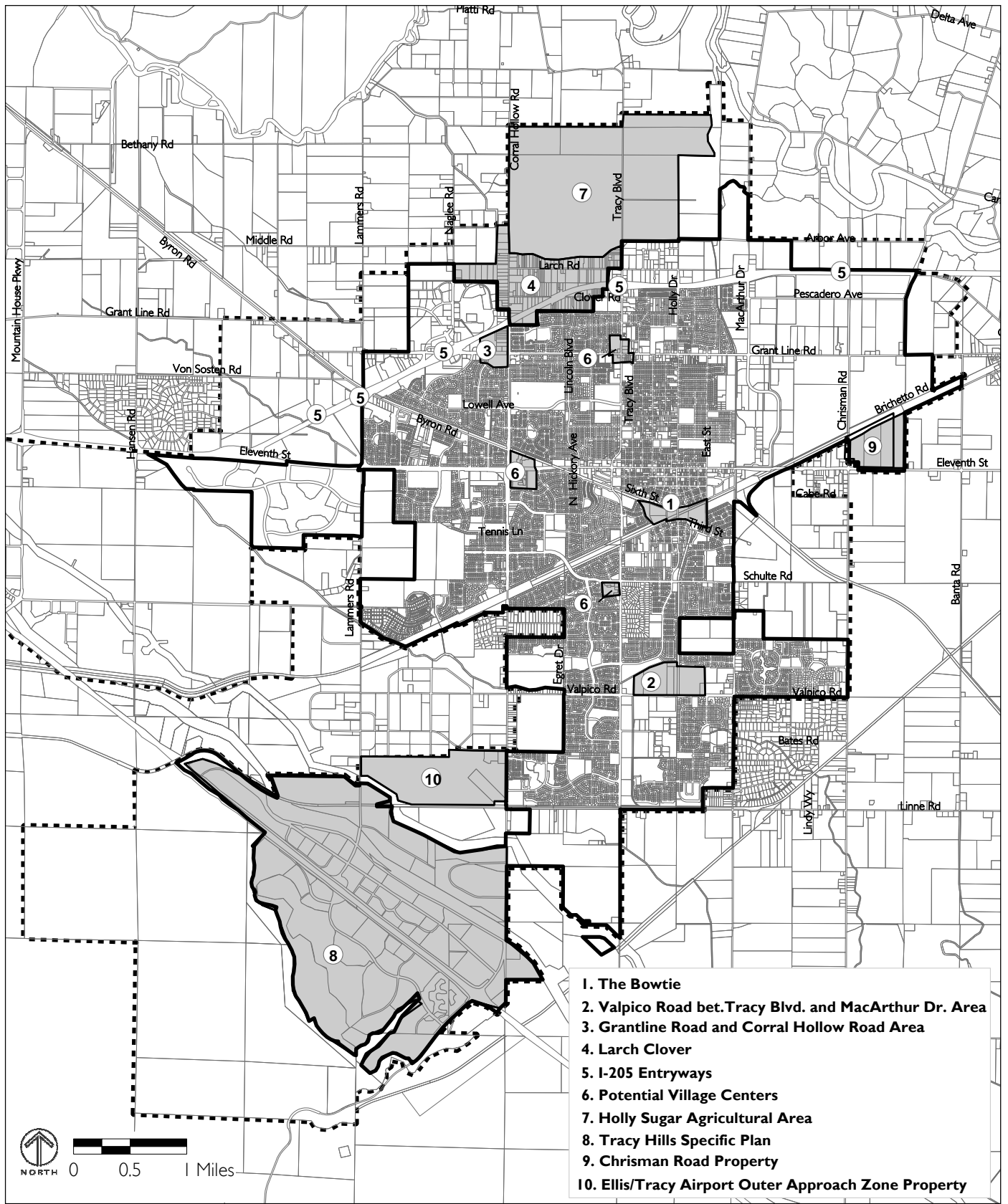


approximately 93 acres are allowed for the Residential Mixed Medium designation (4 to 16 units per gross acre), and between 250 and 780 residential units and approximately 31 acres are allowed for the Residential Mixed High designation (8 to 25 units per gross acre). Additionally, up to 50 of the 2,250 residential units are allowed in the adjacent Village Center (4 to 16 units per gross acre for approximately 7 acres). Finally, the TR-Ellis area includes approximately 18 acres of parks, with the possibility of an additional 16 acres of Community Park.

- ◆ **Urban Reserve (UR).** The proposed Urban Reserve designation would apply in areas which are not expected to develop for a number of years. It would allow a mix of land uses, in accordance with the statistical profiles for each Urban Reserve, without designating a specific location for these uses. Of the eleven Urban Reserves, some areas are proposed to accommodate a mix of commercial and industrial uses, while others are to accommodate a mix of residential uses. This new designation would require comprehensive planning prior to development while also providing flexibility for the future.
- ◆ **Village Center (VC).** The proposed Village Center designation would apply to relatively small retail or mixed-use development including, but not limited to, grocery stores, drug stores, banks, restaurants, small-scale professional offices such as beauty salons, daycare facilities and higher density residential development. The proposed density/building intensity is 12.1 to 25 units per acre. Non-residential (e.g. retail, service commercial and office) may have a maximum FAR of 1.0. Residential and non-residential uses may be combined on individual parcels. A higher FAR may be permitted where upper-story housing, off-site or structured parking, and/or pedestrian amenities are provided.

In addition to land use designations and goals, objectives, policies and actions, the proposed General Plan includes additional, detailed and design guidance for eight specific areas, identified as Areas of Special Consideration. These Areas of Special Consideration are shown in Figure 3-5.





**FIGURE 3-5**

## AREAS OF SPECIAL CONSIDERATION



Four existing land use designations that appear in the 1993 General Plan would be removed in the proposed General Plan, and lands that currently carry them would be redesignated. These designations are:

- ◆ **Urban Centers.** The 1993 General Plan identifies approximate locations on the Land Use Diagram for “Urban Centers,” which are defined as areas 60 to 80 acres in size that are intended to serve as a high intensity-use, “full-service ‘downtown’” for areas outside of the City limits that have not yet been developed. Based on an analysis of prevailing market and economic trends and in support the City of Tracy’s vision of preserving and enhancing its unique “hometown” character, the proposed General Plan has removed the “Urban Center” designation. Instead, the proposed General Plan establishes the Downtown and Village Center land use designations to promote the concept of focusing on the city’s existing downtown area as the public and cultural focus of the entire city, with small-scale retail and mixed-use or “village” centers distributed throughout the city on major corridors to serve the city’s neighborhoods.
- ◆ **Community Plan Areas.** The existing General Plan put forth the concept of the Community Plan Area to organize future planning efforts and guide development. All areas within the 1993 SOI were divided into seven Community Plan Areas. One Community Plan Area, the “City Core Contiguous Community Area,” consists of the existing urbanized area (as of 1993). The remaining six Community Areas are large, undeveloped areas outside of the City limits. The 1993 General Plan lays out short descriptions and summary tables indicating the type and mix of development envisioned for each Community Area. The Community Plan Areas do not change the underlying land use designations. The Community Area concept has been refined and replaced in the proposed General Plan by the Urban Reserve land use designation.
- ◆ **Federal Reserve (FR).** According to the 1993 General Plan, this designation was applied to federally-owned lands where specialized testing and other operations occur that are outside of the jurisdiction of the City of Tracy. The only area in the current General Plan with this designation, “Site 300” or the Lawrence Livermore Laboratory, is outside of the City’s

1993 and proposed SOIs, but within the Planning Area. The City does not have regulatory authority in areas within the Planning Area and outside of the SOI; instead, San Joaquin County General Plan land use designations apply. Moreover, City General Plan land use designations outside the City's SOI are not shown in the proposed General Plan land use map. Thus, this land use designation was removed.

- ◆ **Special Study Area (/S).** In the 1993 General Plan, this land use designation is defined as “a suffix to other land use designations to identify special study areas.”<sup>13</sup> Only one area, the residential area northwest of the Tracy Municipal Airport's overflight zone, was designated with this overlay. Standards regarding compatibility and safety in areas near the Tracy Municipal Airport are set by the Federal Aviation Administration and promulgated by the San Joaquin County Airport and Land Use Commission (ALUC). In place of having a separate land use designation for areas that require “further study,” the proposed General Plan's Land Use Element includes policy direction for new development and expansion of existing development to conform to the safety and development restrictions specified in the San Joaquin County Airport Land Use Plan.

### 3. Land Use Designation Changes

The draft General Plan proposes several revisions to the land use designations of properties within the City limits and SOI as compared to the land use designations in the 1993 General Plan. These changes, which are intended to be in keeping with the goals, objectives, policies and actions of the proposed General Plan, are presented in Figure 3-6. In addition, Table 3-1 presents a comparison of the amount of acres and percentage of each land use designation between the 1993 General Plan and the proposed General Plan. The following is a summary of the types of changes proposed:

- ◆ **Specific Plans.** The City has approved numerous Specific Plans since the 1993 General Plan was adopted, including the Industrial Area Specific Plan, I-205 Corridor Specific Plan, Tracy Hills Specific Plan, and Ellis

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<sup>13</sup> City of Tracy 1993 General Plan.

**CITY OF TRACY**  
**GENERAL PLAN**  
**DRAFT SUPPLEMENTAL EIR**  
PROJECT DESCRIPTION

TABLE 3-1 **LAND USE DESIGNATION CHANGES (CITY LIMITS AND SOI)**

Land Use Designation	1993 General Plan (Acres)	% of Total	Proposed General Plan (Acres)	% of Total
Residential Very Low	1,445	5.6%	405	1.5%
Residential Low	7,690	29.8%	3,778	14.4%
Residential Medium	2,315	9.0%	1,505	5.7%
Residential High	145	0.6%	247	0.9%
TR – Ellis	N/A	--	286	1.1%
Commercial	1,675	6.5%	1,258	4.8%
Office	N/A	--	546	2.1%
Downtown	N/A	--	116	0.4%
Village Center	N/A	--	130	0.5%
Industrial	6,310	24.4%	3,973	15.1%
Urban Reserve	N/A	--	7,584	28.8%
Public Facilities	1,135	4.4%	964	3.7%
Park	280	1.1%	462	1.8%
Open Space	3,435	13.3%	3,833	14.6%
Aggregate	1,045	4.0%	10	0.0%
Agriculture	365	1.4%	1,230	4.7%

Notes:

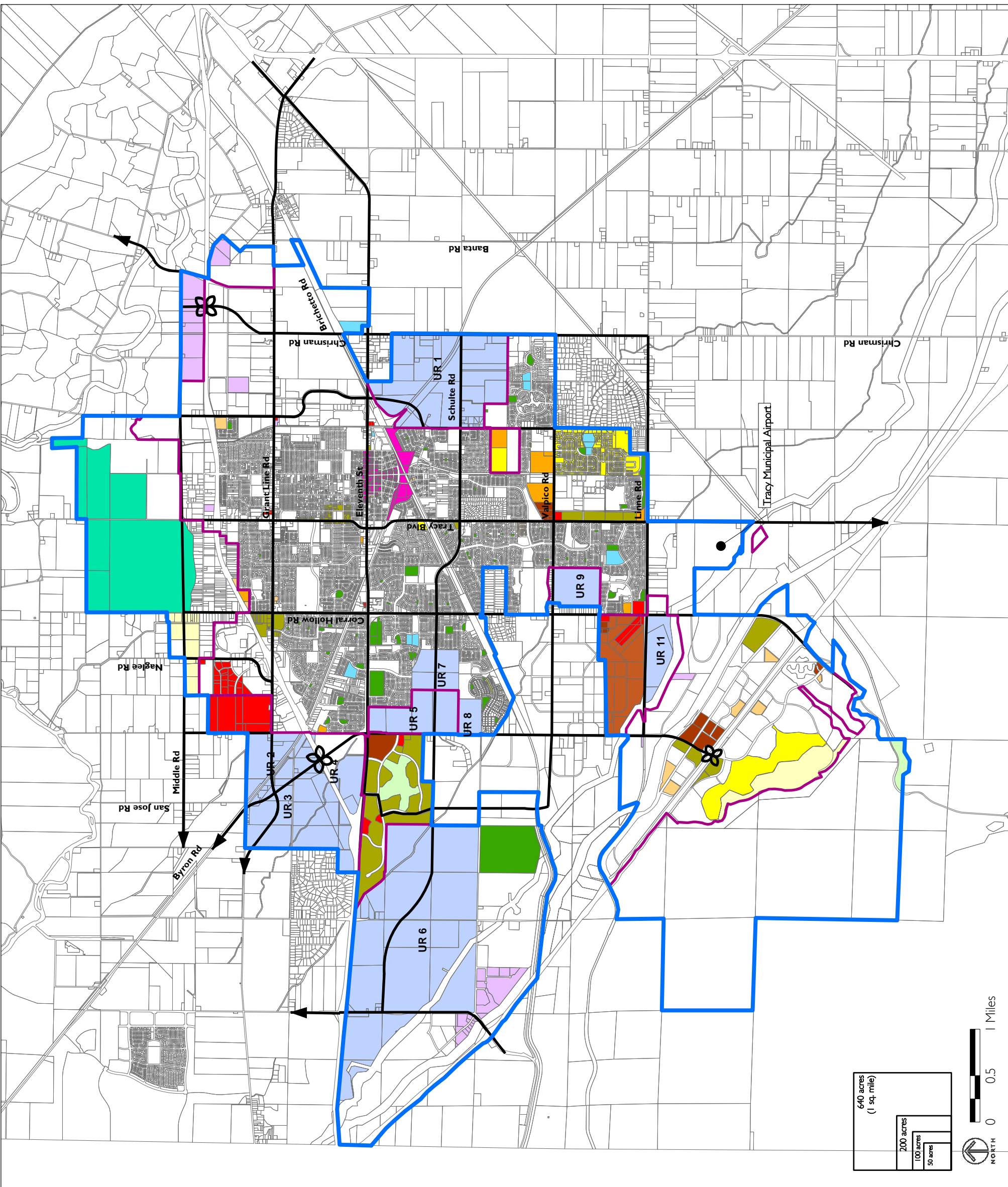
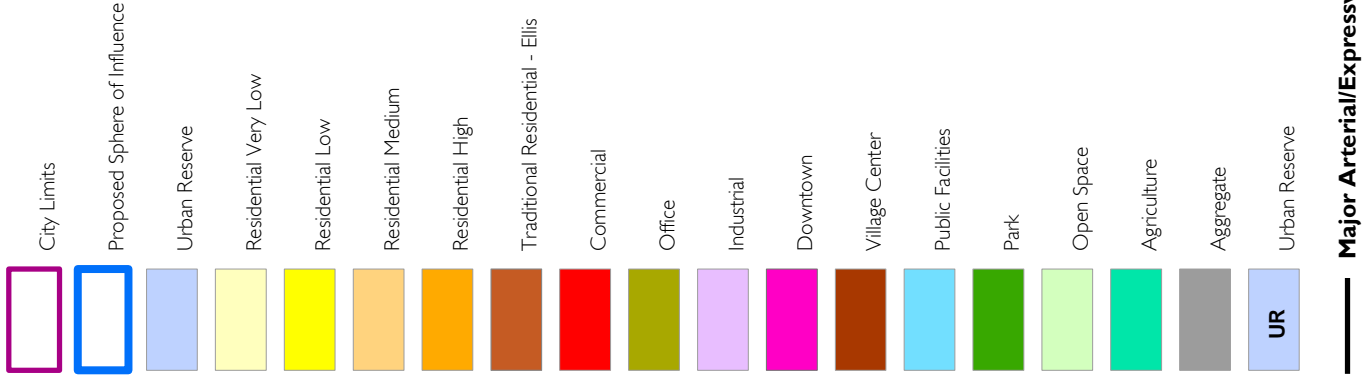
1. The designation, "Urban Center," used in the *1993 General Plan* is not included in the table above since the designation only was applied to approximate geographic areas which had other underlying General Plan land use designations; the acreages of the underlying land use designations are included in the table.
2. Total acres of the SOI and City limits differ between the *1993 General Plan* and the proposed General Plan due to annexations and SOI changes.

Specific Plan. Land use designations in the proposed General Plan reflect the land use designations in these adopted specific plans.

- ◆ **Planned Unit Developments (PUDs).** Since the 1993 General Plan was developed, there were numerous PUDs approved and/or built. These include Tracy Gateway, the Northeast Industrial Area PUD and numerous residential developments on the south and west sides of the city. In some instances, the approved PUD differed from the underlying land use designation in the 1993 General Plan. The proposed General Plan would change land use designations to be consistent with these PUDs.
- ◆ **New Land Use Designations.** The proposed land use designation map identifies locations where the new land use designations discussed in the previous section apply. Please note that the new land use designation called “Traditional Residential” (TR) described in Section F.2 above is not applied on the General Plan land use map. The TR designation is only applied through a particular project's development-level planning process (e.g. Specific Plan), and includes an identifier specific to the project in the designation name. The TR-Ellis designation described below is the only TR application on the General Plan land use map at this time.
  - *Downtown.* This designation is to be applied to areas around the existing Downtown area in order to support the vision of this area becoming a vibrant, cultural and economic focal point for the City.
  - *Village Centers.* Several Village Centers are identified in order to provide the community with mixed-use, walkable “main street” areas.
  - *Office.* This designation is to be applied to parcels where the City would like to see medium- and large-scale office projects. The Office designations are primarily located in Tracy Gateway, Tracy Hills and along Tracy Boulevard south of Valpico Road.
  - *Traditional Residential – Ellis.* This designation is to be applied to the Ellis Specific Plan area, covering approximately 286 acres near the Tracy Municipal Airport and including a mix of residential densities and park uses.

FIGURE 3-6

PROPOSED CHANGES TO  
1993 URBAN MANAGEMENT PLAN  
LAND USE DESIGNATIONS





- *Urban Reserve.* This designation is to be applied to large undeveloped parcels outside of the City limits but inside of the SOI. Ten urban reserves were identified.

In addition, land use designation changes are proposed on some other parcels based on requests from property owners, comments made by the public, recommendations by the City Council and Planning Commission, and to rectify potential conflicts between existing and proposed uses.

#### *G. Community Character Element*

The proposed General Plan includes a new Community Character Element that is intended to protect and enhance the unique qualities and urban design character of the community. The Element identifies six “building blocks” for the City of Tracy: Neighborhoods, Employment Areas, the I-205 Regional Commercial Area, the Downtown, Village Centers and Corridors. Each area of the city is intended to conform to the design principles of one of these building blocks.

Neighborhoods are the primary residential areas of Tracy. They are to contain a mix of housing types designed around a focal point such as a park or school. Employment Areas are the primary job centers for Tracy and contain industrial, commercial and retail uses, as well as public spaces such as parks or plazas. The Downtown is the cultural and historic heart of the city. Characteristics of the Downtown that are described and supported by the Community Character Element include a concentration of civic and cultural uses, mixed-use development with a backbone of retail use, streets on a grid or modified grid, multi-modal street design, a pedestrian-oriented environment, and direct pedestrian and bicycle connections to residential neighborhoods. The I-205 Regional Commercial Area is destination-oriented and serves as the city’s primary retail environment outside of the Downtown. Village Centers are retail and commercial areas that may also contain residential and small-

scale public or publicly-oriented uses. Corridors are primarily linear commercial areas that may also contain residential and office uses.

The Community Character Element contains goals, objectives, policies and actions for the design quality and character of each of the building blocks. Important concepts include creating focal points for residential neighborhoods such as a park or plaza, orienting buildings and sites to the pedestrian environment, creating a mix of uses, providing access to goods and services, enhancing multi-modal connectivity, and ensuring high quality urban design and architecture.

#### *H. Open Space Policies*

The proposed General Plan includes new policies and actions intended to preserve and enhance open spaces in and around the City of Tracy. These concepts are detailed in the Open Space and Conservation Element but reinforced in the Land Use Element.<sup>14</sup> Proposed policies and actions include the following:

- ◆ Preparing a comprehensive plan that identifies areas for different types of open space and determines the best methods of preserving, acquiring and maintaining open spaces.
- ◆ Working with San Joaquin County and the City of Lathrop to develop community separators or to retain significant undeveloped lands between the communities of Tracy, Mountain House and Lathrop.
- ◆ Identifying locations for soft and hard edges to the city. Soft edges are defined as a feathering of density between urban and rural uses. Hard edges are an abrupt separation between urban and rural uses such as a landscaped buffer, a fence or a highway.

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<sup>14</sup> The 1993 General Plan has separate elements for the topics of Open Space and Conservation, whereas the proposed General Plan combines them into one element.



- ◆ Working with landowners, non-profit organizations and San Joaquin County to identify and preserve agricultural uses.
- ◆ Ensuring that additional parks and recreational facilities are provided for residents that are available concurrently with need.

### *I. Circulation Improvements*

Under the proposed General Plan, the City will implement a significant number of new roadways and other changes to its roadway network. These are described below and shown in Figure 3-7. These new roadways primarily consist of arterials and new interchanges to serve future development in the western portion of Tracy, including connections from Interstate 205 to Byron, Lammers and Grant Line Roads, and a westward extension of Schulte and Linne Roads. There is also a major arterial which connects Chrisman Road to Interstate 205 and Arbor Avenue to the north, and several minor arterial and collector roadways which are proposed for the eastern edge of Tracy. In addition, as development occurs, more localized improvements to existing roadways will be necessary. These improvements include the addition of travel lanes, new signals, widening of intersection and reclassifications of roadways.

In addition, proposed General Plan policies call for regular updates to plans for the bicycle, transit, freight and other circulation systems. However, no specific changes to these transportation systems are proposed in the General Plan.

### *J. General Plan Development Projections*

This EIR provides an analysis of development that is projected to occur through the 2025 planning horizon of the General Plan, as well as total future growth within the City limits and SOI. This section summarizes the amount of residential and non-residential development expected under both scenarios, as shown in Table 3-2.

The residential development projections in this EIR are based on the City's Growth Management Ordinance. Non-residential projections are based primarily on past trends in the City of Tracy and neighboring jurisdictions.

### **1. Development through 2025**

Although the SOI is designed to accommodate a 30-year growth horizon, this EIR focuses on development projections for 2025, which is the planning horizon for the General Plan. It is generally held that modeling of traffic and associated air quality and noise impacts much beyond a 20-year time period is inaccurate and unreliable. Therefore, this EIR analyzes growth occurring between 2008 and 2025, a 17-year buildout horizon, with the exception of the traffic, noise and air quality analyses, which extend to a 2030 horizon, or 22 years. The 2030 development projection is used for those sections because the traffic modeling, which also affects the air quality and noise analyses, is based on the San Joaquin Council of Governments (SJCOG) regional travel demand model, which was recently updated to 2030. The amount of growth projected for the period between 2008 and 2025 has been calculated for residential, industrial, retail and office development using the methodology described below.

As shown in Table 3-2, during the period between 2008 and 2025, the proposed General Plan is expected to result in approximately 9,500 new housing units, 9.4 million square feet of industrial development, 3.4 million square feet of retail development and 1.7 million square feet of office development. In 2025, Tracy's total residential population is projected to be approximately 112,600 people and the employee population is projected to be approximately 53,800 people. The amount of projected buildout for the 2025 planning horizon in each of the eleven Urban Reserve areas is shown in Table 3-3.

#### **a. Residential Development**

The General Plan 2025 development projections are based on land use designations, available acres and the existing building allotment regulations in Tracy.

FIGURE 3-7  
ROADWAY CLASSIFICATION  
AND CONCEPTUAL ALIGNMENTS

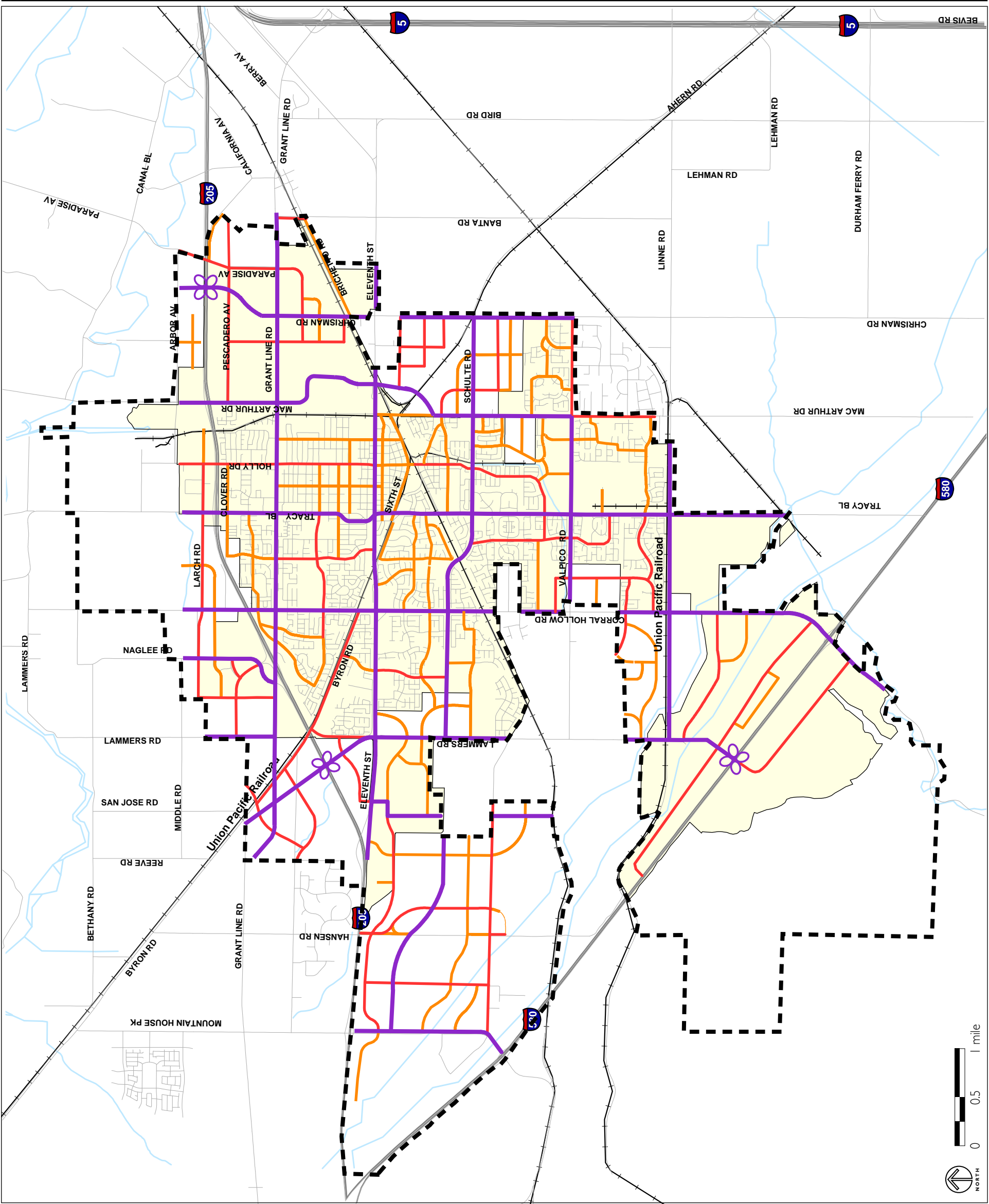




TABLE 3-2     **2025 AND TOTAL CITY + SOI PROJECTIONS**

	Through 2025	Total Additional City and SOI
<b>Residential*</b>	9,500 units	13,225 to 21,300 units
<b>Non-Residential</b>		
Retail	3,400,000 SF	19,600,000 SF
Office	1,700,000 SF	13,800,000 SF
Industrial	9,400,000 SF	82,700,000 SF
Population (Additional/ <i>Total</i> )	31,000/ <i>112,600</i>	43,000 to 70,000 / <i>124,500 to 151,500</i>
Employees (Additional/ <i>Total</i> )	21,300/ <i>53,800</i>	163,000/ <i>193,000</i>

Note: This table shows new growth only, unless otherwise specified.

\*Note that Urban Reserves permit a range of densities.

Source: City of Tracy and Design, Community & Environment, 2008.

The City adopted a residential Growth Management Ordinance (GMO) in 1987. The goal of the GMO is to achieve a steady and orderly growth rate that allows for the adequate provisions of services and community facilities, and includes a balance of housing opportunities. According to the GMO, builders must obtain a Residential Growth Allotment (RGA) in order to secure a residential building permit. One RGA equals the public services and facilities required by one dwelling unit.<sup>15</sup>

Residential growth under the General Plan will be limited by the GMO. As shown in Table 3-4, for the years 2008 through 2011, the GMO allows 100 building permits per year. In 2012, the GMO will allow for at least 219 building permits, possibly more, based on the permit activity between 2009 and 2012.

<sup>15</sup> City of Tracy *Residential Growth Management Plan*, 2005, page 5.

TABLE 3-3 **PROJECTED DEVELOPMENT THROUGH 2025 IN URBAN RESERVE AREAS**

	Population	Dwelling Unit (DU)	% of Total DUs <sup>a</sup>	Jobs	% of Total Jobs <sup>b</sup>
UR 1	167	51	< 1%	–	–
UR 2	327	100	< 1%	444	1%
UR 3	–	–	–	815	2%
UR 4	–	–	–	222	< 1%
UR 5	2,453	750	2%	–	–
UR 6	–	–	–	3,495	6%
UR 7	2,453	750	2%	–	–
UR 8	657	200	1%	–	–
UR 9	2,214	677	2%	–	–
Ellis	5,232	1,600	5%	578	1%
UR 11	–	–	–	–	–
<b>Total</b>	<b>13,503</b>	<b>4,128</b>		<b>5,554</b>	

Note: < = less than.

<sup>a</sup> Based on 35,000 total dwelling units projected total for 2025.

<sup>b</sup> Based on 53,800 total jobs projected for 2025.

Between 2013 and 2025, 600 building permits per year (on average) will be allowed under the GMO. Thus, between the years 2008 and 2025, the number of residential units allowed under the City's GMO is 8,419 units.<sup>16</sup>

<sup>16</sup> The total building permits for 2008 through 2025 was calculated with the following methodology: (100 building permits x 4 years [2008 through 2011] + 219 building permits x 1 year [2012] + 600 building permits x 13 years [2013 through 2025] = 8,419.

TABLE 3-4     **RESIDENTIAL GROWTH ALLOTMENTS  
(2008 TO 2025)**

<b>Year</b>	<b>Building Permits per Year</b>
2008	100
2009	100
2010	100
2011	100
2012	219
2013 through 2025	600
<b>Subtotal</b>	<b>8,419</b>
Affordable Units	1,080
<b>Total New Units</b>	<b>9,499</b>
<b>Existing Units</b>	<b>25,478</b>

Source: City of Tracy. January 15, 2008. City Council Agenda Packet, Agenda Item 5, page 3.

The GMO includes exceptions to allow for additional affordable housing. The General Plan Housing Element sets a goal of 60 affordable housing units per year, or 1,080 units between 2008 and 2025. Therefore, it is assumed that 1,080 affordable housing units over and above the 8,419 market rate units will be built between 2008 and 2025. Thus, the 2025 development scenario includes the addition of 9,499 units of housing. Added to the 25,478 housing units in Tracy in 2008, these 9,499 housing units will bring the total housing unit count to approximately 35,000 in 2025.

These 9,499 new housing units can be expected to result in an additional 31,000 people (using a multiplier of 3.27 persons per household).<sup>17</sup> This would result in a total population of approximately 112,600 people.<sup>18</sup>

b. Industrial Development

The projected increase in industrial development from 2008 to 2025 has been determined based on past trends. An analysis of the past five years of industrial development revealed that approximately 550,000 square feet on average was constructed each year. This EIR assumes that this trend will continue into the future. Thus, 9.4 million square feet of new industrial space is projected to be developed through 2025. Based on an average of one employee per 1,000 square feet of building space, this translates into 9,400 new employees in the industrial sector.

c. Retail Development

The increase in retail development from 2008 to 2025 has been projected based on past trends. An analysis of the past five years of retail development revealed that approximately 200,000 square feet on average was constructed each year. This EIR assumes that this trend will continue into the future. Thus, 3.4 million square feet of new retail space is assumed to be developed through 2025. Based on an average of two employees per 1,000 square feet of building space, this translates into 6,800 new employees in the retail sector.

d. Office Development

In order to determine a reasonable estimate for new office uses for the planning horizon, an analysis of office development trends over the last five years in the City of Tracy and City of Livermore was conducted. Livermore was selected since it is close to Tracy and experienced an expansion of office development over the last decade.

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<sup>17</sup> California Department of Finance, estimate for January 2008, [http://www.dof.ca.gov/research/demographic/reports/estimates/e-5\\_2001-06/](http://www.dof.ca.gov/research/demographic/reports/estimates/e-5_2001-06/), accessed on September 15, 2008.

<sup>18</sup> According to the 2008 Department of Finance estimate, the population of Tracy was approximately 81,548 in 2008.



Based on this analysis, this EIR assumes that an average of approximately 100,000 square feet per year of office space would be constructed. This translates into 1.7 million square feet of office space through 2025 and, based on three employees per 1,000 square feet, an addition of 5,100 new employees.

e. Development Locations

The amount of vacant and underutilized land within the existing City limits and proposed SOI will accommodate a larger amount of growth than is assumed for the planning horizon of the General Plan. The additional land proposed for the SOI is needed to provide for a healthy real estate market, and is also allowed by LAFCO policies that provide for an SOI to account for local policies related to the rate of residential and non-residential growth, anticipated absorption of land, and policies and strategies for economic and employment growth.

Since the land supply will not all be developed by 2025, this EIR must make assumptions regarding future development locations. For the purposes of this EIR, new residential and non-residential growth is expected to be distributed throughout the City limits and SOI based on a number of factors, including the availability of land, vested RGAs for projects that have not completed construction, existing approved specific plans, conversations with developers and landowners, and residential growth policies in the proposed General Plan. This represents a “best estimate” as to where growth will locate through 2030. It is not a statement of policy.

In this EIR, new residential growth is assumed to be distributed throughout the existing City limits and largely on the west side of the SOI. It is assumed that 2,000 units would be infill development; that is, within the existing urbanized areas on vacant or underutilized parcels. This EIR also projects concentrations of housing in and around the Downtown, along Valpico Road, and in the northern portion of Urban Reserve 5 that abuts Eleventh Street. Additionally, housing is projected to be located along the western and southern edge of the City (inside and outside of the City limits) in Urban Reserves 5, 7, 8, 9 and 10, and in Tracy Hills.

New non-residential development is also projected to be located throughout the SOI. Industrial growth is assumed to be located in the Northeast Industrial Area, Urban Reserves 3 and 6, as well as a few areas in the Industrial Specific Plan (ISP) area, in Tracy Hills along Interstate 580, and near the Tracy Municipal Airport in southern Tracy. Retail growth is assumed to be distributed in the Downtown/Bowtie area, the Interstate 205 area, along Grant Line and Valpico Roads, Larch Clover, Urban Reserves 3, 4 and 10, as well as in Tracy Hills. Office growth is projected to focus in Tracy Gateway and on Tracy Boulevard south of Valpico Road, near the intersection of Grant Line Road and Tracy Boulevard and in Tracy Hills along Interstate 580.

## **2. Total Buildout**

In this EIR, the term “total buildout” refers to a scenario in which all available land within the SOI would be developed according to the land use designations in the proposed General Plan. As noted above, the amount of vacant and underutilized land within the SOI will accommodate a larger amount of growth than is assumed to occur during the planning horizon of the proposed General Plan. When compared to the 2025 development projections, total buildout would result in more development and would occur farther into the future.

As is shown in Table 3-2, buildout of the SOI is expected to add between 13,225 and 21,300 new housing units; 82.7 million square feet of industrial development; 19.6 million square feet of retail development; and 13.8 million square feet of office development. The total residential population at total buildout is projected to be between 124,500 and 151,500 people, and the total employee population is projected to be approximately 193,000.

Total buildout for residential and non-residential development was estimated by applying land use designations in the proposed General Plan to vacant and underutilized land within the SOI. For parcels with the Urban Reserve land use designation, the amounts and types of land uses provided in the statistical profiles for each Urban Reserve were used for estimating purposes. For the Tracy Hills Specific Plan and Tracy Gateway PUD areas, the amounts of to-

tal future residential and non-residential development included in the approved plans were used in estimating total buildout. These buildout estimates were then refined based on site constraints.

Congruent with the 2025 development projection, the total buildout scenario makes similar assumptions regarding residential and employee populations. Based on this methodology, the total buildout scenario would result in between 13,225 and 21,300 new units. Using a multiplier of 3.27 persons per household based on the 2008 Department of Finance estimate, total buildout of the SOI would result in between 43,000 to 70,000 new people for a total of between 124,500 and 151,500 people.<sup>19</sup>

The total buildout scenario uses the same employee generation rates as the 2025 development projection for retail, office and industrial uses. Thus, based on an average of one employee per 1,000 square feet of industrial building space, this translates into approximately 83,000 new employees in the industrial sector. Based on an average of two employees per 1,000 square feet of retail building space, this translates into approximately 39,000 new employees. Based on an average of three employees per 1,000 square feet of office building space, this translates into approximately 41,000 new employees. As shown in Table 3-2, the number of new employees is estimated to be 163,000, for a total of 193,000 employees when added to the existing employee figure.

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<sup>19</sup> Additional population projected from total buildout was added to the 2008 Department of Finance estimate, which was 81,548.

**CITY OF TRACY**  
**GENERAL PLAN**  
**DRAFT SUPPLEMENTAL EIR**  
PROJECT DESCRIPTION

## 4 ENVIRONMENTAL EVALUATION

This chapter consists of five sections that evaluate the environmental impacts of the proposed General Plan. Each section generally follows the same format, and consists of the following subsections:

- ◆ The *Existing Setting* portion describes current conditions with regard to the environmental factor reviewed.
- ◆ The *Standards of Significance* explain how an impact is judged to be significant in this EIR, based on various CEQA Guidelines standards.
- ◆ The *Impact Discussion* gives an overview of potential impacts, and tells why impacts were found to be significant or less than significant.
- ◆ The *Impacts and Mitigation Measures* number and list identified impacts and, where possible, identify measures that would mitigate each impact. A statement regarding the level of significance after mitigation is also included.

Each numbered impact discussed under the *Impacts and Mitigation Measures* section is considered significant prior to mitigation. As required, mitigation measures have been suggested that will reduce significant environmental impacts to less-than-significant levels, where feasible. Where mitigation would not reduce impacts to a less-than-significant level, impacts are noted as significant and unavoidable in the text.

All mitigation measures are stated with conditional language (“should”) because they are recommendations, and not conditions of approval for the project, unless they are specifically adopted as conditions by the City. Under CEQA, although an EIR is required to identify mitigation measures that could reduce identified impacts to less-than-significant levels, a City is not required by State law to adopt these mitigation measures, even after the EIR is certified. The City could instead require alternative mitigation measures that are equally effective, or it could find that the identified measures are infeasible and approve the General Plan without a specific mitigation under a finding of overriding consideration. If the City adopts the suggested mitigation measures as conditions of approval, then their language will be changed from the conditional “should” to the mandatory “shall.”

**CITY OF TRACY**  
**GENERAL PLAN**  
**DRAFT SUPPLEMENTAL EIR**  
ENVIRONMENTAL EVALUATION

As required by CEQA Guidelines, potential cumulative impacts for Sections 4.1 through 4.15 are considered and discussed in Chapter 6.

## 4.1 LAND USE

This section presents information on existing land uses in the City of Tracy and describes potential environmental impacts that the proposed General Plan would have on these uses.

### *A. Existing Setting*

This section describes existing land uses in Tracy, the 1993 City of Tracy General Plan land use designations, existing plans and policies related to land use, and San Joaquin County's land use designations for those unincorporated areas within the City's proposed Sphere of Influence (SOI).

#### **1. Existing Land Use**

The following provides qualitative and quantitative descriptions of existing land uses in the City of Tracy, both for the area within the City limits and the area in the SOI. Data on existing land use is based on information collected by the San Joaquin County Assessor and verified by the City of Tracy. Figure 4.1-1 shows the existing land uses and Table 4.1-1 lists detailed acreages for each existing land use within the City limits and SOI, which are grouped into the following categories:

- ◆ **Residential — Single-Family Dwelling Unit.** This classification describes parcels that contain one residential unit with possible related structures such as secondary residential units, a garage or shed. Ninety percent of residential units within Tracy's City limits and the SOI are single-family dwellings. There are a total of approximately 3,482 acres in this category, 3,218 acres of which are in the City limits and 264 acres of which are in the SOI.
- ◆ **Residential — Two or More Dwelling Units.** Sites containing more than one residence, such as a duplex, apartment building or townhouse are included in this category. In Tracy, approximately 9 percent of residential parcels contain more than one dwelling unit. There are a total of approximately 333 acres in this category, 279 acres of which are in the City limits and 55 acres of which are in the SOI.

**CITY OF TRACY**  
**GENERAL PLAN**  
**DRAFT SUPPLEMENTAL EIR**  
**LAND USE**

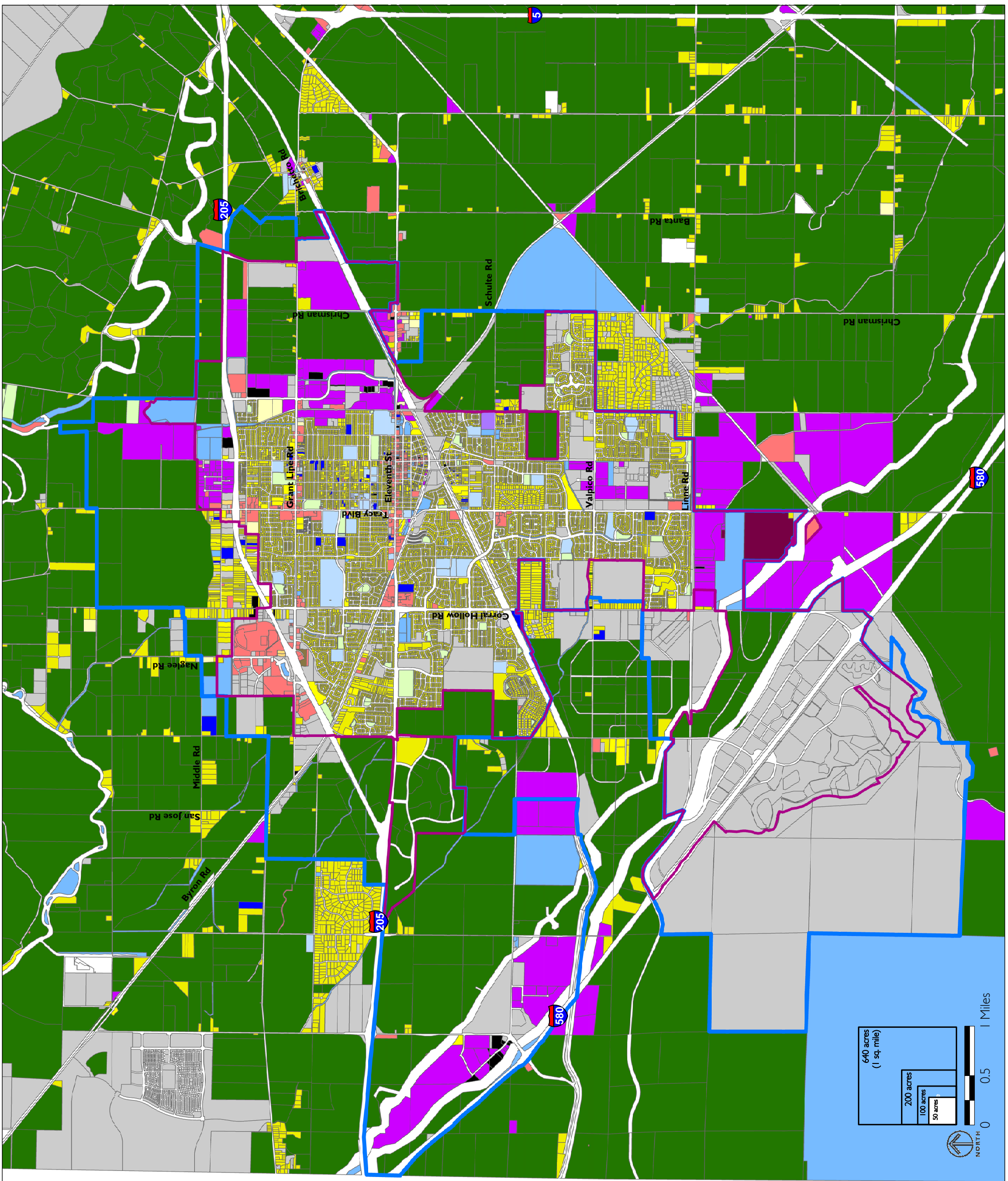
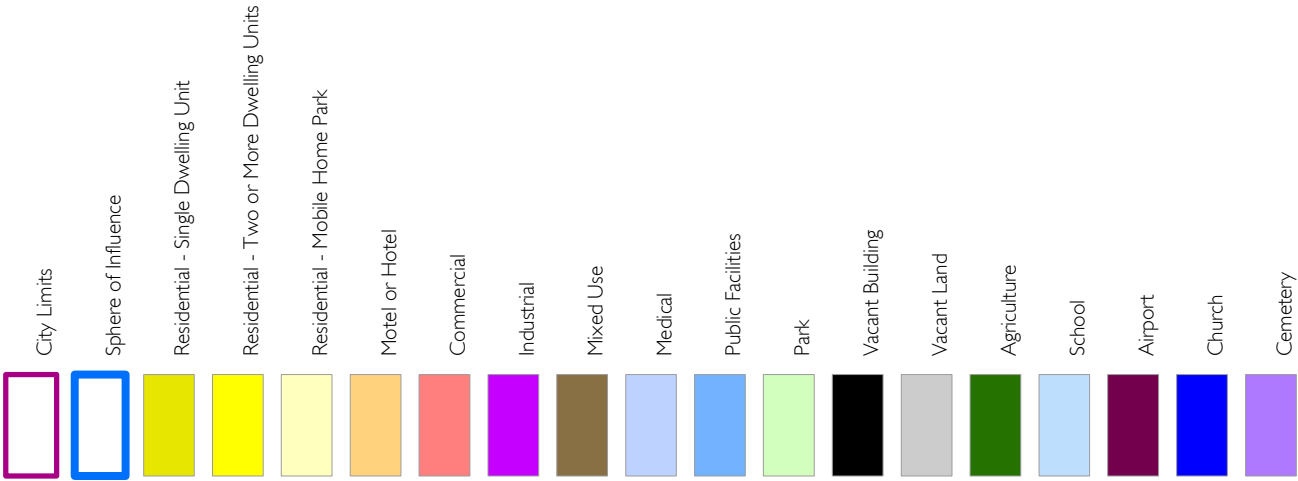
TABLE 4.1-1 **EXISTING LAND USE ACREAGE IN TRACY<sup>a</sup>**

<b>Land Use Category</b>	<b>City Limits</b>	<b>% of Total in City Limits</b>	<b>SOI</b>	<b>% of Total in SOI</b>	<b>Total Acres</b>
Residential – Single Unit	3,218	30%	264	2%	3,482
Residential – Two+ Units	279	3%	55	Less than 1%	333
Residential – Mobile Home	45	Less than 1%	-	Less than 1%	49
Motel/Hotel	13	Less than 1%	-	-	13
Commercial	482	4%	13	Less than 1%	496
Industrial	849	8%	884	8%	1,733
Mixed-Use	7	Less than 1%	-	-	7
Medical	21	Less than 1%	-	-	21
Park	221	2%	20	Less than 1%	241
Public Facility	442	4%	289	2%	731
Vacant Building	42	Less than 1%	33	Less than 1%	75
Vacant Land	3,114	29%	4,383	38%	7,497
Agriculture	1,618	15%	5,651	49%	7,269
School	305	3%	-	-	305
Airport	148	1%	-	-	148
Place of Worship	52	Less than 1%	16	Less than 1%	68
Cemetery	16	Less than 1%	1	Less than 1%	17
<b>Total</b>	<b>10,872</b>	<b>100%</b>	<b>11,613</b>	<b>100%</b>	<b>22,486</b>

<sup>a</sup> Information current as of December 31, 2003. Acreages have been rounded. Acreages do not include rights-of-way, canals or other waterways.



FIGURE 4.1-1  
EXISTING LAND USES IN TRACY  
(AS OF 2003)





- ◆ **Residential — Mobile Home Park.** Lands included in this category contain mobile homes or recreational vehicles that are for long-term residences. There are a total of approximately 49 acres of mobile home parks, 45 acres of which are within the City limits and 4 acres of which are in the SOI.
- ◆ **Motel/Hotel.** This use contains commercial lodging facilities of varying sizes. It includes bed and breakfast inns, motels and hotels. There are a total of approximately 13 acres within this category, all of which are within the City limits. A few hotels and motels are located along Eleventh Street close to the downtown area, with the remainder clustered in the northwest portion of the city, close to the I-205 Regional Commercial Area.
- ◆ **Commercial.** Sites with one or more types of retail and office facilities are included in this category. Typical parcels contain restaurants, grocery stores, shopping centers and office parks. There are approximately 496 total acres in this category, 482 acres of which are in the City limits and 13 acres of which are in the SOI. Major concentrations are along the Eleventh Street corridor and in association with the I-205 Regional Commercial Area in the northwest corner of the city.
- ◆ **Industrial.** These sites contain uses such as warehouses and distribution facilities, light manufacturing, self-storage facilities, aggregate deposits and extraction operations, and automobile garages. There are approximately 1,733 acres containing industrial uses, 849 acres of which are in the City limit and 884 acres of which are in the SOI. Several concentrations of these uses are in and around Tracy, including the Northeast Industrial Area, near Tracy Boulevard, West Tracy around Mountain House Parkway, and around the Airport.
- ◆ **Mixed-Use.** The mixed-use category includes parcels containing both commercial and residential uses, such as apartment units above retail stores. Currently there are approximately 7 acres of mixed-use in Tracy, all of which are within the City limits.

- ◆ **Medical.** This classification refers to parcels containing doctor, dentist and health care provider offices, as well as hospitals. There are a total of approximately 21 acres of medical land uses, all of which are within the City limits. Sutter Tracy General Hospital, the city's single hospital, is located on Tracy Boulevard, approximately ¼-mile north of the Eleventh Street intersection. In addition, a new medical facility for Kaiser Permanente was recently constructed near the intersection of Grant Line Road and Tracy Boulevard.
- ◆ **Park.** This category refers to established public and private open spaces and recreational facilities, such as playing fields, mini-parks and neighborhood and community parks. Currently there are approximately 241 acres of park land, 221 acres of which are within the City limits and 20 acres of which are in the SOI. Parks are typically moderately-sized and distributed throughout the city, often in the context of playing fields associated with schools. There is one large public sports complex on the west side of town, south of Eleventh Street.
- ◆ **Public Facility.** Public facilities are government-owned parcels, and include civic uses such as libraries, police and fire stations, municipal offices and the court house, and utilities. There are a total of approximately 731 acres in this category, 442 acres of which are within the City limits and 289 acres of which are in the SOI. Large concentrations of this land use include the wastewater treatment facility on the north side of town, the Defense Depot on the eastern edge of the city and the Civic Center.
- ◆ **Vacant Building.** Parcels containing unoccupied structures are classified as vacant. There are approximately 75 total acres of this use, 42 acres of which are in the City limits and 33 acres of which are in the SOI. Several smaller vacant buildings are located within the downtown area and a few larger parcels are located on the northern edge of the City limits.
- ◆ **Vacant Land.** This category refers to parcels without any structure or building, or that are used for agriculture. Currently there are approximately 7,497 total acres of vacant land, 3,114 acres of which are in the City limits and 4,383 acres of which are in the SOI. There are both large

single vacant parcels and groupings of smaller vacant parcels within the City limits.

- ◆ **Agriculture.** Working and non-working agricultural lands, for crops, grazing, dairy farms and related production are included in this category. A total of approximately 7,269 acres of agricultural lands exist on all four sides of Tracy, 1,618 acres of which are within the City limits and 5,651 acres of which are in the SOI, adjacent to the urban edge.
- ◆ **School.** This use includes public elementary, middle and high schools in school districts that serve the city, as well as private schools. There are 305 total acres for schools, all interspersed throughout the City limits.
- ◆ **Airport.** Tracy has one regional airport within its City limits, located on 148 acres on the south side of the city.
- ◆ **Place of Worship.** This use includes churches, synagogues, mosques, religious residences and spiritual retreat locations, but does not include private homes used for individual or small-group study. There are 68 total acres of land for places of worship, 52 acres of which are within the City limits and 16 acres of which are in the SOI.
- ◆ **Cemetery.** There is a 16-acre cemetery located within the City limits and a 1.3-acre cemetery located within the SOI.

## 2. Existing General Plan Land Use Designations

The land use map in the 1993 City of Tracy General Plan includes twelve land use designations, within which a broad range of uses is permitted. These land use designations are shown in Figure 4.1-2 and the amount of land within the City limits and SOI associated with each of these classifications are detailed in Table 4.1-2.

## 3. San Joaquin County General Plan Land Use Designations

Nineteen square miles of the Planning Area in the proposed General Plan are beyond the City limits and designated as within the Tracy SOI. Although the City of Tracy General Plan proposes land use designations for these lands

TABLE 4.1-2 1993 GENERAL PLAN LAND USE DESIGNATIONS IN ACRES

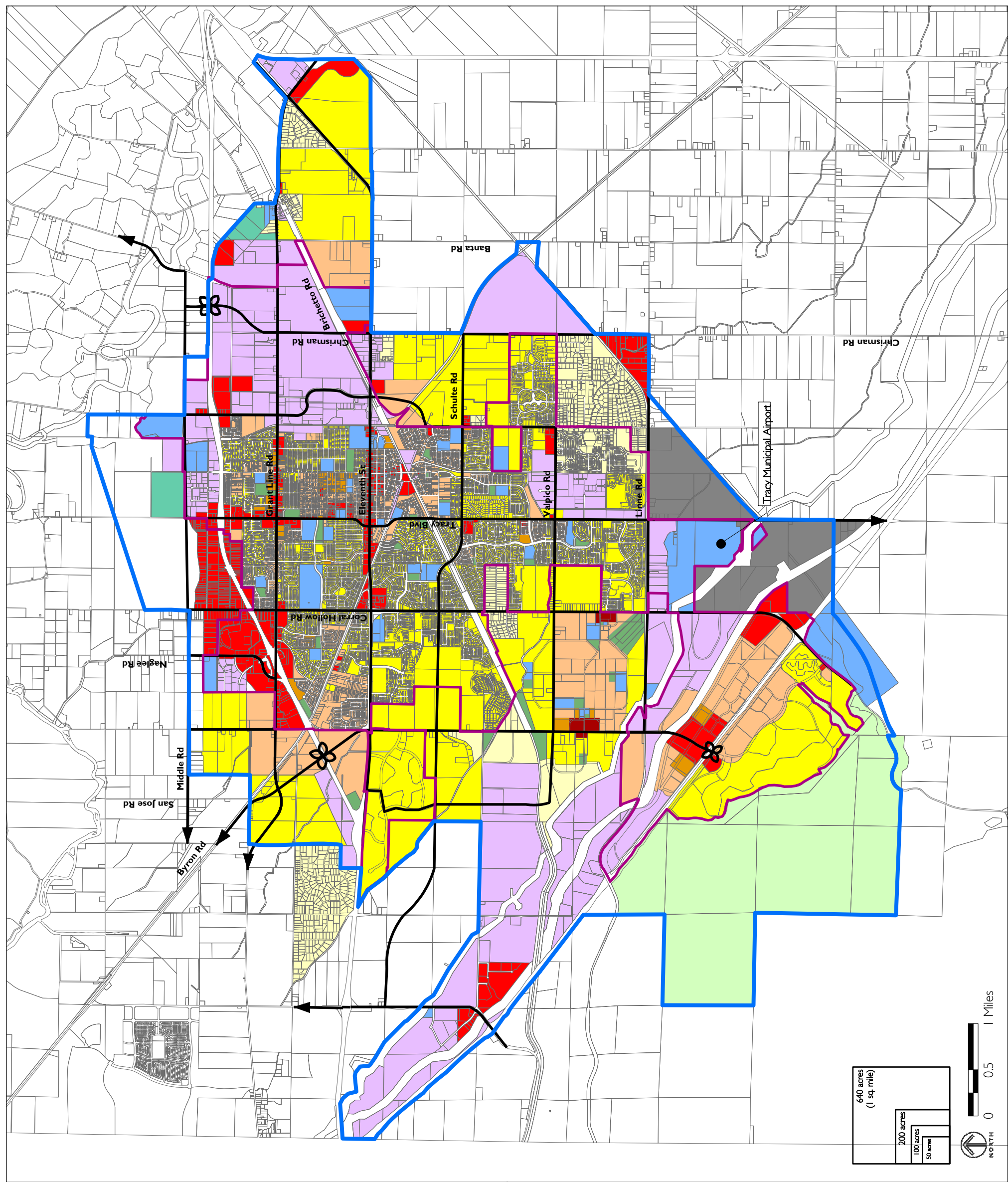
Land Use Designations	City Limits	% of Total in City Limits	SOI	% of Total in SOI	Total Acres
Residential Very Low	227	2.0%	1,098	7.6%	1,325
Residential Low	4,514	40.4%	3,606	24.8%	8,119
Residential Medium	1,670	14.9%	1,240	8.5%	2,910
Residential High	161	1.4%	22	0.2%	183
Commercial	1,020	9.1%	574	4.0%	1,595
Industrial	2,523	22.6%	2,917	20.1%	5,440
Public Facilities	938	8.4%	359	2.5%	1,297
Parks	112	1.0%	159	1.1%	272
Open Space	0	0%	3,298	22.7%	3,298
Aggregate	10	0.1%	1,033	7.1%	1,042
Agriculture	0	0%	182	1.2%	182
Urban Center/ Mixed Use	0	0%	51	0.3%	51
<b>Total</b>	<b>11,175</b>	<b>100%</b>	<b>14,538.0</b>	<b>100%</b>	<b>25,713</b>

beyond City limits, these lands remain under San Joaquin County's jurisdiction. The lands beyond the City limits, but within the proposed SOI, are primarily designated by San Joaquin County as General Agriculture, Industrial and Limited Agriculture, which typically includes wetlands or steep slopes that are difficult to cultivate, but may be used for grazing or habitat



FIGURE 4.1-2

1993 GENERAL PLAN  
LAND USE DESIGNATIONS







conservation. County land use designations for this area are shown in Figure 4.1-3.<sup>1</sup>

#### **4. Existing Plans and Policies**

In addition to the 1993 General Plan, other policy and planning documents that affect Tracy are described below.

##### **a. Zoning Ordinance**

Eighteen zoning designations are currently used in Tracy, which can be grouped into five basic types of land uses: residential, commercial, office, industrial and agriculture. The residential category is further subdivided by density, office and commercial categories are determined by type, and industrial zones are based on intensity of use. Zoning designations for the City are shown in Figure 4.1-4. The City of Tracy Zoning Ordinance is currently in the process of being updated.

##### **b. Growth Management Ordinance**

The City of Tracy adopted a residential Growth Management Ordinance (GMO) in 1987 that has since been amended several times, including an amendment in 2001 by the voter-initiated Measure A, which was passed in November of 2000. In general terms, the goal of the GMO is to achieve a steady and orderly growth rate that allows for the adequate provision of services and community facilities, and includes a balance of housing opportunities. Under the GMO, builders must obtain a Residential Growth Allotment (RGA) in order to secure a residential building permit. One RGA equals the public services and facilities required by one detached single-family dwelling unit.<sup>2</sup> The GMO limits the number of RGA's and building permits to an average of 600 housing units per year for market rate housing, with a maximum of 750 units in any single year. There are exceptions for affordable housing.

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<sup>1</sup> *San Joaquin County General Plan*, 2000.

<sup>2</sup> *City of Tracy Residential Growth Management Plan*, 2005, p.5.

Implementation of the GMO to meet the goals and policies of the General Plan, including concentrated growth, infill development, and affordable housing as high priorities, is through the GMO Guidelines, which are adopted by resolution of the City Council. The GMO and GMO Guidelines establish the requirements to be eligible to apply for RGAs. The Guidelines also include specific qualitative and quantitative criteria for the allocation of RGAs with said criteria periodically updated as provided by the resolution.

c. Specific Plans and Large Planned Unit Developments

Numerous specific plans and large-scale planned unit developments (PUDs) have been adopted within the Tracy City limits and SOI to provide additional direction for development within each study area. The following is a list of the larger Plans:

- ◆ Tracy Residential Areas Specific Plan
- ◆ Plan C (a collection of PUDs)
- ◆ I-205 Corridor Specific Plan
- ◆ Northeast Industrial PUD
- ◆ Industrial Area Specific Plan
- ◆ Ellis Specific Plan
- ◆ Tracy Gateway PUD
- ◆ Tracy Hills Specific Plan

d. San Joaquin County Airport Land Use Compatibility Plan

The Tracy Municipal Airport is subject to the 1993 *San Joaquin County Airport Land Use Compatibility Plan*. This Plan identifies future improvements for the airport to meet future aviation needs. The Plan also addresses land uses surrounding the airport by identifying compatible land uses for the various safety zones, since the type of development occurring in the airport environs impacts the safety of aircraft operation, as well as impacting the number of people exposed to aircraft hazards, such as airplane crashes.

FIGURE 4.1-3

SAN JOAQUIN COUNTY  
GENERAL PLAN  
LAND USE DESIGNATIONS  
OUTSIDE OF TRACY  
SPHERE OF INFLUENCE

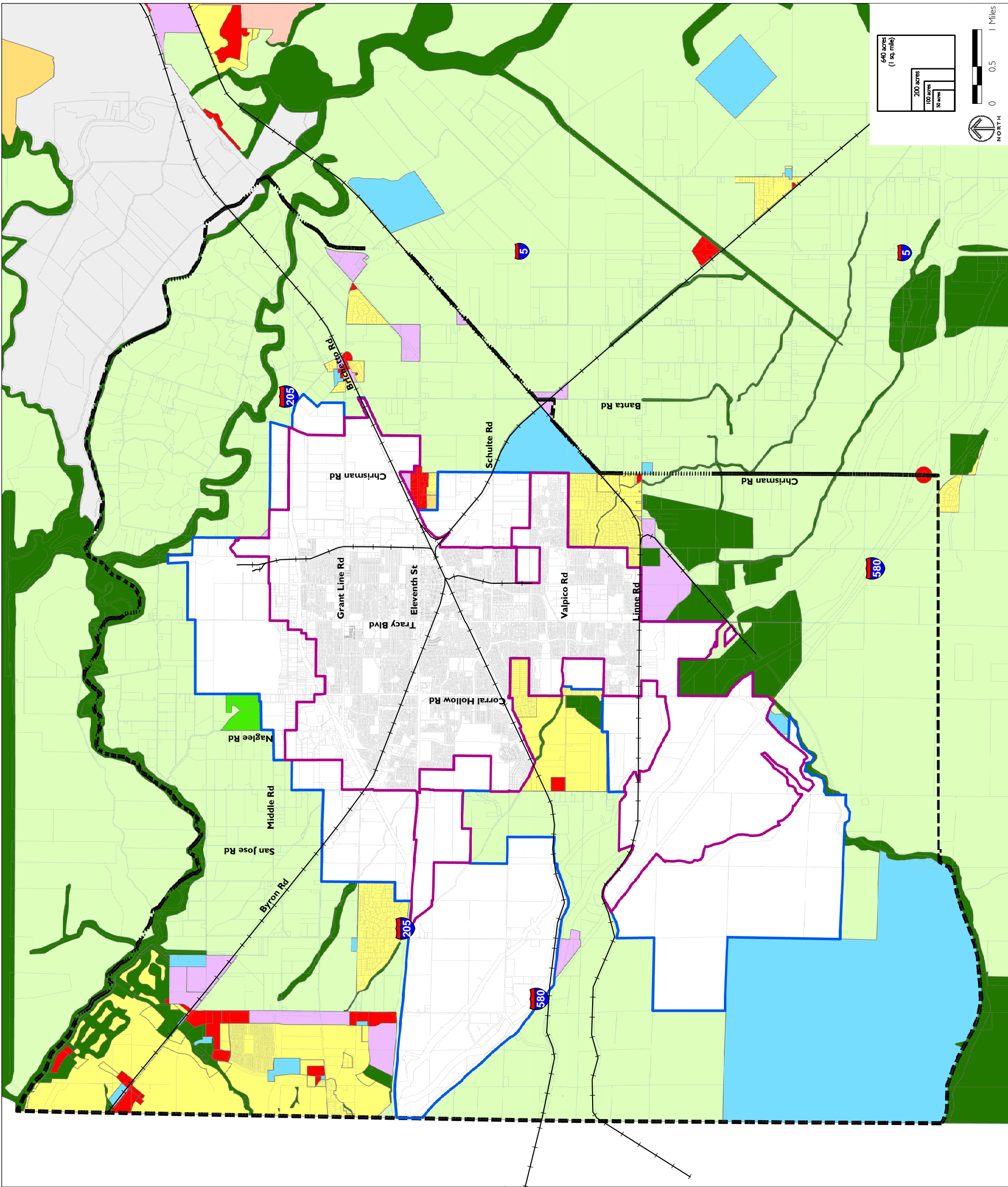
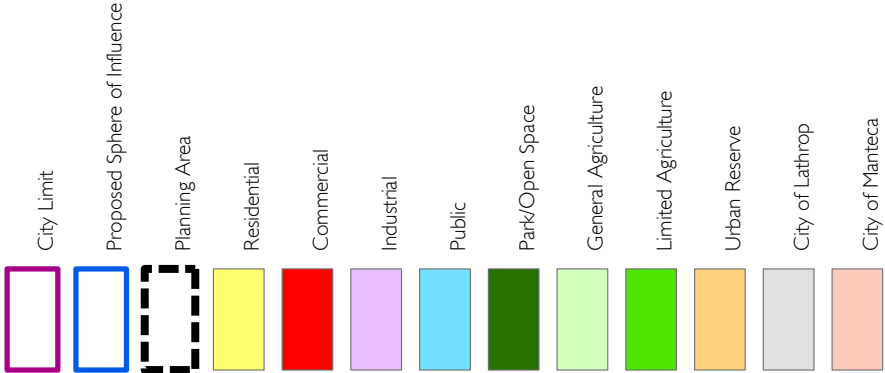


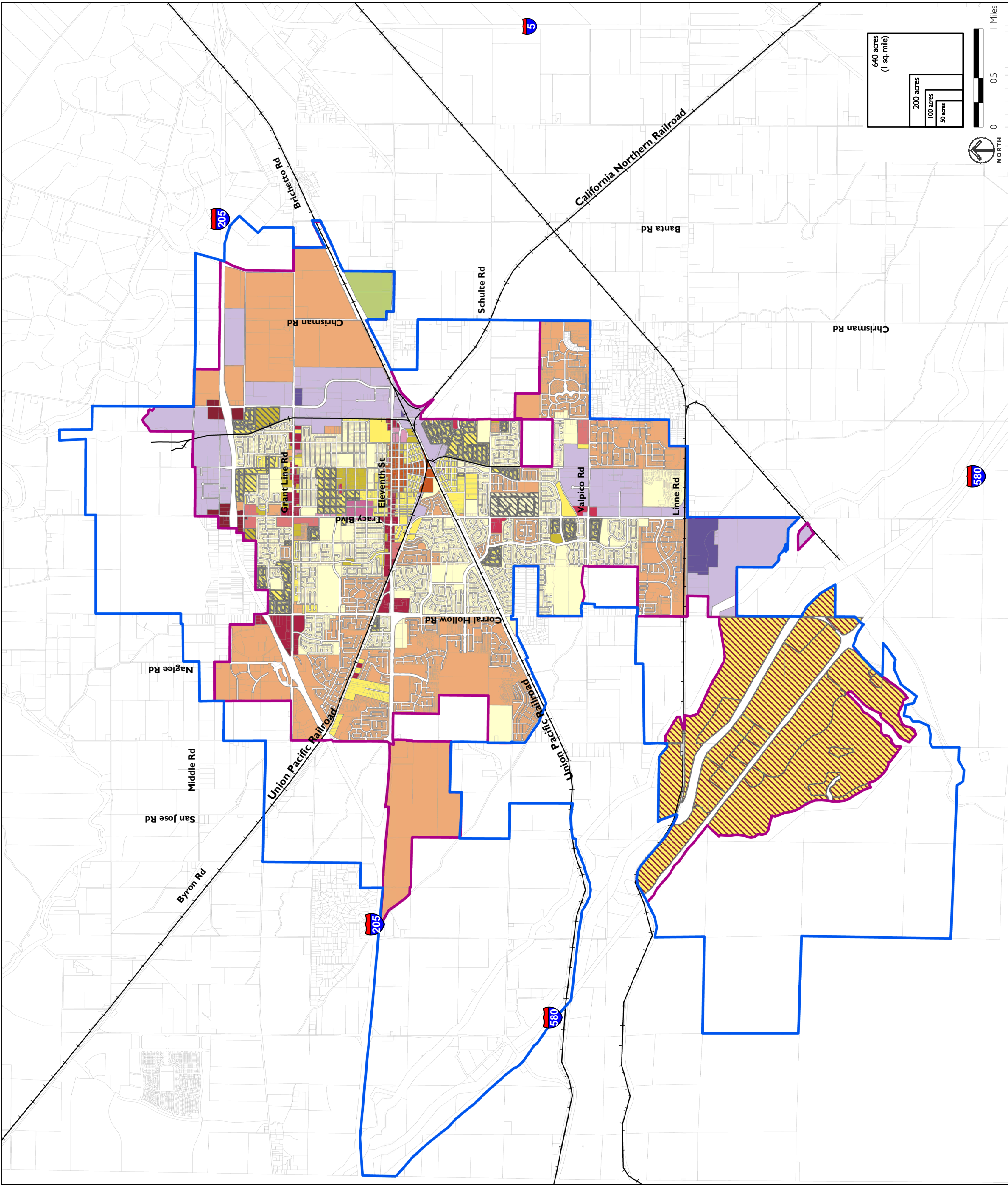




FIGURE 4.1-4

CITY OF TRACY ZONING

- Residential Estate (RE)
- Low Density Residential (LDR)
- Medium Density Residential (MDR)
- Medium Density Cluster (MDC)
- High Density Residential (HDR)
- Residential Mobile Home (RMH)
- Planned Unit Development (PUD)
- Central Business District (CBD)
- Community Shopping Center (CS)
- Neighborhood Shopping Center (NS)
- General Highway Commercial (GHC)
- Highway Service (HS)
- Light Industrial (M-1)
- Heavy Industrial (M-2)
- Professional and Medical Offices (POM)
- Medical Office (MO)
- Agricultural (AG)
- Tracy Hills Specific Plan
- Proposed Sphere of Influence
- City Limit





e. San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

Tracy is part of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), which covers the entire county, with the exception of the federally-owned Site 300 (Lawrence Livermore National Lab), which is located in the foothills southwest of the city. The SJMSCP was prepared by the San Joaquin Council of Governments under a Memorandum of Understanding adopted by the San Joaquin Council of Governments, San Joaquin County, the US Fish and Wildlife Service, the California Department of Fish and Game, Caltrans, and the Cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton and Tracy. The City of Tracy adopted the SJMSCP on November 6, 2001.

This 50-year plan addresses impacts to 97 special-status plant, fish and wildlife species found in 52 vegetative communities that occur in scattered localities throughout San Joaquin County. The SJMSCP compensates for Conversions of Open Space for the following activities: urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring outside of urban boundaries, levee maintenance undertaken by the San Joaquin Area Flood Control Agency, transportation projects, school expansions, non-federal flood control projects, new parks and trails, maintenance of existing facilities for non-federal irrigation district projects, utility installation, maintenance activities, managing preserves, and similar public agency projects.<sup>3</sup>

f. Land Use and Resource Management Plan for the Primary Zone of the Delta

The Primary Zone of the Sacramento-San Joaquin Delta includes approximately 500,000 acres of waterways, levees and farmed lands extending over portions of five counties: Solano, Yolo, Sacramento, San Joaquin and Contra Costa. The Delta's environment supports a strong agricultural economy in

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<sup>3</sup> *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan*, November 2000, page 1-1.

the region and has a critical role in preserving the region's water quality. In addition, the Delta provides habitat for many aquatic species as well as year-round and seasonal habitat for amphibians, reptiles, mammals and birds, including several rare and endangered species. The area is also extremely popular for water-oriented recreation, including fishing, boating and water-skiing.

Recognizing the threats to the Primary Zone of the Delta from potential urban and suburban encroachment and the need to protect the area for agriculture, wildlife habitat and recreation uses, the California Legislature passed and the Governor signed into law on September 23, 1992, the Delta Protection Act of 1992 (Senate Bill 1866). The Act directs the Delta Protection Commission to prepare a comprehensive resource management plan for land uses within the Primary Zone of the Delta.

The Delta Protection Act also includes a Secondary Zone; the Secondary Zone is not within the planning area of the Delta Protection Commission. The land use section of the *Land Use and Resource Management Plan for the Primary Zone of the Delta* does include one recommendation that "to the extent possible, any development in the Secondary Zone should include an appropriate buffer zone to prevent impacts of such development on the lands in the Primary Zone. Local governments should consider needs of agriculture in determining such a buffer."<sup>4</sup> All areas in the Tracy Planning Area that are part of the "Legal Delta" are classified as Secondary Zone areas by the Delta Protection Commission.

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<sup>4</sup> Delta Protection Commission, *Land Use and Resource Management Plan for the Primary Zone of the Delta*, Adopted February 23, 1995, <http://www.delta.ca.gov/plan.asp>; accessed on 9/13/05.



### *B. Standards of Significance*

The City of Tracy General Plan would create a significant land use impact if it would:

- ◆ Physically divide an established community.
- ◆ Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- ◆ Conflict with any applicable habitat conservation plan or natural community conservation plan.
- ◆ Allow development of land uses that would be incompatible with existing or planned surrounding uses.

### *C. Impact Discussion*

The proposed General Plan provides a guide to future growth within the City limits and SOI, as well as a general discussion of the Planning Area. Chapter 3 of this EIR provides an overview of the proposed General Plan (as amended), including the location of land uses proposed within the City limits and SOI, and projections of future growth occurring during the 17-year planning period of the proposed General Plan and anticipated future growth within the City limits and SOI.

Implementation of the proposed General Plan would result in a change in land use for various parcels, both within the City limits and SOI. Table 3-1 in Chapter 3 depicts the anticipated change from existing General Plan land use designations to proposed land use designations. Figure 4.1-5 displays the proposed General Plan land use designations.

## **1. Divisions of Existing Communities**

As described in Chapter 3, the majority of the growth under the General Plan is anticipated to occur on land that is currently vacant or under agricultural production. In those areas where development is proposed in existing neighborhoods, the Community Character, Circulation and Land Use Elements would work to promote the redevelopment of Tracy's existing neighborhoods in a way that preserves and enhances the character, identity and quality of the areas and does not allow new development to physically divide an existing neighborhood (Objective CC-6.3, Policy 4); and directs the City to ensure that there is a high level of street connectivity (Objective CIR-1.2, Policy 1 through Policy 6). As a result of the fact that the majority of development would occur on vacant land where no established community exists, and with implementation of the policies to preserve the character, identity and quality of redeveloped neighborhoods, the proposed General Plan would not physically divide an established community and no associated impact would occur.

## **2. Consistency with Related Plans**

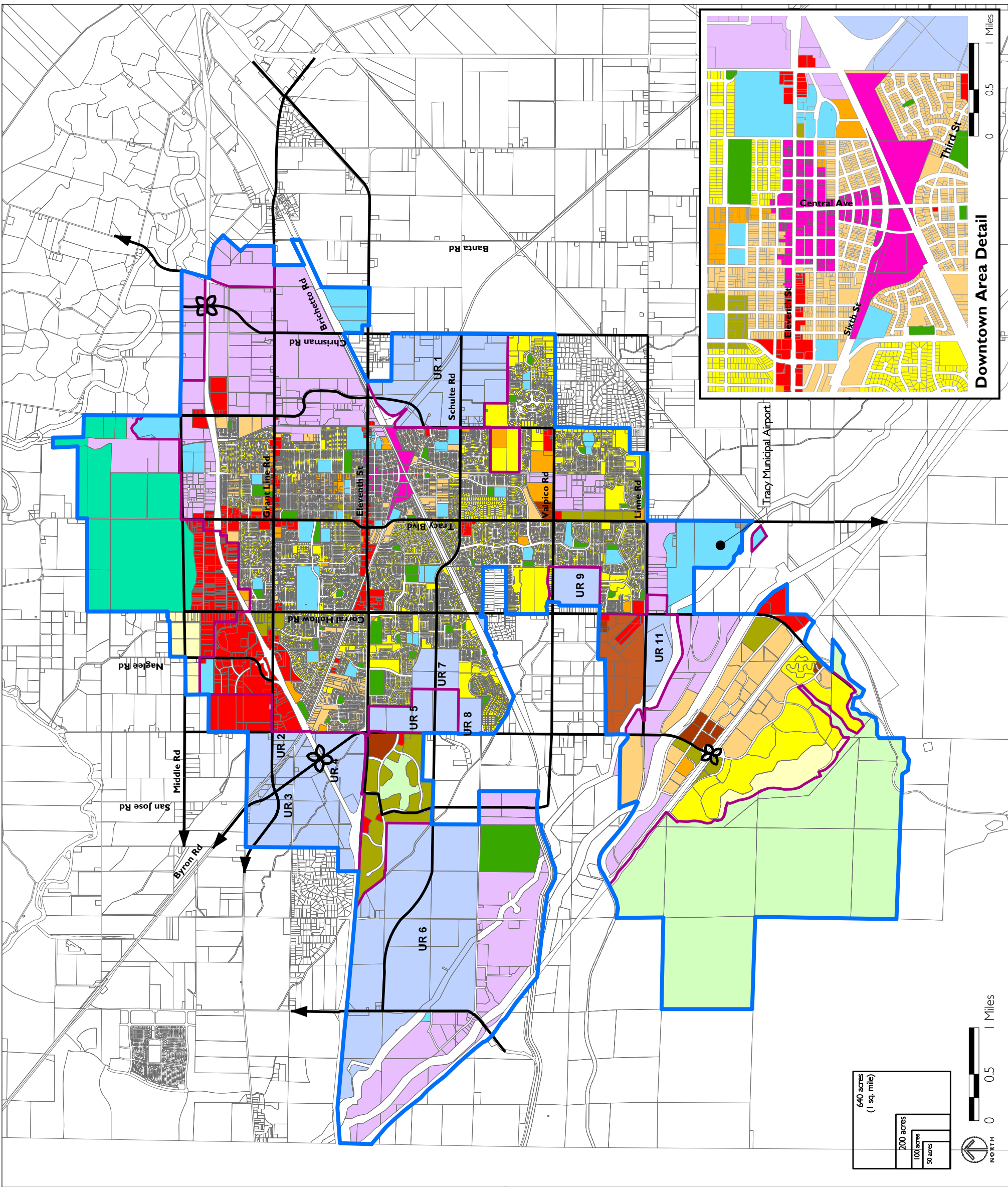
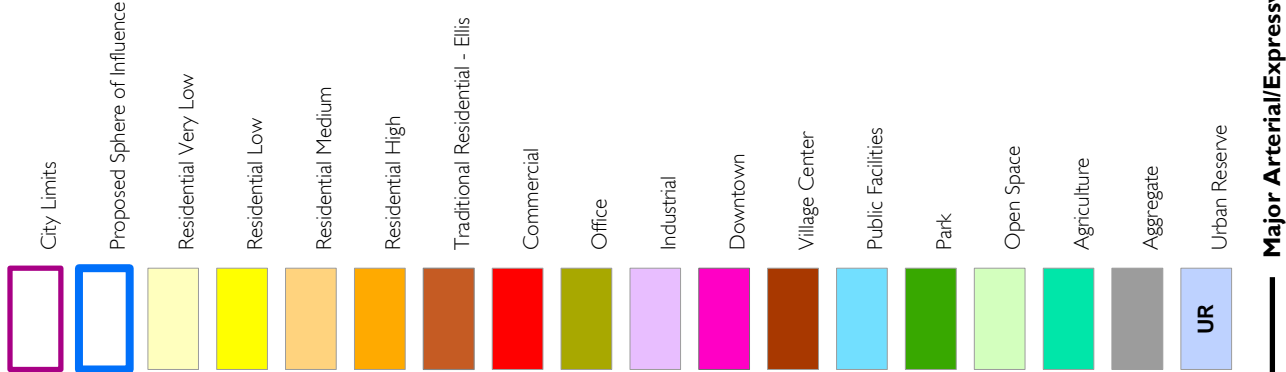
Implementation of the proposed General Plan could theoretically impact related land use plans that have been adopted for the purpose of avoiding or mitigating an environmental effect. This section evaluates the potential impacts.

### **a. Zoning Ordinance**

Per State law, the General Plan is the primary planning document for a community. The proposed General Plan would replace the City's 1993 General Plan once adopted. Therefore, upon approval and implementation of the proposed General Plan, other City documents may need to be updated to ensure consistency. The General Plan includes Objective LU-1.1, Action 1, which requires the City to amend the Zoning Ordinance and map for overall consistency with the General Plan. Implementation of this action would avoid a significant impact related to consistency with the Zoning Ordinance.

FIGURE 4.1-5

PROPOSED GENERAL PLAN  
LAND USE DESIGNATIONS





b. Growth Management Ordinance

Residential growth controls in the GMO are consistent with the proposed General Plan's Objective LU-1.4, which states that the City shall promote efficient residential development patterns that maximize efficient use of existing public services and infrastructure. Supporting this Objective are seven policies, two of which state the City will follow the GMO requirements and prioritize the allocation of RGAs and building permits to meet General Plan goals such as, "but not limited to, growth concentrated around existing urban development and services, infill development, affordable housing, senior housing, and development with a mix of residential densities and housing types." The proposed General Plan also includes one action that requires the City to develop additional criteria to guide issuance of RGAs. Implementation of the objective and supporting policies would ensure that the General Plan and GMO are consistent with each other, thereby avoiding a significant impact related to consistency with the GMO.

c. Specific Plans and Large Planned Unit Developments

The proposed General Plan includes Objective LU-1.1, Action 4, which requires existing Specific Plans and PUDs to be amended as necessary to be in conformance with the General Plan prior to development of these areas. Implementation of this action would ensure that the Specific Plans and PUDs would be consistent with the proposed General Plan, as required by law. Thus, implementation of the proposed General Plan would not result in any significant impacts since it would not result in any conflicts with existing Specific Plans or PUDs.

d. Sphere of Influence and San Joaquin County LAFCO

Initially, the proposed General Plan would not be consistent with the San Joaquin County General Plan, because the City of Tracy's proposed General Plan would designate land for urban uses in areas currently designated by the County for agriculture uses. Until these areas are annexed by the City, San Joaquin County has jurisdiction in these areas. Once annexation occurs, the land will be within the City's jurisdiction and the City's land use designations

will apply. Therefore, when annexation occurs, the land use designation would not conflict with the County's designation.

Some of the areas within the proposed General Plan and SOI consist of expansions of the City's 1993 SOI. For these areas, prior to initiating the annexation process, the City is requesting that the San Joaquin County LAFCO update the City's SOI to include expansions ranging from 53 to 404 acres to the north, an expansion of 1,534 acres to the west and an expansion of 42 acres to the south; as well as contractions to the SOI that total approximately 7,436 acres. The majority of the proposed expansions to the SOI would ultimately result in changes to the existing San Joaquin County General Plan Land Use designations from General Agriculture to a range of residential and non-residential uses, as properties are annexed to the City. Although this could create an initial conflict with policies stated in the County General Plan, Objective LU-1.1, Action 2 of the proposed General Plan directs the City to initiate the process with the San Joaquin County LAFCO and with community members in affected areas to adjust the SOI.

If LAFCO does not approve the SOI in the proposed General Plan, the existing SOI will remain in effect. In this case, the City's land use designations outside the LAFCO-approved SOI would have to be removed and the County designations would remain in place. Therefore, either way, adoption and implementation of the proposed General Plan would not result in a conflict with the County General Plan policies.

e. San Joaquin County Airport Land Use Plan

The proposed General Plan includes Objective LU-6.3, Policy 1 and Policy 2, which state that land uses and new development within the airport hazard zones, as designated in the San Joaquin County Airport Land Use Plan, will conform to safety and development restrictions specified in the Plan. This policy will ensure that growth allowed under the proposed General Plan is consistent with the Airport Land Use Plan; therefore, no significant impact would occur related to consistency with the San Joaquin County Airport Land Use Plan.

### 3. Consistency with Habitat and Resource Conservation Plans

The proposed General Plan includes policy direction that addresses the SJMSCP. Objective OSC-1.1 Policy 2 states that the City should continue to work with San Joaquin Council of Governments and other agencies to implement and enforce the SJMSCP. As discussed above, the Tracy Planning Area is identified as a Secondary Zone of the Delta so it is outside of the Delta Protection Commission's planning area, as defined in the *Land Use and Resource Management Plan for the Primary Zone of the Delta* (Delta Plan). Regarding guidance in the Delta Plan to provide adequate buffer areas in the Secondary Area to the extent possible to avoid impacts to the Primary Zone, there are numerous policies in the Land Use and Open Space and Conservation Elements that address preserving agriculture and open space in areas outside of Tracy's SOI and within its Planning Area (Objective LU-8.1, Policy 3 and Policy 4; Objective OSC-2.1, Policy 4 and Policy 5; Objective OSC-4.4, Policy 1, Policy 3 and Action 1).

Thus, implementation of the proposed General Plan would not conflict with any adopted conservation plan and no significant impact would occur.

### 4. Land Use Compatibility

Recognizing the importance of reducing conflicts between land uses, the proposed General Plan includes many policies to minimize conflict and encourage an orderly land use pattern. The proposed General Plan includes two objectives with supporting policies and actions which state that the city should have a clearly defined urban form structure, as well as require that the City comprehensively plan for new development within the SOI (Objectives LU 1.1 and 1.2).

In addition, the following are examples of several of the policies and actions that are included in the proposed General Plan to minimize conflict between land uses:

- ◆ Objective LU-6.1, Policy 1. New industrial or mining uses shall be designed to not adversely impact adjacent uses, particularly residential neighborhoods, with respect to, but not limited to, noise, dust and vibra-

tion, water quality, air quality, agricultural resources and biological resources.

- ◆ Objective LU-6.1, Policy 2. All proposed development shall comply with existing applicable County and State waste management plans and standards.
- ◆ Objective LU-6.1, Policy 3. Use of berms, landscaped buffer zones, soundwalls, and other similar measures between quarrying operations and noise-sensitive adjacent uses is encouraged to ensure consistency with standards established in City's Noise Element of the General Plan.
- ◆ Objective LU-6.2, Policy 1. Uses that are compatible with the noise, air quality and traffic impacts associated with freeways, such as auto-oriented commercial and industrial uses, should be located near and along freeway corridors whenever possible.
- ◆ Objective LU-6.2, Policy 2. Adequate environmental protection and mitigation shall be provided for uses that are less compatible with development near and along freeway corridors.

Additional policy guidance to ensure land use compatibility is provided for areas identified as Special Areas of Consideration, which are shown in Figure 4.1-6, and for each of the 11 Urban Reserves.

Other sections of the 2006 General Plan Draft EIR identified additional policies that help reduce land use conflicts, such as between agricultural activities and adjacent urban uses (Agricultural section); between schools and hazardous waste generators (Hazardous Materials and Hazards section); and between mining activities and adjacent uses (Mineral Resources section). Another aspect of land use compatibility relates to the type, location and character of various land use development, which is addressed the Community Character Element of the proposed General Plan and discussed in the Visual Resources section of the 2006 General Plan Draft EIR. Policies to address land use compatibility with the airport operations are discussed above.



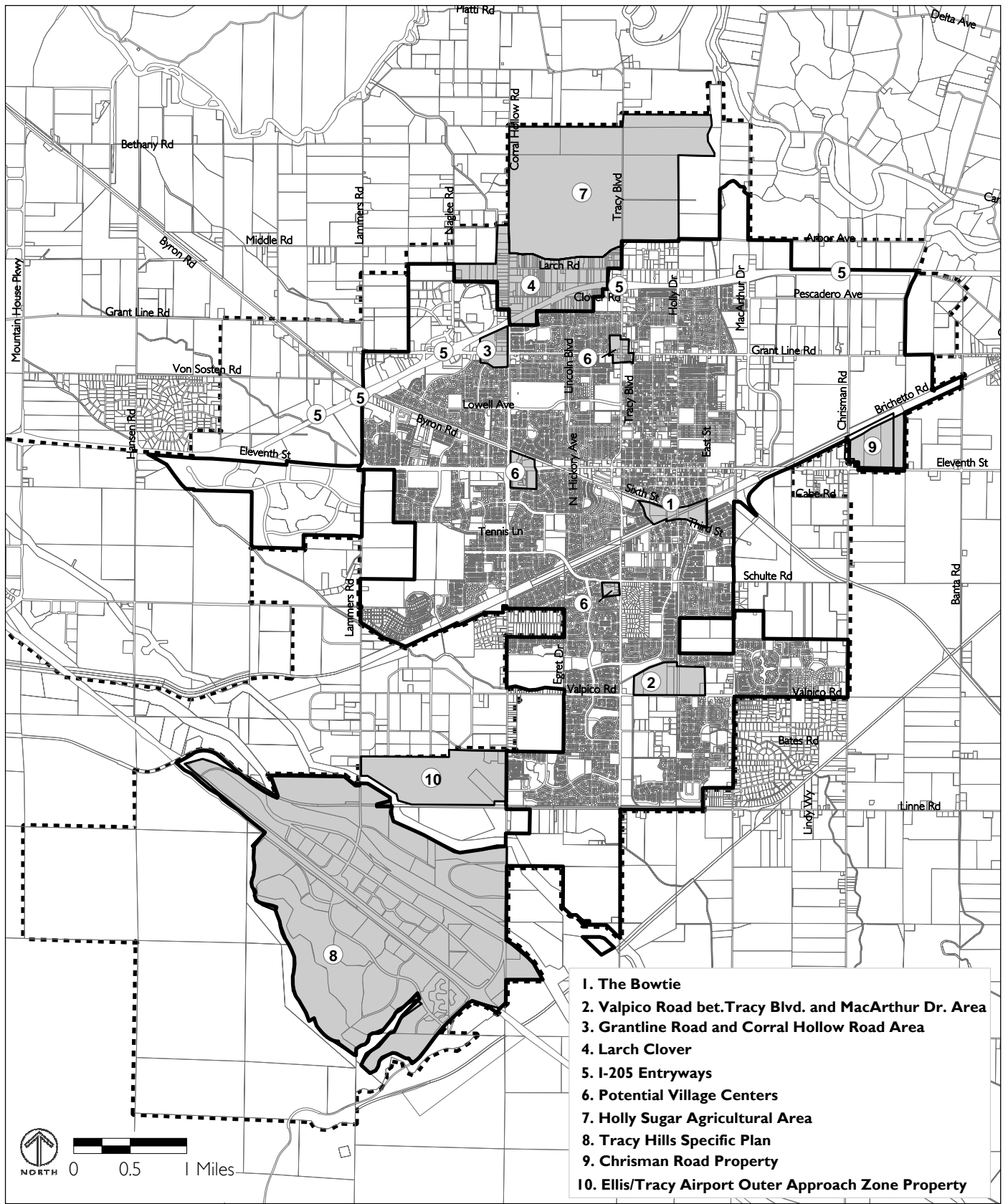


FIGURE 4.1-6

## AREAS OF SPECIAL CONSIDERATION

In summary, implementation of policies and actions in the proposed General Plan and the LAFCO process would result in less-than-significant land use impacts related to conflicts with other plans, policies and regulations applicable in the Tracy area.

*D. Impacts and Mitigation Measures*

Since no significant impacts are identified, no mitigation measures are required.

## 4.2 POPULATION, EMPLOYMENT AND HOUSING

This section presents information on existing and projected population, employment and housing within the City of Tracy, and describes the effects of the proposed General Plan on these factors. Current demographic data is provided at the local, county and State levels.

### *A. Existing Setting*

This section provides a general description of the current population, employment and housing situation in Tracy. It also includes a discussion of housing affordability, existing and projected housing needs and the jobs-to-housing balance.

#### **1. Population and Demographics**

Tracy is one of the most rapidly growing cities in California's Central Valley. Table 4.2-1 depicts population and household trends from 1990, 2000 and 2008.

Between 1990 and 2008, the population increased by 143 percent from 33,558 to 81,548<sup>1</sup> residents. Between 2000 and 2004, Tracy recorded the highest rate of population growth in San Joaquin County.<sup>2</sup> This growth has brought proportionally more families to Tracy, and increased percentages of home ownership and household size. The San Joaquin Council of Governments (SJCOC) has projected that Tracy will reach a total population of 189,393 residents by 2030,<sup>3</sup> which represents a 233 percent increase from the 2000

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<sup>1</sup> California Department of Finance estimate for January, 2008. U.S. Census, 1990.

<sup>2</sup> U.S. Census, 2000.

<sup>3</sup> Population, Employment & Housing Unit Projections, San Joaquin Council of Governments, <http://www.sjcog.org/docs/pdf/RFC%20Projections.pdf>, accessed on September 11, 2008.

TABLE 4.2-1 **POPULATION TRENDS IN TRACY**

	1990	2000	2008	% Change 1990-2008
Population	33,558	56,929	81,548	143%
Average Household Size	2.98	3.21	3.27	10%

Source: California Department of Finance, 1990, 2000 and 2008 Estimates.

population of 56,929 people. For comparison, the State is expected to grow by 37 percent during the same time period.<sup>4</sup>

a. Families

As is shown in Table 4.2-2, the amount of Tracy residents in family households has grown more quickly than in those in non-family households since 1990. From 1990 to 2006, the share of the Tracy population that is in family households increased slightly, from 90 percent of the population to 92 percent.

b. Race and Ethnicity

Tracy's surge in population growth has resulted in a more ethnically and racially diverse community. As shown in Table 4.2-3, from 1990 to 2006 the population distribution shifted, with the percentage of Caucasians dropping from 68 to 53 percent and the percentage of African Americans, Asian or Pacific Islanders and Hispanics each increasing by 7 to 9 percent.<sup>5</sup> In general, this change paralleled trends in both the county and the State.

<sup>4</sup> U.S. Census, Interim Projections 2000-2030 based on Census 2000, Table 1: Ranking of Census 2000 and Projected 2030 State Population and Change. <http://www.census.gov/population/www/projections/projectionsagesex.html>, accessed September 11, 2008.

<sup>5</sup> U.S. Census, 1990 Decennial Census (STF 3) Table P008 and P010. U.S. Census, 2006 American Community Survey Fact Sheet for Tracy, California.

**CITY OF TRACY  
GENERAL PLAN  
DRAFT SUPPLEMENTAL EIR  
POPULATION, EMPLOYMENT AND HOUSING**

TABLE 4.2-2 **FAMILY TRENDS IN TRACY**

	1990	2000	2006	% Change 1990-2006
Population in Family Households	30,153 (90% of total)	52,161 (92% of total)	81,151 (92% of total)	169%
Population in Non- Family Households	3,230 (10% of total)	4,335 (8% of total)	7,269 (8% of total)	125%

Source: U.S. Decennial Census, 1990 and 2000; American Community Survey, 2006.

TABLE 4.2-3 **RACE AND ETHNICITY IN TRACY, SAN JOAQUIN COUNTY  
AND CALIFORNIA**

Race/Ethnicity	2006			% Change in Distribution 1990-2006		
	Tracy	County	CA	Tracy	County	CA
White	53%	62%	60%	-33%	-12%	-9%
African-American	10%	7%	6%	8%	1%	-1%
American Indian or Alaska Native	2%	1%	1%	1%	0%	0%
Asian or Pacific Islander	14%	15%	12%	9%	3%	2%
Other	14%	11%	17%	8%	4%	4%
Two or More Races	7%	4%	3%	*	*	*
Hispanic (of any race)	31%	36%	36%	7%	13%	11%

\* 1990 data not available.

Source: U.S. Census, 1990 and 2006.

c. Age Distribution

Between 1990 and 2006, the percentage of change in age distributions was similar between Tracy and California, as seen in Table 4.2-4. Two exceptions to this similarity are the age 19 to 24 category, in which Tracy decreased in percent of the total by 5 percent while the State only decreased by 1 percent, and the age 25 to 44 category, in which Tracy decreased by only 2 percent while the State decreased by 5 percent. The distribution of age in Tracy aligns with the increase in percentage of family households. Although the number of 25- to 44-year-olds increased by 149 percent, the category dropped slightly in its share of the total city population. This age category still represents a solid third of the population in both Tracy and within the State.

**2. Employment**

Growth in Tracy has included an increase in employment opportunities. As is common in cities of a similar size to Tracy, major local employers include the Tracy Unified School District and City government. During the 1990s, the economy diversified and expanded, aided in part by numerous companies that established distribution facilities in Tracy to take advantage of inexpensive land and proximity to three major freeways, such as a Safeway Grocery distribution warehouse that employs approximately 1,800 people.<sup>6</sup> In 2004, Tracy's 4.8 percent unemployment rate was one of the lowest rates in San Joaquin County.<sup>7</sup>

As shown in Table 4.2-5, the percentage of Tracy residents employed in professional or managerial jobs increased by a substantial 170 percent between 1990 and 2000, while the number of people employed in farming and forestry dropped by 44 percent.<sup>8</sup> Table 4.2-6 compares Tracy's occupational distribution to the County and the State and shows Tracy maintaining a higher percentage of professional or managerial jobs than the County, but less than the

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<sup>6</sup>City of Tracy Economic Development Department, [http://www.ci.tracy.ca.us/departments/economic\\_development/major\\_employers/](http://www.ci.tracy.ca.us/departments/economic_development/major_employers/); accessed 9/13/05.

<sup>7</sup> California Department of Finance, 2004.

<sup>8</sup> U.S. Census, 1990 and 2000.

TABLE 4.2-4 **AGE DISTRIBUTION IN TRACY AS COMPARED TO CALIFORNIA**

Age Group	1990			2006		
	Tracy		CA	Tracy		CA
	#	%	%	#	%	%
< 5 years	3,458	10%	8%	7,493	8%	7%
5-19	7,712	23%	21%	22,948	26%	22%
20-24	2,239	7%	8%	4,291	5%	7%
25-44	12,717	38%	35%	31,667	36%	30%
45-64	4,697	14%	17%	17,114	19%	23%
65+	2,735	8%	10%	4,907	6%	11%

Source: U.S. Census, 1990 and 2006.

State. For the most part however, employment distributions in Tracy, the County and the State are fairly similar.

Since 2000, the labor force in Tracy has grown 44 percent to 39,050 people in 2006.<sup>9</sup> The number of jobs located in Tracy increased 89 percent between 1990 and 2000 to 20,972 jobs, as compared to San Joaquin County as a whole that recorded a 15 percent increase in number of jobs.<sup>10</sup> Employment in Tracy continues to grow, and in 2003 there were 29,758 jobs in the city.<sup>11</sup>

As is discussed in Chapter 3 of this document, the City expects substantial job growth between 2008 and 2025, the planning horizon of the proposed

<sup>9</sup> California Employment Department 2006. U.S. Census, 2000.

<sup>10</sup> U.S. Census, 1990 and 2000.

<sup>11</sup> U.S. Census, 1990 and 2000. Claritas 2003.

TABLE 4.2-5 OCCUPATIONS OF TRACY RESIDENTS

Occupation (Job Location Unknown)	1990		2000		% Change 1990-2000
Managerial/Professional	2,896	18%	7,825	31%	170%
Sales, Technical, Administrative	5,300	33%	7,579	30%	43%
Service Occupations	2,084	13%	3,085	12%	48%
Production, Craft & Repair	2,554	16%	4,012	16%	57%
Operators/Fabricators/Laborers	2,644	17%	2,782	11%	5%
Farming, Forestry and Fishery	373	2%	209	1%	-44%
Total Employed Residents	15,851	--	25,492	--	61%

Source: U.S. Census, 1990 and 2000.

General Plan. The number of new jobs is estimated at 21,300 with 9,400 new industrial jobs, 6,800 new retail jobs and 5,100 new office jobs.

### 3. Jobs/Housing Balance

Despite the recent employment growth in Tracy, the jobs-housing balance falls short of the recommended target goal of 1.5 jobs per housing unit established by the California Department of Housing and Community Development (HUD). Based on the 2003 number of housing units (21,628)<sup>12</sup> and the number of local jobs (29,758),<sup>13</sup> the 2003 jobs-housing balance in Tracy was 1.37.

<sup>12</sup> California Department of Finance estimate for January, 2004.

<sup>13</sup> *State of the City*, Presentation by Andrew Malik, City of Tracy Economic Development Director, 2004.



TABLE 4.2-6 **OCCUPATIONAL COMPARISONS BETWEEN TRACY,  
SAN JOAQUIN COUNTY AND CALIFORNIA IN 2000**

Occupation	Tracy		County	CA
	# of People	% of Total	# of People	% of Total
Management and Professional	7,825	31%	27%	36%
Service	3,085	12%	15%	15%
Sales and Office	7,579	30%	27%	27%
Farming, Fishing and Forestry	209	1%	4%	1%
Construction, Extraction & Maintenance	2,782	11%	10%	8%
Production, Transportation & Material Moving	4,012	16%	17%	13%

Source: 2000 U.S. Census.

Although the job-housing ratio is relatively close to balanced, commuting patterns in Tracy point toward a jobs-housing match that is less than ideal. It is estimated that over 70 percent of Tracy's employed residents commute outside of the city to work, as compared to only 17 percent of workers statewide, and the numbers of employees commuting into Tracy from neighboring counties has also increased.<sup>14</sup> According to the US Census, the percentage of Tracy residents commuting over 45 minutes to reach their workplace increased by 155 percent between 1990 and 2000. Table 4.2-7 outlines employment numbers by workplace location and average commuting times for Tracy residents.

Overall, this indicates a mismatch between the skill levels of Tracy residents and the skill levels of Tracy jobs. As a result, the area experiences adverse

<sup>14</sup> U.S. Census, 2000.

TABLE 4.2-7 **COMMUTING PATTERNS (1990 – 2000)**

	1990		2000	
	# of People	% of Total	# of People	% of Total
<b>Workplace Location of Tracy Residents</b>				
In Tracy	5,693	37%	7,174	29%
Outside of Tracy	9,802	63%	17,800	71%
In San Joaquin County	7,783	50%	10,362	41%
Outside of San Joaquin County	7,674	50%	14,522	58%
<b>Average Commute Time of Tracy Residents to Work</b>				
0 to 14 minutes	5,258	34%	6,160	25%
15 to 29 minutes	2,754	18%	3,284	13%
30 to 44 minutes	2,959	19%	4,039	16%
Over 45 minutes	4,181	27%	10,682	43%
Worked At Home	343	2%	809	3%

Source: U.S. Census, 1990 and 2000.

environmental and economic problems, such as high levels of traffic congestion and related air pollution.

#### 4. Housing Units

The Department of Finance estimated that as of January 2008 there are 25,478 housing units in Tracy; 97 percent are occupied and 82 percent are single-family detached homes.<sup>15</sup> More information on housing occupancy and type is provided in Table 4.2-8. There was a surge in residential building starting in 1977, and housing growth has continued since then, with new housing

<sup>15</sup> California Department of Finance estimate for January, 2008.

TABLE 4.2-8 **HOUSING TRENDS IN TRACY**

	1990	2000	2008	% Change 1990-2008
Housing Units	12,174	18,087	25,478	109%
Occupied Housing Units	11,208 (92% of total)	17,620 (97% of total)	24,820 (97% of total)	121%
Vacant Housing Units	966 (8% of total)	467 units (3% of total)	658 (3% of total)	-32%
Single-Family Housing Units	9,198 (76% of total)	15,076 (83% of total)	21,961 (86% of total)	139%
Multi-Family Housing Units	2,531 (21% of total)	2,536 (14% of total)	3,041 (12% of total)	20%
Mobile Homes	445 (4% of total)	475 (3% of total)	476 (2% of total)	7%

Source: California Department of Finances, 1990, 2000 and 2008 estimates.

between 1990 and January 2008 adding 13,304 additional units, for an increase of 109 percent. As shown in Table 4.2-9, housing ownership has also increased, from 60 to 75 percent between 1990 and 2006. This trend has been paralleled by an increase in housing size. In 2006, 96 percent of housing units contained four or more rooms.

## 5. Growth Management Ordinance

As described in detail in Section 4.1, the City of Tracy adopted a residential Growth Management Ordinance (GMO) in 1987 that has been amended several times since, including an amendment in 2001 by the voter-initiated Measure A, which was passed by the voters in November 2000. Between the years 2008 and 2025, the number of residential units allowed under the City's GMO is 8,419 units.<sup>16</sup> The GMO includes exceptions to allow for additional

<sup>16</sup> The total building permits for 2008 through 2025 was calculated with the following methodology: (100 building permits x 4 years [2008 through 2011] + 219 building permits x 1 year [2012] + 600 building permits x 13 years [2013 through 2025] = 8,419.

TABLE 4.2-9 TENURE TRENDS IN TRACY

	1990	2000	2006	% Change 1990-2006
Owner-Occupied Housing Units	6,729 (60% of total)	12,727 (72% of total)	19,039 (75% of total)	183%
Renter-Occupied Housing Units	4,479 (40% of total)	4,854 (28% of total)	6,242 (25% of total)	39%

Source: U.S. Decennial Census, 1990 and 2000; American Community Survey, 2006.

affordable housing. Under the General Plan Housing Element, 1,080 units have been targeted to be built during this same time period. Therefore, it is assumed that 1,080 affordable housing units over and above the 8,419 market rate units will be built between 2008 and 2025. This estimate is consistent with the goal stated in the Draft Housing Element of 60 affordable units per year. Thus, the amended General Plan includes the addition of 9,499 units of housing. These 9,499 housing units can be expected to result in an additional 31,000 people (using a multiplier of 3.27 persons per household),<sup>17</sup> or a total population of 112,600 people.<sup>18</sup>

#### *B. Standards of Significance*

The proposed General Plan would cause a significant impact related to population, employment and housing if it would:

- ♦ Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

<sup>17</sup> California Department of Finance, estimate for January, 2008, [http://www.dof.ca.gov/research/demographic/reports/estimates/e-5\\_2001-06/](http://www.dof.ca.gov/research/demographic/reports/estimates/e-5_2001-06/), accessed on September 15, 2008.

<sup>18</sup> According to the 2008 Department of Finance estimate, the population of Tracy was approximately 814,548 in 2008.

- ◆ Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- ◆ Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

### *C. Impact Discussion*

Implementation of the proposed General Plan will result in an increase of dwelling units and population within the Planning Area. The General Plan provides a policy framework to control and direct growth as it occurs. This section provides an analysis of impacts of future population and housing growth that is anticipated to occur within the planning horizon of the proposed General Plan, as well as total future growth within the Sphere of Influence (SOI).

#### **1. Future Population and Housing Growth**

The development projections for the General Plan, through 2025, are based on land use designations, available acres and the City's existing building allotment regulations, insofar as they influence the timing and amount of residential development that may occur through 2025. Development projections for total buildout within the City limits and the entire SOI are based on land use designations and available acres.

The GMO helps reduce the potential adverse impacts to Tracy from future development by setting controls on development. The GMO allows a maximum addition of 9,499 units of housing between 2008 and 2025. These 9,499 housing units can be expected to result in an additional 31,000 people (using a multiplier of 3.27 persons per household).<sup>19</sup> However, the actual rate of development that may occur pursuant to the proposed General Plan would also

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<sup>19</sup> California Department of Finance, estimate for January, 2008, [http://www.dof.ca.gov/research/demographic/reports/estimates/e-5\\_2001-06/](http://www.dof.ca.gov/research/demographic/reports/estimates/e-5_2001-06/), accessed on September 15, 2008.

depend on market conditions and other factors, such as availability of infrastructure or environmental constraints.

Implementation of the proposed General Plan and the GMO is projected to result in a population of approximately 112,600 people in the year 2025. This number is based on an estimate of the number of residential units allowed per year multiplied by the number of years multiplied by the number of people per residential unit (units x years x people per unit), and adding that to the population of Tracy in 2008, which was approximately 81,548 people, according to the Department of Finance.

Despite the limitations of the GMO, the extent of growth anticipated to occur may result in a potentially significant impact associated with substantial growth. However, the proposed General Plan includes several policies to address this and reduce impacts to a less-than-significant level. For example, the General Plan states that new development in the SOI should be planned for in a comprehensive manner, and contain a balanced distribution of land uses between residential, employment-generating and public facilities (Objective LU-1.2, Policy 1 through Policy 3). The General Plan establishes that guidelines for residential growth shall be a component of the GMO as a separate objective, with supporting policies to direct RGA allotments to the goals of the Plan, including the provision of infill, senior, low-income and higher density housing (Objective LU-1.4, Policy 1 through Policy 7).

In addition, the projected amount of population and housing growth under the proposed General Plan through 2025 is much less than the San Joaquin County of Governments (SJCOG) projections. The San Joaquin Council of Governments (SJCOG) has projected that Tracy will grow to a total population of 153,677 residents in 2025,<sup>20</sup> which is greater than the projected 2025 General Plan buildout figure of 112,600 people. Therefore, the projected population growth associated with implementation of the proposed General

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<sup>20</sup> Population, Employment & Housing Unit Projections, San Joaquin Council of Governments, <http://www.sjcog.org/docs/pdf/RFC%20Projections.pdf>, accessed on September 11, 2008.

Plan would not result in the inducement of unexpected population growth. Thus, no significant impact would occur for development through 2025.

Total buildout of the proposed General Plan would increase the population of Tracy by approximately 43,000 to 70,000 people and 13,225 to 21,300 housing units for a total of approximately 124,500 to 151,500 people and 38,700 to 46,800 housing units.<sup>21</sup> The employee population is projected to increase by approximately 163,000 for a total of 193,000 employees at total buildout.<sup>22</sup> This represents a substantial increase compared to current population and employment levels in the city. The Community Character Element of the proposed General Plan includes goals, objectives, policies and actions intended to preserve and enhance quality of life and the unique character of Tracy as growth occurs. However, despite these policies, the overall amount of population and housing growth would result in a significant and unavoidable impact by inducing substantial population growth at total buildout.

## **2. Housing and Population Displacement**

Implementation of the General Plan would not displace housing or populations. The majority of growth proposed in the General Plan would occur on vacant and agricultural land, which has few existing housing units. In addition, growth is encouraged in existing neighborhoods and infill areas. However, the proposed General Plan includes policies that encourage the preservation and enhancement of the character of existing neighborhoods and specifically states that new development should not physically divide established neighborhoods (Objective CC-6.3, Policy 1 and Policy 4). Therefore, planned infill development is not expected to displace housing or population. Moreover, the Economic Development Element includes goals, objectives, policies and actions to ensure that Tracy has a competitive workforce and is able to

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<sup>21</sup> Additional population projected from total buildout was added to the population and amount of housing units in the City of Tracy in 2008 which was 81,548 persons and 25,478 dwelling units, respectively.

<sup>22</sup> The additional number of employees projected at total buildout of the proposed General Plan was added to the number of employees in Tracy in 2003, which was 29,758.

respond quickly to changing economic conditions, as a way to improve the match between Tracy residents' workforce needs and the jobs available in Tracy (Goals ED-7 and ED-8). As a result of these policies, no significant impacts to the displacement of populations or housing would occur.

#### *D. Impacts and Mitigation Measures*

While policies and other regulations would reduce impacts to future population and housing growth to the extent feasible for development projected through 2025, a significant and unavoidable impact would occur by inducing substantial population growth at total buildout of the General Plan, as amended.

**Impact POP-1:** Despite policies in the Community Character Element of the proposed General Plan to maintain and enhance quality of life as future growth occurs, development permitted under the proposed General Plan would result in approximately an additional 43,000 to 70,000 residents, 163,000 employees and 13,225 to 21,300 housing units for a total of 124,500 to 151,500 residents, 193,000 employees and 38,700 to 46,700 housing units at total buildout.

This is a *significant and unavoidable* impact. No additional mitigation is available.



## 4.4 TRAFFIC AND CIRCULATION

This section presents information on existing traffic and circulation conditions in the City of Tracy and describes potential environmental impacts the proposed General Plan would have on the circulation system, as well as the standards of significance by which they are evaluated.

For the majority of the analyses contained in this EIR, the General Plan horizon year of 2025 was used. However, the transportation and air quality analyses, which rely on modeled traffic data, extend to the year 2030. This is because the San Joaquin Council of Governments (SJCOG) has recently updated the regional travel demand model to 2030. This traffic analysis is therefore consistent with the regional model. Furthermore, this approach is conservative by extending the analysis beyond the General Plan horizon year. As explained in Chapter 3, it is generally held that modeling traffic impacts beyond a 20-year time period is increasingly inaccurate and not considered to be reliable, so this analysis is limited to consistency with the SJCOG timeline.

### *A. Existing Setting*

This section presents a brief description of the circulation system in Tracy.

#### **1. Regulatory Setting**

The following provides an overview of some of the regional and local existing plans that address transportation concerns in the Tracy area.

##### *a. 2007 Regional Transportation Plan*

The SJCOG produced the 2007 Regional Transportation Plan (RTP). The RTP is a roadmap to guide the region's transportation development over a 20-year period. The RTP is updated every three years to reflect changes, such as changes in funding availability and growth patterns. The RTP offers a multi-model strategy to improve congestion and provide a range of transportation choices. Since the RTP needs to take into consideration the availability of funding, projects are prioritized. Tier 1 projects are those anticipated to be financed and completed. Tier 2 projects create a list of projects that show the

shortfall of transportation needs in the area, but for which funding is not identified.

b. San Joaquin County Congestion Management Program

SJCOG is the designated Congestion Management Agency for San Joaquin County. Proposition 111 was a voter approved addition to an existing state-wide gasoline tax. In order to receive funds from this tax, each county was required to designate a Congestion Management Agency and develop a Congestion Management Program (CMP). Subsequent legislation removed this requirement, allowing counties to discontinue the CMP by resolution of the majority of jurisdictions within the county. San Joaquin County has not elected to do so, and SJCOG remains the Congestion Management Agency for San Joaquin County. Federal planning regulations also require a congestion management process to receive some types of federal transportation funding. SJCOG also fulfills that requirement.

c. San Joaquin County General Plan

The San Joaquin County General Plan includes a range of objectives and policies that address the provision of adequate roadway, transit and bicycle systems. This policy direction applies to areas outside the incorporated Tracy City limits.

d. San Joaquin County Airport Land Use Compatibility Plan

The Tracy Municipal Airport is subject to the 1993 *San Joaquin County Airport Land Use Compatibility Plan*. This Plan identifies future improvements for the airport to meet future aviation needs. The Plan also identifies compatible land uses for the various safety zones around the airport necessary for maintaining safe airport operations.

e. Tracy Roadway Master Plan

In 1994, Tracy adopted a Roadway Master Plan and Conceptual Design Standards for the Master Plan. The Roadway Master Plan is the implementation tool to detail the specific improvements necessary to support the general circulation and land use plan identified in the General Plan.

f. Tracy Truck Route Ordinance

Tracy has a specific City ordinance relating to truck routes. This ordinance defines weight restrictions, specifies the ability of trucks to enter areas not designated as truck routes, and defines the truck routes within the city.

The weight restrictions that apply to trucks are specified in Section 3.08.300 of the Tracy Municipal Code. This section of the Code states that trucks larger than three tons must stay on designated truck routes. Passenger buses under the jurisdiction of the Public Utilities Commission are exempt from this restriction.

Section 3.08.300 also provides that trucks are allowed to temporarily deviate from the designated truck routes for purposes of local deliveries and pick-ups. Otherwise, trucks are supposed to remain on the designated routes specified in Section 3.08.310 of the Tracy Municipal Code.

g. Tracy Parking Requirements

The Tracy Municipal Code includes regulations for off-street parking (Section 10.08.3440 through 3590). These regulations identify minimum parking requirements for different land uses, as well as parking design, required landscaping and parking space size, which is established in the City of Tracy Standard Plan #154.

## **2. Transportation Funding**

The following provides an overview of the funding mechanisms used to finance improvements to the transportation network throughout Tracy and its vicinity.

a. Finance and Implementation Plans

The City of Tracy plans infrastructure improvements (including roadways and intersections) through multiple specific financing plans, otherwise known as “Finance and Implementation Plans” (FIPs). The purpose of an FIP is to provide estimates of the funds required to mitigate each impact and to update the City’s Capital Improvement Program Construction Schedule. A FIP also

identifies an estimated obligation for roadway improvements. FIPs are periodically updated to keep pace with construction cost increases.

b. Measure K

Measure K is a countywide ½ cent sales tax program for the purpose of funding transportation improvements within San Joaquin County. The City participates in this program. The existing Measure K sales tax expires in the year 2011. SJCOG is working with the cities and local agencies in the county to achieve voter approval for Measure K renewal beyond the year 2011.

c. Regional Transportation Impact Fee (RTIF)

The City is a member agency of SJCOG, a joint powers agency consisting of the County of San Joaquin and the seven cities situated in San Joaquin County. Acting in concert, the member agencies of SJCOG developed the RTIF Program whereby the shortfall in funds needed to expand the capacity of the Regional Transportation Network could be made up in part by a Regional Transportation Impact Fee (RTIF Program Fee) on future residential and non-residential development. The RTIF Program Fee will augment other funding sources and help assure that needed improvements to the Regional Transportation Network are completed. The City adopted this fee on January 3, 2006.

d. San Joaquin County Traffic Fee Program

San Joaquin County has adopted a traffic mitigation fee program for the purpose of collecting fees to finance transportation facilities needed to accommodate new development within unincorporated San Joaquin County. The program includes a fee schedule for projects that occur in the unincorporated areas around Tracy. This program only applies to unincorporated areas in the county.

e. Caltrans

The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, approved by the voters as Proposition 1B on November 7, 2006, includes a program of funding from \$4.5 billion to be deposited in the Corri-

dor Mobility Improvement Account (CMIA). The funds in the CMIA are available to the California Transportation Commission (CTC) for allocation for performance improvements on the State highway system or major access routes to the State highway system. The CTC has approved \$25 million towards construction of auxiliary lanes on Interstate-205 (I-205) through Tracy.

### 3. Roadway System

There are three major freeways serving the city: I-205, Interstate 580 (I-580) and Interstate 5 (I-5). Local roadways are classified in the 1993 General Plan as freeways, expressways, boulevards, rural highways, major and minor arterials, collectors and local streets and roads.

The primary roadway network includes the following roadways:

- ◆ **I-205** extends from I-580 to I-5 and extends east-west through the northern portion of the city. Interchanges are provided at West Eleventh Street, Grant Line Road, Tracy Boulevard, and MacArthur Drive. West of Eleventh Street, I-205 has six lanes. Construction is underway to widen the remaining I-205 sections east of Eleventh Street from four lanes to six lanes. The posted speed limit on I-205 is 70 miles per hour.
- ◆ **I-580** extends from the San Francisco Bay Area, through the Altamont Pass, and connects to I-5 south of Tracy. This facility has four lanes in the segments adjacent to the city with a posted speed limit of 70 miles per hour.
- ◆ **I-5** is a major roadway that extends north-south throughout the State of California. In San Joaquin County, I-5 connects Tracy with the cities of Stockton, Lathrop and Manteca. Those sections adjacent to the City of Tracy have four travel lanes with a posted speed limit of 70 miles per hour.
- ◆ **Grant Line Road** is a parallel road to I-205 that extends through the northern areas of Tracy. The road width varies from two lanes to six lanes with a majority of the roadway having four travel lanes and a raised median. The six-lane section extends from I-205 to Corral Hollow Road. The road is predominantly four lanes between Corral Hollow Road and

MacArthur Drive. Several sections have medians and bike lanes. In other segments, such as those found between Holly Drive and Lincoln Boulevard, the raised median is replaced with a striped two-way left-turn lane. In the Tracy Roadway Master Plan, Grant Line Road is designated a major arterial west of Chrisman Road and an expressway from Chrisman Road to I-205. Speed limits along Grant Line Road range from 30 to 55 miles per hour.

- ◆ **Eleventh Street**, which also parallels I-205, is one of the major east-west roadways in the city. The roadway width varies from four to six lanes with most segments containing a median and bicycle lanes. The posted speed limit varies from 30 miles per hour in the urban areas of the city to 55 miles per hour east of Chrisman Road. The Roadway Master Plan designates this roadway as a major arterial from Corral Hollow Road to MacArthur Drive, and the segments west of Corral Hollow and east of MacArthur Drive are classified as an expressway.
- ◆ **Schulte Road** is an east-west roadway south of Eleventh Street. This roadway varies between two lanes and four lanes with bicycle lanes and sidewalks on certain sections. The roadway is four lanes west of MacArthur Drive and two lanes east of MacArthur Drive. The section that extends from Central to Corral Hollow Road has on-street bicycle lanes. The posted speed limit varies between 35 miles per hour in the urbanized areas of Tracy to 55 miles per hour west of Lammers Road. The planned segment connecting Corral Hollow with Lammers Road has not yet been built. Schulte Road is classified as a major arterial in the Roadway Master Plan.
- ◆ **Valpico Road**, which lies to the south of Schulte Road, extends from Chrisman Road to Lammers Road. The majority of the roadway has four lanes with some two-lane segments at the eastern and western boundary of the city. When the road has four travel lanes, there is a median present. The posted speed limit varies from 35 to 45 miles per hour. The Roadway Master Plan classifies Valpico as a major arterial.
- ◆ **Linne Road** is the southernmost major road in the city and extends from Corral Hollow Road to east of I-5. The road has two lanes throughout

the study with a speed limit that varies from 35 to 45 miles per hour. The posted speed limit for a majority of the roadway within the City limits is 45 miles per hour. Linne Road west of MacArthur Drive is classified as a future expressway in the Roadway Master Plan.

- ◆ **Lammers Road** is a major north-south roadway that serves as the western boundary of the existing developed area of the city. There are two travel lanes on the existing sections of Lammers Road. There is no median on these two-lane segments. There is an on-street bicycle lane on the eastern side of the roadway in the segment north of Eleventh Street. The posted speed limit within the city is 45 to 50 miles per hour. Lammers Road is classified as a future expressway in the adopted Roadway Master Plan.
- ◆ **Corral Hollow Road** serves as one of the major north-south roadways in the city. This roadway extends from the San Joaquin/Alameda County border south of I-580 to north of I-205. South of Grant Line Road, this roadway has four lanes with a posted speed limit varying between 35 and 40 miles per hour. In the segment from Schulte Road to Grant Line Road, there is a raised median on the roadway. North of Grant Line Road, the roadway has only two lanes with no median. There are no bike lanes on Corral Hollow Road. Corral Hollow Road is classified as a major arterial in the Roadway Master Plan.
- ◆ **Tracy Boulevard**, which runs north-south, is east of Corral Hollow Road and extends from I-580 in the southern portion of the City past I-205 to State Route 4 in the north. There are four travel lanes in the segments of the roadway within the City limits. Median treatments include raised medians and two way left turn lanes. The posted speed limit varies from 30 miles per hour (south of Grant Line Road) to 45 miles per hour (south of Valpico Road). Like Corral Hollow Road, Tracy Boulevard is also classified as a major arterial in the Roadway Master Plan.
- ◆ **MacArthur Drive** runs north-south one mile to the east of Tracy Boulevard. The southern section of the roadway has two lanes, but the segment between Eleventh Street and I-205 has four travel lanes. Several portions of the four-lane section have a raised median and in-street bicy-

cle lanes. The posted speed limit on MacArthur Drive varies from 35 to 55 miles per hour. MacArthur Drive is classified as a major arterial in the adopted Roadway Master Plan.

- ◆ **Chrisman Road** is a two-lane road on the eastern side of the city. The posted speed limit varies from 35 to 45 miles per hour. Presently a rural road, Chrisman Road is classified as a future expressway in the adopted Roadway Master Plan.

#### 4. Freeway Interchanges

There are seven freeway interchanges adjacent to the city and the proposed SOI. Five of these interchanges are found on I-205. The remaining interchanges are found on I-580 and I-5. The interchange locations are listed below:

- ◆ I-205/Mountain House Parkway
- ◆ I-205/Eleventh Street
- ◆ I-205/Naglee Road/Grant Line Road
- ◆ I-205/Tracy Boulevard
- ◆ I-205/MacArthur Drive
- ◆ I-580/Mountain House Parkway
- ◆ I-580/Corral Hollow Road

The I-205/Eleventh Street interchange is a high-speed uncontrolled interchange, while I-205/Naglee Road/Grant Line Road, I-205/Tracy Boulevard, and I-205/MacArthur Drive are signalized interchanges. The remaining three interchanges, I-205/Mountain House Parkway, I-580/Mountain House Parkway and I-580/Corral Hollow Road, handle low volumes of traffic and are considered low capacity rural interchanges.

Currently, the I-205/MacArthur Drive and the I-580/Corral Hollow Road interchanges have planned improvements to handle traffic volumes due to projected growth in the Tracy area. A preliminary study<sup>1</sup> for the I-

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<sup>1</sup> *Report of Preliminary Finding, MacArthur Drive Interchange Improvements at Route 205 City of Tracy* (January 3, 2000, Mark Thomas & Co., Inc.).



205/MacArthur interchange was conducted, and recommended the addition of a westbound loop on-ramp, a realigned westbound off-ramp, and diagonal westbound on-ramp. A new interchange configuration for I-580/Corral Hollow Road has not been identified at this time; however, it is anticipated that this interchange would require upgrading from its rural configuration to urban as the area builds out.<sup>2</sup>

There are also three new planned interchanges: I-205/Lammers Road, I-580/Lammers Road, and I-205/Chrisman Road. The I-205/Lammers Road interchange is currently undergoing a Caltrans project development process, including design studies to define lane configuration and alignment. The draft Caltrans Project Study Report calls for the interchange to be located about 1,500 feet to the west of the I-205/Byron Road underpass, and may result in the elimination of the existing I-205/West Eleventh Street interchange. The I-580/Lammers Road and I-205/Chrisman Road interchanges are not under detailed study at this time.

## **5. Major Intersections**

There are 43 major intersections within the Tracy Planning Area. Major intersections are those that occur along the existing or future arterial roadways. The locations of these intersections are shown on Figure 4.4-1. Figures 4.4-2A and 4.4-2B provide the configuration of each intersection including the number of turn lanes, through lanes, and the traffic control for each approach.

Of the 43 major intersections, 26 currently operate under signal control. Some of these traffic signals are operated by Caltrans while others are under the jurisdiction of the City of Tracy. The remaining 17 major intersections operate under stop sign control. A majority of these unsignalized intersections are found along Schulte Road, Valpico Road and Linne Road. These

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<sup>2</sup> *Roadway Finance and Implementation Plan for Tracy Gateway, Tracy Hills, NEI* (April 2005, Fehr & Peers).

stop sign controlled intersections include side-street stop sign controlled (major street operates freely) or all-way stop sign controlled intersections (all approaches must stop for stop signs). A list of these intersections is provided in Table 4.4-1.

## **6. Level of Service Criteria**

The concept of “Level of Service” (LOS) is used to characterize how well the roadway network operates. These evaluations are based on empirical data collected and reported in the 2000 Highway Capacity Manual, which is maintained by the Transportation Research Board. Level of service is a standard measure of the quality of traffic flow and uses letter grades from A (best) to F (worst), and is determined by assessing the magnitude of traffic flow on a roadway and the ability of that facility to handle the traffic flow. The following sections go into more detail about LOS for different types of roadways.

The City standards in the proposed General Plan call for an average peak-hour LOS C or better on all existing and future streets within the city limit, with two exceptions: LOS D is allowed on streets and intersections within one-quarter mile of any freeway, to prevent city streets from becoming attractive detours for inter-regional travel; and LOS F is allowed in the Downtown and Bowtie areas of Tracy.

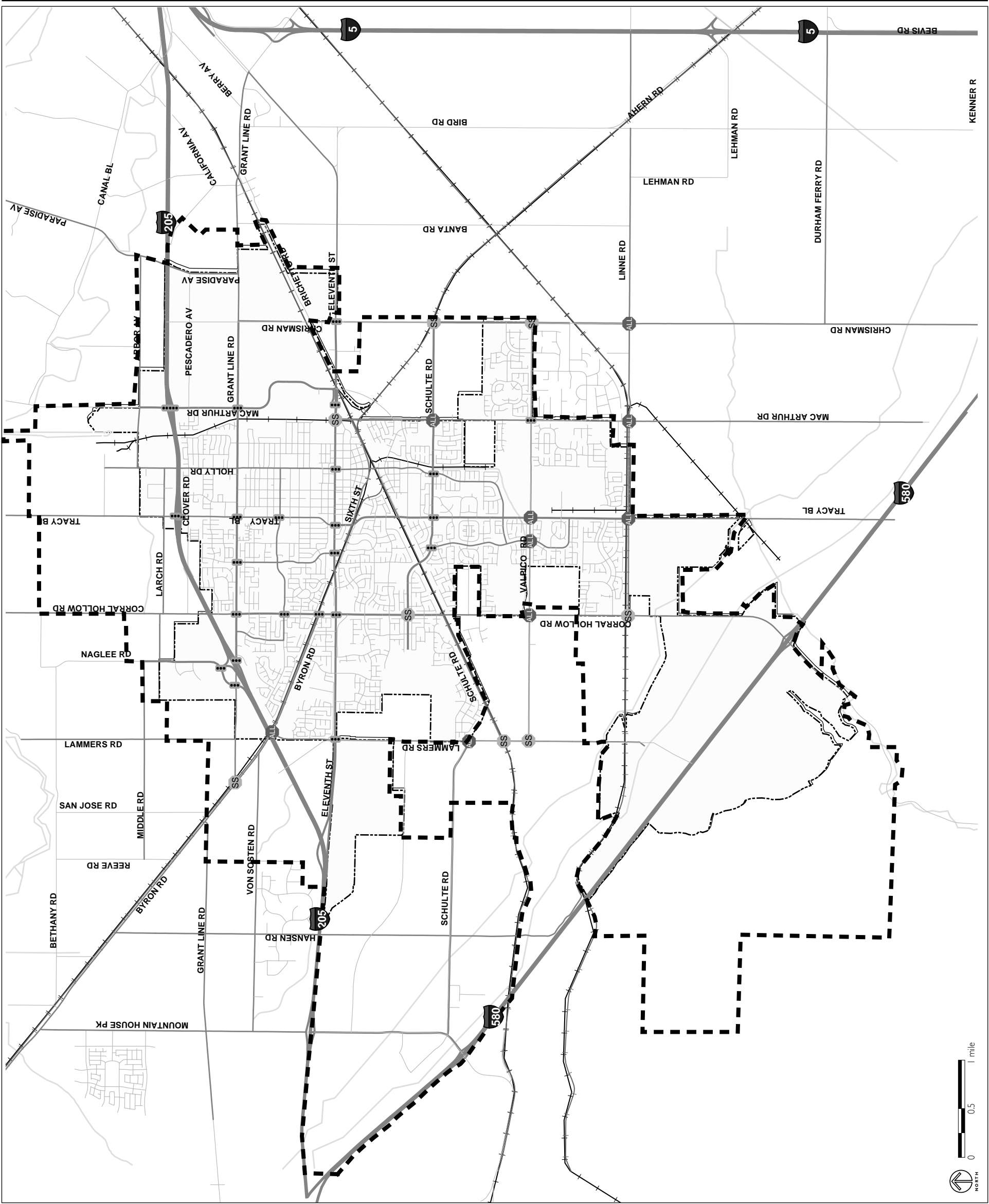
### *i. Freeways*

The freeway level of service analysis is based on a volume to capacity ratio (V/C ratio) analysis using an assumed value of 2,200 vehicles per lane. Level of service is assigned to each freeway segment based on the V/C ratios given Table 4.4-2.

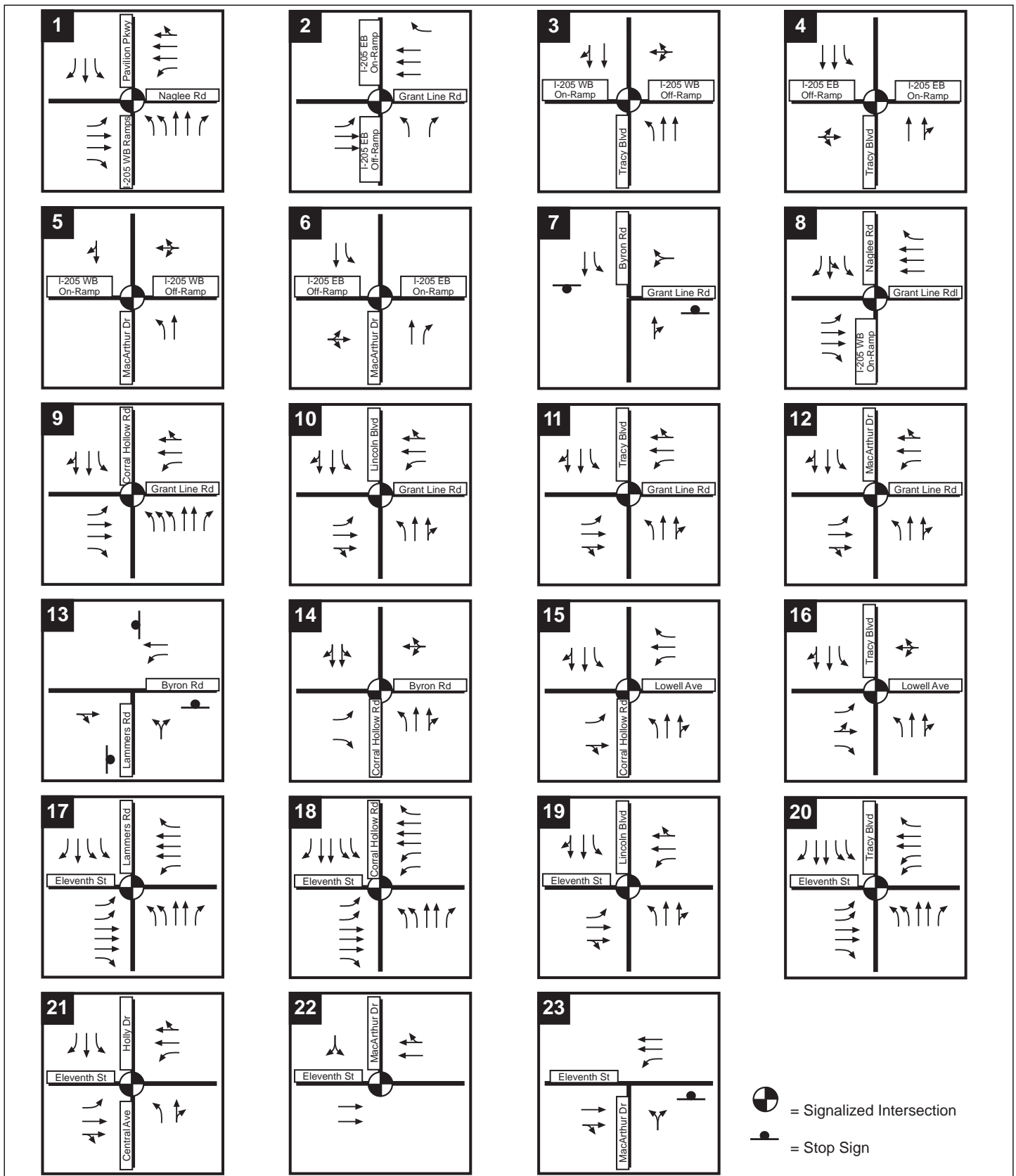
While the City does not set level of service standards for freeways, the San Joaquin County Congestion Management Program (CMP) has general standards for roadways such as freeways. The San Joaquin CMP considers LOS E or F to be unacceptable conditions, except on certain roadway links. Exceptions include I-205, where the San Joaquin County CMP has set LOS E (east

FIGURE 4.4-1

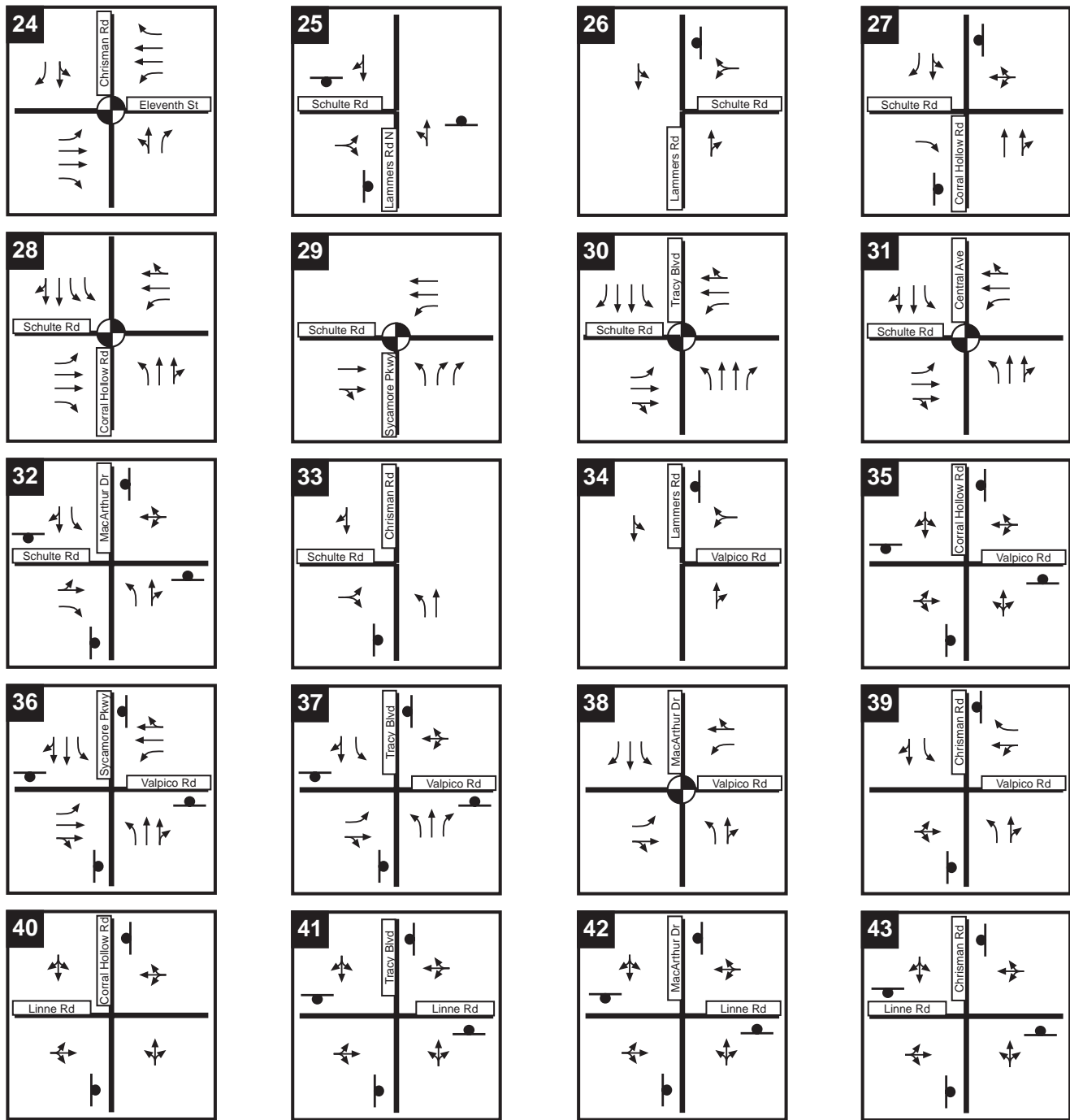
EXISTING MAJOR INTERSECTIONS  
AND TRAFFIC CONTROLS







**FIGURE 4.4-2A**  
**EXISTING LANE CONFIGURATION**



= Signalized Intersection  
 = Stop Sign

**FIGURE 4.4-2B**

**EXISTING LANE CONFIGURATION**

TABLE 4.4-1 MAJOR INTERSECTIONS

Reference Number	Intersection	Control Type (as of 2003)
1	I-205 WB Ramps/Naglee Road	Signal
2	I-205 EB Ramps/Grant Line Road	Signal
3	I-205 WB Ramps/Tracy Boulevard	Signal
4	I-205 EB Ramps/Tracy Boulevard	Signal
5	I-205 WB Ramps/MacArthur Drive	Signal
6	I-205 EB Ramps/MacArthur Drive	Signal
7	Grant Line Road/Byron Road	SSS
8	Grant Line Road/Naglee Road	Signal
9	Grant Line Road/Corral Hollow Road	Signal
10	Grant Line Road/Lincoln Boulevard	Signal
11	Grant Line Road/Tracy Boulevard	Signal
12	Grant Line Road/MacArthur Drive	Signal
13	Byron Road/Lammers Road	AWS
14	Byron Road/Corral Hollow Road	Signal
15	Lowell Avenue/Corral Hollow Road	Signal
16	Lowell Avenue/Tracy Boulevard	Signal
17	Eleventh Street/Lammers Road	Signal
18	Eleventh Street/Corral Hollow Road	Signal
19	Eleventh Street/Lincoln Boulevard	Signal
20	Eleventh Street/Tracy Boulevard	Signal
21	Eleventh Street/Central Avenue	Signal
22	Eleventh Street/MacArthur Drive (N)	Signal
23	Eleventh Street/MacArthur Drive (S)	SSS

**CITY OF TRACY**  
**GENERAL PLAN**  
**DRAFT SUPPLEMENTAL EIR**  
TRAFFIC AND CIRCULATION

TABLE 4.4-I **MAJOR INTERSECTIONS (CONTINUED)**

Reference Number	Intersection	Control Type (as of 2003)
24	Eleventh Street/Chrisman Road	Signal
25	Schulte Road/Lammers Road North	AWS
26	Schulte Road/Lammers Road South	SSS
27	Schulte Road/Corral Road South	SSS
28	Schulte Road/Corral Road North	Signal
29	Schulte Road/Sycamore Parkway	Signal
30	Schulte Road/Tracy Boulevard	Signal
31	Schulte Road/Central Avenue	Signal
32	Schulte Road/MacArthur Drive	AWS
33	Schulte Road/Chrisman Road	SSS
34	Valpico Road/Lammers Road	SSS
35	Valpico Road/Corral Hollow Road	AWS
36	Valpico Road/Sycamore Parkway	AWS
37	Valpico Road/Tracy Boulevard	AWS
38	Valpico Road/MacArthur Drive	Signal
39	Valpico Road/Chrisman Road	SSS
40	Linne Road/Corral Hollow Road	SSS
41	Linne Road/Tracy Boulevard	AWS
42	Linne Road/MacArthur Drive	AWS
43	Linne Road/Chrisman Road	AWS

Note: AWS=all way stop; SSS=side street stop; EB=east bound; WB=west bound.  
Source: Fehr & Peers, December 2003.



of MacArthur Drive) and LOS F (west of MacArthur Drive) as acceptable levels of service.

*ii. Roadways*

Roadway impacts within Tracy were assessed using roadway segment capacities derived from the 2000 Highway Capacity Manual, as documented in the level of service standards published by the Florida Department of Transportation.<sup>3</sup> Table 4.4-3 provides an overview of level of service standards for two- and four-lane roads.

*iii. Intersections*

Like other roadway facilities, intersections are evaluated using a level of service system. For this EIR and for preparation of the General Plan, this evaluation is based on methodologies provided in the 2000 Highway Capacity Manual. The 2000 Highway Capacity Manual utilizes a methodology that assesses the average control delay at intersections. The level of service ranges for signalized intersections is provided in Table 4.4-4.

Unsignalized intersections are analyzed using a similar methodology, but delay is calculated only for movements that are controlled by the stop sign. Therefore the delay at side-street stop controlled intersections reflects only the delay accruing to vehicles that are stopping at the stop sign, while through traffic on the main street flows uninterrupted. The level of service ranges for the unsignalized intersections are shown in Table 4.4-5.

## **7. Existing Traffic Conditions**

The following provides a summary of the existing traffic conditions on the major roadways described above.

---

<sup>3</sup> The Florida Department of Transportation has done extensive research into roadway capacities, which no other state has undertaken. As a result, Florida's conclusions are used throughout the country.

TABLE 4.4-2 **LEVEL OF SERVICE CRITERIA  
FOR FREEWAYS**

Level of Service	Volume to Capacity Ratio
A	0 to 0.24
B	> 0.24 to 0.40
C	> 0.40 to 0.58
D	> 0.58 to 0.78
E	> 0.78 to 1.00
F	> 1.00

Source: Adapted from page 23.3 in 2000 Highway Capacity Manual.

TABLE 4.4-3 **ROADWAY SEGMENT CAPACITIES (COUNTY ROADWAYS)**

# of Lanes	Level of Service Thresholds <sup>a</sup>				
	LOS A	LOS B	LOS C	LOS D	LOS E
Two	**b	**b	480	760	810
Four	**b	**b	1,120	1,620	1,720

<sup>a</sup> Level of service thresholds developed by Florida Department of Transportation Systems Planning Office based on data provided by the Highway Capacity Manual (2000) and other sources. These level of service thresholds are intended for use in general planning applications and are not intended to replace detailed operational analysis.

<sup>b</sup> Level of service thresholds cannot be reached due to the typical design and operation of these roadway types.

TABLE 4.4-4 **SIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA**

LOS	Description	Average Control Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	< 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55.0 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80.0

Note: V/C = volume/capacity.

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

a. Freeway Volumes

The most recent daily counts available for the freeway facilities in and around the City of Tracy are shown on Table 4.4-6. As shown in this table, I-205 carries approximately 90,000 vehicles per day in these segments directly adjacent to the city. Segments to the west of the city carry between 110,000 and 119,000 vehicles per day. The volumes on I-5 vary between 21,500 (south of Eleventh Street) and 143,000 north of the I-5/I-205 junction. The volumes on I-580 after it diverges from I-205 are approximately 40,000 vehicles per day. A review of historical records indicates that freeway volumes on I-205 have steadily increased from 1980 to 2002. Converted into an annual rate, this growth is 16 percent per year with over 300 percent growth from 1980 to

TABLE 4.4-5 **UNSIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA**

LOS	Description	Average Control Per Vehicle (Seconds)
A	Little or no delays	< 10.0
B	Short traffic delays	> 10.0 to 15.0
C	Average traffic delays	> 15.0 to 25.0
D	Long traffic delays	> 25.0 to 35.0
E	Very long traffic delays	> 35.0 to 50.0
F	Extreme traffic delays with intersection capacity exceeded	> 50.0

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

2002. This growth can be attributed to regional growth that has occurred in San Joaquin County and also growth in Tracy. Over the same period, the population of Tracy increased from 18,000 to 65,800 people, over a 200 percent increase, with the population of San Joaquin County nearly doubling over this same period with an increase from 347,000 to 595,000 people.

b. Freeway Level of Service Results

Based on the level of service criteria in Table 4.4-2, Fehr & Peers evaluated the existing PM peak hour operation of the freeway facilities in the Tracy area, which are summarized in Table 4.4-7. The level of service for eastbound segments is LOS F on both the six-lane and four-lane segments of I-205. This condition is consistent with field observations that noted significant congestion on I-205 during the afternoon period. Operations in the off-peak direction are generally LOS C or better.

This directionality is reflective of the high number of workers who travel from San Joaquin County to the Bay Area for work and other purposes. While not shown in the table, as a result of the morning commute, there

TABLE 4.4-6 **2002 FREEWAY VOLUMES**

Freeway	Segment	Daily Volume
I-205	I-205/I-580 Diverge to Mountain House Pkwy	110,000
I-205	Mountain House Pkwy/Eleventh Street	119,000
I-205	Eleventh Street/Grant Line Road	91,000
I-205	Grant Line Road/Tracy Blvd.	92,000
I-205	Tracy Blvd./MacArthur Drive	92,000
I-205	MacArthur Drive/I-5	92,000
I-580	Livermore Area (Vasco Road to SR 84)	174,000
I-580	Altamont Pass	143,000
I-580	Altamont Pass to I-205/I-580 Diverge	143,000
I-580	I-205/I-580 Diverge to Mountain House Parkway	40,500
I-580	Mountain House Parkway/Lammers Road	41,000
I-580	Corral Hollow Road/MacArthur Drive	38,000
I-5	North of Jct. I-205	143,000

Source: CalTrans' 2002 Freeway ADT.

would be similar congestion occurring during the AM peak hours in the opposite direction. Based on these results, it can be concluded that I-205 is currently operating at a deficient level in the eastbound direction during the afternoon period. In addition, I-580 through the Altamont Pass and Livermore is also already operating at LOS E and F in the afternoon for eastbound lanes.

c. Roadway Volume and Operation

Some of the highest volume roadways, according to traffic counts, were Grant Line Road, Corral Hollow Road, Tracy Boulevard and Eleventh Street.

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TABLE 4.4-7 **FREEWAY SEGMENTS: EXISTING PM PEAK-HOUR PEAK-DIRECTION VOLUMES AND LEVEL OF SERVICE**

Fwy	Segment	Dir.	Existing Number of Lanes	Existing Volume	Existing LOS
I-205	I-205/I-580 Diverge to Mountain House Parkway	EB	3	6,300	F
		WB	3	2,200	B
I-205	Mountain House Parkway / Eleventh Street	EB	3	6,300	F
		WB	3	2,500	B
I-205	Eleventh Street / Grant Line Road	EB	2	4,800	F
		WB	2	2,200	C
I-205	Grant Line Road / Tracy Boulevard	EB	2	4,900	F
		WB	2	2,400	C
I-205	Tracy Boulevard / MacArthur Drive	EB	2	5,000	F
		WB	2	2,300	C
I-205	MacArthur Drive / Junction of I-205 / I-5	EB	2	5,200	F
		WB	2	2,400	C
I-580	Livermore Area (Vasco Road to SR 84)	EB	4	10,100	F
I-580	Altamont Pass	EB	4	8,000	E
I-580	Altamont Pass to I-205 / I-580 Diverge	EB	4	8,000	E
I-580	I-205/I-580 Diverge to Mountain House Parkway	EB	2	1,900	B
I-580	Mountain House Parkway / Lammers Road	EB	2	2,300	B
I-580	Corral Hollow Road / MacArthur Drive	EB	2	2,300	B
I-5	205 Interchange - North	EB	4	6,000	C

Notes:

1. Future level of service calculations assume a per-lane capacity of 2,200 per hour on freeway facilities

2. I-5, I-205 and I-580 peak hour data from Caltrans (2003).

Source: Fehr & Peers, 2004.

Each of these roadways had segments that carried at least 1,000 vehicles directionally during the evening peak hour. The three intersections with the highest volumes (sum of all approaches) include:

- ◆ Eleventh Street/Coral Hollow Road
- ◆ Grant Line Road/Tracy Boulevard
- ◆ Eleventh Street/Tracy Boulevard

Based on the results of these intersection counts, peak hour directional roadway volumes and daily traffic counts were estimated. These counts are shown on Figures 4.4-3 and 4.4-4.

At this time, many of the roadways within Tracy operate at an acceptable level of service (LOS C or better). Traffic volumes and congestion are heaviest in the existing urbanized areas of the city, including Eleventh Street, Corral Hollow Road, and Tracy Boulevard. Congestion and resulting delay is heaviest at the major intersections, such as Eleventh Street/Corral Hollow Road. In other, less-developed areas of the city, such as portions of Lammers Boulevard, Valpico Road, and Linne Road, the traffic volumes and resulting congestion are less than in the developed areas of the city. There is some congestion along these roadways, which usually results from the use of stop signs as traffic control devices.

d. Intersection Volumes and Operation

Turning movement volumes for the 43 major intersections in the city are shown on Figure 4.4-5A and 4.4-5B. The majority of these counts were taken in October 2003 with a few counts collected previously in 2002. Morning peak hour counts, defined as the single highest one-hour period between 7:00 a.m. to 9:00 a.m., were taken at all intersections with ramps connecting to I-205. Counts for the evening peak period (single highest hour from 4:00 p.m. to 6:00 p.m.) were conducted at all 43 intersections.

Table 4.4-8 provides the level of service results for the study intersections. As shown in the table, a majority of the signalized and unsignalized intersections operate at LOS C or better. At several unsignalized intersections, traffic at-

tempting to enter the main street from the stop-controlled side-street operates at worse than LOS C. These unsignalized intersections include:

- ◆ Grant Line Road/Byron Road
- ◆ Eleventh Street/MacArthur Drive (south)
- ◆ Schulte Road/Lammers Road (south)
- ◆ Schulte Road/Chrisman Road

There are also a number of intersections that approach, but do not exceed, the LOS C threshold of 35 seconds of delay. These intersections have average delays that range from 30 to 35 seconds. These intersections include:

- ◆ Grant Line Road/Corral Hollow Road
- ◆ Grant Line Road/Tracy Boulevard
- ◆ Lowell Avenue/Corral Hollow Road
- ◆ Eleventh Street/Corral Hollow Road

## **8. Bicycle System**

The bicycle system in Tracy includes a variety of bicycle facilities. These facilities range from dedicated off-street bicycle routes to on-street facilities designated by signage only.

Bicycle facilities are classified according to a typology established by Caltrans as documented in “Chapter 1000: Bikeway Planning and Design” of the Highway Design Manual (5<sup>th</sup> Edition, California Department of Transportation, January 2001). The Caltrans standards provide for three distinct types of bikeway facilities, as generally described below:

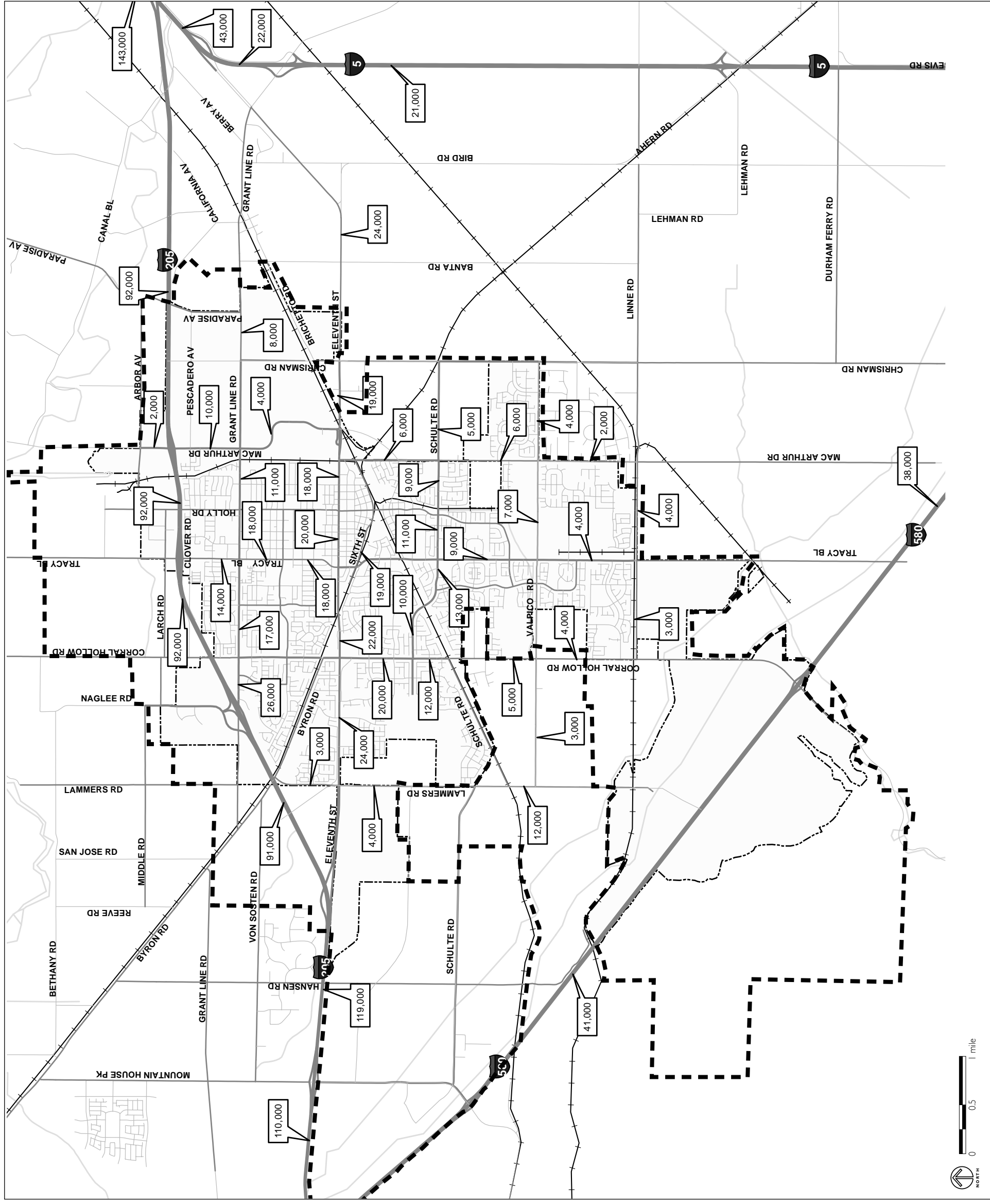
- ◆ Class I Bikeway (Bike Path) provides a completely separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized.
- ◆ Class II Bikeway (Bike Lane) provides a restricted right-of-way and is designated for the use of bicycles with a striped lane on a street or highway. Vehicle parking and vehicle/pedestrian cross-flow are permitted.







**ROADWAY SEGMENTS  
EXISTING DAILY TRAFFIC VOLUMES**





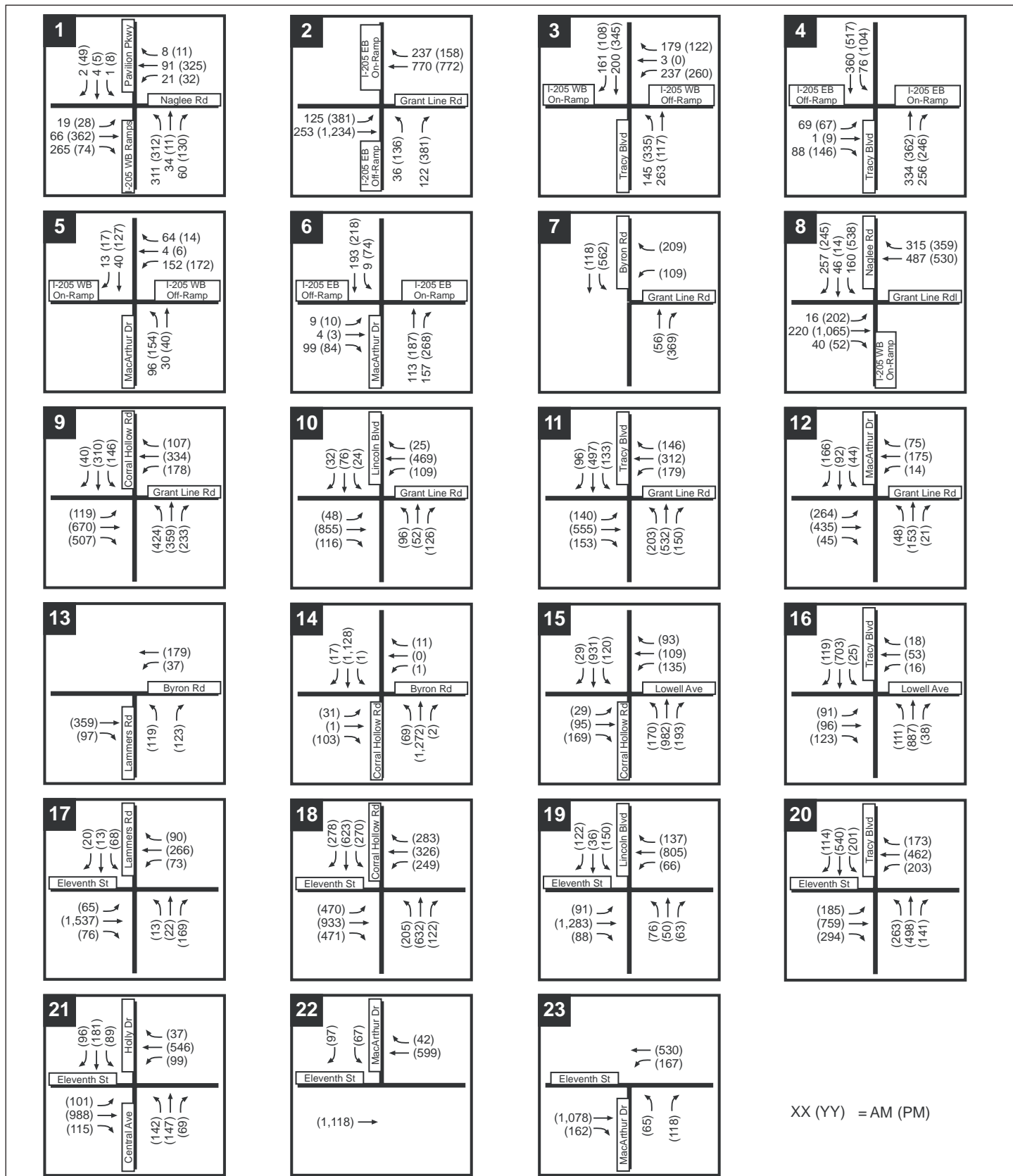
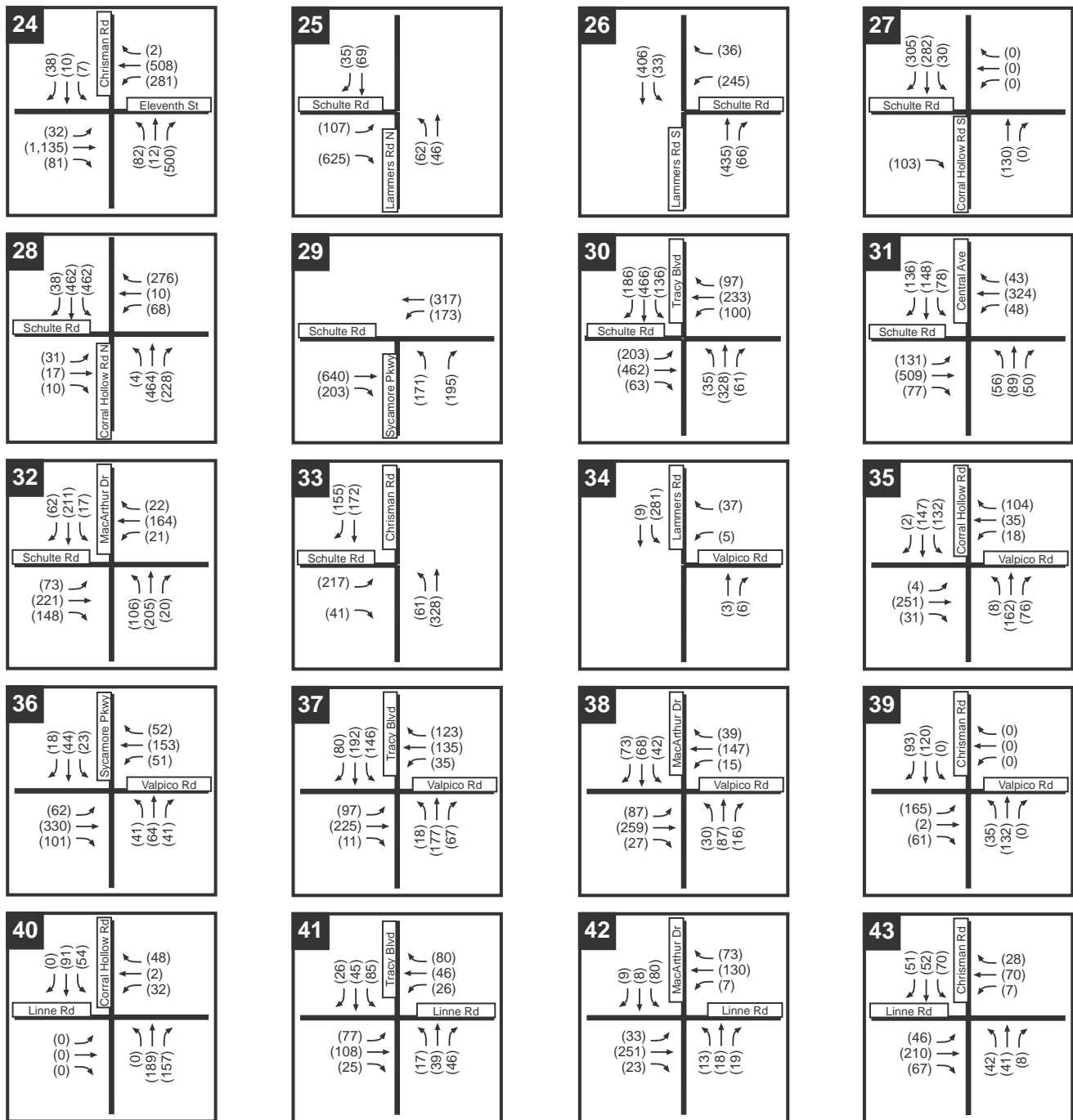


FIGURE 4.4-5A

## EXISTING PEAK HOUR TRAFFIC VOLUMES



XX (YY) = AM (PM)

**FIGURE 4.4-5B**  
**EXISTING PEAK HOUR TRAFFIC VOLUMES**

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TABLE 4.4-8 **EXISTING INTERSECTION LEVEL OF SERVICE**

Intersection	Signal	Peak Hour	Delay <sup>a</sup>	LOS
I-205 WB Ramps/Naglee Road	Signal	AM, PM	13, 14	B, B
I-205 EB Ramps/Grant Line Road	Signal	AM, PM	11, 20	B, C
I-205 WB Ramps/Tracy Blvd.	Signal	AM, PM	14, 23	B, C
I-205 EB Ramps/Tracy Blvd.	Signal	AM, PM	8, 10	A, A
I-205 WB Ramps/MacArthur Drive	Signal	AM, PM	8, 8	A, A
I-205 EB Ramps/MacArthur Drive	Signal	AM, PM	6, 5	A, A
<b>Grant Line Road/Byron Rd</b>	<b>SSS</b>	<b>PM</b>	<b>58 (SB)</b>	<b>F</b>
Grant Line Road/Naglee Road	Signal	AM, PM	8, 12	A, B
Grant Line Road/Corral Hollow Road	Signal	PM	34	C
Grant Line Road/Lincoln Boulevard	Signal	PM	19	B
Grant Line Road/Tracy Boulevard	Signal	PM	35	C
Grant Line Road/MacArthur Drive	Signal	PM	20	B
Byron Road/ Lammers Road	AWS	PM	13	A
Byron Road/Corral Hollow Road	Signal	PM	7	A
Lowell Avenue/Corral Hollow Road	Signal	PM	31	C
Lowell Avenue/Tracy Boulevard	Signal	PM	26	C
Eleventh Street/Lammers Road	Signal	PM	21	C
Eleventh Street/Corral Hollow Road	Signal	PM	33	C
Eleventh Street/ Lincoln Boulevard	Signal	PM	22	C
Eleventh Street/ Tracy Boulevard	Signal	PM	29	C
Eleventh Street/ Central Avenue	Signal	PM	26	C
Eleventh Street/ MacArthur Drive (North)	Signal	PM	6	A
Eleventh Street/ Chrisman Road	Signal	PM	17	B
Schulte Road/ Lammers Road North	AWS	PM	20	B

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TABLE 4.4-8 EXISTING INTERSECTION LEVEL OF SERVICE (CONTINUED)

Intersection	Signal	Peak Hour	Delay <sup>a</sup>	LOS
<b>Schulte Road/Lammers Road South</b>	SSS	PM	<b>69 (WB)</b>	<b>F</b>
Schulte Road/ Corral Road South	SSS	PM	11 (EB)	B
Schulte Road/ Corral Road North	Signal	PM	20	C
Schulte Road/ Sycamore Parkway	Signal	PM	14	B
Schulte Road/Tracy Boulevard	Signal	PM	21	C
Schulte Road/Central Avenue	Signal	PM	17	B
Schulte Road/MacArthur Drive	AWS	PM	15	B
<b>Schulte Road/ Chrisman Road</b>	SSS	PM	<b>25 (EB)</b>	<b>D</b>
Valpico Road/ Lammers Road	SSS	PM	9 (WB)	A
Valpico Road/Corral Hollow Road	AWS	PM	12	A
Valpico Road/Sycamore Parkway	AWS	PM	11	B
Valpico Road/Tracy Boulevard	AWS	PM	16	C
Valpico Road/MacArthur Drive	Signal	PM	22	C
Valpico Road/Chrisman Road	SSS	PM	12 (EB)	B
Linne Road/Corral Hollow Road	SSS	PM	11 (WB)	B
Linne Road/Tracy Boulevard	AWS	PM	9	A
Linne Road/MacArthur Drive	AWS	PM	10	A
Linne Road/Chrisman Road	AWS	PM	10	A

Notes: **Deficient intersections indicated in bold.**

AWS = All way stop, SSS = side street stop.

<sup>a</sup> For signalized intersections and all-way stop, delay is average control delay for all vehicles based on criteria in the *2000 Highway Capacity Manual*. For side-street stop- controlled intersections, delay for worst movement calculated using the *2000 Highway Capacity Manual* methodology.

Source: Fehr & Peers, December 2003.



- ◆ Class III Bikeway (Bike Route) provides for a right-of-way designated by signs or pavement markings for shared use with pedestrians or motor vehicles.

There are some existing Class I bikeway facilities in the city. The longest continuous Class I Bike Path extends from West Eleventh Street to south of Valpico Road. This facility is found to the east of Corral Hollow Road. A second Class I facility runs parallel to North MacArthur Drive and extends from East Eleventh Street to I-205.

Class II facilities are generally located in the western portion of Tracy. These facilities are found along roadways such as Corral Hollow Road and Tracy Boulevard. In addition, there are Class II facilities on Grant Line Road and West Eleventh Street to the west of Tracy Boulevard.

The Class III Bike Route network is most prevalent in the Tracy area. Portions of roadways such as Hickory Avenue, Holly Drive, and Schulte Road include these facilities.

The network of Class I, II, and III facilities are shown on Figure 4.4-6. As shown on the figure, there are extensive bicycle facilities within the city. However, there are significant gaps in the bicycle network. For example, Tracy Boulevard has segments with Class II and Class III designations with other segments containing no bicycle facilities. Because of these gaps, it is not possible to traverse the city traveling north to south or east to west using the designated bicycle network.

The City of Tracy is currently in the process of writing a Tracy Bikeways Master Plan Design Supplement, which will provide the City with a detailed design strategy for improving the existing circulation network. The Design Supplement is an Amendment to the 2005 Tracy Bikeways Master Plan. The new trail designs are intended to guide bicyclists safely through various neighborhood land uses. The designs use a modular trail segment approach that gives the City a range of options for a variety of trail types.

## 9. Public Transit System

The public transit system serving Tracy includes both a bus and rail passenger component. The bus and rail system provide local and regional connectivity to residents of Tracy.

### a. Passenger Bus System

The passenger bus system operating within Tracy includes the following services:

- ◆ Local fixed-route bus service operated by the City of Tracy (Tracer)
- ◆ Regional intercity fixed-route bus service operated by the San Joaquin Regional Transit District (SJRTD)
- ◆ Flexible fixed-route service operated by SJRTD
- ◆ Commuter express bus service operated by SJRTD

Fixed-route services are those that adhere to a strict route and timetable with scheduled stop locations. Flexible-route service is a demand responsive system whereby a driver may deviate from the route to pick-up and drop-off passengers. Some transit agencies, such as SJRTD, also operate flexible fixed-route service whereby a driver may temporarily deviate from the designated route for elderly and disabled passengers.

#### *i. Local Fixed-Route Bus Service*

The City of Tracy operates a fixed-route bus system within the city. This service is called Tracer. As of October 2008, the Tracer offers four different routes operating within the existing City limits. The endpoints for the route include City Hall and the West Valley Mall. The streets covered for the Tracer service are shown on Figure 4.4-7.

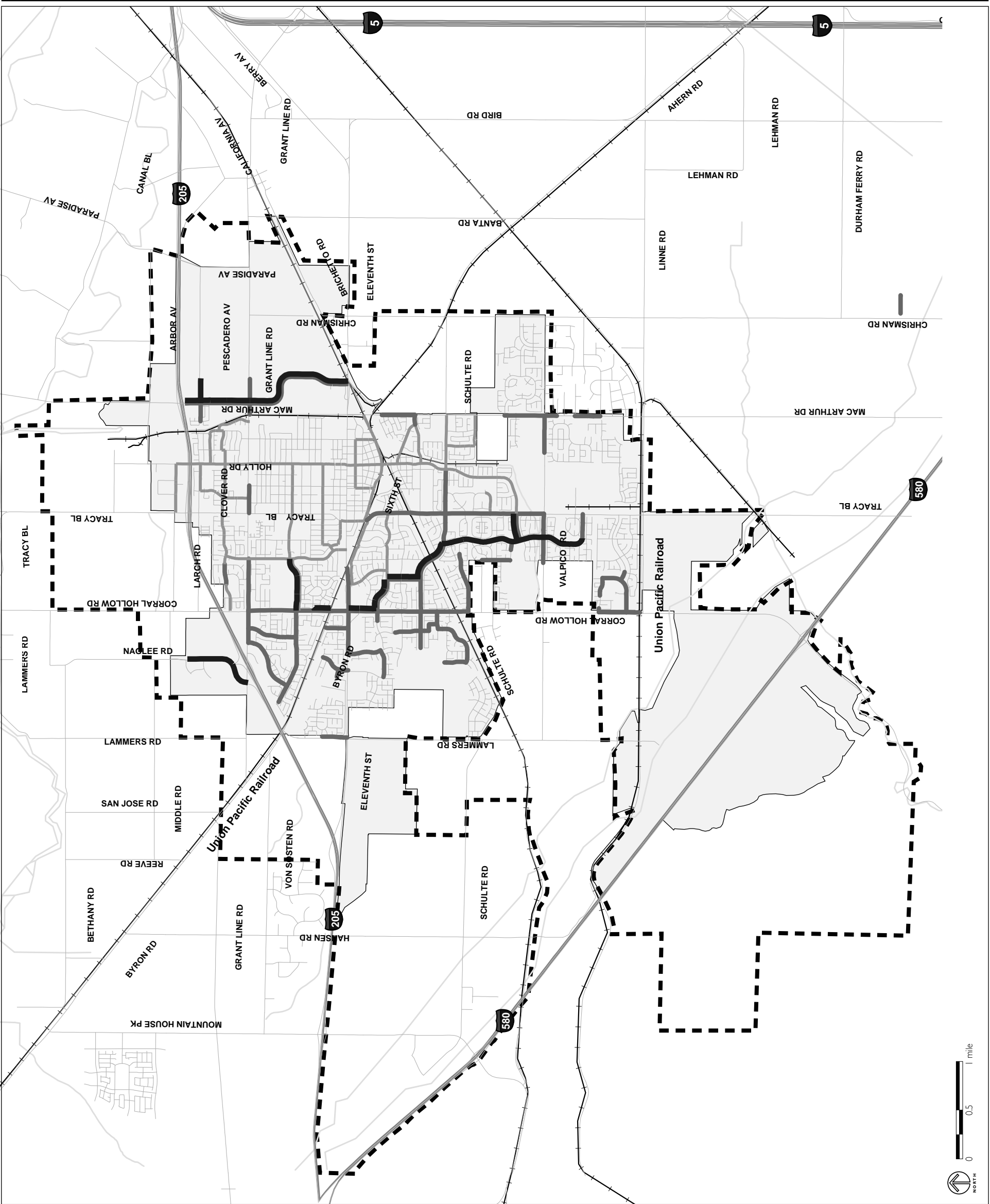
The Tracer is available Monday through Friday from approximately 7:00 a.m. to 7:00 p.m. The service operates Saturday from 9:00 a.m. to 5:00 p.m. Tracer does not operate Sundays or on certain holidays.

FIGURE 4.4-6

EXISTING BICYCLE FACILITIES

- Class 1 Bicycle Path
- Class 2 Bicycle Lane
- Class 3 Bicycle Route
- City Limits
- Proposed Sphere of Influence

Source: Fehr & Peers, 2005.





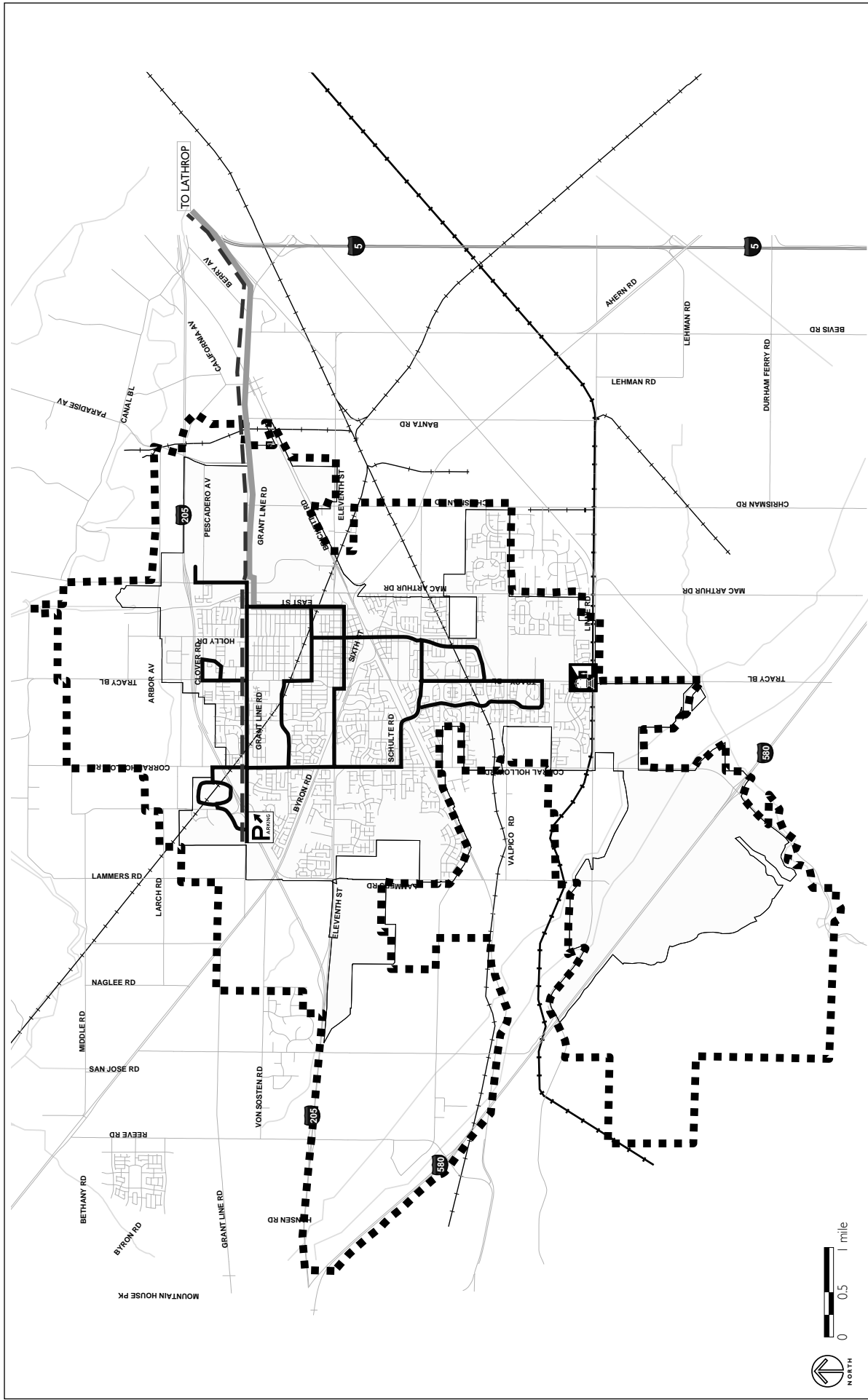












FIGURE 4.4-7

# EXISTING TRANSIT FACILITIES

- |   |   |   |   |
|---|---|---|---|
|  |  |  |  |
| <b>Park and Ride Lot</b>  | <b>TRACER</b>   | <b>City Limit</b>   |   |
|  |  |  |  |
| <b>ACE Train Station</b>  | <b>SJRTD Route 90</b>   | <b>Proposed Sphere of Influence</b>   |   |
|  |  |   |   |
| <b>ACE Commuter Rail</b>  | <b>SJRTD Route 26</b>   |   |   |

*ii. Regional Intercity Fixed-Route Bus Service*

The SJRTD operates one fixed-route bus line (Route 26) that connects Tracy to Stockton and Lathrop along I-5 with connections to Manteca and Ripon. Route 26 connects with Tracy's Tracer local bus service in downtown Tracy and to Manteca Transit buses in downtown Manteca and at the Wal-Mart in Manteca. Within the city, Route 26 extends along East Street and Grant Line Road. This route operates Monday through Friday from 5:40 a.m. to 10:25 p.m. Route 26 does not operate on weekends. Route 26 is shown on Figure 4.4-7.

*iii. SJRTD Flexible Fixed-Route Service*

SJRTD also operates Route 90, which is a flexible fixed-route line. Within the City of Tracy, this route extends along Grant Line Road. Route 90 operates on 1-hour, 45-minute headways in the evenings with 2-hour headways on weekends and holidays. Figure 4.4-7 displays the route for Route 90.

*iv. SJRTD Commuter Bus Service*

The SJRTD operates a number of commuter bus lines which connect cities in San Joaquin County with major employment locations in the San Francisco Bay Area, including Pleasanton, Dublin, Livermore, Mountain View, Palo Alto, and Sunnyvale. These various routes pick up and drop off passengers at the Tracy Park-And-Ride facility (indicated on Figure 4.4-7). The pick-up times vary from 4:00 a.m. to 6:00 a.m. with drop-offs ranging from 4:00 p.m. to 6:00 p.m.

*v. Bus System Ridership*

Table 4.4-9 provides a comparison of the yearly bus service and ridership provided by Tracer as compared to San Joaquin County as a whole, including Tracer. This table provides a comparison of the levels of bus service as measured by annual revenue hours of operation (total hours of operation for all vehicles), total revenue vehicle miles (total mileage for all vehicles), and total number of vehicles in the system. As shown in this table, the total yearly riders for the Tracer system is 65,118 as compared to nearly a total of 4 million riders using transit in San Joaquin County over the 2000-2001 period.

TABLE 4.4-9 **BUS TRANSIT RIDERSHIP**

	City of Tracy	San Joaquin County
<b>Total Passengers - Annual</b>	<b>65,118</b>	<b>3,992,281</b>
<b>Vehicle Revenue Hours - Annual</b>		
Weekdays	11,959	162,672
Saturday	–	8,657
Sunday	–	9,734
Total	11,959	181,063
Total Revenue Vehicle Miles	140,800	3,642,301
<b>Vehicles in Operation</b>		
Weekdays – Midday	7	54
Weekdays – Peak	5	86
Saturday	–	20
Sunday	–	20

Source: *State of California Transit Operators and Non-Transit Claimants Annual Report, Fiscal Year 2000-01.*

b. Passenger Rail System

Altamonte Commuter Express (ACE) is a passenger rail service connecting Stockton to San Jose. The ACE station for Tracy is located on Tracy Boulevard at Linne Road. There are currently three ACE trains per day which arrive in Tracy between 4:00 a.m. and 7:00 a.m. These trains then return to Tracy between 5:00 p.m. and 7:00 p.m. Figure 4.4-7 indicates the location of the ACE line as well as the ACE station on Tracy Boulevard.

The latest available daily ridership estimate for ACE service is provided by the 2001 ACE Ridership Survey. This survey indicates that the total daily ridership (boardings and alightings combined) for the ACE system is 2,842 with 19 percent (544) of those riders originating at the Tracy ACE station.

The estimated total annual ridership for ACE is 744,000, according to the APTA 2001 Commuter Rail Transit Report. The estimated annual ridership from the Tracy ACE station would therefore be approximately 140,000 based on the results of the daily ridership survey.

## **10. Freight System**

Given its relative location to the San Francisco Bay Area and other areas of San Joaquin County, Tracy is ideally positioned to facilitate the movement of regional freight. The city functions both as a conduit for freight traffic and also as an origin point, particularly for regional truck traffic. For example, Safeway recently relocated its major Bay Area distribution center to Tracy. The goods or freight movement system in the City of Tracy consists of both an extensive rail system and designated truck routes.

### **a. Freight Rail System**







There are three major rail lines that enter Tracy from the east, two of which merge, and subsequently exit to the west. There are several minor spur lines along the main lines. One of these spur lines is found south of Linne Road that is used for industrial shipping. The second extends north from Eleventh Street to I-205 and is mainly used by the sugar plant. The existing rail lines are shown on Figure 4.4-8.

These lines are currently owned by Union Pacific Corporation, which operates freight rail service through its Union Pacific Railroad (UPRR) subsidiary. UPRR is the largest railroad in North America with service in over 23 states. The freight lines through Tracy provide connectivity from the West Coast, including major ports such as Oakland, to all other areas of operation.



FIGURE 4.4-8

RAIL LINES AND  
AT-GRADE CROSSINGS

- 
- At-Grade Crossing

Daily Use Rail Line

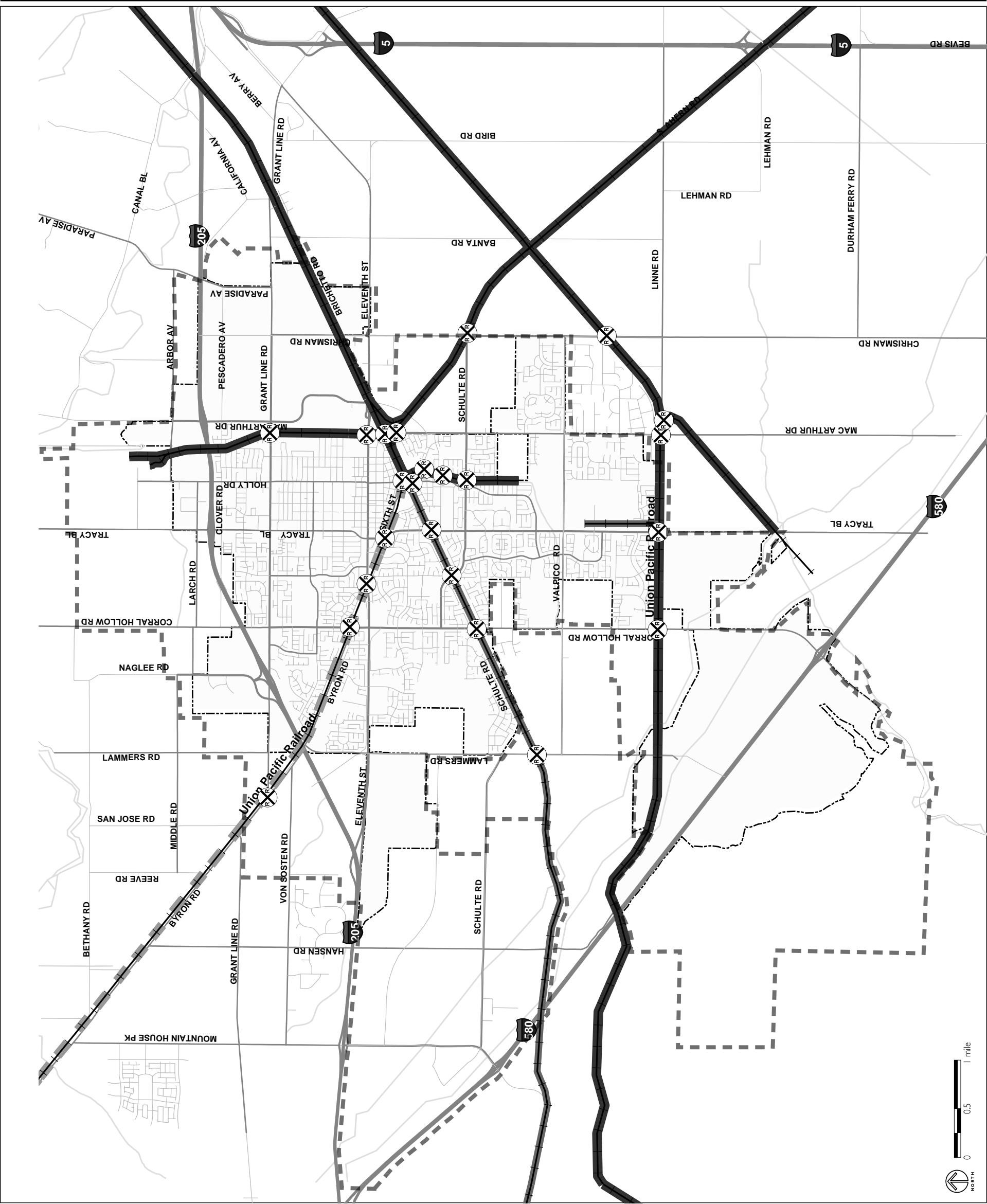
Sporadic Use Rail Line

Storage Use Rail Line

City Limit

Proposed Sphere of Influence

Source: Fehr & Peers, 2005.





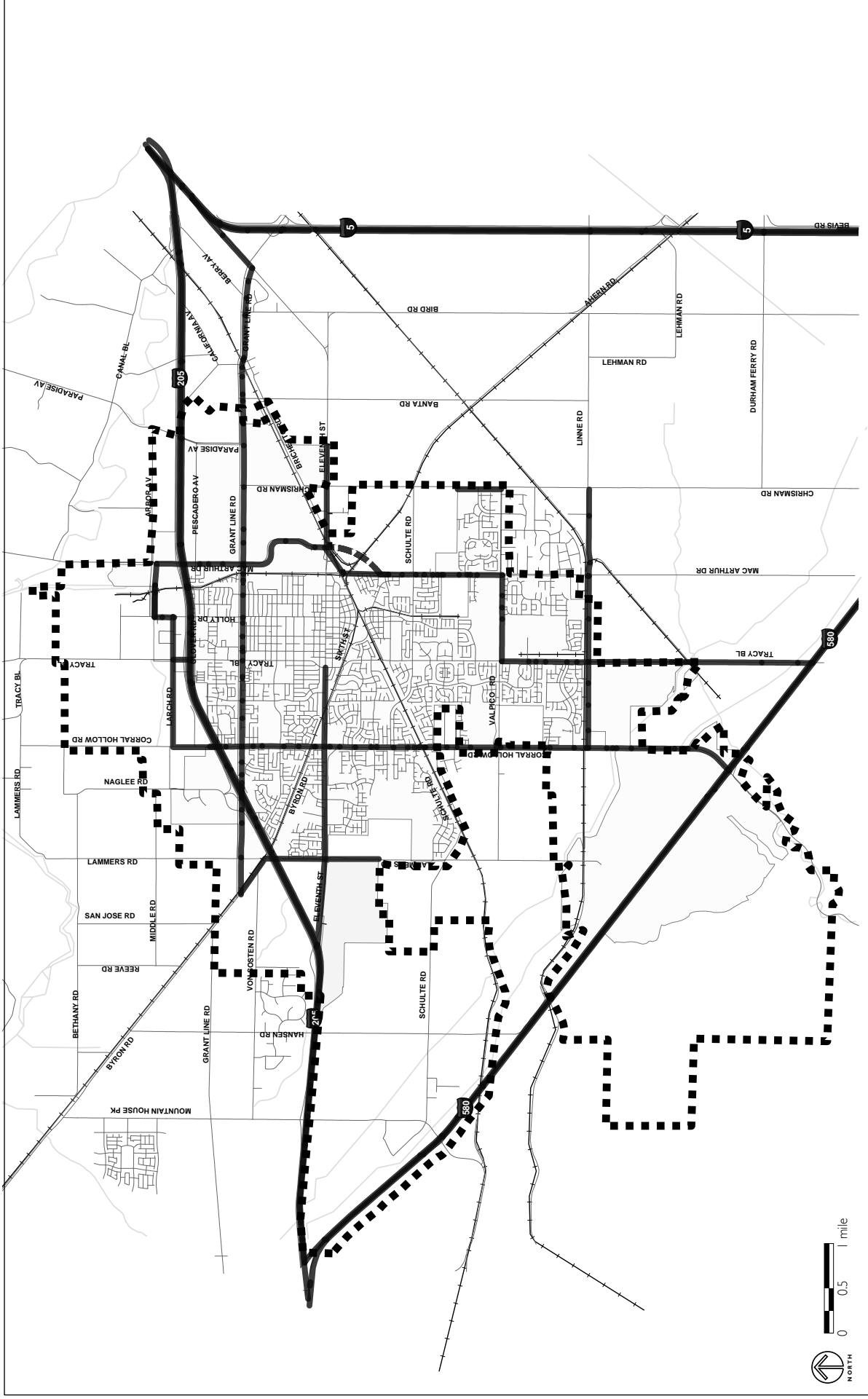
The main line runs through south Tracy along Linne Road. This line is used as both an industrial (ten freights per day) and commuter (via ACE train service) rail. As mentioned above, the ACE station is also located on this line at the corner of Tracy Boulevard and Linne Road. The remaining lines that tie together in the center of Tracy are known as the “bowtie.” The northwesterly main alignment that travels along Byron Road is used minimally and ties into Martinez. The line to the northeast is used for local freight and ties into Stockton. To the southeast, UPPR leases the line to California Northern Railroad. The line to the southwest, whose tracks stop at the county line, is no longer in service and is used only for storage.

Given the prevalence of railroad lines, there are a significant number of existing at-grade roadway/railroad crossings. There are currently 23 at-grade crossings. These crossings are distributed throughout the city with two crossings each on Corral Hollow Road, Tracy Boulevard and MacArthur Drive.

b. Truck Routes

As mentioned in Section A.1.f of this chapter, the City has adopted a truck route ordinance. Figure 4.4-9 provides a map of the designated truck routes within Tracy. These routes include both permanent and temporary truck routes. The designated truck routes in the city include:

- ◆ Arbor Avenue (MacArthur Drive to Holly Drive)
- ◆ Byron Road (west City limits to Lammers Road)
- ◆ Corral Hollow Road (Larch Road to Grant Line Road and Linne Road to I-580)
- ◆ Chrisman Road (north of Valpico portion that is within the City limits)
- ◆ Eleventh Street (west City limits to Tracy Boulevard and MacArthur Drive to east City limits; north leg of MacArthur Drive to south leg of MacArthur Drive)
- ◆ Sixth Street (MacArthur Drive to Central Avenue)
- ◆ Grant Line Road (west City limits to Corral Hollow Road and MacArthur Drive to east City limits)



Source: Fehr & Peers, 2004 and City of Tracy Municipal Code, Section 3.08.310

**FIGURE 4.4-9**

**Truck Route (Permanent)**

**Truck Route (Temporary)**

**City Limit**

**Proposed Sphere of Influence**

**EXISTING TRUCK ROUTES**

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- ◆ Holly Drive (Arbor Avenue to Larch Road)
- ◆ Lammers Road (Byron Road to 0.5 miles south of Eleventh Street)
- ◆ Larch Road (Holly Drive to Corral Hollow Road)
- ◆ Linne Road (east City limits to west City limits)
- ◆ MacArthur Drive (Arbor Avenue to Valpico Road)
- ◆ Tracy Boulevard (Larch Road to I-205 and Valpico Road to south City limits)
- ◆ Valpico Road (Tracy Boulevard to MacArthur Drive)<sup>4</sup>
- ◆ Tracy Boulevard (south of Valpico Road)
- ◆ Linne Road

In addition to locally designated truck routes, I-205, I-580 and I-5 are designated truck routes by the State of California, and are shown on Figure 4.4-9 as designated truck routes.

## 11. Airport

The Tracy Municipal Airport is a general aviation airport owned by the City and managed by the Parks and Community Services Department. The airport is located to the west of Tracy Boulevard and north of I-580.

### *B. Standards of Significance*

The City of Tracy General Plan would create a significant traffic and circulation impact if it would:

- ◆ Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system.
- ◆ Exceed, either individually or cumulatively, a level of service standard es-

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<sup>4</sup> Tracy Municipal Code, Section 3.08.310 Designated truck routes.

established by the county congestion management agency or the city for designated roads or highways.

- ◆ Substantially increase hazards due to a design feature or incompatible uses.
- ◆ Result in inadequate emergency access.
- ◆ Result in inadequate parking capacity.
- ◆ Conflict with adopted policies, plans or programs supporting alternative transportation.
- ◆ Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

### *C. Impact Discussion*

The following provides an analysis of the potential impacts the proposed General Plan may have on the circulation system in Tracy. Automobile, public transit, bicycle, pedestrian, as well as air traffic is analyzed in regards to operation and safety issues.

#### **1. Automobile Traffic Impacts**

To assess the potential impact of the proposed General Plan on automobile traffic in and around Tracy, Fehr & Peers completed a traffic study for the proposed General Plan. The following provides an overview of the assumptions used for the traffic model, a description of the threshold of significance applied and a discussion of how future traffic increases would affect the local and regional roadway system.

##### **a. Modeling Assumptions**

The future traffic forecasts for Tracy used in the following analysis were developed using a version of the official SJCOG regional travel demand model adapted for use in the development of the proposed General Plan and this EIR.

The SJCOG released an updated version of their travel demand model in 2007. The model data sets include a 2006 Base Year model and a 2030 Future Year model. These models are regional models and take into consideration San Joaquin County, the San Francisco Bay Area (Alameda, Contra Costa, Marin, Santa Clara, San Francisco, San Mateo, Sonoma, Solano and Napa Counties), portions of Stanislaus County, and portions of the Sacramento Metropolitan area. Each model year (2006 and 2030) includes roadway networks and land use data. The SJCOG model has detailed information regarding land use and roadway networks in San Joaquin County, while the data outside the county is more aggregated.

The 2030 Future Year SJCOG travel demand model reflects regionally accepted land use projections for each of the jurisdictions in San Joaquin County, as defined by SJCOG. The 2030 Future Year roadway network also reflects the programmed and approved roadways, as defined by the adopted RTP.

This SJCOG model, which reflects adopted land use projections and roadway networks, was modified to show more detail within the Tracy area for both the Base Year (2002-2003 existing condition) and the proposed General Plan analysis year, which was defined to be 2030. These modifications include adding additional detail to the traffic analysis zones, refining the land use within the city and SOI based on detailed employment and population data, and verifying the roadway network for the city.

This refinement process also includes validating the Base Year model in the Tracy area, which ensured that the model accurately reflected travel patterns in Tracy. This validation involved systematic comparison of recently collected traffic counts to the model results along screen lines and individual roadway segments.

Following the completion of the model validation process, Fehr & Peers developed a future year model for 2030 that reflected the anticipated land use in Tracy and the SOI for the proposed General Plan. This 2030 model also in-

cludes planned roadway improvements within the Tracy area, as well as added land use and roadway network detail. No adjustments were made to the SJCOG land use data or roadway networks outside of Tracy and the SOI to preserve conformity with the adopted RTP transportation system and demographic forecasts.

The 2030 traffic impacts for the proposed General Plan were assessed through the use of the travel demand model, which provides directional roadway segment traffic forecasts and several level of service analysis techniques. The level of service thresholds described in the Existing Conditions section above were used to determine at what level of service the freeways, roadways and intersections operated with the proposed General Plan.

The traffic study area included all of the roadways within Tracy and the SOI, as well as freeways and regional roadways that are likely to be impacted by traffic associated with growth in the Tracy area, including I-205, I-580, and I-5. Segments of I-580 analyzed by the study include a segment in Livermore, the Altamont Pass, and several segments adjacent to the city. The regional roadway analysis included adjacent county roadways including Altamont Pass Road, Patterson Pass Road, Tesla Road, Byron Highway and Mountain House Parkway.

b. Level of Service Thresholds

For the analysis of the proposed General Plan, the level of service thresholds identified in the 2006 General Plan (prior to the 2009 Amendment) were used. Policy 1 under General Plan Objective CIR-1.3 states that to the greatest extent feasible, the City shall strive for LOS C on all streets and intersections, except as follows:

- ◆ LOS D shall be allowed on streets and at intersections within ¼-mile of any freeway. This lower standard is intended to discourage inter-regional traffic from using Tracy streets.
- ◆ LOS E shall be allowed in the Downtown Urban Center and Bowtie areas of Tracy.



Policy 2 under the same Objective CIR-1.3 indicates that the City may allow individual locations to fall below the City's level of service standards in instances where the construction of physical improvements would be infeasible, prohibitively expensive, significantly impact adjacent properties, or the environment, or have a significant adverse effect on the character of the community.

Subsequent to the traffic impact analysis, the proposed 2009 General Plan Amendment revised the LOS threshold for the Downtown Urban Center and Bowtie areas of Tracy from LOS E to LOS F. This change in the LOS threshold does not affect the findings of this EIR.

c. Roadway Improvements and Extensions

The proposed General Plan includes a significantly expanded local roadway network, as depicted on Figure 5-1 of the proposed General Plan. The roadway network identified in the proposed General Plan was designed to support the ultimate buildout of the land use plan. However, due to the Growth Management Ordinance (GMO) and market conditions, not all of the Plan area would develop by 2030. As a result, the entire roadway network would not be required to be constructed in the next 20 years.

As part of the analysis for the proposed General Plan and EIR, the improvements that would be needed by 2030 have been identified. These improvements include the reclassification of portions of several streets from minor arterial to major arterial status, as listed in Table 4.4-10. Table 4.4-11 indicates roads that will need to be widened to serve the development in 2030. Caltrans' planned widening of I-205 to eight lanes is also indicated. These widenings are shown on Figure 4.4-10. A substantial number of new roads will be required to serve traffic generated by the proposed General Plan; these are shown on Figure 4.4-11. Other improvements, such as signalization of approximately 30 intersections, will also be required to support the proposed General Plan. In addition, the upgrading of Eleventh Street/Lammers Road to an urban interchange would be needed.

TABLE 4.4-10 **NEEDED ROADWAY CLASSIFICATION UPGRADES**

Roadway	Between	Existing Classification	Future Classification
Corral Hollow Rd	New Road So. of I-580 and I-580 EB ramp	County Road	Minor Arterial/ Major Collector
Eleventh St	McArthur Dr and Chrisman Rd	Minor Arterial/ Major Collector	Major Arterial/ Expressway/ Boulevard
Linne Rd	Corral Hollow Rd and Tracy Blvd	Minor Arterial/ Major Collector	Major Arterial/ Expressway/ Boulevard
Lammers Rd	So. of Valpico	Minor Arterial/ Major Collector	Major Arterial/ Expressway/ Boulevard
Larch Rd	Nagless Rd and Corral Hollow Rd	Collector	Minor Arterial/ Major Collector

It is important to maintain circulation continuity throughout the network of the city and county. Thus, it is imperative for the City to coordinate with San Joaquin County to incorporate the following upgrades and/or widenings into the circulation plan, including sections that are outside the City's Sphere of Influence:

- ◆ Lammers Road between Linne Road and Eleventh Street
- ◆ Valpico Road between Lammers Road and Corral Hollow Road
- ◆ Old Schulte Road between west of Lammers Road
- ◆ Chrisman Road south of Eleventh Street

While the existing Roadway Master Plan contains many of these improvements, policies and actions under Objective CIR-1.1, Action 1 of the General Plan supports updating the Roadway Master Plan upon adoption of the General Plan to ensure that these improvements are included.

FIGURE 4.4-10  
PROPOSED ROADWAY WIDENINGS

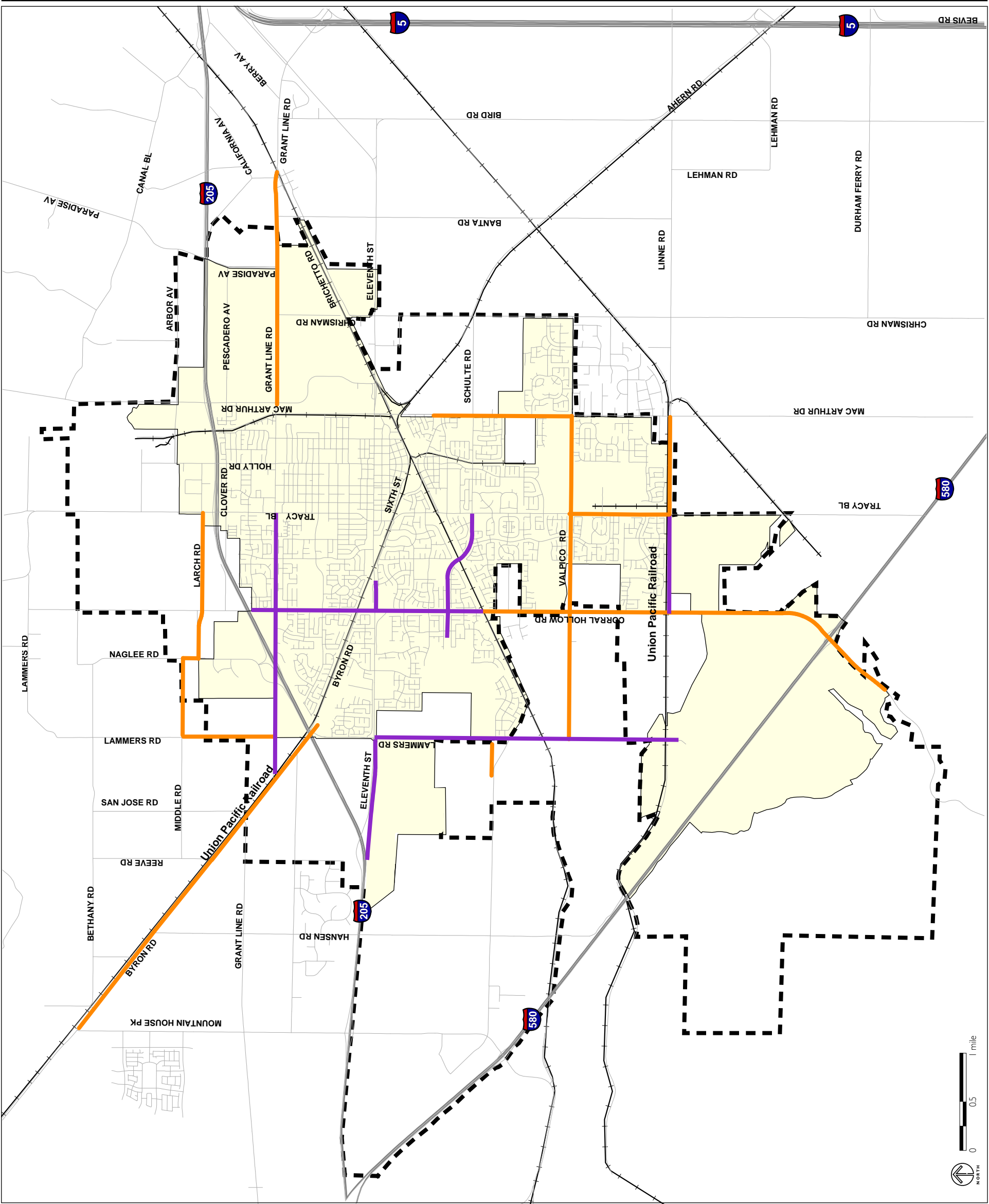
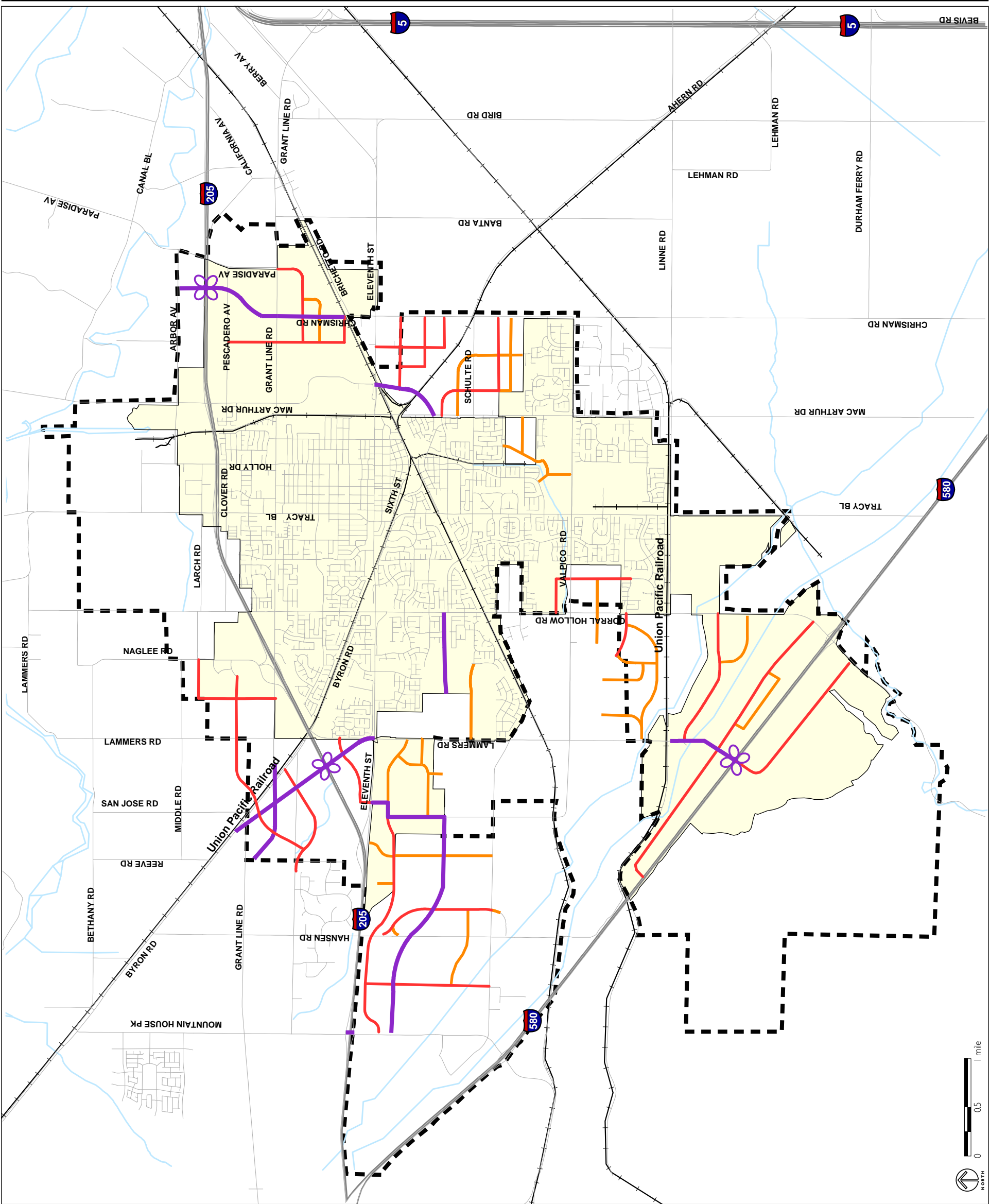




FIGURE 4.4-11  
PROPOSED NEW ROADWAYS



- Major Arterial / Expressway / Boulevard
- Minor Arterial / Major Collector
- Other Collector
- City Limits
- Sphere of Influence

Data Source: Fehr & Peers, 2005.

Notes:

1. Conceptual layout only
2. Revisions/additions to minor arterials and other collectors will occur during development review



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TABLE 4.4-11 **NEEDED ROAD WIDENINGS BY 2030**

Roadway	Between	Existing Lanes	Future Lanes
Byron	Patterson Pass and Grant Line Road	2	4
Corral Hollow Rd	S of I-580 and Schulte Rd	2	4
	Schulte Rd and Kavanagh	4	6
Eleventh St	Corral Hollow Rd and Alden Glen	4	6
	W. of I-205 Ramps and Lammers Rd	4	6
Grant Line Rd	Byron Rd and Lammers Rd	2	6
	Lammers Rd and Tracy Blvd	4	6
	McArthur Dr and Brichetto Rd	2	4
I-205	Eleventh St and I-5	4	6
Lammers Rd	Linne Rd and Eleventh St	2	6
	Grant Line Rd and Middle	2	4
Larch Rd	Naglee Rd and Tracy Boulevard	2	4
Linne Rd	Corral Hollow Rd and Tracy Blvd	2	4
	Tracy Blvd and Macarthur Dr.	2	4
McArthur Dr	Valpico Rd and No. of Schulte Rd	2	4
Middle	Lammers Rd and Naglee Rd	2	4
Schulte Rd	W. of Corral Hollow Rd and Tracy Blvd	4	6
Tracy Blvd	Linne Rd and Valpico Rd	2	4
Valpico Rd	Lammers Rd and McArthur Dr	2	4

d. Future Traffic Levels

Development in Tracy and the SOI under the proposed General Plan would cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system by 2030. Table 4.4-12 provides an example of how traffic will increase as a result of the proposed General Plan by comparing trip generation for the Base Year and 2030. Trip productions refer to trip origins which are calculated by travel demand models, mostly generated by residential units. These productions are then matched with attractions, which are trip destinations, usually found at commercial and employment locations.

As indicated in Table 4.4-12, total vehicular trip generation would nearly triple by the year 2030. This increase in vehicular trips is attributable to the projected growth in employment within the City of Tracy, which is expected to nearly double by 2030. Nearly 60 percent of the projected employee growth would occur in the area of retail and office uses, which generate more trips than industrial and warehousing uses.

A second factor contributing to the growth in trips is the increase in residential trips, although the percentage growth in households and population is less than employment. Concurrent with this increase in overall trips, there would also be an increase in the amount of all peak hour trips that are internalized within the city. Under the proposed General Plan, 76 percent of the peak hour trips will be internalized.

As a result, while the number of vehicle trips generated in Tracy and its SOI would increase with the proposed General Plan, the Plan's land uses work to maintain the same percentage of those trips within the community as currently exist. This works to reduce the impact to regional roadways.

i. Local Roadway Impacts

With the development resulting from the proposed General Plan, traffic volumes would grow throughout the city and the levels of congestion would increase as well. In the existing urbanized areas of the city, this congestion



TABLE 4.4-12 **DAILY TRIP GENERATION RELATED TO TRACY LAND USE**

Model Scenario	Trip Productions	Trip Attractions
Base (2003)	277,400	250,000
Proposed General Plan (2030)	643,300	781,500

Source: Fehr & Peers, 2008.

would be moderated by selected improvements, such as the construction of Schulte Road as a parallel route to Eleventh Street and a proposed urban interchange at Eleventh Street and Lammers Boulevard. The impact of this increased congestion on the major intersections along these roadways is discussed below.

Roadways in other areas of the city are projected to operate at acceptable levels, with the roadway improvements discussed above. For instance, Lammers Road would have to be widened from two lanes to four and six lanes in sections to accommodate growth from developments such as Tracy Hills, Tracy Gateway, and other projects. Linne Road, Valpico Road, and MacArthur Drive are a few of the roadways which would have to be widened to provide an acceptable level of service with the development in the city under the proposed General Plan. As a result, there would be a less than significant impact on local roadways.

*ii. Tracy Intersection Impacts*

Assuming the planned network improvements outlined above, in Figure 4.4-10, and Tables 4.4-10 and 4.4-11 are conducted, the traffic forecast for the proposed General Plan indicates that the City's level of service standards will be maintained except at the Eleventh Street/Corral Hollow Road and Eleventh Street/Lammers Road intersections.

In the case of the Eleventh Street/Corral Hollow Road intersection, there is a constrained right-of-way which may not allow for adequate at-grade physical improvements to improve the level of service to D or better. An urban interchange could provide additional capacity at this location. Construction of such an interchange would negatively impact the adjacent properties and would be inconsistent with the Community Character Element of the General Plan. As an alternative, Policy 2 under Objective CIR-1.3 allows individual locations to fall below the City's level of service standards in instances where the construction of physical improvements would be infeasible or would conflict with the character of the community. Since this intersection is constrained to the point of not allowing for adequate at-grade improvements, the resulting level of service would not result in a significant impact.

Further improvements at the Eleventh Street/Lammers Road intersection have been discussed. The City has several options, including a grade-separated interchange at this location that will be subject to further study pending approval of the final design to be selected for the I-205/Lammers Road interchange.

*iii. Regional Roadway Impacts*

The proposed General Plan, in conjunction with other cumulative development in the region and neighboring regions, would cause 2030 traffic levels to exceed level of service standards established by the County Congestion Management Agency for regional highways, as shown in Table 4.4-13, which would be considered a significant impact. As noted in the Existing Setting section, the San Joaquin County CMP has set LOS E (east of MacArthur Drive) and LOS F (west of Tracy Boulevard) as acceptable levels of service on I-205, while LOS D or better is the standard on other highways in the Tracy vicinity. Table 4.4-14 also outlines the percentage of existing and future traffic on these regional roadways that can be attributed to the City of Tracy.

Based on the information documented in Table 4.4-13, many of the regional roadway segments proximate to Tracy would operate at a deficient level. These regional roadways include I-5, I-205 and I-580.

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**TABLE 4.4-13 PEAK HOUR, PEAK-DIRECTION VOLUMES AND LEVEL OF SERVICE**

Freeway	Segment	Direction	Existing Number of Lanes	Future Number of Lanes	Existing Volume, LOS	Proposed General Plan Volume, LOS, Percentage Change from Existing
I-205	I-205/I-580 Diverge to Mountain House Parkway	EB	3	4	6,300, F	8,200, E, +30%
		WB	3	4	2,200, B	3,300, C, +50%
	Mountain House Parkway/Eleventh Street	EB	3	4	6,300, F	8,500, E, +35%
		WB	3	4	2,500, B	4,200, C, +68%
	Eleventh Street/Grant Line Road	EB	2	4	4,800, F	9,500, F, +98%
		WB	2	4	2,200, C	4,800, D, +118%
	Grant Line Rd/Tracy Boulevard	EB	2	4	4,900, F	10,400, F, +112%
		WB	2	4	2,400, C	5,000, D, +108%
	Tracy Blvd/MacArthur Dr	EB	2	4	5,000, F	10,800, F, +116%
		WB	2	4	2,300, C	5,000, D, +117%
	MacArthur Drive/Junction of I-205 / I-5	EB	2	4	5,200, F	10,200, F, +96%
		WB	2	4	2,400, C	3,500, C, +46%
I-580	Livermore Area (Vasco Road to SR 84)	EB	4	4	10,100, F	13,900, F, +38%
	Altamont Pass	EB	4	4	8,000, E	10,800, F, +35%
	Altamont Pass to I-205/I-580 Diverge	EB	4	4	8,000, E	10,800, F, +35%
	I-205/I-580 Diverge to Mountain House Parkway	EB	2	2	1,900, B	3,200, D, +68%
	Mountain House Parkway/Lammers Road	EB	2	3	2,300, B	4,900, D, +113%
	Corral Hollow Rd/Chrisman Rd.	EB	2	2	2,300, B	3,700, E, +61%
I-5	205 Interchange – North	EB	4	6	6,000, C	11,800, E, +97%
	Altamont Pass Rd East of Alameda/San Joaquin County Border	EB	1	1	250, A	950, D, +280%
	Patterson Pass Rd East of Alameda/San Joaquin County Border	EB	1	1	200, A	800, E, +300%
	Tesla Road East of Alameda/San Joaquin County Border	EB	1	1	200, A	600, E, +200%
	Byron Road West of Grant Line Road	EB	1	1	350, A	400, C, +14%
		WB	1	1	300, A	500, C, +67%

**Notes:**

1. Future level of service calculations assume a per-lane capacity of 2,200 per hour on freeway facilities. Level of service for other roadways determined using peak hour level of service information provided by Florida Department of Transportation (FDOT) directional level of service tables. Capacity based on definition of roadways as other major city/county roadways.
2. I-5, I-205, and I-580 Peak Hour data from Caltrans (2003)
3. Traffic counts on Altamont Pass Road, Patterson Pass Road, and Tesla Road estimated from daily counts.

Source: Fehr & Peers, 2008.

TABLE 4.4-14 TRACY CONTRIBUTION TO TOTAL VOLUME

Freeway	Segment	Direction	Existing Volume, LOS	Future Volume, LOS	Existing Tracy Percentage	Future Tracy Percentage
I-205	I-205/I-580 Diverge to Mountain House Parkway	EB	6,300, F	8,200, E	47%	29%
		WB	2,200, B	3,300, C	34%	24%
	Mountain House Parkway /Eleventh Street	EB	6,300, F	8,500, E	51%	40%
		WB	2,500, B	42,00, C	37%	44%
	Eleventh Street/Grant Line Road	EB	4,800, F	9,500, F	31%	42%
		WB	2,200, C	4,800, D	25%	45%
	Grant Line Road/Tracy Blvd.	EB	4,900, F	10,400, F	24%	39%
		WB	2,400, C	5,000, D	24%	42%
	Tracy Blvd/MacArthur Drive	EB	5,000, F	10,800, F	24%	42%
		WB	2,300, C	5,000, D	25%	43%
I-580	MacArthur Drive/Junction of I-205/I-5	EB	5,200, F	10,200, F	23%	48%
		WB	2,400, C	3,500, C	27%	26%
	Livermore Area (Vasco Road to SR 84)	EB	10,100, F	13,900, F	41%	29%
	Altamont Pass	EB	8,000, E	10,800, F	41%	30%
	Altamont Pass to I-205/I-580 Diverge	EB	8,000, E	10,800, F	41%	30%
	I-205/I-580 Diverge to Mountain House Parkway	EB	1,900, B	3,200, D	29%	41%
	Mountain House Parkway/Lammers Road	EB	2,300, B	4,900, D	22%	53%
	Corral Hollow Road/MacArthur Drive	EB	2,300, B	3,700, E	8%	26%
	I-5 205 Interchange - North	EB	6,000, C	11,800, F	27%	46%
	Altamont Pass Road	EB	250, A	950, D	N/A	33%
Patterson Pass Road	East of Alameda / San Joaquin County Border	EB	200, A	800, E	N/A	48%

TABLE 4.4-14 **TRACY CONTRIBUTION TO TOTAL VOLUME** (CONTINUED)

Freeway	Segment	Direction	Existing Volume, LOS	Future Volume, LOS	Existing Tracy Percentage	Future Tracy Percentage
Tesla Road	East of Alameda/San Joaquin County Border	EB	200, A	600, E	N/A	16%
Byron Road	West of Grant Line Road	EB	350, A	400, C	71%	34%
		WB	300, A	500, C	63%	42%

Notes:

1. 2030 Scenario assumes widening of I-205 from 2 to 4 lanes in each direction
2. Existing contribution on Altamont Pass Road, Patterson Pass Road, and Tesla Road cannot be estimated based on limited available data

Source: Fehr & Peers, 2008.

A review of transportation plans such as the SJCOG RTP indicates that there are several proposed improvements that could improve the operation of the regional roadway system. However, these improvements are not funded and cannot be anticipated to be constructed prior to 2030. The widening of I-205 from the existing four to eight lanes adjacent to the City of Tracy has been identified as a Tier I improvement in the latest SJCOG RTP.

The General Plan does include some policies to help minimize the proposed project's impact on regional traffic congestion. For example, the General Plan is designed to help internalize trips by improving the existing jobs/housing imbalance, which currently results in a significant number of residents traveling outside of the city for employment. To improve the jobs/housing balance, the proposed General Plan works to increase the number of employees in Tracy over the next 20 years. The number of employees in the city is projected to increase by approximately 25,000 jobs, based on market trends of absorption rates for various land use types.

Concurrently, the number of residents within Tracy is expected to increase by less than 50 percent, mainly due to limitations imposed on residential growth by the GMO. Employment will be provided by projects such as Tracy Gateway, Tracy Hills, along Grant Line and Corral Hollow Roads, and additional development in the North East Industrial area. The additional employment would improve the jobs/housing balance and internalize more trips within the city rather than forcing commuters on the regional freeways. As a result, additional Altamont travel generated by Tracy between 2003 and 2030 will be less than Tracy's total trip generation growth.

However, the additional employment growth is not sufficient to fully internalize all new trips associated with the proposed General Plan. For example, new trips from Tracy are responsible for approximately 29 percent of the projected growth in eastbound traffic on I-580 west of Tracy. While there will be additional trips from Tracy traveling through the Altamont Pass, Tracy's role in Altamont Pass traffic will decline over the next twenty years. As a percentage of total traffic, Tracy's contribution to traffic on I-580

through the Altamont will decline from about 40 percent in 2003 to about 30 percent in 2030.

A strategy that is already included in the City's Roadway Master Plan that would help reduce regional freeway impacts is the construction of a parallel or reliever route along I-205. The current Roadway Master Plan identifies such a route along the northern boundary of the city. This has been removed from the General Plan due to alternate routes being studied by SJCOG. Analysis completed for the proposed project indicates that such an improved east-west roadway would divert approximately 1,000 peak hour, peak direction vehicle trips from I-205 in the section between Tracy Boulevard and MacArthur Drive. This figure is equal to one-third of the traffic that the proposed General Plan growth would add to this freeway segment. SJCOG is in the process of evaluating alternate routes for I-205 relief.

However, while this parallel route would reduce peak hour traffic on I-205 by 10 percent, improve regional connectivity, and offset about one-third of Tracy's 2030 impacts on I-205, it would not fully mitigate traffic impacts on I-205. The sections of I-205 adjacent to the City of Tracy are projected to operate at LOS F and the projected reduction in volume would not improve the level of service to acceptable levels.

Finally, another approach would be to contribute to a regional or sub-regional fee program to facilitate the construction of regional freeway facilities and transit facilities by leveraging money contributed by development projects in Tracy towards costly roadway improvements that are beyond the means of any one project or municipality to pay for entirely. There has been some agreement to participate in regional or interregional fee programs by several major development projects in Tracy. The Tracy Gateway project has agreed to contribute to the regional traffic impact fee program. The Tracy Hills project has agreed to contribute to an interregional fee program that supports freeways, major street improvements and transit.

SJCOG completed a nexus study for a Regional Transportation Impact Fee (RTIF) in 2005. This fee is worth a total of \$5.4 billion and a list of projects has been identified. The time horizon for the fee is 25 years. The fee is assessed county-wide on new development.

Tracy is currently participating in the program. The General Plan policies contain text which supports participation in regional and sub-regional fee programs. One such policy is Policy 4, under Objective CIR-1.1, which states that the City should continue to pursue regional, countywide, and State funding to fund roadway projects, which may include a regional or countywide impact fee. Policy 5 under this same objective also encourages participation in regional funding decisions.

As a result, while the General Plan incorporates a range of features that work to help reduce the potential impact of future growth in Tracy to regional roadways, none of these approaches would reduce the potential impact to a less-than-significant level, so a significant and unavoidable impact to the following regional roadways would occur:

- ◆ I-205
- ◆ I-580
- ◆ I-5
- ◆ Patterson Pass Road
- ◆ Tesla Road

## **2. Safety Impacts**

Tracy, through its roadway design standards, can directly influence the level of safety on public roadways. General Plan Policy 1 under Objective CIR-1.6 states that the City should design streets using context-sensitive design principals that enhance safety for all modes of travel. This would apply to all roads where there may be potential conflicts between vehicles, pedestrians, bicyclists, and trains. Since this policy indicates that the City would use safety as a prime criterion, the proposed General Plan does not substantially increase hazards due to a design feature and a significant impact does not occur.



The consideration of safety also extends to bicycles and pedestrians, which are addressed in the General Plan. The General Plan includes several goals and policies related to safety for pedestrians and bicyclists.

For example, Objective CIR-1.6 states that traffic safety will be maximized for automobile, transit, bicycle users and pedestrians. Additionally, Goal CIR-3 addresses safe and convenient bicycle and pedestrian travel. This goal details several policy statements designed to further bicycle and pedestrian safety. For example, Policy 1 and Policy 2 state that to the extent possible, the City shall separate vehicular traffic from bicycle and pedestrian traffic on higher-speed and higher-volume roadways, as well as separate bicycle and pedestrian users on high usage bicycle and pedestrian paths.

Based on the goals, objectives and policies included in the General Plan, the proposed project encourages the consideration of bicycle and pedestrian safety and would not create unsafe conditions for these modes. Therefore, a significant impact does not occur.

### **3. Emergency Vehicle Access Impacts**

The adequacy of emergency vehicle access can be judged based on two criteria. First, the major roadways of the city should be able to convey vehicles at a reasonable level of congestion, which will allow emergency vehicles to travel throughout the city. Second, the roadway network should provide a sufficient level of connectivity to allow emergency vehicles to access the destination through the most direct route.

The General Plan contains several policies relating to the level of congestion on major roadways and intersections. For example, Policy 1 under Objective CIR-1.3 sets the roadway and intersection level of service standards at LOS C for most intersections, which will ensure that vehicles are able to travel through most areas of the city with minimal delay, including emergency vehicles. While the level of service policy allows a small portion of the downtown area to operate at LOS F, as well as areas around the freeway and areas that are limited by existing constraints, it is unlikely that the policy will dra-

matically increase the travel time for emergency vehicles throughout the city since the proposed General Plan also includes policies to ensure multiple access points, as discussed below.

The General Plan also includes policies relating to roadway connectivity. Policy 1 under Objective CIR-1.2 states that the City shall ensure that street and highway system results in a high level of connectivity, especially between residences and common local destinations. By encouraging roadway connectivity, the proposed General Plan would ensure that emergency vehicles would have multiple routes available to them, which would minimize response time.

Since the proposed General Plan includes policies that seek to maintain a high level of service (minimizing congestion) while encouraging connectivity, the proposed project would not result in inadequate emergency vehicle access and a significant impact would not occur.

#### **4. Parking Capacity**

As mentioned earlier in this section, the City has adopted on- and off-street parking standards in its Municipal Code. The proposed General Plan does not alter the City's current parking regulations through any goals, objectives, policies and actions. As a result, development will be required to comply with existing regulations and provide adequate on-site parking prior to approval. Therefore, implementation of the proposed project would not result in inadequate parking capacity.

#### **5. Relation to Adopted Regional Policies, Plans and Programs Supporting Alternative Transportation**

As mentioned before, there are several regional planning documents that address public transit in San Joaquin County. Both the SJCOG RTP and the San Joaquin County General Plan include a number of goals and policies related to alternative transportation, and both encourage the use of transit as an alternative mode throughout the region. For example, Objective III of the RTP is to provide for a transit system serving county residents that is safe,

efficient and cost effective. A significant impact would occur if the proposed General Plan lacks goals and policies related to alternative transportation modes or has policy statements that directly contradict policy statements provided by the RTP or the San Joaquin County General Plan in regards to regional alternative modes of transportation.

Objective 1 under the Transit section of the County General Plan is to provide a public mass transit system that satisfies the demonstrated needs in San Joaquin County for safe, efficient, convenient, economical, and reliable transit service. The first policy under this objective states that the County would promote public mass transit as an alternative to the automobile. The Bicycle section indicates that a primary objective is to provide a countywide system of bicycle facilities for safe and convenient transportation and recreation.

The proposed General Plan includes a range of policy direction in regards to alternative transportation modes, which do not conflict with County-wide policy statements. The proposed General Plan has goals, objectives, policies and action relating to bicyclists, pedestrians and public transit. For example, Objective CIR-3.1 and its subordinate policies and actions work towards achieving a comprehensive and safe system of citywide bikeways and pedestrian facilities. In addition, Objective CIR-4.1 is aimed at promoting public transit as an alternative to the automobile. Supporting this objective are several policies and actions that work to promote transit use through cooperation with other service providers, funding, and project design.

Since the proposed General Plan does not alter the City's current policy statements supportive of alternative transportation modes, which are consistent with policy statements in other regional adopted planning documents, it can be concluded that the proposed General Plan does not conflict with adopted regional policies and plans regarding alternative transportation, and thus has a less than significant impact.

## **6. Impacts to Air Traffic Patterns**

The proposed General Plan was designed to comply with the Land Use Plan (1994, as amended in 1998) for the Tracy Municipal Airport. For example, Objective LU-6.3 ensures that development near the Tracy Municipal Airport is compatible with airport uses and conforms to safety requirements. Since the proposed General Plan would not allow incompatible development to occur around the airport, implementation of the proposed General Plan would not alter current plans related to operations of the Tracy Municipal Airport nor air traffic in general, and no significant impact would occur.

### ***D. Impacts and Mitigation Measures***

**Impact CIR-1:** The General Plan incorporates a range of features to help reduce the potential impact of future growth on regional roadways. However, traffic levels along regional roadways listed below will increase, creating a significant and unavoidable impact.

- ◆ I-205
- ◆ I-580
- ◆ I-5
- ◆ Patterson Pass Road
- ◆ Tesla Road

No mitigation measures have been identified for this impact. Therefore, it is *significant and unavoidable*.

## 4.14 NOISE

This chapter discusses the existing noise environment in Tracy and analyzes the potential impacts of the proposed General Plan on the Tracy noise environment. To provide context for the discussion, the section begins with an explanation of what noise is and existing noise regulation. A noise study was prepared by Illingworth & Rodkin, Inc. to prepare this section.

### *A. Existing Conditions*

#### **1. Measurement of Noise**

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

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A decibel (dB) is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10-decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 4.14-1.

TABLE 4.14-1 DEFINITIONS OF ACOUSTICAL TERMS

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L01, L10, L50, L90	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Day/Night Noise Level, L <sub>dn</sub>	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
L <sub>max</sub> , L <sub>min</sub>	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 4.14-2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called Leq. The most common averaging period is hourly, but Leq can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Community Noise Equivalent Level, CNEL, is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 p.m. - 10:00 p.m.) and a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The Day/Night Average Sound Level,  $L_{dn}$ , is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

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TABLE 4.14-2 **TYPICAL SOUND LEVELS**

Noise Generators (At a Given Distance from Noise Source)	A-Weighted Sound Level in Decibel	Noise Environments	Subjective Impression
	140		
Civil defense siren (100 feet)	130		
Jet take-off (200 feet)	120		Pain threshold
	110	Rock music concert	
Diesel pile drive (100 feet)	100		Very loud
Freight cars (50 feet)	90	Boiler room Printing press plant	
Pneumatic drill (50 feet)	80	In kitchen with garbage disposal	Moderately loud
Freeway (100 feet)	70	running	
Vacuum cleaner (10 feet)	60	Data processing center	
Light traffic (100 feet)			
Large transformer (200 feet)	50	Department store	
	40	Private business office	Quiet
Soft whisper (5 feet)	30	Quiet bedroom	
	20	Recording studio	
	10		Threshold of hearing



## 2. Effects of Noise

This section discusses several effects of noise including hearing loss, sleep and speech interference and annoyance.

### a. Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise, but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard, which is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

### b. Sleep and Speech Interference

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noise of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA  $L_{dn}$ .

The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12 to 17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57 to 62 dBA  $L_{dn}$  with open windows and 65 to 70 dBA  $L_{dn}$  if the windows are closed. Levels of 55 to 60 dBA are common along collector streets and secondary arterials, while 65 to

70 dBA is a typical value for a primary/major arterial. Levels of 75 to 80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed; those facing major roadways and freeways typically need special glass windows.

c. Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The  $L_{dn}$  as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed.

There continues to be disagreement about the relative annoyance of noise from aircrafts and roadways. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 55 dBA  $L_{dn}$ . At an  $L_{dn}$  of about 60 dBA, approximately two percent of the population is highly annoyed. When the  $L_{dn}$  increases to 70 dBA, the percentage of the population highly annoyed increases to about 12 percent of the population. There is, therefore, an increase of about one percent per dBA between an  $L_{dn}$  of 60 to 70 dBA. Between an  $L_{dn}$  of 70 to 80 dBA, each decibel increase results in about a two percent increase in population that is highly annoyed. People appear to respond more adversely to aircraft noise. When the  $L_{dn}$  is 60 dBA, approximately ten percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about two percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a three percent increase in the percentage of the population highly annoyed.

### 3. Regulatory Framework

#### a. Federal Highway Administration and Caltrans Policies

The Federal Highway Administration (FHWA) provides procedures and criteria for noise assessment studies for federal highway projects. It requires that noise abatement measures be considered on all major transportation projects if the project will cause a significant increase in noise levels, or if projected noise levels approach or exceed the noise abatement criteria level for activities occurring on adjacent lands. The California Department of Transportation (Caltrans) utilizes similar procedures and criteria.

The FHWA Noise Assessment Criteria for various land use ratings are given in Table 4.14-3. These noise criteria are assigned to both exterior and interior activities. The FHWA identifies a traffic noise impact when the predicted traffic noise levels approach or exceed the noise abatement criteria. If these criteria sound levels are predicted to be approached or exceeded during the noisiest 1-hour period, noise abatement measures must be considered and, if found to be reasonable and feasible, they must be incorporated as part of a given project. Following the Caltrans protocol, a traffic noise impact will occur when predicted noise levels approach or exceed criteria sound levels within 1 dBA.

#### b. Federal Transit Administration (FTA) Policies

Groundborne vibration impacts are typically associated with fast moving railroad operations, and large industrial equipment. The Federal Transit Administration (FTA) of the U.S. Department of Transportation has developed vibration impact assessment criteria for evaluating vibration impacts associated with rapid transit projects. These criteria for groundborne vibration impacts on occupants inside buildings are shown in Table 4.14-3, and are based on rms average vibration levels calculated over a 1 second period to relate to average, maximum, vibration levels experienced by humans. Note that there are criteria for frequent events (more than 70 events per day) and infrequent events (less than 70 events per day).

TABLE 4.14-3 **FEDERAL NOISE ABATEMENT CRITERIA**

Rank	A-Weighted Sound Level dBA	Suitable Locations
A	57 exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to serve its intended purpose.
B	67 exterior	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 exterior	Developed lands, properties, or activities not included in Categories A or B above.
D	---	Undeveloped lands.
E	52 interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: Federal Highway Administration, 1982.

The FTA criteria are based primarily on experience with passenger train operations, such as rapid transit and commuter rail systems. The main difference between passenger and freight operations is the time duration of individual events, a passenger train lasts few seconds whereas a long freight train may last several minutes, depending on speed and length. Although the criteria are based on shorter duration events reflected by passenger trains, they are used in this assessment to evaluate the potential of vibration annoyance on the site due to large freight trains as well. It should also be noted that the FTA criteria limits contained in Table 4.14-4 are not appropriate for evaluating the potential of building structural or cosmetic damage due to train operations. It is extremely rare that train operations can cause any such damage except in the case of weakened structures or historic buildings. Even in such cases, structural damage is unlikely unless the buildings are located extremely close to the tracks.

TABLE 4.14-4 **GROUNDBORNE VIBRATION IMPACT CRITERIA**

Land Use Category	Groundborne Vibration Impact Limits (Re 1, $\mu$ inch/sec., rms)	
	Frequent Events	Infrequent Events
Category 1: Buildings where low ambient is essential for interior operations	65 VdB	65 VdB
Category 2: Residences and buildings where people normally sleep	72 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime uses	75 VdB	83 VdB

Source: U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, April 1995, DOT-T.

c. Tracy Noise Ordinance

The City of Tracy has adopted a quantitative noise ordinance. The Noise Control Ordinance is contained in Article 9 of the City's Municipal Code. The Ordinance establishes allowable noise level limits based on the zoning district. The maximum allowable noise level limit is 55 dBA in residential districts, 65 dBA in commercial districts, 75 dBA in industrial/aggregate mining and agricultural districts. When property lines form the joint boundary of two district zones, the ordinance states that the sound level limit shall be the arithmetic mean of the limit applicable to each of the two zones. The Ordinance sets forth procedures for extensions, variations, exceptions and identifies specific prohibitions regarding noise within the city.

**4. Existing Noise Sources in Tracy**

The most significant source of community noise in Tracy is vehicular traffic on Interstate 205 (I-205) and the local street network, with I-205 having the highest noise levels. Railroad trains intermittently generate noise levels that are significant along the railroad tracks. Localized and intermittent noise impacts occur as a result of the Altamont Commuter Express train on the

southern side of the city.  $L_{dn}$  noise levels exceed 60 dBA within approximately 260 feet of the primary freight and commuter railroad tracks. Moreover, train warning whistles can generate maximum noise levels of approximately 105 dBA at 100 feet and are audible throughout the community.

Noise is also generated on individual parcels whether industrial, commercial or residential. These noise sources are regulated by the City's Noise Ordinance and so do not generally negatively affect the overall noise environment throughout the community.

The Tracy Municipal Airport, located in the southern portion of the city between Tracy Boulevard and Corral Hollow Road, is a source of community noise in its vicinity. General aviation aircraft using the Tracy Airport contribute to intermittent noise levels in Tracy. The airport currently has about 50,000 annual airport operations.<sup>1</sup> These are comprised mostly of single-engine light aircraft (maximum gross weight 12,000 lbs.), some twin-engine aircraft, and occasional corporate jets. There are no jets currently based at the airport. Other activities at the airport include two hot air balloon companies, Ultralights, and an area where aerobatic flight is allowed.

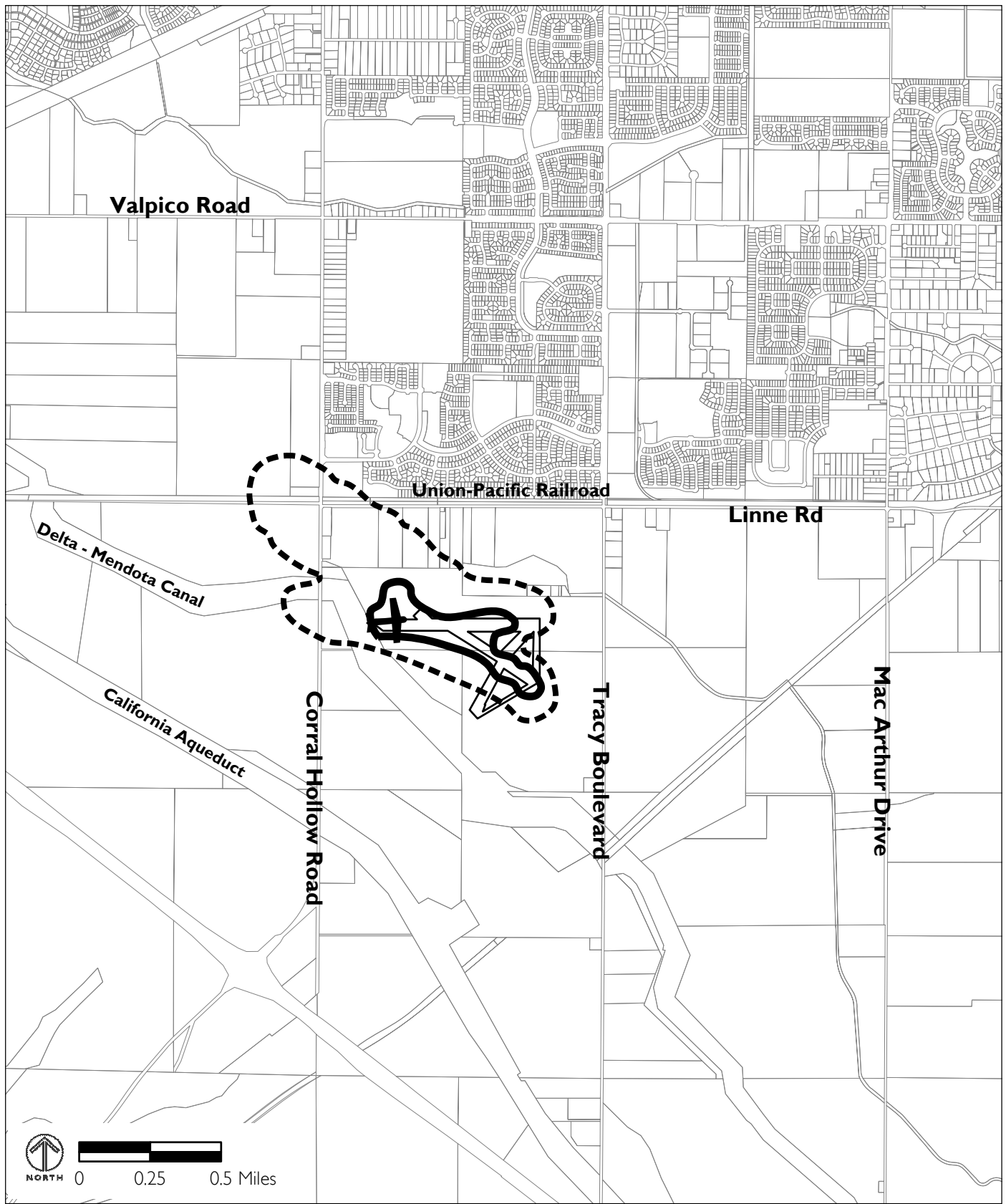
Aircraft noise in California is described in terms of the community noise equivalent level (CNEL). As mentioned previously, CNEL is approximately equivalent to the day/night average noise level ( $L_{dn}$ ) but includes a 5 dB weighting factor for the evening hours (7:00 p.m. to 10:00 p.m.). The San Joaquin County 2020 General Plan contains CNEL noise contours for Tracy Airport, which are shown in Figure 4.14-1.

## 5. Noise Measurements

In order to document Tracy's noise environment, both long- and short-term, noise measurements were taken at locations throughout the city. This section documents the results of those measurements.

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<sup>1</sup> Telephone conversation with Rod Buchanan, Deputy Department Director, Parks and Community Services Department, October 2003.



Source: San Joaquin County Airport Land Use Plan

**FIGURE 4.14-1**

- 65 dBCNEL
- - - 60 dBCNEL

## TRACY MUNICIPAL AIRPORT NOISE CONTOURS

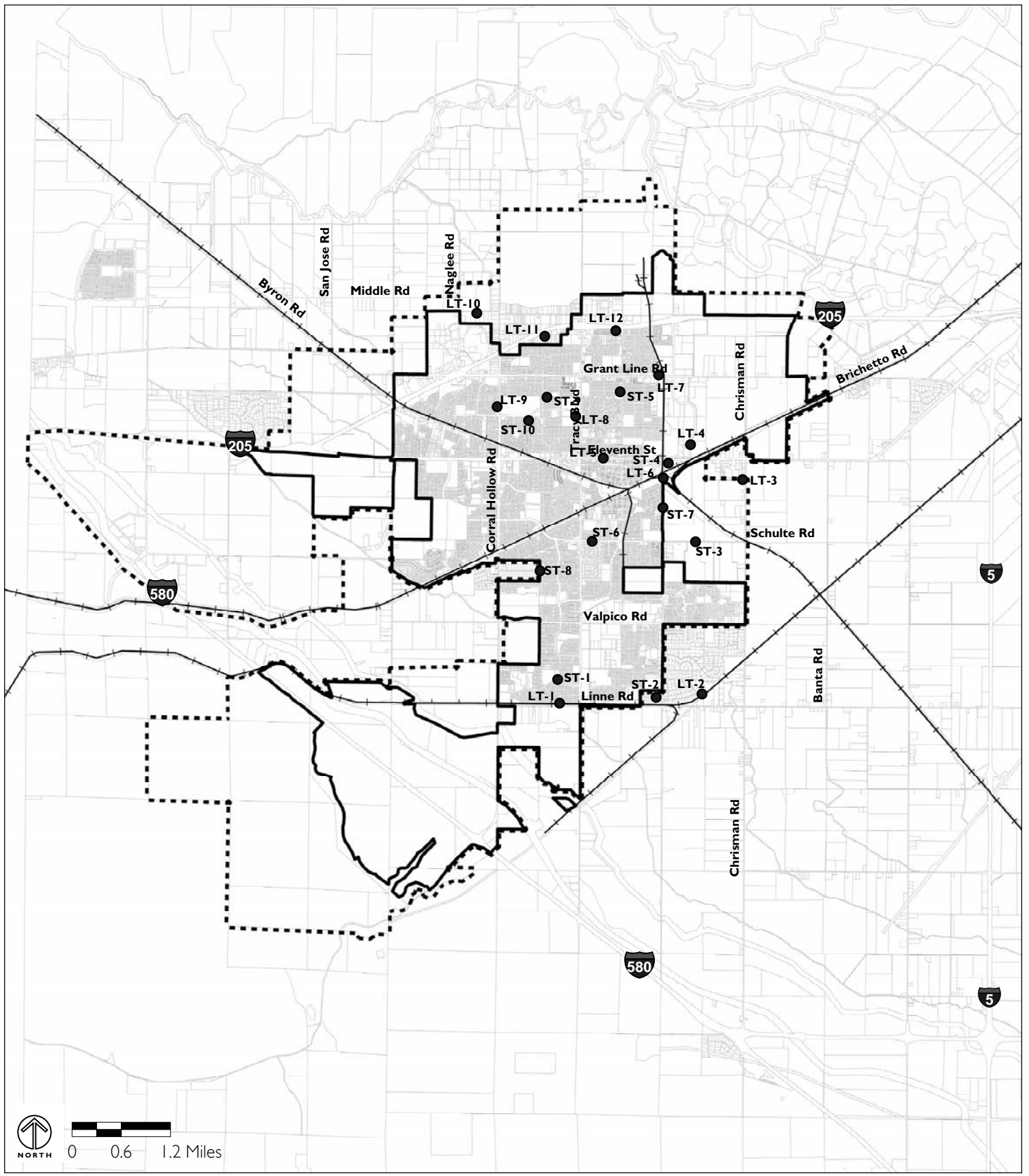
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a. Long-Term Noise Measurements

Long-term noise levels were monitored at ten locations in Tracy over a period of two and three days in June of 2003. Noise levels were monitored by Illingworth & Rodkin, Inc. at two locations along I-205 previously during preparation of the Noise Study Report for improvements to the I-205 freeway. The noise measurement locations are shown on Figure 4.14-2. The measured data are summarized in Table 4.14-5 and the data measured at the twelve long-term sites are summarized in Figures 1 through 12 of Appendix B. The following discussion summarizes the long-term noise measurements.

- ◆ *Location LT-1 – Adjacent to Altamont Commuter Express Line and West Linne Road.* Location LT-1 was selected to represent the noise exposure in the residential neighborhood along English Oak Court which adjoins the Altamont Commuter Express Railroad Line. The measurement location was made about 50 feet behind the 12 to 14 foot high sound wall that currently separates the neighborhood from the railroad track. The data, shown in Figure 1 of Appendix B, shows the measured noise level was 65 dBA  $L_{dn}$ . Maximum noise levels from individual railroad train passbys ranged from approximately 85 to 100 dBA.
- ◆ *Location LT-2 – Altamont Commuter Express Line near Chrisman Road.* Noise levels approximately 35 feet from the ACE line near Chrisman Road were dominated by railroad train traffic on the same line. This location was selected to measure the noise level along this train track where no sound wall exists. The measured noise level was 73 dBA  $L_{dn}$ . Maximum noise levels from railroad train events were in the range of 85 to 104 dBA. The data are shown in Figure 2 of Appendix B.
- ◆ *Location LT-3 – Chrisman Road near Cabe Road.* This noise measurement location was approximately 120 feet from the centerline of Chrisman Road near Cabe road and was selected to measure vehicular traffic noise along Chrisman Road. The measured noise level was 70 dBA  $L_{dn}$ . The hourly average noise levels typically ranged from 60 dBA during the nighttime to 70 dBA during the peak hour. Background noise levels





**FIGURE 4.14-2**

- LT Long-Term Measurement Location
- ST Short-Term Measurement Location
- ▭ City Limit
- ▭ Proposed Sphere of Influence

## NOISE MEASUREMENT LOCATIONS

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**TABLE 4.14-5 SUMMARY OF NOISE MONITORING**

<b>Site</b>	<b>Location</b>	<b>Date</b>	<b>Time</b>	<b>L<sub>eq</sub></b>	<b>L(1)</b>	<b>L(10)</b>	<b>L(50)</b>	<b>L(90)</b>	<b>L<sub>dn</sub></b>
<b>Long-Term Measurements</b>									
LT-1	Residential Land Uses at South End of English Oak Court Adjacent to Altamont Commuter Express Line and West Linne Rd.	6/2/03 to 6/4/03	17:00 to 10:00	--	--	--	--	--	<b>65</b>
LT-2	~ 35 feet from the Altamont Commuter Express Line near Chrisman Rd.	6/2/03 to 6/4/03	17:00 to 10:00	--	--	--	--	--	<b>73</b>
LT-3	~ 120 feet from the Centerline of Chrisman Rd.	6/2/03 to 6/4/03	18:00 to 11:00	--	--	--	--	--	<b>70</b>
LT-4	~ 80 feet from the Centerline of North MacArthur Rd.	6/4/03 to 6/6/03	12:00 to 13:00	--	--	--	--	--	<b>66</b>
LT-5	~ 90 feet from the Centerline of Eleventh St. at Wall Rd.	6/4/03 to 6/6/03	13:00 to 13:00	--	--	--	--	--	<b>71</b>
LT-6	6th St. Railroad Junction	6/4/03 to 6/6/03	13:00 to 14:00	--	--	--	--	--	<b>72</b>
LT-7	~ 50 feet from the Centerline of Grant Line Rd.	6/4/03 to 6/6/03	16:00 to 16:00	--	--	--	--	--	<b>75</b>
LT-8	~ 80 feet from the Centerline of Tracy Blvd at Dr. Powers Park	6/6/03 to 6/9/03	15:00 to 14:00	--	--	--	--	--	<b>70</b>
LT-9	~ 190 feet from the Centerline of Corral Hollow Rd.	6/6/03 to 6/9/03	16:00 to 13:00	--	--	--	--	--	<b>69</b>
LT-10	West Larch Rd. east of Naglee Rd.	6/6/03 to 6/9/03	16:00 to 13:00	--	--	--	--	--	<b>69</b>
LT-11	11240 Clover Rd. adjacent to I-205	10/31/00 to 11/1/00	10:00 to 10:00	--	--	--	--	--	<b>82</b>
LT-12	Rear Yard of 245 Hawthorne Dr. adjacent to I-205 (shielded by sound wall)	1/29/01 to 1/30/01	14:00 to 14:00	--	--	--	--	--	<b>72</b>
<b>Short-Term Measurements</b>									
ST-1	~ 70 feet from the Centerline of Whispering Wind Rd at Adams Park	6/3/03	15:14 to 15:24	58	68	62	53	47	<b>60</b>
ST-2	~ 130 feet from the Centerline of MacArthur Rd.	6/3/03	15:40 to 15:50	59	70	63	55	50	<b>63</b>

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**TABLE 4.14-5 SUMMARY OF NOISE MONITORING (CONTINUED)**

Site	Location	Date	Time	L <sub>eq</sub>	L(1)	L(10)	L(50)	L(90)	L <sub>dn</sub>
ST-3	~ 50 feet from the Centerline of East Schulte Rd.	6/3/03	16:08 to 16:18	62	73	66	54	48	65
ST-4	~ 100 feet from the Centerline of MacArthur Rd. near 11th St.	6/4/03	13:26 to 13:36	63	72	67	60	55	67
ST-5	~ 80 feet from the Centerline of Holly Dr.	6/4/03	13:50 to 14:00	59	68	63	56	49	63
ST-6	~ 115 feet from the Centerline of South Central Ave.	6/4/03	14:16 to 14:26	57	63	60	56	51	60
ST-7	~ 160 feet from the Centerline of Mac Arthur Rd.	6/4/03	14:40 to 14:50	58	66	61	56	49	61
ST-8	Rear Yard of 460 West Schulte Rd.	6/4/03	15:03 to 15:13	51	57	53	51	49	54
ST-9	~ 100 feet from the Centerline of Lincoln Blvd.	6/6/03	16:37 to 16:47	60	70	64	58	52	62
ST-10	~ 70 feet from the Centerline of West Lowell Ave.	6/6/03	16:53 to 17:03	59	67	62	57	52	60

ranged from 45 to 55 dBA. The data are shown in Figure 3 of Appendix B.

- ◆ *Location LT-4 – North McArthur Road.* Noise levels were measured approximately 80 feet from the centerline of North McArthur Road to characterize the noise exposure levels along North McArthur Road. The noise measurement location was located between Stoneridge Road and Eleventh Street. The measured data are shown on Figure 4 of Appendix B. The measured noise level was 66 dBA  $L_{dn}$ . Hourly average noise levels typically range from 55 dBA to 65 dBA. Background noise levels range from about 45 to 55 dBA.
- ◆ *Location LT-5 – Corner of Eleventh Street and Wall Road.* The noise environment was dominated by heavy vehicular traffic on Eleventh Street. The measured noise level was 71 dBA  $L_{dn}$ . The noise measurement data are shown in Figure 5 of Appendix B. Hourly average noise levels ranged from about 55 dBA  $L_{eq}$  to 75 dBA  $L_{eq}$ . Background noise levels dropped to about 40 dBA during the middle of the night but increased to about 60 dBA during the daytime due to the heavy traffic volume.
- ◆ *Location LT-6 – Sixth Street Railroad Junction.* The noise environment at Location LT-6 was dominated by railroad train traffic at the junction of four railroads. The measured noise level was 72 dBA  $L_{dn}$ . The noise measurement data are shown in Figure 6 of Appendix B. Maximum noise levels from single railroad train events ranged from about 85 dBA to 110 dBA at the monitoring location.
- ◆ *Location LT-7 – Grant Line Road near “E” Street.* Location LT-7 was approximately 50 feet from the centerline of Grant Line Road east of “E” Street across from a kitchen and bath cabinet store and the Port Oasis Trailer Park. The measured noise level was 75 dBA  $L_{eq}$ . Grant Line Road traffic dominated the noise environment. The noise measurement data are shown in Figure 7 of Appendix B. Hourly average noise levels range from about 70 to 75 dBA  $L_{dn}$  during the daytime down to about 60 dBA  $L_{eq}$  in the middle of the night. Background noise levels range from

about 55-60 dBA during the daytime down to about 45 dBA in the middle of the night.

- ◆ *Location LT-8 – Tracy Boulevard at Dr. Powers Park.* Measurement Location LT-8 was approximately 80 feet from the centerline of Tracy Boulevard at Dr. Powers Park and was selected to characterize noise levels along Tracy Boulevard. The measured noise level was 70 dBA  $L_{dn}$ . Hourly average noise levels typically ranged from about 65 to 70 dBA Leq during the daytime and drop to about 55 dBA Leq in the middle of the night. Background noise levels were typically 50 to 60 dBA during the daytime dropping to as low as 35 to 40 dBA in the middle of the night. The noise measurement data are shown in Figure 8 of Appendix B.
- ◆ *Location LT-9 – Corral Hollow Road.* Noise measurements at Location LT-9 was approximately 190 feet from the centerline of Corral Hollow Road and was selected to characterize the noise exposure along Corral Hollow Road. The measured noise level was 69 dBA  $L_{dn}$ . Hourly average noise levels ranged from about 65 to 70 dBA Leq during the daytime and drop to about 50 to 55 dBA Leq at night. Background noise levels were typically 50 to 60 dBA during the daytime dropped to about 40 dBA in the middle of the night. The noise measurement data are shown in Figure 9 of Appendix B.
- ◆ *Location LT-10 – West Larch Road East of Naglee Road.* Noise measurements approximately 16 feet from the West Larch Road centerline east of Naglee Road were made to characterize the noise environment out in the potentially developing area of Tracy. The noise measurement location was immediately adjacent to the roadway edge where high speed local traffic substantially elevated the noise level. The measured noise level was 69 dBA  $L_{dn}$ . Vehicular traffic very close to the microphone resulted in the relatively high  $L_{dn}$  adjacent to a relatively low volume roadway. Background noise levels were typically 50 to 55 dBA during the daytime and 40 to 45 dBA at night. The noise measurement data are shown in Figure 10 of Appendix B.

- ◆ *Location LT-11 – I-205 at 11240 Clover Road.* This location was selected to characterize existing noise levels along I-205 where no noise mitigation currently exists. The measured noise level was 82 dBA  $L_{dn}$ . This is a severe noise environment demonstrating the extent of freeway traffic noise in the I-205 corridor. The noise measurement data are shown in Figure 11 of Appendix B. The data show a tight range of noise levels from the minimum sound level to the maximum sound level which is typical of freeway traffic noise. Hourly average noise levels do not vary much day or night due to heavy truck traffic at night and heavy total traffic during the daytime. The range in hourly average noise levels is between 80 dBA during the daytime and 74 dBA at night. Minimum noise levels are typically in the range of 70 to 75 dBA, although noise levels do drop to between 55 and 65 dBA during the middle of the night.
- ◆ *Location LT-12 – I-205 Noise Behind Existing Sound Wall at 245 Hawthorne Drive.* Noise levels were monitored at this location to determine the noise level behind an existing sound wall along I-205. The measured noise level was 72 dBA  $L_{dn}$ . The range of noise levels was again narrow with typical hourly average noise levels during the daytime in the range of 65-70 dBA  $L_{eq}$  and with noise levels dropping to about 62 dBA  $L_{eq}$  in the middle of the night. Background noise levels similarly were between 60 and 65 dBA during the daytime dropping to a low of between 50 and 55 dBA in the middle of the night. The noise measurement data are shown in Figure 12 of Appendix B.

b. Short-Term Spot Measurements

Short-term spot measurements were made at ten locations throughout Tracy in June of 2003 to characterize typical daytime noise levels and to collect traffic and noise data to be used subsequently in the computation of traffic noise contours for the General Plan. The noise measurement locations are shown in Figure 4.14-2. The data in Table 4.14-3 also shows the estimated  $L_{dn}$  for the short-term spot measurements based on correlations with long-term measurements nearby. It can be seen that average noise levels ( $L_{eq}$ ) range from about 51 dBA in a quiet rear yard up to 63 dBA along McArthur Road. Vehicular traffic on the street network was the dominant noise source during

measurements. There were contributions from local neighborhood noise, a tractor at a rural location (ST-3), and a train was heard at Location ST-4 along McArthur Road near Eleventh Street which generated a maximum level of 68 dBA. General aviation aircraft at Location ST-5 generated a maximum level of 55 dBA but automobiles and motorcycles were typically 10 dBA louder. At the Schulte Road location (ST-8) distant traffic, a distant aircraft, wind in the vegetation, and crows were all audible contributing to a quiet rural noise environment in the backyard of this home.

## **6. Vibration**

Railroads in Tracy are a source of ground-borne vibration. Although vibration levels were not measured as part of the General Plan process, measured data and previous experience with vibration generated by railroad trains shows that ground-borne vibration levels are typically greater than the FTA criteria for infrequent events (80 VdB) at a distance of about 100 feet or less from the centerline of the railroad tracks.

### ***B. Standards of Significance***

The City of Tracy's General Plan would create a significant noise impact if it would:

- ◆ Cause the  $L_{dn}$  at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level;
- ◆ Cause the  $L_{dn}$  at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable";
- ◆ Cause new noise levels to exceed the City of Tracy Noise Ordinance limits.
- ◆ Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels, as identified by the FTA guidelines.
- ◆ Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

- ◆ Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, including the following:
  - Construction activities that cause noise levels to exceed an hourly average of 60 dBA Leq and exceed existing ambient noise levels by 5 dBA or more at a sensitive receiver, and last more than one construction season, would be considered to cause a substantial temporary or periodic increase in ambient noise.
  - Noise-sensitive uses proposed within the airport's 60 CNEL noise contour or exposed to excessive maximum noise levels from aircraft overflights would cause a significant noise impact.
- ◆ Expose people residing or working in the project area to excessive aircraft noise levels.

### *C. Impact Discussion*

The following discussion provides an overview of changes in the noise environment and community noise exposure that could result from implementation of the General Plan.

#### **1. Traffic Noise Increases**

Vehicular traffic on existing roadways in Tracy would increase as development proceeds and the city's population increases. Traffic noise levels throughout Tracy were modeled to determine how changes in vehicular traffic volumes would affect traffic noise levels. Under the proposed General Plan, noise levels would increase substantially (3 dBA  $L_{dn}$  or greater) along major roadways throughout Tracy, including portions of I-205, I-580, Grant Line Road, Schulte Road, Valpico Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive with the implementation of the General Plan. Other than Valpico Road and I-580, all significant increases would occur adjacent to existing noise sensitive areas.



Traffic on new roadways planned in the General Plan would also create noise increases of 3dB L<sub>dn</sub> or greater. These planned roadways include connections from I-205 to Byron, Lammers, and Grant Line Roads; a major arterial connecting Chrisman Road to I-205 and Arbor Avenue to the north; and several minor arterial and collector roadways at the east end of Tracy. Many of these roadways would be located adjacent to existing or new residential areas. New arterial roadways and interchanges are proposed to serve new development. New roadways would substantially increase the noise environment at receivers in the vicinity.

Policies in the proposed General Plan would ensure that the citizens of Tracy are protected from excessive noise levels. Figure 9-2 in the proposed General Plan outlines guidelines regarding land use compatibility for community noise environments. This information, in addition to the City's Noise Ordinance, shall be used to help determine whether impact from new projects will occur in the city as a result of the General Plan. The policies in Objective N-1.2 attempt to control excessive sources of noise in the city, including noise from roadways. Policy 1 directs the City to reduce traffic noise levels in existing residential areas through enforcement and structural improvements, to the extent that it is feasible. Policy 3 presents "quiet pavement" as a potential noise reduction strategy that could be utilized to reduce noise level increases resulting from General Plan development. Additionally, Objective N-1.3, Policies 1, 2, 3, and 5 ensure that noise impacts from new projects will be evaluated during the design review process and mitigated as a condition of project approval.

Although these proposed policies provide significance thresholds to be used in the evaluation of project impacts and criteria to ensure that new projects are evaluated properly, it is not likely that all traffic noise impacts resulting from the proposed General Plan will be adequately mitigated. Given the anticipated growth of the community and expected traffic noise level increases resulting from the project, the impact would be significant and unavoidable.

## 2. Noise Exposure in New Development

Under the proposed General Plan, new noise sensitive development is proposed throughout the city, and in some cases, in noisy areas. Distances to existing and future traffic noise contours along major Tracy roadways are shown in Table 4.14-6. This table, along with guidelines for land use compatibility relative to associated noise environments in the proposed General Plan Noise Element, Land Use Compatibility for Community Noise Environment, should be used as a guide by the City to determine where noise studies are needed. New residential land uses proposed within the 60 dBA  $L_{dn}$  traffic noise contour would be exposed to noise levels exceeding those considered compatible with the proposed use. New noise-sensitive development proposed in the vicinity of railroads may also be exposed to noise levels incompatible with the proposed use.

The policies proposed to achieve Objective N-1.1 define appropriate exterior and interior noise levels for new land uses and require that measures be incorporated into all new development to attenuate exterior and/or interior noise levels to those considered normally acceptable for the land use. Specifically, Policy 3 states that all new single family residential development shall maintain a noise standard of 60  $L_{dn}$  for exterior noise in private use areas and Policy 6 states that all multi-family residential developments shall maintain a standard of 65  $L_{dn}$  for community outdoor recreation areas. Policy 5 states that all new residential projects shall maintain an interior standard of 45  $L_{dn}$ .

In areas where the existing noise level is above 60  $L_{dn}$ , the proposed General Plan states that new residential projects shall be analyzed according to protocols in the California Building Code (Objective N-1.1, Policy 8). Further, Objective N-1.1, Policy 9 states that measures to attenuate exterior and/or interior noise levels to acceptable levels shall be incorporated into all developments. Further, the City shall not allow new noise sensitive land uses in areas where measures cannot be implemented to reduce noise levels to normally acceptable levels (Objective N-1.1, Policy 1).

TABLE 4.14-6 **GENERAL PLAN TRAFFIC NOISE CONTOURS**

Roadway	Segment	Distance to Centerline (Feet)	Future L <sub>dn</sub> (dBA)	Noise Contour Distance from Roadway Centerline (Feet)		
				70 L <sub>dn</sub>	65 L <sub>dn</sub>	60 L <sub>dn</sub>
I-205	West of Eleventh Street	150	85	1,610	3,470	7,490
	Between Eleventh Street and Corral Hollow	150	85	1,580	3,400	7,340
	Between Corral Hollow and MacArthur Drive	150	86	1,720	3,700	7,980
	East of MacArthur Drive	150	86	1,670	3,590	7,750
I-580	North of Corral Hollow	150	80	680	1,470	3,160
	South of Corral Hollow	150	81	800	1,730	3,720
Grant Line Road	West of Corral Hollow	75	78	270	580	1260
	East of Corral Hollow	75	78	240	520	1120
	East of Tracy Boulevard	75	74	140	300	650
	East of Chrisman Road	75	74	140	310	670
Eleventh Street	East of Lammers Road	75	75	160	350	750
	East of Corral Hollow	75	74	140	300	650
	East of MacArthur Drive	75	74	130	280	610
Schulte Road	West of Corral Hollow	75	72	100	210	450
	East of Corral Hollow	75	71	90	190	410
	East of Tracy Boulevard	75	70	80	170	360
	East of MacArthur Drive	75	66	--	90	200
Valpico Road	East of Tracy Boulevard	75	71	90	190	420
	East of MacArthur Drive	75	64	--	10	30
Linne Road	West of Corral Hollow	75	69	70	140	310
	East of Tracy Boulevard	75	71	90	190	400
Lammers Road	South of Grant Line Road	75	73	--	240	520

TABLE 4.14-6 GENERAL PLAN TRAFFIC NOISE CONTOURS (CONTINUED)

Roadway	Segment	Distance to Centerline (Feet)	Future L <sub>dn</sub> (dBA)	Noise Contour Distance from Roadway Centerline (Feet)		
				70 L <sub>dn</sub>	65 L <sub>dn</sub>	60 L <sub>dn</sub>
	South of Eleventh Street	75	71	90	190	400
	North of Valpico Road	75	73	120	250	540
Corral Hollow Road	South of Grant Line Road	75	76	200	420	910
	South of Eleventh Street	75	76	180	390	840
	South of Schulte Road	75	72	100	210	460
	North of Valpico Road	75	71	80	180	390
	North of Grant Line Road	75	70	80	170	360
Tracy Boulevard	South of Grant Line Road	75	71	80	180	390
	North of Eleventh Street	75	69	70	150	310
	South of Eleventh Street	75	71	90	200	430
	North of Schulte Road	75	70	80	170	360
	South of Schulte Road	75	71	80	180	390
	South of Valpico Road	75	68	60	130	270
	South of I-205	75	71	80	180	380
MacArthur Drive	South of Grant Line Road	75	72	100	220	470
	South of Eleventh Street	75	68	60	130	270
	North of Valpico Road	75	68	50	120	250
	South of Valpico Road	75	73	110	240	520
	South of Eleventh Street	75	72	110	230	510
Chrisman Road	South of Schulte Road	75	72	110	230	510

Finally, policies under Objective N-1.3 would reduce the impacts of introducing noise sensitive uses in noisy areas by considering noise issues in the development review process and requiring that significant noise impacts be mitigated. Specifically, Policy 6 states that the City will seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100-feet from the centerline of the railroad tracks whenever feasible. These policies would adequately reduce noise impacts to a less-than-significant level.

### **3. Incompatible Land Uses**

New manufacturing, commercial, office, or other noise-generating uses to be developed under the General Plan could substantially increase noise levels at existing noise-sensitive land uses or could expose receivers to noise levels that exceed the City's Noise Ordinance. Typical noise conflicts would be caused by noise sources such as outdoor dining areas or bars, mechanical equipment, outdoor maintenance areas, truck loading docks, and parking lots. Development under the proposed General Plan would introduce new noise-generating sources adjacent to existing noise-sensitive areas and new noise-sensitive uses adjacent to existing noise-generating sources.

However, new projects developed under the proposed General Plan would be subject to the City's Noise Ordinance, ensuring that existing residences and noise-sensitive land uses would not be exposed to excessive noise. In addition, the Land Use Compatibility for Community Noise Environment guidelines presented in Figure 9-2 of the proposed General Plan would be used by the City to evaluate noise-sensitive land use proposals in the vicinity of known noise sources.

Additionally, the policies proposed to achieve Objective N-1.1 and Objective N-1.3 would reduce the impacts of the encroachment of noise sensitive uses adjacent to noise-producing land uses. The proposed General Plan includes policies that would reduce the impacts of new noise generating uses on existing noise sensitive uses by requiring that such development projects be evaluated for potential noise impacts and conflicts as part of the development re-

view process and mitigated to minimize noise impacts (Objective N-1.2, Policy 2; Objective N-1.3, Policies 1 through 6). Objective N-1.3, Policy 5 provides suggestions for the design of projects utilizing site design techniques to minimize noise impacts. The proposed policies discussed above would adequately reduce these impacts to a less-than-significant level.

#### **4. Groundborne Vibration**

Development under the proposed General Plan would not introduce new sources of groundborne vibration. In addition, Objective N-1.3, Policy 6 states that the City will seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100-feet from the centerline of the railroad tracks whenever feasible. Thus, no significant impact would occur.

#### **5. Airport Noise**

The Tracy Municipal Airport, located in the southern portion of the city between Tracy Boulevard and Corral Hollow Road, is a source of community noise in its vicinity. New noise sensitive uses are not planned in areas within the San Joaquin County 2020 General Plan 60 or 65 dB CNEL noise contours for the Tracy Airport (shown in Figure 4.14-1). Thus, no significant impact would occur.

#### **6. Construction Noise**

Residences and businesses located adjacent to proposed development would be affected by construction noise during buildout of the General Plan. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction durations last over extended periods of time. Major noise generating construction activities could include demolition activities, site grading and excavation, building erection, paving and landscaping. These activities could occur in areas immediately adjacent to existing noise-sensitive receptors.

The highest construction noise levels would be generated during grading and excavation, with lower noise levels occurring during building construction. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 85 to 90 dBA at a distance of 50 feet. Typical hourly average construction-generated noise levels are about 80 to 85 dBA measured at a distance of 50 feet from the site during busy construction periods. In addition, pile driving may occur at some of the proposed development sites. This type of construction activity can produce very high noise levels of approximately 105 dBA at 50 feet. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. Intervening structures or terrain would result in lower noise levels. Noise levels anticipated over temporary periods of time as a result of construction facilitated by the proposed General Plan would generate potentially significant noise impacts.

Objective N-1.2, Policy 4 limits construction in the vicinity of noise sensitive land uses to daylight hours or 7:00 am to 7:00 pm and requires that certain construction noise control measures be implemented at construction sites. These construction noise control measures include the requirements to equip all internal combustion engine-driven equipment with intake and exhaust mufflers, to locate stationary noise-generating equipment as far as possible from sensitive receptors, and to utilize quiet air compressors and other stationary noise sources. This policy is not sufficient to mitigate construction noise impacts, so a significant impact would occur. However, implementation of mitigation measures would reduce this impact to a less-than-significant level.

#### *D. Impacts and Mitigation Measures*

While policies and other regulations would reduce noise impacts to the extent feasible, significant and unavoidable impacts would occur in regards to temporary, short-term and long-term noise impacts under the proposed General Plan.

**Impact NOI-1:** The City's Noise Ordinance and policies in the proposed General Plan serve to control excessive sources of noise in the city and ensure that noise impacts from new projects are evaluated when they are reviewed. Despite these policies and regulations, significant noise levels increases (3 dBA  $L_{dn}$  or greater) associated with increased traffic would occur adjacent to existing noise sensitive uses along portions of I-205, Grant Line Road, Schulte Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive. New roadways facilitated by the General Plan would also increase existing noise levels at receivers in Tracy. This is a *significant and unavoidable* impact. No additional mitigation is available.

**Impact NOI-2:** Construction associated with development projected during the planning horizon of the proposed General Plan would temporarily elevate noise levels at adjacent land uses by 15 to 20 dBA or more.

Mitigation Measure NOI-2: In addition to the time-of-day restriction and construction noise control measures in Objective N-1.2, Policy 4, the following standard construction noise control measures should be included as requirements at construction sites to minimize construction noise impacts:

- ◆ When necessary, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. Such noise control blanket barriers can be rented and quickly erected.
- ◆ Foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. The pre-drilling of foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile.
- ◆ All construction projects shall comply with the Article 9 of the City of Tracy Municipal Code, the City's Noise Control Ordinance.

Significance After Mitigation: *Less than significant.*



## 4.15 AIR QUALITY

This section discusses the geography and meteorology, regulatory framework for air quality and existing air conditions in the City of Tracy and the San Joaquin region. This section also describes impacts to air quality in Tracy and the region relating to construction, direct and indirect emissions associated with the proposed General Plan, and mitigation measures warranted to reduce or eliminate any identified significant impacts, based on the assessment guidelines of the San Joaquin Valley Air Pollution Control District (SJVAPCD).

For the majority of the analyses contained in this EIR, the General Plan horizon year of 2025 was used. However, the transportation and air quality analyses, which rely on modeled traffic data, extend to the year 2030. This is because the San Joaquin Council of Governments has recently updated the regional travel demand model to 2030. This air quality analysis is therefore consistent with the regional model. Furthermore, this approach is conservative by extending the analysis beyond the General Plan horizon year. As explained in Chapter 3, it is generally held that modeling traffic and associated air quality impacts beyond a 20-year time period is increasingly inaccurate and not considered to be reliable, so this analysis is limited to consistency with the existing San Joaquin Council of Governments (SJCOG) traffic models.

### *A. Existing Setting*

The following section describes the existing regulatory and physical environment with regard to air quality in Tracy and the San Joaquin region.

#### **1. Regulatory Framework**

##### **a. Federal and State Clean Air Acts**

The federal and California Clean Air Acts have established ambient air quality standards for different pollutants. National ambient air quality standards (NAAQS) were established by the federal Clean Air Act of 1970 (amended in 1977 and 1990) for six "criteria" pollutants. These criteria pollutants now include carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), particu-

late matter with a diameter less than 10 microns (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). In 1997, the United States Environmental Protection Agency (US EPA) added fine particulate matter or PM<sub>2.5</sub> as a criteria pollutant. The air pollutants for which standards have been established are considered the most prevalent air pollutants that are known to be hazardous to human health. California ambient air quality standards (CAAQS) include the NAAQS pollutants, as well as hydrogen sulfide, sulfates, vinyl chloride, and visibility-reducing particles. These additional CAAQS pollutants tend to have unique sources and are not typically examined in environmental air quality assessments. In addition, lead concentrations have decreased dramatically since it was removed from motor vehicle fuels.

*i. Federal Clean Air Act*

At the federal level, the US EPA administers and enforces air quality regulations. Federal air quality regulations were developed primarily from implementation of the federal Clean Air Act (CAA) (1977, last amended in 1990, 42 United States Code [USC] 7401 *et seq.*). If an area does not meet NAAQS over a set period of three years, the US EPA designates it as a "nonattainment" area for that particular pollutant. The US EPA requires states that have areas that do not comply with the national standards to prepare and submit air quality plans showing how the standards would be met. If the states cannot show how the standards would be met, then they must show progress toward meeting the standards. These plans are referred to as the State Implementation Plan. Under severe cases, the US EPA may impose a federal plan to make progress in meeting the federal standards.

The US EPA also has programs for identifying and regulating hazardous air pollutants. The CAA requires the US EPA to set standards for these pollutants and sharply reduce emissions of controlled chemicals. Industries were classified as major sources if they emitted certain amounts of hazardous air pollutants. The US EPA also sets standards to control emissions of hazardous air pollutants through mobile source control programs. These include programs regarding reformulated gasoline, national low emissions vehicle stan-

dards, Tier 2 motor vehicle emission standards, gasoline sulfur control requirements, and heavy-duty engine standards.

The San Joaquin Valley Air Basin is subject to major air quality planning programs required by the CAA to address ozone, particulate matter air pollution, and carbon monoxide. The CAA requires that regional planning and air pollution control agencies prepare a regional Air Quality Plan to outline the measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve all standards within the deadlines specified in the CAA. These plans are submitted to the State, which after approval, submits them to the US EPA as the State Implementation Plan.

*ii. California Clean Air Act*

The California Clean Air Act of 1988, amended in 1992, outlines a program for areas in the state to attain the CAAQS by the earliest practical date. The California Air Resources Board (CARB) is the State air pollution control agency and is a part of the California Environmental Protection Agency. As described above, the California Clean Air Act set more stringent air quality standards for all of the pollutants covered under national standards, and additionally regulates levels of vinyl chloride, hydrogen sulfide, sulfates, and visibility-reducing particulates. If an area does not meet CAAQS, CARB designates the area as a nonattainment area. The San Joaquin Valley Air Basin does not meet the CAAQS for ozone, PM<sub>10</sub> and PM<sub>2.5</sub>. The CARB requires regions that do not meet CAAQS for ozone to submit clean air plans that outline measures to attain the standard or show progress toward attainment.

In addition to the US EPA, the CARB further regulates the amount of air pollutants that can be emitted by new motor vehicles sold in California. Motor vehicle emissions standards have always been more stringent than federal standards since they were first imposed in 1961. The CARB has also developed Inspection and Maintenance (I/M) and "Smog Check" programs with the California Bureau of Automotive Repair. In addition, inspection programs for trucks and buses have been implemented. The CARB also sets standards for motor vehicle fuels sold in California.

b. Air Pollutants and Contaminants

Table 4.15-1 summarizes the air quality standards and provides a brief description of the six criteria air pollutants. Pollutants of greatest concern to the Tracy region (i.e.  $O_3$ , CO,  $PM_{10}$ ,  $PM_{2.5}$  and toxic air contaminants) are described in further detail below.

i. *Ozone*

While  $O_3$  serves a beneficial purpose in the upper atmosphere (i.e. stratosphere) by reducing ultraviolet radiation potentially harmful to humans, when it reaches elevated concentrations in the lower atmosphere it can be harmful to the human respiratory system and to sensitive species of plants.  $O_3$  concentrations build to peak levels during periods of light winds, bright sunshine and high temperatures. Short-term  $O_3$  exposure can reduce lung function in children, make persons susceptible to respiratory infection, and produce symptoms that cause people to seek medical treatment for respiratory distress. Long-term exposure can impair lung defense mechanisms and lead to emphysema and chronic bronchitis. Sensitivity to  $O_3$  varies among individuals, but about 20 percent of the population is sensitive to  $O_3$ , with exercising children being particularly vulnerable.  $O_3$  is formed in the atmosphere by a complex series of photochemical reactions that involve “ozone precursors” that are two families of pollutants: oxides of nitrogen ( $NO_x$ ) and reactive organic gases (ROG).  $NO_x$  and ROG are emitted from a variety of stationary and mobile sources. While  $NO_2$ , an oxide of nitrogen, is another criteria pollutant itself, ROGs are not in that category, but are included in this discussion as  $O_3$  precursors.

ii. *Carbon Monoxide (CO)*

CO is a non-reactive pollutant that is highly toxic, invisible and odorless. It is formed by the incomplete combustion of fuels. The largest source of CO emissions is motor vehicles. Wood stoves and fireplaces also contribute to high levels of CO. Unlike  $O_3$ , CO is directly emitted into the atmosphere. The highest CO concentrations occur during the nighttime and early mornings in late fall and winter. Ambient CO levels are strongly influenced by meteorological factors such as wind speed and atmospheric stability.

TABLE 4.15-1 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard	Federal		Pollutant Health and Atmospheric Effects	Major Pollutant Sources
			California Standard	Primary Standard		
Ozone (O <sub>3</sub> )	1 hour	0.09 ppm*	--	--	Irritation and possibly permanent lung damage.	Motor vehicles, including refining and gasoline delivery.
	8 hours	0.070 ppm	0.075 ppm	0.075 ppm		
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	35 ppm	Deprives body of oxygen in the blood. Causes headaches and worsens respiratory problems.	Primarily gasoline-powered internal combustion engines and wood smoke.
	8 hours	9.0 ppm	9 ppm	9 ppm		
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Average	0.030 ppm	0.053 ppm	0.053 ppm	Irritating to eyes and respiratory tract. Causes atmosphere reddish-brown.	Motor vehicles, petroleum-refining, power plants, aircraft, ships, and railroads.
	1 hour	0.18 ppm	--	--		
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Average	--	0.03 ppm	0.03 ppm	Irritates and may permanently injure respiratory tract and lungs. Can damage plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Refineries, fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	--	--		
	24 hours	0.04 ppm	0.14 ppm	0.14 ppm		
	24 hours	50 ug/m <sup>3</sup> (PM <sub>10</sub> )	150 ug/m <sup>3</sup> (PM <sub>10</sub> )	150 ug/m <sup>3</sup> (PM <sub>10</sub> )		
Respirable Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	20 ug/m <sup>3</sup> (PM <sub>10</sub> )	--	--	May irritate eyes and respiratory tract; decrease lung capacity, cause cancer and increased mortality. Produces haze and limits visibility.	Motor vehicle travel, construction, industrial and agricultural operations, combustion, wood smoke, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and forest fires).
	24 hour	--	35 ug/m <sup>3</sup> (PM <sub>2.5</sub> )	35 ug/m <sup>3</sup> (PM <sub>2.5</sub> )		
	Annual Arithmetic Mean	12 ug/m <sup>3</sup> (PM <sub>2.5</sub> )	15 ug/m <sup>3</sup> (PM <sub>2.5</sub> )	15 ug/m <sup>3</sup> (PM <sub>2.5</sub> )		
Fine Particulate Matter (PM <sub>2.5</sub> )	24 hour	--	35 ug/m <sup>3</sup> (PM <sub>2.5</sub> )	35 ug/m <sup>3</sup> (PM <sub>2.5</sub> )		
Lead	30 Day Average	1.5 ug/m <sup>3</sup>			Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases).	Present source include: lead smelters, battery manufacturing & recycling facilities. Past sources included combustion of leaded gasoline.
	Calendar Quarter	--	1.5 ug/m <sup>3</sup>	1.5 ug/m <sup>3</sup>		

\* Note ppm = part per million; ug/m<sup>3</sup> = micrograms per cubic meter  
Source California Air Resources Board, May 6, 2005

*iii. Inhalable Particulates*

Respirable particulate matter, PM<sub>10</sub>, and fine particulate matter, PM<sub>2.5</sub>, consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. PM<sub>10</sub> and PM<sub>2.5</sub> represent fractions of particulate matter that can be inhaled and cause adverse health effects. PM<sub>10</sub> and PM<sub>2.5</sub> are a health concern, particularly at levels above the federal and State ambient air quality standards. PM<sub>2.5</sub> (including diesel exhaust particles) is thought to have greater effects on health because minute particles are able to penetrate to the deepest parts of the lungs. Scientific studies have suggested links between fine particulate matter and numerous health problems, including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing. Children are more susceptible to the health risks of PM<sub>2.5</sub> because their immune and respiratory systems are still developing. Very small particles of certain substances (e.g. sulfates and nitrates) can also directly cause lung damage or can contain absorbed gases (e.g. chlorides or ammonium) that may be injurious to health.

Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as mining and demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. In addition to health effects, particulates also can damage materials and reduce visibility. Dust comprised of large particles (diameter greater than 10 microns) settles out rapidly and is more easily filtered by human breathing passages. This type of dust is considered more of a soiling nuisance rather than a health hazard.

In 1983, the CARB replaced the standard for “suspended particulate matter” with a standard for suspended PM<sub>10</sub> or “respirable particulate matter.” This standard was set at 50 µg/m<sup>3</sup> for a 24-hour average and 30 µg/m<sup>3</sup> for an annual average. The CARB revised the annual PM<sub>10</sub> standard in 2002, pursuant to the Children's Environmental Health Protection Act. The revised PM<sub>10</sub> standard is 20 µg/m<sup>3</sup> for an annual average. PM<sub>2.5</sub> standards were first prom-

ulgated by the US EPA in 1997 and were recently revised in late 2006 to lower the 24-hour PM<sub>2.5</sub> standard to 35 µg/m<sup>3</sup> for 24-hour exposures. That same action by the US EPA revoked the annual PM<sub>10</sub> standard due to the lack of scientific evidence correlating long-term exposures of ambient PM<sub>10</sub> with health effects. The CARB has only adopted an annual average PM<sub>2.5</sub> standard, which is set at 12 µg/m<sup>3</sup>. This is more stringent than the NAAQS of 15 µg/m<sup>3</sup>.

*iv. Toxic Air Contaminants (TAC)*

Besides the "criteria" air pollutants, there is another group of substances found in ambient air referred to as Hazardous Air Pollutants (HAPs) under the federal Clean Air Act and Toxic Air Contaminants (TACs) under the California Clean Air Act. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for long periods. They are regulated at the local, State, and federal level.

HAPs are the air contaminants identified by the US EPA as known or suspected to cause cancer, serious illness, birth defects or death. Many of these contaminants originate from human activities, such as fuel combustion and solvent use. Mobile source air toxics (MSATs) are a subset of the 188 HAPs. Of the 21 HAPs identified by the US EPA as MSATs, a priority list of six HAPs were identified, including: diesel exhaust, benzene, formaldehyde, acetaldehyde, acrolein and 1,3-butadiene. While vehicle miles traveled in the United States is expected to increase by 64 percent over the period between 2000 and 2020, emissions of MSATs are anticipated to decrease substantially as a result of efforts to control mobile source emissions; this decrease is expected to be 57 percent to 67 percent, depending on the contaminant.<sup>1</sup>

California developed a program under the Tanner Toxics Act (Assembly Bill [AB] 1807) to identify, characterize and control toxic air contaminants (TACs). Subsequently, AB 2728 incorporated all 188 HAPs into the AB 1807

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<sup>1</sup> Federal Highway Administration, 2006. Interim Guidance on Air Toxic Analysis in NEPA Documents.

process. TACs include all HAPs plus other contaminants identified by the CARB. These are a broad class of compounds known to cause morbidity or mortality (cancer risk). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion and commercial operations (e.g. dry cleaners). TACs are typically found in low concentrations, even near their source (e.g. diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Particulate matter from diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs, based on the statewide average. According to the CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the ARB, and are listed as carcinogens either under State Proposition 65 or under the federal Hazardous Air Pollutants programs.

The CARB reports that recent air pollution studies have shown an association that diesel exhaust and other cancer-causing toxic air contaminants emitted from vehicles are responsible for much of the overall cancer risk from TACs in California. Particulate matter emitted from diesel-fueled engines (diesel particulate matter [DPM]) was found to comprise much of that risk. In August 1998, the CARB formally identified DPM as a TAC. DPM is of particular concern since it can be distributed over large regions, thus leading to widespread public exposure. The particles emitted by diesel engines are coated with chemicals, many of which have been identified by EPA as HAPs, and by CARB as TACs. Diesel engines emit particulate matter at a rate about 20 times greater than comparable gasoline engines. The vast majority of diesel exhaust particles (over 90 percent) consist of PM<sub>2.5</sub>, which are the particles that can be inhaled deep into the lung. Like other particles of this size, a portion will eventually become trapped within the lung, possibly leading to adverse health effects. While the gaseous portion of diesel exhaust also contains



TACs, the CARB's 1998 action was specific to DPM, which accounts for much of the cancer-causing potential from diesel exhaust. California has adopted a comprehensive diesel risk reduction program to reduce DPM emissions 85 percent by 2020. The US EPA and the CARB adopted low sulfur diesel fuel standards in 2006 that reduce diesel particulate matter substantially.

Smoke from residential wood combustion can be a source of TACs. Wood smoke is typically emitted during wintertime when dispersion conditions are poor. Localized high TAC concentrations can result when cold stagnant air traps smoke near the ground and, with no wind, the pollution can persist for many hours, especially in sheltered valleys during winter. Wood smoke also contains a significant amount of PM<sub>10</sub> and PM<sub>2.5</sub>. Wood smoke is an irritant and is implicated in worsening asthma and other chronic lung problems.

In 2005, the CARB published a handbook on air quality and land use issues that includes advisory recommendations for siting sensitive land uses (e.g. residences and schools) near specific sources of air pollution.<sup>2</sup> The primary air pollution sources addressed that are located in Tracy are freeways, urban roads with over 100,000 vehicles per day, rural roads with over 50,000 vehicles per day, distribution centers, dry cleaners and large gasoline stations. The advisory recommendations include not siting new residences nor other sensitive land uses within 500 feet of freeways or arterials, 1,000 feet of distribution centers that accommodate a substantial level of truck traffic, 300 feet of dry cleaners, and 50 feet of gas stations.<sup>3</sup> The recommendations are based on cursory evaluations of similar types of land use conflict scenarios, and therefore are not intended to be standards that are strictly adhered to in every situation. According to the handbook, several factors would affect the level of significance from these types of sources, including truck volumes and activity, topography, meteorology, type of sensitive land use and proposed setback. The CARB therefore recommends a site-specific analysis to determine

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<sup>2</sup> California Air Resources Board, 2005. "Air Quality and Land Use Handbook: A Community Health Perspective," April 2005, page 4.

<sup>3</sup> California Air Resources Board, 2005. "Air Quality and Land Use Handbook: A Community Health Perspective," April 2005, page 4.

actual risk near a particular facility. The CARB handbook states that the advisory recommendations should be used to guide analysis of impacts to new sensitive receptors that are proposed within these recommended setbacks; however, land use agencies also have to balance this with other considerations, including housing and transportation needs, economic development priorities and other quality of life issues.

c. San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and the San Joaquin Valley portion of Kern. The primary role of the SJVAPCD is to develop plans and implement control measures in the San Joaquin Valley to control air pollution. These controls primarily affect stationary sources, such as industry and power plants. Rules and regulations have been developed by the SJVAPCD to control air pollution from a wide range of air pollution sources. Recently, an indirect source review rule that controls air pollution from new land developments was adopted. The SJVAPCD also conducts public education and outreach efforts such as the Spare the Air, Wood Burning, and Smoking Vehicle voluntary programs. The CARB and US EPA have jurisdiction over controlling emissions from mobile sources.

The SJVAPCD must continuously monitor its progress for plan implementation. The SJVAPCD must report this effort regularly to the CARB and the US EPA. It must also periodically revise its attainment plans to reflect new conditions and requirements. The SJVAPCD tries to exercise a uniform emission control effort that will bring the entire region into compliance with State and federal standards as quickly as possible.

d. SJVAPCD Rules and Regulations

The SJVAPCD has adopted rules and regulations that apply to land use projects, such as the proposed project. These are described below.

*i. SJVAPCD Indirect Source Review Rule*

On December 15, 2005, the SJVAPCD adopted the Indirect Source Review Rule (ISR or Rule 9510) to reduce ozone precursors (i.e. ROG and NO<sub>x</sub>) and PM<sub>10</sub> emissions from new land use development projects. The ISR rule is the result of State requirements outlined in the region's portion of the State Implementation Plan (SIP). The SJVAPCD's SIP commitments are contained in the 2004 Extreme Ozone Attainment Demonstration Plan and the 2003 PM<sub>10</sub> Plan. These plans identified the need to reduce PM<sub>10</sub> and NO<sub>x</sub> substantially in order to attain and maintain the ambient air-pollution standards on schedule. New projects that would generate substantial air pollutant emissions, for which final discretionary approval was granted after March 1, 2006, are subject to the ISR rule. The ISR rule requires projects to mitigate both construction and operational period emissions by applying the SJVAPCD-approved mitigation measures and paying fees to support programs that reduce emissions. Fees apply to the unmitigated portion of the emissions and are based on estimated costs to reduce the emissions from other sources, plus expected costs to cover administration of the program.

In the 2008 annual report for the ISR rule, the SJVAPCD reported that, to date, over \$10 million had been received in off-site mitigation fees.<sup>4</sup> Over \$3 million had been used to reduce NO<sub>x</sub> and PM<sub>10</sub> emissions, leaving an unexpended balance of over \$7 million. The ISR rule is estimated to have reduced NO<sub>x</sub> by 2,078 tons and PM<sub>10</sub> by 1,087 tons. So far, off-site mitigation has resulted in the reduction of over 252 tons of NO<sub>x</sub> and 9 tons of PM<sub>10</sub> per year. The average cost effectiveness was just under \$12,000 per ton.

*ii. Regulation VIII – Fugitive PM<sub>10</sub>*

The SJVAPCD controls fugitive PM<sub>10</sub> through Regulation VIII (Fugitive PM<sub>10</sub> Prohibitions). The purpose of this regulation is to reduce ambient concentrations of PM<sub>10</sub> by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. This applies to activities such as con-

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<sup>4</sup> 2008 Annual Report on the District's Indirect Source Review Rule, Reporting Period March 1, 2007 to February 29, 2008. San Joaquin Valley Air Pollution Control District.

struction, bulk materials, open areas, paved and unpaved roads, material transport, and agricultural areas. Sources regulated are required to provide dust control plans that meet the regulation requirements. Fees are collected by the SJVAPCD to cover costs for reviewing plans and conducting field inspections.

e. SJVAPCD and CEQA Planning

In terms of program evaluation, the SJVAPCD recommends that communities use the DTIM transportation model to estimate ozone precursor emissions. The SJVAPCD recommends that the DTIM runs should be consistent with those used to show Transportation Conformity. Alternatively, the CARB mobile emission inventory model EMFAC2002 can be used in communities that do not have DTIM. Intersections with high congestion should be modeled for CO hotspots using Caline4.

Due to the relationship between land development, transportation and emissions from mobile sources, the SJVAPCD provides guidance to cities and counties on developing General Plans that will help create better air quality in the future. To this end, the SJVAPCD prepared the *Air Quality Guidelines for General Plans* that sets forth 77 goals, policies, and implementation strategies for air quality. The Guidelines emphasize a comprehensive approach to air quality planning, including integrating land use planning in support of alternative transportation, implementing programs that reduce congestion and vehicle use, reviewing project and cumulative air quality impacts under CEQA, reducing exposure to toxic air pollutants, establishing appropriate land use buffers around existing and proposed land uses that would be a source of odors, and reducing emissions from energy consumption and area sources, including water heaters, woodstoves, fireplaces and barbecues.

The SJVAPCD has not yet specifically addressed the CARB's advisory recommendations regarding siting distances between sensitive receptors and certain sources of air pollution, as described above.

f. Air Quality Planning

In coordination with the SJCOG, the SJVAPCD has prepared several plans to address attainment of both the federal and State ozone standards. These plans are based on the latest planning assumptions.

In response to not meeting the NAAQS, the region is required to submit attainment plans to the US EPA through the State, which are referred to as State Implementation Plans (SIP). In 2004, the region submitted the 2004 Extreme Ozone Attainment Demonstration Plan to the US EPA; this plan addressed the old 1-hour ozone NAAQS. The region's 2007 Ozone Plan, addressing the 8-hour ozone NAAQS, was submitted to the US EPA in June 2007, and is currently under review. That plan predicts attainment of the standard throughout 90 percent of the district by 2020 and the entire district by 2024. To accomplish these goals, the plan would reduce NO<sub>x</sub> emissions further by 75 percent and ROG emissions by 25 percent. A wide variety of control measures are included in these plans, such as reducing or offsetting emissions from construction and traffic associated with land use developments. While the US EPA reviews the plan, commitments made in the previously approved ozone attainment plan apply.

On September 25, 2008, the US EPA formerly redesignated the San Joaquin Valley to attainment of the PM<sub>10</sub> NAAQS, and approved the 2007 PM<sub>10</sub> Maintenance Plan. The region now meets the NAAQS for PM<sub>10</sub>. The SJVAPCD adopted the 2008 PM<sub>2.5</sub> plan on April 30, 2008. The plan was approved by the CARB on May 22, 2008, and was submitted to the US EPA for review. This plan will assure that the Valley will attain the 1997 PM<sub>2.5</sub> standard and make progress toward attaining the new 2006 standards, as well as the State standard. The plan uses control measures to reduce NO<sub>x</sub>, which also leads to fine particulate formation in the atmosphere. The plan incorporates measures to reduce direct emissions of PM<sub>2.5</sub>, including a strengthening of the wood-burning rules. Recent and proposed action by the CARB to reduce diesel particulate matter emissions from on- and off-road mobiles sources is contained in the plan. Attainment plans for the 2006 PM<sub>2.5</sub> NAAQS are not required until 2012 at the earliest.

Both the ozone and PM<sub>2.5</sub> plans include all measures (i.e. federal, State and local) that would be implemented through rule making or program funding to reduce air pollutant emissions. Transportation Control Measures (TCMs) are part of these plans. The plans described above addressing ozone also meet the State planning requirements.

g. Greenhouse Gas Regulations

California first addressed climate change in 1988 with the passage of AB 4420, which directed the California Energy Commission to study global warming impacts to the State and develop an inventory of greenhouse gas (GHG) emission sources. California began adopting regulations to reduce GHG emissions following the passage of AB 1493 in 2002, also known as the Pavley Bill. This legislation directed the CARB to adopt regulations that achieve the maximum feasible and cost effective reduction in GHG emissions from motor vehicles.

In 2005, the Governor of California issued Executive Order S-3-05, which included GHG emission reduction targets. To meet these targets, the Governor directed State agencies to develop a Climate Action Plan. A Climate Action Team, led by the Secretary of the California EPA, implemented the global warming emission reduction programs identified in the Climate Action Plan and reports on progress made toward meeting the Governor's GHG emission targets.

In 2006, the Governor of California signed AB 32, the Global Warming Solutions Act, into legislation. This bill requires that California cap its GHG emissions at 1990 levels by 2020; establish a program for Statewide GHG emissions reporting; and establish monitoring and enforcement of that program. AB 32 also requires that CARB adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

To meet these regulatory requirements, the CARB published a list of discrete GHG emissions reduction measures that can be implemented immediately. In addition, the CARB's Early Action Plan identified regulations and meas-

ures that could be implemented in the near future to reduce GHG emissions. A proposed Scoping Plan to reduce GHG emissions was released in October 2008, and the final plan was adopted on December 12, 2008.

The CARB is targeting all sources of GHG emissions. The main measures to reduce GHG emissions are contained in the final AB 32 Scoping Plan. The plan includes a range of GHG reduction actions. Central to the plan is a cap-and-trade program covering 85 percent of the State's emissions. This program will be developed in conjunction with the Western Climate Initiative, comprised of seven states and three Canadian provinces, to create a regional carbon market. The plan also proposes that utilities produce a third of their energy from renewable sources, such as wind, solar and geothermal, and proposes to expand and strengthen existing energy efficiency programs and building and appliance standards. The plan also includes full implementation of the Pavley standards to provide a wide range of less polluting and more efficient cars and trucks to consumers who will save on operating costs through reduced fuel use. It also calls for development and implementation of the Low Carbon Fuel Standard, which will require oil companies to make cleaner domestically produced fuels. Following adoption of the plan, the regulatory process began to implement the plan. This will last two years.

California Senate Bill (SB) 97, which was signed into law in 2007, acknowledges that climate change is an important environmental issue that requires analysis under CEQA. The bill directs the State to prepare, develop, and transmit to State resource agencies guidelines for feasible mitigation of GHG emissions or the effects of GHG emissions. The resource agencies are required to adopt these guidelines by 2010.

Pursuant to SB 97, the Governor's Office of Planning and Research (OPR) is in the process of developing CEQA guidelines addressing GHGs. OPR is required to "prepare, develop, and transmit" the guidelines to the Resources Agency on or before July 1, 2009. In June 2008, OPR issued interim guidance for addressing climate change through CEQA. OPR recommends that each public agency develop an approach to addressing GHG emissions that is based

on best available information. The approach includes three basic steps: (1) identify and quantify emissions; (2) assess the significance of the emissions; and (3) if emissions are significant, identify mitigation measures or alternatives that will reduce the impact to a less-than-significant level.

In April 2009, OPR released a draft of CEQA guidelines, which address the analysis of GHG emissions in environmental documents. These draft guidelines encourage agencies to consider a number of factors in evaluating GHG emissions, including a quantitative assessment to determine whether projected GHG emissions would result in direct or indirect significant impacts on the environment. The draft guidelines also encourage agencies to determine if the project would conflict adopted plans or regulations adopted for the purpose reducing the emissions of greenhouse gasses.

Recently, California enacted SB 375 to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 would develop emissions-reduction goals around which regions can apply to planning activities. SB 375 provides incentives for local governments and developers to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable and sustainable communities and revitalizing existing communities. The legislation also allows developers to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of additional alternative transportation options that would reduce traffic congestion and vehicle trips and miles traveled would be encouraged. SB 375 enhances the CARB's ability to reach the AB 32 goals by directing the agency to develop regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. The CARB would work with the metropolitan planning organizations (e.g. SJCOG) to align their regional transportation, housing and land use plans to reduce vehicle miles travelled and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants and particulate matter.



## 2. Geography and Meteorology

Tracy is located in the northwest part of the San Joaquin Valley. Elevation of this flat floor portion of the Valley is about 150 feet above sea level. The San Joaquin Valley Air Basin is about 35 miles wide and 250 miles long. Surrounded by mountain ranges, the air basin drains to the north with an opening at the Carquinez Strait, which leads into the San Francisco Bay and then the Pacific Ocean.

Wet winters and dry summers characterize the Tracy region's inland Mediterranean-type climate. Climate is temperate, with an average annual high of 75 degrees and an average low of 47 degrees. Summertime high temperatures are around 90 degrees, while wintertime high temperatures are in the 50 to 60 degree range. Rainfall totals can vary widely over a short distance, with windward mountain areas west of Tracy averaging over 24 inches of rain, and shadow areas, such as the city proper, averaging about 10 inches annually. During stormy periods, horizontal and vertical air movement ensures rapid pollutant dispersal. Rain also washes out particulate and other pollutants. Conversely, during calm periods, pollutant levels can build up to unhealthy levels.

Winds from March to November typically blow from the west near Tracy. During winter months, drainage winds are more common, with colder air from surrounding mountains flowing down into the valley floor and then out toward the Delta.

Normally, air temperatures decrease with increasing elevations. Sometimes this normal pattern is inverted, with warm air aloft, and cooler air trapped near the earth's surface. This atmospheric condition occurs in all seasons. In summer, especially when wind speeds are very low, a strong inversion will trap air emissions near the surface allowing high levels of ozone smog to develop. In winter, persistent inversions can trap emissions of particulate (e.g. woodsmoke) and carbon monoxide near the surface, resulting in unhealthy air quality.

The potential for serious summer air pollution in the San Joaquin Valley is strong because of high surface temperatures, plentiful sunshine, relatively stable air, and mountains that trap emissions. In winter, low rainfall, strong inversions and weak winds allow emissions to build up to high levels. In Tracy, local pollution sources are augmented by emissions transported from upwind sources. Conversely, air pollutant emissions created in Tracy can be transported toward other communities by the wind, and contribute to unhealthy levels in those areas. Hence controlling air pollution requires both local and regional efforts and unified programs to achieve clean air.

### **3. Existing Air Quality Conditions**

#### **a. Criteria Pollutants**

Ambient air quality is affected by the rate and concentration of pollutant emissions and meteorological conditions. Factors such as wind speed, atmospheric stability, and mixing height all affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality typically result from changes in emissions, while short-term variations result from changes in atmospheric conditions. There are several continuous air monitoring stations operated by government agencies in the Tracy area. Measured air pollutant data indicate that ground-level ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>, are the air pollutants of greatest concern because they are fatal in high concentrations.

The monitors in Tracy and Stockton are generally representative of air quality in this part of the San Joaquin Valley. Ambient air pollution data typically receives great scrutiny and quality assurance testing, so final data lags about one year behind the current calendar year. State and federal air quality standards and the highest local air pollutant levels measured over the past five years (2003 to 2007) are reported in Table 4.15-2.

Air pollutant emissions in Tracy, including emissions of toxic air contaminants, come from a variety of sources. Most industrial sources would be buffered from residences or other sensitive receptors through land use decisions. However, diesel exhaust from trucks and other diesel-powered equipment can result in significant exposures to air toxic contaminants. In Tracy, the Inter-

state 205 and Interstate 580 freeways include high volumes of truck traffic that lead to substantial emissions of diesel particulate matter, a known carcinogen. Tracy also contains numerous distribution centers that include substantial truck traffic.

In general, air quality in Tracy between 2003 and 2007 has been better than other parts of the San Joaquin Valley. During this time, the State 1-hour ozone standard was exceeded from three to 16 times a year, and the federal standard was not exceeded. National 8-hour ozone standards were exceeded three to ten times a year. State PM<sub>10</sub> standards have been exceeded from 36 to 60 times a year. Federal PM<sub>2.5</sub> daily standards have been exceeded from one to five times a year. Standards for all other criteria pollutants were not exceeded in the five-year period.

Exposure to TACs is usually evaluated in terms of health risk or cancer risk. For cancer health effects, the risk is expressed as the number of chances in a population of a million people who might be expected to get cancer over a 70-year lifetime. The CARB estimated the 2001 lifetime cancer risk at about 250 cancer cases per million people in the Tracy area.<sup>5</sup> This was a lower risk than the calculated overall 2000 San Joaquin Valley basin-wide cancer risk of 586 cancer cases per million people.<sup>6</sup> The cancer risk in Tracy is expected to be about 100 to 200 cases per million people in 2010, and less than 100 cases per million if the CARB adopts most of the proposed diesel risk reduction measures. Areas adjacent to freeways and industrial areas that generate large truck volumes would have higher cancer risks. These maps are based on emissions from major roadways, inventoried industrial and area sources, and off-road equipment, except aircraft.

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<sup>5</sup> See CARB Maps of Estimated Cancer Risk from Air Toxics - <http://www.arb.ca.gov/toxics/cti/hlthrisk/hlthrisk.htm>

<sup>6</sup> California Air Resources Board, 2008. The California Almanac of Emissions and Air Quality – 2007 Edition.

**CITY OF TRACY**  
**GENERAL PLAN DRAFT SUPPLEMENTAL EIR**  
**AIR QUALITY**

**TABLE 4.15-2 MEASURED AIR POLLUTANT CONCENTRATIONS IN SAN JOAQUIN COUNTY<sup>a</sup>**

Pollutant	Average Time	National Ambient Air Quality Standard	California Ambient Air Quality Standard	Measured Levels in Stockton and Tracy <sup>a</sup>		
				2003	2004	2005
Ozone (O <sub>3</sub> )	1-Hour	— <sup>b</sup>	0.09 ppm	0.10 ppm	0.11 ppm	0.10 ppm
	8-Hour	1997 = 0.08 ppm 2008 = 0.075 ppm	0.070 ppm	0.09 ppm	0.10 ppm	0.086 ppm
Carbon Monoxide (CO)	8-Hour	9 ppm	9.0 ppm	3.1 ppm	2.5 ppm	2.9 ppm
Fine Particulate Matter (PM <sub>2.5</sub> )	1-Hour	1997 = 65 µg/m <sup>3</sup> 2006 = 35 µg/m <sup>3</sup>	–	45µg/m <sup>3</sup>	41 µg/m <sup>3</sup>	63 µg/m <sup>3</sup>
	Annual	15µg/m <sup>3</sup>	–	14 µg/m <sup>3</sup>	13µg/m <sup>3</sup>	13 µg/m <sup>3</sup>
Respirable Particulate Matter (PM <sub>10</sub> )	24-Hour	150 µg/m <sup>3</sup>	–	90 µg/m <sup>3</sup>	61 µg/m <sup>3</sup>	84 µg/m <sup>3</sup>
	Annual State/Fed	50 µg/m <sup>3</sup>	20 µg/m <sup>3</sup>	28 µg/m <sup>3</sup>	29 µg/m <sup>3</sup>	30 µg/m <sup>3</sup>

Notes: ppm = parts per million  
µg/m<sup>3</sup> = micrograms per cubic meter  
NA = data not available

Values reported in **bold** exceed ambient air quality standard

<sup>a</sup> All levels measured in Stockton except ozone and PM<sub>10</sub>, which began at the Tracy Airport in 2006.

<sup>b</sup> The national 1-hour ozone standard was revoked by the U.S. EPA on June 15, 2005.

Source: California Air Resources Board, <http://www.arb.ca.gov/adam>.

The CARB publishes an almanac each year that evaluates air quality trends statewide. It also makes forecasts about future pollution levels. According to the CARB, emission sources for ozone precursors in the San Joaquin Valley are from both motor vehicles and industry, with oil fields at the south end of the valley producing high NO<sub>x</sub> levels. Agriculture, fugitive dust from paved and unpaved roads, and waste burning all contribute to high background levels of PM<sub>10</sub>.

From 1981 to 2000, the San Joaquin Valley population increased 56 percent while Vehicle Miles Traveled increased 136 percent. Much of this increase is due to the way communities are designed, as well as housing pricing that encourage long commutes. In spite of this dramatic increase in vehicle travel, controls on stationary and mobile sources improved ozone air quality by about 12 percent. Likewise, control measures have reduced PM<sub>10</sub> levels by about 32 percent. According to the California Clean Air Campaign, the San Joaquin Valley still has some of the worst air pollution in the nation, with about 12,000 people hospitalized for asthma in 2002.

b. Potential Sources of Significant Odors

The primary source of potential odors in Tracy would be the Wastewater Treatment Plant at Holly Drive, located just north of Interstate 205. Other smaller odor sources, such as industrial facilities or restaurants, are dispersed throughout the city.

c. Attainment Status

As shown in Table 4.15-3, the region does not meet federal standards for ground level ozone and fine particulate matter. State and federal standards for ozone are not met. The region just attained the federal standard for PM<sub>10</sub>, but does not meet the federal PM<sub>2.5</sub> standard. Monitoring data suggests that the older 1997 standard has been met, but formal redesignation has not been made by the US EPA. However, the region is expected to be designated non-attainment for the new 2006 PM<sub>2.5</sub> standard. Formal designations are not expected until late 2009. The region is in severe nonattainment for the State

1-hour ozone standard and nonattainment for the State 8-hour ozone standard. The region also does not meet State standards for PM<sub>10</sub> and PM<sub>2.5</sub>.

#### **4. Existing and Projected Trends in Air Pollutant Emissions**

Air pollutant emission inventories are maintained by the CARB. These inventories are developed for air basins and counties throughout California. Emission inventories are not developed for individual cities. The existing and projected emission inventory for San Joaquin County is presented in Table 4.15-4. Emissions of ozone precursor pollutants (ROG and NO<sub>x</sub>) are anticipated to decrease during future years. Modest decreases in ROGs will occur, while reductions in NO<sub>x</sub> emissions are anticipated to be substantial, resulting mainly from the control of mobile sources. While mobile source emissions of NO<sub>x</sub> have been decreasing since 1990 (even though population and vehicle use has increased), greater decreases are anticipated. PM<sub>10</sub> and PM<sub>2.5</sub> are problematic since they are more closely linked to vehicle miles traveled and agricultural operations.

#### **5. California Greenhouse Gases**

Gases that trap heat in the atmosphere, or greenhouse gases (GHGs), regulate the earth's temperature. This is known as the Greenhouse Effect, which is responsible for maintaining a habitable climate. GHGs are emitted by natural processes and human activities. Emissions from human activities, including motor vehicle use, electricity production, industry and agriculture, are elevating the concentration of GHGs in the atmosphere, and have led to a trend of unnatural warming of the earth's natural climate, known as global warming or climate change.

An expanding body of scientific research supports the theory that global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates and precipitation rates, and that it

TABLE 4.15-3 **ATTAINMENT OF AMBIENT AIR QUALITY STANDARDS SAN JOAQUIN COUNTY (INCLUDING TRACY)**

Pollutant	Federal Designation	State Designation
Ozone – 1-hour	No Designation	Nonattainment/Severe
Ozone – 8-hour	Nonattainment/Serious	Nonattainment
PM <sub>2.5</sub>	Nonattainment <sup>a</sup>	Nonattainment
PM <sub>10</sub>	Attainment – Maintenance/ Unclassified	Nonattainment
CO	Unclassified/Attainment	Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified/Attainment	Attainment

<sup>a</sup> The area is designated nonattainment for the 1997 PM<sub>2.5</sub> federal standards. EPA designations for the 2006 PM<sub>2.5</sub> standards will be finalized in December 2009. The District has determined, as of the 2004-06 PM 2.5 data, that the 1997 24-Hour PM 2.5 standard has been attained. Source: SJVAPCD 10/06/2008 <http://www.valleyair.org/aqinfo/attainment.htm>.

will increasingly do so in the future. The climate and several naturally-occurring resources within California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion (a particular concern in the low-lying Sacramento–San Joaquin Delta, where potable water delivery pumps could be threatened), and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include, but are not necessarily limited to, more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters, such as flooding, hurricanes and drought; and increased levels of air pollution.

TABLE 4.15-4 **EXISTING AND PROJECTED EMISSION INVENTORY FOR SAN JOAQUIN COUNTY**

Pollutant	Source	Daily Emissions in Tons per Day	
		Existing 2006	Future 2020
Reactive Organic Gases (ROG)	Stationary	6.9	8.8
	Area	14.9	18.1
	Mobile	27.8	15.6
	<b>Total</b>	<b>49.6</b>	<b>42.5</b>
Nitrogen Oxides (NO <sub>x</sub> )	Stationary	17.0	19.2
	Area	1.8	1.7
	Mobile	89.1	41.2
	<b>Total</b>	<b>107.9</b>	<b>62.1</b>
Respirable Particulate Matter (PM <sub>10</sub> )	Stationary	2.6	3.2
	Area	26.0	28.4
	Mobile	4.4	2.9
	<b>Total</b>	<b>33.0</b>	<b>34.5</b>
Fine Particulate Matter (PM <sub>2.5</sub> )	Stationary	1.8	2.1
	Area	6.3	6.5
	Mobile	3.7	2.2
	<b>Total</b>	<b>11.8</b>	<b>10.8</b>

Prominent GHGs that contribute to global warming include the following gases, in addition to ozone and water vapor.

- ♦ Carbon dioxide and nitrous oxide, byproducts of fossil fuel combustion.
- ♦ Nitrous oxide, associated with agricultural operations such as crop fertilization.
- ♦ Methane, commonly created by off-gassing from agricultural practices (e.g. keeping livestock) and landfill operation.



- ◆ Chlorofluorocarbons, widely used in the past as refrigerants, propellants and cleaning solvents. Their production has been stopped by international treaty.
- ◆ Hydrofluorocarbons, now used as a substitute for chlorofluorocarbons in refrigeration and cooling.
- ◆ Perfluorocarbons and sulfur hexafluoride emissions, commonly created by industries such as aluminum production and semi-conductor manufacturing.

California is the second largest emitter of GHGs in the country and the fifteenth largest in the world. CARB estimates California GHG emissions or CO<sub>2</sub> equivalent emissions at 484 million metric tons of equivalent CO<sub>2</sub> emissions (MMTCO<sub>2</sub>e) in 2004, which is about 7 percent of the emissions from the entire United States. While California is the second largest emitter of GHGs, behind Texas, it has the lowest per capita rate of GHG emissions in the country. It is estimated that the United States contributes up to 35 percent of the world's CO<sub>2</sub> equivalent emissions. Transportation is the largest source of GHG emissions in California, contributing about 38 percent of the emissions. Electricity generation is second, at over 23 percent. Industrial activities account for about 20 percent of the State's emissions. Under a "business as usual" scenario, GHG emissions are estimated to increase to approximately 600 MMTCO<sub>2</sub>e by 2020. CARB staff have estimated the 1990 statewide emissions level to be 427 MMTCO<sub>2</sub>e. Therefore, in order to meet the AB 32 requirement to reduce GHG emissions to the 1990 levels by 2020, the State will need to reduce its 2020 "business as usual" emission levels by almost 30 percent.

### *B. Standards of Significance*

The proposed General Plan would have a significant impact to air quality if it would:

- ◆ Allow increases in vehicle activity, which lead to increases in air pollutant emissions, that are not consistent with the applicable Clean Air Plan.

- ◆ Allow for development that would cause significant odor complaints.
- ◆ Allow for development that would expose people to substantial levels of toxic air contaminants.
- ◆ Lead to unacceptably high localized concentrations of carbon monoxide.
- ◆ Allow for development that would cause construction emissions that expose people to high levels of dust and equipment exhaust.
- ◆ Result in an inconsistency with applicable State, regional, or local programs or strategies to reduce GHG emissions by specified targets OR result in GHG emissions which are cumulatively considerable..

### *C. Impact Discussion*

The following provides an analysis of the effects of the proposed General Plan on regional air quality.

#### **1. Consistency with Clean Air Planning Efforts**

The following section discusses the proposed General Plan's consistency with the regional clean air planning efforts.

##### **a. Clean Air Planning Population Assumptions and Projections**

Future development in Tracy would generate emissions of ozone precursor pollutants and PM<sub>10</sub>, both of which affect regional air quality. Development allowed under the proposed General Plan would be greater than that allowed under the 1993 General Plan. This increased development could lead to greater vehicle use, as measured in daily vehicle miles traveled.

Future changes to air pollutant emissions in the Tracy area were computed based on vehicle miles traveled (VMT) estimates, since most air pollutant emissions associated with land use development occur from vehicle use. The CARB motor vehicle emissions model (EMFAC2007) was used along with vehicle miles traveled estimates to calculate daily emissions in terms of pounds per day for existing conditions and future 2030 conditions under the

proposed General Plan. Specifically, the BURDEN portion of the EM-FAC2007 model, using San Joaquin County default annual conditions, was used with VMT projections. Daily VMT and air pollutant emissions are shown in Table 4.15-5.

As shown in Table 4.15-5, emissions of ozone precursors (ROG and NO<sub>x</sub>) are expected to decrease over the life of the proposed General Plan (from 2004 to 2030). The combination of fleet turnover with vehicles that have better emissions controls and reformulated vehicle fuel would substantially reduce motor vehicle emission rates over the next 20 years. Cleaner vehicle exhaust is the primary strategy for reducing air pollutant levels to meet State and federal air quality standards. The air pollutant emissions projections provided in Table 4.15-5 are for information purposes only.

The population of Tracy would increase as a result of development of the land uses allowed under the proposed General Plan. Increases in the number of vehicle trips would occur as a result of increased population. Emissions of ozone precursor pollutants are expected to decrease. The reduction in NO<sub>x</sub> emissions would be substantial, as reductions in emissions of this pollutant are key to the plans for attaining ozone standards. Emissions of PM<sub>10</sub> would increase, but at a much lower rate than population and vehicle miles traveled (VMT) growth as a result of plans to reduce emissions. It should be noted that many of the air pollutant emission reductions would come from controls on motor vehicles, of which many are already in place. However, it takes many years for the overall vehicle fleet to turn over, where new low emitting vehicles replace older vehicles that have higher emission rates. There are significant air quality impacts associated with growth under the proposed General Plan due to the growth in population and VMT. While the increases in VMT and air pollutant emissions over the region are relatively small when compared with San Joaquin County's total projected mobile source emissions, the fact that they exceed projections used in the clean air planning efforts would nonetheless constitute a significant and unavoidable air quality impact.

TABLE 4.15-5 **COMPARISON OF PROJECTED VEHICLE MILES TRAVELED AND EMISSIONS ASSOCIATED WITH PROPOSED GENERAL PLAN**

	Base Year 2004	Proposed General Plan	Difference Between Base and Proposed GP	
			Quantity	% Difference
Traveled Projections (x1000)				
Trips (x1000)	527	1,425	898	170%
VMT (x1,000 Miles)	2,958	4,778	1,820	62%
Resulting Emissions Estimates from Vehicle Travel and Areas Sources in Tons per Day				
ROG (tons/day)	4.21	3.31	-0.89	-21%
NO <sub>x</sub> (tons/day)	7.54	2.73	-4.81	-64%
PM <sub>10</sub> (tons/day)*	0.91	1.02	0.10	11%
CO <sub>2</sub> (tons/day)	2549.46	3677.62	1128.16	44%

\*Includes dust from paved roadways based on CARB area source emission inventories for San Joaquin County, motor vehicle exhaust, and tire/brake wear.

The proposed General Plan includes an updated Air Quality Element, along with numerous land use and circulation policies, that seek to reduce air pollution and minimize the air quality impacts of new development. The proposed General Plan includes policies that prioritize infill of existing neighborhoods and ensure that urban development occurs adjacent to existing urbanized areas. The proposed General Plan also includes policies to take advantage of existing and future transit opportunities. In addition, the General Plan focuses on mixed-use land uses that would promote alternative modes of transportation and contains numerous policies and programs that, if adopted and implemented, would act to help reduce motor vehicle use from

new development. This would in turn reduce the rate of VMT from trips generated in Tracy. Many of these policies are listed in Section C.1.a below (Consistency with Clean Air Transportation Control Measures).

The Air Quality Element of the proposed General Plan contains policies supporting four main objectives aimed at improving air quality. Policies 1 through 5 under Objective AQ-1.1 promote land use patterns that would reduce the number and length of vehicle trips, encourage mixed use developments, maintain a balance between housing and jobs (shorter commute trips), and encourage uses that would promote walking and biking. Objective AQ-1.2 includes 14 policies and five actions that would contribute to reducing air pollutant emissions through CEQA review, implementation of best management practices, reductions in energy usage, application of dust control measures, and providing appropriate buffers between sources of air pollutant emissions and sensitive receptors, such as residences. Objective AQ-1.3 includes six policies and two actions that would support alternative modes of transportation, such as carpooling, transit, bicycling and walking, which would reduce dependence on motor vehicles. Finally, Objective AQ-1.4 includes three policies and three actions that would coordinate improvements efforts with those outside of Tracy and provide education to the public.

While the various policies and actions outlined above would reduce air pollutant emissions that affect both Tracy and the region, the impact from the proposed General Plan would be significant, because it would result in higher VMT than assumed by SJCOG and SJVAPCD for relevant clean air plans.

b. Consistency with Clean Air Transportation Control Measures

The SJVAPCD and SJCOG clean air planning efforts assume that appropriate TCMs will be incorporated into new projects. Table 4.15-6 lists the policies of the proposed General Plan that are supportive of the TCMs adopted by SJVAPCD and SJCOG. A description of each TCM is provided along with a listing of relevant proposed General Plan policies that would implement each measure. The proposed policies support and reasonably implement the applicable TCMs, and thus would be consistent with these measures. Therefore,

TABLE 4.15-6 **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMs**

Transportation Control	Relevant General Plan Programs and Policies
Measures	
<b>1. Public Transit</b>	Objective CC-9.1 – Policy 2 - Village Centers should include provisions for public transit.
	Objective CIR-2.1 – Policy 1 - The City shall continue to cooperate with regional and State agencies, including Caltrans and San Joaquin Council of Governments (SJCOG) to study plan and fund improvements to the regional transportation system. These regional transportation improvements may include freeway widening, the construction of regional roadways, regional passenger rail expansions, additions to the existing commuter bus system and provision of park-and-ride lots near facilities heavily used by commuters.
	Objective CIR-4.1 – Policy 3 - The City shall continue to operate the Tracer fixed-route and paratransit transit service and expand service to new residential and non-residential areas if funding for additional service is available and is warranted by ridership demand.
	Objective CIR-4.1 – Policy 4 - The City shall seek funding from regional and State and federal agencies to fund additional transit service expansions and improvements.
	Objective CIR-4.1 – Policy 5 - The City shall require development to provide for transit and transit-related increased modal opportunities, such as adequate street widths and curb radii, bus turnouts, bus shelters, park-and-ride lots and multi-modal transit centers through the development and environmental review processes, if appropriate.
	Objective CIR-4.1 – Policy 6 - The City shall encourage efforts for additional regional transit service, including expansion of the existing ACE service, expansion of the existing commuter bus service, and new commuter rail service from Tracy to other areas in the region.
	Objective CIR-4.2 – Policy 1 - The City shall complete the development of the Multi Modal Transit Center at Central Avenue and 6 <sup>th</sup> Street.
	Objective CIR-4.2 – Policy 2 - The City shall preserve the necessary rights-of-way by continuing the implementation of current arterial street standards and ensuring the preservation of existing rail corridors to facilitate the development of an expanded transit program in the future.

TABLE 4.15-6 **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMS (CONTINUED)**

<b>Transportation Control Measures</b>	
<b>Relevant General Plan Programs and Policies</b>	
	<p>Objective CIR-4.2 – Policy 3 - The City shall encourage the expansion of transit services through coordination and cooperation with the Bay Area Rapid Transit District (BART), San Joaquin Regional Rail Commission, San Joaquin Regional Transit District, the Altamont Commuter Express (ACE), on services that expand the mobility and accessibility of transporting people, goods and services in and through Tracy and the region.</p> <p>Objective CIR-4.2 – Policy 4 - The City shall develop a fully integrated multi-modal transportation system that takes into account access to employment, education, shops, medical services and that facilitates participation in social and recreational opportunities.</p> <p>Objective CIR-4.2 – Policy 5 - The City shall provide an efficient, effective and coordinated transit system that maximizes use of regional, state and federal funds.</p>
<b>2. Rideshare Program</b>	<p>Objective AQ-1.3 – Policy 2 - The City shall encourage Caltrans to implement High Occupancy Vehicle (HOV) lanes on regional freeways in and around the Tracy Planning Area.</p>
<b>3. Park and Ride Lots</b>	<p>Objective CIR-2.1 – Policy 2 - The City should ensure that land needed for park-and-ride facilities is conserved in new development areas.</p> <p>Objective CIR-4.1 – Policy 2 - The City shall continue to partner with SJCOG, SJRTD and Caltrans in efforts to locate park-and-ride lots and other transit-related facilities in the City of Tracy.</p>
<b>4. Traffic Flow Improvements</b>	<p>Objective CC-2 - Policy 1 - New development projects should be designed on a traditional, modified, or curvilinear grid within the City’s arterial street network. Cul-de-sacs may be used within the grid so long as the objective of pedestrian and bicycle connectivity is achieved.</p> <p>Objective CC-2.2 - Policy 5 - Streets shall be continuous within and between Neighborhoods, including those that are built by different developers or builders.</p> <p>Objective CC-2.2 - Policy 7 - New and existing site features, such as parks, utility easements, and drainage ways, should be improved and used as physical connections within and between Neighborhoods.</p> <p>Objective CC-5.2 - Policy 1 - Neighborhoods should generally be no more than ½ mile wide in any direction.</p>

TABLE 4.15-6 **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMS (CONTINUED)**

Transportation Control Measures	Relevant General Plan Programs and Policies
	<p>Objective CC-5.2 - Policy 2 - Neighborhoods should not be bisected by a physical barrier, such as an arterial street, a railroad track or a major drainage way</p> <p>Objective CIR-1.2 – Policy 2 - The City shall implement a connected street pattern with multiple route options for vehicles, bikes and pedestrians.</p> <p>Objective CIR-1.2 – Policy 3 - New development shall be designed to provide vehicular, bicycle and pedestrian connections with adjacent development.</p> <p>Objective CIR-1.2 – Policy 5 - New development should be designed with a grid or modified grid pattern to facilitate traffic flows and to provide multiple connections to arterials streets.</p> <p>Objective CIR-1.5 –Policy 2- The City shall coordinate the timing of traffic signals on arterials to facilitate traffic movement.</p> <p>Objective CIR-1.6 – Policy 2 - New development shall implement traffic calming measures where necessary so long as connectivity is not diminished</p> <p>Objective CIR-4.2 –Policy 6 - The City shall pursue economical, long-term solutions to transportation problems by encouraging community designs which encourage transit use, and walking, bicycling and other non-motorized forms of transportation.</p>
5. Bicycle and Pedestrian Programs	<p>Objective CC-2.2 - Policy 1 - The Downtown and Village Centers shall have direct pedestrian, bicycle and vehicular connections to all Neighborhoods or development projects within an Employment Area</p> <p>Objective CC-2.2 - Policy 2 - Neighborhoods should have direct pedestrian, bicycle and vehicular connections to their Focal Points and Village Center.</p> <p>Objective CIR-3.1 – Policy 1 - The City shall incorporate appropriate bicycle and pedestrian facilities on all roadways constructed by the City, Class I to the extent feasible.</p> <p>Objective CIR-3.1 – Policy 2 - To the extent possible, the City shall separate vehicular from bicycle and pedestrian traffic on higher-speed and higher-volume roadways through the use of off-street bicycle and pedestrian facilities.</p> <p>Objective CIR-3.1 – Policy 3 - The City may separate bicycle from pedestrian users on high usage bicycle and pedestrian paths.</p> <p>Objective CIR-3.1 – Policy 4 - The City’s bicycle and pedestrian system shall</p>



TABLE 4.15-6 **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMS (CONTINUED)**

Transportation Control Measures	Relevant General Plan Programs and Policies
	<p>have a high level of connectivity, especially between residences and common local destinations, such as schools, shopping and parks. A higher level of bicycle and pedestrian connectivity is defined as a shorter or similar distance to common destinations for bicycles and pedestrians compared to distances for vehicles.</p> <p>Objective CIR-3.1 – Policy 5 - New development shall include pedestrian and bicycle facilities internal to the development and that connect to citywide facilities, such as parks, schools and recreational corridors, as well as adjacent development and other services.</p> <p>Objective CIR-3.1 – Policy 6 - New development sites for commercial, employment, educational, recreational and park-and-ride land uses shall provide bicycle parking and/or storage facilities.</p> <p>Objective OSC-4.3 – Policy 2 - All development projects should provide linkages to the regional bike and trail system and circulation within the development project site, wherever feasible.</p> <p>Objective OSC-4.3 – Policy 3 - The City shall pursue the completion of all trail systems designated in the Bikeways Master Plan.</p> <p>Objective OSC-4.3 – Policy 4 - The City shall partner with San Joaquin County to coordinate regional trail linkages.</p> <p>Objective AQ-1.3 – Policy 4 -The City shall support efforts to retain the railroad right-of-way for future public transit and bicycle facilities.</p> <p>Objective AQ-1.3 – Policy 5 - The City shall require direct pedestrian and bicycle linkages from residential areas to parks, schools, retail areas, Downtown, high-frequency transit facilities and major employment areas shall be planned and implemented.</p> <p>Objective CC-2.2 – Policy 4 - Neighborhoods shall be designed so that daily shopping errands and trips to their Focal Points can generally be completed within easy walking or biking distances or within a short car drive.</p> <p>Objective CC-5.2 - Policy 3 - Design streets in Neighborhoods to enhance the sense of place and create a safe and comfortable pedestrian environment.</p> <p>Objective CC-5.2- Policy 4 - In most instances, block lengths should be short, typically no more than 400 feet, to create an easily navigable street pattern that allows for multiple routes through a neighborhood and greater opportunities for</p>

TABLE 4.15-6 **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMS (CONTINUED)**

Transportation	
Control	
Measures	Relevant General Plan Programs and Policies
	<p>pedestrian activity.</p> <p>Objective CC-5.2 - Policy 5 - Street patterns and block lengths in hillside areas may be designed to follow natural topography and open spaces as long as the objective of hometown feel and bicycle and pedestrian connectivity are achieved.</p> <p>Objective CC-5.2 - Policy 8 - Sidewalks should be provided on both sides of the streets in all Neighborhoods, except areas designated as Residential Very Low, where it may be acceptable to have sidewalks on only one side of the street.</p> <p>Objective CC 8-1 – Policy 5 - The following policies and guidance shall apply to development in the Downtown to enhance the pedestrian environment:</p> <ul style="list-style-type: none"> <li>Should include human-scale details in the design of buildings such as windows on the street, awnings, and architectural features that create a visually interesting pedestrian environment.</li> <li>Should include areas designed to create spaces where people can interact and socialize, such as parks, plazas or open air seating in cafes and restaurants, as well as pedestrian amenities such as awnings, pedestrian-scaled lighting, benches and trash cans.</li> <li>Street trees shall be planted that provide a tree canopy over the street.</li> <li>Should have loading facilities screened from public view and located away from residential uses.</li> <li>Should locate parking lots behind or on the side of buildings where possible to reduce their visual impact.</li> <li>Shall provide screening for parking lots through the use of landscaping or low walls.</li> <li>Shall have landscaped parking lots to create an attractive pedestrian environment and reduce the impact of heat islands.</li> <li>May utilize shared parking where applicable to reduce the total number of parking spaces.</li> </ul> <p>Objective CC 8-3 – Policy 4 - All new development shall enhance and be oriented towards the pedestrian environment.</p> <p>Objective CC-9.2 – Policy 1 -Village Centers should be designed around a main street that is designed to encourage and facilitate pedestrian activity.</p>

TABLE 4.15-6 **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMs (CONTINUED)**

<b>Transportation</b>	
<b>Control</b>	
<b>Measures</b>	<b>Relevant General Plan Programs and Policies</b>
	Objective CC-9.4 – Policy 4 - Buildings in Village Centers shall feature outdoor use areas to provide a feeling of permanence and durability, such as plazas and open air seating in cafes and restaurants.
	Objective CC-9.4 – Policy 5 - Loading facilities in Village Centers for uses requiring delivery from large trucks shall be screened from public view and located away from residential uses.
	Objective CC-9.5 –Policy 4 - Direct and safe pedestrian connections between parking lots and buildings in Village Centers shall be provided.
	Objective CC-9.6 – Policy 1 - Sidewalks in Village Centers shall be of an adequate width to comfortably accommodate high volumes of pedestrian traffic. In such areas, sidewalk widths of 12 feet are encouraged.
	Objective CC-9.6 – Policy 3 - Sidewalks in Village Centers shall be located on both sides of the street.
	Objective CC-9.6 – Policy 4 - Pedestrian amenities such as shade trees with a broad canopy, pedestrian-scaled lighting, benches and trashcans should be included in all Village Centers.
	Objective CC-10.1 – Policy 1 - Building setbacks on Corridors shall be minimized to enhance the pedestrian environment and character of the area.
	Objective CC-10.1 – Policy 2 - Buildings and building entrances on Corridors shall be oriented to the pedestrian environment.
	Objective CC-10.1 – Policy 3 - Buildings on Corridors shall include human-scale details such as windows facing the street, awnings, and architectural features that create a visually interesting pedestrian environment.

no significant impact would occur with regard to TCMs that have been adopted by the SJVAPCD as part of the region's clean air planning efforts.

One of the most effective tools to reduce emissions from future development is SJVAPCD's Indirect Source Review Rule. This rule requires many development projects to effectively reduce on-site emissions and, in some cases, reduce emissions off-site. Emission reductions requirements apply to construction and operational emissions. Reducing vehicle travel from new development projects is likely to be the most cost-effective method for most new development projects.

c. Exposures to Odors

As noted above, the SJVAPCD's *Air Quality Guidance for General Plans* calls for a General Plan to establish appropriate land use buffers around existing and proposed land uses that would be a source of odors. The proposed General Plan includes policies under Objective AQ-1.2 that would minimize the impact of potential sources of odor. In particular, Policy 11 requires that stationary emission sources be located an appropriate distance away from and downwind of sensitive receptors. Furthermore, Policy 12 requires that residential developments and other projects with sensitive receptors be analyzed in accordance with CARB and SJVAPCD recommendations. These General Plan policies work to ensure that the proposed General Plan would have a less-than-significant impact on exposure to odors.

d. Exposures to Toxic Air Contaminants

The proposed General Plan land use map indicates that land uses containing future sensitive receptors could be located within the CARB's advisory recommendations for setback distances for specific sources of toxic air contaminants, and thus, significant future exposures of sensitive receptors could occur. Significant exposures would be to diesel exhaust particulate matter emitted from truck traffic on the freeways or near distribution centers.

A review of air pollution studies by the CARB indicates that residing close to freeways or busy roadways may result in adverse health effects beyond those

typically found in urban areas. Several studies found an association between adverse non-cancer health effects (e.g. asthma) and living or attending school near heavily traveled urban roadways. Many of these studies focused on children and developed causal links (i.e. they have linked proximity of the freeway with hospital or medical visits). However, these proximity studies and others found that the roadway and truck traffic densities were key factors affecting the strength of association with adverse health impacts. For urban roadways, the association of traffic-related emissions with adverse health impacts was generally strongest between 300 and 1,000 feet.

Proximity to freeways increases cancer risk and exposure to particulate matter. Diesel particulate matter, or DPM, poses the greatest cancer risk from roadways. On average, the CARB reports that DPM represents over 70 percent of the potential cancer risk from vehicle travel. The number and type of diesel-fueled vehicles on any roadway is key in understanding the potential cancer risks. Benzene and 1,3-butadiene are carcinogenic toxic air contaminants that are also emitted from motor vehicles and contribute to potential cancer risks. There are other contaminants emitted from motor vehicles, but their potential risks are much smaller.

The CARB reviewed studies that found measured air pollution concentrations from motor vehicles drop off dramatically between the source and 500 feet. These studies were consistent with CARB air quality modeling and risk analyses performed for freeways. The estimated risk from DPM exposure was found to vary substantially due to meteorology, where typical downwind areas had much higher risk than upwind areas. Freeways with low truck volumes had lower risks. The CARB based their 500-foot buffer recommendation on their review of the studies and air dispersion modeling. The CARB's modeling was based on information from 2000 that included higher DPM emissions rates. New vehicle standards, diesel fuel reformulation, and CARB-adopted Diesel Risk Reduction Measures has resulted in lower potential cancer risks near freeways since 2000.

Two freeways affect DPM levels in Tracy: Interstate 205 and Interstate 580. Both of these freeways have relatively low freeway volumes compared to urban freeways, but have high percentages of truck traffic. In 2010, Interstate 205 is estimated to have about 115,000 average daily trips, of which 12 percent will be trucks and 8 percent large trucks. In 2010, Interstate 580 is estimated to have just under 40,000 average daily trips, in which about 18 percent will be trucks and 13 percent large trucks.

A screening analysis of future DPM exposure and associated health effects was conducted. The health impacts associated with the DPM exhaust are expressed in terms of increased risk of contracting cancer by individuals who reside for extended periods near the sources, such as freeways. This analysis involved the development of DPM emissions for traffic on Interstates 205 and 580 using the EMFAC2007 emission factor model with defaults for San Joaquin County. The EMFAC2007 results were then adjusted to the traffic mix on the freeways that were reported by Caltrans. Traffic was anticipated to increase at a rate of 1 percent per year. Emission rates projected for future years by the EMFAC2007 model were incorporated into the analysis. These rates will decrease in the future. Emission factors and hourly traffic were input into the Cal3qher dispersion model. The model used representative screening meteorological conditions that include a low wind speed of 1 meter per second, a worst-case wind angle search and a stability class of E. The hourly traffic volume was assumed to be 10 percent of the average daily volume. The hourly concentration was converted to an annual concentration using a conversion factor of 0.08. Modeled concentrations were calculated for various distances from the edge of the freeway.

The maximum individual cancer risks were computed using the cancer risk calculation methods and inhalation dose factors recommended by the California Office of Environmental Health Hazard Assessment and the SJVAPCD. The present and future cancer risk posed by traffic on the freeways is expressed in terms of distance from the edge of the travel lanes with the highest traffic volumes. A risk of less than ten in one million is considered to be less than significant under SJVAPCD policies. It should be noted,

as discussed previously, that emission rates of DPM from traffic are predicted to decrease substantially in the future. Table 4.15-7 shows the computed health risks for existing and future traffic conditions.

The analysis of existing DPM exposures indicates that significant health risks could occur at distances beyond 500 feet from the edge of Interstate 205 and out to almost 500 feet for Interstate 580. However, cancer risks are based on long-term exposures. The SJVAPCD policy is to assume 70-year lifetime exposures. This analysis, therefore, assumes that the earliest exposure for General Plan development would occur in 2010 and last for 70 years. So, the increased traffic levels and lower projected emissions rates were taken into account when predicting the future cancer risks.

Based on the screening cancer risk assessment of DPM, new receptors residing within 400 feet of the edge of Interstate 205 or within 230 feet of Interstate 580 roadways could be exposed to DPM that would significantly contribute to cancer risk (i.e. the incremental cancer risk caused by exposure to freeway traffic would be greater than ten in one million). The actual distance where cancer risks exceed ten in one million would probably be less since the analysis employed screening meteorological conditions that usually result in higher concentrations. For sensitive receptors, such as residential uses, a significant impact is considered a ten in one million chance of contracting cancer where the receptor is exposed to the source almost 24 hours per day for 70 years.

As noted above, the CARB's recommended setback distances between sensitive receptors and specific sources of air pollutants are advisory in nature, and local land use agencies should balance the recommendations with other goals, including housing and transportation needs, economic development priorities and community character issues.

The proposed General Plan includes policies under Objective AQ-1.2 that could minimize the impact of potential sources of toxic air contaminants. Policies 11 and 12 under Objective AQ-1.2 require that residential developments and other uses with sensitive receptors shall be located an adequate

TABLE 4.15-7 **SUMMARY OF MAXIMUM MODELED DPM CANCER RISKS  
(PER MILLION) DUE TO FREEWAY TRAFFIC**

Year of Analysis	Cancer Risk at Receptor Distance from Freeway Edge (Chances Per Million Persons)								
	50 Ft	100 Ft	150 Ft	200 Ft	250 Ft	300 Ft	350 Ft	400 Ft	500 Ft
<b>Interstate 205</b>									
2010	149	101	75	59	47	38	32	26	18
2020	60	41	30	24	19	16	13	10	7
2030	37	25	18	15	11	9	8	6	5
Weighted Risk (2010 and beyond)	56	38	28	22	18	14	12	10	7
<b>Interstate 580</b>									
2010	78	52	38	30	24	19	16	13	9
2020	31	21	16	12	10	8	6	5	4
2030	19	13	9	7	6	5	4	3	2
Weighted Risk (2010 and beyond)	29	19	14	11	9	7	6	5	3

Note: SJVAPCD cancer risk significance threshold is an increased cancer risk of ten in one million, based on 70-year lifetime exposure.

distance from air pollution sources such as freeways and other stationary sources. Under Objective AQ-1.2, Policy 13 requires sources of new toxic air pollutants to prepare a Health Risk Assessment and to establish appropriate buffer zones around those areas that pose substantial health risks, as determined by the Assessment. Finally, Policy 1 under Objective AQ-1.2 requires that the City assess air quality impacts using the latest version of CEQA Guidelines and those prepared by the SJVAPCD. Thus, the City shall follow



any additional guidance related to the CARB advisory setback recommendations.

The combination of these policies and guiding mechanisms, in part by implementation of the proposed General Plan, would reduce potentially significant impacts with regard to exposure to toxic air contaminants. However, land use maps identify areas within the screening distances identified. Residential development adjacent to Interstates 205 and 580 would result in a significant impact.

## **2. Carbon Monoxide Concentrations**

For local air quality impacts, carbon monoxide (CO) is the pollutant of primary concern. Violations of an ambient CO air quality standard (either 1-hour or 8-hour) would be considered a significant adverse impact. Elevated CO concentrations are usually associated with roadways that are congested with heavy traffic volumes. A CO hotspot is an area that could exceed air quality standards from vehicle emissions under congested traffic conditions. Air pollutant monitoring data indicate relatively low background levels in Tracy.

The Caline4 line-source dispersion model along with emission factors produced by the EMFAC2007 model were used to predict CO concentrations at the most congested intersections in Tracy for existing and future conditions. The most congested intersections are those signalized intersections with high traffic volumes that operate at a level of service (LOS) of D or worse. The model uses worst-case meteorological conditions to predict 1-hour levels that are adjusted to 8-hour levels and added to background concentrations. Predicted concentrations are compared to the State ambient air quality standards. CO concentrations were predicted for existing and future conditions under the proposed General Plan. As shown in Table 4.15-8, CO concentrations are predicted to be below the State ambient air quality standard of 9.0 parts per million (ppm). Furthermore, concentrations are anticipated to decrease substantially in the future, while traffic levels increase.

TABLE 4.15-8 **PROJECTED 8-HOUR CARBON MONOXIDE LEVELS**

Location	Existing (2004)	2030 Projected Buildout of Proposed General Plan
Eleventh Street and Tracy Boulevard	6.5 ppm	2.8 ppm
Eleventh Street and Corral Hollow Road	6.7 ppm	3.1 ppm
Grant Line Road and Corral Hollow Road	6.5 ppm	2.9 ppm

Note: California ambient air quality standard for 8-hour carbon monoxide levels is 9.0 ppm.

Modeled levels are added to an 8-hour background concentration of 2.0 ppm.

Source: Illingworth & Rodkin, June 2008.

This is due to the substantial reductions in tailpipe emissions that are anticipated with turnover of the fleet to newer and cleaner vehicles. As a result, the impact on local air quality resulting from the project is considered to be less than significant, and sensitive receptors would not be significantly impacted by CO concentrations.

### 3. Construction Dust Emissions

Development allowed under the proposed General Plan would generate dust that could affect local and regional air quality. Dust is generated from a variety of project construction activities including grading, import/export of fill material, and vehicle travel on unpaved surfaces. Soil can also be tracked out onto paved roads where it is entrained in the air by passing cars and trucks. The rate of dust emissions is related to the type and size of the disturbance, meteorological conditions and soil conditions.

Emissions of dust (or PM<sub>10</sub>) from construction activities are difficult to predict because of the many factors that affect emissions and dispersion. The SJAPCD regulates emissions from construction activities through Regulation IV (Prohibitions of certain activities, such as open burning and visible emissions) and Regulation VIII (Fugitive PM<sub>10</sub> Prohibition). This EIR takes an

approach of specifying the appropriate control measures that are required for construction projects to ensure that emissions are effectively controlled. Objective AQ - 1.2, Policies 1 and 2 require air quality assessment in accordance with CEQA guidelines prepared by the SJVAPCD. Objective AQ - 1.2, Policy 3 requires a developer to implement best management practices to reduce air pollution during construction and operations of a project. Objective AQ - 1.2, Policies 14 and 15 require dust control measures and all reasonable mitigation measures to be implemented prior to approval.

In addition, the SJVAPCD and the CARB have regulations that address the handling of hazardous air pollutants such as asbestos that may be released during demolition activities. The SJVAPCD rules and regulations address both the handling and transport of these contaminants. An air toxic control measure adopted by the CARB requires measures to minimize asbestos emissions in areas known to have naturally occurring asbestos. Construction work performed in accordance with SJVAPCD and CARB rules and regulations and that implements construction air pollutant control measures recommended by the SJVAPCD would not be expected to result in significant air quality impacts.

#### **4. Construction Exhaust Emissions**

Similar to construction dust, exhaust emissions are difficult to predict. Exhaust from diesel powered construction equipment affects regional ozone levels as well as localized particulate levels. Diesel particulate matter is considered a toxic air contaminant. Diesel fuel will be reformulated over the next several years to reduce particulate emissions. In addition, cleaner diesel powered equipment will replace older construction equipment leading to an overall decrease in emissions of exhaust particulate matter and ozone precursor emissions. As previously discussed, the SJVAPCD's Indirect Source Review Rule would require construction exhaust emission reductions from construction activities. These would apply to larger projects. However, emission reductions are still needed on individual construction projects to reduce the exposure of sensitive receptors to toxic air contaminants and reduce regional ozone levels. Objective AQ - 1.2, Policies 1 and 2 require air quality assess-

ment in accordance with CEQA guidelines prepared by the SJVAPCD. Objective AQ - 1.2, Policy 3 requires a developer to implement best management practices to reduce air pollution during construction and operations of a project. Measures that constitute reasonable best available control measures would reduce construction exhaust emissions to a less-than-significant impact.

## **5. Greenhouse Gas Emissions**

Buildout of the proposed General Plan, in combination with other projects occurring, could contribute to levels of GHG emissions and global warming. This impact would be on a global level. Development under the proposed General Plan would indirectly contribute to GHG emissions due to increased vehicle use, energy use from new residences and expanded non-residential development, generation of waste and construction-related activities.

Emissions associated with the proposed General Plan have only been developed for vehicle related activity, area sources (primarily natural gas usage) and energy demand. CO<sub>2</sub> emissions were predicted for the baseline (2004) and future General Plan buildout in 2030. These emissions are reported in Table 4.15-9. CO<sub>2</sub> is the primary GHG emitted from motor vehicles and general land uses.

The CARB's BURDEN model was used to project vehicle emissions from vehicle mile and vehicle trip forecasts for Tracy in the same manner as for ozone precursor and PM<sub>10</sub> emissions. The vehicle mix for Tracy was assumed to be similar to that of San Joaquin County. Under the proposed General Plan, emissions of CO<sub>2</sub> from mobile sources are anticipated to increase by 81 percent over 2004 levels. The increase in CO<sub>2</sub> emissions would be mostly attributable to the increase in VMT. However, some of the increase would be from new trips (start emissions). New vehicle trips are expected to increase by 170 percent, so CO<sub>2</sub> emissions would increase at a rate slightly higher than VMT.

It should be noted that the CARB EMFAC2007-BURDEN model does not include assumptions on future increase in fuel efficiency in the vehicle fleet.

TABLE 4.15-9 **COMPARISON OF PROJECTED VEHICLE MILES TRAVELED AND CO<sub>2</sub> EMISSIONS ASSOCIATED WITH PROPOSED GENERAL PLAN**

	Base Year 2004	Proposed General Plan	Difference Between Base and Proposed GP	
			Quantity	% Difference
Traveled Projections (x1000)				
Trips (x1000)	527	1,425	898	170%
VMT (x1,000 Miles)	2,958	4,778	1,820	62%
Resulting CO <sub>2</sub> Emissions Estimates from Vehicle Travel and Areas Sources in Tons per Day				
Vehicle Travel	1,780	3,222	1,442	81%
Area Sources	287	455	168	59%
Electricity Usage	482	889	407	89%
Total CO <sub>2</sub> (tons/day)	2,549	4,567	2,017	79%

In fact, a slight decrease in fuel efficiency is anticipated. Therefore, the model indicates a slightly higher CO<sub>2</sub> emission rate in 2030 than is likely to occur. The model estimates that average fleet efficiency (autos and trucks together) was about 21 miles per gallon in 2004. In 2030, the model predicts that fuel efficiency will be 20 miles per gallon. Fuel efficiency is regulated by the U.S. Department of Transportation and current CARB regulations to address climate change. Newer fuel standards would increase light-duty automobile and light-duty truck fuel efficiency by 10 miles per gallon (to 34 miles per gallon in 2020). The CARB proposes more efficient standards as part of the State's efforts to reduce GHG emissions. These standards would apply to new vehicles sold, and therefore, would gradually affect the overall fleet as these new vehicles replace older vehicles. Therefore, the CO<sub>2</sub> emissions estimates for vehicle travel do not accurately reflect future conditions.

It is likely that CO<sub>2</sub> emissions with a more fuel-efficient vehicle fleet would be less. As previously described, Table 4.15-6 lists the policies of the proposed General Plan that are supportive of the TCMs adopted by the SJVAPCD and SJCOG. These would reduce GHG emissions below those reported in Table 4.15-9.

Area sources primarily include natural gas usage. The URBEMIS2007 model predicts these emissions associated with different land use types. Unit emissions rates were developed from the URBEMIS2007 model for single- and multi-family residences. A unit emission factor per 1,000 square feet of retail, office and industrial space was developed using the model and applied to 2004 base and 2030 General Plan conditions. These land uses were calculated based on the inventory of housing and employment used for the traffic modeling. Employment numbers were used to estimate square footage based on estimates of employees per square feet a particular land use type.

Electricity demand is the second highest source of GHG emissions in Tracy. Emissions from this category are emitted indirectly, since they are produced by power plants that may be located well outside of Tracy and possibly outside of California. Emissions were calculated for 2004 and future 2030 electricity demand based on the type and size of the land uses. Emissions in 2004 included default values. Growth in the Tracy area is anticipated to be affected by General Plan policies. These policies would decrease emissions from area sources and energy demand. Objective AQ-1.2 includes policies that would reduce energy demand. Policy 2 would use the CEQA process to reduce cumulative air quality and GHG emissions. Policy 4 would increase energy efficiency from new developments. Policy 5 would take advantage of Tracy's abundant sunshine and encourage the use of solar water and pool heaters. Solar voltaic panels would also be encouraged on new homes and business buildings. Policy 17 would adopt green building programs. Under Objective AQ-1.4, the City would develop a Sustainability Strategy with GHG emission targets that would further reduce GHG emissions. Growth in Tracy from 2004 through 2030 was assumed to have a 20 percent reduction in area and electricity demand emissions due to implementation of these General

Plan policies. No reduction was assumed for mobile sources, because differences in vehicles miles projected with and without the policies and actions to reduce motor vehicle use could not be adequately addressed. As previously stated, mobile source emissions are likely to be less with increasing fuel efficient vehicles brought into the vehicle fleet to replace aging vehicles that are less efficient.

As discussed in Section A.1.g (Greenhouse Gas Regulations), there are no formally recognized methods under CEQA for quantifying GHG emissions from a proposed project, and no standards or thresholds in place to evaluate potential impacts on global climate change from a proposed project. Currently, compliance with AB 32 is the State's plan to achieve reductions in GHG emissions to 1990 levels. This will not be an easy task, as the State is expected to experience population growth that would include increased vehicle usage and energy demand. As a result, long-term emissions would require substantial reductions to achieve AB 32 goals. These goals must be achieved within the buildout timeframe of the General Plan, so further action to reduce emissions is necessary. The large rate of GHG emission increases compared to population growth would be considered to have a significant cumulative impact.

#### *D. Impacts and Mitigation Measures*

While policies and other regulations would reduce impacts to air quality to the extent feasible, significant impacts would occur in regard to air quality impacts under the proposed General Plan.

**Impact AIR-1:** The General Plan would not be consistent with applicable clean air planning efforts of the SJVAPCD, since vehicle miles traveled that could occur under the proposed General Plan would exceed that projected by the SJCOG, which are used in projections for air quality planning. The projected growth could lead to an increase in the region's VMT beyond that anticipated in the SJCOG and SJVAPCD clean air planning efforts. Develop-

ment in Tracy would contribute to the on-going air quality issues in the San Joaquin Valley Air Basin.

Mitigation Measure AIR-1: The City of Tracy will facilitate development applicants' participation in the San Joaquin Valley Air Pollution Control District's Indirect Source Review program. The Indirect Source Review program requires developers of larger projects to reduce emissions and provides on-site mitigation measures to help developers reduce air impacts. However, the mitigation measure identified above may not completely mitigate this impact. Therefore, it is considered a *significant and unavoidable* impact.

**Impact AIR-2:** The proposed General Plan does not provide adequate buffers between new or existing sources of toxic air contaminants and new or existing residences or sensitive receptors.

Mitigation Measure AIR-2: Add a new Action under Objective AQ-1.2 as follows:

"Require supplemental project studies that evaluate air quality health risks for proposed developments that place sensitive receptors within 400 feet of Interstate 205, within 230 feet of Interstate 580, or within 1,000 feet of large truck warehousing facilities or truck facilities where trucks with transportation refrigeration units operate almost continuously. Mitigation measures to reduce significant health risks shall be included in final project designs."

Significance After Mitigation: *Less than significant.*

**Impact AIR-3:** Buildout in Tracy under the proposed General Plan is projected to substantially increase vehicle travel and lead to substantial GHG emission increases. The projected rate of GHG emissions and VMT is greater than the rate of population growth. This conflicts with State efforts to reduce GHG emissions and meet AB 32 targets by 2020, resulting in a cumulatively significant impact.



Mitigation Measure AIR-3: Senate Bill (SB) 375 requires that metropolitan planning organizations (MPO's) include sustainable communities strategies in their regional transportation plans for the purposes of reducing greenhouse gases and meeting the goals of Assembly Bill (AB) 32. In compliance with SB 375, and as directed under Objective AQ-1.4, Action 3, of the proposed General Plan, the City shall develop a citywide sustainability strategy to implement the regional sustainability strategy released by SJCOG, which is the MPO for the Tracy region. The sustainability strategy will identify current and future GHG emissions from each sector (e.g. transportation, energy use and water consumption), and establish emission reduction targets. The strategy will also identify specific planning measures or requirements that the City would adopt to reduce emissions so that they would not conflict with State efforts to meet AB 32 goals, including the goal to reduce greenhouse gas emissions to 1990 levels by 2020.

Because the City has not yet developed a citywide sustainable strategy, this impact is treated as *significant and unavoidable* at this time. The City may revisit this conclusion after such a strategy is developed. It should be noted that local and regional plans to reduce GHG emissions are in the process of being developed.

**CITY OF TRACY**  
**GENERAL PLAN**  
**DRAFT SUPPLEMENTAL EIR**  
AIR QUALITY

## 6 CEQA-REQUIRED ASSESSMENT CONCLUSIONS

As required by CEQA, this chapter provides an overview of the impacts of the proposed General Plan based on the technical analyses presented in this EIR. The topics covered in this chapter include growth inducement; cumulative impacts; unavoidable significant effects; and expected significant irreversible environmental changes. A more detailed analysis of the project-level effects of the proposed General Plan on the environment is provided in Chapter 4 of this report.

### *A. Growth Inducement*

A project is typically considered to be growth-inducing if it fosters economic or population growth. Typical growth inducements might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major barriers to development. Not all growth inducement is necessarily negative. Negative impacts associated with growth inducement occur only where the projected growth would cause adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct and indirect. Direct growth-inducing impacts are generally associated with the provision of urban services to an undeveloped area. The provision of these services to a site, and the subsequent development, can serve to induce other landowners in the vicinity to convert their property to urban uses. Indirect, or secondary growth-inducing impacts, consist of growth induced in the region by the additional demands for housing, goods and services associated with the population increase caused by, or attracted to, a new project.

#### **1. Direct Impacts**

As discussed in Chapter 3, by 2025, based on land use designations, available acres and existing building allotment regulations, 9,500 new housing units will be built in Tracy, the population is estimated to reach 112,600 and the number of employees will increase to 53,800. Total buildout under the proposed General Plan is projected to add between 13,225 and 21,300 new units;

the total residential and employee populations are estimated to reach up to 151,500 people and 193,000 jobs, respectively.

Implementation of the proposed General Plan would induce some population and housing growth in Tracy, in part because it increases intensity of uses and densities in the Downtown and in Village Centers, close to transportation nodes. This type of residential growth can be beneficial in that it would help preserve open space and agricultural lands on the periphery, and because higher density, multi-family housing would allow the City to meet its fair share housing allocation requirements. While growth would be allowed under the proposed General Plan, the market indicates that growth would occur in Tracy whether or not the General Plan is adopted at a similar rate controlled by the City's Growth Management Ordinance.

The General Plan provides goals and policies to maintain the character of Tracy and minimize the environmental impacts of the anticipated growth. Proposed policies are intended to be obtainable and, as such, take into account market conditions and realistic growth assumptions that are consistent with the Growth Management Ordinance and discourage undesirable development in areas with sensitive natural resources, critical habitats and important scenic resources. The impact on agricultural land in the Tracy area is also incorporated, especially as it affects Prime Farmland and Farmland of Statewide Importance. The Plan encourages new development to occur in areas adjacent to existing urban uses and requires developers to provide service extensions. The San Joaquin Multi-Species Habitat Conservation and Open Space Plan also requires dedications of agriculture and open space at a one-to-one acre ratio for non-urbanized land that is converted to urban uses.

Finally, the proposed General Plan also includes policies specifically designed to discourage urbanization in unincorporated county areas outside the SOI (Goal LU-8). For example, Objective LU-8.1, Policy 1 states that the City will not support development within the SOI until the property is annexed. Policies 3 and 4 state that the City will support the maintenance of existing County land use designations in the Planning Area and encourage the County

to preserve significant agricultural lands outside the SOI. Finally, Policy 2 states that the City will not make new commitments to provide water and wastewater outside the City limits until the property is subject to an approved annexation agreement.

As a result, while the proposed General Plan would result in an increase of growth locally, the policies included in the Plan reduce the potential for negative impacts associated with directly induced growth to a less-than-significant level.

## **2. Indirect Impacts**

While the proposed General Plan does allow additional growth, it also includes specific policies that limit that growth to the City limits and SOI, as mentioned above. For example, policies under Objective LU-8.1 work to discourage development outside the defined City limits and SOI. The land use plan also provides a mixture of housing, shopping and employment opportunities so that as the number of residents increase, they do not pressure adjacent communities to provide new commercial and employment opportunities. Also, as previously stated, commitments to provide water and sewer infrastructure would be limited to areas within the City limits, or that have pre-annexation agreements. As result, the proposed General Plan policies would result in a less-than-significant indirect growth inducing impact.

### ***B. Cumulative Impacts***

CEQA Guidelines require consideration of the potential cumulative impacts that could result from a proposed project in conjunction with other projects in the vicinity. Such impacts can occur when two or more individual effects create a considerable environmental impact or compound other environmental consequences. In the case of a city-wide planning document such as the proposed General Plan, cumulative effects are effects that combine impacts from the project's development in the city with effects of development in other portions of the region. By definition, no development within the

City limits and SOI would be considered part of the cumulative impacts; instead, development inside the city and SOI is part of the project itself.

It should be noted that a significant planning effort within the city is underway: the Tracy Downtown Specific Plan. The Downtown Specific Plan is intended to fulfill General Plan Goal LU-5 for a physically, socially, and economically vibrant Downtown, as well as other General Plan goals for the Downtown. A General Plan Amendment is required for the Downtown Specific Plan since the land use designations would be changed on a number of parcels and the types of uses allowed in the designations would be altered. Although the Downtown Specific Plan would increase the intensity of development within the Specific Plan area from that allowed by the proposed General Plan, this EIR and the EIR for the Downtown Specific Plan assume that overall development in the city would shift slightly towards the Downtown, resulting in a more compact urban core and the same level of citywide development. Therefore, the Downtown Specific Plan is included in the development projections of the proposed General Plan, and additional review through the cumulative analysis is not appropriate.

The cumulative impacts of a General Plan take into account growth projected by the Plan, in combination with impacts from projected growth in other cities in the region. In the following sections, the cumulative impact analysis examines cumulative effects of the proposed General Plan, in combination with San Joaquin County Council of Governments (SJCOG)-projected growth for the other cities in San Joaquin County.

SJCOG is responsible for estimating regional growth for San Joaquin County. In 2000, SJCOG estimated future anticipated growth for the county as a whole, and individual jurisdictions. The 2025 population for San Joaquin County, as projected by SJCOG, is 995,132.<sup>1</sup> SJCOG's projected 2025 population for Tracy is 153,677. Table 6-1 depicts the projected growth for San

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<sup>1</sup> Population, Employment & Housing Unit Projections, San Joaquin Council of Governments, <http://www.sjcog.org/docs/pdf/RFC%20Projections.pdf>, accessed on September 11, 2008.

TABLE 6-1 **SJCOG POPULATION PROJECTIONS FOR SAN JOAQUIN COUNTY IN 2025 COMPARED TO 2000 AND 2008**

Area	2000 Census <sup>a</sup>	2008 <sup>b</sup>	2025 <sup>c</sup>
San Joaquin County	563,598	685,660	995,132
Escalon	5,963	7,131	10,524
Lathrop	10,445	17,429	31,073
Lodi	56,999	63,362	77,253
Manteca	49,258	66,451	96,607
Ripon	10,146	14,915	19,543
Stockton	243,771	289,927	401,997
Tracy	56,929	81,548	153,677
Unincorporated	130,087	144,897	194,564

<sup>a</sup> US Census, 2000.

<sup>b</sup> California Department of Finance estimates for January, 2008.

<sup>c</sup> SJCOG Population Projections as of 2005.

Joaquin County. The projections do not reflect actual 2000 Census data, but ended up closely in line with the real data.

For the purposes of this cumulative analysis, a county-level cumulative analysis is used. The potential cumulative effects of the proposed General Plan are summarized in each of the following subsections.

The following sections summarize the potential cumulative impacts of the proposed General Plan at the regional level, by topics outlined in Chapter 4 of this report.

## **1. Land Use**

As the primary planning document for Tracy, the proposed General Plan would have a less-than-significant impact in relation to potential conflicts with other applicable plans, policies and regulations, including the County's General Plan and LAFCo's SOI. In addition, potential land use incompatibility problems resulting from implementation of the proposed General Plan would be mitigated by policies contained in the Land Use and Open Space Elements. Specific policies in these Elements work to prevent conflicts between various land uses, such as residential and the airport or agriculture, and avoid environmental impacts at the project level. The proposed General Plan also upholds additional guidelines from the County and State in regards to open space, such as the SJMSCP, which requires the preservation of open space and agriculture acres according to the amount of land converted to urban uses. Therefore, implementation of the General Plan will not result in significant and unavoidable cumulative impacts at the project or regional level.

## **2. Population, Employment and Housing**

As discussed in Section 4.2, the proposed General Plan includes policies to control and direct growth in a well planned manner and does not result in the division of existing communities. While there is no project-level significant impact associated with the 2025 planning horizon buildout, a project-level significant and unavoidable impact is associated with total buildout, relative to existing conditions. Growth would also occur in other communities throughout the county and the region. Just as the City of Tracy is expected to grow considerably as its General Plan builds out, other communities in the region will do so as well. This will constitute a significant and unavoidable cumulative impact on population and employment.

San Joaquin and Alameda Counties and other incorporated jurisdictions are required by State law to use the General Plan process, as well as other planning processes, such as utility master plans, to plan for and control future growth. As a result, the cumulative impact associated with population and employment growth would be reduced somewhat, since planning for it would



occur. However, many people would find the sheer change in population and employment in the region to be significant.

**Impact POP-2:** Despite processes to plan for and control future growth by the City of Tracy and other jurisdictions, significant growth will occur under the proposed General Plan and in other communities in the region, constituting a significant cumulative impact on population and employment.

No mitigation measures have been identified for this impact. Therefore, it is a *significant and unavoidable* cumulative impact.

### 3. Visual Quality

The proposed General Plan would result in changes to the visual character of the Tracy Planning Area from a more rural setting to one that is more characterized by urban uses, with increased light and glare sources. As outlined in Section 4.3, despite the proposed General Plan's policies and actions, in conjunction with adopted State, County and City regulations to enhance "home-town feel" and preserve open space, development permitted under the proposed General Plan would result in a significant impact to the existing visual identity and character of the city due to the amount of growth allowed. Similarly, development associated with the anticipated regional growth would result in a substantial change to the visual character of San Joaquin County. Continual urbanization of existing agriculture and open space land has the potential to permanently alter the character of the area. State and local regulations, such as the State Scenic Highway guidelines and the San Joaquin County Multi-Species Critical Habitat Plan mitigate some potential impacts along scenic corridors by preserving views and open space land.

Therefore, the proposed General Plan, combined with the overall growth trends in San Joaquin County, would contribute to the cumulative conversion of the County's visual character from a rural, agricultural character to a more urban feel and thus, would result in a cumulative significant, unavoidable impact to visual quality.

**Impact V-4:** The proposed General Plan, in combination with cumulative growth in San Joaquin County, would convert the visual character from the current rural/agricultural character to a more urban visual character. This change in visual quality will constitute a significant cumulative impact.

No mitigation measures have been identified for this impact. Therefore, it is a *significant and unavoidable* cumulative impact.

#### **4. Traffic and Circulation**

The quantitative, project-level traffic analysis through 2030 included in Section 4.4 also addresses cumulative impacts to the regional transportation system since the traffic model used analyzed the cumulative impacts of the proposed General Plan along with projected regional growth for San Joaquin County. While the proposed General Plan incorporates a range of features that work to help reduce the potential impact of future growth in Tracy to regional roadways, traffic levels along regional roadways will increase, creating a significant and unavoidable impact to Interstate 205, Interstate 580, Interstate 5, Patterson Pass Road and Tesla Road. As a result, there would be a significant unavoidable impact to the regional transportation system. Significant regional roadway impacts are also anticipated to continue to occur after 2030 through total buildout, so a significant and unavoidable cumulative impact would also occur during that period.

**Impact CIR-2:** Despite measures in the proposed General Plan to help reduce the potential impact of future growth in Tracy to regional roadways, traffic levels along regional roadways will increase. Significant regional roadway impacts are anticipated to continue to occur after 2030. This will constitute a significant cumulative impact.

No mitigation measures have been identified for this impact. Therefore, it is a *significant and unavoidable* cumulative impact.

## 5. Cultural Resources

While grading and other construction activities have the potential to impact cultural resources in the Tracy Planning Area, proposed General Plan policies, mitigation measures contained in this EIR, and compliance with federal and State regulations reduce the project-specific impact to a less-than-significant level. Cultural resources in San Joaquin County, including historical, archaeological and paleontological resources, could be cumulatively impacted by future development and related construction activities in the region. However, potential impacts would be mitigated at an individual project level by current State and federal regulations, as well as other local and County regulations and mitigations. Such regulations and mitigation would include the monitoring of construction sites in proximity to known resources, immediate cessation of construction activity upon discovery of unidentified human remains, and the protection of cultural resources. The combination of the above-mentioned efforts would reduce potential cumulative impact related to cultural resources to a *less-than-significant* level.

## 6. Biological Resources

Development associated with implementation of the proposed General Plan would contribute to the on-going loss of natural and agricultural lands in the Tracy area, which currently provide habitat for a variety of species. Development under the proposed General Plan would result in the conversion of existing agricultural habitat to urban uses. Section 4.6 of this EIR references policies in the proposed General Plan and regional, State and federal regulations that mitigate impacts to biological resources at a project level. Development outside of Tracy in San Joaquin County would also be subject to the same regional, State and federal regulations addressing sensitive species. Implementation of regional, State and federal regulations, such as the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), and the Endangered Species Act would also minimize risks to sensitive populations and reduce cumulative impacts throughout the region to a *less-than-significant* level.

## 7. Agricultural Resources

With the implementation of the proposed General Plan, there would be a loss of the existing agricultural lands and land under active Williamson Act contracts within the City limits and SOI. While the proposed General Plan includes policies to minimize this impact, there would still be a project-level significant and unavoidable impact. The loss of agricultural land within Tracy and the SOI as a result of urban development is part of an overall trend within San Joaquin County, with 80 percent (2,037 acres) of new urban acres occurring on formerly irrigated farmland between 1998 and 2000.<sup>2</sup> According to the Farmland Mapping and Monitoring Program (FMMP), agricultural land in San Joaquin County will continue to face development pressure in the foreseeable future.

The proposed General Plan does include several policies and actions under Objective OSC-2.1 stating that the City will work at a regional level to control the conversion of agricultural uses. The City also recently adopted an Agricultural Mitigation Fee Ordinance to help mitigate for the loss of farmland; in-lieu fees will be collected for impacts from development on agricultural land, which will eventually be utilized for the purchase of conservation easements on agricultural lands. In addition, the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan works at a regional level to promote the permanent preservation of agricultural lands in San Joaquin County. However, since the County is projected to continue to urbanize at a significant rate, the loss of agricultural lands and land under active Williamson Act contracts as a result of the proposed General Plan would contribute to a significant and unavoidable cumulative impact to agricultural resources.

**Impact AG-4:** Significant growth will occur under the proposed General Plan and in other communities in the region, constituting a significant cumulative impact on agricultural resources.

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<sup>2</sup> *California Farmland Conversion Report 1998-2000*. California Department of Conservation, Division of Land Resource Protection.

No mitigation measures have been identified for this impact. Therefore, it is a *significant and unavoidable* cumulative impact.

## **8. Mineral Resources**

As discussed in Section 4.8, the proposed General Plan includes land use and design policies to avoid significant impacts to important mineral resources in Tracy. These policies are in compliance with State laws that require local jurisdictions to take into consideration the continued availability of important mineral resources in land use decisions. Implementation of the Tracy General Plan would result in a *less-than-significant* cumulative impact to mineral resources.

## **9. Community Services**

The following provides a cumulative analysis broken down by each community service.

### **a. Police Service**

Future regional growth would result in a need for expanded police service throughout the county. However, only growth within Tracy and its SOI would result in the need for the City to construct additional police facilities to serve its population, resulting in additional environmental impacts. The project-level analysis contained in Section 4.9 takes into consideration the potential growth within the area that would be provided police service by Tracy and no significant impact was identified in regards to the construction of new and expanded facilities. Therefore, implementation of the General Plan would result in a *less-than-significant* cumulative impact to police service.

### **b. Fire Protection and Emergency Medical Services**

Future regional growth would result in increased demand for fire services throughout the county. However, only growth within the Tracy Fire Department service area would result in the need for the Tracy Fire Department to construct additional facilities, resulting in additional environmental impacts. The project-level analysis contained in Section 4.9 takes into consideration the potential growth within the area that would be provided fire service

by Tracy, and no significant impact was identified in regard to the construction of new and expanded facilities. Moreover, since Tracy represents the largest concentration of population for the Tracy Fire Department service area, facilities needed to provide service to the proposed General Plan area would also be adequate to meet the demand generated by any other growth occurring within the Department's service area. Therefore, implementation of the General Plan would result in *less-than-significant* cumulative impacts to fire protection and emergency medical services.

c. Schools

Future regional growth would result in increased demand for schools throughout the county. However, only growth within the TUSD, JESD, LESD, BUSD, and NJSJ service areas would result in the need for the various districts to construct additional facilities, resulting in additional environmental impacts. For some of the districts, growth within Tracy would be the primary source of demand for additional school facilities. However, the LESD is planning for additional schools to support the Mountain House community and the BESD would need to serve proposed residential development in the River Islands of Lathrop project. As with the proposed General Plan project-level analysis, it is unknown exactly where these school facilities would occur to support the cumulative increase in population resulting from growth outside of Tracy. As specific school facility expansion or improvement projects are identified, additional project-specific, second-tier environmental analysis would be completed. Therefore, implementation of the General Plan would result in *less-than-significant* cumulative impacts to schools.

d. Solid Waste

Growth within San Joaquin County would contribute to the need for adequate solid waste disposal facilities. As discussed in Section 4.9 for the project-level analysis, the Foothill Landfill has capacity until at least 2054. The cumulative population growth within the county was considered when evaluating the lifespan of the facility and planning for future expansions. It is also reasonable to assume that adequate planning for further landfill expansion

will occur in the 48-year period before the existing landfill reaches capacity. As a result, it can be concluded that there would be adequate capacity to support regional increases in population. Therefore, implementation of the General Plan would result in a *less-than-significant* cumulative impact to the disposal solid waste.

e. Parks and Recreational Facilities

The California Quimby Act allows a City to require land or in-lieu fees for a minimum of 3 acres per 1,000 residents, with the possibility of increasing the requirement to a maximum of 5 acres per 1,000 residents if the City already provides more than 3 acres per 1,000 residents. As discussed in Section 4.9, Tracy's current park dedication ordinance requires a dedication of 4 acres per 1,000 people for all new development projects. Furthermore, the proposed General Plan includes an action for the City to consider increasing its parkland dedication standard to 5 acres per 1,000 residents. San Joaquin County requires 3 acres per 1,000 residents for new development, as do the neighboring communities of Lathrop and Manteca. Through its regulations, Tracy is providing more than the State-defined need for parkland. Given the parkland requirements of Tracy and neighboring communities, which will ensure that new development provides adequate parkland for new residents to the extent allowed by State law, implementation of the General Plan and adherence to other requirements would result in *less-than-significant* cumulative impacts to parks and recreational facilities.

## 10. Infrastructure

The following provides a cumulative analysis for each infrastructure type.

a. Water Services

Future growth in San Joaquin County would generate an additional demand for water. A portion of this growth would be dependent on the groundwater basin for its primary water source. As mentioned in Section 4.10, a study has been completed for the groundwater basin and users have entered into an agreement to limit their use of the basin to a sustainable level. In addition, new development throughout the county would also be subject to SB 610 and

SB 221, which require adequate water supplies to be identified prior to approval of a project. As a result of these existing regulations, there would not be a cumulative impact associated with water supplies.

Future regional growth would result in a need for expanded water infrastructure throughout the county. However, only growth within Tracy and its SOI would result in the need for the City to construct additional water facilities to serve its population, resulting in additional environmental impacts. The project-level analysis for the proposed General Plan in Section 4.10 takes into consideration all potential growth within the area that would be provided water service by Tracy. No significant impact was identified in regard to the construction of new and expanded facilities during the 20-year planning horizon. However, a project-level significant and unavoidable impact associated with total buildout was found with regard to water supply. While the project would not contribute to a significant cumulative impact associated with water services during the 20-year planning horizon, it would contribute to a cumulative significant and unavoidable impact at total buildout, since regional water supplies are also not ensured into the future for development that would begin beyond a 20-year planning horizon.

**Impact INF-2:** The proposed General Plan at total buildout, in combination with cumulative growth in San Joaquin County, would not have ensured water supplies. This will constitute a significant cumulative impact.

No mitigation measures have been identified for this impact. Therefore, it is a *significant and unavoidable* cumulative impact.

b. Wastewater

Future regional growth would result in increased demand for wastewater services throughout San Joaquin County. However, only growth within Tracy and its SOI would result in the need for the City to construct additional wastewater facilities, resulting in additional environmental impacts. The project-level analysis in Section 4.10 takes into consideration all potential growth within the area that would require wastewater service by Tracy, and no sig-



nificant impact was identified for the 20-year planning horizon and for total buildout. Therefore, implementation of the General Plan will result in *less-than-significant* cumulative impacts to wastewater services.

c. Stormwater

As development proceeds within Tracy and the SOI, impervious surfaces would increase, as would the amount of pollutants in runoff, thereby increasing stormwater drainage rates and potentially impacting surface and groundwater quality. However, project-level water quality impacts to water resources would be reduced to a less-than-significant level by implementing BMPs in accordance with the NDPES and other applicable regulations, as well as implementation of the water quality policies contained in the proposed General Plan. New development within the county would also result in an increase in runoff. Regional development would also be required to comply with regional, State and federal regulations addressing stormwater runoff and water quality. Therefore, adherence to these regulations would result in a *less-than-significant* cumulative impact to water quality.

Future regional growth would result in increased demand for additional stormwater drainage infrastructure throughout the county. However, only growth within Tracy and its SOI would cause the need for the City to construct additional stormwater drainage infrastructure, resulting in additional environmental impacts. The project-level analysis for the proposed General Plan in Section 4.10 takes into consideration all potential growth within the area that would require stormwater drainage infrastructure in Tracy and the SOI, and no significant impact was identified in regard to the construction of new and expanded facilities for the 20-year planning horizon and for total buildout. Therefore, implementation of the General Plan would result in a *less-than-significant* cumulative impact to stormwater drainage infrastructure.

d. Energy

As growth occurs throughout San Joaquin County, there will be an increased demand for electricity and natural gas. As discussed in Section 4.10, Tracy would avoid a significant project-level impact associated with the wasteful use

of energy by implementing proposed General Plan policies, as well as complying with State regulations. Similarly, other jurisdictions in San Joaquin County are required to meet State regulations in regard to energy conservation, such as required by Title 24. As a result, *less-than-significant* cumulative impacts related to energy would occur.

#### **11. Geology, Soils and Seismic Hazards**

Regional development would increase the number of people and structures subject to geologic- and soils-related risks. The policies contained in the proposed General Plan, along with compliance with federal, State and local regulations addressing building construction, run-off and grading, reduce the potential project-level impact associated with geology and soils to a less-than-significant level. Development in other communities in San Joaquin County would also be required to comply with federal, State and local regulations that are designed to protect increases in people and structures from hazards related to such issues as earthquakes, landslides and soil erosion. As a result, conformance with adopted California building codes, and other measures to protect people and structures from geologic hazards, would reduce this impact to a *less-than-significant* level.

#### **12. Hydrology and Flooding**

As development proceeds within Tracy and the SOI, additional population would also be exposed to the risk of flooding and dam inundation. As discussed in Section 4.12, existing regulations and proposed General Plan policies and actions would reduce the risk to a less-than-significant level. However, new development within the county may locate additional population and structures within areas subject to flooding. However, regional development would also be required to comply with regional, State and federal regulations regarding flooding. These regulations, in combination with implementation of the General Plan, would result in a *less-than-significant* cumulative impact related to hydrology and flooding.

### 13. Hazardous Materials and Other Hazards

As discussed in Section 4.13, the increase in local population and employment under the proposed General Plan would result in the increased use of hazardous household, commercial and industrial materials. In addition, there would be an increase in population that would be exposed to potential wildland fires and hazards associated with aircraft operation. Potential project-level impacts associated with hazards and hazardous materials would be reduced to a less-than-significant level due to local, regional, State and federal regulations, such as those that control the production, use and transportation of hazardous materials and waste and control the location of incompatible land uses in airport hazard areas. Similarly, as growth occurs in the county, additional people would be exposed to risks associated with hazardous materials, wastes, wildland fires and airport operations. However, as would occur within Tracy, regional, State and federal regulations would apply to countywide development, and would result in *less-than-significant* cumulative impacts associated with hazards and hazardous materials.

### 14. Noise

Cumulative noise impacts are considered as part of the project-level noise analysis since the future traffic projections used for the noise analysis were generated by a cumulative traffic model. The quantitative traffic model considered growth through 2030 under the proposed General Plan in conjunction with the projected regional growth for San Joaquin County for that period. As discussed in detail in Section 4.14, future noise level increases related to increases in traffic associated with new roadways facilitated by the proposed General Plan would contribute to a significant and unavoidable noise impact at the project-level and cumulative level. Since these noise level increases related to regional traffic would also be anticipated to continue to occur after 2030 through total buildout, a significant and unavoidable cumulative impact would also occur during that period.

**Impact NOI-3:** Increases in traffic associated with new roadways facilitated by the proposed General Plan would contribute to significant noise levels increases adjacent to existing noise sensitive uses. These noise level increases

related to regional traffic are anticipated to continue to occur after 2030. This will constitute a significant cumulative impact.

No mitigation measures have been identified for this impact. Therefore, it is a *significant and unavoidable* cumulative impact.

### 15. Air Quality

Cumulative air impacts are considered as part of the project-level analysis since the future traffic projections used for the air quality analysis were generated by a cumulative traffic model. The traffic model considered growth under the proposed General Plan in conjunction with projected regional growth for San Joaquin County. As discussed in detail in Section 4.15, due to the existing air quality issues in the San Joaquin Valley Air Basin, the proposed General Plan would contribute to two significant, unavoidable cumulative air quality impacts. Since air quality impacts associated with increases in regional traffic would also be anticipated to occur after 2030 through total buildout, a significant and unavoidable cumulative impact would also occur during that period.

**Impact AIR-4:** Buildout under the proposed General Plan is projected to lead to substantial increases in vehicle miles traveled and greenhouse gas emissions and contribute to existing air quality issues in the San Joaquin Valley Air Basin. These air quality impacts associated with increases in regional traffic are anticipated to occur after 2030, constituting a cumulatively significant impact.

No mitigation measures have been identified for this impact. Therefore, it is a *significant and unavoidable* cumulative impact.

### C. Unavoidable Significant Effects

While some impacts associated with the proposed General Plan would be reduced to a less-than-significant level, adoption and implementation of the

proposed General Plan would result in the following significant and unavoidable impacts:

- ◆ **Impact POP-1:** Despite policies in the Community Character Element of the proposed General Plan to maintain and enhance quality of life as future growth occurs, development permitted under the proposed General Plan would result in approximately an additional 43,000 to 70,000 residents, 163,000 employees and 13,225 to 21,300 housing units for a total of 124,500 to 151,500 residents, 193,000 employees and 38,700 to 46,700 housing units at total buildout.
- ◆ **Impact POP-2:** Despite processes to plan for and control future growth by the City of Tracy and other jurisdictions, significant growth will occur under the proposed General Plan and in other communities in the region, constituting a significant cumulative impact on population and employment.
- ◆ **Impact V-1:** As discussed on pages 52 and 53, in addition to policies in the SJMSCP and the City's Agricultural Mitigation Fee Ordinance, the proposed General Plan contains policies to preserve open space and agricultural lands and community character. Despite such policies to enhance "hometown feel" and preserve open space, development permitted under the proposed General Plan for both the 2025 and total buildout of the City limits and SOI will result in a significant impact to the existing visual identity and character of the City.
- ◆ **Impact V-2:** As discussed on page 53, despite policies in the proposed General Plan to protect scenic resources, including those along state designated scenic highways for development projected through 2025, a significant and unavoidable impact would occur with regards to scenic resources along the state designated scenic routes I-580 (between I-205 and I-5) and I-5 (south of I-205) at total buildout of the proposed General Plan.
- ◆ **Impact V-4:** The proposed General Plan, in combination with cumulative growth in San Joaquin County, would convert the visual character from the current rural/agricultural character to a more urban visual char-

acter. This change in visual quality will constitute a significant cumulative impact.

- ◆ **Impact CIR-1:** The General Plan incorporates a range of features to help reduce the potential impact of future growth on regional roadways. However, traffic levels along regional roadways listed below will increase, creating a significant and unavoidable impact.
  - I-205
  - I-580
  - I-5
  - Patterson Pass Road
  - Tesla Road
- ◆ **Impact CIR-2:** Despite measures in the proposed General Plan to help reduce the potential impact of future growth in Tracy to regional roadways, traffic levels along regional roadways will increase. Significant regional roadway impacts are anticipated to continue to occur after 2030. This will constitute a significant cumulative impact.
- ◆ **Impact AG-1:** As discussed on pages 67 through 71, the proposed General Plan contains policies to preserve agricultural lands, in addition to policies in the SJMSCP and the City's Agricultural Mitigation Fee Ordinance. Despite these policies and regulations, development permitted under the proposed General Plan would result in the conversion of Prime Farmland, Unique Farmland and Farmland of Statewide Importance to urban uses. No additional mitigation is available.
- ◆ **Impact AG-2:** Despite policies in the proposed General Plan to support and encourage preservation of Williamson Act lands and the voluntary nature of the Williamson Act program, total buildout of the City limits and SOI may result in the conversion of land under active contracts to urban uses.
- ◆ **Impact AG-3:** The proposed General Plan contains several policies to mitigate impacts to agricultural resources due to the conversion of additional farmland to urban uses. However, implementation of the proposed General Plan would result in additional and incompatible urban

development adjacent to agricultural uses to the extent that the conversion of additional farmland to non-agricultural uses.

- ◆ **Impact AG-4:** Significant growth will occur under the proposed General Plan and in other communities in the region, constituting a significant cumulative impact on agricultural resources.
- ◆ **Impact INF-1:** As discussed on page 78, no significant water-related impacts have been identified for development projected through 2025. However, despite policies in the Land Use and Public Facilities Elements of the proposed General Plan directing the City to acquire reliable, additional sources of water supplies to meet the city's future demand as new development occurs, there is currently insufficient water supply secured to serve projected development under total buildout of the proposed General Plan.

No additional mitigation is available. Despite policies in the proposed General Plan to ensure infrastructure is in place or planned to support growth, current water supplies would be insufficient to accommodate projected development at total buildout. However, as noted on page 78, no significant impacts would occur related to development through 2025, since current water supply could accommodate projected development through this period.

- ◆ **Impact INF-2:** The proposed General Plan at total buildout, in combination with cumulative growth in San Joaquin County, would not have ensured water supplies. This will constitute a significant cumulative impact.
- ◆ **Impact NOI-1:** The City's Noise Ordinance and policies in the proposed General Plan serve to control excessive sources of noise in the city and ensure that noise impacts from new projects are evaluated when they are reviewed. Despite these policies and regulations, significant noise levels increases (3 dBA  $L_{dn}$  or greater) associated with increased traffic would occur adjacent to existing noise sensitive uses along portions of I-205, Grant Line Road, Schulte Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive. New roadways

facilitated by the General Plan would also increase existing noise levels at receivers in Tracy.

- ◆ **Impact NOI-3:** Increases in traffic associated with new roadways facilitated by the proposed General Plan would contribute to significant noise levels increases adjacent to existing noise sensitive uses. These noise level increases related to regional traffic are anticipated to continue to occur after 2030. This will constitute a significant cumulative impact.
- ◆ **Impact AIR-1:** The General Plan would not be consistent with applicable clean air planning efforts of the SJVAPCD, since vehicle miles traveled that could occur under the proposed General Plan would exceed that projected by the SJCOG, which are used in projections for air quality planning. The projected growth could lead to an increase in the region's VMT beyond that anticipated in the SJCOG and SJVAPCD clean air planning efforts. Development in Tracy would contribute to the ongoing air quality issues in the San Joaquin Valley Air Basin.

Mitigation Measure AIR-1: The City of Tracy will facilitate development applicants' participation in the San Joaquin Valley Air Pollution Control District's Indirect Source Review program. The Indirect Source Review program requires developers of larger projects to reduce emissions and provides on-site mitigation measures to help developers reduce air impacts. However, the mitigation measure identified above may not completely mitigate this impact. Therefore, it is considered a *significant and unavoidable* impact.

- ◆ **Impact AIR-3:** Buildout in Tracy under the proposed General Plan is projected to substantially increase vehicle travel and lead to substantial GHG emission increases. The projected rate of GHG emissions and VMT is greater than the rate of population growth. This conflicts with State efforts to reduce GHG emissions and meet AB 32 targets by 2020, resulting in a cumulatively significant impact.

Mitigation Measure AIR-3: Senate Bill (SB) 375 requires that metropolitan planning organizations (MPO's) include sustainable communities strategies in their regional transportation plans for the pur-



poses of reducing greenhouse gases and meeting the goals of Assembly Bill (AB) 32. In compliance with SB 375, and as directed under Objective AQ-1.4, Action 3, of the proposed General Plan, the City shall develop a citywide sustainability strategy to implement the regional sustainability strategy released by SJCOG, which is the MPO for the Tracy region. The sustainability strategy will identify current and future GHG emissions from each sector (e.g. transportation, energy use and water consumption), and establish emission reduction targets. The strategy will also identify specific planning measures or requirements that the City would adopt to reduce emissions so that they would not conflict with State efforts to meet AB 32 goals, including the goal to reduce greenhouse gas emissions to 1990 levels by 2020.

The mitigation measure identified above would not mitigate this impact to a less-than-significant level. Therefore, it is considered a *significant and unavoidable* impact.

- ◆ **Impact AIR-4:** Buildout under the proposed General Plan is projected to lead to substantial increases in vehicle miles traveled and greenhouse gas emissions and contribute to existing air quality issues in the San Joaquin Valley Air Basin. These air quality impacts associated with increases in regional traffic are anticipated to occur after 2030, constituting a cumulatively significant impact.

#### *D. Significant Irreversible Changes*

Section 15126.2(c) of the CEQA Guidelines requires a discussion of the extent to which a proposed project will commit nonrenewable resources to uses that future generations would probably be unable to reverse. An example of such an irreversible commitment is the construction of highway improvements that would provide public access to previously inaccessible areas.

A project would generally result in a significant irreversible impact if:

- ◆ Primary and secondary impacts would commit future generations to similar uses.
- ◆ The project would involve a large commitment of nonrenewable resources.
- ◆ The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

#### **1. Changes in Land Use that Commit Future Generations**

Development under the proposed General Plan would result in the conversion of vacant and agricultural lands to industrial, commercial and residential uses, and the intensification of underutilized areas. This development would constitute a long-term commitment to residential, commercial, industrial, parking and other urban uses.

#### **2. Commitment of Resources**

Development allowed under the proposed General Plan would irretrievably commit nonrenewable resources to the construction and maintenance of buildings, infrastructure and roadways. These non-renewable resources include mining resources such as sand, gravel, steel, lead, copper and other metals. Buildout of the proposed General Plan also represents a long-term commitment to the consumption of fossil fuels, natural gas and gasoline. Increased energy demands would be used for construction, lighting, heating and cooling of residences, and transportation of people within, to and from the city and SOI. Proposed General Plan policies and actions promoting energy conservation (Objective OSC-5.1 and Objective OSC-5.2 with supporting policies and actions) would result in some savings in non-renewable energy supplies. Implementation of the proposed General Plan would also result in an irreversible commitment of limited, renewable resources such as lumber and water. Proposed General Plan policies and actions promoting resource and water conservation and green building (policies and actions under Objective CC-1.1, Objective OSC-5.1, Objective OSC-5.3, Objective PF-5.1, Objec-

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tive PF-6.1, Objective PF-6.5, Objective PF-7.4, Objective AQ-1.2 and Objective AQ-1.4) would result in some savings of renewable resources.

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## **7 REPORT PREPARATION**

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## A P P E N D I X A

### GOAL, OBJECTIVE, POLICY AND ACTION REVISIONS





## APPENDIX A

The proposed General Plan includes new and revised goals, objectives, policies and actions to implement the proposed changes to the SOI, encourage ways to reduce greenhouse gas emissions and strengthen the sustainability-related policy framework that is used to guide future development and City operations.

Proposed changes to the goals, objectives, policies and actions are listed below. Text that is proposed to be added to or removed from the 2006 General Plan text is shown in double underline and ~~striketrough~~, respectively. In addition, goals, objectives, policies and actions that address the reduction of greenhouse gas emissions or encourage sustainable practices are denoted with an earth symbol (🌍).

### A. Policy Changes

#### 1. Land Use Element

##### Objective LU-1.4

###### Policies

- P2. ~~The~~ On a regular basis, the City shall prioritize the allocation of Residential Growth Allotments (RGAs) for new residential development to meet the goals of the General Plan including, but not limited to, ~~concentrated growth~~ growth concentrated around existing urban development and services, infill development, affordable housing, senior housing, and development with a mix of residential densities and housing types, as a high priority. 🌍
- P3. The City shall encourage residential growth that follows an orderly pattern with initial expansion targeted for areas shown in Figure 2-3. Applications for residential development shall only be considered in the following instances: 🌍
- ◆ In areas designated within Figure 2-3.

- ◆ In areas and Urban Reserves that primarily contain land uses focused on the generation of jobs with ancillary residential development. However, the residential portions of such areas or Urban Reserves shall not be considered eligible to apply for RGAs and building permits until RGAs and building permits necessary to develop all areas within Figure 2-3 have been awarded, unless those RGAs and building permits sought for projects in such areas are for affordable housing as defined by the Tracy Municipal Code, in which cases RGAs and building permits for affordable housing may be awarded.

- P4. The City shall continue to make available RGAs and building permits for downtown and infill development as a high priority. 🗺️
- P6. Development of Downtown sites shall be encouraged at the highest possible densities consistent with available services and the goals for environmental protection and land use compatibility. 🗺️
- P7. A specific plan should be created to plan for the development of Urban Reserves 5, 7, 8 and 9 for residential development, that will further the City's goal to promote the efficient and orderly expansion of the City's housing base within the Secondary Residential Growth Areas.

#### Objective LU-1.5

##### Policies

- P3. A new, mixed-use, high-density Village Center should be developed in Urban Reserves 10 and 11 along the Union Pacific Railroad. 🗺️

Objective LU-6.4 Ensure that development conforms to flood safety requirements.

Policies

- P1. The City shall ensure that development permitting occurs in a manner to provide public safety in flood-prone areas.

Actions

- A1. Conduct a review as necessary of areas that are subject to flooding, as identified in flood plain maps prepared by the Federal Emergency Management Agency (FEMA) (Figure 8-1 in the Safety Element) or the Department of Water Resources (DWR).
- A2. Amend the Land Use Element as necessary to reflect any new flood plain maps when provided by FEMA or DWR.

**2. Community Character Element**

Objective CC-1.1

Policies

- P2. The City shall promote the development of urban green space, including community squares, parks, rooftop gardens and plazas. 🌍

Objective CC-5.2

Policies

- P4. In most instances, block lengths should be short, typically no more than 400 feet, to create a fine-grained and easily navigable street pattern that allows for multiple routes through a neighborhood and greater opportunities for pedestrian activity. 🌍

Objective CC-7.1

Policies

- P3. The City shall discourage new “strip” commercial development and encourage site design for new commercial projects that provide for pedestrian/bicycle access and proper building scale and proportion relative to the pedestrian realm. (E)

**3. Economic Development Element**

Goal ED-1 A diversified and sustainable local economy. (E)

Objective ED-1.2 Support and encourage a sustainable local economy. (E)

Policies

- P1. The City shall encourage businesses that use green practices. (E)
- P2. The City shall facilitate employment opportunities that minimize the need for automobile trips, such as live/work, telecommuting, satellite work centers, and home occupations, in addition to mixed-use development strategies. (E)
- P3. The City shall purchase green products from local businesses whenever possible. (E)

**4. Circulation Element**

Objective CIR-1.3

Policies

- P1. To the extent feasible, the City shall strive for LOS C on all streets and intersections, except as follows:
- ◆ LOS D shall be allowed on streets and at intersections within one-quarter (1/4) mile of any freeway. This lower standard is intended to discourage inter-regional traffic from using Tracy streets.
  - ◆ LOS ~~E-F~~ shall be allowed in the Downtown and Bowtie area of Tracy.

Objective CIR-1.8 Minimize transportation-related energy use and impacts on the environment. (E)

Policies

- P1. Transportation projects shall avoid disrupting sensitive environmental resources. (E)
- P2. When possible, road construction and repair projects shall use sustainable materials. (E)
- P3. The City shall encourage the use of non-motorized transportation and low-emission vehicles. (E)

Objective CIR-3.1

Policies

- P5. New development shall include pedestrian and bicycle facilities internal to the development and that connect to city-wide facilities, such as parks, schools and recreational corridors, as well as adjacent development and other services. (E)

Objective CIR-4.1

Policies

- P1. The City shall promote efficient and affordable public transportation that serves all users. (E)
- P5. The City shall require ~~large~~ developments to provide for transit ~~with~~ and transit-related increased modal opportunities, such as adequate street widths and curb radii, bus turnouts, bus shelters, park-and-ride lots and multi-modal transit centers through the development and environmental review processes, if appropriate.

Objective CIR-4.2

Policies

- P1. The City shall ~~continue to pursue the development of~~ complete the Multi Modal Transit Center at Central Avenue and 6th Street. 🌐

**5. Open Space and Conservation**

Goal OSC-5 Efficient use of ~~energy~~ resources throughout the City of Tracy. 🌐

Objective OSC-5.1 Promote resource conservation. 🌐

Policies

- P1. The City shall promote development patterns and construction standards that conserve resources through appropriate planning, housing types and design, and energy conservation practices. 🌐
- P2. The City shall encourage the establishment and maintenance of trees on public and private property to create an urban forest. 🌐
- P3. The City shall encourage landscaping that is water- and energy- efficient.
- P4. The City shall encourage buildings to incorporate energy- and water-efficient technologies.

Objective OSC-5.3 Promote sustainability and energy efficiency and conservation through the City's direct actions. 🌐

Policies

- P1. The City shall use local renewable energy resources when possible. 🌐
- P9. City purchasing policies shall require purchase of energy-efficient products, products that contain recycled materials, and products that reduce waste generated when feasible. 🌐

P11. The City shall use nontoxic materials whenever possible. (E)

## 6. Public Facilities and Services

### Objective PF-1.1

#### Policies

P2. The City shall ensure that new development pays a fair and equitable amount to offset the costs for fire ~~and emergency~~ facilities by collecting a Public Buildings impact fee, or by requiring developers to build new facilities.

### Objective PF-1.1

#### Policies

P4. Fire ~~sub~~-stations shall be constructed in new development areas in order to meet the ~~City's~~ South County Fire Authority's adopted response time requirements.

P5. New developments shall satisfy fire flow and hydrant requirements and other design requirements as established by the ~~City~~ Fire Department.

### Objective PF-5.1

#### Policies

P1. Promote redesign, reuse, composting, and shared producer responsibility of discarded materials. (E)

P6. City buildings shall be rehabilitated and reused when feasible. (E)


Objective PF-6.1 Ensure that reliable water supply can be provided within the City's service area, even during drought conditions, while protecting the natural environment.

#### Policies


P4. The City shall establish water demand reduction standards for new development and redevelopment to reduce per capita and total demand for water. (E)


Objective PF-7.4


Policies

- P4. The City shall establish wastewater treatment demand reduction standards for new development and redevelopment to reduce per capita and total demand for wastewater treatment. 



10. Air Quality Element

- Goal AQ-1 Improved air quality and reduced greenhouse gas emissions. 

Objective AQ-1.1 Improve air quality and reduce greenhouse gas emissions through land use planning decisions. 

Objective AQ-1.2 Promote development that minimizes air pollutant and greenhouse gas emissions and their impact on sensitive receptors as a result of indirect and stationary sources. 

Policies

- P4. New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that ~~meet or exceed~~ Title 24. 
- P6. Installation of solar voltaic panels on new homes and businesses shall be encouraged. 
- ~~P9. Natural gas fireplaces and pelletized fuel or natural gas space heating systems are encouraged.~~
- P13. Residential developments and other projects with sensitive receptors shall be analyzed in accordance with CARB and SJVAPCD recommendations. ~~located an adequate distance from odor sources such as freeways, arterial roadways and stationary air pollutant sources.~~



Actions

A4. Develop a green building standard for new development. (Globe icon)

A5. The City shall evaluate the installation of light emitting diodes (LEDs) for traffic, street and other outdoor lighting where feasible. (Globe icon)

Objective AQ-1.3 Provide a diverse and efficient transportation system that minimizes air pollutant and greenhouse gas emissions. (Globe icon)

Policies

P3. The City shall encourage employers to establish ~~in~~ Transportation Demand Management programs. (Globe icon)

P5. The City shall require direct pedestrian and bicycle linkages from residential areas to parks, schools, retail areas, Downtown, high-frequency transit facilities and major employment areas shall be planned and implemented. (Globe icon)

Objective AQ-1.4

Policies

P3. The City shall be proactive in reducing greenhouse gas emissions from City operations as well as new or renovated development. (Globe icon)

Actions

A3. Develop a citywide sustainability strategy that would include a baseline inventory of greenhouse gas emissions from all sources within the City; greenhouse gas emissions reduction targets; and enforceable greenhouse gas emissions reduction measures. (Globe icon)

*B. Circulation Improvement Changes*

Under the ~~2008~~ General Plan ~~amendment~~ Amendment, the SOI contraction would eliminate the need for an extension of Valpico Road that connects to a north-south arterial to Eleventh Street.

## **A P P E N D I X   B**

### EXISTING NOISE LEVEL MEASUREMENTS

.....



# Noise Levels at LT-1 Residential Land Uses at South End of English Oak Court Adjacent to Altamont Commuter Express Line and West Linne Road June 2-4, 2003

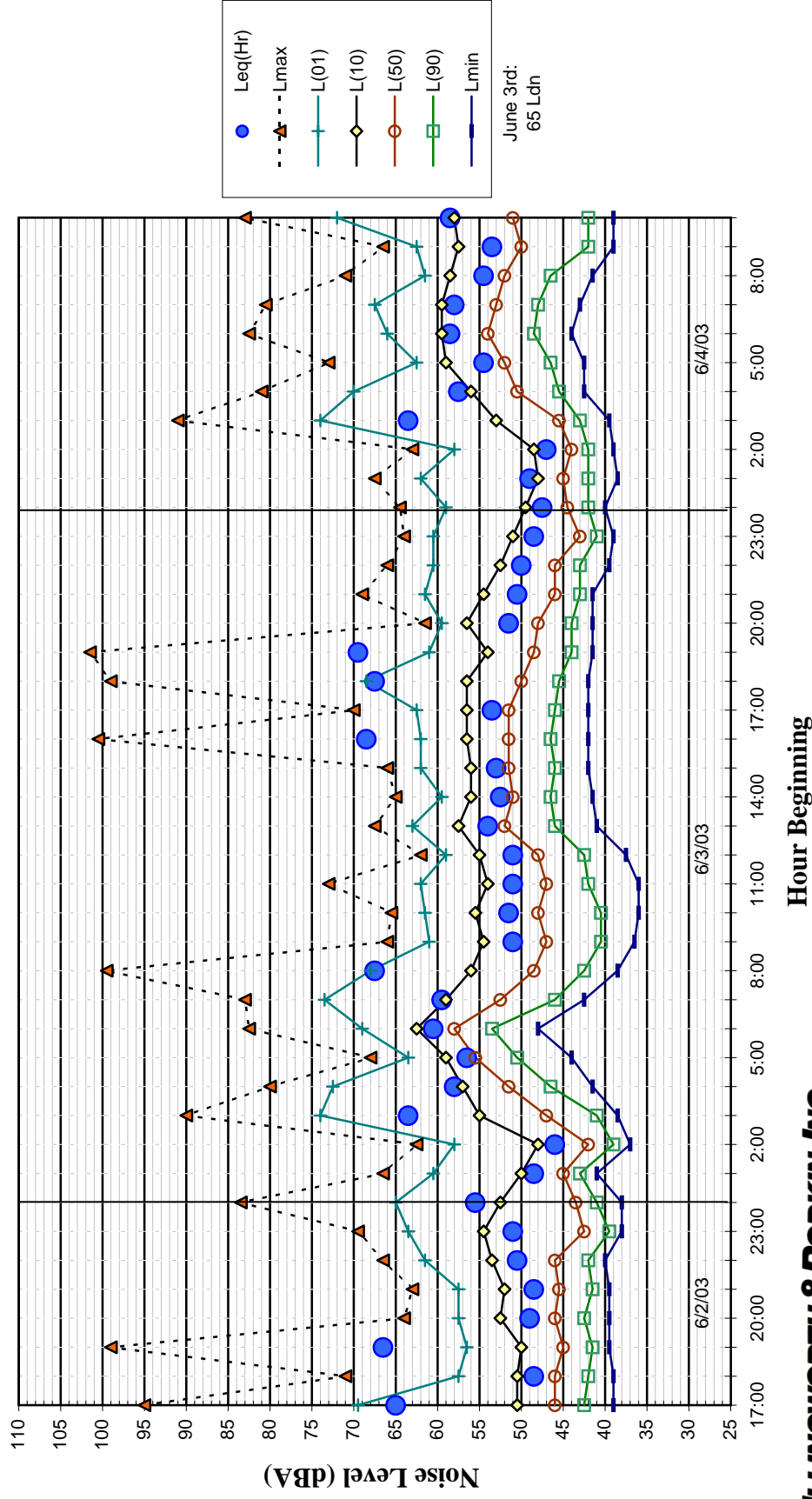


Figure 1

# Noise Levels at LT-2 ~ 35 feet from the Altamont Commuter Express Line near Chrisman Road June 2-4, 2003

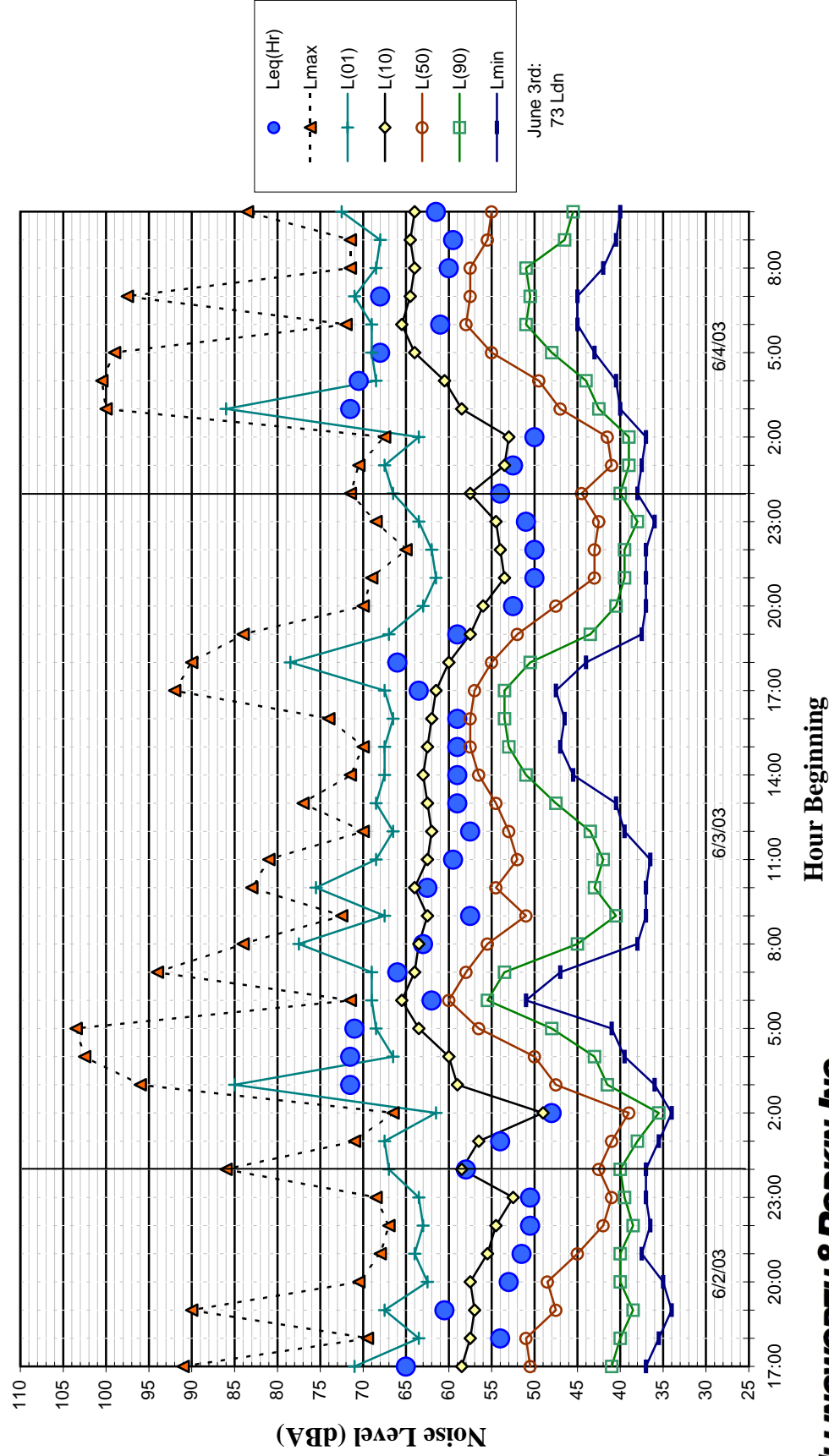
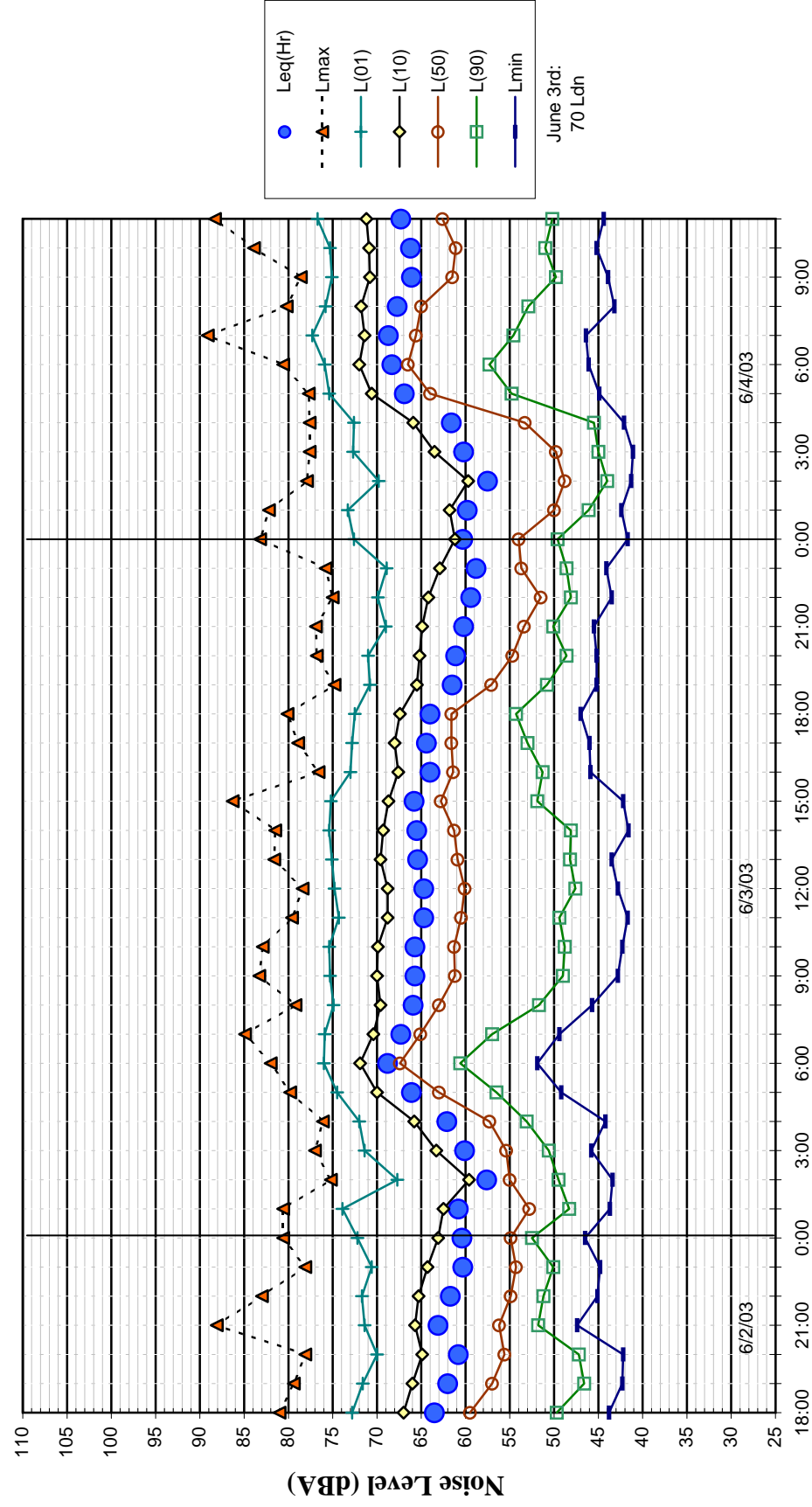


Figure 2

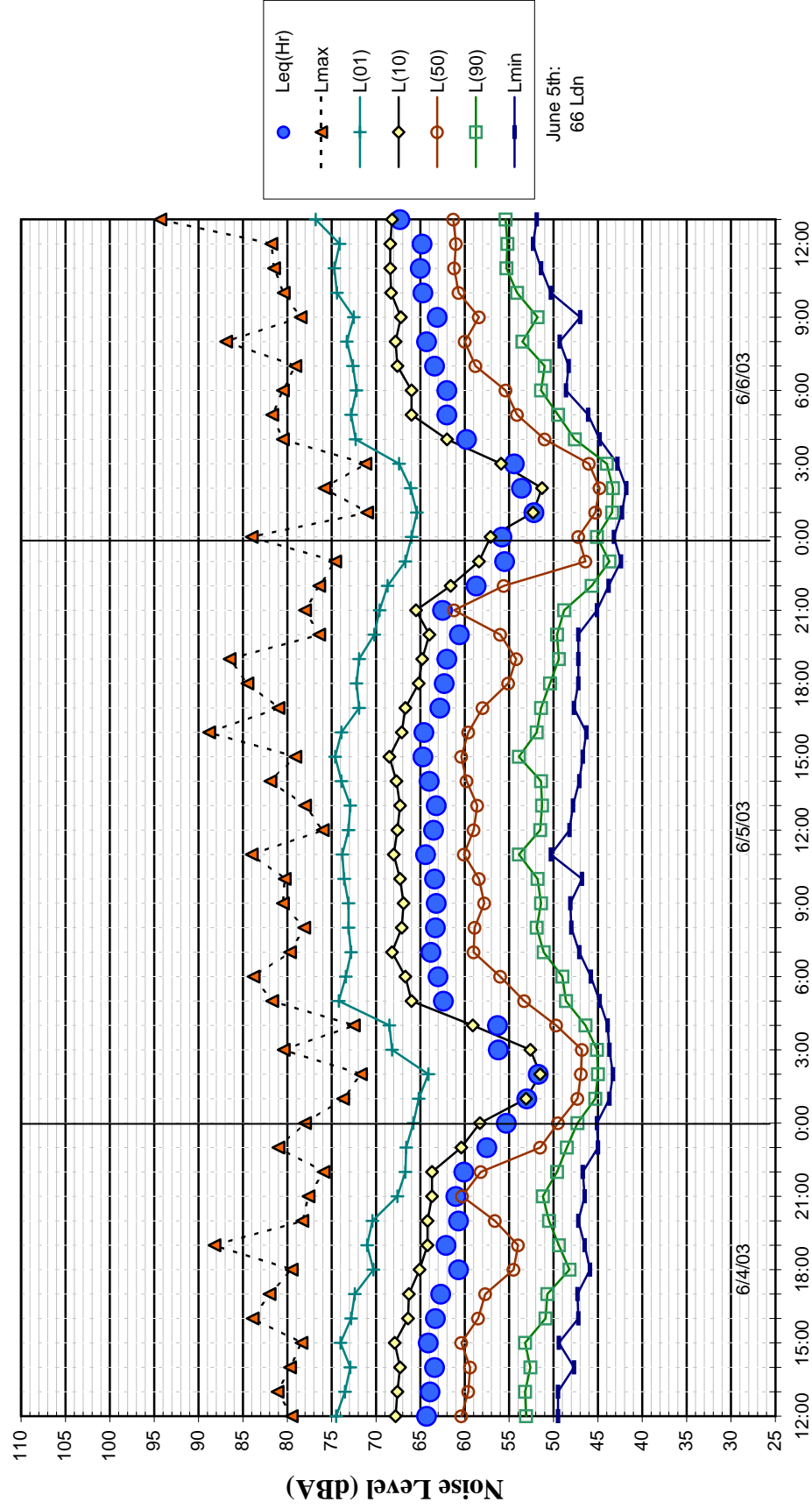
# Noise Levels at LT-3

June 2-4, 2003



# Noise Levels at LT-4

June 4-6, 2003



Hour Beginning

Figure 4



# Noise Levels at LT-5 ~ 90 feet from the Centerline of Eleventh Street at Wall Road June 4-6, 2003

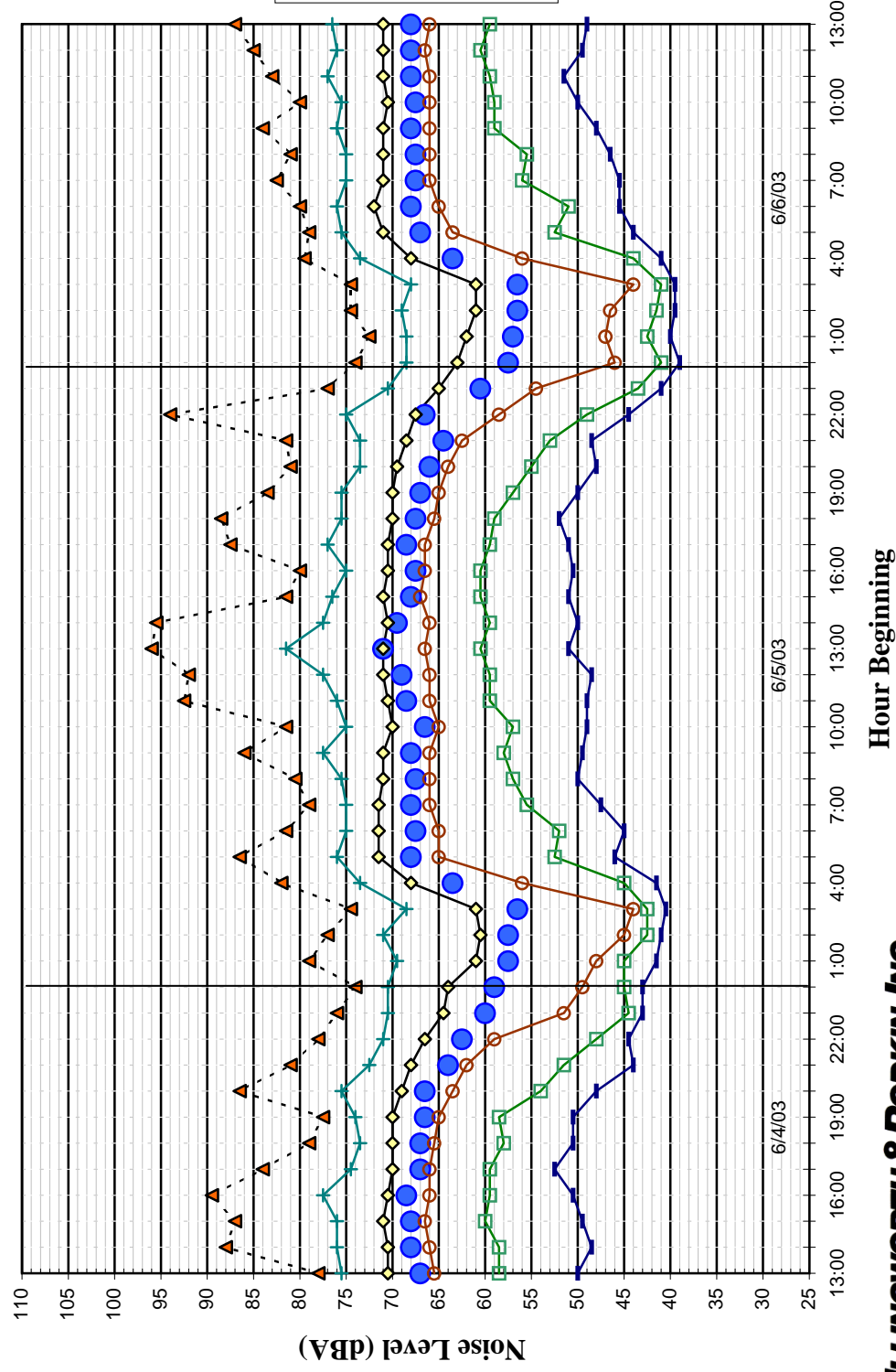


Figure 5

# Noise Levels at LT-6 6th Street Railroad Junction June 4-6, 2003

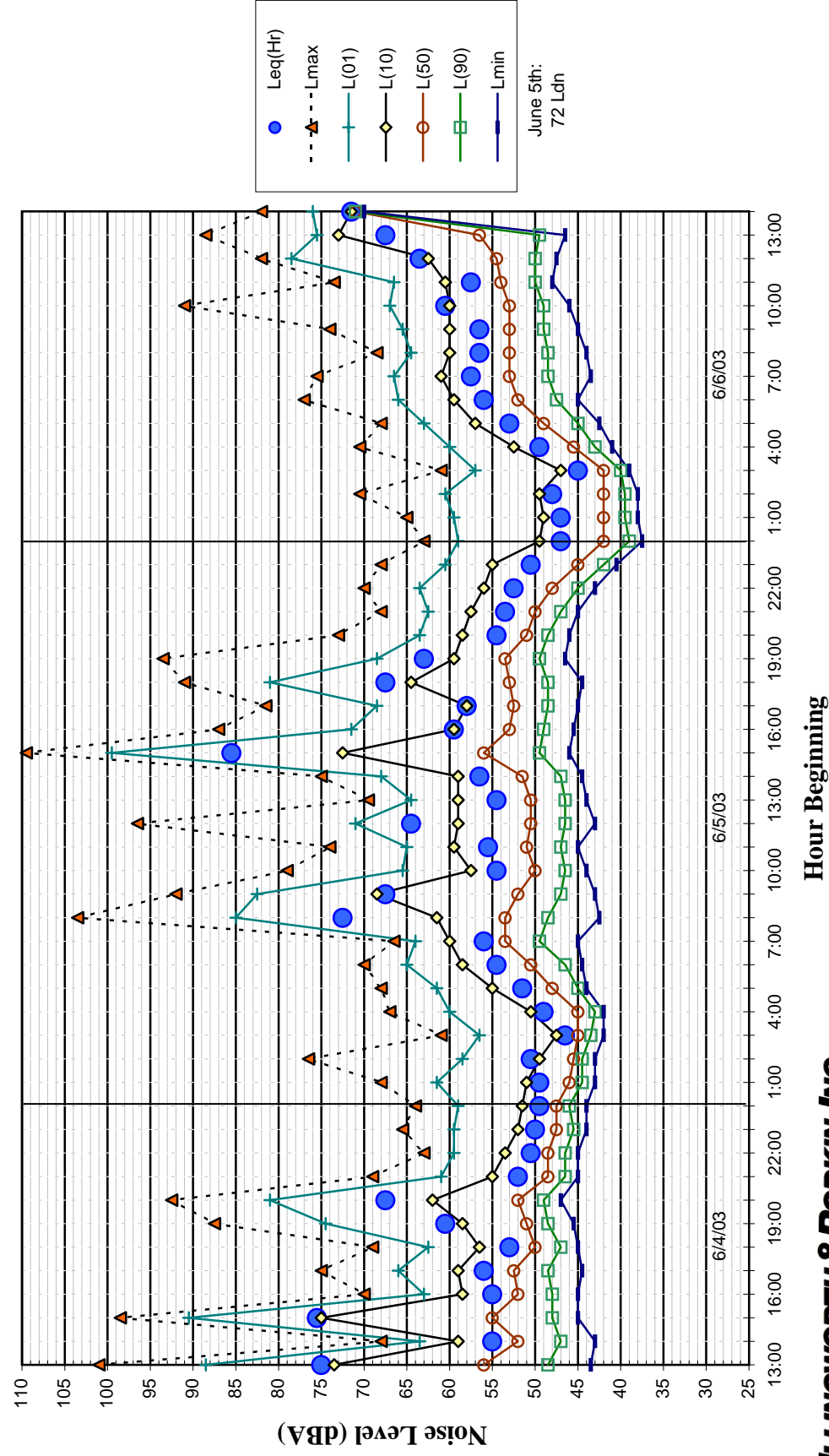
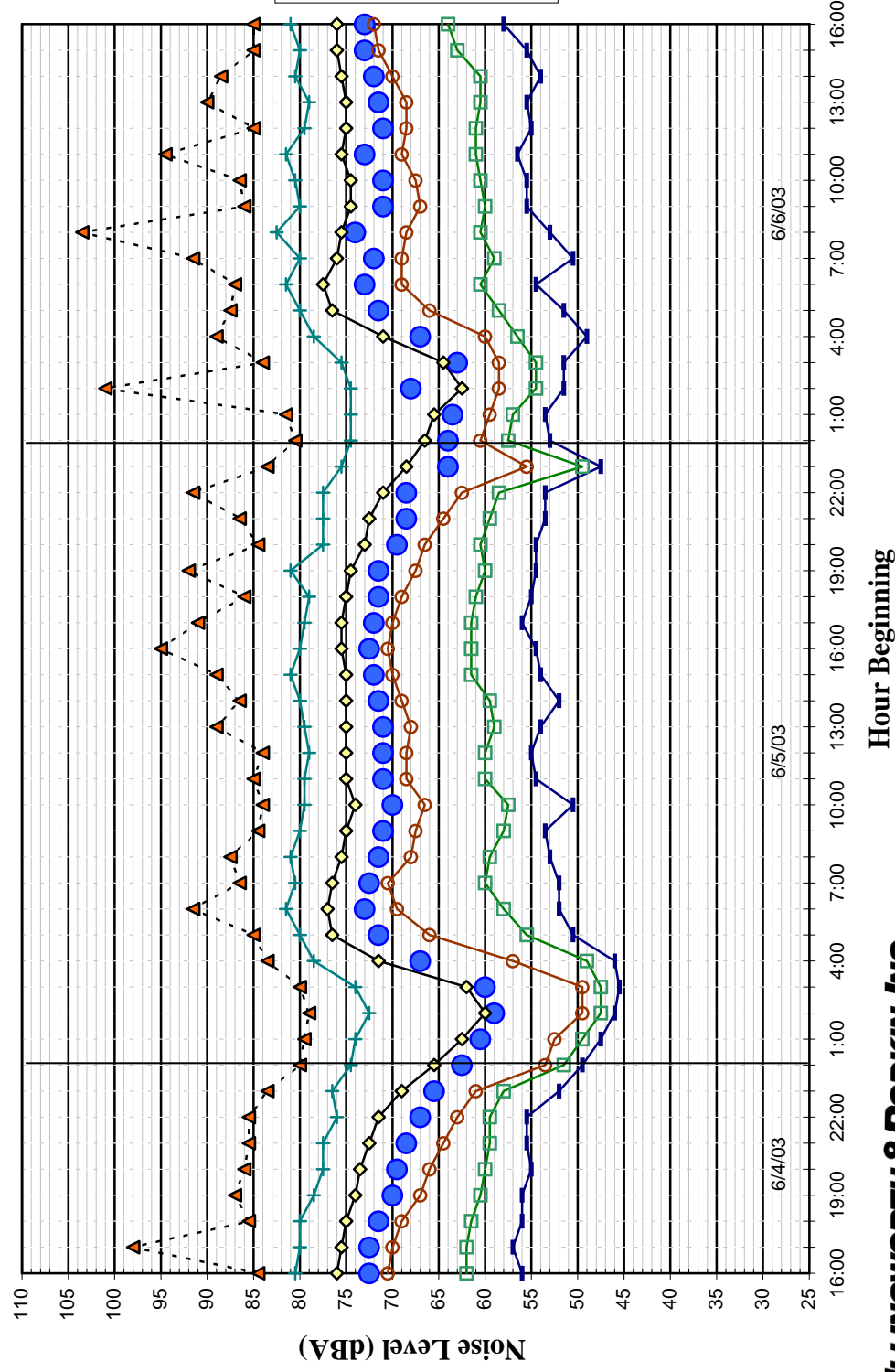


Figure 6

# Noise Levels at LT-7

June 4-6, 2003



# Noise Levels at LT-8 ~80 feet from the Centerline of Tracy Boulevard at Dr. Powers Park June 6-9, 2003

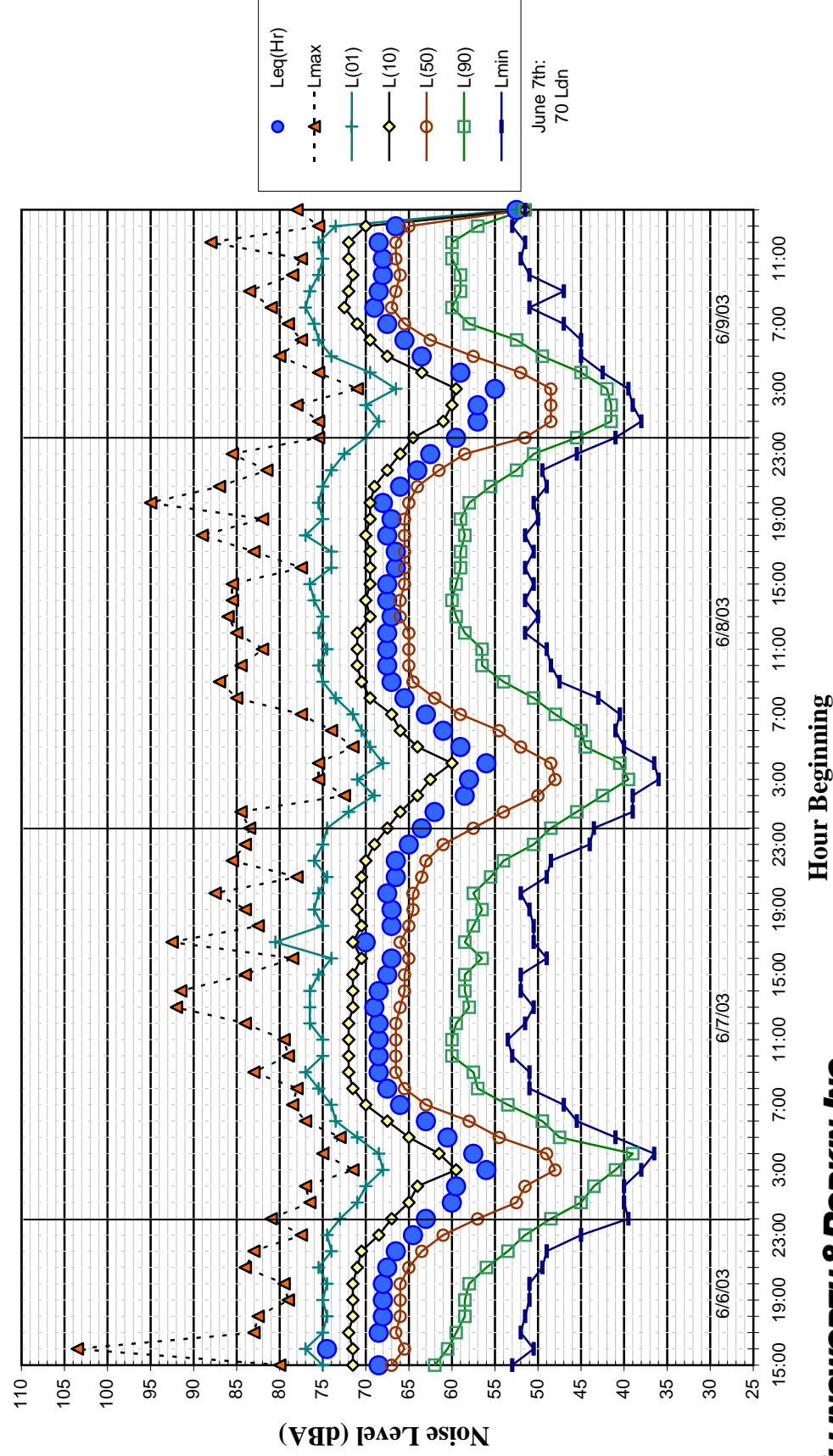
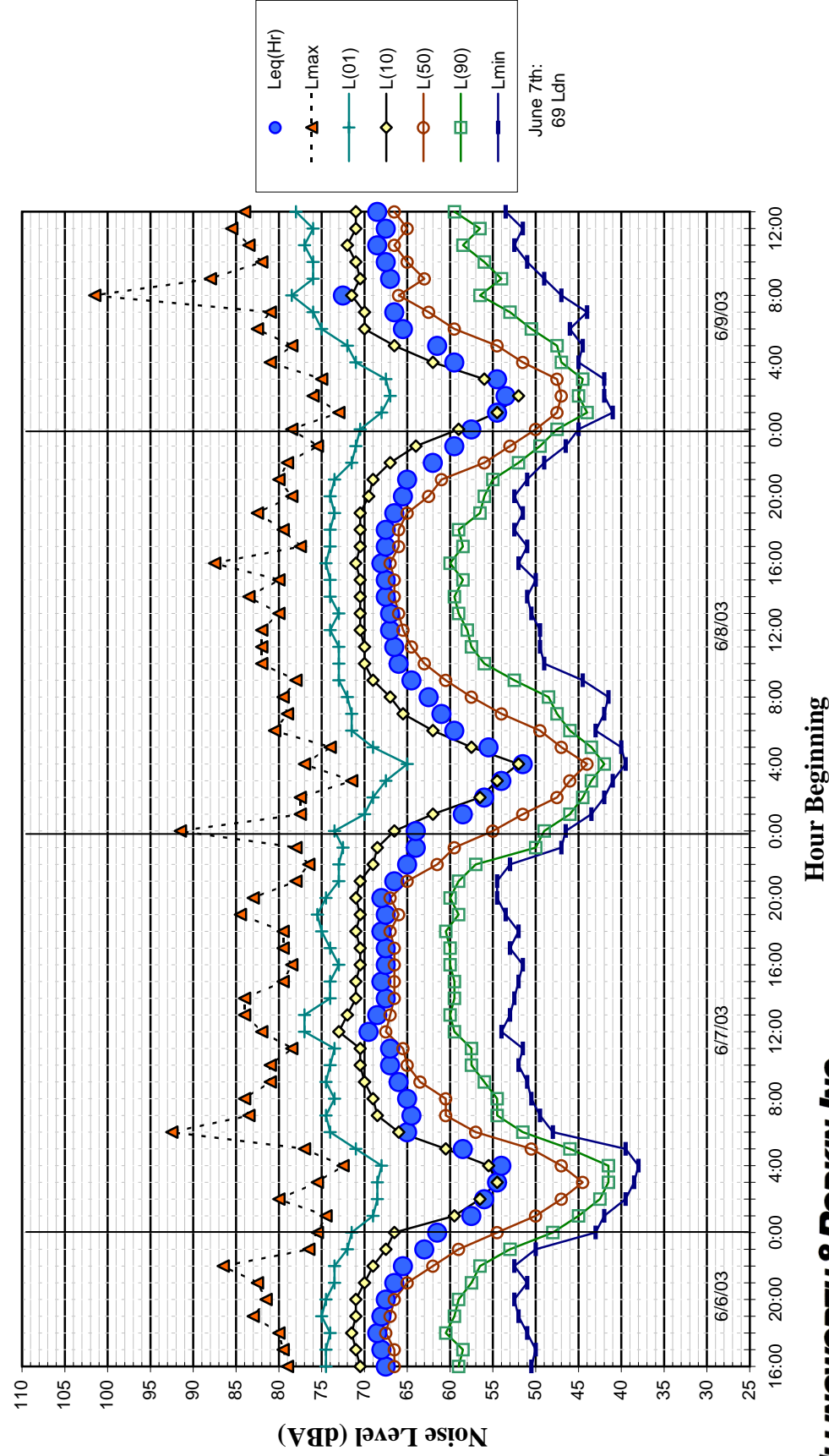


Figure 8

# Noise Levels at LT-9

June 6-9, 2003



# Noise Levels at LT-10 West Larch Road east of Naglee Road June 6-9, 2003

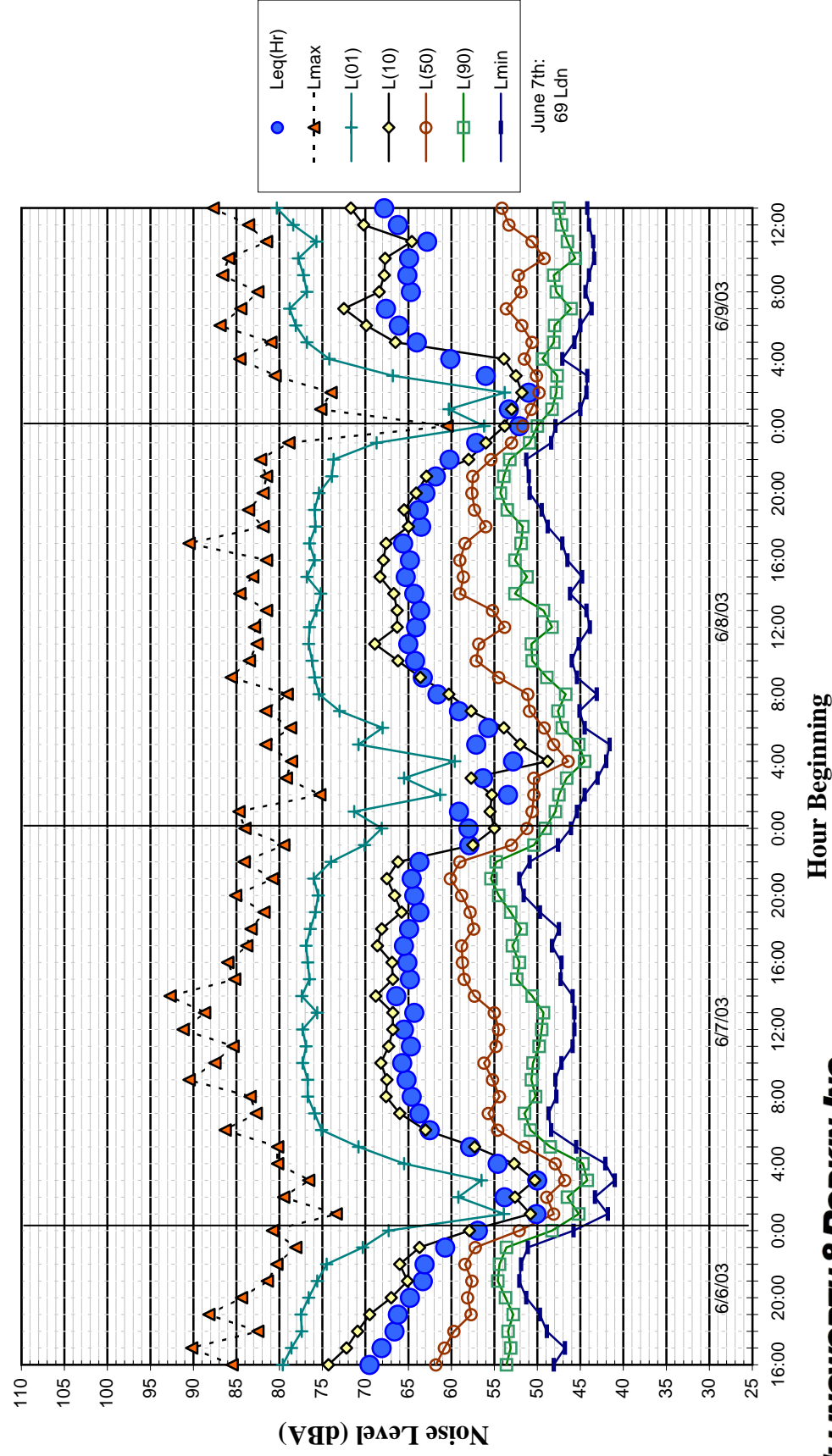


Figure 10

# Noise Levels at LT-11 11240 Clover Road adjacent to I-205 October 31, 2000 - November 1, 2000

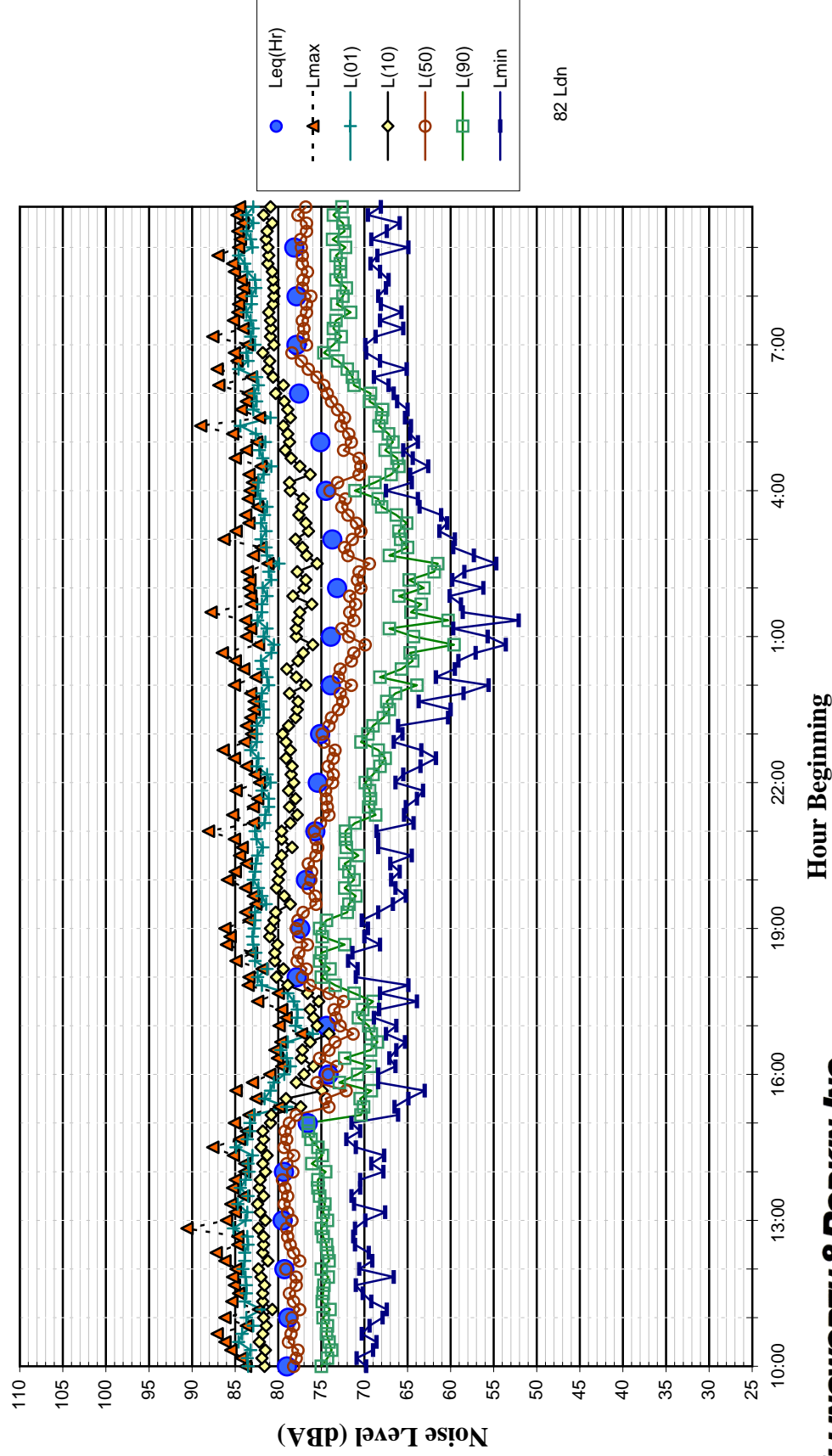


Figure 11



# Noise Levels at LT-12 Rear Yard of 245 Hawthorne Drive Adjacent to I-205 (Shielded by Sound Wall) January 29, 2001 - January 30, 2001

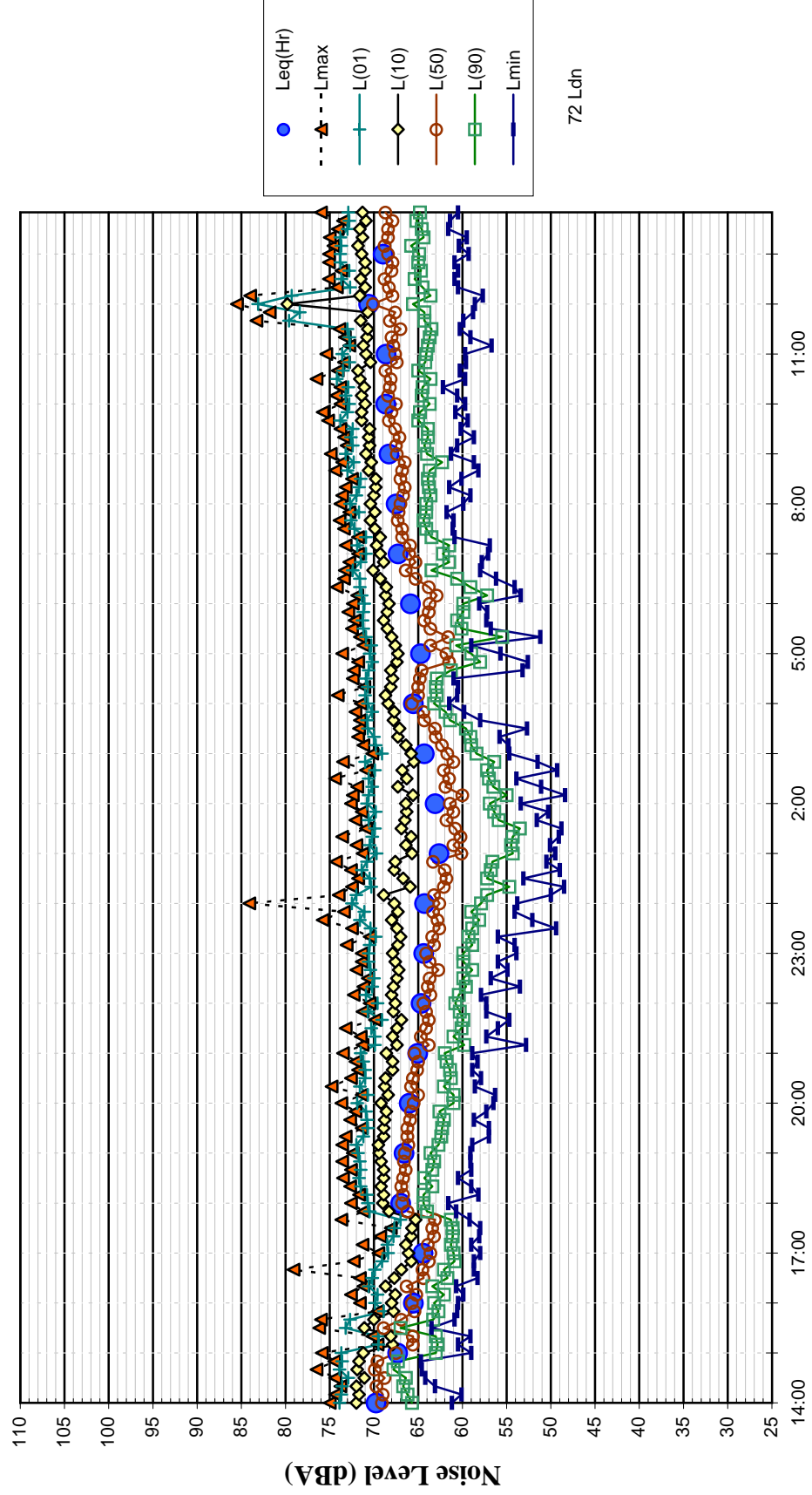


Figure 12



LT-1 English Oak Ct.

Date	Time	Leq	Lmin	Lmax	L01	L10	L50	L90	Energy + Penalty	Ldn of Jun 3
2-Jun	16:16:00	50.5	36.5	75	62.5	51.5	46	42		
2-Jun	17:00:00	65	39	95	69.5	50.5	46	42.5	3162277.66	65.2558887
2-Jun	18:00:00	48.5	39	71	57.5	50.5	46	42	70794.57844	
2-Jun	19:00:00	66.5	39.5	99	56.5	50	45	41.5	4466835.922	
2-Jun	20:00:00	49	39.5	64	57.5	52.5	46	42.5	79432.82347	
2-Jun	21:00:00	48.5	39.5	63	57.5	52	45.5	41.5	70794.57844	
2-Jun	22:00:00	50.5	40	66.5	61.5	53.5	46	42	1122018.454	
2-Jun	23:00:00	51	38	69.5	63.5	54.5	42.5	39.5	1258925.412	
3-Jun	0:00:00	55.5	38	83.5	65	52.5	43.5	41	3548133.892	
3-Jun	1:00:00	48.5	41	66.5	60.5	50	45	43	707945.7844	
3-Jun	2:00:00	46	37	62.5	58	48	42	39	398107.1706	
3-Jun	3:00:00	63.5	38.5	90	74	55	47	41	22387211.39	
3-Jun	4:00:00	58	41.5	80	72.5	57	51.5	46.5	6309573.445	
3-Jun	5:00:00	56.5	44	68	63.5	59	55.5	50.5	4466835.922	
3-Jun	6:00:00	60.5	48	82.5	69	62.5	58	53.5	11220184.54	
3-Jun	7:00:00	59.5	42.5	83	73.5	59	52.5	46	891250.9381	
3-Jun	8:00:00	67.5	38.5	99.5	68	56	48.5	42.5	5623413.252	
3-Jun	9:00:00	51	36.5	66	61	54.5	47	40.5	125892.5412	
3-Jun	10:00:00	51.5	36	65.5	61.5	55.5	48	40.5	141253.7545	
3-Jun	11:00:00	51	36	73	62	54	47	42	125892.5412	
3-Jun	12:00:00	51	37.5	62	59	55	48	42.5	125892.5412	
3-Jun	13:00:00	54	41	67.5	63	57.5	52	46	251188.6432	
3-Jun	14:00:00	52.5	41.5	65	59.5	56	51	46.5	177827.941	
3-Jun	15:00:00	53	42	66	62	56	51.5	46	199526.2315	
3-Jun	16:00:00	68.5	42	100.5	62	56.5	51.5	46.5	7079457.844	
3-Jun	17:00:00	53.5	42	70	62.5	56.5	51.5	46	223872.1139	
3-Jun	18:00:00	67.5	42	99	68.5	56.5	50	45.5	5623413.252	
3-Jun	19:00:00	69.5	41.5	101.5	61	54	48.5	44	8912509.381	
3-Jun	20:00:00	51.5	41.5	61.5	59.5	56.5	48	44	141253.7545	
3-Jun	21:00:00	50.5	41.5	69	61.5	54.5	46	43	112201.8454	
3-Jun	22:00:00	50	39.5	66	60.5	52.5	46	43	1000000	
3-Jun	23:00:00	48.5	39	64	60.5	51	43	41	707945.7844	
4-Jun	0:00:00	47.5	40	64.5	59	49.5	44.5	42	562341.3252	
4-Jun	1:00:00	49	38.5	67.5	62	48	45	42	794328.2347	
4-Jun	2:00:00	47	39	63	58	48.5	44	42	501187.2336	
4-Jun	3:00:00	63.5	39.5	91	74	53	45.5	43	22387211.39	
4-Jun	4:00:00	57.5	42.5	81	70	56	50.5	45.5	5623413.252	
4-Jun	5:00:00	54.5	42.5	73	62.5	59	52	46.5	2818382.931	
4-Jun	6:00:00	58.5	44	82.5	66	59.5	54	48.5	7079457.844	
4-Jun	7:00:00	58	43	80.5	67.5	59.5	53	48	630957.3445	
4-Jun	8:00:00	54.5	41.5	71	61.5	58.5	52	46.5	281838.2931	
4-Jun	9:00:00	53.5	39	66.5	62.5	57.5	50	42	223872.1139	
4-Jun	10:00:00	58.5	39	83	72	58	51	42	707945.7844	

LT-2 Altamont line

Date	Time	Leq	Lmin	Lmax	L01	L10	L50	L90	Energy + Penalty	Ldn of Jun 3
2-Jun	16:49:00	59.5	39	83.5	74	59.5	51.5	43.5		
2-Jun	17:00:00	65	37	91	71	58.5	50.5	41	3162277.66	72.78944166
2-Jun	18:00:00	54	35.5	69.5	63.5	57.5	51	40	251188.6432	
2-Jun	19:00:00	60.5	34	90	67.5	57	47.5	38.5	1122018.454	
2-Jun	20:00:00	53	35	70.5	62.5	57.5	48.5	40	199526.2315	
2-Jun	21:00:00	51.5	37.5	68	64	55.5	45	40	141253.7545	
2-Jun	22:00:00	50.5	36.5	67	63	54.5	42	38.5	1122018.454	
2-Jun	23:00:00	50.5	37	68.5	63.5	52.5	41	39.5	1122018.454	
3-Jun	0:00:00	58	37	86	67	58.5	42.5	40	6309573.445	
3-Jun	1:00:00	54	35.5	71	67.5	56.5	41	38	2511886.432	
3-Jun	2:00:00	48	34	66.5	61.5	49	39	35.5	630957.3445	
3-Jun	3:00:00	71.5	36	96	85	59	47.5	41.5	141253754.5	
3-Jun	4:00:00	71.5	39.5	102.5	66.5	60	50	43	141253754.5	
3-Jun	5:00:00	71	41	103.5	68.5	63.5	56.5	48	125892541.2	
3-Jun	6:00:00	62	51	71.5	69	65.5	60	55.5	15848931.92	
3-Jun	7:00:00	66	47	94	69	64	58	53.5	3981071.706	
3-Jun	8:00:00	63	38	84	77.5	63.5	55.5	45	1995262.315	
3-Jun	9:00:00	57.5	37	72.5	67.5	62.5	51	40.5	562341.3252	
3-Jun	10:00:00	62.5	37	83	75.5	64	54.5	43	1778279.41	
3-Jun	11:00:00	59.5	36.5	81	68.5	62.5	52	42	891250.9381	
3-Jun	12:00:00	57.5	39.5	70	66.5	62	53	43.5	562341.3252	
3-Jun	13:00:00	59	40.5	77	68.5	62.5	54.5	47.5	794328.2347	
3-Jun	14:00:00	59	45.5	71.5	67.5	63	56.5	51	794328.2347	
3-Jun	15:00:00	59	47	70	67.5	62.5	57.5	53	794328.2347	
3-Jun	16:00:00	59	46.5	74	66.5	62	57.5	53.5	794328.2347	
3-Jun	17:00:00	63.5	47.5	92	67.5	61.5	57	53.5	2238721.139	
3-Jun	18:00:00	66	44	90	78.5	60	55	50.5	3981071.706	
3-Jun	19:00:00	59	37.5	84	67	57.5	52	43.5	794328.2347	
3-Jun	20:00:00	52.5	37	70	63	56	47.5	40.5	177827.941	
3-Jun	21:00:00	50	37	69	61.5	53.5	43	39.5	100000	
3-Jun	22:00:00	50	37	65	62	54	43	39.5	1000000	
3-Jun	23:00:00	51	36	68.5	63.5	54.5	42.5	38	1258925.412	
4-Jun	0:00:00	54	38	71.5	66.5	57.5	44.5	40	2511886.432	
4-Jun	1:00:00	52.5	37.5	70.5	67.5	53.5	41	39	1778279.41	
4-Jun	2:00:00	50	37	67.5	63.5	53	41.5	39	1000000	
4-Jun	3:00:00	71.5	40	100	86	58.5	47	42.5	141253754.5	
4-Jun	4:00:00	70.5	40.5	100.5	68.5	60.5	49.5	44	112201845.4	
4-Jun	5:00:00	68	43	99	69	64	55	48	63095734.45	
4-Jun	6:00:00	61	45	72	69	65.5	58	51	12589254.12	
4-Jun	7:00:00	68	45	97.5	71	64.5	57.5	50.5	6309573.445	
4-Jun	8:00:00	60	42	71.5	68.5	64	57.5	51	1000000	
4-Jun	9:00:00	59.5	40.5	71.5	68	64.5	55.5	46.5	891250.9381	
4-Jun	10:00:00	61.5	40	83.5	72.5	64	55	45.5	1412537.545	

LT-3 Corner Of Chrisman Rd. and Cabe Rd.

Date	Time	Leq	Lmin	Lmax	L( 1)	L(10)	L(50)	L(90)	Energy + Penalty	Ldn of Jun 3
2-Jun	17:09:59	64.8	46.8	79.5	75	68	61.7	51.3		
2-Jun	18:00:00	63.5	43.8	81	72.8	67	59.5	49.7	2238721.139	69.87184304
2-Jun	19:00:00	62	42.3	79.4	71.6	66	57	46.6	1584893.192	
2-Jun	20:00:00	60.8	42.2	78.1	70	64.9	55.6	47.2	1202264.435	
2-Jun	21:00:00	63.1	47.4	88.1	71.4	65.7	56.2	51.8	2041737.945	
2-Jun	22:00:00	61.7	45.1	83	71.7	65.3	54.9	51.2	14791083.88	
2-Jun	23:00:00	60.3	44.8	78.1	70.6	64.3	54.3	50.1	10715193.05	
3-Jun	0:00:00	60.4	46.5	80.6	72.2	63.1	54.9	52.5	10964781.96	
3-Jun	1:00:00	60.8	43.7	80.6	73.9	62.5	52.8	48.3	12022644.35	
3-Jun	2:00:00	57.6	43.4	75.2	67.7	59.6	55	49.5	5754399.373	
3-Jun	3:00:00	60.1	45.8	77	71.4	63.3	55.4	50.6	10232929.92	
3-Jun	4:00:00	62.1	44.2	76.1	72	65.8	57.3	53.1	16218100.97	
3-Jun	5:00:00	66.1	49.2	79.8	74.5	70	63	56.5	40738027.78	
3-Jun	6:00:00	68.8	51.9	82	76	71.9	67.4	60.6	75857757.5	
3-Jun	7:00:00	67.3	49.4	84.9	75.9	70.4	65.1	57	5370317.964	
3-Jun	8:00:00	65.9	45.7	79.2	74.9	69.6	63	51.7	3890451.45	
3-Jun	9:00:00	65.7	42.8	83.3	75.3	70	61.2	49	3715352.291	
3-Jun	10:00:00	65.7	42.3	82.9	75.4	69.9	61.3	48.8	3715352.291	
3-Jun	11:00:00	64.7	41.7	79.6	74.3	68.8	60.5	49.4	2951209.227	
3-Jun	12:00:00	64.7	42.8	78.4	74.8	68.8	60.1	47.6	2951209.227	
3-Jun	13:00:00	65.4	43.5	81.6	75.1	69.6	60.9	48.2	3467368.505	
3-Jun	14:00:00	65.5	41.6	81.5	75.4	69.3	61.3	48.1	3548133.892	
3-Jun	15:00:00	65.8	42.2	86.3	75.2	68.7	62.8	51.9	3801893.963	
3-Jun	16:00:00	64	45.9	76.6	73	67.6	61.4	51.3	2511886.432	
3-Jun	17:00:00	64.4	46	78.9	72.8	68	61.6	53	2754228.703	
3-Jun	18:00:00	64	47	80.1	72.5	67.4	61.6	54.3	2511886.432	
3-Jun	19:00:00	61.5	45.2	74.8	70.8	65.5	57.1	50.8	1412537.545	
3-Jun	20:00:00	61.1	45.2	76.8	71	65.2	54.7	48.6	1288249.552	
3-Jun	21:00:00	60.2	45.5	76.9	69	64.9	53.4	50.1	1047128.548	
3-Jun	22:00:00	59.4	43.5	75	69.9	64.2	51.5	48.1	8709635.9	
3-Jun	23:00:00	58.8	44.1	75.8	68.9	62.9	53.7	48.6	7585775.75	
4-Jun	0:00:00	60.3	41.7	83.2	72.6	61.2	54	49.6	10715193.05	
4-Jun	1:00:00	59.8	42.4	82.2	73.3	61.8	50	46.1	9549925.86	
4-Jun	2:00:00	57.5	41.3	77.9	69.8	59.7	48.8	44	5623413.252	
4-Jun	3:00:00	60.2	41.1	77.6	72.7	63.5	49.8	45	10471285.48	
4-Jun	4:00:00	61.6	42.1	77.6	72.6	65.9	53.3	45.5	14454397.71	
4-Jun	5:00:00	66.9	44.9	77.7	75.4	70.6	64	54.8	48977881.94	
4-Jun	6:00:00	68.3	46.1	80.6	75.9	72	66.5	57.3	67608297.54	
4-Jun	7:00:00	68.7	46.4	89.1	77.3	71.4	65.6	54.6	7413102.413	
4-Jun	8:00:00	67.7	43.2	80.2	75.8	71.8	65	52.9	5888436.554	
4-Jun	9:00:00	66.1	43.9	78.6	75.1	70.8	61.5	49.8	4073802.778	
4-Jun	10:00:00	66.2	45.2	83.9	75.3	70.9	61.1	51	4168693.835	
4-Jun	11:00:00	67.3	44.4	88.3	76.7	71.2	62.6	50.2	5370317.964	

## LT-4 N. MacArthur

Date	Time	Leq	Lmin	Lmax	L( 1)	L(10)	L(50)	L(90)	Energy + Penalty	Ldn of Jun 5
4-Jun	11:52:15	69.3	51.1	91.6	82.8	68.3	61	55.8		
4-Jun	12:00:00	64.3	49.5	79.5	74.5	67.8	60.4	53.1	2691534.804	66.01822084
4-Jun	13:00:00	63.9	49.5	81.1	73.5	67.6	59.6	53.2	2454708.916	
4-Jun	14:00:00	63.4	47.7	79.7	72.9	67.3	59.4	52.6	2187761.624	
4-Jun	15:00:00	64.1	49.4	78.4	74	67.9	60.4	53.2	2570395.783	
4-Jun	16:00:00	63.3	47.2	83.9	72.8	66.4	58.5	50.9	2137962.09	
4-Jun	17:00:00	62.7	47.3	82	72.4	66.3	57.7	50.7	1862087.137	
4-Jun	18:00:00	60.7	45.9	79.5	70.3	65.1	54.5	48.2	1174897.555	
4-Jun	19:00:00	62.1	46.5	88.2	71	64.2	54	49.4	1621810.097	
4-Jun	20:00:00	60.7	47.2	78.3	70.4	64.2	56.6	50.5	1174897.555	
4-Jun	21:00:00	61	46.5	77.6	67.6	63.7	60.3	51.2	1258925.412	
4-Jun	22:00:00	60.1	46.7	75.9	66.7	63.7	58.2	49.6	10232929.92	
4-Jun	23:00:00	57.5	45	81	66.6	60.4	51.5	48.5	5623413.252	
5-Jun	0:00:00	55.3	45.1	78	65.8	58.3	49.5	47.3	3388441.561	
5-Jun	1:00:00	53	43.7	73.7	65.2	53.1	47.3	45.3	1995262.315	
5-Jun	2:00:00	51.7	43.3	71.7	64.1	51.5	46.9	45	1479108.388	
5-Jun	3:00:00	56.2	43.7	80.4	68.2	52.6	46.8	45.1	4168693.835	
5-Jun	4:00:00	56.3	43.9	72.5	68.5	59.1	49.7	46.4	4265795.188	
5-Jun	5:00:00	62.4	44.8	81.7	74.2	66	53.3	48.6	17378008.29	
5-Jun	6:00:00	63	45.8	83.8	73.4	66.7	56	49	19952623.15	
5-Jun	7:00:00	63.8	47.1	79.7	72.8	68.2	59	51.1	2398832.919	
5-Jun	8:00:00	63.3	48	78.1	73.1	67.1	58.9	51.9	2137962.09	
5-Jun	9:00:00	63.2	48.1	80.5	73.1	66.9	57.8	51.4	2089296.131	
5-Jun	10:00:00	63.4	46.8	80.3	73.6	67.3	58.4	51.8	2187761.624	
5-Jun	11:00:00	64.4	50.3	84	73.8	68	60.1	53.9	2754228.703	
5-Jun	12:00:00	63.5	48.2	76	73.1	67.6	59	51.5	2238721.139	
5-Jun	13:00:00	63.2	47.8	78	72.9	67.3	58.6	51.3	2089296.131	
5-Jun	14:00:00	64	47.1	81.9	73.9	67.7	59.8	51.4	2511886.432	
5-Jun	15:00:00	64.7	46.7	79.1	74.6	68.5	60.4	53.9	2951209.227	
5-Jun	16:00:00	64.6	46.3	88.8	73.9	67.1	59.6	51.9	2884031.503	
5-Jun	17:00:00	62.8	47.7	81	71.9	66.7	58	51.4	1905460.718	
5-Jun	18:00:00	62.3	47.2	84.5	72.2	65.2	55.1	50.4	1698243.652	
5-Jun	19:00:00	62	47.2	86.5	71.9	64.8	54.2	49.4	1584893.192	
5-Jun	20:00:00	60.6	47.2	76.4	70.2	64	56	49.6	1148153.621	
5-Jun	21:00:00	62.5	45.1	78	69.6	65.5	61.2	48.8	1778279.41	
5-Jun	22:00:00	58.7	43.8	76.4	68.7	61.6	55.6	45.7	7413102.413	
5-Jun	23:00:00	55.5	42.4	74.6	66.7	58.4	46.4	43.7	3548133.892	
6-Jun	0:00:00	55.8	43.2	84	66	57.1	47.2	45.1	3801893.963	
6-Jun	1:00:00	52.2	42.3	71	65.4	52.3	45.3	43.4	1659586.907	
6-Jun	2:00:00	53.6	41.8	75.8	66.1	51.3	44.8	43.3	2290867.653	
6-Jun	3:00:00	54.4	42.8	71.2	67.4	55.9	46	44	2754228.703	
6-Jun	4:00:00	59.8	44.8	80.5	72.3	62	51	47.6	9549925.86	
6-Jun	5:00:00	62	46.1	81.7	72.8	66	54.1	49.5	15848931.92	
6-Jun	6:00:00	62	48.6	80.5	72.2	66	55.4	51.4	15848931.92	
6-Jun	7:00:00	63.4	48.3	79.1	72.6	67.6	58.8	51	2187761.624	
6-Jun	8:00:00	64.3	49.3	86.9	73.3	67.8	60	53.5	2691534.804	
6-Jun	9:00:00	63.1	47	78.5	72.5	67.2	58.4	51.8	2041737.945	
6-Jun	10:00:00	64.7	50.3	80.4	74.4	68.3	60.7	54.1	2951209.227	
6-Jun	11:00:00	65	51.4	81.5	74.7	68.4	61.2	55.3	3162277.66	
6-Jun	12:00:00	64.8	52.3	81.8	74.1	68.4	61	55.2	3019951.72	
6-Jun	13:00:00	67.3	51.9	94.3	76.8	68.2	61.3	55.4	5370317.964	

LT-5 Corner of Wall Rd and 11th St.

Date	Time	Leq	Lmin	Lmax	L01	L10	L50	L90	Energy + Penalty	Ldn of Jun 5	Ldn of Jun 4-5	Ldn of Jun 5-6
4-Jun	12:13:00	68.5	49.5	86.5	78	71	66	59.5				
4-Jun	13:00:00	67	50	78	75.5	70.5	65.5	58.5	5011872.336	71.20770815	70.62376278	70.94983248
4-Jun	14:00:00	68	48.5	88	76	70.5	66	58.5	6309573.445			
4-Jun	15:00:00	68	49.5	87	76	71	66.5	60	6309573.445			
4-Jun	16:00:00	68.5	50.5	89.5	77.5	70.5	66	59.5	7079457.844			
4-Jun	17:00:00	67	52.5	84	74.5	70	66	59.5	5011872.336			
4-Jun	18:00:00	67	50.5	79	73.5	70	65.5	58	5011872.336			
4-Jun	19:00:00	66.5	50.5	77.5	74	70	65	58.5	4466835.922			
4-Jun	20:00:00	66.5	48	86.5	75.5	69	63.5	54	4466835.922			
4-Jun	21:00:00	64	44	81	72.5	68	62	51.5	2511886.432			
4-Jun	22:00:00	62.5	44.5	78	71	66.5	59	48	17782794.1			
4-Jun	23:00:00	60	43	76	70.5	64.5	51.5	44.5	10000000			
5-Jun	0:00:00	59	43	74	70.5	64	49.5	45	7943282.347			
5-Jun	1:00:00	57.5	41.5	79	69.5	61	48	45	5623413.252			
5-Jun	2:00:00	57.5	41	77	71	60.5	45	42.5	5623413.252			
5-Jun	3:00:00	56.5	40.5	74.5	68.5	61	44	42.5	4466835.922			
5-Jun	4:00:00	63.5	41.5	82	73.5	68	56	45	22387211.39			
5-Jun	5:00:00	68	46	86.5	76	71.5	65	52.5	63095734.45			
5-Jun	6:00:00	67.5	45	81.5	75	71.5	65	52	56234132.52			
5-Jun	7:00:00	68	47.5	79	75	71.5	66	55.5	6309573.445			
5-Jun	8:00:00	67.5	50	80.5	75.5	71	66	57	5623413.252			
5-Jun	9:00:00	68	49.5	86	77.5	71	66	58	6309573.445			
5-Jun	10:00:00	66.5	49	81.5	75	70	65	57	4466835.922			
5-Jun	11:00:00	68.5	49	92.5	76	70.5	66	59.5	7079457.844			
5-Jun	12:00:00	69	48.5	92	77.5	71	66	59.5	7943282.347			
5-Jun	13:00:00	71	51	96	81.5	71	66.5	60.5	12589254.12			
5-Jun	14:00:00	69.5	50	95.5	77.5	70.5	66	59.5	8912509.381			
5-Jun	15:00:00	68	51	81.5	76.5	71	67	60.5	6309573.445			
5-Jun	16:00:00	67.5	50.5	80	75	70.5	66.5	60.5	5623413.252			
5-Jun	17:00:00	68.5	51	87.5	77	70.5	66.5	59.5	7079457.844			
5-Jun	18:00:00	67.5	52	88.5	75.5	70	65.5	59	5623413.252			
5-Jun	19:00:00	67	50	83.5	75.5	70	65	57	5011872.336			
5-Jun	20:00:00	66	48	81	73.5	69.5	64	55	3981071.706			
5-Jun	21:00:00	64.5	48.5	81.5	73.5	68.5	62.5	53	2818382.931			

5-Jun	22:00:00	66.5	44.5	94	75	67.5	58.5	49	44668359.22
5-Jun	23:00:00	60.5	41	77	70.5	65	54.5	43.5	11220184.54
6-Jun	0:00:00	57.5	39	74	68.5	63	46	41	5623413.252
6-Jun	1:00:00	57	40	72.5	68.5	62	47	42.5	5011872.336
6-Jun	2:00:00	56.5	39.5	74.5	69	61	46.5	41.5	4466835.922
6-Jun	3:00:00	56.5	39.5	74.5	68	61	44	41	4466835.922
6-Jun	4:00:00	63.5	41	79.5	73.5	68	56	44	22387211.39
6-Jun	5:00:00	67	44	79	75.5	71	63.5	52.5	50118723.36
6-Jun	6:00:00	68	45.5	80	76	72	65	51	63095734.45
6-Jun	7:00:00	67.5	45.5	82.5	75	71	66	56	5623413.252
6-Jun	8:00:00	67.5	46.5	81	75	71	66	55.5	5623413.252
6-Jun	9:00:00	68	48	84	76	71	66	59	6309573.445
6-Jun	10:00:00	67.5	50	80	75.5	70.5	66	59	5623413.252
6-Jun	11:00:00	68	51.5	83	77	71	66	59.5	6309573.445
6-Jun	12:00:00	68	49.5	85	76	71	66.5	60.5	6309573.445
6-Jun	13:00:00	68	49	87	76.5	71	66	59.5	6309573.445

LT-6 On 6th Street at Railroad Junction

Date	Time	Leq	Lmin	Lmax	L01	L10	L50	L90	Energy + Penalty	Ldn of Jun 5	Ldn of Jun 4-5	Ldn of Jun 5-6
4-Jun	12:33:00	57	33	82	66.5	59	51.5	47				
4-Jun	13:00:00	75	43.5	101	88.5	73.5	56	48.5	31622776.6	72.25873977	66.7285162	72.02175717
4-Jun	14:00:00	55	43	68	63.5	59	52	47	316227.766			
4-Jun	15:00:00	75.5	45	98.5	90.5	75	55	48	35481338.92			
4-Jun	16:00:00	55	45	70	63	58.5	52	48	316227.766			
4-Jun	17:00:00	56	44.5	75	66	59	52.5	48.5	398107.1706			
4-Jun	18:00:00	53	45	69	62.5	56.5	50	47	199526.2315			
4-Jun	19:00:00	60.5	45.5	87.5	74.5	58.5	51	48.5	1122018.454			
4-Jun	20:00:00	67.5	47	92.5	81	62	52	49	5623413.252			
4-Jun	21:00:00	52	45	69	61	55	48.5	46.5	158489.3192			
4-Jun	22:00:00	50.5	45	63	59.5	53.5	48.5	46.5	1122018.454			
4-Jun	23:00:00	50	44	65.5	59.5	52	47.5	45.5	1000000			
5-Jun	0:00:00	49.5	44	64	59	51.5	47.5	46	891250.9381			
5-Jun	1:00:00	49.5	43	68	61.5	51	46	44.5	891250.9381			
5-Jun	2:00:00	50.5	43	76.5	58.5	49.5	45.5	44.5	1122018.454			
5-Jun	3:00:00	46.5	42	61	56.5	47.5	45	43.5	446683.5922			
5-Jun	4:00:00	49	42	67	60	50.5	45	43	794328.2347			
5-Jun	5:00:00	51.5	44	68	61.5	55	48	45	1412537.545			
5-Jun	6:00:00	54.5	44.5	70	65	58.5	50.5	46.5	2818382.931			
5-Jun	7:00:00	56	45	66.5	64	60	53.5	49.5	398107.1706			
5-Jun	8:00:00	72.5	42.5	103.5	85	61.5	53.5	48.5	17782794.1			
5-Jun	9:00:00	67.5	43	92	82.5	68.5	52	47	5623413.252			
5-Jun	10:00:00	54.5	44	79	65.5	57.5	50	46.5	281838.2931			
5-Jun	11:00:00	55.5	45	74	65	59.5	51	47	354813.3892			
5-Jun	12:00:00	64.5	43	96.5	71	59	50.5	46.5	2818382.931			
5-Jun	13:00:00	54.5	44	69.5	64.5	59	50.5	46.5	281838.2931			
5-Jun	14:00:00	56.5	44.5	75	68	59	51.5	47	446683.5922			
5-Jun	15:00:00	85.5	46	109.5	99.5	72.5	56	49.5	354813389.2			
5-Jun	16:00:00	59.5	45.5	87	71.5	59.5	53	49	891250.9381			
5-Jun	17:00:00	58	45	81.5	68.5	58	52.5	48.5	630957.3445			
5-Jun	18:00:00	67.5	44.5	91	81	64.5	53	48.5	5623413.252			
5-Jun	19:00:00	63	46.5	93.5	68.5	59.5	53.5	49.5	1995262.315			
5-Jun	20:00:00	54.5	46	73	63.5	58.5	51	48.5	281838.2931			
5-Jun	21:00:00	53.5	45	68	62.5	57.5	50	47	223872.1139			

5-Jun	22:00:00	52.5	43	70	63.5	56	48	45	1778279.41
5-Jun	23:00:00	50.5	40.5	68	60.5	55	45	42	1122018.454
6-Jun	0:00:00	47	37.5	63	59	49.5	42	39	501187.2336
6-Jun	1:00:00	47	38	65	59.5	49	42	39.5	501187.2336
6-Jun	2:00:00	48	38	70.5	60.5	49.5	42	39.5	630957.3445
6-Jun	3:00:00	45	39	61	57	47	42	40	316227.766
6-Jun	4:00:00	49.5	41	70.5	60	52.5	45.5	43	891250.9381
6-Jun	5:00:00	53	42.5	68	63	57	49	45	1995262.315
6-Jun	6:00:00	56	45	77	66	59.5	52	47.5	3981071.706
6-Jun	7:00:00	57.5	43.5	75.5	66.5	61	53	48.5	562341.3252
6-Jun	8:00:00	56.5	44	68.5	64.5	60	53	48.5	446683.5922
6-Jun	9:00:00	56.5	45	74	65.5	60	53	49	446683.5922
6-Jun	10:00:00	60.5	46	91	67	60	53	49	1122018.454
6-Jun	11:00:00	57.5	48	73.5	66.5	60.5	54	50	562341.3252
6-Jun	12:00:00	63.5	47.5	82	78.5	62.5	54.5	50	2238721.139
6-Jun	13:00:00	67.5	46.5	88.5	75.5	73	56.5	49.5	5623413.252
6-Jun	14:00:00	71.5	70	82	76	71.5	71	71	14125375.45



LT-7 Grant Line Rd

Date	Time	Leq	Lmin	Lmax	L01	L10	L50	L90	Energy + Penalty	Ldn of Jun 5	Ldn of Jun 4-5	Ldn of Jun 5-6
4-Jun	15:50:00	71	57.5	79.5	77	74.5	69.5	61.5				
4-Jun	16:00:00	72.5	56	84.5	80.5	76	70.5	62	17782794.1	74.85409284	74.77945304	75.46057174
4-Jun	17:00:00	72.5	57	98	80	75.5	70	62	17782794.1			
4-Jun	18:00:00	71.5	56	85.5	80	75	69	61.5	14125375.45			
4-Jun	19:00:00	70	56	87	78.5	74	67	60.5	10000000			
4-Jun	20:00:00	69.5	55	86	77.5	73.5	66	60	8912509.381			
4-Jun	21:00:00	68.5	55.5	85.5	77.5	72.5	64.5	59.5	7079457.844			
4-Jun	22:00:00	67	55.5	85.5	76	71.5	63	59.5	50118723.36			
4-Jun	23:00:00	65.5	52	83.5	76.5	69	61	58	35481338.92			
5-Jun	0:00:00	62.5	49.5	80	74.5	65.5	53.5	51.5	17782794.1			
5-Jun	1:00:00	60.5	47.5	79.5	74	62.5	52.5	49.5	11220184.54			
5-Jun	2:00:00	59	46	79	72.5	60	49.5	47.5	7943282.347			
5-Jun	3:00:00	60	45.5	80	74	62	49.5	47.5	10000000			
5-Jun	4:00:00	67	46	83.5	78.5	71.5	57	49	50118723.36			
5-Jun	5:00:00	71.5	50.5	85	80	76.5	66	55.5	14125375.45			
5-Jun	6:00:00	73	52	91.5	81.5	77	69.5	58	199526231.5			
5-Jun	7:00:00	72.5	52	86.5	80.5	76.5	70.5	60	17782794.1			
5-Jun	8:00:00	71.5	53	87.5	81	75.5	68	59.5	14125375.45			
5-Jun	9:00:00	71	53.5	84.5	80	75	67.5	58	12589254.12			
5-Jun	10:00:00	70	50.5	84	79.5	74	66.5	57.5	10000000			
5-Jun	11:00:00	71	54.5	85	79.5	75	68.5	60	12589254.12			
5-Jun	12:00:00	71	55	84	79	75	68.5	60	12589254.12			
5-Jun	13:00:00	71	54	89	79.5	75	68	59	12589254.12			
5-Jun	14:00:00	71.5	52	86.5	80	75	69	59.5	14125375.45			
5-Jun	15:00:00	72	54	89	81	75	70	61.5	15848931.92			
5-Jun	16:00:00	72.5	54.5	95	80	75.5	70.5	61.5	17782794.1			
5-Jun	17:00:00	72	56	91	79.5	75.5	70	61.5	15848931.92			
5-Jun	18:00:00	71.5	55	86	79	75	69	61	14125375.45			
5-Jun	19:00:00	71.5	54.5	92	81	74.5	67.5	60	14125375.45			
5-Jun	20:00:00	69.5	54.5	84.5	77.5	73	66.5	60.5	8912509.381			
5-Jun	21:00:00	68.5	53.5	86.5	77.5	72.5	64.5	59.5	7079457.844			
5-Jun	22:00:00	68.5	53.5	91.5	77.5	71	62.5	58.5	70794578.44			
5-Jun	23:00:00	64	47.5	83.5	75.5	68.5	55.5	49.5	25118864.32			
6-Jun	0:00:00	64	53	80.5	74.5	66.5	60.5	57.5	25118864.32			
6-Jun	1:00:00	63.5	53.5	81.5	74.5	65.5	59.5	57	22387211.39			

6-Jun	2:00:00	68	51.5	101	74.5	62.5	58.5	54.5	63095734.45
6-Jun	3:00:00	63	51.5	84	75.5	64.5	58.5	54.5	19952623.15
6-Jun	4:00:00	67	49	89	78.5	71	60	56.5	50118723.36
6-Jun	5:00:00	71.5	51.5	87.5	80	76.5	66	58.5	141253754.5
6-Jun	6:00:00	73	54.5	87	81.5	77.5	69	60.5	199526231.5
6-Jun	7:00:00	72	50.5	91.5	80	76	69	59	15848931.92
6-Jun	8:00:00	74	53	103.5	82.5	75.5	68.5	60.5	25118864.32
6-Jun	9:00:00	71	55.5	86	80	74.5	67	60	12589254.12
6-Jun	10:00:00	71	55.5	86.5	80.5	74.5	67.5	60.5	12589254.12
6-Jun	11:00:00	73	56.5	94.5	81.5	75.5	69	61	19952623.15
6-Jun	12:00:00	71	55	85	79.5	75	68.5	61	12589254.12
6-Jun	13:00:00	71.5	55.5	90	79	75	68.5	60.5	14125375.45
6-Jun	14:00:00	72	54	88.5	80.5	75.5	70	60.5	15848931.92
6-Jun	15:00:00	73	55.5	85	80	76	71.5	63	19952623.15
6-Jun	16:00:00	73	58	85	81	76	72	64	19952623.15

LT-8 Dr. Powers Park on Tracy Blvd.

Date	Time	Leq	Lmin	Lmax	L01	L10	L50	L90	Energy + Penalty	Ldn of Jun 7	Ldn of Jun 6-7	Ldn of Jun 7-8	Ldn of Jun 8-9
6-Jun	15:00:00	68.5	53	80	75	71.5	67	62	7079457.844	70.17081876	70.54891498	69.83851704	69.44656315
6-Jun	16:00:00	74.5	50.5	103.5	77	71.5	65.5	60.5	28183829.31				
6-Jun	17:00:00	68.5	52	83	75	72	66.5	59.5	7079457.844				
6-Jun	18:00:00	68	51.5	82.5	74.5	71.5	66	58.5	6309573.445				
6-Jun	19:00:00	68	51	79	75	71.5	66	58.5	6309573.445				
6-Jun	20:00:00	68	51	79.5	74.5	71.5	66	58	6309573.445				
6-Jun	21:00:00	67.5	49.5	84	75.5	71	65	56	5623413.252				
6-Jun	22:00:00	66.5	49	83	74	70.5	63.5	53.5	44668359.22				
6-Jun	23:00:00	64.5	45	77.5	74.5	68.5	61	51.5	28183829.31				
7-Jun	0:00:00	63	39.5	81	73	67	57	48.5	19952623.15				
7-Jun	1:00:00	60	40	76.5	71	65	52.5	45	10000000				
7-Jun	2:00:00	59.5	40	77	70	64	51.5	43.5	8912509.381				
7-Jun	3:00:00	56	38	71.5	68	59.5	48	41	3981071.706				
7-Jun	4:00:00	57.5	36.5	75	68.5	61.5	49	39	5623413.252				
7-Jun	5:00:00	60.5	41	73	71	65	54.5	47.5	11220184.54				
7-Jun	6:00:00	63	45.5	77	73.5	67.5	58	49.5	19952623.15				
7-Jun	7:00:00	66	47	78.5	74	70	63	53.5	3981071.706				
7-Jun	8:00:00	67.5	51	78	75.5	71.5	65.5	57	5623413.252				
7-Jun	9:00:00	68.5	51	83	77	72	66.5	57.5	7079457.844				
7-Jun	10:00:00	68.5	53	79	75	72	66.5	60	7079457.844				
7-Jun	11:00:00	68.5	53.5	79.5	75	72	66.5	60	7079457.844				
7-Jun	12:00:00	68.5	51.5	84	76.5	72	66.5	59.5	7079457.844				
7-Jun	13:00:00	69	50.5	92	76.5	71.5	66	58	7943282.347				
7-Jun	14:00:00	68.5	52	91.5	76.5	71.5	65.5	58.5	7079457.844				
7-Jun	15:00:00	67.5	52	84	75.5	71.5	65.5	58.5	5623413.252				
7-Jun	16:00:00	67	49	78.5	74	70.5	65	56.5	5011872.336				
7-Jun	17:00:00	70	50.5	92.5	80.5	71.5	66	58.5	10000000				
7-Jun	18:00:00	67	50.5	82.5	75	70.5	65	57.5	5011872.336				
7-Jun	19:00:00	67	51	84	76	71	64.5	56.5	5011872.336				
7-Jun	20:00:00	67.5	52	87.5	75.5	71	64.5	57.5	5623413.252				
7-Jun	21:00:00	66.5	49	78	74.5	70.5	63.5	55.5	4466835.922				
7-Jun	22:00:00	66.5	48.5	85.5	76	70	63	54	44668359.22				
7-Jun	23:00:00	65	44	84	75	69	61	50.5	31622776.6				
8-Jun	0:00:00	63.5	43.5	83.5	74.5	67.5	57.5	48.5	22387211.39				
8-Jun	1:00:00	62	39	84.5	72	66	54	45.5	15848931.92				

8-Jun	2:00:00	58.5	39	72.5	69	64	50	42.5	7079457.844
8-Jun	3:00:00	58	36	75.5	71	62.5	48	39.5	6309573.445
8-Jun	4:00:00	56	36.5	75.5	68	60	48.5	40.5	3981071.706
8-Jun	5:00:00	59	40	71.5	69.5	64	52	44.5	7943282.347
8-Jun	6:00:00	61	41	74	70.5	66	54.5	45	12589254.12
8-Jun	7:00:00	63	40.5	77.5	71.5	67	59	48	1995262.315
8-Jun	8:00:00	65.5	43	85	73.5	69.5	62	50.5	3548133.892
8-Jun	9:00:00	67	47.5	87	75	70.5	64.5	54	5011872.336
8-Jun	10:00:00	67.5	48.5	84.5	75.5	71	65	56.5	5623413.252
8-Jun	11:00:00	67.5	49	82	74.5	71	65	56.5	5623413.252
8-Jun	12:00:00	67.5	51.5	85	75.5	71	65	58.5	5623413.252
8-Jun	13:00:00	67	50	86	75	69.5	66	59.5	5011872.336
8-Jun	14:00:00	67.5	51.5	85.5	76	70	66	60	5623413.252
8-Jun	15:00:00	67.5	50.5	85.5	76.5	69.5	65.5	59.5	5623413.252
8-Jun	16:00:00	66.5	51.5	77.5	74	69.5	65.5	59	4466835.922
8-Jun	17:00:00	66.5	50.5	83	74	69.5	65.5	59	4466835.922
8-Jun	18:00:00	67.5	51.5	89	77	70	65.5	58.5	5623413.252
8-Jun	19:00:00	67	50	82	75	69.5	65.5	59	5011872.336
8-Jun	20:00:00	68	50.5	95	75.5	69.5	65	58	6309573.445
8-Jun	21:00:00	66	49	87	75	69	64	55.5	3981071.706
8-Jun	22:00:00	64	49.5	81.5	74	67.5	61.5	52.5	25118864.32
8-Jun	23:00:00	62.5	45.5	85.5	72.5	66	58.5	50.5	17782794.1
9-Jun	0:00:00	59.5	41	75.5	70	64.5	51.5	45.5	8912509.381
9-Jun	1:00:00	57	38	75.5	68.5	61	48.5	41.5	5011872.336
9-Jun	2:00:00	57	39	78	70	60	48.5	41.5	5011872.336
9-Jun	3:00:00	55	39.5	71	66.5	59.5	48.5	42	3162277.66
9-Jun	4:00:00	59	42.5	75.5	69.5	63.5	52	45	7943282.347
9-Jun	5:00:00	63.5	45	80	74	67.5	57.5	49.5	22387211.39
9-Jun	6:00:00	65.5	45	77.5	75.5	69.5	62.5	52.5	35481338.92
9-Jun	7:00:00	67.5	47	79	76	71	65.5	58	5623413.252
9-Jun	8:00:00	69	51	81	77	72.5	67	60	7943282.347
9-Jun	9:00:00	68.5	47	83.5	76.5	72	66.5	59	7079457.844
9-Jun	10:00:00	68	51	78.5	75.5	71.5	66	59	6309573.445
9-Jun	11:00:00	68	52	77.5	75	72	66.5	60	6309573.445
9-Jun	12:00:00	68.5	51.5	88	75.5	72	66.5	60	7079457.844
9-Jun	13:00:00	66.5	53	75.5	73.5	70	65	57	4466835.922
9-Jun	14:00:00	52.5	51.5	78	52.5	51.5	51.5	51.5	177827.941

LT-9 Corral Hoillow Rd.

Date	Time	Leq	Lmin	Lmax	L01	L10	L50	L90	Energy + Penalty	Ldn of Jun 7	Ldn of Jun 8
6-Jun	15:32:00	68	50	89	75.5	71	66	59.5			
6-Jun	16:00:00	67.5	50.5	79	74.5	70.5	66.5	59	5623413.252	69.34436708	67.70955103
6-Jun	17:00:00	68	50	79.5	74.5	71	66.5	58.5	6309573.445		
6-Jun	18:00:00	68.5	51	80	74	71.5	67.5	60.5	7079457.844		
6-Jun	19:00:00	68	52	83	75	71	67	59.5	6309573.445		
6-Jun	20:00:00	67.5	52.5	81.5	74.5	71	66.5	59	5623413.252		
6-Jun	21:00:00	66.5	51	82.5	73.5	70	65	57.5	4466835.922		
6-Jun	22:00:00	65.5	52.5	86.5	73.5	69	62	56.5	35481338.92		
6-Jun	23:00:00	63	50	76.5	72	67.5	59	53	19952623.15		
7-Jun	0:00:00	61.5	43	75.5	71.5	66.5	54.5	48	14125375.45		
7-Jun	1:00:00	57.5	42	74.5	69	59.5	50	45	5623413.252		
7-Jun	2:00:00	56	39.5	80	68.5	56.5	47	42.5	3981071.706		
7-Jun	3:00:00	54.5	38.5	75.5	68.5	54.5	44.5	41.5	2818382.931		
7-Jun	4:00:00	54	38	72.5	68	55.5	47	41.5	2511886.432		
7-Jun	5:00:00	58.5	39.5	77	71	60.5	50.5	46	7079457.844		
7-Jun	6:00:00	65	48	92.5	74	66	57	51.5	31622776.6		
7-Jun	7:00:00	64.5	49.5	83.5	74.5	68.5	60.5	54.5	2818382.931		
7-Jun	8:00:00	65	50.5	84	73.5	69	60.5	54.5	3162277.66		
7-Jun	9:00:00	66	51	81	74.5	70	63.5	56	3981071.706		
7-Jun	10:00:00	67	52	81	74	70.5	65	57.5	5011872.336		
7-Jun	11:00:00	67	51.5	78.5	73.5	70.5	65.5	57.5	5011872.336		
7-Jun	12:00:00	69.5	54	82	77	73	67.5	59.5	8912509.381		
7-Jun	13:00:00	68.5	53	84	77	72	67	60	7079457.844		
7-Jun	14:00:00	67.5	52.5	84	74	71	66.5	59.5	5623413.252		
7-Jun	15:00:00	68	52	79.5	74	71	66.5	59.5	6309573.445		
7-Jun	16:00:00	67.5	51.5	78.5	73	70.5	66.5	60	5623413.252		
7-Jun	17:00:00	67.5	53	79.5	74	70.5	66.5	60	5623413.252		
7-Jun	18:00:00	68	52	79.5	75	71	67	60.5	6309573.445		
7-Jun	19:00:00	67.5	53.5	84.5	75.5	70.5	66	59	5623413.252		
7-Jun	20:00:00	68	54.5	83	74.5	71	67	60	6309573.445		
7-Jun	21:00:00	66.5	54.5	78	73	70.5	65	59	4466835.922		
7-Jun	22:00:00	65	53	76.5	73	69	61.5	57	31622776.6		
7-Jun	23:00:00	64	47	78	72.5	68.5	59.5	50	25118864.32		
8-Jun	0:00:00	64	46.5	91.5	73.5	66.5	55	49	25118864.32		

8-Jun	1:00:00	58.5	43.5	77.5	70	62	51.5	46	7079457.844
8-Jun	2:00:00	56	42	77.5	69	56.5	47.5	44.5	3981071.706
8-Jun	3:00:00	54	41	71.5	67.5	54.5	46	43.5	2511886.432
8-Jun	4:00:00	51.5	39.5	77	65	52	44	42	1412537.545
8-Jun	5:00:00	55.5	40	74	69	57.5	47	43.5	3548133.892
8-Jun	6:00:00	59.5	43	80.5	71.5	62	49.5	46	8912509.381
8-Jun	7:00:00	61	42	79	71.5	65.5	54	47.5	1258925.412
8-Jun	8:00:00	62.5	41.5	79.5	72	67	57.5	48.5	1778279.41
8-Jun	9:00:00	64.5	44.5	78	73	69	60.5	52.5	2818382.931
8-Jun	10:00:00	66	49	82	73	70	63	56	3981071.706
8-Jun	11:00:00	66.5	49.5	82	73	70	64.5	57.5	4466835.922
8-Jun	12:00:00	67	49.5	82	74	70.5	65.5	58	5011872.336
8-Jun	13:00:00	67	50.5	80	73	70.5	66	59	5011872.336
8-Jun	14:00:00	67.5	51	83.5	74	70.5	66.5	59.5	5623413.252
8-Jun	15:00:00	67.5	50	80	74	70.5	66.5	58.5	5623413.252
8-Jun	16:00:00	68	52	87.5	74.5	71	67	60	6309573.445
8-Jun	17:00:00	67.5	51	77.5	74	70.5	66	58.5	5623413.252
8-Jun	18:00:00	67.5	52.5	79.5	74	70.5	66	59	5623413.252
8-Jun	19:00:00	66.5	51.5	82.5	73.5	70.5	65	56.5	4466835.922
8-Jun	20:00:00	65.5	52.5	78.5	74	69.5	62.5	56	3548133.892
8-Jun	21:00:00	65	51	80	73.5	69	61	55	3162277.66
8-Jun	22:00:00	62	49	79	71.5	67	56	52	15848931.92
8-Jun	23:00:00	59.5	46.5	75.5	71	64	53	49.5	8912509.381
9-Jun	0:00:00	57.5	45	78.5	70.5	59	50	47.5	5623413.252
9-Jun	1:00:00	54.5	41	73	68	54.5	47.5	44	2818382.931
9-Jun	2:00:00	53.5	42	76	67	52	47	45	2238721.139
9-Jun	3:00:00	54.5	42	75	67.5	56	47.5	44.5	2818382.931
9-Jun	4:00:00	59.5	45	81	71	62	51.5	47	8912509.381
9-Jun	5:00:00	61.5	44.5	78.5	72	66.5	54.5	47.5	14125375.45
9-Jun	6:00:00	65.5	46	82.5	75	70	59.5	50.5	35481338.92
9-Jun	7:00:00	66.5	44	81	76	70	62.5	53	4466835.922
9-Jun	8:00:00	72.5	47	101.5	78.5	71.5	66	56.5	17782794.1
9-Jun	9:00:00	67	49	88	76	70.5	63	54	5011872.336
9-Jun	10:00:00	67.5	51	82	76	71	65	56	5623413.252
9-Jun	11:00:00	68.5	52.5	83.5	77	72	66.5	58.5	7079457.844
9-Jun	12:00:00	67.5	51.5	85.5	76	71	65	56.5	5623413.252
9-Jun	13:00:00	68.5	53.5	84	78	71	66.5	59.5	7079457.844

LT-10 W. Larch Rd.

Date	Time	Leq	Lmin	Lmax	L( 1)	L(10)	L(50)	L(90)	Energy + Penalty	Ldn of Jun 7	Ldn of Jun 8
6-Jun	15:50:01	71	47.4	90.7	81.6	75.1	61.6	52.7		66.69958264	65.39744438
6-Jun	16:00:00	69.5	48.1	85.5	79.6	74.3	61.8	53.6	8912509.381		
6-Jun	17:00:00	68.1	46.8	90.2	78.6	72.2	60.8	53.1	6456542.29		
6-Jun	18:00:00	66.6	48.9	82.5	77.4	70.9	59.7	53.4	4570881.896		
6-Jun	19:00:00	66.2	49.7	88.2	77.5	69.5	57.7	52.8	4168693.835		
6-Jun	20:00:00	64.8	51.3	84.4	76.6	67	58.1	53.7	3019951.72		
6-Jun	21:00:00	63.3	52.1	81.4	75.6	65.1	57.6	54.6	2137962.09		
6-Jun	22:00:00	63.1	51.9	80.3	74.5	66	58.4	54.4	20417379.45		
6-Jun	23:00:00	60.7	51.1	78.1	70.3	63.7	57.2	53.6	11748975.55		
7-Jun	0:00:00	56.9	45.8	80.8	67.3	57.9	52.1	48.3	4897788.194		
7-Jun	1:00:00	50.1	41.8	73.4	53.9	50.8	48.1	45.2	1023292.992		
7-Jun	2:00:00	53.8	43.3	79.5	59.2	52.6	48.9	46.5	2398832.919		
7-Jun	3:00:00	50	41	76.6	56.5	50.3	46.8	44.2	1000000		
7-Jun	4:00:00	54.6	42.1	80.2	65.5	52.7	47.9	44.7	2884031.503		
7-Jun	5:00:00	57.8	45.5	80.2	70.8	57.3	51.5	48.5	6025595.861		
7-Jun	6:00:00	62.5	48.4	86.3	75.1	63	54.6	50.8	17782794.1		
7-Jun	7:00:00	63.7	48.7	82.7	75.9	66	55.7	51.5	2344228.815		
7-Jun	8:00:00	64.6	47.8	83.4	76.7	67.6	54.4	50.2	2884031.503		
7-Jun	9:00:00	65.2	47.9	90.5	76.7	67.5	55.2	50.7	3311311.215		
7-Jun	10:00:00	65.7	47.2	87.5	77.3	68.2	56.2	50.5	3715352.291		
7-Jun	11:00:00	64.7	45.9	85.4	76.9	67.3	54.8	49.8	2951209.227		
7-Jun	12:00:00	65.5	45.7	91.2	77.3	66.8	54.5	49.5	3548133.892		
7-Jun	13:00:00	64.3	45.7	88.7	75.6	66.8	55	49.3	2691534.804		
7-Jun	14:00:00	66.4	45.9	92.7	77.4	68.8	57.3	50.6	4365158.322		
7-Jun	15:00:00	64.8	47.3	85.2	76.5	66.8	58.5	52.4	3019951.72		
7-Jun	16:00:00	65.1	47.2	86	76.7	66.9	58.7	52.1	3235936.569		
7-Jun	17:00:00	65.5	48.3	83.8	76.9	68.6	58.8	52.9	3548133.892		
7-Jun	18:00:00	64.9	47.5	83.3	76.4	68.1	57.4	51.9	3090295.433		
7-Jun	19:00:00	63.7	49.7	81.8	75.8	65.8	57.8	53.1	2344228.815		
7-Jun	20:00:00	64.3	51.6	85.1	75.5	66.6	58.8	54.5	2691534.804		
7-Jun	21:00:00	64.6	52.1	80.8	76	67.5	60.1	55.4	2884031.503		
7-Jun	22:00:00	63.7	50.9	84.1	74	66.2	59	54.8	23442288.15		
7-Jun	23:00:00	57.9	47.6	79.5	70.1	57.5	53	50.4	6165950.019		
8-Jun	0:00:00	58	46.1	84	68.1	55	51.2	49.1	6309573.445		

8-Jun	1:00:00	59.1	45.4	84.7	71.3	55.5	50.6	47.9	8128305.162
8-Jun	2:00:00	53.4	44.5	75.3	61.3	55.3	50.4	47.5	2187761.624
8-Jun	3:00:00	56.3	43	79.2	65.5	57.7	50.4	46.6	4265795.188
8-Jun	4:00:00	52.8	42	78.6	59.6	48.8	46.4	44.5	1905460.718
8-Jun	5:00:00	57.1	41.6	81.6	70.8	52	48.1	45.2	5128613.84
8-Jun	6:00:00	55.7	44.5	78.7	68	53.9	49.2	47.1	3715352.291
8-Jun	7:00:00	59.1	45.1	81.6	73	57.7	50.9	47.6	812830.5162
8-Jun	8:00:00	61.6	43.1	79.1	75.4	60.3	51.1	46.7	1445439.771
8-Jun	9:00:00	63.3	45.4	85.6	75.9	63.6	54.5	48.9	2137962.09
8-Jun	10:00:00	64.2	46	83.5	76.2	66.2	57.1	50.6	2630267.992
8-Jun	11:00:00	65	45.2	82.6	76.6	68.9	56.8	50.7	3162277.66
8-Jun	12:00:00	64.1	43.9	82.9	76.5	66.3	53.8	48.3	2570395.783
8-Jun	13:00:00	63.6	44.3	81.5	75.7	66.3	55.2	49.3	2290867.653
8-Jun	14:00:00	64.3	46.2	84.6	75.2	66.7	59	52.6	2691534.804
8-Jun	15:00:00	65.3	44.8	83.1	76.8	68.3	58.6	51.2	3388441.561
8-Jun	16:00:00	64.8	46.5	81.5	75.9	67.9	59	52.6	3019951.72
8-Jun	17:00:00	65.6	47.1	90.5	76.5	67.6	58.4	51.9	3630780.548
8-Jun	18:00:00	63.5	48.8	81.9	75.8	65	56	51.7	2238721.139
8-Jun	19:00:00	63.8	49.5	83.6	75.9	65.5	57.3	53.5	2398832.919
8-Jun	20:00:00	63	50.9	81.9	75.4	64.1	57.6	54.3	1995262.315
8-Jun	21:00:00	61.8	51	81.5	73.9	62.9	57.5	53.9	1513561.248
8-Jun	22:00:00	60.2	51.3	82.2	73.7	58	55.4	53.2	10471285.48
8-Jun	23:00:00	57.1	48.4	78.9	68.7	56	53	50.9	5128613.84
9-Jun	0:00:00	52.1	47.9	60.5	56.2	53.8	51.7	50	1621810.097
9-Jun	1:00:00	53.3	45	75.2	60.3	53	50.7	48.3	2137962.09
9-Jun	2:00:00	51	44.3	74	53.8	51.8	49.8	47.8	1258925.412
9-Jun	3:00:00	56	44.2	80.5	66.8	52.5	50.1	47.7	3981071.706
9-Jun	4:00:00	60.1	47.1	84.6	74.2	53.9	51.5	49.4	10232929.92
9-Jun	5:00:00	64	45.7	81	76.8	66.5	50.6	48.1	25118864.32
9-Jun	6:00:00	66.1	45	86.9	78.1	69.9	51.8	48	40738027.78
9-Jun	7:00:00	67.6	43.7	84.5	78.8	72.5	53.6	46.1	5754399.373
9-Jun	8:00:00	64.7	44.4	82.5	76.8	68.4	51.9	47.8	2951209.227
9-Jun	9:00:00	65.1	44	86.6	77.2	67.8	52.2	48.1	3235936.569
9-Jun	10:00:00	64.9	43.4	85.9	77.8	67.7	49.2	45.6	3090295.433
9-Jun	11:00:00	62.8	43.5	81.5	75.7	64.6	50.6	46.5	1905460.718
9-Jun	12:00:00	66.2	44	83.6	78.4	70.2	53.3	47.2	4168693.835
9-Jun	13:00:00	67.8	44.2	87.7	80.3	71.7	54.1	47.5	6025595.861



Location 2-13

Date	Time	Leq		Lmax	Lmin	L(1)	L(10)	L(50)	L(90)	
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31-Oct-00	9:00	78 63095734	78							63095734 81.85125
31-Oct-00	9:10	78 63095734								
31-Oct-00	9:20	78 63095734								
31-Oct-00	9:30	78 63095734								
31-Oct-00	9:40	78 63095734								
31-Oct-00	9:50	78 63095734								
31-Oct-00	10:00	79 79432823	79	83.8	69.8	83.5	81.6	78.2	75	79027779
31-Oct-00	10:10	78.8 75857758		84.3	70.9	83.6	81.9	77.9	74.3	
31-Oct-00	10:20	78.6 72443596		85.5	69	83.2	81.5	77.7	73.8	
31-Oct-00	10:30	79.5 89125094		86.2	68.6	84.6	82.2	78.8	74.1	
31-Oct-00	10:40	79.2 83176377		87.1	70.3	84.2	81.8	78.5	74.4	
31-Oct-00	10:50	78.7 74131024		83.7	69.4	82.9	81.4	78.2	74.3	
31-Oct-00	11:00	79 79432823	79	86.2	67.9	83.7	81.7	78.4	74.8	76436705
31-Oct-00	11:10	78 63095734		82.3	67.4	81.9	80.7	77.5	74	
31-Oct-00	11:20	79 79432823		85.4	69.2	83.9	81.8	78.2	74.9	
31-Oct-00	11:30	79.2 83176377		84.6	70.2	83.7	81.8	78.7	74.8	
31-Oct-00	11:40	78.8 75857758		85.1	71	83.7	81.6	77.9	74.7	
31-Oct-00	11:50	78.9 77624712		85.3	66.6	83.8	82	77.9	74.2	
31-Oct-00	12:00	79.7 93325430	79	84.9	70.6	84.1	82.3	79.1	75	84549862
31-Oct-00	12:10	78.5 70794578		86.2	69.1	83.9	81.2	77.5	74.1	
31-Oct-00	12:20	79.1 81283052		87.2	69.5	83.9	81.8	78.2	74.3	
31-Oct-00	12:30	79.1 81283052		84.7	71.1	83.5	81.7	78.6	74.4	
31-Oct-00	12:40	79.3 85113804		84.7	71.3	83.6	81.7	78.9	74.8	
31-Oct-00	12:50	79.8 95499259		90.6	71.1	85.2	82.3	79	75	
31-Oct-00	13:00	79 79432823	79	86	69.9	83.8	81.5	78.4	74.3	88642613
31-Oct-00	13:10	79.4 87096359		85	67.6	83.6	82.1	78.9	74.8	
31-Oct-00	13:20	79.7 93325430		85.5	71.2	84.7	82.4	79.3	74.6	
31-Oct-00	13:30	79.2 83176377		84	71.5	83.5	81.7	78.9	75.2	
31-Oct-00	13:40	79.7 93325430		85.3	70.5	84.4	82.2	79.2	75.4	
31-Oct-00	13:50	79.8 95499259		85	70.5	83.8	82.1	79.5	75.4	
31-Oct-00	14:00	78.8 75857758	79	83.9	67.8	83.4	81.5	78.3	74.5	85485096
31-Oct-00	14:10	79.4 87096359		83.9	69.2	83.5	81.8	79	76.1	
31-Oct-00	14:20	78.7 74131024		85.2	67.7	83	81.3	78.2	74.9	
31-Oct-00	14:30	79.8 95499259		87.6	71	84.9	82	79.3	75.4	
31-Oct-00	14:40	79.5 89125094		84.5	72.1	83.6	81.7	79	76.2	
31-Oct-00	14:50	79.6 91201084		83.7	70.5	83.3	81.8	79.2	76.5	
31-Oct-00	15:00	79.1 81283052	77	85.1	71.5	83.3	80.9	78.7	76.5	45278860
31-Oct-00	15:10	78 63095734		83.4	66.1	82.8	80.8	77.9	70.4	
31-Oct-00	15:20	74.7 29512092		79.9	66.5	79	77.4	74.1	70.1	
31-Oct-00	15:30	75.8 38018940		82.6	64.9	81.6	79.1	74.5	70.5	
31-Oct-00	15:40	73 19952623		84.9	63	80.9	74.9	72.1	69.2	
31-Oct-00	15:50	76 39810717		83	68.4	80.5	77.9	75.5	72.9	
31-Oct-00	16:00	74.7 29512092	74	81	68.4	79.3	77	74.2	70.8	25990813
31-Oct-00	16:10	73.7 23442288		79.6	66.4	78.6	75.9	73.2	69.3	
31-Oct-00	16:20	75.4 34673685		80.1	67.1	79	77.3	75.2	72.3	
31-Oct-00	16:30	74.6 28840315		80.4	66.3	79.7	77.2	74.1	69.3	

31-Oct-00	16:40	73.8	23988329		79.7	65.3	78.9	76.3	73.4	68.5	
31-Oct-00	16:50	71.9	15488166		77.3	67.5	76	74.1	71.3	69.2	
31-Oct-00	17:00	73.2	20892961	74	79.9	66.3	78	75.5	72.8	69.5	27471473
31-Oct-00	17:10	73.7	23442288		79.1	68.9	77.8	75.9	73.3	70.7	
31-Oct-00	17:20	74	25118864		79.6	68.3	77.8	76.3	73.5	70.2	
31-Oct-00	17:30	73.1	20417379		82.4	63.9	78.2	75.3	72.4	69	
31-Oct-00	17:40	74.5	28183829		80	68.2	78.9	76.6	74.1	71.2	
31-Oct-00	17:50	76.7	46773514		83.5	64.9	81.9	78.9	76.3	73.4	
31-Oct-00	18:00	77.7	58884366	78	83.4	71	82.4	80.2	77.2	75	60823743
31-Oct-00	18:10	77.1	51286138		81.9	70.8	81.3	79.4	76.7	74	
31-Oct-00	18:20	78.2	66069345		84.9	71.9	82.7	80.4	77.8	75.2	
31-Oct-00	18:30	78.1	64565423		83.1	71.4	82.6	80.4	77.6	75	
31-Oct-00	18:40	77.4	54954087		86	68.2	82.9	80.1	76.6	72.3	
31-Oct-00	18:50	78.4	69183097		85.6	70	83	81	77.6	74.9	
31-Oct-00	19:00	78.6	72443596	77	86.2	69.6	82.8	80.9	77.9	75.2	55395380
31-Oct-00	19:10	78.1	64565423		83.4	70.3	82.7	80.5	77.7	74.4	
31-Oct-00	19:20	77.6	57543994		83.8	68.4	82.7	80.3	77.1	72	
31-Oct-00	19:30	76.2	41686938		82.6	66.7	81.4	78.6	75.6	71.8	
31-Oct-00	19:40	76.4	43651583		82.9	65.2	81.9	79.3	75.7	71	
31-Oct-00	19:50	77.2	52480746		83.8	66.4	82.3	80.2	76.5	72.3	
31-Oct-00	20:00	77.1	51286138	77	85.9	66.9	82.9	80	76.2	71.2	47500136
31-Oct-00	20:10	77	50118723		85	65.9	82.7	79.8	76.1	71.8	
31-Oct-00	20:20	77.2	52480746		83.7	67	82.6	80.1	76.5	72.3	
31-Oct-00	20:30	76.5	44668359		84.5	64.5	82.4	79.6	75.6	70.7	
31-Oct-00	20:40	76.1	40738028		84.2	68.4	81.8	78.4	75.4	72.1	
31-Oct-00	20:50	76.6	45708819		85.1	68.4	82.5	79.6	75.6	72.2	
31-Oct-00	21:00	76.9	48977882	76	88.1	68.6	82.7	79.6	75.8	72.2	36993409
31-Oct-00	21:10	75.8	38018940		82.9	64.3	81.6	78.6	75.1	71.1	
31-Oct-00	21:20	75	31622777		85.3	65.4	81.5	77.8	74.1	68.7	
31-Oct-00	21:30	75.4	34673685		82.9	65.2	81.1	78.7	74.3	69.5	
31-Oct-00	21:40	75.1	32359366		82.4	63.9	81.1	78	74.4	69.3	
31-Oct-00	21:50	75.6	36307805		84.9	63.2	81.9	78.8	74.5	69.4	
31-Oct-00	22:00	75	31622777	75	82.2	66.4	80.9	78.2	73.7	69.9	346356524
31-Oct-00	22:10	75.1	32359366		82.7	65.5	81.3	78.5	73.6	69	
31-Oct-00	22:20	75.4	34673685		83.7	63.5	82.5	78.4	74.2	68.2	
31-Oct-00	22:30	75.4	34673685		85.1	61.7	82.3	79.1	73.6	67.6	
31-Oct-00	22:40	75.4	34673685		86.4	63.4	83.2	78.6	73.4	68.4	
31-Oct-00	22:50	76	39810717		83.9	66.6	82.5	79.1	74.7	70.4	
31-Oct-00	23:00	76.2	41686938	75	83.1	65.6	82.5	79.5	74.9	69.6	325905257
31-Oct-00	23:10	75.6	36307805		83.7	66.1	82.5	78.8	74.1	69	
31-Oct-00	23:20	75	31622777		83.2	60.3	81.7	78	73.8	67.8	
31-Oct-00	23:30	74.5	28183829		82.8	60	81.7	77.8	73	67.1	
31-Oct-00	23:40	74.4	27542287		82.8	63.7	82	77.7	72.5	67.4	
31-Oct-00	23:50	74.8	30199517		83.2	58.5	81.9	78.7	72.8	66.4	
1-Nov-00	0:00	73.4	21877616	74	85.1	55.6	81.1	76.8	71.5	63.9	244384772
1-Nov-00	0:10	74.6	28840315		82.6	61.7	81.3	77.9	73	68.2	
1-Nov-00	0:20	74.9	30902954		84	59.5	81.8	79	72.8	65.7	
1-Nov-00	0:30	74	25118864		85	59.1	82	77.7	71.5	64.4	
1-Nov-00	0:40	73.6	22908677		86.5	57.1	80.8	77.1	71.2	64.7	
1-Nov-00	0:50	72.3	16982437		82.3	53.6	80.5	76	69.9	59.6	
1-Nov-00	1:00	74.1	25703958	74	83.7	55.7	81.7	77.9	71.8	64.3	244728399

1-Nov-00	1:10	74.3	26915348		83.2	59.7	81.3	77.9	72.6	67.1	
1-Nov-00	1:20	73.7	23442288		83.8	52.1	82.4	77.7	71.2	60.3	
1-Nov-00	1:30	74	25118864		87.8	58.6	81.9	77.5	71.7	64.6	
1-Nov-00	1:40	73	19952623		83.1	58.8	81.9	76.1	71	63.4	
1-Nov-00	1:50	74.1	25703958		83.2	60.1	81.3	78.3	71.7	66	
1-Nov-00	2:00	73.2	20892961	73	83.4	56.2	81.8	77	70.4	63.1	207257636
1-Nov-00	2:10	73.1	20417379		83.3	59.8	80.8	76.8	70.8	64.8	
1-Nov-00	2:20	73.4	21877616		83.6	58.4	81.1	77.8	70.6	61.9	
1-Nov-00	2:30	71.7	14791084		81.2	54.7	79.9	75.5	69.4	61.5	
1-Nov-00	2:40	73.5	22387211		82.9	57.3	81.3	76.7	71.9	67.1	
1-Nov-00	2:50	73.8	23988329		82	59.7	81.4	77.2	72.3	65	
1-Nov-00	3:00	74	25118864	74	86.3	59.5	82	78	71.4	65.8	234778108
1-Nov-00	3:10	72.9	19498446		84.9	61.3	81.4	76.5	70.4	66	
1-Nov-00	3:20	73.2	20892961		83.4	60.4	82	76.8	70.9	65.1	
1-Nov-00	3:30	74	25118864		83.8	61.1	81.6	77.6	71.9	66.3	
1-Nov-00	3:40	74	25118864		82.4	63.6	81.3	77.3	72.6	68	
1-Nov-00	3:50	74	25118864		83.5	63.8	82.1	77.1	72.2	68.4	
1-Nov-00	4:00	75.5	35481339	74	83.3	67.5	82.4	78.6	74	71.1	278555154
1-Nov-00	4:10	75	31622777		83	64.5	82.3	78.7	73.1	68.8	
1-Nov-00	4:20	73.1	20417379		83.4	64.7	81.7	76.3	70.6	66.9	
1-Nov-00	4:30	73.3	21379621		82	62.6	80.8	77.5	70.4	66	
1-Nov-00	4:40	74	25118864		85	64.4	81.8	78.5	70.6	66.2	
1-Nov-00	4:50	75.2	33113112		83.7	65.5	82.2	79.2	72.4	67.6	
1-Nov-00	5:00	74.5	28183829	75	82.5	63.8	81.5	78.7	71.5	66.7	323075089
1-Nov-00	5:10	74.9	30902954		85.3	64.7	82.6	78.9	71.8	67.2	
1-Nov-00	5:20	75.7	37153523		89	64.6	84.4	79.4	72.7	68.3	
1-Nov-00	5:30	74.5	28183829		82.2	65.3	80.9	78.6	72.3	68	
1-Nov-00	5:40	75.2	33113112		84.3	65	82.9	78.9	73.1	67.9	
1-Nov-00	5:50	75.6	36307805		83.7	66.2	82.5	79.3	73.8	69.4	
1-Nov-00	6:00	76.3	42657952	78	83.5	66.6	82.8	80.3	74.3	69.3	571571003
1-Nov-00	6:10	76.3	42657952		86.9	67.2	82.3	79.4	74.7	71.2	
1-Nov-00	6:20	77	50118723		83.1	68.9	82.5	80.6	75.5	71.4	
1-Nov-00	6:30	77.9	61659500		87.1	65.1	84.6	81.2	76.5	72	
1-Nov-00	6:40	78.1	64565423		84.8	68.2	83.5	81	77.3	73.1	
1-Nov-00	6:50	79.1	81283052		85.1	69.8	83.7	81.8	78.4	74.7	
1-Nov-00	7:00	77.6	57543994	78	83.6	69.9	82.7	80.5	76.7	73.6	61234753
1-Nov-00	7:10	78	63095734		87.6	68.7	83.2	80.9	77.1	72.7	
1-Nov-00	7:20	77.9	61659500		84.1	65.5	82.9	80.8	77	73.6	
1-Nov-00	7:30	78.1	64565423		85.2	68.2	83.2	80.9	77.2	73.3	
1-Nov-00	7:40	77.9	61659500		84.7	65.7	83.7	81.1	76.7	71.6	
1-Nov-00	7:50	77.7	58884366		84.6	68.1	83.1	80.6	76.7	73.2	
1-Nov-00	8:00	77.3	53703180	78	84.3	68.4	83.1	80.5	76.2	72.5	61129517
1-Nov-00	8:10	77.7	58884366		84	67.5	82.6	80.5	77.2	72.1	
1-Nov-00	8:20	77.8	60255959		84.3	67.2	82.7	80.6	77.1	73.3	
1-Nov-00	8:30	77.8	60255959		85.1	68.2	83.6	80.7	76.6	72.8	
1-Nov-00	8:40	78.2	66069345		85.3	69.3	83.9	81.2	77.2	72.8	
1-Nov-00	8:50	78.3	67608298		87	68.5	84.6	81.1	77.2	73.3	
1-Nov-00	9:00	78.1	64565423	78	84.6	64.9	83	81.2	77.3	72.2	
1-Nov-00	9:10	78.3	67608298		84.4	69.2	83.2	81.4	77.4	73.7	
1-Nov-00	9:20	78	63095734		84.7	67.4	83.7	81.3	76.7	72.3	
1-Nov-00	9:30	77.7	58884366		84.1	65.9	82.9	80.7	76.7	72.5	

1-Nov-00	9:40	78.7 74131024		84.8	69.6	83.7	81.7	77.7	73.6
1-Nov-00	9:50	77.9 61659500		84.5	68.1	82.9	80.9	76.8	72.6
1-Nov-00	10:00	77.6 57543994	78	85.4	64.7	82.9	81	76.3	72
1-Nov-00	10:10	78.2 66069345		84.9	64.5	83.8	81.4	77.2	72.6
1-Nov-00	10:20	78.1 64565423		84.7	66.2	83.2	81.2	77	72.2
1-Nov-00	10:30	77.9 61659500		85	63.5	83.8	80.9	76.7	71.9
1-Nov-00	10:40	78.1 64565423		84.7	63.8	83.6	81	77.3	72.3
1-Nov-00	10:50	78.4 69183097		87.2	66.7	84	81.3	77.3	73
1-Nov-00	11:00	78.1 64565423	78	84.1	62.3	83	81.1	77.2	72.6
1-Nov-00	11:10	78.6 72443596		85.6	66.3	82.9	81.2	77.9	74.1
1-Nov-00	11:20	78.3 67608298		85.7	65.7	83.2	81.2	77.4	72.1
1-Nov-00	11:30	78.3 67608298		84.6	67.7	83	81	77.6	73.7
1-Nov-00	11:40	78.3 67608298		86	68.1	83.3	81.2	77.4	73.2
1-Nov-00	11:50	78.5 70794578		84.9	66.1	83.1	81.4	77.8	73.4
1-Nov-00	12:00	79.4 87096359		85	70.5	83.9	81.8	79	75.3

Peak Hour Leq = **70**

Date	Time	Leq	Lmax	Lmin	L( 1)	L(10)	L(50)	L(90)			
29-Jan-01	13:16:49	69.7	74.2	62.8	74	72.1	69.2	66.5	9332543		
29-Jan-01	13:20:00	69.9	83.2	60.7	75.4	71.7	69.4	65.4	9772372		
29-Jan-01	13:30:00	69.8	82.5	60.8	79.2	71.6	68.6	65.4	9549926		
29-Jan-01	13:40:00	69.4	74	62	73.4	71.6	69.2	66	8709636		
29-Jan-01	13:50:00	69.9	74.6	61.4	73.9	72.3	69.3	65.9	9772372		
29-Jan-01	14:00:00	69.6	75	61.2	73.9	72	69.1	65.7	9120108	70	Ldn 9435032 71.54147
29-Jan-01	14:10:00	69.5	74.4	60.1	73.7	71.7	69	66.2	8912509		
29-Jan-01	14:20:00	69.9	73.8	63.1	73.6	72	69.7	66.7	9772372		
29-Jan-01	14:30:00	69.2	74.4	64.2	72.9	71.1	68.8	66.4	8317638		
29-Jan-01	14:40:00	70.3	76.5	64.6	73.9	71.9	69.9	67.8	10715193		
29-Jan-01	14:50:00	69.9	74.5	64.7	73.6	71.7	69.6	67.3	9772372		
29-Jan-01	15:00:00	68.3	75.9	59	73.7	71.2	67.5	63	6760830	67	5377656
29-Jan-01	15:10:00	65.8	69.6	60.5	69.5	67.9	65.6	62.8	3801894		
29-Jan-01	15:20:00	66	70.2	59.1	69.5	68.1	65.6	63	3981072		
29-Jan-01	15:30:00	69.3	76.2	63.5	73.2	71.1	68.9	67	8511380		
29-Jan-01	15:40:00	67.4	76	60.9	72.7	70	66.9	63.3	5495409		
29-Jan-01	15:50:00	65.7	69.6	60.6	68.9	67.8	65.4	62.7	3715352		
29-Jan-01	16:00:00	66	71.6	60.5	69.9	68	65.7	63.2	3981072	66	3576073
29-Jan-01	16:10:00	65.6	72.6	59.9	69.6	67.6	65.2	62.1	3630781		
29-Jan-01	16:20:00	66.6	71.2	60.7	70.6	68.7	66.3	63.4	4570882		
29-Jan-01	16:30:00	65.1	71.6	58.3	70.2	67.7	64.4	61.7	3235937		
29-Jan-01	16:40:00	65.4	79.1	58.7	69.9	66.9	64.5	62.1	3467369		
29-Jan-01	16:50:00	64.1	72.3	58.7	69.1	65.8	63.8	60.9	2570396		
29-Jan-01	17:00:00	64	69.5	58	68.4	66.1	63.6	61	2511886	64	2784031
29-Jan-01	17:10:00	64.3	71.3	59	68.5	66.4	63.9	61.3	2691535		
29-Jan-01	17:20:00	63.7	69.3	58.1	67.8	65.8	63.2	61.1	2344229		
29-Jan-01	17:30:00	63.8	68.1	58	67.7	65.7	63.4	61.1	2398833		
29-Jan-01	17:40:00	63.6	73.7	59.2	67	65.3	63.1	61.3	2290868		
29-Jan-01	17:50:00	66.5	71.2	60.7	70.5	68.3	66.2	64	4466836		
29-Jan-01	18:00:00	67.1	72.6	61.6	70.7	69	66.8	64.4	5128614	67	4976462
29-Jan-01	18:10:00	66.9	71.7	58.2	70.8	68.9	66.7	64.4	4897788		
29-Jan-01	18:20:00	67.1	72.7	59	71.5	69.2	66.9	63.4	5128614		
29-Jan-01	18:30:00	67.1	73.5	60.5	71.7	68.9	66.7	64.3	5128614		
29-Jan-01	18:40:00	66.7	72.6	59	71.5	68.9	66.4	63.4	4677351		
29-Jan-01	18:50:00	66.9	73.6	59.1	71.6	69.2	66.6	63.2	4897788		
29-Jan-01	19:00:00	66.9	72.4	59.1	71.8	69.4	66.5	63.6	4897788	67	4559574
29-Jan-01	19:10:00	66.8	73.6	58.9	72	69.5	66.1	62.7	4786301		
29-Jan-01	19:20:00	66.6	73.2	57	71.2	68.9	66.2	62.4	4570882		
29-Jan-01	19:30:00	66.6	71.4	57	70.7	68.9	66.2	62.3	4570882		
29-Jan-01	19:40:00	66.3	72.7	58.7	70.8	68.8	65.9	62.1	4265795		
29-Jan-01	19:50:00	66.3	72.1	57.3	70.9	68.6	65.8	62.6	4265795		
29-Jan-01	20:00:00	66.4	73.7	56.5	71.9	69.2	65.5	61	4365158	66	3977929
29-Jan-01	20:10:00	65.8	71.4	56.3	70.7	68.4	65	61	3801894		
29-Jan-01	20:20:00	66.4	74.8	58.6	71.6	68.8	65.8	62.1	4365158		
29-Jan-01	20:30:00	66.1	72.6	57.9	71	68.7	65.6	61.3	4073803		
29-Jan-01	20:40:00	65.6	71.8	58.9	71	67.9	65.1	61.4	3630781		
29-Jan-01	20:50:00	65.6	72.1	58.3	71.2	67.9	65	61.8	3630781		

29-Jan-01	21:00:00	66	73.5	58.9	71.5	68.6	65.4	62	3981072	65	3187885
29-Jan-01	21:10:00	64.6	71.3	52.8	69.9	67.4	63.8	59.8	2884032		
29-Jan-01	21:20:00	65.3	71.5	57.3	69.9	67.9	64.7	61	3388442		
29-Jan-01	21:30:00	64.8	73.2	56	70.3	67.4	64.1	60.1	3019952		
29-Jan-01	21:40:00	64.3	69.9	54.7	69.1	66.9	63.8	59.9	2691535		
29-Jan-01	21:50:00	65	71.3	57.3	70.7	67.8	64.1	60.3	3162278		
29-Jan-01	22:00:00	64.9	70.5	57.3	69.6	67.6	64.4	60.8	3090295	65	29246116
29-Jan-01	22:10:00	64.9	72.3	57.9	70.9	68	63.6	60.4	3090295		
29-Jan-01	22:20:00	64.8	71.2	53.5	70.2	67.8	63.9	59.6	3019952		
29-Jan-01	22:30:00	64.6	70.7	56.8	70	67.4	63.7	59.9	2884032		
29-Jan-01	22:40:00	64	72	54.9	70.4	67.2	62.7	58.9	2511886		
29-Jan-01	22:50:00	64.7	71.4	56	70.6	67.6	63.7	59.9	2951209		
29-Jan-01	23:00:00	64.9	71.4	53.9	70.6	67.9	64.1	59.9	3090295	64	27287726
29-Jan-01	23:10:00	64.2	73.1	54.1	70.5	67.3	63.2	58.9	2630268		
29-Jan-01	23:20:00	64.2	70.5	56	69.8	67	63.4	59.3	2630268		
29-Jan-01	23:30:00	64	72.5	49.4	70.4	67.4	62.6	58.9	2511886		
29-Jan-01	23:40:00	64.5	75.8	52.1	71.6	68	62.8	58.1	2818383		
29-Jan-01	23:50:00	64.3	73.4	54.1	71.1	67.3	63.3	59	2691535		
30-Jan-01	0:00:00	65.3	84.1	53.8	72.5	67.7	62.6	57.9	3388442	64	26693899
30-Jan-01	0:10:00	65.1	74	50	72	68.9	63.2	57.2	3235937		
30-Jan-01	0:20:00	63	72.5	48.5	70.3	65.9	62.1	54.7	1995262		
30-Jan-01	0:30:00	63.4	71.8	53.1	70.5	66.7	61.8	57.2	2187762		
30-Jan-01	0:40:00	63.9	72.6	49	71.4	67.7	62	56.8	2454709		
30-Jan-01	0:50:00	64.4	74.3	50.5	70.8	67.6	63.3	56.6	2754229		
30-Jan-01	1:00:00	62	71.3	49.5	69.7	65.7	60.1	54.3	1584893	63	18347971
30-Jan-01	1:10:00	62.9	72	50.1	70.5	66.4	61	54.5	1949845		
30-Jan-01	1:20:00	62.2	73.6	49.1	70.2	65.8	60.2	54.3	1659587		
30-Jan-01	1:30:00	62.8	70.9	48.8	69.9	66.9	60.8	53.5	1905461		
30-Jan-01	1:40:00	63.2	72.1	51.6	70.6	66.5	61.8	55.9	2089296		
30-Jan-01	1:50:00	62.6	71.4	50.3	69.8	66.3	61	56.4	1819701		
30-Jan-01	2:00:00	63.1	72.6	53.4	70.8	66.4	61.4	56.9	2041738	63	20303828
30-Jan-01	2:10:00	62.2	72.4	48.4	70.6	65.6	60	55	1659587		
30-Jan-01	2:20:00	63.5	71.9	51.1	70.2	67.3	61.9	56.5	2238721		
30-Jan-01	2:30:00	63.2	74.4	53.9	70.6	66.3	61.5	57	2089296		
30-Jan-01	2:40:00	63.6	70.9	49.3	69.9	66.8	62.1	57.2	2290868		
30-Jan-01	2:50:00	62.7	73.5	51.5	71	65.5	61	56.4	1862087		
30-Jan-01	3:00:00	62.9	70.2	54.7	69.1	65.8	61.7	58.4	1949845	64	26888318
30-Jan-01	3:10:00	63.5	71.2	54.8	69.8	66.4	62.3	59	2238721		
30-Jan-01	3:20:00	64.2	71.8	55.8	70	67.3	63	59.1	2630268		
30-Jan-01	3:30:00	64.3	71.7	52.7	70.7	67.1	63.1	59.6	2691535		
30-Jan-01	3:40:00	65.2	71.6	58	70.8	67.8	64.3	61.4	3311311		
30-Jan-01	3:50:00	65.2	72.1	59.8	70.2	67.7	64.4	61.9	3311311		
30-Jan-01	4:00:00	66.2	71.5	61.5	70.7	68.4	65.7	63.2	4168694	66	35708747
30-Jan-01	4:10:00	66	74.1	60.6	71	68.7	65	62.9	3981072		
30-Jan-01	4:20:00	65.8	71.1	60.5	70.7	68.1	65	63	3801894		
30-Jan-01	4:30:00	65.7	72.4	61	70.9	67.9	64.8	62.9	3715352		
30-Jan-01	4:40:00	65.4	72.3	53.2	70.6	68.1	64.6	61.3	3467369		
30-Jan-01	4:50:00	63.6	71.8	52.6	70.2	67.4	61.5	58	2290868		
30-Jan-01	5:00:00	63.8	73.6	55.7	70.5	67.3	61.8	59	2398833	65	29706243
30-Jan-01	5:10:00	64.6	71.2	59	70.3	67.6	63.6	60.7	2884032		
30-Jan-01	5:20:00	64	71.6	51.2	70.9	68	61.6	55.5	2511886		

30-Jan-01	5:30:00	65	72.5	56.8	71.2	68.5	63.6	60.1	3162278		
30-Jan-01	5:40:00	65.6	72.2	57.3	71.3	68.9	64.3	60.6	3630781		
30-Jan-01	5:50:00	65.1	72.9	57.2	71.2	68.5	63.8	59.9	3235937		
30-Jan-01	6:00:00	65.1	72.4	58.1	71.1	68.3	63.7	59.9	3235937	66	38592445
30-Jan-01	6:10:00	64.9	71.9	53.4	71.4	68.7	62.9	57.2	3090295		
30-Jan-01	6:20:00	65.2	74.2	54.1	71.6	68.6	63.8	59.1	3311311		
30-Jan-01	6:30:00	66.1	73.4	56.2	71.6	69.3	65.3	60.6	4073803		
30-Jan-01	6:40:00	67.3	73.3	58	72.4	70.1	66.4	63.5	5370318		
30-Jan-01	6:50:00	66.1	72.8	57.8	71.5	68.9	65.3	61.5	4073803		
30-Jan-01	7:00:00	66.6	71.8	57.1	70.9	69.3	66	62.2	4570882	67	5320102
30-Jan-01	7:10:00	66.7	73.2	56.9	71.9	69.7	65.9	61.5	4677351		
30-Jan-01	7:20:00	67.1	71.8	60.9	70.9	69.3	66.8	63.5	5128614		
30-Jan-01	7:30:00	67.5	73.4	61.1	72.2	69.9	66.8	64.1	5623413		
30-Jan-01	7:40:00	67.9	73.9	61	72.6	70.4	67.3	64.4	6165950		
30-Jan-01	7:50:00	67.6	72.8	61.8	71.7	69.9	67.2	64.1	5754399		
30-Jan-01	8:00:00	67.7	73.8	59.9	72.7	70.4	67	64.1	5888437	67	5608056
30-Jan-01	8:10:00	67.4	73.6	59.1	72	70	66.7	63.6	5495409		
30-Jan-01	8:20:00	67.2	73.2	61.5	71.7	69.8	66.5	63.8	5248075		
30-Jan-01	8:30:00	67.4	72.5	60.1	71.5	69.8	67	63.9	5495409		
30-Jan-01	8:40:00	67.8	74.4	58.2	73	70.6	66.8	63.7	6025596		
30-Jan-01	8:50:00	67.4	73.6	58.7	72.3	70.3	66.5	62.3	5495409		
30-Jan-01	9:00:00	68.2	74.9	61.3	73.2	70.9	67.4	64	6606934	68	6737875
30-Jan-01	9:10:00	68	73.1	60.6	72.4	70.5	67.5	64.3	6309573		
30-Jan-01	9:20:00	67.8	73.4	58.7	72.6	70.6	67.1	63.9	6025596		
30-Jan-01	9:30:00	68	73.8	60.2	72.4	70.5	67.6	63.9	6309573		
30-Jan-01	9:40:00	68.9	75.2	59.4	73.8	71.4	68.3	65	7762471		
30-Jan-01	9:50:00	68.7	75.8	60.8	73	71.4	68	64.8	7413102		
30-Jan-01	10:00:00	68.2	73.8	59.7	72.8	71	67.5	63.7	6606934	69	7338094
30-Jan-01	10:10:00	68.9	74.3	60.6	73.2	71.4	68.4	64.6	7762471		
30-Jan-01	10:20:00	68.7	73.8	62.2	72.9	71.1	68.2	64.5	7413102		
30-Jan-01	10:30:00	68.9	76.5	59.7	74.2	71.6	68.1	63.6	7762471		
30-Jan-01	10:40:00	69.2	74.1	60.3	73.5	71.8	68.7	65	8317638		
30-Jan-01	10:50:00	67.9	73.4	59.6	72.8	70.4	67.4	64.2	6165950		
30-Jan-01	11:00:00	68.3	75.4	59.7	73.6	70.9	67.6	64.1	6760830	69	7278218
30-Jan-01	11:10:00	68.4	72.8	56.7	72.7	71.2	67.8	63.9	6918310		
30-Jan-01	11:20:00	68.3	73.3	59.1	72.8	70.8	68	63.7	6760830		
30-Jan-01	11:30:00	67.9	73.9	60.3	73	70.7	67	63.5	6165950		
30-Jan-01	11:40:00	69.6	83.3	59.9	79.6	71.5	68.2	64.3	9120108		
30-Jan-01	11:50:00	69	81.8	58.8	78.4	70.7	67.6	64.3	7943282		
30-Jan-01	12:00:00	74.8	85.5	58.6	83.1	79.8	70.1	65.6	30199517	71 Local	11462396
30-Jan-01	12:10:00	69.4	84	57.7	79.3	71.6	67.9	63.6	8709636		
30-Jan-01	12:20:00	68.7	74.2	60.5	72.7	71	68.3	64.5	7413102		
30-Jan-01	12:30:00	69.1	75.1	60.9	73.7	71.5	68.8	65.4	8128305		
30-Jan-01	12:40:00	68.5	73.7	60.5	72.8	71	68	64.7	7079458		
30-Jan-01	12:50:00	68.6	75.1	60.9	73.8	71	67.9	65	7244360		
30-Jan-01	13:00:00	68.9	75.1	59.3	73.8	71.4	68.4	64.9	7762471	69	7866767
30-Jan-01	13:10:00	69.4	74.6	60.4	73.7	71.8	68.8	65.8	8709636		
30-Jan-01	13:20:00	68.9	75	59.5	73.8	71.3	68.4	64.4	7762471		
30-Jan-01	13:30:00	69	74.1	61.6	73	71.6	68.4	64.6	7943282		
30-Jan-01	13:40:00	68.5	73.5	61.4	72.8	70.9	67.9	65.2	7079458		
30-Jan-01	13:50:00	69	76	60.5	72.9	71.3	68.7	64.8	7943282		

