

Final Program
Environmental Impact Report #1047
State Clearinghouse Number 2000041100

for the

South Coast Plaza Town Center



Michael Brandman Associates

March 2001

**FINAL PROGRAM
ENVIRONMENTAL IMPACT REPORT #1047
SOUTH COAST PLAZA TOWN CENTER PROJECT
SCH: 2000041100**

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March 2001

MEMORANDUM TO REVIEWERS
OF THE
FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT

The City of Costa Mesa has prepared the Final Program Environmental Impact Report (EIR) No. 1047 for the South Coast Plaza Town Center in accordance with the California Environmental Quality Act, including Sections 15088, 15089 and Section 15132, and Costa Mesa's Environmental Guidelines. The City of Costa Mesa has prepared responses to comments received on the Draft EIR, which was available for public review between July 19, 2000 and September 1, 2000 (45 days). Additions to the text are denoted by **shaded text** while deletions are indicated by ~~struck-out text~~ to provide the reader with a vehicle for recognizing substantive changes to the text. Section 15132 of the CEQA Guidelines requires that a Final EIR consist of:

1. The Draft EIR or a revision of the draft
2. Comments and recommendations received on the Draft EIR either verbatim or in summary.
3. A list of persons, organizations and public agencies commenting on the Draft EIR.
4. The responses of the Lead Agency to significant environmental issues raised in the review and consultation process.
5. Any other information added by the Lead Agency.

Final Program EIR No. 1047 is comprised of the revised Draft EIR, Responses to Comments, and other relevant information. On February 5, 2001 the Costa Mesa City Council certified the Final EIR as complete and adequate in that it addresses all environmental effects of the project and fully complies with the requirements of CEQA, the CEQA Guidelines, and the City's environmental procedures. The City and other responsible agencies must consider the Final Program EIR when considering discretionary approvals and/or permit issuances for the project, or any other project-related discretionary actions.

During public review of the Draft EIR and approval of the Final EIR by the City Council, new information was presented that required incorporation into the EIR document. For example, at the time the revised NOP for the SCPTC project was distributed for public review, there was no development application in place for the Home Ranch project and although assumed, the EIR did not specify the number of units for Armstrong Ranch. In accordance with CEQA, the SCPTC Draft EIR assumed buildout of the Home Ranch site under current general plan land use designations to analyze cumulative impacts. The EIR also assumed a gross acreage for Armstrong Ranch. In terms of Home Ranch, just prior to the public review period on the Draft EIR, an application for development for the

Home Ranch site was submitted and a Notice of Preparation was released. Therefore, the Final Program SCPTC EIR reflects the revised project for the Home Ranch site and number of units for Armstrong Ranch.

Moreover, minor refinements to the EIR, as part of the Response to Comments on the EIR and changes recommended by City Council, as part of approval of the EIR, are also incorporated into the Final Program EIR for the SCPTC project. It should be noted that neither incorporation of the current Home Ranch proposal and other minor revisions have resulted in changes to the findings of the EIR.

The Response to Comments is included as Section 11 of the Final EIR. Each comment letter is followed by the corresponding responses. A response is provided for each comment raising significant environmental issues, as formally received by the City during the 45-day Draft Program EIR review period. The responses are keyed to notations in the right margin of each comment.

Lastly, the "Resolution of the City Council of the City of Costa Mesa, California, Certifying Final Program Environmental Impact Report No. 1047 for South Coast Plaza Town Center" (Resolution No. 01-7), can be found immediately following the appendices portion of this document.

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**Resolution of the City Council of the City of Costa Mesa, California, Certifying Final Program
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SECTION 1 INTRODUCTION

1.1 PURPOSE AND SCOPE OF THE EIR

AUTHORITY

This **Final** Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code, Section 21000 et seq., the State CEQA Guidelines (Section 15000 et seq. of Title 14, California Code of Regulations), and with the guidelines adopted by the City of Costa Mesa. Specifically, this Draft EIR was prepared in accordance with the most recently adopted State CEQA Guidelines, which was issued October 26, 1998 and became effective in February 1999.

An EIR is an informational document prepared pursuant to CEQA to provide informed decision making. It provides decision-makers, public agencies, and the public in general with detailed information about the potential significant environmental effects of a proposed project. It also identifies the ways in which the significant effects of a project might be avoided, minimized or mitigated, and addresses alternatives to the project. CEQA requires that an EIR contain, at a minimum, certain specific elements. These elements include:

- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Impacts and Mitigation Measures
- Cumulative Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Not Found to be Significant
- Organizations and Persons Consulted
- Bibliographic References

1.2 DETERMINATION OF THE LEAD AGENCY

The State of California Environmental Quality Act (CEQA) Guidelines Section 15367 defines the lead agency as "... the public agency which has the principal responsibility for carrying out or approving a project." Criteria considered in identifying the lead agency include whether the agency (1) has the greatest responsibility for supervising or approving the project as a whole; (2) is an agency with general governmental powers, and (3) will act first on the project in question (refer to State CEQA Guidelines Section 15051).

The City of Costa Mesa is the lead agency under the California Environmental Quality Act (CEQA) and is responsible for preparation of the South Coast Plaza Town Center (SCPTC) EIR. This EIR has been prepared in conformance with the CEQA (California Public Resources Code §§ 21000 *et seq.*), California CEQA Guidelines (California Code of Regulations, Title 14, §§ 15000 *et seq.*), and City of Costa Mesa CEQA Guidelines. It is intended to serve as an informational document for the public agency decision-makers and the general public regarding the objectives and components of the proposed project, as well as the potential environmental impacts, and to describe mitigation measures and reasonable alternatives to the project.

This EIR is further intended to serve as the primary environmental document for subsequent actions within the South Coast Plaza Town Center (SCPTC) project area, including all local discretionary approvals requested to implement the SCPTC project. In addition, this EIR is the primary reference document in the formulation and implementation of the mitigation reporting and monitoring program for the SCPTC project.

The City of Costa Mesa, which has the principal responsibility for processing and approving the project, and other public agencies (i.e. Responsible Agencies) that may use this EIR in decision making or permit processing will consider the information in this EIR along with other information that may be presented during the CEQA process. A more detailed description of the Responsible Agencies is provided in Section 3, Project Description, of this document. In accordance with CEQA the public agencies will be required to make findings for each environmental impact of the project that cannot be mitigated to below a level of significance. If the lead agency and responsible agencies decide that the benefits of the proposed project outweigh unmitigated significant environmental effects, they will be required to make a statement of overriding considerations stating reasons to support their action.

This ~~Draft~~ **Final** EIR was prepared by a consultant under contract to the City of Costa Mesa. Prior to public review, it was extensively reviewed and evaluated by the City of Costa Mesa staff. This EIR reflects the independent judgement of the City of Costa Mesa as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel are provided in Sections 9 and 10 of this EIR, respectively.

1.3 PURPOSE OF THE EIR

The SCPTC EIR is a Program EIR that examines the environmental effects of a specific project. The intent of the document is to analyze the environmental effects of the proposed SCPTC project to the degree of specificity required by Section 15146 of the State CEQA Guidelines. It is anticipated that upon certification of this EIR, no additional CEQA review will be required for project implementation. The project may require subsequent approvals including, but not limited to, abandonment of streets, General Plan and North Costa Mesa Specific Plan amendments, final master plan approvals, demolition permits, grading permits, and building permits. The lead agency, as well as other responsible agencies, can approve subsequent actions without additional environmental documentation unless as otherwise required by Public Resources Code Section 21166 and State CEQA Guidelines Sections 15162, 15163 and 15164.

The actions involved in the implementation of the proposed project are described in Section 3, Project Description. Other agencies that may have discretionary approval over the project, or components thereof, are also described in Section 3.

1.4 SCOPE OF THE EIR

This EIR addresses the potential environmental effects of the proposed project. The scope of the EIR includes the areas of controversy identified by the Notice of Preparation (NOP) issued by the City, as well as issues raised by agencies and the general public in response to the NOP, as described below.

Scoping Process

In compliance with the State CEQA Guidelines, the City of Costa Mesa has taken steps to maximize the public's opportunity to participate in the environmental process. A Notice of Preparation (NOP) was distributed on April 10, 2000 and a revised NOP on June 14, 2000 (to reflect minor modifications), via certified mail to agencies and other interested parties to solicit comments and inform the public of the proposed project. The project was described, and the public was invited to review the NOP. Public comments on the issues discussed in the Initial Study were encouraged and solicited. The NOP, the distribution list for the NOP, and comment letters received during and after the NOP review period are attached to this EIR as Appendix A. Agencies, organizations, and interested parties not previously contacted or who did not respond to the NOP currently have the opportunity to comment during the 45-day public review period on the Draft Program EIR.

The potential significant issues that relate to development of the project include land use and planning; transportation and circulation; air quality; noise; geology and soils; hydrology and water quality; employment, population, and housing; public services, utilities, and energy consumption; and aesthetics (shade/shadow/glare).

Environmental element(s) that were determined not to be significantly affected by the proposed project and, therefore, do not require evaluation in the EIR, per Section 15063(c) of the State CEQA Guidelines (as amended), were as follows:

- Agricultural Resources. The project area is highly urbanized and does not contain any agricultural lands. The site is not under a Williamson Act Contract. This issue will not be addressed in the EIR.
- Biological Resources. Due to the developed character of the project area, the potential for sensitive plant and/or animal species to inhabit the site or surrounding area is remote and highly unlikely; therefore, this EIR will not address the issue of biological resources.
- Cultural Resources. A cultural resources records search was conducted and included in Appendix F. Due to the developed and highly disturbed nature of the project area, the potential for archaeological, paleontological and/or historical resources to be located on the project site is considered highly unlikely; therefore, this EIR will not address the issue of cultural resources.

- **Mineral Resources.** The project area is not within a mineral resource zone that is classified as significant or of unknown significance and therefore there are no significant mineral resources within the project area as defined by the State of California. This issue will not be addressed in the EIR.
 - **Recreation.** The project site does not include neighborhood or regional parks; nor would implementation of the project involve uses that would negatively affect existing neighborhood, regional parks, or private recreational amenities (e.g., “The California Scenario” outdoor sculpture garden, Town Center Open Space easement, etc.) in surrounding areas, nor affect the physical environment in relation to recreation uses. Therefore, this EIR will not address the issue of recreation.
-

The EIR includes an alternatives discussion that analyzes a reasonable range of alternatives that could feasibly attain the basic objectives of the project and evaluates the comparative merits of the alternatives. This EIR includes an evaluation of the following alternatives to the proposed project: (1) a no-project alternative; (2) a no project/no build alternative; (3) a reduced-intensity development alternative; and (4) an alternative location.

1.5 INCORPORATION BY REFERENCES

As permitted by Section 15150 of the State CEQA Guidelines, this Draft Program EIR has referenced several technical studies, analyses, and reports. Information from the documents which has been incorporated by reference has been briefly summarized in the appropriate section(s) that follow. The relationship between the incorporated part of the referenced document and the Draft Program EIR has also been described. The documents and other sources that have been used in the preparation of this Draft Program EIR include a number of environmental and planning documents that were prepared for development projects. These documents include the Downey Savings and Loan Headquarters FEIR (Jan. 1977), Town Center FEIR (Feb. 1978), Town Center Drive Abandonment FEIR No. 1027 (Feb. 1986), Orange County Music Center Traffic Study (Dec. 1981), Plaza Tower and Hotel FEIR No. 1041 (Oct. 1988), City of Costa Mesa 1990 General Plan FEIR No. 1044 (Feb. 1992), and Segerstrom Home Ranch Draft Program EIR No. 1046 (March 2000). These documents are specifically identified in Chapter 10 (References). In accordance with Section 15150(b) of the State CEQA Guidelines, the location where the public may obtain and review these referenced documents and other sources used in the preparation of the Draft Program EIR is also identified in Section 10.

1.6 AVAILABILITY OF DRAFT EIR

This ~~Draft~~ **Final** Program EIR was distributed to responsible and trustee agencies and surrounding cities. The Draft Program EIR will be available for review by all interested parties in accordance with Public Resources Code 21092(b)(3) at the City of Costa Mesa Development Services Department. In addition, during the 45-day public review period, the EIR, and technical appendices, are available for review at the City of Costa Mesa Development Services Department, City Hall at 77 Fair Drive, at the Costa Mesa Library at 1855 Park Avenue in Costa Mesa, and the Mesa Verde Library at 2969 Mesa Verde Drive East in Costa Mesa. The Notice of the Completion of the Draft Program EIR was also distributed as required by CEQA.

Agencies, organizations, and individuals are invited to comment on the information presented in the ~~Draft~~ **Final** Program EIR during the public review period. Specifically, comments are requested on the scope and adequacy of the environmental analysis. Respondents are also asked to provide or identify additional environmental information that is germane, but that they feel may not have been used in the analysis.

Written comments on the Draft Program EIR should be addressed to:

City of Costa Mesa
Development Services Department
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P.O. Box 1200
Costa Mesa, CA 92628-1200
Attn: Mr. R. Michael Robinson, AICP
Planning and Redevelopment Manager

Upon completion of the 45-day public review period, responses to all significant environmental issues raised will be prepared and available for review at least 10 days prior to the public hearing for certification. These comments and their responses will be included as part of the Final Program EIR for consideration by decision-makers for the project.

1.7 PROJECT SPONSORS AND CONTACT PERSONS

The City of Costa Mesa is the lead agency in the preparation of this EIR. Michael Brandman Associates is the environmental consultant to the City for the project. Preparers of this EIR are provided in Section 10. Key contact persons are as follows:

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SECTION 2 EXECUTIVE SUMMARY

2.1 INTRODUCTION

The project applicants have proposed amendments to the 1990 General Plan and the North Costa Mesa Specific Plan, to resolve existing non-conformities in respect to building intensities and to accommodate proposed development within the 54-acre South Coast Plaza Town Center (SCPTC) area. The project area is bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts, and the San Diego (I-405) Freeway. Immediately adjacent to the northern project boundary is the City of Santa Ana.

The project area is comprised of mixed-use, office, commercial, and cultural/entertainment land uses. Surrounding uses are primarily comprised of commercial, retail, residential, office, and visitor accommodations.

The proposed project's four main objectives are as follows:

- Amend the 1990 General Plan to accommodate the proposed development requests, and eliminate the existing non-conforming status of existing development with respect to floor area ratio standards (i.e., building intensities).
- Revise the vehicle trip budget and schedule of traffic improvements for South Coast Plaza Town Center, while maintaining acceptable levels of service on the project area's streets and surrounding circulation system.
- Establish General Plan policies related to development rights transfers for land dedications.
- Amend the North Costa Mesa Specific Plan and the Town Center Master Plan to reflect the revised trip budget, permitted floor area ratios, and maximum permitted building heights.

2.2 PROJECT DESCRIPTION

Development of SCPTC began in the early 1970s and has since evolved into a major employment and entertainment/cultural center. Existing structures consist of approximately 2.8 million square feet of development. The center is home to the Orange County Center for the Performing Arts, South Coast Repertory Theater, and the California Scenario outdoor sculpture garden.

The project applicants have initiated a General Plan/Specific Plan Amendment to address future development within the Town Center area, and to correct current inconsistencies between current development and the existing specific plan.

The Land Use Element of the General Plan and the North Costa Mesa Specific Plan would be amended to include a new "Cultural Arts Center" designation that would encompass the 54-acre project site. The new

Cultural Arts Center designation would guide development within the SCPTC project area, including the development of an art museum/academy, symphony hall, expansion of the Orange County Performing Arts Center, expansion of the South Coast Repertory Theater, and additional office, commercial, and hotel uses. Additional actions would include the transferring of entitlements, modification of the open space easement, amendment of the Master Plan of Highways, and development agreements. These actions will be processed with each of the separate applicants to entitle land use intensities and zoning regulations for individual projects within the Town Center area.

General Plan Amendment GP-00-02/and Specific Plan Amendment SP-00-01 encompass several major components. A detailed description of each component is provided in Section 3, Project Description, of this EIR.

2.3 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

The EIR addresses the areas of controversy and issues which required resolution that were known to the City of Costa Mesa or were raised by agencies and the public during the scoping process. Many of these were identified during the NOP process, as described previously. The following summarizes the primary areas of controversy related to environmental effects which were raised during the public scoping process and the section of the EIR in which these issues are addressed:

- Project compatibility with applicable land use plans (Section 5.1, Land Use and Planning Programs)
- Increased transportation impacts including both the construction and operational phases (Section 5.2, Transportation and Circulation)
- Air quality impacts (Section 5.3, Air Quality)
- Noise from project-related construction and long-term project traffic (Section 5.4, Noise)
- The impacts of regional geology and soils (Section 5.5, Geology and Soils)
- The potential for adverse effects from the increase in runoff (Section 5.6, Hydrology and Water Quality)
- Inducing indirect population growth (Section 5.7, Employment, Population, and Housing)
- An adequate supply of public utilities and the ability of providers to deliver services with an increased demand (Section 5.8, Public Services, Utilities, and Energy Consumption)
- The potential disruption of viewsheds due to shade and shadow and the introduction of new light sources (Section 5.9, Aesthetics)
- Cumulative impacts (Throughout Section 5)

The issues to be resolved by the City of Costa Mesa includes a choice among alternatives, including the proposed project, and whether or how to mitigate the significant environmental effects of the proposed project.

2.4 SUMMARY OF ALTERNATIVES

Section 15126(d) of the CEQA Guidelines requires that an EIR "describe a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain most of the basic objectives of the project, and evaluate the comparative merits of the alternatives" but would avoid or substantially lessen any of the significant effects of the project. The EIR includes an evaluation of the following alternatives to the proposed project:

- No Project Alternative - Development of Site under General Plan Buildout
- No Project/No Build Alternative – Retention of Site in its Existing Condition
- Reduced Intensity Alternative
- Alternative Location

2.5 MITIGATION MONITORING PROGRAM

CEQA requires public agencies to set up monitoring or reporting programs for the purpose of ensuring compliance with those mitigation measures adopted as conditions of project approval in order to mitigate or avoid significant environmental effects identified in environmental impact reports. Mitigation measures identified within this EIR have been described in sufficient detail to provide the necessary information to identify the party(ies) responsible for carrying out the mitigation, when the mitigation will be implemented, and why the mitigation has been required. A mitigation monitoring program, incorporating the mitigation measures set forth in this document, will be adopted at the time of certification of the EIR.

2.6 SUMMARY OF SIGNIFICANT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A detailed discussion and analysis of project impacts and recommended mitigation measures is presented in Section 5, Existing Conditions, Project Impacts, Cumulative Impacts, Mitigation Measures, and Level of Significance After Mitigation. Table 2-1 summarizes the potential environmental effects of the proposed project, the recommended mitigation measures, and the level of significance after mitigation. This EIR also identifies other effects, which are either not considered significant or which are beneficial effects of the proposed project, but these are not the focus of this summary. However, there are some project-related impacts that are unavoidable and cannot be mitigated to a less than significant level. These impacts will remain significant after mitigation. The reader is referred to the full text of this EIR for a description of the environmental effects of the proposed project and feasible mitigation measures.

**TABLE 2-1
EXECUTIVE SUMMARY**

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
<p>5.1 Land Use and Related Planning Programs</p> <p>Portions of the project site are within the Federal Aviation Administration (FAA) Notice Area for John Wayne Airport. The SCPTC project would not be expected to impact airport operations or existing/future navigation systems. Pursuant to FAR Part 77 (AC 70/7460-2)), the proposed project does require FAA notification. A finding of consistency with the Airport Land Use Plan is expected because the project's onsite land uses would not penetrate any imaginary surfaces.</p>	<p>Standard Conditions and Requirements</p> <p>The proposed project will be subject to all of the applicable conditions and regulations set forth in the North Costa Mesa Specific Plan, the City of Costa Mesa zoning ordinance, and all requirements and enactments of federal, state, county, city and other governmental entities with jurisdiction. All such requirements and enactments of these agencies will become conditions of project implementation.</p>	
	<p>Mitigation Measures</p> <p>1-1 Prior to the issuance of a building permit located within the FAA Notice AREA for John Wayne Airport, the project applicant shall submit a Notice of Proposed Construction to the FAA. The ALUC will review the project for consistency with the Commission's AELUP. The project shall comply with the provisions and restrictions imposed by the FAA and the ALUC. This condition shall be included in the North Costa Mesa Specific Plan and the final project-specific master plans, and shall be verified by the Costa Mesa Planning Division.</p>	<p>With implementation of the standard conditions and mitigation measures no significant land use and related planning program impacts are anticipated from development of the proposed project.</p>

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
<p>5.2 Transportation and Circulation</p> <p>At buildout, the SCPTC project will generate 10,000 average daily trips, with 1,200 a.m. and 1,050 p.m. peak hour trips</p>	<p>1.2 The City of Costa Mesa will review the final master plans for development within the SCPTC project area for consistency with any adopted plans for the area.</p> <p>Project Design Features</p> <p>These are considered to be improvements that are integral to the proposed project, and are included in the traffic impact analysis prior to mitigation. The only design feature that falls into this category is the proposed street vacation of a portion of Town Center Drive between Park Center Drive and Avenue of the Arts (with related amendment to the City's Master Plan of Highways).</p> <p>Standard Conditions and Requirements</p> <p>The long range general plan improvements within the City of Costa Mesa which are assumed in the background conditions will be funded mostly by an areawide circulation system funding mechanism such as the city traffic impact fee program or special benefit district fees. The proposed South Coast Town Center project will be responsible for the payment of fees to the city of Costa Mesa as set forth below.</p> <ul style="list-style-type: none"> The project applicants shall participate in the implementation of Master Plan of Highways improvements through the payment of development impact fees in accordance with 	<p>Implementation of the project design features, standard conditions of approval and mitigation measures will preclude significant impacts.</p>

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>City of Costa Mesa Ordinance 93-11 and Resolution 93-43. The payment of development impact fees shall be submitted to the City of Costa Mesa Planning Division for the mitigation of offsite traffic impacts at the time of issuance of building permits. The required fee shall be paid pursuant to the prevailing schedule of charges adopted by the City Council in effect at the time of issuance of building permits.</p> <ul style="list-style-type: none"> • The project applicants shall be responsible for the payment of fees in accordance with the San Joaquin Hills Transportation Corridor Fee Ordinance. Fees shall be paid to the Costa Mesa Planning Division prior to the issuance of building permits. • The project applicants shall comply with the Transportation Demand Management (TDM) requirements of the City of Costa Mesa TDM Ordinance (Costa Mesa Municipal Code § 13-880 through 13-888) through the provision of one or more improvements set forth in Costa Mesa Municipal Code § 13-884. 	
<p>Long-Range Conditions</p> <p>As a result of project related traffic, the following eleven intersections would be significantly impacted:</p>	<p>Mitigation Measures</p>	<p>Implementation of this mitigation program would reduce impacts to all intersections with the exception of Main</p>

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
City of Costa Mesa	<p>intersections' performance shall be monitored against the City's Annual Development Phasing and Monitoring Report to determine when future improvements are required.</p> <p>2. The project applicants shall be required to fund all costs associated with implementation of intersection improvements to the following intersections: Bristol/Sunflower, Fairview/South Coast, Bristol/Paularino, Park Center/Sunflower. The project applicants should fund a share of the costs of the planned improvements at the following intersections: Bristol/Segerstrom, Bristol/MacArthur, Flower/MacArthur, SR-55 NB ramps/MacArthur, and Main/Sunflower; and Red Hill/Main. Impacts to intersections at Main/MacArthur and Main/Sunflower would be significant with or without project implementation and are considered significant unavoidable impacts. These circulation improvements shall be completed prior to the creation of a project-specific impact at these locations. The timing of these improvements will be determined by the City of Costa Mesa based on intersection performance monitoring as set forth in Traffic Mitigation Measure 1.</p>	<p>& MacArthur and Main/Sunflower to a less than significant level.</p>
<ul style="list-style-type: none"> • Bristol and Sunflower LOS E (a.m. peak) • Fairview Road/South Coast Drive – LOS E (p.m. peak) • Bristol and Paularino LOS E (p.m. peak) • Park Center and Sunflower LOS E (p.m. peak) 		
City of Santa Ana	<ul style="list-style-type: none"> • Bristol and Segerstrom LOS F (p.m. peak) • Bristol and MacArthur LOS E (a.m. peak) and LOS F (p.m. peak) • Flower and MacArthur LOS F (a.m. and p.m. peak) • SR-55 NB Ramps and MacArthur LOS E (a.m. peak) • Main and Sunflower LOS F (a.m. and p.m. peak) • Main and MacArthur LOS F (p.m. peak) 	
City of Irvine	<ul style="list-style-type: none"> • Red Hill and Main LOS E (p.m. peak) 	
Town Center Drive Deletion	<p>The segment of Town Center Drive immediately west of Avenue of the Arts would be reconfigured as a one-way street only to allow westbound traffic. This would result in a change in level of service at the Bristol Street and Sunflower Avenue intersection from LOS D to LOS E (a.m. peak)</p>	

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>The following intersection improvements are required:</p> <ul style="list-style-type: none"> • Bristol/Sunflower: Convert 3rd northbound through lane to a shared through/right turn lane (provide 2NBL, 2 NBT, 1 shared NBT/NBR, and 1 NBR). • Fairview/South Coast: Convert 2nd eastbound through lane to a shared through/right turn lane (provide 1 EBL/ 1 EBT, 1 shared EBT/EBR, and 1 EBR). • Bristol/Paularino: Add a southbound right turn lane. Add a second westbound right turn lane shown in the current general plan. • Park Center/Sunflower: Convert northbound through lane to a shared left-turn/through lane to a shared left-turn/through lane to a right-turn lane. Requires split phasing in the north/south direction. (provide 1 NBL, 1 shared NBL/NBT/NBR, 1 shared SBL/SBT, and 1 SBR). • Main/MacArthur: Provide right-turn overlap signal phasing for northbound and southbound right turns. • Main and Sunflower: Convert 3rd southbound lane to a right turn lane with overlap phasing. • Bristol/Seegerstrom: General Plan Improvements: Add a second left turn for each approach, 3rd and 4th eastbound through lanes, 3rd westbound through lane, 	

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
<p>and right-turn lanes for each approach. Non-General Plan Improvements: Add a 4th westbound through lane.</p> <ul style="list-style-type: none"> <li>• Bristol/MacArthur: General Plan Improvements: Add right turn lanes for southbound, eastbound, and westbound approaches. Non-General Improvements: Add 4th eastbound and westbound through lanes, add right turn overlap for westbound right turn lanes. <li>• Flower/MacArthur: General Plan Improvements: None. Non-General Plan Improvements: Add northbound and westbound right turn lanes. <li>• SR-55 NB Ramps and MacArthur: General Plan Improvements: None. Non-General Plan Improvements: Add 3rd northbound right turn lanes. <li>• Red Hill and Main: Add 3rd northbound through lane, 3rd and 4th southbound through lanes, free-flow northbound and eastbound right turn lanes. 		
<p>5.3 Air Quality</p>	<p>Short-term Construction-related Emissions</p>	<p>Standard Conditions and Requirements</p>
<p>Short-term construction-related emissions would result in significant particulate matter (PM₁₀) and nitrogen oxide (NO_x) air quality impacts.</p>	<p>All construction contractors shall comply with South Coast Air Quality Management District (SCAQMD) regulations, including Rule 402, the Nuisance Rule, and Rule 403, Fugitive Dust. Prior to the issuance of a grading permit where</p>	<p>Construction-related emissions of PM₁₀ and NO_x will remain significant and unavoidable</p>

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>grading permit will occur on more than 50 acres at one time, the applicant shall submit a grading plan or grading contingency plan to the SCAQMD in accordance with Rule 403. All grading (regardless of size) shall apply best available control measures for fugitive dust in accordance with Rule 403. To ensure that the project is in full compliance with applicable SCAQMD dust regulations and that there is no nuisance impact off the site, the contractor will implement each of the following:</p> <ol style="list-style-type: none"> a. Develop a project grading plan or contingency plan and submit the plan to the SCAQMD consistent with the provisions of Rule 403. (Note: only applicable where more than 50 acres are graded). b. Moisten soil not more than 15 minutes prior to moving soil or conduct whatever watering is necessary to prevent visible dust emissions from exceeding 100 feet in any direction. c. Apply chemical stabilizers to disturbed surface areas (completed grading areas) within five days of completing grading or apply dust suppressants or vegetation sufficient to maintain a stabilized surface. d. Water excavated soil piles hourly or 	

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>cover with temporary coverings.</p>	
	<p>e. Water exposed surfaces at least twice a day under calm conditions. Water as often as needed on windy days when winds are less than 25 miles per day or during very dry weather in order to maintain a surface crust and prevent the release of visible emissions from the construction sites.</p>	
	<p>f. Wash mud-covered tires and undercarriages of trucks leaving construction sites.</p>	
	<p>g. Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud which would otherwise be carried off by trucks departing project sites.</p>	
	<p>h. Securely cover loads with a tight fitting tarp on any truck leaving the construction sites to dispose of debris.</p>	
	<p>i. Cease grading during periods when winds exceed 25 miles per hour.</p>	
<p>Long-Term Operational-Related Emissions</p>	<p>Long-term operational-related emissions would exceed the thresholds for CO, ROG, and NO_x</p>	<p>Operational-Related Emissions of CO, ROG, and NO_x will remain significant and unavoidable.</p>
	<p>To reduce emissions from project-related vehicle trips, the project applicant shall adhere to the City of Costa Mesa Municipal Code §13-880 through 13-888 (Transportation Demand</p>	

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>Management) and the South Coast Air Quality Management District Regulation XV to reduce vehicle traveled to the maximum extent feasible. The code includes measures such as:</p> <ul style="list-style-type: none"> • Preferential parking for carpool vehicles; • Bicycle parking and shower facilities • Information provided to employees on transportation alternatives; • Rideshare vehicle loading areas; • Vanpool vehicle accessibility; and; • Bus stop improvements <p>To reduce emissions from the power plant providing electricity to the site, prior to the issuance of building permits, the project applicant shall demonstrate to the satisfaction of the City of Costa Mesa Building Safety Division that the project shall adhere to Title 24 of the California Code which requires new development to use energy efficient electrical and mechanical systems.</p>	
<p>5.4 Noise</p> <p>Short-Term Construction Noise</p> <p>Noise generated from construction and/or demolition</p>	<p>Standards Conditions and Requirements</p> <p>The City of Costa Mesa has adopted a Noise Implementation of the standard city</p>	

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
<p>equipment, including trucks, graders, bulldozers, concrete mixers, and portable generators can reach high levels. An existing hotel is located approximately 150 feet from the nearest construction/demolition activities and may experience significant short-term noise impacts.</p>	<p>Ordinance that excludes control of construction activities during the hours between 7 a.m. and 8 p.m. All noise generating construction activities within 500 feet of residential areas should be limited to these times.</p>	<p>requirements reduce noise impacts to a level that is considered less than significant.</p>
<p>There are residences located across the Avenue of the Arts from the Segerstrom Center for the Arts portion of the project that are approximately 100 feet from the nearest construction and 250 feet from the furthest construction activity. Noise generated from construction activities represents a short-term noise impact.</p>	<p>The project applicant shall prepare a truck route plan for review and approval by the City of Costa Mesa Engineering Division prior to the approval of the construction access permit. The truck route permit shall preclude truck routes through residential areas.</p>	<p>Implementation of the standard city requirements will reduce noise impacts to a level that is considered less than significant.</p>
<p>Long Term Offsite Impacts</p>		
<p>Future significant noise levels will be experienced along many roadways in the project area. However, only a few of the roadways adjacent to noise sensitive land uses will experience significant noise increases over existing conditions and only a small portion of the increase is due to project implementation.</p>	<p>All activities on the project site are required to comply with the City of Costa Mesa Noise Ordinance.</p>	<p>Implementation of the standard city requirements will reduce noise impacts to a level that is considered less than significant.</p>
<p>Long Term Onsite Impacts</p>		
<p>The proposed hotel located along Bristol may experience interior noise levels in the guest rooms that exceed 45 CNEL.</p>	<p>1. Prior to the issuance of building permits an acoustical study shall be prepared by a qualified acoustical consultant and submitted to the City. The study should predict the future ultimate noise levels impacting the building and calculate the outdoor-to-indoor noise reduction provided by the structure. Compliance with the 45 CNEL standard shall be demonstrated with any required</p>	<p>Implementation of the standard city requirements and mitigation measures will reduce noise impacts to a level that is considered less than significant.</p>
<p>Mitigation Measurements</p>		

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
<p>5.5 Geology and Soils</p> <p>Project implementation could result in differential settlement from compacted soils beneath building foundations settling over time due to earthquakes or other natural occurrences. The project site contains expansive soils. Significant impacts from differential settlement can be mitigated through standard building design and engineering techniques required for compliance with the Uniform Building Code. Typically, removal and recompaction of compressible soils provides suitable mitigation for settlement-related impacts where relatively low rise structures are constructed. For medium-to high-rise office buildings, specialty foundation designs, pilings, or caissons can address the potential effects from differential settlement.</p>	<p>building component upgrades. The required noise reduction is only slightly greater than what would be expected and the 45 CNEL standard is achievable.</p> <p>Standard Conditions and Requirements</p> <p>Compliance with Uniform Building Code provisions and standard subdivision engineering requirements, as specified in the city's conditions of approval, will satisfactory address the geotechnical issues described in the Program EIR.</p> <p>Mitigation Measures</p> <p>5-1 All future development on the SCPIC site shall be designed to comply with all applicable geological and seismic safety requirements of the Uniform Building Code and mitigation as defined in the Public Resources Code Section 2693(c). Verification of such compliance will be confirmed during the city's plan review and building permit issuance processes.</p> <p>5-2 Grading and foundation plans, including foundation loads, shall be reviewed by a registered soils engineer, and approved by the City of Costa Mesa Building Safety Division.</p> <p>5-3 All grading and earthwork shall be</p>	<p>Implementation of this mitigation program would reduce the impact to a less than significant level.</p>

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>performed under the observation of a registered geotechnical engineer in order to achieve proper sub-grade preparation, selection of satisfactory materials, and placement and compaction of all structural fill.</p>	
5-4	<p>Prior to approval of each grading plan by the City of Costa Mesa, the property owner/developer shall submit a soils and geological report for the area to be graded, based on proposed grading and prepared by registered soils engineer and approved by the City of Costa Mesa Building Safety Division.</p>	
5-5	<p>Prior to issuance of each building permit by the City of Costa Mesa, the property owner/developer shall submit for review and approval by the City of Costa Mesa Building Safety Division, a detailed foundation design information for the subject building(s), prepared by a registered civil engineer, based on recommendations by a geotechnical engineer.</p>	
5-6	<p>Prior to issuance of each building permit by the City of Costa Mesa, the property owner/developer shall submit plans showing that the proposed structure has been analyzed by a registered civil engineer for earthquake loading and</p>	

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
<p>The project site will be exposed to potentially significant secondary impacts of earthquakes, including groundshaking and liquefaction.</p>	<p>designed according to the most recent standards in the Uniform Building Code adopted by the City of Costa Mesa.</p> <p>Standard Conditions and Requirements</p> <p>Compliance with Uniform Building Code provisions, standard subdivision engineering requirements, and Mitigation Measures 1 through 6 are applicable.</p>	<p>Implementation of this mitigation program would reduce the impact to a less than significant level.</p>
<p>Excavation of expansive soils and recompaction for development of building foundations, subterranean parking, and placement of infrastructure improvements could encounter perched groundwater conditions that appear to exist approximately 17 feet below the ground surface.</p>	<p>Compliance with Uniform Building Code provisions and standard subdivision engineering requirements, as specified in the city's conditions of approval, will satisfactorily address the geotechnical issues described in the Program EIR.</p> <p>Mitigation Measures</p> <p>5-7 If a permit is required for discharge of perched groundwater encountered during excavation for site improvements, the applicant shall acquire such permit(s) from the applicable agency(ies) (e.g., Santa Ana Regional Water Quality Control Board, County Flood Control or County Sanitation District) and provide evidence of permit issuance to the Costa Mesa Building Safety Division prior to initiating any such discharge.</p>	<p>Implementation of this mitigation program would reduce the impact to a less than significant level.</p>

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
<p>5.6 Hydrology and Water Quality</p>	<p>Project Design Features</p>	
<p>Due to the increase of impermeable surfaces from the proposed project, the volume and rate of runoff from the site will be nominally increased over the existing condition. Degradation of stormwater runoff quality is possible associated with the introduction of urban land uses to the site.</p>	<p>The project incorporates the following design features related to hydrology, flood hazard, and water quality:</p> <ul style="list-style-type: none"> • Construction of structural BMPs as identified in the SWPPP, and required by the NPDES Stormwater Permit issued to the project site by the County of Orange/City of Costa Mesa to capture urban runoff contaminants from developed areas prior to discharge to onsite storm drain facilities. 	<p>Implementation of this mitigation program would reduce the impact to a less than significant level.</p>
<p>Standard Conditions and Requirements</p>		
<p>Compliance with Uniform Building Code provisions and standard subdivision engineering requirements, as specified in the city's conditions of approval, will satisfactorily address the hydrology and drainage issues described in this section of the EIR.</p>		
<p>Mitigation Measures</p>		
<p>6-1 Prior to issuance of a grading permit, the applicant shall obtain an NPDES Stormwater Permit from the County of Orange. Applicable BMP provisions shall be incorporated into the NPDES Permit.</p>		

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
<p>5.7 Population, Employment, and Housing</p> <p>The SCPTC project would result in an increase in employment in excess of local and regional growth projections. This change is not consistent with the General Plan Housing Element. Due to the Since projected growth in employment from the project and in the local area at a faster pace than housing development, there is the potential for a significant impact to housing availability in the area region.</p>	<p>No feasible project-specific mitigation is available.</p>	<p>This impact is significant and unavoidable.</p>
<p>5.8 Public Services, Utilities, and Energy Consumption</p> <p>Fire Protection</p>	<p>Project Design Features</p>	<p>Implementation of project design features and compliance with standard conditions of approval will preclude significant impacts.</p>
<p>Buildout of the project will require the need for a new fire station/substation.</p>	<ul style="list-style-type: none"> A water delivery system designed to provide adequate fire flows to the project site and maintain a roadway system to provide adequate access to and through the site are a part of the design of the project. 	<p>Implementation of project design features and compliance with standard conditions of approval will preclude significant impacts.</p>
<p>Standard Conditions and Requirements</p>	<ul style="list-style-type: none"> Concurrent with the issuance of building permits the applicant shall pay the North Costa Mesa Fire Fee in effect at that time, as applicable. Each final master plan for the project site shall provide sufficient capacity for fire flows required by the Costa Mesa Fire Department. 	<p>Implementation of project design features and compliance with standard conditions of approval will preclude significant impacts.</p>

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> • Vehicular access to all fire hydrants must be provided and maintained throughout construction. 	
<p>Police Protection</p> <p>The Costa Mesa Police Department has indicated that the SPTC project may require additional personnel and/or equipment. Additional personnel could include police officer positions and/or support personnel.</p>	<p>Standard Conditions and Requirements</p> <ul style="list-style-type: none"> • As final building plans are submitted to the City of Costa Mesa for review and approval, the Police Department shall review all plans for the purposes of ensuring that the proper design features are incorporated into the building plans to increase safety. • Environmental design considerations shall be incorporated into the development and maintenance of the proposed project to deter such criminal activity as burglary and robbery. • All buildings shall be well marked with names and addresses to enhance rapid response, rooftops shall be marked for building identification by police helicopter, and there shall be designated emergency vehicle parking areas close to buildings. 	<p>Implementation of standard conditions of approval and identified mitigation measures would reduce police protection impacts to a less than significant level.</p>
	<p>Mitigation Measures</p> <p>5.9 Prior to the initiation of grading, a construction security service shall be established at the construction site. Initially, the service shall ensure that no unauthorized</p>	

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>entry is made into the construction area. For the duration of each phase of construction, the project applicant shall provide sufficient onsite security personnel on a 24-hour, seven days a week basis, to patrol all areas of construction and prohibit unauthorized entry.</p>	
<p>5.10</p>	<p>Private on-site security is to be provided by the project applicants as the project is developed and operational.</p>	
	<p>Project Design Features</p>	
<p>Water Service</p>	<p>The project area is served by a water system that has adequate water pressure and volumes to serve the project site. Improvements to this system would be determined upon submittal of detailed building plans. The proposed project would increase potable water consumption by approximately 43,890 gallons per day.</p>	<p>Implementation of project design features and standard conditions of approval will reduce water service impacts to a less than significant level.</p>
	<ul style="list-style-type: none"> All onsite irrigation lines for recycled water would be identified so as to avoid connection with potable water lines. Design requirements would be specified to the City for potable and recycled water plumbing systems within proposed buildings. 	
	<ul style="list-style-type: none"> Prior to the issuance of an Application Permit the Application Plan Check/Inspection Fee and Performance Guarantee Bond shall be paid by the applicants to the MCWD. 	
	<ul style="list-style-type: none"> Prior to the approval of plans or the execution of a service agreement, a Development Impact Fee shall be collected 	

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>by the MCWD from the applicants.</p> <ul style="list-style-type: none"> Water conservation plans as required by the State of California shall be incorporated into building plans for the project. The measures to be implemented include, but are not limited to: <ul style="list-style-type: none"> Low-flow fittings, fixtures, and equipment, including low flush toilets and urinals (Health and Safety Code 17921.3) Use of self closing valves for drinking fountains and lavatory faucets in public facilities (Government Code Section 7800) Insulation of water pipes and water heating systems. (Title 24, California Administrative Code, Section 25352) Use of low flow sprinkler heads in irrigation systems (California Conservation in Landscaping Act, AB 325). 	
<p>Wastewater Service</p> <p>The project would generate more wastewater flows than were projected by the Orange County Sanitation District for the site. The proposed project would generate approximately 174,000 additional gallons per day of wastewater to be treated.</p>	<p>Project Design Features</p> <ul style="list-style-type: none"> All onsite wastewater sewer lines will be provided and ties to the existing sewer line system. 	<p>Implementation of project design features and compliance with standard conditions of approval will reduce wastewater impacts to less than significant levels.</p>

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures Standard Conditions and Requirements	Level of Significance After Mitigation
<p>Solid Waste</p> <p>The project is expected to generate 6,276 tons of solid waste annually. The County of Orange Integrated Waste Management District has indicated that adequate capacity for the proposed project is available.</p>	<p>Standard Conditions and Requirements</p> <ul style="list-style-type: none"> • Prior to the issuance of building permits, a letter shall be obtained from the CMSD and the OCSD verifying that there is sufficient capacity in the receiving trunk lines to serve the proposed project. • Prior to the issuance of connection permits(s), the applicant shall pay all applicable fees. <p>Standard Conditions and Requirements</p> <p>Although no significant impacts to solid waste disposal have been identified, the following measures are recommended to minimize waste disposal and assist the City of Costa Mesa in compliance with AB 939.</p> <ul style="list-style-type: none"> • In accordance with the requirements of AB 939, construction contractors shall reuse construction forms where practicable or applicable, attempt to balance soils on the site, minimize over cutting of lumber and polyvinyl chloride (PVC) piping where feasible, and reuse landscape containers to the extend feasible. - Recycling bins for glass, metals, paper, wood, plastic, green waste, and cardboard shall be placed on the construction sites for 	<p>No significant impacts have been identified</p>

TABLE 2-1 (continued)

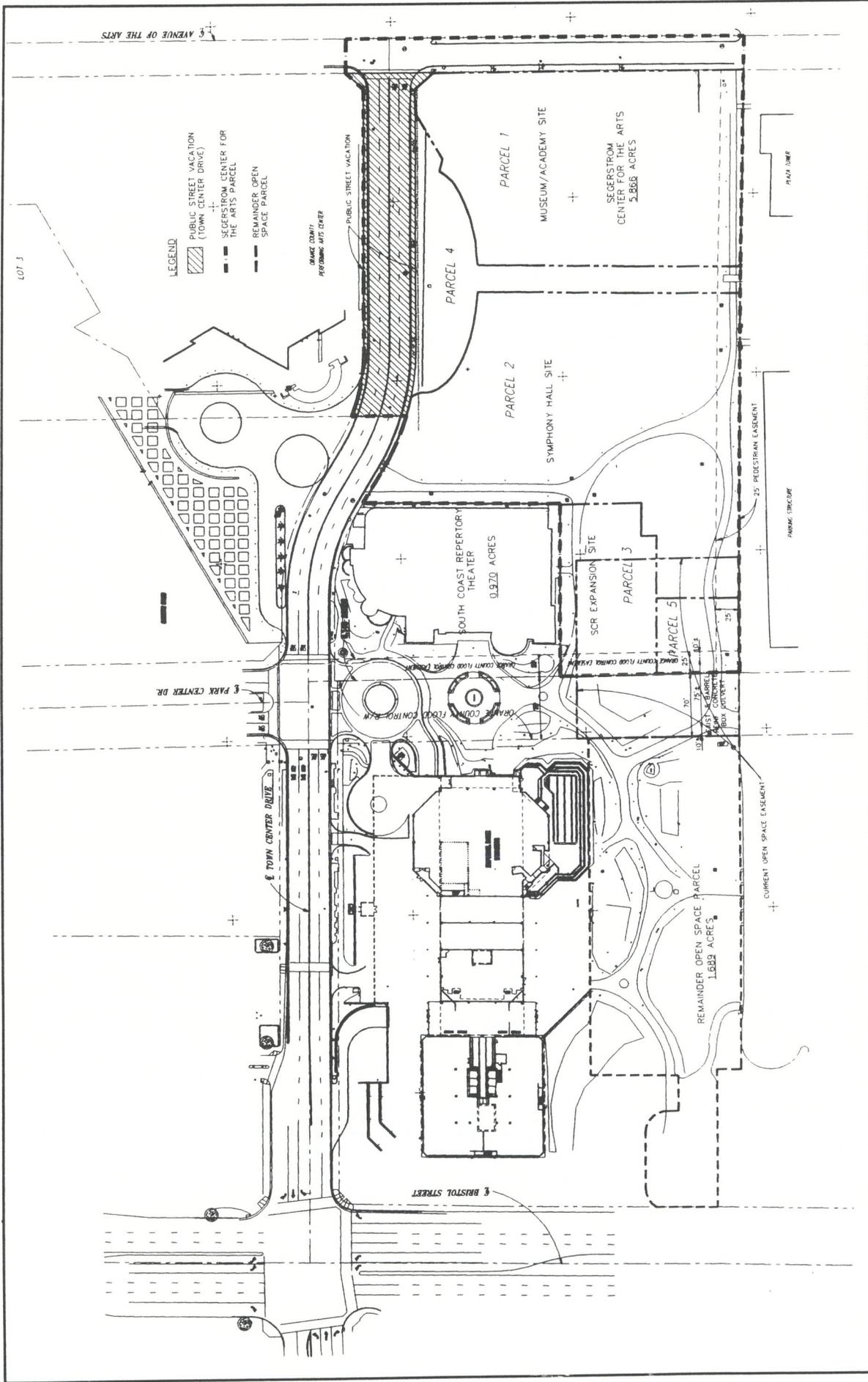
Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>use by construction workers.</p> <ul style="list-style-type: none"> - In construction specifications and bid packages, require building materials made of recycled materials, to the extent feasible and economically practical. - As a part of the ongoing operations of the SCPTC project, the following measures shall be integrated into project design: <ul style="list-style-type: none"> • Source reduction, source separation and recycling measures shall focus on paper goods, yard waste, plastic, wood waste, and glass; • “Buy-recycled” policies, such as price preferences for recycled products; • Source reduction policies; • In-house recycling; • Drop-off sites; • Employee education; • Customer education; and, • Manufacturing design modification to promote source reduction or recycling. 	
<p>Electricity/Natural Gas</p> <p>Electric loads of the proposed project fall within SCE’s estimates of future demand in the area. Implementation of the proposed project would not result in a significant impact on electrical services or facilities.</p> <p>The Gas Company has identified that the natural gas demand generated by the project is within its projected</p>	<p>Standard Conditions and Requirements</p> <ul style="list-style-type: none"> • Prior to the recordation of the Final Master Plans, the applicant shall provide to the City of Costa Mesa, a letter from Southern California Edison Company and Southern California Gas Company indicating the ability to provide service to the project. 	<p>No significant impacts have been identified.</p>

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
<p>future demand for the area and could be accommodated by existing facilities. The provision and installation of gas facilities would not result in additional significant environmental impacts beyond those identified for construction of the project.</p>	<ul style="list-style-type: none"> The applicant shall comply with the guidelines provided by the Southern California Edison Company with respect to easement restrictions, construction guidelines, and potential amendments of right-of-way in any existing Southern California Edison easements on the project site. Prior to the issuance of each building permit, the building owner/developer shall submit plans showing that each structure will comply with the State Energy Efficiency Standards for nonresidential buildings (Title 24, Part 6, Article 2, California Code of Regulations). 	
<p>5.9 Aesthetics</p>	<p>Project Design Features</p>	<p>Implementation of the mitigation program would reduce visual impacts to a less than significant level.</p>
<p>The project would allow a 21-story office building, creating a potentially significant impact by exceeding the current height limitation of 240 feet west of Park Center Drive, as specified in the North Costa Mesa Specific Plan.</p> <p>Glare from sunlight reflected from the proposed office buildings could pose a potentially significant visual impact to motorists traveling northbound and southbound on I-405.</p>	<p>The project incorporates the following design features related to aesthetics and visual resources:</p> <ul style="list-style-type: none"> The proposed SCPTC project will incorporate signage, landscaping, and exterior lighting that comply with applicable city requirements. The size, height, building materials, and orientation of structures associated with the SCPTC project will conform with City requirements. 	

TABLE 2-1 (continued)

Significant Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>Standard Conditions and Requirements</p> <p>The SCPTC project will be required to comply with Uniform Building Code provisions, standard subdivision engineering requirements, and applicable provisions of the Costa Mesa General Plan and North Costa Mesa Specific Plan as specified in the City's conditions of approval.</p>	



SOURCE: RBF Consulting, December 1999



Michael Brandman Associates

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Exhibit 3-9 Street Vacation Map / Circulation Element Amendment

SOUTH COAST PLAZA TOWN CENTER EIR

SECTION 3 PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The South Coast Plaza Town Center (SCPTC) project is located in the City of Costa Mesa in central Orange County (see Exhibit 3-1). The SCPTC project area is a 54-acre mixed-use office, commercial, and entertainment area bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts and the San Diego (I-405) freeway (see Exhibit 3-2). The City of Santa Ana boundary is located just north of the site, across Sunflower Avenue.

3.2 SITE CHARACTERISTICS

The specific project site encompasses 54 acres. The project site is highly urbanized and contains 2,801,368 square feet of development. The terrain is level with no distinguishing topographical features (e.g., hillsides, canyons, etc.). The elevation on the project site is 30 feet above mean sea level (msl). The project area supports mixed-use, commercial, and entertainment land uses, including the Orange County Performing Arts Center (OCPAC). The primary entry street into SCPTC is Anton Boulevard, which also serves as the backbone of the project area's circulation system. Many of the existing developments along Anton Boulevard are pedestrian oriented. An extensive greenbelt/pathway system within the SCPTC core also links the various buildings and uses. The surrounding uses are primarily comprised of commercial, retail, residential and office uses, as well as visitor accommodations.

3.3 PROJECT OBJECTIVES

The stated objectives of the SCPTC GP/SP Amendments are as follows:

- Amend the 1990 General Plan to accommodate the proposed development, and eliminate the existing non-conforming status of existing development with respect to floor area ratio standards (i.e., building intensities).
- Revise the vehicle trip budget and schedule of traffic improvements for South Coast Plaza Town Center, while maintaining acceptable levels of service on the project area's streets and surrounding circulation system.
- Establish General Plan policies related to development rights transfers for land dedications.
- Amend the North Costa Mesa Specific Plan and the Town Center Master Plan to reflect the revised trip budget, permitted floor area ratios, and maximum permitted building heights.

3.4 PROJECT CHARACTERISTICS

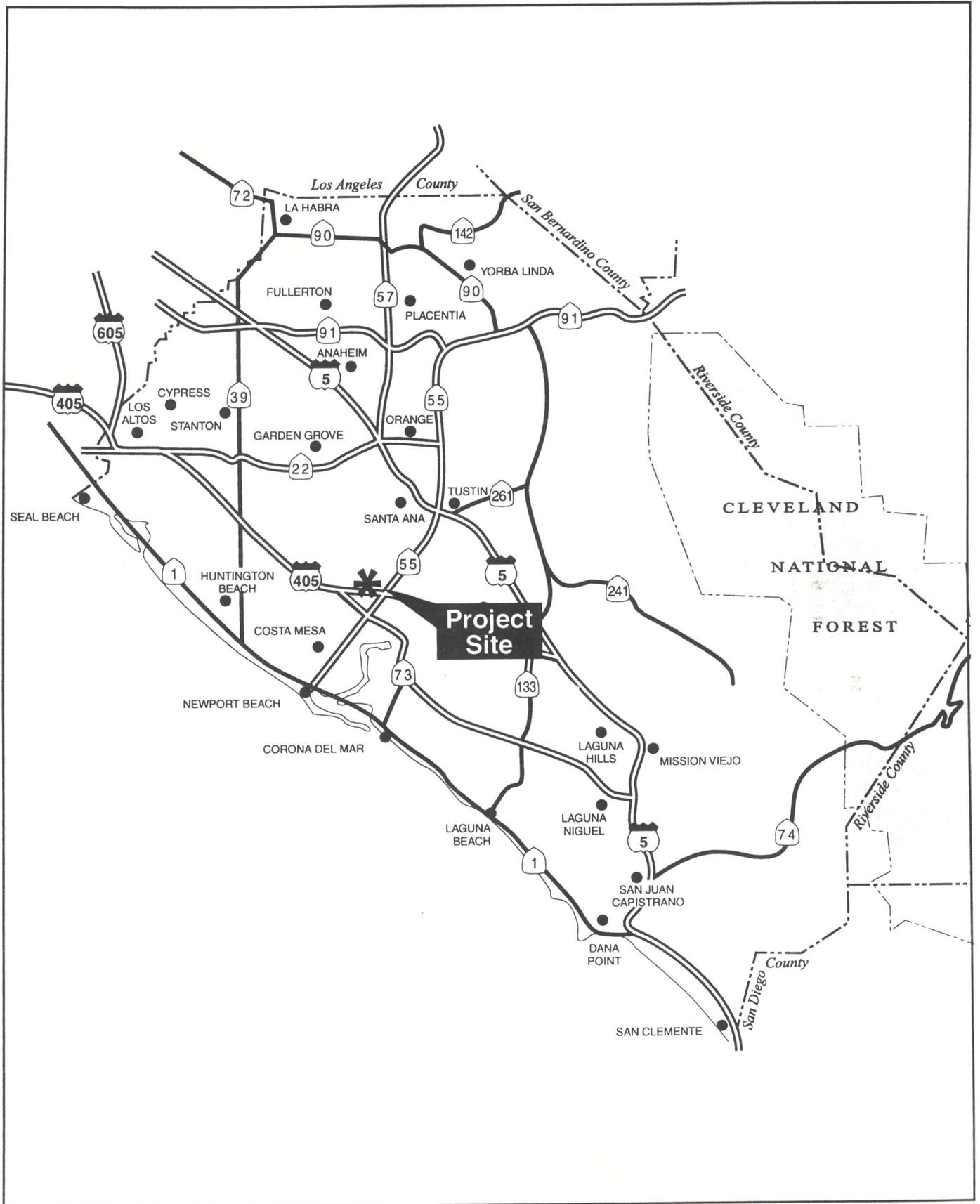
As shown on Table 3-1, implementation of the SCPTC project would allow for the development of an additional 1,109,445 sq. ft. of new retail, office, hotel, and cultural art-related uses. The project consists of three major components including: Two Town Center, Segerstrom Center for the Arts, and the Balance of Town Center (see Exhibit 3-3). Table 3-2 also provides a statistical summary of each building associated with the SCPTC project. Exhibit 3-4 identifies these buildings that would be demolished as part of the SCPTC project. The following is a detailed discussion of each component:

**TABLE 3-1
SOUTH COAST PLAZA TOWN CENTER
DEVELOPMENT CHARACTERISTICS**

Net Site Acreage	Existing Development	Previously Unbuilt Entitlements	Proposed Expansion	Total Building Area	Floor Area Ratio
54 Acres*	2,801,368 sq. ft.	251,000 sq. ft.	1,109,445 sq. ft.	4,161,813 sq. ft.	1.77
sq. ft. – square feet					
* Includes 0.52 acre to be added to project site from the portion of Town Center Drive to be abandoned.					
Source: City of Costa Mesa, July 2000					

**TABLE 3-2
STATISTICAL SUMMARY OF SCPTC COMPONENTS**

Building	Land Use	Previously Unbuilt Entitlements	Slated for Demolition	New Construction	Overall Net Increase (Unentitled Uses)	Height/Story
A.	Segerstrom Office	∅	(84,025 sq. ft.)	339,025 sq. ft.	255,000 sq. ft.	315 ft./21
B.	OCPAC Expansion	65,000 sq. ft. (1,000 seats)	∅	65,000 sq. ft. (1,000 seats)	∅	160 ft./3
C.	SCR Theater	∅	∅	32,500 sq. ft.	32,500 sq. ft. (140 seats)	160 ft./2
D.	Symphony Hall	∅	∅	301,145 sq. ft. (2,500 seats)	301,145 sq. ft. (2,500 seats)	130 ft./5
E.	Art Museum/Academy	∅	∅	140,000 sq. ft.	140,000 sq. ft.	80 ft./4
F.	Hotel/Restaurant	186,000 sq. ft. (186 room hotel)	(15,300 sq. ft.) (restaurant)	186,000 sq. ft. (186 room hotel)/ 15,300 sq. ft. (restaurant)	∅	210 ft./12
G.	Two Town Center Parking Structure #1	∅	∅	300 spaces	300 spaces	60 ft./4



Michael Brandman Associates

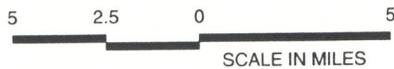


Exhibit 3-1
Regional Location Map

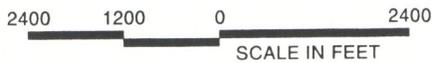
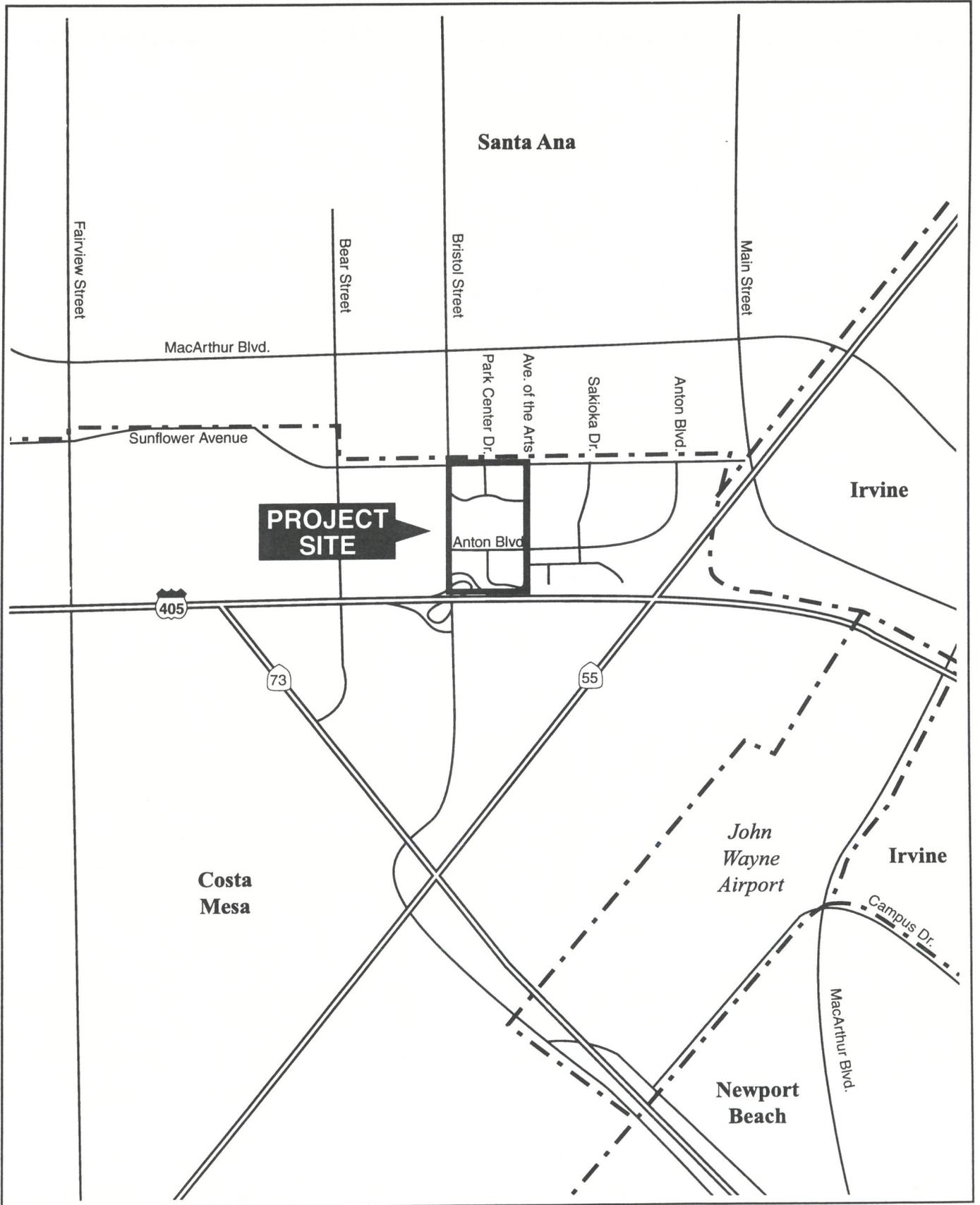
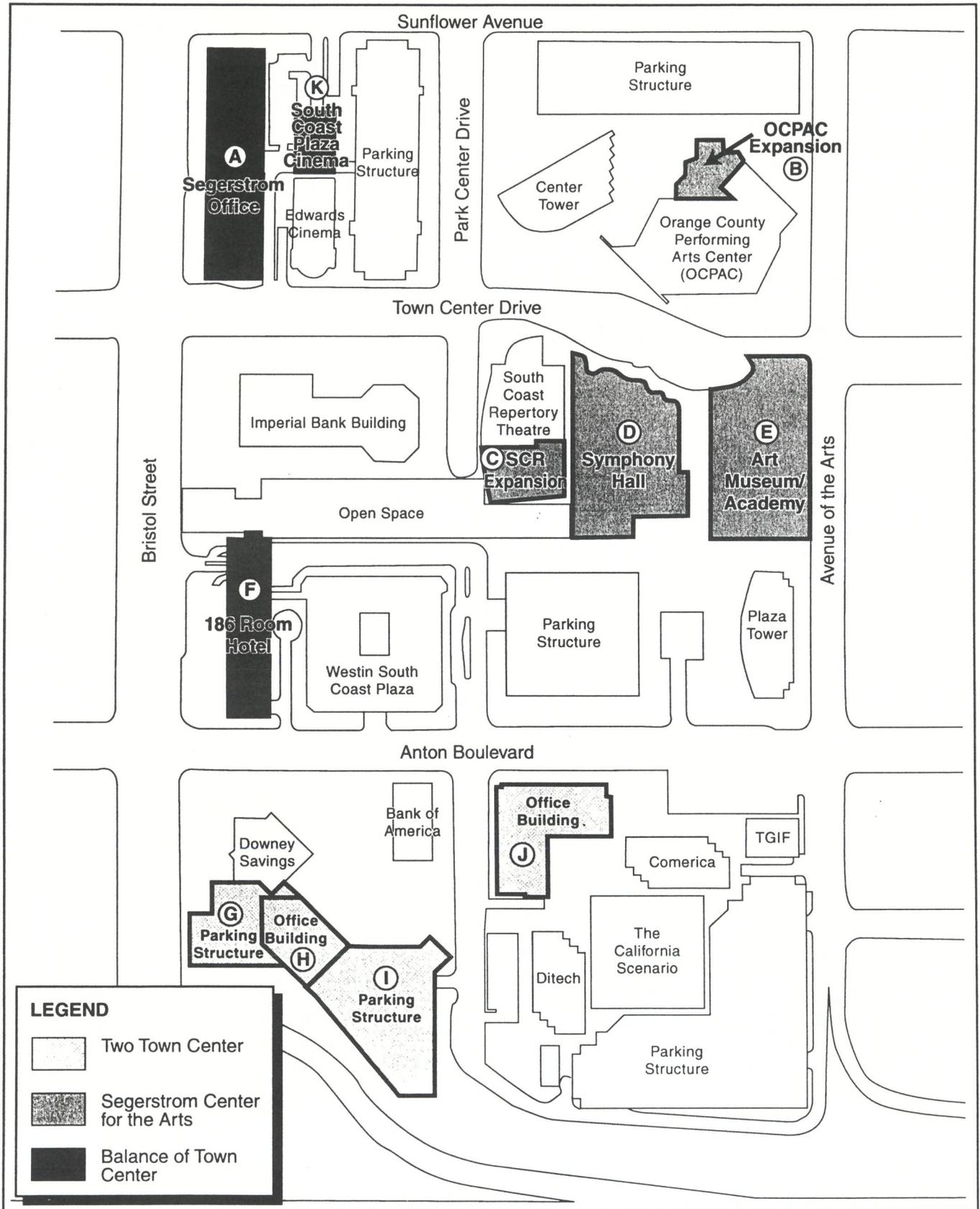
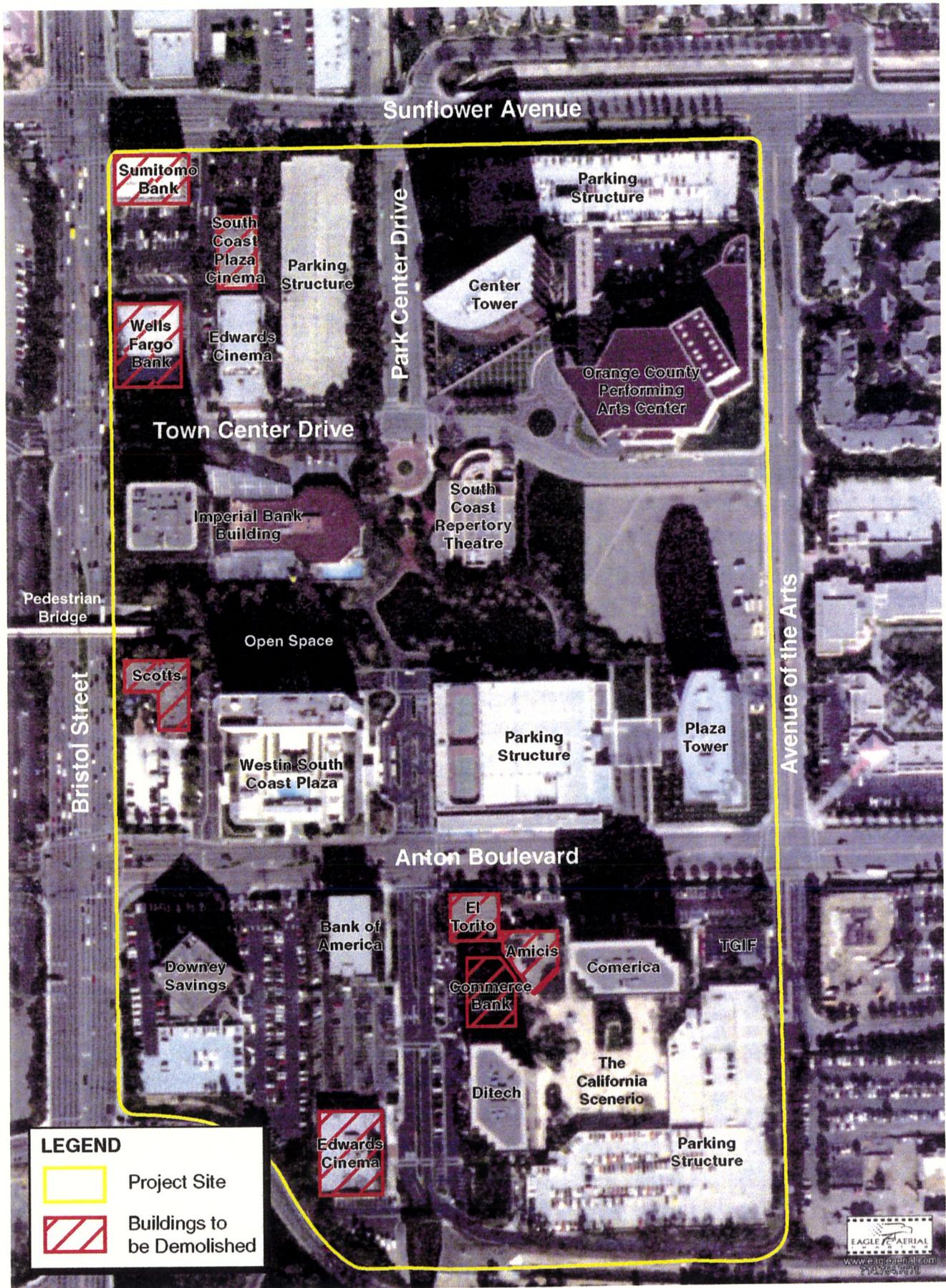


Exhibit 3-2
Local Vicinity Map





LEGEND

- Project Site
- Buildings to be Demolished

Building	Land Use	Previously Unbuilt Entitlements	Slated for Demolition	New Construction	Overall Net Increase (Unentitled Uses)	Height/Story
H.	Two Town Center Office Building	Ø	Ø	100,000 sq. ft.	100,000 sq. ft.	150 ft./10
I.	Two Town Center Parking Structure #2	Ø	Ø	756 spaces	756 spaces	75 ft./5
J.	Two Town Center Office/Retail/Restaurant	Ø	(47,900 sq. ft.)	328,700 sq. ft.	280,800 sq. ft.	175 ft./11
K.	South Coast Plaza Cinema	Ø	(12,000 sq. ft.) (700 seats)	(12,000 sq. ft.) (700 seats)	Ø	Ø
TOTAL		251,000 sq. ft.	(159,225 sq. ft.)	1,519,670 sq. ft.	1,109,445 sq. ft.	

sq. ft. = square feet
 "Overall net increase" equals "new construction" minus "previously unbuilt entitlements" and/or "slated for demolition."
 Source: City of Costa Mesa, July 2000

Two Town Center. The 18.23-acre Two Town Center portion of the project is located south of Anton Boulevard and west of Avenue of the Arts, and includes four office buildings (DiTech.com, Downey Savings, Comerica, and Bank of America), four free-standing restaurants (Jerry’s Deli, Amici, El Torito Grill, and TGI Fridays), the 4-screen Edward’s Cinema, and “The California Scenario” outdoor sculpture garden. As shown in Table 3-3, the proposed General Plan Amendment would result in the demolition of the Edward’s Cinema, Amici’s, El Torito Grill, and Jerry’s Deli (see Exhibit 3-4). As shown on Exhibit 3-5, the restaurant uses (28,700 square feet), and an additional 300,000 square feet of office space, will be constructed in a new 11-story building (Building J), with a 756 space parking structure (Building I). The application also requests the addition of a second 10-story, office (Building H) building of approximately 100,000 square feet and additional structured parking for 300 cars (Building G).

**TABLE 3-3
 TWO TOWN CENTER DEVELOPMENT CHARACTERISTICS**

Land Use	Existing Building Area	Slated for Demolition	New Construction	Overall Net Increase (Unentitled Uses)	Total Building Area
Office	790,933 sq. ft.	Ø	400,000 sq. ft.	380,800 sq. ft.	1,190,933 sq. ft.
Restaurant	37,045 sq. ft.	(28,700 sq. ft.)	28,700 sq. ft.	Ø	37,045 sq. ft.
Theater	19,200 sq. ft.	(19,200 sq. ft.)	Ø	Ø	Ø
Total	847,178 sq. ft.	(47,900 sq. ft.)	428,700 sq. ft.	380,800 sq. ft.	1,227,978 sq. ft.

sq. ft. – square feet
 Source: City of Costa Mesa, June 2000

Segerstrom Center for the Arts (SCA): The Segerstrom Center for the Arts portion of the site includes the vacant parcel located south the Town Center Drive, between the existing South Coast Repertory Theater (SCR) and Avenue of the Arts. A related request to abandon a portion of Town Center Drive would add an additional 0.52 acre. The total site area is approximately 11.18 acres (see Exhibit 3-6).

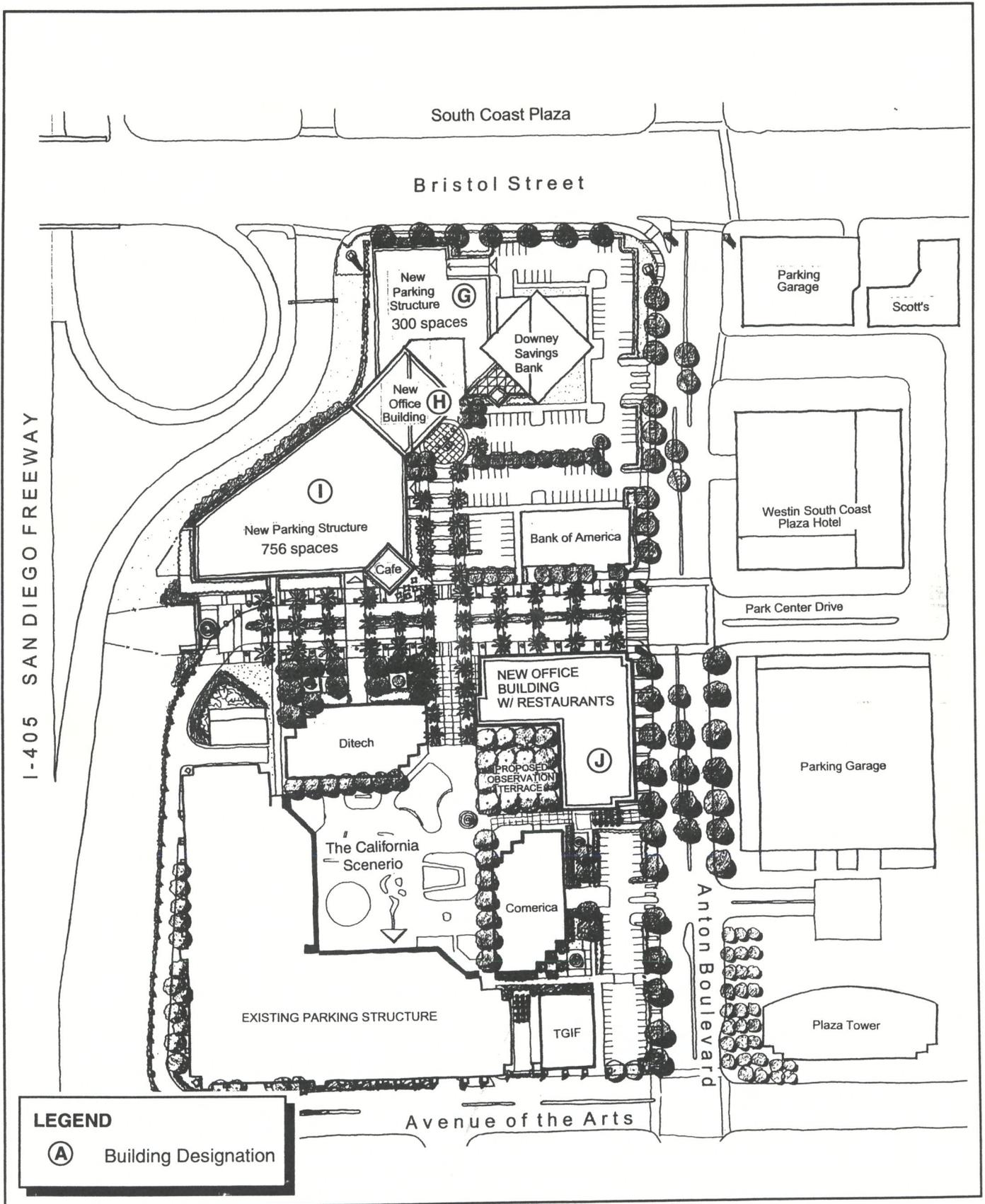
Proposed uses for the site include a new 301,145 square foot, 2,500 seat symphony hall immediately east of SCR (Building D); the previously entitled 1,000 seat/65,000 square foot expansion of OCPAC (Building B); an approximately 140 seat/32,500 square foot expansion of SCR (Building C); a 140,000 square foot art museum/academy (Building E) at the southwest corner of Town Center Drive and Avenue of the Arts (see Table 3-4); and the modification of the open space easement.

**TABLE 3-4
SEGERSTROM CENTER FOR THE ARTS
DEVELOPMENT CHARACTERISTICS**

Land Use	Existing Building Area	Slated for Demolition	New Construction	Overall Net Increase (Unentitled Uses)	Total Building Area
Art Museum/ Academy	∅	∅	140,000 sq. ft	140,000 sq. ft.	140,000 sq. ft
Symphony Hall	∅	∅	301,145 sq. ft./ (2,500 seats)	301,145 sq. ft. (2,500 seats)	301,145 sq. ft
OCPAC Expansion	237,000 (3,000 seats)	∅	65,000 sq. ft./ (1,000 seats)*	∅	302,000 sq. ft.
Theater Expansion	39,640 sq. ft. (668 seats)	∅	32,500 sq. ft. (140 seats)	32,500 sq. ft. (140 seats)	72,140 sq. ft.
Total	276,640 sq. ft.	∅	538,645 sq. ft.	473,645 sq. ft.	815,285 sq. ft.
sq. ft. – square feet					
*Previously Entitled					
Source: City of Costa Mesa, June 2000					

Balance of Town Center: As shown on Table 3-5, this portion of the project consists of 24.59 acres and includes a number of requests that affect the balance of SCPTC north of Anton Boulevard and west of Park Center Drive:

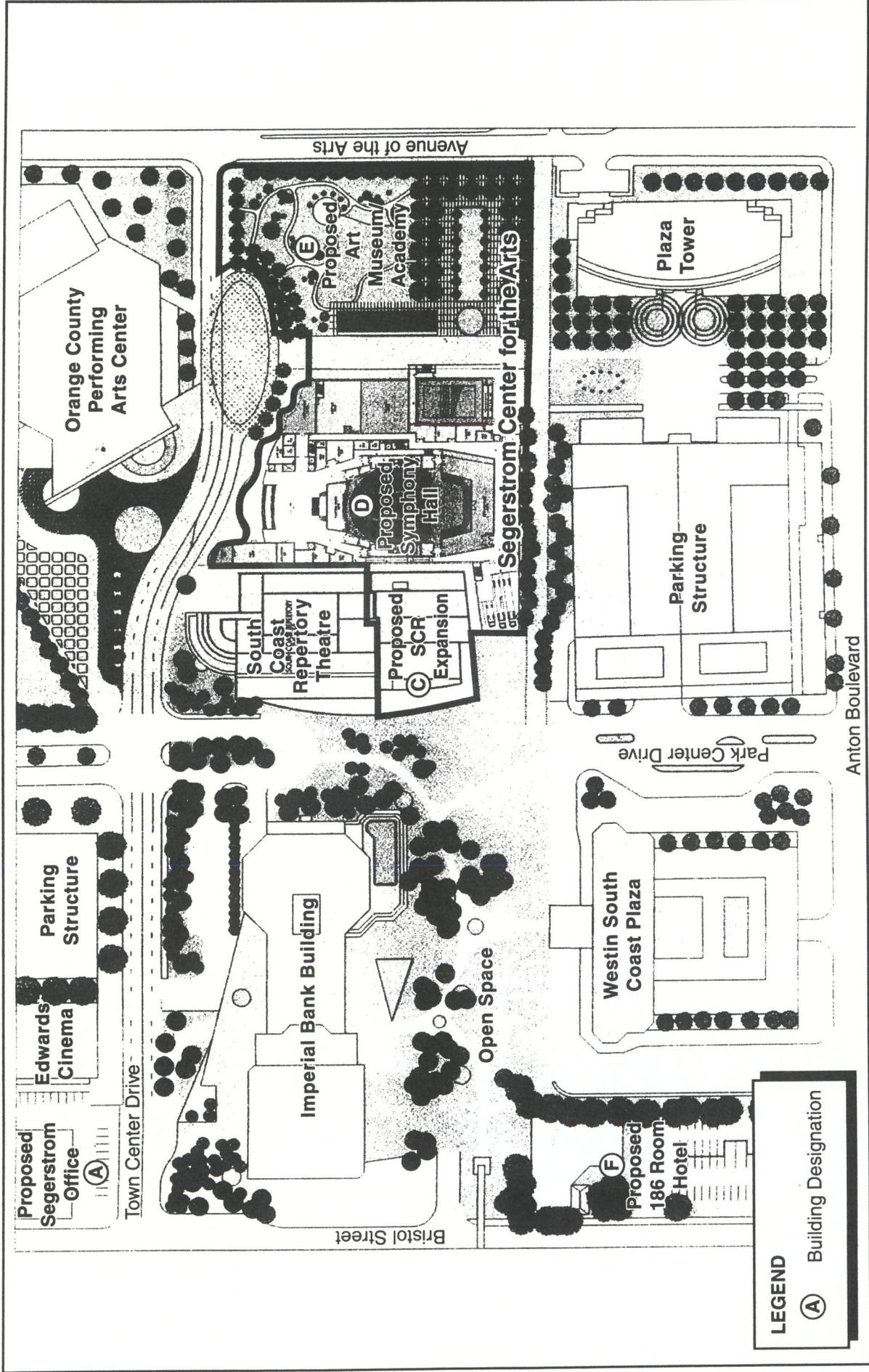
1. Relocate entitlements for the 186-room hotel (Building F) to the northeast corner of Bristol Street and Anton Boulevard; and demolish and reconstruct restaurant use in conjunction with hotel;
2. Demolish and reconstruct existing office, and theater uses and add 255,000 square feet of office space (Building A) to the southeast corner of Bristol Street and Sunflower Avenue (see Exhibit 3-7 and Exhibit 3-8).



SOURCE: Kenkay Associates, July 2000



Exhibit 3-5
Two-Town Center



SOURCE: Cesar Pelli and Associates, Inc., October 1999



LEGEND
 (A) Building Designation



Michael Brandman Associates

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Exhibit 3-6
 Segerstrom Center for the Arts - Site Plan

SOUTH COAST PLAZA TOWN CENTER EIR

**TABLE 3-5
BALANCE OF TOWN CENTER DEVELOPMENT CHARACTERISTICS**

Land Use	Existing Building Area	Slated for Demolition	New Construction	Overall Net Increase SCPTC	Total Building Area
Office	1,267,815 sq. ft.	(84,025 sq. ft.)	339,025 sq. ft.	255,000 sq. ft.	1,522,815 sq. ft.
Restaurant	43,090 sq. ft.	(15,300 sq. ft.)	15,300 sq. ft.	Ø	43,090 sq. ft.
Retail	5,145 sq. ft.	Ø	Ø	Ø	5,145 sq. ft.
Hotel	330,000 sq. ft. (404 rooms)	Ø	186,000 sq. ft.* 186 rooms	Ø	516,000 sq. ft.
Theater	31,500 sq. ft. (1,862 seats)	(12,000 sq. ft.) (700 seats)	12,000 sq. ft. (700 seats)	Ø	31,500 sq. ft.
Total	1,677,550 sq. ft.	111,325 sq. ft.	552,325 sq. ft.	255,000 sq. ft.	2,118,550 sq. ft.
sq. ft. – square feet * Previously assumed within Segerstrom Center for the Arts and transferred to northeast corner of Bristol Street and Anton Boulevard Source: City of Costa Mesa, June 2000					

3.5 INTENDED USE OF THIS EIR, RESPONSIBLE AGENCIES, AND APPROVALS NEEDED

The EIR is being prepared by the City of Costa Mesa to assess the potential environmental impacts that may arise in connection with actions related to implementation of the SCPTC project. The City of Costa Mesa is the lead agency for the project and has discretionary authority over the project and project approvals. It is the intent of the City to permit all public infrastructure improvements and all future developments that are within the parameters established and analyzed in sufficient detail within the framework of this EIR to proceed without further environmental analysis.

Discretionary approvals by the City are required for implementation of the proposed project including a General Plan Amendment and North Costa Mesa Specific Plan Amendment, an amendment to the Town Center Master Plan, and street vacations. In addition to the following currently proposed discretionary actions for the SCPTC project, other concurrent and future approvals and ministerial actions by the City may be required for the implementation of the proposed project. Other actions necessary to implement the project as identified later in the section under “Other Discretionary and Ministerial Actions.

3.5.1 LAND USE ELEMENT GENERAL PLAN AMENDMENT

The project area is designated as Urban Center Commercial (UCC) by the City of Costa Mesa 1990 General Plan and the corresponding zoning is Town Center District (TC). Under the current General Plan and North Costa Mesa Specific Plan, the existing development does not conform to floor-area ratios or (building intensities) for the UCC designation (0.60 FAR offices; 0.50 FAR retail). One of the purposes

of the SCPTC project is to amend the 1990 General Plan and North Costa Mesa Specific Plan (GP/SP) to provide consistency between the plans in regards to existing development and the standards set forth in both plans. The proposed Land Use Element amendment will create a new “Cultural Arts Center” land use designation and establish building intensity and population density standards that recognize it as an integrated commercial entertainment, and cultural arts mixed use district. Also, the amendments will allow additional 1,109,445 square feet of development as described in Section 3.4 of this EIR.

The proposed floor area ratio of 1.77 recognizes existing development and allows for the addition of 1,109,445 sq. ft.

3.5.2 CIRCULATION ELEMENT GENERAL PLAN AMENDMENT

The Master Plan of Highways will be amended to delete a portion of Town Center Drive between Park Center Drive and Avenue of the Arts (see Exhibit 3-9).

3.5.3 NORTH COSTA MESA SPECIFIC PLAN AMENDMENT

The North Costa Mesa Specific Plan will be amended to incorporate the land use intensity and density standards of the “Cultural Arts Center” land use designation, trip budgets, building heights, open space areas, and related policies.

3.5.4 SOUTH COAST PLAZA TOWN CENTER MASTER PLAN AMENDMENT

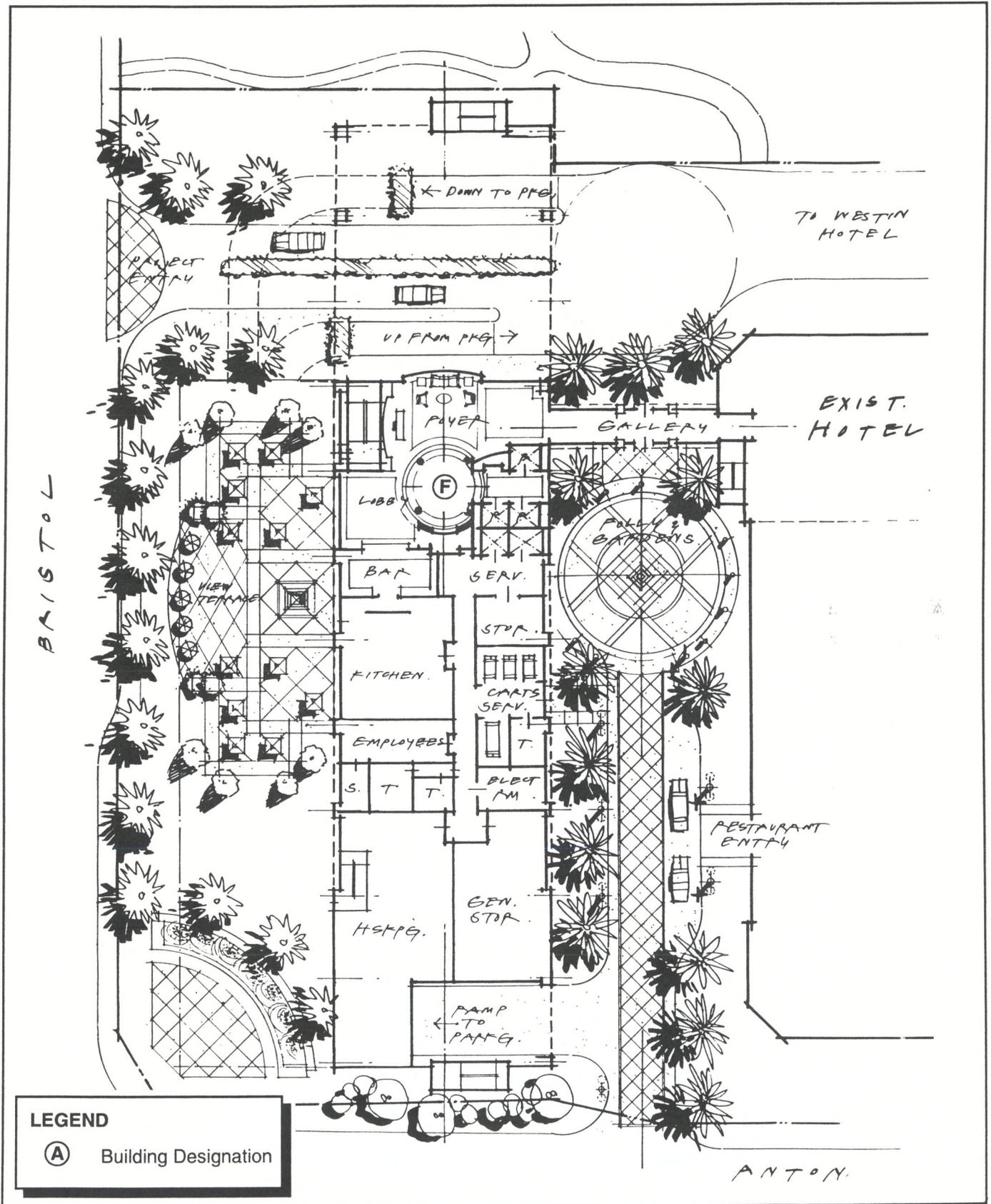
The Town Center Master Plan will be amended to incorporate the land use intensity and density standards of the Cultural Arts Center land use designation.

3.5.5 DEVELOPMENT AGREEMENTS

In accordance with California Government Code Section 65865 et. seq., separate development agreements will be processed with separate applicants to entitle land use intensities and zoning regulations for individual projects within the SCPTC area.

3.5.6 STREET VACATION

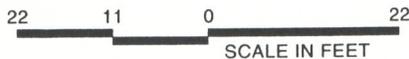
A portion (0.52 acre) of Town Center Drive between Park Center Drive and Avenue of the Arts will be vacated as a public street (see Exhibit 3-9).



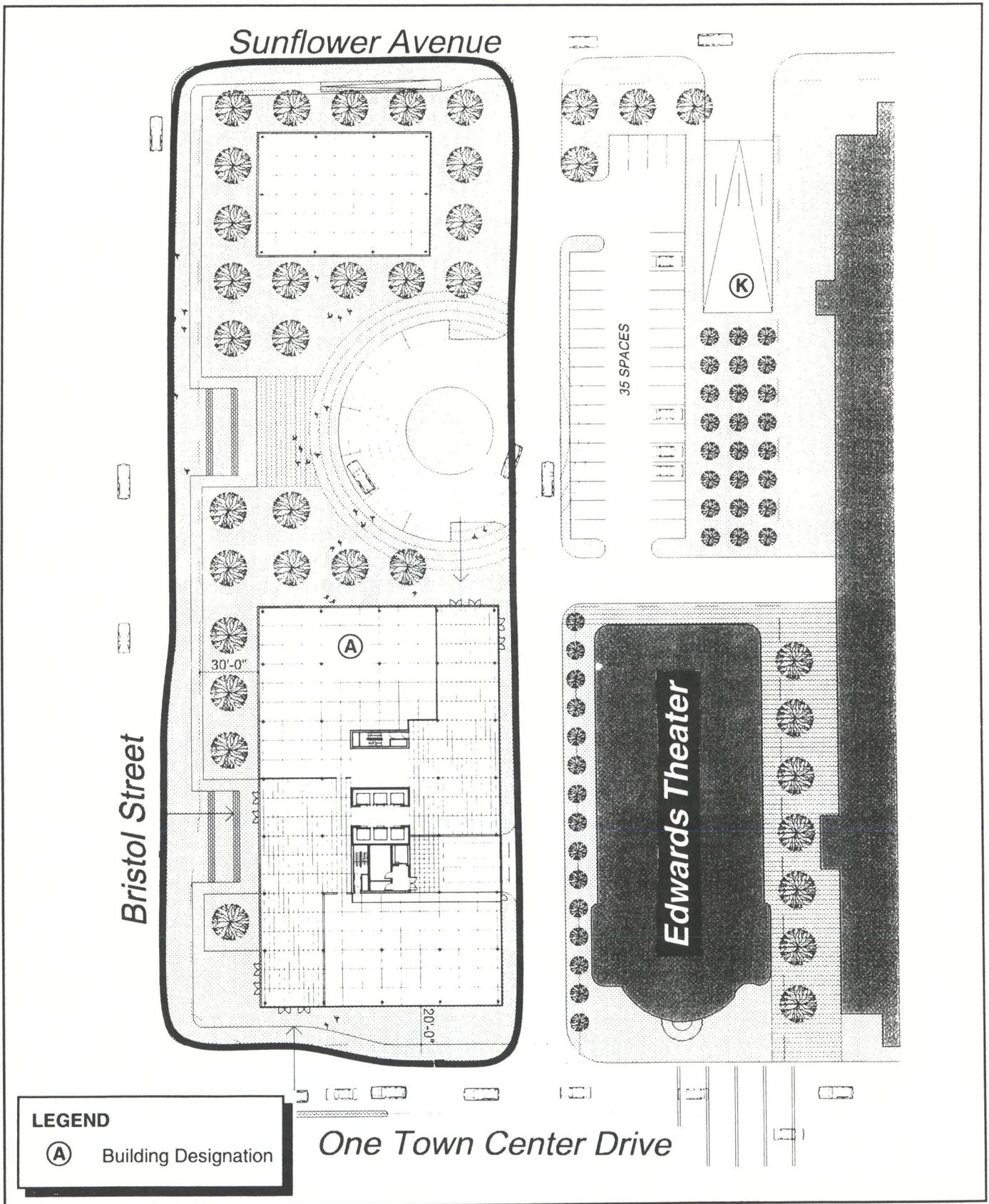
LEGEND
 (A) Building Designation

SOURCE: Wimberly Allison Tong and Woo, April 2000

Exhibit 3-7



Balance of Town Center -
 186 Room Hotel Site Plan



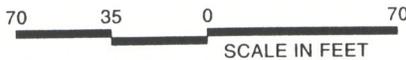
LEGEND

(A) Building Designation

SOURCE: Murphy/Jahn, May 2000



Michael Brandman Associates



SCALE IN FEET

Exhibit 3-8

**Balance of Town Center -
Segerstrom Office Site Plan**

3.5.7 SUBSEQUENT DISCRETIONARY AND MINISTERIAL ACTIONS

Subsequent approvals by the City of Costa Mesa may include:

Final Master plans	Conditional use permits
Planned sign programs	Haul route plans
Subdivision and parcel maps	Grading permits
Building permits	Shared parking agreements
Acquisition of easements and right-of-way	

3.6 RESPONSIBLE AND TRUSTEE AGENCIES

The EIR will also provide environmental information to responsible and trustee agencies and other public agencies which may be required to grant approvals or coordinate with as a part of project implementation. These agencies include, but are not limited to, the following:

State of California

State of California, Regional Water Quality Control Board. Pursuant to the federal Clean Water Act (Section 402 [g]) and state General Construction Activity Storm Water Permit, a National Pollution Discharge Elimination System (NPDES) permit and storm water pollution prevention plan will be required from the California Regional Water Quality Control Board (RWQCB) for grading and construction in areas greater than five acres. Pursuant to the NPDES permit requirements, a Notice of Intent must be submitted.

Regional and Special Districts

Costa Mesa Sanitary District
South Coast Air Quality Management District
Orange County Sanitation District
Orange County Flood Control District
Orange County Airport Land Use Commission
Mesa Consolidated Water District

SECTION 4 CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines requires the consideration of cumulative impacts within an EIR. Cumulative impacts are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment which results from the project when added to other closely related projects. In identifying projects which may contribute to cumulative impacts, the CEQA Guidelines allow the use of either a specific list of past, present, and reasonably anticipated future projects, providing related or cumulative impacts, including those outside the control of the lead agency, or a summary of projections contained in an adopted General Plan or related planning document which is designed to evaluate regional or aerated conditions. The cumulative analysis discussed in Sections 5.1 through 5.9 is primarily based on a number of past, present, and future related projects or reasonably anticipated projects producing related or cumulative impacts. The master list of related projects and their locations is presented in Table 4-1, List of Projects Assumed for Cumulative Impacts.

For the analysis of certain impacts, it is appropriate to consider regional planning documents or studies, which provide projections regarding future development, rather than specific project proposals that are under review. The cited plans in this section are incorporated by reference into this document. For example, regional traffic projections are considered for cumulative traffic impacts, as well as local traffic projections. The specific sources of the planning projections are described below under the relevant environmental category.

**TABLE 4-1
LIST OF PROJECTS ASSUMED FOR CUMULATIVE IMPACTS PROJECTS**

Project	Land Use Type	Existing Land Use	Buildout Land Use
City of Costa Mesa			
Harbor Gateway	Industrial Park	784,684 sq. ft.	999,026 sq. ft.
Automobile Club Processing Center	Urban Center Commercial	717,000 sq. ft.	967,000 sq. ft.
Metro Pointe	High Density Residential	296 apt.	296 apt.
	Urban Center Commercial	659,100 sq. ft.	671,600 sq. ft.
South Coast Plaza (Bristol Street)	Regional Commercial	2,195,345 sq. ft.	2,750,000 sq. ft.
South Coast Plaza (Bear Street)	Regional Commercial	643,338 sq. ft.	690,350 sq. ft.
South Coast Metro Center	Urban Center Commercial	749,289 sq. ft.	1,620,800 sq. ft.
Home Ranch	Industrial Park	42,495 sq. ft.	961,060 sq. ft.
	Medium Density Residential		252,650 sq. ft.
	Office		366 d.u. 464 d.u.
	IKEA		791,050 sq. ft. 308,000 sq. ft.
Sakioka Lot 1	High Density Residential	None	1,400 d.u.
Sakioka Lot 2	Urban Center Commercial	None	863,00 sq. ft.
Harbor Center	General Commercial	n/a	336,072 sq. ft.
The Village at Mesa Verde	Medium Density Residential	None	90 d.u.
City of Santa Ana			
Armstrong Ranch	Single-Family Residential	None	90 acres 630 d.u.
MacArthur Place	Office, Commercial, Hotel	n/a	3,791,000 sq. ft.
	Residential	n/a	400 d.u.
Pactel Office Tower	Office	n/a	180,000 sq. ft.
Hutton Centre	Hotel	n/a	240 rooms
	Restaurant	n/a	5,000 sq. ft.
	Conference	n/a	4,740 sq. ft.
Lake Center	Warehouse/Industrial	n/a	101,460 sq. ft.
	Medical Office	n/a	45,800 sq. ft.
	Retail Commercial	n/a	17,100 sq. ft.
	Restaurant	n/a	6,840 sq. ft.
	Office	399,000 sf	399,000 sq. ft.
Ewing Development	Industrial	n/a	280,000 sq. ft.
	Retail	n/a	n/a
Lucky/Sav-on Market	Grocery	n/a	69,000 sq. ft.
Food 4 Less	Grocery	n/a	51,000 sq. ft.
SPS Technologies	Business Center	n/a	90,000 sq. ft.
Kaiser Family Practice Center	Medical Center	n/a	80,000 sq. ft.
sq. ft. – square feet apt. – apartments d.u. – dwelling units n/a – not applicable Note: Cumulative scenario also includes projects already entitled within South Coast Plaza Town Center, but as yet unbuilt. Source: City of Costa Mesa, 2000			

SECTION 5
EXISTING CONDITIONS, PROJECT IMPACTS, CUMULATIVE IMPACTS,
MITIGATION PROGRAM, AND LEVEL OF SIGNIFICANCE AFTER MITIGATION

The SCPTC EIR provides analysis of impacts for those environmental topics where it was determined in the NOP included in Appendix A that the proposed project resulted in "potentially significant impacts." Each topical section includes the following information: description of the existing setting; identification of thresholds of significance; analysis of potential project effects; identification of project design features and standard conditions and requirements, identification of mitigation measures, if required, to reduce the identified impacts; and, identification of unavoidable significant adverse impacts, if applicable.

CEQA Guidelines §15064.7 addresses thresholds of significance and encourages each public agency to develop thresholds of significance through a public review process. Subsequently, these thresholds must be published and adopted by agency ordinance, code, or regulation. The City of Costa Mesa has not formally adopted a comprehensive list of thresholds of significance. The City has established thresholds of significance for traffic and noise. The thresholds used in this EIR have been derived from several sources, including the City of Costa Mesa 1990 General Plan, previous EIRs prepared by the City of Costa Mesa, the CEQA Checklist, adopted thresholds from other agencies (such as the South Coast Air Quality Management District), and the professional opinions of the City of Costa Mesa.

The Mitigation Program identified to reduce potential project impacts is inclusive of Project Design Features, Standard Conditions and Requirements, and Mitigation Measures. The components of the Mitigation Program are described below:

- *Project Design Features*-Project Design Features are specific design elements proposed by the project applicant which have been incorporated into the project to prevent the occurrence of or reduce the significance of potential adverse environmental effects. Because project design features are incorporated into the project, they do not constitute mitigation measures. However, they are identified in the Mitigation Program section for each topical issue to ensure that they are included in the mitigation monitoring program to be developed for and implemented as a part of the project.
- *Standard Conditions and Requirements*-Standard conditions and requirements are based on local, state, or federal regulations or laws that are frequently required independently of CEQA review, but can also serve to offset or prevent specific impacts. Typical standard conditions and requirements include compliance with the Uniform Building Code, South Coast Air Quality Management District Rules 401, 403, etc., local agency fees, etc. The standard conditions of the City of Costa Mesa identified in this section include those where implementation of the conditions would mitigate potential significant environmental impacts. Additional standard conditions may be imposed on the project by the City during the approval process, as appropriate.
- *Mitigation Measures*-Where a potentially significant environmental effect has been identified and is not reduced to a level considered less than significant with the application of project design features and standard conditions and requirements, project-specific mitigation measures have been recommended.

5.1 LAND USE AND RELATED PLANNING PROGRAMS

Land use issues addressed in this section include the related plans and policies governing existing and future conditions within the South Coast Plaza Town Center (SCPTC) project area. This section also includes a discussion of the existing and proposed land uses in the project area, and the compatibility of land use conditions, such as density and height of land uses adjacent to the project area, with those within the project area.

5.1.1 EXISTING CONDITIONS

Onsite Land Uses

Existing land uses within the project area are depicted in Exhibit 5.1-1. The project site encompasses approximately 54 acres, of which 8.2 acres are proposed for development. The SCPTC is home to the Orange County Center for the Performing Arts, South Coast Repertory Theater, and the California Scenario Sculpture Garden. Various land uses within the project area include mixed-use office, commercial, and entertainment. The Santa Ana Delhi Channel traverses in a north-south direction through the project site. Bristol Street, Sunflower Avenue, Avenue of the Arts and the San Diego (I-405) Freeway bound the project site. Immediately to the north of the project site lies the City of Santa Ana.

Surrounding Land Uses

The project site is located within an existing developed area of the City of Costa Mesa. Exhibit 5.1-1, the aerial photograph of the project site, provides a general overview of the site in relation to surrounding uses. Land uses surrounding the site are complementary to those within the project area and are comprised primarily of commercial, retail, residential, office, and visitor accommodations. John Wayne Airport is located approximately 1 ½ miles southeast of the site. The following is a brief description of those land uses based on a field reconnaissance of the site:

- **Land Uses to the North**

Sunflower Avenue; multi-family residential (i.e., outdoor living areas fronting along Sunflower Avenue); and various commercial/retail land uses within the City of Santa Ana.

- **Land Uses to the South**

San Diego (I-405 freeway); single-family residences; variety of retail land uses; and mid-rise office buildings and hotels.

- **Land Uses to the East**

Avenue of the Arts; The Lakes complex (The Marriott and Wyndham hotels totaling 492 rooms), The Lakes retail center (20,400 square feet), and The Lakes Apartment Complex (770 units); commercial/retail land uses; agricultural uses; and single-family residential uses.

- **Land Uses to the West**

Bristol Street, and South Coast Plaza regional shopping center.

Related Planning Programs

Several local and regional plans and programs apply to development in and around the SCPTC project area. These include elements of the City of Costa Mesa General Plan, the North Costa Mesa Specific Plan, the City of Costa Mesa Zoning Code, the South Coast Air Quality Management District's Air Quality Management Plan, the Southern California Association of Government's Regional Comprehensive Plan and Guide, and the Orange County Airport Environs Land Use Plan.

City of Costa Mesa General Plan

State law (Government Code Section 65300) requires that all cities and counties within the State of California prepare and adopt General Plans to guide the physical development of their respective jurisdictions. Additionally, Government Code Section 65302 mandates the inclusion of seven elements within the General Plan: Land Use; Circulation; Housing; Open Space; Conservation; Noise; and Safety.

The Costa Mesa General Plan as adopted in 1957, expansively updated in 1970, 1981, 1992 and continually amended as needed, is the City's most comprehensive planning document. The General Plan is intended to guide and provide for orderly development. The General Plan includes the following elements, which are discussed in this section: Land Use; Environmental Resources/Management; Community Development/Management, and Growth Management.

This section will address the Land Use Element and the Growth Management Element. All other elements are discussed in their respective sections (i.e. the Circulation Element in the Traffic and Circulation Section) of this EIR.

Land Use Element

The Land Use Element of the Costa Mesa General Plan as revised in 1992, contains land use designations and a total of four land use categories: Residential, Industrial, Commercial, Public and Semi-Public.



The Land Use Element designates the project site as Urban Center Commercial (see Exhibit 5.1-2). The Urban Center Commercial designation provides for the intense integration of development including office, retail shops, restaurants, and hotels. Development within the Urban Center Commercial designation is intended to allow concentrated development of mixed commercial uses within a very limited geographic area.

The proposed project would change the land use designation from Urban Center Commercial and result in the creation of a new land use designation, Cultural Arts Center, which would be compatible with the existing uses within the project site. The new Cultural Arts Center land use designation would establish building intensity and population density standards to allow the build out of an integrated commercial, entertainment, and cultural arts mixed use district.

Land Use and Circulation

One of the most significant impacts of large-scale development in Costa Mesa is the additional traffic generation. There are two major components (1) intensity/density of development and (2) vehicle trip characteristics that impact a circulation system. Therefore, recognizing the correlation between land use and circulation, the General Plan Land Use Element establishes building intensities/densities to ensure that proposed development does not create an undo burden upon the planned circulation system. For non-residential development, the City has established intensity development standards based upon a four-stepped floor area ratio (FAR) standard, and has established trip budgets for properties in the NCMSP. Together, the FAR and the trip budget aid the City in assuring that building intensities and trip generations do not exceed the capacity of the circulation system. Table 5.1-1 identifies the FAR and trip budget for the existing and proposed land use designations for the site.

**TABLE 5.1-1
EXISTING AND PROPOSAL TRIP BUDGETS BY LAND USE**

SCPTC Project Component		FAR/Intensity		Vehicle Trip Budget			
Existing	Proposed	Existing	Proposed	Existing		Proposed	
				a.m.	p.m.	a.m.	p.m.
Urban Center Commercial	Cultural Arts Center	1.20	1.77	4,187	6,213	5,143	6,587

Source: North Costa Mesa Specific Plan, April 9, 1999, South Coast Plaza Town Center Traffic Analysis, prepared by Austin-Foust Associates, Inc., July 2000, and City of Costa Mesa Planning Department, 2000.

The goals, policies, and objectives of the City of Costa Mesa General Plan as they apply to the South Coast Plaza Town Center project are as follows:

GOAL III: DEVELOPMENT

It is the goal of the City of Costa Mesa to establish development policies, which will create and maintain an aesthetically pleasing and functional environment and minimize impacts on existing and physical resources.

Objective III-A: Encourage development or redevelopment to improve and maintain the quality of the environment.

Policies

121. Encourage the inclusion of art and aesthetically pleasing architecture into new development and redevelopment that will have the effect of perpetuating the image of the City of the Arts; this should also be compatible with surrounding architecture.
177. Encourage the integration of compatible land uses and housing into major development projects to reduce vehicle trips.
178. Land uses permitted by the General Plan which generate high traffic volumes should be located near major transportation corridors and public transit facilities to minimize vehicle use, congestion, and delay.

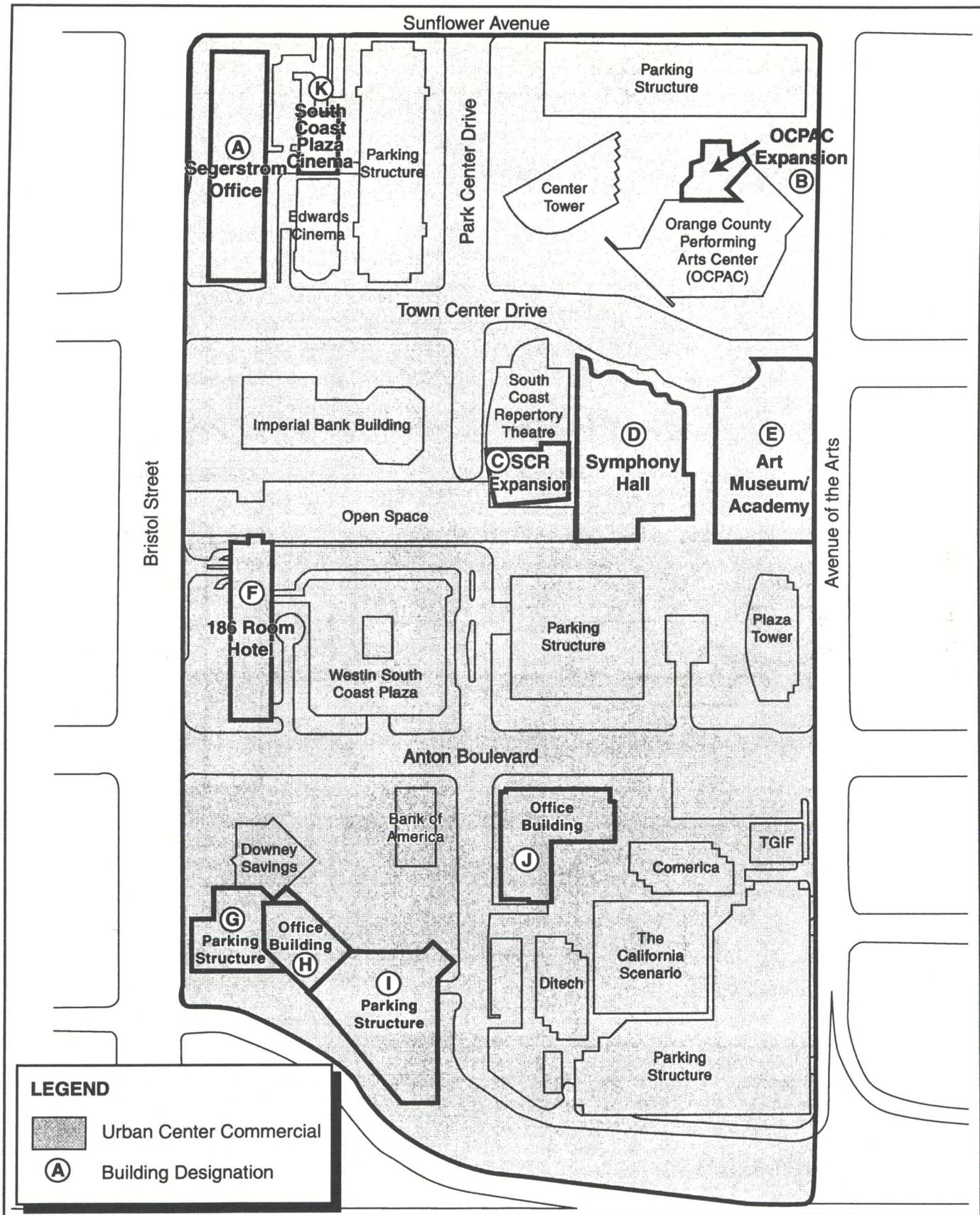
GOAL VII: LAND USE

It is the goal of the City of Costa Mesa to provide citizens with the balanced community of residential, commercial, industrial, recreational, and institutional uses to satisfy the needs of the social and economic segments of the population and to retain the residential character of the City; to meet the needs of competing demands for alternative development within each land use classification within reasonable land use intensity limits; and to ensure the community's natural and man-made environments.

Objective VII-B: Ensure the long term productivity and viability of the community's economic base.

Policies

232. Create an environment where business can succeed while being in harmony with other City goals.



233. Provide levels of public improvements and services necessary to support the existing level of business activity and to allow for the expansion of business opportunities in the future at a level no greater than can be supported by the infrastructure.

Objective VII-C: Promote land use patterns and development, which contribute to community and neighborhood identity.

Policies

236. Permit the construction of buildings over two stories or 30 feet only when it can be shown that the construction of such structures will not adversely impact surrounding developments and deprive the existing land uses of adequate light, air, privacy, and solar access.
237. Prohibit the construction of buildings which would present a hazard to air navigation as determined by the FAA or independent studies by qualified independent private consultants that have been certified by the FAA as true and correct.
241. Prior to the installation of traffic amenities or the closure of through streets in existing neighborhoods and districts, prepare feasibility studies to determine the costs, constraints, environmental impacts, and public receptiveness, and consider alternative measures such as landscaped pockets in parking areas.
244. Encourage the use of entrance patios, courtyards, plazas, arcades, porches, and covered walks to integrate adjacent development into the public streetscape.
246. Consolidate compatible street furniture elements (benches, bus shelters, newspaper racks, trash receptacles, kiosks, etc., whenever possible
248. Consolidate street graphics and individual signs into single support structures where appropriate and compatible with the purpose and function of such informational, directional, and traffic control graphics.

Objective VII-E: Ensure the correlation between the buildout of the General Plan Land Use Map and the Master Plan of Highways.

Policies

255. Building intensities/densities for proposed new development projects shall not exceed the trip budget for applicable land use classifications, as identified in the Land Use Element. Building intensities for proposed new development projects shall not exceed the applicable floor area ratio standards, except for the following conditions:
- Limited deviations from the graduated floor area ratio standards depicted in Tables 61 and 62 (of the General Plan) for the commercial and industrial use designations may be approved through a discretionary review process. No deviation shall exceed a 0.05 increase in the FAR in the moderate traffic category, and no deviation shall be allowed for the very low, low, and high traffic categories. Deviations from the FAR standards shall not cause the daily trip generation for the property to be exceeded when compared to the daily trip generation for the site without the proposed project or maximum allowable traffic generation for the Moderate Traffic FAR category, whichever is greater.
 - Additions to the existing nonconforming nonresidential developments may be allowed if the additions do not affect the overall traffic generation characteristics of the development, and if the additions do not substantially affect the existing height and bulk of the development. Additions to nonresidential generation rates based on variables other than building area square footage.
 - In the above conditions, the new development shall be compatible with surrounding land uses. Additional criteria for approving deviations from the FAR standards may be established by policy of the City Council
256. Allow the application of transportation management, rideshare programs, integration of complimentary land uses, and other methods to reduce project related average daily and peak hour vehicle trips in order to achieve consistency with the allocated trip budget..

Growth Management Element

The Growth Management Element contains policies for the planning and provision of traffic improvements that are necessary for orderly growth and development. The element also contains goals, objectives, and policies that establish specific traffic level of services standards and development mitigation, phasing, and monitoring policies. The major goal of the Growth Management element is to ensure that the planning, management, and implementation of traffic improvements are adequate to meet the current and projected City needs. Additionally the Growth Management Element acts as a bridge, which connects and maintains the correlation between the Land Use Element and the Transportation Element.

The goals, policies, and ordinances of the Growth Management Element as they apply to the South Coast Plaza Town Center project are as follows:

GOAL XIV: GROWTH MANAGEMENT

It is the goal of the City of Costa Mesa to reduce traffic congestion and to ensure that adequate transportation facilities are provided for existing and future residents of the community through effective and comprehensive growth management practices consistent with the Land Use Element.

Objective XIV-A: To provide and maintain a circulation system that operates within established traffic level of service standards.

Policies

- 306. The established traffic level of service shall be a level of service (LOS) D or better for all intersections under the sole control of the City, except for the intersection of Harbor and Gisler, which shall remain at an established level of service LOS E.
- 307. The established level of service standard shall not apply to all intersections under the jurisdiction of another city, the County of Orange of the State of California or to intersections included on the Deficient Intersection List established by the Inter-Jurisdictional Planning Forum for the Growth Management Area in which the City participates.
- 308. The traffic level of service will be measured by the Traffic Level of Service Policy Implementation Manual established by the Local Transportation Authority.

Objective XIV-B: To ensure that the transportation related impacts of development projects are mitigated to the fullest extent possible, in conformance with the established traffic level of service policies.

Policies

- 309. Circulation improvements required to provide or attain the established traffic level of service standard at an intersection to which a development project contributes measurable traffic shall be completed within three years of issuance of the first building permit for said project, unless additional right-of-way or coordination with other government agencies is required to complete the improvement. Improvements may be

required quicker if because of extraordinary traffic generation characteristics of the project or extraordinary impacts to the surrounding circulation system, such improvements are necessary to prevent significant adverse impacts.

310. Every new development shall pay its share of costs associated with the mitigation of project generated impacts, including regional traffic mitigation.

311. A traffic mitigation fee shall be established for circulation system improvements to the Master Plan of Highways within the community.

313. All development contributing measurable traffic to intersections of the GMA Deficient Intersection List shall be assessed a mitigation fee, as determined by the jurisdictions within the GMA.

Objective XIV-C: To ensure that new land use approvals and development are phased with commensurate roadway capacities.

Policies

316. Development Phasing Plans shall be required for all discretionary land use entitlement and approvals and shall be approved by the Planning and Transportation Services Divisions prior to the issuance of building permits.

317. Development Phasing Plans shall include an overall buildout plan, which can demonstrate the ability of the circulation system to support the proposed level of development.

North Costa Mesa Specific Plan

The North Costa Mesa Specific Plan was adopted in July 1994 and last amended in July 2000. The North Costa Mesa Specific Plan encompasses 423 acres in the northernmost portion of the City of Costa Mesa, area north of the San Diego Freeway (I-405). While the Specific Plan is comprised of two noncontiguous planning areas it is generally bounded by South Coast Drive and Sunflower Avenue to the north, the I-405 Freeway to the south, the Costa Mesa Freeway (SR-55) to the east and Harbor Boulevard to the west.

It is the intent of the North Costa Mesa Specific Plan to implement the policies of the General Plan through the adoption of development standards. These standards recognize the development potential of the plan area and the need to sensitively integrate new development with the surrounding areas, and,

therefore, promote both resident and business community confidence in the long term vision for the planning area.¹

The following are the development considerations contained in the North Costa Mesa Specific Plan that apply to SCPTC:

- **Land Use Compatibility/Integration.** With the exception of a single five-acre parcel, the SCPTC project site area is highly developed. The lone vacant parcel is located adjacent to the Avenue of the Arts and is in a well defined urban area. The Orange County Performing Arts Center, South Coast Repertory and Plaza Tower are in the immediate vicinity. As set forth in the Specific Plan, future development within the project area should be compatible with the exiting uses and when possible linked to the surrounding developments by sidewalks and open space/green belt areas.

Additionally, future development should consider the location of The Lakes, a residential development located on Avenue of the Arts and adjacent to South Coast Plaza Town Center, so as to not create significant shade and shadow impacts.

- **Building Heights.** Building Heights are restricted to 240 feet (approximately 16 stories) west of Park Center and 315 feet (approximately 21 stories) east of Park Center. Buildings that are greater than 173 feet in height will require FAA approval.
- **Nonconformity.** In the event of voluntary demolition of an existing building on a single parcel, the property owner may be allowed to redevelop either up to the General Plan intensity level for Urban Center Commercial or up to the pre-existing development level, which is less. The parcel, however, may not be subdivided further. The open space/greenbelt area shall also remain as open space.

The following development standards sets forth in the North Costa Mesa Specific Plan apply to the SCPTC project site:

3. Shade/Shadow impacts of buildings in excess of 2 stories to surrounding land uses shall be considered during project review.
5. A mix of service-oriented retail uses (i.e. banks, restaurants, business services, health clubs, etc.) that are easily accessible to pedestrians in large scale office developments is encouraged.
7. Future development of the properties designated as Urban Center Commercial and Regional Commercial by the Land Use Element of the General Plan shall be controlled by trip budget considerations (described in Section 2.0 of the Costa Mesa Zoning Ordinance).

¹ The City of Costa Mesa, North Costa Mesa Specific Plan (July 1994)

8. Outdoor storage on any non-residential property in the plan area shall meet the requirements pertaining to outdoor storage as noted in the Municipal Code under the property's zoning designation. In addition to the requirements stated, the following criteria shall be met:
 - Storage screening shall be of masonry or other solid non-wood material or materials consistent with building materials used for the main structures on the subject site. Material uses shall incorporate design elements or features of the main structures on the property.
 - Landscaping shall be required to soften hardscape when a storage area can be seen from the public street or from a residential property. Landscaping shall meet with the approval of the Planning Division.
 - Screening consistent with chain link fencing with wood or other material-type slats woven between the links shall be prohibited.
32. The City, in cooperation with the major landholders in the plan area, shall initiate a detailed local urban rail transit study to determine the most appropriate route alignment and station locations within the area.
34. The City shall consider the need for new park and ride and/or transfer stations to support the urban rail transit system in the review of future developments adjacent to the proposed system.
35. Future development shall be consistent with and complementary to the surrounding land uses, and linked physically by either sidewalks, pedestrian walkways, and/or open space.
36. Street level and pedestrian appeal shall be taken into account during site design.
37. Directional signage for pedestrians is encouraged to be added within the existing 3-acre open space easement in Town Center. Signage should be placed at key entry points, particularly adjacent to hotel(s), to guide pedestrians to various attractions.
38. In the event of voluntary demolition of an existing building on a single parcel in either The Lakes or South Coast Plaza Town Center the property owner may be allowed to redevelop either up to the General Plan intensity level for the land use designation or, up to the pre-existing development level, whichever is less. Parcels, however, may not be further subdivided to obtain additional development potential.
39. The major open space features of the South Coast Plaza Town Center and the Lakes shall remain as a permanent open space.

40. Appropriate measures should be taken to permanently secure the existing open space easement in South Coast Plaza Town Center.

City of Costa Mesa Zoning Ordinance

As shown on Exhibit 5.1-3, the entire project site is zoned Town Center District (TC). The district is intended to allow intensely developed mixed commercial uses within a very limited geographical area bounded by Sunflower Avenue to the north, I-405 to the south, Bristol Street to the west, and Avenue of the Arts to the east. Developments within this district can range from one and two-story office and retail buildings to mid and high-rise buildings. The various permitted and conditionally permitted uses for the Town Center district zone are listed in Section 13-30 of the City of Costa Mesa Zoning Code.

Regional Planning Programs

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is the designated air quality planning agency for the City of Costa Mesa and the County of Orange. Section 5.3, Air Quality, of this EIR discusses in further detail SCAQMD's and the proposed project's impacts upon air quality.

Southern California Association of Governments

Southern California Association of Governments' Regional Comprehensive Plan and Guide

The Southern California Association of Governments (SCAG) is comprised of thirteen subregions covering Los Angeles, Orange, Riverside, Imperial, San Bernardino, and Ventura Counties. The SCAG Regional Comprehensive Plan and Guide is intended to serve the region as a whole and establish a framework for decision making with respect to growth and changes that can be anticipated for the next twenty years or beyond.

SCAG is mandated by the Federal government to research and formulate plans for transportation, growth management, hazardous waste management, and air quality. For projects of regional significance, SCAG reviews proposed projects for consistency with regional plans.

The policies of SCAG's Regional Comprehensive Plan and Guide that apply to the SCPTC project are discussed below.

Growth Management Plan

The Growth Management Plan (GMP) contains the regional projections of employment, population, and housing growth, and serves as the regional planning framework to accommodate growth. This includes the balancing of future job and housing opportunities and the Regional Housing Needs Assessment.

The following Growth Management Policies relate to the South Coast Plaza Town Center project:

- The population, housing, and job forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.
- Encourage patterns of urban development and land use which reduce costs on infrastructure construction and make better use of existing facilities.
- Encourage local jurisdiction plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.
- Encourage planned development in areas least likely to cause environmental impact.

Regional Mobility/Regional Transportation Plan

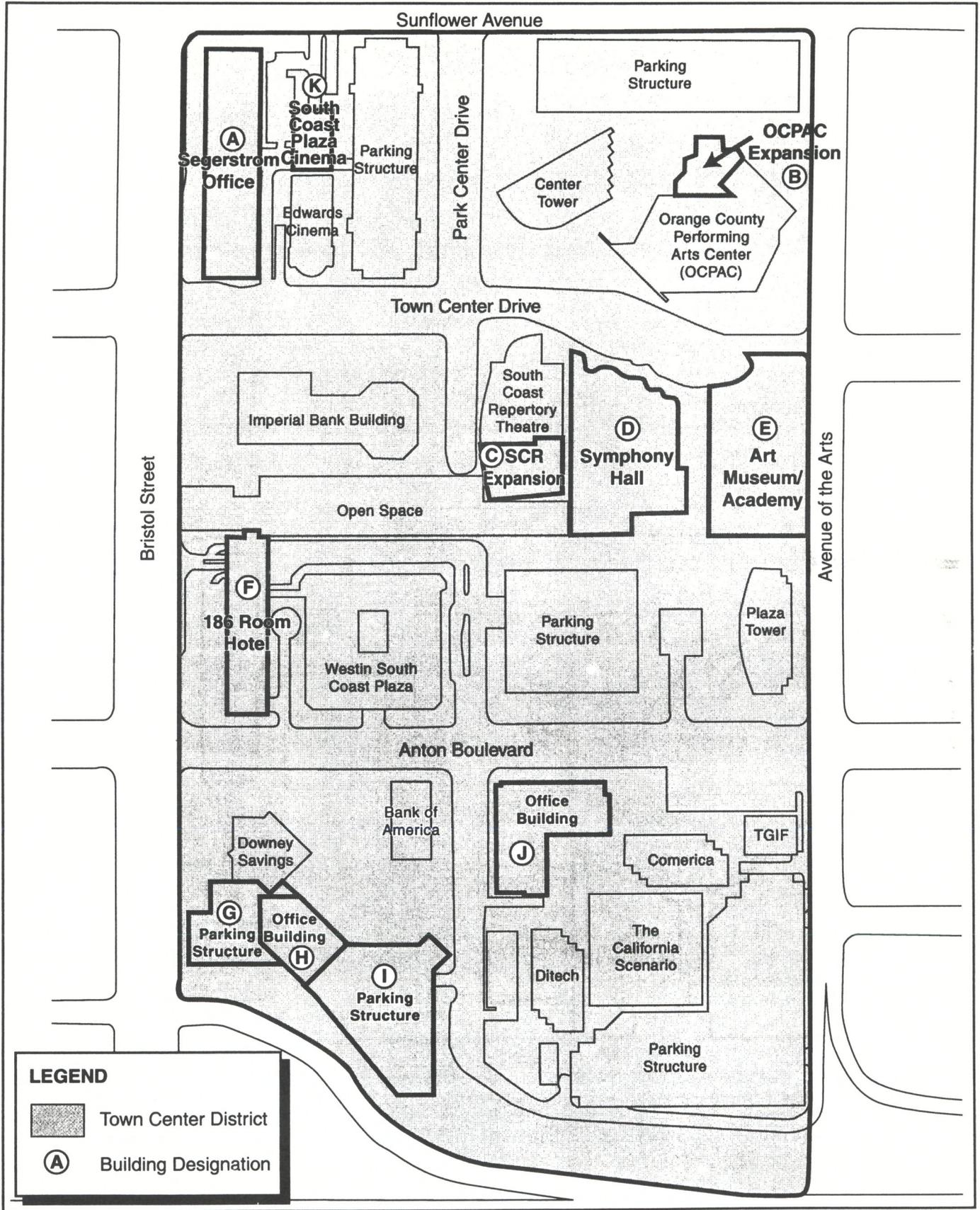
Federal and State legislation have entrusted SCAG with the responsibility of preparing a Regional Transportation Plan (RTP) and program. SCAG's Regional Mobility Element (RME) meets the Federal and State requirements for a RTP. The RME of SCAG's Regional Comprehension Plan and Guide is the principal policy, strategy, and objective statement of SCAG for transportation. The RME provides a comprehensive strategy for achieving mobility and air quality mandates.

The policies of the RME that relate to the SCPTC project are as follows:

- Meet the need for mobility and access to transportation of an increased employment and population base in the subregions and region, reduce congestion to 1990 or better levels of performance and enhance the movement of goods.
- Serve everyone's transportation needs in a safe, reliable, economic way, including those who depend on public transit, such as the elderly, handicapped and disadvantaged.
- Promote transportation strategies that are innovative and market-based, encourage new technologies, and support the Southern California economy.

Policies

- Transportation control measures shall be a priority.



LEGEND

 Town Center District

 Building Designation

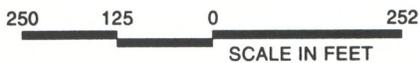


Exhibit 5.1-3
Existing Zoning Designation

- New transportation infrastructure will incorporate advanced system technologies where appropriate.

Orange County Airport Environs Land Use Plan

The SCPTC project area is located approximately 1 ½ miles northwest of John Wayne Airport. The elevation of the project site is 30 feet above mean sea level (msl) and the official elevation of John Wayne Airport is 53.68 feet above msl.

Section 21675 of the Public Utilities Code of the State of California requires the Airport Land Use Commission (ALUC) of Orange County to formulate a comprehensive land use plan for the area surrounding each public airport in Orange County. Orange County prepared the Airport Environs Land Use Plan (AELUP) in 1983, and last amended it in December of 1999. The purpose of the AELUP is to protect the public from the adverse effects associated with airport functions and to ensure the continued safe operations of the airports within Orange County.

Noise and height restrictions have been adopted by the ALUC for the area surrounding John Wayne Airport. The proposed project does not lie within the designated noise contour lines adopted by the commission therefore; noise criteria do not apply. However the building height restrictions as set forth in Federal Aviation Regulations Part 77 (FAR Part 77), Objects Affecting Navigable Airspace, do apply. Structural height is limited to the distance between the ground elevation of the site and the elevation which the Federal Aviation Administration (FAA) has determined will not adversely affect an airport or its aeronautical operations, including interference with navigational-aids or published flight paths and procedures.

Additionally, FAR 77 requires that notice be given to the FAA for any proposal to erect or alter an object that may affect the navigable airspace by exceeding the height specified within an “Imaginary Notice Surface”. Imaginary surfaces are defined as means of elevations, heights, and slopes in relation to individual airports and the spaces above which are reserved for air navigation. This Imaginary Notice Surface extends at a slope of 100:1 slope (100 feet horizontally for each foot vertically) upward from the nearest airport runway for a distance of 20,000 feet..

The project site lies within one imaginary surface, the horizontal surface, which is 150 feet above the airport elevation. As identified in Exhibit 5.1-4, the project site lies entirely within the 100:1 slope notification surface. Therefore, according to the Advisory Circular, “Any person or agent who intends to sponsor construction is required to submit notice to the Administrator if the proposed construction or alteration falls within any of the following categories: the proposed object or alteration would be within

10,000 feet of an airport or seaplane base having no runway more than 3,200 feet in length and the object would exceed 50:1 horizontal slope from the nearest point of the runway...”¹

The General Policy of the Orange County ALUC in reference to height restrictions is that within the boundaries of the AELUP, a land use is acceptable if it;

- Does not permit structure of excessive height in areas which would affect adversely the continued operation of the airport and;
 - Does not permit activities that would adversely affect aeronautical operations.
-

The FAA will make a determination that the project is either:

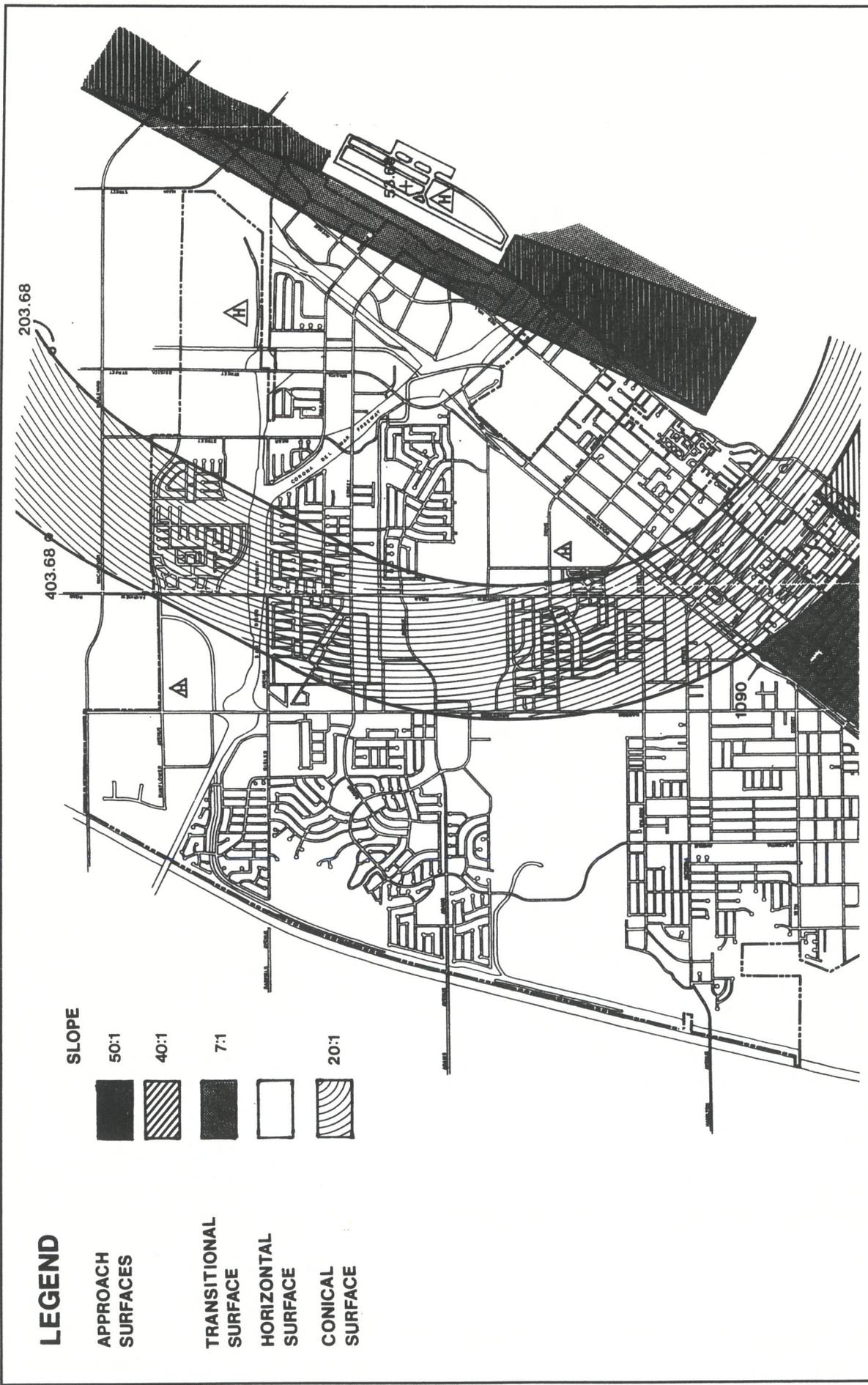
- A hazard to air navigation
- An obstruction to air navigation, but not a hazard and the FAA will then establish conditions for the marking and lighting of buildings^a.
- Neither an obstruction or hazard to air navigation

An object is defined as an obstruction to navigation by FAR 77.23 if it is greater than:

- A height of 500 feet above ground level at the site of the object.
- A height that is 200 feet above ground level or above the established airport elevation, whichever is higher, within three nautical miles of the established reference point of an airport.
- A height within a terminal obstacle clearance area which would result in the vertical distance between any point of the object and an established minimum instrument flight altitude within the area or segment to be less than the required obstacle clearance.
- A height within an en route obstacle clearance area including turn and termination areas of a federal airway approved off-airway route that would increase the minimum obstacle clearance altitude.
- The surface of a takeoff and landing area of any airport or any imaginary surface.

¹ Federal Aviation Administration Advisory Circular (AC 70.7460-2j, Section 6b.1b)

^a Even if a building falls within the height restriction standards it must be clearly visible during hours of twilight and darkness and must be clearly marked and lighted



LEGEND

- APPROACH SURFACES**
 - TRANSITIONAL SURFACE**
 - HORIZONTAL SURFACE**
 - CONICAL SURFACE**
- SLOPE**
- 50:1
 - 40:1
 - 7:1
 - 20:1

SOURCE: Costa Mesa General Plan, 1990

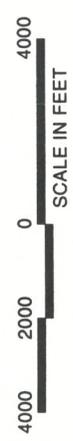


Exhibit 5.1-4
John Wayne Airport Imaginary Surfaces



5.1.2 PROJECT IMPACTS

Thresholds of Significance

The proposed project will result in a significant impact on the environment related to land use issues if it:

- Generates a conflict with any applicable land use plan, policy, or regulation of a responsible agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.
- Creates an incompatibility with existing or planned land uses onsite or adjacent to the project site.
- Results in a substantial adverse change in existing land use patterns.

Land Use Compatibility

Land use compatibility is primarily determined by the sensitivity of land uses to the characteristics associated with another land use, such as activity, noise, density, height, bulk, and/or appearance. Therefore, other environmental issues in Section 5 of this EIR, which analyze these environmental changes, are relevant to the analysis of land use compatibility and are referenced in this discussion.

Compatibility with Onsite Land Uses

The development of the SCPTC project site will result in a variety of environmental impacts to the urban systems in the area that affect land use and land use compatibility related to water quality, traffic, air quality, public services and utilities, etc. These impacts, although related to land use, are addressed in individual sections of this EIR. This section focuses on impacts to onsite and surrounding land uses, and impacts related to land use planning programs resulting from implementation of the project. The analysis of impacts to onsite and surrounding land uses is based on the current environmental setting of the project site.

Two Town Center. Two Town Center is located south of Anton Boulevard and west of Avenue of the Arts and includes four office buildings (DiTech.com, Downey Savings, Comerica, and Bank of America) and three free standing restaurants (Jerry's Deli, El Torito Grill, and TGI Fridays), the four-screen Edwards Cinema, and a single-story retail building occupied by the Amici Italian Restaurant. The California Scenario outdoor sculpture gardens is also located in this planning area. Currently there is approximately 800,000 square feet of office, restaurant, retail, and theater land uses within the 18.28 acres that comprise this planning area. Proposed is an additional 400,000 square feet of office, 28,700 square feet of reconstructed restaurant and retail uses (Building H and J). The office uses and the 1,056 parking spaces (Building G and I) associated with the Two Town Center component of the SCPTC project would

be compatible with existing onsite office uses and the other uses proposed as part of the project due to the similar nature of such uses (e.g., type, height, density, etc.). Hence, significant compatibility impacts would not occur.

Segerstrom Center for the Arts. The proposed project involves the expansion of the existing repertory theater (Building C), the construction of a symphony hall (Building D) immediately adjacent to the South Coast Repertory Theater (SCR), an art museum/academy (Building E) at the southwest corner of Town Center Drive and Avenue of the Arts and expansion (Building B) of the Orange County Performing Arts Center (OCPAC). Compatible land uses that are onsite are the SCR and the Orange County Performing Arts Center. The proposed expansion and/or development of 473,645 square feet of unentitled and 65,000 square feet of entitled (OCPAC expansion) cultural uses are complementary both with the existing land uses, and with the General Plan policy to encourage the inclusion of art and aesthetically pleasing architecture into new development and redevelopment that will have the effect of perpetuating the image of the “City of the Arts.”

Balance of Town Center. The Town Center Planning Area currently supports over 1.6 million square feet of office, restaurant, retail, hotel, and theater uses. Proposed for the site, as part of the Balance of Town Center component of the SCPTC project, is an additional 255,000 square feet of unentitled office space, approximately 84,035 square feet of reconstituted office space, and an additional 186,000 square feet of previously entitled hotel (Building F). The proposed hotel would be located on the northeast corner of Bristol and Anton Boulevard adjacent to the existing Westin Hotel. The southeast corner of Bristol Street and Sunflower Avenue would support the additional office uses. Similar to the Two Town Center component, development of the above mentioned hotel and office uses would be compatible with similar existing onsite and hotel uses within the immediate vicinity of the proposed uses. Therefore, no significant compatibility impacts would occur with existing and proposed uses.

Implementation of the various proposed project land uses would occur in a manner that is compatible with the existing land uses in Town Center, thereby minimizing any potential on-site land use conflicts. Building heights, storage areas, trash receptacles, parking configurations, signage, and landscaping for land uses would be subject to a subsequent level of review by the City of Costa Mesa to ensure that the proposed uses do not result in potentially significant land use incompatibility.

It is expected that compliance with 1) the development standards set forth in the North Costa Mesa Specific Plan, 2) conditions of approval adopted as part of the project, and 3) the mitigation program for the project, land use conflicts would not occur.

Development Standards that are applicable to the proposed uses are as follows:

- Encourage a mix of service-oriented retail uses that are easily accessible to office uses.

- Design outdoor storage areas in accordance with the Costa Mesa Zoning Code, and design requirements including the use of masonry or other solid non-wood material or materials consistent with building materials used for the main structures on the subject site. Material uses shall incorporate design elements or features of the main structures on the property and screen storage areas from streets and residences.
- Provide landscaping to parking structures visible from public streets or residential areas.
- Provide pedestrian linkages from the SCPTC project area, including linkages to the public sidewalk system include bikeway linkages

Compatibility With Surrounding Land Uses

Land Uses to the North

Immediately north of the project site is the City of Santa Ana. Surrounding land uses to the north include multi-family residential and commercial/retail land uses. North of Sunflower Avenue and east of Avenue of the Arts are multi-story apartment complexes. At the intersection of Bristol Street and Sunflower Avenue there are a variety of commercial and retail land uses.

Proposed building heights for structures located within the SCPTC site would be limited to 315 (21 Stories) feet west and east of Park Center, with any structure over 173 feet requiring approval from the FAA. Surrounding land uses to the north are primarily single and multi-level retail, commercial, and multi-family residential. The SCPTC project represents an intensification of land uses in relation to the existing adjacent uses. However, the proposed land uses are similar to the existing onsite conditions and the project does not propose to introduce any new types of land uses within the project area. Therefore, implementation of the SCPTC project is expected to be compatible with the surrounding land uses to the north.

Land Uses to the South

The San Diego (I-405) Freeway serves as the southern boundary of the project site. Directly south of the I-405 there are existing single family residences, retail uses, and mid-rise office buildings and hotels. The I-405 Freeway serves as a buffer zone, separating the project site from land uses directly to the south by more than 300 feet. Therefore, land uses south of the I-405 will not be significantly impacted by the proposed project.

Land Uses to the East

To the east of the project site are 27 acres that comprise The Lakes. The Lakes complex consists of two hotels, totaling 492 rooms (The Marriott and Wyndham), The Lakes retail center (20,400 square feet), and

The Lakes Apartment Complex (790 units). The commercial uses clustered on the southwest corner of Avenue of the Arts and Anton Boulevard are primarily comprised of the Macaroni Grill Restaurant. To the east of The Lakes complex but south of Sunflower Avenue the land uses are primarily agricultural with some single-family residential located east of Anton Boulevard.

The Lakes complex is primarily high density residential. The apartment complex is a total of six stories; however, commercial uses are allowed to be developed up to 110 feet, or approximately 11 stories. Development of similar uses under the SCPTC is considered compatible with existing and planned land uses to the east of the project site. Moreover, any development on the SCPTC project site would consider shade and shadow impacts that may effect The Lakes complex. Section 5.9, Aesthetics discusses in further detail any shade and shadow impacts that may result from implementation of the proposed project. These impacts are considered to be less than significant.

Land Uses to the West

Immediately west of the project site is South Coast Plaza, a major regional commercial center encompassing 97 acres and approximately 3.0 million square feet. The project site is accessible from South Coast Plaza via a pedestrian bridge that spans Bristol Street. The development of the various land uses within the SCPTC are considered compatible with the retail uses east of the project site.

Related Planning Programs

Costa Mesa General Plan

The goals, policies, and objectives of the Costa Mesa General Plan that are relevant to the SCPTC project were reviewed for project consistency. Consistency was determined on a policy by policy basis and the evaluation is presented in the following discussion.

Land Use Element

The focus of the General Plan Land Use Element policies is to ensure that land uses are located and implemented in a manner that preserves the residential character of the City, can be accommodated by existing and/or planned infrastructure, ensure the economic viability of the community, and minimizes impacts on existing and physical resources. The proposed project is generally consistent with the Land Use Element. The SCPTC project is consistent with the goal to ensure that land use decisions made by the City are based on careful consideration of these factors.

Implementation of the SCPTC project requires an amendment to the City of Costa Mesa's General Plan and the North Costa Mesa Specific Plan. The proposed project is inconsistent with the project area

General Plan and Specific Plan land use designations of Urban Commercial Center, and would require an amendment to both plans to create a new land use designation Cultural Arts Center.

A comprehensive analysis of the potential environmental impacts associated with the proposed General Plan and Specific Plan amendments is provided throughout Section 5 of this EIR. Where applicable, mitigation has been proposed to reduce potential impact. All significant impacts can be reduced to a level that is considered less than significant with the exception of the following: traffic impacts, short-term construction-related and long-term operational air quality impacts.

The SCPTC project integrates retail, cultural, and office land uses into an urban infill site located in proximity to major freeway and roadway corridors. Moreover, the project will be phased in such a manner that infrastructure improvements (e.g., roadway modifications, water/sewer lines, etc.) are provided in advance of and/or at the time of project demand. As with any new development in the City, the project applicant will be required to contribute to necessary public services and facilities through the payment of development impact fees.

In addition, the proposed development of the project site would be consistent with the City's policy to encourage the integration of art and "aesthetically pleasing architecture" into site development (Policy 121), and with related development standards set forth in the North Costa Mesa Specific Plan to ensure project consistency with Policy 121.

Therefore, the project is not expected to result in any significant impacts related to the Land Use Element.

Growth Management Element

The City of Costa Mesa's Growth Management Element establishes criterion to ensure that the City's growth does not outpace the City's circulation system. As discussed previously, growth and development can restrict a circulation system's ability to function at a level that is considered adequate (LOS D) or better. Implementation of the SPCTC requires a revision to the trip budgets specified in the North Costa Mesa General Plan and Town Center Master Plan. According to the traffic analysis that was prepared for the SCPTC and discussed in EIR Section 5.2, Transportation and Circulation, the project will contribute to a cumulative significant, unavoidable impact to the intersections of Bristol Street and Sunflower Avenue, Main Street and MacArthur Boulevard, and Main Street and Sunflower Avenue. The project applicant will be required to pay development fees and provide roadway improvements associated with the mitigation traffic impacts. The project will be phased "...to demonstrate the ability of the circulation system to support the proposed levels of development" consistent with Costa Mesa General Plan Policy 317.

North Costa Mesa Specific Plan

The North Costa Mesa Specific Plan implements the policies of the General Plan through the establishment of development standards. As proposed, the SCPTC project would require an amendment to the Specific Plan to reflect revised trip budgets, permitted floor area ratios, and the maximum building height permitted. The following is a discussion of the proposed project's consistency with the development standards set forth in the Specific Plan:

- **Land Use Compatibility/Integration.** The SCPTC project includes the development of the Segerstrom Center for the Arts (e.g., symphony hall, theater, museum/art academy, etc.) and expansion of the OCPAC. Such development is easily integrated and compatible with the existing OCPAC and the SCR, and consistent with the Specific Plan in that the land uses would be complementary to surrounding development. Moreover, the proposed office and commercial/retail uses associated with other components of the SCPTC project are also considered to be highly compatible with similar existing uses located throughout Town Center.
- **Building Heights.** Implementation of the proposed project would exceed the maximum building height of 240 feet, west of Park Center Drive. Implementation of the SCPTC project would require an amendment to the Specific Plan to allow the development of up to a 21-story office building located at the northeast corner of Bristol Street and Sunflower Avenue. This amendment, in and of itself, would not result in a substantial adverse land use impact.
- **Nonconformity.** Amendment to the North Costa Mesa Specific Plan would not result in any nonconformity impacts. Rather, implementation of the SCPTC project would initiate a Specific Plan amendment that would correct current inconsistencies between current development and the existing Specific Plan. This amendment and the establishment of a new 1.77 FAR for the site, would resolve any nonconformity issues associated with the SCPTC project.

City of Costa Mesa Zoning Code

Implementation of the proposed project would not alter the Town Center district zoning of the project area. The TC zoning designation allows for intensely developed mixed commercial uses within the very limited geographical area considered the project site. Developments within this designation can range from one and two story office and retail buildings to mid to high rise buildings. The SCPTC project would be consistent with these land uses. The North Costa Mesa Specific Plan includes development standards for the project site. The zoning code would take precedence if the Specific Plan does not address a particular zoning issue. No significant adverse impacts are anticipated to occur.

Regional Planning Programs

South Coast Air Quality Management District

Section 5.3, Air Quality contains an analysis of the proposed project's compliance with the South Coast Air Quality Management District's Air Quality Management Plan (AQMP). Please refer to Section 5.3 for a discussion of the project's consistency with the AQMP and significance criteria.

Southern California Association of Governments' (SCAG) Regional Comprehensive Plan and Guide

The proposed project would be consistent with the growth management policies previously identified in this Section. Below is a discussion of the consistency determinations:

- Incorporated into the EIR for reference and for significance determination are the population, housing, and employment forecasts provided by SCAG, the U.S. Census Bureau, the State Department of Finance, and the Center for Demographic Research at California State University at Fullerton. Section 5.7, Employment, Population, and Housing contains a detailed discussion in relation to employment, population, and housing impacts.
- The proposed project is an intensification of land uses which utilizes existing infrastructure such as roadways and utilities. Where upgrades to the circulation system or other public service systems are necessary, these are identified through the EIR process (see EIR Section 5.2 and 5.8).
- The project site is highly urbanized and contains no significant natural environmental resources. Impacts to air quality and water quality are identified in EIR Sections 5.3 and 5.6 respectively. This EIR has identified measures to mitigate any impacts to air and water to a level that is less than significant.

Regional Mobility/Regional Transportation Plan

The proposed project's consistency with the Regional Mobility Element of the Comprehensive Plan and Guide is discussed in Section 5.2, Transportation and Circulation.

Orange County Airport Environs Land Use Plan

The project site is within the FAA notice area for John Wayne Airport. Buildings located in the SCPTC could range in height from one to ten stories without FAA approval. Structures larger than 10 stories would penetrate the 100:1 Notice Surface. This determination was concluded by dividing the distance of the nearest runway to the SCPTC project site (approximately 7,920 feet) by 100 feet (the Notice Surface extends with a 100:1 slope). The result, 79.2 feet, is added to the base elevation of John Wayne Airport (53.68 msl) which equals a total of 132.88 feet. Therefore, buildings on the SCPTC site (e.g., Balance of Town Center, Buildings A and F) could be constructed to a height of 132.88 feet, or rather approximately

a ten- story building, without penetrating a 100:1 Notice Surface. The SCPTC project site is not located within the Conical Surface and therefore, is not subject to FAA regulations for the 20:1 Notice Surface for Conical Surfaces. However the proposed project is subject to FAR Part 77 and does require FAA notification. Any structure to be built to exceed 132.88 feet will require the approval of the FAA pursuant to FAR 77.

With the filing of required notices, no conflict with the AELUP is anticipated. No conflict with FAR Part 77 is anticipated.

5.1.3 CUMULATIVE IMPACTS

The study area for cumulative land use impacts takes into consideration both the related projects and proposed project consistency with plans, policies, and programs of the City of Costa Mesa and responsible agencies.

The additional development that will occur in the area of the SCPTC project site consists of primarily commercial, retail, and restaurant uses. The related projects are detailed in Section 4.1, Cumulative Impacts. Proposed development within the SCPTC would result in the addition of new hotel rooms, office space, retail, and a variety of cultural/entertainment land uses. As with the proposed project, evaluated in this EIR, each of the related projects would be subject to its own environmental review for consistency with the City of Costa Mesa General Plan, the North Costa Mesa Specific Plan, and the other regional plans. Cumulative impacts associated with other land use issues such as traffic, noise, etc., are discussed in the various sections of this EIR that correspond with each individual issue.

The cumulative land use compatibility influence area includes the project site and immediately surrounding area. The areas within and surrounding the project site have primarily been developed with commercial, retail, hotel, and office uses. To the north and to the east of the project site there are multi-family residential uses. Due to the types of land use surrounding the project site, land use compatibility with more distant areas will not likely be affected by the implemented land uses of the SCPTC.

5.1.4 MITIGATION PROGRAM

Standard Conditions and Requirements

The proposed project will be subject to all of the applicable conditions and regulations set forth in the North Costa Mesa Specific Plan, the City of Costa Mesa zoning ordinance, and all requirements and enactments of federal, state, county, city and other governmental entities with jurisdiction. All such requirements and enactments of these agencies will become conditions of project implementation.

Mitigation Measures

Mitigation Measure 1-1. Prior to the issuance of a building permit for any structure located within the FAA Notice AREA for John Wayne Airport, the project applicant shall submit a Notice of Proposed Construction to the FAA. The ALUC will review the project for consistency with the Commission's AELUP. The project shall comply with the provisions and restrictions imposed by the FAA and the ALUC. This condition shall be included in the North Costa Mesa Specific Plan and the final project-specific master plans, and shall be verified by the Costa Mesa Planning Division.

Mitigation Measure 1-2. The City of Costa Mesa will review the final site plans for development within the SCPTC project area for consistency with any adopted plans for the area.

5.1.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the standard conditions and mitigation measures described above no significant land use and planning program impacts are anticipated from development of the proposed project.

5.2 TRANSPORTATION AND CIRCULATION

A traffic study was prepared by Austin-Foust Associates, Inc. in June 2000 for the South Coast Plaza Town Center (SCPTC) project. The traffic study is summarized below and included in its entirety in Appendix C of this EIR.

5.2.1 METHODOLOGY

Derivation of General Plan buildout conditions was carried out using traffic forecasts from the Costa Mesa Traffic Model (CMTM). This model is the City of Costa Mesa's primary tool for estimating buildout traffic conditions in the City and has the capability of forecasting average daily traffic (ADT) as well as peak hour turning movement volumes on the circulation system in this area.

A portion of the study area is outside the limits of the CMTM. Specifically, fourteen intersections are located in the City of Santa Ana and one intersection is located in the City of Irvine. To forecast buildout traffic volumes for these five Santa Ana locations, long-range ADT forecasts as shown in the Santa Ana Circulation Element were utilized. A growth factor derived from the comparison of existing ADT volumes and the projections from the City of Santa Ana was applied to existing turning movement counts to determine buildout turning movement volumes.

Long-range buildout volumes (ADT and peak hour turning movement volumes) for the Irvine portion of the study area were obtained from the City of Irvine's Traffic Analysis Model (ITAM).

Intersection Level of Service Methodology

Roadway performance is most often controlled by the performance of intersections—specifically during peak traffic periods. This is because traffic control at intersections interrupts traffic flow which would otherwise be relatively unimpeded except for the influences of on-street parking, access to adjacent land uses, or other factors resulting in intersection of vehicles between intersections. Operating conditions at intersections are typically described in terms of “level of service” (LOS). Level of service is a qualitative measure of facility's operating performance described with a letter designation from A to F. A represents the best operating condition and F the worst.

Traffic Study Area

The traffic analysis area is generally bounded by Warner Avenue to the north, Fairview Road to the east, Baker Street to the south, and SR-55 Freeway to the west (see Exhibit 5.2-1). All major intersections in this area were analyzed with respect to project impacts using peak hour traffic volume data. In addition, the intersection of Red Hill Avenue and Main Street in the City of Irvine is also analyzed.

The following intersections are included in the South Coast Plaza Town Center traffic study area (numbers refer to intersection numbers in the Costa Mesa Traffic Model (CMTM));

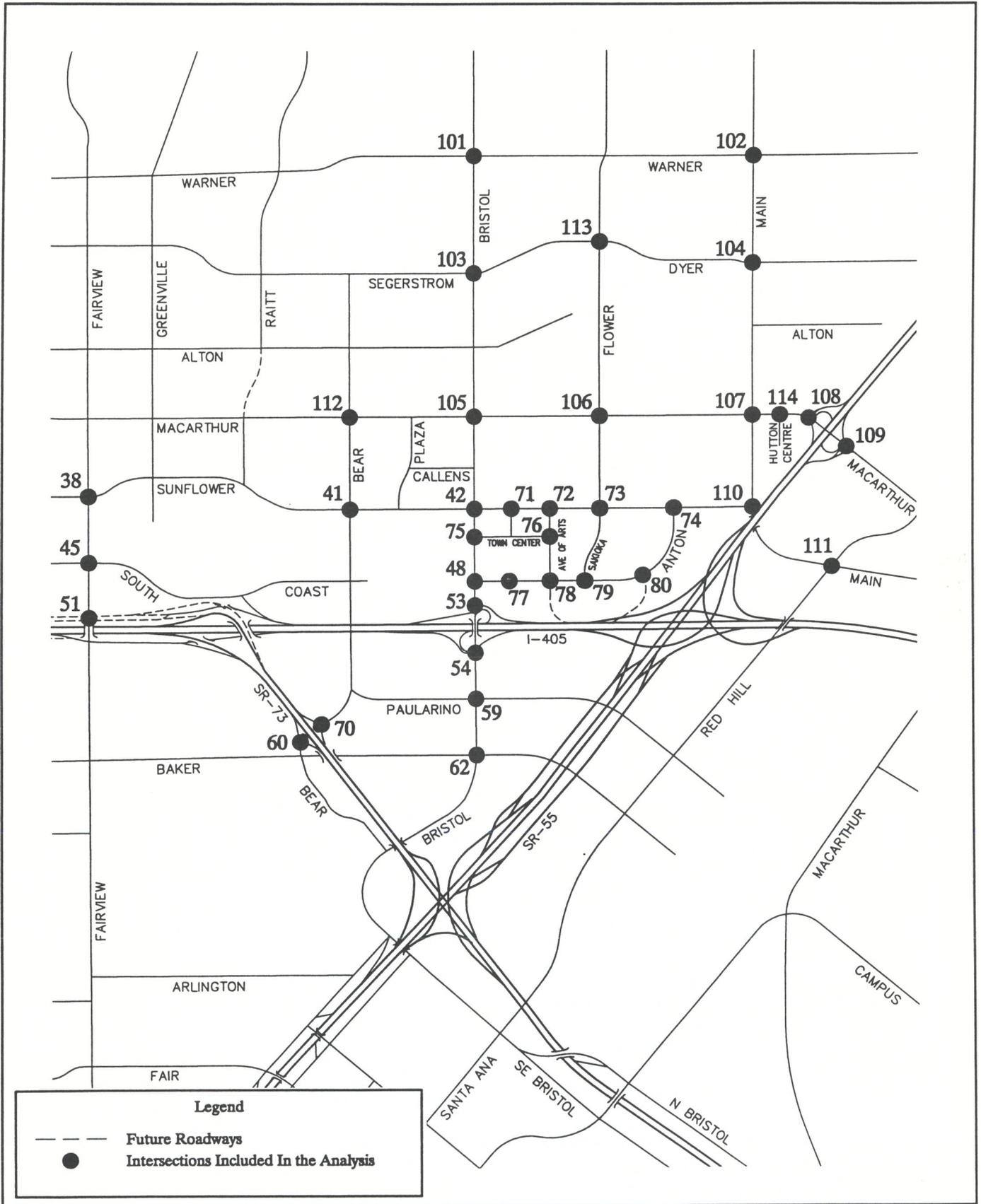
Costa Mesa

- 38. Fairview & Sunflower
- 41. Bear & Sunflower
- 42. Bristol & Sunflower

- 45. Fairview & South Coast
- 48. Bristol & Anton
- 51. Fairview & I-405 NB Ramps
- 53. Bristol & I-405 NB Off Ramp
- 54. Bristol & I-405 SB Ramps
- 59. Bristol & Paularino
- 60. Bear & SR-73 SB Ramps
- 62. Bristol & Baker
- 70. Bear & SR-73 NB Ramp
- 71. Park Center & Sunflower
- 72. Avenue of the Arts & Sunflower
- 73. Sakioka/Flower & Sunflower
- 74. Anton & Sunflower
- 75. Bristol & Town Center Drive
- 77. Park Center & Anton
- 78. Avenue of the Arts & Anton
- 79. Sakioka Drive & Anton

Santa Ana

- 101. Bristol & Warner
- 102. Main & Warner
- 103. Bristol & Segerstrom
- 104. Main & Dyer
- 105. Bristol & MacArthur
- 106. Flower & MacArthur
- 107. Main & MacArthur
- 108. SR-55 SB Ramps & MacArthur
- 109. SR-55 NB Ramps & MacArthur
- 110. Main & Sunflower
- 112. Bear & MacArthur
- 113. Flower & Segerstrom/Dyer
- 114. Hutton Centre/MacArthur



SOURCE: Austin-Foust Associates, Inc., July 2000



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Exhibit 5.2-1
Traffic Analysis Area

SOUTH COAST PLAZA TOWN CENTER EIR

Irvine

111. Red Hill & Main

Exhibit 5.2-2 illustrates the existing lane configurations at these intersections within the traffic study area. All major intersections in this area were analyzed with respect to project impacts using peak hour traffic volume data.

5.2.2 EXISTING CONDITIONS

Coast Mesa Planning Policies

The following identifies the goals, objectives, and policies of the City of Costa Mesa General Plan that are applicable to the South Coast Plaza Town Center project with respect to traffic and circulation issues.

Costa Mesa General Plan Transportation Element

GOAL V: TRANSPORTATION

“It is the goal of the City of Costa Mesa to provide for a balanced, uncongested, safe, and energy-efficient transportation system, incorporating all feasible modes of transportation.

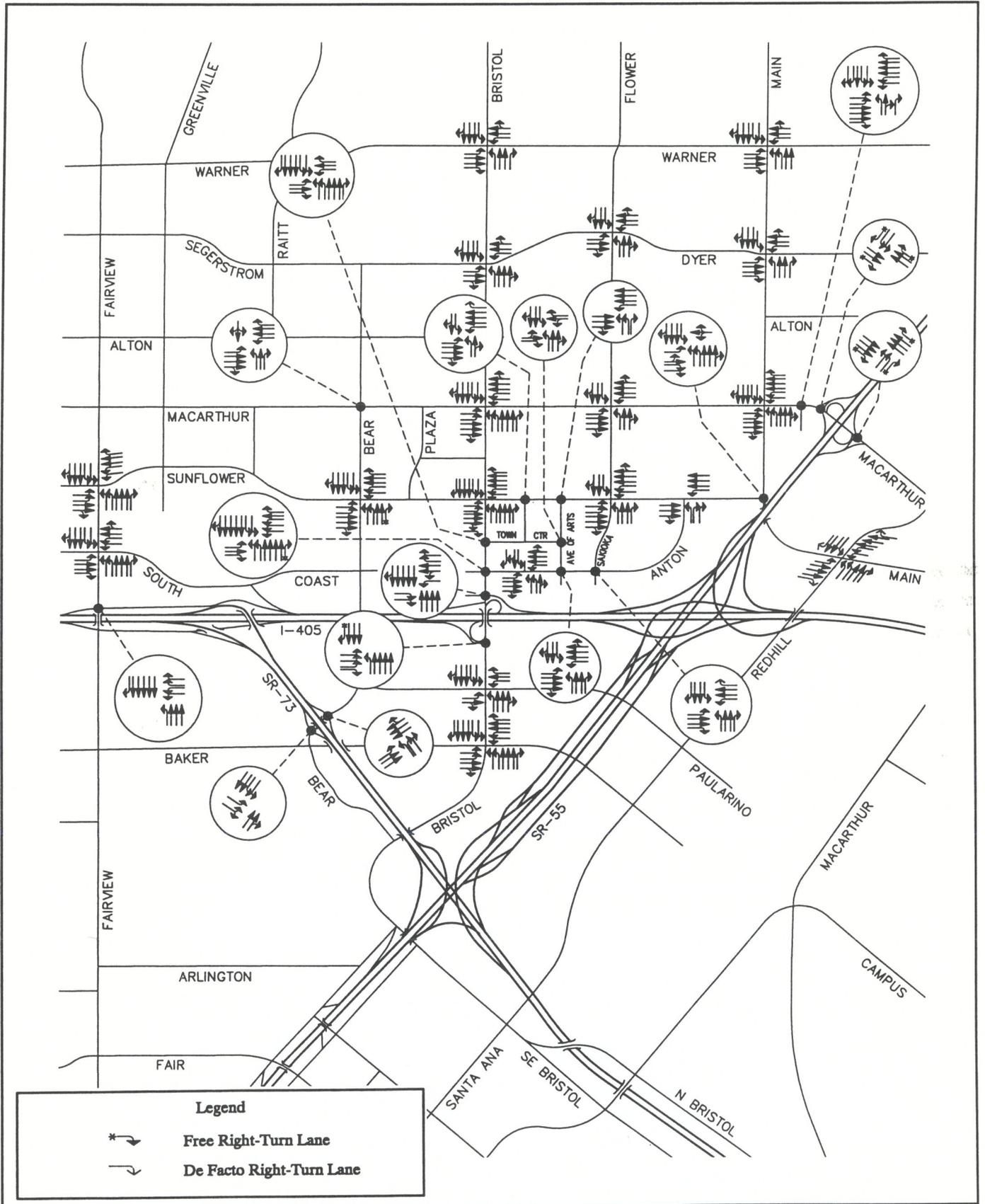
Policies

- 160. Require discussion of transit services needs and site design amenities for transit ridership in EIRs for major projects.
- 161. Require discussion of transportation system management (TSM) and transportation demand management (TDM) measures in all EIRs prepared for major projects.
- 162. Incorporate bicycle facilities (circulation and storage) into the design and development of all new commercial and industrial projects and public facilities.
- 169. Require dedication of right-of-way, in an equitable manner, for development that increases the intensity of land use.
- 172. Encourage Costa Mesa businesses to provide employee information to the Orange County Transportation Authority to assist in planning for public transit services.

- 173. Encourage Costa Mesa businesses to provide their employees with information as to the Orange County Transportation Authority and services and information as to the Master Plan of Bikeways and bicycle facilities.
- 177. Encourage the integration of compatible land uses and housing into major development projects to reduce vehicle use.
- ~~178. Coordinate the design and improvement of pedestrian and bicycle ways with major residential, shopping, and employment centers, parks, schools, other public facilities, public transportation facilities, and bicycle networks in adjacent cities.~~
- 186. Attempt to maintain or improve mobility within the City to achieve a standard level of service not worse than Level of Service “D” at all intersections under the sole control of the City with the exception of the following intersection for which Level of Service “D” may not be obtained: Harbor and Gisler.
- 187. Cooperate with the State Department of Transportation and adjacent jurisdictions to maintain or improve mobility within the City to achieve a standard level of service no worse than Level of Service “D” at all intersection for which Level of Service “D” may not be obtained: Bristol and Sunflower.
- 187A. While the intersection of 1) Harbor and Gisler and 2) Bristol and Sunflower may exceed LOS “D”, the City shall work to ensure that the future ICUs do not exceed those identified in the General Plan.
- 188. Place priority on improving parallel streets and intersections, completing the Master Plan of Bikeways, and improving transit opportunities or reducing densities in the areas surrounding identified deficient intersections.
- 192. Maintain balance between land use and circulation systems by phasing new development to levels which can be accommodated by roadways existing or planned to exist at the time of completion of each phase of the project.”

GOAL VI: TRANSPORTATION MANAGEMENT

“It is the goal of the City of Costa Mesa to provide for standard service levels at signalized intersections by construction of capacity improvements for all various modes of circulation, adopting land use intensities commensurate with planned circulation improvements and implementing traffic demand reduction programs, thereby creating a more energy efficient transportation system.”



SOURCE: Austin-Foust Associates, Inc., July 2000



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Exhibit 5.2-2 Existing Intersection Lane Configurations

SOUTH COAST PLAZA TOWN CENTER EIR

Objective VI-B: To promote the use of nonsingle-occupant vehicular modes of transportation in and through the City.

216. Coordinate with major employers to gain support for an implementation of transportation management rideshare programs. Program components may include flex-time, transit subsidies, and improvement communications.

Objective VI-D: Ensure correlation between buildout of the General Plan Land Use Map and the Master Plan of Highways.

255. Building densities/intensities for proposed new development projects (based on floor area ration standards in the General Plan) shall not exceed the trip budget for such uses.
256. Allow the application of transportation management ridesharing programs, integration of complementary land uses, and other methods to reduce project related average daily and peak hour vehicle trips in order to achieve consistency with the allocated trip budget.

Costa Mesa General Plan Growth Management Element

GOAL XIV: GROWTH MANAGEMENT

“It is the goal of the City of Costa Mesa to reduce traffic congestion and to ensure that adequate transportation facilities are provided for existing and future residents of the community through effective and comprehensive growth management practices consistent with the Land Use Element.”

Objective XIV-A: To provide and maintain a circulation system that operates within established traffic level of service standards.

Policies

306. The established traffic level of service shall be level of service (LOS) D or better for all intersections under the control of the city, except for the intersection of Harbor and Gisler which shall have an established level of service (LOS) E or better.
307. The established level of service standard shall not apply to intersections under the jurisdiction of another city, the County of Orange or the State of California or to intersections included on the Deficient Intersection List established by the Inter-jurisdictional Plan Forum for the Growth Management Area in which the city participates.

Objective XIV-B: To ensure that the transportation related impacts of development projects are mitigated to the fullest extent possible, in conformance with the established traffic level of service policies.

Policies

309. Circulation improvements required to provide or attain the established traffic level of service standard at an intersection to which a development project contributes measurable traffic shall be completed within three years of issuance of the first building permit for said project, unless additional right-of-way or coordination with other government agencies is required to complete the improvement. Improvements may be required sooner if, because of extraordinary traffic generation characteristics of the project or extraordinary impacts to the surrounding circulation system, such improvements are necessary to prevent significant adverse impacts.
- 309A. Construction of circulation improvements for phased development projects may be constructed commensurate with the project construction based upon the findings of a traffic study approved by the City of Costa Mesa.
310. Each new development project shall pay its fair share of costs associated with the mitigation of project generated traffic impacts, including regional traffic mitigation.
313. All development contributing measurable traffic to intersections on the GMA Deficient Intersection List shall be assessed a mitigation fee, as determined by the jurisdictions within the GMA.

Objective XIV-C: To ensure that new land use approvals and development are phased with commensurate roadway capacities.

Policies

316. Development Phasing Plans shall be required for all discretionary land use entitlement and approvals and shall be approved by the Planning and Transportation Services Divisions prior to the issuance of building permits.
317. Development Phasing Plans shall include an overall buildout plan that can demonstrate the ability of the circulation system to support the proposed levels of development.

Costa Mesa General Plan Land Use Element

GOAL VII: LAND USE

“It is the goal of the City of Costa Mesa to provide its citizens with a balanced community of residential, commercial, industrial, recreational, and institutional uses to satisfy the needs of the social and economic segments of the population and to retain the residential character of the City; to meet the competing demands for alternative developments within each land use classification within reasonable land use intensity limits; and, to ensure the long term viability and productivity of the community’s natural and man-made environments.”

Objective VII-E: Ensure correlation between buildout of the General Plan Land Use Map and the Master Plan of Highways.

Policies

255. Building densities/intensities for proposed new development projects shall not exceed the trip budget for applicable land use classifications, as identified in the Land Use Element. Building intensities for proposed new development projects shall not exceed the applicable floor areas standards; except, limited deviations from the graduated floor area ratio standards depicted in Tables 61 and 62 (of the General Plan) for the commercial and industrial land use designations may be approved through a discretionary review process. No deviation shall exceed a 0.05 increase in the FAR in the moderate traffic category, and no deviation shall be allowed in the very low, low, and high traffic categories. Deviations from the FAR standards shall not cause the daily trip generation for the property to be exceeded when compared to the existing daily trip generation for the site without the proposed project or the maximum allowable traffic generation for the Moderate Traffic FAR category, whichever is greater. The new development shall be compatible with the surrounding land uses. Additional criteria for deviations from the FAR standards may be established by policy of the City Council.

256. Allow the application of transportation management rideshare programs, integration of complementary land uses, and other methods to reduce project related average daily and peak hour vehicle trips in order to achieve consistency with the allocated trip budget.

Southern California Association of Governments’ Planning Policies

Policies of SCAG’s Regional Comprehensive Plan and Guide and Regional Transportation Plan that are applicable to the proposed South Coast Plaza Town Center project are identified in below.

SCAG Regional Comprehensive Plan and Guide: Growth Management Chapter

- 3.13 Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.

SCAG Regional Comprehensive Plan and Guide: Air Quality Chapter

~~5.07 Determine specific programs and associated actions needed (e.g., indirect sources rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.~~

- 5.11 Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.

SCAG Regional Transportation Plan

GOALS

1. Meet the need for mobility and access to transportation of an increased employment and population base in the subregions and region, reduce congestion to 1990 or better levels of performance and enhance the movement of goods.
2. Serve everyone's transportation needs in a safe, reliable and economical way, including those who depend on public transit, such as the elderly, handicapped and disadvantaged.
5. Promoted transportation strategies that are innovative and market-based, encourage new technologies and support the Southern California economy.

Policies

- 4.04 Transportation Control Measures shall be a priority.
- 4.22 New transportation infrastructure will incorporate advanced system technologies, where appropriate.

Existing Conditions: Non-Vehicular Transportation

Public Transit. The Orange County Transportation Authority (OCTA) provides bus service throughout Orange County, including a high level of service to the project area. A total of nine (9) bus routes link SPTC with other areas of Orange County.

Bikeways. Bikeways in the project area include an existing Bike Trail (Class 1) along Anton Boulevard east of Avenue of the Arts. Bike Lanes (Class 2) are planned along Sunflower Avenue, and along Avenue of the Arts, extending from Sunflower Avenue south across I-405 at a future grade-separated crossing.

Pedestrian Access. Sidewalks are provided on all the major roadways along and through the project site. The North Costa Mesa Specific Plan identifies pedestrian linkages to the SCPTC core area at the following locations: Park Center at Town Center, Avenue of the Arts (midway between Town Center and Anton Boulevard), Park Center at Anton Boulevard, and at the Bristol Street pedestrian overpass between Anton Boulevard and Town Center.

Existing Conditions - Roadway Segment and Intersection Volumes

Existing arterial highway average daily trip (ADT) volumes within the study area are illustrated in Exhibit 5.2-3.

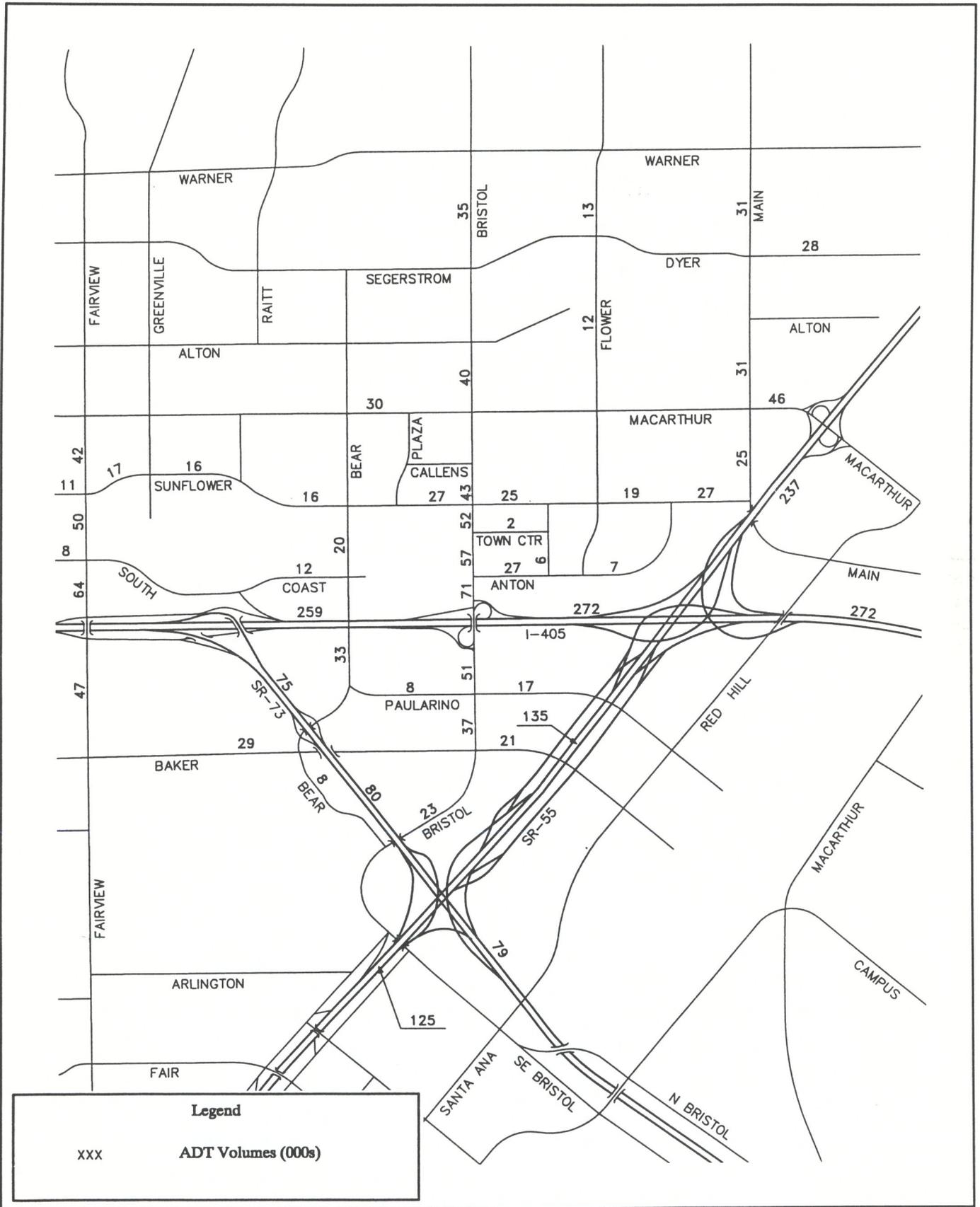
Existing intersection turning movement volumes are shown in Exhibits 5.2-4 and 5.2-5 for the AM and PM peak hours, respectively. The corresponding intersection capacity utilization values (ICUs) are listed in Table 5.2-1. An ICU of .90 represents the maximum desirable capacity utilization, and above 1.00, the theoretical capacity of the intersection is being exceeded.

Table 5.2-1 shows that the intersection of Main Street/Dyer Road has an ICU which exceeds the desirable maximum and the intersections of Bristol Street/Warner Avenue, Main Street/Warner Avenue, and Main Street/Sunflower Avenue are currently operating over their theoretical maximum capacity during the PM peak hour.

An estimate of the amount of traffic generated by the current land uses within the project area is shown in Table 5.2-2.

**TABLE 5.2-1
ICU SUMMARY – EXISTING CONDITIONS**

INTERSECTION		AM	PM	COUNT SOURCE
COSTA MESA				
38.	Fairview & Sunflower	.74	.71	A
41.	Bear & Sunflower	.42	.68	A
42.	Bristol & Sunflower	.61	.80	A
45.	Fairview & South Coast	.74	.82	A
48.	Bristol & Anton	.39	.64	A
51.	Fairview & I-405 NB Ramps	.70	.69	A
53.	Bristol & I-405 NB Off Ramp	.67	.72	B
54.	Bristol & I-405 SB Ramps	.52	.69	B
59.	Bristol & Paularino	.63	.79	A
60.	Bear & SR-73 SB Ramps	.45	.58	A
62.	Bristol & Baker	.61	.76	A
70.	Bear & SR-73 NB Ramp	.45	.62	A
71.	Park Center & Sunflower	.39	.73	D
72.	Ave of the Arts & Sunflower	.41	.41	A
73.	Sakioka/Flower & Sunflower	.43	.51	A
74.	Anton & Sunflower	.41	.36	A
75.	Bristol & Town Center Dr	.41	.67	A
77.	Park Center & Anton	.30	.43	D
78.	Ave of the Arts & Anton	.35	.40	A
79.	Sakioka Dr & Anton	.33	.35	A
SANTA ANA				
101.	Bristol & Warner	.93*	1.03*	B
102.	Main & Warner	.72	1.04*	B
103.	Bristol & Segerstrom	.65	.84	B
104.	Main & Dyer	.72	.94*	B
105.	Bristol & MacArthur	.70	.90	C
106.	Flower & MacArthur	.78	.82	B
107.	Main & MacArthur	.69	.80	B
108.	SR-55 SB Ramps & MacArthur	.74 .80	.58 .72	B
109.	SR-55 NB Ramps & MacArthur	.62 .77	.67	B
110.	Main & Sunflower	.64	1.01*	B
112.	Bear & MacArthur	.78	.78	C
113.	Flower & Segerstrom/Dyer	.67	.67	B
114.	Hutton Centre/MacArthur	.76	.80	B



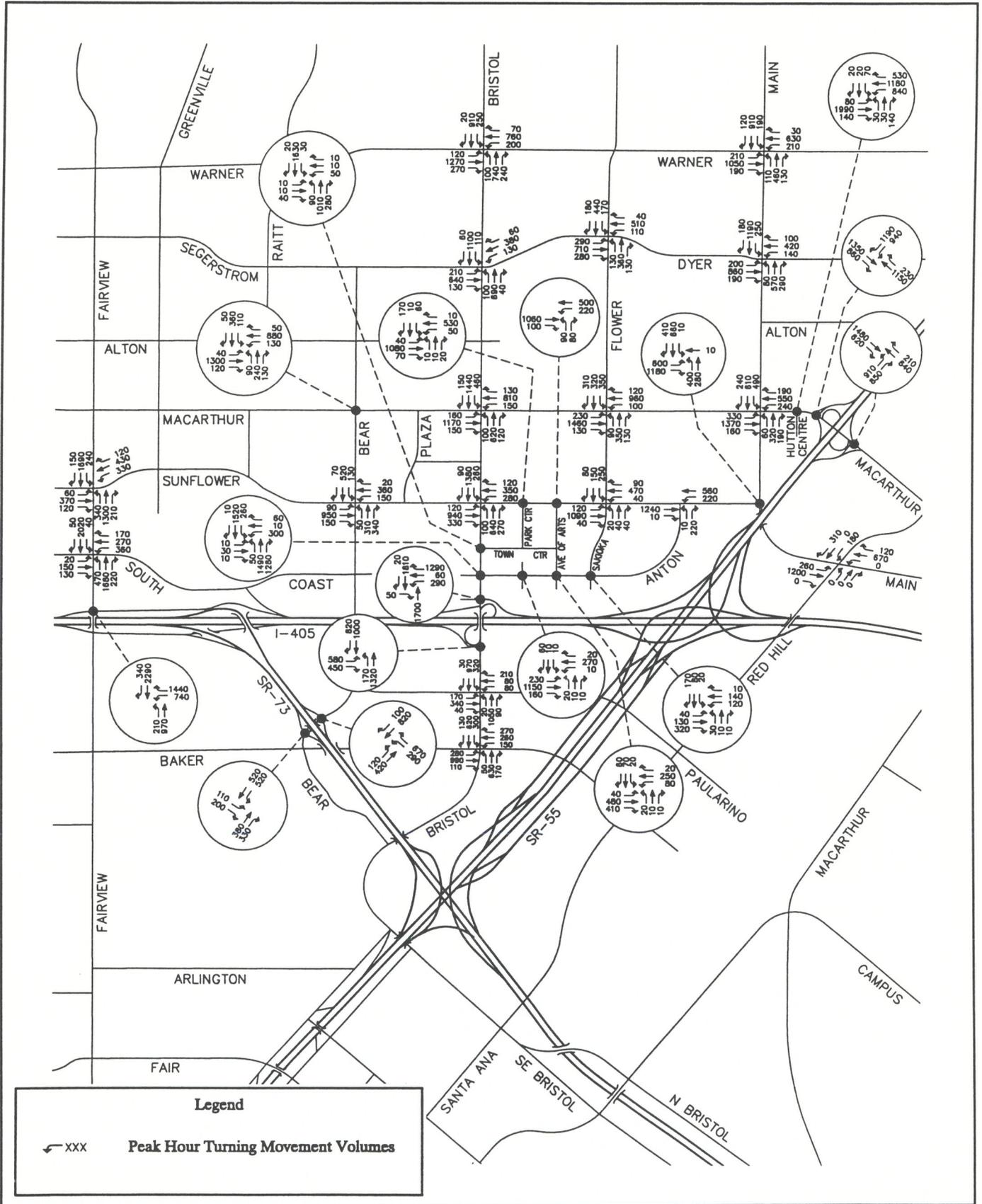
SOURCE: Austin-Foust Associates, Inc., July 2000



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Exhibit 5.2-3
Existing (1999/2000) ADT Volumes

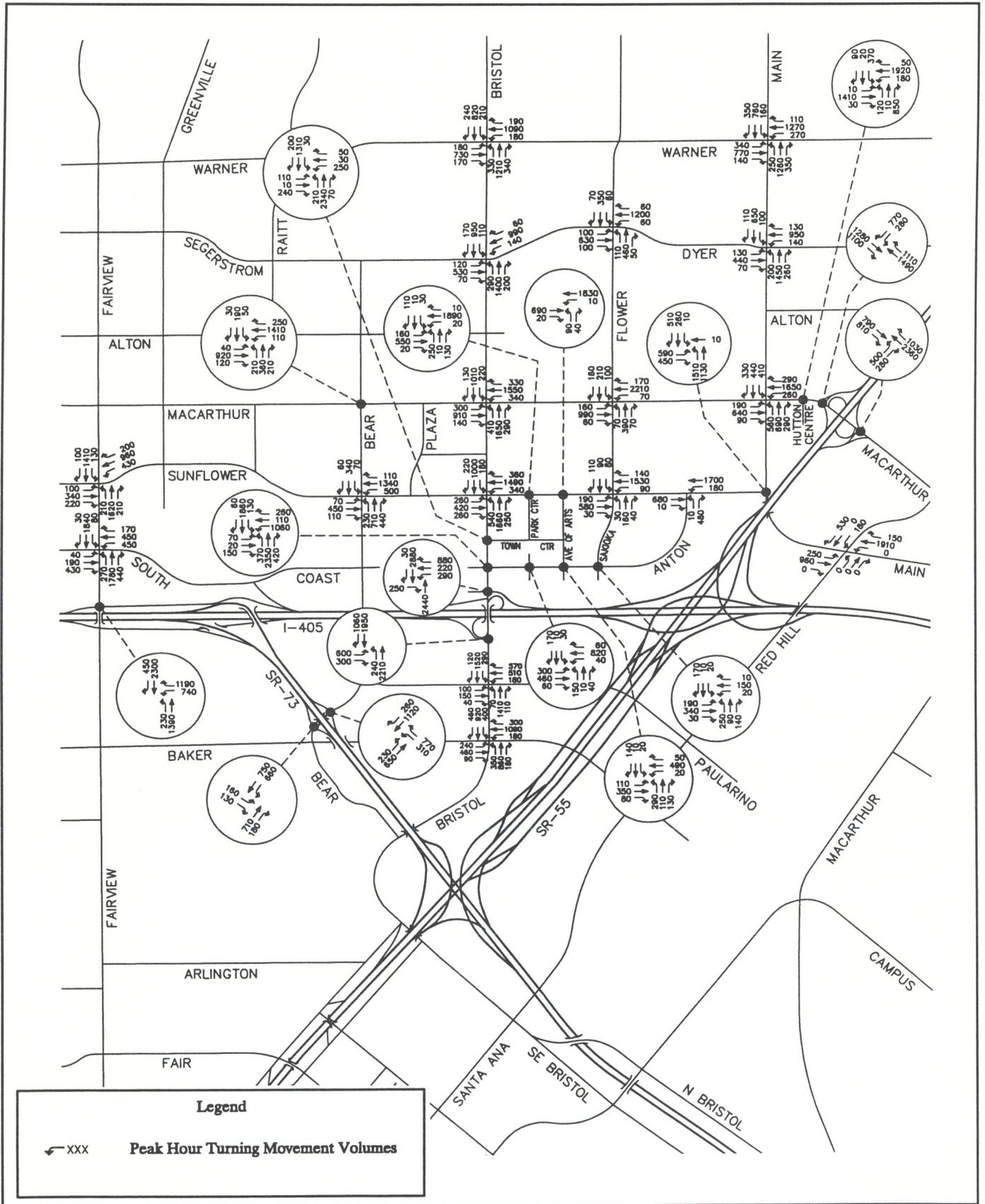
SOUTH COAST PLAZA TOWN CENTER EIR



SOURCE: Austin-Foust Associates, Inc., July 2000



Exhibit 5.2-4 Existing (2000) AM Peak Hour Intersection Volumes



SOURCE: Austin-Foust Associates, Inc., July 2000



Exhibit 5.2-5 Existing (2000) PM Peak Hour Intersection Volumes

INTERSECTION		AM	PM	COUNT SOURCE
IRVINE				
111.	Red Hill & Main**	.42	.80	B
*	Exceeds LOS "D"			
**	South leg closed due to I-405 bridge construction			
Level of Services ranges: .00 - .60 A				
.61 - .70 B				
.70 - .80 C				
.81 - .90 D				
.91 - 1.00 E				
Above 1.00 F				
Count Source: A = City of Costa Mesa, 2000				
B = Traffic Data Services, 2000				
C = Traffic Data Services, 1999				
D = City of Costa Mesa, 1998 adjusted to 2000				
Source: Austin-Foust Associates, Inc., July 2000				

**TABLE 5.2-2
LAND USE AND TRIP GENERATION - EXISTING CONDITIONS**

CMTM*	ZONE LAND USE TYPE	UNITS	AM PEAK HOUR			PM PEAK HOUR			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
12	1. Office	605.23 TSF	829	115	944	151	750	901	6664
	3. Quality Restaurant	8.10 TSF	3	3	6	41	20	61	729
	4. High Turnover Rest	28.94 TSF	140	129	269	189	126	315	3773
	SUB-TOTAL		972	247	1219	381	896	1277	11166
16	1. Office	371.99 TSF	510	71	581	93	461	554	4096
	3. Quality Restaurant	18.27 TSF	7	7	14	92	45	137	1643
	6. Movie Theater	1862.00 SEAT	0	19	19	447	37	484	3277
	SUB-TOTAL		517	97	614	632	543	1175	9016
17	1. Office	464.50 TSF	636	88	724	116	576	692	5114
	7. Performance Theater	3668.00 SEAT	37	0	37	293	73	366	4512
	SUB-TOTAL		673	88	761	409	649	1058	9626
18	1. Office	617.03 TSF	845	117	962	154	765	919	6793
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	24.82 TSF	10	10	20	125	61	186	2233
	5. Hotel	404.00 ROOM	137	89	226	129	117	246	3325
	6. Movie Theater	1700.00 SEAT	0	17	17	408	34	442	2992
	SUB-TOTAL		996	235	1231	825	986	1811	15549
TOTAL	1. Office	2058.75 TSF	2820	391	3211	514	2552	3066	22667
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
	4. High Turnover Rest.	28.94 TSF	140	129	269	189	126	315	3773
	5. Hotel	404.00 ROOM	137	89	226	129	117	246	3325

CMTM*		AM PEAK HOUR			PM PEAK HOUR			ADT	
ZONE	LAND USE TYPE	UNITS	IN	OUT	TOTAL	IN	OUT		TOTAL
	6. Movie Theater	3562.00 SEAT	0	36	36	855	71	926	6269
	7. Performance Theater	3668.00 SEAT	37	0	37	293	73	366	4512
	TOTAL		3158	667	3825	2247	3074	5321	45357

ADT AND PEAK HOUR TRIP RATE SUMMARY									
		AM PEAK HOUR			PM PEAK HOUR			ADT	
ZONE	LAND USE TYPE	UNITS	IN	OUT	TOTAL	IN	OUT		TOTAL
	1. Office ¹	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
	2. Specialty Retail ²	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
	3. Quality Restaurant ¹	TSF	.40	.41	.81	5.02	2.47	7.49	89.95
	4. High Turnover Restaurant ¹	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
	5. Hotel ¹	ROOM	.34	.22	.56	.32	.29	.61	8.23
	6. Movie Theater ³	SEAT	.00	.01	.01	.24	.02	.26	1.76
	7. Performance Theater ⁴	SEAT	.01	.00	.01	.08	.02	.10	1.23
	8. Museum ⁴	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10

*See Appendix C Traffic Analysis Figure 1-4 for Costa Mesa Traffic Model (CMTM) zone boundaries.

Trip Rate Sources: ¹ Institute of Transportation Engineers (ITE), 6th Edition
² San Diego Association of Traffic Generators
³ ITE/CMTM (as used in the previous version of CMTM)
⁴ Field studies and approved by City staff

Source: Austin-Foust Associates, Inc., July 2000

5.2.3 PROJECT AND CUMULATIVE IMPACTS

Thresholds of Significance

For the purpose of identifying those intersections where significant impacts occur and project-related mitigation is warranted, the following criteria will be used:

- Statewide Congestion Management Plans (CMP) specify Level of Service (LOS) E, a peak hour ICU value less than or equal to 1.0, as the operating standard for roadways and intersections on the CMP highway system. An increase of more than 0.03 (3 percent) is considered significant.
- The cities of Costa Mesa and Santa Ana, and Orange County Growth Management Plan use LOS D, an ICU value less than or equal to 0.90, as the lowest acceptable level of service for peak hour intersection volumes. For the cities of Costa Mesa and Santa Ana, if a project causes or worsens the “E” or “F” by an ICU increase of 0.01 or more, the impact is considered significant.
- The proposed project would substantially increase hazard due to a design feature (e.g. sharp curves of dangerous intersections) or incompatible uses.
- A significant impact would occur if the proposed project would result in inadequate emergency access.

Costa Mesa Planning Policies

The following discussion addresses the South Coast Plaza Town Center (SCPTC) project's consistency with goals, objectives, and policies of the City of Costa Mesa General Plan.

The proposed SCPTC project is consistent with the applicable transportation policies of the General Plan Transportation Element and Growth Management Element. As previously identified, the project area is currently served by transit service; the SCPTC project would not interfere with the continuance of bus service to the area. The individual components of the project—Two Town Center, Segerstrom Center for the Arts, and Balance of Town Center would provide non-vehicular amenities, such as bicycle facilities and pedestrian walkways, as appropriate. In addition, the project will be required to comply with the city-mandated Transportation Demand Management Program, which requires that applicants identify and implement measures to reduce vehicle trips.

This traffic section identifies the expected project-specific and long-range cumulative increases in vehicular traffic that are forecast for the traffic study area. The traffic study finds that all but one City of Costa Mesa intersection can be mitigated to a level that is considered less than significant (LOS D). The project contributes to a significant and unavoidable level of service at two intersections in the City of Santa Ana. However, proposed mitigation measures would reduce impacts at these two intersections to levels below long-range conditions (i.e. 2020 General Plan) both with and without the project.

With respect to the General Plan, a General Plan Land Use Element Amendment and Specific Plan Amendment to maintain consistency between land uses proposed under the project and General Plan will be required. A Circulation Element amendment to delete a portion of Town Center Drive between Park Center Drive and Avenue of the Arts will also be required. While the proposed project would allow an increase in development on the site beyond that which would occur under the existing land use designations, this increase would reinforce SCPTC as a "Cultural Arts Center", consistent with various General Plan goals, policies and objectives. As noted above and addressed in the traffic analysis to follow, vehicular traffic impacts can be fully mitigated with the exception of one intersection in Costa Mesa and two intersections in Santa Ana. Significant impacts at these intersections would occur for long-range conditions with and without the proposed project.

Southern California Association of Governments Planning Policies

The following discussion addresses the South Coast Plaza Town Center (SCPTC) project's consistency with goals, objectives and policies of SCAG's Regional Comprehensive Plan and Guide: Growth Management Chapter and Air Quality Chapter and SCAG's Regional Transportation Plan. The SCPTC project is considered generally consistent with the goals and objectives of the SCAG plans. The SCPTC site is already developed as urban commercial center, supported by major roadways and adjacent I-405. This Program EIR provides an environmental evaluation of the project's consistency with plans and

policies, and addresses the topics of air quality, noise, traffic, jobs/housing balance, and land use. As noted above, the project will selectively incorporate bicycle and pedestrian facilities into the project design, and will be required to comply with the City's Transportation Demand Management Program.

Project Impact on Non-Vehicular Transportation

Public Transit. The proposed project will not interfere with the provision of bus service to the project area. Bus stops and routes are established by OCTA. Existing and proposed land uses in the project area suggest the continued need for service.

Bikeways. As noted, there is an existing bike trail along Anton Boulevard east of Avenue of the Arts, and planned bike lanes along Sunflower Avenue and Avenue of the Arts, extending across I-405 with a future grade-separation. The project will support the need and use of these facilities, and will selectively provide additional on-site bicycle accommodations concurrent with project development.

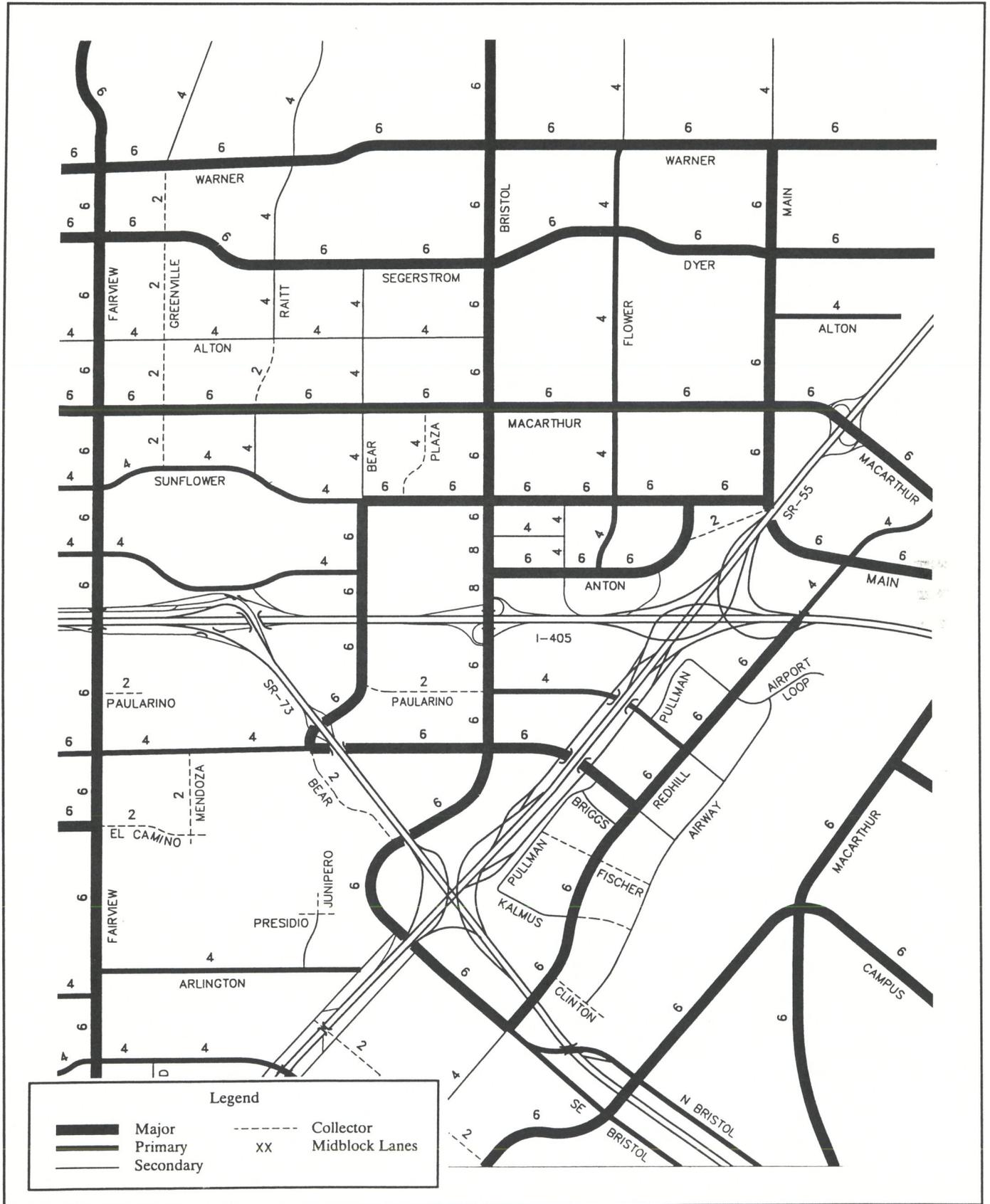
Pedestrian Access. Pedestrian walkways will be constructed within the components of the project as part of site development. The project would not constrain or limit pedestrian movement within SCPTC, either during construction or operational phases. Existing and planned sidewalks and walkways will maintain internal linkages with onsite land uses, as well as provide linkages to offsite areas.

Long-Range Conditions

Long range roadway system improvements that will affect the analysis area include additions and improvements to the regional transportation system and localized improvements that directly affect circulation in the project vicinity. Long-range roadway classifications as shown in the City's General Plan are illustrated in Exhibit 5.2-6.

A major improvement to the regional transportation system is the planned I-405/SR-55 interchange project. This major improvement project involves the construction of new freeway lanes and on/off ramps along I-405 and SR-55 in the immediate vicinity of their interchange. One of the major benefits of the project is an improvement to future traffic flow due to the elimination of most of the current weaving areas. Other significant improvements in this area include the addition of a new off-ramp from the northbound I-405 to Avenue of the Arts and the addition of a new on ramp from Anton Boulevard (just east of Sakioka Drive) to the northbound I-405. Exhibit 5.2-7 illustrates the planned improvements.

Localized improvements consist of the construction of additional lanes at area intersections in accordance with the City of Costa Mesa's General Plan. The City has a Transportation Improvement Program (TIP) which collects fees from new developments in order to fund the completion of the City's Circulation System. These intersection improvements are illustrated in Exhibit 5.2-8.



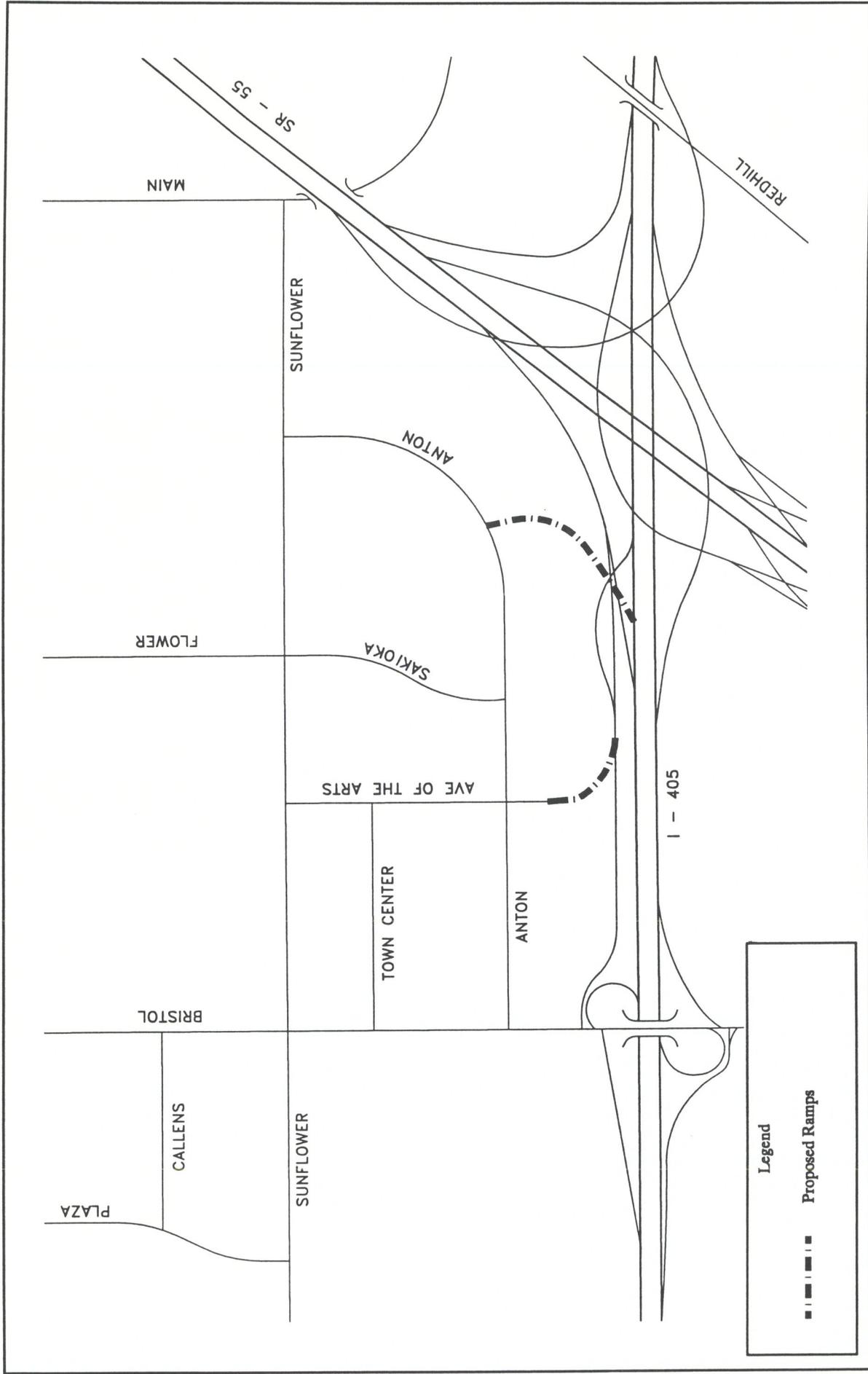
SOURCE: Austin-Foust Associates, Inc., July 2000



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Exhibit 5.2-6 Long-Range Circulation System

SOUTH COAST PLAZA TOWN CENTER EIR



SOURCE: Austin-Foust Associates, Inc., July 2000

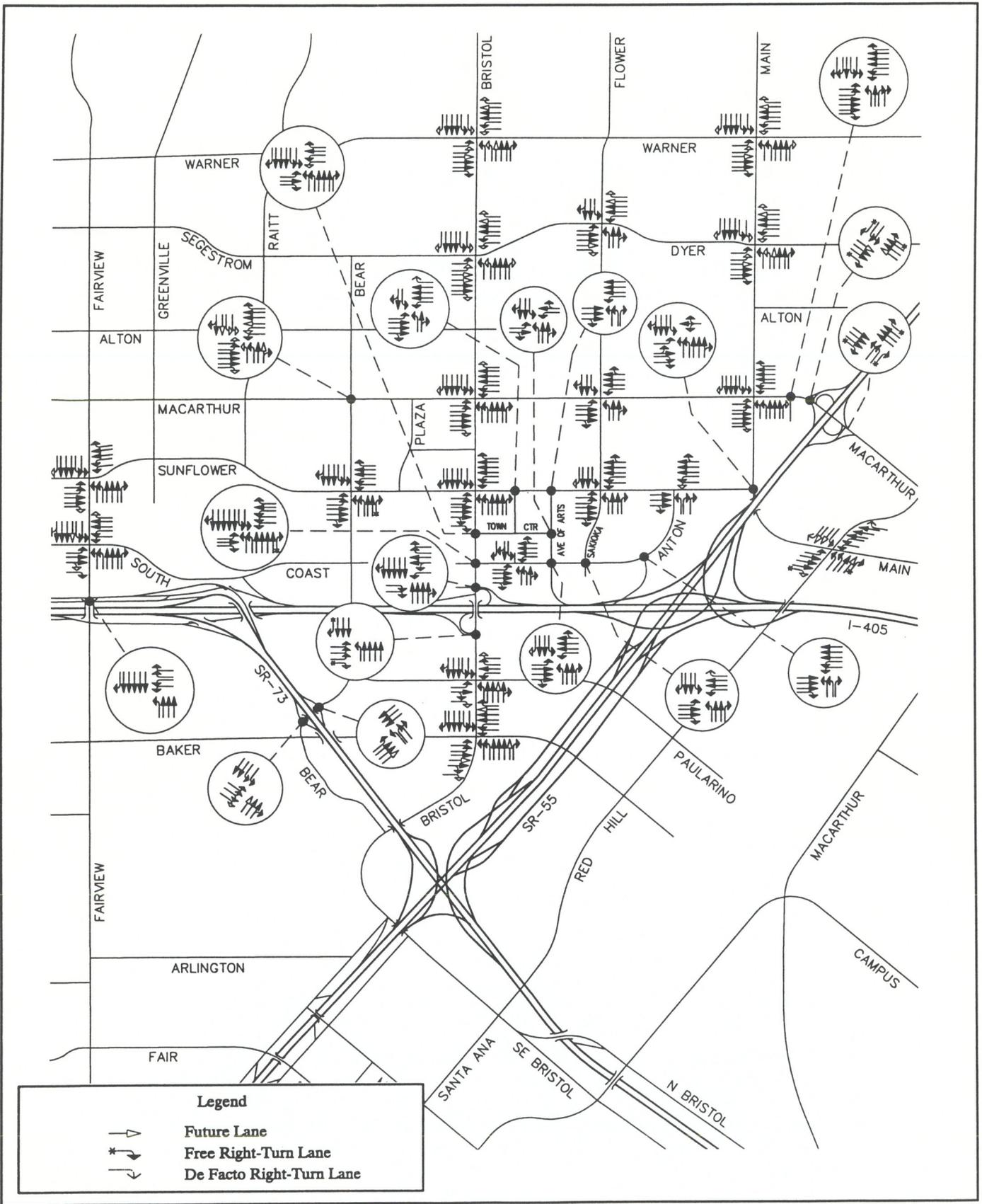


Michael Brandman Associates

00800014 • 6/2000

Exhibit 5.2-7 Freeway Access Plan

SOUTH COAST PLAZA TOWN CENTER EIR



Legend	
	Future Lane
	Free Right-Turn Lane
	De Facto Right-Turn Lane

SOURCE: Austin-Foust Associates, Inc., July 2000



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Exhibit 5.2-8

Long-Range Intersection Lane Configurations

Long range land use development consists of the City of Costa Mesa's General Plan land use which represents buildout conditions for the area as well as the long-range land uses of the other jurisdictions that are partially covered by the Costa Mesa traffic model. A listing of cumulative projects within the vicinity of the study area is provided in Table 5.2-3. The long-range traffic forecasts include these projects plus additional development as quantified in the traffic model database for General Plan Buildout.

**TABLE 5.2-3
CUMULATIVE PROJECT SUMMARY**

PROJECT	LAND USE TYPE	EXISTING LAND USE	BUILDOUT LAND USE
COSTA MESA			
Home Ranch	Industrial Park	42,495 sf	961,060 252,650 sf
	Medium Density Residential		366 du 464 d.u.
	Office		791,050
	IKEA		308,000
Harbor Gateway	Industrial Park	784,684 sf	999,026 sf
Automobile Club			
Processing Center	Urban Center Commercial	717,000 sf	967,000 sf
Metro Pointe	High Density Residential	296 apt.	296 apt.
	Urban Center Commercial	659,100 sf	671,600 sf
South Coast Plaza (Bristol Street)	Regional Commercial	2,195,345 sf	2,750,000 sf
South Coast Plaza (Bear Street)	Regional Commercial	643,338 sf	690,350 sf
South Coast Plaza Town Center	Urban Center Commercial	2,801,368 sf	3,000,000 sf
South Coast Metro Center	Urban Center Commercial	749,289 sf	1,405,800 sf
Sakioka Farms	High Density Residential	none	40 acres, 1400 DU d.u.
(Lots 1&2)	Urban Center Commercial	none	33 acres, 863,000 sf
Harbor Center	General Commercial	n/a	336,072 sf
Mesa Verde Residential	Medium Density Residential	none	11 acres
SANTA ANA			
Armstrong Ranch	Single Family Residential	none	90 acres 630 d.u.
MacArthur Place	Office/Comm/Hotel	n/a	3,791,000 sf
	Residential	n/a	400 du
Pactel Office Tower	Office	n/a	180,000 sf
Hutton Centre	Hotel	n/a	240 rooms
	Restaurant	n/a	5,000 sf
	Conference	n/a	4,740 sf
Lake Center	Warehouse/Industrial	n/a	101,460 sf
	Medical Office	n/a	45,800 sf
	Retail Commercial	n/a	17,100 sf
	Restaurant	n/a	6,840 sf
	Office	399,000 sf	399,000 sf
Ewing Development	Industrial	n/a	280,000 sf
	Retail	n/a	n/a
Lucky/Sav-on Market	Grocery	n/a	69,000 sf
Food 4 Less	Grocery	n/a	51,000 sf
SPS Technologies	Business Center	n/a	90,000 sf
Kaiser Family Practice Center	Medical Center	n/a	80,000 sf
Notes:	sf = square feet du = dwelling units n/a = not available		
Source: Austin-Foust Associates, Inc., July 2000			

Long-Range Traffic Impact Analysis

This section focuses on long range traffic conditions and project impacts in the study area. The forecast data presented here is based on buildout of the proposed project, and buildout of the surrounding land uses. These long-range buildout conditions are also sometimes referred to as year 2020 conditions.

General Plan Traffic Forecast

To illustrate the long-range General Plan traffic conditions, an analysis was made in which General Plan land use is assumed for the entire project area. Table 5.2-4 summarizes the land use and trip generation characteristics for this scenario, and shows that if the area were to continue to be developed in accordance with the current General Plan, it would generate about 3,940 trips in the AM peak hour, about 5,540 trips in the PM peak hour and approximately 48,120 total daily trips. ADT volumes for this scenario are given in the Exhibit 5.2-9 and the corresponding peak hour volumes are shown in Exhibits 5.2-10 and 5.2-11.

An ICU comparison of the General Plan land use to the existing conditions presented previously is given in Table 5.2-5. The intersection lane configurations used for these ICUs were illustrated in Exhibit 5.2-8 and assume the arterial improvements contained in the City of Costa Mesa's General Plan for intersections within that City's jurisdiction. For the Cities of Santa Ana and Irvine, improvements included in those City's General Plans were included. Table 5.2-5 shows that there are a number of intersections forecast to exceed LOS "D" in 2020.

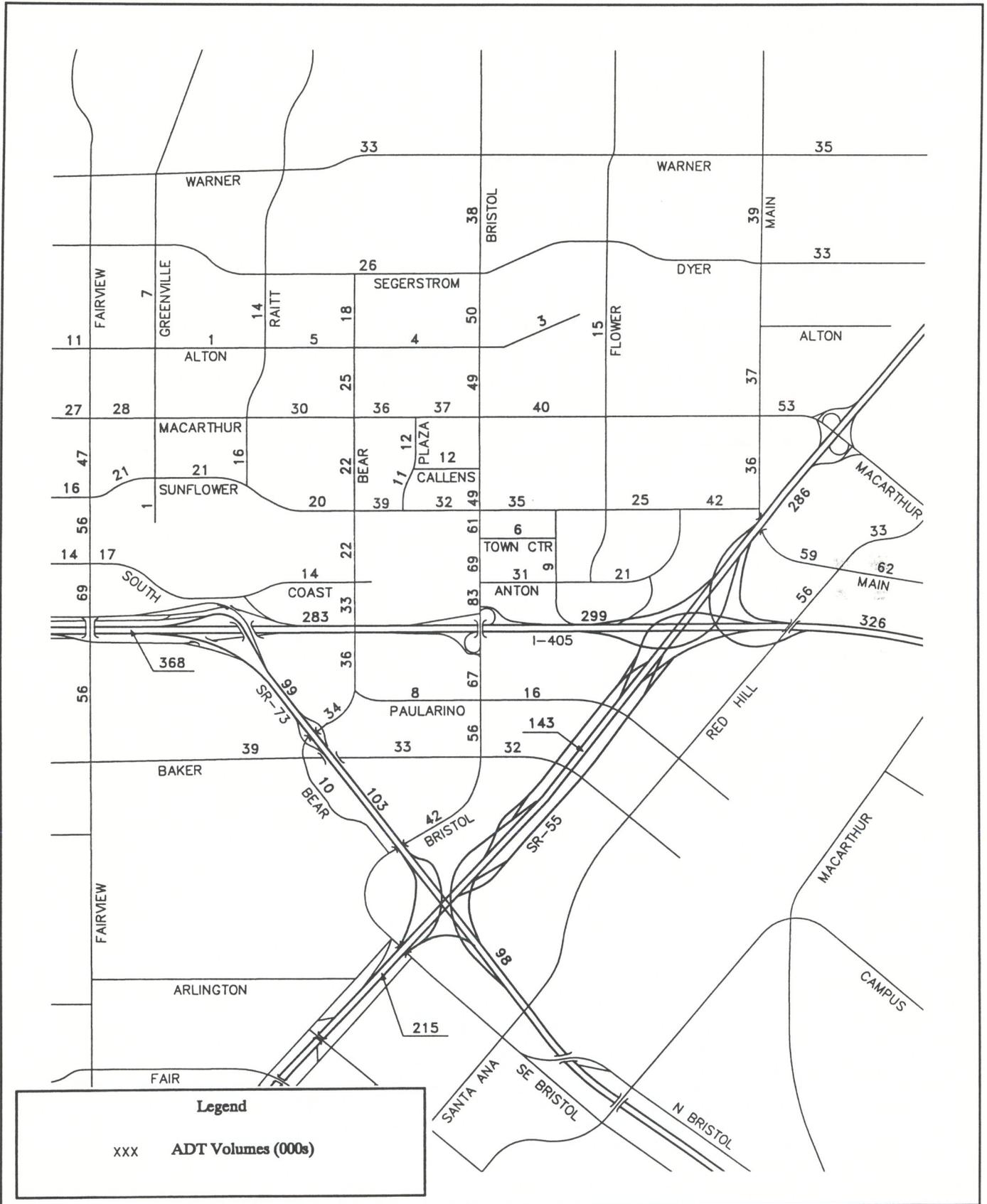
These intersections are:

Costa Mesa

- 42. Bristol & Sunflower (PM peak/LOS F)
- 45. Fairview & South Coast (PM peak/LOS E)
- 62. Bristol & Baker (PM peak/LOS E)

Santa Ana

- 103. Bristol & Segerstrom (PM peak/LOS F)
- 104. Main & Dyer (PM peak/LOS E)
- 105. Bristol & MacArthur (AM & PM peak/LOS E)
- 106. Flower & MacArthur (AM & PM peak/LOS F)
- 107. Main & MacArthur (AM & PM peak/LOS F)
- 109. SR-55 NB Ramps & MacArthur (AM peak/LOS E)
- 110. Main & Sunflower (AM & PM peak/LOS F)
- 114. Hutton Centre/MacArthur (AM & PM peak/LOS F)

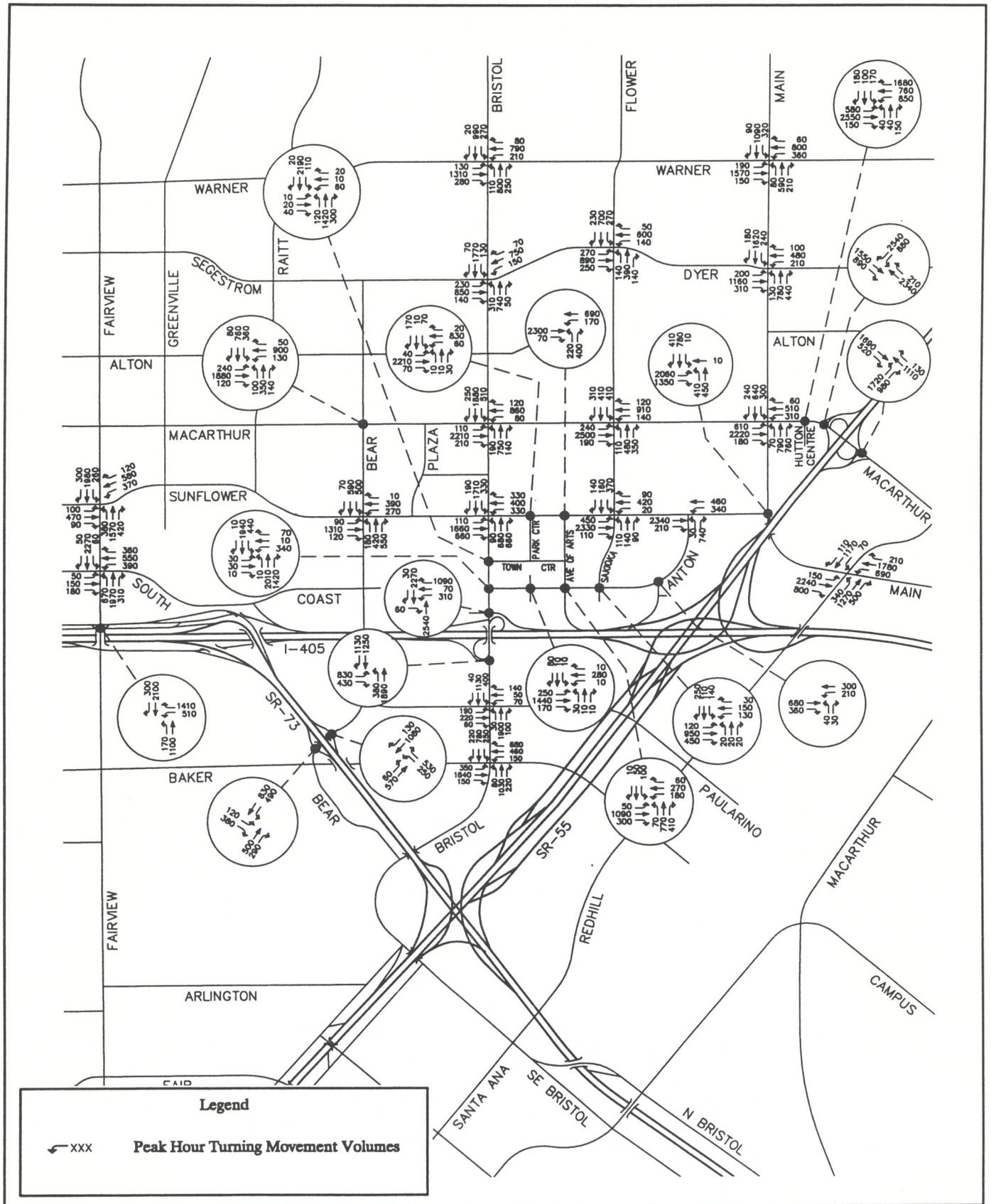


SOURCE: Austin-Foust Associates, Inc., July 2000

Exhibit 5.2-9

Long-Range ADT Volumes - General Plan Land Use On-Site



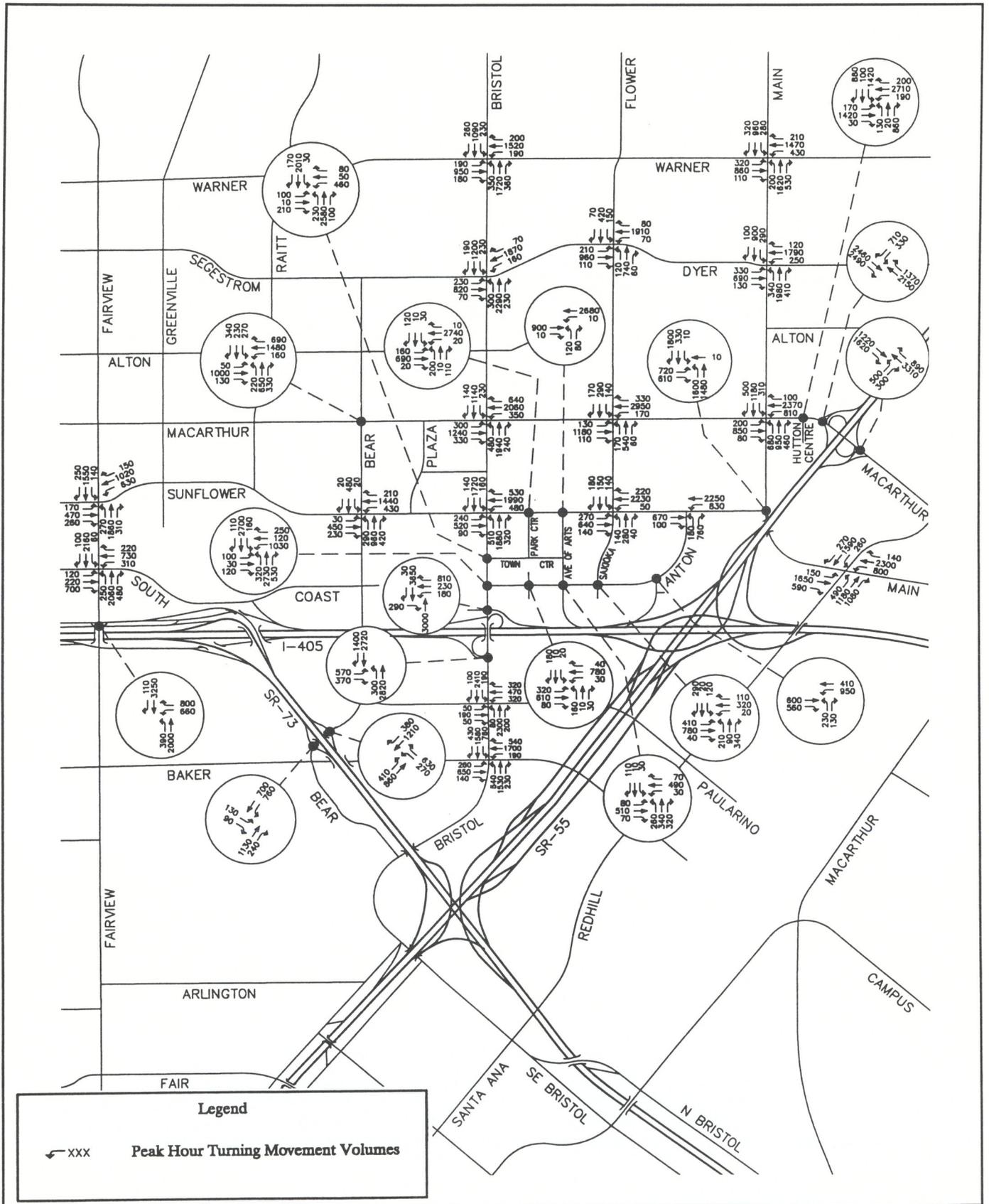


SOURCE: Austin-Foust Associates, Inc., July 2000

Exhibit 5.2-10



Long-Range AM Peak Hour Intersection Volumes - General Plan Land Use On-Site



SOURCE: Austin-Foust Associates, Inc., July 2000

Exhibit 5.2-11



Long-Range PM Peak Hour Intersection Volumes - General Plan Land Use On-Site

Irvine

111. Red Hill & Main (AM & PM peak/LOS E)

**TABLE 5.2-4
LAND USE AND TRIP GENERATION – CURRENT GENERAL PLAN**

CMTM			AM PEAK HOUR			PM PEAK HOUR			ADT
ZONE*	LAND USE TYPE	UNITS	IN	OUT	TOTAL	IN	OUT	TOTAL	
12	1. Office	605.23 TSF	829	115	944	151	750	901	6664
	3. Quality Restaurant	8.10 TSF	3	3	6	41	20	61	729
	4. High Turnover Rest	28.94 TSF	140	129	269	189	126	315	3773
	SUB-TOTAL		972	247	1219	381	896	1277	11166
16	1. Office	371.99 TSF	510	71	581	93	461	554	4096
	3. Quality Restaurant	18.27 TSF	7	7	14	92	45	137	1643
	6. Movie Theater	1862.00 SEAT	0	19	19	447	37	484	3277
	SUB-TOTAL		517	97	614	632	543	1175	9016
17	1. Office	464.50 TSF	636	88	724	116	576	692	5114
	5. Hotel	186.00 ROOM	63	41	104	60	54	114	1531
	7. Performance Theater	4668.00 SEAT	47	0	47	373	93	466	5742
	SUB-TOTAL		746	129	875	549	723	1272	12387
18	1. Office	617.03 TSF	845	117	962	154	765	919	6793
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	24.82 TSF	10	10	20	125	61	186	2233
	5. Hotel	404.00 ROOM	137	89	226	129	117	246	3325
	6. Movie Theater	1700.00 SEAT	0	17	17	408	34	442	2992
	SUB-TOTAL		996	235	1231	825	986	1811	15549
TOTAL	1. Office	2058.75 TSF	2820	391	3211	514	2552	3066	22667
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
	4. High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
	5. Hotel	590.00 ROOM	200	130	330	189	171	360	4865
	6. Movie Theater	3562.00 SEAT	0	36	36	855	71	926	6269
	7. Performance Theater	4668.00 SEAT	47	0	47	373	93	466	5742
TOTAL			3231	708	3939	2387	3148	5535	48118

ADT AND PEAK HOUR TRIP RATE SUMMARY									
			AM PEAK HOUR			PM PEAK HOUR			ADT
ZONE*	LAND USE TYPE	UNITS	IN	OUT	TOTAL	IN	OUT	TOTAL	
	1. Office	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
	2. Specialty Retail	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
	3. Quality Restaurant	TSF	.40	.41	.81	5.02	2.47	7.49	89.95
	4. High Turnover Restaurant	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
	5. Hotel	ROOM	.34	.22	.56	.32	.29	.61	8.23

ADT AND PEAK HOUR TRIP RATE SUMMARY									
ZONE*	LAND USE TYPE	UNITS	AM PEAK HOUR			PM PEAK HOUR			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
	6. Movie Theater	SEAT	.00	.01	.01	.24	.02	.26	1.76
	7. Performance Theater	SEAT	.01	.00	.01	.08	.02	.10	1.23
	8. Museum	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10

* See Appendix C Traffic Analysis Figure 1-4 for zone boundaries

Source: Austin-Foust Associates, Inc., July 2000.

TABLE 5.2-5
ICU SUMMARY - GENERAL PLAN CONDITIONS

LOCATION	EXISTING		2020 GENERAL PLAN	
	AM	PM	AM	PM
COSTA MESA				
38. Fairview & Sunflower	.74	.71	.80	.80
41. Bear & Sunflower	.42	.68	.67	.77
42. Bristol & Sunflower	.61	.80	.89	1.01*
45. Fairview & South Coast	.74	.82	.77	.91*
48. Bristol & Anton	.39	.64	.54	.71
51. Fairview & I-405 NB Ramps	.70	.69	.71	.86
53. Bristol & I-405 NB Ramps	.67	.72	.74	.80
54. Bristol & I-405 SB Ramps	.52	.69	.67	.88
59. Bristol & Paularino	.63	.79	.62	.89
60. Bear & SR-73 SB Ramps	.45	.58	.39	.57
62. Bristol & Baker	.61	.76	.72	.93*
70. Bear & SR-73 NB Ramp	.45	.62	.45	.76
71. Park Center & Sunflower	.39	.73	.64	.88
72. Ave of the Arts & Sunflower	.41	.41	.77	.60
73. Sakioka/Flower & Sunflower	.43	.51	.80	.77
74. Anton & Sunflower	.41	.36	.79	.58
75. Bristol & Town Center Dr	.41	.67	.53	.72
76. Ave of Arts & Town Center	--	--	.55	.50
77. Park Center & Anton	.30	.43	.37	.43
78. Ave of the Arts & Anton	.35	.40	.70	.38
79. Sakioka Dr & Anton	.33	.35	.48	.56
80. I-405 SB On-Ramp & Anton	--	--	.30	.67
SANTA ANA				
101. Bristol & Warner	.93*	1.03*	.62	.82
102. Main & Warner	.72	1.04*	.71	.85
103. Bristol & Segerstrom	.65	.84	.72	1.01*
104. Main & Dyer	.72	.94*	.71	.98*
105. Bristol & MacArthur	.70	.90	.94*	.99*
106. Flower & MacArthur	.78	.82	1.17*	1.04*
107. Main & MacArthur	.69	.80	1.13*	1.07*
108. SR-55 SB Ramps & MacArthur	.74 .80	.58 .72	.79	.63
109. SR-55 NB Ramps & MacArthur	.62 .77	.67	.92*	.86
110. Main & Sunflower	.64	1.01*	1.07*	1.85*
112. Bear & MacArthur	.78	.78	.74	.85

LOCATION	EXISTING		2020 GENERAL PLAN	
	AM	PM	AM	PM
113. Flower & Segerstrom/Dyer	.67	.67	.70	.88
114. Hutton Centre/MacArthur	.76	.80	1.31*	1.32*
IRVINE				
111. Red Hill & Main	.42	.80	.98*	.99*
* Exceeds LOS "D"				
Note: 2020 General Plan conditions include the roadway improvements as shown by each City's General Plan				
Level of service ranges:				
	.00 - .60 A			
	.61 - .70 B			
	.71 - .80 C			
	.81 - .90 D			
	.91 - 1.00 E			
	Above 1.00 F			
Source: Austin-Foust Associates, Inc., July 2000.				

Project Impact Analysis

Land use and trip generation for the proposed Town Center development is summarized in Table 5.2-6. Trip generation for the entire project is estimated to be approximately 10,000 average daily trips of which about 1,200 occur in the AM peak hour and about 1,050 occur in the PM peak hour. This trip generation is in addition to that which is allowed under the current General Plan, as shown in the previous section. Table 5.2-7 shows the total amount of land use and trip generation for the General Plan plus the proposed project.

ADT volumes in the analysis area for 2020 buildout with project are illustrated in Exhibit 5.2-12 and the corresponding peak hour volumes in Exhibits 5.2-13 and 5.2-14. Exhibits that show the net change in peak hour turning movement volumes are Exhibits 5.2-15 and 5.2-16.

Comparative with-and-without project long-range ICUs are summarized in Table 5.2-8. Based on the previously defined thresholds of significance, the proposed project is forecast to have significant impacts at the following intersections:

Costa Mesa Intersections

- | | |
|----------------------------|-----------------------------|
| 42. Bristol & Sunflower | 59. Bristol & Paularino |
| 45. Fairview & South Coast | 71. Park Center & Sunflower |

Santa Ana Intersections

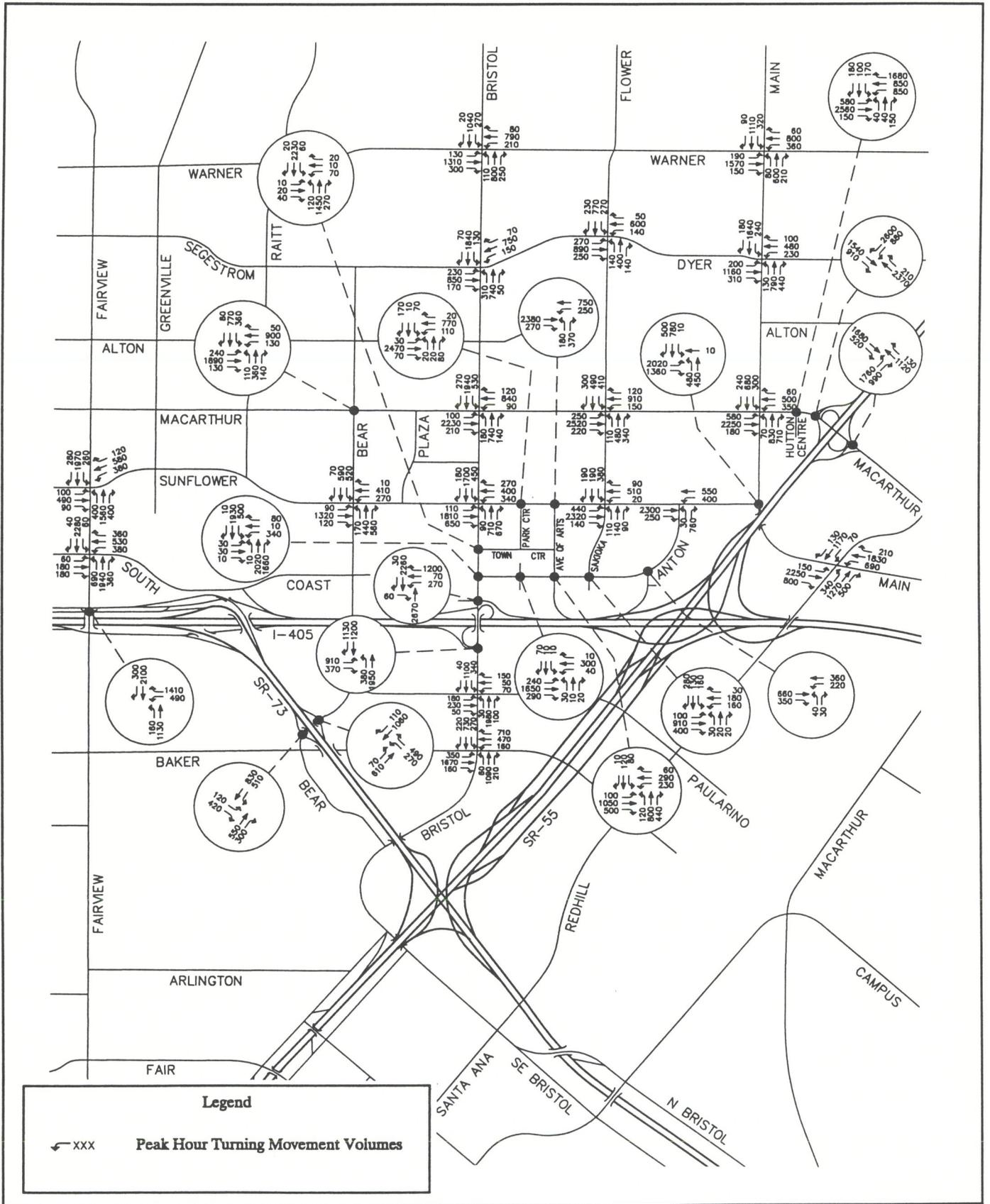
- | | |
|---------------------------|---------------------------------|
| 103. Bristol & Segerstrom | 107. Main & MacArthur |
| 105. Bristol & MacArthur | 109. SR-55 NB Ramps & MacArthur |
| 106. Flower & MacArthur | 110. Main & Sunflower |

Irvine

111. Red Hill & Main

**TABLE 5.2-6
LAND USE AND TRIP GENERATION – PROPOSED PROJECT**

CMTM			AM PEAK HOUR			PM PEAK HOUR			ADT
ZONE*	LAND USE TYPE	UNITS	IN	OUT	TOTAL	IN	OUT	TOTAL	
12	1. Office	300.00 TSF	411	57	468	75	372	447	3303
	SUB-TOTAL		411	57	468	75	372	447	3303
16	1. Office	255.00 TSF	349	48	397	64	316	380	2808
	SUB-TOTAL		349	48	397	64	316	380	2808
17	5. Hotel	-186.00 ROOM	-63	-41	-104	-60	-54	-114	-1531
	7. Performance Theater	2640.00 SEAT	26	0	26	211	53	264	3247
CMTM			AM PEAK HOUR			PM PEAK HOUR			ADT
ZONE*	LAND USE TYPE	UNITS	IN	OUT	TOTAL	IN	OUT	TOTAL	
	8. Museum	140.00 TSF	165	8	173	49	204	253	2534
	SUB-TOTAL		128	-33	95	200	203	403	4250
18	1. Office	100.00 TSF	137	19	156	25	124	149	1101
	5. Hotel	186.00 ROOM	63	41	104	60	54	114	15
	6. Movie Theater	1700.00 SEAT	0	-17	-17	-408	-34	-442	-2992
	SUB-TOTAL		200	43	243	-323	144	-179	-360
TOTAL	1. Office	655.00 TSF	897	124	1021	164	812	976	7212
	6. Movie Theater	-1700.00 SEAT	0	-17	-17	-408	-34	-442	-2992
	7. Performance Theater	2640.00 SEAT	26	0	26	211	53	264	3247
	8. Museum	140.00 TSF	165	8	173	49	204	253	2534
	TOTAL		1088	115	1203	16	1035	1051	10001
ADT AND PEAK HOUR TRIP RATE SUMMARY									
			AM PEAK HOUR			PM PEAK HOUR			ADT
ZONE*	LAND USE TYPE	UNITS	IN	OUT	TOTAL	IN	OUT	TOTAL	
	1. Office	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
	2. Specialty Retail	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
	3. Quality Restaurant	TSF	.40	.41	.81	5.02	2.47	7.49	89.95
	4. High Turnover Restaurant	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
	5. Hotel	ROOM	.34	.22	.56	.32	.29	.61	8.23
	6. Movie Theater	SEAT	.00	.01	.01	.24	.02	.26	1.76
	7. Performance Theater	SEAT	.01	.00	.01	.08	.02	.10	1.23
	8. Museum	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10
*See Appendix C-Traffic Analysis Figure 1-4 for zone boundaries Source: Austin-Foust Associates, Inc., July 2000.									

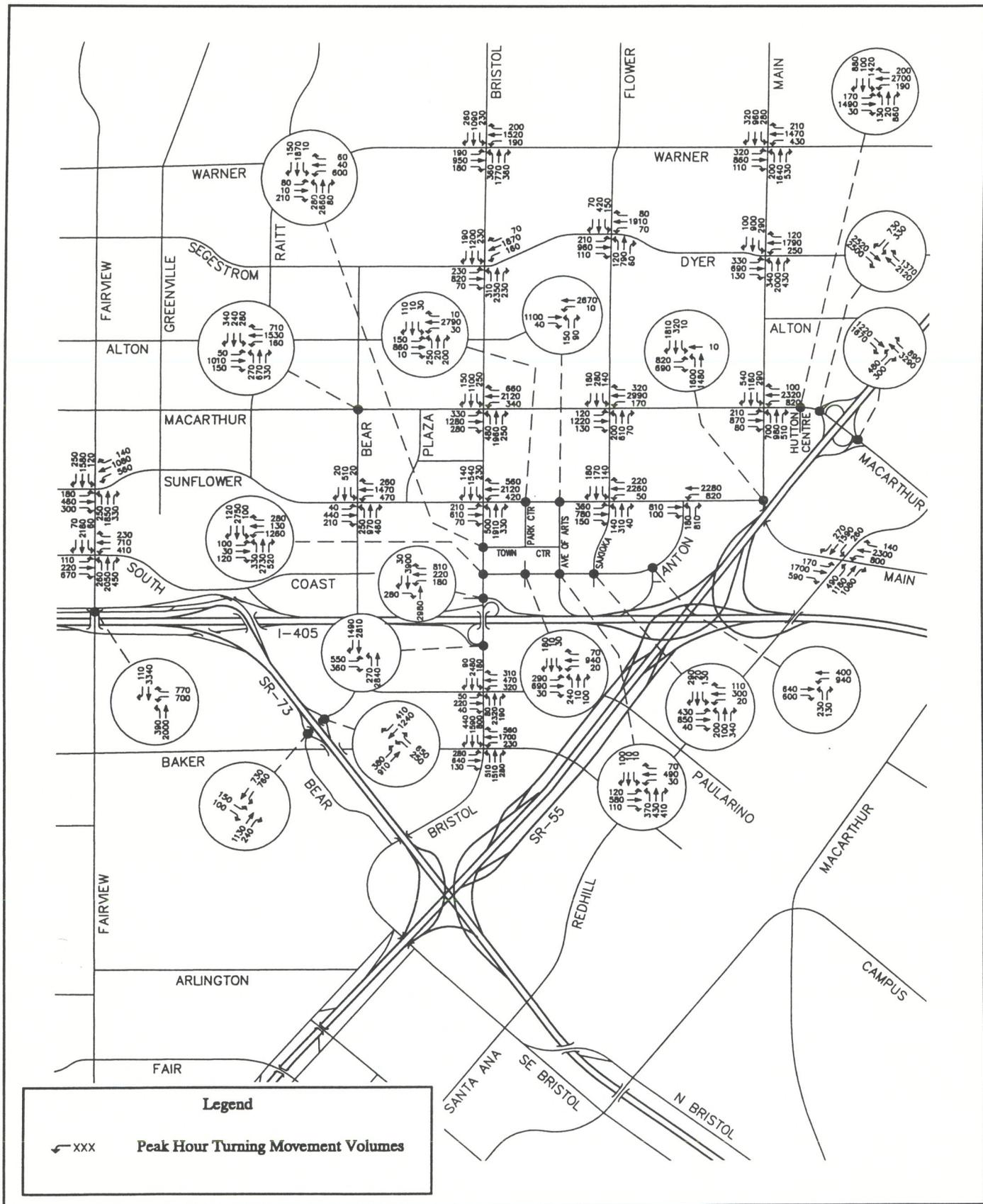


SOURCE: Austin-Foust Associates, Inc., July 2000

Exhibit 5.2-13

Long-Range AM Peak Hour Intersection Volumes - With Proposed Project



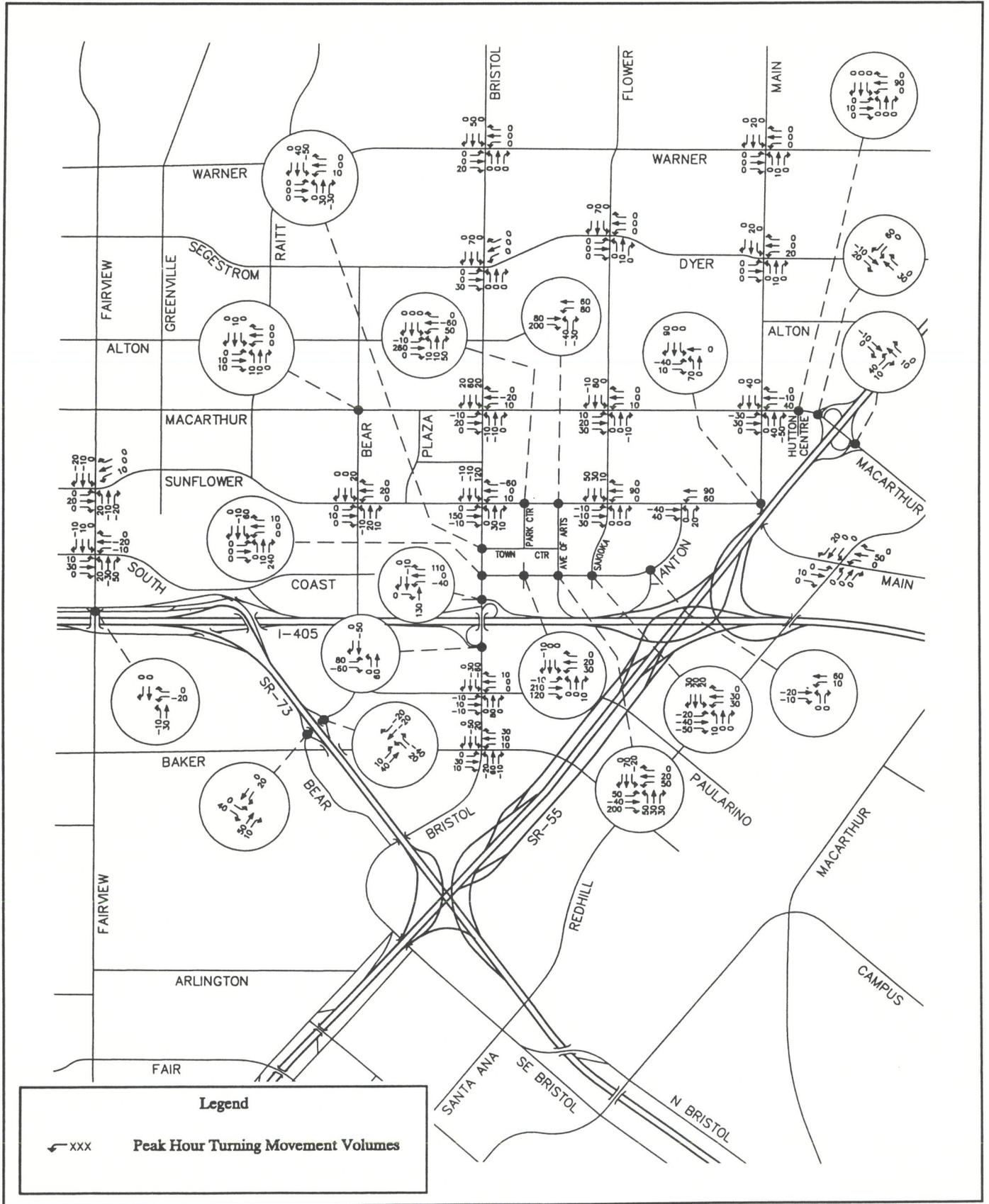


SOURCE: Austin-Foust Associates, Inc., July 2000

Exhibit 5.2-14



Long-Range PM Peak Hour Intersection Volumes - With Proposed Project

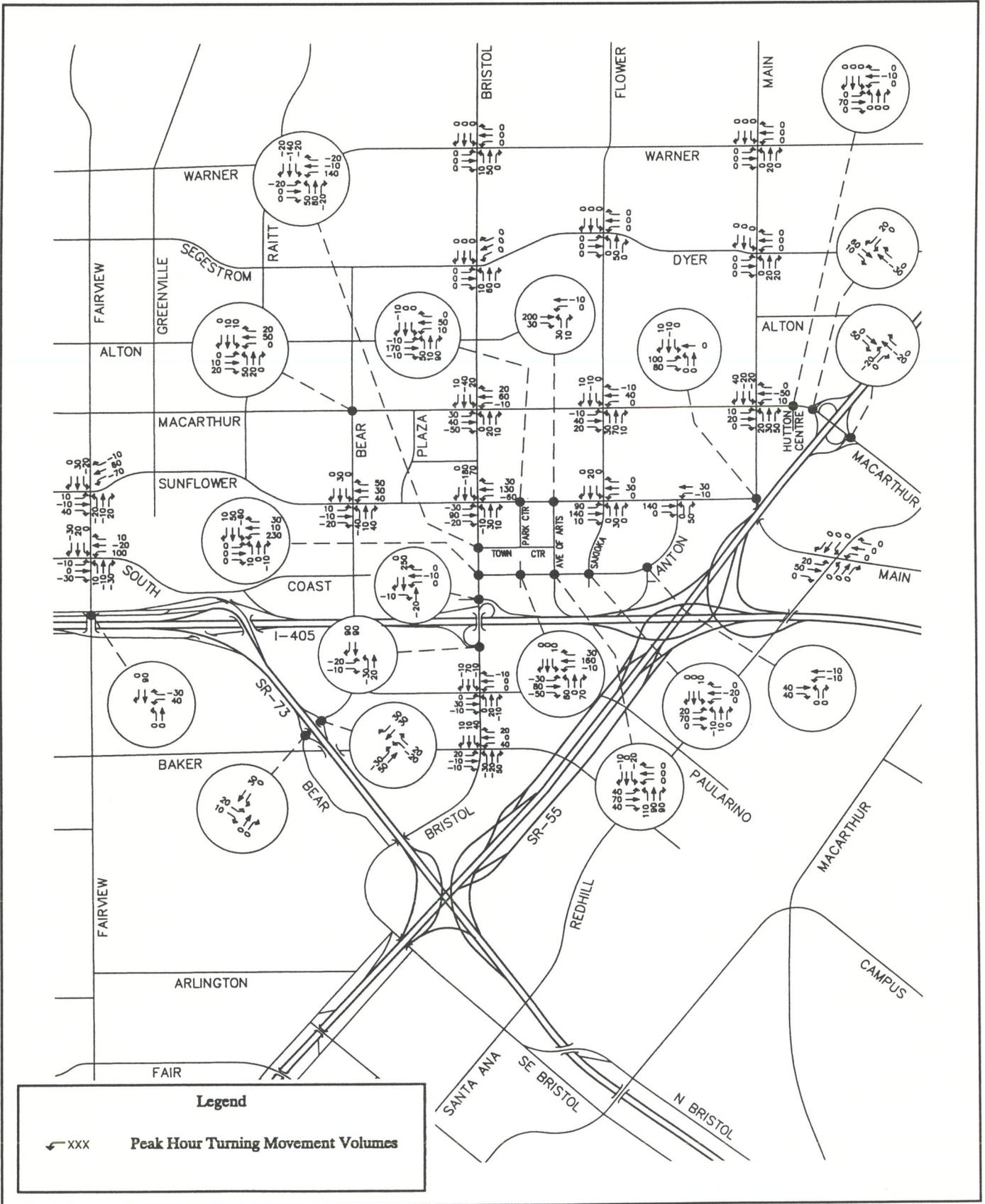


SOURCE: Austin-Foust Associates, Inc., July 2000

Exhibit 5.2-15

Long-Range AM Peak Hour Intersection Volumes - Net Change in Trips (Due to Project)





SOURCE: Austin-Foust Associates, Inc., July 2000

Exhibit 5.2-16

Long-Range PM Peak Hour Intersection Volumes - Net Change in Trips (Due to Project)



**TABLE 5.2-7
LAND USE AND TRIP GENERATION - GENERAL PLAN PLUS PROPOSED PROJECT**

CMTM	ZONE*	LAND USE TYPE	UNITS	AM PEAK HOUR			PM PEAK HOUR			ADT
				IN	OUT	TOTAL	IN	OUT	TOTAL	
12	1. Office	905.23	TSF	1240	172	1412	226	1122	1348	9967
	3. Quality Restaurant	8.10	TSF	3	3	6	41	20	61	729
	4. High Turnover Restaurant	28.94	TSF	140	129	269	189	126	315	3773
	SUB-TOTAL			1383	304	1687	456	1268	1724	14469
16	1. Office	626.99	TSF	859	119	978	157	777	934	6903
	3. Quality Restaurant	18.27	TSF	7	7	14	92	45	137	1643
	6. Movie Theater	1862.00	SEAT	0	19	19	447	37	484	3277
	SUB-TOTAL			866	145	1011	696	859	1555	11823
17	1. Office	464.50	TSF	636	88	724	116	576	692	5114
	7. Performance Theater	7308.00	SEAT	73	0	73	585	146	731	8989
	8. Museum	140.00	TSF	165	8	173	49	204	253	2534
	SUB-TOTAL			874	96	970	750	926	1676	16637
18	1. Office	717.03	TSF	982	136	1118	179	889	1068	7894
	2. Specialty Retail	5.14	TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	24.82	TSF	10	10	20	125	61	186	2233
	5. Hotel	590.00	ROOM	201	130	331	189	171	360	4856
	SUB-TOTAL			1197	278	1425	502	1130	1632	15189
	TOTAL									
	1. Office	2713.75	TSF	3717	515	4232	678	3364	4042	29878
	2. Specialty Retail	5.14	TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	51.19	TSF	20	20	40	258	126	384	4605
	4. High Turnover Restaurant	28.94	TSF	140	129	269	189	126	315	3773
	5. Hotel	590.00	ROOM	201	130	331	189	171	360	4856
	6. Movie Theater	1862.00	SEAT	0	19	19	447	37	484	3277
	7. Performance Theater	7308.00	SEAT	73	0	73	585	146	731	8989
	8. Museum	140.00	TSF	165	8	173	49	204	253	2534
	TOTAL			4320	823	5143	2404	4183	6587	58118
ADT AND PEAK HOUR TRIP RATE SUMMARY										
CMTM	ZONE*	LAND USE TYPE	UNITS	AM PEAK HOUR			PM PEAK HOUR			ADT
				IN	OUT	TOTAL	IN	OUT	TOTAL	
		1. Office	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
		2. Specialty Retail	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
		3. Quality Restaurant	TSF	.40	.41	.81	5.02	2.47	7.49	89.95
		4. High Turnover Restaurant	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
		5. Hotel	ROOM	.34	.22	.56	.32	.29	.61	8.23
		6. Movie Theater	SEAT	.00	.01	.01	.24	.02	.26	1.76
		7. Performance Theater	SEAT	.01	.00	.01	.08	.02	.10	1.23
	8.	Museum	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10
*See Appendix C-Traffic Analysis Figure 1-4 for zone boundaries Source: Austin-Foust Associates, Inc., July 2000.										

**TABLE 5.2-8
ICU COMPARISON - GENERAL PLAN PLUS PROJECT**

INTERSECTION	2020 GENERAL PLAN PLUS PROJECT					
	2020 GENERAL PLAN		AM		PM	
	AM	PM	ICU	DIFF	ICU	DIFF
COSTA MESA						
38. Fairview & Sunflower	.80	.80	.81	.01	.83	.03
41. Bear & Sunflower	.67	.77	.68	.01	.78	.01
42. Bristol & Sunflower	.89	1.01	.97*	.08	.99	-.02
45. Fairview & South Coast	.77	.91	.79	.02	.92*	.01
48. Bristol & Anton	.54	.71	.57	.03	.74	.03
51. Fairview & I-405 NB Ramps	.71	.86	.71	.00	.88	.02
53. Bristol & I-405 NB Ramps	.74	.80	.80	.06	.81	.01
54. Bristol & I-405 SB Ramps	.67	.88	.68	.01	.87	-.01
59. Bristol & Paularino	.62	.89	.62	.00	.93*	.04
60. Bear & SR-73 SB Ramps	.39	.57	.41	.02	.58	.01
62. Bristol & Baker	.72	.93	.74	.02	.93	.00
70. Bear & SR-73 NB Ramp	.45	.76	.45	.00	.74	-.02
71. Park Center & Sunflower	.64	.88	.72	.08	.91*	.03
72. Ave of the Arts & Sunflower	.77	.60	.82	.05	.61	.01
73. Sakioka/Flower & Sunflower	.80	.77	.81	.01	.82	.05
74. Anton & Sunflower	.79	.58	.80	.01	.59	.01
75. Bristol & Town Center Dr.	.53	.72	.53	.00	.75	.03
76. Ave of Arts & Town Center	.55	.50	.46	-.09	.53	.03
77. Park Center & Anton	.37	.43	.46	.09	.48	.05
78. Ave of the Arts & Anton	.70	.38	.76	.06	.43	.05
79. Sakioka Dr & Anton	.48	.56	.49	.01	.58	.02
80. I-405 SB On-Ramp & Anton	.30	.67	.29	-.01	.69	.02
SANTA ANA						
101. Bristol & Warner	.62	.82	.62	.00	.83	.01
102. Main & Warner	.71	.85	.72	.01	.85	.00
103. Bristol & Segerstrom	.72	1.01	.73	.01	1.02*	.01
104. Main & Dyer	.71	.98	.71	.00	.98	.00
105. Bristol & MacArthur	.94	.99	.96*	.02	1.03*	.04
106. Flower & MacArthur	1.17	1.04	1.18*	.01	1.07*	.03
107. Main & MacArthur	1.13	1.07	1.11	-.02	1.11*	.04
108. SR-55 SB Ramps & MacArthur	.79	.63	.79	.00	.64	.01
109. SR-55 NB Ramps & MacArthur	.92	.86	.93*	.01	.85	-.01
110. Main & Sunflower	1.07	1.85	1.13*	.06	1.88*	.03
112. Bear & MacArthur	.74	.85	.74	.00	.87	.02
113. Flower & Segerstrom/Dyer	.70	.88	.72	.02	.89	.01
114. Hutton Centre/MacArthur	1.31	1.32	1.31	.00	1.32	.00
IRVINE						
111. Redhill & Main**	.98	.99	.98	.00	1.00*	.01
* Significant project impact						
** LOS "E" is acceptable within the Irvine Business Complex						
Level of service ranges:						
	.00 - .60 A					
	.61 - .70 B					
	.71 - .80 C					
	.81 - .90 D					
	.91 - 1.00 E					
	Above 1.00 F					
Source: Austin-Foust Associates, Inc., July 2000						

Town Center Drive Deletion

The proposed project includes deletion of a portion of the Town Center Drive from the City's Master Plan of Highways (MPH). The segment of Town Center Drive immediately west of Avenue of the Arts would be reconfigured as a one-way street to only allow westbound traffic (i.e., the portion between the Performing Arts Center and proposed symphony hall and open space area). This segment of Town Center Drive currently carries approximately 2,300 vehicles per day, with a maximum peak hour volume of approximately 270 vehicles. The impact of the proposed deletion was evaluated in the project traffic study included in Appendix C. The analysis compared "Year 2020 General Plan" conditions with "Year 2020 General Plan with proposed deletion conditions" to identify the impact of the deletion.

The analysis indicates the proposed deletion would have a negligible impact outside the project area. One intersection within the project area, Bristol Street and Sunflower Avenue, would be negatively impacted by the deletion, however. The impact would occur in the AM peak hour with a change in intersection capacity utilization (ICU) from .89 to .95 (i.e., LOS D to E). This impact is capable of being mitigated with improvements to the Bristol Street and Sunflower Avenue intersection identified in Section 5.2.4 to follow.

Congestion Management Program

The Orange County Congestion Management Program (CMP) is a State mandated program with the goals of reducing traffic congestion and providing a mechanism for coordinating land use development and transportation improvement decisions. All projects generating 2,400 or more ADT typically are required to prepare a Traffic Impact Analysis (TIA) for CMP purposes. The methodology utilized in the preparation of this traffic study follows the guidelines for TIA preparation and thus is appropriate to serve as the TIA for the proposed project.

The CMP highway system in the vicinity of the proposed project consists of I-405, SR-55, and SR-73. The closest CMP arterials to the project site are Harbor Boulevard, Adams Avenue west of Harbor Boulevard, Warner Avenue west of Harbor Boulevard, Edinger Avenue and Jamboree Road. The amount of project traffic projected to use these arterials is less than the threshold established by the CMP (three percent of the roadway's capacity). Since CMP guidelines only require analysis of arterial portions of the CMP highway system, no further analysis is required.

Site Access

The proposed development plan consists of changes to three different parts of the Town Center area.

For the Two Town Center area, access to the new development will utilize existing intersections. A new parking structure is proposed to replace the existing surface parking lot located west of Park Center Drive

(south of Anton Boulevard). The existing parking structure west of Avenue of the Arts (south of Anton Boulevard) will also be utilized by the new development.

The Two Town Center project is also proposing to reconfigure the existing intersection located on Anton Boulevard between Park Center Drive and Avenue of the Arts. In its current configuration, this intersection serves the parking structure north of Anton Boulevard and traffic exiting the area south of Anton Boulevard. No pedestrian crosswalks are currently provided across Anton Boulevard at this location. The proposed plan reconfigures this intersection to provide full ingress/egress access to the area south of Anton Boulevard. The access to the area south of Anton Boulevard is primarily for visitor parking, the existing restaurant, and passenger pick-up and drop-off. Access to the parking structures is provided via Park Center Drive and Avenue of the Arts as in existing conditions. Since preliminary plans for this parking area only identify 50 to 60 parking spaces, a traffic signal would not be warranted unless the parking lot experienced an unusually high turnover rate of over 2.5 vehicles per space per hour.

The proposed expansion within the Segerstrom Center for the Arts area utilizes existing parking structures and existing access locations. A change to the circulation system within this area consists of reconfiguring the segment of Town Center Drive just west of Avenue of the Arts to one-way travel in the westbound direction. Eastbound travel will be allowed from Park Center Drive to the site of the proposed Symphony Hall and Museum for passenger pick-up and drop-off at which point a turn-around would be provided to direct traffic back to Park Center Drive. Westbound travel is provided along the entire segment in order to provide access to the area from the future Avenue of the Arts off-ramp from the northbound I-405.

The proposed changes to the remainder of the Town Center area consist of adding additional office square footage to the areas southeast of the Bristol Street/Sunflower Avenue intersection and southeast of the Bristol Street/Anton Boulevard intersection, as well as transferring the entitlement for the future 186-room hotel to the area northeast of the Bristol Street/Anton Boulevard intersection. Access to these areas will be provided at the same locations as for the existing land uses.

5.2.4. MITIGATION PROGRAM

Intersection improvements for long-range conditions can be grouped into the following three categories:

1. Project Design Features
2. Standard Conditions and Requirements
3. South Coast Plaza Town Center Project Mitigation Measures

Project Design Features

These are considered to be “going-in” circulation features or improvements that are integral to the proposed project, and are included in the traffic impact analysis prior to mitigation. The only design

feature that falls into this category is the proposed street vacation of a portion of Town Center Drive between Park Center Drive and Avenue of the Arts (with related amendment to the City's Master Plan of Highways).

Standard Conditions and Requirements

The long range general plan improvements within the City of Costa Mesa which are assumed in the background conditions will be funded mostly by an areawide circulation system funding mechanism such as the City Traffic Impact Fee Program or special benefit district fees. The proposed South Coast Town Center project will be responsible for the payment of fees to the City of Costa Mesa as set forth below.

- The project applicants shall participate in the implementation of Master Plan of Highways improvements through the payment of development impact fees in accordance with City of Costa Mesa Ordinance 93-11 and Resolution 93-43. The payment of development impact fees shall be submitted to the City of Costa Mesa Planning Division for the mitigation of offsite traffic impacts at the time of issuance of building permits. The required fee shall be paid pursuant to the prevailing schedule of charges adopted by the City Council in effect at the time of issuance of building permits.
- The project applicants shall be responsible for the payment of fees in accordance with the San Joaquin Hills Transportation Corridor Fee Ordinance. Fees shall be paid to the Costa Mesa Planning Division prior to the issuance of building permits.
- The project applicants shall comply with the Transportation Demand Management (TDM) requirements of the City of Costa Mesa TDM Ordinance (Costa Mesa Municipal Code § 13-880 through 13-888) through the provision of one or more improvements set forth in Costa Mesa Municipal Code § 13-884.

South Coast Plaza Town Center Project Mitigation

The following mitigation measures for long range conditions are based on the buildout of land use in the surrounding area and may change based on the effects of the future land development and future changes to regional transportation patterns. The intersection improvements should be implemented in advance of the time when traffic volumes increase to the point that the improvements are merited. As the individual component development plans for the South Coast Plaza Town Center project are submitted to the City of Costa Mesa, the project traffic study area intersections' performance shall be monitored against the City's Annual Development Phasing and Monitoring Report to determine when future improvements are required.

The long range general plan improvements within the City of Costa Mesa which are assumed in the background conditions will be funded mostly by an areawide circulation system funding mechanism such as the City's Development Trip Charge Program or special benefit district fees. A mitigation measure for the proposed Town Center project will be to participate in that program.

At four intersections within the City of Costa Mesa, ICUs with the proposed project either exceed LOS “D” or worsen LOS “E” when compared to conditions forecast for the current General Plan. Mitigation measures to address these conditions are listed in the following table:

COSTA MESA INTERSECTIONS	MITIGATION IN ADDITION TO GENERAL PLAN IMPROVEMENTS
42. Bristol & Sunflower	Convert 3 rd northbound through lane to a shared through/right-turn lane (provide 2 NBL, 2 NBT, 1 shared NBT/NBR, and 1 NBR)
45. Fairview & South Coast	Convert 2 nd eastbound through lane to a shared through/right-turn lane (provide 1 EBL, 1 EBT, 1 shared EBT/EBR, and 1 EBR)
59. Bristol & Paularino	Add a southbound right-turn lane. Add a second westbound left-turn lane instead of the second westbound right-turn lane shown in the current General Plan
71. Park Center & Sunflower	Convert northbound through lane to a shared left-turn/through lane. Convert southbound left-turn lane to a shared left-turn/through lane and convert southbound through lane to a right-turn lane. Requires split phasing in the north/south direction (provide 1 NBL, 1 shared NBL/NBT/NBR, 1 shared SBL/SBT, and 1 SBR)

Other Jurisdictions

The proposed project worsens what is forecast to be undesirable conditions without the project at six intersections within the City of Santa Ana and at one intersection within the City of Irvine. At these seven ~~six~~ locations, forecasts of peak hour conditions are either LOS “E” or LOS “F” without the project. As noted previously, this level of service is based on all currently planned intersection improvements identified in each City’s General Plan.

Since long range conditions without the project and with all planned improvements still results in undesirable levels of service at these seven locations, the amount of feasible mitigation in addition to the planned improvements is likely to be limited. Therefore, the proposed mitigation is separated into two parts. The first consists of improvements that can be implemented within the planned right-of-way and would fully mitigate the impacts of the proposed project. These improvements are described later in this section.

The second part applies to the remaining intersections with a project impact but where additional mitigation within the planned right-of-way is not possible. At these locations, project mitigation is to pay a share of the cost of the planned improvements plus a share of the cost of the feasible improvements in addition to those currently planned. These additional improvements would fully mitigate the projects impacts and are summarized below. However, given right-of-way and other physical constraints, these

additional improvements may not be feasible or desirable to implement. Final determination of which improvements to implement is at the discretion of each respective jurisdiction.

The following table summarizes the Santa Ana and Irvine mitigation:

SANTA ANA AND IRVINE INTERSECTIONS	MITIGATION MEASURES	SHARE*
ADDITIONAL IMPROVEMENTS WITHIN PLANNED RIGHT-OF-WAY		
107. Main & MacArthur	Provide right-turn overlap signal phasing for northbound and southbound right-turns	100%
110. Main & Sunflower	Convert 3 rd southbound through lane to a right-turn lane with overlap phasing	100%
GENERAL PLAN PLUS ADDITIONAL IMPROVEMENTS (WHERE FEASIBLE)		
103. Bristol & Segerstrom	General Plan Improvements: Add second left-turn for each approach, 3 rd and 4 th eastbound through lanes, 3 rd westbound through lane, and right-turn lanes for each approach Non-General Plan Improvements: Add 4 th westbound through lane	3.9% 3.9%
105. Bristol & MacArthur	General Plan Improvements: Add right-turn lanes for southbound, eastbound and westbound approaches Non-General Plan Improvements: Add 4 th eastbound and westbound through lane, add right-turn overlap for westbound right turns	4.9% 4.9%
106. Flower & MacArthur	General Plan Improvements: None Non-General Plan Improvements: Add northbound and westbound right turn lanes	9.1%
109. SR-55 NB Ramps & MacArthur	General Plan Improvements: None Non-General Plan Improvements: Add 3 rd northbound right ^{left} turn lanes	1.7% 1.1%
111. Red Hill & Main	Add 3 rd northbound through lane, 3 rd and 4 th southbound through lanes, free-flow northbound and eastbound right-turn lanes Non-General Plan Improvements: Add 2 nd southbound and left turn lane.	1.1% 1.1%
* See Table 5.2-9 for share calculations Source: Austin-Foust Associates, Inc., July 2000.		

**TABLE 5.2-9
PROJECT SHARE CALCULATIONS**

Intersection	Jurisdiction	AM PEAK HOUR			PM PEAK HOUR		
		Existing	2020 GP	With Project	Existing	2020 GP	With Project
PART A: TOTAL PEAK HOUR VOLUMES							
103. Bristol & Segerstrom	Santa Ana	3650	5260	5360	5030	7660	7730
105. Bristol & MacArthur	Santa Ana	5460	7310	7390	7280	9090	9200
106. Flower & MacArthur	Santa Ana	4550	6170	6300	4660	6240	6430
109. SR-55 NB Ramps & MacArthur	Santa Ana	4710	6150	6200	5770	7840	7850
111. Red Hill & Main	Irvine	2740	9330	9410	3980	10500	10570
Intersection	Jurisdiction	AM INCREASE		PM INCREASE		Average Share*	
		Existing to GP	Project	Existing to GP	Project		
PART B: INCREMENTAL VOLUMES							
103. Bristol & Segerstrom	Santa Ana	1610	100	2630	70	3.9%	
105. Bristol & MacArthur	Santa Ana	1850	80	1810	110	4.9%	
106. Flower & MacArthur	Santa Ana	1620	130	1580	190	9.1%	
109. SR-55 NB Ramps & MacArthur	Santa Ana	1440	50	2070	10	1.7%	
111. Red Hill & Main	Irvine	6590	80	6520	70	1.1%	
* Average share is calculated by dividing the new AM and PM trips resulting from the project by the total new AM and PM trips. Source: Austin-Foust Associates, Inc., July 2000.							

**TABLE 5.2-10
MITIGATION SUMMARY
INTERSECTION IMPROVEMENTS**

LOCATION	IMPROVEMENT	PROJECT'S SHARE	JURISDICTION
42. Bristol & Sunflower	Convert 3 rd northbound through lane to a shared through/right-turn lane (provide 2 NBL, 2NBT, 1 shared NBT/NBR, and 1 NBR).	100.00%	Costa Mesa
45. Fairview South Coast	Convert 2 nd eastbound through lane to a shared through/right-turn lane (provide 1 EBL, 1 EBT, 1 shared EBT/EBR, and 1 EBR)	100.0%	Costa Mesa
59. Bristol & Paularino	Add a southbound right-turn lane. Add a second westbound left-turn lane instead of the second westbound right-turn lane shown in the current General Plan	100.0%	Costa Mesa

LOCATION	IMPROVEMENT	PROJECT'S SHARE	JURISDICTION
71. Park Center & Sunflower	Convert northbound through lane to a shared left-turn/through. Convert southbound left-turn lane to a shared left-turn/through lane and convert southbound through lane to a right-turn lane. Requires split phasing in the north/south direction (provide 1 NBL, 1 shared NBL/NBT/NBR, 1 shared SBL/SBT, and 1 SBR)	100.0%	Costa Mesa
103. Bristol & Segerstrom	General Plan Improvements: Add second left-turn lane for each approach, 3 rd and 4 th eastbound through lanes, 3 rd westbound through lane, and right-turn lanes for each approach	3.9%	Santa Ana
	Non-General Plan Improvements: Add 4 th westbound through lane	3.9%	
105. Bristol & MacArthur	General Plan Improvements: Add right-turn lanes for southbound, eastbound and westbound approaches	4.9%	Santa Ana
	Non-General Plan Improvements: Add 4 th eastbound and westbound through lane, add right-turn overlap for westbound right-turns	4.9%	
106. Flower & MacArthur	General Plan Improvements: None	9.1%	Santa Ana
	Non-General Plan Improvements: Add northbound and westbound right-turn lanes		
107. Main & MacArthur	Provide right-turn overlap signal phasing for northbound and southbound right-turns	100.0%	Santa Ana
109. SR-55 NB Ramps & MacArthur	General Plan Improvements: None	1.7%	Santa Ana
	Non-General Plan Improvements: Add 3 rd northbound left-turn lane		
110. Main & Sunflower	Convert 3 rd southbound through lane to a right-turn lane with overlap phasing	100.0%	Santa Ana
111. Red Hill & Main	General Plan Improvements: Add 3 rd northbound through lane, 3 rd and 4 th southbound through lanes, free flow northbound and eastbound right-turn lanes	4.1%	Irvine
	Non-General Plan Improvements: Add 2 nd southbound and left turn lane.	4.1%	
<p>I. PAYMENT OF IMPACT FEE The project will need to contribute to the City of Costa Mesa's Comprehensive Transportation System Improvement Program.</p> <p>II. ON-SITE IMPROVEMENTS The project will need to construct roadway improvements on and adjacent to the project site to provide access to the site and circulation within the site. These will be determined as specific plans for development are presented.</p>			

**TABLE 5.2-11
ICU COMPARISON – PROJECT MITIGATION**

INTERSECTION	2020					
	GENERAL PLAN		GENERAL PLAN W/PROJECT		GENERAL PLAN W/MITIGATION	
	AM	PM	AM	PM	AM	PM
COSTA MESA						
42. Bristol & Sunflower	.89	1.01	.97	.99	.87	.99
45. Fairview & South Coast	.77	.91	.79	.92	.79	.74
59. Bristol & Paularino	.62	.89	.62	.93	.64	.89
71. Park Center & Sunflower	.64	.88	.73	.92	.73	.86
SANTA ANA						
103. Bristol & Segerstrom	.72	1.01	.73	1.02	.69	.93
105. Bristol & MacArthur	.94	.99	.96	1.03	.85	.92
106. Flower & MacArthur	1.17	1.04	1.18	1.07	1.14	.99
107. Main & MacArthur	1.13	1.07	1.11	1.11	1.00	1.04
109. SR-55 NB Ramps & MacArthur	.92	.86	.93	.85	.75	.80
110. Main & Sunflower	1.07	1.85	1.13	1.88	1.07	1.62
111. Red Hill and Main	.98	.99	.98	1.00	.96	.99
Level of service ranges: .00 - .60 A .61 - .70 B .71 - .80 C .81 - .90 D .91 - 1.00 E Above 1.00 F						
Source: Austin-Foust Associates, Inc., July 2000						

A comprehensive listing of the recommended mitigation for the Proposed Project is given in Table 5.2-10.

5.2.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Table 5.2-11 summarizes the peak hour ICUs when the proposed improvements that are in addition to those shown in the General Plan are included. The table shows that each of these mitigation measures effectively eliminates the project’s impact at that location.

Through the implementation of project design features, conditions of approval, and mitigation, as identified in Tables 5.2-10 and 5.2-11, project-specific and the project’s contribution to long-range cumulative impacts can be mitigated to a level that is considered less than significant. The project’s contribution to long-range cumulative impacts at two intersections in Santa Ana—Main Street and MacArthur Boulevard, and Main Street and Sunflower Avenue, can be mitigated to less than significant levels with the identified mitigation measures in Table 5.2-10. However, these intersections will operate at LOS F under future buildout conditions. Therefore, significant unavoidable impacts to these intersections would occur with or without the South Coast Plaza Town Center project.

5.3 AIR QUALITY

An Air Quality Assessment was prepared by Mestre-Greve Associates for the SCPTC project in June 2000. Traffic volume information was provided by Austin-Foust Associates, Inc. The following is a summary of the Air Quality Assessment and the assessment can be referenced in its entirety in Appendix D of this EIR.

5.3.1 EXISTING CONDITIONS

Costa Mesa Planning Policies

The following identifies the goals, objectives, and policies of the City of Costa Mesa General Plan Air Quality Element that are applicable to the South Coast Plaza Town Center project.

GOAL II: ENVIRONMENTAL PROTECTION AND PRESERVATION

It is the goal of the City of Costa Mesa to protect its citizens and property from injury, damage, or destruction from the environmental hazards including hydrologic, geologic, and climatic episodes, and to work towards the improved noise abatement and improved air quality.

Objective II-B: Pursue the prevention of significant deterioration of local and regional air and water quality.

Policies

80. Require, as a part of the environmental review procedure, an analysis of major development or redevelopment project impacts on local and regional air and water quality.

Project Setting

California is divided by the California Air Resources Board (CARB) into air basins which share similar meteorological and topographical features. The proposed project site is within the South Coast Air Basin (SCAB) and thus is subject to a review with respect to the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP).

The climate in and around the project area, as with all of Southern California, is controlled largely by the strength and position of the subtropical high pressure cell over the Pacific Ocean. Winds in the project area are usually driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes and there is little stagnation in the project vicinity, especially

during busy daytime traffic hours. Southern California frequently has temperature inversions which inhibit the dispersion of pollutants. Low summer inversion puts a lid over the SCAB and is responsible for the high levels of ozone observed during summer months in the air basin. However, throughout the 1990s both peak ozone concentrations and the number of exceedances have decreased county-wide. Additionally, as a result of strict emission controls and reformulated gasoline, carbon monoxide concentrations have also dropped throughout Orange County.

Regulatory and Planning Requirements

The proposed project is located in the South Coast Air Basin (SCAB) and, jurisdictionally, is the responsibility of the South Coast Air Quality Management District (SCAQMD) and to a lesser extent, the California Air Resources Board (CARB). The SCAQMD sets and enforces regulations for stationary sources in the basin and develops and implements Transportation Control Measures. The CARB is charged with controlling motor vehicle emissions. CARB establishes legal emission rates for new vehicles and is responsible for the vehicle inspection program. Other important agencies in the air quality management for the basin include the U.S. Environmental Protection Agency (EPA) and the Southern California Association of Governments (SCAG). The EPA implements the provisions of the federal Clean Air Act. This act establishes ambient air quality standards that are applicable nationwide. In areas that are not achieving the standards, the Clean Air Act requires that plans be developed and implemented to meet the standards. The EPA oversees the efforts in this air basin and insures that appropriate plans are being developed and implemented. The primary agencies responsible for writing the plan are SCAG and the SCAQMD, and the plan is called the Air Quality Management Plan (AQMP).

Attainment Status

The SCAB has been designated by the U.S. Environmental Protection Agency (EPA) as a non-attainment area for ozone, carbon monoxide, and suspended particulates. Nitrogen dioxide in the SCAB has met the federal standards for the third year in a row, and therefore, is qualified for redesignation to attainment. A maintenance plan for nitrogen dioxide is included in the 1997 AQMP. The CCAA mandates the implementation of the program that will achieve the California Ambient Air Quality Standards (CAAQS) and the CAA mandates the implementation of new air quality performance standards. The basin has until the November 15, 2010 to comply with the national one-hour ozone standard, compliance must be achieved for CO by December 31, 2000 and attainment for all federal PM10 health standards are to be achieved by December 31, 2006.

Regional Planning to Meet State Standards

SCAQMD and SCAG in coordination with local governments and the private sector have developed the AQMP for the air basin. The AQMP provides the blueprint for meeting state and federal ambient air quality standards. State law mandates the revision of the AQMP every three years, the federal law specifies dates for developing attainment plans for criteria pollutants. The 1997 AQMP (superceding the 1994

AQMP) was adopted locally on November 8, 1996 by the governing board of the SCAQMD. The 1997 revision to the AQMP was adopted in response to the requirements set forth in the California Clean Air Act (CAA) and the 1990 amendments to the Federal Clean Air Act. The 1997 locally approved AQMP was submitted but not approved by the EPA. CARB has since amended the 1997 AQMP and submitted it to the U.S. EPA as part of the California State Implementation Plan. The revised 1997 AQMP became the 1999 AQMP and was adopted by the EPA in April 2000.

Air Quality Setting

Air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates for the SCAB have been made for existing emissions ("1997 Air Quality Management Plan", October 1996). The data indicate that mobile sources are the major source of regional emissions. Motor vehicles (i.e., on-road mobile sources) account for approximately 51 percent of volatile organic compounds (VOC), 63 percent of nitrogen oxide (NOx) emissions, and approximately 78 percent of carbon monoxide (CO) emissions.

The project site is closest to the SCAQMD North Coast Orange County monitoring station. The data collected at this station is considered to be representative of the air quality experienced in the vicinity of the project area. The monitored air quality data at North Coast Orange County are available for ozone, carbon monoxide (CO), nitrogen dioxide (NO2) and sulfur dioxide (SO2). PM10 data are available at the Central Orange County monitoring station. The air quality monitored data from 1997 to 1999 for these pollutants are shown in Table 5.3-1.

**TABLE 5.3-1
AIR QUALITY MEASUREMENT LEVELS FROM ORANGE COUNTY
AMBIENT AIR MONITORING STATIONS**

Pollutant	California Standard	National Standard	Year	Maximum Level	Days State Standard Exceeded
Ozone	0.09 ppm for 1 hr	0.12 ppm for 1 hr	1999	0.10	1
			1998	0.12	5
			1997	0.09*	0*
CO	20 ppm for 1 hr	35 ppm for 1 hr	1999	7.3	0
			1998	9.0	0
			1997	7.3	0
	9.0 ppm for 8 hrs	9 ppm for 8 hrs	1999	6.4	0
			1998	7.1	0
			1997	5.9	0
NO2*	0.25 ppm for 1 hr	0.053 ppm AAM	1999	0.12	0
			1998	0.12	0
			1997	0.12	0
SO2*	.05 ppm for 24 hrs	.14 ppm for 24 hrs	1999	0.005	0
			1998	0.007	0
			1997	0.015	0

Pollutant	California Standard	National Standard	Year	Maximum Level	Days State Standard Exceeded
Particulates PM10**	50 ug/m3 for 24 hrs	150 ug/m3 for 24 hrs	1999	111	36 (10%)
			1998	70	36 (10%)
			1997	86	24 (7%)
* Less than 12 full months of data. May not be representative.					
* PM10 samples were collected every 6 days. The percentages refer to the percent of samples exceeding the standard and not the number of days per year that the standard was exceeded.					
Source: Mestre-Greve Associates, July 2000					

5.3.2 THRESHOLDS OF SIGNIFICANCE

Air quality impacts are usually divided into short term and long term. Short term impacts are usually the result of construction or grading operations. Long term impacts are associated with the built out condition of the proposed project. The significance of air quality impacts is determined by the lead agency, which is the City of Costa Mesa. The City relies upon the SCAQMD's recommended mitigation measures as set forth in the *CEQA Air Quality Handbook* as revised in November 1993 and approved by the SCAQMD's Board of Directors. The SCAQMD's emissions thresholds apply to all federal regulated pollutants with the exception of lead which is not exceeded in the South Coast Air Basin.

A proposed project would have a significant impact upon air quality if it:

- Conflicted with or obstructed the implementation of the applicable air quality plan
- Violated any air quality standard or contributed substantially to an existing or projected air quality violation
- Resulted in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard, including the release in emissions which exceed quantitative thresholds for ozone precursors.
- Exposed sensitive receptors to substantial pollution concentrations.
- Results in Carbon Monoxide concentrations in an area that already exceeds national or state CO standards increase in excess of one part per million (ppm) for an one-hour average or 0.45 ppm for an eight hour increase.
- Construction and operational emissions exceed the thresholds in Table 5.3-2

**TABLE 5.3-2
EMISSION THRESHOLDS OF SIGNIFICANCE^a**

Pollutant	Construction		Operations pounds /day
	pounds/day	tons/quarter	
Carbon Monoxide (CO)	550	24.75	550
Sulfur Oxides (SO _x)	150	6.75	150
Nitrogen Oxides (NO _x)	100	2.5	55
Particulate Matter (PM10)	150	6.75	150
Reactive Organic Compounds (ROC)	75	2.5	55

^a Toxic emissions are considered significant if they expose sensitive receptors to a cancer risk of 1 in 1 million or 10 in 1 million if best available control technology for toxics (T-BACT) is employed.
Source: Mestre-Greve Associates, July 2000

5.3.3 PROJECT AND CUMULATIVE IMPACTS

Costa Mesa Planning Policies

As part of the SCPTC project an air quality analysis has been prepared to assess the project's potential impacts to air quality and as appropriate recommend mitigation to reduce any impacts to a level that is considered less than significant. The following addresses the SCPTC project's consistency with the goals, objectives, and policies of the City of Costa Mesa Air Quality Element and indicates that the proposed project is considered consistent with the applicable goals, objectives, and policies.

Short Term Impacts

The project site comprises a total approximately 54 acres. However, only 8.2 acres within the 54-acre site will be graded. The project is assumed to be constructed in one year as a worst case scenario. In addition, the demolition of 147,575 square feet of building areas is assumed to last two months as a worst case scenario. The technical data utilized in the calculations are shown in the Appendix.

Temporary impacts will result from the project's construction activities. Air pollutants will be emitted by construction equipment and fugitive dust will be generated during grading and site preparation. Construction activities for large development projects are estimated by the U.S. Environmental Protection Agency (according to the 1993 CEQA Handbook, emission factor for disturbed soil is 0.40 tons of PM10 per month per acre).

Applying the above factors to the 8.2 acres of gradable area and an estimated 3 month grading cycle result in an estimate of 5 tons per year. When there is intense grading activities, the peak PM10 emission is estimated to be approximately 214 pounds per day. The demolition activities are estimated to result in approximately 6 pounds per day of PM10.

For the proposed project, the peak emissions of 214 pounds per day (0.107 tons per day) of PM10 are minor when compared with the total average annual of 416 tons per day of particulate matter currently released in the whole SCAB. However, according to the SCAQMD's CEQA Handbook, PM10 emissions greater than 150 pounds per day should be considered significant. The PM10 emissions generated by the proposed project are projected to be greater than this threshold, and therefore, are considered to be significant.

It should be noted that the impact due to grading is very localized. Additionally, this material is inert silicates, rather than the complex organic particulate matter released from combustion sources which are more harmful to health. In some cases grading may be near existing development. Care should be taken to minimize the generation of dust. Common practice for minimizing dust generation is watering before and during grading.

Heavy-duty equipment emissions are difficult to quantify because of day to day variability in construction activities and equipment used. Typical emission rates for construction equipment were obtained from the SCAQMD Air Quality Handbook. It is anticipated that 12 pieces of heavy equipment may be expected to operate at one time. The number of pieces of equipment assumed included 2 scrapers, 2 tractors, 2 graders, 2 dozers, 1 water truck, and 3 miscellaneous trucks. If all of the equipment operated for 8 hours per day, the following emissions would result: approximately 39 pounds per day of CO, 5 pounds per day of ROG, 102 pounds per day of NOx, 12 pounds per day of PM10, and 12 pounds per day of sulfur oxides.

For the demolition activities, it is estimated that ten pieces of heavy equipment may be expected to operate at any one time. The number of pieces of equipment assumed included 3 loaders, 3 tractors, 2 water trucks, and 2 miscellaneous trucks. If all of the equipment operated for 8 hours per day the following emissions would result; approximately 61 pounds per day of CO, 12 pounds per day of ROG, 170 pounds per day of NOx, 13 pounds per day of PM10, and 14 pounds per day of SOx.

There will also be some emissions generated by construction workers who travel to and from the job site. However, specific information is not available to project these emissions, and therefore, assumptions were made to project the emissions due to construction worker travel. However, they are usually small in comparison to the other construction emissions. The data utilized are shown in the Appendix D.

Note that some of the pollutant emissions are greater than the Significance Emission Thresholds established by the SCAQMD in the CEQA Air Quality Handbook, and therefore, the project's construction emissions, specifically NOx and PM10 emissions are considered to be significant.

**TABLE 5.3-3
WORST CASE PEAK CONSTRUCTION EMISSIONS**

Employee Pollutant	Grading Activities Travel	Equipment (Pm₁₀ Only)	Total Emissions	SCAQMD Emissions	Thresholds
Demolition					
Carbon Monoxide	4.96	--	61.01	75	550
ROG	0.42	--	11.68	14	75
Nitrogen Oxides	1.30	--	169.76	180	100
PM ₁₀	0.04	6	12.85	20	150
Sulfur Oxides	0.05	--	13.89	14	150
Grading/Construction					
Carbon Monoxide	7.81	--	38.97	47	550
ROG	0.80	--	5.19	6	75
Nitrogen Oxides	0.78	--	101.79	102	100
PM ₁₀	0.11	107	12.22	119	150
Sulfur Oxides	0.05	--	12.26	12	150
NOTE: The underlined data indicate exceedance of the significant thresholds. Source: Mestre-Greve Associates, July 2000					

Long Term Impacts

Because the project will introduce changes in traffic on the roadways serving the project, a detailed analysis of carbon monoxide concentrations at sensitive areas in the project vicinity was conducted. A detailed discussion of the methodology associated with the CO analysis can be referenced in Appendix D.

Carbon Monoxide (CO) Modeling Results

The results of the CO modeling for year 2020 are summarized in Table 5.3-4. The CO modeling results are shown for the projected future 1 hour and 8 hour CO concentration levels. The pollutant levels are expressed in parts per million (ppm) for each receptor. The carbon monoxide levels reported in Table 5.3-4 are composites of the background levels of carbon monoxide coming into the area plus those generated by the local roadways.

**TABLE 5.3-4
WORST CASE PROJECTIONS OF CARBON MONOXIDE CONCENTRATIONS
YEAR 2020**

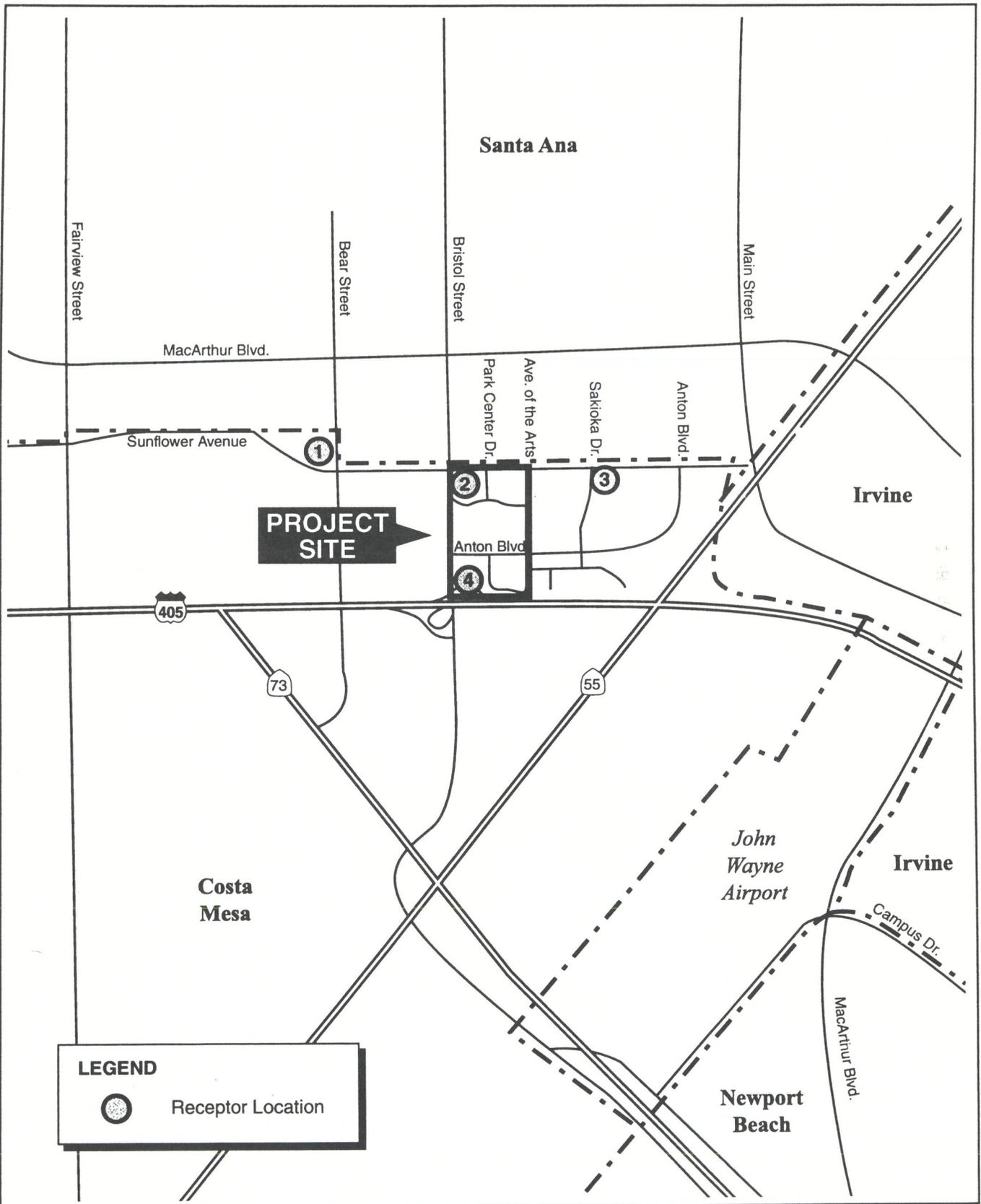
Receptor Location	Future Carbon Monoxide Concentrations (ppm)			
	No Project		With Project	
	1 Hour	8 hour	1 hour	8 hour
1 NW Sunflower	9.2 9.1	7.1	9.2 9.1	7.1
2 SE Sunflower/Bristol	10.4 9.7	8.0 7.5	10.4 9.7	8.0 7.5
3 SE Sunflower/Flower	8.7 8.6	6.8 7.6	8.8 8.6	6.9 6.7
4 NE Bristol/I-405	11.3 11.2	9.0 8.9	11.3 11.2	9.0 8.9
Summary of Carbon Monoxide State Standard	No. of Sites exceeding 20 ppm	No. of Sites exceeding 9 ppm	No. of Sites exceeding 20 ppm	No. of Sites exceeding 9 ppm
Exceedances	0	± 0	0	± 0

ppm – parts per million
Source: Mestre-Greve Associates, July October 2000

The CO concentration modeling for the future with project and no project scenarios are shown in Table 5.3-4. The future no project CO levels are projected to be between 8.7 8.6 and 11.3 11.2 ppm for 1-hour, and between 6.8 6.7 and 9.0 8.9 ppm for 8-hour. The future with project CO levels are projected to be between 8.8 8.6 and 11.3 11.2 ppm for 1-hour, and between 6.9 6.7 and 9.0 8.9 ppm for 8-hour. As indicated in Table 5.3-4 the future with project CO levels are projected to be the same or slightly higher than the as future no project CO levels. The future with project CO levels are projected to be increased by 0.1 ppm for 1-hour and 8-hour at Receptor 3. However, the future CO levels at all other receptor locations are projected to be the same.

The future CO levels for all future scenarios are projected to comply with the 1-hour and 8-hour CO state and federal standards at three of the all four receptor locations. However, the 8-hour CO levels are projected to exceed the standard for both future scenarios. The results show that the future CO level at Receptor 4 will exceed the 8-hour CO standard; however, the contribution due to the project is not detectable. The predominant source of the CO emissions will be I-405. The project will contribute slightly to the future CO emissions; however, the increase in CO levels is not considered to be significant. The project's forecasted contribution to CO levels is not detectable and therefore considered to be less than significant.

According to the CEQA Handbook, a measurable increase is defined as 1 ppm for the 1-hour standard, and 0.45 ppm for the 8-hour standard (which is consistent with District Regulation XIII definition of a significant impact). For areas with background concentrations already exceeding the state 1-hour and 8-hour CO standards, any increase above the measurable increase is considered "likely to increase the frequency or severity of an existing CO violation". However, since the CO increases due to the project is below the measurable increase (CO increase levels of 1 ppm for 1-hour and 0.45 ppm for 8-hour), the proposed project is not considered to create a significant local air quality impact.



SOURCE: Mestre-Greve Associates, July 2000

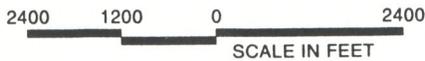


Exhibit 5.3-1
CALINE4 CO -
Modeling Receptor Locations

The future with project CO concentration levels will essentially be lower than the existing CO levels. In fact, the future CO concentration levels will be reduced by an average of ~~2.6~~ **2.8** ppm for 1-hour and an average of ~~4.9~~ **2.1** ppm for 8-hour at the four receptor locations. This is mainly due to the decrease in the future background CO concentration levels as well as the anticipated decrease in the future emission factors (version MVEI7G). In general, the background CO concentration and the emission factors are projected to decrease steadily in the future years. The future contribution of the local traffic will actually increase due to increase in traffic, but is more than offset by the decrease of background levels and emission factors.

Long Term Regional Air Quality

The main source of regional emissions generated by the proposed project will be from motor vehicles. Other emissions will be generated from the combustion of natural gas for space heating and the generation of electricity. Emissions will also be generated by the use of natural gas and oil for the generation of electricity off-site.

Total Project Emissions

The total daily emissions were assessed for the proposed project. The total daily emissions at the project build out will be primarily due to vehicular emissions, and emissions due to on-site combustion of natural gas for space heating and water heating. Also, the generation of electrical energy by the combustion of fossil fuels results in additional emissions off-site.

Vehicular emissions will be the main sources of the project's daily emissions. Estimates were made of the vehicular emissions that would be generated by the proposed project. The future traffic data for the project were prepared by Austin Foust Associates, Inc., ~~June 15~~ **October 10, 2000**. The project is anticipated to generate approximately 10,001 average daily trips (ADT). The average trip length data for Orange County were obtained from the CEQA Handbook, Table A9-5-D. The average trip length for the proposed project is estimated to be 9 miles. The product of the project daily trips and a 9 mile trip length, translate to total vehicle miles traveled (VMT) of 90,009 due to the proposed project.

The emission factors from version MVEI7G were used to calculate the vehicular emissions. The MVEI7G emission factors were obtained from the Air Resources Board (ARB). The MVEI7G emission factors, at an average speed of 25 miles per hour, were used in the estimates. The emissions were projected for year 2020.

Other emission sources that will be generated by the proposed project are on-site combustion of natural gas for space heating and water heating, and off-site electrical usage. The data used to estimate the on-site combustion of natural gas, and off-site electrical usage are based on the proposed land uses in terms of dwelling units and emission factors taken from the 1993 CEQA Handbook. According to the project's

description, the total proposed building areas result in approximately 1,389,145 square feet of commercial uses. These data are also provided as technical data in Appendix D. The total emissions due to the project are presented in Table 5.3-5.

**TABLE 5.3-5
TOTAL DAILY EMISSIONS YEAR 2020**

Pollutant	Vehicular Emissions (pounds/day)	On-Site Emis. From Natural Gas Combustion (pounds/day)	Off-Site Emis. From Electrical Generation (pounds/day)	Total Daily Emissions (pounds/day)	Total Daily Emissions (tons/day)
CO	558.48	2.64	8.98	570	0.29
TOG/ROG	61.29	0.70	0.45	62	0.03
NOx	105.17	15.85	51.65	173	0.09
PM10	5.95	0.03	1.80	8	0.00
SOx	15.43	0.00	5.39	21	0.01

Source: Mestre-Greve Associates, July October 2000

Total Regional Emissions

The main source of emissions generated by the proposed project will be from motor vehicles. Other sources of emissions will be natural gas combustion for space heating, electrical generation and various activities that are yet to be defined and quantified. Emissions for the proposed project were calculated using methodology and emission factors contained in the SCAQMD's CEQA Air Quality Handbook.

The SCAB emission data are projected for year 2010 provided in the 1997 AQMP. They will be used to compare with the project's total emissions. The total emissions generated by the project are presented in the first line of Table 5.3-6.

**TABLE 5.3-6
COMPARISON OF EMISSIONS
TOTAL EMISSIONS PER DAY**

CONTAMINANT	CO	ROG	NOx	PM10	SOx
Project Emissions (Pounds/Day)	570	62	173	8	21
SCAB (Tons/Day)	3,341	769	697	457	70
SCAQMD Thresholds of Significance (Pounds/Day)	550	55	55	150	150
Project Emissions as a Percent of Regional Emissions					
Percent of County Emissions (Project)	0.009%	0.004%	0.012%	0.001%	0.015%

Source: Mestre-Greve Associates, July October 2000

As can be seen in Table 5.3-6, on the regional basis, the proposed project will contribute approximately 0.009 percent or less, when compared with the SCAB emissions. The primary source of the proposed project emissions will be from motor vehicles.

Note that the project emissions exceed the SCAQMD thresholds of significance for CO, ROG and NO_x. Note also that these thresholds are not necessarily an appropriate reference to determine the significance of project emissions. These thresholds are taken from the "1993 CEQA Air Quality Handbook", which states that the criteria "are consistent with the federal Clean Air Act definition of a significant source in an area classified as extreme for ozone." While it is correct that the thresholds are consistent as such, the SCAQMD ignores the fact that such criteria were developed initially by the U.S. EPA to be applied to point source emissions, such as an industrial smokestack. Comparisons between emissions from an extreme point source and emissions from the proposed project are clearly inappropriate in this context. Emissions from the proposed project are primarily from motor vehicles traveling in the area. Emissions from the proposed project bear no resemblance to emissions from industrial sources.

According to the SCAQMD CEQA Handbook, the SCAB has been classified as a non-attainment air basin for compliance with the Federal Clean Air Act. The daily emissions for the project will exceed the significant thresholds for CO, ROG and NO_x, and therefore, the project's long-term impacts will be significant, and will contribute incrementally to a cumulatively significant adverse impact. Mitigation measures are recommended for long-term impacts.

It is also very important to note that, while the SCAQMD states that all projects with emissions exceeding the thresholds are to be considered significant, the final decision whether a project is declared to have significantly adverse environmental impacts lies, by law, with the lead agency. It is not within the purview of the SCAQMD to declare that projects will have significant impacts or not.

Compliance with Air Quality Planning

The following sections deal with the major air planning requirements for this project. Specifically, consistency of the project with the AQMP is addressed. As discussed below, consistency with the AQMP is a requirement of CEQA.

Consistency with AQMP

An EIR must discuss any inconsistencies between the proposed project and applicable General Plans and regional plans CEQA guidelines (Section 15125)). Regional plans that apply to the proposed project include the AQMP. In this regard, this section will discuss any inconsistencies between the proposed project and the AQMP.

The purpose of the consistency discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the project would interfere with the

region's ability to comply with federal and state air quality standards. If the decision-maker determine that the project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the plan if it furthers one or more policies and does not obstruct other policies. The Handbook identifies two key indicators of consistency:

- Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (except as provided for CO in Section 9.4 for relocating CO hot spots).
- Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase. Both of these criteria are evaluated in the following sections.

Criterion 1: Increase In The Frequency Or Severity Of Violations

Based on the air quality modeling analysis contained in this report, it is expected that there will be short-term construction impacts for the project. It is unlikely that short-term construction activities will increase the frequency or severity of existing air quality violations due to required compliance with SCAQMD Rules and Regulations, but emissions will be generated in excess of SCAQMD's threshold criteria (refer to Section 2.1).

The proposed project will increase regional emissions, and will increase regional emissions by an amount greater than the SCAQMD thresholds for CO, ROG and NO_x (Refer to Section 2.3.3). However, the project is not projected to contribute significantly to the local air quality when compared to No Project (refer to Section 2.a). The results show that the future CO concentration levels with the project will not increase the severity of the CO concentrations. The 1-hour and 8-hour CO increase levels with project will not exceed the CEQA's measurable increase (1 ppm for 1-hour and 0.45 ppm for 8-hour). Because the project is not projected to impact the local air quality, the project is found to be consistent with the AQMP for the first criterion.

Criterion 2: Exceed Assumptions in the AQMP

Consistency with the AQMP assumptions is determined by performing an analysis of the project with the assumptions in the AQMP. The emphasis of this criterion is to insure that the analyses conducted for the project are based on the same forecasts as the AQMP. The Regional Comprehensive Plan and Guide (RCP&G) consists of three sections: Core Chapters, Ancillary Chapters, and Bridge Chapters. The Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management chapters constitute the Core Chapters of the document. These chapters currently respond directly to

federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA.

Since the SCAG forecasts are not detailed, the test for consistency of this project is not specific. The traffic modeling upon which much of the air quality assessment is based are the City of Costa Mesa Traffic Model (CMTM), Intersection Capacity Utilization (ICU), and Institute of Transportation Engineers (ITE) Trip Generation Sixth Edition. The traffic modeling has growth projections for year 2020 which is the project's buildout year. The future traffic growth projections also include approved projects to be constructed for long range year 2020. It appears that the traffic growth forecasts for the proposed project, at the project's buildout year, are not inconsistent with the SCAG growth forecasts. However, as noted in Section 5.7.2 Population, Housing and Employment, the proposed project would result in a significant increase in employment in CAA's 44 and 45, and within RSA-39, which would result in a substantial demand for housing in the area. To the extent this housing demand is not factored into the current SCAG growth forecasts, the proposed project may not be entirely consistent with SCAG growth forecasts.

Inclusion of AQMP Measures

The 1997 AQMP lists strategies designed to improve air quality throughout the region. These measures examine solutions to regional air quality concerns. A two tiered approach is used in the 1997 AQMP. The first is short- and medium-term measures that will utilize existing technology. The second tier is long-term measures that will rely on new technology. Each tier then contains several control measures intended to reduce emissions from specific sources or activities including stationary sources, transportation related and land use related sources, area sources, mobile sources, and off-road mobile sources.

The project will need to include mitigation measures to reduce air quality emissions to be consistent with the AQMP. The control measures are taken from the 1997 AQMP Table 4-1, Table 4-4 and Table 4-9 and are described in Section 3.

5.3.4 MITIGATION PROGRAM

The following standard conditions are required to reduce NO_x air and PM₁₀ quality impacts to less than significant.

Standard Conditions and Requirements

All construction contractors shall comply with South Coast Air Quality Management District (SCAQMD) regulations, including Rule 402, the Nuisance Rule, and Rule 403, Fugitive Dust. Prior to the issuance of a grading permit where grading permit will occur on more than 50 acres at one time, the applicant shall submit a grading plan or grading contingency plan to the SCAQMD in accordance with Rule 403. All

grading (regardless of size) shall apply best available control measures for fugitive dust in accordance with Rule 403. To ensure that the project is in full compliance with applicable SCAQMD dust regulations and that there is no nuisance impact off the site, the contractor will implement each of the following:

- a. Develop a project grading plan or contingency plan and submit the plan to the SCAQMD consistent with the provisions of Rule 403. (Note: only applicable where more than 50 acres are graded).
- b. ~~Moisten soil not more than 15 minutes prior to moving soil or conduct whatever watering is necessary to prevent visible dust emissions from exceeding 100 feet in any direction.~~
- c. Apply chemical stabilizers to disturbed surface areas (completed grading areas) within five days of completing grading or apply dust suppressants or vegetation sufficient to maintain a stabilized surface.
- d. Water excavated soil piles hourly or cover with temporary coverings.
- e. Water exposed surfaces at least twice a day under calm conditions. Water as often as needed on windy days when winds are less than 25 miles per day or during very dry weather in order to maintain a surface crust and prevent the release of visible emissions from the construction sites.
- f. Wash mud-covered tires and under-carriages of trucks leaving construction sites.
- g. Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud which would otherwise be carried off by trucks departing project sites.
- h. Securely cover loads with a tight fitting tarp on any truck leaving the construction sites to dispose of debris.

To reduce emissions from [project-related vehicle trips, the project applicant shall adhere to the City of Costa Mesa Municipal Code §13-880 through 13-888 (Transportation Demand Management) and the South Coast Air Quality Management District Regulation XV to reduce vehicle traveled to the maximum extent feasible. The code includes measures such as:

- Preferential parking for carpool vehicles;
- Bicycle parking and shower facilities;
- Information provided to employees on transportation alternatives;
- Rideshare vehicle loading areas;
- Vanpool vehicle accessibility; and
- Bus stop improvements.

To reduce emissions from the power plant providing electricity to the site, prior to the issuance of building permits, the project applicant shall demonstrate to the satisfaction of the City of Costa Mesa Building Safety Division that the project shall adhere to Title 24 of the California Code which requires new development to use energy efficient electrical and mechanical systems.

5.3.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Construction Emissions after Mitigation Measures

In conclusion, the short-term construction emissions due to the proposed project with mitigation measures will be reduced to an extent, however, the emissions would still be significant specifically for NO_x and PM₁₀.

Local Air Quality Impacts

The future with project CO emissions are not projected to increase above CEQA's measurable increase levels, and therefore, the local air quality impact due to the project is not considered to be significant.

Regional Impacts

The long term regional air quality impact due to the proposed project with mitigation measures will be reduced to an extent; however, the emissions would still be significant specifically for CO, NO_x and ROG.

5.4 NOISE

A noise report was prepared for the project by Mestre Greve Associates in June 2000. Traffic volume information used in this analysis provided by Austin-Foust Associates. Traffic noise impacts are evaluated at project build out, 2020. Traffic noise impacts on the project site are identified. Noise impacts from project site activity on nearby residential areas are also discussed. The full report is located in Appendix E of this EIR.

5.4.1 METHODOLOGY

Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dB higher than another is judged to be twice as loud; and 20 dB higher four times as loud; and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud).

Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the "A-weighted decibel," abbreviated dBA. Exhibit 5.4-1 provides examples of various noises and their typical A-weighted noise level.

Sound levels decrease as a function of distance from the source as a result of wave divergence, atmospheric absorption and ground attenuation. As the sound wave form travels away from the source, the sound energy is dispersed over a greater area, thereby dispersing the sound power of the wave. Atmospheric absorption also influences the levels that are received by the observer. The greater the distance traveled, the greater the influence and the resultant fluctuations. The degree of absorption is a function of the frequency of the sound as well as the humidity and temperature of the air. Turbulence and gradients of wind, temperature and humidity also play a significant role in determining the degree of attenuation. Intervening topography can also have a substantial effect on the effective perceived noise levels.

Noise has been defined as unwanted sound and it is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. This criteria is based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance.

Noise Assessment Metrics

The description, analysis and reporting of community noise levels around communities is made difficult by the complexity of human response to noise and the myriad of noise metrics that have been developed for describing noise impacts. Each of these metrics attempts to quantify noise levels with respect to community response. Most of the metrics use the A-Weighted noise level to quantify noise impacts on humans. A-Weighting is a frequency weighting that accounts for human sensitivity to different frequencies.

Noise metrics can be divided into two categories: single event and cumulative. Single-event metrics describe the noise levels from an individual event such as an aircraft fly over or perhaps a heavy equipment pass-by. Cumulative metrics average the total noise over a specific time period, which is typically 1 or 24-hours for community noise problems. For this type of analysis, cumulative noise metrics will be used.

Several rating scales have been developed for measurement of community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on man, (2) the variety of noises found in the environment, (3) the variations in noise levels that occur as a person moves through the environment, and (4) the variations associated with the time of day. They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominate noise scales are the: Equivalent Noise Level (LEQ) and the Community Noise Equivalent Level (CNEL). These scales are described in the following paragraphs.

LEQ is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. LEQ is the "energy" average noise level during the time period of the sample. LEQ can be measured for any time period, but is typically measured for 1 hour. This 1 hour noise level can also be referred to as the Hourly Noise Level (HNL). It is the energy sum of all the events and background noise levels that occur during that time period.

CNEL, Community Noise Equivalent Level, is the predominant rating scale now in use in California for land use compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the A-weighted decibel. Time weighted refers to the fact that noise that occurs during certain sensitive time periods is penalized for occurring at these times. The evening time period (7 p.m. to 10 p.m.) penalizes noises by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dBA. These time periods and penalties were selected to reflect people's increased sensitivity to noise during these time periods. A CNEL noise level may

SOUND LEVELS AND LOUDNESS OF ILLUSTRATIVE NOISES IN INDOOR AND OUTDOOR ENVIRONMENTS

Numbers in Parentheses are the A-Scale Weighted Sound Levels for that Noise Event

dB(A)	OVER-ALL LEVEL Sound Pressure Level Reference: 0.0002 Microbars	COMMUNITY (Outdoor)	HOME OR INDUSTRY	LOUDNESS Human Judgement of Different Sound Levels
130		Military Jet Aircraft Take-Off With After-burner From Aircraft Carrier @ 50 Ft. (130)	Oxygen Torch (121)	120 dB(A) 32 Times as Loud
120 110	UNCOMFORTABLY LOUD	Turbo-Fan Aircraft @ Take Off Power @ 200 Ft. (110)	Riveting Machine (110) Rock-N-Roll Band (108-114)	110 dB(A) 16 Times as Loud
100		Jet Flyover @ 1000 Ft. (103) Boeing 707, DC-8 @ 6080 Ft. Before Landing (106) Bell J-2A Helicopter @ 100 Ft. (100)		100 dB(A) 8 Times as Loud
90	VERY LOUD	Power Mower (96) Boeing 737, DC-9 @ 6080 Ft. Before Landing (97) Motorcycle @ 25 Ft. (90)	Newspaper Press (97)	90 dB(A) 4 Times as Loud
80		Car Wash @ 20 Ft. (89) Prop. Airplane Flyover @ 1000 Ft. (88) Diesel Truck, 40 MPH @ 50 Ft. (84) Diesel Train, 45 MPH @ 100 Ft. (83)	Food Blender (88) Milling Machine (85) Garbage Disposal (80)	80 dB(A) 2 Times as Loud
70	MODERATELY LOUD	High Urban Ambient Sound (80) Passenger Car, 65 MPH @ 25 Ft. (77) Freeway @ 50 Ft. From Pavement Edge, 10:00 AM (76 +/- 6)	Living Room Music (76) TV-Audio, Vacuum Cleaner	70 dB(A)
60		Air Conditioning Unit @ 100 Ft. (60)	Cash Register @ 10 Ft. (65-70) Electric Typewriter @ 10 Ft. (64) Dishwasher (Rinse) @ 10 Ft. (60) Conversation (60)	60 dB(A) 1/2 as Loud
50	QUIET	Large Transformers @ 100 Ft. (50)		50 dB(A) 1/4 as Loud
40		Bird Calls (44) Lower Limit Urban Ambient Sound (40)		40 dB(A) 1/8 as Loud
20	JUST AUDIBLE	Desert at Night (dB(A) Scale Interrupted)		
10	THRESHOLD OF HEARING			

SOURCE: Reproduced from Melville C. Branch and R. Dale Beland, "Outdoor Noise in the Metropolitan Environment,"
Published by the City of Los Angeles, 1970, p.2.

SOURCE: Mestre-Greve Associates, July 2000



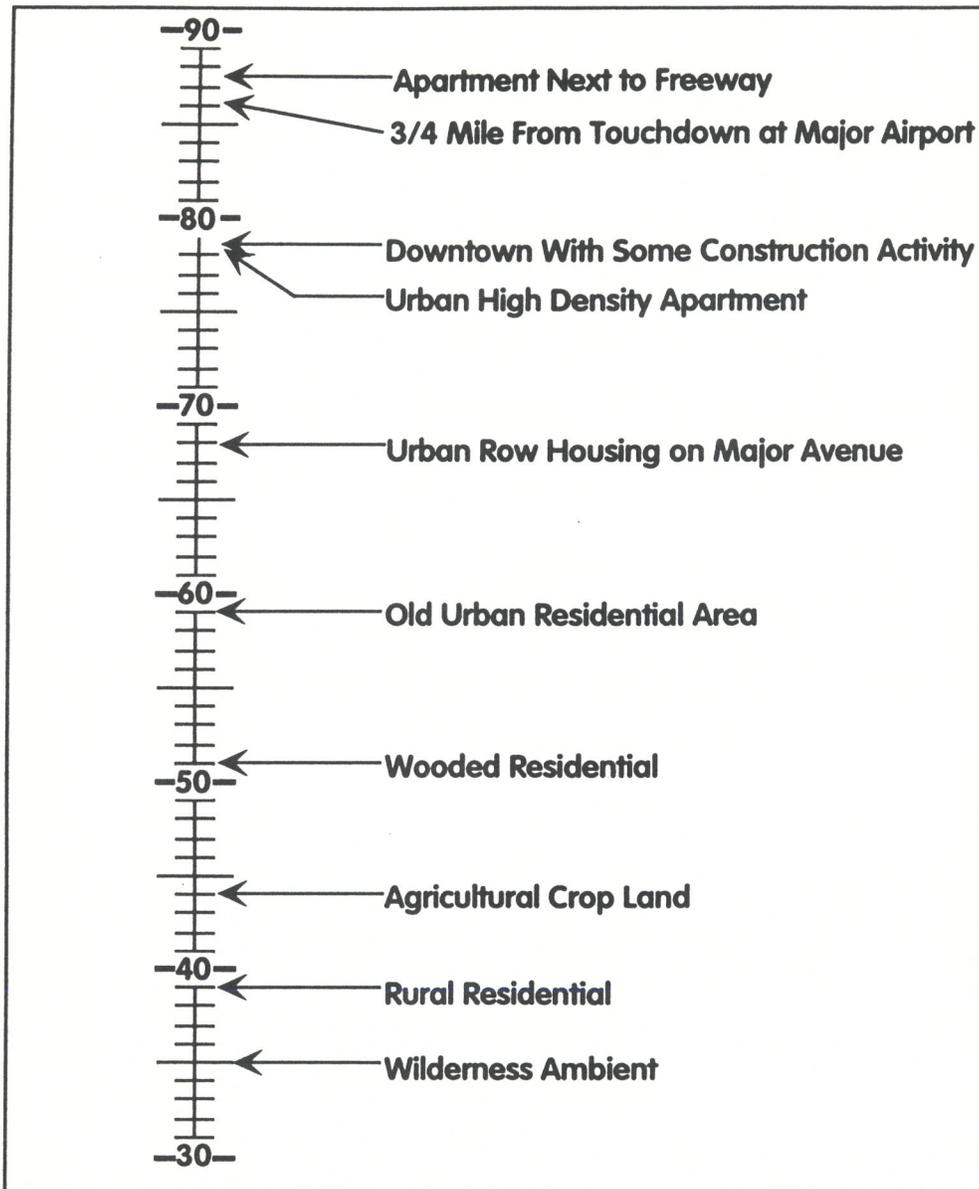
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Exhibit 5.4-1 Typical A-Weighted Noise Levels

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CNEL Outdoor Location



Source: U.S. Environmental Protection Agency, "Impact Characterization of Noise Including Implications of Identifying and Achieving Levels of Cumulative Noise Exposure," EPA Report NTID 73.4, 1973.

SOURCE: Mestre-Greve Associates, July 2000



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Exhibit 5.4-2
Typical Outdoor Noise Levels

SOUTH COAST PLAZA TOWN CENTER EIR

be reported as a "CNEL of 60 dBA," "60 dBA CNEL," or simply "60 CNEL." Typical noise levels in terms of the CNEL scale for different types of communities are presented in Exhibit 3.

L_{dn}, the day-night scale is similar to the CNEL scale except that evening noises (7 p.m. to 10 p.m.) are not penalized. It is a measure of the overall noise experienced during an entire day. The time-weighted refers to the fact that noise that occurs during certain sensitive time periods is penalized for occurring at these times. In the L_{dn} scale, those noise levels that occur during the night (10 pm to 7 am) are penalized by 10 dB. This penalty was selected to attempt to account for increased human sensitivity to noise during the quieter period of a day, where home and sleep is the most probable activity.

L(%) is a statistical method of describing noise which accounts for variance in noise levels throughout a given measurement period. L(%) is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example since 5 minutes is 25% of 20 minutes, L(25) is the noise level that is equal to or exceeded for five minutes in a twenty minute measurement period. It is L(%) that is used for most noise ordinance standards. For example most daytime city, state and county noise ordinances use an ordinance standard of 55 dBA for 30 minutes per hour or an L(50) level of 55 dBA. In other words the noise ordinance states that no noise level should exceed 55 dBA for more that fifty percent of a given period.

Noise Criteria

The Costa Mesa Noise Ordinance (Chapter XIII Noise Control - Sections 13-277 to 13-287) establishes exterior and interior noise standards that protect areas that are zoned residential. Table 5.4-1 presents the City of Costa Mesa's Noise Ordinance standards. The noise ordinance is designed to control unnecessary, excessive and annoying sounds from stationary (non-transportation) sources such as those noise sources from parking lots, loading docks, etc., at the residential property line. The noise ordinance requirements can not be applied to mobile noise sources such as heavy trucks when traveling on public roadways. Control of the mobile noise sources on public roads is preempted by federal and State laws.

Community noise levels are measured in terms of the "A-weighted decibel," abbreviated dBA. A common method of characterizing noise levels from industrial sources is with the "percent noise level" or L%. The percent noise level describes the noise level which is exceeded during a certain percentage of the measurement period. For example, according to the City of Costa Mesa Noise Ordinance, the L50 noise level represents the noise standard for a cumulative period of more than thirty (30) minutes in any hour, or the L50 is the noise level exceeded more than 50 percent of the time and represents the average noise level. Similarly, the L25 noise level represents noise standard for a cumulative period of more than fifteen (15) minutes in any hour. The L25 is the noise level exceeded more than 25 percent of the time, and so forth.

The City of Costa Mesa establishes exterior and interior noise criteria for non-transportation related noise which impacts adjacent properties. This criteria is given in terms of average L50 noise levels at the property boundary. Greater noise levels are permitted during the day (7 a.m. to 11 p.m.) as compared to the night-time period (11 p.m. to 7 a.m.).

**TABLE 5.4-1
CITY OF COSTA MESA NOISE ORDINANCE STANDARDS
RESIDENTIAL ZONE**

Noise Level Not to Be Exceeded			
Maximum Time of Exposure	Noise Metric	7 a.m. to 11 p.m. (daytime)	11 p.m. to 7 a.m. (nighttime)
<i>Exterior Noise Standards</i>			
30 Minutes/Hour	L50	50 dBA	50 dBA
15 Minutes/Hour	L25	60 dBA	55 dBA
5 Minutes/Hour	L8.3	65 dBA	60 dBA
1 Minutes/Hour	L1.7	70 dBA	65 dBA
Any period of time	Lmax	75 dBA	70 dBA
<i>Exterior Noise Standards</i>			
Minutes/Hour	L8.3	55 dBA	45 dBA
Minutes/Hour	L1.7	60 dBA	50 dBA
Any period of time	Lmax	65 dBA	55 dBA

Source: Mestre-Greve Associates, July 2000

5.4.2 EXISTING CONDITIONS

Costa Mesa Planning Policies

The following identifies the goals, objectives, and policies of the City of Costa Mesa General Plan Noise Element that are applicable to the SCPTC project.

GOAL II: ENVIRONMENTAL PROTECTION AND PRESERVATION

It is the goal of the City of Costa Mesa to protect its citizens from injury, damage, or destruction from environmental hazards, including hydrologic, geologic, and climatic episodes, and to work towards the improvement of noise abatement and improved air and water quality.

Objective II-C: Control noise levels within the City for protection of residential area and other sensitive land uses from excessive and unhealthful noise levels.

Policies

90. Require, as part of the environmental review process, that full consideration be given to the existing and projected noise environment.
91. Establish maximum acceptable exterior noise levels for residential areas of 65 CNEL.
92. Give full consideration to the existing and projected noise environment when considering alterations to the City's circulation system and Master Plan of Highways.
100. Minimize noise impacts upon residential and other noise sensitive land uses.
103. In conjunction with Environmental Impact Reports, assess the potential noise impact associated with increased traffic on surrounding residential and sensitive land uses. When acceptable interior and exterior noise levels are projected to be exceeded project related impacts shall be mitigated through construction of noise attenuation walls or other measures.

Noise Measurements

To determine the existing noise environment at the project site, ambient noise measurements were made on June 8, 2000 between 10:00 a.m. and 3:00 p.m. at four locations. Two measurements sites were located within the project boundaries and two were located in residential areas in the vicinity of the project. The locations of the noise measurement sites are shown in Exhibit 5.4-3.

Site 1 was located on-site at the corner of Avenue of the Arts and I-405. The monitor was located approximately 100 feet from the edge of the freeway. Site 2 was located at the existing apartments in the northeast T-intersection of Avenue of the Arts and Town Center. A hotel is located adjacent to these apartments. The monitor was approximately 50 feet from the centerline of Avenue of the Arts. It was noted that these existing apartments have second through fifth floor balcony areas. Site 3 was located at the nearest homes to the north of the project site, along Sunflower. The monitor was approximately 200 feet from the centerline of the roadway. Site 4 was located at the nearest apartment complex to the east of the project site, on the south side of Sunflower. The monitor was approximately 50 feet from the centerline of the roadway. These existing apartments also have second through fifth floor balcony areas. There are also existing homes located on the north side of Sunflower. These existing homes have perimeter walls approximately 6 feet high.

Two 15-minute measurements were made at each of the four measurement sites. The measurements were made with a Brüel & Kjær Modular Precision Sound Level Meter, Type 2260. The system was calibrated

before and after each measurement series with calibration traceable to the National Institute of Standards and Technology. The wind speeds during the time of measurements were light (0 to 5 miles per hour).

The measurement results are presented in terms of the equivalent noise levels (Leq), maximum noise levels, minimum noise levels and percentile noise levels (L%) (see Table 5.4-2). The L50 percentile level for example, represents the noise levels exceeded 50 percent of the time, and usually represent the average ambient noise level. The L90 noise levels represent the background noise levels, which are exceeded 90 percent of the time. The other percentile levels as well as the L50 relate to the noise ordinance limits presented previously.

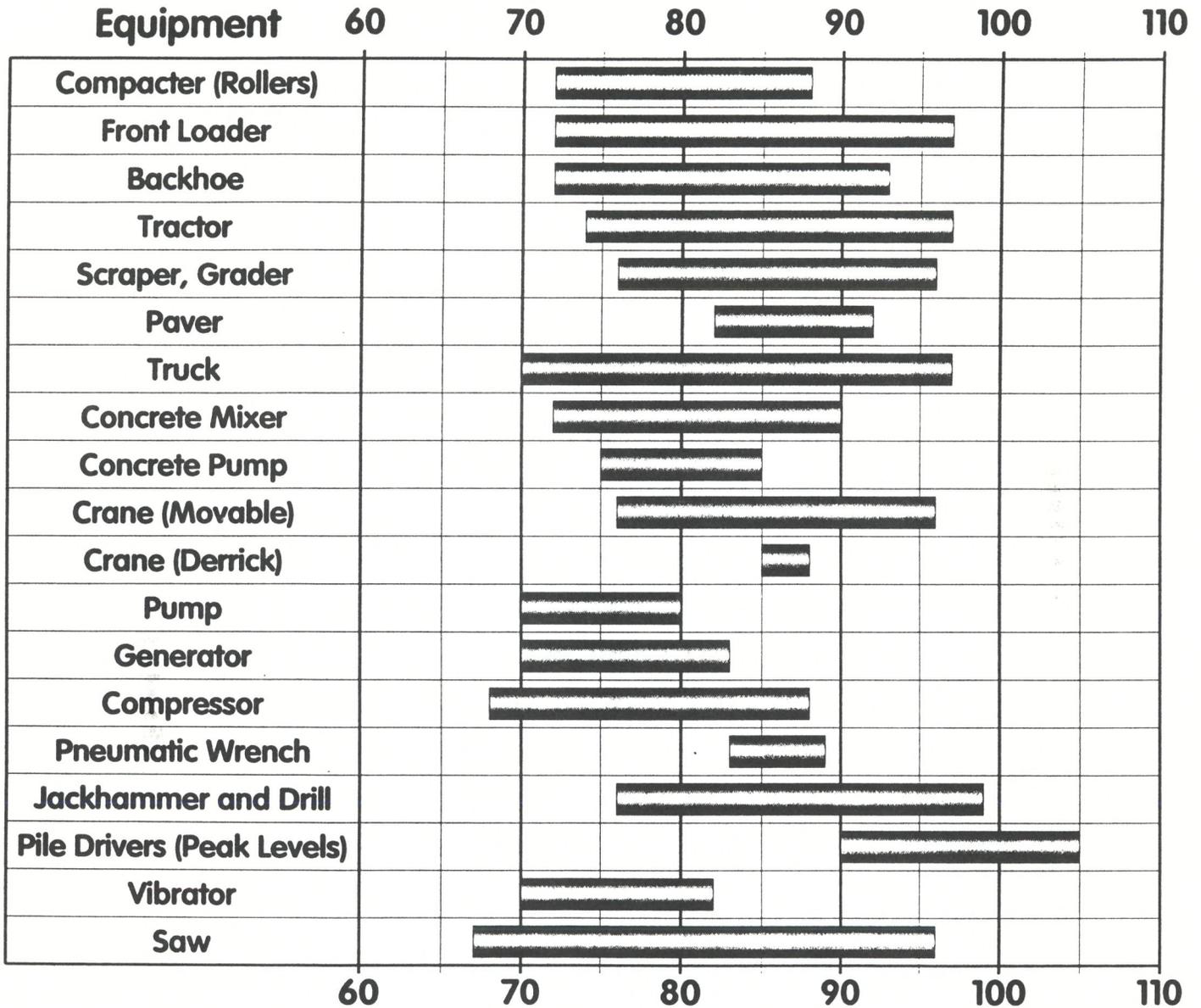
**TABLE 5.4-2
EXISTING NOISE MEASUREMENTS**

LEQ	Lmax	Lmin	L1.7	L8.3	L25	L50	L90
Site 1 Along I-405-commercial							
75.6	78.8	72.2	77.8	76.8	76.2	75.4	73.8
75.6	80.1	71.3	78.2	77.0	76.0	75.4	73.6
Site 2 Along Avenue of the Arts-residential							
63.5	73.7	55.7	69.4	67.0	64.0	61.8	58.6
63.2	82.2	57.1	69.6	66.0	63.0	60.2	58.2
Site 3 Along Sunflower - residential							
62.5	73.2	55.3	68.2	65.8	63.2	61.0	57.4
62.6	77.0	55.5	68.6	65.4	62.8	60.8	58.2
Site 4 Along Sunflower - residential							
67.0	77.1	50.9	74.0	71.4	68.4	63.6	54.6
66.6	75.1	<50	73.4	71.6	68.2	63.0	53.2
Source: Mestre-Greve Associates, July 2000							

The noise environment at all of the sites was dominated by traffic. Local vehicle pass-bys during the measurement period caused the maximum noise levels. At Site 1 a truck on the freeway resulted in the maximum noise level. At Site 2 a loud motorcycle caused the maximum level. At Site 4 a bus on Sunflower caused the maximum while at Site 3 a car on the residential street caused the maximum.

The measurement at Site 1 shows that I-405 generates a significant noise level. The noise levels at the other sites would be considered moderate to somewhat noisy.

A-Weighted Sound Level (dBA) At 50 Feet



Source: "Handbook of Noise Control,"
by Cyril Harris, 1979

SOURCE: Mestre-Greve Associates, July 2000



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Exhibit 5.4-3 Construction Equipment Noise Levels

SOUTH COAST PLAZA TOWN CENTER EIR

Roadway Noise Levels

An estimate of highway noise levels in terms of CNEL was computed for the roadways affected by project traffic. The Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December 1978) was utilized. The CALVINO noise emission curves developed by Caltrans were used with the FHWA model. These curves better model the California vehicle mix. The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." A computer code has been written which computes equivalent noise levels for each of the time periods used in the calculation of CNEL. Weighting these noise levels and summing them results in the CNEL for the traffic projections used. CNEL contours are found by iterating over many distances until the distances to the 60, 65, and 70 CNEL contours are found.

The distances to the existing 60, 65 and 70 CNEL contours for the roadways in the vicinity of the proposed project site are given in Table 5.4-3. The CNEL at 100 feet from the roadway centerline is also presented. These represent the distance from the centerline of the road to the contour value shown. The values given in Table 3 represent existing noise levels and do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. Note that only roadways adjacent to the project or that have noise levels affected by the project are presented below in Table 5.4-3. Contours for all roadways analyzed in the traffic study are presented in Appendix E along with the traffic volumes, speeds and traffic mixes used to calculate the noise levels.

**TABLE 5.4-3
MODELED EXISTING ROADWAY TRAFFIC NOISE LEVELS**

CNEL Level @ 100'*				
Distance To CNEL Contour from Centerline of Roadway (feet)				
Roadway Segment	(dBA)	70 CNEL	65 CNEL	60 CNEL
MacArthur				
West of Fairview	--	--	--	--
Fairview to Greenville	--	--	--	--
Raitt to Bear	--	--	--	--
Main to I-405	68.7	82	176	379
Sunflower				
West of Fairview	62.5	31	68	146
Fairview to Greenville	64.4	42	91	195
Greenville to Raitt	64.1	40	87	187
Raitt to Bear	64.1	40	87	187
Bear to Plaza	--	--	--	--

CNEL Level @ 100'*				
Distance To CNEL Contour from Centerline of Roadway (feet)				
Roadway Segment	(dBA)	70 CNEL	65 CNEL	60 CNEL
Plaza to Bristol	66.4	57	123	265
Bristol to Sakioka	66.0	54	117	252
Sakioka to Anton	64.8	45	97	210
Anton to Main	66.4	57	123	265
South Coast				
West of Fairview	61.1	RW	55	118
East of Fairview	--	--	--	--
West of Bear	62.8	33	72	155
Town Center				
Bristol to Ave. of The Arts	55.1	RW	RW	47
Anton				
Bristol to Sakioka	66.4	57	123	265
Bristol to Ave. of The Arts	66.4	57	123	265
Ave. of The Arts to Sunflower	60.5	RW	50	108
Baker				
West of Bear	66.7	60	129	278
Bear to Bristol	--	--	--	--
East of Bristol	65.3	48	104	225
Fairview				
MacArthur to Sunflower	68.3	77	165	356
Sunflower to South Coast	69.0	86	186	400
South Coast to I-405	70.1	102	219	472
Raitt				
MacArthur to Sunflower	--	--	--	--
Bear				
Sunflower to South Coast	65.1	47	101	217
I-405 to Paularino	67.2	65	141	303
Paularino to Baker	--	--	--	--
Plaza				
Callens to Sunflower	--	--	--	--
Bristol				
Warner to Segerstrom	67.5	68	147	316
Segerstrom to Alton	--	--	--	--
Sunflower to Town Center	69.2	89	191	411
Town Center to Anton	69.6	94	203	437

CNEL Level @ 100'*				
Distance To CNEL Contour from Centerline of Roadway (feet)				
Roadway Segment	(dBA)	70 CNEL	65 CNEL	60 CNEL
Anton to I-405	70.6	109	235	506
I-405 to Paularino	69.1	87	188	406
Avenue of the Arts				
Town Center to Anton	59.8	RW	45	97
Flower				
Dyer to MacArthur	62.8	33	72	155
Main				
Dyer to MacArthur	67.0	63	135	291
MacArthur to Sunflower	66.0	54	117	252
Sunflower to Red Hill	--	--	--	--
I-405				
Bristol to SR-55	81.4	578	1,245	2,683
SR-73				
Bear to SR-55	76.2	260	561	1,208
*From Roadway Centerline. Existing traffic volume not reported in Traffic Study. RW - Contour does to extend beyond right-of-way Source: Mestre-Greve Associates, July 2000				

Table 5.4-3 shows that there are significant noise levels generated by many roadways in the project area. Note that the noise levels and distances to contours presented above do not take into account any noise barriers or topography. Typically a 5- to 6-foot wall exists along the major roadways where there are adjacent residential land uses. Assuming this standard wall, homes along MacArthur, Sunflower, Baker, Bear and Main likely experience noise levels that approach the City's 65 CNEL standard. Some homes along Fairview may even exceed the standard. The I-405 freeway generates significant levels of noise. Where residential land uses are located along the freeways there are noise barriers designed to meet Caltrans' standards. Typically these walls also mitigate traffic noise levels to below 65 CNEL.

Aircraft Noise Levels

The project site is located approximately 2 miles northwest of John Wayne Airport. The project is located approximately 200 feet outside of the 60 CNEL contour. Aircraft noise levels at the project site are less than 60 CNEL but more than 55 CNEL. This level is not significant when compared with the roadway noise levels in the project area. While noise generated by the airport, in general, may increase in the future, the noise levels on the project site are not expected to increase in the future. This is because the primary source of aircraft noise impacting the project site is general aviation touch-and-go operations. These are not expected to increase significantly in the future.

5.4.3 PROJECT AND CUMULATIVE IMPACTS

Thresholds of Significance

Long-term on site impacts are measured against the noise level limits typically applied by the City of Costa Mesa on office and retail buildings. The City does not have any exterior noise standards for office, retail and hotel land uses. The City has typically applied interior noise standards to these uses. Specifically these are a 45 CNEL interior noise standard for private offices and hotel guestrooms, 50 CNEL for general offices and 55 CNEL for retail buildings.

Off-site impacts from on-site activities, temporary and long-term, are measured against the City of Costa Mesa Noise Ordinance presented previously. Any activity on private property must comply with the noise ordinance.

Long-term off-site impacts from traffic noise are measured against two criteria. Both criteria must be met for a significant impact to be identified. First, project traffic must cause a noise level increase greater than 3dB on a roadway segment adjacent to a noise sensitive land use. Second the resulting future with project noise level must exceed the criteria level for the noise sensitive land use. In this case the criteria level is 65 CNEL for residential land uses.

In community noise assessment, changes in noise levels greater than 3 dB are often identified as significant, while changes less than 1 dB will not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. Note that there is no scientific evidence available to support the use of 3 dB as the significance threshold. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dB. In a community noise situation, however, noise exposures are over a long time period, and changes in noise levels occur over years, rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dB, and 3 dB appears to be appropriate for most people.

Costa Mesa Planning Policies

The discussion below addresses the proposed project's consistency with the goals, Objectives, and policies of the City of Costa Mesa General Plan Noise Element that are applicable to the SCPTC project.

Consistent with the city's noise policies, this noise assessment has been prepared as a part of the SCPTC environmental evaluation. The following impact analysis indicates that all significant noise impacts can be mitigated to a level that is considered less than significant. The project would not result in excessive or unhealthful noise levels to sensitive land uses.

Short-term Impacts

Construction Noise

Construction noise represents a short term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. Worst case examples of construction noise at 50 feet are presented in Exhibit 5.4-1. Note that these noise levels are based upon worst case conditions. Typically noise levels near the site will be less. Typically equipment directly involved in the excavation of the site as well as the trucks used to haul the dirt from the site have the potential produce high noise levels. This project also includes demolition activities that could result in high noise levels.

There are no homes located adjacent to the Two Town Center portion of the project where building demolition will occur. There are homes located across the freeway from this portion of the project. However, the distance to the homes, noise barriers and noise generated by the freeway itself will be combined so that the demolition and construction will only be slightly audible at these homes. There is a hotel located on the opposite side of Anton Boulevard from this portion of the project. This hotel is located approximately 150 feet from the nearest construction/demolition activity. At 150 feet, the peak construction noise levels range from 61 to 86 dBA. Most of the construction and demolition will occur more than 300 feet from the hotel. At this distance the peak construction noise levels range from 55 to 80 dBA. Average noise levels will be from 5 to 15 dB lower than the peak levels depending on the intensity of the activity.

There are residences located across the Avenue of the Arts from the Segerstrom Center for the Arts portion of the project, approximately 100 feet from the closest construction activity and 250 feet from the furthest activity. Peak noise levels from construction activities will range from 82 dBA to 56 dBA at the homes. Average noise levels will be from 5 to 15 dB lower than the peak levels depending on the intensity of the activity.

There are no residential uses located in the immediate vicinity of the proposed office building and hotel on the remainder of the project site. However, the proposed hotel is located almost directly adjacent to the existing hotel. Significant noise levels could be generated at the existing hotel during construction of the proposed hotel. The City's noise ordinance, which governs construction noise, is not specifically applicable to a hotel land use and exempts construction activities between specified hours. Despite this it is recommended that measures be taken to reduce construction noise levels at the hotel.

Construction will result in a short-term noise impact. It is not possible at this time to determine the exact length of time that will be needed to demolish existing buildings, excavate and grade the site but demolition and construction activities may last several months.

If noise-related problems do arise, the most effective method of controlling construction noise is through local control of construction hours per the City's Noise Ordinance.

Long Term Off-Site Impacts

This section examines noise impacts from the proposed project on the surrounding land uses. Specifically traffic noise increases due to the project are examined as well as potential noise impacts from activities on the project site. The land uses proposed typically do not result in any noise impacts from on site activities with the exception of the parking lots. It should be noted that any noise generating activity on private property will need to comply with the City of Costa Mesa Noise Ordinance.

Traffic Noise

Table 5.4-4 shows the incremental noise level increases due to project traffic on roadways in the vicinity of the project. The second column of the table shows the total noise level increase in the future (2020) over existing conditions. This noise level increase is due to the project as well as other development and general growth in the area. The third column shows the portion of this noise level increase due solely to the project. That is, if this project was not undertaken the future noise levels would be reduced by the amount shown.

Only roadway segments with noise level increases due solely to the project are shown in Table 5.4-4. Future noise level increases for all roadways analyzed in the traffic study are presented in Appendix E. The noise level increases were calculated using traffic volume data presented in the previously referenced-traffic study prepared for the project.

**TABLE 5.4-4
TRAFFIC NOISE LEVEL INCREASES (DB)**

Roadway Segment	Increase Over Existing CNEL	CNEL Increase Due To Project	CNEL Increase Due to Cumulative Development W/ Project
MacArthur			
West of Fairview	--	0.0	0.2
Fairview to Greenville	--	0.2	0.2
Raitt to Bear	--	0.1	0.1
Main to I-405	0.7	0.1	0.0
Sunflower			
West of Fairview	1.9	0.3	0.7
Fairview to Greenville	1.1	0.2	0.2
Greenville to Raitt	1.2	0.0	0.2

Roadway Segment	Increase Over Existing CNEL	CNEL Increase Due To Project	CNEL Increase Due to Cumulative Development W/ Project
Raitt to Bear	1.2	0.2	0.2
Bear to Plaza	--	0.2	0.2
Plaza to Bristol	1.0	0.3	0.4
Bristol to Sakioka	1.7	0.2	1.4
Flower to Anton	1.4	0.2	0.3
Anton to Main	2.0	0.1	0.1
South Coast			
West of Fairview	2.4	0.0	1.5
East of Fairview	--	0.0	0.2
West of Bear	0.7	0.0	0.3
Town Center			
Bristol to Ave. of The Arts	4.0	-0.8	-0.8
Anton			
Bristol to Sakioka	0.9	0.3	0.3
Bristol to Avenue of The Arts	0.9	0.3	0.3
Avenue of The Arts to Sunflower	4.	0.0	0.2
Baker			
West of Bear	1.3	0.0	0.1
Bear to Bristol	--	0.1	0.1
East of Bristol	2.0	0.1	0.1
Fairview			
MacArthur to Sunflower	0.5	0.0	0.1
Sunflower to South Coast	0.6	0.1	0.2
South Coast to I-405	0.4	0.1	0.2
Raitt			
MacArthur to Sunflower	--	0.0	0.3
Bear	0.0	0.0	
Sunflower to South Coast	0.6	0.2	0.2
I-405 to Paularino	0.4	0.0	0.1
Paularino to Baker	--	0.1	0.1
Plaza			
Callens to Sunflower	--	0.0	0.4
Bristol			
Warner to Segerstrom	0.5	0.1	--
Segerstrom to Anton	--	0.1	0.1

Roadway Segment	Increase Over Existing CNEL	CNEL Increase Due To Project	CNEL Increase Due to Cumulative Development W/ Project
Sunflower to Town Center	0.6	-0.1	-0.1
Town Center to Anton	0.9	0.1	0.1
Anton to I-405	0.8	0.1	0.1
I-405 to Paularino	1.2	0.0	0.1
Avenue of the Arts			
Town Center to Anton	2.2	0.5	0.5
Flower			
Dyer to MacArthur	1.0	0.0	0.3
Main			
Dyer to MacArthur	0.9	0.1	0.1
MacArthur to Sunflower	1.6	0.0	0.2
Sunflower to Red Hill	--	0.1	--
SR-73			
Bear to SR-55	1.1	0.0	0.1
Existing traffic volume not supplied. Source: Mestre-Greve Associates, July 2000			

Table 5.4-4 shows that future noise levels will only increase over existing conditions by more than 3 dB along Town Center Drive from Bristol to Avenue of the Arts, Anton from Avenue of the Arts to Flower, and South Coast west of Fairview. However, there are no sensitive land uses located along this segment of road. Further, the project actually results in a slight noise level decrease along Town Center Drive. With the project the future CNEL along the road will be 4.0 dB greater than it currently is W, without the project the CNEL will be 4.8 dB greater. Table 5.4-5 presented below shows that the noise levels generated by Town Center from Bristol to Avenue of the Arts would be 59 dB CNEL which is less than the noise level considered significant for noise sensitive uses (i.e. 65 dB CNEL).

Along Anton the CNEL Level will increase 4.8 to 5.0 dB, 0.2 dB increase over existing. The proposed project does not affect the projected future noise levels. The proposed project with other cumulative projects in the area, will increase noise levels by 0.2 dB. This increase is not considered significant.

Along South Coast the CNEL level will increase 2.4 to 4.0 dB, over existing conditions. The proposed project does not affect projected future noise levels, however, with the addition of cumulative development, noise levels will increase by 0.2 dB. This increase is not considered to be significant.

Table 5.4-4 shows that the greatest future CNEL increases attributed to the project along any roadway is 0.5 dB. This increase is not significant. Additionally, as indicated in Table 5.4-4, the proposed project in

conjunction with cumulative development with in the area is projected to increase future noise levels by 1.5 dB. This increase is not considered significant.

The distances to the future build out (2020) 60, 65 and 70 CNEL contours for the roadways in the vicinity of the proposed project site are given in Table 5.4-5. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The contours do not take into account the effect of any noise barriers or topography that may affect ambient noise levels.

Note that only roadways adjacent to the project or that have noise levels affected by the project are presented below in Table 5.4-5. Contours for all roadways analyzed in the traffic study are presented in Appendix E along with the traffic volumes, speeds and traffic mixes used to calculate the noise levels.

**TABLE 5.4-5
FUTURE (2020) WITH PROJECT TRAFFIC NOISE LEVELS**

CNEL Level @ 100'*				
Distance To CNEL Contour from Centerline of Roadway (feet)				
Roadway Segment	(dBA)	70CNEL	65 CNEL	60 CNEL
MacArthur				
West to Fairview	66.5	59	126	272
Fairview to Greenville	66.7	60	129	278
Raitt to Bear	67.0	63	135	291
Main to I-405 SR-55	69.4 69.3	91 90	196 193	424 416
Sunflower				
West of Fairview	64.4 64.8	42 45	94 97	195 210
Fairview to Greenville	65.5	50	108	232
Raitt to Bear	65.3	48	104	225
Bear to Plaza	68.2	76	163	351
Plaza to Bristol	67.4 67.5	67 68	144 147	310 316
Bristol to Sakioka Flower	67.7 68.9	71 84	152 181	328 390
Flower to Anton	66.2 66.4	56 57	120 123	259 265
Anton to Main	68.4	78	168	362
South Coast				
West of Fairview	65.1	47	101	217
East of Fairview	64.6	44	94	203
West of Bear	63.8	39	83	179
Town Center				
Bristol to Ave. of The Arts	59.0	RW	40	86

CNEL Level @ 100'*				
Distance To CNEL Contour from Centerline of Roadway (feet)				
Roadway Segment	(dBA)	70CNEL	65 CNEL	60 CNEL
Anton				
Bristol to Sakioka Avenue of The Arts	67.2	65	141	303
Avenue of The Arts to Sunflower	65.5	50	108	232
Baker				
West of Bear	68.1	74	160	345
Bear to Bristol	67.4	67	144	310
East of Bristol	67.2	65	141	303
Fairview				
MacArthur to Sunflower	68.9	84	181	390
Sunflower to South Coast	69.6 69.7	94 95	203 205	437 442
South Coast to I-405	70.5 70.7	108 111	233 239	504 515
Raitt				
MacArthur to Sunflower	64.4	42	91	195
Bear				
Sunflower to South Coast	65.7	51	111	239
I-405 to Paularino	67.7	71	152	328
Paularino to Baker	67.5	68	147	316
Plaza				
Callens to Sunflower	62.8	33	72	155
Bristol				
Warner to Segerstrom	68.0	73	157	339
Segerstrom to Alton	69.1	87	188	406
Sunflower to Town Center	69.8	97	210	452
Town Center to Anton	70.5	108	233	501
Anton to I-405	71.3	123	265	570
I-405 to Paularino	70.4	106	228	491
Avenue of the Arts				
Town Center to Anton	62.0	RW	64	137
Flower				
Dyer to MacArthur	64.1	40	87	187
Main				
Dyer to MacArthur	67.8	72	155	333
MacArthur to Sunflower	67.8	72	155	333
Sunflower to Red Hill	69.8	97	210	452

CNEL Level @ 100'*				
Distance To CNEL Contour from Centerline of Roadway (feet)				
Roadway Segment	(dBA)	70CNEL	65 CNEL	60 CNEL
I-405				
Bristol to SR-55	81.9	617	1,329	2,864
SR-73				
Bear to SR-55	77.4	312	672	1,448
* From Roadway Centerline				
RW Contour does not extend beyond right-of-way				
Source: Mestre-Greve Associates, July 2000				

Tables 5.4-5 and 5.4-6 show that in the future significant noise levels (i.e., greater than 65 dB CNEL) will be experienced along many roadways in the project area. However, Table 5.4-4 shows that only a few of these roadway segments with adjacent noise sensitive land uses will experience significant noise increases over existing conditions and only a small portion of this increase is due to the project.

On-Site Activities

Noise levels generated on the project site must comply with the City’s Noise Ordinance. The Noise Ordinance defines the noise level limits that can be generated at a residential area by a noise source on private property. There are residences located across Avenue of the Arts and Sunflower Avenue as well as across the I-405 Freeway from the project. The residences located to the east of Avenue of the Arts, across from the project site are approximately 75 feet from the nearest point of the project site. The residences located across Sunflower Avenue will not be impacted by noise from any new development proposed by this project. This is due to the distance between the residences and the new development as well as intervening buildings that would reduce any noise levels.

It is very unlikely that any noise levels generated by the project will impact the residences located south of I-405 along the project. This is due to the distance from the project site, the noise level generated by the freeway and the sound wall that exists between the freeway and the residences beyond. These residences are located more than 600 feet from the nearest point of the project. The minimum noise reduction from a sound wall is 5 dB when the wall breaks line of sight between the source and receiver. A noise source would need to exceed 81 dBA at 50 feet for more than 30 minutes in an hour during the daytime and 76 dBA during the nighttime to exceed the noise ordinance limit. The noise source would need to exceed 101 dBA at 50 feet during the daytime or 96 dBA during the nighttime for the maximum noise level standard at the residences to be exceeded. These noise levels would be considered exceptionally high for an industrial land use, and unheard of for the commercial uses proposed at the project site. However, any use will be required to comply with the City’s Noise Ordinance.

Parking Lot Activity

Typical potential noise impacts from this type of project include parking lot activities. Typically the proposed land uses do not generate significant noise impacts. Traffic associated with parking lots is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by car door slamming, engine start-up, and car pass-bys can be annoying to nearby residents. Tire squeal may also be a problem depending on the type of parking surface. Estimates of the maximum noise levels associated with some parking lot activities are presented below and are based on limited measurements conducted by Mestre-Greve Associates (Table 5.4-6). The noise levels presented are for a distance of 50 feet from the source, and are the maximum noise level generated. A range is given to reflect the variability of noise generated by various automobile types and driving styles.

**TABLE 5.4-6
MAXIMUM NOISE LEVELS GENERATED BY PARKING LOTS
(DBA AT 50 FEET)**

Event	Lmax
Door Slam	60 to 70
Car Alarm Activation	65 to 70
Engine Start-up	60 to 70
Car pass-by	55 to 70
Source: Mestre-Greve Associates, July 2000	

The nearest homes to potential parking lot areas (i.e., Two Town Center, Buildings G and I) are located to the east of the site across Avenue of the Arts. These residences are located over 500 feet from the nearest point of the lots. Maximum noise levels from parking lot activities at the residences will be less than 67 dBA. This is below the 70 dBA maximum noise level ordinance limit. Any parking activities at the Segerstrom Center for the Arts will not exceed the City's noise ordinance. All other residential areas are located further from the potential parking areas than this. Therefore there will be no noise impacts from parking lot activities.

Long Term On-Site Impacts

The purpose of this section is to examine the noise impacts of the proposed project within the project area. For the project the primary source of noise is the I-405 freeway. To a lesser extent traffic noise from the arterial roadways will impact the site.

Traffic Noise

Future build-out noise levels from the roadways along the project were presented previously in Table 5.4-5. The City of Costa Mesa noise standards applicable to the project site are interior noise standards. These are 55 CNEL for retail, 50 CNEL for general office spaces and 45 CNEL for private office spaces and hotel guestrooms. Buildings built to current energy efficiency standards achieve a minimum of 20 dB of outdoor-to-indoor noise reduction. Most commercial buildings achieve at least 25 dB of noise reduction.

The office building proposed as a part of Two Town Center is located approximately 650 feet from the centerline of the I-405 freeway. At this distance the noise level from the freeway is slightly less than 70 CNEL. The building will also be located adjacent to Anton Boulevard. The building will be at least 65 feet from the centerline of the roadway and exposed to noise levels less than 70 CNEL from this road. Assuming an outdoor-to-indoor noise reduction of 25 dB for a commercial building. The greatest interior noise level will be less than 45 CNEL. This level complies with the strictest interior noise standards.

The proposed hotel will be located approximately 800 feet from the centerline of the I-405 freeway. At this distance the noise level is approximately 69 CNEL. Shielding from other buildings likely reduces this noise level. This results in interior noise levels of less than 44 CNEL.

The proposed hotel is approximately 100 feet from the centerline of Bristol. At this distance the noise level will be approximately 71 CNEL. This could result in the interior noise levels at the guest rooms for the hotel exceeding 45 CNEL. Compliance with the 45 CNEL standard will need to be determined at the time of building permits. This is described further in the mitigation section.

The proposed office building near the corner of Bristol and Sunflower is located approximately 115 feet from the centerline of Bristol and more than 150 feet from the centerline of Sunflower. At this distance the noise level from Bristol will be 69 CNEL and the level from Sunflower will be 65 CNEL. This results in a noise level of just above 70 CNEL at the northwest corner of the building. Noise levels in the building will be less than 45 CNEL.

The components of the project that are a part of the Segerstrom Center for the Arts are located along Town Center Drive and Avenue of the Arts. These roadways do not generate noise levels significant enough to preclude achievement of the interior noise levels for buildings located along them.

5.4.4. MITIGATION PROGRAM

Standard Conditions and Requirements

Short-Term Impacts

- Local Control of Construction Hours - The most effective method of controlling construction noise is through local control of construction hours. The City of Costa Mesa has adopted a Noise Ordinance that excludes control of construction activities during the hours between 7 a.m. and 8 p.m. All noise generating construction activities within 500' of residential areas should be limited to these hours.
- Truck Routes - Truck routes in general should be steered away from residential areas.

In addition to the above measures, temporary noise barriers should be used during the construction of the hotel portion of the project adjacent to the existing hotel. The barriers should be a combination of walls along the edge of the construction site as well as movable barriers to be used with more stationary sources of noise such as sledgehammers.

Long-Term Off-Site Impacts

No off site impacts are expected from the project therefore no mitigation measures are required. There is a slight possibility that uses at the project that have not yet been identified will generate noise levels that may exceed the noise ordinance criteria at nearby residences. Therefore, the following measure is recommended.

1. All activities on the project site will be required to conform with the noise ordinance. Any potentially noise generating uses should be located away from residential areas if possible.

Long-Term On-Site Impacts

Interior guestroom noise levels for the proposed hotel could potentially exceed 45 CNEL. Therefore, the following measure is recommended

2. Prior to issuance of building permits an acoustical study should be prepared by a qualified acoustical consultant and submitted to the City. This study should predict the future ultimate noise levels impacting the building and calculate the outdoor-to-indoor noise reduction provided by the structure. Compliance with the 45 CNEL standard should be demonstrated with any required building component upgrades. The required noise reduction is only slightly greater than what would typically be expected. The 45 CNEL standard is achievable and any measures required to meet the 45 CNEL standard would not be significant.

Mitigation Measures

No mitigation required

5.4.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

After the implementation of the standard conditions and requirement, no significant project noise impacts would remain.

5.5 GEOLOGY AND SOILS

This section is based upon a geotechnical analysis of the project data conducted by Zeiser-Kling Consultants, Inc., for inclusion in this EIR. The analysis is provided in its entirety in Appendix B of this EIR.

5.5.1 EXISTING CONDITIONS

The 54-acre SCPTC project is located in a broad alluvial plain in the City of Costa Mesa in Central Orange County, California. The site is currently developed with numerous retail, commercial, and cultural arts buildings. A number of paved roads provide access to the existing developments, and moderately large parking areas surround the buildings. Site drainage generally flows by way of existing streets, parking areas and storm drains. Elevations range from approximately 30 to 35 feet (above mean sea level) Existing utilities are predominantly underground. Non-paved portions of the site are landscaped and irrigated.

Costa Mesa Planning Policies

The following excerpts from the goals, objectives, and policies of the City of Costa Mesa General Plan Geology Element are applicable to the proposed SCPTC project:

GOAL II: ENVIRONMENTAL PROTECTION AND PRESERVATION

“It is the goal of the City of Costa Mesa to protect its citizens and property from injury, damage, or destruction from environmental hazards, including hydrologic, geologic, and climatic episodes, and to work towards the improved noise abatement and improved air and water quality.”

Objective II-A: Work towards the mitigation or prevention of potential adverse consequences of natural disasters.

Policies

71. Consider geologic hazard constraints in the development of land use policies and public decisions relating to land use development.
72. Design all noncritical structures to conform to the seismic design requirements contained in the Uniform Building Code to provide a minimum level of seismic hazard protection.
73. Require developers to conduct site-specific seismic design studies, including consideration of the structure use and occupancy, for all critical structures (schools,

hospitals, high-rise structures over three stories, emergency medical and disaster centers, and important government facilities) to identify specific seismic design parameters in conformance with the Uniform Building Code necessary to preclude the collapse of the structure in the event of a major seismic episode.

Geology and Soils

Regional

The project site is located within the broad Santa Ana-Tustin alluvial plain situated north of the San Joaquin Hills and southwest of the Santa Ana Mountains. Based on a review of existing reports and a limited site visit, artificial fill and surficial deposits of alluvium underlie the project site. Tertiary bedrock underlies the alluvium at the project site.

Artificial fill was observed onsite associated with various existing improvements within the study area. Undocumented artificial fill may be present in remaining undeveloped sites within the SCPTC. The fill materials generally consist of a mixture of clays, silts, and sands.

Surficial deposits have been mapped as Quaternary alluvium and colluvium. Quaternary deposits on the order of 500 feet thick consist of uncemented gravel, sand, silt and clay. Minor peat deposits may also be present. Tertiary bedrock similar to deposits in the Santa Ana Mountains and San Joaquin Hills underlay the Quaternary alluvium, and are in turn underlain by crystalline basement rock at extreme depth. Shallow groundwater is present within the near surface alluvium deposits. The Santa Ana-Tustin alluvial plain is bounded by structurally elevated margins uplifted during Quaternary deformation.

Geological Faulting and Seismicity

The geotechnical constraints potentially impacting future development within the SCPTC area include ground shaking, liquefiable soils, shallow groundwater, subsidence due to groundwater withdrawal, presence of undocumented fills, settlement, slope instability, expansive soils, and corrosive soils.

Faulting

No faults have been mapped or observed within the limits of the site. The study area does not lie within an Alquist-Priolo Special Studies Zone. No active or inactive faults are known to cross the site and, therefore, the potential for ground rupture is negligible.

Seismicity

The Regional Fault Map illustrates the spatial relationship between the subject property and the geographic positions of known active faults in the Southern California region (see Exhibit 5.5-1). The nearest known active mapped fault is the Newport-Inglewood fault lying approximately 6-km southwest of the project site.

Ongoing studies of regional seismicity have suggested that the San Joaquin Hills Blind Thrust fault, may underlie the site but is not proven to be active. This fault does not appear on the Alquist-Priolo Special Studies Zones maps and is not considered as part of the geology and soils analysis for the SCPTC project due to the highly speculative nature of its existence.

Table 5.5-1 lists selected active faults and estimated magnitudes of Maximum Probable Events (MPE) occurring on these faults. A MPE is defined as the maximum earthquake that is likely to occur during a 100-year interval. It should be noted that the following table is intended to provide an estimation of potential seismic activity on the project site. Recent earthquakes have produced ground shaking at monitoring sites far in excess of predicted ground acceleration values.

**TABLE 5.5-1
SEISMIC PARAMETERS**

Fault	Distance to Site (Mi.)	MPE (Mw)	MCE (Mw)	Mean PHGA (MPE)	Mean PHGA (MCE)
Newport/ Inglewood	2.5	6.5	7.0	0.44	0.64
Elsinore	15.5	6.4	7.5	0.14	0.24
Palos Verdes	18.6	6.4	7.0	0.12	0.17
San Andreas	43.5	7.2	8.2	0.10	0.16
Sierra Madre	34.8	6.7	7.4	0.09	0.13
Norwalk	18.6	6.1	6.3	0.11	0.12
San Jacinto-Casa Loma	42.3	6.4	7.5	0.07	0.11
Elysian Park	34.8	6.5	6.7	0.08	0.09
San Jacinto-Lytle Creek	41.6	6.4	6.6	0.07	0.07
MPE – Maximum Probable Event MCE – Maximum Credible Event PHGA – Peak Horizontal Ground Acceleration Source: Zeiser – Kling Consultants, Inc., May 2000					

The Boore et al (1996) attenuation equation was used to estimate on-site mean peak horizontal ground accelerations (PHGA) and the PHGA at mean plus one standard deviation (84th percentile) associated with MPE earthquakes on the faults listed in Table 5.5-1. The PHGA's are given as a fraction of

gravitational acceleration (g). The attenuation equation uses a magnitude-distance relationship and allows for a general site classification based on shear wave velocity of the on-site earth materials and the type of fault movement (strike slip or reverse slip). Published literature assigns the alluvial deposits a shear wave velocity of 180 to 360 meters per second and the terrace deposits and sedimentary bedrock units 360 to 750 meters per second.

This area has experienced strong ground shaking from past earthquakes in the Southern California region and will likely experience strong ground shaking in the future. The estimated PHGA's produced by an MPE on selected faults are presented in Table 5.5-1. The largest estimated PHGA are associated with an MPE of 6.5 on the Newport Inglewood Fault, the closest mapped fault to the subject site. The estimated PHGA from the Newport-Inglewood fault is 0.65g. The seismic shaking anticipated within the study area is typical of the southern California region.

Other Geologic Conditions

Liquefaction

The entire SCPTC study area lies within seismic hazards zone for liquefaction according to the State of California Seismic Hazard Zones Maps and the City of Costa Mesa General Plan. Seismically induced ground shaking of loose saturated granular soil can increase internal pore water pressure causing the soils to lose shear strength and behave as a dense fluid. Liquefaction could result in settlement or lateral spreading of soils resulting in potential damage to structures.

Groundwater

The SCPTC site is within the Lower Santa Ana River Basin. This basin has several aquifer systems ranging from deep, mostly saline aquifers, to fresh water aquifers at varying depths below the ground surface. The uppermost of the fresh water aquifers is known as the Talbert aquifer (or "80-foot gravel" aquifer). This aquifer abuts the Santa Ana Gap located approximately one mile west of the site.

A series of relatively impermeable layers of clay (sometimes called "clay lenses") occur above the Talbert aquifer. These clay lenses have trapped groundwater in layers above them resulting in a condition known as "perched groundwater" or groundwater that is trapped or "perched" in relatively shallow (typically less than 50 feet) pockets above deeper, major aquifers.

The SCPTC site lies within the central area of the coastal plain, also known as the Santa Ana pressure sub-basin, which is the major groundwater storage unit within the plain (Automobile Club of Southern California EIR, 1994). According to information provided by the Orange County Water District, groundwater in the general vicinity of the site in November 1998 was approximately 50 feet below sea

level (or about 80 feet below the ground surface at the site). In borings taken by Leighton and Associates, Inc. in 1985, groundwater was detected at 17 feet below the ground surface (Leighton and Associates, Inc., 1987). The relatively shallow depth to groundwater suggests the presence of perched groundwater conditions below the SCPTC site. The quality of this groundwater is not potable.

Subsidence Due to Groundwater Withdrawal

Regional or local groundwater withdrawal could cause ground subsidence on the site and in adjacent properties. Although the area is not known to be within an area known to be affected by regional subsidence due to groundwater withdrawal, excessive extraction of water from subsurface aquifer(s) could cause widespread regional ground subsidence in the future. Although generally not damaging to structures, regional subsidence should it become severe, could cause disruption to regional drainage systems in relatively flat lying areas such as the SCPTC area. If near surface groundwater is pumped as part of a dewatering operation during construction or excavation, or as an ongoing mitigation against elevated groundwater conditions, water-bearing subsoils could consolidate resulting in localized ground subsidence sufficient to damage nearby structures.

Undocumented Fill

There are various deposits of artificial fill associated with the existing developments within the SCPTC area. There may also be minor deposits of undocumented or uncontrolled fills within the study area, though none were encountered on the project site. A documented (also referred as ‘engineered’) fill is normally considered suitable for support of structures provided it has been observed and tested by a geotechnical engineer and found to be in minimum compliance with design specifications and/or City standards. Undocumented fill is normally considered suspect with respect to support of structures or future documented fills. Undocumented fills may be prone to settlement or instability, and may contain trash or other deleterious material.

Settlement Potential

Construction on surficial alluvial deposits will likely be affected by consolidation and compression-related settlement. Peat deposits, being highly compressible, could cause post-construction settlement if they are present below future building areas. Post-construction settlement of compressible foundation bearing soils could severely damage future buildings. The amount of settlement would depend on the thickness and compressibility characteristics of the surficial deposits, and the weight of future foundation loads.

Slope Instability

There are no natural slopes within the study area. Any slopes within the SCPTC development would be manufactured by grading. Surficial or gross instability manufactured slopes within SCPTC could impact future development. Surface erosion includes erosion, drilling and surficial slumping and is usually confined to the outer 3 feet of slope soil. Gross instability includes deeper structurally controlled landslides, and could affect not only the slope, but also adjacent areas. Existing natural slopes and future manufactured slopes could be potentially surficially or grossly unstable.

Expansion Potential

Surficial clayey soils may be prone to expansion. Expansive soils can cause post construction damage to building foundations or interior slabs, or exterior hardscape such as patio slabs, garden walls, driveways and sidewalks.

Corrosive Soils

Surficial deposits may be corrosive to concrete or buried metals such as utility pipes. Blending import soils, if required, with on-site materials could change the corrosion potential.

5.5.2 PROJECT IMPACTS

Thresholds of Significance

In assessing whether adoption of the proposed project would result in significant impacts to earth resources, the following thresholds of significance were derived from Appendix G of the CEQA Guidelines. An impact would be considered significant if the project would cause the following:

- Expose people or property to geological hazards such as landslides, mudslides, ground failure or similar hazards; soil and/or seismic conditions so unfavorable that they could not be overcome by design using reasonable construction and/or maintenance practices.
- Triggering or acceleration of geologic processes such as landslides or erosion that could result in slope failure.
- Substantial irreversible disturbance of the soil materials at the site or adjacent sites, such that their use is compromised.
- Modification of the surface soils or present erosion protection devices such that abnormal amounts of wind or waterborne soils are removed from the site.

- Earthquake induced ground shaking capable of causing ground rupture, liquefaction, settlement, or surface cracks resulting in a substantial loss of use.
- Location of the site within an Alquist-Priolo Earthquake Fault Zone, or within a known active fault zone, or an area characterized by surface rupture that might be related to a fault.
- Deformation of foundations by expansive soils (those characterized by shrink/swell potential).
- Modification or elimination of significant natural landform features (e.g., filling a drainage or removing a hill, bluff or seacliff, except as required for public access).

Impacts

The proposed project is consistent with the goals, objectives, and policies of the Costa Mesa General Plan related to geology. Potential constraints to development of the SCPTC site were taken into consideration by the City during the preparation of the Costa Mesa General Plan and the City's determination that urban land uses were appropriate for the site. Development of the project site will require the implementation of standard City development conditions and mitigation measures to reduce potentially significant impacts to a level that is considered less than significant.

Geologic Faulting and Seismicity

As with other developments in the southern California region, SCPTC is subject to earthquake related impacts. Development of the project is not anticipated to be impacted by surface rupture from earthquakes because there are no known faults on or through the project area.

The possibility that the project site may experience significant ground shaking during an earthquake has been quantified. The maximum peak ground acceleration would be 0.64g, which would be experienced by a maximum credible magnitude earthquake of 6.4g on the Richter Scale, along the Newport/Inglewood Fault. This level of shaking anticipated in the planning area is typical of the Southern California region. Therefore, while there is the potential for groundshaking, it is not unusually severe compared with the general conditions of Southern California.

Other Geological Conditions

There is the potential for future development within the project site to be constrained by typical geological conditions in the area. Although limited due to the built-up nature of the site, the project area may contain unstable conditions that could result in seismically induced liquefaction; these potentially significant impacts are addressed below in greater detail. Additional potentially significant impacts that could result in limitations to development of the project site include shallow groundwater, slope instability, expansive and corrosive soils, and the potential for post construction settlement resulting from consolidation and

compression of surficial soils. However, a number of soil improvement methods (e.g., densification and mixing/hardening) and structural solutions (e.g., use of conventional drilled/driven piles), in conjunction with a series of project design features, standard conditions, and mitigation measures, would reduce these impacts to less than significant levels. In addition, although each of the conditions described in this section may exist or may have existed previously to some degree, the SCPTC site is an existing urban regional center which has been developed utilizing geotechnical engineering measures and practices designed to mitigate earth hazards.

Liquefaction

The entire SCPTC site is located within an area that could be affected by seismically induced liquefaction. This phenomenon could occur if ground water levels were relatively close to the surface during the seismic event. Compliance with building design and structural engineering requirements of the California Code of Regulations, Title 14, Section 3721 with respect to liquefaction is required. Development within the project area is also subject to standard geologic mitigation measures and, therefore, future development within the project site is not anticipated to be affected by liquefaction.

Groundwater

Excavation of expansive soils and recompaction for development of building foundations, subterranean parking, and placement of infrastructure improvements could encounter perched groundwater conditions that appear to exist approximately 17 feet below the ground surface. If perched groundwater is present, construction dewatering and discharge to storm drain or sewer facilities will be required.

If required, dewatering and disposal of the perched groundwater would not affect domestic groundwater supplies because they occur approximately 80 feet below the ground surface and are not connected to the perched groundwater areas. The project would be required to comply with applicable Uniform Building Code requirements related to perched groundwater conditions.

Subsidence

Excessive groundwater extraction or local dewatering could cause localized ground subsidence, which would impact future developments within the study area or existing nearby structures. If required, dewatering and disposal of the perched groundwater would not affect domestic groundwater supplies because they are expected to occur at levels below the ground surface that are not connected to the perched groundwater areas. Moreover, the project would be required to comply with applicable Uniform Building Code requirements related to subsidence conditions; therefore no significant impacts would occur.

Undocumented Fill

There are various deposits of artificial fill associated with the existing developments within SCPTC. There may also be minor deposits of undocumented or uncontrolled fills within the project site, though none were encountered during this review and are not expected to significantly impact the project. A documented (also referred as 'engineered') fill is normally considered suitable for support of structures provided it has been observed and tested by an engineering geologist and found to be in minimum compliance with design specifications and/or City standards. Undocumented fill is normally considered suspect with respect to support of structures or future documented fills. Undocumented fills may be prone to settlement or instability, and may contain trash or other deleterious material. However, these conditions are not considered atypical. Further, the majority of the site has been previously developed utilizing appropriate geologic standards. Therefore, development of SCPTC would not result in any significant impacts related to undocumented fills.

Settlement Potential

Construction on the surficial soil deposits will likely be affected by consolidation and compression-related settlement. Without proper engineering design, post-construction settlement of compressible foundation bearing soils could severely damage future buildings. The amount of settlement would depend on the thickness and compressibility characteristics of the surficial deposits, and the weight of future foundation loads. However, these conditions are not considered atypical. Further, the majority of the proposed project site has been previously developed utilizing appropriate geologic standards. Therefore, development of the SCPTC project would not result in any significant impacts related to settlement potential.

Slope Instability

There are non-natural slopes within the project area. Surficial or gross instability of manufactured slopes within SCPTC could impact future development within the project area. Surface erosion includes erosion, rilling and surficial slumping and is usually confined to the outer 3 feet of slope soil. Gross instability includes deeper structurally controlled landslides, and could affect not only the slope, but also adjacent areas. Future manufactured slopes could be potentially surficially or grossly unstable. However, these conditions are not considered atypical. Further, the majority of the site has been previously developed utilizing appropriate geologic standards. Mitigation measures described below will ensure that potential impacts are reduced to a less than significant level.

Expansive Soils

Surficial soils and particularly soils derived from underlying bedrock may be prone to expansion. Expansive soils can cause post construction damage to building foundations or interior slabs, or exterior hardscape such as patio slabs, garden walls, driveways and sidewalks. However, these conditions are not considered atypical. Further, the majority of the site has been previously developed utilizing appropriate geologic standards. Therefore, development of the SCPTC project would not result in any significant impacts related to expansive soils.

Corrosive Soils

Surficial deposits and bedrock materials may be corrosive to concrete or buried metals such as utility pipes. However, these conditions are not considered atypical. Further, the majority of the proposed project site has been previously developed utilizing appropriate geologic standards. Therefore, development of South Coast Plaza Town Center would not result in any significant impacts related to corrosive soils.

No potentially significant short-term impacts resulting from grading and/or related construction activities is anticipated as a result of project implementation.

The main geotechnical constraints for the project include: (1) on-site faulting (i.e., ground rupture); (2) compressible and liquefiable soils; and (3) overall site seismicity. Based on fault studies that have been completed to date, it is geotechnically feasible to develop the proposed project as presently planned. As described in Section 5.5-2, all of the potential impacts will be avoided or reduced to a less than significant level through the incorporation of the project design features and standard conditions. Therefore, no long-term impacts resulting project implementation will occur.

5.5.3 CUMULATIVE IMPACTS

Implementation of the proposed project will have an effect on the earth resources of the site, and will also be affected by those resources. Most of the project area has been previously graded and/or developed, with the fairly typical geologic issues associated with the site mitigated through standard mitigation measures and compliance with the applicable requirements of the Uniform Building Code, and the City of Costa Mesa General Plan adopted as conditions of approval. The project effects relate to modifying site conditions, both to accommodate site development and to provide a stable and safe project foundation that can withstand site soil conditions during a seismic event. Earth resources affect the project and the site through seismic and other potentially hazardous influences that occur naturally. However, soils and geologic influences are very site specific, and there is little, if any, cumulative relationship between future development within the highly urbanized SCPTC project area and the development of cumulative

projects. Future development within SCPTC and related projects may expose future populations to regional seismic hazards. However, seismic safety standards for new construction and ongoing provisions for emergency preparedness and response are anticipated to reduce such risk, on a project-by-project basis, to acceptable levels. Therefore, the proposed project, in combination with other projects or conditions, will not result in cumulative impacts on earth resources.

5.5.4 MITIGATION PROGRAM

Project Design Features

The project does not incorporate any specific design features related to seismicity or soils.

Standard Conditions and Requirements

Compliance with Uniform Building Code provisions and standard subdivision engineering requirements, as specified in the city's conditions of approval, will satisfactorily address the geotechnical issues described in this section of the EIR.

Mitigation Measures

Geology, Soils and Seismicity

Mitigation Measure 5-1. All future development on the SCPTC site shall be designed to comply with all applicable geological and seismic safety requirements of the Uniform Building Code and mitigation as defined in the Public Resources Code Section 2693(c). Verification of such compliance will be confirmed during the City's plan review and building permit issuance processes.

Mitigation Measure 5-2. Grading and foundation plans, including foundation loads, shall be reviewed by a registered soils engineer, and approved by the City of Costa Mesa Building Safety Division.

Mitigation Measure 5-3. All grading and earthwork shall be performed under the observation of a registered geotechnical engineer in order to achieve proper sub-grade preparation, selection of satisfactory materials, and placement and compaction of all structural fill.

Mitigation Measure 5-4. Prior to approval of each grading plan by the City of Costa Mesa, the property owner/developer shall submit a soils and geological report for the area to be graded, based on proposed grading and prepared by registered soils engineer and approved by the City of Costa Mesa Building Safety Division.

Mitigation Measure 5-5. Prior to issuance of each building permit by the City of Costa Mesa, the property owner/developer shall submit for review and approval by the City of Costa Mesa Building Safety Division, a detailed foundation design information for the subject building(s), prepared by a registered civil engineer, based on recommendations by a geotechnical engineer.

Mitigation Measure 5-6. Prior to issuance of each building permit by the City of Costa Mesa, the property owner/developer shall submit plans showing that the proposed structure has been analyzed by a registered civil engineer for earthquake loading and designed according to the most recent seismic standards in the Uniform Building Code adopted by the City of Costa Mesa.

Groundwater

Mitigation Measure 5-7. If a permit is required for discharge of perched groundwater encountered during excavation for site improvements, the applicant shall acquire such permit(s) from the applicable agency(ies) (e.g., Santa Ana Regional Water Quality Control Board, County Flood Control or County Sanitation District) and provide evidence of permit issuance to the Costa Mesa Building Safety Division prior to initiating any such discharge.

5.5.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the standard conditions and requirements and the recommended mitigation measures, will reduce potentially significant impacts on geology and soils to less than significant levels.

5.6 HYDROLOGY AND WATER QUALITY

This section describes hydrology and water quality conditions for the South Coast Plaza Town Center (SCPTC) project site and immediate vicinity and discusses potential impacts that could result from implementation of the project.

The following documents were revised and used in the preparation of this section: The Hydrology Element, Costa Mesa General Plan (1990); the North Costa Mesa Specific Plan (1994); Town Center Office Tower and Hotel Final EIR (1988); and The Segerstrom Home Ranch Draft EIR #1046, 2000.

5.6.1 EXISTING CONDITIONS

Costa Mesa Planning Policies

The following excerpts from the goals, objectives, and policies of the City of Costa Mesa General Plan Hydrology Element are applicable to the proposed SCPTC project:

GOAL II: ENVIRONMENTAL PROTECTION AND PRESERVATION

“It is the goal of the City of Costa Mesa to protect its citizens and property from injury, damage, or destruction from environmental hazards, including hydrologic, geologic, and climatic episodes, and to work towards the improved noise abatement and improved air and water quality.”

Objective II-A: Work towards the mitigation or prevention of potential adverse consequences or natural disasters.

Policies

67. Permit in 100-year flood plains only those new uses which are floodproofed or which can sustain periodic flooding.
68. Require that new development within the 100-year flood plain elevate building pads or floodproof sufficiently to protect the buildings from a 100-year flood.
69. Cooperate with local, State, and Federal flood control agencies to reduce the potential for flood damage in the City of Costa Mesa.
70. Drainage plans shall be based on the current Master Plan of Drainage and designed based upon the current Orange County Hydrology Manual.

71. Velocity of surface runoff and permit no adverse downstream impacts due to increased runoff through the proper design of subsurface drains, appropriate grading, on-site retention basins, landscape programs, or other measures.
72. Publicize the extent of flood hazards within Costa Mesa and advise affected residents and property owners of appropriate protection measures. Develop an education program, such as the Flood Awareness Program, and emergency disaster plans for flooding.

Objective II-B: Pursue the prevention of the significant deterioration of local and regional air and water quality.

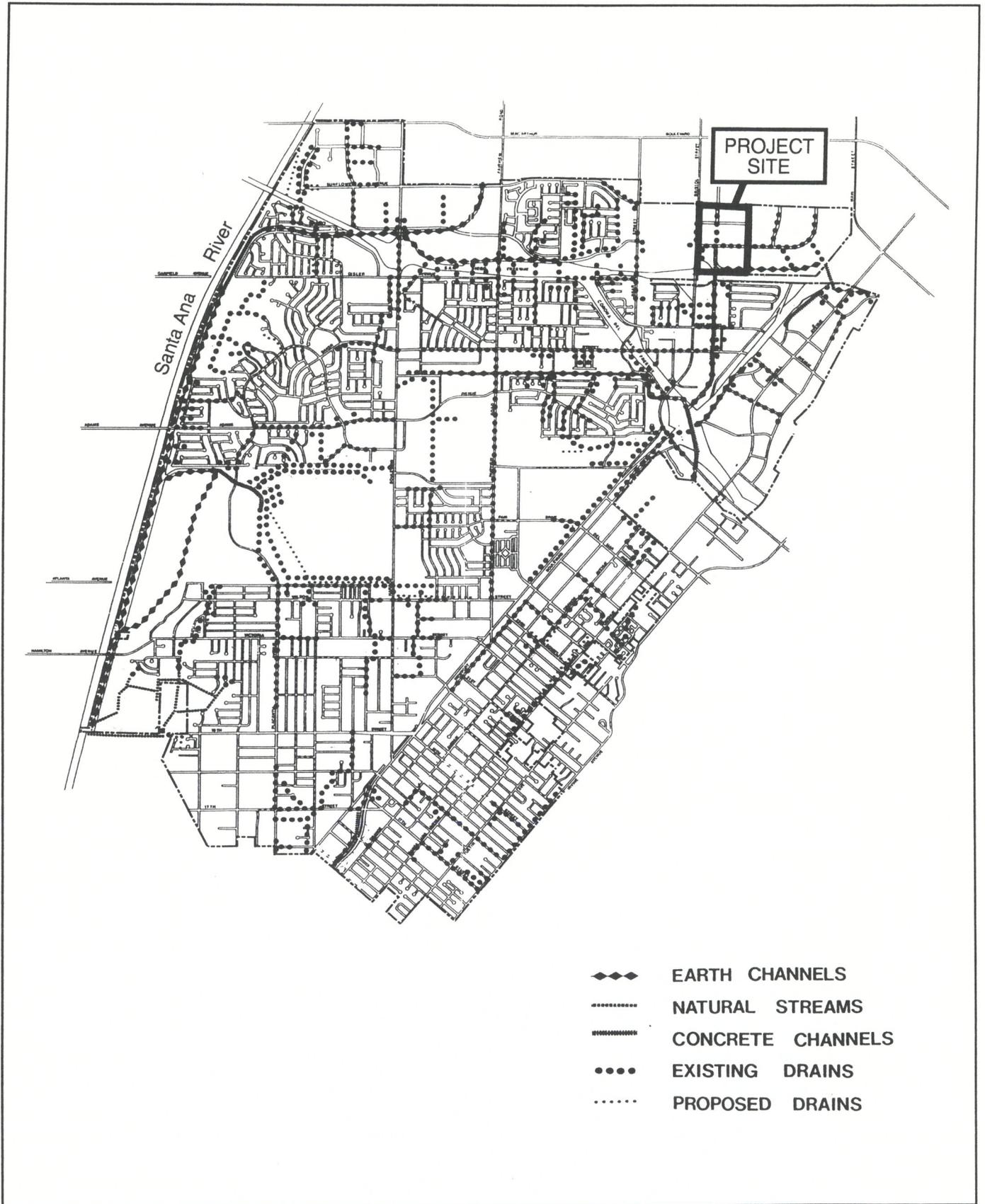
Policies

83. Require, as a part of the environmental review procedure, an analysis of major development or redevelopment project impacts on local and regional air and water quality.
85. Require compliance with regional, State, and Federal regulatory agencies to enforce water quality regulation and reduce surface water pollution.
86. Review existing street cleaning policies and equipment and evaluate all necessary modifications (use of vacuum street sweeping equipment, slower sweeping speeds, modified schedules, etc.) to reduce surface water pollution.
88. Investigate alternative methods to improve all streets with curbs and gutters to facilitate removal of significant street pollutants throughout the community.
89. Discourage on-street parking during street sweeping hours.

Hydrology

Regional Hydrology

The SCPTC site is located approximately six miles from the Pacific Ocean, a coastal region characterized by relatively mild winters and warm summers. Rainfall is typically limited to a few storms occurring between November and April; overall rainfall in the region ranges from nine to fourteen inches annually.



SOURCE: City of Costa Mesa General Plan, March 1992



Michael Brandman Associates

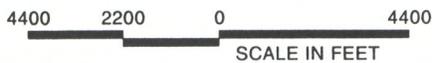
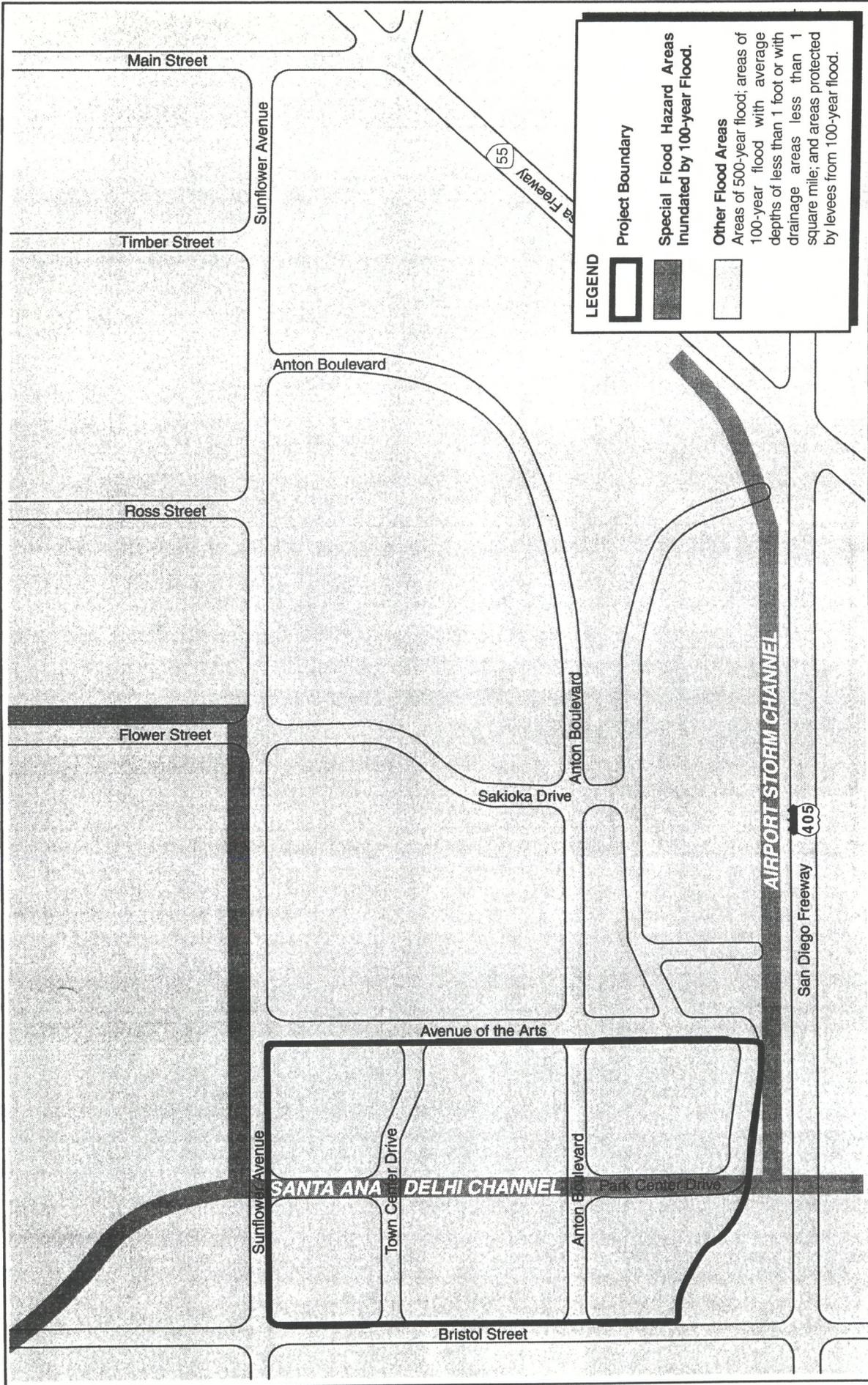


Exhibit 5.6-1
Master Plan of Drainage



LEGEND

-  Project Boundary
-  Special Flood Hazard Areas Inundated by 100-year Flood.
-  Other Flood Areas

Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

SOURCE: Federal Emergency Management Agency, June 2000.

 H I T T O N

 Michael Brandman Associates

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Local Drainage

The SCPTC site is located along the southern edge of the coastal plain that covers the north and west portions of Orange County. The Santa Ana River is approximately 3 to 4 miles west of the site. The project is located in the Santa Ana-Delhi area of the Upper Newport Bay Drainage area. Several flood control channels are located in the vicinity of the site. These include the Santa Ana-Delhi Flood Control Channel (F01) which flows through the site in a north/south direction the Santa Ana Gardens Channel located in northwestern portion of the site and the Airport Storm channel in the southern portion of the site. Storm runoff from the project area would be conveyed to the Santa Ana-Delhi Flood Control Channel and ultimately southward to Upper Newport Bay (see Exhibit 5.6-1).

Flood Hazards

Costa Mesa is situated immediately adjacent to the Santa Ana River, the largest river system in Southern California, encompassing a total of 3,200 square miles within Orange, San Bernardino, and Riverside Counties. While the Santa Ana River poses the greatest threat to flood control within the project area, the Santa Ana Delhi Channel, which bisects the project site, is also considered a flood risk.

According to the Federal Emergency Management Agency (FEMA), June 2000 Flood Issuance Rate Map, the SCPTC project area is located within the 500-year flood plain and Airport Storm Channel (Zone X); however, areas of the 100-year flood would be maintained by the Santa Ana Delhi (see Exhibit 5.6-2). Moreover, the U.S. Army Corps of Engineers has completed improvements associated with the Santa Ana River Mainstem project that provides for 190-year storm protection throughout Orange County, including the project site. The project site is also situated within the Santa Ana Delhi Drainage area.

Water Quality

Surface Water Quality

Drainage from the existing urban land uses on the SCPTC site generally flows into the Santa Ana Delhi Channel and, ultimately, to the Pacific Ocean via Upper Newport Bay. Storm water runoff from activities associated with these uses is categorized by regulatory agencies as nonpoint source runoff, which typically contains accumulated particulate matter (dust), residuals from automobile use (hydrocarbons, heavy metals from brake and tire wear) and organic matter from landscaped areas.

The Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) states that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Section 402(p) of the CWA establishes a framework for regulating municipal and industrial storm water

discharges under the NPDES Program. The regulations provide that discharges of storm water to waters of the United States from construction projects that encompass five or more acres of soil disturbance are effectively prohibited unless the discharge is conducted in compliance with a NPDES permit.

The NPDES program is administered by the California Regional Water Quality Control Boards (RWQCB). General Construction Activity Storm Water NPDES permits are issued for storm water discharges by the RWQCB. Construction activities subject to this General Permit include clearing, grading, disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least five acres of total land area. Stormwater pollution prevention plans are required for issuance of a construction NPDES permit and typically include both structural and non-structural Best Management Practices (BMPs) to reduce water quality impacts.

The NPDES program requires local agencies to obtain permits to discharge stormwater into “Waters of the United States.” These permits require the preparation of a water quality management plan to control possible pollutant loading in stormwater through implementation of BMPs. The NPDES Stormwater permit was issued to the County and co-permittees in July 1990. The permit requires the County and City to develop a storm water management program. The County of Orange has adopted the Drainage Area Master Plan (DAMP) to satisfy the NPDES program requirements. As a co-permittee, the City of Costa Mesa is responsible for the following:

- Conducting storm drain system inspections;
- Conducting and coordinating with the county on any surveys and characterizations needed to identify the pollutant sources and drainage areas;
- Implementation management programs, monitoring programs, and implementation plans;
- Enacting legislation and ordinances as necessary to establish legal authority;
- Pursuing enforcement actions as necessary to ensure compliance with the stormwater management programs and the implementation plans; and
- Responding to emergency situations such as accidental spills, leaks, illegal discharges/illicit connections, etc., to prevent or reduce the discharge of pollutants to storm drain systems and waters of the United States.

Appropriate structural and non-structural BMPs consistent with the DAMP are required. Structural controls may include, but are not limited to: filtration, common area efficient irrigation, common area runoff-minimizing landscape design, velocity dissipation devices, oil/grease separators, inlet trash racks, and catch basin stenciling. Non-structural BMPs can include: education for property owners, tenants and occupants; activity restrictions; common area landscape management, litter control, and catch basin inspection; BMP maintenance; and street sweeping.

Ground Water Quality

The City of Costa Mesa receives water from three sources; the Colorado River; the State Water Project, and groundwater. Moreover the quality of the water can vary with each source. Groundwater within the Mesa Consolidated Water District (MCWD) wells is generally of high quality with Total Dissolved Solids (TDS) ranging from 262 parts per million (ppm) to 462 ppm. Likewise, groundwater extracted for the Lower Santa Ana Groundwater basin has tested within the range of 200 ppm to 980 ppm. Both sources are below the standard set forth by the Public Health Service.

In contrast, imported water from the Colorado River tends to be of poor quality, having a high concentration of TDS (750 to 800 ppm) and hardness but low in turbidity. Conversely the State Water Project (SWP) tests relatively low for TDS (226 ppm) and hardness but is high in turbidity.

Overall, the water quality of both the domestic and the imported water within the MCWD is of high quality ranking above both State and Federal Standards.

5.6.2 PROJECT IMPACTS

Thresholds of Significance

In accordance with CEQA Guidelines, Appendix G, a project is considered to have a significant impact if it would cause the following conditions:

- Substantially increase the rate or amount of surface runoff in a manner that would expose people or structures to onsite or offsite flooding or result in peak runoff rates from the site that would exceed existing or planned capacities of downstream flood control systems.
- Substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream or river.
- Violate water quality standards or waste discharge requirements for the receiving drainages.

Impacts

The proposed project is consistent with the goals, objectives, and policies of the Costa Mesa General plan related to hydrology and water quality. Potential constraints to development of the SCPTC site were taken into consideration by the City during preparation of the Costa Mesa General Plan and the City's determination that urban land uses were appropriate for the site. Further, development of the project site will require the implementation of City development conditions and mitigation measures to reduce potentially significant impacts to a level that is considered less than significant.

Hydrology

The proposed SCPTC project would not alter regional hydrologic conditions (i.e., site development would not divert storm water discharges to other watershed or to drainage facilities that have not historically received site runoff). Therefore, no significant impacts to regional hydrology are anticipated

Implementation of the proposed project would result in a nominal increase in impervious surfaces within the project area. These increases would occur as a result of development of various vacant parcels. The development of the vacant parcels, totaling approximately six acres, represents 0.1 percent of the total site, therefore resulting in an overall increase of 0.1 percent in impervious surfaces. Overall, development within the project area will not significantly increase runoff from the project site. Rather, development of these areas would result in only minor increases in storm water runoff volumes and velocities, and no significant alteration in drainage patterns.

Flood Hazard

Due to the improvements associated with the Santa Ana River Mainstem Project, the site is not located within a 100-year floodplain. Therefore, impacts associated with such flooding would not significantly impact the project site.

Water Quality

Short Term/Construction Impacts

During grading and construction activities, there will be a potential for surface water runoff to carry sediment and small quantities of pollutants into the storm water system. Soil erosion may occur along project boundaries during construction areas where temporary soil storage is required. Small quantities of pollutants have the potential for entering the storm-drainage system, thereby degrading water quality. More specifically, such runoff will carry higher quantities of potential pollutants, including fertilizers from landscape management and petroleum hydrocarbons and heavy metals from construction vehicles.

Commercial operations that result in an area disturbance of one acre or more shall comply with the municipal National Pollutant Discharge Elimination System (NPDES) requiring the development and implementation of Best Management Practices (BMP) to control erosion and siltation and contaminated runoff from construction sites. As part of this compliance, the project would be subject to City and County grading ordinances, which already contain adequate requirements for construction practices to control erosion. Such requirements would include the preparation of a Water Quality Management Plan (WQMP) in accordance with the Orange County DAMP.

The County administers the NPDES Stormwater Permit program for the county. Compliance with the NPDES Permit program is required for all sites over five acres. Anticipated requirements of the NPDES permit program would mitigate potential water quality effects to less than significant levels. The following are examples of BMPs that are typically included within the NPDES permit requirements:

- Use of sand bags and temporary desilting basins during project grading and construction during the rainy season (November through April) to prevent discharge of sediment-laden runoff into stormwater facilities.
- Installation of landscaping as soon as practicable after completion of grading to reduce sediment transport during storms.
- Hydroseeding of graded building pads if they are not built upon before the onset of the rainy season.
- Incorporation of structural BMPs (e.g., grease traps, debris screens, continuous deflection separators, oil/water separators, drain inlet inserts) into the project design to provide detention and filtering of contaminants in urban runoff from the developed site prior to discharge to stormwater facilities.
- Stenciling of catch basins and other publicly visible flood control facilities with the phrase “No Dumping-Drains to the Ocean.”

Long Term/Operational Impacts

Implementation of the proposed project would marginally increase the amount of storm water runoff within the project area. As a result, storm water would transport surface water contaminants, such as accumulated particulate matter (dust), residuals from automobile use (hydrocarbons, heavy metals from brake and tire wear) and organic matter from roof tops, roadways, landscaped areas, parking lots, and other exposed surfaces into the storm drain system. However, due to the intensely built-up nature of the project site, this increase is considered to be nominal and would not result in a significant long-term water quality impact. It is known that a significant amount of urban runoff contaminants are contained in the runoff that occurs during the first rainfall event each year (typically called the “first flush” effect). BMPs that focus on reducing the volume of urban runoff contaminants that are carried by storm water are the most effective means of minimizing the water quality impacts of the proposed project.

5.6.3 CUMULATIVE IMPACTS

Implementation of the SCPTC project, along with other projects in the surrounding area, will contribute to the increase in storm water runoff that flows into the Santa Ana Delhi Channel and eventually the Pacific Ocean. However, the project’s incremental contribution to water quality impacts of these water bodies would not be cumulatively significant because the project will comply with the applicable requirements of the Uniform Building Code, (City of Costa Mesa General Plan) and the following

measures which provide specific requirements to avoid any cumulative problems that may occur within the geographic area in which the project is located. The project site is not located within a 100-year floodplain. Therefore, the incremental increase in runoff from the project will not contribute to, nor cause a cumulative impact on storm drain facilities or create a hazardous flooding condition.

5.6.4 MITIGATION PROGRAM

Project Design Features

The project incorporates the following design features related to hydrology, flood hazard, and water quality:

- Construction of structural BMPs as identified in the SWPPP, and required by the NPDES Stormwater Permit issued to the project site by the County of Orange/City of Costa Mesa to capture urban runoff contaminants from developed areas prior to discharge to onsite storm drain facilities.

Standard Conditions and Requirements

Compliance with Uniform Building Code provisions and standard subdivision engineering requirements, as specified in the city's conditions of approval, will satisfactorily address the hydrology and drainage issues described in this section of the EIR.

Mitigation Measures

Regional Hydrology

No significant impacts are anticipated; mitigation measures are not required.

Local Drainage

No significant impacts are anticipated; mitigation measures are not required.

Water Quality

Mitigation Measure 6-1. Prior to issuance of a grading permit, the applicant shall obtain an NPDES Stormwater Permit from the County of Orange. Applicable BMP provisions shall be incorporated into the NPDES Permit.

5.6.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the project design features, standard conditions and requirements, and the mitigation measures specified above will reduce hydrology and drainage impacts to less than significant levels.

5.7 POPULATION, EMPLOYMENT, AND HOUSING

This section identifies existing population, employment, and housing trends in the City of Costa Mesa, estimates employment generation, and examines issues related to housing demand created by new employment opportunities associated with the proposed SCPTC project.

5.7.1 EXISTING CONDITIONS

Costa Mesa Planning Policies

The City of Costa Mesa's General Plan Housing Element serves to support the City's goal of accommodating the housing needs of the City's citizens. The Housing Element details the City's housing market, inventories the existing housing characteristics, analyses population trends, and identifies both public and private sector market constraints that impact housing opportunities within the City. Included in the Housing Element is the comprehensive housing program developed to identify and address housing issues and deficiencies. The City of Costa Mesa Housing Element was adopted in June 2000.

The following identifies the goals, objectives, and policies of the City of Costa Mesa Housing Element that area applicable to the proposed SCPTC project.

GOAL HE-3: PROVISION OF ADEQUATE SITES

It is the goal of the City of Costa Mesa to provide adequate, suitable sites for residential use and development or maintenance of a range of housing that varies sufficiently in terms of cost, design, location, and tenure to meet the housing needs of all segments of the community at a level no greater than which can be supported by the infrastructure.

Policies

HE-3.3: Cooperate with large employers, the Chamber of Commerce, and major commercial and industrial developers to identify and implement programs to balance employment growth with the ability to provide housing opportunities affordable to the incomes of the newly created job opportunities.

HE-3.5: Consider the effects of new employment, particularly in relation to housing demands, when new commercial or industrial development is proposed

Population

The City of Costa Mesa is located in central Orange County, one of the six counties comprising the Southern California Association of Governments (SCAG) region. The other counties within SCAG are Los Angeles, Riverside, San Bernardino, Ventura, and Imperial. The six-county region was estimated to have a population of over 16.27 million in 1998, and is projected to increase by two million by 2005 (SCAG, 1999). The 2020 population for the SCAG region is projected to be 22.4 million, representing a population increase of approximately 44 percent or 6.8 million persons between 1994 and 2020, with an average annual increase of less than two percent. The population growth in the region is due primarily to natural increases, as well as net in-migration. Riverside and San Bernardino counties are projected to experience the fastest pace of population growth in the SCAG region over the next 20 to 25 years.

The estimated 1999 Orange County population was 2,775,619. During the period between 1994 and 2020, Orange County's population is expected to increase from 2.6 million to 3.2 million, an increase of approximately 500,000 people (SCAG, 1998), equivalent to an average annual increase of approximately one percent. The majority of Orange County population growth is expected to occur in south Orange County, Table 5.7-1 presents existing and projected population for the SCAG region and Orange County.

Between 1970 and 1980, Costa Mesa grew by approximately 9,900 residents to a population of 82,562, an average annual growth rate of 1.3 percent per year (U.S. Census, 1990). Current population is estimated at 108,994 persons (State Department of Finance, January 1999). Forecasted Costa Mesa population is 110,926 in 2010 and 111,498 in 2020. Table 5.7-2 presents existing and projected population for Costa Mesa and the cities of Fountain Valley, Huntington Beach, Irvine, Newport Beach, and Santa Ana, which are all adjacent to the City of Costa Mesa. These population figures show population growth rates are expected to decline in the City of Costa Mesa over the next 20 years when compared to historical rates of growth in the City, with an average annual growth rate of less than 0.3 percent between now and 2020.

**TABLE 5.7-1
REGIONAL POPULATION TRENDS**

Year	SCAG Region	Percent Change	Orange County	Percent Change
1990	14,600,000	-	2,410,672	-
1994	15,610,700	-	2,595,300	-
2000	16,699,000	14.4 ('90 to '00)	2,859,200	18.6 ('90 to '00)
2005	18,234,000	-	3,005,800	-
2010	19,491,000	16.7 ('00 to '10)	3,105,300	8.6 ('00 to '10)
2015	20,826,000	-	3,165,400	-
2020	22,352,000	14.7 ('10 to '20)	3,244,600	4.5 ('10 to '20)
Source: SCAG, 1998.				

**TABLE 5.7-2
LOCAL POPULATION TRENDS**

Population Data	Costa Mesa	Fountain Valley	Huntington Beach	Irvine	Newport Beach	Santa Ana	Total
1990	96,357	53,691	181,519	110,330	66,643	292,742	802,282
2000	108,994	56,756	206,292	143,842	75,225	320,176	911,285
Change (1990 to 2000)	12,637	3,065	24,773	33,512	8,582	26,434	109,003
% Change	13.11	5.71	13.65	30.37	12.88	9.00	13.59
2010	110,926	57,815	210,612	152,021	77,372	330,261	939,007
Change (2000 to 2010)	1,932	1,059	4,320	8,179	2,147	10,085	27,722
% Change	1.77	1.87	2.09	5.69	2.85	3.15	3.04
2020	111,498	59,739	210,053	157,153	76,373	342,382	957,198
Change (2010 to 2020)	572	1,924	-559	5,132	-999	12,121	18,191
% Change	0.52	3.33	-0.27	3.38	-1.29	3.67	1.94
Change (1990 to 2020)	15,141	6,048	28,534	46,823	9,730	48,640	154,916
% Change	15.71	11.26	15.72	42.44	14.60	16.56	19.31

Source: Center for Demographic Research, California State University, Fullerton, January 1999 Revised Estimate, California Department of Finance

Employment

In 1994, there were approximately 6,604,000 employment positions within the SCAG region. By 2020, the region's employment base is expected to expand to over 10,574,000 jobs, representing an increase of approximately 3,970,000 jobs. This equates to a 60 percent rate of growth over 26 years, compared to a 44 percent rate of population growth over the same period. Orange County had approximately 1,262,300 jobs or 19 percent of the region's total employment in 1994, compared to 16.5 percent of the population. Orange County is projected to add 854,300 jobs by 2020, which is approximately 13 percent of the projected regional increase in jobs during this period. On an average annual basis, Orange County employment is estimated to grow approximately 1.9 percent per year over this 26-year period. Based on these assumptions, the county will represent 14.5 percent of the total employment in the SCAG region, a decrease of about five percent from 1994 in its regional share (SCAG, 1998 RTP Adopted Forecast, April 1998). Table 5.7-3 identifies the existing and projected employment numbers for the SCAG region and Orange County.

**TABLE 5.7-3
REGIONAL EMPLOYMENT TRENDS**

Year	SCAG Region	Percent Change	Orange County	Percent Change
1994	6,604,000	-	1,262,300	-
2000	7,441,000	-	1,381,700	-
2005	8,206,000	-	1,550,700	-
2010	9,018,000	21.2 ('00 to '10)	1,717,400	24.2 ('00 to '10)
2015	9,746,000	-	1,882,600	-
2020	10,574,000	17.3 ('10 to '20)	2,116,600	23.2 ('10 to '20)

Source: SCAG, 1998.

Regional Statistical Area (RSA) F-39 includes Costa Mesa, Newport Beach, the southern portion of Irvine, and the northwestern portion of Laguna Hills. In 1995, this RSA included 12.3 percent (152,920 positions) of the total employment within the county. In 2000, employment in RSA F-39 is projected to total 163,389 jobs, an increase of 6.8 percent from 1995. By 2010, an additional increase of 7,385 jobs is projected, a 4.5 percent increase from 2000 (OCP-96 Modified).

The City of Costa Mesa is closely represented by Community Analysis Areas (CAA) 44 and 45. Employment in Costa Mesa was estimated to be 70,015 in 1995 with projections to grow to 72,940 by 2000, an increase of 4.2 percent (OCP-96 Modified). Forecasts for Costa Mesa employment (CAA 44 and 45) are for 81,235 positions in 2010 increasing to 90,212 positions in 2020. Table 5.7-4 presents existing and projected employment rates for RSA F-39 and CAAs 44 and 45. These employment figures show employment growth rates are expected to be slower in the City of Costa Mesa over the next 20 years than in the RSA, the county, and the SCAG region.

In 1999, the median household income forecast for the County was \$63,478. The median household income in Costa Mesa was \$40,313 in 1990 (U.S. Census). At that time, the County median household income was forecast to be \$61,812.

The largest employment sectors in Costa Mesa in 1994 were Trade (27.76 percent), Services (27.60 percent), Manufacturing (12.18 percent), and Finance, Insurance, and Real Estate (11.39 percent). Countywide employment patterns are generally reflective of the employment sectors in Costa Mesa.

**TABLE 5.7-4
LOCAL EMPLOYMENT TRENDS**

Year	RSA F-39	Percent Change	CAAs 44 & 45	Percent Change
1995	152,920	-	70,015	-
2000	163,389	-	72,940	-
2005	172,438	-	76,314	-
2010	184,977	13.2 ('00 to '10)	81,235	11.4 ('00 to '10)
2015	196,653	-	84,554	-
2020	212,567	14.9 ('10 to '20)	90,212	11.0 ('10 to '20)

Source: OCP-96 Modified, July 1997.

Housing

The 1990 housing stock in Orange County consisted of 875,105 units. In 1998, housing stock increased to 945,034 units, a 7.4 percent increase with an average of 2.97 persons per household (SCAG, 1999). Housing units in Orange County are projected to total 990,311 in 2000, increasing to 1,154,526 by 2020 (OCP-96 Modified). As of 1990, Costa Mesa's total number of housing units was estimated to be 39,611 (OCP-96 Modified), increasing to 40,555 in 1998. The average household size was 2.49 with a projected household size in 2000 of 2.59, a 4 percent increase in household size. Table 5.7-5 shows existing and projected housing trends for RSA F-39 and CAAs 44 and 45. Based on a survey conducted by the City of Costa Mesa Planning Division (source: City of Costa Mesa web site), approximately 42 percent of all

dwelling units in the City were owned and 58 percent were rented. This figure is low in comparison to ownership data in the surrounding jurisdictions, which ranged from 51 percent in the City of Santa Ana to 79 percent in the City of Fountain Valley for the same time period.

**TABLE 5.7-5
HOUSING TRENDS: NUMBER OF HOUSING UNITS**

Population Data	Orange County	RSA F-39	CAAs 44 & 45
1995	927,578	93,353	42,783
2000	990,311	98,501	43,953
Change 1995-2000	62,733	5,148	1,170
% Change	6.76	5.51	2.73
2010	1,080,818	105,886	45,460
Change 2000-2010	90,507	7,385	1,507
% Change	9.14	7.50	3.43
2020	1,154,528	107,330	46,208
Change 2010-2020	73,710	1,444	748
% Change	6.82	1.36	1.65
Change 1995-2020	226,950	13,977	3,425
% Change	24.47	14.97	8.01
Source: OCP-96 Modified, July 1997.			

5.7.2 PROJECT IMPACTS

Thresholds Of Significance

A significant impact would occur when population and employment projections for a project exceed regional projections and/or the market's ability to meet housing demand.

Impacts

Population

There is no residential development associated with the SCPTC project. Therefore, the project would not result in a direct increase in population in Costa Mesa or the Orange County subregion. Moreover, to the extent that new employees will relocate to Costa Mesa or Orange County, it is not anticipated that the implementation of the proposed project will attract a substantial number of employees outside of the subregional geographic area. During construction activities there may be some temporary relocation to the project area, but this is not expected to be a permanent significant impact.

Employment

Direct employment opportunities will be created by the proposed project, including short-term construction jobs and long-term retail, office, and service employment positions. New employment opportunities created through project implementation would include managers, professional, technical, clerical, sales, production, maintenance, and service jobs. In addition, the proposed project will induce further employment as a result of the income spent by the workers directly employed by the proposed project to the extent that direct employment leads to the purchase of goods and services.

Indirect and induced impacts result from the actions and decisions of businesses, workers, and households that benefit from the demand of goods and services required to construct, develop, and maintain business within Costa Mesa. The additional employment generated by job growth is considered a beneficial impact on job growth in Costa Mesa and the region.

Under the proposed project, a total of 1,109,445 square feet would be developed generating approximately 2,324 jobs (see Table 5.7-6). Employment growth projections for the county indicate that 335,700 additional jobs are anticipated between 2000 and 2010, with 32,057 of those jobs located in RSA F-39, and 11,220 positions located in CAAs 44 & 45. Project-related employment generation would constitute approximately 1% of the projected job growth in the county, 7% of projected job growth in the RSA and 21% in the CAAs during the same period, 2000 to 2010. Utilizing the 2000 forecast of 83,257 people projected to be employed within the City of Costa Mesa as a base, the addition of 2,324 jobs would also represent a 2.8% increase in the City's employment year 2000 base. It is not anticipated, however, that the proposed project would attract a significant amount of potential employees from outside of the Orange County subregion. As such, the project could provide for increased job opportunities for residents of Costa Mesa and surrounding jurisdictions.

Currently, the Town Center Area has approximately 12,500 employees of the 2,324 jobs created under the proposed project, it is estimated that 91% would be office, 6% in culturally oriented (theater and symphony hall), and 3% in the art academy/museum sector. The creation of 2,324 jobs is considered to be a beneficial impact to employment.

**TABLE 5.7-6
ESTIMATED ADDITIONAL EMPLOYMENT FROM THE IMPLEMENTATION
OF THE SOUTH COAST PLAZA TOWN CENTER PROJECT**

Land Use	Increase In Square Footage	Employment Generation Factor	Total Employment
Office	635,800	1 employee/300 sq. ft.	2,117
Symphony Hall/SCR Theatre expansion	333,645	1 employee/2,500 sq. ft.	133
Art Academy/Museum	140,000	1 employee/1,800 sq. ft.	74
Total			2,324
sq. ft. – square feet			
Source: City of Costa Mesa			

Implications of Labor Demand Relative to Housing Supply

Job creation from development of the SCPTC project would increase the demand for housing in Costa Mesa and the surrounding communities.

It is difficult to definitively estimate the number of future employees who will choose to relocate to a new residence with their new job. Many factors, both tangible and intangible, influence personal housing decisions. Among the most significant factors are total family income and the cost and availability of suitable housing in the local area. It is assumed that part-time employees are not in a financial position to make the housing location decision for their household, as they will likely be part of a household with at least one other wage earner. A portion of new employment opportunities, are anticipated to be in higher income-managerial and professional brackets-where there will be a greater degree of housing mobility. In lower income jobs, there is less locational freedom. The increasing presence of two wage earner families has enhanced the range of housing choices that are affordable to many households. A substantial number of future employees can also be assumed to be currently living within a reasonable commuting distance of the site.

As shown in Table 5.7-7, housing growth projections for the County indicate that 90,507 additional residences are anticipated to be developed between 2000 and 2010, with 7,385 of those residences located in RSA F-39, and 1,507 located in CAAs 44 and 45. Based on the County factor of 1.5 employees per household, it is assumed that no more than 1,549 residences, directly or indirectly, will be demanded as a result of new employees associated with the SCPTC project. Project-related housing demand, at a highest projected level of 1,549 homes, constitutes approximately 2 percent of the projected housing growth in the County, 21 percent of projected job growth in the RSA, and slightly more than the total projected in CAAs 44 and 45 during the same period of 2000 to 2010.

**TABLE 5.7-7
PROJECT HOUSING ABSORPTION**

Local Projection	Housing Projections (between 2000 & 2010)	Project Demand as a Percent of Projection
Max. Project Need	1,526	100
County	90,507	2
RSA F-39	7,385	21
CAAs 44 & 45	1,507	103
Source: SCAG 1998; Center for Demographic Research, CSUF, January 1999; OCP-96 Modified, July 1997.		

Table 5.7-7 shows that the potential need for housing by project employees could absorb all of the anticipated housing growth within CAAs 44 and 45 for the next 10 years and 21 percent of the housing in RSA F-39. This project creates a substantial demand for housing which may create a significant impact within the area housing market.

Using 1990 Travel Time to Work commuting patterns from the federal census as an indicator, approximately 34 percent of the total work population within the central coast area of Orange County travel under 15 minutes to work. Seventy-four percent of the area residents travel under 30 minutes to work. However, since 1980, population and housing growth trends in the county suggest that a smaller percentage of households would locate within Costa Mesa and the surrounding areas. South Orange County areas would most likely receive the majority of household growth (i.e., where the majority of the housing growth is projected) shifting from the more heavily urbanized north county areas.

Because of the speculative nature of ultimate project buildout and composition of employees/employers, it is not possible to reliably evaluate the ability of the housing market to absorb long-term future housing demand of future employees at the SCPTC project site. Countywide growth assumptions which form the basis of SCAG projections assume that jobs and housing growth will be balanced within the county over the 20-year horizon of buildout of the SCPTC project. However, within RSA F-39, a surplus of jobs over housing is expected to occur because of the higher concentration of office, commercial, and industrial land uses in the area. On a city-by-city basis, variations in the jobs/housing balance will also occur.

The additional housing demand generated by the project will impact housing supply and contribute to pressures upon vacancy rates and housing costs in the surrounding area. Although available housing proximate to the project site is limited, the project does not fit within the regional and county growth projections. The majority of new housing in the county is being built in south Orange County. The implementation of the three new transportation corridors within Orange County have helped to facilitate travel to the employment hubs.

The City has recently adopted the General Plan Housing Element. Continued active implementation and refinement of policy programs outlined in the Housing Element will further contribute to the mitigation of potential future housing problems. However, due to the ~~Since~~ projected growth in employment in the

local area at a faster pace than housing development, there is the potential for a significant impact to housing availability in the region. ~~The project further intensifies housing demand than what was anticipated in the Housing Element.~~

5.7.3 CUMULATIVE IMPACTS

The SCPTC development will cumulatively impact housing supply within the City. Expansion of housing supply is affected by factors including the availability of physically suitable land, land cost, building costs, market demand, interest rates, and overall economic conditions. In Costa Mesa, land availability seems to be the major limiting force. In addition, housing location decisions involve a high degree of individual discretion. Consequently, a direct linkage of employment generation, housing demand, and mitigation is difficult to establish.

The General Plan Housing Element is intended to address such concerns. All jurisdictions must have an adopted Housing Element. Based on the assumption that other jurisdictions will provide mitigation consistent with the policy and are represented by SCAG regional growth forecasts, cumulative impacts to housing supply and a jobs/housing balance can be assumed to be at least partially mitigated on a county and regional basis.

5.7.4 MITIGATION PROGRAM

The potential housing demand created by the project could result in a significant impact on the housing market. There are no feasible project-specific measures available to lessen this potentially significant impact.

5.7.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The SCPTC project creates a substantial demand for housing which results in significant, unavoidable impacts to the area housing market.

5.8 PUBLIC SERVICES, UTILITIES, AND ENERGY CONSUMPTION

5.8.1 COSTA MESA PLANNING POLICIES

Costa Mesa General Plan Public Facilities and Services Element

As noted in the City of Costa Mesa's General Plan, for development and daily activities to occur, there must be sufficient provision of public facilities and services, infrastructure and utilities. The public utilities and services essential to the orderly development and functioning of the City are provided by the City and other public agencies. The City of Costa Mesa General Plan's Public Facilities and Services Element addresses the following utilities: energy, water, and wastewater; and the following services: City administration, fire protection, police disaster preparedness, education, and child care.

The following are the goals, objectives, and policies that are applicable to the South Coast Plaza Town Center project:

GOAL I: ENVIRONMENTAL QUALITY AND RESOURCE CONSERVATION

It is the goal of the City of Costa Mesa to provide its citizens with a high quality of environment through the development and conservation of resources, including land, water, minerals, wildlife, and vegetation; the protection of areas of unique natural beauty and historical, social, cultural, and scientific interest; the integration of natural features into the man made environment; and the preservation of open space.

Objective I-D: Work towards the protection and conservation of the City's existing and future water resources, recognizing water as a limited resource requiring conservation.

25. Require as part of the environmental review procedure, an analysis of major development or redevelopment project impacts on local water supplies and water quality and an analysis of the impact on water capacity, water availability, and water costs.
26. Pursue the use of reclaimed water for the irrigation of all appropriate open space facilities and require new developments for City projects, and encourage existing developments to tie into the reclaimed water system when recommended by the Orange County Water District of the Mesa Consolidated Water District.
27. Require proposed development projects to incorporate all interior and exterior water conservation measures required by State law and local water agencies. Encourage the implementation of measures recommended by water agencies.

33. Direct developers to work with the local water agency when the water agency determines that a project impacts the local water supply system; the water agency may require fees or other financial assessments of developers to finance any required expansion of the water supply system to serve new projects.

Objective I-E: Conserve energy and resources in the development and operation of public and private buildings, facilities, and activities.

-
34. Establish guidelines for encouraging passive solar design, and require analyses of available energy conservation measures in excess of Title 24 requirements. This shall include considerations such as modified site and building design in conjunction with EIRs and Negative Declarations for all new buildings and subdivisions.
 35. Consider effects of buildings over two stories or thirty feet in height on adjacent parcels to ensure minimum interference with solar access in the vicinity of all new developments.
 39. Encourage active solar systems for either water and/or space heating in all residential, commercial, and industrial building designs.

GOAL IV: SOCIO-ECONOMIC CONSIDERATIONS

It is the goal of the City of Costa Mesa to respond to the needs of its citizens for housing, public services, community facilities, and safety of persons and property, to the extent possible within budgetary constraints, and when deemed appropriate for local governmental involvement.

Objective IV-A: Ensure availability of adequate community facilities and provision of the highest level of public services possible, taking into consideration budgetary constraints and effects on the surrounding area.

155. Encourage and foster the maintenance and development of Cultural Arts programs and organizations in the community, thereby giving all citizens, regardless of age or income, accessibility to the arts in various forms including dance, theater, music, and the visual arts.

GOAL VII: LAND USE

It is the goal of the City of Costa Mesa to provide its citizens with a balanced community of residential, commercial, industrial, recreational, and institutional uses to satisfy the needs of the social and economic segments of the population and to retain the residential character of the City; to meet the competing demands for alternative developments within each land use classification

within reasonable land use intensity limits; and to ensure the long-term viability and productivity of the community's natural and man-made environments.

Objective VII-D: Ensure consideration of utility system capacities in land use planning and development processes.

251. Include an evaluation of impact on utility systems and infrastructure in EIRs for all major General Plan amendment, rezone, and development applications.
252. Phase or restrict future development of the City to that which can be accommodated by infrastructure, existing or planned to exist, at the time of completion of each phase of a multi-phased project.
253. Require developers to pay appropriate impact fees to the Costa Mesa Sanitary District and Orange County Sanitation Districts to fund the cost of necessary improvements to the sewage collection and treatment system.
254. Require developers, when necessary, to coordinate with the Costa Mesa Sanitary District and the Orange County Sanitation Districts to determine flow reduction techniques to be incorporated into their project designs.

Costa Mesa Planning Policy Analysis

The SCPTC project is consistent with the applicable goals, policies, and objectives of the City of Costa Mesa General Plan Public Facilities and Services Element. The proposed project can be served by existing infrastructure or would be required to improve infrastructure to adequately serve the development and to prevent a decrease in the existing level of services within the project area.

5.8.2 FIRE AND EMERGENCY MEDICAL SERVICES

Existing Conditions

Fire and emergency medical services are provided to the project area by the City of Costa Mesa Fire Department.

Fire and Emergency Medical Services

Fire Station #6 is located approximately 0.5 miles from the project, and was built to serve this area. However response within the project area could be from any of six stations located within the City of Costa Mesa. Station locations, apparatus, and assigned personnel are listed in Table 5.8-1 below.

**TABLE 5.8-1
EXISTING FIRE STATION LOCATIONS, EQUIPMENT, AND STAFFING**

Station Number	Location	Apparatus	Assigned Personnel
1	2803 Royal Palm Drive	One medic engine	4
2	800 Baker Street	One medic engine	4
3	1845 Park Avenue	One medic engine and one quint ^a	8
4	2300 Placentia Avenue	One medic engine	4
5	2450 Vanguard Way	One medic engine, one truck, one command vehicle	9
6	3350 Sakioka Avenue	One quint ^a	4

^a A quint is a combination fire apparatus with the capabilities of both a truck and an engine
Source: City of Costa Mesa Fire Department, 2000.

Mutual and Automatic Aid Agreements

The Costa Mesa Fire Department has an automatic aid agreement with the Santa Ana Fire Department for areas in the northern portions of the City. Further, the Costa Mesa Fire Department effectively has a boundary drop agreement (e.g., mutual aid) in terms of emergency response with the Cities of Fountain Valley, Huntington Beach, and Newport Beach. Mutual aid is provided by the Orange County Fire Authority.

Response Times

The City of Costa Mesa determines fire service levels by the Department's ability to meet the goal of responding to emergencies within five minutes, eighty percent of the time, and the national standard of having an engine company within one and one half miles and a truck company within two and one half miles. Currently the Department responds within five minutes to calls seventy-one percent of the time citywide and responses within the project area reflect this average. Overall, the general level of fire protection within the city is considered adequate with the exception of the northwest section of the City, where response times tend to be excessive (within five minutes, twenty-nine percent of the time).

Fire Flow

According to the Costa Mesa Fire Department, the water system has adequate pressure and volume to serve the fire flow needs of the project (source in Section 11, References). However until actual building plans are submitted, specific fire flow requirements cannot be determined. In the event the improvements to the system are deemed necessary, this will be based upon the submittal of building plans detailing building size, relationship to other structures, and property lines, and the type of building construction.

Project Impacts

Thresholds Of Significance

The proposed project would result in a significant impact to fire protection service if the project:

- Would substantially reduce acceptable service ratios, or other adopted performance objectives, or increase response times of the Fire Department. A substantial physical impact could result from the need to construct new facilities to serve the project.

Impacts

The proposed project will have an incremental impact on the Fire Department by increasing the number of calls to the service area. Increased daytime population, density, and usage generated by the proposed project may increase the need for emergency medical services, ambulance transportation, and rescue operations, which may require additional fire equipment. Optimum fire protection at project build out will contribute to the need for a fire station and one engine company located in the northwest area of the City. The project is expected to result in a significant impact on fire protection services.

Cumulative Impacts

The proposed project in conjunction with other proposed and/or foreseeable future projects will create the need for an additional fire station in the northwest area of the City. As outlined in the City of Costa Mesa General Plan (Public Facilities and Services Elements, page 272), a future fire station is to be built at the (see map on page 274 of the 1990 Costa Mesa General Plan) corner of Harbor Boulevard and South Coast Drive. The project would contribute to a significant cumulative impact on fire protection services.

Mitigation Program

Project Design Features

- A water delivery system designed to provide adequate fire flows to the project site and maintain a roadway system to provide adequate access to and through the site are a part of the design of the project.

Standard Conditions and Requirements

- Concurrent with the issuance of building permits the applicants shall pay the North Costa Mesa Fire Fee in effect at that time, as applicable.
 - Each final master plan for the project site shall provide sufficient capacity for fire flows required by the Costa Mesa fire Department.
 - Vehicular access to all fire hydrants must be provided and maintained throughout construction.
-

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Implementation of the project design features and standard conditions identified above would reduce impacts from the project to a level considered less than significant.

5.8.3 POLICE SERVICES

Existing Conditions

Police Services for the project site are provided by the Costa Mesa Police Department located at 99 Fair Drive. For police protection purposes, the City of Costa Mesa is divided into three service areas. The proposed project is located within Service Area II. Service Area II is also served by the South Coast Plaza Sub-station located at 3333 Bristol.

Manpower, Equipment, and Resources

On a twenty-four hour basis, there are 31 patrol officers on duty city-wide. The manpower serving the project area consists of 11 patrol officers on a twenty-four hour basis. The equipment available to Service Area II includes three helicopters (Airborne Law Enforcement), and five patrol vehicles at any one time. Currently the Police Department is operating at a level of 1.45 officers per 1,000 population.

Response Statistics

As previously stated, the proposed project is located within Service Area II. The average response time in Service Area II is 13.68 minutes. The principal crimes reported within the project area are commercial and vehicle burglaries and thefts.

Mutual Aid Agreement

The City of Costa Mesa Police Department maintains a mutual aid pact with the Orange County Sheriff's Department and the surrounding cities. Although not considered mutual aid, the City of Costa Mesa and the City of Newport Beach maintain a joint powers authority, Airborne Law Enforcement (A.B.L.E.) and together deploy three helicopters.

Project Impacts

Thresholds of Significance

A project is considered to have a significant impact in relation to police services if:

- Increases in development, population, size of events, or response times would require expanding the existing staff and equipment levels to maintain an adequate level of protection throughout the area.
- A substantial amount of police emergencies that cannot be adequately served by available Police Department personnel or equipment.

Impacts

Development within the SCPTC would result in increases in the number of visitors and employees within the project site and surrounding area, thereby generating an increase in the level of service calls from the site during short-term construction and long-term operation of the project. These calls are anticipated to result from an increase in traffic on adjacent streets as well as an increase in thefts, vehicle burglaries, damage to vehicles, and traffic related incidents. According to the Costa Mesa Police Department (source in Section 11, References), no significant impacts to police services would occur as a result of the SCPTC project.

Cumulative Impacts

According to the City of Costa Mesa Police Department, no significant impacts would occur on police services due to the implementation of the proposed project. Yet, although overall manpower and equipment are adequate to serve the project, the Main Police Facility located at 99 Fair Drive is inadequate to house the present number of personnel and equipment. The proposed project as well as other proposed and/or foreseeable future projects within the City of Costa Mesa will continue to exacerbate the current lack of facility space.

Mitigation Program

Standard Conditions and Requirements

- As final building plans are submitted to the City of Costa Mesa for review and approval, the Police Department shall review all plans for the purposes of ensuring that the proper design features are incorporated into the building plans to increase safety .
- ~~Environmental design considerations shall be incorporated into the development and maintenance of the proposed project to deter such criminal activity as burglary and robbery.~~
- All buildings shall be well marked with names and addresses to enhance rapid response, rooftops shall be marked for building identification by police helicopter, and there shall be designated emergency vehicle parking areas close to buildings.

Mitigation Measures

Mitigation Measure 8-1. Prior to the initiation of grading, a construction security service shall be established at the construction site. Initially, the service shall ensure that no unauthorized entry is made into the construction area. For the duration of each phase of construction, the project applicant shall provide sufficient onsite security personnel on a 24-hour, seven days a week basis, to patrol all areas of construction and prohibit unauthorized entry.

Mitigation Measure 8-2. Private on-site security is to be provided by the project applicant as the project is developed and operational.

Level of Significance After Mitigation

The incorporation of the standard conditions and mitigation measures would reduce police service impacts to a level that is considered less than significant.

5.8.4 SOLID WASTE

Existing Conditions

The California Integrated Waste Management Act of 1989 (California Health and Safety Code 40000, AB 939) requires cities and counties within the State of California to have reduced waste generation rates by a minimum of 25 percent by 1995 and by 50 percent by the year 2000 through a combination of solid waste management, source reduction, recycling, composting, and market development. The County of Orange in accordance with AB 939 prepared a County Integrated Waste Management Plan (CIWMP), approved in 1996. The plan includes the following elements: Source Reduction and Recycling; Household Hazardous

Waste; and a County-Siting Element identifying fifteen years of available disposal capacity. Additionally the Plan included a statement of significant solid waste disposal problems facing the County.

The County of Orange owns and operates three active landfills. The Frank R. Bowerman Landfill is the closest facility to the project site, and would most likely be the site receiving solid waste from the project area. The City of Costa Mesa is under contract to the County's IWMD to commit all of its waste to the County landfill system (not to any particular landfill) until the year 2007. While the County landfill system as required by AB 939 to identify at least 15 years of capacity, the County of Orange Integrated Waste Management Department identified a total of 30 years of capacity.

Project Impacts

Thresholds of Significance

A project is considered to have a significant impact upon solid waste facilities (i.e. landfills) if the existing facilities do not have adequate capacity for the increase in solid waste, or if the disposal of project-related solid waste would result in a reduction of the planned life span of a landfill.

Impacts

Implementation of the SCPTC project will involve site preparation activities and demolition, which will generate waste materials. Hauling and disposal of these materials would occur during the construction process of individual development projects located within the project site.

Following completion and occupancy of the development projects within the project site, refuse will be regularly generated. However, as identified in the CIWMP, the Orange County landfill system will have sufficient capacity for another thirty years.

Based on solid waste generation factors provided by the California Integrated Waste Management Board, the proposed project would be expected to generate 2,133 tons of solid waste annually. The County of Orange IWMD has indicated that adequate capacity for the proposed project is available. No significant impacts to solid waste service would result with implementation of the proposed project.

Cumulative Impacts

Currently, the County of Orange Landfill System is accepting solid waste from sources outside of Orange County. Should the cumulative effect of development of the County's landfill system cause the daily tonnage ceiling of a particular facility to be exceeded, the waste being imported to that facility will be reduced by the corresponding amount. Consequently, the County landfill system has adequate capacity

for the proposed project in conjunction with all other proposed or reasonably foreseeable projects within the cumulative project area.

Mitigation Program

Project Design Features

Although no significant impacts to solid waste disposal are anticipated as a part of the project, the following project design features are recommended to minimize waste disposal and assist the City of Costa Mesa in compliance with AB 939:

1. In accordance with the requirements of AB 939, construction contractors shall reuse construction forms where practicable or applicable, attempt to balance soils on the site, minimize over cutting of lumber and polyvinyl chloride (PVC) piping where feasible, and reuse landscape containers to the extent feasible.
2. Recycling bins for glass, metals, paper, wood, plastic, green waste, and cardboard shall be placed on the construction sites for use by construction workers.
3. In construction specifications and bid packages, require building materials made of recycled materials, to the extent feasible and economically practical.
4. As a part of the ongoing operations of the SCPTC project, the following measures shall be integrated into project design:
 - Source reduction, source separation and recycling measures shall focus on paper goods, yard waste, plastic, wood waste, and glass;
 - “Buy-recycled” policies, such as price references for recycled products;
 - Source reduction policies;
 - In-house recycling;
 - Drop-off sites;
 - Employee education;
 - Customer education; and,
 - Manufacturing design modification to promote source reduction or recycling.

Level of Significance After Mitigation

No significant impacts would occur with project implementation.

5.8.5 WASTEWATER

The project site is served by both the Costa Mesa Sanitary District (CMSD) and the Orange County Sanitation Districts (OCSD). The Costa Mesa Sanitation District has sewer lines in both Town Center Drive and Sunflower Avenue, while the Orange County Sanitation District has sewer lines in Avenue of the Arts, Sunflower Avenue, Park Center Drive and Anton Boulevard. According to the Orange County Sanitation Districts the project may be served by the County's 18-inch sewer in Avenue of the Arts, eventually flowing into the Sunflower Trunk Sewer.

The proposed project will not be able to utilize OCSD's Gisler-Redhill Trunk Sewer, as the future widening of the I-405 will result in the abandonment of a portion of that sewage system.

Project Impacts

Thresholds of Significance

A project is considered to have a significant impact on wastewater service if:

- Wastewater flows generated by the project cannot be accommodated by the local wastewater treatment system.
- Wastewater distribution lines are not capable of conveying the sewage generated by the project to the wastewater treatment plant.

Impacts

The project's anticipated wastewater demands are identified in Table 5.8-2 below. Implementation of the SCPTC project would generate approximately 179,000 gpd. According to the OCSD, the project would be adequately served by existing wastewater facilities in the project area (i.e., 18-inch sewer line in Avenue of the Arts). Therefore, implementation of the proposed project is not expected to result in significant impacts on wastewater facilities serving the project site. Regardless, development of the SCPTC project site would require coordination between the project applicant and the OCSD.

Cumulative Impacts

Development of future projects in the vicinity of the project site and that are in accordance with existing and approved land uses will be served by facilities within the OCSD service area. This OCSD system would include conveyance and treatment facilities. Since the proposed project is in accordance with the wastewater projections identified by the OCSD for their service area, no cumulative impacts would occur on OCSD wastewater services or facilities.

**TABLE 5.8-2
PROJECTED INCREASE IN WASTEWATER DEMAND**

Land Use	Generation Factor	Generation Rate	Daily Flow
Office/commercial ^a	807,500 sq. ft.	200 gpd/1,000 sq. ft.	161,500 gpd
Symphony Hall/OCPAC Expansion	2,500 seats*	5 gallons/seat	12,500 gpd
Total			174,000 gpd
sq. ft. – square feet gpd – gallons per day ^a Includes art museum/academy and theater uses. *Excludes 1,000 seats already entitled. Source: City of Costa Mesa, 2000.			

The generation of approximately 174,000 additional gallons per day of wastewater to be treated is not considered a significant impact of this project.

Mitigation Program

Project Design Features

- All onsite wastewater sewer lines will be provided and ties to the existing sewer line system.

Standard Conditions and Requirements

- Prior to the issuance of building permits, a letter shall be obtained from the CMSD and the OCSD verifying that there is sufficient capacity in the receiving trunk lines to serve the proposed project.
- Prior to the issuance of connection permits(s), the applicant shall pay all applicable fees.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Implementation of the project design feature and standard conditions will reduce the wastewater impacts to a level that is considered less than significant.

5.8.6 WATER

Existing Conditions

In 1995, the State legislature passed and Governor Wilson signed into law Senate Bill 901 which provides that environmental impact reports for certain development projects must meet the requirements of the law in addressing the availability of water for a project. Senate Bill 901, now codified as Part 2.10 of the California Water Code is applicable when a Notice of Preparation for an EIR is filed for project which requires the adoption of a specific plan and/or “an amendment to, or revision of, the land use element of a general plan, or a specific plan, that will result in a net increase in the state population density to provide for additional development..”

Consistent with the intent of Part 2.10 of the California Water Code, information provided below is based on consultation with the City of Costa Mesa and the Mesa Consolidated Water District (MCWD).

Domestic water service, water mains, fire hydrants, and fire service is provided to the project site by the MCWD. The entire project is within the boundaries of MCWD. Existing MCWD facilities within the project area are 12-inch interconnected water mains that run throughout the project site.

Project Impacts

Thresholds of Significance

The proposed project would result in a significant impact if:

- Water supplies are not available to meet the demand of the project.
- The project would require the construction of new water facilities or the expansion of existing facilities, which could cause significant environmental effects.
- The project site/development cannot be served by an existing provider.

Impacts

MCWD prepared an Urban Water Management Plan in 1995. The Urban Water Management Plan identifies necessary water supplies during normal, single-dry, and multiple dry years in its 20-year

projection period. The SCPTC project would result in an increase of potable water consumption of 43,891 gallons per day. The projects expected water consumption is identified in Table 5.8-3.

**TABLE 5.8-3
PROJECTED POTABLE WATER CONSUMPTION**

Land Use	Water Consumption Rate	Acres^b	Daily Water Consumption
Office/ Commerical ^a	1.2 gpm/acre	18.5	31,968
Symphony Hall	1.2 gpm/acre	6.9	11,923
Total			43,891

gpm/acre = gallons per minute/acre
^a Includes art museum/academy and theater uses.
^b Acreage is calculated by converting square feet of building into acres (e.g., 300,000 sq. ft. divided by 43,560 sq. ft./acre equals 6.9 acres)

The proposed SCPTC project's demand can be provided by the MCWD. According to MCWD it is expected that the proposed project can be served by existing pipelines that run throughout the project site. Recycled water available through the Orange County Water District's Green Acres program could be used for landscape irrigation, toilets, and trap primers. No significant impacts to potable and recycled water supplies are anticipated.

Cumulative Impacts

Development of future projects in the vicinity of the project site will be served by facilities within the MCWD service area. MCWD systems would include transmission lines, as well as water storage facilities. Since the proposed project can be served by the MCWD, no cumulative impacts would occur on MCWD water services or facilities.

Mitigation Program

Project Design Features

- All onsite irrigation lines for recycled water would be identified so as to avoid connection with potable water lines.
- Design requirements would be specified to the City for potable and recycled water plumbing systems within proposed buildings.

Standard Conditions and Requirements

- Prior to the issuance of an Application Permit the Application Plan Check/Inspection Fee and Performance Guarantee Bond shall be paid by the applicant to the MCWD.
- Prior to the approval of plans or the execution of a service agreement, a Development Impact Fee shall be collected by the MCWD from the applicant.
- Water conservation plans as required by the State of California shall be incorporated into building plans for the project. The measures to be implemented include, but are not limited to:
 - Low-flow fittings, fixtures, and equipment, including low flush toilets and urinals (Health and Safety Code 17921.3)
 - Use of self closing valves for drinking fountains and lavatory faucets in public facilities (Government Code Section 7800)
 - Insulation of water pipes and water heating systems. (Title 24, California Administrative Code, Section 25352)
 - Use of low flow sprinkler heads in irrigation systems (California Conservation in Landscaping Act, AB 325).

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Implementation of the project design features and standard conditions will reduce the impacts to water resources to a level that is considered less than significant.

5.8.7 ENERGY RESOURCES

Electricity

Southern California Edison (SCE) is the electricity provider for the project site. There are both underground and above ground facilities located in the project area, including facilities in Sunflower Avenue, Town Center Drive, Avenue of the Arts, and Bristol Street. SCE's electrical service supply has accounted for an increase in electric service needs for the SCPTC project area.

Natural Gas

Natural gas service is provided to the site by the Southern California Gas Company (SCG). Existing gas facilities include gas mains in Sunflower Avenue, Avenue of the Arts, and Bristol Street.

Project Impacts

Thresholds of Significance

A project is considered to have a significant impact on energy resources if:

- Electricity/natural gas supplies are not available to meet the demand of the project.
- The project would require the construction of new electrical/natural gas facilities or the expansion of existing facilities, which could cause significant environmental effects.
- The project site/development cannot be served by an existing provider.

Impacts

Electrical Service

Electric loads of the proposed project fall within SCE's estimated of future demand in the area. As shown on Table 5.8-3, the annual increase in electrical consumption with the implementation of the proposed project, is 13.62 million kilowatt hours per year. SCE is required to provide service to the project site, and coordination is typical between a project applicant and SCE to avoid any notable service disruptions during extension, relocation, and upgrading of services and facilities. This coordination ensures that the nature, design, and timing of electrical systems improvements are adequate to serve the project and in compliance with California energy conservation requirements as specified in California Code of Regulations Title 24/25. Implementation of the proposed project would not result in a significant impact on electrical services or facilities.

**TABLE 5.8-4
PROJECTED INCREASE IN ELECTRICAL CONSUMPTION**

Land Use	Area	Generation Factor ^b	Annual Demand (million kW/h)
Office/Commercial ^a	807,500 sq. ft.	12.95 kWh/sf/yr	10.46
Symphony Hall	301,145 sq. ft.	10.50 kWh/sf/yr	3.16
Total			13.62

kWh/sf/yr – Kilowatt hour/square feet/year
^a Includes art museum/academy and theater uses.
^b SCAQMD CEQA Air Quality Handbook, Appendix 9 (1993).
 sq. ft. – square feet

Natural Gas

Table 5.8-5 identifies the projected natural gas demand generated by the SCPTC project (31,723 cubic feet/square feet/year). The SCG has identified that the natural gas demand generated by the project could be accommodated by existing facilities. The proposed project would include limited construction of onsite natural gas distribution facilities. These facilities would connect to existing facilities within and adjacent to the project site. Installation of gas facilities within the site would occur during project construction. The provision and installation of gas facilities would not result in additional significant environment impacts beyond those identified for construction of the project.

**TABLE 5.8-5
PROJECTED INCREASE IN NATURAL GAS CONSUMPTION**

Land use	Units/Area	Natural Gas Demand Factor	Annual Therms (in thousands)
Commercial ^a	473,645 sq. ft.	34.8 cf/sf/yr ^b	16,483
Office	635,000	24 cf/sf/yr ^b	15,240
Total			31,723

cf/sf/yr – cubic feet per square foot per year
 one therm = approximately 100 cubic feet of natural gas
^a Includes art museum/academy, symphony hall and theater
^b Appendix 9, SCAQMD CEQA Air Quality Handbook, adopted April 1993. Demand factors are based on SCGC average rates.

Cumulative Impacts

Development of future projects in the vicinity of the project site would require extension of and connections to the existing electrical and natural gas transmission and distribution systems served by SCE and SCG. The existing and planned facilities owned and operated by SCE and SCG have been planned for growth in the project area. According to the SCE and SCG, no significant cumulative impacts on electrical or natural gas facilities would occur from the development of the project and future related development.

Mitigation Program

Standard Conditions and Requirements

- Prior to the recordation of the Final Master Plans, the applicant shall provide to the City of Costa Mesa, a letter from Southern California Edison Company and Southern California Gas Company indicating the ability to provide service to the project.
- The applicant shall comply with the guidelines provided by the Southern California Edison Company with respect to easement restrictions, construction guidelines, and potential amendments of right-of-way in any existing Southern California Edison easements on the project site.
- Prior to the issuance of each building permit, the building owner/developer shall submit plans showing that each structure will comply with the State Energy Efficiency Standards for nonresidential buildings (Title 24, Part 6, Article 2, California Code of Regulations).

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Implementation of the standard conditions and requirements will reduce the impacts to energy resources to a level that is less than significant.

5.9 AESTHETICS

The following section describes the potential shade and shadow and light and glare impacts that could result from implementation of the proposed South Coast Plaza Town Center (SCPTC) project.

5.9.1 EXISTING CONDITIONS

Costa Mesa Planning Policies

Costa Mesa General Plan

Various goals, policies, and objectives of the General Plan are relevant to the aesthetic character of the proposed SCPTC project as it relates to shade and shadow, and light and glare. The Land Use Element's Goal III objective number 236, states "Permit the construction of buildings over two stories or 30 feet only when it can be shown that the construction of such structures will not adversely impact surrounding developments and deprive existing land uses of adequate light, air, privacy, and solar access."

North Costa Mesa Specific Plan

The North Costa Mesa Specific Plan provides development standards applicable to the SCPTC project. These standards include:

3. Shade/shadow impacts of buildings in excess of 2 stories to surrounding land uses shall be considered during project review.
10. Lighting for parking structures and lots shall be directed away and/or shielded from adjacent residential areas where applicable.
12. Building heights shall be limited to the maximum height and number of stories shown in Table 2 of the Specific Plan (16 to 21 stories).

The project area encompasses approximately 54 acres of relatively flat land containing no distinguishing topographical features. The site is bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts, and the San Diego Freeway (I-405) and is intersected by Town Center Drive and Anton Boulevard. The project site consists of a variety of office and commercial (i.e., restaurant, retail, theater, etc.), land uses, totaling to approximately 2.8 million square feet of development. These uses vary in height from one to 21 story buildings.

As with the project site, land uses surrounding the project site are highly urbanized. These uses include the South Coast Plaza shopping area to the west, residential uses to the east, single family and

commercial/retail uses to the north, and the I-405 freeway south. Development in surrounding areas primarily involves single-story uses to multi-story uses. Recreational activities such as the California Scenario and a large open space easement east of Bristol Street in the vicinity (southwest) of South Coast Repertory Theater are also located on the project site.

5.9.2 PROJECT IMPACTS

Thresholds of Significance

Implementation of the proposed project would result in a significant impact if the following were to occur:

- The project would cast shade or shadow effects onto sensitive land uses in adjacent offsite areas.
- The project would create new sources of substantial light and glare which would adversely affect day or nighttime views in the area.

Impacts

Shade And Shadow

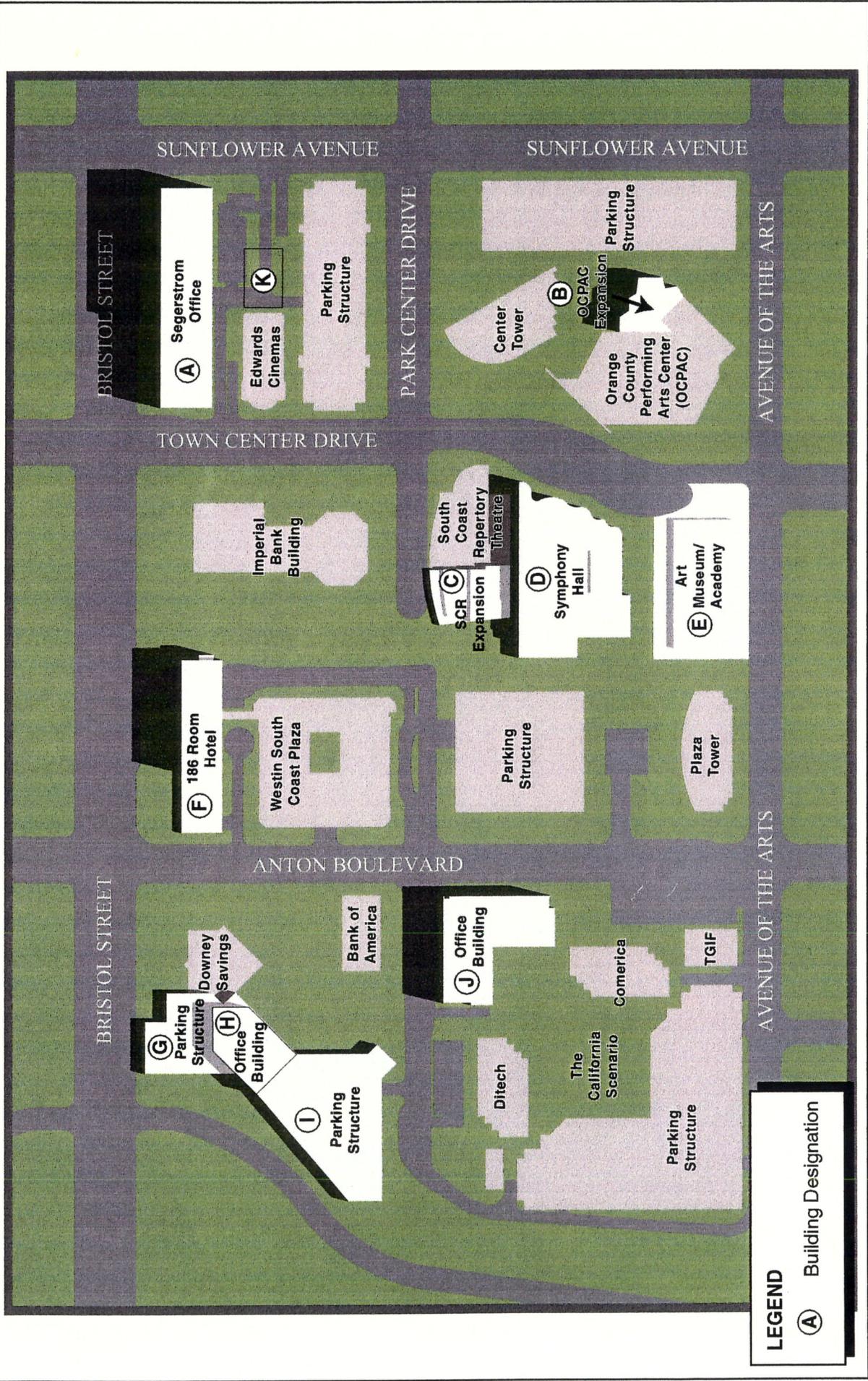
The results of simulation of shade and shadow effects of the proposed project are provided in Exhibits 5.9-1 through 5.9-4. The simulation provides an analysis of shade and shadow impacts for both the winter and summer solstice, at the hours of 10 am and 2 pm. The scenario incorporates worst-case assumptions regarding the project's potential height and density vis-à-vis shade and shadow impacts.

As shown on Exhibit 5.9-1 through 5.9-4, the project will cast shade and shadow. However, shade and shadows will remain primarily within the SCPTC project boundaries. When shadows would extend onto adjacent properties, no sensitive land uses (e.g., residential, schools, etc.) would be affected. More specifically, some shade and shadows would fall onto adjacent uses, at the corner of Bristol Street and Sunflower Avenue during the winter months; however, only non-sensitive, commercial/retail uses would be affected. Shadows from the northwestern portion of the site will also partially encroach onto Bristol Street during the summer months.

However, since shade and shadow impacts will be limited primarily to onsite uses and roadways, and no sensitive land uses would be affected, no significant impacts are anticipated.

Light and Glare

Development of the SCPTC project will introduce new sources of light and glare in the project area. More specifically, glare from the proposed project would result from lights and the sun reflecting off windows and shiny, metallic surfaces. Office buildings and mechanical equipment atop commercial



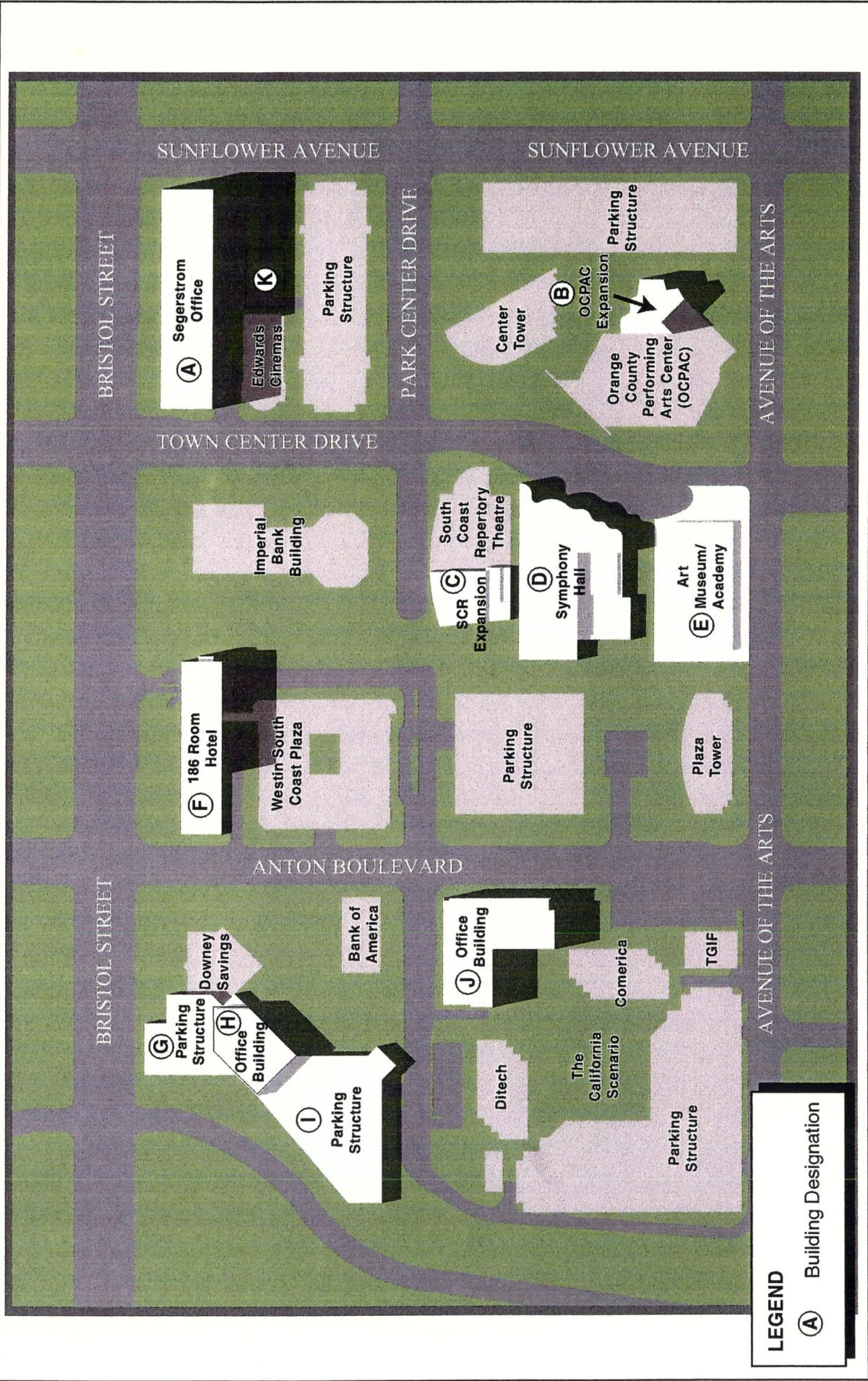
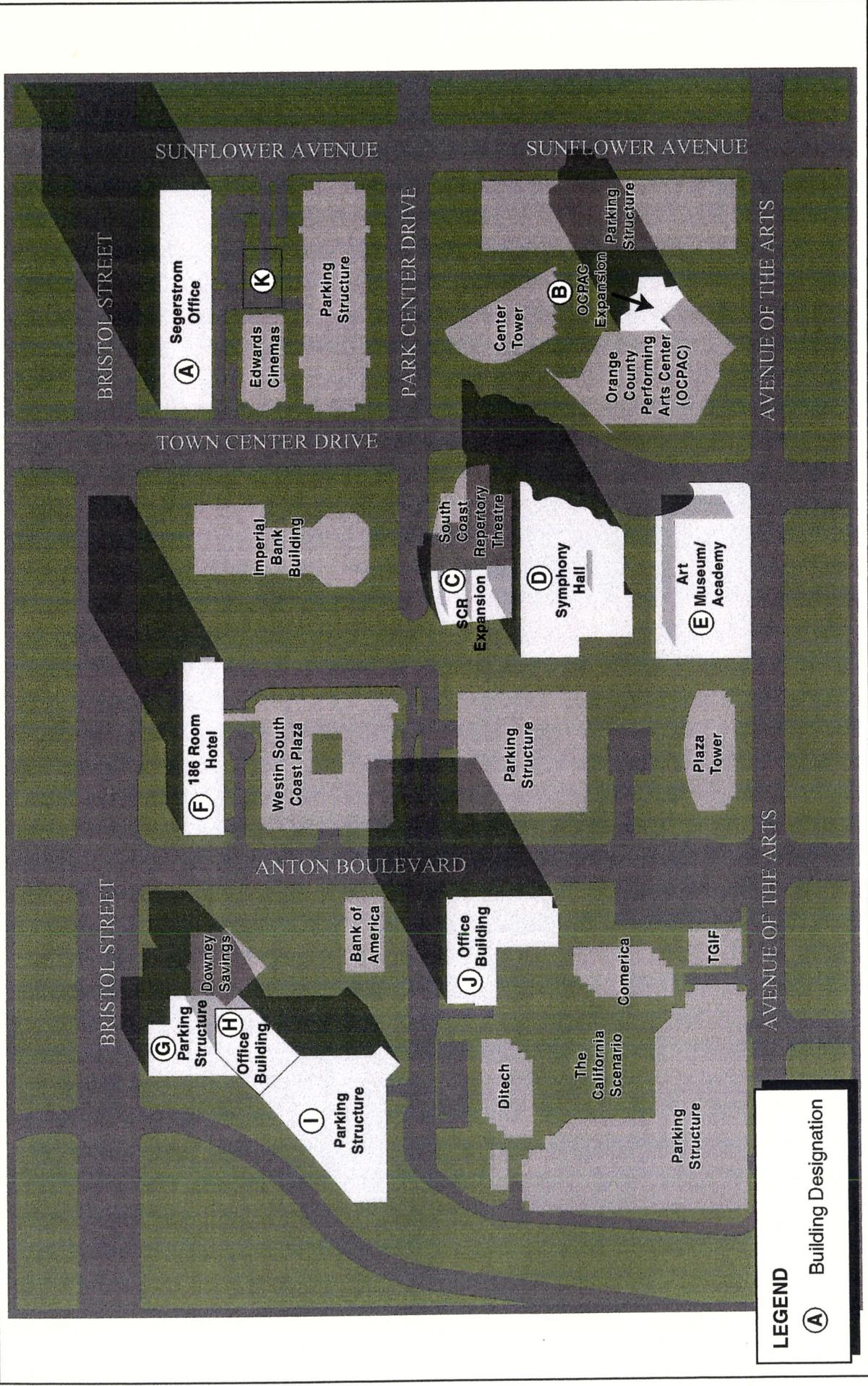


Exhibit 5.9-2
 Summer Solstice - 2 pm

SOUTH COAST PLAZA TOWN CENTER EIR



LEGEND

(A) Building Designation

SOURCE: Focus 360, July 2000

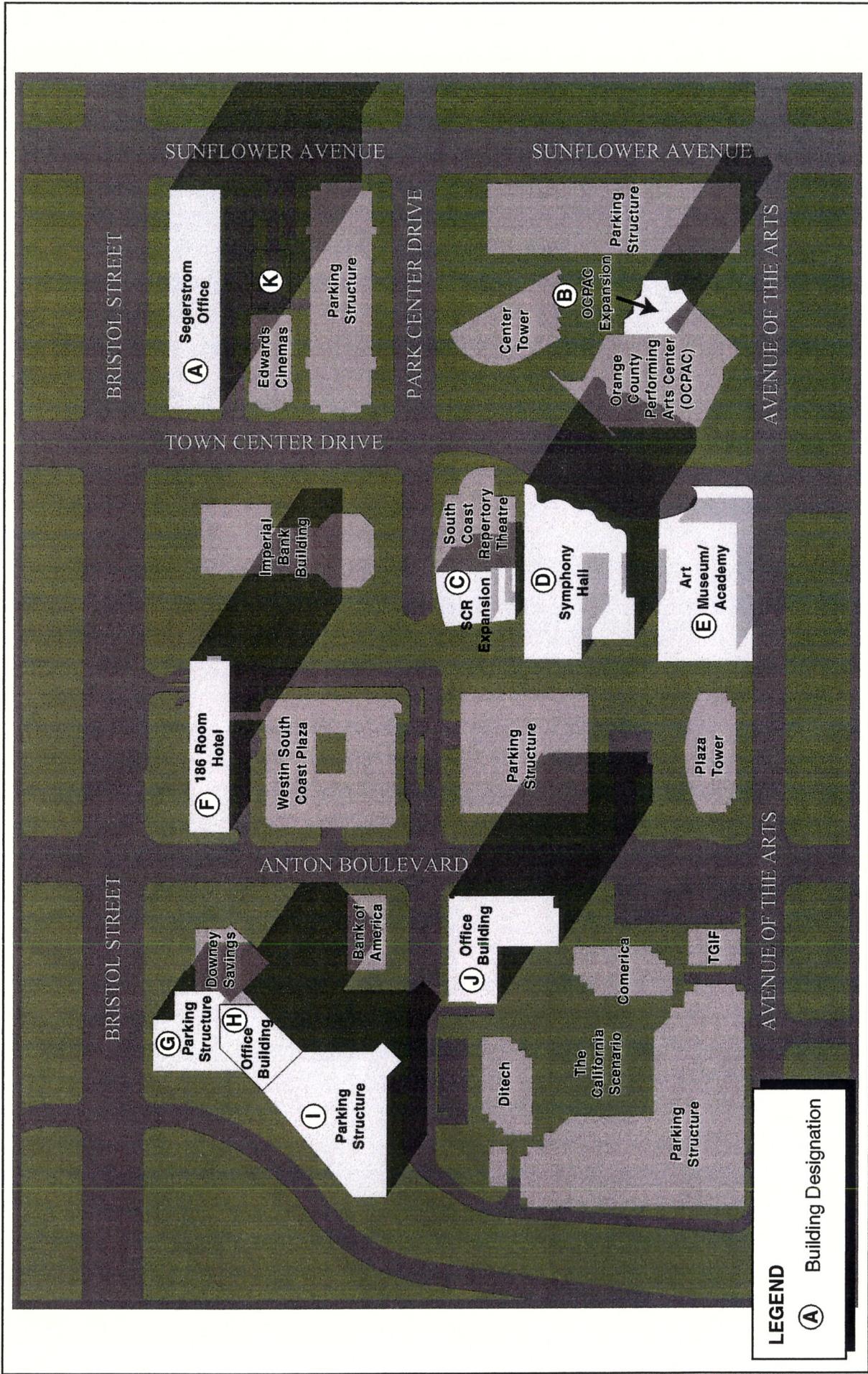


Exhibit 5.9-3
 Winter Solstice - 10 am

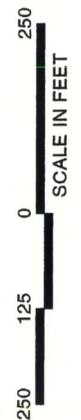
Michael Brandman Associates

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SOUTH COAST PLAZA TOWN CENTER EIR



SOURCE: Focus 360, July 2000



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buildings are the primary sources of glare. Reflective windows (e.g., mirrored) can also create an annoyance to surrounding uses if the building facades are positioned toward the rising or setting sun. Uncovered machinery, such as air conditioners and ventilation ducts, can also reflect light so as to cause a nuisance to offsite viewers. Glare is particularly of concern when it occurs near sensitive uses, such as residences or transportation routes.

Glare impacts from the proposed project would occur from the introduction of reflective surfaces on buildings or machinery. The uses proposed along the western perimeter of the project site could result in additional glare along Bristol Street. This impact is not expected to be significant due to the amount of glare currently being generated by existing urban development located along Bristol Street. In addition, potential impacts of new development will be avoided through compliance with City guidelines relating to surface coatings and buffer areas provided by landscaping features. More specifically, all site specific buildings will be subject to review and approval by the City of Costa Mesa.

Development of the site with urban land uses is assumed in the Costa Mesa General Plan and the North Costa Mesa Specific Plan. Implementation of the proposed project will result in new sources of light in the project area. The new light sources are anticipated to be lights on buildings, signage lighting, street lighting, and increases in ambient light from inside buildings. Due to the existing urban nature of the project site, increases in light would not be substantial as a result of project implementation. However, the use of direct lighting and/or shielding, as well as compliance with the City of Costa Mesa building requirements, would reduce potential impacts to a less than significant level.

5.9.3 CUMULATIVE IMPACTS

The proposed SCPTC project along with other projects would result in the increasing urbanization of the general area. However, shade and shadow impacts would be substantially localized to the project site. Light and glare impacts would also be limited to the project site and immediate vicinity. Moreover, the project's incremental contribution to the effect is not cumulatively considerable because the SCPTC project will comply with the applicable requirements of the Uniform Building Code, City of Costa Mesa General Plan, and North Costa Mesa Specific Plan (adopted as conditions of approval). The project design features will also provide specific requirements that will avoid any cumulative problems that may occur within the geographic area in which the project is located. Therefore, the project would not result in or contribute to cumulatively significant shade and shadow or light and glare impacts.

5.9.4 MITIGATION PROGRAM

Project Design Features

The project incorporates the following design features related to aesthetics and visual resources:

- The proposed SCPTC project will incorporate signage, landscaping, and exterior lighting that comply with applicable city requirements.
- The size, height, building materials, and orientation of structures associated with the SCPTC project will comply with City requirements.

Standard Conditions and Requirements

The SCPTC project will be required to comply with Uniform Building Code provisions, standard subdivision engineering requirements, and applicable provisions of the Costa Mesa General Plan and North Costa Mesa Specific Plan as specified in the city's conditions of approval.

Mitigation Measures

No mitigation is required.

5.9.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with Uniform Building Code requirements and conditions of approval specified above will reduce aesthetic and visual impacts to a level that is considered less than significant.

**SECTION 6
ALTERNATIVES TO THE PROPOSED PROJECT**

Section 15126.6 of the state CEQA Guidelines, as amended, mandates that “An EIR describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternative that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible...”.

This section focuses on alternatives to the proposed project capable of avoiding or substantially lessening any significant adverse impact associated with the proposed project even if these alternatives would impede to some degree the attainment of project objectives or be more costly. Additionally, alternatives are discussed in the terms of achieving project objectives (see Section 3, Project Description, of this EIR).

The project-alternatives evaluated in this section are the following:

- No Project Alternative – Remaining Development of Site Under the General Plan (i.e. General Plan Buildout).
- No Project/No Build Alternative – Retention of Site in its Existing Condition
- Reduced Intensity Alternative
- Alternative Location

The principal objectives of the project, as described in Section 3, Project Description, of this EIR are as follows:

- Amend the 1990 General Plan to accommodate the proposed development requests, and eliminate the existing non-conforming status of existing development with respect to floor area ratio standards.
- Revise the vehicle trip budget and schedule of traffic improvements for South Coast Plaza Town Center, while maintaining acceptable levels of service on project area and surrounding streets.
- Establish General Plan policies related to development rights transfers for land dedications.
- Amend the North Costa Mesa Specific Plan and the Town Center Master Plan to reflect the revised trip budget, permitted floor area ratios, and maximum permitted building area.

Beyond these objectives, an objective of the project is to reinforce South Coast Plaza Town Center as a “Cultural Arts Center,” in part by establishing building intensity and population density standards to allow buildout of an integrated commercial entertainment and cultural arts mixed-use district.

The analysis of alternatives includes the assumption that all applicable mitigation measures associated with the project will be implemented with the appropriate alternatives. However, applicable mitigation measures may be scaled to reduce or avoid the potential impacts of the alternative under consideration, and may not precisely match those identified for the proposed project. If a specific impact is not raised within the discussion of an alternative, it is because the impact is expected to be the same as that associated with the implementation of the proposed project.

6.1 NO PROJECT ALTERNATIVE – DEVELOPMENT OF SITE UNDER GENERAL PLAN BUILDOUT

Description

The proposed No Project Alternative assumes development of the site with land uses permitted under the Urban Center Commercial designations. This includes total development of the site with approximately 2,713,750 square feet of office; 5,140 square feet of retail; 80,130 square feet of restaurant; 590 hotel rooms; 1,862 seats of movie theater; 7,308 seats of performance theater; and 140,000 square feet of museum uses. This project alternative would not require amendments to the City’s General Plan or North Costa Mesa Specific Plan, or a zone change, with respect to land use. A General Plan Land Use Element Amendment and the other related amendment (e.g., circulation element) would not be required under this alternative for the project site. Implementation of this alternative would occur consistent with the vehicular trip budget established for the SCPTC site in the 1990 Costa Mesa General Plan and North Costa Mesa Specific Plan. No modifications to height restrictions for the project site are assumed.

Impact Evaluation

Land Use and Related Planning Programs

Because this alternative would still involve the development of urban land uses on the site, implementation of the No Project Alternative would result in less impacts as identified for the proposed project. Moreover, elimination of the existing non-conforming status of the existing development with respect to floor area ratios may still occur. This alternative is consistent with the Costa Mesa General Plan, North Costa Mesa Specific Plan, and zoning designations.

Transportation and Circulation

Table 6-1 provides a comparison of the trip rates and total trip generation associated with the proposed project and each of the project alternatives addressed in Section 6 of this Program EIR. Table 6.2 is a

comparative summary of the a.m. and p.m. peak hour intersection levels of service associated with the proposed project and the project alternatives.

This alternative would generate less traffic and result in fewer traffic impacts than the proposed project. As shown on Table 6-1, the No Project Alternative would generate 48,118 average daily trips, with 3,939 trips in the a.m. peak hour and 5,535 trips in the p.m. peak hour. Total daily and peak hour trip generation for this alternative would be less than the proposed project. As shown on Table 6-2, this alternative would result in significantly impacting fewer intersections than the proposed project. However, unlike this alternative, the proposed project would still contribute to significant unavoidable cumulative impacts at the intersections of Bristol Street and Sunflower Avenue, Main Street and MacArthur Boulevard, and Main Street and Sunflower Avenue. Similar to this alternative, all other project impacts can be mitigated to a level that is considered less than significant.

Air Quality

Vehicle miles traveled (VMT) under this alternative is 24,400, (remaining General Plan buildout) versus 119,100, (proposed project). As a result, this alternative would generate less vehicular traffic resulting in fewer long-term operational emissions. Implementation of this alternative would also result in less PM10 and other construction-related emission than the proposed project because less subsurface excavation would be required. Long-term emissions for the No Project Alternative would exceed South Coast Air Quality Management District (SCAQMD) thresholds of significance for carbon monoxide (CO), oxides of nitrogen (NOx), PM10, and reactive organic compounds (ROC) similar to the proposed project. Although mitigation is available to reduce these impacts, they would remain significant and unavoidable for both this alternative and the proposed project.

Noise

This alternative would have lower vehicular noise levels than would be associated with the proposed project because less traffic would be generated. Construction-related noise is expected to be similar to the proposed project. The No Project Alternative would generate less noise than the proposed project, but noise associated with both project scenarios can be mitigated to less than significant levels.

**TABLE 6-1
SOUTH COAST PLAZA TOWN CENTER
TRIP RATE AND TRIP GENERATION SUMMARY**

Land Use	A.M. Peak Hours			P.M. Peak Hours				
	Units	In	Out	Total	In	Out	Total	ADT
GENERAL PLAN PLUS PROPOSED PROJECT								
Office	2713.75 TSF	3717	515	4232	678	3364	4042	29878
Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
Hotel	590 ROOM	201	130	331	189	171	360	4856
Movie Theater	1862 SEAT	0	19	19	447	37	484	3277
Performance Theater	7308 SEAT	73	0	73	585	146	731	8989
Museum	140.00 TSF	165	8	173	49	204	253	2543
Total		4320	823	5143	2404	4183	6587	58118
GENERAL PLAN ALTERNATIVE (6.1)								
Office	2058.75 TSF	2820	391	3211	514	2552	3066	22667
Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
Hotel	590 ROOM	200	130	330	189	171	360	4865
Movie Theater	3562 SEAT	0	36	36	855	71	926	6269
Performance Theater	4668 SEAT	47	0	47	373	93	466	5742
Total		3231	708	3939	2387	3148	5535	48118
NO PROJECT (NO BUILD) ALTERNATIVE (6.2)								
Office	2058.75 TSF	2820	391	3211	514	2552	3066	22667
Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
Hotel	404 ROOM	137	89	226	129	117	246	3325
Movie Theater	3562 SEAT	0	36	36	855	71	926	6269
Performance Theater	3668 SEAT	37	0	37	293	73	366	4512
Total		3158	667	3825	2247	3074	5321	45357
REDUCED INTENSITY ALTERNATIVE (6.3)								
Office	2517.25TSF	3448	47	3927	630	3122	3752	27715
Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
High Turnover Restaurant	20.60 TSF	140	129	269	189	126	315	3773
Hotel	590 ROOM	201	130	331	189	171	360	4856
Movie Theater	1862 SEAT	0	19	19	447	37	484	3227
Performance Theater	7308 SEAT	73	0	73	585	146	731	8989
Museum	140 TSF	165	8	173	49	204	253	2534
TOTAL		4051	787	4838	2356	3941	6297	55955

Land Use	A.M. Peak Hours			P.M. Peak Hours				
	Units	In	Out	Total	In	Out	Total	ADT
TRIP RATES								
Office	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
Specialty Retail	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
Quality Restaurant	TSF	.40	.41	.81	5.02	2.47	7.49	89.85
High Turnover Restaurant	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
Hotel	ROOM	.34	.22	.56	.32	.29	.61	8.23
Movie Theater	SEAT	.00	.01	.01	.24	.02	.26	1.76
Performance Theater	SEAT	.01	.00	.01	.08	.02	.10	1.23
Museum	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10
TSF: 1,000 square feet DU: dwelling unit AC: acre Sources: Austin-Foust Associates, Inc., July 2000 and Institute of Transportation Engineers, 6th Edition								

**TABLE 6-2
SOUTH COAST PLAZA TOWN CENTER
ALTERNATIVES: INTERSECTION LEVELS OF SERVICE**

INTERSECTION	GENERAL PLAN		NO BUILD		REDUCED INTENSITY		PROPOSED PROJECT	
	AM	PM	AM	PM	AM	PM	AM	PM
COSTA MESA								
38. Fairview & Sunflower	.80	.80	.80	.79	.81	.83	.81	.83
41. Bear & Sunflower	.67	.77	.67	.77	.68	.78	.68	.78
42. Bristol & Sunflower	.89	1.01*	.88	1.01*	.96*	.99*	.96*	.99*
45. Fairview & South Coast	.77	.91*	.77	.91	.79	.92*	.79	.92*
48. Bristol & Anton	.54	.71	.54	.70	.55	.73	.55	.74
51. Fairview & I-405 NB Ramps	.71	.86	.71	.86	.70	.88	.71	.88
53. Bristol & I-405 NB Ramps	.74	.80	.73	.80	.77	.80	.80	.81
54. Bristol & I-405 SB Ramps	.67	.88	.67	.88	.67	.86	.68	.87
59. Bristol & Paularino	.62	.89	.62	.88	.61	.92*	.62	.93*
60. Bear & SR.73 SB Ramps	.39	.57	.39	.57	.41	.58	.41	.58
62. Bristol & Baker	.72	.93*	.72	.93*	.74	.93*	.74	.93*
70. Bear & SR-73 NB Ramps	.45	.76	.45	.76	.45	.74	.45	.74
71. Park Center & Sunflower	.64	.88	.63	.87	.70	.90	.73	.92*
72. Ave of the Arts & Sunflower	.77	.60	.77	.60	.81	.59	.82	.60
73. Sakioka/Flower & Sunflower	.80	.77	.80	.76	.81	.81	.81	.82
74. Anton & Sunflower	.79	.58	.79	.58	.80	.58	.80	.59
75. Bristol & Town Center Dr	.53	.72	.53	.71	.53	.73	.54	.76
76. Ave of Arts & Town Center	.55	.50	.56	.49	.44	.53	.45	.53
77. Park Center & Anton	.37	.43	.37	.43	.43	.46	.41	.45
78. Ave of Arts & Anton	.70	.38	.69	.37	.73	.41	.77	.43
79. Sakioka Dr & Anton	.48	.56	.48	.56	.49	.57	.49	.58

Population, Employment, and Housing

Employment. Fewer direct employment opportunities would be created by the No Project Alternative than would be associated with the proposed project. At buildout, the proposed project is expected to create an additional 2,324 full- and part-time employment opportunities. The No Project Alternative could generate an additional 447 full- and part-time employment opportunities. This alternative is consistent with regional and local growth forecasts. Both the proposed project and the No Project Alternative could provide for increased job opportunities for residents of Costa Mesa and surrounding jurisdictions.

Population. Implementation of land uses consistent with existing General Plan and zoning designations would allow for the site to be developed with Urban Commercial Center uses. This corresponds to a maximum building square footage of 2,873,110. Assuming 2.59 persons per household, this alternative would generate 948 additional residents, creating a direct population increase within the City.

Implications of Labor Demand Relative to Housing Supply. Job creation associated with the proposed project and this project alternative would increase the demand for housing in Costa Mesa and the surrounding communities. It is anticipated that fewer higher income managerial and professional positions would be associated with the No Project Alternative compared to the proposed project. Based on the county factor of 1.5 employees per household, no more than 298 residences, directly or indirectly, would be needed as a result of new employees under this alternative.

Housing growth projections for the County indicated that 90,507 additional residences are anticipated to be constructed between 2000 and 2010, with 7,385 of those residences located in RSA F-39 and 1,507 homes located in CAAs 44 and 45. Housing demand associated with this alternative is less than one percent of the projected housing growth in the county, 4 percent of the housing growth in the RSA, and 45 percent of the project housing in CAAs 44 and 20 during the same period of 2000 to 2010.

Although the No Project Alternative would create a demand for housing, which may impact the area housing market, the demand is substantially less than would be associated with the proposed project and is consistent with General Plan assumptions. Also, the employment generation associated with this alternative is consistent with local and regional growth projections.

Countywide growth assumptions which form the basis of SCAG projections assumed that jobs and housing growth will balance in the county over the 20-year horizon of buildout of the SCPTC project. However, within RSA F-39, a surplus of jobs over housing is expected to occur because of the higher concentration of office, commercial, and industrial land uses in the area. On a city-by-city basis, variations in the jobs/housing balance will also occur.

The City has a comprehensive Housing Strategy, which is a part of the General Plan Housing Element. Active implementation and refinement of policy programs outlined in the Housing Element will further contribute to the provision of future housing needs.

Public Services, Utilities, and Energy Consumption

Similar to the proposed project, the No Project Alternative would require upgrades and/or extensions of public services and utilities in the site. The reduction in intensity of development would reduce energy and water consumption, and demands placed on other public services and utilities. Moreover, the amount of development assumed in this alternative is consistent with General Plan and zoning designations for the site.

Aesthetics

The No Project Alternative is consistent with the scale of development that exists in this area and would result in fewer visual and aesthetics changes. However, as noted in Section 5.9, Aesthetics, all shade and shadow impacts of the proposed project are considered to be at a level that is less than significant.

Conclusions

This alternative would result in fewer environmental impacts than the proposed project. The No Project Alternative is considered environmentally superior to the proposed project because of the reduction in significant impacts. However, this alternative would not eliminate all of the significant, unavoidable impacts that are associated with the proposed project (i.e., traffic). This alternative is capable of meeting some, but not all of the project objectives. Further, the intensity of development requested by the applicants could not be achieved through this alternative.

6.2 NO PROJECT/NO BUILD ALTERNATIVE – RETENTION OF SITE IN EXISTING CONDITIONS

Description

The No Project/No Build Alternative assumes that the SCPTC project site would remain in its existing condition which includes 2,058,750 square feet of office; 5,140 square feet of retail; 80,130 square feet of restaurant; 404 hotel rooms; 3,562 seats of movie theater; and 3,668 seats of performance theater uses. The existing mixed-use development would remain, in addition to the approximately 5-acre vacant parcel. This alternative does not require any of the discretionary actions that would be needed to approve the proposed project (i.e., General Plan and Specific Plan amendments, Master Plan amendments, street vacations, etc.). However, such actions could be taken to resolve the non-conformity issues associated with the Town Center area.

Impact Evaluation

Land Use and Related Planning Programs

Without development of the SCPTC site, impacts related to consistency with related planning programs would not occur. More specifically, this alternative would not conflict with city adopted General Plan goals, policies, and objectives. However, the city's General Plan has identified the SCPTC site for additional development (i.e. 186-room hotel and 1,000 seat expansion of OCPAC).

Transportation and Circulation

The No Project/No Build Alternative would not generate any new traffic from the project site. The existing onsite uses on the site generate approximately 45,357 average daily trips (ADT), with 3,825 trips in the a.m. peak hour and 5,321 trips in the p.m. peak hour. No additional trips would be generated under this alternative. Therefore, significant traffic impacts associated with the proposed project would not occur.

Air Quality

No new air quality emissions would occur as a part of the No Project/No Build Alternative. This alternative would eliminate significant, unavoidable carbon monoxide (CO), oxides of nitrogen (NO_x), PM₁₀, and reactive organic compounds (ROC) impacts that would be associated with the proposed project. This alternative would not result in significant, unavoidable short- and long-term air quality impacts that would be associated with the proposed project.

Noise

This alternative would result in no new short-term construction-related or long-term operational impacts that would be associated with the proposed project. As noted in Section 5.4, Noise, the proposed project's noise effects can be mitigated to a level that is less than significant.

Geology and Soils

Implementation of this alternative would not result in any development on the project site; no significant impacts would result.

Water Quality

Implementation of this alternative would not result in any development on the project site; no changes to hydrology or drainage conditions or water quality would occur.

Population, Employment, and Housing

Because the No Project/No Build Alternative assumes no further development of the project site, no increases in employment or population, or additional needs for housing would directly result from this alternative. This alternative would not create a demand for housing.

Public Services, Utilities, and Energy Consumption

The No Project/No Build Alternative would place no new demands on utilities or public services because no new development would occur on SCPTC site.

Aesthetics

Because no development would occur under the No Project/No Build Alternative scenario, no aesthetic changes or significant impacts would occur.

Conclusions

The No Project/No Build Alternative is environmentally superior to the proposed project. However, this alternative does not meet the objectives of the project applicant to further develop the SCPTC site with retail and office land uses and to create an integrated commercial entertainment and cultural arts mixed use district. This alternative also does not recognize previously-approved expansion of OCPAC and a 186-room hotel.

6.3 REDUCED INTENSITY ALTERNATIVE

Description

The Reduced Intensity Alternative would implement the proposed SCPTC project with the same land uses proposed as part of the project, but at reduced development intensity. More specifically, the Reduced Intensity Alternative assumes an overall decrease in 30 percent of office uses in the Two Town Center and Balance of Town Center components (15% each) of the SCPTC proposed project. This reduction would result in the development of 458,500 square feet of office space compared to 655,000 square feet under the proposed project. The proposed elements of the Segerstrom Center for the Arts (SCA) project component will remain the same as under the proposed project. This would allow for total buildout of the project site with 2,517,250 square feet of office; 5,140 square feet of retail; 81,300 square feet of restaurant; 590 hotel rooms; 1,862 seats of movie theater; 7,300 seats of performance theater; and 140,000 square feet of museum uses. The mix of land uses considered as part of the project would be retained and would use the same planning area boundaries developed for the proposed project.

Impact Evaluation

Land Use and Related Planning Programs

The reduction in intensity of development assumed for this alternative would result in the same physical land use impacts to onsite and surrounding land uses, and the same conclusions with respect to consistency with the General Plan and other related planning program policies as for the proposed project.

Transportation and Circulation

The Reduced Intensity Alternative would result in approximately 1.5 percent less traffic than the proposed project. This alternative would generate 55,955 ADT, with 4,838 a.m. peak hour and 6,297 p.m. peak hour trips (see Table 6-1). Under this development scenario, significant impacts would be reduced at the intersection of Park Center Drive and Sunflower Avenue compared to the proposed project. As shown on Table 6-2, this alternative would result in slight reductions to significant impacts at several intersections compared with the proposed project. However, unlike this alternative, the proposed project would still contribute to significant unavoidable cumulative impacts at the intersections of Bristol Street and Sunflower Avenue, Main Street and MacArthur Boulevard, and Main Street and Sunflower Avenue.

Air Quality

This alternative would result in 98,900 VMT versus 119,900 VMT associated with the proposed project. Therefore, this alternative would generate fewer long-term emissions because less vehicular traffic would be generated. Implementation of this alternative may result, however, in the same construction-related emission as the proposed project is similar subsurface excavation is required. Similar to the proposed project, emissions for the Reduced Intensity Alternative would exceed the SCAQMD's thresholds of significance for PM10 and could exceed the thresholds of significance for CO, NOx, and ROC.

Noise

This alternative would have fewer long-term vehicular noise impacts than the proposed project. Construction-related noise is also expected to be less because of the reduced development intensity. Although the Reduced Intensity Alternative would generate less noise than the proposed project, noise associated with both project scenarios can be mitigated to a level that is less than significant.

Geology and Soils

The impacts of this alternative would be the same as those identified for the proposed project since it is assumed that the same amount of land disturbance would be required. Impacts can be mitigated to levels that are less than significant.

Hydrology and Water Quality

This alternative would have the same impacts as those described for the proposed project since it is assumed that similar drainage improvements would be needed. Impacts can be mitigated to levels that are less than significant.

Population, Employment, and Housing

Employment. Fewer direct employment opportunities would be created under this alternative than under the proposed project. At buildout, the proposed project is expected to create 2,324 full- and part-time employment opportunities. The Reduced Intensity Alternative would be expected to create 1,735 full- and part-time employment opportunities. The proposed project would result in more intensity employment generation than anticipated in regional and local growth forecasts. Both the proposed project and the Reduced Intensity Alternative project could provide increased employment opportunities for residents of Costa Mesa and surrounding jurisdictions.

Population. Implementation of the Reduce Intensity Alternative would have similar population impacts as the proposed project. There would be no direct population increase within the City from implementation of either alternatives.

Implications of Labor Demand Relative to Housing Supply. Job creation associated with the development of the SCPTC project as proposed by the project applicants or the Reduce Intensity Alternative would increase the demand for housing in Costa Mesa and the surrounding communities. It is anticipated that fewer higher income managerial and professional positions would be associated with this alternative because less development will occur the site.

Housing growth projections for the county indicated that 90,507 additional residences are anticipated to be developed between 2000 and 2010, with 7,385 of those residences located in RSA F-39 and 1,507 homes located in CAAs 44 and 45. Based on the county factor of 1.5 employees per household, no more than 1,549, directly or indirectly, will be needed as a result of new employees on the project site under this alternative. Housing demand for this alternatives is approximately 2.5 percent of the project housing growth in the county, 30 percent of projected job growth in the RSA, and 103 percent of the project housing in CAAs 44 and 45 during the same period of 2000 to 2010.

Countywide growth assumptions which form the basis of SCAG projections assumed that jobs and housing growth will balance in the county over the 20-year horizon of buildout of the SCPTC project. However, within RSA F-39, a surplus of jobs over housing is expected to occur because of the higher concentration of office, commercial, and industrial land uses in the area. On a city-by-city basis, variations in the jobs/housing balance will also occur.

The City has a comprehensive Housing Strategy, which is a part of the General Plan Housing Element. Active implementation and refinement of policy programs outlined in the Housing Element will further contribute to the provision of future housing needs.

Public Services, Utilities, and Energy Consumption

Similar to the proposed project, this alternative would require upgrades/extensions of public services and utilities in the site. All impacts could be mitigated to less than significant levels.

Aesthetics

Implementation of this alternative could reduce aesthetic and shade and shadow changes that would be associated with the proposed project, depending on the height of buildings. If the square footage reduction is achieved by reducing the footprint of office buildings instead of reducing building height, this alternative would have the same visual impacts as the proposed project. If the square footage reduction occurs through a reduction in building heights, this alternative would result in less aesthetic impacts.

Conclusions

The Reduce Intensity Alternative would result in fewer significant impacts than the proposed project, and is considered environmentally superior. This alternative would reduce but not eliminate significant air quality emission and traffic impacts. This alternative meets some, but not all of the applicant's objectives. The alternative would allow for development of similar land uses to the proposed project, but with less office and office-related square footage.

6.4 ALTERNATIVE LOCATION

The state CEQA Guidelines require the analysis of an alternative location(s) to the proposed project site where "...significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR" (CEQA Guidelines 15126).

Description

The City of Costa Mesa has identified one location in the City, Sakioka Lot 2, where a SCPTC project could be implemented. As depicted on Exhibit 6-1, Sakioka Lot 2 is bound to the north by Sunflower Avenue, to the southeast and east by the Costa Mesa Freeway (SR-55), to the southwest by South Coast Metro development area, and to the west by Anton Boulevard and Sakioka Lot 1.

Sakioka Lot 2 is approximately 33 acres and is designated for Urban Center Commercial uses. Lot 2 is in agricultural production, and contains two single-family residences located along Sunflower Avenue. The existing General Plan and zoning designations for Lot 2 would allow for the development of up to 863,000 square feet of office and retail uses. The North Costa Mesa Specific Plan anticipated that Lot 2 would be developed with mid-rise to high-rise office buildings and support commercial uses. Because the site's zoning permits residential development, if Lot 2 were developed as a mixed-use project with residential development, a maximum of 660 residential units could be constructed on the site.

Implementation of this alternative assumes that the cultural arts uses (SCR theater and OCPAC expansion, symphony hall, and art museum/academy uses) would still be developed within the SCPTC portion of the project. However, it is assumed that the office and restaurant/retail uses associated with Two Town Center and office uses and previously-entitled hotel associated with the Balance of Town Center component of the SCPTC project would be developed on the 33-acre Sakioka Lot 2. Implementation of the proposed SCPTC development on Sakioka Lot 2 would not require a General Plan amendment to change the land use designation from Urban Center Commercial to the proposed Cultural Arts Center designation. Similarly, Lot 2 would not require a rezone from PDC (Planned Development Commercial), to Town Center District (TC). Maximum building heights and a vehicular trip budget would need to be established. Consequently, retaining the existing development restrictions for Lot 2 under the proposed project, this alternative site would allow the development of office land uses identified for the SCPTC project.

Land Use and Related Planning Programs

Implementation of the SCPTC project on Sakioka Lot 2 would not require a General Plan and North Costa Mesa Specific Plan amendments and zone change. However, the separation of office facilities between two sites separated by Avenue of the Arts would have a potentially adverse land use and design impact, and would not meet the projects objectives of reinforcing SCPTC as a cohesive cultural arts center. Due to the proximity of the alternative site to the SCPTC project site, similar onsite and offsite land use compatibility impacts would occur. Building heights would have to be reduced to comply with height limits (4-12 stories) and airport considerations for this area. Overall, implementation of the SCPTC project on the Sakioka site would result in similar land use impacts.

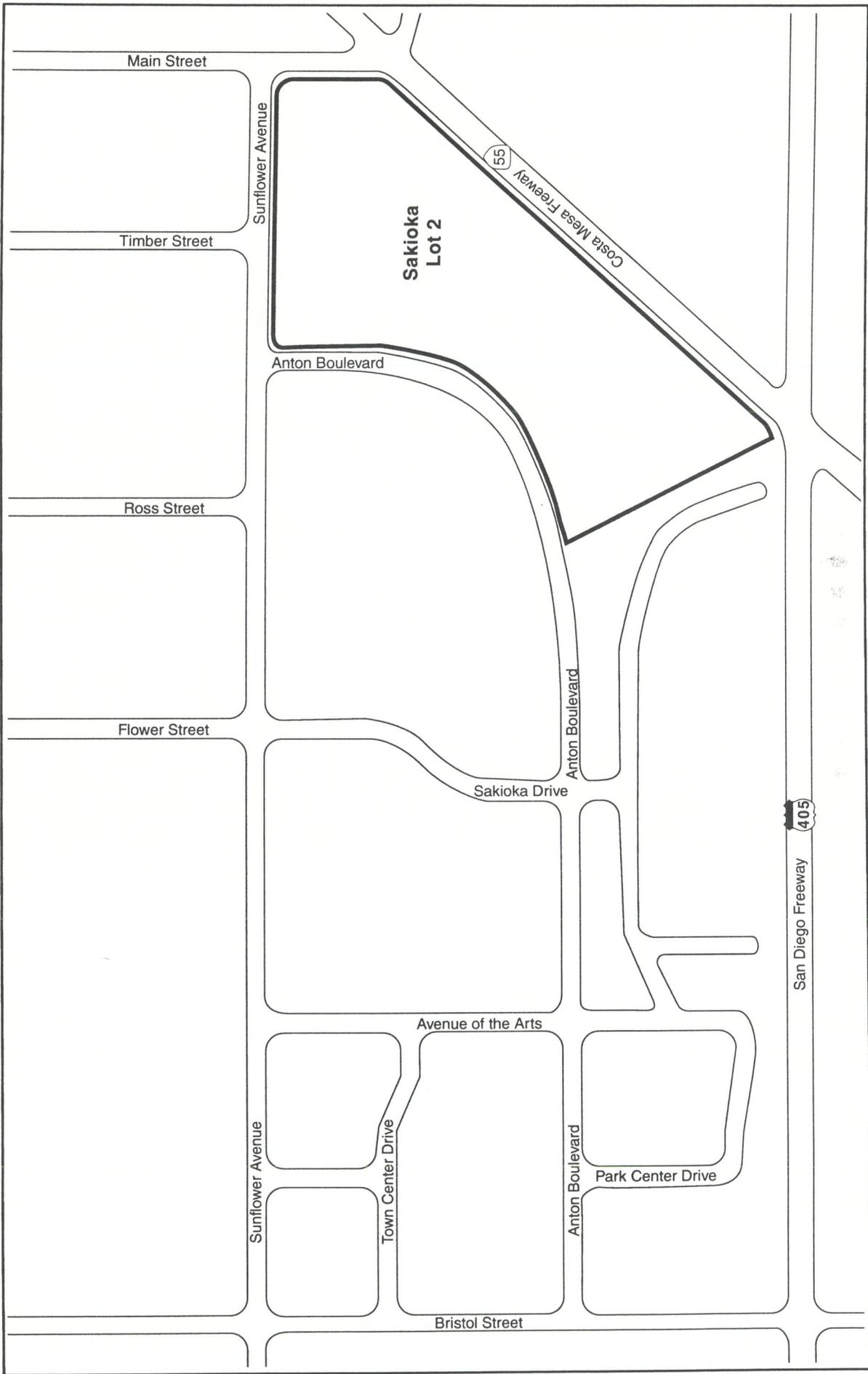


Exhibit 6-1
Alternative Location

SOUTH COAST PLAZA TOWN CENTER EIR



Michael Brandman Associates

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Transportation and Circulation

Total trip generation from implementation of the project on the Sakioka site would be the same as the proposed project because the level of development would be similar. However, anticipated traffic generation would be accommodated by assumed General Plan build out of the area. Similar to the proposed project, implementation of this alternative scenario is anticipated to impact intersections in the vicinity of Sakioka Lot 2 which are projected to operate at or exceed acceptable City of Costa Mesa levels of service.

Air Quality

Implementation of this alternative would result in greater construction related emissions than the proposed project because Sakioka Lot 2 comprise approximately 25 additional buildable acres compared to the 8.2 acres available for development on the SCPTC project site. This alternative would generated similar operational emission as the proposed project. As with the proposed project, this alternative will result in significant, unavoidable short-term and long-term air quality impacts.

Noise

Development of the proposed project at this alternative site is expected to result in greater short-term construction and similar long-term noise effects. As with the SCPTC site, this alternative site is bounded by I-405, roadways, and urbanized development. There are existing single-family residences located north of the site across Sunflower Avenue. Compliance with the City's Noise Ordinance would mitigate construction-related noise impacts on these residences. The same amount of development and vehicular traffic would occur under this alternative. It is expected that implementation of the project at this alternative site would have similar noise effects on sensitive receptors, and could be mitigated to a level that is considered less than significant.

Geology and Soils

Development of this alternative would result in similar seismic and geotechnical impacts as would the proposed project because development of the SCPTC project on the alternative location site would be similar. Both sites would be graded and required subsurface excavation to accommodate urban land uses. Mitigation measures for the proposed project would also be applicable to this alternative and would reduce impacts to less than significant levels.

Hydrology and Water Quality

Implementation of the proposed project at this alternative site would result in similar impacts to hydrology and water quality as would the proposed project. Mitigation measures for the proposed project would also be applicable to this alternative and would reduce impacts to less than significant levels.

Population, Employment, and Housing

Development of this alternative site with the SCPTC project land uses would result in the potential loss of two residential units and preclude the development of 660 residential uses (assuming Lot 2 would be developed as a mixed-use project). The Alternative Location scenario would allow for the SCPTC site to be developed in the future under its existing General Plan and zoning designations. Since development assumptions for Lot 2 can accommodate the increased development, this alternative would be consistent with local and regional growth projections.

Public Services, Utilities, and Energy Consumption

Similar to the proposed project, this Alternative Location would require improvements and/or extensions of public services and utilities in the site. Because the same amount of office development could be implemented on Sakioka Lot 2 as compared to the SCPTC site, service needs would be the same. Impacts can be mitigated to a level that is considered less than significant.

Aesthetics

Implementation of this alternative would not result in visual changes to the SCPTC site because development would occur, instead, on Sakioka Lot 2. Development of the alternative on Sakioka Lot 2 could be consistent with the scale and intensity of uses allowed by the North Costa Mesa Specific Plan in this location, if proposed building heights were reduced to 4 to 12 stories.

Conclusions

This alternative would result in some increases in environmental impacts when compared to the proposed project. More specifically, this alternative would increase significant air quality emissions and traffic impacts to adjoining Cities. This alternative meets some but not all of the applicant's objectives. The alternative would allow for the development of the same land uses proposed for the SCPTC project. However, this alternative site is not under ownership of the project applicants. Therefore, the feasibility of implementing the SCPTC project on this alternative site is speculative.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The Environmentally Superior Alternative is selected from among the preceding alternatives and the proposed project. An alternative that is environmentally superior will result in the fewest or least significant environmental impacts and will feasibly attain most of the objectives of the planning effort. Based on the evaluation of the four alternatives in this section, implementation of the No Project/No Build Alternative would result in fewer significant impacts than the proposed project. CEQA states that if the environmentally superior alternative is the “No Project” alternative, the EIR shall also identify an environmentally superior alternative from the other alternatives. Of the other “build” alternatives, the Reduced Intensity Alternative, would be the environmentally superior alternative. However, while this alternative is determined to be environmentally superior to the proposed project, it would not meet all of the objectives of the proposed project at the scale at which it is planned.

SECTION 7 OTHER LONG-TERM CONSIDERATIONS

7.1 GROWTH INDUCING IMPACTS

This section evaluates the potential for the proposed project to affect “economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment” (CEQA Guidelines, 15126.2[d]).

There are two types of growth inducing impacts a project may have, direct and indirect. To assess the potential for growth-inducing impacts, the project characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated.

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community that directly induces population growth or the construction of additional developments in the same area of the proposed project, thereby triggering related growth-associated impacts. Included in this analysis are projects that would remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant that could allow more construction in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they trigger. In contrast projects that physically remove obstacles to growth, projects that indirectly induce growth are those which may provide a catalyst for future unrelated development in an area (such as a new residential community that requires additional commercial uses to support residents).

As discussed in Section 5, the proposed project does not include the development of residential housing, and therefore will not directly induce residential growth within the project area. However, it is estimated that the proposed project will create an additional 2,324 job opportunities, some of these, which may attract employees from outside of the region. This may indirectly induce growth within the region as prospective employees relocate to the project area. Yet this in-migration is not anticipated to be substantial and is not considered significant (see Section 5.7 Employment, Population and Housing).

Additionally the project site is currently developed with the facilities and infrastructure (i.e. circulation system and utilities) that can accommodate the development of the South Coast Plaza Town Center (SCPTC) project. Therefore, implementation of the proposed project would not result in the construction of substantial new infrastructure or facilities that could otherwise induce further growth.

Growth anticipated to occur within the project area would be compatible with of existing land uses and is primarily in-fill development. However, the proposed project is anticipated to induce development of this site and result in indirect economic growth stimulated by new jobs and economic activity under the new Cultural Arts Center land use designation. Consequently, this growth would exceed local and regional growth projections in this area.

Short-Term and Long-Term Considerations

Short-term increases in noise and air quality emissions associated with construction activities would have the potential to contribute to environmental effects in the area surrounding the site. However, these activities would result in the generation of construction employment opportunities, which would be considered a short-term advantage of the SCPTC. The project area is highly urbanized and as such development would be occurring in areas that have been previously disturbed. Therefore, the project ~~would not result in a significant short-term loss of sensitive natural resources that would be traded for~~ long-term economic productivity.

Long-term environmental effects of implementing the SCPTC project would include incremental increases in air emissions, traffic, noise, the consumption of water, electricity, natural gas, the generation of wastewater, and the demand for public services. Long-term advantages of the SCPTC project would include the provision of higher paying employment opportunities and contributions to the City's general revenues through property, sales, and use tax. Rather than adversely affecting the environment, implementation of the SCPTC project would be consistent with the existing land uses onsite and would not pose any additional long-term risks to health and safety.

7.2 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The environmental effects of the SCPTC project are discussed in Section 5 of this EIR and summarized in Section 2, Executive Summary. Implementation of the SCPTC would require long-term commitment of natural resources and land, as discussed below.

Approval and implementation of actions related to implementation of the SCPTC project would result in an irretrievable commitment of nonrenewable resources such as energy supplies and other construction-related resources. These energy resource demands would be used for construction, heating, and cooling of building, transportation of people and goods to and from the SCPTC, heating and refrigeration for food preparation and water, as well as lighting and other associated energy needs.

Nonrenewable resources would be committed, primarily in the form of fossil fuels, and would include fuel oil, natural gas, and gasoline used by vehicles and equipment associated with the construction of the SCPTC project. The consumption of other nonrenewable or slowly renewable resources would result from development of the proposed project. These resources would include, but not be limited to, lumber and other forest products, sand and gravel, asphalt, petrochemical construction materials, steel, copper, lead, and water. Because alternative energy sources such as solar or wind energy are not currently in widespread local use, it is unlikely that a real savings in nonrenewable energy supplies (i.e., oil and gas) could be realized in the immediate future.

SECTION 8
ORGANIZATIONS AND PERSONS CONSULTED

8.1 CITY OF COSTA MESA

Fire Department

Fire Marshal..... Thomas Macduff

Planning Department

Assistant Development Services Director.....Perry Valantine

Police Department

Captain Tom Warnak

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Orange County Integrated Waste Management Department

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Orange County Sanitation District

Director of Engineering David Ludwin

Mesa Consolidated Water District

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Costa Mesa Sanitary District

Manager/District Engineer..... Robin B. Hamers

City of Santa Ana

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Principal Planner.....Robert Franklin

8.3 PRIVATE ORGANIZATIONS

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Southern California Edison

Distribution Engineer..... Paul Ortmann

SECTION 9
REPORT PREPARATION PERSONNEL

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Zeiser-Kling Consultants, Inc.

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Paone, Callahan, Mcholz & Winton Legal Council to Applicant

Linscott Law & Greenspan, Engineers Traffic Engineer to Applicant

**SECTION 10
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South Coast Plaza Town Center Final Program EIR

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SECTION 11

**RESPONSE TO COMMENTS ON THE
DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT
FOR THE
SOUTH COAST PLAZA TOWN CENTER**

**Response to Comments
on the
Draft Program
Environmental Impact Report #1047**
State Clearinghouse Number 2000041100

for the

South Coast Plaza Town Center



Michael Brandman Associates

March 2001

**RESPONSE TO COMMENTS
ON THE
DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT
FOR THE
SOUTH COAST PLAZA TOWN CENTER**

Prepared for:

City of Costa Mesa
Development Services Department
77 Fair Drive
Costa Mesa, California 92628-1200

Contact: R. Michael Robinson, AICP
Planning and Redevelopment Manager

Prepared by:

Michael Brandman Associates
15901 Red Hill Avenue, Suite 200
Tustin, California 92780

Contact: Jason M. Brandman, Senior Project Manager



March 2001

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**SECTION 1
INTRODUCTION AND EXECUTIVE SUMMARY OF THE EIR**

1.1 INTRODUCTION

In accordance with Section 15088 of the State of California Environmental Quality Act (CEQA) Guidelines, the City of Costa Mesa, as the lead agency, has evaluated the comments received on the Draft Environmental Impact Report (EIR) No. 1047 (State Clearinghouse No. 2000041100) for the South Coast Plaza Town Center (SCPTC) project and has prepared written responses to the comments received. The responses to comments and other documents which are included in this volume of the EIR together with the Draft EIR, contribute to the Final EIR for the use of the City of Costa Mesa Planning Commission and City Council in their review and analysis of the SCPTC project.

This Response to Comments document has been formatted into five sections. Section 1 is an Introduction and Executive Summary that was presented in the Draft EIR. Section 2 provides a list of the agencies, organizations, and individuals that commented on the Draft EIR. Section 3 includes a copy of all of the letters received and responses to comments. Section 3 also provides responses to comments on significant environmental points describing the disposition of the issues, explaining the EIR analysis, supporting EIR conclusions, or providing information or corrections, as appropriate. For ease of reading, this section is formatted with responses to each letter immediately following the letter. Section 4 includes an addendum listing refinements and clarifications, which have been incorporated into the text of the EIR.

1.1.1 PURPOSE AND SCOPE OF THE EIR

Authority

This Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code, Section 21000 et seq., the State CEQA Guidelines (Section 15000 et seq. of Title 14, California Code of Regulations), and with the guidelines adopted by the City of Costa Mesa. Specifically, this Draft EIR was prepared in accordance with the most recently adopted State CEQA Guidelines, which was issued October 26, 1998 and became effective in February 1999.

An EIR is an informational document prepared pursuant to CEQA to provide informed decision making. It provides decision-makers, public agencies, and the public in general with detailed information about the potential significant environmental effects of a proposed project. It also identifies the ways in which the significant effects of a project might be avoided, minimized or mitigated, and addresses alternatives to the project. CEQA requires that an EIR contain, at a minimum, certain specific elements.

These elements include:

- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Impacts and Mitigation Measures
- Cumulative Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Not Found to be Significant
- Organizations and Persons Consulted
- Bibliographic References

1.1.2 DETERMINATION OF THE LEAD AGENCY

The State of California Environmental Quality Act (CEQA) Guidelines Section 15367 defines the lead agency as “... the public agency which has the principal responsibility for carrying out or approving a project.” Criteria considered in identifying the lead agency include whether the agency (1) has the greatest responsibility for supervising or approving the project as a whole; (2) is an agency with general governmental powers, and (3) will act first on the project in question (refer to State CEQA Guidelines Section 15051).

The City of Costa Mesa is the lead agency under the California Environmental Quality Act (CEQA) and is responsible for preparation of the South Coast Plaza Town Center (SCPTC) EIR. It is intended to serve as an informational document for the public agency decision-makers and the general public regarding the objectives and components of the proposed project, as well as the potential environmental impacts, and to describe mitigation measures and reasonable alternatives to the project.

This EIR is further intended to serve as the primary environmental document for subsequent actions within the South Coast Plaza Town Center (SCPTC) project area, including all local discretionary approvals requested to implement the SCPTC project. In addition, this EIR is the primary reference document in the formulation and implementation of the mitigation reporting and monitoring program for the SCPTC project.

The City of Costa Mesa, which has the principal responsibility for processing and approving the project, and other public agencies (i.e. Responsible Agencies) that may use this EIR in decision making or permit processing will consider the information in this EIR along with other information that may be presented during the CEQA process. A more detailed description of the Responsible Agencies is provided in Section 3, Project Description, of this document. In accordance with CEQA the public agencies will be required to make findings for each environmental impact of the project that cannot be mitigated to below a level of

significance. If the lead agency and responsible agencies decide that the benefits of the proposed project outweigh unmitigated significant environmental effects, they will be required to make a statement of overriding considerations stating reasons to support their action.

This Draft EIR was prepared by a consultant under contract to the City of Costa Mesa. Prior to public review, it was extensively reviewed and evaluated by the City of Costa Mesa staff. This EIR reflects the independent judgement of the City of Costa Mesa as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel are provided in Sections 9 and 10 of this EIR, respectively.

1.1.3 PURPOSE OF THE EIR

The SCPTC EIR is a Program EIR that examines the environmental effects of a specific project. The intent of the document is to analyze the environmental effects of the proposed SCPTC project to the degree of specificity required by Section 15146 of the State CEQA Guidelines. It is anticipated that upon certification of this EIR, no additional CEQA review will be required for project implementation. The project may require subsequent approvals including, but not limited to, abandonment of streets, General Plan and North Costa Mesa Specific Plan amendments, final master plan approvals, demolition permits, grading permits, and building permits. The lead agency, as well as other responsible agencies, can approve subsequent actions without additional environmental documentation unless as otherwise required by Public Resources Code Section 21166 and State CEQA Guidelines Sections 15162, 15163 and 15164.

The actions involved in the implementation of the proposed project are described in Section 3, Project Description. Other agencies that may have discretionary approval over the project, or components thereof, are also described in Section 3.

1.1.4 SCOPE OF THE EIR

This EIR addresses the potential environmental effects of the proposed project. The scope of the EIR includes the areas of controversy identified by the Notice of Preparation (NOP) issued by the City, as well as issues raised by agencies and the general public in response to the NOP, as described below.

Scoping Process

In compliance with the State CEQA Guidelines, the City of Costa Mesa has taken steps to maximize the public's opportunity to participate in the environmental process. A Notice of Preparation (NOP) was distributed on April 10, 2000 and a revised NOP on June 14, 2000 (to reflect minor modifications), via certified mail to agencies and other interested parties to solicit comments and inform the public of the proposed project. The project was described, and the public was invited to review the NOP. Public comments on the issues discussed in the Initial Study were encouraged and solicited. The NOP, the distribution list for the NOP, and comment letters received during and after the NOP review period are

attached to this EIR as Appendix A. Agencies, organizations, and interested parties not previously contacted or who did not respond to the NOP currently have the opportunity to comment during the 45-day public review period on the Draft Program EIR.

The potential significant issues that relate to development of the project include land use and planning; transportation and circulation; air quality; noise; geology and soils; hydrology and water quality; employment, population, and housing; public services, utilities, and energy consumption; and aesthetics (shade/shadow/glare).

Environmental element(s) that were determined not to be significantly affected by the proposed project and, therefore, do not require evaluation in the EIR, per Section 15063(c) of the State CEQA Guidelines (as amended), were as follows:

- Agricultural Resources. The project area is highly urbanized and does not contain any agricultural lands. The site is not under a Williamson Act Contract. This issue will not be addressed in the EIR.
- Biological Resources. Due to the developed character of the project area, the potential for sensitive plant and/or animal species to inhabit the site or surrounding area is remote and highly unlikely; therefore, this EIR will not address the issue of biological resources.
- Cultural Resources. A cultural resources records search was conducted and included in Appendix F. Due to the developed and highly disturbed nature of the project area, the potential for archaeological, paleontological and/or historical resources to be located on the project site is considered highly unlikely; therefore, this EIR will not address the issue of cultural resources.
- Mineral Resources. The project area is not within a mineral resource zone that is classified as significant or of unknown significance and therefore there are no significant mineral resources within the project area as defined by the State of California. This issue will not be addressed in the EIR.
- Recreation. The project site does not include neighborhood or regional parks; nor would implementation of the project involve uses that would negatively affect existing neighborhood, regional parks, or private recreational amenities (e.g., “The California Scenario” outdoor sculpture garden, Town Center Open Space easement, etc.) in surrounding areas, nor affect the physical environment in relation to recreation uses. Therefore, this EIR will not address the issue of recreation.

The EIR includes an alternatives discussion that analyzes a reasonable range of alternatives that could feasibly attain the basic objectives of the project and evaluates the comparative merits of the alternatives. This EIR includes an evaluation of the following alternatives to the proposed project: (1) a no-project alternative; (2) a no project/no build alternative; (3) a reduced-intensity development alternative; and (4) an alternative location.

1.1.5 INCORPORATION BY REFERENCES

As permitted by Section 15150 of the State CEQA Guidelines, this Draft Program EIR has referenced several technical studies, analyses, and reports. Information from the documents which has been incorporated by reference has been briefly summarized in the appropriate section(s) that follow. The relationship between the incorporated part of the referenced document and the Draft Program EIR has also been described. The documents and other sources that have been used in the preparation of this Draft Program EIR include a number of environmental and planning documents that were prepared for development projects. These documents include the Downey Savings and Loan Headquarters FEIR (Jan. 1977), Town Center FEIR (Feb. 1978), Town Center Drive Abandonment FEIR No. 1027 (Feb. 1986), Orange County Music Center Traffic Study (Dec. 1981), Plaza Tower and Hotel FEIR No. 1041 (Oct. 1988), City of Costa Mesa 1990 General Plan FEIR No. 1044 (Feb. 1992), and Segerstrom Home Ranch Draft Program EIR No. 1046 (March 2000). These documents are specifically identified in Chapter 10 (References). In accordance with Section 15150(b) of the State CEQA Guidelines, the location where the public may obtain and review these referenced documents and other sources used in the preparation of the Draft Program EIR is also identified in Section 10.

1.1.6 PROJECT SPONSORS AND CONTACT PERSONS

The City of Costa Mesa is the lead agency in the preparation of this EIR. Michael Brandman Associates is the environmental consultant to the City for the project. Preparers of this EIR are provided in Section 10. Key contact persons are as follows:

Lead Agency:

City of Costa Mesa
R. Michael Robinson, AICP
Planning and Redevelopment Manager
Development Services Department
77 Fair Drive
Costa Mesa, CA 92628-1200
(714) 754-5610
(714) 754-4865 (fax)

Environmental Consultant:

Michael Brandman Associates
Jason Brandman, Senior Project Manager
15901 Red Hill Avenue, Suite 200
Tustin, CA 92780
(714) 258-8100
(714) 258-8900 (fax)

Project Applicants:

C.J. Segerstrom and Sons
David Wilson
3315 Fairview Road
Costa Mesa, CA 92626
(714) 546-0110
(714) 546-9835 (fax)

CommonWealth Partners, LLC
David Armstrong
633 West Fifth Street, 72nd floor
Los Angeles, CA 90071
(213) 629-2100
(213) 629-2114 (fax)

Orange County Performing Arts Center
Kerry Madden
600 Town Center Drive
Costa Mesa, CA 92626
(714) 556-2122
(714) 241-0624 (fax)

1.2 EXECUTIVE SUMMARY OF THE EIR

The project applicants have proposed amendments to the 1990 General Plan and the North Costa Mesa Specific Plan, to resolve existing non-conformities with respect to building intensities and to accommodate proposed development within the 54-acre South Coast Plaza Town Center (SCPTC) area. The project area is bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts, and the San Diego (I-405) Freeway. Immediately adjacent to the northern project boundary is the City of Santa Ana.

The project area is comprised of mixed-use, office, commercial, and cultural/entertainment land uses. Surrounding uses are primarily comprised of commercial, retail, residential, office, and visitor accommodations.

The proposed project's four main objectives are as follows:

- Amend the 1990 General Plan to accommodate the proposed development requests, and eliminate the existing non-conforming status of existing development with respect to floor area ratio standards (i.e., building intensities).
- Revise the vehicle trip budget and schedule of traffic improvements for South Coast Plaza Town Center, while maintaining acceptable levels of service on the project area's streets and surrounding circulation system.
- Establish General Plan policies related to development rights transfers for land dedications.
- Amend the North Costa Mesa Specific Plan and the Town Center Master Plan to reflect the revised trip budget, permitted floor area ratios, and maximum permitted building heights.

1.2.1 PROJECT DESCRIPTION

Development of SCPTC began in the early 1970s and the SCPTC has since evolved into a major employment and entertainment/cultural center. Existing structures consist of approximately 2.8 million

square feet of development. The center is home to the Orange County Performing Arts Center, South Coast Repertory Theater, and the California Scenario outdoor sculpture garden.

The Land Use Element of the General Plan and the North Costa Mesa Specific Plan would be amended to include a new “Cultural Arts Center” designation that would encompass the 54-acre project site. The new Cultural Arts Center designation would guide development within the SCPTC project area, including the development of an art museum/academy, symphony hall, expansion of the Orange County Performing Arts Center, expansion of the South Coast Repertory Theater, and additional office, commercial, and hotel uses. Additional actions would include the transferring of entitlements, modification of the open space easement, amendment of the Master Plan of Highways, and development agreements. These actions will be processed with each of the separate applicants to entitle land use intensities and zoning regulations for individual projects within the Town Center area.

General Plan Amendment GP-00-02/and Specific Plan Amendment SP-00-01 encompass several major components. A detailed description of each component is provided in Section 3, Project Description, of this EIR.

1.2.2 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

The EIR addresses the areas of controversy and issues which required resolution that were known to the City of Costa Mesa or were raised by agencies and the public during the scoping process. Many of these were identified during the NOP process, as described previously. The following summarizes the primary areas of controversy related to environmental effects which were raised during the public scoping process and the section of the EIR in which these issues are addressed:

- Project compatibility with applicable land use plans (Section 5.1, Land Use and Planning Programs)
- Increased transportation impacts including both the construction and operational phases (Section 5.2, Transportation and Circulation)
- Air quality impacts (Section 5.3, Air Quality)
- Noise from project-related construction and long-term project traffic (Section 5.4, Noise)
- The impacts of regional geology and soils (Section 5.5, Geology and Soils)
- The potential for adverse effects from the increase in runoff (Section 5.6, Hydrology and Water Quality)
- Inducing indirect population growth (Section 5.7, Employment, Population, and Housing)
- An adequate supply of public utilities and the ability of providers to deliver services with an increased demand (Section 5.8, Public Services, Utilities, and Energy Consumption)

- The potential disruption of viewsheds due to shade and shadow and the introduction of new light sources (Section 5.9, Aesthetics)
- Cumulative impacts (Throughout Section 5)

The issues to be resolved by the City of Costa Mesa include a choice among alternatives, including the proposed project, and whether or how to mitigate the significant environmental effects of the proposed project.

1.2.3 SUMMARY OF ALTERNATIVES

Section 15126(d) of the CEQA Guidelines requires that an EIR "describe a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain most of the basic objectives of the project, and evaluate the comparative merits of the alternatives" but would avoid or substantially lessen any of the significant effects of the project. The EIR includes an evaluation of the following alternatives to the proposed project:

- No Project Alternative - Development of Site under General Plan Buildout
- No Project/No Build Alternative – Retention of Site in its Existing Condition
- Reduced Intensity Alternative
- Alternative Location

1.2.4 MITIGATION MONITORING PROGRAM

CEQA requires public agencies to set up monitoring or reporting programs for the purpose of ensuring compliance with those mitigation measures adopted as conditions of project approval in order to mitigate or avoid significant environmental effects identified in environmental impact reports. Mitigation measures identified within this EIR have been described in sufficient detail to provide the necessary information to identify the party(ies) responsible for carrying out the mitigation, when the mitigation will be implemented, and why the mitigation has been required. A mitigation monitoring program, incorporating the mitigation measures set forth in this document, will be adopted at the time of certification of the EIR.

1.2.5 SUMMARY OF SIGNIFICANT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A detailed discussion and analysis of project impacts and recommended mitigation measures is presented in Section 5, Existing Conditions, Project Impacts, Cumulative Impacts, Mitigation Measures, and Level of Significance After Mitigation. Table 2-1 in the Draft EIR summarizes the potential environmental effects of the proposed project, the recommended mitigation measures, and the level of significance after mitigation. This EIR also identifies other effects, which are either not considered significant or which are beneficial effects of the proposed project, but these are not the focus of this summary. However, there are

some project-related impacts that are adverse and unavoidable (e.g., traffic; air quality; and housing) and cannot be mitigated to a less than significant level. These impacts will remain significant after mitigation. The reader is referred to the full text of this EIR for a description of the environmental effects of the proposed project and feasible mitigation measures.

**SECTION 2
LIST OF COMMENTORS**

<u>COMMENTOR</u>	<u>AUTHOR CODE</u>
STATE AGENCIES	
State of California, Department of Transportation	CALTRANS
State of California, Governor's Office of Planning and Research	OPR
State of California, The Resource Agency, Department of Fish and Game	CDFG
REGIONAL AGENCIES	
California Regional Water Quality Control Board, Santa Ana Region	CRWQCB
Southern California Association of Governments	SCAG
COUNTY	
Airport Land Use Commission for Orange County	ALUC
County of Orange, Office of County Clerk-Recorder	OCCR
County of Orange, Planning & Development Services Department	COPDSD
Orange County Transportation Authority	OCTA
CITIES	
City of Huntington Beach, Department of Planning	CHBDP
City of Irvine, Community Development Department	CICDD
City of Santa Ana, Planning & Building Agency	CSAPBA
PRIVATE ORGANIZATIONS	
Wimbledon Village Homeowners Association	WVHA
PRIVATE INDIVIDUALS	
Paul Flanigan, M.D.	PF
Sandra Genis	SG
Robin Leffler	RB
PLANNING COMMISSION PUBLIC HEARINGS/STUDY SESSION COMMENTS	
Chris Fewel	CF
Katrina Foley	KF
Bruce Garlich	BGR
Robin Leffler	RL
Sandra Genis	SG
Paul Kelly	PK
Paul Flanigan	PF
Tom Sutro	TS
Bob Graham	BG

**SECTION 3
RESPONSE TO COMMENTS**

3.1 INTRODUCTION

In accordance with Section 15088 of the State of California Environmental Quality Act (CEQA) Guidelines, the City of Costa Mesa as the lead agency has evaluated the comments received on the Draft Environmental Impact Report (EIR) No. 1047 (State Clearinghouse No. 2000041100) for the South Coast Plaza Town Center Specific Plan (SCPTC) project and has prepared written responses to the comments received. This "Response to Comments Document" becomes part of the Final EIR for the project in accordance with Section 15132 of the State CEQA Guidelines.

The Draft EIR (DEIR) was approved for public circulation by the City of Costa Mesa and was distributed July 19, 2000. The City used several methods to elicit comments on the Draft EIR. Copies of the document were distributed to state, regional, and local agencies, as well as organizations and individuals, for their review and comment.

3.2 COMMENT LETTERS AND RESPONSES

The comment letters and responses are provided on the following pages. All corrections, clarifications, and refinements are herein incorporated by reference into the DEIR text.

DEPARTMENT OF TRANSPORTATION

DISTRICT 12
3347 Michelson Drive Suite 100
Irvine, CA. 92612-0661

FAX AND MAIL

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT



SEP 06 2000

September 01, 2000

Mr. R. Michael Robinson
City of Costa Mesa
Planning and Redevelopment Manager
P.O. Box 1200
Costa Mesa, CA 92628-1200

FILE: IGR/CEQA
SCH#: 2000041100
Log #: 722B

Subject: South Coast Plaza Town Center DEIR for General Plan Amendment
GP-00-02/Specific Plan Amendment SP-00-01

Dear Mr. Robinson,

Thank you for the opportunity to review and comment on the above project. The project site is bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts and the I-405 freeway. The project consists of several components: Land Use Element, 1990 General Plan Amendment, Circulation Element Plan Amendment, Specific Plan Amendment, North Coast Mesa and Town Center Master Plan Amendments, Development Agreements, and Street Vacation (portion of Town Center Drive, between Park Center Drive and Avenue of the Arts).

Caltrans District 12 status is a *responsible* agency on this project and has reviewed the Draft EIR dated July 18, 2000 and has the following comments:

- Any impact to Caltrans Right of Way will require an Encroachment Permit along with a Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) prior to construction. Copies of *Caltrans Storm Water Quality Handbook, Construction Contractors Guide and Specifications* available upon request. All activities within Caltrans Right of Way must fully conform to the Caltrans Statewide NPDES Permit No. CAS000003 (Order No. 99-06-DWQ).
- Any runoff draining into Caltrans Right of Way from construction operations or from the resulting project must fully conform to the current discharge requirements of the Regional Water Quality Board. Measures must be incorporated to contain all vehicle loads and avoid any tracking of materials which may blow or fall onto Caltrans roadways or facilities.
- Section 4.0 *Cumulative Impacts* is not adequate to comprehend the incremental impacts of past, present and future projects on this project. Although it states "regional planning documents or studies provide projections regarding future development" the document doesn't discuss the cumulative impact of, fore

CALTRANS - 1

CALTRANS - 2

CALTRANS - 3

example, abandoning a portion of the Gisler-Redhill Trunk Sewer as a result of future widening of the I-405 (Section 5.8.5 Wastewater)

CALTRANS-3
Cont.

- Under Section 5 *Existing Conditions, Project Impacts, Cumulative Impacts, Mitigation Program, and Level of Significance after Mitigation*, there isn't discussion regarding what the impacts will be should the assigned mitigation (for example by shares under 5.24) *not* be feasible to the city assigned, only that "These additional improvements would fully mitigate the projects impacts..." despite the fact that "Final determination of which improvements to implement is at the discretion of each respective jurisdiction."

CALTRANS-4

- Previous comments regarding coordination with Caltrans Program Managers on existing Caltrans projects are still valid (see attached letter dated May 16th, 2000). However, only the I-405/SR-55 project (EA# 069514) is noted in the DEIR (pg. 5.2.4).

CALTRANS-5

- Accommodating alternative modes of transportation as well as parking accommodations to serve this public arts/entertainment/cultural center have been mentioned, and again we would like to again stress the importance of this element in achieving lasting public enjoyment and ultimately success of the development.

CALTRANS-6

- An air quality technical study to determine if the proposed project would lead to an increase in air pollution in the South Coast Basin.

CALTRANS-7

- Traffic Operations requests that the existing lane configuration for intersection 108 be corrected to reflect recent modifications. They also request that the intersection analysis adjacent to Caltrans Right of Way be done utilizing the Highway Capacity Manual methodology in order to provide a more accurate assessment of the operational level of services and the proposed project impact on the state facilities (I-405).

CALTRANS-8

CALTRANS-9

September 1, 2000

Page 3

Please continue to keep us informed of this project and other future developments, which could potentially impact our transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Maureen El Harake at (949) 724-2086.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert F. Joseph". The signature is fluid and cursive, with a long horizontal stroke at the end.

Robert F. Joseph, Chief
Transportation Planning Branch B

Cc: Terry Roberts, OPR
Ron Helgeson, HDQRTRS Planning
Leslie Manderscheid, Environmental Planning Branch B
Vinh Pham, Program Management
Saied Hashemi, Traffic Operations
Roger Kao, Hydraulics
Linda Tong, Right of Way

DEPARTMENT OF TRANSPORTATION

DISTRICT 12
3347 Michelson Drive Suite 100
Irvine, CA. 92612-0661

**FAX AND MAIL**

May 16, 2000

Mr. R. Michael Robinson
City of Costa Mesa
Planning and Redevelopment Manager
P.O. Box 1200
Costa Mesa, CA 92628-1200

File: IGR/CEQA
SCH#: 2000041100
Log #: 722

Subject: South Coast Plaza Town Center NOP/DEIR for General Plan Amendment
GP-00-02/Specific Plan Amendment SP-00-01

Dear Mr. Robinson,

Thank you for the opportunity to review and comment on the above project. The project site is bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts and the I-405 freeway. The project consists of several components:

- Land Use Element General Plan Amendment which includes: Two Town Center (demo of some existing and construction of 756-space parking structure & 11-story, 347,900 sq.ft. office), Segerstrom Center for the Arts (abandon part of Town Center Dr., 301,145 sq.ft. symphony hall, expansion of South Coast Repertory, 140,000 sq. ft. museum/academy, amend open space easement, and transfer 186-rm hotel to NE corner of Bristol St/Anton Blvd), and add 255,000 sq.ft. office space to parcels at SE corner of Bristol St./Sunflower Ave.
- Circulation Element Plan Amendment,
- Specific Plan Amendment,
- Master Plan Amendment,
- Development Agreements, and
- Street Vacation (portion of Town Center Drive, between Park Center Drive and Avenue of the Arts).

Caltrans District 12 status is a *responsible* agency on this project and has reviewed the NOP for the Draft EIR dated April 10, 2000 and has the following comments:

- Any impact to Caltrans Right of Way will require an Encroachment Permit.
- The General Plan should state policies stressing Caltrans coordination and early involvement in project and program development. It should include acknowledgement that Caltrans has regulatory authority over certain types of development that may directly (or indirectly) impact State Transportation Facilities. The General Plan should also have a regional overview of transportation systems serving the city and the agencies responsible for those systems.

- Coordination with Caltrans Project Management for projects already slated for the area is recommended, and the EIR should consider the effects of these freeway projects surrounding the project area (as the city should already be aware):
 - SR-73/I-405: Widening existing freeway in Costa Mesa, and SR-73 from Birch St to the I-405, also modify ramps and connectors, SR-73 Connector B
 - I-405/SR-55: HOV connectors
 - The proposed alternative Susan Street off ramp
 - The proposed HOV drop ramp project on the I-405 at Bear Street over crossing

- Requirements for accommodating alternative modes of transportation to serve this public arts/entertainment/cultural center should be considered.

- Study of the adequacy of the parking facilities and impacts of traffic generated, immediate and cumulative, to the circulation patterns in the immediate vicinity of the project should be included (i.e. traffic analysis of nearby state facilities and off ramps for the SR-55, SR-73 and I-405, and intersections along Main Street, Bristol Street and MacArthur Boulevard).

- An air quality technical study to determine if the proposed project would lead to an increase in air pollution in the South Coast Basin.

Please continue to keep us informed of this project and other future developments, which could potentially impact our transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Maureen El Harake at (949) 724-2086.

Sincerely,


Robert F. Joseph, Chief
Transportation Planning Branch B

Cc: Terry Roberts, OPR (if no SCH# don't send to Terry Roberts on cc list)
Ron Helgeson, HDQRTRS Planning
Leslie Manderscheid, Environmental Planning Branch B
Vinh Pham, Program Management
Saied Hashemi, Traffic Operations

3.2.1 STATE AGENCIES

State of California, Department of Transportation

RESPONSE TO CALTRANS-1

The SCPTC project is not anticipated to impact Caltrans' right-of-way. However, a project share contribution has been identified for future improvements to SR-55 NB ramps at MacArthur Boulevard. Improvements at this location would be in the City of Santa Ana. If improvements were required to state highways within the City of Costa Mesa, the City would obtain an Encroachment Permit along with a Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP) prior to construction. All activities within the Caltrans right-of-way that would be undertaken by the City would conform to the Caltrans Statewide NPDES Permit No. CAS000003 (Order No. 99-06-DWQ).

RESPONSE TO CALTRANS-2

See RESPONSE CRWQCB 1 and RESPONSE 2.

RESPONSE TO CALTRANS-3

Section 15130 of the CEQA Guidelines requires the consideration of cumulative impacts within an EIR. In identifying projects which may contribute to cumulative impacts, the CEQA Guidelines allow the use of either a specific list of past, present, and probable future projects or a summary of projections contained in an adopted General Plan or related planning document. The cumulative impact analysis discussed in the Draft EIR was primarily based on a number of past, present, and future related projects or probable projects producing related or cumulative impacts. A list of those projects was provided in Table 3-1 of the Draft EIR, List of Projects Assumed for Cumulative Impacts.

However, for the analysis of certain impacts, it was more appropriate to consider regional planning documents or studies, which provide projections regarding future development, rather than specific project proposal under review. Ultimately, the analysis of the impacts of a future widening of I-405 must be provided in any environmental document specifically addressing such improvements.

RESPONSE TO CALTRANS-4

The EIR identifies mitigation measures which are considered to be feasible to implement. The final determination of the feasibility of the mitigation lies with the public agency with jurisdiction and responsibility for implementation. Part of the process to design and engineer the proposed mitigation would be to identify alternative mitigation measures should the proposed mitigation be determined to not be feasible.

RESPONSE TO CALTRANS-5

This comment is noted. The project considered impacts of all the Caltrans projects specified. The model used in the traffic study assumed all approved freeway projects.

RESPONSE TO CALTRANS-6

This comment is noted and is included in the public record for review and consideration by the appropriate decision-makers.

RESPONSE TO CALTRANS-7

The Draft EIR for the SCPTC project conducted a thorough analysis of the potential for air quality impacts to occur as it relates to an increase in air pollution in the South Coast Air Basin. The complete technical study can be found in Appendix D of the Draft EIR and summarized in Section 5.3, Air Quality.

RESPONSE TO CALTRANS-8

Intersection 108 (SR-55 Southbound Ramps at MacArthur Blvd) is currently under construction as part of the ongoing freeway and interchange improvement project. The southbound off-ramp has been reconstructed to provide two right turn lanes instead of the single, free-flow right-turn lane that existed previously. The eastbound and westbound approaches are still affected by construction and are not currently in their final configurations. The level of service at this location remains “C” in the AM peak hour and changes from LOS “A” to LOS “C” in the PM peak hour due to the current configuration of the intersection. The current configuration of the intersection does not have an affect on the impact analysis since the impact analysis is based on the intersection’s future configuration.

RESPONSE TO CALTRANS-9

The traffic study uses the Intersection Capacity Utilization (ICU) methodology for calculating intersection level of service. This practice of basing level of service on capacity instead of delay is consistent with the Growth Management Plan guidelines for Orange County. Utilizing the Highway Capacity Manual (HCM) methodology operational level of service analysis is not appropriate for long-range planning efforts of this type due to the dependence of this methodology on detailed information such as the actual signal timing plan. The Highway Capacity Manual states on page 9-7 that at the planning level, “only capacity is addressed because it is not necessary, nor is it practical, to perform detailed calculations of delay given the accuracy of the data that are generally available for planning purposes.”

Michael Robinson
July 17, 2000
Page 2

identified under Chapter 12 of the Fish and Game Code.

2. **A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts.**
 - a. **CEQA Guidelines, § 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.**
 - b. **Project impacts should be analyzed relative to their effects on off-site habitats. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas, should be fully evaluated and provided.**
 - c. **The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.**
 - d. **A cumulative effects analysis should be developed as described under CEQA Guidelines, § 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.**
 - e. **If applicable this document should include an analysis of the effect that the project may have on completion and implementation of regional and/or subregional conservation programs. Under § 2800-§ 2840 of the Fish and Game Code, the Department, through the Natural Communities Conservation Planning (NCCP) program, is coordinating with local jurisdictions, landowners, and the Federal Government to preserve local and regional biological diversity. Coastal sage scrub is the first natural community to be planned for under the NCCP program. The Department recommends that the lead agency ensure that the development of this and other proposed projects do not preclude long-term preserve planning options and that projects conform with other requirements of the NCCP program. Jurisdictions participating in the NCCP program should assess specific projects for consistency with the NCCP Conservation Guidelines. Additionally, the jurisdictions should quantify and qualify: 1) the amount of coastal sage scrub within their boundaries; 2) the acreage of coastal sage scrub habitat removed by individual projects; and 3) any acreage set aside for mitigation. This information**

(096-1
cont.

Michael Robinson
July 17, 2000
Page 3

should be kept in an updated ledger system.

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.
 - a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Off-site compensation for unavoidable impacts through acquisition and protection of high-quality habitat elsewhere should be addressed.
 - b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).
 - c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.
4. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of a 2081 permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a 2081 permit. For these reasons, the following information is requested:
 - a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.
 - b. A Department-approved Mitigation Agreement and Mitigation Plan are required

CDFG-1
Cont.

Michael Robinson
July 17, 2000
Page 4

for plants listed as rare under the Native Plant Protection Act

5. The Department has responsibility for wetland and riparian habitats and opposes any

alteration of a natural watercourse that would result in a reduction of wetland acreage or wetland habitat values. Alterations include, but are not limited to: conversion to subsurface drains, placement of fill or building of structures within the wetland and channelization or removal of materials from the streambed. All wetlands and watercourses, whether intermittent or perennial, should be retained and provided with substantial setbacks which preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations. A formal wetland delineation following U.S. Army Corps of Engineers (ACE) protocol may also be necessary prior to any construction in wetland or riparian habitats. Results should be included in the EIR. Please note, however, that wetland and riparian habitats subject to the Department's authority may extend beyond the areas identified in the ACE delineation.

- a. The Department may require a Lake or Streambed Alteration Agreement, pursuant to Section 1600 *et seq.* of the Fish and Game Code, with the applicant prior to the applicant's commencement of any activity that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank (which may include associated riparian resources) of a river, stream or lake, or use material from a streambed. The Department's issuance of a Lake or Streambed Alteration Agreement for a project that is subject to CEQA will require CEQA compliance actions by the Department as a responsible agency. The Department as a responsible agency under CEQA, may consider the local jurisdiction's (lead agency) Negative Declaration or EIR for the project. To minimize additional requirements by the Department pursuant to Section 1600 *et seq.* and/or under CEQA, the document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the agreement. A Streambed Alteration Agreement form may be obtained by writing to The Department of Fish and Game, 4949 Viewridge Ave. San Diego, California 92123 or by calling (858) 636-3160.

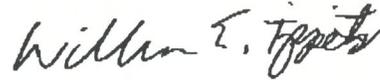
COFG-1
cont.

The Department holds regularly scheduled pre-project planning/early consultation meetings. To make an appointment, please call our office at (858) 636-3160.

Thank you for this opportunity to comment. Questions regarding this letter and further coordination on these issues should be directed to Erinn Wilson at (858) 636-3167.

Michael Robinson
July 17, 2000
Page 5

Sincerely,



William E. Tippetts
Habitat Conservation Supervisor

cc: Department of Fish and Game
Files
San Diego

U.S. Fish and Wildlife Service
Carlsbad

U.S. Army Corps of Engineers
Los Angeles

State Clearinghouse
Sacramento

State of California, Department of Fish and Game

RESPONSE TO CDFG-1

As identified in Section 1.4, Scope of the EIR, due to the developed and highly urbanized nature of the project area and surroundings, there is no potential for sensitive plant and/or animal species to inhabit the site or surrounding areas. Therefore, the EIR did not address biological resources. More specifically, the site consists primarily of office/professional, commercial, retail, and cultural arts land uses and does not contain any native or non-native habitats that would support endangered, threatened, and/or locally unique species. Therefore, a biological assessment of the subject property was deemed not warranted and not included as part of the EIR process.



Gray Davis
GOVERNOR

STATE OF CALIFORNIA

Governor's Office of Planning and Research
State Clearinghouse



RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

Steve Nissen
ACTING DIRECTOR

SEP 07 2000

September 5, 2000

R. Michael Robinson
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

Subject: South Coast Plaza Town Center Draft Program EIR - 1047
SCH#: 2000041100

Dear R. Michael Robinson:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on September 1, 2000, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

OPR-1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts
Senior Planner, State Clearinghouse

Enclosures
cc: Resources Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2000041100
Project Title South Coast Plaza Town Center Draft Program EIR - 1047
Lead Agency Costa Mesa, City of

Type EIR Draft EIR
Description The Land Uses Element of the General Plan and the North Costa Mesa Specific Plan would be amended to include a new "Cultural Arts Center" designation that would encompass the 54-acre project site. Implementation of the SCPTC project would allow for development of an additional 1,109,445 square feet office, symphony hall, SCR expansion and art academy/museum uses. Project Implementation also includes the previously entitled 1,000 seat expansion of the OC Performing Arts Center, and a new location for a previously entitled 186 room hotel. Demolition of 159,225 square feet of several existing buildings is also proposed.

Lead Agency Contact

Name R. Michael Robinson
Agency City of Costa Mesa
Phone 714-754-5245 **Fax**
email
Address 77 Fair Drive
City Costa Mesa **State** CA **Zip** 92628-1200

Project Location

County Orange
City Costa Mesa
Region
Cross Streets
Parcel No.
Township 5S **Range** 10W **Section** 34 **Base** USGS

Proximity to:

Highways SR 55 & I-405
Airports John Wayne Airport
Railways Union Pacific
Waterways SA , Delhi
Schools Jefferson School/McFadden Jr. High
Land Use The project area is comprised of mixed-use, office, commercial, and cultural/entertainment land uses. Existing zoning is Town Center and the existing General Plan Designation is Urban Center Commercial.

Project Issues Aesthetic/Visual; Air Quality; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Traffic/Circulation; Water Quality; Water Supply; Growth Inducing; Cumulative Effects; Landuse

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Conservation; Department of Fish and Game, Region 5; Department of Parks and Recreation; California Highway Patrol; Caltrans, District 12; Department of Health Services; Integrated Waste Management Board; State Water Resources Control Board, Clean Water Program; Regional Water Quality Control Board, Region 8; Native American Heritage Commission; State Lands Commission

Date Received 07/19/2000 **Start of Review** 07/19/2000 **End of Review** 09/01/2000

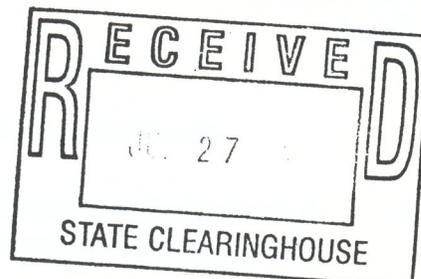
DEPARTMENT OF FISH AND GAME

South Coast Region
4949 Viewridge Avenue
San Diego, California 92123
(858) 467-4201
(858) 467-4235 FAX



July 17, 2000

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Michael Robinson
City of Costa Mesa
77 Fair Drive
Costa Mesa CA 92628

**Comments on the Notice of Preparation of a Draft Environmental Impact Report for the
South Coast Plaza Town Center
City of Costa Mesa, Orange County
(SCH# 2000041100)**

Dear Mr. Robinson:

The Department of Fish and Game (Department) appreciates this opportunity to comment on the above-referenced project, relative to impacts to biological resources. To enable Department staff to adequately review and comment of proposed project, we recommend the following information, if not included in the NOP, be included in the Draft Environmental Impact Report (DEIR):

1. A complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats.
 - a. A thorough assessment of rare plants and rare natural communities, following the Department's May 1984 Guidelines (revised August 1997) for Assessing Impacts to Rare Plants and Rare Natural Communities (Attachment 1).
 - b. A complete assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service.
 - c. Rare, threatened, and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, § 15380).
 - d. The Department's California Natural Diversity Data Base in Sacramento should be contacted at (916) 327-5960 to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas

identified under Chapter 12 of the Fish and Game Code.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts.

 - a. CEQA Guidelines, § 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.
 - b. Project impacts should be analyzed relative to their effects on off-site habitats. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas, should be fully evaluated and provided.
 - c. The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.
 - d. A cumulative effects analysis should be developed as described under CEQA Guidelines, § 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.
 - e. If applicable this document should include an analysis of the effect that the project may have on completion and implementation of regional and/or subregional conservation programs. Under § 2800-§ 2840 of the Fish and Game Code, the Department, through the Natural Communities Conservation Planning (NCCP) program, is coordinating with local jurisdictions, landowners, and the Federal Government to preserve local and regional biological diversity. Coastal sage scrub is the first natural community to be planned for under the NCCP program. The Department recommends that the lead agency ensure that the development of this and other proposed projects do not preclude long-term preserve planning options and that projects conform with other requirements of the NCCP program. Jurisdictions participating in the NCCP program should assess specific projects for consistency with the NCCP Conservation Guidelines. Additionally, the jurisdictions should quantify and qualify: 1) the amount of coastal sage scrub within their boundaries; 2) the acreage of coastal sage scrub habitat removed by individual projects; and 3) any acreage set aside for mitigation. This information

should be kept in an updated ledger system.

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.
 - a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Off-site compensation for unavoidable impacts through acquisition and protection of high-quality habitat elsewhere should be addressed.
 - b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).
 - c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.
4. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of a 2081 permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a 2081 permit. For these reasons, the following information is requested:
 - a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.
 - b. A Department-approved Mitigation Agreement and Mitigation Plan are required



California Regional Water Quality Control Board

Santa Ana Region



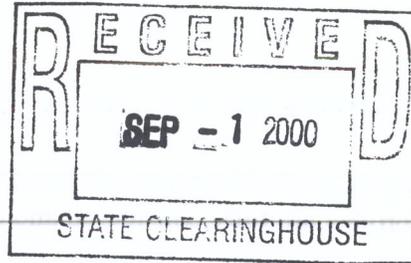
Winston H. Hickox
Secretary for
Environmental
Protection

Internet Address: <http://www.swrcb.ca.gov/rwqcb8>
3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (909) 782-4130 - FAX (909) 781-6288

Gray Davis
Governor

September 1, 2000

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Mr. R. Michael Robinson, AICP
Planning and Redevelopment Manager
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

RESPONSE TO THE NOTICE OF COMPLETION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT OF THE SOUTH COAST PLAZA TOWN CENTER (SCH #2000041100), CITY OF COSTA MESA, ORANGE COUNTY

Dear Mr. Robinson:

Staff of the Regional Water Quality Control Board, Santa Ana Region (RWQCB), have reviewed the Notice Of Completion for the above referenced project and have the following comments:

1. Dewatering during construction at the site will require either a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of wastes to surface waters or a Waste Discharge Requirements (WDR) permit for the discharge of wastes to land, be obtained from the Regional Board. Gary Stewart with the Regional Board's Regulation Section may be contacted to discuss your project.
2. RWQCB personnel have determined that this project may require coverage under Section 401 of the Clean Water Act, water quality certification for dredge and fill operations. Please contact Kelly Schmoker (909) 782-4990 with the Regional Board's Planning Section to further discuss your project.
3. Non-point source pollution could negatively affect water quality. Surface water runoff from the project area would be conveyed to the Santa Ana-Delhi Flood Control Channel, which enters upper Newport Bay. Newport Bay has been included on the Clean Water Act Section 303(d) list of impaired waterbodies due in part to nutrients and sedimentation. Potential impacts to water quality from daily runoff and storm water runoff from this site should be evaluated.
4. Utilization of retention basins or holding ponds, within the project site, to capture first flush of a rainstorm should be addressed in order to capture runoff and other elements that contribute to the degradation of water quality.
5. A Storm Water Pollution Prevention Plan (SWPPP) may be required to be submitted to the Regional Water Board prior to the start of the project. Proper erosion and sediment controls must be utilized to prevent runoff during excavation, construction, and site remediation.
6. Appropriate best management practices (BMPs) should be developed and implemented during construction to protect the beneficial uses addressed in the Santa Ana River Basin Plan. The BMPs should address:
 - discharge of pollutants;
 - runoff and erosion;
 - Controls for soil characteristics related to water quality (potential for erosion and subsequent siltation, increase or decrease in percolation);
 - prevention of sewage and chemical spills; and
 - tracking of sediments and toxic materials into the streets, storm water conveyance channels, or waterways.

California Environmental Protection Agency

7. This project will result in a large parcel of land being paved, thereby altering the rate and volume of groundwater recharge and altering the rate and volume of surface water runoff, possibly increasing the amount of suspended pollutants discharging into adjacent surface channels. Mitigation for this impact should be discussed.
8. Construction equipment should not be stored within any streambeds. Fueling, lubrication, and maintenance equipment should not be located within any streams or areas where contaminants could be washed into a waterbody.
9. No waste material should be discharged to any drainage areas, channels or streams. Spoil sites should not be located within any streams or areas where spoil material could be washed in a waterbody.
10. Any habitat and vegetation that will be removed within the project site should be addressed and mitigated for.

If you have any questions, please call me at (909) 782-3221 or you may contact Wanda Smith at (909) 782-4468.

Sincerely,



Stephanie M. Gasca
Planning Section – Coastal Waters

cc: Scott Morgan – State Clearinghouse

State of California, Governors Office of Planning and Research

RESPONSE TO OPR-1

This comment is noted and is included in the public record for review and consideration by the appropriate decision-makers.



California Regional Water Quality Control Board

Santa Ana Region



Winston H. Hickox
Secretary for
Environmental
Protection

Internet Address: <http://www.swrcb.ca.gov/rwqcb8>
3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (909) 782-4130 - FAX (909) 781-6288

Gray Davis
Governor

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT
SEP 05 2000

September 1, 2000

Mr. R. Michael Robinson, AICP
Planning and Redevelopment Manager
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

RESPONSE TO THE NOTICE OF COMPLETION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT OF THE SOUTH COAST PLAZA TOWN CENTER (SCH #2000041100), CITY OF COSTA MESA, ORANGE COUNTY

Dear Mr. Robinson:

Staff of the Regional Water Quality Control Board, Santa Ana Region (RWQCB), have reviewed the Notice Of Completion for the above referenced project and have the following comments:

1. Dewatering during construction at the site will require either a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of wastes to surface waters or a Waste Discharge Requirements (WDR) permit for the discharge of wastes to land, be obtained from the Regional Board. Gary Stewart with the Regional Board's Regulation Section may be contacted to discuss your project. CRWQCB-1
2. RWQCB personnel have determined that this project may require coverage under Section 401 of the Clean Water Act, water quality certification for dredge and fill operations. Please contact Kelly Schmoker (909) 782-4990 with the Regional Board's Planning Section to further discuss your project.
3. Non-point source pollution could negatively affect water quality. Surface water runoff from the project area would be conveyed to the Santa Ana-Delhi Flood Control Channel, which enters upper Newport Bay. Newport Bay has been included on the Clean Water Act Section 303(d) list of impaired waterbodies due in part to nutrients and sedimentation. Potential impacts to water quality from daily runoff and storm water runoff from this site should be evaluated.
4. Utilization of retention basins or holding ponds, within the project site, to capture first flush of a rainstorm should be addressed in order to capture runoff and other elements that contribute to the degradation of water quality.
5. A Storm Water Pollution Prevention Plan (SWPPP) may be required to be submitted to the Regional Water Board prior to the start of the project. Proper erosion and sediment controls must be utilized to prevent runoff during excavation, construction, and site remediation. CRWQCB-2
6. Appropriate best management practices (BMPs) should be developed and implemented during construction to protect the beneficial uses addressed in the Santa Ana River Basin Plan. The BMPs should address:
 - discharge of pollutants;
 - runoff and erosion;
 - Controls for soil characteristics related to water quality (potential for erosion and subsequent siltation, increase or decrease in percolation);
 - prevention of sewage and chemical spills; and
 - tracking of sediments and toxic materials into the streets, storm water conveyance channels, or waterways.

California Environmental Protection Agency

September 1, 2000

7. This project will result in a large parcel of land being paved, thereby altering the rate and volume of groundwater recharge and altering the rate and volume of surface water runoff, possibly increasing the amount of suspended pollutants discharging into adjacent surface channels. Mitigation for this impact should be discussed. CRWDB-3
8. Construction equipment should not be stored within any streambeds. Fueling, lubrication, and maintenance equipment should not be located within any streams or areas where contaminants could be washed into a waterbody.
9. No waste material should be discharged to any drainage areas, channels or streams. Spoil sites should not be located within any streams or areas where spoil material could be washed in a waterbody. CRWDB-4
10. Any habitat and vegetation that will be removed within the project site should be addressed and mitigated for.

If you have any questions, please call me at (909) 782-3221 or you may contact Wanda Smith at (909) 782-4468.

Sincerely,



Stephanie M. Gasca
Planning Section – Coastal Waters

cc: Scott Morgan – State Clearinghouse

3.2.2 REGIONAL AGENCIES

California Regional Water Quality Control Board, Santa Ana Region

RESPONSE CRWQCB-1

Construction associated with the proposed SCPTC project is expected to require a National Pollutant Discharge Elimination System Permit (NPDES) and/or potentially a Waste Discharge Requirement (WDR) permit. However, there are no dredging or filling operations associated with the project that would require coverage under the Section 401 of the Clean Water Act. The City of Costa Mesa will coordinate with the appropriate personnel to ensure that the necessary permits are obtained from the California Regional Water Quality Control Board, Santa Ana Region (RWQCB) to develop the proposed project.

RESPONSE CRWQCB-2

In Section 5.6, Hydrology and Water Quality of the Draft EIR, the SCPTC project's potential impacts on water quality as it relates to non-point source pollution have been addressed in detail. While the project has a potential to degrade water quality in the project area from daily runoff and storm water runoff, the project incorporates a number of design features (e.g., Storm Water Pollution Prevention Plan and best management practices) and mitigation measures (e.g., retention basins) to reduce the potential impacts to less than significant levels.

RESPONSE CRWQCB-3

As discussed in Section 5.6, Hydrology and Water Quality, of the Draft EIR for the SCPTC project, implementation of the proposed project would result in a nominal increase in impervious surfaces of .054-acre (0.1 percent of the total 54.44 acre site, therefore, resulting in an overall increase of 0.1 percent in impervious surfaces). Hence, the project is not expected to significantly alter the rate and volume of groundwater recharge or alter the rate and volume of surface water runoff. Consequently, the project is not expected to significantly increase the amount of suspended pollutants discharging into adjacent surface channels and no mitigation was required.

RESPONSE CRWQCB-4

There are no streams or water bodies on the project site. Therefore, direct impacts to receiving waters from fueling lubrication and maintenance equipment or materials from spoil sites would not occur from project implementation. As indicated previously, the project has incorporated specific design criteria and mitigation measures to reduce impacts on drainage areas and/or channels on or within the vicinity of the SCPTC project. Moreover, due to the built-up nature of the project site, no habitat and/or vegetation would be removed that would affect discharge into any drainage areas and/or channels.

Southern California Association of Governments

RESPONSE SCAG-1

These comments are noted and included in the public record for review and consideration by the appropriate decision-makers.

3.2.3 COUNTY OF ORANGE

Airport Land Use Commission for Orange County

RESPONSE ALUC-1

This comment is noted. The City understands that an official Determination from the Federal Aviation Administration (FAA) regarding the compatibility of the planned building heights is an integral part of the Airport Land Use Commissions (ALUC) consistency review and findings process. Therefore, prior to issuance of a grading permit for those buildings with heights that exceed the 100:1 Imaginary Surface as defined in FAR Part 77 Notification Area and/or as part of subsequent approvals for development on the project site, the City of Costa Mesa would submit an official filing of Notice with the Federal Aviation Administration Regional Office, as well as the results of the Aeronautical Study which the FAA. The City will include the FAA's aeronautical study determination with their referral letter to ALUC requesting a consistency filing at the appropriate time.



RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

Gary L. Granville
Orange County Clerk-Recorder
P.O. Box 238
Santa Ana, Ca 92702
(714) 834-3005

APR 31 2000

City of Costa Mesa

Office of the Orange County Clerk-Recorder

Memorandum

SUBJECT: Environmental Impact Reports-
Amendment of "Public Resources Code, Section 21092.3"

The attached Negative Declaration was received, filed and a copy was posted on

7/24/08

It remained posted for 20 (twenty) calendar days.

Gary L. Granville
County Clerk-Recorder of the State of California
in and for the County of Orange

By: Rose M. Solorio Deputy

Public Resource Code 21092.3

The notices required pursuant to Sections 21080.4 and 21092 for an environmental impact report shall be posted in the office of the County Clerk of each county *** in which the project will be located and shall remain posted for a period of 30 days. The notice required pursuant to Section 21092 for a negative declaration shall be so posted for a period of 20 days, unless otherwise required by law to be posted for 30 days. The County Clerk shall post notices within 24 hours of receipt.

Public Resources Code 21152

All notices filed pursuant to this section shall be available for public inspection, and shall be posted *** **within 24 hours of receipt** in the office of the County Clerk. Each notice shall remain posted for a period of 30 days.

***Thereafter, the clerk shall return the notice to the local lead agency ***within a notation of the period it was posted. The local lead agency shall retain the notice for not less than nine months.

Additions or changes by underline; deletions by ***

** Big Book Below **

OCCR-1



CITY OF COSTA MESA

CALIFORNIA 92628-1200

P.O. BOX 1200

DEVELOPMENT SERVICES DEPARTMENT

NOTICE OF AVAILABILITY

SOUTH COAST PLAZA TOWN CENTER DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT

POSTED
JUL 24 2000
By GARK L. GRANVILLE, Clerk-Recorder
DEPUTY

The Draft Program Environmental Impact Report No. 1047 (EIR) for the expansion to the South Coast Plaza Town Center site is now available for public review and comment. The 54-acre site is currently developed with 2.8 million square feet of office, retail, and cultural uses, and it is bounded by Sunflower Avenue to the north, San Diego Freeway (I-405) to the south, Avenue of the Arts to the east, and Bristol Street to the west in the City of Costa Mesa.

The project applicants are requesting amendments to the 1990 General Plan and North Costa Mesa Specific Plan and other related actions to allow the following new development in South Coast Plaza Town Center: three office buildings (21-story, 11-story, and 10-story); a 140-seat expansion to South Coast Repertory Theater; a 2,500-seat symphony hall; a 140,000 square-foot art museum/academy; and two new parking structures. The Draft Program EIR also addresses the previously entitled 1000-seat expansion to the Orange County Performing Arts Center and a new location for a previously-entitled 186-room hotel. Demolition of 159,225 square feet of several existing buildings is also proposed.

The net gain in overall building square footage for South Coast Plaza Town Center is 1,109,445 square feet. When added to the existing square footage total (2,801,368) and the previously unbuilt entitlements (251,000 square feet), the total building square footage is 4,161,813, which results in an overall floor area ratio of 1.77.

The project has the potential to disrupt view sheds due to shade and shadow, create short-term noise and air quality impacts (during construction), long-term air quality impacts, create additional traffic, and indirectly induce population and housing growth.

The EIR is available for a 45-day review period from July 19, 2000 to September 1, 2000. Copies of the Draft EIR are available for review at the following locations:

- City of Costa Mesa Planning Division, 77 Fair Drive, Costa Mesa
- Mesa Verde Library, 2969 Mesa Verde Drive East, Costa Mesa
- Costa Mesa Library, 1855 Park Avenue, Costa Mesa

The Costa Mesa Planning Commission will also hold a public hearing for consideration of comments on the Draft EIR. The public hearing will be held as follows:

DATE: August 14, 2000
TIME: 6:30 p.m. or as soon as possible thereafter
PLACE: City Council Chambers at City Hall
77 Fair Drive, Costa Mesa, CA

Public comments in either oral or written form may be presented during the public hearing or mailed to the Planning Division. Please address any correspondence to:

R. Michael Robinson, Planning and Redevelopment Manager
City of Costa Mesa Planning Division
P.O. Box 1200
Costa Mesa, CA 92628-1200

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

JUL 31 2000

Written comments must be received by September 1, 2000. For further information, telephone (714) 754-5245 or visit the Planning Division, Second Floor of City Hall, 77 Fair Drive, Costa Mesa. The Planning Division is open from 7:30 a.m. to 5:30 p.m., Monday through Thursday and 8:00 a.m. to 5:00 p.m. on Friday.

77 FAIR DRIVE

Building Division (714) 754-5273 • Code Enforcement (714) 754-5623 • Planning Division (714) 754-5245
FAX (714) 754-4856 • TDD (714) 754-5244

County of Orange, Office of the Orange County Clerk-Recorder

RESPONSE OCCR-1

This comment is noted and is included in the public record for review and consideration by the appropriate decision-makers.



County of Orange
Planning & Development Services Department

THOMAS B. MATHEWS
DIRECTOR

300 N. FLOWER ST.
SANTA ANA, CALIFORNIA

MAILING ADDRESS:
P.O. BOX 4048
SANTA ANA, CA 92702-4048

SEP 01 2000

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT
NOV 00-79

SEP 05 2000

R. Michael Robinson, AICP
City of Costa Mesa
Planning and Redevelopment
77 Fair Drive
Costa Mesa, CA 92628-1200

SUBJECT: DPEIR for the South Coast Plaza Town Center

Dear Mr. Robinson:

Thank you for the opportunity to respond to the above referenced project. The County of Orange has reviewed the Draft Program Environmental Impact Report (DPEIR) and has no comment at this time. However, we would appreciate being informed of any further developments.

CDPDS-1

If you have any questions, please contact me or feel free to call Charlotte Harryman directly. Charlotte may be reached at (714) 834-2522.

Very truly yours,

George Britton, Manager
Environmental and Project
Planning Services Division

CH

County of Orange, Planning & Development Services Department

RESPONSE COPDSD-1

Your comment is noted and is included in the public record for review and consideration by the appropriate decision-makers



BOARD OF DIRECTORS

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Chair

Michael Ward
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Governor's
Ex-Officio Member

Arthur C. Brown
Alternate

Charles V. Smith
Alternate

Gregory T. Winterbottom
Alternate

September 6, 2000

Mr. R. Michael Robinson
Planning and Redevelopment Manager
City of Costa Mesa, Planning Division
P.O. Box 1200
Costa Mesa, CA 92628-1200

**Subject: South Coast Plaza Town Center
Draft Program Environmental Impact Report (EIR) No. 1047**

Dear Mr. Robinson:

The Orange County Transportation Authority (OCTA) has reviewed the above referenced document and has the following comments to provide:

Bus Transit Amenities

OCTA currently provides a high level of bus service to the project area due to high ridership demand. The proposed expansion would continue to generate a high demand for bus service. Therefore all existing transit amenities in the project area including bus stops, shelters, and concrete bus pads should be retained. If relocation of some of these amenities is necessary, alternate locations should be identified and approved by OCTA prior to relocation.

OCTA-1

Traffic Analysis

Table 3-1 indicates that development in the project area is proposed to increased from 3,052,368 sq. ft. in the current General Plan to 4,161,813 sq. ft., an increase of 36 percent. Tables 5.2-4 and 5.2-7 show that Average Daily Trips (ADT) generated in the project area would increase by 21 percent over that projected for the current General Plan. However, Exhibits 5.2-9 and 5.2-12 show only a slight increase (1-2 thousand per segment) in the ADT on street segments approaching the project area. The sum of all increases on these segments is only 5,000 daily trips. Given the 36 percent increase in land use density, along with a projected increase of 10,000 trips generated by the South Coast Plaza Town Center, these link volumes appear low. The data seems to indicate that half of the trips generated would be internal to the South Coast Plaza Town Center. OCTA recommends that an explanation of the reason for

OCTA-2

Michael Robinson
September 6, 2000
Page 2

the low increase in link volumes and an analysis of the origin of the remaining 5,000 trips be included in the Final Environmental Impact Report.

OCTA-2
cont.

Orange County Commuter Bikeways Strategic Plan

OCTA is currently updating the Orange County Commuter Bikeways Strategic Plan (CBSP). The CBSP includes a proposed Class I Bikeway through the proposed project site. The bikeway would travel along the Santa Ana-Delhi Channel and connect with the Flower Street Class I Bikeway to the north in the City of Santa Ana. The implementation of this bikeway as part of the South Coast Plaza Town Center project would provide commuters with an alternative mode of transportation and may help to reduce vehicle trips. The inclusion of bicycle racks, bicycle lockers, showers and locker rooms within the new development would also encourage bicycle commuting within the project area.

OCTA-3

OCTA appreciates the City's consideration of these comments. Should City staff have any questions or need additional information, feel free to contact Amy Walston at (714) 560-5751 or awalston@octa.net.

Sincerely,



Michael Gold
OCTA Planning & Development

C: Kia Mortazavi, OCTA

Orange County Transportation Authority

RESPONSE OCTA-1

The project is not currently proposing to eliminate or change any existing transit facilities. If changes become necessary, OCTA would be consulted at the earliest possible time.

RESPONSE OCTA-2

As discussed in the traffic study, the Costa Mesa Traffic Model (CMTM) was used to independently develop traffic forecasts for future conditions with and without the project. This is not the same as simply adding project trips to the “no project” condition. The traffic model accounts for the potential interaction between added project traffic and that already on the network. As a cross-check, the traffic model runs have been verified as to the amount of project traffic actually assigned to the roadway network, and this was confirmed to be 100 percent of forecasted project trips. The net increase in ADT on the street segments approaching the project area is approximately 5,000 daily trips. This net increase reflects the redistribution of non-project traffic that occurs when project trips are added to the model’s trip distribution and assignment process. The total amount of new trips added to the roadway network is the full 10,000 ADT of the project.

RESPONSE OCTA-3

Bikeways are addressed on page 5.2-14 of the EIR. It is recognized that the addition of facilities such as bikeways that promote alternative forms of transportation can reduce the amount of vehicle trips generated within the area. The project will support the need and use of bikeway facilities, and will selectively provide additional on-site bicycle accommodations concurrently with development.



City of Huntington Beach

2000 MAIN STREET

CALIFORNIA 92648

DEPARTMENT OF PLANNING

Phone 536-5271
Fax 374-1540
374-1648

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

August 30, 2000

SEP 01 2000

R. Michael Robinson, AICP
City of Costa Mesa
Development Services Department
77 Fair Drive
Costa Mesa, CA 92628

RE: South Coast Plaza Town Center Draft Program Environmental Impact Report (EIR)

Dear Mr. Robinson:

The City of Huntington Beach has reviewed the Draft Program EIR for the expansion of the South Coast Plaza Town Center and has the following comment:

- 1) On page 4-2, under the List of Projects Assumed for Cumulative Impact Projects, the "Home Ranch" project is discussed. The City received a Notice of Preparation (NOP) for this project last month, and the development that was described in the NOP is not consistent with the information shown for this related project in the Draft Program EIR. The NOP discussed a proposal for a 308,000 square-foot IKEA home furnishings store, 791,050 square feet of office and office-related uses, 252,648 square feet of industrial park development, and 464 high-density apartments. The EIR should reflect this data if it is still accurate.

CHBDP-1

If you have any questions, you can reach me at (714) 536-5274. Thank you for the opportunity to provided comments on the Draft Program EIR.

Sincerely,

Cindy Chie
Assistant Planner
g:\chie\environm\CostaMesaLtr5

cc: Mary Beth Broeren, Senior Planner
Terri Elliott, Associate Engineer, Public Works Department

3.2.4 CITIES

City of Huntington Beach, Department of Planning

RESPONSE CHBDP-1

At the time the revised NOP for the SCPTC project was distributed for public review, there was no development application in place for the Home Ranch project. Therefore, in accordance with CEQA, the SCPTC Draft EIR assumed buildout of the Home Ranch site under current general plan land use designations to analyze cumulative impacts. Just prior to the public review period on the Draft EIR, an application for development for the Home Ranch site was submitted and a Notice of Preparation was released. As part of the Response to Comments document, the City has reviewed that development application as it relates to the cumulative analysis provided in the SCPTC EIR and has determined that no new impacts or new mitigation measures would be required. The Final SCPTC EIR will be prepared to reflect the revised project for the Home Ranch site and will be made available for agency review prior to the Final EIR certification.

See also RESPONSE WVHA-1 in Section 3.2.5 to follow.



Community Development Department

City of Irvine, One Civic Center Plaza, P.O. Box 19575, Irvine, California 92623-9575 (949) 724-6000

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

SEP 07 2000

August 31, 2000

Mr. R. Michael Robinson, AICP
Planning and Redevelopment Manager
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

SUBJECT: COMMENTS ON SOUTH COAST PLAZA
TOWN CENTER EIR

Dear Mr. Robinson;

The City of Irvine has reviewed the Environmental Impact Report for the above referenced project. We have the following comments:

COMMENT 1

What is the anticipated timing of the proposed fair share contribution for the mitigation measures at the intersection of Red Hill and Main? Please provide a detailed cost estimate for our review and concurrence for the assumed improvements at Red Hill/Main including design, right-of-way, utility impacts and construction. In addition, calculate the fair share contribution amount.

COMMENT 2

Please provide an agreement between both cities identifying when and how the fair share contribution will be paid to the City of Irvine. The agreement must also address escalation of construction costs over time.

COMMENT 3

Why is the southbound left turn a proposed mitigation measure of the project, since it is not specified in the City's buildout configuration for Red Hill and Main or a project impacted turn movement? Is this a proposed improvement suggested to mitigate against the general long-range operation of the intersection?

COMMENT 4

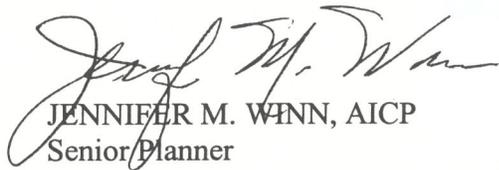
Please be advised that LOS E is acceptable for the Irvine Business Complex (IBC). It is our understanding that your project mitigation and fair share contribution is a result of the volumes that the project is adding to the intersection.

C1000-1

Mr. R. Michael Robinson
August 31, 2000
Page 2

Based upon information received, further comments may be forthcoming. Thank you for the opportunity to comment on the EIR. If you have any questions, I can be reached at (949) 724-6352.

Sincerely,


JENNIFER M. WINN, AICP
Senior Planner

C: Leslie Aranda, Principal Planner
Rick Sandzimier, Transportation Analysis Administrator
Kerwin Lau, Senior Transportation Analyst

Jw/IAR/CMscpltowncntreircmnts-8-00

City of Irvine, Community Development Department

RESPONSE CICDD-1

Comment 4 notes that LOS "E" is the acceptable level of service for the Irvine Business Complex (IBC). Using the LOS "E" criteria, the project does not have an impact at the Red Hill/Main intersection as stated in the traffic analysis (the traffic analysis assumed LOS "D" as the maximum acceptable level of service). Because there is not a significant project impact at this location, Comments 1-3 are no longer applicable.

MAYOR
Miguel A. Pulido
MAYOR PRO TEM
Thomas E. Lutz
COUNCIL MEMBERS
Lisa Bist
Alberta D. Christy
Brett Franklin
Patricia A. McGuigan
Ted R Moreno



CITY OF SANTA ANA

PLANNING & BUILDING AGENCY
20 Civic Center Plaza (M-20)
P.O. BOX 1988 • Santa Ana, California 92702
Fax (714) 973-1461

CITY MANAGER
David N. Ream
CITY ATTORNEY
Joseph W. Fletcher
CLERK OF THE COUNCIL
Patricia E. Healy

RECEIVED
CITY OF SANTA ANA
DEVELOPMENT SERVICES DEPARTMENT

SEP 05 2000

August 31, 2000

Mr. R. Michael Robinson
City of Costa Mesa
Planning and Redevelopment Manager
P.O. Box 1200
Costa Mesa, CA 92628-1200

Via Facsimile (714) 754-4856

RE: SOUTH COAST PLAZA TOWN CENTER ENVIRONMENTAL IMPACT REPORT

Dear Mr. Robinson:

Thank you for the opportunity to review and provide comments on the South Coast Plaza Town Center Draft Environmental Impact Report (DEIR). It is our understanding that the proposed project involves the demolition of existing land uses and the development of an additional 1,109,445 square feet of new retail, office, hotel, and cultural-art-related land uses within the South Coast Plaza Town Center.

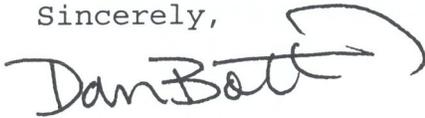
Attached to this letter is a listing of comments on the DEIR prepared by the City of Santa Ana Building and Planning Agency and the Public Works Transportation and Development Services Division. At this time we are requesting that you provide to us the City of Costa Mesa's responses to our comments on the DEIR, at least 10 days prior to any scheduled public hearings for the project.

Again, thank you for the opportunity to comment on the South Coast Plaza Town Center DEIR. If you have questions concerning our comments, please feel free to call me at (714) 667-2719.

Mr. R. Michael Robinson
South Coast Plaza Town Center EIR
August 31, 2000
Page 2 of 2

If you have specific questions or need additional information concerning traffic issues, please contact Shahir Gobran, Transportation Analyst at (714) 647-5615.

Sincerely,

A handwritten signature in black ink that reads "Dan Bott". The signature is written in a cursive style with a large, sweeping flourish at the end.

Dan Bott
Environmental Coordinator

DB:TR
db\Town Center EIR letter

pc: Jeff Rice, Principal Planner
Joyce Amerson, Manager Transportation and Development
Services

CITY OF SANTA ANA COMMENTS:

PLANNING

- Section 3.6 Responsible and Trustee Agencies

It appears that the proposed project would require roadway and infrastructure improvements within the City of Santa Ana. Such improvements would require Street Work Permits from the City of Santa Ana. This permit authority would qualify the City of Santa Ana as a Responsible Agency to the project. Section 3.6 should be amended to reflect the City of Santa Ana as Responsible Agency to the project.

CSAPBA-1

- Table 4.1 Cumulative Project List

Under Armstrong Ranch, the Cumulative Project List does not identify how many dwelling units projected to be developed.

CSAPBA-2

Section 5.1.1 Land Use Existing Condition

Under Land Uses to the North, the DEIR should provide a more detailed description of the existing land uses. Please describe how the units are oriented (i.e. outdoor living areas fronting along Sunflower Avenue). Additionally, please note that these land uses are located in the City of Santa Ana.

CSAPBA-3

- Section 5.1.2 land Use Impacts

The DEIR fails to provide any analysis of potential land use impacts to the existing land uses located north of the project. The section only provides a conclusion statement that the proposed project is compatible with the existing land uses. The DEIR indicates that a 21-story, 315-foot high office building would be provided at the corner of Sunflower Avenue and Bristol Street. The City of Santa Ana believes that the intensity of this land use is not compatible with the existing land uses to the north. The City believes that this area should consist of lower intensity land uses similar to the land uses to the north and that the more intense land uses should be located in the center of the project.

CSAPBA-4

CITY OF SANTA ANA COMMENTS:

- Table 5.2.3 Cumulative Project Summary

The listing of projects in Santa Ana identified on Table 5.2.3 are not consistent with the listing of projects identified on Table 4-1. Due to this inconsistency there is concern about the accuracy and consistency of the cumulative impact analysis in the DEIR.

CSAPBA-5

- Section 5.4.3 Short Term Noise Impacts

The DEIR fails to address potential construction related noise impacts to existing residential uses located on the north side of Sunflower Avenue.

CSAPBA-6

- Section 5.4.3 Long Term Noise Impacts

The DEIR should clearly address and identify long term levels with to the existing residential uses located north of Sunflower Avenue.

CSAPBA-7

- Section 5.4.4 Noise Mitigation Program

To minimize construction related noise impacts to existing residential uses located north of Sunflower Avenue, the City of Santa requests that the proposed project comply with Santa Ana's Noise Ordinance.

CSAPBA-8

"Construction noise in or near residential areas shall be limited to the hours 7 a.m. to 8 p.m. Monday through Saturday, and not permitted on Sundays or federal holidays".

- Section 5.92 Aesthetic Project Impacts

Exhibit 5.94 indicates that the proposed 21-story building near the corner of Bristol Street and Sunflower and the proposed Expanded Orange County Performance Center near Town Center Drive and Avenue of the Arts will both cast significantly sized shadows across Sunflower. The winter shadows from these land uses would extend within close proximity of existing residential land uses located on the north side of Sunflower. Given the close proximity of these shadows, City is concerned about the accuracy of Exhibit 5.94. The City is requesting that a mitigation measure be added to the DEIR requiring that

CSAPBA-9

CITY OF SANTA ANA COMMENTS:

subsequent shadow impact analysis be prepared prior to issuance of building permits. This analysis should be based on more definitive building plans and building materials that are submitted and should specifically address shade and shadow impacts and light and glare impacts to residential uses located north of Sunflower.

Additionally, Staff is concerned about the scale of the 21-story building and potential aesthetic impacts to residential uses located on the north side of Sunflower. Staff is requesting that photo simulations be prepared depicting the views and aesthetic impacts to residential uses on the north side of Sunflower. We would also request that the photo simulations be distributed to the City of Santa Ana for review.

CSAPBA-9
Cont.

PUBLIC WORKS

General Comments

- The traffic impact analysis report indicates that intersections studied in the City of Santa Ana will be significantly impacted by the proposed project. The City of Santa Ana requests that the developer of this project pay fair share contribution toward the mitigation of these intersections. The fair share methodology must be approved by the City of Santa Ana.
- We believe a mechanism needs to be developed to coordinate all projects currently proposed in Costa Mesa and impacting City of Santa Ana streets and intersections. This includes, but is not limited to, the subject project, South Coast Plaza, Two Town Center, South Coast Metro Center/Experian, associated general plan amendments, north Costa Mesa Specific Plan and all other action related to new developments. It is recognized that the impacts of these projects/actions, individually, may not have a significant impact on Santa Ana Streets and intersections, however the cumulative impact will have significant impacts and must be addressed and programmed prior to the construction of such projects.

CSAPBA-10

CSAPBA-11

CITY OF SANTA ANA COMMENTS:

Specific Comments

- The project impact assessment does not isolate project impacts. It appears that the report defines the difference between the City's existing general plan and the City's General Plan Amendment, as the "project." CSAPBA-12

- The traffic report did not include analysis at the mid-block locations requested in our May 9, 2000 letter. CSAPBA-13
- It is unclear if existing volumes presented on Figures 2-3 and 2-4 are actual counts or calibrated/adjusted volumes. (All /volumes are presented to the nearest 10!) CSAPBA-14
- The project proposes that a number of transportation improvements in the City of Santa Ana are fully funded and constructed. This condition paints a rosier picture for the future. The majority of long-range intersection lane configurations presented on Figure 2-7 for the City of Santa Ana are not funded. CSAPBA-15
- The report significantly under estimates project impacts. Staff cannot adequately assess project impacts without complete analysis of the entire project including the current general plan portion. CSAPBA-16
- Table 3-4 indicates that the trip generation for the General Plan plus the proposed project would equate to approximately 5,140 vehicles during the morning peak hours and 6,590 vehicles during the evening peak hours. Project traffic at Santa Ana intersections (Table 3-6) appear to be nominal if compared to said trip generation. CSAPBA-17
- Figure 3-17 & 3-18 discusses "feasible improvements", but do not define what is a "feasible improvement". For example, would a feasible improvement mean restriping within existing right-of-way only, without the need to acquire additional right-of-way? CSAPBA-18
- The mitigation list summarized on Page 3-18 identifies improvements in Santa Ana as being "General Plan Improvements". The majority of these improvements are under funded. CSAPBA-19

CITY OF SANTA ANA COMMENTS:

- Appendix 'A' of the report indicates that the ICU calculation incorporates a check methodology for right turn, left turn, and shared lanes; as previously explained, the City of Santa Ana does not use this methodology. The City requested to utilize Santa Ana's methodology to assess project impacts (May 9, 2000 letter).

SANTA-20

City of Santa Ana, Planning and Building Agency

RESPONSE CSAPBA-1

An agency with some secondary authority is not a responsible agency unless the authority rises to the level of a discretionary project approval. An agency having a role in implementing mitigation measures such as street work is more likely reviewed as performing ministerial acts. Therefore, the City of Costa Mesa respectfully disagrees that the City of Santa Ana should be identified as a responsible agency.

RESPONSE CSAPBA-2

As shown below, Table 4-1, on page 4-2 of the Draft EIR has been revised to reflect the number of dwelling units to be built as part of the Armstrong Ranch project.

**TABLE 4-1
LIST OF PROJECTS ASSUMED FOR CUMULATIVE IMPACTS PROJECTS**

Project	Land Use Type	Existing Land Use	Buildout Land Use
City of Costa Mesa			
Harbor Gateway	Industrial Park	784,684 sq. ft.	999,026 sq. ft.
Automobile Club Processing Center	Urban Center Commercial	717,000 sq. ft.	967,000 sq. ft.
Metro Pointe	High Density Residential Urban Center Commercial	296 apt. 659,100 sq. ft.	296 apt. 671,600 sq. ft.
South Coast Plaza (Bristol Street)	Regional Commercial	2,195,345 sq. ft.	2,750,000 sq. ft.
South Coast Plaza (Bear Street)	Regional Commercial	643,338 sq. ft.	690,350 sq. ft.
South Coast Metro Center	Urban Center Commercial	749,289 sq. ft.	1,620,800 sq. ft.
Home Ranch	Industrial Park Medium Density Residential Office IKEA	42,495 sq. ft.	252,650 sq. ft. 464 d.u. 791,050 308,000
Sakioka Lot 1	High Density Residential	None	1,400 d.u.
Sakioka Lot 2	Urban Center Commercial	None	863,00 sq. ft.
Harbor Center	General Commercial	n/a	336,072 sq. ft.
The Village at Mesa Verde	Medium Density Residential	None	90 d.u.
City of Santa Ana			
Armstrong Ranch	Single-Family Residential	None	630 d.u.
MacArthur Place	Office, Commercial, Hotel Residential	n/a n/a	3,791,000 sq. ft. 400 d.u.
Pactel Office Tower	Office	n/a	180,000 sq. ft.
Hutton Centre	Hotel Restaurant Conference	n/a n/a n/a	240 rooms 5,000 sq. ft. 4,740 sq. ft.

Project	Land Use Type	Existing Land Use	Buildout Land Use
Lake Center	Warehouse/Industrial	n/a	101,460 sq. ft
	Medical Office	n/a	45,800 sq. ft
	Retail Commercial	n/a	17,100 sq. ft
	Restaurant	n/a	6,840 sq. ft
	Office	399,000 sf	399,000 sq. ft
Ewing Development	Industrial	n/a	280,000 sq. ft
	Retail	n/a	n/a
Lucky/Sav-on Market	Grocery	n/a	69,000 sq. ft
Food 4 Less	Grocery	n/a	51,000 sq. ft
SPS Technologies	Business Center	n/a	90,000 sq. ft
Kaiser Family Practice Center	Medical Center	n/a	80,000 sq. ft.

sq. ft. – square feet
 apt. – apartments
 d.u. – dwelling units
 n/a – not applicable
 Note: Cumulative scenario also includes projects already entitled within South Coast Plaza Town Center, but as yet unbuilt.
 Source: City of Costa Mesa, 2000

RESPONSE CSAPBA-3

This comment is noted. In order to more accurately reflect the type of land uses that are located to north of the proposed project within the City of Santa Ana the following changes have been made on page 5.1-1, fourth paragraph:

“Sunflower Avenue; multi-family residential uses (i.e., outdoor living areas fronting along Sunflower Avenue, and various commercial/retail land uses within the City of Santa Ana.”

RESPONSE CSAPBA-4

The types of land uses that are being proposed as part of the SCPTC project, while greater in height, are similar to what exists onsite within proximity to existing land uses located north of the project within the City of Santa Ana. Moreover, the general building envelope for the 21-story, 315-foot high office building located at the corner of Sunflower Avenue and Bristol Street would be similar to that of the buildings that are being demolished and replaced by this structure. Although the height of the building is being increased, this increase is not expected to result in significant compatibility impacts with land uses to the north of the project. Additionally, the design of the building and configuration of the parcel at the corner of Sunflower Avenue does not make such a building feasible within the interior of the site. Moreover, existing hotel, parking and cultural arts uses would have to be demolished for an interior building to be constructed.

RESPONSE CSAPBA-5

Your comment is noted. As provided in Response CSAPBA-2, Table 4-1 has been revised to be consistent with Table 5.2-3 of the Draft EIR. It should be noted that although Table 4-1 did not contain some of the cumulative projects (i.e., Lake Center, Ewing Development, Food 4 Less, etc.) that were identified on Table 5.2-3, the impacts associated with those developments have been adequately addressed in the Draft EIR. More specifically, Table 5.2-3 included these projects and, therefore, the cumulative traffic impacts were accurately addressed. Since the traffic modeling numbers are used in preparing the air and noise analyses, those issues were analyzed appropriately from the standpoint of cumulative projects. Lastly, cumulative impacts for the remaining environmental issue areas (e.g., hydrology and water quality; public services; employment, population, and housing, etc.) of the document have been analyzed primarily based on regional plans and studies. Therefore, since the projects identified in Table 5.2-3 that were omitted in Table 4-1 would have been included in such plans, the cumulative impacts for those issues areas were adequately addressed in the Draft EIR.

RESPONSE CSAPBA-6

The residential uses located on the north side of Sunflower Avenue are located more than 500 feet from the areas where construction will take place. At these distances noise levels are 20 dB lower than those shown on Exhibit 4 of the technical noise report. Peak noise levels will range from 51 to 76 dBA. Average noise levels will be between 5 to 15 dB lower than these levels depending on the intensity of the activity. There are intervening structures between the residential area and the construction sites. Noise levels will be reduced by these structures to a level of insignificance.

RESPONSE CSAPBA-7

Table 4 of the technical report shows that existing noise levels along Sunflower between Bristol and Main are expected to increase by 2 dB or less over the long term. The project causes 0.2 dB of this increase. A 3 dB increase is considered a significant increase. Most people will not be able to detect increases less than 3 dB. Neither the increase over the existing noise level nor the project caused increase is significant.

As discussed in the Technical Noise Report (1st paragraph of Section 2.3.2) on site activities will not result in any significant noise impacts at the residences located across Sunflower.

RESPONSE CSAPBA-8

The Santa Ana Noise Ordinance restricts construction to the same hours as the Costa Mesa Noise Ordinance, but adds a restriction of construction activities on Sundays and Federal Holidays. Construction activities within 1000 feet of the residential areas located in the City of Santa Ana MUST comply with the City of Santa Ana's Noise Ordinance and be limited to the hours between 7 am and 8 pm on Monday through Saturday, and not be permitted on Sundays or federal holidays.

RESPONSE CSAPBA-9

As part of the Master Plan approval process for the individual project-specific developments associated with SCPTC, detailed shade and shadow analysis would be required and available for review by the City of Santa Ana. To address the issue of potential aesthetic impacts to residential uses located on the north side of Sunflower Avenue from the proposed 21-story office building, a photo simulation(s) would be prepared and also made available for review by the City of Santa Ana as part of the Master Plan approval process for this component of the SCPTC project.

RESPONSE CSAPBA-10

The traffic study makes a similar recommendation that the proposed project pay fair share contributions to the mitigation of the impacted intersections. To facilitate this, the traffic study provides a calculation of fair share percentages for the proposed project.

RESPONSE CSAPBA-11

A mechanism to coordinate development in Costa Mesa with development in Santa Ana ~~is beyond the scope required for an EIR. in order to assess the cumulative impact of each City's development can be undertaken as a joint effort between the two Cities. An analysis of this scope is beyond what is required for an EIR such as this, which~~ **This EIR** addresses the impact of the individual project on cumulative conditions, not the collective impact of all cumulative projects considered together. As noted in Response CSAPBA 10, the traffic study derives a fair share contribution methodology for project impacts in a cumulative setting.

RESPONSE CSAPBA-12

The proposed project is defined as the difference between current entitlements and the General Plan. For this project site, land use shown in the City's current General Plan is either already constructed, or could be constructed under existing entitlements. Therefore, the proposed project consists of land use which is in addition to what is currently existing or entitled. Impacts of the currently entitled land use have been identified and mitigated as part of previous planning efforts (i.e., Downey Savings and Loan Headquarters FEIR, Town Center FEIR, Plaza Tower and Hotel FEIR, etc.).

RESPONSE CSAPBA-13

The locations requested in the City of Santa Ana's May 9, 2000 letter were used to determine the portion of the City included within the study area. The format of the traffic impact analysis follows the standard Growth Management Plan guidelines in which peak hour intersection analysis is preferred over mid-block ADT analysis. The analysis of mid-block locations is typically only performed when detailed intersection

volumes are not available. In this case, detailed peak hour intersection analysis was done for each of the intersections that define the links requested in the May 9, 2000 letter.

RESPONSE CSAPBA-14

The traffic volumes shown in Figures 2-3 and 2-4 which are labeled as existing peak hour intersection volumes are actual traffic counts that have been rounded to the nearest 10. In some instances, raw count data was adjusted to account for the daily fluctuation in traffic volumes. These adjustments were based on comparing the upstream and downstream volumes between adjacent intersections.

RESPONSE CSAPBA-15

The traffic study examines future conditions with the full buildout of the City's General Plan (even though such development is not now entitled) and full improvement of the City's street system. The traffic study makes no statements regarding the future City of Santa Ana transportation improvements being fully funded or constructed. It is recognized that many, if not all, of the improvements shown in the City of Santa Ana's General Plan may not be funded at this time. Because of this, each intersection which has been shown to be significantly impacted by the project has had a fair share percentage calculated and a mitigation measure proposed in which the project would pay its fair share of these improvements.

RESPONSE CSAPBA-16

A full analysis of the proposed project's impacts has been made in accordance with accepted traffic impact analysis guidelines. Impacts of currently entitled land uses and existing General Plan projections were prepared in prior planning efforts.

See also RESPONSE CSAPBA-12.

RESPONSE CSAPBA-17

Table 3-4 shows the total amount of trip generation for the project area, including the proposed project. Most of this land use is either already existing or entitled, as shown in Tables 1-1, 2-2, and 3-1. The trip generation of just the proposed project's land use is shown in Table 3-3 and is 1,203 trips in the AM peak hour, 1,051 trips in the PM peak hour and 10,001 ADT. It is this trip generation that corresponds to the project traffic shown in Table 3-6. For example, Table 3-6 shows 190 PM peak hour project trips at the intersection of Flower and MacArthur which equals approximately 18 percent of the project's total PM peak hour trip generation.

RESPONSE CSAPBA-18

Feasible improvements are generally understood to be those which can be constructed within an existing or reasonably attainable right of way. Improvements involving re-striping as well as street widening for a turning lane or minor through lane additions are considered to be within the realm of “feasible”, because they can be constructed within the existing or attainable right of way.

The traffic study acknowledges that when detailed engineering analyses of the proposed mitigation measures are performed, factors not readily apparent at this time may result in a mitigation measure being deemed infeasible at some later date. These factors include, but are not limited to, physical constraints such as existing building locations and other right-of-way constraints, which cannot be overcome. If the proposed mitigation is determined to be infeasible, appropriate alternative mitigation should be investigated at that time.

RESPONSE CSAPBA-19

It is recognized that the General Plan improvements shown for City of Santa Ana intersections are not fully funded. For this reason, fair share percentages were calculated so that the proposed project can pay its share of the improvements.

RESPONSE CSAPBA-20

ICUs for the intersections within the jurisdiction of the City of Santa Ana were calculated separately from the City of Costa Mesa locations and used the methodology of the City of Santa Ana. Specifically, City of Santa Ana lane capacities were used and the check methodology for right-turns on red capacity was not utilized as was requested by City of Santa Ana staff.

**Comments on Town Center Draft EIR
14 Aug 2000 Planning Commission Hearing**

Bruce Garlich
3401 Wimbledon Way
Costa Mesa, CA 92626
President, Wimbledon Village Homeowners Association

It is not clear to me specifically how the proposed Home Ranch environmental impacts were considered in the Town Center Draft EIR. While Section 1.5 lists Home Ranch as one of several projects incorporated by reference, it is unclear what this means. For example, Fig. 1-5 of Appendix C, Traffic Analysis, is a map of the affected area showing intersections analyzed. Not only is the intersection of Fairview Rd. and So. Coast Dr. not shown, these streets don't even appear on the map! Nevertheless, this intersection is listed elsewhere in the EIR as one having a significant traffic impact. I am similarly confused as to the derivation of traffic related Air Quality and Noise impacts for the Town Center with respect to Home Ranch.

WVHA-1

Elsewhere in the EIR, the traffic mitigation measure for Fairview Rd. and So Coast Dr. sites the same one used in the Home Ranch EIR, namely the addition of a shared second right turn lane on eastbound So. Coast Dr. As I have previously pointed out, the westbound left turn traffic on So Coast Dr. is not addressed, even though traffic generated by Town Center should be worse in that direction than traffic generated by Home Ranch.

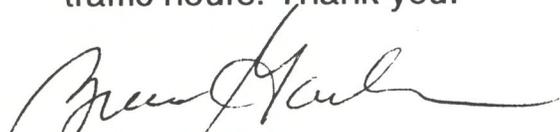
WVHA-2

A review of the March 2000 Home Ranch Draft EIR does not give any indication that it considered the Town Center Project (or many others listed in the Town Center DEIR). In other words neither of these studies appears to have properly considered the other! Both should.

DEIR MISLEADING
WVHA-3

Finally, today's Daily Pilot attributes a comment to Mayor Monahan that he didn't expect that the project would generate much controversy since it is relatively removed from residential areas. I estimate that several thousand people reside within 1-2 miles of the project, over 500 in Wimbledon Village alone. Perhaps the Mayor should reacquaint himself with North Coast Mesa- preferably by car, via So Coast Dr. and Fairview Rd., during peak traffic hours. Thank you.

WVHA-4


Bruce Garlich

3.2.5 PRIVATE ORGANIZATIONS

Wimbledon Village Homeowners Association

RESPONSE TO WVHA-1

The traffic study presents a scenario in which all potential development in the region is built out. The City of Costa Mesa’s General Plan documents the buildout land use for the area and is used as a direct input to the traffic modeling procedure. Projects such as Experian are included in this database. In addition, all known potential changes to the General Plan are included. In the case of Home Ranch, the proposed General Plan modification that was presented in 1999 for the Home Ranch site was withdrawn before the traffic analysis for Town Center was prepared. Because a new proposal for Home Ranch had not yet been brought forward by the land owner, the traffic analysis for the Town Center project had to assume the Home Ranch land use as shown in the City’s General Plan.

A new proposal for the Home Ranch site has recently become available and, therefore, a supplemental analysis was prepared which includes the new Home Ranch proposal as part of the cumulative conditions. The Home Ranch development, as proposed, would increase the number of trips by 608 in the a.m. peak hour and 876 in the p.m. peak hour over General Plan conditions. The purpose of this analysis is to give a thorough understanding of the Town Center impacts given the increase in development proposed for the Home Ranch site. The results of that analysis indicate that the Town Center project would have significant impacts at the same locations previously identified in the Town Center traffic study. No additional significant impacts would be caused by the Town Center development given the new proposal for Home Ranch. The attached tables provide the results of this supplemental analysis.

**TABLE 1
ICU SUMMARY - 2020 CUMULATIVE CONDITIONS***

INTERSECTION	W/O TC PROJECT W/O HR MITIGATION		W/O TC PROJECT W/HR MITIGATION		W/TC PROJECT W/O TC MITIGATION		W/TC PROJECT W/TC MITIGATION	
	AM	PM	AM	PM	AM	PM	AM	PM
	COSTA MESA INTERSECTIONS							
38. Fairview & Sunflower	.88	.81	--	--	.89	.81	--	--
41. Bear & Sunflower	.66	.76	--	--	.67	.77	--	--
42. Bristol & Sunflower**	.89	1.00	.84	1.00	.88	.98	--	--
45. Fairview & South Coast**	.81	1.09	.81	.87	.80	.88	--	--
48. Bristol & Anton	.53	.70	--	--	.56	.74	--	--
51. Fairview & I-405 NB Ramps	.92	.86	.82	.86	.82	.88	--	--
53. Bristol & I-405 NB Ramps	.74	.80	--	--	.80	.82	--	--
54. Bristol & I-405 SB Ramps	.67	.87	--	--	.68	.87	--	--
59. Bristol & Paularino**	.65	.90	--	--	.65	.92	.66	.89
60. Bear & SR-73 SB Ramps	.39	.57	--	--	.41	.58	--	--
62. Bristol & Baker	.72	.95	.77	.93	.79	.92	--	--
70. Bear & SR-73 NB Ramp	.54	.73	--	--	.55	.72	--	--
71. Park Center & Sunflower**	.64	.91	--	--	.72	.93	.69	.86
72. Ave of the Arts & Sunflower	.75	.59	--	--	.80	.59	--	--
73. Sakioka/Flower & Sunflower	.79	.77	--	--	.80	.81	--	--

74. Anton & Sunflower	.80	.57	--	--	.81	.58	--	--
75. Bristol & Town Center Dr	.52	.73	--	--	.53	.75	--	--
76. Ave of Arts & Town Center	.55	.51	--	--	.46	.56	--	--
77. Park Center & Anton	.37	.43	--	--	.42	.47	--	--
78. Ave of the Arts & Anton	.53	.37	--	--	.58	.42	--	--
79. Sakioka Dr & Anton	.49	.57	--	--	.52	.59	--	--
80. I-405 SB On-Ramp & Anton	.29	.67	--	--	.29	.70	--	--
SANTA ANA INTERSECTIONS								
101. Bristol & Warner	.62	.82	--	--	.62	.83	--	--
102. Main & Warner	.71	.85	--	--	.72	.85	--	--
103. Bristol & Segerstrom**	.72	1.01	--	--	.73	1.02	.69	.93
104. Main & Dyer	.71	.98	--	--	.71	.98	--	--
105. Bristol & MacArthur**	.95	.98	--	--	.97	1.02	.86	.92
106. Flower & MacArthur**	1.16	1.06	--	--	1.16	1.08	1.09	.99
107. Main & MacArthur**	1.18	1.07	--	--	1.17	1.10	1.06	1.04
108. SR-55 SB Ramps & MacArthur	.80	.63	--	--	.80	.64	--	--
109. SR-55 NB Ramps & MacArthur**	.93	.85	--	--	.93	.85	.75	.80
110. Main & Sunflower**	1.09	1.83	--	--	1.14	1.87	1.07	1.69
112. Bear & MacArthur	.74	.73	--	--	.75	.74	--	--
113. Flower & Segerstrom/Dyer	.70	.88	--	--	.72	.89	--	--
114. Hutton Centre/MacArthur	1.31	1.32	--	--	1.31	1.32	--	--
IRVINE INTERSECTION								
111. Redhill & Main	.98	.99	--	--	.98	1.00	.96	.99

* 2020 cumulative conditions includes buildout of the City's General Plan plus development of the Home Ranch site based on the information available in August 2000, plus the proposed Town Center Project.

** Identified as a location where Town Center project will provide mitigation

TC = Town Center
HR = Home Ranch

TABLE 2
LAND USE SUMMARY - SEGERSTROM HOME RANCH SITE

LAND USE TYPE	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
	IN	OUT	TOTAL	IN	OUT	TOTAL	
General Plan Land Use	771	359	1,130	421	833	1,254	10,192
Proposed Home Ranch Project	1,339	399	1,738	623	1,507	2,130	19,938
Increase	568	40	608	202	674	876	9,746

The intersection of Fairview Road and South Coast Drive is included in the traffic analysis and is shown in Figure 1-5 of the traffic study as intersection number 45.

See RESPONSE CHBPD-1.

RESPONSE TO WVHA-2

The traffic study recommends mitigation for the Fairview Road/South Coast Drive intersection that is the same as the mitigation recommended in previous studies of the Home Ranch site. The mitigation involves improvements to the intersection's eastbound approach in the form of providing a second eastbound right-turn lane (shared with an existing through lane). Even though the Town Center project adds traffic to the westbound left-turn movement, improvements to the eastbound direction benefit the westbound left-turns. Specifically, this improvement benefits the heavily utilized westbound left-turn

movement by decreasing the amount of traffic signal green time required by the eastbound direction. This mitigation results in more green time available for the westbound left-turns and improves the intersection's overall level of service from LOS "E" without the project to LOS "C" with the project and the mitigation.

RESPONSE TO WVHA-3

See Response CHBPD-1.

RESPONSE TO WVHA-4

Your comment is noted and is included in the public record for review and consideration by the appropriate decision-makers.

*Paul Flanagan, M.D.
3090 Bali Circle
Costa Mesa, CA 92626*

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

SEP 07 2000

28 August 2000

Mr. L. Michael Robinson
Planning and Redevelopment Manager
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

Re; Draft Environmental Impact Report No. 1047 and proposed amendments to 1990 General Plan and North
Costa Mesa Specific Plan

Dear Mr. Robinson,

The Town Center Master Plan contains desirable features that will improve the cultural life of our City. Unfortunately, the Program will generate "unavoidable" worsening of traffic and of atmospheric pollution. The Draft EIR, which points out this worsening, is itself a deeply flawed document because it barely skirts the real problems with traffic and pollution. The draft also fails to consider some obvious alternatives to the Program..

PF-1

Section 3 The first major flaw in the Draft EIR is the failure to consider other developments which will add to the traffic burden of the streets which are supposed to cope with the increase in vehicles resulting from the Program.

Any project that adds to the automobile trips onto and off the San Diego, Costa Mesa and 73 Freeways between Newport Boulevard and MacArthur Boulevard, or between Newport Boulevard and Euclid Street should be ignored. Any such project in Costa Mesa and in Santa Ana will add trips that should properly be considered in the assessment of traffic and pollution impacts of the Town Center Program.

PF-2

Specifically, the Home Ranch development will add to the traffic--perhaps 32,000 or more trips per day. Its sponsor is known to be working on a representation of the Home Ranch project the application for which is inevitable. To ignore the Home Ranch development merely because there is no active application on file is illogical.

PF-3

*Paul Flanagan M.D.
3090 Bali Circle
Costa Mesa, CA 92626*

What other projects are reasonably to be anticipated? The Consultant that prepared the Draft should be instructed to look around for other expected sources of traffic and pollution and—in both Costa Mesa and Santa Ana—and to use common sense in gathering all pertinent data. PF-4

Section 5.1 Merely because land uses in a General Plan are compatible with other uses in the Plan does not assure that actual build out will produce compatibility with sensible flow of traffic and insignificant pollution. Compatibility surely implies no conflict with good health and agreeable living for the neighborhoods. PF-5

Sections 5.2 and 5.3 The other major flaw in the draft EIR is the failure to consider all “reasonable” alternatives to the significant and unavoidable adverse impacts. The alternatives which were considered in the Draft are insubstantial and are such that a more forward looking Traffic Division might have suggested and installed years ago. The consultant couldn’t even think of suggesting that the diesel burning buses that transport concert and play attendees might turn off the engines when not travelling. PF-6

One possible approach to the pollution increase would be a “Smog Control Zone” in which those motor vehicles which are fourth in line or later would turn off ignitions while waiting at red lights. If one wishes to park in the structure next to the Performing Arts Center and one is coming from the southbound 405 or from route 73, standing at multiple red lights for a total of four to seven minutes is common. Then there is the slow crawl to a parking space. PF-7

Another approach—and one that will relieve traffic as well as pollution—is for the developer to coordinate with Caltrans to provide access to parking structures at the corners of the project by direct freeway on ramps and off ramps—and not merely at the ground level. From parking structure to work site or to cultural presentation could be a short walk on walkovers or even people movers. Such an approach would eliminate the four to seven minutes of idling and the in between stop and go vehicle traffic. PF-8

Similarly, coordination with the Orange County Transportation Authority to create a system attractive to both employees and audience members that would alleviate the traffic and pollution impacts. PF-9

Section 5.7 It is desirable that the sponsor of the Town Center Program is also considering a 900 residential unit development at the Home Ranch which might provide housing for the 2,324 new jobs resulting from the project. Employees need not commute and pollute. The Home Ranch is within walking distance of South Coast Plaza in good weather and when the air is healthful. PF-10

*Paul Flanagan, M.D.
3090 Bali Circle
Costa Mesa, CA 92626*

For those other times when the weather is bad or when smog renders air unhealthful, couldn't the developer find a way for those who move into the Home Ranch to travel in safety to South Coast Plaza-Town Center for pleasure or for work by **non-polluting means other than by bicycle?**

PF-11

There are plenty of persons with planning degrees and engineering degrees who could be enlisted to generate innovative, imaginative, twenty-first century approaches to the traffic and pollution problems of Orange County's cultural flagship.

PF-12

Section 307 This should indicate why adjoining cities cannot work together on a common traffic plan for major projects such as the Town Center.

PF-13

Section 309 This should tell us why circulation improvements should not be completed at or near the same time as the first element of the Program is completed so that traffic impact is minimized.

PF-14

Thank you for your consideration,

Sincerely,



Paul Flanagan.

3.2.6 PRIVATE INDIVIDUALS

Paul Flanigan, M.D.

RESPONSE PF-1

The Draft EIR for the SCPTC project provides a detailed analysis of Traffic (see Section 5.2) and Air Quality (see Section 5.3) impacts associated with the proposed project. In addition, Section 6 of the Draft EIR provides a discussion of a range of project alternatives for the proposed project. The issues are discussed in the Draft EIR in full compliance with State CEQA Guidelines and the guidelines set forth by the City of Costa Mesa.

RESPONSE PF-2

Your comment is noted. See RESPONSE CALTRANS-3 and RESPONSE WVHA-1.

The traffic study analyzes a cumulative time frame and considers all future sources of traffic generation. Specifically, the traffic analysis is based on the buildout of the City's General Plan, which includes all permissible future development. Similarly, General Plan buildout conditions for the City of Santa Ana as well as the County as a whole are incorporated into the traffic and air quality analysis for the SCPTC project. More specifically, the Home Ranch project is forecasted to add 1,000 ADT or less to the roadways in the immediate area around the Town Center site.

RESPONSE PF-3

See RESPONSE CHBDP and RESPONSE WVHA-1.

RESPONSE PF-4

See RESPONSE CALTRANS-3 and RESPONSE PF-2.

RESPONSE PF-5

In accordance with CEQA, Section 5.2, Land Use and Related Planning Programs provides a discussion of the project's compatibility with onsite and surrounding land uses. The Draft EIR analysis concluded that the project would not result in a significant land use compatibility impact. Moreover, Section 5.2, Traffic and Circulation, and Section 5.3, Air Quality, analyzed the project's impacts related to traffic and air quality. Mitigation measures were provided in these sections to reduce traffic and air quality impacts to the greatest extent feasible. Implementation of these measures, in addition to review by the City of subsequent site-specific plans (i.e., master plans) for the individual development projects within SCPTC site would ensure compatibility of the project's components with both onsite and offsite land uses.

RESPONSE PF-6

As discussed in Section 6, Alternatives to the Proposed Project, a reasonable range of alternatives was analyzed in the Draft EIR. More specifically, as stated on page 6-10, the Reduced Intensity Alternative assumes an overall decrease in 30 percent of office use in the Two Town Center and Balance of Town Center components (15% each) of the SCPTC proposed project. This reduction would result in the development of 458,500 square feet of office space compared to 655,000 square feet under the proposed project. As a result, this alternative would have less impacts than the proposed project and reduces significant unavoidable traffic impacts.

RESPONSE PF-7

A vehicle start results in the same amount of air pollutant emissions as several minutes of idling. Therefore, turning off engines for short periods of time could result in an increase in pollutant emissions if engines are only shut off for short periods of time and then restarted.

RESPONSE PF-8

It is recognized that there are potentially other more innovative ways to mitigate the impacts of the proposed project but the focus of the EIR is on known feasible improvements rather than improvements that may be more speculative in nature. Regarding a direct freeway access to parking structures, an improvement to the Town Center area, which has a similar effect, is currently proposed in the form of an off-ramp from the northbound I-405 to Avenue of the Arts. Caltrans is generally opposed to providing freeway off ramps onto private property.

RESPONSE PF-9

The Orange County Transportation Authority (OCTA) regularly evaluates the demand for bus service throughout the County. They recently implemented an entirely new route system with the intent of making the service more convenient for bus riders, including those accessing the Town Center area.

RESPONSE PF-10

With respect to requiring the project applicant to provide a non-polluting means for Home Ranch residents to travel to the SCPTC site during bad weather or unhealthful conditions, this comment is beyond the scope of the proposed project, and addresses a citywide issue. It should also be noted that while the provision of housing within a development site or in close proximity of a development site provides additional housing opportunities, it does not ensure that employees will live and work in the same location. The comments are noted and will be taken into consideration by the City's decision-makers.

RESPONES PF-11

See RESPONSE PF-10.

RESPONSE PF-12

Your comment is noted.

RESPONSE PF-13

Your comment is noted.

RESPONSE PF-14

Your comment is noted.

SANDRA L. GENIS

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT
1586 MYRTLEWOOD
COSTA MESA, CA.

SEP 05 2000

September 1, 2000

R. Michael Robinson
Planning and Redevelopment Manager
Development Services Dept.
City of Costa Mesa
77 Fair Drive
P.O. Box 1200
Costa Mesa, Ca. 92628-1200

Subject: DEIR NO. 1047, South Coast Plaza Town Center

Dear Mr. Robinson,

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the South Coast Plaza Town Center Project (SCH # 200004100). As indicated in the DEIR, the document is a Program EIR intended to address the effects of a general plan amendment, North Costa Mesa Specific Plan amendment, Town Center Master Plan amendment, and any other related approvals which would allow the development of the 54 acre project site for cultural facilities, offices, retail uses, a hotel, restaurants, and related uses at South Coast Plaza Town Center in Costa Mesa.

Approval of the proposed project will result in increased floor area ratios and trip budgets for various portions of South Coast Plaza Town Center. These floor area ratios (FARs) and trip budgets are the means by which the City of Costa Mesa provides the land use intensity standards required for general plans under Section 65302 of the California Government Code. In fact, these proposed increases would seem to be the driving force behind the proposed general plan amendment.

Unfortunately, Section 3, "Project Description", addresses the final FAR only in aggregate for the entire area, rather than subarea, without any indication of the extent to which this FAR represents an increase from either the existing general plan, which is the heart of the application, or existing physical conditions. Trip budgets are not addressed at all. One must make one's way to Section 5.1, "Land Use and Related Planning Programs", before one encounters a quantification of the proposed trip budget. It is not until Section 5.2, "Transportation and Circulation" that the trip budgets are quantified by traffic zone, rather than in aggregate.

This is reflective of the overall organization of the document, which fails to present the project description and analysis of impacts in a manner which may easily be deciphered by decision makers and the lay reader. Often, one must flip back and forth among several pages before one is certain whether a particular chart or figure represents the impact as quantified against existing

56-1

56-2

conditions or against buildout of the existing general plan. This was evidenced at the Planning Commission hearing of August 14, 2000.

56-2
cont.

Impact analyses should be presented in a manner by which one may easily discern existing physical conditions and the resulting change therefrom resulting from implementation of the proposed development, as well as existing general plan conditions and changes therefrom resulting from the proposed project. Many impacts are stated in the context of 2020 general plan buildout, yet, presumably, the proposed general plan amendment would not have been requested at this date if the applicants had no specific, pending project in mind. The DEIR must address when development is anticipated to occur and how it will be phased with anticipated public improvements and mitigation measures.

56-3

It would be necessary to address impacts of the proposed amendment in the light of existing physical conditions even if the document were only intended to address a general plan amendment. However, because the stated intent of the document is to provide environmental documentation for all project approvals, up to and including building permits, it is imperative that impacts be quantified in the context of existing physical conditions.

56-4

The ability of decision makers and the general public to adequately assess the impact of the proposed general plan amendment is further obscured by the fact that nowhere does this document address proposed amendments to the general plan and North Costa Mesa Specific Plan as they apply to the Home Ranch site, less than one and a half miles from Town Center. According to DEIR 1046 (SCH# 99081035), the proposed Home Ranch amendment would result in more than 20,000 additional trip ends than development under the existing general plan, many of them affecting the same intersections as traffic from Town Center.

56-5

It should be noted that Costa Mesa has only one general plan for the entire city which is intended to address development city wide as an integrated whole, as mandated by State law. We do not have individual general plans for each parcel, or even each area, in town. Thus, to the extent feasible, proposed amendments should be considered in aggregate, in order to address aggregate affects on the City as a whole.

56-6

In light of the fact that the Home Ranch project was scheduled for hearing within days of the public hearing on the Town Center EIR, that it involves some of the same applicants, that it involves some of the same key consultants, i.e., traffic and noise consultants, and, finally, that it is being processed by the same, limited public staff, it strains credibility to believe that the preparers of EIR #1047 were not reasonably aware of the proposed project addressed under EIR #1046, and vice versa. It is astounding that the analysis of impacts of this combined, major change in the city's general plan has been fragmented in this manner. This renders it virtually impossible for decision makers and the general public to assess the overall effect of the proposed cumulative change in the general plan.

56-7

An analysis of the aggregate impacts must be prepared in order to adequately address the environmental impacts of amending the general plan as it applies to both Town Center and Home Ranch. Further, because such analyses would be expected to be critical to decision makers and the general public in reaching decisions regarding the future general plan, it is requested that any such analyses be made available for public review at least thirty days before hearings are held

56-8

on the proposed amendment.

SG-8
cont.

In addition to these broader, systemic issues, I have the comments and questions below on the information presented. These items must be addressed in order for the DEIR to be considered adequate and to provide decision makers and the public with the information needed to evaluate the proposed project and its impacts.

SG-9

Public Review

The responses to the Notice of Preparation do not include anything from the City of Irvine. Since the City of Irvine typically responds in detail to such requests, this is puzzling. Was the City of Irvine contacted? Have they received the DEIR? Do they know the DEIR has identified impacts and proposed mitigation measures to occur in the City of Irvine?

SG-10

Project Description

The project description is the most basic and important factor in preparing an adequate EIR. An incomplete project description will render all further analyses and determinations ineffectual. It is critical that the project description be as clear, complete, and accurate as possible so that the lead agency and other responsible agencies may make informed decisions regarding the proposed project. Thus, the following must be addressed:

1. The project description indicates that 159,225 square feet of development will be demolished. This is then included in "entitled uses". However, the existing FAR for the area is currently "nonconforming" as noted in the DEIR. Please address the demolition space in the light of general plan policies regarding nonconforming development, recognizing that residential and commercial uses are treated differently as is the Metro Pointe area due to a pre-existing development agreement.

SG-11

2. Floor area ratios are not presented at any level of detail smaller than the entire Town Center planning area, although various parcels and land owners are involved. This is problematic in that the owner of an individual site developed at less than the maximum FAR permitted could later demand permission to build up to the maximum on that site. Do any such sites exist in the project area? Would any such sites exist upon approval of the proposed amendment?

SG-12

Existing and proposed FARs should be presented for each parcel or block involved in the proposed amendment. What would be the maximum FAR for a site in the area?

3. What square footage would be permitted for each area under the existing Urban Center FAR limits? How much in excess of that amount is the existing development?

SG-13

4. What is the proposed time frame for implementation of the proposed development? How will the project be phased?

SG-14

5. Do the height limits identified include mechanical equipment, screening, antennae, and other rooftop paraphernalia? From where will height be measured? Will any buildings be

SG-15

constructed on significantly raised pads?

56-15
cont.

6. How will the area dedicated to open space uses be affected?

56-16

7. What type of signage, including monument or pole signs, will be permitted?

56-17

8. What steps will be taken to ensure that trip budgets are not exceeded? If an early phase of the project exceeds the trip budget, will the allowable square footage of later phases be reduced? What has been the City's experience in monitoring trip generation after project occupancy?

56-18

9. Will permission of the Regional Water Quality Control Board be required for discharge of any groundwater potentially encountered?

56-19

Cumulative Impacts

1. The lists of other projects assumed for cumulative impact purposes presented on page 4-2 differs from that on page 5.2-15. This should be reconciled.

56-20

2. No anticipated projects are listed for the City of Irvine. Were they contacted?

56-21

Land Use

1. The proposed project should be discussed in the light of general plan policies requiring phasing of development with infrastructure improvements.

56-22

2. How will conversion of structures to alternate uses be monitored and regulated subsequent to construction? A particular issue would be conversion of the "quality restaurant" to a higher generating use.

56-23

Transportation and Circulation

1. More than in most areas of Costa Mesa, people in the Town Center/South Coast Plaza area tend to park in one area and walk between work and restaurants or restaurants and entertainment. The DEIR should address impacts on and of pedestrian circulation.

56-24

2. On what dates were traffic counts conducted for streets in the project area? Were these made on weekends or weekdays? How about holidays? Were counts made subsequent to full occupancy of the Auto Club expansion?

56-25

3. In calculating ICUs what assumptions were made regarding pedestrians and truck traffic/oversized loads? Due to the nearby retail stores a high number of large delivery trucks utilize roadways in the project area.

56-26

4. Are figures for peak hour traffic based on actual counts for peak hours or by extrapolation from daily counts?

56-27

5. What occupancy rate was assumed for the anticipated office uses? Why is the trip generation rate for offices in the DEIR lower than that used in the general plan or the Home Ranch DEIR? How is it that the DEIR shows a lower trip generation for existing development in various trip zones than the general plan analyses despite identical development assumptions? 46-27
6. Inasmuch as the bulk of project employees are anticipated to commute from elsewhere, impacts on regional traffic must be included. This should include traffic on the San Diego Freeway (I-405), the Costa Mesa Freeway (SR-55), and regional arterials serving the area. 46-29
7. As project employees seek housing in the relatively housing rich areas of Huntington Beach and Fountain Valley, how will existing river crossings be affected? To what extent will this increase pressure for an additional crossing at one of the locations currently being studied under ongoing Santa Ana River crossings studies? 46-30
8. What has the City estimated to be the cost of improvements needed to handle future traffic citywide? How much of that will be generated by the City's trip fee? How does the City's trip fee compare with the estimated cost per trip, City wide? How will the remainder be provided? 46-31
9. Is a Mello Roos District or other benefit district contemplated as was adopted for another portion of the Town Center development? This must be described and discussed. 46-32
10. What additional development is contemplated in Irvine in the project area? This must be included in the analysis of cumulative impacts. Street locations should be provided for other cumulative projects already identified. 46-33
11. While it is recognized that, in theory, development will be capped by trip rates, how will this be monitored? What about retail and restaurant uses in areas assumed to be developed for offices?
- If an early phase of development exceeds projected traffic, will later phases be reduced? What about land use changes to higher traffic generating uses? Mere payment of trip fees will not mitigate the problem if no improvements may be implemented or if the improvement will result in significant adverse impacts or in taking of land contrary to general plan policy. What has been the City's experience in maintaining the trip budget where special rates have been approved? What data exists? 46-34
12. What short term impacts will result during construction of the proposed project and adjacent improvements? Will detours be required? Will construction vehicles be on the streets during peak hours? Will roadways be under construction during peak hours? 46-35
13. What specific transportation demand management (TDM) measures will be required? It should be noted that General Plan Policy No. 161 requires that EIRs actually discuss TDMs, not just acknowledge that such things exist. What assumptions were made regarding traffic reductions, if any, due to TDMs? 46-36
14. Transit needs and design amenities for transit use should be discussed and identified in 46-37

accordance with General Plan Policy No. 160.

56-37
cont.

15. Mitigation measures identified appear to result in roadway configurations not entirely consistent with those identified in the general plan circulation element. Shouldn't the circulation element and roadway master plan be amended to accommodate these improvements?

56-38

16. Additional improvements at Paularino and Bristol appear to necessitate the taking of additional land. Potential conflicts with general plan policies regarding takings must be discussed in this regard.

56-39

17. Where roadway improvements in excess of those provided under the City's general plan circulation element are proposed, how does this affect the City's ability to utilize public funds such as Measure M funds or State funds? How does this affect the City's ability to "take" land for such roadway purposes?

56-40

18. How will development and roadway improvements be phased? If development occurs in 2001 must motorists suffer until 2020, and general plan buildout? Near term impacts must be addressed. This must be done in a manner consistent with general plan policy regarding development phasing.

56-41

19. How will mitigation measures to occur in Santa Ana and Irvine be administered? Will these be in addition to City trip fees or will credit be given for these costs against City trip fees?

56-42

20. How will improvements in addition to those already anticipated under the existing trip fee program and general plan be funded? Will improvements listed on Page 5.2-26 be provided in addition to City trip fees or will credit be given against City trip fees for these improvements? If credit is given, what would be the estimated balance?

56-43

21. Recent news stories have detailed the City's struggle to come up with its share of funding for confluence improvements, with final reports indicating that the funds would come from trip fees. What portion of trip fees currently on hand and those expected to be available in the next few years will be utilized for the confluence improvements? Will remaining trip fees be adequate to fund those improvements assumed in the traffic analyses in this DEIR? If not, how will the City fund these improvements? What are the implications for the proposed project if the improvements are not funded? Will later phases be delayed?

56-44

Air Quality

1. What will be the impact on air quality, including total emissions and potential for hot spots, due to roadway congestion resulting from project construction? This should include increased emissions due to detours as well.

56-45

2. Although there is currently no Attainment Plan for PM_{2.5}, these small particulates have been identified as a health issue. This should be addressed in the context of the proposed project and nearby uses. Of particular concern are potential agricultural chemicals which may remain in the soil.

56-46

3. How will onsite wind speeds be monitored in order to determine allowable construction periods? Although the twenty five mile per hour standard for construction during high winds is standard, in reality, lower winds often have occasional gusts exceeding the 25 mph standard and even without such gusts, nearby areas may often be covered with dust. 56-47

Noise/Vibration

1. It would be helpful if CNELs for roadway noise were mapped. 56-48

2. Will construction involve pile driving? Will any impacts occur due to noise generated at frequencies that create greater annoyance or discomfort even when below normally acceptable noise levels for other frequencies? Over what period would pile driving occur? Will this be limited as a condition of approval? What if it is exceeded, lasting for many months?

It is essential that this potential impact be fully examined. This should include estimated impacts, including impacts to structures due to vibration, and appropriate mitigation measures, up to and including temporary relocation of vulnerable residents, i.e. elderly, disabled, young children, if pile driving is to occur near residential uses. At a minimum, pile driving should be limited to weekdays after 8:00 a.m. and before 6:00 p.m. 56-49

3. Construction hours for areas near residential uses should be limited to 7:30 a.m. to 6:00 p.m. on weekdays. 56-50

4. Will equipment or supplies be delivered or debris be removed from the site before or after normal working hours? How early in the morning or late into the evening will this occur? 56-51

5. How do the noise levels calculated for nearby residential properties compare to acceptable levels under OSHA? How would the residents be affected? 56-52

6. How will the movement of heavy equipment and trucks transporting materials to and from the construction site affect noise levels along haul routes? Sensitive receptors, such as parks and residences, should be identified. 56-53

7. Was existing roadway noise modelling calibrated against actual noise measurements for these roadways? 56-54

8. If groundwater pumping is necessary, will this occur twenty four hours a day? What noise levels could be anticipated? 56-55

Earth Resources

1. Will it be necessary to pump perched groundwater? How will such pumping affect the stability of ground and structures, including public improvements, in the surrounding area? Does a subsidence potential exist? 56-56

2. Will basements or underground parking be included in the project? Will there be a need for long-term, continuous pumping? How will this affect stability of the surrounding area? 56-57

3. To what extent will pilings or caissons be required? 56-58
4. If undocumented fill is discovered to be tainted, how will these materials be disposed of? 56-59

Hydrology and Drainage

1. Graphics showing existing and planned drainage as well as drainage facilities would be helpful. 56-60
2. Please estimate the anticipated increase in runoff and discuss the ability of drainage facilities in the area to accommodate this increase. 56-61
3. The discussion of water quality should address pending TMDLs and how the project may affect attainment of those allowable loads. 56-62
4. Numerous studies have been completed regarding the anticipated quality of runoff from various surfaces. Although quantities of pollution cannot be precisely calculated, general, probable ballpark impacts can be identified for typical uses. Regional Water Quality Control and State Water Resources as well as local academic institutions may be of assistance in this regard. 56-63
5. How much perched groundwater may be discharged to surface water channels? What is known regarding the quality of water to be discharged and how will quality be monitored as water is encountered? Will an NPDES permit be required? How will the public and City officials be afforded the opportunity to review and provide input into the permit process? 56-64
6. Best Available Technology, versus the less advanced Best Management Practices, should be utilized to minimize degradation of water quality. 56-65
7. Which of the potential BMPs listed will actually be required for the proposed project? 56-66
8. How will the volume and velocity of increased runoff be minimized? What steps will be taken to reduce "peaking"? 56-67
9. If reclaimed water is utilized for on-site landscaping, what steps will be taken to ensure that there is no runoff of gray water to surface waters? What would be the impact of such runoff? 56-68

Population Employment and Housing

1. Why is the employment generation anticipated for offices at Town Center lower than that anticipated for Home Ranch in DEIR 1046? 56-69
2. What are the current Employment Development Division data regarding resident labor force, employment, and unemployment in the City of Costa Mesa? 56-70
3. How does information on types and quantities of employment in various sectors provided 56-71

in the City of Costa Mesa compare with data for employment of Costa Mesa residents?

56-71
cont.

6. What proportion of existing employment in the City falls into the extremely low, low, moderate, and middle income groups as defined by HUD and utilized in the City's Consolidated Plan as required by HUD?

56-72

7. What proportion of existing employment in the City falls into the very low, low, and moderate income groups as defined by under State law and utilized in the City's state mandated housing element?

8. What is the anticipated income profile for project employees, by Consolidated Plan category and housing element category?

56-73

9. How does the anticipated income profile mesh with available housing?

Aesthetics

1. How will views of the Performing Arts Center be affected, particularly as seen from the south?

56-74

2. How will views of existing, outdoor sculpture be affected, recognizing that the context of the installation was part of the artists' visions for the works?

Growth Inducement

1. The DEIR notes an increased demand for housing due to increased employment. This is obviously growth inducing.

56-75

2. How will the increased floor area ratios increase pressure for increased floor area ratios elsewhere in the City? This should be discussed in the light of comments from the owners' representatives demanding increased residential densities at Home Ranch due to the high densities permitted in the Town Center/Sakioka area.

56-76

Project Alternatives

The reduced development alternative is not really a reduced development alternative, but merely a less intensely increased development alternative. A true reduced development alternative would provide for development more nearly approximating that which would be permitted under existing Urban Center limits elsewhere. In fact, the existing Urban Center limits of .5/.6 could also accurately be considered another interpretation of the "no project" alternative and should be included.

56-77

Conclusion

I look forward to reviewing additional information which may be prepared or compiled as a part of this environmental review. As currently presented, the DEIR does not provide adequate information to fulfill the purposes of CEQA.

56-78

As stated in the CEQA Guidelines (Section 15003):

The EIR serves not only to protect the environment but also demonstrate to the public that it is being protected...The EIR is to inform other governmental agencies and the public generally...The EIR is to demonstrate to an apprehensive citizenry that the agency has...analyzed and considered the ecological implications of its action..."

Considering published comments by the City's mayor on August 14, 2000, indicating that he anticipated the project approval would be more or less a slam dunk, one has cause for apprehension. ~~Respectfully, it must be remembered that preparation of an environmental document should be a vital part of the decision making process, supplying decision makers with the information needed to make an informed choice. It is not merely a pile of papers one throws at a project the way one throws rice at a wedding after everyone has already said "I do".~~

Once again, thank you for this opportunity to comment.

Yours truly,



Sandra L. Genis

Sandra Genis

RESPONSE SG-1

The EIR is being prepared as a Program EIR, consistent with CEQA Guidelines 15168. As a result it is entirely appropriate to evaluate FAR on an aggregate basis within the EIR. Table 3-3 identifies the net increase in square footage relative to existing conditions. Section 6.1 describes buildout under the existing General Plan, and provides a comparative discussion with the proposed project. The revision to the vehicle trip budget is identified in Section 3 as one of the objectives of the project; this revision is appropriately quantified in Sections 5.1 and 5.2.

RESPONSE SG-2

This comment is noted.

RESPONSE SG-3

This environmental document is prepared as a Program EIR. Consistent with CEQA Guidelines 15168, the EIR evaluates a multi-faceted development program that includes resolution of various inconsistencies and non-conformities with adopted plans, various plan amendments to reinforce the site as a cultural arts center, and allows development intensities on the site to increase over a period of years. The EIR includes both plan-to-existing conditions comparisons of impacts, as well as plan-to-plan comparisons of impacts. With regard to the latter, the comparison of impacts to 2020 general plan buildout conditions is particularly important with respect to traffic and circulation impacts. This is given appropriate emphasis in Section 5.2 Transportation and Circulation.

RESPONSE SG-4

The Program EIR establishes the framework for consideration of environmental impacts of subsequent individual development applications. Such applications will undergo their own environmental reviews in light of the information presented in the Program EIR. Pursuant to such reviews, additional site specific conditions information may be necessary and additional quantification of project specific impacts may be appropriate.

RESPONSE SG-5

See RESPONSE WVHA-1.

The proposed amendments to the General Plan and North Costa Mesa Specific Plan as they apply to the Home Ranch site will be addressed in a forthcoming Draft EIR for that project. The application for the Home Ranch GPA was filed subsequent to issuance of the Notice of Preparation for the South Coast

Plaza Town Center EIR. The cumulative effects of the two projects are most appropriately considered in a forthcoming Home Ranch Draft EIR. Nevertheless, the City of Costa Mesa has undertaken a review of the combined traffic and circulation impacts of the two projects, and has identified no new substantial impacts or substantially greater cumulative impacts when both current applications are considered (see response to WVHA-1).

RESPONSE SG-6

An EIR should adequately apprise the interested parties of the true scope of the project to allow an intelligent weighing of its environmental consequences. Laurel Heights Improvement Assn. v. Regents of the University of California, 47 Cal.3d 376, 396 (1988). Where an applicant requests numerous related entitlements in implementing a project, it must deal with different components of the whole project as a single project. An agency cannot avoid studying a project's cumulative effects by preparing two or more separate environmental analyses for components of a single, larger project. Citizens Assn. For Sensible Development of Bishop Area v. County of Inyo, 172 Cal.App.3d 151, 166-169 (1985) (court set aside two negative declarations for single shopping center complex which failed to consider impact of entire project). On the other hand, if a combined EIR would distort the project description and stultify the objectives of the reporting process, two documents should be prepared. As you know, the project description is the most basic and important factor in preparing an EIR. A confusing, vague or ambiguous description would render ineffectual all further analysis and determinations.

Lead agencies do not have to speculate as to whether combining two developments into a single EIR would or would not further CEQA's purposes. CEQA, and the law construing its provisions, provides guidance to help lead agencies ascertain whether two developments are separate projects or merely components of the same project. For example, the law does not require that a single EIR be prepared for all similar projects in an area. See Christward Ministry v. County of San Diego, 13 Cal.App. 4th 31, 44-46 (1993). There, the court upheld an EIR for a proposed landfill expansion against an argument that the project at issue was not merely the expansion of one facility, but the setting of solid waste management policy on a countywide scale, and that the EIR should have analyzed the impact of the project considered with other proposed and existing solid waste projects. The court found that the description of the landfill expansion was accurate and complete, and that the EIR adequately apprised interested parties of the scope of the project, and allowed intelligent weighing of its environmental consequences. *Id.* at p. 45.

Similarly, in Leonoff v. Monterey County Board of Supervisors, 222 Cal.App.3d 1337 (1990), the Court rejected the claim that the lead agency failed to adequately consider the cumulative effects of approving a commercial center. In Leonoff, just two weeks after the County approved the use permit for the center, it granted entitlements for the development of a mini-storage facility next door, which would share a driveway and drainage easement with the commercial center. While the cumulative impact analysis should have taken the storage facility into account, the court found that the failure to do so did not render the analysis inadequate. The court also rejected the claim that by approving the two projects

separately, the agency had “artificially divided one project into environmentally insignificant pieces.” The court held that the two projects were clearly separate and the agency had already subjected both to environmental review. *Id.* at pp. 1357-58.

If the two projects in *Leonoff*, which shared a driveway and drainage easement, did not require analysis in a single CEQA document, certainly the Town Center project and Home Ranch may be analyzed in separate EIRs. These two projects are completely unrelated. They affect different geographic locations, are governed by different development standards, are submitted by different applicants, and entail completely different uses. Combining the Town Center project and the proposed Home Ranch project into a single EIR would create an extremely confusing and cumbersome project description.

The Town Center project site is comprised of mixed use, office, commercial and cultural/entertainment land uses. The project area is governed by the City’s General Plan, the North Costa Mesa Specific Plan (the “Specific Plan”), and the Town Center Master Plan (the “Master Plan”). The Specific Plan even establishes separate planning areas for the Town Center property and for the Home Ranch area. Further, the Town Center project is proposed by Two Town Center, the Performing Arts Center, and South Coast Plaza Associates -- three separate entities that have joined together as project applicants. The project applicants have proposed General Plan and Specific Plan amendments to establish a uniform FAR for the project site, and to accommodate proposed cultural, office and hotel development within the 54-acre project area. Under the proposed project, the entire site would be given the land use designation “Cultural Arts Center” which would guide the development of an art museum/academy, symphony hall, expansion of the Orange County Performing Arts Center, expansion of the South Coast Repertory Theater, and additional office, commercial and hotel uses.

The Home Ranch site is governed by different zoning designations and involves development completely unlike that proposed for Town Center. For example, development that has been proposed for the Home Ranch site includes an IKEA home furnishings retail store on approximately 16.8 acres and a combination of office, industrial and multifamily residential uses on the remaining 76.3 acres. Development of the Home Ranch site would entail amendment of the Specific Plan provisions applicable specifically to the Home Ranch planning area, as well as a General Plan amendment to permit the desired combination of retail, office, industrial and residential development. Development also entails flood control improvements that may raise environmental issues not applicable to the Town Center project area.

The fact that both the Town Center project and the Home Ranch project will seek General Plan and Specific Plan amendments does not support their combined analysis in a single environmental document. The combination of separate developments in a single EIR is appropriate where each separate development will rely upon the same set of discretionary approvals. Since the Specific Plan treats the Home Ranch property as a completely separate planning area, the approvals requested for the Town Center project would have no impact on the development permitted on the Home Ranch site.

Indeed, the Town Center project aptly illustrates the use of a “combined” set of technically separate developments into a single environmental document. Because the requested approvals would amend and otherwise affect planning documents which pertain to the entire Town Center area, the developments of the three applicants are analyzed in a single EIR.

RESPONSE SG-7

The danger of filing two separate environmental documents for the same project is that some significant impacts may be overlooked. That danger does not exist here. The Town Center Final EIR adequately describes the proposed project, and its cumulative impacts, and identifies the Home Ranch project as a “related project” whose impacts must be considered together with those of the Town Center project in a cumulative impact analysis. The Town Center project’s potential impacts all assume build out of the Home Ranch project. The traffic study is based upon a scenario where all potential development – including the Home Ranch Project – is built out. The City of Costa Mesa’s General Plan documents the buildout of land uses for the project area, and was used in the traffic modeling procedure.

The Town Center Draft EIR assumed the General Plan buildout for the Home Ranch site. The reason for the traffic study’s use of the General Plan estimates is that the proposed Home Ranch project that was presented in 1999 was withdrawn for further revision before the traffic analysis for the Town Center project was prepared. When the traffic analysis was being prepared, a new proposal for the Home Ranch site had not yet been submitted, and therefore, the Town Center’s cumulative impacts analysis had to assume development of the Home Ranch site in accordance with the General Plan. Since a new proposal for the Home Ranch site has recently become available, a supplemental analysis, which analyzes cumulative impacts in light of the new Home Ranch proposal, was prepared. Thus, the Town Center Final EIR will give a thorough understanding of the project’s impacts in light of the increase in development proposed for the Home Ranch site. The results of that analysis indicate that the Town Center project would have significant impacts at the same locations previously identified in the Town Center traffic study, and no additional impacts would be caused by the Town Center project given the new proposal for Home Ranch (see response to WVHA-1).

Similarly, the Home Ranch EIR will consider the Town Center project in its cumulative impact analysis. Before any approvals are rendered, the lead agency will be well aware of the cumulative impact of both projects. If anything, separately analyzing the cumulative impact of each project results in a greater level of analysis than if the two projects were analyzed in a single EIR.

Please also see RESPONSE to SG-6.

RESPONSE SG-8

See RESPONSE SG-6 and RESPONSE SG-7.

RESPONSE SG-9

This comment is noted.

RESPONSE SG-10

The City of Irvine was noticed on the EIR preparation. The city's comments on the Draft EIR are provided in a letter in Section 2 'Cities' (see CICDD).

RESPONSE SG-11

The Draft EIR addresses total new environmental impacts to the project site. The new impacts include the demolition and rebuilding of existing entitlement, as well as all impacts for new development. The areas to be demolished are analyzed as an entitled use as there will be no new environmental impacts from these uses other than that associated with demolition and construction.

RESPONSE SG-12

The overall maximum FAR for the entire project area will be limited to 1.77. If any expansions to a specific site are proposed that will push the overall FAR of the project area over 1.77, the project would require a General Plan Amendment and a Specific Plan Amendment. The idea is to have a maximum FAR for the entire project site, analyzing the project on an overall basis, rather than planning in a piece-meal capacity.

RESPONSE SG-13

The current FAR for the project area under the Urban Center Commercial limitations is 0.50 for retail and 0.60 for office which would allow for a maximum 1,411,344 square feet of office space. The existing development square footage is 2,801,368 square feet, which equals an approximate 1.19 FAR for the entire project area.

However, even given the existing nonconforming FAR, the 1990 General Plan does allow the addition of a 186-room hotel to the SCPTC area and a 1,000-seat expansion to the Orange County Performing Arts Center.

RESPONSE SG-14

The project applicants have not submitted a phasing plan at this time. It is anticipated that phasing will be addressed in the Development Agreements. Phasing of infrastructure improvements will be based upon need as additional project components are completed.

RESPONSE SG-15

Measurement of building heights will be subject to the Costa Mesa Zoning Code requirements. Moreover, no precise plans have been submitted to the City of Costa Mesa for individual buildings. Building height is measure from grade to the highest point on the roof, including rooftop mechanical equipment and screening.

RESPONSE SG-16

The location of the open space easements will be modified, but will not be reduced in overall acreage.

RESPONSE SG-17

Signage for the SCPTC project is subject to an existing Planned Signing Program. Any necessary improvements to the program in regards to the additional building will be addressed in a separate discretionary review and approval procedure.

RESPONSE SG-18

The established trip budgets are based upon the individual property owner requests for specific land uses. For a majority of the proposed uses trip generation rates are obtained from the Institute of Transportation Engineers (ITE), 6th Edition and/or the San Diego Association of Traffic Generators. For museum and theater uses, trip generation is based on a conservative assumption based on discussion with City staff. Trips for actual construction will use the same rates and actual development totals by use type. Trips budgets will not be exceeded, so long as the calculated trip generation potential for all of the proposed uses and building areas do not exceed the final approach values. Ongoing compliance is monitored during the review of individual buildings and uses as a part of the subsequent master plan process. In the event that any change in the project description occurs later in the implementation process for the project that would potentially increase traffic generation rates, the appropriate analysis would be prepared, as part of further CEQA review.

RESPONSE SG-19

Although it is unlikely that groundwater will be encountered based on available depth to groundwater information, an NPDES permit(s) would be required from the California Regional Water Quality Control Board if groundwater is encountered during construction of the project

RESPONSE SG-20

See RESPONSE CSAPBA - 5.

RESPONSE SG-21

The Notice of Preparation and the Draft EIR was made available to the City of Irvine and responses from the City on the Draft EIR have been received and included as part of this Response to Comments document. The City of Irvine has not identified any additional projects for cumulative consideration.

The cumulative conditions that form the basis of the traffic study include the buildout of each City's General Plan land use (including the City of Irvine). The cumulative projects listed are all located within the study area defined in the traffic study. The effects of cumulative projects outside the immediate study area are represented in the General Plan traffic forecasts.

RESPONSE SG-22

A specific phasing timetable for individual projects has not been identified. Each project will need to be evaluated based on the availability of infrastructure.

RESPONSE SG-23

Each individual development project will be regulated pursuant to the Codes of the City of Costa Mesa, and monitored consistent with the Mitigation Monitoring and Reporting Program to ensure proper monitoring for such instances where conversion of structures to alternate uses may take place.

Please also see RESPONSE SG-8.

RESPONSE SG-24

It is recognized that the proposed project will increase the amount of pedestrians in the area, and an extensive network of off street pedestrian facilities, including an overcrossing of Bristol Street now exists. Signalized intersections in the project area also permit at-grade movements with few limitations. The project is not proposing to eliminate or modify the current pedestrian facilities.

RESPONSE SG-25

Traffic counts from 34 different intersections were utilized in the traffic analysis. The majority of these counts were collected in 2000 with the exception being two locations in the City of Santa Ana which were counted in 1999 and two minor intersections in the City of Costa Mesa which were collected in 1998 and adjusted to represent 2000 conditions based on the 2000 counts collected at adjacent intersections. All

traffic counts were collected on a weekday during the AM and PM peak hours since that is when the highest volume of traffic occurs. No traffic counts were taken on weekends or holidays since the traffic generation of the proposed project will be significantly less on those days than it is on a typical weekday.

RESPONSE SG-26

The ICU calculations assume a typical mix of trucks and passenger vehicles. An area of this type does not experience a higher than average percentage of truck traffic even with the large amount of retail activity nearby. While it is true that the large retail centers attract a large number of delivery trucks, in the aggregate, they typically represent fewer than 1 to 2 percent of the total traffic during the peak traffic hours.

RESPONSE SG-27

The figures for peak hour traffic are from actual counts taken during the peak hours and are not merely extrapolated from daily counts.

RESPONSE SG-28

The trip generation rates used for the proposed office uses are derived from hundreds of actual studies performed throughout the United States and compiled by the Institute of Transportation Engineers (ITE). Therefore, the occupancy rate represents an average of the actual occupancy present at the time each of the case studies were performed and can be considered typical for an office building. The trip generation rate used in the Town Center traffic study is from the most recently published ITE Trip Generation Manual (6th Edition) and differs from the rates used in previous studies such as the Home Ranch traffic study and the City of Costa Mesa's previous General Plan traffic study (4th Edition). The City's traffic model has recently been updated to include the 6th Edition ITE trip rates and these rates are being used in all current planning efforts within the City.

RESPONSE SG-29

The amount of project generated traffic added to regional facilities such as I-405 and SR-73 represents less than 1 percent of the total traffic on the facility and does not constitute an impact at those locations, based on congestion management plan (CMP) criteria.

RESPONSE SG-30

The amount of project generated traffic added to the Santa Ana River crossings represents less than 1 percent of the total traffic on the facility and therefore has an insignificant effect on the need for future river crossings.

RESPONSE SG-31

The last comprehensive study of improvements needed and its relation to trip fees was conducted in 1998. A new traffic impact fee study will be conducted in the current fiscal year following completion of the General Plan update. The City Council considers recommendation from the study and input from citizens in determining the traffic impact fee structure. At present, the developers are charged for mitigation of their direct impact through the trip fee program. The trip fee program is based on a direct nexus relationship between the impact and mitigation costs citywide. Currently, the most critical improvements envisioned over the next seven year have been funded with the trip fees as well as with grants from the OCTA, state and federal agencies. Any other mitigation required beyond the General Plan allowed levels will be the responsibility of the developer in terms of further funding.

RESPONSE SG-32

There is not proposal to adopt a Mello-Roos District for the SCPTC project. A mitigation monitoring program will be developed for this project which correlates a mitigation implementation schedule with project development. The improvements beyond General Plan and outside City jurisdictions are the responsibility of the developer.

RESPONSE SG-33

See RESPONSE SG-21.

RESPONSE SG-34

For a majority of uses on site, the trip generation was based on standard rates developed by the Institute of Transportation Engineers and documented in their *Trip Generation*. For uses such as the Orange County Performing Arts Theater and museum, conservative assumptions were made estimating the number of trips. Therefore, if the proposed development does not deviated room the land uses assumptions in the EIR, the trip generated will not be exceeded. Retail and restaurant uses that complement office uses seldom generate regional trips specific to that site. If stand-alone retail or restaurant uses are proposed in addition to the proposed development, they will require a separate approval process.

As long as the proposed development thresholds are not exceeded, there are no restrictions to when and how the land uses are developed. If a land use is changed to higher traffic-generating use, a corresponding decrease in the overall project size will need to occur to maintain the trip budget. If the trip budget were to be exceeded, new approvals will be required from the City.

Th City of Costa Mesa conducts annual monitoring of intersections throughout the City. As needed, improvements are implemented such that all intersections operation at acceptable levels of service.

These improvements will not worsen traffic conditions. Regarding special rates, a monitoring of trip generation is conducted when the assigned trip generation rates are unusually low due to development characteristics. A monitoring of trip generation for this project is not proposed as the assigned rates are conservative and are not discounted.

RESPONSE SG-35

Construction of the proposed project as well as construction of offsite improvements would require construction vehicles to use public roads in the area. The City has discretionary powers to control construction activities, including traffic generated by construction vehicles, and may place limits on construction times and locations.

RESPONSE SG-36

The City's Transportation Demand Management (TDM) (as they relate to specific traffic reduction targets) Ordinance will be applied to new SCPTC development as a standard condition of approval. The Draft EIR traffic study does not assume the implementation of TDM measures in order to provide a worse case traffic impact analysis.

RESPONSE SG-37

Transit service for the project site is at the sole discretion of the Orange County Transportation Authority (OCTA). Designs for transit amenities such as bus bay turnouts would be developed as specific development plans for the project are submitted to the City

RESPONSE SG-38

Each of the intersections identified to be significantly impacted by the project can be mitigated in a manner consistent with roadway configurations listed in the City's General Plan. All intersections can be mitigated with improvements that remain within the total number of lanes outlined in the General Plan. What may appear to be different are in fact, only the striping requirements.

RESPONSE SG-39

The proposed southbound right-turn lane at the intersection of Bristol Street/Paularino Avenue could potentially require additional right-of-way at that location. Alternative mitigation has been developed in the form of a second northbound left-turn lane which could be implemented in lieu of the southbound right-turn lane. The second northbound left-turn lane can be implemented without requiring any additional right-of-way and would fully mitigate the impacts of the proposed Town Center project when used in conjunction with the previously recommended improvements to the intersection's westbound approach.

RESPONSE SG-40

The City's ability to acquire and utilize State transportation funds and Measure M funds is not affected by the proposed mitigation measures. The City must remain consistent with the County's Master Plan of Arterial Highways to obtain these funds and this consistency is maintained with the proposed mitigation.

RESPONSE SG-41

The City annually monitors both development and traffic volumes and as part of the Capital Improvement Program and can advance or delay improvements according to need. Furthermore, improvements will be phased in accordance with demonstrated need, consistent with General Plan policy and the discussion in the EIR on page 5.2-25 with regard to the City's Annual Development Phasing and Monitoring Report.

RESPONSE SG-42

See RESPONSE CSAPBA-11

RESPONSE SG-43

The mitigation measures which are in addition to the long-range intersection configurations shown in the City of Costa Mesa's General Plan are the full responsibility of the project. It is not proposed that any credit be given against the trip fee because of these additional improvements.

RESPONSE SG-44

The City has budgeted most of the available funds in its trip fee account toward the upcoming freeway local access improvements. It is also envisioned that additional funds from the trip fee account would be used for funding of the City's share of freeway local improvements. This, however, does not affect the City's commitment towards other improvements required over the next several years. As part of the City's ongoing Development Phasing and Performance Monitoring Program (DPPMP), the City collects and analyzes traffic data throughout the City and prioritizes the improvements needed. At present, all the required improvements have been funded through trip fees and grants from OCTA, and state and federal agencies.

The General Plan analysis for year 2020 assumed several intersection improvements, which were identified for buildout conditions as part of the General Plan process. As noted above, the City conducts annual review of operating characteristics of all intersections, and those requiring improvements are prioritized and funded. Additional improvements are not required by the City for the SCPTC site as set forth in the General Plan, and the project applicant would fund any other improvements.

RESPONSE SG-45

Major roadway obstructions are not expected to be a part of construction of the project. Limited short-term obstructions could occur in areas away from sensitive receptors (i.e. residential areas). It is very unlikely that construction will result in hotspots in residential areas. Total emissions would not be significant.

RESPONSE SG-46

Currently there are no standards to measure PM2.5 emissions and methodologies to estimate these emissions are being developed. PM2.5 (particulate matter with a size of 2.5 micrometers or smaller) is a subset of PM10 (particulate matter with a size of 10 micrometers or smaller). Mitigation measures to reduce PM10 emissions will also be effective on reducing PM2.5 emissions.

RESPONSE SG-47

The exact method of measuring onsite wind speed has not been determined. Wind speed measurements will need to comply with South Coast Air Quality Management Districts Rule 403. Note that Rule 403 effectively requires cessation of grading operations when wind gusts (i.e. the maximum instantaneous wind speed) exceed 25 miles per hour.

Compliance with South Coast Air Quality Management Districts Rule 402 requires;

“A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”

Nearby areas covered with dust would be considered a “a nuisance or annoyance to any considerable number of persons or to the public” and would not be in conformance with Rule 402.

RESPONSE SG-48

This is not required by CEQA. CNEL contour maps are generally only prepared for project site areas to illustrate on site impacts and required mitigation measures. Distances to the noise contours are presented in the technical report.

RESPONSE SG-49

It has not been determined if pile driving will be required for the proposed project. Pile driving can generate significant noise levels in terms of annoyance. Except for areas directly adjacent to the pile drivers (i.e. less than 75 feet) hearing damage is not an issue.

Pile driving can also generate ground-borne vibration that may be detectable at nearby residences. This vibration is typically only an annoyance issue and does not result any structural damage except in very unusual circumstances.

In recent years, alternatives have evolved to pile driving including pile vibrating and pile drilling. These alternatives result in much lower noise and vibration levels than pile driving. However, these alternatives are not available for use all situations.

If pile driving is required, the only practical way to mitigate the noise and vibration is to limit the hours of operation. However, it should be noted that limiting the hours of operation can result in a longer duration (number of days) that pile driving is required. Typically, pile driving is not limited in hours of operation any more than other construction activities. See Response SG-50 for more discussion regarding construction hour limitations.

RESPONSE SG-50

The City of Costa Mesa has established that “construction equipment, vehicles, or work between the hours of 7:00 a.m. and 8:00 p.m., provided that all required permits for such construction, repair, or remodeling have been obtained from the appropriate City departments” is excepted from the provisions of the noise ordinance (Costa Mesa Municipal Code Section 13-279). With this the city has established limits on the hours of noise generating construction activities deemed to be acceptable for the for the entire City of Costa Mesa. While the City does have the option of further limiting the construction hours for this project, there do not appear to be any outstanding circumstances that require it for this project.

Please also see RESPONSE CSAPBA-8.

RESPONSE SG-51

Specific scheduling of construction activities has not been established. Any on site activity during construction must comply with the City’s Noise Ordinance outside the hours of 7:00 a.m. to 8:00 p.m.

RESPONSE SG-52

Community noise standards are much more stringent than OSHA standards in terms of allowed noise levels. OSHA standards are primarily designed to address hearing conservation and ear damage while

community noise standards are designed to address annoyance. OSHA noise exposure limits are presented in Table 1.

**TABLE 1
OSHA NOISE EXPOSURE STANDARDS**

Duration (Hours Per Day)	Level (dBA)
8	90
6	92
4	95
3	97
2	100
1-1/2	102
1	105
1/2	110
1/4 or less	115

Table 1 shows that, under OSHA standards, a worker can be exposed to noise levels of 90 dBA for up to 8 hours a day and a maximum noise level of 115 dBA. The City of Costa Mesa Noise Ordinance limits maximum noise levels at residential areas to 75 dBA during the daytime. Therefore, noise levels associated with the operation of the project will not even approach OSHA limits.

The peak construction noise levels at the nearest residential areas (excluding pile driving) are estimated to be 86 dBA. While this approaches the OSHA 8-hour standard, this noise level will only be experienced at the nearest residences for short periods as pieces of heavy grading equipment passes near the homes. Most of the time construction noise levels will be less than 70 dBA. This is more than 20 dB lower than the OSHA 8-hour standard.

RESPONSE SG-53

Construction noise impacts mitigation requires that haul routes should be steered away from residential areas. The roadway in the vicinity of the project with the lowest traffic volume and adjacent residential areas is Avenue of the Arts. It would take more than 800 heavy trucks per day to raise the CNEL level by 3 dB. Along Sunflower it would take more than 2,600 heavy trucks per day to raise the CNEL level by 3dB. Noise levels along haul routes will not significantly increase during construction.

RESPONSE SG-54

Calibration of the noise model with measurements is not required. The FHWA noise model with Caltrans' Calveno source noise curves has been used for many years with a great degree of accuracy and agreement with measured levels. To fully calibrate the model 24-hour measurements with concurrent

traffic counts would be required along all of the roadway segments modeled. This would only calibrate the model at the location where the measurement was taken rather than all along the roadway segment for which contours are being generated.

The only portion of the study other than the contour tables that would be affected by a calibration of the noise model is the analysis of long term on site impacts (Section 2.4). Calibration of the noise model has never been required for this type of analysis. The noise level increases presented in Table 4 and A-4 of the Noise Assessment would not be affected by a calibration of the noise model. The calibration would be canceled out as the noise levels being compared are subtracted.

RESPONSE SG-55

Due to the depth of groundwater on the project site, no groundwater pumping is expected to be required for development of this project. Therefore, the SCPTC project would not affect the stability of the ground or structures and public improvements as a result of subsidence. See Response SG-19 and Response SG-56 for information if, by a remote chance, groundwater is encountered onsite.

RESPONSE SG-56

Dewatering of perched groundwater may be necessary if subterranean structures extend below the current groundwater level. As discussed in Section 3.5, pumping of the perched aquifer or the regional aquifer could cause subsidence on the site and in adjacent properties, as well as public improvements. Subsidence due to groundwater withdrawal can be mitigated by limiting subterranean structures to above saturated zones, and limiting the area and extent of dewatering with groundwater cutoff structures, such as sheet piling or slurry trench methods.

RESPONSE SG-57

If subterranean structures extend significantly below the saturated zone, long-term dewatering may be necessary to prevent seepage from entering building spaces. This can be mitigated by avoiding subterranean structures below the saturated zone, or by limiting the amount of dewatering necessary to preclude potential subsidence to a tolerable level. Passive dewatering is preferable to an active (pumping) dewatering system.

RESPONSE SG-58

Deep foundations, such as driven piles or drilled piers will most likely be used for heavily loaded, multi-story buildings such as mid- or high-rise structures, or multi-story parking structures. It may be possible to support lightly loaded single story buildings on shallow footings.

RESPONSE SG-59

If undocumented fill soils are found and are contaminated, these could be hauled offsite to be treated or disposed of in accordance with applicable federal, state, and local regulations.

RESPONSE SG-60

The SCPTC EIR has been prepared as a Program EIR with very limited site specific details. Therefore, the actual amount of runoff and site-specific drainage designs for future development on the SCPTC site is not available. However, at such time, these plans would be reviewed by City staff for conformance with applicable provisions of the County's Drainage Area Management Plan (DAMP) and City of Costa Mesa standards and guidelines for drainage facilities.

RESPONSE SG-61

See RESPONSE SG-60.

RESPONSE SG-62

Pending Total Maximum Daily Loads (TMDLs) proposals will be subject to public review and revisions in the coming months. Once the proposals are finalized, it is anticipated that the countywide NPDES Permit Program would incorporate the TMDLs and require the appropriate Best Management Practices (BMPs) to ensure compliance by future development projects. Until TMDLs have been adopted, it would be speculative to determine how the proposed project might comply.

RESPONSE SG-63

Your comment is noted. See RESPONSE SG-60.

Additionally, BMPs are required under the countywide NPDES program for the proposed project and would include such items as fossil filter catch basin inserts, and grease litter traps. As indicated in the Draft EIR, an approved SWPPP and NPDES permit are conditions that must be met prior to issuance of a grading permit for the SCPTC project.

RESPONSE SG-64

The amount of perched groundwater that might discharge from development of the project site cannot be determined in advance of actual excavation for specific uses. Similarly, the quality of the perched water is unknown. A discharge permit will be required from the CRWQCB prior to initiation of any discharges. The permittee will be required to provide water quality information as part of the permit process, as well as reporting the quality of discharges during the discharge period. Issuance of a discharge

permit is required prior to issuance of a grading permit for new development on the project site. The public will be notified of the pending issuance of the discharge permit by the CRWQCB in accordance with the notification policies set forth by the CRWQCB and in accordance with CEQA Guidelines.

RESPONSE SG-65

Best Available Technology is not a requirement of the NPDES program. Specific proposed measures to protect receiving water quality are reviewed individually by the County during the NPDES permit process. Some BMPs constitute Best Available Technology (i.e., use of fossil filter catch basin inserts) and are being incorporated into SWPPP and NPDES permit requirements to ensure adequate water quality protections

RESPONSE SG-66

It is not possible to determine which of the BMPs will be included in the NPDES permit for development of the SCPTC project. The County in its review of the SWPPP and NPDES documentation makes that determination.

RESPONSE SG-67

The volume of runoff from the development site can be reduced somewhat by landscaping features of individual projects. Volume of runoff is less of a concern than the velocity of the runoff generated by a site. Standard practice in civil engineering hydrology is to reduce the rate of discharge from a developed site to conform to the rate of runoff when the site was undeveloped. Engineers accomplish this reduction through the design and routing of onsite storm drain systems which, in effect, slow the rate of runoff discharged from the site. Retention facilities and catch basins are also used to slow the rate of storm water discharge. Together, these factors achieve reduction in peak flows from a developed site during a rain storm. The City of Costa Mesa and the County of Orange Flood Control District are responsible for reviewing the storm drain plans and ensuring that storm water discharges from the site meet applicable engineering requirements.

RESPONSE SG-68

It is not clear as to whether reclaimed water will be used for irrigation of landscaping on the project site. The City is responsible for reviewing irrigation system design and inspecting installation and operation of such systems. Improperly operated irrigation systems can discharge reclaimed water into the storm drain system, which drains into regional storm water facilities and ultimately into the Pacific Ocean. While specific studies have not been conducted on the water quality impacts of excess irrigation with reclaimed water, the nutrients in reclaimed water can cause algae blooms and related water quality effects. However since the acreage of the SCPTC project site is relatively small in comparison to the drainage area that

discharges to the regional system, any excess landscape irrigation water discharges from the project site would not be significant.

RESPONSE SG-69

The generation rate utilized in the SCPTC Draft EIR for office uses is the rate given in the City of Costa Mesa General Plan of 1 employee per 300 square feet. The Home Ranch Draft ER cited 1 employee per 250 square feet.

REPONSE SG-70

According to the U.S. Bureau of Labor Statistics (page 15), the Costa Mesa Labor Force Trends, for 1999 (annual average through July 1999) is as follows:

Labor Force::	66,781
Employment:	65,172
Unemployment:	2.4%

RESPONSE SG-71

The four largest occupations in the City of Costa Mesa are: 1) administrative support- 16.6 percent; 2) executive and managerial- 16.2 percent; 3) sales- 14.9 percent; and 4) professional specialty- 14.3 percent. Other significant occupations include services and precision production and craft. The unemployment rate for 1999 is 2.4 percent with a labor force of 66,781 persons. There has been a steady decrease in the unemployment rate since 1993 (5.9 percent) until current (1999) (2.4 percent) (source: Costa Mesa Housing Element).

RESPONSE SG-72

The proportion of households in the city which fall into the extremely low, low, moderate, and middle income groups are identified by HUD and are used in the City's Consolidated Plan as follows:

HOUSEHOLDS BY INCOME GROUP (1999)

Income Group	Percent of County Median	Income Range (\$)	Percent of Market's Households
Extremely Low Income	less than 30%	Less than \$20,490	14.9%
Low Income	31% - 50%	\$20,491 - \$34,150	15.0%
Moderate Income	51% - 80%	\$34,151 - \$56,640	23.4%

Middle Income	81% - 95%	\$54,641 - \$64,885	9.6%
Above Middle Income	Greater than 95%	Greater than \$64,885	37.2%
Source: City of Costa Mesa Consolidated Plan.			

The proportion of households in the City which fall into the very low, low, and moderate income groups as defined by the state and are used in the City's General Plan Housing Element are as follows:

HOUSEHOLDS BY INCOME GROUP (1999)

Income Group	Percent of County Median	Income Range (\$)	Percent of Market's Households
Very-low	less than 50%	less than \$34,150	30.3%
Low	50%-80%	\$34,150-\$54,640	23.4%
Moderate	80%-120%	\$54,641-\$81,960	21.7%
Above-moderate	greater than 120%	greater than \$81,960	24.6%
Source: 1990 Census; National Decision Systems, 1999; Costa Mesa Housing Element			

RESPONSE SG-73

See RESPONSE SG-72. As identified in the Draft EIR, no specific occupational categories are identified for the SCPTC project being that the document is a Program EIR and does not contain such site-specific details. Therefore, income profiles of project employees by Consolidated Plan category and housing element category cannot be determined at this time. Hence, it is difficult to determine how these incomes would relate to available housing within the City.

RESPONSE SG-74

Implementation of the proposed project would not affect the overall visual character of the Town Center area. The project would develop similar land uses at similar scales to what currently existing on the project site. To ensure these views would not be effected by the project, The City of Costa Mesa would be responsible for the review of building plans for individual structures as they are submitted to the City for building permits. In conjunction with the reviewing of the final Master Plans for individual buildings, a more detailed viewshed analysis will be required.

RESPONSE SG-75

Your comment is noted.

RESPONSE SG-76

Your comment is noted.

RESPONSE SG-77

Section 6 of the Draft EIR provides for a reasonable range of alternatives to the proposed project. This includes the CEQA mandated “No Project” alternative, No Project/No Development Alternative, a Reduced Intensity Alternative, and an Alternative Location. In accordance with the CEQA, the basis for analyzing the Reduced Intensity Alternative is to provide a potentially feasible alternate development scenario to the proposed project that would reduce significant impacts that would occur under SCPTC project. As stated on page 6-10, the Reduced Intensity Alternative assumes an overall decrease in 30 percent of office use in the Two Town Center and Balance of Town Center components (15% each) of the SCPTC proposed project. This reduction would result in the development of 458,500 square feet of office space compared to 655,000 square feet under the proposed project. As a result, this alternative would have less impacts than the proposed project and is considered environmentally superior.

RESPONSE SG-78

This comment is noted. However, many of the comments and questions in this letter do not reflect on the adequacy of the DEIR. The EIR has been prepared as a Program EIR to provide sufficient information to support the discretionary approvals sought at this time. Individual projects that may be proposed within SCPTC will undergo their own environmental reviews, and additional environmental documentation can be anticipated.

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

August 30, 2000

2000 31

R. Michael Robinson
City of Costa Mesa Planning Manager
77 Fair Drive
Costa Mesa

RE: Town Center EIR

Dear Mr. Robinson,

My comments are simply those I brought up in the public hearing a few weeks ago. Most importantly, that the City needs to have all the information presented at one time to consider the impact of this project in context with other proposed and possible development in the area. The largest of course will be Home Ranch, but there is also the Experian project, and perhaps others I have not heard about.

RL-1

Second, in areas where an impact is deemed not significant, but there clearly is some measurable impact, how close is it to being significant? Added to the impacts of other proposed and existing projects, how significant will it be? What is the significance level of all the development on the whole area? I don't know the whole technical vocabulary, but I hope you can see what I am getting at here. As I said at the hearing, impacts are CUMULATIVE & incremental—how much development can take place before each impact under discussion becomes significant in measure?

RL-2

My additional comment has to do with the quality of this document. I don't have a lot of experience with this type of document, but compared to the Home Ranch EIR, I found this one much harder to follow. The Home Ranch EIR seemed to me to be laid out more logically, organized in a more accessible way and it was easier to find my way around in it. It presented more information, yet to me was easier to understand. I had a little trouble with the traffic generation figures too, as they seemed to be different from ones used in the H.R. EIR.

RL-3

Sincerely,

Robin Leffler
3025 Samoa Place
Costa Mesa, CA 92626

Robin Leffler

RESPONSE RL-1

See RESPONSE CALTRANS-3, RESPONSE CHBDP-1, RESPONSE WVHA-1, RESPONSE SG-6, RESPONSE SG-7, RESPONSE SG-34, and RESPONSE SG-45.

RESPONSE RL-2

According to Section 21068 of the State CEQA Statutes, a significant impact means a substantial, or potentially substantial, adverse change in the environment. In concert with the City of Costa Mesa and standards and guidelines set forth by other agencies and organizations that provide oversight pertaining to specific issues addressed in the environmental document, the Draft EIR provides for thresholds of significance for both project and cumulative project-related impacts. These thresholds are the standards against which a project is measured to determine whether it has to a significant project or cumulative impact. The purpose of the Draft EIR is not to decide how much development can take place before an impact is significant, rather the document is a tool that provides the public information regarding a projects impacts on the environment.

RESPONSE RL-3

Your comment is noted and is included in the public record for review and consideration by the appropriate decision-makers.

3.2.7 PLANNING COMMISSION PUBLIC HEARINGS/STUDY SESSIONS

PLANNING COMMISSION PUBLIC HEARING (AUGUST 14, 2000)

Chris Fewell

RESPONSE CF-1

The City's traffic model was used to distribute project trips for all time periods. Figures 3-7 and 3-8 of the traffic study illustrate the net change in peak hour traffic due to the inclusion of the proposed project in buildout conditions.

RESPONSE CF-2

The General Plan includes the existing FAR plus the two previously approved entitlements of the 186-room hotel and the 1,000-seat expansion to the Performing Arts Center. The McCarthy Cook project on Anton Boulevard and Avenue of the Arts was also included in the General Plan buildout conditions for the project as it relates to traffic.

Please also see RESPONSE OCTA-2.

Katrina Foley

RESPONSE KF-1

Your comment is noted. See RESPONSE PF-6.

As stated in Section 6 of the Draft EIR, the Reduced Intensity Alternative would result in fewer impacts on the environment than the proposed project due to the decrease in development on the project site under this alternative. More specifically, the Reduced Intensity Alternative would reduce significant unavoidable traffic impacts. Although the No Project Alternative (buildout of the site under the Current General Plan land use designations) would have fewer impacts than the proposed project, CEQA requires that an environmentally-superior alternative be identified from among the other alternatives (Guidelines Section 15126.6 (e)(2))

RESPONSE KF-2

In preparing the Draft EIR for the SCPTC project, there were apparent factors that render the site undesirable for residential development. Many of these factors related to the incompatibility of the project with the adjacent freeway and flood control channel uses. Moreover, due to the existing plan and buildout of the project area, limited residential would have had to be "shoe-horned" into an office or parking complex and isolated from other complementary uses. Urban residential uses must be in a

pedestrian-friendly, 24-hour environment. The SCPTC project is isolated by a six to eight lane surface street and freeway circulation systems and, with the exception of restaurants, there are no residential services within walking distance of the project. Hence, such uses are infeasible for the SCPTC project site. Additionally, there are existing vacant properties, such as the Sakioka properties to the east of the site that are zoned for residential uses and can support a comprehensive residential development.

Bruce Garlich

RESPONSE BG-1

See RESPONSE CHBPD and RESPONSE WVHA-1.

RESPONSE BG-2

See RESPONSE WVHA-2.

Robin Leffler

RESPONSE RL-1

See RESPONSE RL-1, RESPONSE RL-2, and RESPONSE RL-3 under Section 3.2.6, Private Individuals, of this Response to Comments document.

Sandra Genis

RESPONSE SG-1

See RESPONSE SG-10.

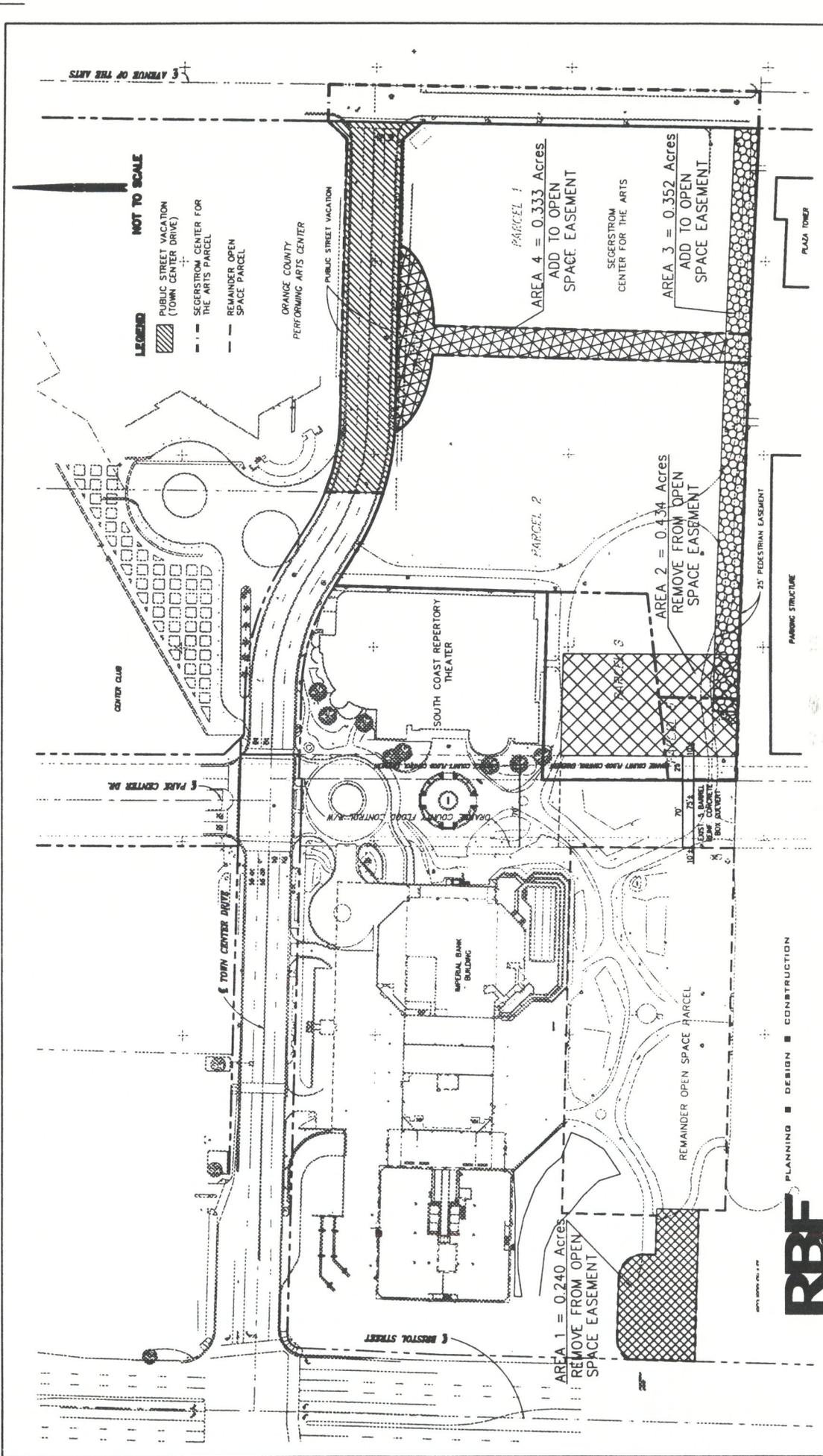
RESPONSE SG-2

As part of the SCPTC project, the open space easement would be slightly modified (see attached August 31, 2000 exhibit). However, this modification would add approximately 0.1-acre to the existing open space easement. Therefore, the SCPTC project is expected to have a beneficial affect on the open space easement within the Town Center area.

RESPONSE SG-3

See RESPONSE SG-38 and RESPONSE SG-39.

RESPONSE SG-4



**SEGERSTROM CENTER FOR THE ARTS
OPEN SPACE AREA EXHIBIT**

AUGUST 31, 2000

RBF
CONSULTING

PLANNING ■ DESIGN ■ CONSTRUCTION

14725 ALTON PARKWAY
IRVINE, CALIFORNIA 92618-2027
949.472.3505 • FAX 949.472.8373 • www.RBF.com

The City has reviewed the traffic mitigation measures required as part of the SCPTC project and has determined that no significant impacts would result from the implementation of such measures. If, upon implementation of the mitigation measures, conditions were to have changed that would result in a significant impact to occur, subsequent environmental documentation would be required to implement said measures.

Please also see RESPONSE SG-39.

RESPONSE SG-5

See RESPONSE SG-77.

RESPONSE SG-6

See RESPONSE CHBPD-1 and RESPONSE WVHA-1.

RESPONSE SG-7

See REPONSE SG-4 Through RESPONSE SG-8.

Paul Kelly

RESPONSE PK-1

See RESPONSE SG-72.

RESPONSE PK-2

See RESPONSE ALUC-1.

Paul Flanigan

RESPONSE PF-1

See RESPONSE PF-1 Through RESPONSE PF-14 under Section 3.2.6, Private Individuals, of this Response to Comments document.

Bob Graham

RESPONSE BGR-1

Your comment is noted and is included in the public record for review and consideration by the appropriate decision-makers.

Tom Sutro

RESPONSE TS-1

The City requested the project applicants to research whether or not there were projects with similar Floor Area Ratios (FAR) within the region. Based on the applicant's research, it was determined that there were no projects with such FARs in the region. However, there are similar projects in Virginia (i.e., The Village at Shirlington with an FAR of 1.6 and Reston Town Center with an FAR of 1.4).

PLANNING COMMISSION STUDY SESSION (OCTOBER 2, 2000)

KATRINA FOLEY:

1. Why are we creating a new land use designation for Town Center? What are the implications of the new designation?

RESPONSE: The new land use designation is being proposed in order to recognize the unique characteristics of the South Coast Plaza Town Center, i.e., the existing Orange County Performing Arts Center, South Coast Repertory Theater, hotel, restaurants, and high-rise office towers. This designation will also recognize the open space greenbelt, the California Scenario Garden, and new arts venues. This Cultural Arts Center designation will be limited to the South Coast Plaza Town Center area, and, therefore, it cannot be applied to other areas of the city. This is also consistent with the TC (Town Center) zoning district that is limited to the project area.

An alternative to creating a new land use designation is to retain the existing Urban Center Commercial land use designation and change the allowable floor area ratios to reflect the proposed level of development. The FAR standards could be changed for Town Center only (a site-specific FAR) or be applied to all other Urban Center Commercial properties (i.e. South Coast Metro Center, Sakioka Farms, and Metro Pointe). Staff recommends against either of these approaches because of the significant difference between the Urban Center Commercial FAR standards (0.50/0.60 FAR) and the proposed FAR for Town Center (1.77), and the potential for significant over-development on the other Urban Center Commercial properties.

2. Why did the 1990 General Plan establish FAR standards which made Town Center nonconforming?

RESPONSE: The existing development in South Coast Plaza Town Center was constructed under the Urban Center Commercial designation prior to the time the City had established floor area ratios (FARs) for all the nonresidential land use designations. The adoption of the 1990 General Plan, in 1992, established the 0.50/0.60 FARs for the Urban Center Commercial designation. It was recognized at the time that the Town Center area would be made nonconforming, but the focus of the new FARs was the undeveloped South Coast Metro Center and Sakioka Lot 2 properties. The new Cultural Arts Center resolves this nonconformity issue by separating the Town Center from these other properties. As noted above, this will also retain existing FAR standards for the other properties; the primary goal of the lower FAR standards.

- The 9/21/00 (page 4) says the deletion of Town Center Drive west of Park Center Drive would negatively impact the Bristol/Sunflower intersection, but that mitigation measures will reduce this impact to a level of insignificance. What are existing, 2020 without mitigation, and 2020 with mitigation ICUs?

RESPONSE: Chapter 4 of the South Coast Plaza Town Center Traffic Analysis prepared by Austin-Foust Associates, Inc. analyzed the impacts of the proposed deletion of Town Center Drive. A summary of the ICUs for the Bristol/Sunflower intersection is as follows:

INTERSECTION	EXISTING		2020		2020		2020	
	COUNT		GENERAL		GENERAL PLAN		DELETION	
	AM	PM	AM	PM	AM	PM	AM	PM
42. Bristol & Sunflower	.61	.80	.89	1.01	.95*	.99	.84	.99

* Significant impact

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 - 1.00 E
 Above 1.00 F

The 2020 ICUs shown above represent General Plan conditions (without the Proposed Project). Regarding the Bristol/Sunflower intersection, the effect of changing Town Center Drive to one-way operation is not a large increase in vehicular traffic but instead a redistribution of traffic into different turning movements. In the AM peak hour, this results in more vehicles utilizing critical movements as shown by the AM ICU increasing from .89 to .95. The PM peak hour has the opposite effect with vehicles being redistributed to non-critical movements as shown by the PM ICU decreasing from 1.01 to .99.

Mitigation to lower the AM ICU is to convert the third northbound through lane to a shared through/right-turn lane. This lowers the AM ICU to .84, which is lower than the baseline General Plan conditions.

- Why did North Costa Mesa Specific Plan establish lower building heights for the portion of Town Center west of Park Center Drive?

RESPONSE: The North Costa Mesa Specific Plan recognizes existing building heights in the Town Center area. The only new development anticipated by the 1990 General Plan and specific plan was the 1,000-seat expansion of OCPAC and the new 186-room hotel. Neither of these buildings will exceed the existing building envelope.

- What are phasing plans for the various projects within Town Center? How does this relate to the development agreements and public benefits?

RESPONSE: Segerstrom intends to commence construction on the office tower as soon as possible, with the hopes of completing construction within a year. The hotel construction is pending securing a vendor, and finalization of subsequent agreements with that vendor. As such, it is anticipated that such agreements could be completed within the next two years, although it may extend beyond that time frame.

CommonWealth has provided a phasing plan that indicates three phases of project development, although no timing for these phases has been provided. This plan is attached to this report.

The timing and method of phasing of the public benefits will be a component of the development agreements.

6. The Response to Comments package says that a photo simulation will be prepared for the new 21 story office building. When will this be done?

RESPONSE: Computerized photo simulations will be required in conjunction with the final master plan approvals for each individual building.

7. How will we ensure traffic mitigation is phased with project development phasing? What is relationship between payment of trip fees and actual traffic improvements?

RESPONSE: The project developers would pay the City the assigned traffic impact fee for trips generated. This traffic impact fee would be used to implement various improvements throughout the City identified as part of the General Plan. Improvements needed in excess of the General Plan will be implemented directly by the developer or additional trip fees will be charged.

Implementation of any needed mitigation measures is determined on an annual basis as part of the Development Performance Phasing and Monitoring Program. At present, this annual citywide program documents the intersection operations and building permits issued. Intersections operating at Levels of Service (LOS) worse than D are mitigated to acceptable levels and those operating at LOS D are monitored on an on-going basis. This program ensures that mitigation measures are implemented as they are needed in a timely manner.

8. Please clarify relationship of FARs for existing conditions, proposed Town Center as a whole, and individual components (i.e. CommonWealth, OCPAC, and balance of Town Center).

RESPONSE: The following summarizes the existing and proposed FAR's for the entire Town Center project area, as well as the individual project components based on 54 net acres:

PROJECT	EXISTING FAR	PROPOSED FAR
Two Town Center	1.06	1.55
OCPAC/SCA	0.56	1.67
Balance of Town Center	1.56	1.98
TOTAL PROJECT	1.19	1.77

9. Will housing proposed on Home Ranch help mitigate population/housing/employment impacts of Town Center?

RESPONSE: Compared to the 366 Medium Density Residential units proposed under the General plan, the current development proposed for the Home Ranch site would provide for 464 High-Density Residential units. However, the proposed Home Ranch development would also include 252,650 square feet of industrial park, approximately 791,00 square feet of office, and a 308,000 square foot IKEA versus the approximate 961,000 square feet of Industrial Park uses proposed under the General Plan. In contrast, although the proposed Home Ranch development would provide additional onsite housing, it would also create additional employment; thereby requiring the need for such housing. Clearly, one can assume that the additional housing proposed for the Home Ranch project would initially satisfy the need of that project. However, depending on the employment make-up of Home Ranch, these residences

could also serve to benefit the overall housing need resulting from the implementation of the South Coast Plaza Town Center project and other employment generating uses within the City.

Katie Wilson:

1. Can free parking be provided for those visitors who wish to enjoy the public benefits being provided through the development agreements?

RESPONSE: Commonwealth will provide free parking to visitors to the California Scenario. Portions of Commonwealth's parking that is in close proximity to the Arts Center will be made available to the public at normal market parking rates. These items will be included within the development agreement.

Segerstrom will make all 700 parking spaces that will be provided in the new office tower available to visitors to the Arts Center. Although Segerstrom does not have complete control over the remaining parking within the project area, they will work closely with their partners and the City in an attempt to make as much parking in the area available for use by the public in the evening hours. They will also work with South Coast Plaza partners in an effort to ensure that free parking at South Coast Plaza for visitors to the Arts Center will continue. These issues will be negotiated in the development agreement.

2. What is the timing of the "park" on the site of the proposed art museum/academy?

RESPONSE: This area will serve as a staging area during the construction of the Symphony Hall, as well as the expansions to the SCR and OCPAC. It is the intent of the applicant to have the park area cleared once construction has reached a point that the staging area is no longer necessary, with completion of the park occurring prior to the opening of the Symphony Hall.

Chris Fewel:

1. Please clarify what Table 1 (page 3-20) in the Response to Comments means?

RESPONSE: This table provides a summary of 2020 conditions in which the proposed Home Ranch Project is included in the background conditions. The table presents four scenarios with the first two scenarios not including the proposed Town Center project. These two scenarios are as follows: 1) 2020 conditions with Home Ranch but without the mitigation associated with the Home Ranch project, 2) 2020 conditions with Home Ranch and with the Home Ranch mitigation.

The third and fourth scenarios add the proposed Town Center project to the background conditions used in the first and second scenarios. Each of these scenarios includes the Home Ranch project and the corresponding Home Ranch mitigation. The third and fourth scenarios are as follows: 3) 2020 conditions with Home Ranch and Town Center but without the Town Center mitigation, 4) 2020 conditions with Home Ranch and Town Center and with the Town Center mitigation.

What this analysis shows is how the proposed Home Ranch Project does not change background conditions in such a way that new Town Center impacts result. Significant impacts would occur due to the proposed Town Center Project at the same locations identified in the 2020 General Plan baseline analysis. The mitigation identified for the Town Center project would still mitigate the Town Center impacts if Home Ranch were to be developed as proposed.

2. Response SG-69 notes difference in employment generation rates between Home Ranch and SCPTC EIR. Why the difference/What are the implications of this difference? Is this difference significant?

RESPONSE: As indicated in Comment SG-69, the employment generation rate in the Draft EIR for the South Coast Plaza Town Center project is 300 square feet per employee. This figure was taken from the City of Costa Mesa General Plan and is believed to be the most reflective of the type of employment generation that is occurring throughout the City based on an office-type land use. The Home Ranch document identifies an employment generation rate of 250 square feet per employee, but it does not cite its source. Therefore, it is unclear as to whether or not the generation rate used as part of the Home Ranch EIR is more accurate than that of the 300 square feet per employee rate used in the SCPTC EIR. Regardless of its accuracy, the rate used in the Home Ranch EIR would identify a greater number of employees compared to using the rate in the SCPTC EIR; thereby, resulting in a greater jobs/housing imbalance. Due to the fact that there is a shortage of housing within the City, any difference in the rate could pose and increase significant affect related to jobs/housing.

3. How does proposed FAR relate to other urban areas or projects? Specifically, what is the FAR for Fashion Island/Newport Center?

RESPONSE: The existing FAR for Fashion Island is 0.40, and the overall FAR for Newport Center is 0.40 as well.

PLANNING COMMISSION STUDY SESSION (OCTOBER 16, 2000)

CHRIS FEWELL

1. **Why was the rate of 300 square feet per office employee used in the South Coast Plaza Town Center EIR and 250 square foot per office employee in the Home Ranch EIR? Are they comparable and, if not, is the difference truly significant.**

RESPONSE: After further review of the office employment generation rate used in the South Coast Plaza Town Center (SCPTC) EIR and the Home Ranch EIR for office uses, it has been determined that the difference in the two rates is not at all significant. Rather, the 250 square foot per employee rate in the Home Ranch EIR and the 300 per square foot employee rate included in the SCPTC EIR are actually very comparable. More specifically, the 300 square foot rate from the City of Costa Mesa General Plan includes adjustments for net versus gross leasable area (i.e., 10 percent) and future vacancy rates (i.e., 8 percent). For example, if the rates were applied to a 100,000 square foot office building, the number of employees generated under the 250 square foot rate calculates out to be 331 employees. If you use the same assumptions under the 300 square foot rate, 333 employees would be generated. Therefore, the difference between the two rates is inconsequential and very reflective of what is occurring throughout the City of Costa Mesa.

KATRINA FOLEY

1. **What is the difference between the number of employees generated versus housing units under the No Project Alternative compared to the proposed project?**

RESPONSE: As shown on page 350 of the 1990 General Plan and Table 1 below there would be approximately 97,400 employees and 45,200 housing units under buildout of the General Plan (Post 2010). Although the City of Costa Mesa General Plan does not establish a target jobs/housing ratio, this ratio under buildout of the General Plan would be 2.15. Under the

**SCPTC DEIR PUBLIC COMMENTS
AUGUST 14, 2000 PLANNING COMMISSION MEETING**

Chris Fewel:

- How are the trips distributed in the a.m. and p.m. peak hours? | CF-1
- Question regarding the net difference between the proposed GP at build-out versus the project at build-out. | CF-2

Katrina Foley:

- Why is Reduced Intensity the "environmentally superior" alternative? Why not build out under existing GP? | KF-1
- Did we consider and/or can we add a "residential" alternative to mitigate housing demands impacts? | KF-2

Bruce Garlich:

- How does the SCPTC DEIR relate to or account for the new Home Ranch project? | BG-1
- Traffic impacts to Fairview/South Coast Drive intersection? | BG-2

Robin Leffler:

- What are the cumulative effects of other projects and regional development?
- Questions statement on page 5-3-8 that CO emissions are "not significant"?
- Cumulative effects of "incremental" of individual project impacts over time? | RL-1

Sandy Genis:

- Did Irvine receive/respond to NOP? | SG-1
- Restrictions on existing open space easement prevent encroachment or reduction in size of easement. | SG-2
- Wasn't open space easement used to transfer development rights to Plaza Tower building?
- Circulation Element must be amended to account for new circulation system mitigation measures. | SG-3
- Impacts of mitigation measures must be addressed. | SG-4
- Reduced Intensity alternative not really "reduced intensity". | SG-5

- Cumulative impacts of new Home Ranch project not addressed. | SG-6
- Joint processing/review of both SCPTC and Home Ranch projects as single General Plan Amendment. | SG-7

Paul Kelly:

- Doesn't 21-story office building conflict with JWA restrictions? | PK-1
- What are impacts on housing market and affordable housing? | PK-2

Paul Flanagan:

- Concerned with traffic and air pollution impacts.
- Mitigation should have already been in place.
- Need to consider innovative mitigation measures (i.e. direct freeway access to parking structures). | PF-1

Bob Graham:

- "Let's Make A Deal" – Community needs something of benefit (i.e. park and recreation facilities) to off-set project impacts. | BGR-1

Tom Sutro:

- Is there a comparable project with a FAR of 1.77 in the area? | TS-1

proposed project, an additional 2,324 jobs would be created in the SCPTC project area. Based on this increase, the ratio of jobs to housing would increase to 2.20 under buildout of the General Plan, inclusive of the proposed SCPTC project. It should be noted the availability of housing is addressed on a regional level through a variety of programs and policies and there are number of cities and unincorporated areas throughout Orange County that provide more housing than jobs and have and will continue to provide housing opportunities for cities that provide more employment opportunities than jobs, such as the City of Costa Mesa. Regardless, implementation of the SCPTC project would result in a significant unavoidable adverse impact related to housing.

**TABLE 1
IMPACT OF PROPOSED PROJECT ON POST 2010 JOBS/HOUSING RATIO
BASED ON 1990 GENERAL PLAN PROJECTIONS**

1990 General Plan Estimates (page 350)	Post 2010	SCPTC Project Increase	Revised Post 2010 Estimate
Employment	97,400	2,324	99,724
Housing Units	45,200	0	45,200
Jobs/Housing Ratio	2.15	---	2.20

REVISIONS TO THE RESPONSE TO COMMENTS ON THE DRAFT PROGRAM ENVIRONMENT IMPACT REPORT #1047 FOR THE SOUTH COAST PLAZA TOWN CENTER

On Page 3-36 of the September 18, 2000 Response to Comments document on the Draft Program EIR #1047 for the South Coast Plaza Town Center project, Response SG-42 states that the “The proposed mitigation within the City of Santa Ana will be administered through an agreement between the City of Santa Ana and the developer”. After further review of this response, the City Attorney’s office has indicated that the City of Costa Mesa has no mechanism to enforce an agreement between the City of Santa and the developers as it relates to mitigation and, therefore, cannot ensure those measures that would necessarily be implemented in another jurisdiction.

Therefore, Response SG-42 has been revised to direct the reader to response CSAPBA-11 on page 3-17. The essence of this response is that a mechanism to coordinate development in Costa Mesa with the Development in Santa Ana would be undertaken between both cities so that the issue of implementation of mitigation measures would be adequately addressed.

PLANNING COMMISSION PUBLIC HEARING (OCTOBER 23, 2000)

KATRINA FOLEY:

1. Can a copy of the development agreement proposed for Conexant in Newport Beach be obtained for Planning Commission review?

RESPONSE: Assistant City Attorney Tom Wood is working with the City of Newport Beach City Attorney’s office to obtain a copy, and will forward a copy to the Planning Commission upon receipt of the document.

CHRIS FEWEL:

1. Why are the statements of overriding considerations not included with the packet of information received?

RESPONSE: The statements of overriding considerations are typically not included until the Final EIR is forwarded to the City Council for certification. However, staff will prepare the statements of overriding considerations for review by the Planning Commission at the next scheduled meeting.

2. Can a copy of the statement of overriding considerations for air quality from the 1990 General Plan be obtained for Planning Commission review?

RESPONSE: A copy of the statement of overriding considerations from the 1990 General Plan adoption will be provided to the Planning Commission at the next scheduled meeting.

3. With regards to the comparison of the Reston Town Center to this project, it would be helpful if the overall number of residential units in The Lakes, the permitted number of units on the Sakioka property, and the total square footage for the commercial uses in the surrounding area could be provided.

RESPONSE: The following table provides a comparison of the South Coast Metro area (area bounded by Bristol Street, Sunflower Avenue, Main Street and Costa Mesa Freeway, and the San Diego Freeway) and Reston Town Center projects in terms of size, mix of uses, and amount of development at build out of each area. The South Coast Metro area includes the South Coast Plaza Town Center, The Lakes, South Coast Metro Center, and the undeveloped Sakioka Lots 1 and 2.

PROJECT	AREA	COMMERCIAL	RESIDENTIAL
South Coast Metro	199 acres	5.9 million SF	2170 units
Reston Town Center	85 acres	3.4 million SF	1030 units

As noted in the table, the South Coast Metro area is more than twice the size of the Reston Town Center and will contain approximately 74% more commercial floor area. For comparative purposes, the “commercial” designation for South Costa Metro includes all non-residential floor area, since the article on Reston Town Center did not provide a breakdown of the floor area by use. The South Coast Metro area will have more than double the number of dwelling units at build out.

The attached table provides a more detailed breakdown of the specific uses and projects in the South Coast Metro area. The table shows existing levels of development, the amount of future development, and total development by use category.

Please note that General Plan Policy No. 84 encourages concentrating development along major arterials or in proximity to major employment centers. This type of land use concentration supports public transportation, which in turn, reduces traffic congestion and improves air quality. However, the traffic analysis prepared for the SCPTC project did not apply any trip reduction factor to the model, therefore, the traffic analysis results are “worse case”.

ROBIN LEFFLER:

1. Will the Final EIR for Town Center include the revised Home Ranch project?

RESPONSE: At the time the revised NOP for the SCPTC project was distributed for public review, there was no development application in place for the Home Ranch project. Therefore, in accordance with CEQA, the SCPTC Draft EIR assumed buildout of the Home Ranch site under current general plan land use designations to analyze cumulative impacts. Just prior to the public review period on the Draft EIR, an application for development for the Home Ranch site was submitted and a Notice of Preparation was released. As part of the Response to Comments document, the City has reviewed that development application as it relates to the cumulative analysis provided in the SCPTC EIR and has determined that no new impacts or new mitigation measures would be required. The Final SCPTC EIR will be prepared to reflect the revised project for the Home Ranch site and will be made available for agency review prior to the Final EIR certification.

2. Reston Town Center is a long way away. Is there a local example of a 1.77 FAR?

RESPONSE: After considerable research, staff has been unable to locate a project that has a FAR and mix of uses that is comparable to the Town Center project. To compare this project to another, simply on the basis of a similar FAR would not be a directly applicable. The existing mix of uses on the project site is very unique, and produces quite different impacts when compared to projects with only commercial or office uses. That being said, the locations suggested by the Planning Commission and the applicants that might serve as a beneficial comparison were researched. The following are the result of staff's research:

FAR COMPARISON	
Project	Existing/ Allowable FAR
Horton Plaza (San Diego)	3.20
<i>South Coast Plaza Town Center</i>	1.77
Reston Town Center (Virginia)	1.60
South Coast Corporate Center (3050-3150 Bristol Street, Costa Mesa)	1.35
Hutton Place (Santa Ana)	0.72
Irvine Business Complex (IBC)	Average of 0.50 Maximum of 1.0
John Wayne Airport Office/Commercial (Newport Beach)	0.50
Newport Center/Fashion Island (Newport Beach)	0.40

As noted in previous responses, floor area ratio is only one method of measuring the impact or intensity of a project. Other aspects to consider include operational factors, traffic generation, and design features such as building massing and open space. As an example, the South Coast Corporate Center/Doubletree Inn development on Bristol Street and Paularino Avenue is built at a lower FAR than what is proposed for South Coast Plaza Town Center, but, in staff's view, has a much more dense "feel" due to the lack of open space within the project. This center has a constraining 85-foot height limit and setback plane that serve to buffer the adjacent condominium development, and the result is a larger building footprint and less open space.

3. The request to redesignate the land use to Cultural Arts Center should be handled as a separate application from the request for a 1.77 FAR.

RESPONSE: The Cultural Arts Center land use designation is proposed to be the new General Plan land use designation for the entire Town Center project area with a corresponding FAR of 1.77. State law requires cities to establish maximum building intensity standards with their

General Plan designations. If the 1.77 FAR is determined to be unacceptable, a substitute FAR would need to be identified. Please note that existing development in the project area is developed at a 1.19 FAR.

4. The concept of “frontloading” the traffic improvements prior to the construction of the planned development should be considered for the development agreements. If the traffic does not improve as a result of the traffic improvements, the planned development would not be constructed.

RESPONSE: The comment is noted.

-
5. With respect to air quality impacts, how close are we getting to the impacts being significant?

RESPONSE: There are two criteria that must both occur for a significant local air quality impact to occur: 1) The future modeled CO level must be above the standard (20 ppm for 1 hour averaging and 9 ppm for 8 hour averaging), and; 2) The project must significantly increase the CO level (1 ppm for 1 hour averaging and 0.45 ppm for 8 hour averaging).

With respect to the one hour averaging, the highest modeled concentration was 11.2 ppm (8.8 ppm below the standard). The greatest modeled increase was 0.1 ppm (0.9 ppm less than a significant increase).

With respect to the 8 hour averaging, the highest modeled concentration was 8.9 ppm (0.1 ppm below the standard). The modeling showed no measurable increase, that meaning the increase is less than 0.1 ppm (more than 0.35 ppm less than a significant increase).

PAUL FLANAGAN:

1. A draft condition of approval was suggested that would require implementation of a “Traffic and Smog Control Program” to be developed collectively between the project applicants. It includes the following suggestions: 1) Provide on and off-ramps directly to parking structures from the San Diego Freeway. 2) Impose time limits on idling buses. 3) Require the fourth or later car waiting in line to exit or enter a parking structure to turn off their engine. 4) People movers and walkways should be provided to encourage employees and patrons to park in the parking structures serviced by the on and off ramps from the San Diego Freeway.

RESPONSE: 1) The City’s Master Plan of Highways indicates an additional off-ramp at the Avenue of the Arts. The City is currently working with Cal-Trans to provide a left-turn into the Two Town Center parking structure from this future off-ramp. To date, Cal-Trans does not support the access into the parking structure, and is generally opposed to off-ramps providing direct access onto private property. 2) The imposition of any time limits on idling buses, if implemented, would be difficult to enforce. In the event that the City Council would like to devote more resources to police this requirement, it may be feasible. 3) A vehicle start results in the same amount of air pollutant emissions as several minutes of idling. Therefore, turning off engines for short periods of time could result in an increase in pollutant emissions if engines are only shut off for short periods of time and then restarted. 4) Walkways are currently provided in the project area, and will be further enhanced through the implementation of the Cultural Arts and Theater District plan.

SOUTH COAST METRO DEVELOPMENT COMARISON

	ACRES	OFFICE		HOTEL		ARTS/THEATER		COMMERCIAL		RESIDENTIAL	
		Exisitng	Future	Exisitng	Future	Exisitng	Future	Exisitng	Future	Exisitng	Future
South Coast Plaza Town Center	54	2,058,748	655,00	404	186	7,230	3,640	85,280	-	-	-
The Lakes	27	-	-	492	-	-	-	20,400	-	770	-
South Coast Metro Center/Experian	45	749,230	505,000	-	300	-	-	8,158	71,000	-	-
Sakioka Lot 1	40	-	-	-	-	-	-	-	-	-	1400
Sakioka Lot 2	33	-	863,000	-	-	-	-	-	-	-	-
Subtotal		2,807,978	1,368,000	896	486	7,230	3,640	113,838	71,000	770	1400
Total	199	4,175,978	Sq. Ft.	1,382		8,470		184,838		2,170	
				Rooms		Seats		Sq. Ft.		Units	

**SECTION 4
ERRATA AND REFINEMENTS TO THE DRAFT EIR**

Revisions as identified throughout this response to comments document, were developed based on comments on the Draft EIR (public agency, private organizations, etc.). As a result of these revisions changes will be made to the Draft EIR and will be provided part of the Final EIR document.

APPENDICES

APPENDIX A

NOTICE OF PREPARATION AND CORRESPONDENCE



CITY OF COSTA MESA

CALIFORNIA 92628-1200

P.O. BOX 1200

DEVELOPMENT SERVICES DEPARTMENT

NOTICE OF PREPARATION

TO: Interested Agencies and Organizations

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

Lead Agency:

Agency Name City of Costa Mesa
Street Address 77 Fair Drive
City/State/Zip Costa Mesa, California 92628-1200

Consulting Firm (if applicable)

Firm Name Michael Brandman Associates
Street Address 15901 Red Hill Avenue, Suite 200
Tustin, California 92780

Contact R. Michael Robinson, AICP

Contact Jason M. Brandman

City of Costa Mesa will be the Lead Agency and will prepare an environmental impact report (EIR) for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and probable environmental effects are contained in the attachment materials. A copy of the Initial Study ___ is X is not attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice.

Please send your response to R. Michael Robinson, AICP at the address shown above. We will need the name of a contact person in your agency.

Project Title: South Coast Plaza Town Center EIR

Project Location: Costa Mesa Orange
City County

Date: April 10, 2000

Signature: [Handwritten Signature]

Title: R. Michael Robinson, AICP, Planning and Redevelopment Manager

Telephone: (714) 754-5610

Reference: California Administrative Code, Title 14, Sections 15082(a), 15103, 15375.

77 FAIR DRIVE

**NOTICE OF PREPARATION
SOUTH COAST PLAZA TOWN CENTER
GP-00-02/SP-00-01**

I. Project Background

Development of the South Coast Plaza Town Center began in the early 1970's, and has since been developed into a major employment and entertainment/cultural center. Existing structures consist of approximately 2.8 million square feet of development. The center is home to the Orange County Center for the Performing Arts, South Coast Repertory Theater, and "The California Scenario" outdoor sculpture garden (Noguchi Gardens).

II. Project Objectives

1. Amend the 1990 General Plan to accommodate the proposed development requests, and eliminate the existing non-conforming status of existing development with respect to floor area ratio standards.
2. Revise the vehicle trip budget and schedule of traffic improvements for South Coast Plaza Town Center.
3. Establish General Plan policies related to development rights transfers for land dedications.
4. Amend the North Costa Mesa Specific Plan and the Town Center Master Plan to reflect the revised trip budget, permitted floor area ratios, and maximum permitted building area.

III. Location and Surrounding Land Uses

The South Coast Plaza Town Center project is located in the City of Costa Mesa in central Orange County (see Exhibit 1). The South Coast Plaza Town Center is a 62-acre mixed-use office, commercial, and entertainment area bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts and the San Diego (I-405) freeway (see Exhibit 2). The City of Santa Ana border is located just north of the site, across Sunflower Avenue. The surrounding uses are primarily comprised of commercial, retail, residential and office uses, as well as visitor accommodations.

IV. Project Description

General Plan Amendment GP-00-02/Specific Plan Amendment SP-00-01 encompasses several major components. A detailed description of each component follows:

1. Land Use Element General Plan Amendment

The Land Use Element will be amended to create a new “Cultural Arts Center” land use designation and establish building intensity and population density standards to allow build out of an integrated commercial, entertainment, and cultural arts mixed use district. General Plan policies related to development rights transfers for land dedications will be established, in conjunction with a revised trip budget and schedule of traffic improvements for the entire Town Center. The new “Cultural Arts Center” land use designation shall be applied to the 54.44 acre (net acreage) South Coast Plaza Town Center. The proposed floor area ratio of 1.69 recognizes existing development and allows for the three proposed expansions listed below:

Net Site Acreage	Existing Development	Proposed Expansion	Total Building Area	Floor Area Ratio
54.44 Acres*	2,801,368 sq.ft.	1,028,645 sq.ft.	4,016,013 sq.ft.	1.69

* Includes 0.9 acre to be added to project site from the portion of Town Center Drive to be abandoned.

Drive

- A. *Two Town Center*: The 14.6-acre Two Town Center project is located south of Anton Boulevard and west of Avenue of the Arts, and includes three office buildings (DiTech.com, Comerica, and Bank of America), three free-standing restaurants (Jerry’s Deli, El Torito Grill, and TGI Fridays), the 4-screen Edward’s Cinema, a single-story retail building occupied by Amici Italian Restaurant, and “The California Scenario” outdoor sculpture garden. The proposed General Plan Amendment would result in the demolition of the Edward’s Cinema, Amici’s, El Torito Grill, and Jerry’s Deli, the construction of a new 756-space parking structure, and the construction of a new 11-story, 347,900 square foot office building.

Land Use	Existing Building Area	Slated for Demolition	New Construction	Total Building Area
Office	672,666 sq.ft.	∅	347,900 sq.ft.	1,020,566 sq.ft.
Restaurant	28,945 sq.ft.	20,600 sq.ft.	∅	8,345 sq.ft.
Retail	8,100 sq.ft.	8,100 sq.ft.	∅	∅
Theater	19,200 sq.ft.	19,200 sq.ft.	∅	∅
Total	728,911 sq.ft.	47,900 sq.ft.	347,900 sq.ft.	1,028,911 sq.ft.

- B. *Segerstrom Center for the Arts (SCA)*: The Segerstrom Center for the Arts site includes 4.96 acres located south of Town Center Drive, between the existing South Coast Repertory Theater (SCR) and Avenue of the Arts. A related request to abandon a portion of Town Center Drive would add an additional 0.9 acre for a total site area of 5.86 acres.

Proposed uses for the site include a new 301,145 square foot, 2,500 seat symphony hall immediately east of SCR; an approximately 32,500 sq. ft. expansion of SCR; and a 140,000 sq. ft. art museum or academy at the southwest corner of Town Center Drive and Avenue of the Arts.

The proposed project also includes an amendment to the existing open space easement that runs through the central portion of the Town Center and a transfer of the previously entitled 186-room hotel on the arts center site to the corner of Bristol Street and Anton Blvd (see following discussion).

Land Use	Existing Building Area	Slated for Demolition	New Construction	Total Building Area
Art Museum/ Academy	Ø	Ø	140,000 sq.ft.	140,000 sq.ft.
Symphony Hall	Ø	Ø	301,145 sq.ft.	301,145 sq.ft.
Theater	39,640 sq.ft.	Ø	32,500 sq.ft.	72,140 sq.ft.
Total	39,640 sq.ft.	Ø	473,645 sq.ft.	513,285 sq.ft.

- C. *Balance of Town Center:* This application includes a number of requests that affect the balance of Town Center north of Anton Boulevard. These requests convert the current temporary open space easement to a permanent easement, transfer entitlements for the 186-room hotel to the parcels at the northeast corner of Bristol Street and Anton Boulevard, and add 255,000 sq. ft. of office space to the parcels at the southeast corner of Bristol Street and Sunflower Avenue.

Land Use	Existing Building Area	Slated for Demolition	New Construction	Total Building Area
Office	1,386,082 sq.ft.	Ø	255,000 sq.ft.	1,641,082 sq.ft.
Restaurant	43,090 sq.ft.	Ø	Ø	43,090 sq.ft.
Retail	5,145 sq.ft.	Ø	Ø	5,145 sq.ft.
Hotel	330,000 sq.ft.	Ø	186,000 sq.ft.	516,000 sq.ft.
Theater	268,500 sq.ft.	Ø	Ø	268,500 sq.ft.
Total	2,032,817 sq.ft.	Ø	441,000 sq.ft.	2,473,817 sq.ft.

2. Circulation Element General Plan Amendment

The Master Plan of Highways will be amended to delete a portion of Town Center Drive between Park Center Drive and Avenue of the Arts.

3. Specific Plan Amendment

The North Costa Mesa Specific Plan will be amended to incorporate the land use intensity and density standards of the “Cultural Arts Center” land use designation and related policies.

4. Master Plan Amendment

Amend the Town Center Master Plan to incorporate land use intensity and density standards of the Town Center land use designation.

5. Development Agreements

Separate development agreements will be processed with separate applicants to entitle land use intensities and zoning regulations for individual projects within the Town Center area.

6. Street Vacation

A portion of Town Center Drive, between Park Center Drive and Avenue of the Arts will be vacated.

V. Purpose of the EIR

The EIR is being prepared by the City of Costa Mesa to assess the potential environmental impacts that may arise in connection with the development of the project. This is a project EIR and as such will examine the environmental impacts specific to the development of the South Coast Plaza Town Center. The EIR will examine all phases of the project, including planning, construction, and operation as defined in Section 15161 of the CEQA Guidelines. Upon completion of the EIR, no further environmental review will be necessary to carry out the project as currently planned.

VI. Project Alternatives

In addition to evaluating the potential environmental effects of the project, the EIR will address a range of project alternatives including, but not limited to, a reduced density alternative, the no-project/no build, and the “no project” alternative, as required by CEQA.

VII. Related Projects

Section 15130 of the CEQA Guidelines require the consideration of cumulative impacts by the EIR. Cumulative impacts are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other

environmental effects. The individual effects may be changes resulting from a single project or a number of separate projects. As part of this project, the EIR will identify which projects may contribute to cumulative impacts. More specifically, the EIR will evaluate the change in the environment, which results from the cumulative impact of the project when considered together with other closely related future projects in the South Coast Plaza Town Center area.

VIII. Probable Environmental Effects

The EIR is being prepared to assess the potential environmental impacts that may arise in connection with future implementation of the South Coast Plaza Town Center project. Based on the environmental characteristics of the project area and review of existing data, relevant programs, and previous environmental documentation for the project area (e.g., Town Center Office Tower and Hotel EIR) implementation of the proposed project is expected to have the potential to create environmental impacts in the following areas: **geology and soils; hydrology/water quality; air quality; noise; shade/shadow/glare; land use and planning; population, employment, and housing; public services and utilities; energy consumption and conservation; transportation/circulation; and airport operations.** The developed character for the project area precludes the potential of sensitive plant and/or animal species or significant artifacts and/or fossils; therefore, the EIR will not address the topics of biological or cultural resources, respectively.

IX. Lead Agency

The City of Costa Mesa is the Lead Agency responsible for preparing the EIR. The project and environmental processing will be administered through the City of Costa Mesa Development Services Department with the contact person being as follows:

Mr. R. Michael Robinson, AICP
Planning and Redevelopment Manager
City of Costa Mesa Development Services Department
77 Fair Drive
Costa Mesa, California 92628-1200

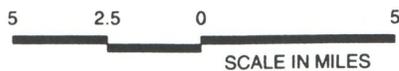
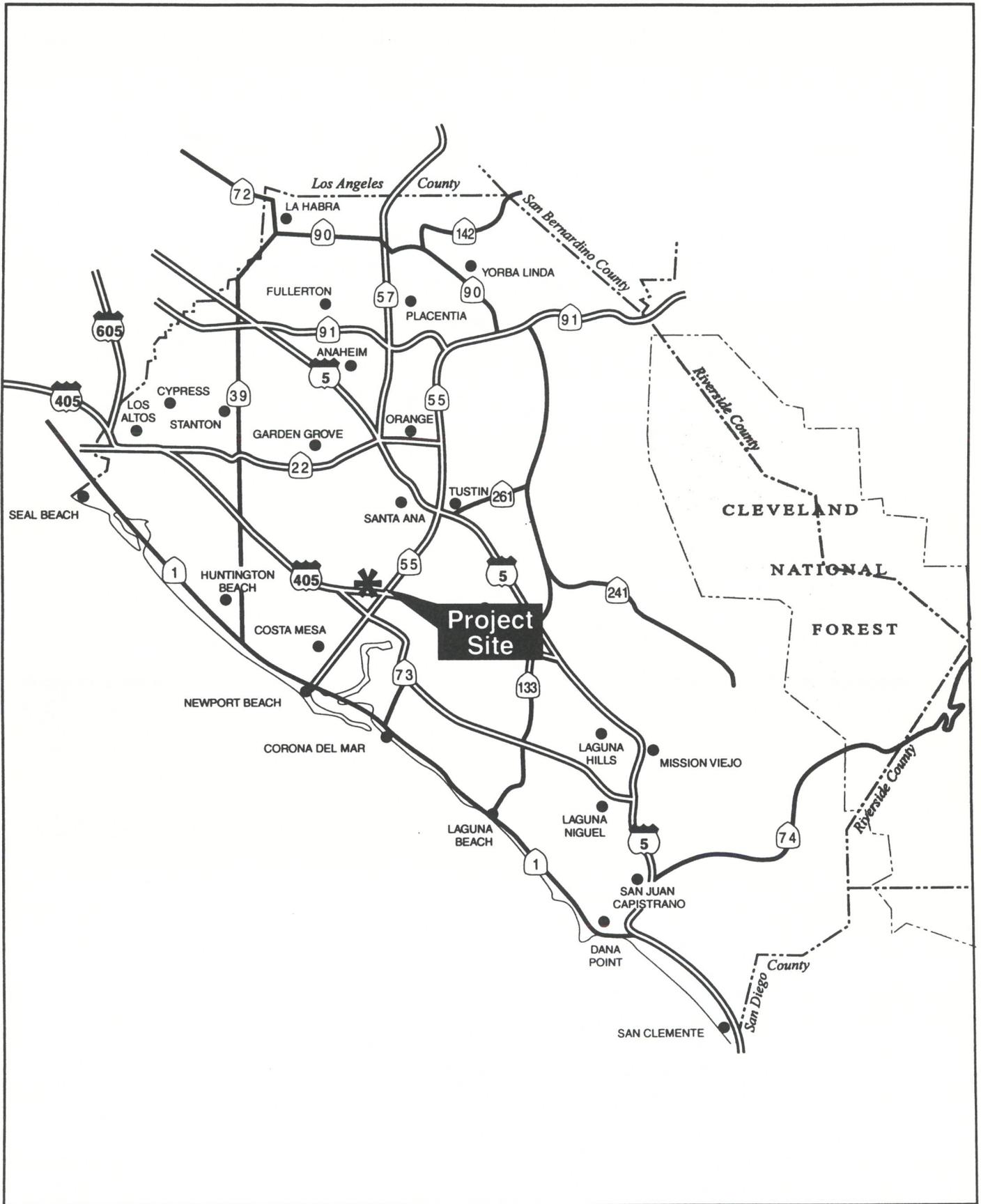


Exhibit 1
Regional Location Map

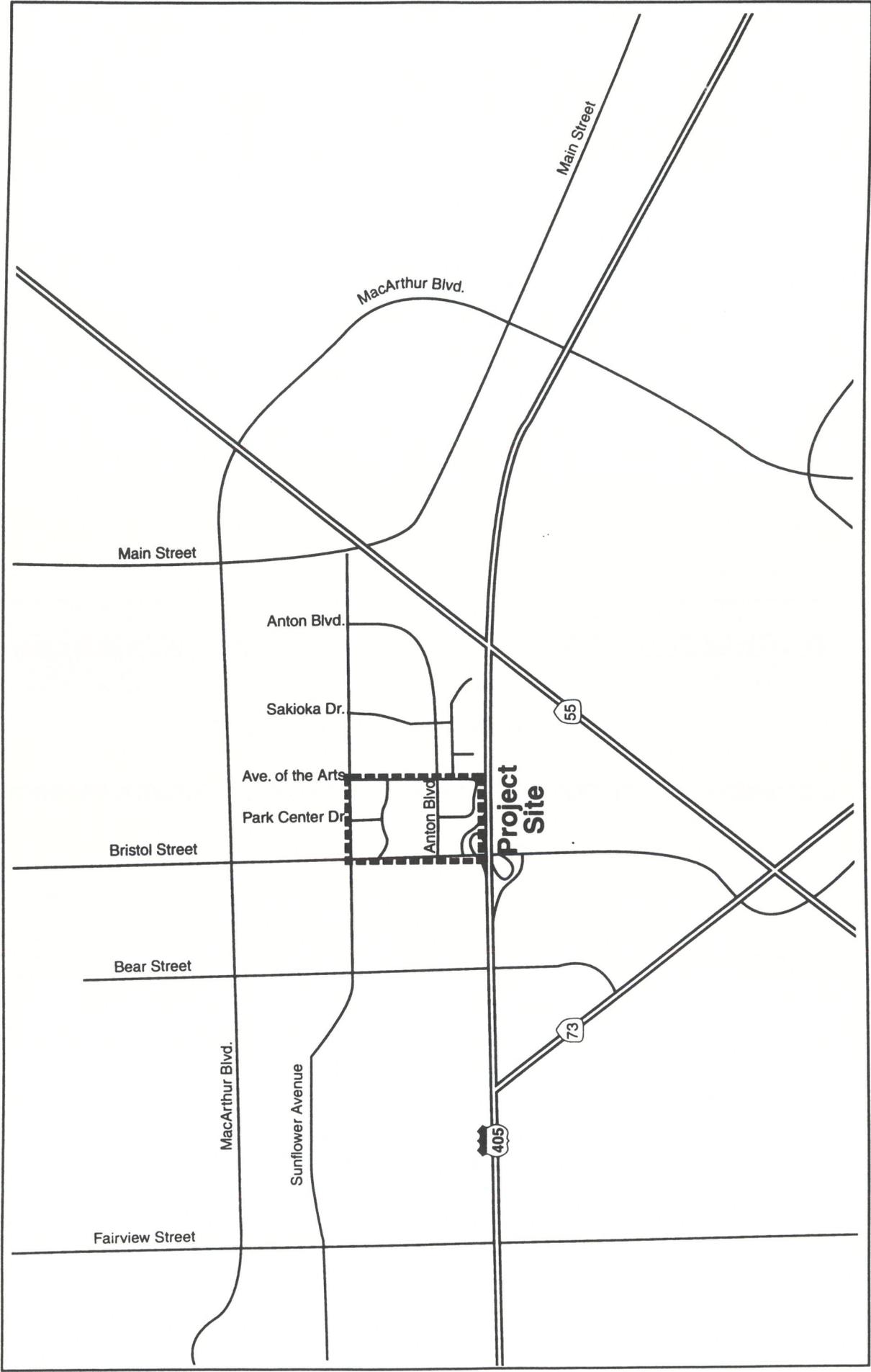
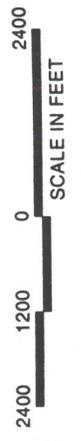


Exhibit 2
 Local Vicinity Map

SOUTH COAST PLAZA TOWN CENTER NOP • CITY OF COSTA MESA



Michael Brandman Associates

00800014 • 4/2000



South Coast Air Quality Management District



21865 E. Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • <http://www.aqmd.gov>

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CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

APR 17 2000

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April 14, 2000

Mr. R. Michael Robinson, AICP
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

Dear Mr. Robinson:

Notice of Preparation of an Environmental Impact Report South Coast Plaza Town Center

The South Coast Air Quality Management District (AQMD) appreciates the opportunity to comment on the above-mentioned document. The AQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the Draft Environmental Impact Report (EIR).

Air Quality Analysis

The AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The AQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the AQMD's Subscription Services Department by calling (909) 396-3720.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction and operations should be considered. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the evaluation. An analysis of all toxic air contaminant impacts due to the

decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the AQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additionally, AQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that ~~should be~~ considered for use as CEQA mitigation if not otherwise required. Pursuant to state CEQA Guidelines Section 15126 (c), any impacts resulting from mitigation measures must also be discussed.

Data Sources

AQMD rules and relevant air quality reports and data are available by calling the AQMD's Public Information Center at (909) 396-3600. Much of the information available through the Public Information Center is also available via the AQMD's World Wide Web Homepage (<http://www.aqmd.gov>).

The AQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Dr. Charles Blankson, Transportation Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.

Sincerely,



Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development and Area Sources

SS:CB:li

ORC000412-01LI
Control Number



Costa Mesa Sanitary District

April 18, 2000

Phone

(714) 754-5043

Fax

(714) 432-1436

Mr. Mike Robinson, AICP
Planning and Redevelopment Manager
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92626

RE: NOP OF DRAFT EIR
SOUTH COAST PLAZA TOWN CENTER EIR

Mailing Address

P. O. Box 1200
Costa Mesa, CA
92628-1200

Dear Mike:

The Costa Mesa Sanitary District is in receipt of the Notice of Preparation of a Draft EIR for the proposed project, a potential land use change for the area bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts, and the 405 Freeway.

Street Address

77 Fair Drive
Costa Mesa, CA
92626-6520

The Costa Mesa Sanitary District has sanitary sewer lines located in Town Center Drive and Sunflower Avenue and the Orange County Sanitation District has sewer lines in Avenue of the Arts, Sunflower Avenue, Park Center Drive and Anton Blvd., all of which serve the area. The proposed EIR should contain a sewer study analyzing the effects of the land use changes on the above mentioned sewer lines.

Any adverse effects as determined by each sewerage agency will require mitigation measures, most likely the construction of new sewers for any Costa Mesa Sanitary District sewer lines unable to handle the projected flows. Please contact the Orange County Sanitation District at 714/962-2411 for their comments as well.

If you have any questions, please call me at 949/631-1731.

Sincerely,

Board of Directors

Art Perry
Arlene Schafer
Greg Woodside
James Ferryman
Dan Worthington


Robin B. Hamers
Manager/District Engineer

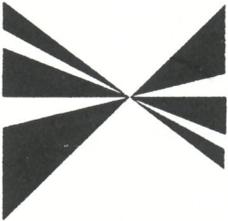
cc. Board
Staff
David Ludwin, OCSD

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CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

APR 19 2000

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SOUTHERN CALIFORNIA



ASSOCIATION OF GOVERNMENTS

Main Office

818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800

f (213) 236-1825

www.scag.ca.gov

Officers: President, Councilmember Ron Bates, City of Los Alamitos • First Vice President, Supervisor Kathy Davis, San Bernardino County • Second Vice President, Councilmember Hal Robinson, Los Angeles • Immediate Past President, Supervisor Zev Yaroslavsky, Los Angeles County

Imperial County: Tom Weys, Imperial County • David Phillips, El Centro

Los Angeles County: Yvonne Brathwaite Burke, Los Angeles County • Zev Yaroslavsky, Los Angeles County • Helen Ansari, Diamond Bar • Bob Barkett, Monrovia • Bruce Barrows, Cerritos • George Bass, Bell • Hal Benson, Los Angeles • Chris Christensen, Covina • Robert Brusch, Rosemead • Laura Chuck, Los Angeles • Gene Daniels, Paramount • Jo Ann Dary, Santa Clarita • John Estrada, Los Angeles • Michael Ivener, Los Angeles • Ruth Galanter, Los Angeles • Jackie Goldberg, Los Angeles • Ray Gralinski, Long Beach • Doc Harrison, Torrance • Mike Hernandez, Los Angeles • Nat Holden, Los Angeles • Lawrence Kirby, Inglewood • Keith McCarthy, Downey • Cindy Misakowski, Los Angeles • Stacy Murphy, Burbank • Pam O'Connor, Santa Monica • Jimmy Orsperza, Long Beach • Nick Pacheco, Los Angeles • Vic Padilla, Los Angeles • Bob Pinzler, Redondo Beach • Patricia Price, Pico Rivera • Mark Ridley-Thomas, Los Angeles • Richard Riordan, Los Angeles • Karen Rosenthal, Claremont • Marcia Shay, Compton • Rudy Swornick, Los Angeles • Paul Tallant, Alhambra • Simeon Tyler, Jr., Pasadena • Joe Wachs, Los Angeles • Rita Walters, Los Angeles • Dennis Washburn, Calabasas

Orange County: Charles Smith, Orange County • Ron Bates, Los Alamitos • Ralph Bauer, Huntington Beach • Art Bravin, Buena Park • Elizabeth Cowan, Costa Mesa • Jan DeBay, Newport Beach • Cathryn DeYoung, Laguna Niguel • Richard Dixon, Lake Forest • Mia Duke, La Palma • Shirley McCracken, Anaheim • Bev Perry, Brea

Riverside County: James Avabile, Riverside County • Ron Escondido, Riverside • Greg Ferris, Cathedral City • Andrea Puga, Corona • Ron Roberts, Temecula • Charles White, Moreno Valley

San Bernardino County: Kathy Davis, San Bernardino County • Bill Alexander, Rancho Cucamonga • Jim Bigley, Twentynine Palms • David Fishman, Fontana • Lee Ann Garcia, Grand Terrace • Susan Norton, Berry Hills • Jeffrey Valls, San Bernardino

Ventura County: Judy Mikels, Ventura County • Patricia Pate, San Bernardino • Glenn Becker, Santa Valley • Tom Young, Port Hueneme

Riverside County Transportation Commission: Ron Escondido, Director

Ventura County Transportation Commission: Bill Davis, Santa Valley

April 19, 2000

Mr. R. Michael Robinson, AICP
Planning and Redevelopment Manager
City of Costa Mesa Planning Division
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

APR 24 2000

AM
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RE: Comments on the Notice of Preparation for a Draft Environmental Impact Report for the South Coast Plaza Town Center - SCAG No. I 20000141

Dear Mr. Robinson:

Thank you for submitting the Notice of Preparation for a Draft Environmental Impact Report for the South Coast Plaza Town Center to SCAG for review and comment. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies in reviewing projects and plans for consistency with regional plans.

In addition, The California Environmental Quality Act requires that EIRs discuss any inconsistencies between the proposed project and the applicable general plans and regional plans (Section 15125 [d]). If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided.

Policies of SCAG's Regional Comprehensive Plan and Guide and Regional Transportation Plan, which may be applicable to your project, are outlined in the attachment. We expect the DEIR to specifically cite the appropriate SCAG policies and address the manner in which the Project is consistent with applicable core policies or supportive of applicable ancillary policies. Please use our policy numbers to refer to them in your DEIR. Also, we would encourage you to use a side-by-side comparison of SCAG policies with a discussion of the consistency or support of the policy with the Proposed Project.

Please provide a minimum of 45 days for SCAG to review the DEIR when this document is available. If you have any questions regarding the attached comments, please contact Jeffrey Smith, Senior Planner at (213) 236-1867. Thank you.

Sincerely,

J. DAVID STEIN

Manager, Performance Assessment and Implementation

**COMMENTS
ON THE PROPOSAL TO DEVELOP A
DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE
SOUTH COAST PLAZA TOWN CENTER
SCAG NO. I 20000016**

PROJECT DESCRIPTION

The proposed Project consists of General Plan and Specific Plan Amendments that will allow for new "Cultural Arts Center" land-use designation and the three proposed expansions of the South Coast Plaza Town Center.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN AND GUIDE POLICIES

The **Growth Management Chapter (GMC)** of the Regional Comprehensive Plan and Guide (RCPG) contains the following policies that are particularly applicable and should be addressed in the Draft EIR for the Project.

3.01 The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.

Regional Growth Forecasts

The Draft EIR should reflect the most current SCAG forecasts which are the 1998 RTP (April 1998) Population, Household and Employment forecasts for the Orange County Council of Governments (OCCOG) subregion and the City of Costa Mesa. These forecasts follow:

OCCOG

Subregion

Forecasts

	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2020</u>
Population	2,859,100	3,005,700	3,105,500	3,165,400	3,244,800
Households	910,900	952,400	1,013,100	1,064,100	1,102,300
Employment	1,381,700	1,550,700	1,717,400	1,882,600	2,116,600

**City of
Costa Mesa**

Forecasts	2000	2005	2010	2015	2020
Population	105,300	106,800	107,900	108,600	109,400
Households	39,000	39,500	40,300	41,000	41,500
Employment	83,300	86,700	90,100	93,500	98,200

3.03 *The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.*

REGIONAL TRANSPORTATION PLAN

The **Regional Transportation Plan (RTP)** also has goals, objectives, policies and actions pertinent to this proposed project. This RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. Among the relevant goals, objectives, policies and actions of the RTP are the following:

Core Regional Transportation Plan Policies

4.01 *Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.*

Mobility - *Transportation Systems should meet the public need for improved access, and for safe, comfortable, convenient and economical movements of people and goods.*

- *Average Work Trip Travel Time in Minutes – 22 minutes*
- *PM Peak Highway Speed – 33 mph*
- *Percent of PM Peak Travel in Delay (All Trips) – 33%*

Accessibility - *Transportation Systems should ensure the ease with which opportunities are reached. Transportation and land use measures should be employed to ensure minimal time and cost.*

- *Work Opportunities within 25 Minutes – 88%*

Environment - *Transportation Systems should sustain development and*

preservation of the existing system and the environment. (All Trips)

- *Meeting Federal and State Standards – Meet Air Plan Emission Budgets*

Reliability - *Reasonable and dependable levels of service by mode. (All Trips)*

- *Transit – 63%*
- *Highway – 76%*

Safety - *Transportation Systems should provide minimal, risk, accident, death and injury. (All Trips)*

- *Fatalities Per Million Passenger Miles – 0.008*
- *Injury Accidents – 0.929*

Livable Communities - *Transportation Systems should facilitate Livable Communities in which all residents have access to all opportunities with minimal travel time. (All Trips)*

- *Vehicle Trip Reduction – 1.5%*
- *Vehicle Miles Traveled Reduction – 10.0%*

Equity - *The benefits of transportation investments should be equitably distributed among all ethnic, age and income groups. (All trips)*

- *Low-Income (Household Income \$12,000) Share of Net Benefits – Equitable Distribution of Benefits*

Cost-Effectiveness - *Maximize return on transportation investment. (All Trips)*

- *Net Present Value – Maximum Return on Transportation Investment*
- *Value of a Dollar Invested – Maximum Return on Transportation Investment*

- 4.02 *Transportation investments shall mitigate environmental impacts to an acceptable level.*
- 4.04 *Transportation Control Measures shall be a priority.*
- 4.11 *All existing and new public transit services, facilities and/or systems shall evaluate the potential for private sector participation through the use of competitive procurement.*
- 4.16 *Maintaining and operating the existing transportation system will be a priority over expanding capacity.*

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL STANDARD OF LIVING

The Growth Management goals to develop urban forms that enable individuals to spend less income on housing cost, that minimize public and private development costs, and that enable firms to be more competitive, strengthen the regional strategic goal to stimulate the regional economy. The evaluation of the proposed project in relation to the following policies would be intended to guide efforts toward achievement of such goals and does not infer regional interference with local land use powers.

- 3.05 *Encourage patterns of urban development and land use, which reduce costs on infrastructure construction and make better use of existing facilities.*
- 3.08 *Encourage subregions to define an economic strategy to maintain the economic vitality of the subregion, including the development and use of marketing programs, and other economic incentives, which support attainment of subregional goals and policies.*
- 3.09 *Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.*
- 3.10 *Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.*

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL QUALITY OF LIFE

The Growth Management goals to attain mobility and clean air goals and to develop urban forms that enhance quality of life, that accommodate a diversity of life styles, that preserve open space and natural resources, and that are aesthetically pleasing and preserve the character of communities, enhance the regional strategic goal of maintaining the regional quality of life. The evaluation of the proposed project in relation to the following policies would be intended to provide direction for plan implementation, and does not allude to regional mandates.

- 3.11 *Support provisions and incentives created by local jurisdictions to attract housing growth in job rich subregions and job growth in housing rich subregions.*
- 3.12 *Encourage existing or proposed local jurisdictions' programs aimed at designing*

land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.

- 3.13 *Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.*
-
- 3.14 *Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers.*
- 3.15 *Support local jurisdictions strategies to establish mixed-use clusters and other transit-oriented developments around transit stations and along transit corridors.*
- 3.16 *Encourage developments in and around activity centers, transportation corridors, underutilized infrastructure systems, and areas needing recycling and redevelopment.*
- 3.17 *Support and encourage settlement patterns, which contain a range of urban densities.*
- 3.18 *Encourage planned development in locations least likely to cause environmental impact.*
- 3.22 *Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.*
- 3.23 *Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.*

GMC POLICIES RELATED TO THE RCPG GOAL TO PROVIDE SOCIAL, POLITICAL, AND CULTURAL EQUITY

The Growth Management Goal to develop urban forms that avoid economic and social polarization promotes the regional strategic goal of minimizing social and geographic disparities and of reaching equity among all segments of society. The evaluation of the proposed project in relation to the policy stated below is intended guide direction for the accomplishment of this goal, and does not infer regional mandates and interference with local land use powers.

- 3.25 *Encourage the efforts of local jurisdictions, employers and service agencies to provide adequate training and retraining of workers, and prepare the labor force to meet the challenges of the regional economy.*
- 3.27 *Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.*

AIR QUALITY CHAPTER CORE ACTIONS

The **Air Quality Chapter** core actions related to the proposed project includes:

- 5.07 *Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.*
- 5.11 *Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.*

WATER QUALITY CHAPTER RECOMMENDATIONS AND POLICY OPTIONS

The **Water Quality Chapter** core recommendations and policy options relate to the two water quality goals: to restore and maintain the chemical, physical and biological integrity of the nation's water; and, to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters.

- 11.02 *Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.*
- 11.07 *Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.*

CONCLUSIONS

All feasible measures needed to mitigate any potentially negative regional impacts associated with the proposed project should be implemented and monitored, as required by CEQA.

- - -
ENDNOTE

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Roles and Authorities

SCAG is a **Joint Powers Agency** established under California Government Code Section 6502 et seq. Under federal and state law, SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG's mandated roles and responsibilities include the following:

SCAG is designated by the federal government as the Region's **Metropolitan Planning Organization** and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. '134(g)-(h), 49 U.S.C. '1607(f)-(g) et seq., 23 C.F.R. '450, and 49 C.F.R. '613. SCAG is also the designated **Regional Transportation Planning Agency**, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080.

SCAG is responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the **South Coast Air Quality Management Plan**, pursuant to California Health and Safety Code Section 40460(b)-(c). SCAG is also designated under 42 U.S.C. '7504(a) as a **Co-Lead Agency** for air quality planning for the Central Coast and Southeast Desert Air Basin District.

SCAG is responsible under the Federal Clean Air Act for determining **Conformity** of Projects, Plans and Programs to the Air Plan, pursuant to 42 U.S.C. '7506.

Pursuant to California Government Code Section 65089.2, SCAG is responsible for **reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans** required by Section 65080 of the Government Code. SCAG must also evaluate the consistency and compatibility of such programs within the region.

SCAG is the authorized regional agency for **Inter-Governmental Review** of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A-95 Review).

SCAG reviews, pursuant to Public Resources Code Sections 21083 and 21087, **Environmental Impact Reports** of projects of regional significance for consistency with regional plans [California Environmental Quality Act Guidelines Sections 15206 and 15125(b)].



Gray Davis
GOVERNOR

STATE OF CALIFORNIA

Governor's Office of Planning and Research
State Clearinghouse



Loretta Lynch
DIRECTOR

Notice of Preparation

April 20, 2000

To: Reviewing Agencies

Re: South Coast Plaza Center EIR
SCH# 2000041100

Attached for your review and comment is the Notice of Preparation (NOP) for the South Coast Plaza Center EIR draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Michael R. Robinson
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

APR 24 2000

AM PM
718191101111011012111516

**Document Details Report
State Clearinghouse Data Base**

SCH# 2000041100
Project Title South Coast Plaza Center EIR
Lead Agency Costa Mesa, City of

Type nop Notice of Preparation
Description General Plan Amendment GP-00-02/Specific Plan Amendment SP-00-01 encompasses several major components.

Lead Agency Contact

Name Michael R. Robinson
Agency City of Costa Mesa
Phone 714-754-5610
email

Fax

Address 77 Fair Drive
City Costa Mesa

State CA **Zip** 92628-1200

Project Location

County Orange
City Costa Mesa
Region

Cross Streets

Parcel No.

Township

Range

Section

Base

Proximity to:

Highways

Airports

Railways

Waterways

Schools

Land Use

Project Issues

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Department of Fish and Game, Region 5; Native American Heritage Commission; State Lands Commission; Caltrans, District 12; California Highway Patrol; Regional Water Quality Control Board, Region 8

Date Received 04/20/2000 **Start of Review** 04/20/2000 **End of Review** 05/19/2000

NO. 1 Division List

- Resource Agency**
- Nadell Gayou**
Resources Agency
1020 Ninth Street, Third Floor
Sacramento, CA 95814
916/327-1722 Fax 916/327-1648
- Bill Curry**
Dept. of Boating & Waterways
2000 Evergreen Street
Sacramento, CA 95815-3896
916/263-4326 Fax 916/263-0648
- Elizabeth A. Fuchs**
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219
415/904-5200 Fax 415/904-5400
- Ken Trott**
Dept. of Conservation
801 K Street, MS-24-02
Sacramento, CA 95814
916/445-8733 Fax 916/324-0948
- Allen Robertson**
Dept. of Forestry & Fire Protection
1416 Ninth Street, Room 1516-24
Sacramento, CA 95814
916/657-0300 Fax 916/653-8957
- Hans Kreutzberg**
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-6624 Fax 916/653-9824
- Beth Walls**
Resource Management Division
Dept. of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-6725 Fax 916/657-3355
- Pam Bruner**
Reclamation Board
1416 Ninth Street, Room 1601
Sacramento, CA 95814
916/653-5434 Fax 916/653-5805
- Steve McAdam**
S.F. Bay Conservation & Dev't Comm.
30 Van Ness Avenue, Room 2011
San Francisco, CA 94102
415/557-3686 Fax 415/557-3767
- Nadell Gayou**
Department of Water Resources
1020 Ninth Street, Third Floor
Sacramento, CA 95814
916/327-1722 Fax 916/327-1648
- Health & Welfare**
- Wayne Hubbard**
Dept. of Health/Drinking Water
601 N. 7th Street, PO Box 942732
Sacramento, CA 94234-7320
916/445-2519 Fax 916/327-6092
- Ted Bell**
Dept. of Food and Agriculture
1220 N Street, Room 405
Sacramento, CA 95814
916/653-7643 Fax 916/653-4723

- Joe Vincenly**
Department of Fish and Game
Environmental Services Division
1416 Ninth Street, 13th Floor
Sacramento, CA 95814
916/653-1070 Fax 916/653-2588
- Donald Koch (Region 1)**
Department of Fish and Game
601 Locust Street
Redding, CA 96001
530/225-2363 Fax 530/225-2381
- Banky Curtis (Region 2)**
Department of Fish & Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
916/338-2898 Fax 916/338-2912
- Brian Hunter (Region 3)**
Department of Fish and Game
P.O. Box 47
Yountville, CA 94599
707/944-5518 Fax 707/944-5563
- William Landermilk (Region 4)**
Department of Fish and Game
124 East Shaw Avenue
Fresno, CA 95710
559/243-4005 Fax 559/243-4022
- Sandy Peterson (Region 5)**
Department of Fish and Game
Habitat Conservation Program
4949 Viewridge Avenue
San Diego, CA 92123
858/467-4234 Fax 858/467-4299
- Cheryl Avents (Region 6)**
Department of Fish and Game
Habitat Conservation Program
330 Golden Shore, Suite 50
Long Beach, CA 90802
562/590-5159 Fax 562/590-5192
- Tammy Allen (Region 6, Inyo/Mono)**
Department of Fish and Game
Habitat Conservation Program
407 West Line Street, Room 8
Bishop, CA 93514
760/872-1461 Fax 760/872-1284
- DeWayne Johnston (Marine Region)**
Department of Fish and Game
20 Lower Regadale Drive, Suite 100
Monterey, CA 93940
831/649-2870 Fax 831/649-2394

- Greg Newhouse**
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814
916/654-5000 Fax 916/654-3682
- Debbie Treadway**
Native American Heritage Comm.
915 Capitol Mall, Room 364
Sacramento, CA 95814
916/653-4082 Fax 916/657-5390
- Andrew Barnsdale**
Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
415/703-3231 Fax 415/703-1184
- Betty Silva**
State Lands Commission
100 Howe Avenue, Suite 100-5
Sacramento, CA 95825
916/574-1872 Fax 916/574-1885

- Joe Vincenly**
Department of Fish and Game
Environmental Services Division
1416 Ninth Street, 13th Floor
Sacramento, CA 95814
916/653-1070 Fax 916/653-2588
- Lyn Barnett**
Tahoe Regional Planning Agency
P.O. Box 1038
Zephyr Cove, NV 89448
775/588-4547 Fax 775/588-4527
- John Rowden, Manager**
Office of Emergency Services
11030 White Rock Road, Ste. 110
Rancho Cordova, CA 95670
916/464-1014 Fax 916/464-1019
- Debbie Eddy**
Delta Protection Commission
P.O. Box 350
Walnut Grove, CA 95690
916/776-2290 Fax 916/776-2293
- Paul Edelman**
Santa Monica Mountains Conservancy
5750 Ramirez Canyon Road
Malibu, CA 90265
310/588-3200 Fax 310/588-3207

- Teraki**
California
770 Fairmount Avenue, Suite 100
Glendale, CA 91203-1035
818/543-4676 Fax 818/543-4685
- Lou Salazar**
California, District 11
P.O. Box 85406, MS 6-5
2829 Juan Street
San Diego, CA 92186-5406
619/688-3140 Fax 619/688-4299
- Alleen Kennedy**
California, District 12
3347 Michelson Drive, Suite 100
Irvine, CA 92612-0661
949/724-2239 Fax 949/724-2592
- Business, Transportation, & Housing**
- Cathy Creswell**
Housing & Community Development
Housing Policy Division
1800 Third Street, Room 430
Sacramento, CA 95814
916/323-3176 Fax 916/327-2643
- Sandy Hensard**
California - Division of Aeronautics
P.O. Box 942874 MS-40
Sacramento, CA 94274-0001
916/654-5314 Fax 916/653-9531
- L.L. Dennis Brunette**
California Highway Patrol
Office of Special Projects
2555 1st Ave.
Sacramento, CA 95818
916/657-7222 Fax 916/452-3151
- Ron Helgeson**
California - Planning
P.O. Box 942874
Sacramento, CA 94274-0001
916/653-9966 Fax 916/653-0001

- State and Consumer Services**
- Robert Sleppy**
Dept. of General Services
Environmental Services Section
1102 Q Street, #5100
Sacramento, CA 95814-6511
916/524-0214 Fax 916/445-3556
- California Environmental Protection Agency**
- Air Resources Board**
2020 L Street (PO Box 2815)
Sacramento, CA 95814 (958)14-2815
916/327-5783 Fax 916/322-3646
- Rob Rogan**
(airport projects)
- Ann Geraghty**
(transportation projects)
- Mike Tollestrup**
(industrial projects)
- Sue O'Leary**
Integrated Waste Management Board
8800 Cal Center Drive, MS 24
Sacramento, CA 95826
916/255-0663 Fax 916/366-2428
- Diane Edwards**
State Water Resources Control Board
Division of Clean Water Programs
P.O. Box 944212
Sacramento, CA 94244-2120
916/227-4572 Fax 916/227-4349

- California, District 10**
P.O. Box 2048
Stockton, CA 95201
209/948-7142 Fax 209/948-7906
- Phil Zentner**
State Water Resources Control Board
Division of Water Quality
P.O. Box 944213
Sacramento, CA 94244-2130
916/657-0912 Fax 916/657-2388
- Mike Falkenstein**
State Water Resources Control Board
Division of Water Rights
901 P Street, 3rd Floor
Sacramento, CA 95814
916/657-1377 Fax 916/657-1485
- Dept. of Toxic Substances Control**
CEQA Tracking Center
400 P Street, Fourth Floor
P.O. Box 806
Sacramento, CA 95812-0806
916/324-3119 Fax 916/324-1788

- Regional Water Quality Control Board**
- North Coast Region (1)**
Cathy Goodwin
5550 Skyline Blvd., Suite A
Santa Rosa, CA 95403
707/576-2220 Fax 707/523-0135
- San Francisco Bay Region (2)**
Environmental Document Coordinator
1515 Clay Street, Suite 1400
Oakland, CA 94612
916/622-2300 Fax 510/622-2460
- Central Coast Region (3)**
81 Highera Street, Suite 200
San Luis Obispo, CA 93401-5427
805/549-3147 Fax 805/543-0397
- Los Angeles Region (4)**
Jonathan Bishop
320 West 4th Street, Suite 200
Los Angeles, CA 90013
213/576-6600 Fax 213/576-6640
- Central Valley Region (5)**
3443 Router Road, Suite A
Sacramento, CA 95827-3003
916/255-3000 Fax 916/255-3015
- Fresno Branch Office**
3614 East Ashlan Avenue
Fresno, CA 93726
559/445-5116 Fax 559/445-5910
- Redding Branch Office**
415 Knollcrest Drive
Redding, CA 96002
530/224-4845 Fax 530/224-4857
- Lahontan Region (6)**
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150
530/542-5400 Fax 530/544-2271
- Victorville Branch Office**
15428 Civic Drive, Suite 100
Victorville, CA 92392-2359
760/241-6583 Fax 760/241-7308
- Colorado River Basin Region (7)**
73720 Fred Waring Drive, #100
Palm Desert, CA 92260-2564
760/346-7491 Fax 760/341-6820
- Santa Ana Region (8)**
3737 Main Street, Suite 500
Riverside, CA 92501-3339
909/782-4130 Fax 909/781-6288
- San Diego Region (9)**
9771 Clairemont Mesa Blvd., Suite A
San Diego, CA 92124-1331
619/467-2952 Fax 619/571-6972

- California, District 11**
P.O. Box 85406, MS 6-5
2829 Juan Street
San Diego, CA 92186-5406
619/688-3140 Fax 619/688-4299
- California, District 12**
3347 Michelson Drive, Suite 100
Irvine, CA 92612-0661
949/724-2239 Fax 949/724-2592
- Business, Transportation, & Housing**
- Cathy Creswell**
Housing & Community Development
Housing Policy Division
1800 Third Street, Room 430
Sacramento, CA 95814
916/323-3176 Fax 916/327-2643
- Sandy Hensard**
California - Division of Aeronautics
P.O. Box 942874 MS-40
Sacramento, CA 94274-0001
916/654-5314 Fax 916/653-9531
- L.L. Dennis Brunette**
California Highway Patrol
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2555 1st Ave.
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916/657-7222 Fax 916/452-3151
- Ron Helgeson**
California - Planning
P.O. Box 942874
Sacramento, CA 94274-0001
916/653-9966 Fax 916/653-0001
- State and Consumer Services**
- Robert Sleppy**
Dept. of General Services
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916/524-0214 Fax 916/445-3556
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8800 Cal Center Drive, MS 24
Sacramento, CA 95826
916/255-0663 Fax 916/366-2428
- Diane Edwards**
State Water Resources Control Board
Division of Clean Water Programs
P.O. Box 944212
Sacramento, CA 94244-2120
916/227-4572 Fax 916/227-4349



AIRPORT LAND USE COMMISSION

FOR ORANGE COUNTY

3160 Airway Avenue • Costa Mesa, California 92626 • 949.252.5170 fax: 949.252.5178

April 26, 2000

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

APR 28 2000

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Mr. R. Michael Robinson
Planning & Redevelopment Manager
City of Costa Mesa Planning Division
P.O. Box 1200
Costa Mesa, CA 92628-1200

Subject: NOP -- South Coast Plaza Town Center EIR

Dear Mr. Robinson:

After reviewing the subject Notice Of Preparation, we wish to offer the following comments, which are intended to aid your assessment of potential environmental impacts of the project in the area of "Airport Operations".

As you know, since the project includes both a General Plan Amendment and a Specific Plan Amendment, we are required to review the project for consistency with the Airport Land Use Commission's *Airport Environs Land Use Plan (AELUP)*. The only AELUP planning policy affecting the project site relates to safety aloft, i.e. the protection of the navigable airspace and the resultant limits on building heights.

The proposed project is located approximately one mile westerly of Runway 19R at John Wayne Airport (JWA). Consequently, the project is within the FAR Part 77 FAA Notification Area and the AELUP Height Restriction Zone (radius of 20,000') for JWA. The FAR Part 77 Area and the AELUP Zone are both defined by the 100:1 Imaginary Surface, of which any penetration requires written notification to the FAA, and project review by our Commission. Since the Commission does not want to preempt the authority of the FAA in airspace matters, an official determination from the FAA regarding the compatibility of the planned building heights must be an integral part of our decision-making process and that of the City. Accordingly, the EIR assessment should include an official filing of notice with the FAA Regional Office, as well as the results of the Aeronautical Study which the FAA will perform for the project.

On behalf of the Commission, thank you for this opportunity to comment on this important land use project in your City. If you should require any additional information or details, please contact me at (949) 252-5170 or Alfred Brady at (949) 252-5123.

Sincerely,

Joan S. Golding, Executive Officer

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax



RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT
April 26, 2000

Michael R. Robinson
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 926

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7 18 19 11 10 11 11 12 11 12 13 14 15 16

RE: SCH#2000041100- South Coast Plaza Center EIR

Dear Mr. Robinson:

The Native American Heritage Commission has reviewed the above mentioned NOP. To adequately assess the project-related impact on archaeological resources, the Commission recommends the following action be required:

1. Contact the appropriate Information Center for a records search. The record search will determine:
 - Whether a part or all of the project area has been previously surveyed for cultural resources.
 - Whether any known cultural resources have already been recorded on or adjacent to the project area.
 - Whether the probability is low, moderate, or high that cultural resources are located within the project area.
 - Whether a survey is required to determine whether previously unrecorded cultural resources are present.
2. The final stage of the archaeological inventory survey is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - Required the report containing site significance and mitigation be submitted immediately to the planning department.
 - Required site forms and final written report be submitted within 3 months after work has been completed to the Information Center.
3. Contact the Native American Heritage Commission for:
 - A Sacred Lands File Check.
 - A list of appropriate Native American Contacts for consultation concerning the project site and assist in the mitigation measures.

Lack of surface evidence of archeological resources does not preclude the existence of archeological resources. Lead agencies should include provisions for accidentally discovered archeological resources during construction per California Environmental Quality Act (CEQA) §15064.5 (f). Health and Safety Code §7050.5 and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery and should be included in all environmental documents. If you have any questions, please contact Debbie Pilas-Treadway at (916) 653-4038.

Sincerely,

Larry Myers
Executive Secretary

CC: State Clearinghouse



Orange County Public Library

1501 E. ST. ANDREW PLACE, SANTA ANA, CA 92705 (714) 566-3000

JOHN M. ADAMS

COUNTY LIBRARIAN



April 25, 2000

MAY 08 2000

R. Michael Robinson, AICP
Michael Brandman Associates
15901 Red Hill Avenue, Suite 200
Tustin, CA 9280

Dear Mr. Robinson:

After reviewing the Notice of Preparation of a Draft EIR for the South Coast Plaza Town Center project, I have determined there will be no impact to the Orange County Public Library.

If you have any further questions, please feel free to call me at 714/566-3035.

Sincerely,

David C. Sankey, Director
Fiscal & Purchasing Services

DS:kf

MAY-12-2000 08:17

DEVELOPMENT SVS

P.02

MAYOR
 Miguel A. Pulido
 MAYOR PRO TEM
 Thomas E. Lutz
 COUNCIL MEMBERS
 Lisa Bist
 Alberta D. Christy
 Brett Franklin
 Patricia A. McGuigan
 Ted R. Moreno



CITY OF SANTA ANA

PLANNING & BUILDING AGENCY
 20 Civic Center Plaza (M-20)
 P.O. BOX 1988 • Santa Ana, California 92702
 Fax (714) 973-1461

CITY MANAGER
 David N. Ream
 CITY ATTORNEY
 Joseph W. Fletcher
 CLERK OF THE COUNCIL
 Patricia E. Healy

RECEIVED
 CITY OF COSTA MESA
 DEVELOPMENT SERVICES DEPARTMENT

MAY 09 2000

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 7 18 19 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6

May 9, 2000

Mr. R. Michael Robinson
 Planning and Redevelopment Manager
 City of Costa Mesa
 P.O. Box 1200
 Costa Mesa, CA 92628-1200

Subject: SOUTH COAST PLAZA TOWN CENTER KIR - NOTICE OF PREPARATION

Dear Mr. Robinson:

Thank you for the opportunity to review and provide comments on the Notice of Preparation for the proposed South Coast Plaza Town Center Environmental Impact Report. It is our understanding that the proposed project involves:

- 1) The development of an 11-story 347,900 square foot office building and a 757 space parking structure within the Two Town Center project site
- 2) The development of a 301,145 square foot, 2500 seat symphony hall immediately east of the South Coast Repertory Theater and a 32,000 square foot expansion to the South Coast Repertory Theater
- 3) The development of a 140,000 square foot art museum at the southwest corner of Town Center Drive and Avenue of the Arts, and
- 4) The transfer of 255,000 square feet of office space to the southeast corner of Bristol Street and Sunflower Avenue

Mr. Robinson
South Coast Plaza Town Center EIR
Notice of Preparation
May 9, 2000
Page 2 of 2

5) The transfer of entitlements of a 186 room hotel to the corner of Bristol Street and Anton Boulevard.

It is also our understanding that the proposed project will require an amendment to the City of Costa Mesa General Plan, North Costa Mesa Specific plan and the Town Center Master Plan.

Attached to this letter is a listing of comments on the Notice of Preparation for the South Coast Town Center Environmental Impact Report prepared by the City of Santa Ana Transportation & Development Services Division. At this time we are requesting that each of comments be addressed and analyzed in the Draft Environmental Impact Report.

Again, thank you for the opportunity to comment on the Notice of Preparation. We would appreciate it if three copies of the Draft Environmental Impact Report for the proposed project be forwarded to us for our review. If you have any questions concerning our comments on the Notice of Preparation, please feel free to call me at (714) 667-2719. If you have specific questions or need additional information about traffic issues, please contact Shahir Gobran, Transportation Analyst, at (714) 747-5615.

Sincerely,



Dan Bott
Environmental Coordinator

DB:TR
db\Town Center MOP comments

pc: Robyn Uptegraff, Executive Director
Shahir Gobran, P.E., Transportation Analyst

Attachment

South Coast Plaza Town Center EIR
Notice of Preparation
May 9, 2000
Page 1 of 3

Traffic

The City of Santa Ana is concerned about the potential impacts to our community and infrastructure resulting from the proposed development immediately adjacent to Santa Ana. Our preliminary review of the study area revealed potential significant impacts upon Santa Ana streets and intersections.

The information provided in the NOP does not include the magnitude of the scope of work to assess the impacts on City of Santa Ana. We believe that the project will impact a considerably large area. At this time, we request that the following intersections and mid-block locations be analyzed to determine the "project's" direct impacts, as required by the California Environmental Quality Act. We also request that realistic recommendations be presented to mitigate the project's impacts to an acceptable Level of Service.

We request that the study utilize the City of Santa Ana's methodology to assess project impacts at the requested locations. The project impacts on each location should be clearly identified in addition to identifying the contributive portion of cumulative impacts. We believe that the OCTAM utilized in this analysis is capable of analyzing individual project impacts scenario in addition to the cumulative projects impacts scenario. Please contact the City's Environmental Coordinator at (714) 667-2719 for a list of projects in the City of Santa Ana to be used in your cumulative impact analysis.

The intersections requested to be analyzed are:

- Bear Street at MacArthur Boulevard
- Bear Street at Sunflower Avenue

- Bristol Street at MacArthur Boulevard
- Bristol Street at Sunflower Avenue

- Flower Street at MacArthur Boulevard
- Flower Street at Dyer Road
- Flower Street at Sunflower Avenue

- Main Street at Dyer Road
- Main Street at MacArthur Boulevard

South Coast Plaza Town Center EIR
Notice of Preparation
May 9, 2000
Page 2 of 3

- Main Street at Sunflower Avenue
 - Hutton Center Drive at MacArthur Boulevard
 - SR-55 SB ramp at MacArthur Boulevard
 - SR-55 NB ramp at MacArthur Boulevard
-

The mid-block locations requested to be analyzed are:

- Dyer Road w/o Flower Street
- Dyer Road between Flower Street and Main Street
- Dyer Road e/o Main Street
- MacArthur Boulevard w/o Bear Street
- MacArthur Boulevard between Bear Street and Bristol Street
- MacArthur Boulevard between Bristol Street and Flower Street
- MacArthur Boulevard between Flower Street and Main Street
- MacArthur Boulevard e/o Main Street
- Sunflower Avenue between Bristol Street and Flower Street
- Sunflower Avenue between Flower Street and Main Street
- Bear Street between Sunflower Avenue and MacArthur Boulevard
- Bristol Street between Sunflower Avenue and MacArthur Boulevard
- Bristol Street north of MacArthur Boulevard
- Flower Street between Sunflower Avenue and MacArthur Boulevard
- Flower Street between MacArthur and Dyer Road
- Main Street between Sunflower Avenue and MacArthur Boulevard
- Main Street between MacArthur Boulevard and Dyer Road
- We understand that additional impacted intersections and segments may be revealed after the Draft EIR is released for review and the actual impacts are quantified. We will review that analysis and identified impacts and provide Costa Mesa comments when they are released.

South Coast Plaza Town Center EIR
Notice of Preparation
May 9, 2000
Page 3 of 3

Drainage

- Please submit a drainage plan indicating method of on-site drainage and level of impact on Sunflower Boulevard.
- Please submit a site plan and grading plan for review by the City of Santa Ana.
- Please submit construction erosion plans.





County of Orange *Attachment*
Planning & Development Services Department

ARMANDO M. MATHEWS
DIRECTOR

300 N. FLOWER ST.
SANTA ANA, CALIFORNIA

MAILING ADDRESS:
P.O. BOX 4048
SANTA ANA, CA 92702-1048

MAY 10 2000

NCL 00-39

R. Michael Robinson, AICP
City of Costa Mesa
Planning and Redevelopment
77 Fair Drive
Costa Mesa, CA 92628-1200

SUBJECT: NOP for the South Coast Plaza Town Center

Dear Mr. Robinson:

The above referenced item is a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the City of Costa Mesa. The South Coast Plaza Town Center is a 62-acre mixed-use office, commercial, and entertainment area bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts and the San Diego (I-405) freeway. Existing structures consist of approximately 2.8 million square feet of development. The proposed project would add three new office buildings, three new freestanding restaurants, a 4-screen cinema, single-story retail building, and an outdoor sculpture garden. The project also would include a symphony hall, and art museum or academy.

The County of Orange has reviewed the NOP and offers the following comments:

FLOOD

1. The 62-acre project as depicted in the NOP is tributary to several Orange County Flood Control District (OCFCD) facilities: the Santa Ana Delhi Channel (F01), the Santa Ana Gardens Channel (F02), and the Airport Storm Channel (F01S01).

As indicated on Page 5 of the NOP, the implementation of the project will have potential impacts on hydrology and water quality. The DEIR must identify and address resulting impacts to the adjacent and downstream drainage facilities. We recommend that hydrologic and/or hydraulic analyses be conducted to ensure that the existing conditions upstream and downstream of the project site will not be worsened in the post-project condition.

2. Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map #06059C0038F, January 3, 1997, shows some portions of the project site to be within the 100-year special flood hazard areas, and the balance of the site to be within the 500-year flood plain. In addition, it is known that project site and its adjacent low-lying areas have been subject to flooding from storms of varying recurrence intervals in the past. It is important that developments within the floodplains must be accomplished through compliance with FEMA's floodplain requirements. Resolution of issues related to floodplains should be addressed through the City, which has jurisdiction over floodplains within its boundaries.
3. Any proposed drainage connections to or modifications of OCFCD facilities must be consistent with OCFCD's standards and criteria. Also, any work within OCFCD right-of-way will require permits.

WASTE MANAGEMENT

4. The California Integrated Waste Management Board requires that all counties have an approved Countywide Integrated Waste Management Plan (CIWMP). To be approved, the CIWMP must demonstrate sufficient solid waste disposal capacity for at least fifteen years, or identify additional available capacity outside of the County's jurisdiction. Orange County's CIWMP, approved in 1996, contains future solid waste disposal demand based on the County population projections previously adopted by the Board of Supervisors. The County's Integrated Waste Management Department's (IWMD) database shows that the threshold established by the California Integrated Waste Management Board.

The County of Orange owns and operates three active landfills. The Frank R. Bowerman Landfill is the closest facility to the project, and will likely be the solid waste facility receiving the waste. Notwithstanding, the City of Costa Mesa is under contract to the County's IWMD to commit all of its waste to the County landfill system (not to a particular facility) until the year 2007. At the same time, the landfill system is accepting additional waste from outside Orange County. Under these circumstances, it has been agreed that should the cumulative effect of development cause the daily tonnage ceiling of a particular facility to be exceeded, the waste being imported to that facility will be reduced by a corresponding amount. Consequently, it may be assumed that adequate capacity for the subject project is available for the foreseeable future.

Notwithstanding the availability of landfill capacity in the County system, the State of California has required that by the start of this year, each city and county demonstrate a reduction of at least 50% in the amount of waste from that jurisdiction that had gone into landfills in the year 1990. Also, the State requires that this level of reduction be sustained in perpetuity. Waste haulers are expected to contribute by recycling residential and commercial waste they have collected, and project developers are expected to employ measures to reduce the amount of construction-generated waste. We recommend

that the project developer contact the City recycling coordinator to ensure that the proposed project is in compliance with the City's program.

At this time, the County's IWMD does not have information on solid waste generation rates in Orange County. Any questions about solid waste generation rates should be forwarded to the California Integrated Waste Management Board in Sacramento.

5. **Construction and Demolition Waste:**

The City of Costa Mesa is responsible for meeting the Assembly Bill 939 (AB 939) mandate of 50% disposal reduction by the start of this year, and for preparing AB 939 solid waste planning documents. These documents include the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE), and the Non-Disposal Facility Element (NDFE).

Construction- and demolition- generated waste (C&D) is heavy, inert material. This material creates significant problems when disposed of in landfills; since C&D debris does not decompose, it takes up valuable landfill capacity. Additionally, since C&D debris is heavy when compared with paper and plastic, it is more difficult for the County and cities to reduce the tonnage of disposed waste. For this reason, C&D waste debris has been specifically targeted by the State of California for diversion from the waste stream. Projects which will generate C&D waste should emphasize deconstruction and diversion planning, rather than demolition. Deconstruction is the planned, organized dismantling of the prior construction project, which allows maximum use of the deconstructed materials for recycling in other construction projects and sends a minimum of the deconstruction material to landfills.

We recommend that this project address a waste reduction plan for the C&D waste generated from this project. This plan should be coordinated with the recycling coordinator for the City of Costa Mesa to help ensure AB 939 requirements are properly addressed.

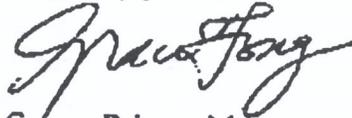
BIKEWAYS

6. The Commuter Bikeways Strategic Plan, the regional bikeways plan for Orange County, identifies a Class I (paved off-road) bikeway along Anton Boulevard, from Sunflower Avenue to Bristol Street. Part of this bikeway is currently existing and landscaped with shade trees. We suggest the subject project incorporate this regional off-road bikeway. The bikeway would not necessarily have to follow Anton, but could be incorporated into the off-road circulation system of the proposed project.
7. Class I bikeways are mitigation measures to help reduce air pollution, traffic congestion, and noise. Because off-road bikeways are suitable for bicyclists and pedestrians with a wide range of ages and abilities, addition of a Class I bikeway would help to encourage

alternative modes of transportation, and would enhance recreational opportunities for area office workers, tourists/hotel guests, shoppers, and local residents.

Thank you for the opportunity to respond to the NOP. Please send one complete set of the DEIR to me at the above address when they become available. If you have any questions, please contact me or feel free to call Charlotte Harryman directly. Charlotte may be reached at (714) 834-2522.

Very truly yours,



for

George Britton, Manager
Environmental and Project
Planning Services Division

CH



City of Huntington Beach

2000 MAIN STREET

CALIFORNIA 92648

DEPARTMENT OF PLANNING

Phone 536-5271
Fax 374-1540
374-1648

May 9, 2000

R. Michael Robinson, AICP
City of Costa Mesa
Development Services Department
77 Fair Drive
Costa Mesa, CA 92628

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

MAY 12 2000

AM PM
7181911011112111212141516

RE: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for South Coast Plaza Town Center

Dear Mr. Robinson:

Thank you for sending a copy of the NOP for the South Coast Plaza Town Center DEIR to the City of Huntington Beach for review. After reviewing the NOP, the City has no comments at this time. However, we would like to obtain one copy of the DEIR when it is completed. Please send a copy to me when it becomes available for public review.

If you have any questions regarding this letter, you can reach me at (714) 536-5274. Thank you for the opportunity to provide comments on the NOP.

Sincerely,

Cindy Chic
Assistant Planner
g:\chic\environm\CostaMesaLtr3

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

May 10, 2000

R. Michael Robinson, AICP
City of Costa Mesa
77 Fair Drive
Costa Mesa, California 92628-1200

MAY 12 2000

AM PM
7181911011112111012141516

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report for
South Coast Plaza Town Center

This letter is in response to the Notice of Preparation (NOP) for a Draft EIR for South Coast Plaza Town Center. The proposed project is located within the City of Costa Mesa and is bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts, and the San Diego (I-405) Freeway. The project description includes amending existing land use plans and vacation of portions of Town Center Drive. The NOP indicates a proposed addition of 1,028,645 square feet of building area.

The project area is within the jurisdiction of the Orange County Sanitation District (District). The District's previous planning has shown high intensity commercial land use for this area.

The Draft EIR should provide projected sewer flows for the new development, and a study showing local and regional sewer system impacts. From the information contained in the NOP, it appears that the development may be served by the District's 18-inch Sewer in Avenue of the Arts, eventually flowing to the Sunflower Trunk Sewer. The development cannot be served through the District's Gialer-Redhill Trunk Sewer, as future widening of I-405 will require abandonment of portions of that pipeline.

For your calculations, use flow coefficients listed below:

- 727 gpd/acre for estate density residential (0-3 d.u. /acre);
- 1488 gpd/acre for low density residential (4-7 d.u. /acre);
- 3451 gpd/acre for medium density residential (8-16 d.u./acre);
- 5474 gpd/acre for medium-high density residential (17-25 d.u./acre);
- 7516 gpd/acre for high density residential (26-35 d.u./acre);
- 2262 gpd/acre for commercial/office;
- 3167 gpd/acre for industrial;
- 2715 gpd/acre for institutional;
- 5429 gpd/acre for high intensity industrial/commercial;
- 150 gpd/room for hotels and motels;
- 50 gal./seat for restaurants, and
- 129 gpd/acre for recreation and open space usage.



CITY OF FOUNTAIN VALLEY

10200 SLATER AVENUE • FOUNTAIN VALLEY, CA 92708-4736 • (714) 593-4400, FAX: (714) 593-4498

May 12, 2000

Mr. R. Michael Robinson
City of Costa Mesa Planning Division
PO Box 1200
Costa Mesa, CA 92628-1200

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

MAY 15 2000

AM PM
7181912012112011512141516

**SUBJECT: NOTICE OF PREPARATION - SOUTH COAST PLAZA TOWN CENTER
DRAFT ENVIRONMENTAL IMPACT REPORT**

Dear Mr. Robinson:

Thank you for the opportunity to review the Notice of Preparation (NOP) for the Proposed South Coast Plaza Town Center Draft Environmental Impact Report (EIR). The City of Fountain Valley Planning and Public Works Departments have reviewed the NOP and have determined that cumulative traffic impacts resulting from the proposed Costa Mesa General Plan Update and the proposed Home Ranch Project should be included in the traffic and circulation analysis. Although not adjacent to the border of Costa Mesa and Fountain Valley, cumulative traffic impacts resulting from the development of the South Coast Plaza Town Center Project may shift increased traffic onto arterial streets located in Fountain Valley.

In addition, traffic modeling in the Draft EIR needs to be consistent with all current regional and sub-regional modeling efforts such as SARX. The Draft EIR should incorporate the Orange County Master Plan for Arterial Highways (MPAH) which identifies the need for the bridge crossing over the Santa Ana River at Garfield Avenue/Gisler Avenue. The Draft EIR for the South Coast Plaza Town Center project should include a complete analysis of traffic and circulation impacts to affected intersections and levels of service in the City of Fountain Valley.

Again, thank you for the opportunity to review the NOP. Upon completion of the Draft EIR, we would appreciate an opportunity to review the document. Please call me at (714) 593-4427 if you have any questions.

Sincerely,

Robert Franklin
Principal Planner

c: City Engineer



Costa Mesa Sanitary District

Phone June 20, 2000

(714) 754-5043

Fax

(714) 432-1436

Mr. Mike Robinson, AICP
Planning and Redevelopment Manager
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92626

RECEIVED
COSTA MESA SANITARY DISTRICT
JUN 21 2000
PH

**RE: RECIRCULATED NOP OF DRAFT EIR
SOUTH COAST PLAZA TOWN CENTER EIR**

Mailing Address

P. O. Box 1200
Costa Mesa, CA
92628-1200

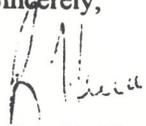
Dear Mike:

In response to your letter dated June 14, 2000, addressing minor modifications to the above project, the Costa Mesa Sanitary District's letter, copy attached, dated April 18, 2000, still applies.

If you have any further questions, please call me at 949/631-1731.

Sincerely,

Street Address
77 Fair Drive
Costa Mesa, CA
92626-6520


Robin B. Hamers
Manager/District Engineer

cc. Staff

Board of Directors

Art Perry
Gene Schaefer
Doug Wooten
John ...
...



Gray Davis
GOVERNOR

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse



Steve Nissen
ACTING DIRECTOR

Notice of Preparation

June 21, 2000

To: Reviewing Agencies
Re: South Coast Plaza Town Center
SCH# 2000041100

RECEIVED
OFFICE OF PLANNING AND RESEARCH
DEVELOPMENT SERVICE DEPARTMENT

JUN 26 2000

AM
7:11 PM

Attached for your review and comment is the Notice of Preparation (NOP) for the South Coast Plaza Town Center draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Michael R. Robinson
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2000041100
Project Title South Coast Plaza Town Center
Lead Agency Costa Mesa, City of

Type NOP Notice of Preparation
Description General Plan Amendment GP-00-02/Specific Plan Amendment SP-00-01 encompasses several major components.

Lead Agency Contact

Name Michael R. Robinson
Agency City of Costa Mesa
Phone 714-754-5610
email **Fax**

Address 77 Fair Drive
City Costa Mesa **State** CA **Zip** 92628-1200

Project Location

County Orange
City Costa Mesa
Region
Cross Streets Bristol Street/Sun Flower Avenue

Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways SR 55
Airports John Wayne Airport
Railways
Waterways
Schools
Land Use

Project Issues Aesthetic/Visual; Air Quality; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Sewer Capacity; Soil Erosion/Compaction/Grading; Traffic/Circulation; Water Quality; Water Supply; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Department of Fish and Game, Region 5; Native American Heritage Commission; State Lands Commission; Caltrans, District 12; California Highway Patrol; Regional Water Quality Control Board, Region 8

Date Received 06/21/2000 **Start of Review** 06/21/2000 **End of Review** 07/20/2000

Resources Agency

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Resources Agency
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916/327-1722 Fax 916/327-1648

Suzi Betzler
Dept. of Boating & Waterways
2000 Evergreen Street
Sacramento, CA 95815-3896
916/263-0781 Fax 916/263-0648

Elizabeth A. Fuchs
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219
415/904-5200 Fax 415/904-5400

Ken Troit
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801 K Street, MS-24-02
Sacramento, CA 95814
916/445-8733 Fax 916/324-0948

Allen Robertson
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1416 Ninth Street, Room 1516-24
Sacramento, CA 95814
916/657-0300 Fax 916/653-8957

Hans Kreuzberg
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-6624 Fax 916/653-9824

Beth Walls
Resource Management Division
Dept. of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-6725 Fax 916/657-3355

Pam Bruner
Reclamation Board
1416 Ninth Street, Room 1601
Sacramento, CA 95814
916/653-5434 Fax 916/653-5805

Steve McAdam
S.F. Bay Conservation & Dev't. Comm.
50 California Street, 26th Floor
San Francisco, CA 94111
415/352-3600 Fax 415/352-3606

Nadell Gayou
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1020 Ninth Street, Third Floor
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Health & Welfare

Wayne Hubbard
Dept. of Health/Drinking Water
601 N. 7th Street, PO Box 942732
Sacramento, CA 94234-7320
916/445-2519 Fax 916/327-6092

Tad Bell
Dept. of Food and Agriculture
1220 N Street, Room 409
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916/653-7643 Fax 916/653-4723

Food & Agriculture

Joe Vincenly
Department of Fish and Game
Environmental Services Division
1416 Ninth Street, 13th Floor
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916/653-1070 Fax 916/653-2588

Donald Koch (Region 1)
Department of Fish and Game
60 Locust Street
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530/225-2363 Fax 530/225-2381

Banky Curtis (Region 2)
Department of Fish & Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
916/358-2898 Fax 916/358-2912

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Department of Fish and Game
7329 Silverado Trail
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707/944-5517 Fax 707/944-5563

William Laudermilk (Region 4)
Department of Fish and Game
1234 East Shaw Avenue
Fresno, CA 93710
559/243-4005 Fax 559/243-4022

Sandy Peterson (Region 5)
Department of Fish and Game
Habitat Conservation Program
4949 Viewridge Avenue
San Diego, CA 92123
858/467-4234 Fax 858/467-4299

Gabrina Gatchel (Region 6)
Department of Fish and Game
Habitat Conservation Program
4775 Bird Farm Road
Chino Hills, CA 91709
909/597-9823 Fax 909/597-0067

Tammy Allen (Region 6, Inyo/Mono)
Department of Fish and Game
Habitat Conservation Program
407 West Line Street, Room 8
Bishop, CA 93514
760/872-1461 Fax 760/872-1284

DeWayne Johnston (Marine Region)
Department of Fish and Game
20 Lower Regadate Drive, Suite 100
Monterey, CA 93940
831/649-2870 Fax 831/649-2894

Independent Commissions/Agencies

Greg Newhouse
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814
916/654-5000 Fax 916/654-3882

Debbie Treadway
Native American Heritage Comm.
915 Capitol Mall, Room 364
Sacramento, CA 95814
916/653-4082 Fax 916/657-5390

Andrew Bermadale
Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
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Betty Silva
State Lands Commission
100 Howe Avenue, Suite 100-S
Sacramento, CA 95825
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Joe Kolorado
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Glendale, CA 91203-1035
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Zephyr Cove, NV 89448
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John Rowden, Manager
Office of Emergency Services
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Rancho Cordova, CA 95670
916/464-1014 Fax 916/464-1019

Debbly Eddy
Delta Protection Commission
P.O. Box 530
Walnut Grove, CA 95690
916/776-2290 Fax 916/776-2293

Paul Edelman
Santa Monica Mountains Conservancy
5750 Ramirez Canyon Road
Malibu, CA 90265
310/589-3200 Fax 310/589-3207

Department of Transportation District Contacts

IGR/Planning
Caltrans, District 1
1656 Union Street
P.O. Box 3700
Eureka, CA 95502-3700
707/441-5812 Fax 707/441-5869

Local Development Review
Caltrans, District 2
P.O. Box 496073
Redding, CA 96049-6073
530/225-3089 Fax 530/225-3271

Jeff Pulverman
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Sacramento, CA 94274-0001
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Jean Finney
Caltrans, District 4
P.O. Box 23660
Oakland, CA 94623-0660
510/286-5572 Fax 510/286-5513

Lawrence Newland
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San Luis Obispo, CA 93401-5415
805/549-3683 Fax 805/549-3077

Marc Birnbaum
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Fresno, CA 93778-2616
559/488-4260 Fax 559/488-4088

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Los Angeles, CA 90012
213/897-4429 Fax 213/897-9210

Mike Sim
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San Bernardino, CA 92401-1400
909/383-4808 Fax 909/383-5936

Robert Ruhnke
Caltrans, District 9
500 South Main Street
Bishop, CA 93514
760/872-0689 Fax 760/872-0678

Caltrans, District 10
P.O. Box 2048
Stockton, CA 95201
209/948-7142 Fax 209/948-7906

Lois Salazar
Caltrans, District 11
P.O. Box 85406, MS 6-5
2829 Juan Street
San Diego, CA 92186-5406
619/688-3140 Fax 619/688-4299

Aileen Kennedy
Caltrans, District 12
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Cathy Creswell
Housing & Community Development
Housing Policy Division
1800 Third Street, Room 430
Sacramento, CA 95814
916/323-3176 Fax 916/327-2643

Sandy Hensard
Caltrans - Division of Aeronautics
P.O. Box 942874 MS-40
Sacramento, CA 94274-0001
916/654-5314 Fax 916/653-9531

Lt. Dennis Brunette
California Highway Patrol
Office of Special Projects
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Sacramento, CA 95818
916/657-7222 Fax 916/452-3151

Ron Helgeson
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P.O. Box 942874
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Robert Sleppy
Dept. of General Services
Environmental Services Section
1102 Q Street, #5100
Sacramento, CA 95814-6511
916/324-0214 Fax 916/445-3556

California Environmental Protection Agency
Air Resources Board
2020 L Street (PO Box 2815)
Sacramento, CA 95814 (95814-2815)
916/327-5783 Fax 916/322-3646

Rob Rogan
(al airport projects)
Ann Geraghty
(transporation projects)
Mike Tollstrup
(industrial projects)

Sue O'Leary
Integrated Waste Management Board
8800 Cal Center Drive, MS 24
Sacramento, CA 95826
916/255-0663 Fax 916/366-2428

Diane Edwards
State Water Resources Control Board
Division of Clean Water Programs
P.O. Box 944212
Sacramento, CA 94244-2120
916/227-4572 Fax 916/227-4349

Phil Zentner
State Water Resources Control Board
Division of Water Quality
P.O. Box 944213
Sacramento, CA 94244-2130
916/657-0912 Fax 916/657-2388

Mike Falkenstein
State Water Resources Control Board
Division of Water Rights
901 P Street, 3rd Floor
Sacramento, CA 95814
916/657-1377 Fax 916/657-1485

Dept. of Toxic Substances Control
CEQA Tracking Center
400 P Street, Fourth Floor
P.O. Box 806
Sacramento, CA 95812-0806
916/324-3119 Fax 916/324-1788

Regional Water Quality Control Board
North Coast Region (1)
Cathleen Hudson
5550 Skyline Blvd., Suite A
Santa Rosa, CA 95403
707/576-2220 Fax 707/523-0135

San Francisco Bay Region (2)
Environmental Document Coordinator
1515 Clay Street, Suite 1400
Oakland, CA 94612
510/622-2300 Fax 510/622-2460

Central Coast Region (3)
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5427
805/549-3147 Fax 805/543-0397

Los Angeles Region (4)
Jonathan Bishop
320 West 4th Street, Suite 200
Los Angeles, CA 90013
213/576-6600 Fax 213/576-6640

Central Valley Region (5)
3443 Roulter Road, Suite A
Sacramento, CA 95827-3003
916/255-3000 Fax 916/253-3015

Fresno Branch Office
3614 East Ashlan Avenue
Fresno, CA 93726
559/445-5116 Fax 559/445-5910

Redding Branch Office
415 Knollcrest Drive
Redding, CA 96002
530/224-4845 Fax 530/224-4857

Lahontan Region (6)
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150
530/542-5400 Fax 530/544-2271

Victorville Branch Office
15428 Civic Drive, Suite 100
Victorville, CA 92392-2359
760/241-6583 Fax 760/241-7308

Colorado River Basin Region (7)
73720 Fred Waring Drive, #100
Palm Desert, CA 92260-2564
760/346-7491 Fax 760/341-6820

Santa Ana Region (8)
3737 Main Street, Suite 500
Riverside, CA 92501-3339
909/782-4130 Fax 909/781-6288

San Diego Region (9)
9771 Clairemont Mesa Blvd., Suite A
San Diego, CA 92124-1331
858/467-2952 Fax 858/571-6972



South Coast Air Quality Management District

21865 E. Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • <http://www.aqmd.gov>

06 2000

June 28, 2000

Mr. Michael Robinson, AICP
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628-1200

Dear Mr. Robinson:

Recirculated Notice of Preparation of an Environmental Impact Report South Coast Plaza Town Center

The South Coast Air Quality Management District (AQMD) appreciates the opportunity to comment on the above-mentioned document. The AQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the Draft Environmental Impact Report (EIR).

Air Quality Analysis

The AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The AQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the AQMD's Subscription Services Department by calling (909) 396-3720.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction and operations should be considered. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the evaluation. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the AQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additionally, AQMD's Rule 403 - Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

AQMD rules and relevant air quality reports and data are available by calling the AQMD's Public Information Center at (909) 396-3600. Much of the information available through the Public Information Center is also available via the AQMD's World Wide Web Homepage (<http://www.aqmd.gov>).

The AQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Dr. Charles Blankson, Transportation Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.

Sincerely,

Steve Smith

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development and Area Sources

SS:CB:li

ORC000619-01LI
Control Number

dlr



County of Orange

Planning & Development Services

Post-It Fax Note	7571	Date	7/10	# of Pages	7
To	R. Michael Robinson	From	C. Horryman		
City/Dept.	Costa Mesa	County	Orange/Planning		
Phone #	Planning	Phone #	(714) 834-2522		
Fax #	754-5350 4856	Fax #	(714) 834-6132		

JUL 10 2000

NCL 00-64

R. Michael Robinson, AICP
 City of Costa Mesa
 Planning and Redevelopment
 77 Fair Drive
 Costa Mesa, CA 92628-1200

SUBJECT: Recirculated NOP for the South Coast Plaza Town Center

Dear Mr. Robinson:

The above referenced item is a Recirculated Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the City of Costa Mesa. The South Coast Plaza Town Center is a 62-acre mixed-use office, commercial, and entertainment area bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts and the San Diego (I-405) freeway. Existing structures consist of approximately 2.8 million square feet of development. The proposed project would add three new office buildings, three new freestanding restaurants, a 4-screen cinema, single-story retail building, and an outdoor sculpture garden. The project also would include a symphony hall, and art museum or academy. The minor modifications in the project include an overall increase of 52,100 square feet of office space and 300 parking spaces. Other modifications include the replacement of 20,600 square feet of restaurant and 8,100 square feet of retail space currently programmed for demolition under the previous project proposal.

The County of Orange has reviewed the Recirculated NOP and offers the following comments:

FLOOD

1. Our previous comments in the attached letter of May 10, 2000 remain valid and will serve as our comments to the Recirculated NOP.

WATER QUALITY

We recommend the DEIR address:

2. Existing conditions of receiving waters as identified in the Water Quality Control Plan - Santa Ana River Basin (Basin Plan), with its goals and objectives for surface water quality.

3. **Water quality impairments in the downstream receiving waters, as reflected in the Clean Water Act 303(d) list and the 1996 California Water Quality Assessment Report, notably Upper and Lower Newport Bay. Impairments should also address the ongoing Total Maximum Daily Load (TMDL) studies, being conducted pursuant to Clean Water Act Section 303 (d).**

4. **The potential surface water quality impacts of the project including but not limited to: construction activities, long-term runoff impacts of new impervious surfaces, pesticides and fertilizers applied to landscaping, future spills from accidents and/or improper business and/or residential management of chemicals. Current and previous studies on pathogens, toxics, nutrients and sediment would be particularly relevant.**
5. **Mitigation for project water quality impacts including:**
 - A) **Preparation of a construction Stormwater Pollution Prevention Plan under State National Pollutant Discharge Elimination System (NPDES) requirements;**
 - B) **Incorporation of Federal EPA/NOAA guidance measures for coastal nonpoint source pollution;**
 - C) **Incorporation of measures from the State Municipal Best Management Practices (BMPs) Manual;**
 - D) **Incorporation of other measures from the State Urban Runoff Technical Advisory Committee Report and Recommendations;**
 - E) **Incorporation of flood control improvements sensitive in design to potential water quality impacts;**
 - F) **Development of a project area-specific plan to implement EPA-adopted TMDL study requirements; and**
 - G) **Development of a long-term post-construction water quality management plan, describing commitments to installation and maintenance of structural facilities and conduct of non-structural Best Management Practices (BMPs) consistent with the Drainage Area Management Plan (DAMP) New Development Appendix.**

The size of this project, with several hundred thousand sq. ft. of new construction and proximity to impaired water bodies, suggest the incorporation of "special" structural BMPs, as defined in the Countywide Drainage Area Management Program. The DEIR preparer may wish to examine the water quality basins and planning incorporated into the Ladera Ranch Community Runoff Management Plan in the unincorporated County which provides

an example of special structural BMPs intended specifically to reduce water quality impacts to a level of insignificance.

BIKEWAYS

- 6. Our previous comments in the attached letter of May 10, 2000 remain valid and will serve as our comments to the Recirculated NOP.**

Thank you for the opportunity to respond to the Recirculated NOP. Please send one complete set of the DEIR to me at the above address when they become available. If you have any questions, please contact me or feel free to call Charlotte Harryman directly. Charlotte may be reached at (714) 834-2522.

Very truly yours,



**George Britton, Manager
Environmental and Project
Planning Services Division**

Attachment

CH



AIRPORT LAND USE COMMISSION

FOR ORANGE COUNTY

3160 Airway Avenue • Costa Mesa, California 92626 • 949.252.5170 fax: 949.252.5178

July 11, 2000

RECEIVED
CITY OF COSTA MESA
DEVELOPMENT SERVICES DEPARTMENT

JUL 13 2000

AM PM
71819110111011101110111516

Mr. R. Michael Robinson
Planning & Redevelopment Manager
City of Costa Mesa Planning Division
P.O. Box 1200
Costa Mesa, CA 92628-1200

Subject: Modification of the NOP – South Coast Plaza Town Center EIR

Dear Mr. Robinson:

Thank you for the opportunity to review the modification to the NOP for this project. We have reviewed the project and offer the same comments as those provided to you in a letter dated April 26, 2000 for the project's original NOP. Those comments are reiterated below.

The proposed project is located approximately one mile west of Runway 19R at John Wayne Airport (JWA). Consequently, the project is within the FAR Part 77 FAA Notification Area and the AELUP Height Restriction Zone (radius of 20,000') for JWA. The FAR Part 77 Area and the AELUP Height Restriction Zone are both defined by the 100:1 Imaginary Surface, of which any penetration requires written notification to the FAA, and project review by the Airport Land Use Commission. Since the Commission does not want to preempt the authority of the FAA in airspace matters, an official determination from the FAA regarding the compatibility of the planned building heights must be an integral part of our decision-making process and that of the City. Accordingly, the EIR assessment should include an official filing of notice with the FAA Regional Office, as well as the results of the Aeronautical Study which the FAA will perform for the subject project.

On behalf of the Commission, thank you for this opportunity to comment on this important land use project in your City. If you have questions or require any additional information, please contact me at (949) 252-5170 or Roger Yee at (949) 252-5095.

Sincerely,

Joan S. Golding, Executive Officer
Airport Land Use Commission

July 12, 2000

- prevention of sewage and chemical spills; and
 - tracking of sediments and toxic materials into the streets, storm water conveyance channels, or waterways.
6. This project will result in a large parcel of land being paved, thereby altering the rate and volume of groundwater recharge and altering the rate and volume of surface water runoff, possibly increasing the amount of suspended pollutants discharging into adjacent surface channels. Mitigation for this impact should be discussed.
 7. Construction equipment should not be stored within any streambeds. Fueling, lubrication, and maintenance equipment should not be located within any streams or areas where contaminants could be washed into a waterbody.
 8. No waste material should be discharged to any drainage areas, channels or streams. Spoil sites should not be located within any streams or areas where spoil material could be washed in a waterbody.
 9. Any habitat and vegetation that will be removed within the project site should be addressed and mitigated for.

If you have any questions, please call me at (909) 782-4468 or you may contact Stephanie M. Gasca at (909) 782-3221.

Sincerely,

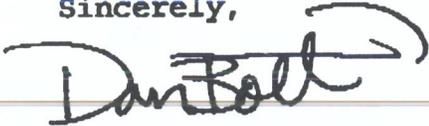


Wanda Smith, Chief
Planning Section – Coastal Waters

cc: Scott Morgan – State Clearinghouse

forwarded to us for our review. If you have any questions concerning our comments on the Notice of Preparation, please feel free to call me at (714) 667-2719. If you have specific questions or need additional information about traffic issues, please contact Shahir Gobran, Transportation Analyst, at (714) 747-5615.

Sincerely,

A handwritten signature in black ink that reads "Dan Bott". The signature is stylized with a large, sweeping flourish that extends to the right and loops back under the name.

Dan Bott
Environmental Coordinator

DB:TR

db\Toms Center EOP comments

pc: Jeff Rice, Principal Planner
Shahir Gobran, P.E., Transportation Analyst

Attachment

Traffic

The City of Santa Ana is concerned about the potential impacts to our community and infrastructure resulting from the proposed development immediately adjacent to Santa Ana. Our preliminary review of the study area revealed potential significant impacts upon Santa Ana streets and intersections.

The information provided in the NOP does not include the magnitude of the scope of work to assess the impacts on City of Santa Ana. We believe that the project will impact a considerably large area. At this time, we request that the following intersections and mid-block locations be analyzed to determine the "project's" direct impacts, as required by the California Environmental Quality Act. We also request that realistic recommendations be presented to mitigate the project's impacts to an acceptable Level of Service.

We request that the study utilize the City of Santa Ana's methodology to assess project impacts at the requested locations. The project impacts on each location should be clearly identified in addition to identifying the contributive portion of cumulative impacts. We believe that the OCTAM utilized in this analysis is capable of analyzing individual project impacts scenario in addition to the cumulative projects impacts scenario. Please contact the City's Environmental Coordinator at (714) 667-2719 for a list of projects in the City of Santa Ana to be used in your cumulative impact analysis.

The intersections requested to be analyzed are:

- Bear Street at MacArthur Boulevard
- Bear Street at Sunflower Avenue

- Bristol Street at MacArthur Boulevard
- Bristol Street at Sunflower Avenue

- Flower Street at MacArthur Boulevard
- Flower Street at Dyer Road
- Flower Street at Sunflower Avenue

- Main Street at Dyer Road
- Main Street at MacArthur Boulevard

- Main Street at Sunflower Avenue
- Hutton Center Drive at MacArthur Boulevard
- SR-55 SB ramp at MacArthur Boulevard
- SR-55 NB ramp at MacArthur Boulevard

The mid-block locations requested to be analyzed are:

- Dyer Road w/o Flower Street
- Dyer Road between Flower Street and Main Street
- Dyer Road e/o Main Street
- MacArthur Boulevard w/o Bear Street
- MacArthur Boulevard between Bear Street and Bristol Street
- MacArthur Boulevard between Bristol Street and Flower Street
- MacArthur Boulevard between Flower Street and Main Street
- MacArthur Boulevard e/o Main Street
- Sunflower Avenue between Bristol Street and Flower Street
- Sunflower Avenue between Flower Street and Main Street
- Bear Street between Sunflower Avenue and MacArthur Boulevard
- Bristol Street between Sunflower Avenue and MacArthur Boulevard
- Bristol Street north of MacArthur Boulevard
- Flower Street between Sunflower Avenue and MacArthur Boulevard
- Flower Street between MacArthur and Dyer Road
- Main Street between Sunflower Avenue and MacArthur Boulevard
- Main Street between MacArthur Boulevard and Dyer Road
- We understand that additional impacted intersections and segments may be revealed after the Draft EIR is released for review and the actual impacts are quantified. We will review that analysis and identified impacts and provide Costa Mesa comments when they are released.

South Coast Plaza Town Center EIR
Notice of Preparation
July 12, 2000
Page 3 of 3

Drainage

- Please submit a drainage plan indicating method of on-site drainage and level of impact on Sunflower Boulevard.
- Please submit a site plan and grading plan for review by the City of Santa Ana.
- Please submit construction erosion plans.

APPENDIX B
GEOTECHNICAL REPORT



May 3, 2000

PN 00118-00

Mr. Jason Brandman
Michael Brandman Associates, Inc.
19507 Redhill Avenue, Suite 200
Tustin, CA 92780

Subject: Geotechnical Input for the South Coast Plaza Town Center EIR, City of
Costa Mesa, California.

Dear Mr. Brandman:

In accordance with your request and authorization, Zeiser Kling Consultants, Inc. (ZKCI) has completed a Geotechnical Review for the South Coast Plaza Town Center EIR. The accompanying report presents our findings and conclusions regarding the known existing geotechnical conditions and constraints affecting the site and provides mitigation alternatives for the identified constraints.

We appreciate this opportunity to be of service to you on this project. Should you have any questions regarding the content of this report, please do not hesitate to contact our office at your earliest convenience.

Sincerely,

ZEISER KLING CONSULTANTS, INC.

A handwritten signature in black ink, appearing to read "H. Kling".

Henry F. Kling
Vice President
G.E. 2205
Expires 3/31/04



JAD:HFK:lw

Distribution: (2) Addressee
(1) Electronic File on Disk

A handwritten signature in black ink, appearing to read "Jules A. Darras".

Jules A. Darras
Engineering Geologist
C.E.G. 1637
Expires 4/31/01



INTRODUCTION

1.1 Purpose and Scope of Work

The purpose of this report has been to evaluate the known existing geotechnical conditions within the subject area and provide mitigation alternatives for the geotechnical constraints potentially affecting future redevelopment in the South Coast Plaza Town Center.

The following scope of work was performed as part of our geotechnical review:

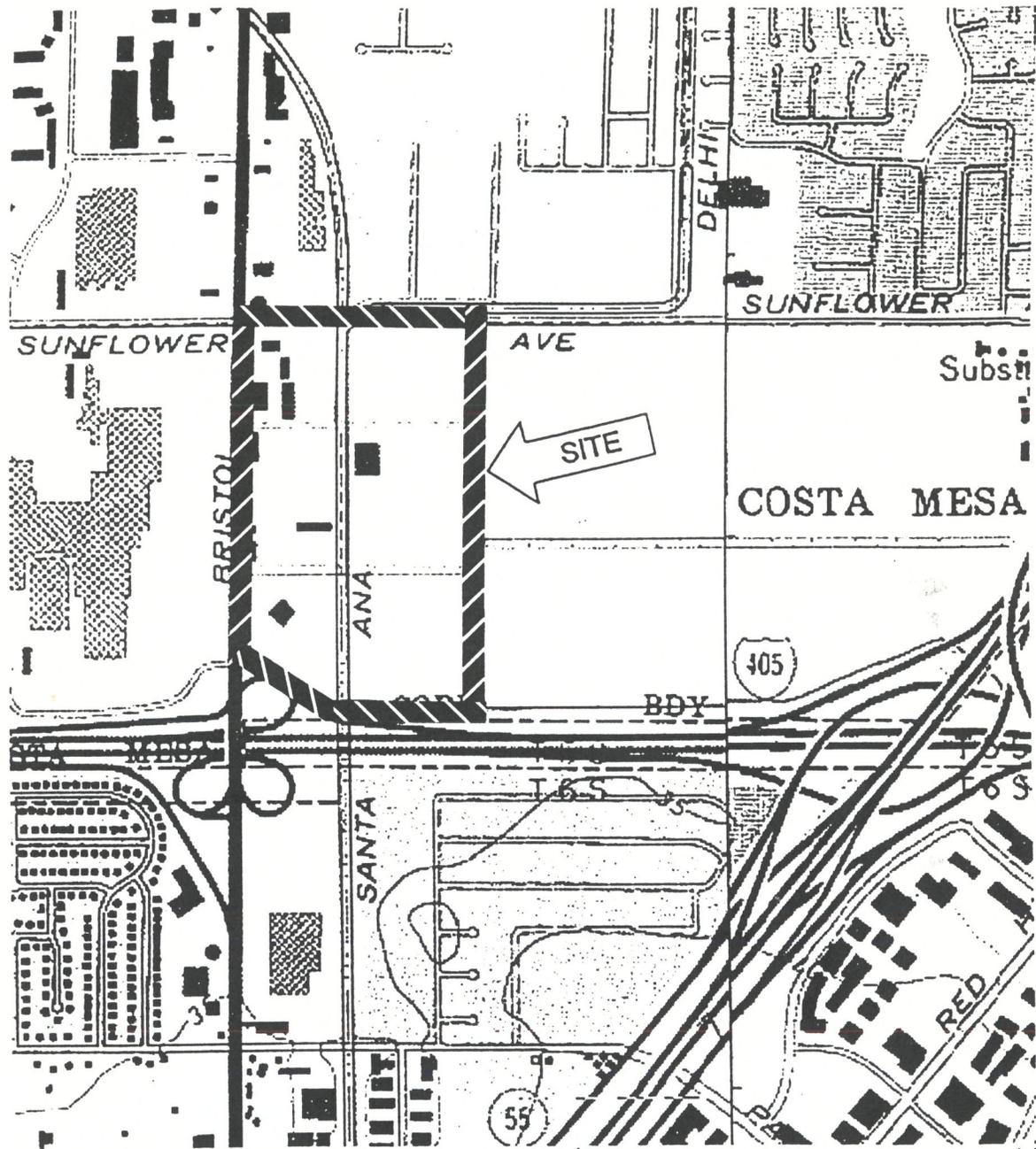
- Review of published geologic literature and maps.
- A brief site reconnaissance.
- Analysis of in-house air-photos.
- Geotechnical analysis of the collected data.
- Preparation of this report presenting our findings, conclusions, and mitigation alternatives regarding the geotechnical issues impacting future development in the subject Town Center.

1.2 Site Description

The 62-acre South Coast Plaza Town Center project is located in a broad alluvial plain in the city of Costa Mesa in Central Orange County, California. The subject site is bounded on the north and south by Sunflower Avenue and the San Diego (405) freeway, and on the east and west by Bristol Street and Avenue of the Arts. (Figure 1). The site is currently developed with numerous retail and commercial buildings. A number of paved roads provide access to the existing developments, and moderately large parking areas surround the buildings. Site drainage generally flows by way of existing streets, parking areas and storm drains. Elevations range from approximately 30 to 35 feet (above mean sea level). Existing utilities are predominantly underground. Non-paved portions of the site are landscaped and irrigated.

1.3 Proposed Development

It is our understanding that the redevelopment project would include demolition of several existing structures and streets, and construction of multi-level office and parking structures, a symphony hall, theater and hotel.



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**ZEISER
KLING**
Consultants, Inc.

Site Location Map
Michael Brandman & Associates
South Coast Plaza Town Center EIR
Costa Mesa, California

Figure:
PN:
Date:

1
00118-00
May 3, 2000

1.4 Previous Investigations

Previous geotechnical investigations for various developments within South Coast Plaza Town Center would likely be on file at the City of Costa Mesa Building Department. However, while we reviewed a limited number of selected reports, an exhaustive review of all geotechnical reports on file at the City is beyond our scope of services.

2.0 GEOTECHNICAL OVERVIEW

2.1 Regional Geology

The subject site is located within the broad Santa Ana-Tustin alluvial plain situated north of the San Joaquin Hills and south west of the Santa Ana Mountains.

2.2 Site Geology

Based on our review of existing reports and a limited site visit, artificial fill and surficial deposits of alluvium underlie the subject site. Tertiary bedrock underlies the alluvium at depth. (References 7, 10, 15, 16, 17, 18, 23) Detailed geologic mapping of earth units is beyond our scope of work.

Artificial fill was observed onsite associated with various existing improvements within the study area. Undocumented artificial fill may be present in remaining undeveloped sites. The fill materials generally consist of a mixture of clays, silts, and sands.

Surficial deposits have been mapped as Quaternary alluvium and colluvium. Quaternary deposits on the order of 500 feet thick consist of uncemented gravel, sand, silt and clay. Minor peat deposits may also be present. Tertiary bedrock similar to deposits in the Santa Ana Mountains and San Joaquin Hills underlay the Quaternary alluvium, and are in turn underlain by crystalline basement rock at extreme depth. Shallow groundwater is present within the near surface alluvium deposits. The Santa Ana-Tustin alluvial plain is bounded by structurally elevated margins uplifted during Quaternary deformation (Reference 17).

2.3 Seismic Hazards

The site does not lie within an Alquist-Priolo special studies zone (Reference 11). However, the site does lie within seismic hazards zone for liquefaction, according to State of California Seismic Hazards Zones Maps (Reference 5).

3.0 GEOTECHNICAL IMPACTS AND MITIGATION RECOMMENDATIONS

The following is a discussion of geotechnical constraints impacting the study area. Each is immediately followed with mitigation recommendations.

The geotechnical constraints potentially impacting future development within the South Coast Plaza Town Center include ground shaking, liquefiable soils, shallow groundwater, subsidence due to groundwater withdrawal, presence of undocumented fills, settlement, slope instability, expansive soils, and corrosive soils. Potential mitigation alternatives presented below are for planning purposes. Additional geotechnical investigation should be subsequently performed specific to future improvement by the geotechnical consultant of record for the project. The investigation should include subsurface exploration and analysis of the surficial deposits and groundwater conditions.

3.1 Faulting

No faults have been mapped or observed within the limits of the site. The study area does not lie within an Alquist-Priolo special Studies Zone. (Reference 11). No active or inactive faults are known to cross the site and therefore the potential for ground rupture is negligible.

The study area is not anticipated to be impacted by surface rupture of earthquake faults.

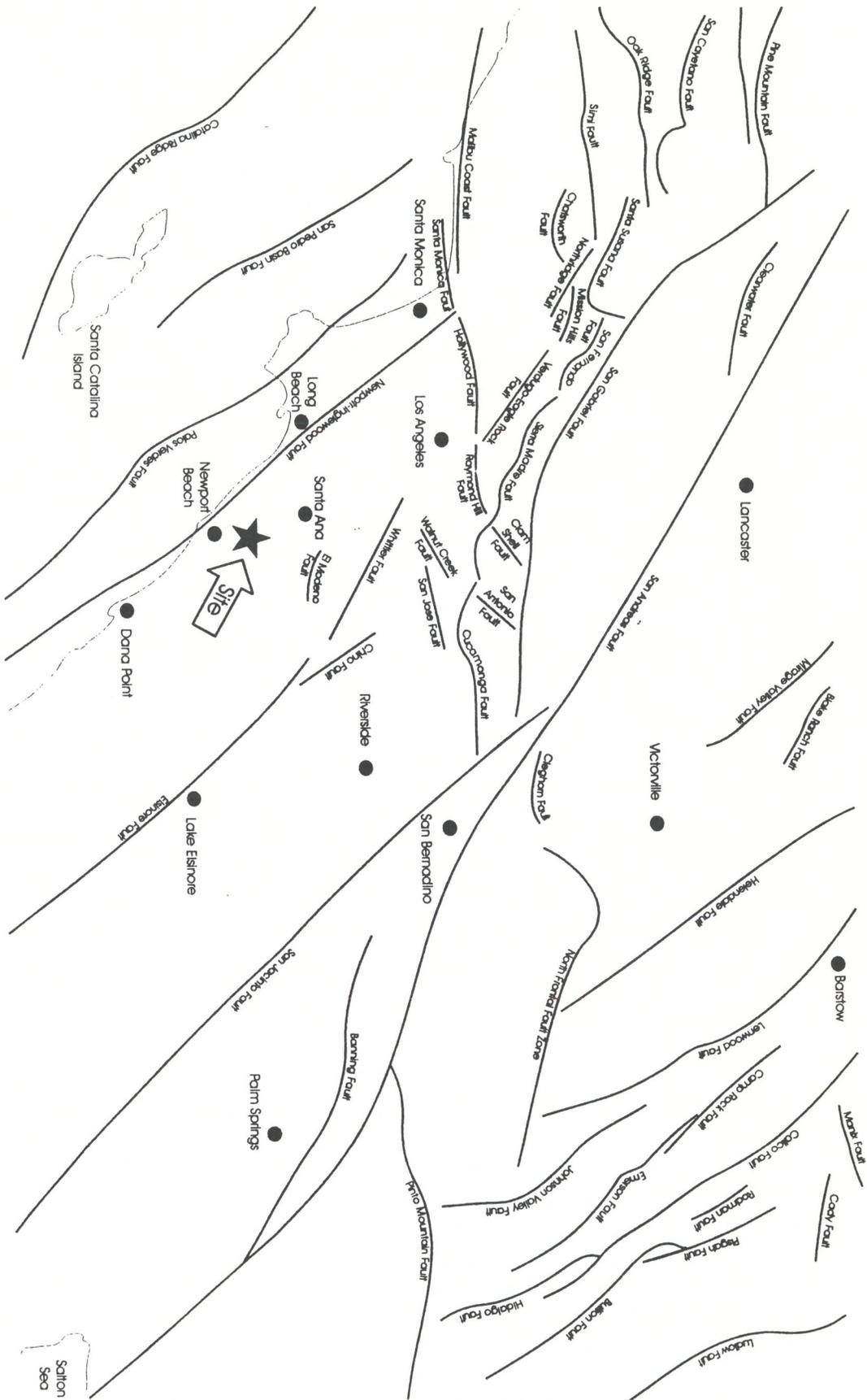
Mitigation: Though surface rupture is not anticipated to negatively impact the study area, the geotechnical consultant of record should address the potential for surface rupture for any future developments.

3.2 Seismicity

The Regional fault Map (Figure 2) illustrates the spatial relationship between the subject property and the geographic positions of known active faults in the Southern California region. The nearest known active mapped fault is the Newport-Inglewood fault lying approximately 6 km southwest of the subject property.

Ongoing studies of regional seismicity have suggested that the San Joaquin Hills Blind Thrust fault which may underlie the site is active (Reference 21). This fault does not appear on the Alquist-Priolo Special Studies Zones maps (Reference 11), but is thought to be capable of generating strong ground motion.

Table 1.0 lists selected active faults and estimated magnitudes of Maximum Probable Events (MPE) occurring on these faults. A MPE is defined as the maximum earthquake that is likely to occur during a 100-year interval (Reference 4). It should be noted that the following table is intended to provide an estimation of potential seismic activity on the subject site. Recent earthquakes have



Modified from Jennings, 1992
 Not to Scale



REGIONAL FAULT MAP
 Michael Brandman & Associates
 South Coast Plaza Town Center EIR
 Costa Mesa, California

Figure: 2
 PN: 00118-00
 Date: May 3, 2000

produced ground shaking at monitoring sites far in excess of predicted ground acceleration values. The project geotechnical consultant of record and the structural engineer of record should provide a detailed evaluation of earthquake response spectra for the specific structure design

Table 1.0
SEISMIC PARAMETERS

Fault	Distance to Site (Km)	MPE (Mw)	MCE (Mw)	Mean PHGA MPE	Mean PHGA (MCE)
San Joaquin Hills Blind Thrust	4	6.5	7.0	0.45	0.65
Newport/ Inglewood	6	6.5	7.0	0.44	0.64
Elsinore	25	6.4	7.5	0.14	0.24
Palos Verdes	30	6.4	7.0	0.12	0.17
San Andreas	70	7.2	8.2	0.10	0.16
Sierra Madre	56	6.7	7.4	0.09	0.13
Norwalk	30	6.1	6.3	0.11	0.12
San Jacinto-Casa Loma	68	6.4	7.5	0.07	0.11
Elysian Park	56	6.5	6.7	0.08	0.09
San Jacinto-Lytle Creek	67	6.4	6.6	0.07	0.07

The Boore et al (1996) attenuation equation was used to estimate on-site mean peak horizontal ground accelerations (PHGA) and the PHGA at mean plus one standard deviation (84th percentile) associated with MPE earthquakes on the faults listed in Table 1.0. The PHGA's are given as a fraction of gravitational acceleration (g). The attenuation equation uses a magnitude-distance relationship and allows for a general site classification based on shear wave velocity of the on-site earth materials and the type of fault movement (strike slip or reverse slip). Published literature assigns the alluvial deposits a shear wave velocity of 180 to 360 meters per second and the terrace deposits and sedimentary bedrock units 360 to 750 meters per second.

This area has experienced strong ground shaking from past earthquakes in the Southern California region and will likely experience strong ground shaking in the future. The estimated PHGA's produced by an MPE on selected faults are presented in Table 1.0. The largest estimated PHGA are associated with an MPE of 6.5 on the Newport Inglewood Fault, the closest fault to the subject site. The estimated PHGA from the Newport-Inglewood fault is 0.65g. The seismic shaking anticipated within the study area is typical of the southern California region.

Strong ground shaking as a result of local seismic events will likely impact the future development of South Coast Plaza Town Center.

Mitigation: Future developments should be designed with the benefit of a site-specific seismic evaluation by the geotechnical consultant of record. All future developments should be designed and constructed in accordance with recommendations of the geotechnical consultant of record and in accordance with requirements of the applicable Uniform Building Code.

3.3 Liquefaction

The entire South Coast Plaza Town Center study area lies within seismic hazards zone for liquefaction according to the State of California Seismic Hazard Zones Maps (Reference 5). Seismically induced ground shaking of loose saturated granular soil can increase internal pore water pressure causing the soils to lose shear strength and behave as a dense fluid. Liquefaction could result in settlement or lateral spreading of soils, thereby damaging structures.

The potential for liquefaction may impact the future development of South Coast Plaza Town Center.

Mitigation: The potential for liquefaction should be addressed by the geotechnical consultant of record for any future developments. Mitigation measures could include deepened or reinforced foundation elements, dewatering, or dynamic compaction of loose saturated soils

3.4 Groundwater

Near surface groundwater is reported to be present in the study area. Shallow groundwater may limit remedial removals of potentially unsuitable soils during grading or excavation. Design cuts or excavations may be impacted by seepage. Near surface groundwater increases the likelihood of liquefiable soils (see above). Shallow groundwater could cause nuisance maintenance problems for subterranean portions of improperly designed structures.

The potential for shallow groundwater will likely impact future construction or grading operations within South Coast Plaza Town Center.

Mitigation: Mitigating measures could include limited dewatering during construction with the use of subdrains. Future structures or development may be redesigned to avoid areas of shallow groundwater. Structures anticipated to encroach within wet or saturated soils may be designed with moisture barriers or drains. Excavation walls advanced through saturated zones may be shored or reinforced by sheet piles or other means to prevent raveling and instability of excavations due to seepage. The use of special equipment (such as a track hoe or any top loading equipment) to excavate the wet materials if necessary during grading or excavation. The geotechnical consultant of record for future development should provide specific mitigation recommendations for areas impacted by the potential for shallow groundwater.

3.5 Subsidence due to Groundwater Withdrawal

Regional or local groundwater withdrawal could cause ground subsidence on the site and in adjacent properties. Although the area is not known to be within an area known to be affected by regional subsidence due to groundwater withdrawal, excessive extraction of water from subsurface aquifer(s) could cause widespread regional ground subsidence in the future. Although generally not damaging to structures, regional subsidence should it become severe, could cause disruption to regional drainage systems in relatively flat lying areas such as the South Coast Plaza Town Center area. If near surface groundwater is pumped as part of a dewatering operation during construction or excavation, or as an ongoing mitigation against elevated groundwater conditions, water-bearing subsoils could consolidate resulting in localized ground subsidence sufficient to damage nearby structures.

Excessive groundwater extraction or local dewatering could cause regional or localized ground subsidence which could impact future developments within the study area or existing nearby structures.

Mitigation: The potential for ground subsidence should be addressed by the geotechnical consultant of record during development of improvement plans. Mitigating measures could include designing buildings above saturated zones to preclude the need for dewatering during construction, limiting the area and extent of dewatering should it be necessary during construction, and development of a survey monitoring program to monitor potential subsidence during periods of temporary dewatering during construction. Any future habitable spaces, if any, below the saturated zone should rely on moisture barriers rather than dewatering systems to prevent seepage within the buildings.

3.6 Undocumented Fill

There are various deposits of artificial fill associated with the existing developments within the South Coast Plaza Town Center area. There may also be minor deposits of undocumented or uncontrolled fills within the study area, though none were encountered during this review. A documented (also referred as 'engineered') fill is normally considered suitable for support of structures provided it has been observed and tested by a geotechnical engineer and found to be in minimum compliance with design specifications and/or City standards. Undocumented fill is normally considered suspect with respect to support of structures or future documented fills. Undocumented fills may be prone to settlement or instability, and may contain trash or other deleterious material.

Undocumented artificial fills, if present, may impact future development within South Coast Plaza Town Center.

Mitigation: The geotechnical engineer of record for future development within the South Coast Plaza Town Center would identify deposits of artificial fill, if present, within future development areas. Normally, the geotechnical engineer would recommend removal of undocumented fills prior to or during development.

3.7 Settlement Potential

Construction on surficial alluvial deposits will likely be affected by consolidation and compression-related settlement. Peat deposits, being highly compressible, could cause post-construction settlement if they are present below future building areas. Post-construction settlement of compressible foundation bearing soils could severely damage future buildings. The amount of settlement would depend on the thickness and compressibility characteristics of the surficial deposits, and the weight of future foundation loads.

Settlement of compressible surficial soils or peat deposits could impact future development within South Coast Plaza Town Center.

Mitigation: Mitigation alternatives for reducing settlement include complete removal of settlement-prone materials, preloading with surcharge fills and settlement monitoring prior to construction, or designing foundation elements to penetrate or otherwise minimize the effects of settlement. The geotechnical engineer of record for future developments would provide specific recommendations prior to construction.

3.8 Slope Instability

There are no natural slopes within the study area. Any slopes within the South Coast Plaza Town Center redevelopment would be manufactured by grading. Surficial or gross instability manufactured slopes within South Coast Plaza Town Center could impact future development. Surface erosion includes erosion, rilling and surficial slumping and is usually confined to the outer 3 feet of slope soil. Gross instability includes deeper structurally controlled landslides, and could affect not only the slope, but also adjacent areas. Though evaluation of individual slopes was beyond the scope of this report, existing natural slopes and future manufactured slopes could be potentially surficially or grossly unstable.

Slope instability could impact future development within South Coast Plaza Town Center.

Mitigation: Mitigation for surficial instability and erosion control on manufactured slopes could include the use of Geogrids, jute matting or other mechanical means. Also, blending granular soils with select materials to improve cohesion, directing drainage away from slopes, and landscaping with deep and shallow-rooted plants. Potential gross instability may be mitigated by redesigning the slope to a flatter gradient, constructing stability fills, mechanical methods such as caissons and grade beams, or by eliminating them from design. The

geotechnical consultant or record would address the potential for slope instability for any manufactured slopes prior to construction.

3.9 Expansion Potential

Surficial clayey soils may be prone to expansion. Expansive soils can cause post construction damage to building foundations or interior slabs, or exterior hardscape such as patio slabs, garden walls, driveways and sidewalks. Testing for expansive soils has not been performed under this scope of work.

Expansive soils may impact future development within South Coast Plaza Town Center.

Mitigation: Mitigation alternatives for expansive soil include special design of concrete elements in contact with expansive soils such as reinforcement with steel and/or thickening slabs, or by select grading by blending non-expansive soils in the upper several feet below hardscape elements. The geotechnical engineer of record for future developments would provide specific recommendations prior to construction.

3.10 Corrosive Soils

Surficial deposits may be corrosive to concrete or buried metals such as utility pipes. Blending import soils, if required, with on-site materials could change the corrosion potential. Testing for corrosive soils has not been performed under this scope of work.

Corrosive soils may impact future development within South Coast Plaza Town Center.

Mitigation: Blending less corrosive materials with the corrosive soils could be considered as a mitigation alternative. Other mitigating measures include removing corrosive soils in areas with contact to concrete or metals, and designing concrete and other buried elements such as pipes to resist corrosive soils. Cathodic protection systems could be designed and employed to reduce the effects of corrosive soils on deep concrete or steel foundation elements. The geotechnical consultant of record would address the potential for corrosive soils prior to construction.

4.0 PROFESSIONAL LIMITATIONS

Geotechnical services are provided by ZKCI in accordance with generally accepted professional engineering and geologic practice in the area where these services are to be rendered. Client acknowledges that the present standard in the engineering and geologic and environmental profession does not include a guarantee of perfection and, except as expressly set forth in the Conditions above, no warranty, expressed or implied, is extended by ZKCI.

Geotechnical reports are based on the project description and proposed scope of work as described in the proposal. Our conclusions and recommendations are based on the results of the field, laboratory, and office studies, combined with an interpolation and extrapolation of soil conditions as described in the report. The results reflect our geotechnical interpretation of the limited direct evidence obtained. Our conclusions and recommendations are made contingent upon the opportunity for ZKCI to continue to provide geotechnical services beyond the scope in the proposal to include all geotechnical services. If parties other than ZKCI are engaged to provide such services, they must be notified that they will be required to assume complete responsibility for the geotechnical work of the project by concurring with the recommendations in our report or by providing alternate recommendations.

It is the readers responsibility to verify the correct interpretation and intention of the recommendations presented herein. ZKCI assumes no responsibility for misunderstandings or improper interpretations that result in unsatisfactory or unsafe work products. It is the readers further responsibility to acquire copies of any supplemental reports, addenda or responses to public agency reviews that may supersede recommendations in this report.

APPENDIX A

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1"=2000'

USDA, 1952, Flight AXK 1K, Frames 42 and 43, Dated 11-15-52, 1"=1666'

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APPENDIX C
TRAFFIC ANALYSIS

CITY OF COSTA MESA
SOUTH COAST PLAZA TOWN CENTER

TRAFFIC ANALYSIS

OCTOBER 2000

**CITY OF COSTA MESA
SOUTH COAST PLAZA TOWN CENTER
Traffic Analysis**

Prepared by:

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October 10, 2000

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Chapter 1.0

INTRODUCTION

This report presents the results of a traffic impact analysis performed for the proposed South Coast Plaza Town Center development in the City of Costa Mesa. It addresses the traffic impacts related to the proposed development plan and is intended to provide the circulation analysis required for Environmental Impact Report (EIR) preparation. The report contains documentation of the methodology and assumptions used in the analysis and presents the results and findings of the capacity impacts of the proposed project.

SCOPE OF THIS ANALYSIS

This traffic analysis provides supporting traffic data for three General Plan Amendment applications with respect to the Town Center development.

To provide the necessary data, two sets of analyses were made with respect to future development of the project site. The first addresses land uses as defined by the City's current General Plan. The second addresses the proposed development plan by analyzing traffic conditions corresponding to buildout of the project area as proposed by the three General Plan amendments. A comparison is then made to the current General Plan conditions.

PROJECT DESCRIPTION

The Town Center projects are illustrated in Figures 1-1, 1-2 and 1-3. A site plan of the overall area is provided in Figure 1-4. Descriptions of each of the three proposed General Plan amendments are as follows:

A. Two Town Center - The proposed General Plan amendment would result in the demolition of the existing 1,700 seat Edwards Cinema and the addition of 300,000 square feet of office uses.

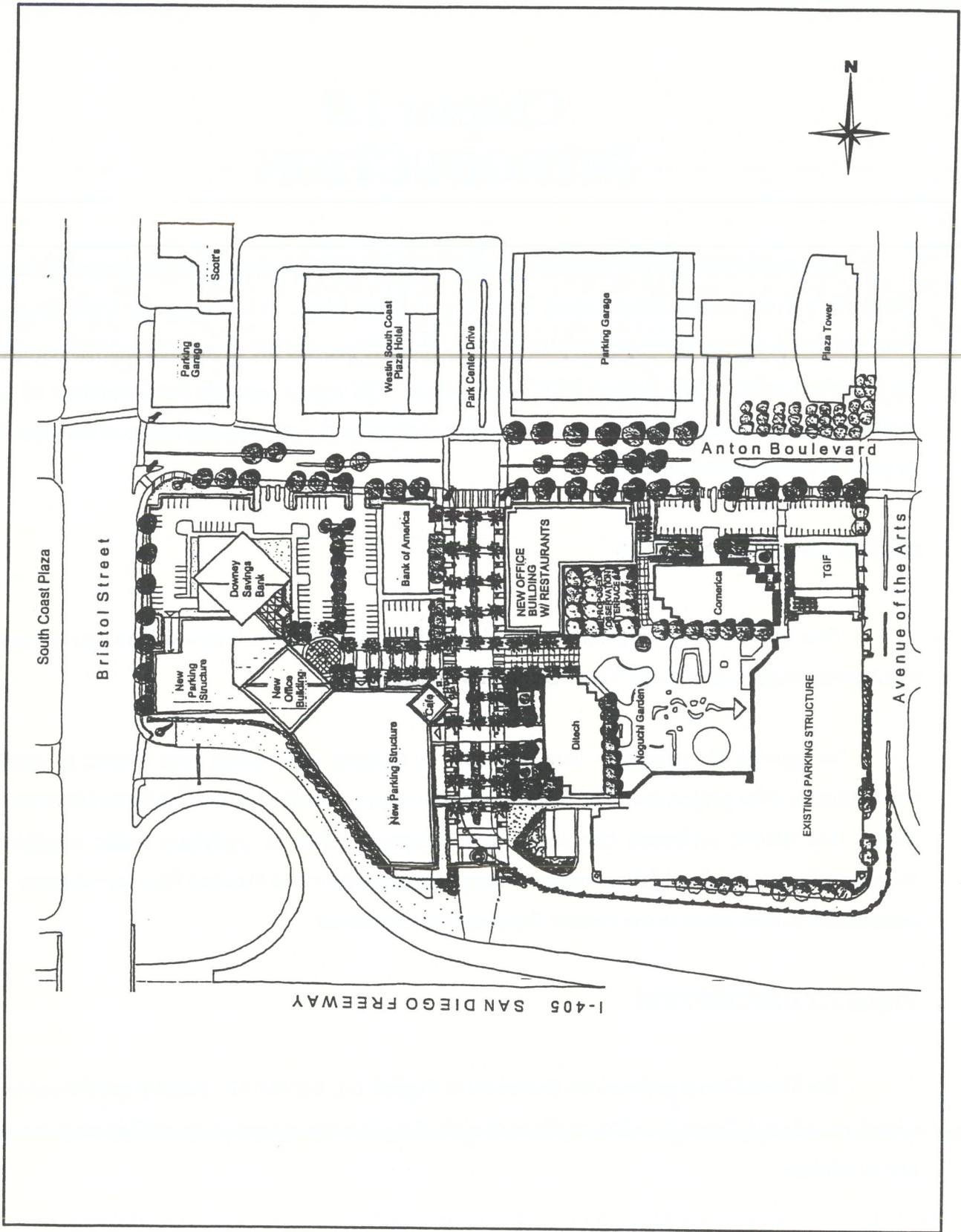


Figure 1-1
TWO TOWN CENTER SITE PLAN

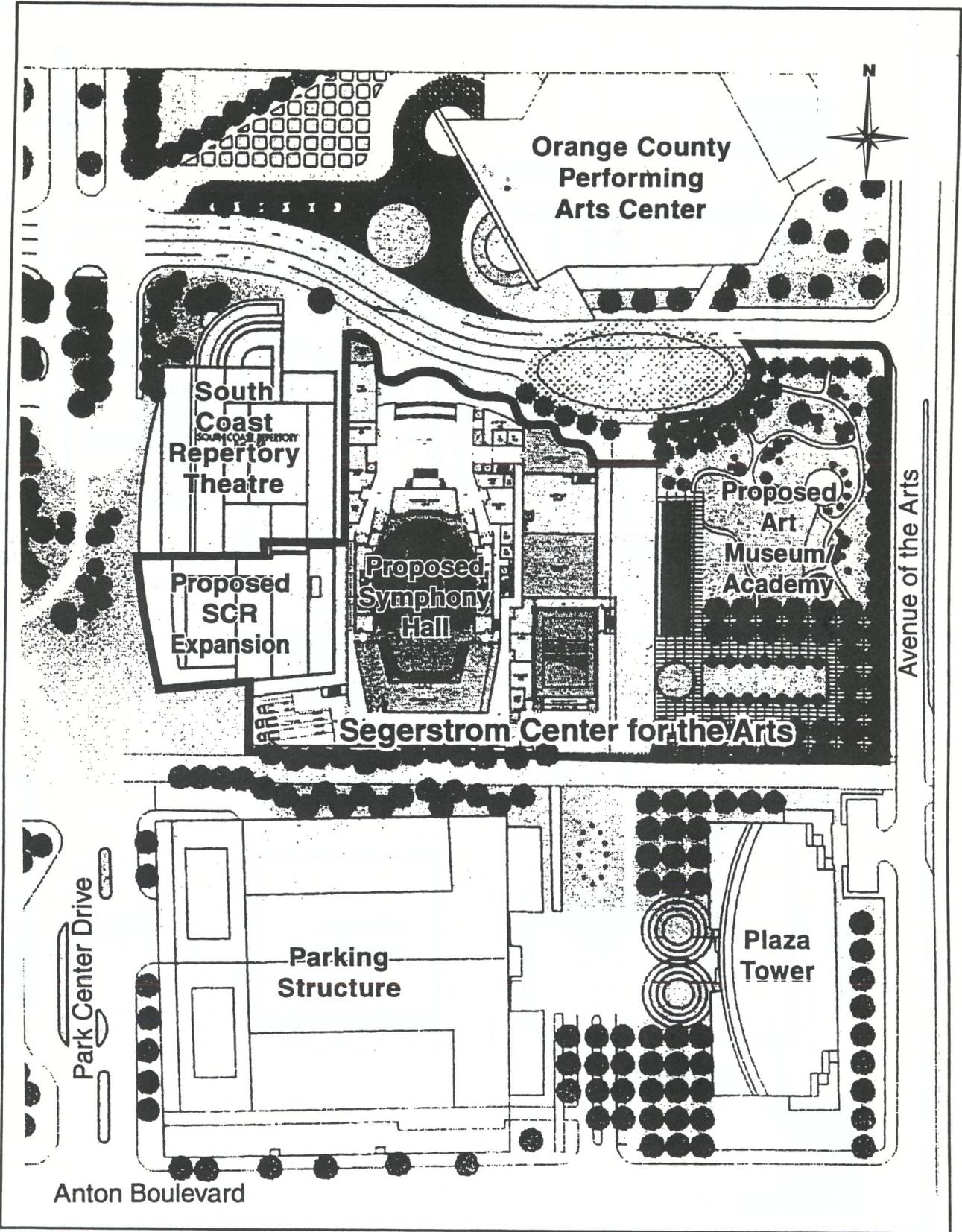


Figure 1-2
ARTS CENTER SITE PLAN

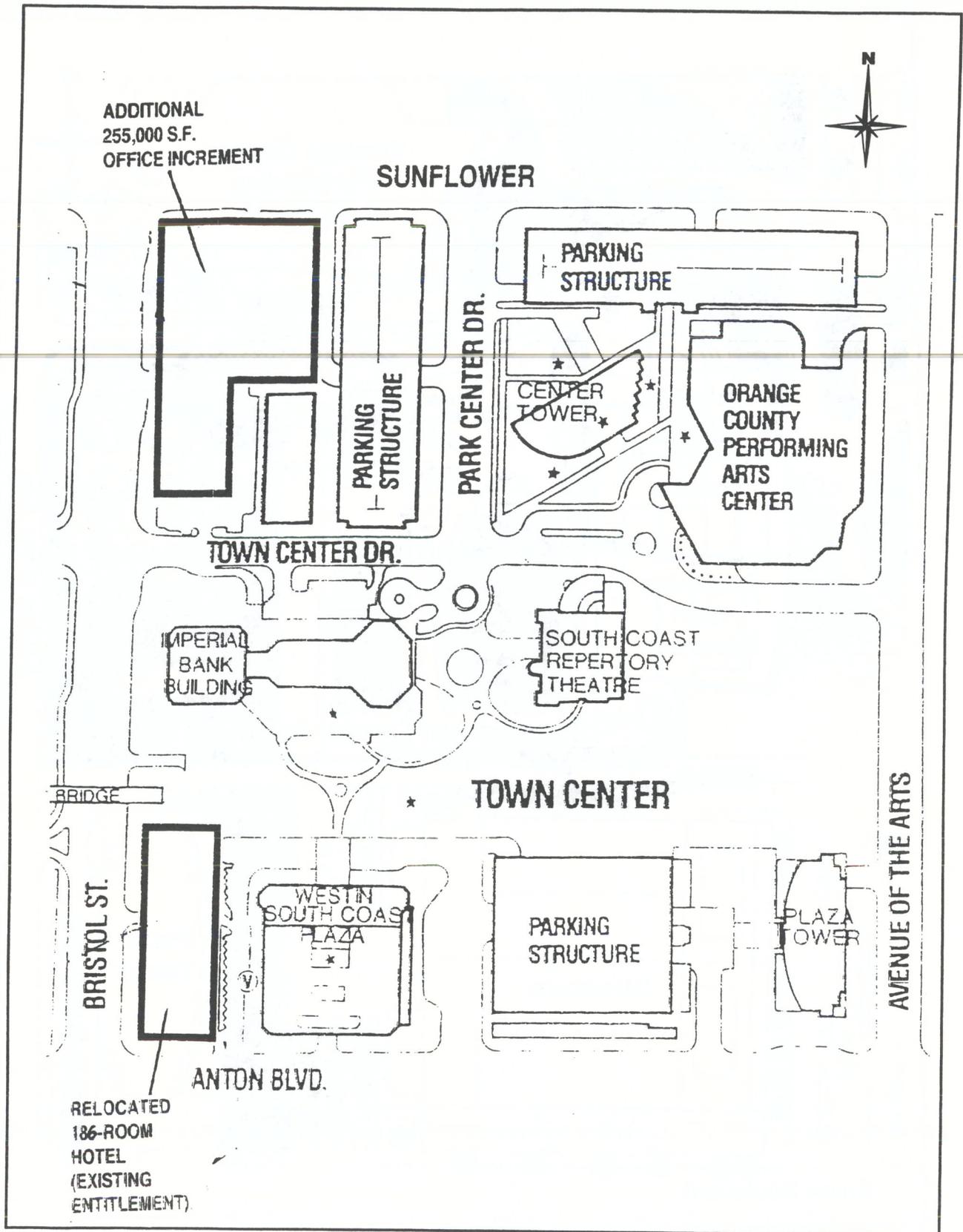


Figure 1-3
TOWN CENTER SITE PLAN

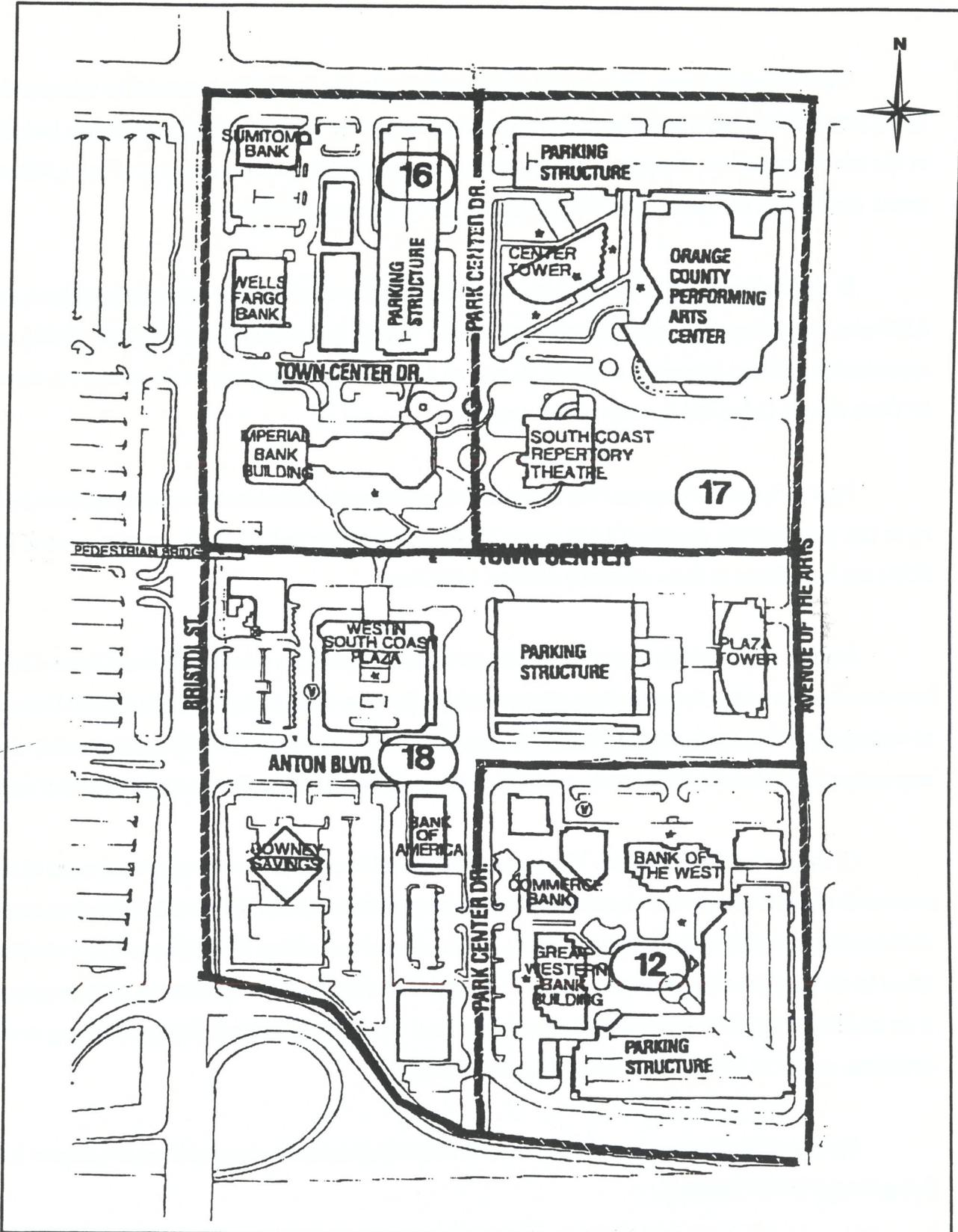


Figure 1-4
 COSTA MESA TRAFFIC MODEL (CMTM)
 ZONE BOUNDARIES

Various existing uses, such as the restaurants on the site, would be removed for construction of the new building but it is assumed that an equivalent amount of square footage would be included in the new construction. Therefore, the net change in square footage is the removal of the 1,700 seat movie theater and the addition of 300,000 square feet of general office use.

B. Segerstrom Center for the Arts - The proposed General Plan amendment includes a new 2,500-seat symphony hall immediately east of the South Coast Repertory Theater (SCR), an approximate 140 seat expansion of the SCR, and an art museum or academy at the southwest corner of Town Center Drive and Avenue of the Arts.

The City's current General Plan includes 1,000 additional entitled seats over what has been built up to this point and the proposed 2,640 seats (2,500 seat symphony hall and 140 seat expansion of the SCR) are in addition to these currently entitled 1,000 seats.

Another aspect of this proposed project involves abandoning a portion of Town Center Drive between Avenue of the Arts and Park Center Drive. Because this portion of Town Center Drive is necessary to provide access from the future Avenue of the Arts off-ramp to the SCR parking areas, one-way access from Avenue of the Arts to the SCR parking will be maintained in future plans for this area.

C. Balance of Town Center - The proposed General Plan amendment includes changes to the area north of Anton Boulevard. Specifically, transferring entitlement of a 186 room hotel to the parcels at the northeast corner of Bristol Street and Anton Boulevard and adding 255,000 square feet of office space to the parcels at the southwest corner of Bristol Street and Sunflower Avenue. Also proposed is an additional 100,000 square feet of office space near the existing Downey Savings Building at the southeast corner of Bristol Street and Anton Boulevard.

Details of the proposed project's land use and trip generation are provided in Chapter 3.0, Long-Range Traffic Analysis.

The project area is generally bounded by Sunflower Avenue to the north, Interstate 405 (I-405) to the south, Avenue of the Arts to the east, and Bristol Street to the west. Sunflower Avenue serves

as a jurisdictional boundary between the cities of Santa Ana and Costa Mesa. Anton Boulevard traverses the project area in an east-to-west direction and Park Center Drive extends through portions of the project area in a north-to-south direction. The project area is located within the North Costa Mesa Specific Plan area. Existing development in the project area consists of approximately 2.8 million square feet of high rise office, hotel, movie theaters, performing arts center, restaurants and small commercial uses.

Table 1-1 summarizes the land use within the project area for existing conditions, conditions following the current General Plan, and for the Proposed Project.

TRAFFIC ANALYSIS AREA

The traffic analysis area is generally bounded by Warner Avenue to the north, Fairview Road to the east, Baker Street to the south, and SR-55 Freeway to the west (see Figure 1-6). All major intersections in this area were analyzed with respect to project impacts using peak hour traffic volume data. In addition, the intersection of Red Hill Avenue and Main Street in the City of Irvine is also analyzed.

This traffic analysis area was defined according to a set of criteria that considered both the amount of project traffic at each intersection in the general area and also the capacity impact of that traffic. Additionally, the input of the City of Santa Ana used to include portions of that City in the analysis area.

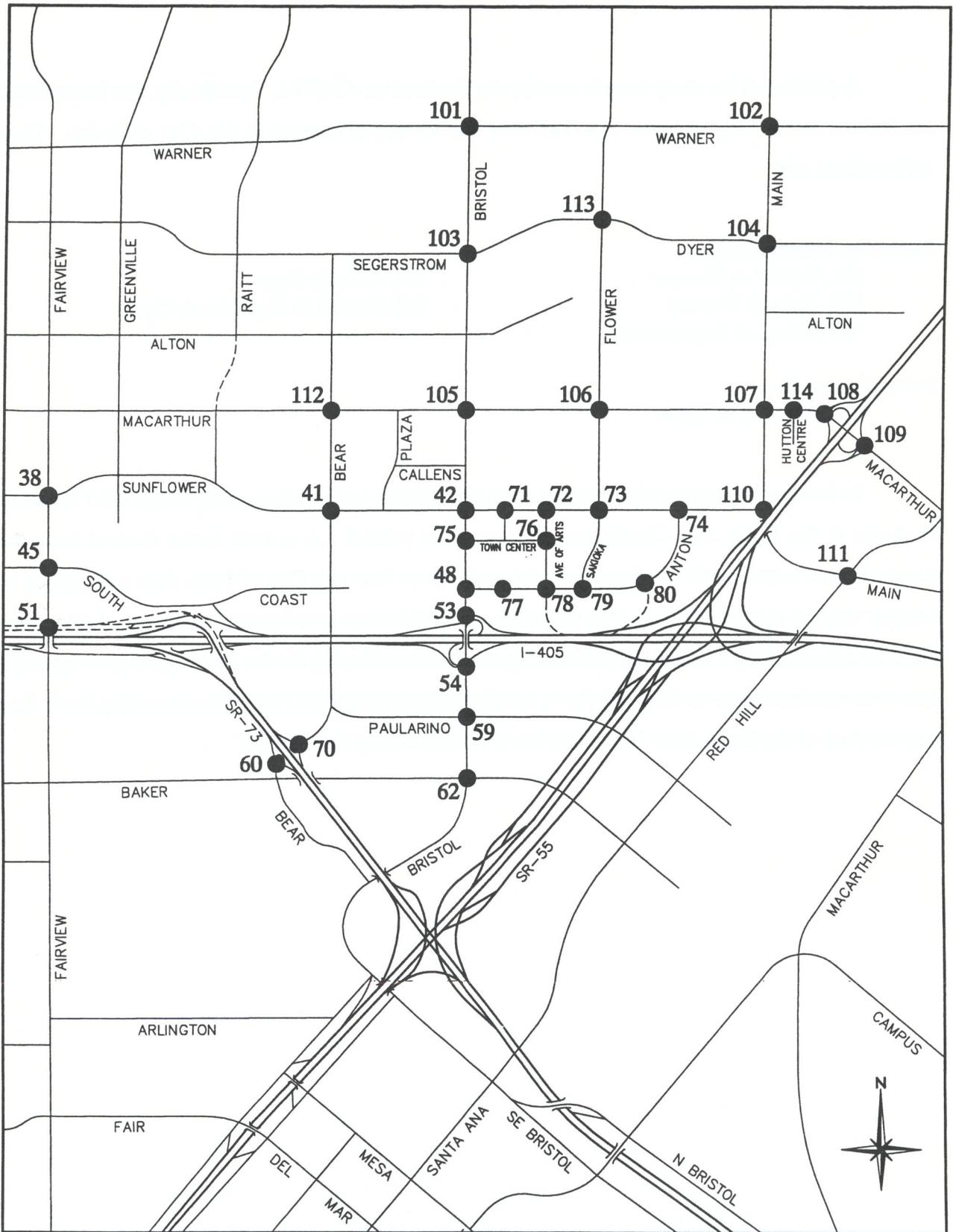
METHODOLOGY

Derivation of General Plan buildout conditions was carried out using traffic forecasts from the Costa Mesa Traffic Model (CMTM). This model is the City of Costa Mesa's primary tool for estimating buildout traffic conditions in the City and has the capability of forecasting average daily traffic (ADT) as well as peak hour turning movement volumes on the circulation system in this area. The CMTM was updated in the first half of 2000 and this updated version has recently been used in planning efforts such as the update of the City's General Plan and the proposed Westside Specific Plan.

Table 1-1
LAND USE COMPARISON

CMTM ZONE*	LAND USE CATEGORY	UNITS	EXISTING	2020 GENERAL PLAN	2020 WITH PROPOSED PROJECT
12	1. Office	TSF	605.23	605.23	905.23
	3. Quality Restaurant	TSF	8.10	8.10	8.10
	4. High Turnover Restaurant	TSF	28.94	28.94	28.94
16	1. Office	TSF	371.99	371.99	626.99
	3. Quality Restaurant	TSF	18.27	18.27	18.27
	6. Movie Theater	SEAT	1,862.00	1,862.00	1,862.00
17	1. Office	TSF	464.50	464.50	464.50
	5. Hotel	ROOM	-	186.00	-
	7. Performance Theater	SEAT	3,668.00	4,668.00	7,308.00
	8. Museum	TSF	-	-	140.00
18	1. Office	TSF	617.03	617.03	717.03
	2. Specialty Retail	TSF	5.14	5.14	5.14
	3. Quality Restaurant	TSF	24.82	24.82	24.82
	5. Hotel	ROOM	404.00	404.00	590.00
	6. Movie Theater	SEAT	1,700.00	1,700.00	-
TOTAL	1. Office	TSF	2,058.75	2,058.75	2,713.75
	2. Specialty Retail	TSF	5.14	5.14	5.14
	3. Quality Restaurant	TSF	51.19	51.19	51.19
	4. High Turnover Restaurant	TSF	28.94	28.94	28.94
	5. Hotel	ROOM	404.00	590.00	590.00
	6. Movie Theater	SEAT	3,562.00	3,562.00	1,862.00
	7. Performance Theater	SEAT	3,668.00	4,668.00	7,308.00
	8. Museum	TSF	-	-	140.00

* See Figure 1-4 for zone boundaries



Legend

--- Future Roadways

● Intersections Included In the Analysis

Figure 1-5

TRAFFIC ANALYSIS AREA

A portion of the study area is outside the limits of the CMTM. Specifically, five intersections are located in the City of Santa Ana and one intersection is located in the City of Irvine. These intersections are:

Santa Ana Intersections

- 101. Bristol & Warner
- 102. Main & Warner
- 103. Bristol & Segerstrom

- 104. Main & Dyer
 - 113. Flower & Segerstrom/Dyer
-

Irvine Intersections

- 111. Red Hill & Main

To forecast buildout traffic volumes for the five Santa Ana locations, long-range ADT forecasts as shown in the Santa Ana Circulation Element were utilized. A growth factor derived from the comparison of existing ADT volumes and the projections from the City of Santa Ana was applied to existing turning movement counts to determine buildout turning movement volumes. Long-range buildout volumes (ADT and peak hour turning movement volumes) for the Irvine portion of the study area were obtained from the City of Irvine's Traffic Analysis Model (ITAM). The remaining Santa Ana intersections along MacArthur Boulevard were modeled using the CMTM.

Chapter 2.0

PROJECT SETTING

This chapter discusses the transportation setting for the proposed project. Existing traffic volumes and levels of service are first presented, and then planned improvements to the circulation system are noted. Traffic forecast data for the long range analysis is given in Chapter 3.0.

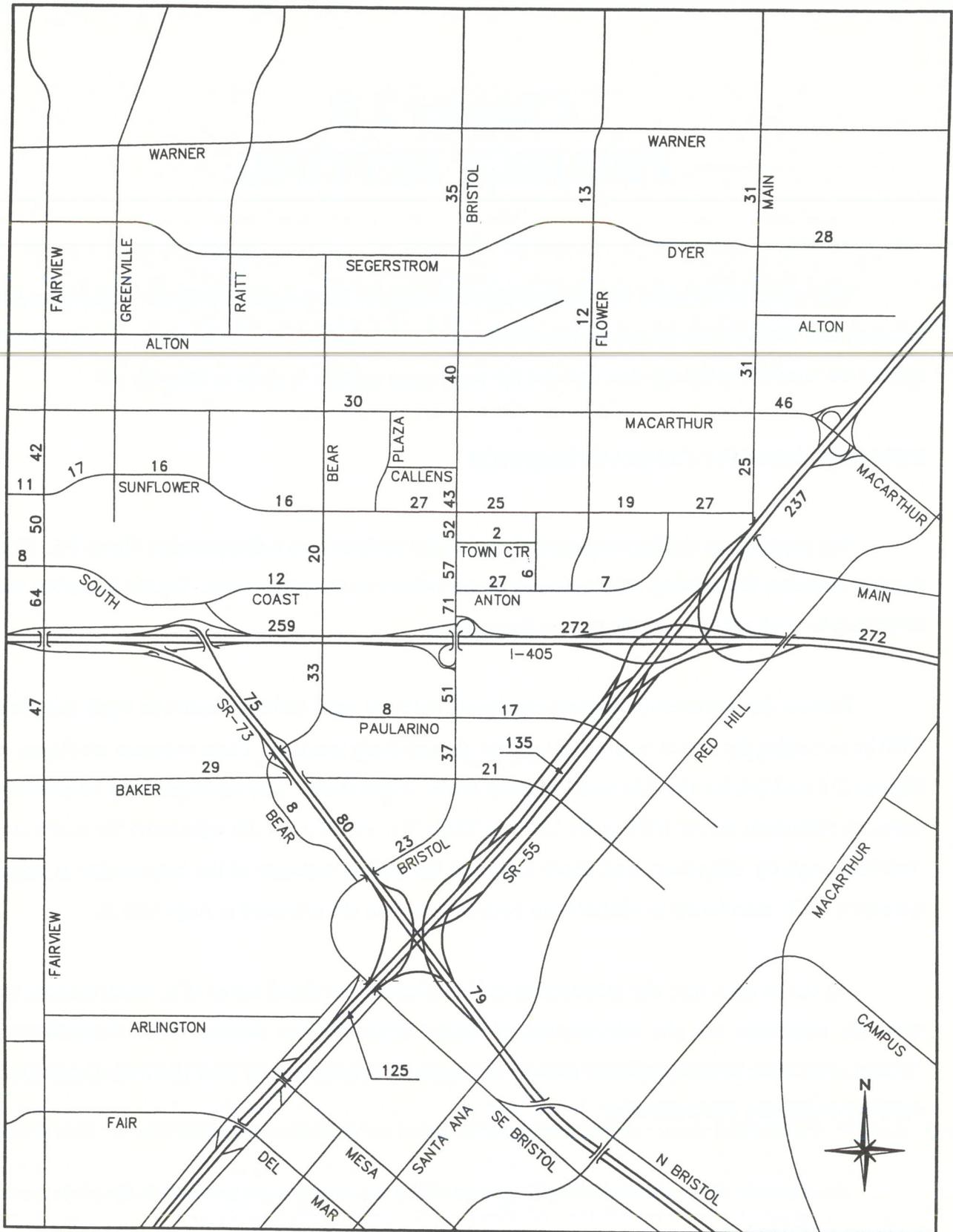
EXISTING TRAFFIC CHARACTERISTICS

The existing arterial highway network within the analysis area is illustrated in Figure 2-1. This diagram includes the existing ADT volumes in the vicinity of the project site. Figure 2-2 shows the existing lane configurations at the major intersections.

Present day intersection turning movement volumes were collected between April and June 2000 by recording the actual number of vehicles at each study location. These volumes are shown in Figures 2-3 and 2-4 for the AM and PM peak hours, respectively. The corresponding intersection capacity utilization values (ICUs) are listed in Table 2-1. An ICU of .90 represents the maximum desirable capacity utilization, and above 1.00, the theoretical capacity of the intersection is being exceeded. ICU calculation worksheets for each intersection are provided in Appendix A.

As can be seen here, the intersection of Main Street/Dyer Road has an ICU which exceeds the desirable maximum and the intersections of Bristol Street/Warner Avenue, Main Street/Warner Avenue, and Main Street/Sunflower Avenue are currently operating over their theoretical maximum capacity during the PM peak hour.

An estimate of the amount of traffic generated by the current land uses within the project area is shown in Table 2-2.

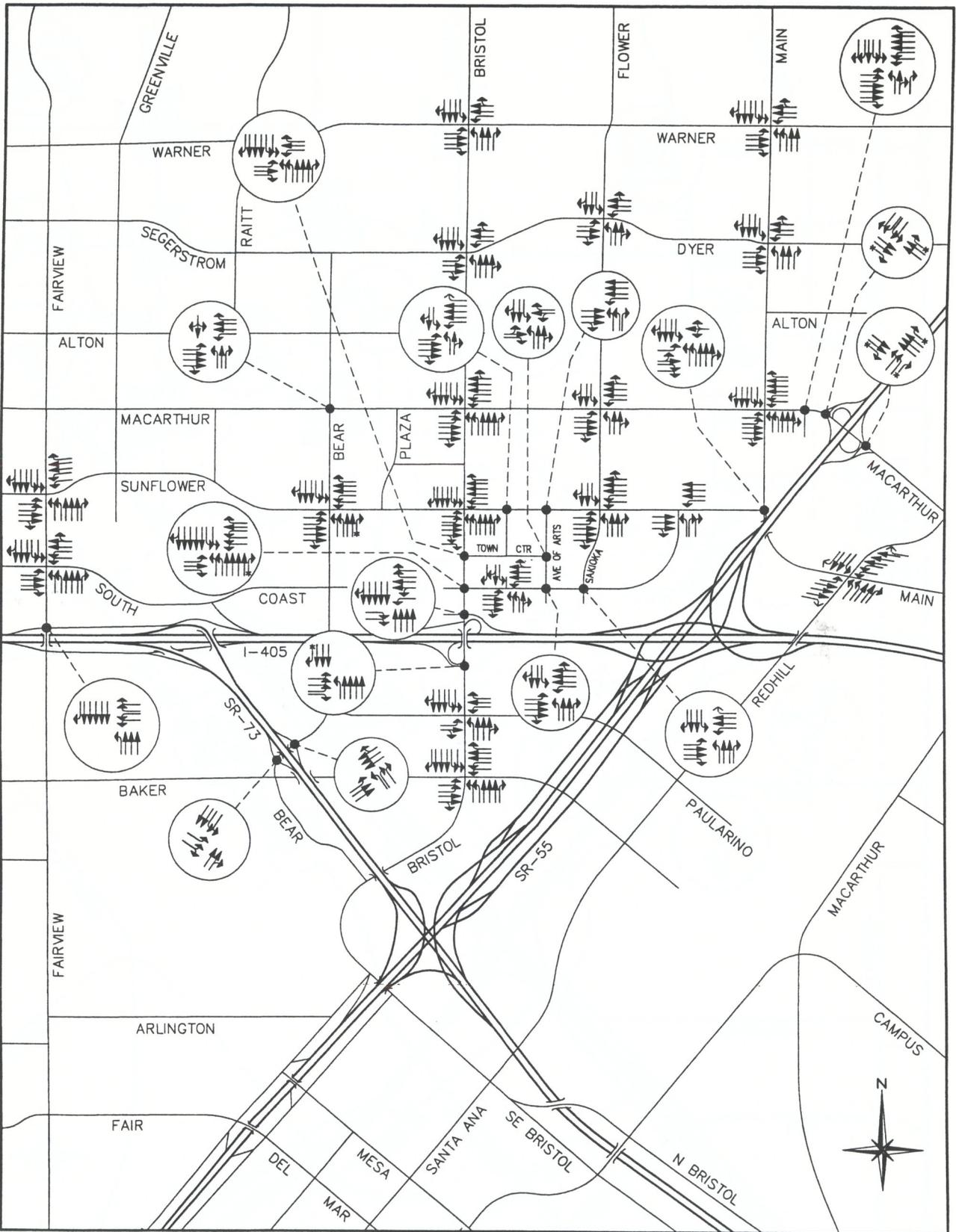


Legend

xxx ADT Volumes (000s)

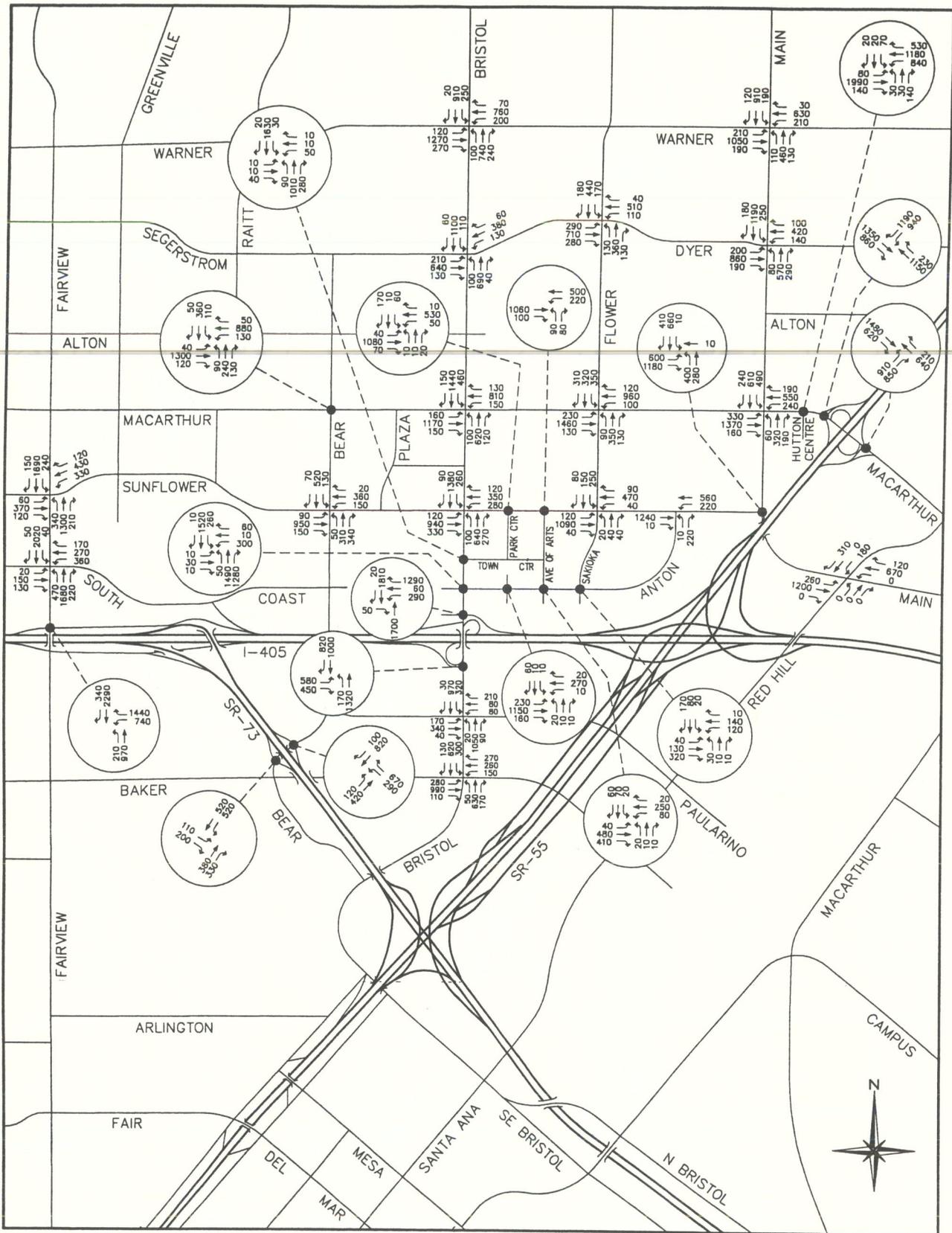
Figure 2-1

EXISTING (1999/2000) ADT VOLUMES



Legend	
	Free Right-Turn Lane
	De Facto Right-Turn Lane

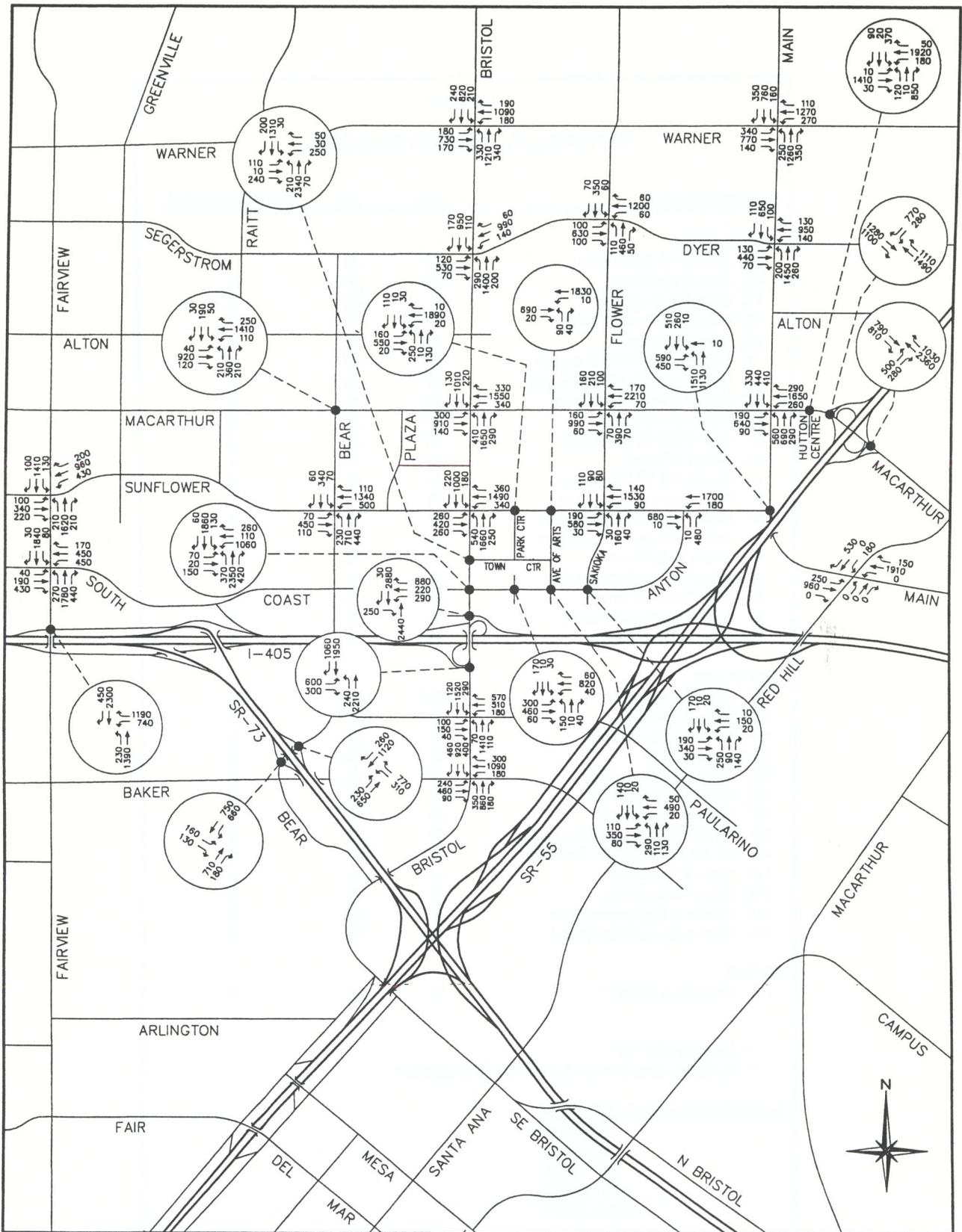
Figure 2-2
EXISTING INTERSECTION
LANE CONFIGURATIONS



Legend

xxx Peak Hour Turning Movement Volumes

Figure 2-3
EXISTING (2000) AM PEAK HOUR INTERSECTION VOLUMES



Legend

↪ xxx Peak Hour Turning Movement Volumes

Figure 2-4
EXISTING (2000) PM PEAK HOUR INTERSECTION VOLUMES

Table 2-1

ICU SUMMARY - EXISTING CONDITIONS

INTERSECTION	AM	PM	COUNT SOURCE
COSTA MESA			
38. Fairview & Sunflower	.74	.71	A
41. Bear & Sunflower	.42	.68	A
42. Bristol & Sunflower	.61	.80	A
45. Fairview & South Coast	.74	.82	A
48. Bristol & Anton	.39	.64	A
51. Fairview & I-405 NB Ramps	.70	.69	A
53. Bristol & I-405 NB Off Ramp	.67	.72	B
54. Bristol & I-405 SB Ramps	.52	.69	B
59. Bristol & Paularino	.63	.79	A
60. Bear & SR-73 SB Ramps	.45	.58	A
62. Bristol & Baker	.61	.76	A
70. Bear & SR-73 NB Ramp	.45	.62	A
71. Park Center & Sunflower	.39	.73	D
72. Ave of the Arts & Sunflower	.41	.41	A
73. Sakioka/Flower & Sunflower	.43	.51	A
74. Anton & Sunflower	.41	.36	A
75. Bristol & Town Center Dr	.41	.67	A
77. Park Center & Anton	.30	.43	D
78. Ave of the Arts & Anton	.35	.40	A
79. Sakioka Dr & Anton	.33	.35	A
SANTA ANA			
101. Bristol & Warner	.93*	1.03*	B
102. Main & Warner	.72	1.04*	B
103. Bristol & Segerstrom	.65	.84	B
104. Main & Dyer	.72	.94*	B
105. Bristol & MacArthur	.70	.90	C
106. Flower & MacArthur	.78	.82	B
107. Main & MacArthur	.69	.80	B
108. SR-55 SB Ramps & MacArthur	.80	.72	B
109. SR-55 NB Ramps & MacArthur	.77	.67	B
110. Main & Sunflower	.64	1.01*	B
112. Bear & MacArthur	.78	.78	C
113. Flower & Segerstrom/Dyer	.67	.67	B
114. Hutton Centre/MacArthur	.76	.80	B
IRVINE			
111. Red Hill & Main**	.42	.80	B

* Exceeds LOS "D"

** South leg closed due to I-405 bridge construction

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 - 1.00 E
 Above 1.00 F

Count Source: A = City of Costa Mesa, 2000
 B = Traffic Data Services, 2000
 C = Traffic Data Services, 1999
 D = City of Costa Mesa, 1998 adjusted to 2000

Table 2-2

LAND USE AND TRIP GENERATION - EXISTING CONDITIONS

CMTM ZONE*	LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
12	1. Office	605.23 TSF	829	115	944	151	750	901	6664
	3. Quality Restaurant	8.10 TSF	3	3	6	41	20	61	729
	4. High Turnover Rest	28.94 TSF	140	129	269	189	126	315	3773
	SUB-TOTAL		972	247	1219	381	896	1277	11166
16	1. Office	371.99 TSF	510	71	581	93	461	554	4096
	3. Quality Restaurant	18.27 TSF	7	7	14	92	45	137	1643
	6. Movie Theater	1862.00 SEAT	0	19	19	447	37	484	3277
	SUB-TOTAL		517	97	614	632	543	1175	9016
17	1. Office	464.50 TSF	636	88	724	116	576	692	5114
	7. Performance Theater	3668.00 SEAT	37	0	37	293	73	366	4512
	SUB-TOTAL		673	88	761	409	649	1058	9626
18	1. Office	617.03 TSF	845	117	962	154	765	919	6793
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	24.82 TSF	10	10	20	125	61	186	2233
	5. Hotel	404.00 ROOM	137	89	226	129	117	246	3325
	6. Movie Theater	1700.00 SEAT	0	17	17	408	34	442	2992
	SUB-TOTAL		996	235	1231	825	986	1811	15549
TOTAL	1. Office	2058.75 TSF	2820	391	3211	514	2552	3066	22667
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
	4. High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
	5. Hotel	404.00 ROOM	137	89	226	129	117	246	3325
	6. Movie Theater	3562.00 SEAT	0	36	36	855	71	926	6269
	7. Performance Theater	3668.00 SEAT	37	0	37	293	73	366	4512
TOTAL			3158	667	3825	2247	3074	5321	45357

ADT AND PEAK HOUR TRIP RATE SUMMARY

LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
		IN	OUT	TOTAL	IN	OUT	TOTAL	
1. Office ¹	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
2. Specialty Retail ²	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
3. Quality Restaurant ¹	TSF	.40	.41	.81	5.02	2.47	7.49	89.95
4. High Turnover Restaurant ¹	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
5. Hotel ¹	ROOM	.34	.22	.56	.32	.29	.61	8.23
6. Movie Theater ³	SEAT	.00	.01	.01	.24	.02	.26	1.76
7. Performance Theater ⁴	SEAT	.01	.00	.01	.08	.02	.10	1.23
8. Museum ⁴	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10

* See Figure 1-5 for zone boundaries

Trip rate sources: ¹ Institute of Transportation Engineers (ITE) - 6th Edition
² San Diego Association of Governments - Traffic Generators
³ ITE/CMTM (as used in the previous version of CMTM)
⁴ Field studies and approved by City Staff

LONG RANGE CONDITIONS

Long range roadway system improvements that will affect the analysis area include additions and improvements to the regional transportation system and localized improvements that directly affect circulation in the project vicinity. Long range roadway classifications as shown in the City's General Plan are illustrated in Figure 2-5.

A major improvement to the regional transportation system is the planned I-405/SR-55 interchange project. This major improvement project involves the construction of new freeway lanes and on/off ramps along I-405 and SR-55 in the immediate vicinity of their interchange. One of the major benefits of the project is an improvement to future traffic flow due to the elimination of most of the current weaving areas. Other significant improvements in this area include the addition of a new off ramp from the northbound I-405 to Avenue of the Arts and the addition of a new on ramp from Anton Boulevard (just east of Sakioka Drive) to the northbound I-405. Figure 2-6 illustrates the planned improvements.

Localized improvements consist of the construction of additional lanes at area intersections in accordance with the City of Costa Mesa's General Plan. The City has a Traffic Impact Fee Program which collects fees from new developments in order to fund the completion of the City's Circulation System. These intersection improvements are illustrated in Figure 2-7.

Long range land use development consists of the City of Costa Mesa's General Plan land use which represents buildout conditions for the area as well as the long range land uses of the other jurisdictions that are partially covered by the Costa Mesa traffic model. A listing of cumulative projects within the vicinity of the study area is provided in Table 2-3. The long range traffic forecasts include these projects plus additional development as quantified in the traffic model database for General Plan Buildout.

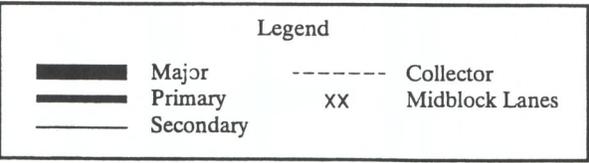
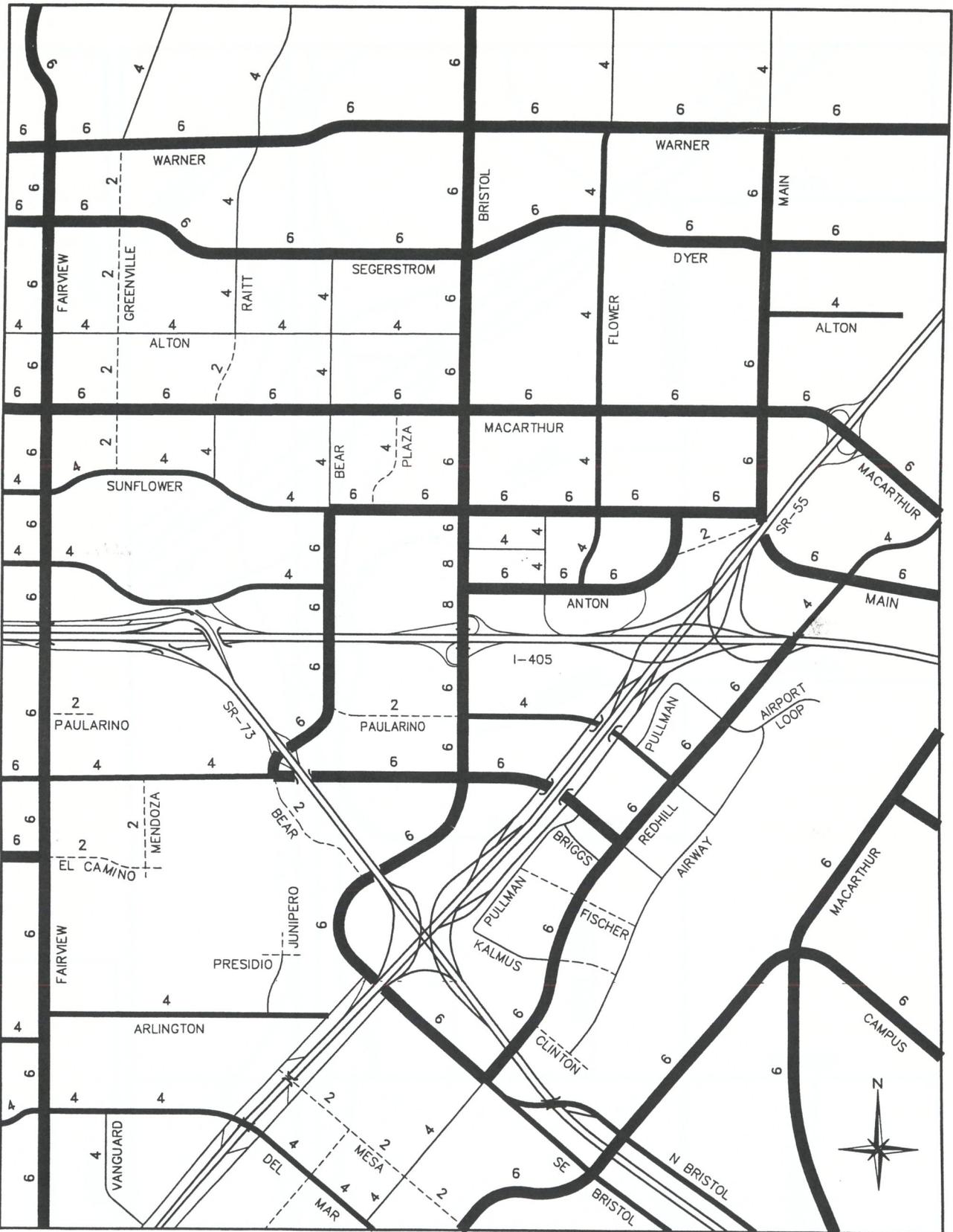


Figure 2-5
LONG-RANGE CIRCULATION SYSTEM

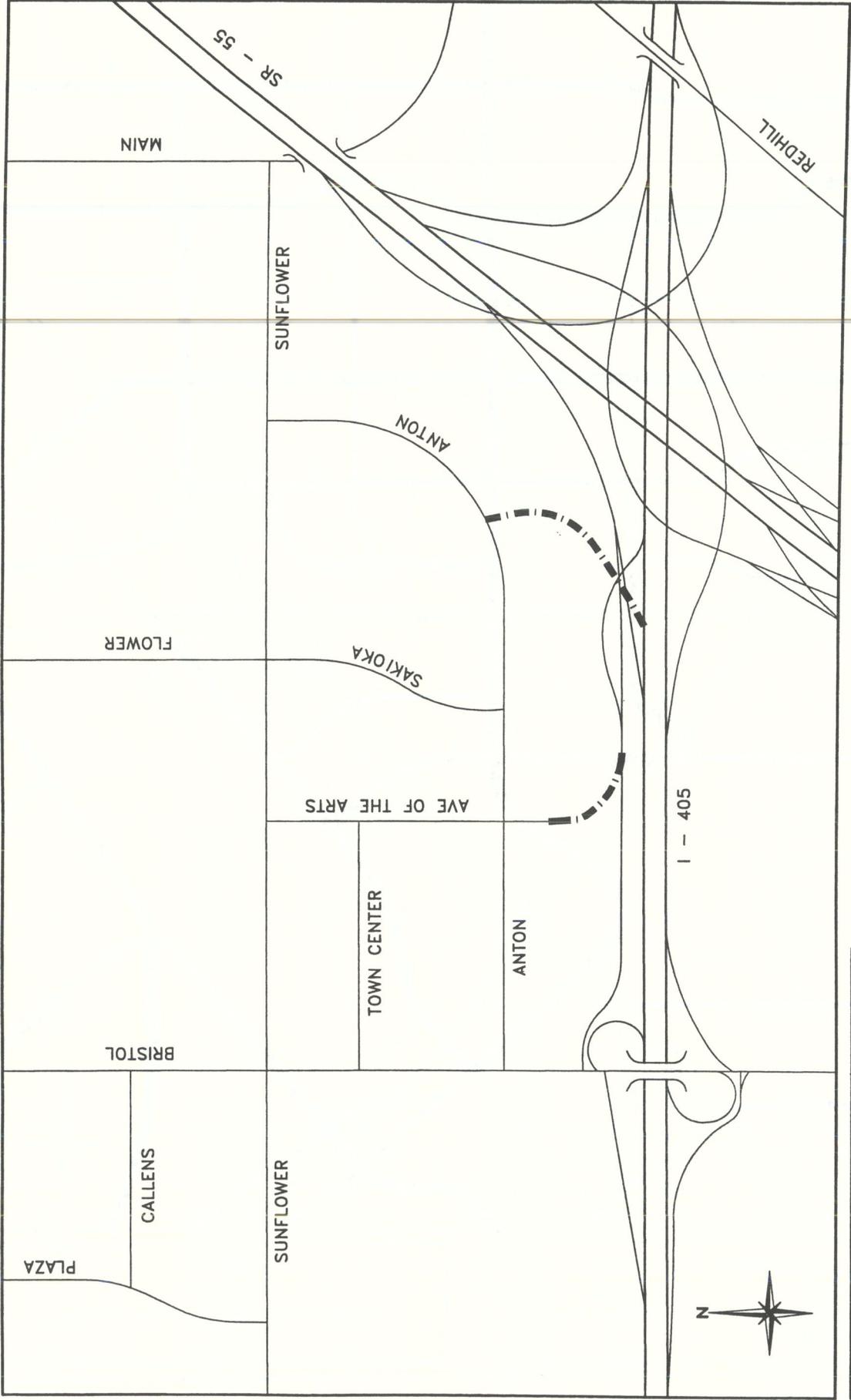
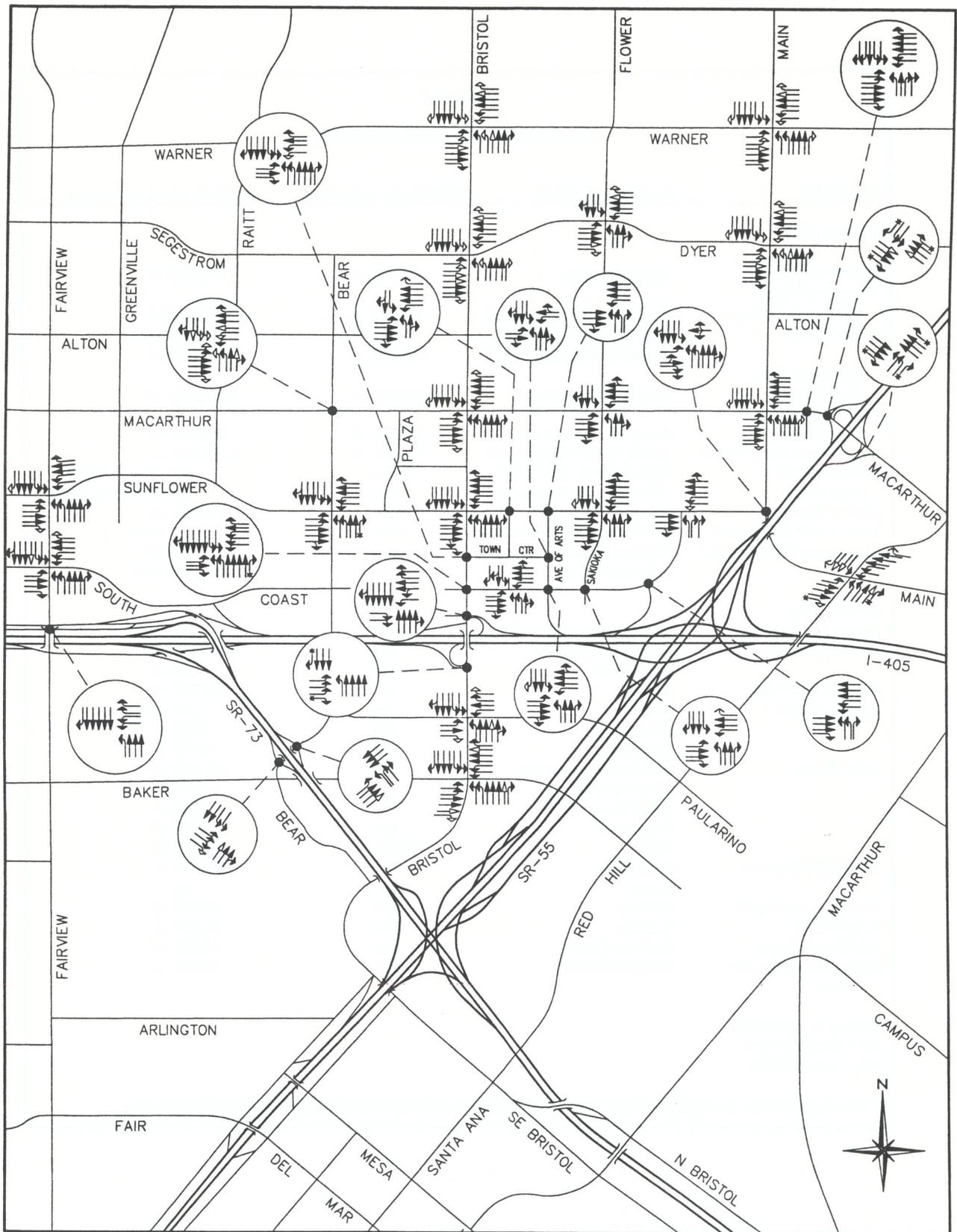


Figure 2-6
FREeway ACCESS PLAN

Legend

■ ■ ■ ■ ■ Proposed Ramps



Legend	
	Future Lane
	Free Right-Turn Lane
	De Facto Right-Turn Lane

Figure 2-7
LONG-RANGE INTERSECTION LANE CONFIGURATIONS

Table 2-3

CUMULATIVE PROJECT SUMMARY

PROJECT	LAND USE TYPE	EXISTING LAND USE	BUILDOUT LAND USE
COSTA MESA			
Harbor Gateway Automobile Club	Industrial Park	784,684 sf	999,026 sf
Processing Center	Urban Center Commercial	717,000 sf	967,000 sf
Metro Pointe	High Density Residential	296 apt.	296 apt.
	Urban Center Commercial	659,100 sf	671,600 sf
South Coast Plaza (Bristol Street)	Regional Commercial	2,195,345 sf	2,750,000 sf
South Coast Plaza (Bear Street)	Regional Commercial	643,338 sf	690,350 sf
South Coast Metro Center	Urban Center Commercial	749,289 sf	1,405,800 sf
Sakioka Farms	High Density Residential	none	40 acres, 1400DU
(Lots 1&2)	Urban Center Commercial	none	33 acres, 863,000 sf
Harbor Center	General Commercial	n/a	336,072 sf
Mesa Verde Residential	Medium Density Residential	none	11 acres
Segerstrom Home Ranch*	Medium Density Residential	none	366 DU
	Industrial Park	none	961,060 TSF
SANTA ANA			
Armstrong Ranch	Single Family Residential	none	90 acres
MacArthur Place	Office/Comm/Hotel	n/a	3,791,000 sf
	Residential	n/a	400 du
Pactel Office Tower	Office	n/a	180,000 sf
Hutton Centre	Hotel	n/a	240 rooms
	Restaurant	n/a	5,000 sf
	Conference	n/a	4,740 sf
Lake Center	Warehouse/Industrial	n/a	101,460 sf
	Medical Office	n/a	45,800 sf
	Retail Commercial	n/a	17,100 sf
	Restaurant	n/a	6,840 sf
	Office	399,000 sf	399,000 sf
Ewing Development	Industrial	n/a	280,000 sf
	Retail	n/a	n/a
Lucky/Sav-on Market	Grocery	n/a	69,000 sf
Food 4 Less	Grocery	n/a	51,000 sf
SPS Technologies	Business Center	n/a	90,000 sf
Kaiser Family Practice Center	Medical Center	n/a	80,000 sf

note: sf = square feet
du = dwelling units
n/a = not available

* See Chapter 4 for an analysis that includes a proposed General Plan Amendment for the Home Ranch site.

Chapter 3.0

LONG RANGE TRAFFIC ANALYSIS

This chapter focuses on long range traffic conditions and project impacts in the study area. The forecast data presented here is based on buildout of the proposed project, and buildout of the surrounding land uses. These long range buildout conditions are also sometimes referred to as year 2020 conditions.

GENERAL PLAN TRAFFIC FORECAST

To illustrate the long-range General Plan traffic conditions, an analysis was made in which General Plan land use is assumed for the entire project area. Table 3-1 summarizes the land use and trip generation characteristics for this scenario and shows that if the area were to continue to be developed in accordance with the current General Plan, it would generate about 3,940 trips in the AM peak hour, about 5,540 trips in the PM peak hour and approximately 48,120 total daily trips. ADT volumes for this scenario are given in the Figure 3-1 and the corresponding peak hour volumes are shown in Figures 3-2 and 3-3.

Table 3-2 presents the results of the intersection level of service (LOS) analysis for the General Plan land use conditions. It also presents a comparison of General Plan conditions to existing conditions. The intersection lane configurations used for ICU calculations for General Plan conditions were illustrated in Chapter 2.0 (Figure 2-7) and assume the arterial improvements contained in the City of Costa Mesa's General Plan for intersections within that City's jurisdiction. For the Cities of Santa Ana and Irvine, improvements included in these respective City's General Plans were included.

Table 3-1

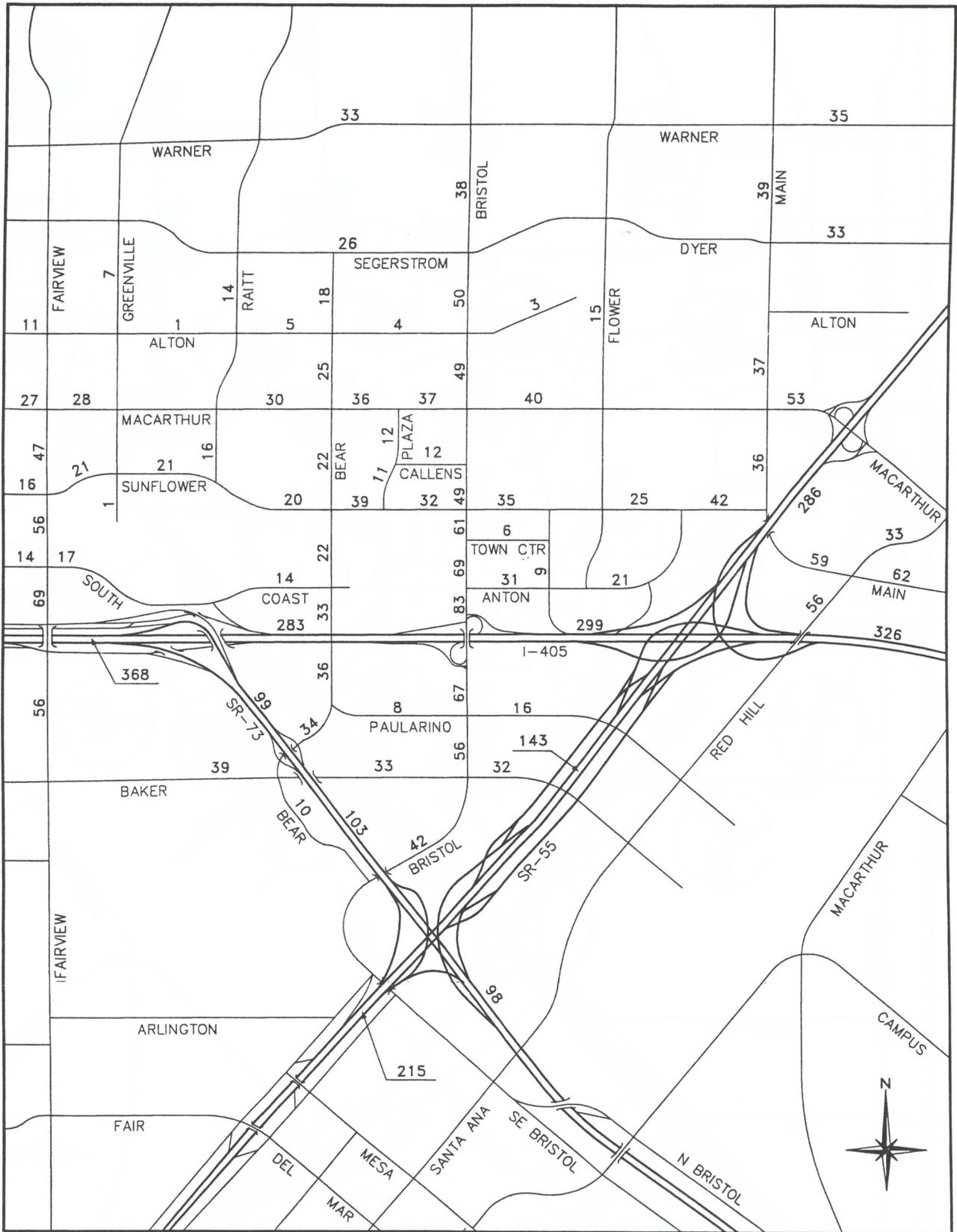
LAND USE AND TRIP GENERATION - CURRENT GENERAL PLAN

CMTM ZONE*	LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
12	1. Office	605.23 TSF	829	115	944	151	750	901	6664
	3. Quality Restaurant	8.10 TSF	3	3	6	41	20	61	729
	4. High Turnover Rest	28.94 TSF	140	129	269	189	126	315	3773
	SUB-TOTAL		972	247	1219	381	896	1277	11166
16	1. Office	371.99 TSF	510	71	581	93	461	554	4096
	3. Quality Restaurant	18.27 TSF	7	7	14	92	45	137	1643
	6. Movie Theater	1862.00 SEAT	0	19	19	447	37	484	3277
	SUB-TOTAL		517	97	614	632	543	1175	9016
17	1. Office	464.50 TSF	636	88	724	116	576	692	5114
	5. Hotel	186.00 ROOM	63	41	104	60	54	114	1531
	7. Performance Theater	4668.00 SEAT	47	0	47	373	93	466	5742
	SUB-TOTAL		746	129	875	549	723	1272	12387
18	1. Office	617.03 TSF	845	117	962	154	765	919	6793
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	24.82 TSF	10	10	20	125	61	186	2233
	5. Hotel	404.00 ROOM	137	89	226	129	117	246	3325
	6. Movie Theater	1700.00 SEAT	0	17	17	408	34	442	2992
	SUB-TOTAL		996	235	1231	825	986	1811	15549
TOTAL	1. Office	2058.75 TSF	2820	391	3211	514	2552	3066	22667
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
	4. High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
	5. Hotel	590.00 ROOM	200	130	330	189	171	360	4865
	6. Movie Theater	3562.00 SEAT	0	36	36	855	71	926	6269
	7. Performance Theater	4668.00 SEAT	47	0	47	373	93	466	5742
	TOTAL		3231	708	3939	2387	3148	5535	48118

ADT AND PEAK HOUR TRIP RATE SUMMARY

LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
		IN	OUT	TOTAL	IN	OUT	TOTAL	
1. Office	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
2. Specialty Retail	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
3. Quality Restaurant	TSF	.40	.41	.81	5.02	2.47	7.49	89.95
4. High Turnover Restaurant	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
5. Hotel	ROOM	.34	.22	.56	.32	.29	.61	8.23
6. Movie Theater	SEAT	.00	.01	.01	.24	.02	.26	1.76
7. Performance Theater	SEAT	.01	.00	.01	.08	.02	.10	1.23
8. Museum	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10

* See Figure 1-4 for zone boundaries
See Table 2-2 for trip rate sources

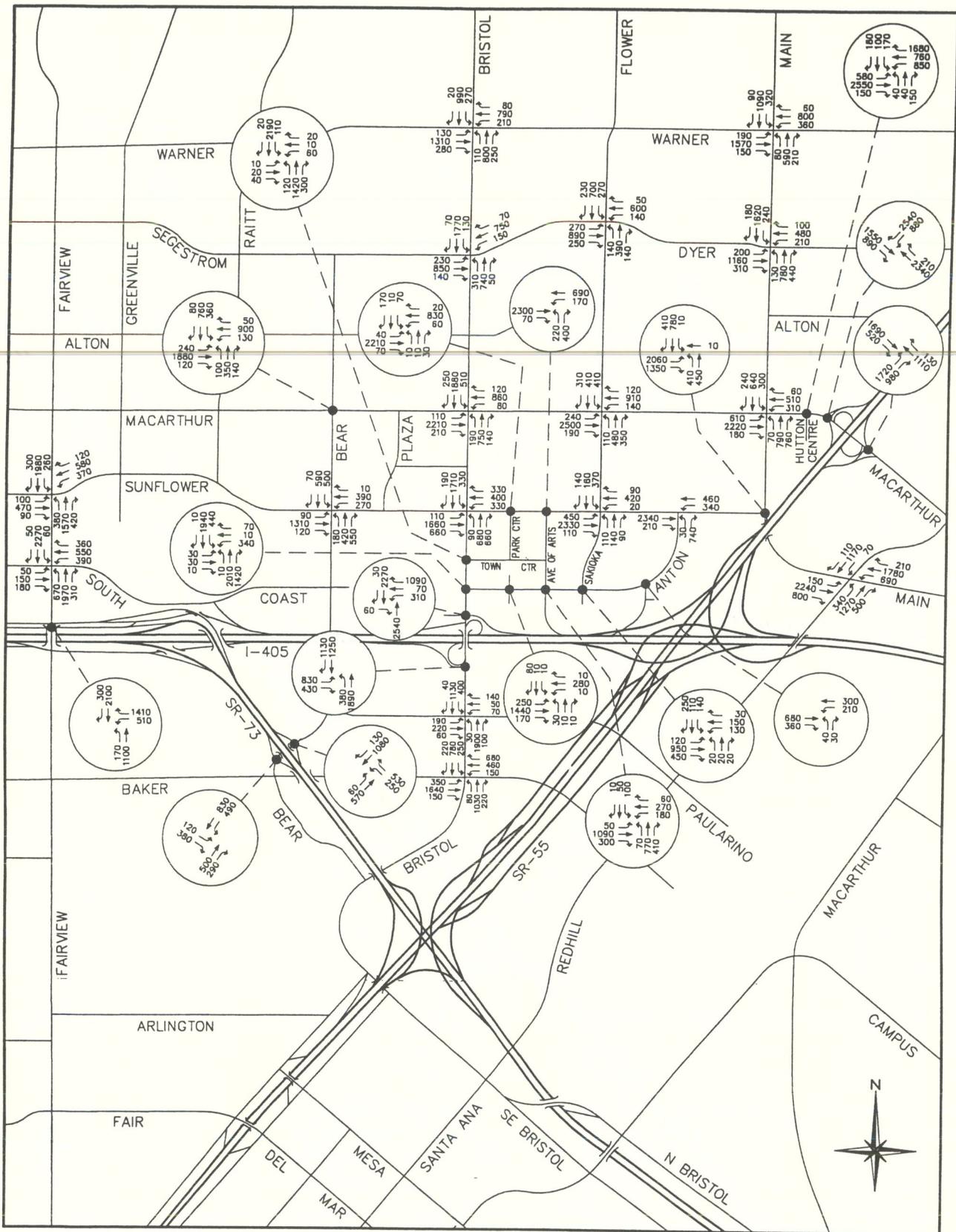


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xxx ADT Volumes (000s)

Figure 3-1

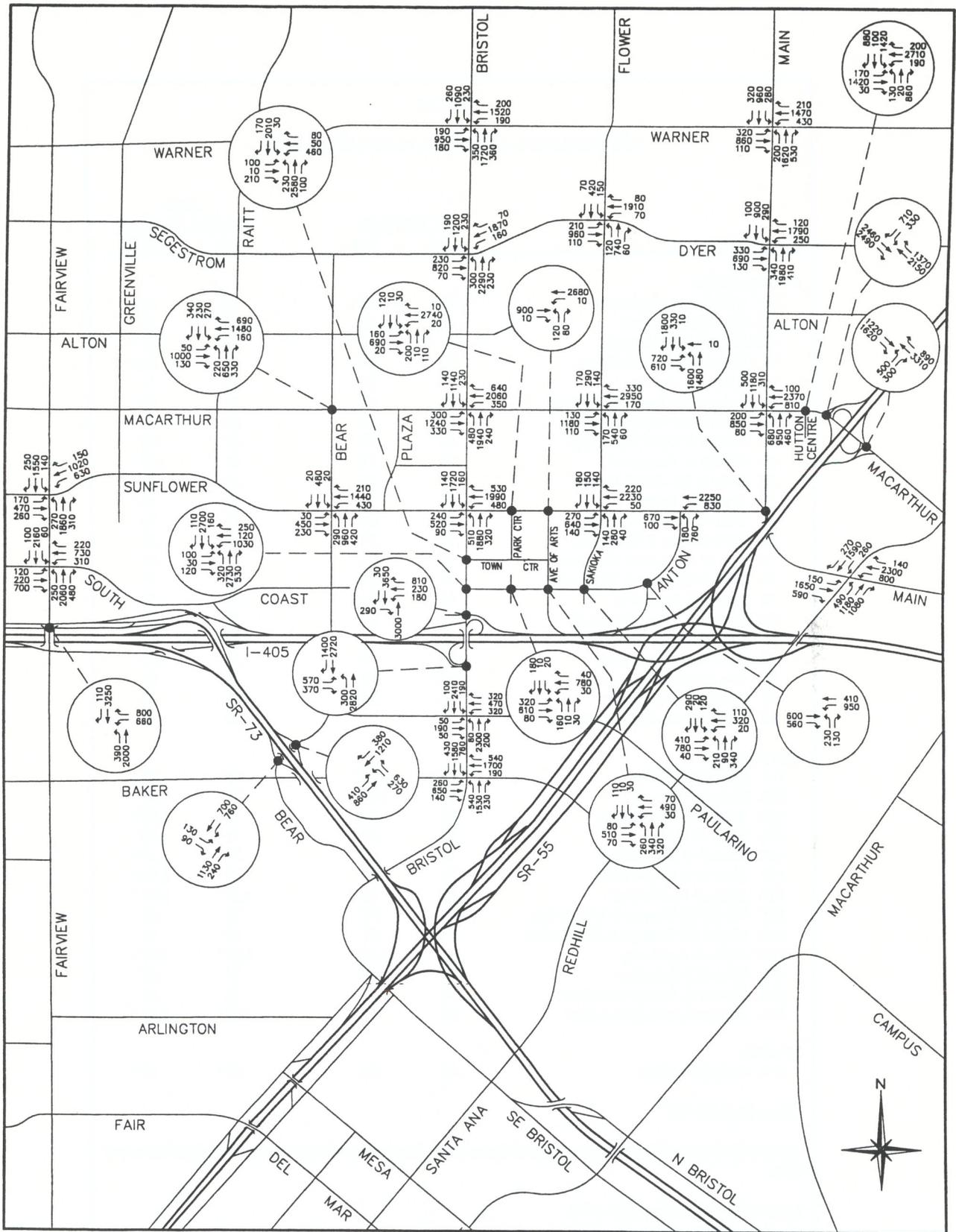
LONG-RANGE ADT VOLUMES
- GENERAL PLAN LAND USE ON-SITE



Legend

← xxx Peak Hour Turning Movement Volumes

Figure 3-2
LONG-RANGE AM PEAK HOUR
INTERSECTION VOLUMES
- GENERAL PLAN LAND USE ON-SITE



Legend

↔ xxx Peak Hour Turning Movement Volumes

Figure 3-3
LONG-RANGE PM PEAK HOUR
INTERSECTION VOLUMES
- GENERAL PLAN LAND USE ON-SITE

Table 3-2

ICU SUMMARY - GENERAL PLAN CONDITIONS

LOCATION	EXISTING		2020 GENERAL PLAN	
	AM	PM	AM	PM
COSTA MESA				
38. Fairview & Sunflower	.74	.71	.80	.80
41. Bear & Sunflower	.42	.68	.67	.77
42. Bristol & Sunflower	.61	.80	.89	1.01*
45. Fairview & South Coast	.74	.82	.77	.91*
48. Bristol & Anton	.39	.64	.54	.71
51. Fairview & I-405 NB Ramps	.70	.69	.71	.86
53. Bristol & I-405 NB Ramps	.67	.72	.74	.80
54. Bristol & I-405 SB Ramps	.52	.69	.67	.88
59. Bristol & Paularino	.63	.79	.62	.89
60. Bear & SR-73 SB Ramps	.45	.58	.39	.57
62. Bristol & Baker	.61	.76	.72	.93*
70. Bear & SR-73 NB Ramp	.45	.62	.45	.76
71. Park Center & Sunflower	.39	.73	.64	.88
72. Ave of the Arts & Sunflower	.41	.41	.77	.60
73. Sakioka/Flower & Sunflower	.43	.51	.80	.77
74. Anton & Sunflower	.41	.36	.79	.58
75. Bristol & Town Center Dr	.41	.67	.53	.72
76. Ave of Arts & Town Center	--	--	.55	.50
77. Park Center & Anton	.30	.43	.37	.43
78. Ave of the Arts & Anton	.35	.40	.70	.38
79. Sakioka Dr & Anton	.33	.35	.48	.56
80. I-405 SB On-Ramp & Anton	--	--	.30	.67
SANTA ANA				
101. Bristol & Warner	.93*	1.03*	.62	.82
102. Main & Warner	.72	1.04*	.71	.85
103. Bristol & Segerstrom	.65	.84	.72	1.01*
104. Main & Dyer	.72	.94*	.71	.98*
105. Bristol & MacArthur	.70	.90	.94*	.99*
106. Flower & MacArthur	.78	.82	1.17*	1.04*
107. Main & MacArthur	.69	.80	1.13*	1.07*
108. SR-55 SB Ramps & MacArthur	.80	.72	.79	.63
109. SR-55 NB Ramps & MacArthur	.77	.67	.92*	.86
110. Main & Sunflower	.64	1.01*	1.07*	1.85*
112. Bear & MacArthur	.78	.78	.74	.85
113. Flower & Segerstrom/Dyer	.67	.67	.70	.88
114. Hutton Centre/MacArthur	.76	.80	1.31*	1.32*
IRVINE				
111. Redhill & Main	.42	.80	.98*	.99*

* Exceeds LOS "D"

Note: 2020 General Plan conditions include the roadway improvements as shown by each City's General Plan

Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F

The previously referenced table shows that there are a number of intersections forecast to exceed LOS "D" in 2020. These are:

Costa Mesa Intersections

42. Bristol & Sunflower

45. Fairview & South Coast

62. Bristol & Baker

Santa Ana Intersections

103. Bristol & Segerstrom

104. Main & Dyer

105. Bristol & MacArthur

106. Flower & MacArthur

107. Main & MacArthur

109. SR-55 NB Ramps & MacArthur

110. Main & Sunflower

114. Hutton Centre/MacArthur

Irvine Intersections

111. Red Hill & Main

PROJECT ANALYSIS

Land uses and projected trip generation for the proposed Town Center development are summarized in Table 3-3 (see Chapter 1.0 for project description). Trip generation for the entire project is estimated to be approximately 10,000 average daily trips of which about 1,200 occur in the AM peak hour and about 1,050 occur in the PM peak hour. This trip generation is in addition to the maximum allowed under the current General Plan, as shown in the previous section. Table 3-4 shows the total amount of land use and trip generation for the General Plan plus the proposed project.

ADT volumes in the analysis area for 2020 buildout with project are illustrated in Figure 3-4 and the corresponding peak hour volumes in Figures 3-5 and 3-6. Figures that show the net change in peak hour turning movement volumes are Figures 3-7 and 3-8.

Intersection levels of service (LOS) for project conditions were developed for the AM and PM peak hours using the future (General Plan) intersection lane configurations presented previously in Chapter 2.0 (Figure 2-7).

Table 3-3

LAND USE AND TRIP GENERATION - PROPOSED PROJECT

CMTM ZONE*	LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
12	1. Office	300.00 TSF	411	57	468	75	372	447	3303
	SUB-TOTAL		411	57	468	75	372	447	3303
16	1. Office	255.00 TSF	349	48	397	64	316	380	2808
	SUB-TOTAL		349	48	397	64	316	380	2808
17	5. Hotel	-186.00 ROOM	-63	-41	-104	-60	-54	-114	-1531
	7. Performance Theater	2640.00 SEAT	26	0	26	211	53	264	3247
	8. Museum	140.00 TSF	165	8	173	49	204	253	2534
	SUB-TOTAL		128	-33	95	200	203	403	4250
18	1. Office	100.00 TSF	137	19	156	25	124	149	1101
	5. Hotel	186.00 ROOM	63	41	104	60	54	114	1531
	6. Movie Theater	-1700.00 SEAT	0	-17	-17	-408	-34	-442	-2992
	SUB-TOTAL		200	43	243	-323	144	-179	-360
TOTAL	1. Office	655.00 TSF	897	124	1021	164	812	976	7212
	6. Movie Theater	-1700.00 SEAT	0	-17	-17	-408	-34	-442	-2992
	7. Performance Theater	2640.00 SEAT	26	0	26	211	53	264	3247
	8. Museum	140.00 TSF	165	8	173	49	204	253	2534
	TOTAL		1088	115	1203	16	1035	1051	10001

ADT AND PEAK HOUR TRIP RATE SUMMARY

LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
		IN	OUT	TOTAL	IN	OUT	TOTAL	
1. Office	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
2. Specialty Retail	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
3. Quality Restaurant	TSF	.40	.41	.81	5.02	2.47	7.49	89.95
4. High Turnover Restaurant	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
5. Hotel	ROOM	.34	.22	.56	.32	.29	.61	8.23
6. Movie Theater	SEAT	.00	.01	.01	.24	.02	.26	1.76
7. Performance Theater	SEAT	.01	.00	.01	.08	.02	.10	1.23
8. Museum	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10

* See Figure 1-5 for zone boundaries
See Table 2-2 for trip rate sources

Table 3-4

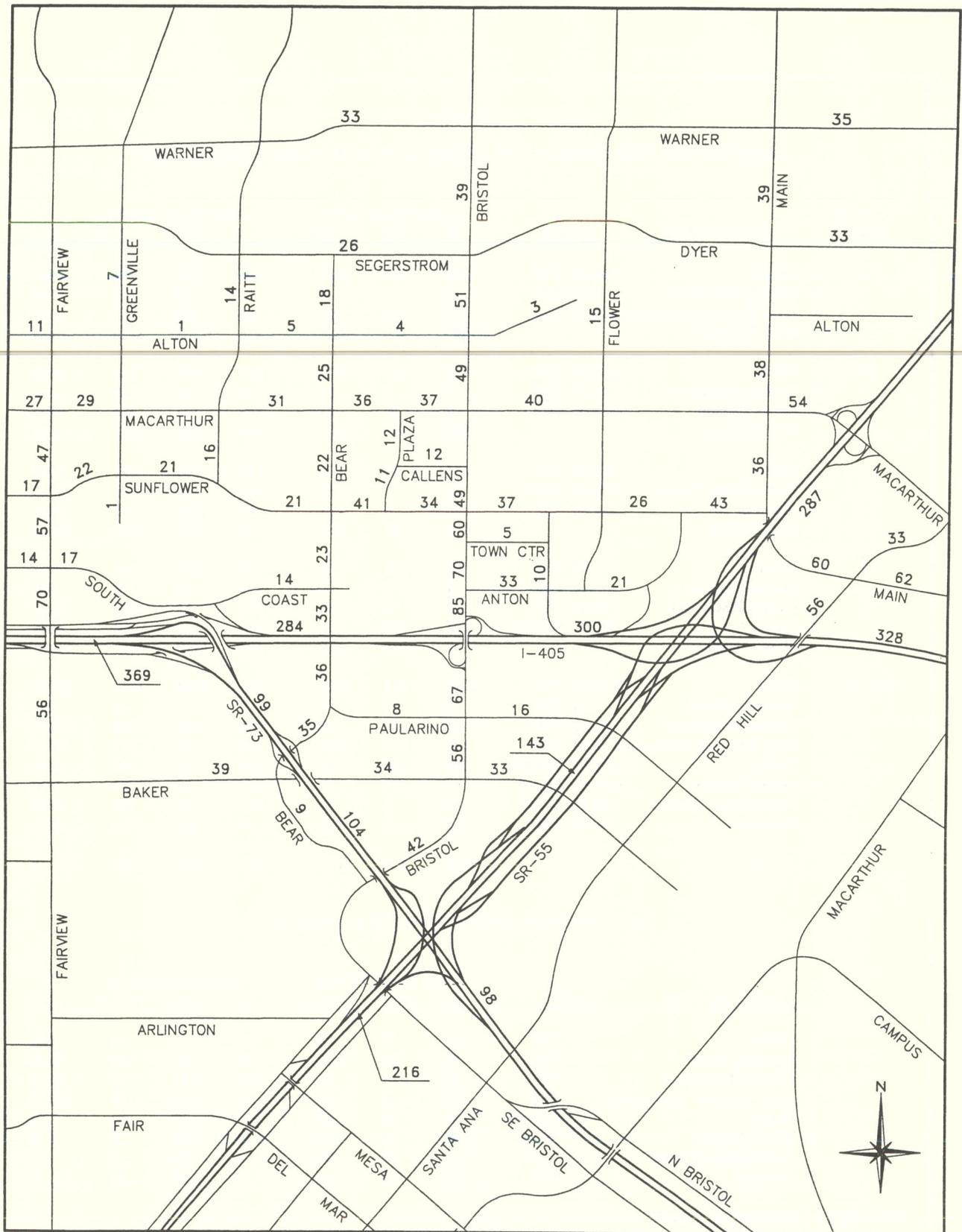
LAND USE AND TRIP GENERATION - GENERAL PLAN PLUS PROPOSED PROJECT

CMTM ZONE*	LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
12	1. Office	905.23 TSF	1240	172	1412	226	1122	1348	9967
	3. Quality Restaurant	8.10 TSF	3	3	6	41	20	61	729
	4. High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
	SUB-TOTAL		1383	304	1687	456	1268	1724	14469
16	1. Office	626.99 TSF	859	119	978	157	777	934	6903
	3. Quality Restaurant	18.27 TSF	7	7	14	92	45	137	1643
	6. Movie Theater	1862.00 SEAT	0	19	19	447	37	484	3277
	SUB-TOTAL		866	145	1011	696	859	1555	11823
17	1. Office	464.50 TSF	636	88	724	116	576	692	5114
	7. Performance Theater	7308.00 SEAT	73	0	73	585	146	731	8989
	8. Museum	140.00 TSF	165	8	173	49	204	253	2534
	SUB-TOTAL		874	96	970	750	926	1676	16637
18	1. Office	717.03 TSF	982	136	1118	179	889	1068	7894
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	24.82 TSF	10	10	20	125	61	186	2233
	5. Hotel	590.00 ROOM	201	130	331	189	171	360	4856
	SUB-TOTAL		1197	278	1425	502	1130	1632	15189
TOTAL	1. Office	2713.75 TSF	3717	515	4232	678	3364	4042	29878
	2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
	3. Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
	4. High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
	5. Hotel	590.00 ROOM	201	130	331	189	171	360	4856
	6. Movie Theater	1862.00 SEAT	0	19	19	447	37	484	3277
	7. Performance Theater	7308.00 SEAT	73	0	73	585	146	731	8989
	8. Museum	140.00 TSF	165	8	173	49	204	253	2534
TOTAL		4320	823	5143	2404	4183	6587	58118	

ADT AND PEAK HOUR TRIP RATE SUMMARY

LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
		IN	OUT	TOTAL	IN	OUT	TOTAL	
1. Office	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
2. Specialty Retail	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
3. Quality Restaurant	TSF	.40	.41	.81	5.02	2.47	7.49	89.95
4. High Turnover Restaurant	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
5. Hotel	ROOM	.34	.22	.56	.32	.29	.61	8.23
6. Movie Theater	SEAT	.00	.01	.01	.24	.02	.26	1.76
7. Performance Theater	SEAT	.01	.00	.01	.08	.02	.10	1.23
8. Museum	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10

* See Figure 1-4 for zone boundaries
See Table 2-2 for trip rate sources

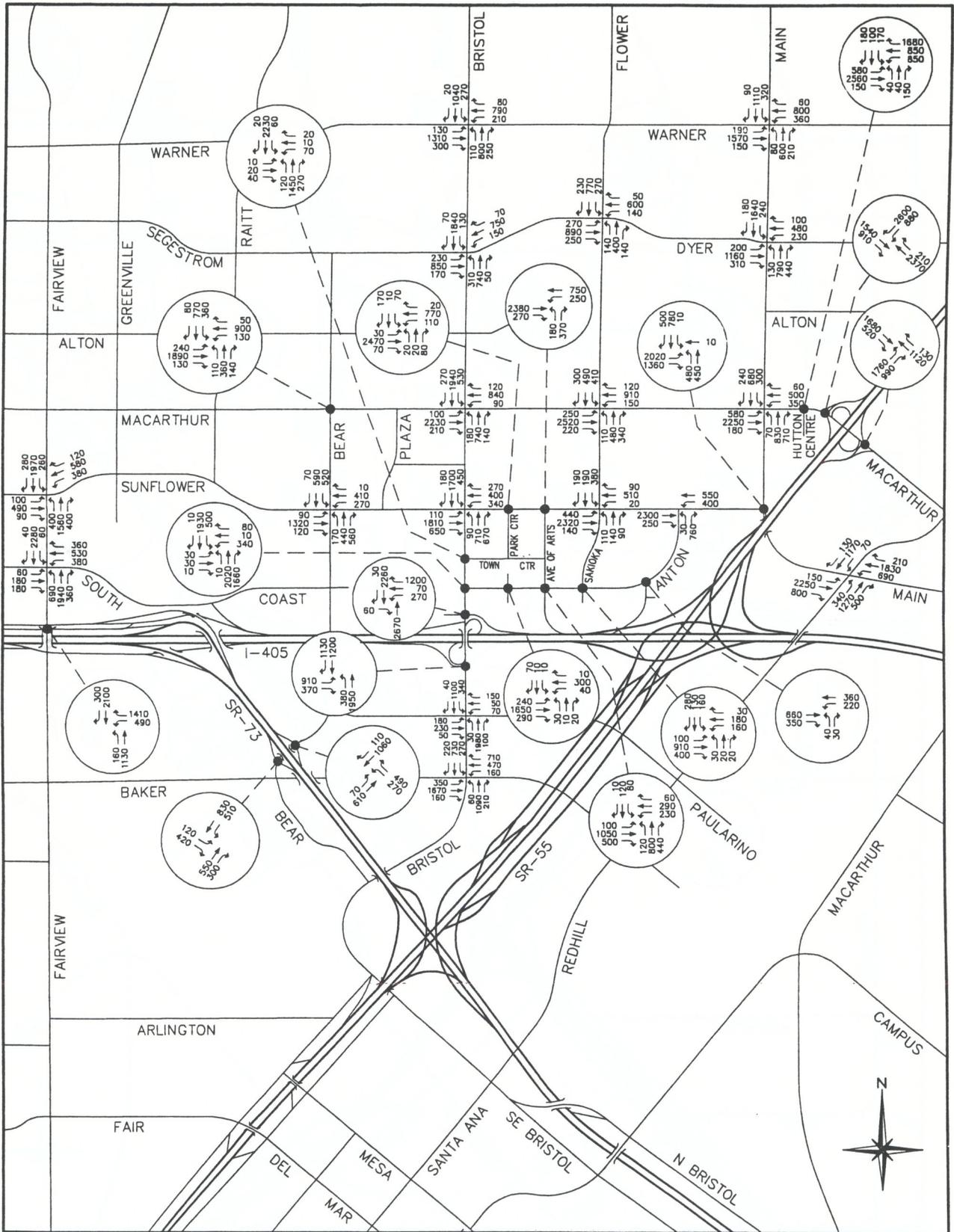


Legend

xxx ADT Volumes (000s)

Figure 3-4

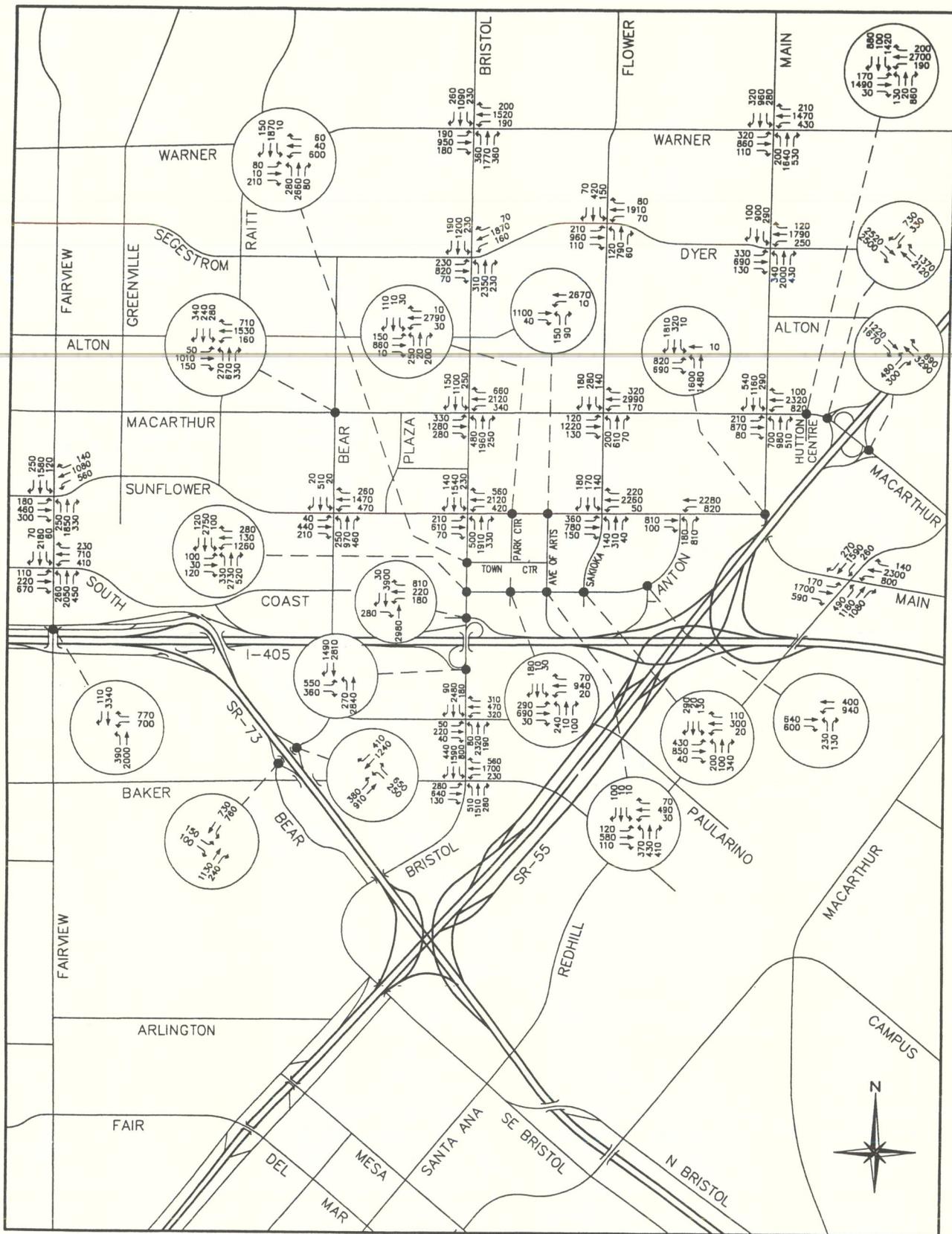
LONG-RANGE ADT VOLUMES
- WITH PROPOSED PROJECT



Legend

xxx Peak Hour Turning Movement Volumes

Figure 3-5
LONG-RANGE AM PEAK HOUR
INTERSECTION VOLUMES
- WITH PROPOSED PROJECT



Legend

↔ xxx Peak Hour Turning Movement Volumes

Figure 3-6
LONG-RANGE PM PEAK HOUR
INTERSECTION VOLUMES
- WITH PROPOSED PROJECT

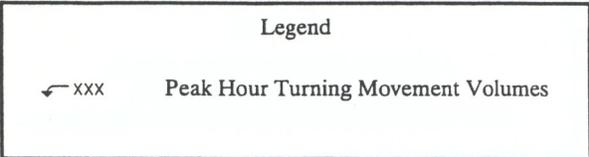
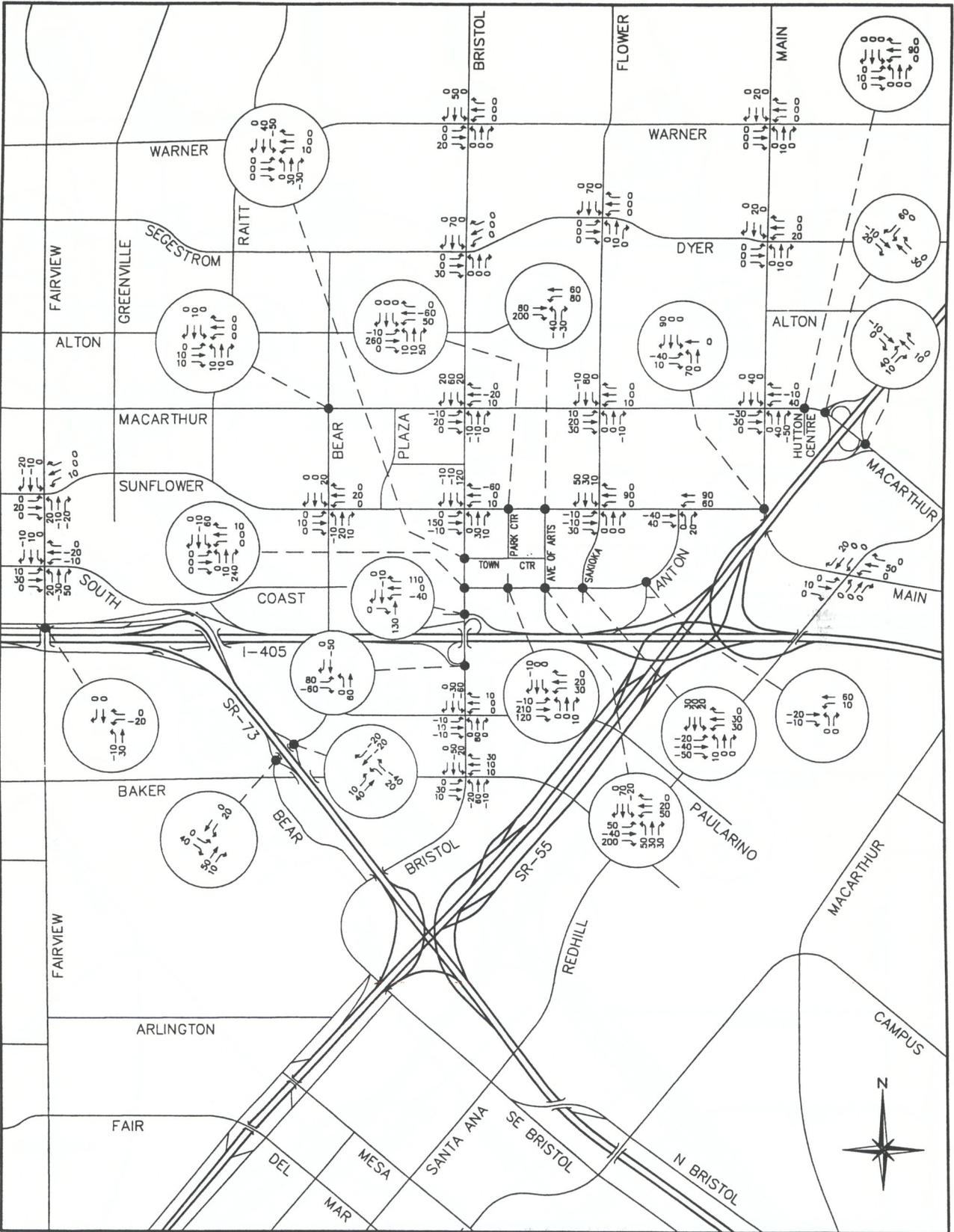
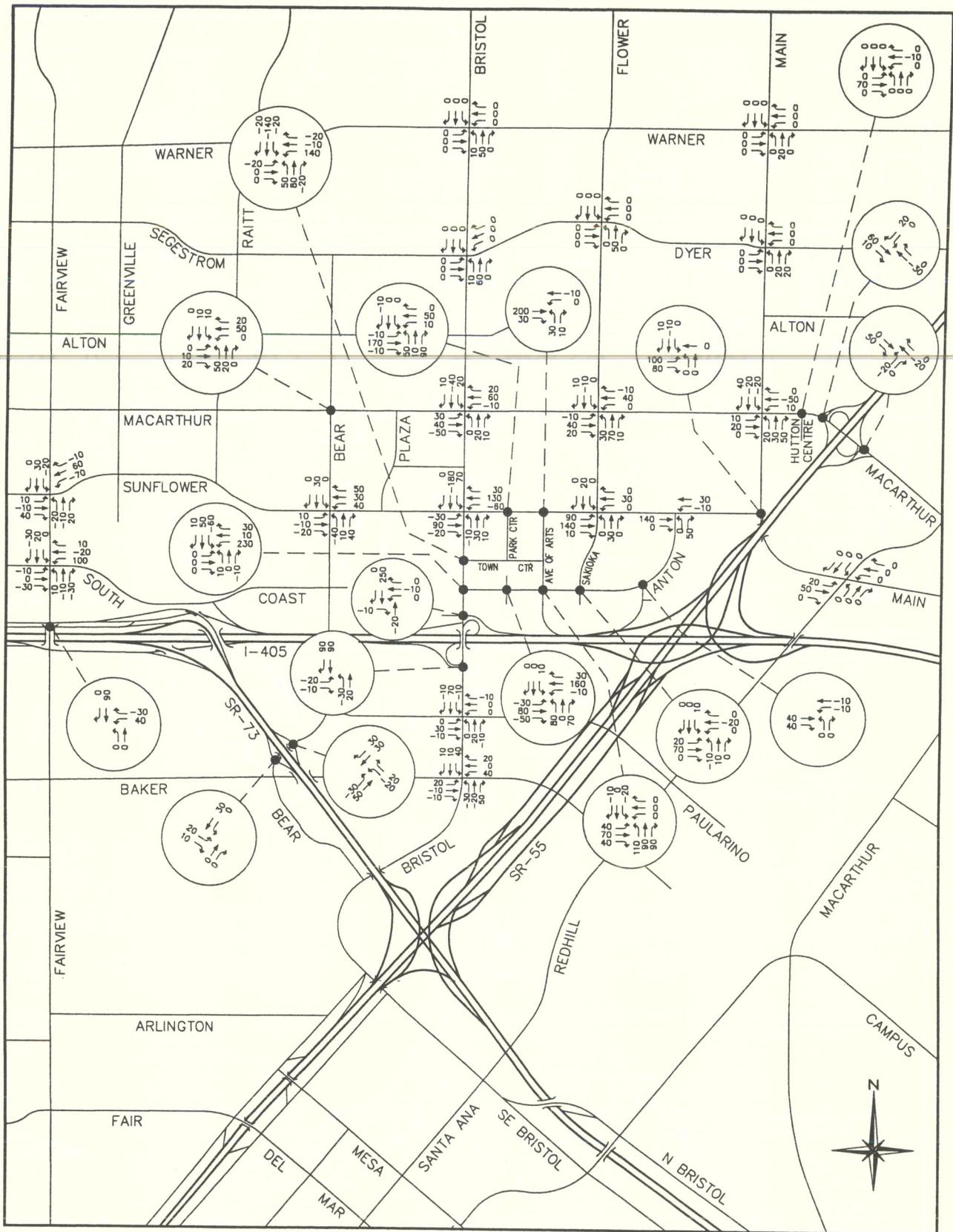


Figure 3-7
LONG-RANGE AM PEAK HOUR
INTERSECTION VOLUMES
- NET CHANGE IN TRIPS (DUE TO PROJECT)



Legend

← xxx Peak Hour Turning Movement Volumes

Figure 3-8
LONG-RANGE PM PEAK HOUR
INTERSECTION VOLUMES
- NET CHANGE IN TRIPS (DUE TO PROJECT)

Comparative with-and-without project long-range ICUs are summarized in Table 3-5. Consistent with City of Costa Mesa guidelines, a significant impact is defined as an ICU increase of .01 or more that causes or worsens LOS “E” or “F”, except for the Red Hill Avenue/Main Street intersection which is located within the Irvine Business Complex (IBC). LOS “E” is acceptable for IBC as shown in City of Irvine guidelines. As can be seen, the proposed project is forecast to have significant impacts at the following intersections:

Costa Mesa Intersections

42. Bristol & Sunflower
45. Fairview & South Coast

59. Bristol & Paularino
71. Park Center & Sunflower

Santa Ana Intersections

103. Bristol & Segerstrom
105. Bristol & MacArthur
106. Flower & MacArthur

107. Main & MacArthur
109. SR-55 NB Ramps & MacArthur
110. Main & Sunflower

Mitigation that addresses these impacts is given in the following section.

LONG-RANGE IMPROVEMENTS

Intersection improvements for long-range conditions can be grouped into the following three categories:

1. General plan improvements assumed in background conditions (all Cities).
2. Additional improvements to improve LOS at City of Costa Mesa intersections.
3. Additional improvements to improve LOS at City of Santa Ana intersections.

Costa Mesa Mitigation

The long range general plan improvements within the City of Costa Mesa which are assumed in the background conditions will be funded mostly by an areawide circulation system funding mechanism such as the City’s Traffic Impact Fee Program or special benefit district fees. A mitigation measure for the proposed Town Center project will be to participate in that program.

Table 3-5

ICU COMPARISON - GENERAL PLAN PLUS PROJECT

INTERSECTION	2020 GENERAL PLAN		2020 GENERAL PLAN PLUS PROJECT			
	AM	PM	AM ICU	DIFF	PM ICU	DIFF
COSTA MESA						
38. Fairview & Sunflower	.80	.80	.81	.01	.83	.03
41. Bear & Sunflower	.67	.77	.68	.01	.78	.01
42. Bristol & Sunflower	.89	1.01	.97*	.08	.99	-.02
45. Fairview & South Coast	.77	.91	.79	.02	.92*	.01
48. Bristol & Anton	.54	.71	.57	.03	.74	.03
51. Fairview & I-405 NB Ramps	.71	.86	.71	.00	.88	.02
53. Bristol & I-405 NB Ramps	.74	.80	.80	.06	.81	.01
54. Bristol & I-405 SB Ramps	.67	.88	.68	.01	.87	-.01
59. Bristol & Paularino	.62	.89	.62	.00	.93*	.04
60. Bear & SR-73 SB Ramps	.39	.57	.41	.02	.58	.01
62. Bristol & Baker	.72	.93	.74	.02	.93	.00
70. Bear & SR-73 NB Ramp	.45	.76	.45	.00	.74	-.02
71. Park Center & Sunflower	.64	.88	.72	.08	.91*	.03
72. Ave of the Arts & Sunflower	.77	.60	.82	.05	.61	.01
73. Sakioka/Flower & Sunflower	.80	.77	.81	.01	.82	.05
74. Anton & Sunflower	.79	.58	.80	.01	.59	.01
75. Bristol & Town Center Dr	.53	.72	.53	.00	.75	.03
76. Ave of Arts & Town Center	.55	.50	.46	-.09	.53	.03
77. Park Center & Anton	.37	.43	.46	.09	.48	.05
78. Ave of the Arts & Anton	.70	.38	.76	.06	.43	.05
79. Sakioka Dr & Anton	.48	.56	.49	.01	.58	.02
80. I-405 SB On-Ramp & Anton	.30	.67	.29	-.01	.69	.02
SANTA ANA						
101. Bristol & Warner	.62	.82	.62	.00	.83	.01
102. Main & Warner	.71	.85	.72	.01	.85	.00
103. Bristol & Segerstrom	.72	1.01	.73	.01	1.02*	.01
104. Main & Dyer	.71	.98	.71	.00	.98	.00
105. Bristol & MacArthur	.94	.99	.96*	.02	1.03*	.04
106. Flower & MacArthur	1.17	1.04	1.18*	.01	1.07*	.03
107. Main & MacArthur	1.13	1.07	1.11	-.02	1.11*	.04
108. SR-55 SB Ramps & MacArthur	.79	.63	.79	.00	.64	.01
109. SR-55 NB Ramps & MacArthur	.92	.86	.93*	.01	.85	-.01
110. Main & Sunflower	1.07	1.85	1.13*	.06	1.88*	.03
112. Bear & MacArthur	.74	.85	.74	.00	.87	.02
113. Flower & Segerstrom/Dyer	.70	.88	.72	.02	.89	.01
114. Hutton Centre/MacArthur	1.31	1.32	1.31	.00	1.32	.00
IRVINE						
111. Red Hill & Main**	.98	.99	.98	.00	1.00	.01

* Significant project impact

** LOS "E" is acceptable within the Irvine Business Complex

Level of service ranges: .00 - .60 A

.61 - .70 B

.71 - .80 C

.81 - .90 D

.91 - 1.00 E

Above 1.00 F

At four intersections within the City of Costa Mesa, ICUs with the proposed project either exceed LOS “D” or worsen LOS “E” when compared to conditions forecast for the current General Plan. Mitigation measures to address these conditions are listed in the following table:

<u>COSTA MESA INTERSECTIONS</u>	<u>MITIGATION IN ADDITION TO GENERAL PLAN IMPROVEMENTS</u>
42. Bristol & Sunflower	Convert 3 rd northbound through lane to a shared through/right-turn lane (provide 2 NBL, 2 NBT, 1 shared NBT/NBR, and 1 NBR)
45. Fairview & South Coast	Convert 2 nd eastbound through lane to a shared through/right-turn lane (provide 1 EBL, 1 EBT, 1 shared EBT/EBR, and 1 EBR)
59. Bristol & Paularino	Add a 2 nd northbound left-turn lane. Add a second westbound left-turn lane instead of the second westbound right-turn lane shown in the current General Plan
71. Park Center & Sunflower	Convert northbound through lane to a shared left-turn/through lane. Convert southbound left-turn lane to a shared left-turn/through lane and convert southbound through lane to a right-turn lane. Requires split phasing in the north/south direction (provide 1 NBL, 1 shared NBL/NBT/NBR, 1 shared SBL/SBT, and 1 SBR)

Santa Ana Mitigation

At six intersections within the City of Santa Ana, the proposed project worsens what is forecast to be undesirable conditions without the project. At these locations, forecasts of peak hour conditions are either LOS “E” or LOS “F” without the project. As noted previously, this level of service is based on all currently planned intersection improvements identified in each City’s General Plan (as illustrated in Chapter 2.0, Figure 2-7).

Since long range conditions without the project and with all planned improvements still results in undesirable levels of service at these locations, the amount of feasible mitigation in addition to the planned improvements is likely to be limited. Therefore, the proposed mitigation is separated into two parts. The first consists of improvements that can be implemented within the planned right-of-way and would fully mitigate the impacts of the proposed project. These improvements are described later in this section.

The second part applies to the remaining intersections with a project impact but where additional mitigation within the planned right-of-way is not possible. At these locations, project mitigation is to pay a share of the cost of the planned improvements plus a share of the cost of the

feasible improvements in addition to those currently planned. These additional improvements would fully mitigate the projects impacts and are summarized below. However, given right-of-way and other physical constraints, these additional improvements may not be feasible or desirable to implement. Final determination of which improvements to implement is at the discretion of each respective jurisdiction.

The following table summarizes the Santa Ana and Irvine mitigation:

SANTA ANA AND IRVINE INTERSECTIONS	MITIGATION MEASURES	SHARE*
ADDITIONAL IMPROVEMENTS WITHIN PLANNED RIGHT-OF-WAY		
107. Main & MacArthur	Provide right-turn overlap signal phasing for northbound and southbound right-turns	100%
110. Main & Sunflower	Convert 3 rd southbound through lane to a right-turn lane with overlap phasing	100%
GENERAL PLAN PLUS ADDITIONAL IMPROVEMENTS (WHERE FEASIBLE)		
103. Bristol & Segerstrom	General Plan Improvements: Add second left-turn lane for each approach, 3 rd and 4 th eastbound through lanes, 3 rd westbound through lane, and right-turn lanes for each approach.	3.9%
	Non-General Plan Improvements: Add 4 th westbound through lane	3.9%
105. Bristol & MacArthur	General Plan Improvements: Add right-turn lanes for southbound, eastbound and westbound approaches	4.9%
	Non-General Plan Improvements: Add 4 th eastbound and westbound through lane, add right-turn overlap for westbound right-turns	4.9%
106. Flower & MacArthur	General Plan Improvements: None	
	Non-General Plan Improvements: Add northbound and westbound right-turn lanes	9.1%
109. SR-55 NB Ramps & MacArthur	General Plan Improvements: None	
	Non-General Plan Improvements: Add 3 rd northbound left-turn lane	1.7%
* See Table 3-6 for share calculations		

Table 3-7 summarizes the peak hour ICUs when the proposed improvements are included. The table shows that each of these mitigation measures effectively eliminates the project's impact at that location.

Table 3-6

PROJECT SHARE CALCULATIONS

Intersection	Jurisdiction	AM PEAK HOUR			PM PEAK HOUR		
		Existing	2020 GP	With Project	Existing	2020 GP	With Project
PART A: TOTAL PEAK HOUR VOLUMES							
103. Bristol & Segerstrom	Santa Ana	3650	5260	5360	5030	7660	7730
105. Bristol & MacArthur	Santa Ana	5460	7310	7390	7280	9090	9200
106. Flower & MacArthur	Santa Ana	4550	6170	6300	4660	6240	6430
109. SR-55 NB Ramps & MacArthur	Santa Ana	4710	6150	6200	5770	7840	7850
111. Red Hill & Main	Irvine	2740	9330	9410	3980	10500	10570

Intersection	Jurisdiction	AM INCREASE		PM INCREASE		Average Share*
		Existing To GP	Project	Existing To GP	Project	
PART B: INCREMENTAL VOLUMES						
103. Bristol & Segerstrom	Santa Ana	1610	100	2630	70	3.9%
105. Bristol & MacArthur	Santa Ana	1850	80	1810	110	4.9%
106. Flower & MacArthur	Santa Ana	1620	130	1580	190	9.1%
109. SR-55 NB Ramps & MacArthur	Santa Ana	1440	50	2070	10	1.7%
111. Red Hill & Main	Irvine	6590	80	6520	70	1.1%

* Average share is calculated by dividing the new AM and PM trips resulting from the project by the total new AM and PM trips.

Table 3-7

ICU COMPARISON - PROJECT MITIGATION

INTERSECTION	2020 GENERAL PLAN		2020 GENERAL PLAN W/PROJECT		2020 W/MITIGATION	
	AM	PM	AM	PM	AM	PM
COSTA MESA						
42. Bristol & Sunflower	.89	1.01	.97	.99	.87	.99
45. Fairview & South Coast	.77	.91	.79	.92	.79	.74
59. Bristol & Paularino	.62	.89	.62	.93	.64	.89
71. Park Center & Sunflower	.64	.88	.73	.92	.73	.86
SANTA ANA						
103. Bristol & Segerstrom	.72	1.01	.73	1.02	.69	.93
105. Bristol & MacArthur	.94	.99	.96	1.03	.85	.92
106. Flower & MacArthur	1.17	1.04	1.18	1.07	1.14	.99
107. Main & MacArthur	1.13	1.07	1.11	1.11	1.00	1.04
109. SR-55 NB Ramps & MacArthur	.92	.86	.93	.85	.75	.80
110. Main & Sunflower	1.07	1.85	1.13	1.88	1.07	1.62

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 - 1.00 E
 Above 1.00 F

The mitigation measures listed above are for long range conditions. These conditions are based on the buildout of land use in the surrounding area and may change based on the effects of the future land development and future changes to regional transportation patterns. The intersection improvements should be implemented in advance of the time when traffic volumes increase to the point that the improvements are merited.

SITE ACCESS

The proposed development plan consists of changes to three different parts of the Town Center area.

For the Two Town Center area (see Figure 1-1), access to the new development will utilize existing intersections. A new parking structure is proposed to replace the existing surface parking lot located west of Park Center Drive (south of Anton Boulevard). The existing parking structure west of Avenue of the Arts (south of Anton Boulevard) will also be utilized by the new development.

The Two Town Center project is also proposing to reconfigure the existing intersection located on Anton Boulevard between Park Center Drive and Avenue of the Arts. In its current configuration, this intersection serves the parking structure north of Anton Boulevard and traffic exiting the area south of Anton Boulevard. No pedestrian crosswalks are currently provided across Anton Boulevard at this location. The proposed plan reconfigures this intersection to provide full ingress/egress access to the area south of Anton Boulevard. The access to the area south of Anton Boulevard is primarily for visitor parking, the existing restaurant, and passenger pick-up and drop-off. Access to the parking structures is provided via Park Center Drive and Avenue of the Arts as in existing conditions. Since preliminary plans for this parking area identify only 50 to 60 parking spaces, a traffic signal would not be warranted unless the parking lot experienced an unusually high turnover rate of over 2.5 vehicles per space per hour.

The proposed expansion within the Segerstrom Center for the Arts area (see Figure 1-2) utilizes existing parking structures and existing access locations. A change to the circulation system within this area consists of reconfiguring the segment of Town Center Drive just west of Avenue of the Arts to

one-way travel in the westbound direction. Eastbound travel will be allowed from Park Center Drive to the site of the proposed Symphony Hall and Museum for passenger pick-up and drop-off at which point a turn-around would be provided to direct traffic back to Park Center Drive. Westbound travel is provided along the entire segment in order to provide access to the area from the future Avenue of the Arts off-ramp from the northbound I-405. A detailed analysis of this proposed change to the City's Master Plan of Highways is provided in Chapter 4.0.

The proposed changes to the remainder of the Town Center area (see Figure 1-3) consist of adding additional office square footage to the area southeast of the Bristol Street/Sunflower Avenue intersection (255,000 square feet), an additional 100,000 square feet of office to the area southwest of the Bristol Street/Anton Boulevard intersection, as well as transferring the entitlement for the future 186 room hotel to the area northeast of the Bristol Street/Anton Boulevard intersection. Access to these areas will be provided at the same locations as for the existing land uses.

MITIGATION SUMMARY

A comprehensive listing of the recommended mitigation for the Proposed Project is given in Table 3-8.

Table 3-8

MITIGATION SUMMARY

I. INTERSECTION IMPROVEMENTS

Location	Improvement	Project's Share	Jurisdiction
42. Bristol & Sunflower	Convert 3 rd northbound through lane to a shared through/right-turn lane (provide 2 NBL, 2 NBT, 1 shared NBT/NBR, and 1 NBR)	100.0%	Costa Mesa
45. Fairview & South Coast	Convert 2 nd eastbound through lane to a shared through/right-turn lane (provide 1 EBL, 1 EBT, 1 shared EBT/EBR, and 1 EBR)	100.0%	Costa Mesa
59. Bristol & Paularino	Add a 2 nd northbound left-turn lane. Add a second westbound left-turn lane instead of the second westbound right-turn lane shown in the current General Plan	100.0%	Costa Mesa
71. Park Center & Sunflower	Convert northbound through lane to a shared left-turn/through lane. Convert southbound left-turn lane to a shared left-turn/through lane and convert southbound through lane to a right-turn lane. Requires split phasing in the north/south direction (provide 1 NBL, 1 shared NBL/NBT/NBR, 1 shared SBL/SBT, and 1 SBR)	100.0%	Costa Mesa
103. Bristol & Segerstrom	General Plan Improvements: Add second left-turn lane for each approach, 3 rd and 4 th eastbound through lanes, 3 rd westbound through lane, and right-turn lanes for each approach. Non-General Plan Improvements: Add 4 th westbound through lane	3.9% 3.9%	Santa Ana
105. Bristol & MacArthur	General Plan Improvements: Add right-turn lanes for southbound, eastbound and westbound approaches Non-General Plan Improvements: Add 4 th eastbound and westbound through lane, add right-turn overlap for westbound right-turns	4.9% 4.9%	Santa Ana
106. Flower & MacArthur	General Plan Improvements: None Non-General Plan Improvements: Add northbound and westbound right-turn lanes	9.1%	Santa Ana
107. Main & MacArthur	Provide right-turn overlap signal phasing for northbound and southbound right-turns	100%	Santa Ana
109. SR-55 NB Ramps & MacArthur	General Plan Improvements: None Non-General Plan Improvements: Add 3 rd northbound left-turn lane	1.7%	Santa Ana

(Continued)

Table 3-8 (cont)
 MITIGATION SUMMARY

I. INTERSECTION IMPROVEMENTS (cont)

Location	Improvement	Project's Share	Jurisdiction
110. Main & Sunflower	Convert 3 rd southbound through lane to a right-turn lane with overlap phasing	100%	Santa Ana

II. PAYMENT OF IMPACT FEE

The project will need to contribute to the City of Costa Mesa's Traffic Impact Fee Program.

III. ON-SITE IMPROVEMENTS

The project will need to construct roadway improvements on and adjacent to the project site to provide access to the site and circulation within the site. These will be determined as specific plans for development are presented.

Chapter 4.0

SPECIAL ISSUES

This chapter discusses special issues related to the proposed project. These issues include the County of Orange's Congestion Management Program, alternatives to the Proposed Project, and an analysis on the effect of removing Town Center Drive from the City's Master Plan of Highways.

CONGESTION MANAGEMENT PROGRAM

The Orange County Congestion Management Program (CMP) is a State mandated program with the goals of reducing traffic congestion and providing a mechanism for coordinating land use development and transportation improvement decisions. All projects generating 2,400 or more ADT typically are required to prepare a Traffic Impact Analysis (TIA) for CMP purposes. The methodology utilized in the preparation of this traffic study follows the guidelines for TIA preparation and thus is appropriate to serve as the TIA for the proposed project.

The CMP highway system in the vicinity of the proposed project consists of I-405, SR-55 and SR-73. The closest CMP arterials to the project site are Harbor Boulevard, Adams Avenue west of Harbor Boulevard, Warner Avenue west of Harbor Boulevard, Edinger Avenue and Jamboree Road. The amount of project traffic projected to use these arterials is less than the threshold established by the CMP (three percent of the roadway's capacity). Since CMP guidelines only require analysis of arterial portions of the CMP highway system, no further analysis is required.

PROJECT ALTERNATIVES

Three alternatives in addition to the proposed project have been identified. Each of these alternatives are discussed below and are summarized in Table 4-1.

Table 4-1

LAND USE AND TRIP GENERATION - PROPOSED ALTERNATIVES

LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
		IN	OUT	TOTAL	IN	OUT	TOTAL	
TRIP GENERATION								
General Plan Plus Proposed Project								
1. Office	2713.75 TSF	3717	515	4232	678	3364	4042	29878
2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
3. Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
4. High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
5. Hotel	590.00 ROOM	201	130	331	189	171	360	4856
6. Movie Theater	1862.00 SEAT	0	19	19	447	37	484	3277
7. Performance Theater	7308.00 SEAT	73	0	73	585	146	731	8989
8. Museum	140.00 TSF	165	8	173	49	204	253	2534
TOTAL		4320	823	5143	2404	4183	6587	58118
No Project (No Build) Alternative								
1. Office	2058.75 TSF	2820	391	3211	514	2552	3066	22667
2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
3. Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
4. High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
5. Hotel	404.00 ROOM	137	89	226	129	117	246	3325
6. Movie Theater	3562.00 SEAT	0	36	36	855	71	926	6269
7. Performance Theater	3668.00 SEAT	37	0	37	293	73	366	4512
TOTAL		3158	667	3825	2247	3074	5321	45357
General Plan Alternative								
1. Office	2058.75 TSF	2820	391	3211	514	2552	3066	22667
2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
3. Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
4. High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
5. Hotel	590.00 ROOM	200	130	330	189	171	360	4865
6. Movie Theater	3562.00 SEAT	0	36	36	855	71	926	6269
7. Performance Theater	4668.00 SEAT	47	0	47	373	93	466	5742
TOTAL		3231	708	3939	2387	3148	5535	48118
Reduced Intensity Alternative								
1. Office	2517.25 TSF	3448	479	3927	630	3122	3752	27715
2. Specialty Retail	5.14 TSF	4	2	6	9	9	18	206
3. Quality Restaurant	51.19 TSF	20	20	40	258	126	384	4605
4. High Turnover Restaurant	28.94 TSF	140	129	269	189	126	315	3773
5. Hotel	590.00 ROOM	201	130	331	189	171	360	4856
6. Movie Theater	1862.00 SEAT	0	19	19	447	37	484	3277
7. Performance Theater	7308.00 SEAT	73	0	73	585	146	731	8989
8. Museum	140.00 TSF	165	8	173	49	204	253	2534
TOTAL		4051	787	4838	2356	3941	6297	55955

(Continued)

Table 4-1 (cont)

LAND USE AND TRIP GENERATION - PROPOSED ALTERNATIVES

LAND USE TYPE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
		IN	OUT	TOTAL	IN	OUT	TOTAL	
TRIP RATES								
1. Office	TSF	1.37	.19	1.56	.25	1.24	1.49	11.01
2. Specialty Retail	TSF	.72	.48	1.20	1.80	1.80	3.60	40.00
3. Quality Restaurant	TSF	.40	.41	.81	5.02	2.47	7.49	89.95
4. High Turnover Restaurant	TSF	4.82	4.45	9.27	6.52	4.34	10.86	130.34
5. Hotel	ROOM	.34	.22	.56	.32	.29	.61	8.23
6. Movie Theater	SEAT	.00	.01	.01	.24	.02	.26	1.76
7. Performance Theater	SEAT	.01	.00	.01	.08	.02	.10	1.23
8. Museum	TSF	1.18	.06	1.24	.35	1.46	1.81	18.10

See Table 2-2 for trip rate sources

The first alternative is the No Project (No Build) Alternative. In this scenario, no additional development would occur on the project site and would result in no additional traffic being generated over that which is currently being generated on the site.

The second alternative is the General Plan Alternative. With this alternative, the project site would be developed in accordance with the City's current General Plan. This is the baseline against which the Proposed Project's impacts were evaluated in Chapter 3.0. In this scenario, additional development over existing conditions consists of a 186 room hotel and 1000 additional seats at the Performing Arts Center. This scenario increases the current amount of traffic generated by approximately 110 trips in the AM peak hour, approximately 210 trips in the PM peak hour and approximately 2,800 total daily trips.

The third alternative is the Reduced Intensity Alternative. This scenario is equivalent to the Proposed Project with the exception being that the additional office square footage has been reduced by 30 percent. This reduces the projected trip generation of the project by approximately 25 percent in the AM peak hour, by approximately 28 percent in the PM peak hour and by approximately 22 percent overall.

Table 4-2 provides a summary of the projected Long Range ICU values for each of the project alternatives as well as for the Proposed Project. The table shows how the No Project (No Build) alternative results in the same deficient intersections as does the current General Plan.

The Reduced Intensity Alternative results in the same deficient intersections as does the Proposed Project except for the Park Center/Sunflower intersection which is forecast to have an acceptable ICU in this scenario.

TOWN CENTER DRIVE DELETION

Part of the Proposed Project is the deletion of a portion of Town Center Drive from the City's Master Plan of Highways (MPH). It is proposed that the segment of Town Center Drive immediately west of Avenue of the Arts be reconfigured as a one-way street to only allow westbound traffic. This

Table 4-2

ICU COMPARISON - PROJECT ALTERNATIVES

INTERSECTION	2020 GENERAL PLAN		2020 NO BUILD		2020 REDUCED INTENSITY		2020 PROPOSED PROJECT	
	AM	PM	AM	PM	AM	PM	AM	PM
COSTA MESA								
38. Fairview & Sunflower	.80	.80	.80	.79	.81	.83	.81	.83
41. Bear & Sunflower	.67	.77	.67	.77	.68	.78	.68	.78
42. Bristol & Sunflower	.89	1.01*	.88	1.01*	.96*	.99*	.96*	.99*
45. Fairview & South Coast	.77	.91*	.77	.91*	.79	.92*	.79	.92*
48. Bristol & Anton	.54	.71	.54	.70	.55	.73	.55	.74
51. Fairview & I-405 NB Ramps	.71	.86	.71	.86	.70	.88	.71	.88
53. Bristol & I-405 NB Ramps	.74	.80	.73	.80	.77	.80	.80	.81
54. Bristol & I-405 SB Ramps	.67	.88	.67	.88	.67	.86	.68	.87
59. Bristol & Paularino	.62	.89	.62	.88	.61	.92*	.62	.93*
60. Bear & SR-73 SB Ramps	.39	.57	.39	.57	.41	.58	.41	.58
62. Bristol & Baker	.72	.93*	.72	.93*	.74	.93*	.74	.93*
70. Bear & SR-73 NB Ramp	.45	.76	.45	.76	.45	.74	.45	.74
71. Park Center & Sunflower	.64	.88	.63	.87	.70	.90	.73	.92*
72. Ave of the Arts & Sunflower	.77	.60	.77	.60	.81	.59	.82	.60
73. Sakioka/Flower & Sunflower	.80	.77	.80	.76	.81	.81	.81	.82
74. Anton & Sunflower	.79	.58	.79	.58	.80	.58	.80	.59
75. Bristol & Town Center Dr	.53	.72	.53	.71	.53	.73	.54	.76
76. Ave of Arts & Town Center	.55	.50	.56	.49	.44	.53	.45	.53
77. Park Center & Anton	.37	.43	.37	.43	.43	.46	.41	.45
78. Ave of the Arts & Anton	.70	.38	.69	.37	.73	.41	.77	.43
79. Sakioka Dr & Anton	.48	.56	.48	.56	.49	.57	.49	.58
80. I-405 SB On-Ramp & Anton	.30	.67	.30	.67	.29	.68	.29	.69
SANTA ANA								
101. Bristol & Warner	.62	.82	.62	.82	.62	.82	.62	.83
102. Main & Warner	.71	.85	.71	.85	.72	.85	.72	.85
103. Bristol & Segerstrom	.72	1.01*	.72	1.01*	.73	1.02*	.73	1.02*
104. Main & Dyer	.71	.98*	.71	.98*	.71	.98*	.71	.98*
105. Bristol & MacArthur	.94*	.99*	.94*	.98*	.96*	1.03*	.96*	1.03*
106. Flower & MacArthur	1.17*	1.04*	1.17*	1.03*	1.18*	1.07*	1.18*	1.07*
107. Main & MacArthur	1.13*	1.07*	1.13*	1.06*	1.11*	1.11*	1.11*	1.11*
108. SR-55 SB Ramps & MacArthur	.79	.63	.79	.63	.79	.64	.79	.64
109. SR-55 NB Ramps & MacArthur	.92*	.86	.92*	.86	.93*	.84	.93*	.85
110. Main & Sunflower	1.07*	1.85*	1.06*	1.84*	1.12*	1.87*	1.13*	1.88*
112. Bear & MacArthur	.74	.85	.74	.85	.74	.87	.74	.87
113. Flower & Segerstrom/Dyer	.70	.88	.70	.88	.72	.89	.72	.89
114. Hutton Centre/MacArthur	1.31*	1.32*	1.31*	1.32*	1.31*	1.32*	1.31*	1.32*
IRVINE								
111. Redhill & Main	.98*	.99*	.98*	.99*	.98*	1.00*	.98*	1.00*

* Exceeds LOS "D"

Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F

portion of Town Center Drive lies directly between the existing Performing Arts Center and the proposed symphony hall and open space area. A turn around area would be provided for vehicles traveling eastbound on Town Center Drive. A conceptual illustration of the proposed roadway configuration was provided in Chapter 1 (Figure 1-2).

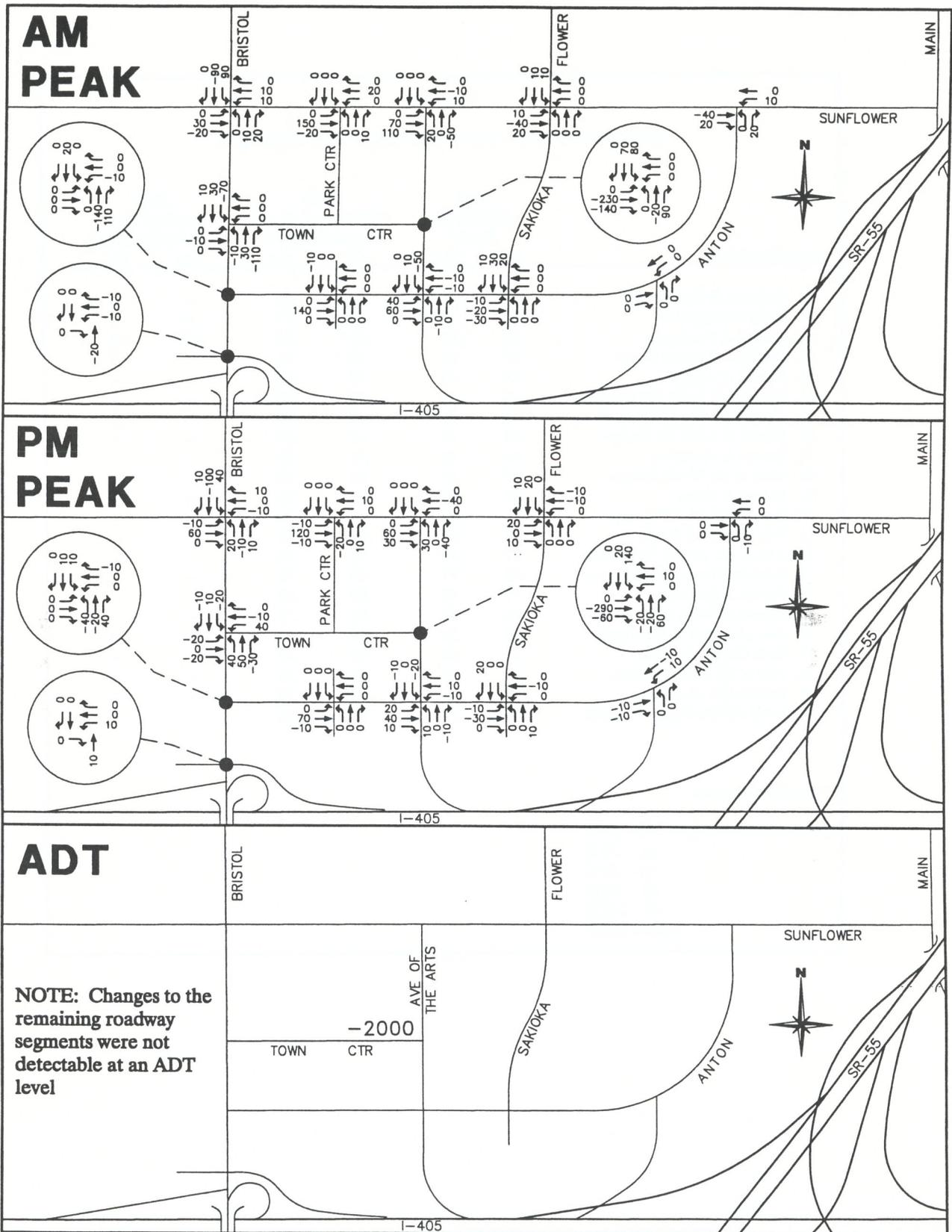
This segment of Town Center Drive currently carries approximately 2,300 vehicles each day with a maximum peak hour volume of approximately 270 vehicles. To evaluate the impact of the proposed change to the City's MPH, the Costa Mesa Traffic Model (CMTM) was utilized to forecast Long Range General Plan conditions with the reconfigured roadway. This differs from the analysis presented in Chapter 3 in which the combined effects of the proposed land use changes as well as the reconfigured roadway were evaluated.

Figure 4-1 illustrates the net change in vehicle movements that is forecast to occur if the change were to be implemented. The illustration focuses on the immediate area surrounding Town Center Drive since an evaluation of the CMTM data showed negligible effects outside this area. Table 4-3 provides a comparison of Long Range ICU forecasts for the current General Plan and for the proposed change to Town Center Drive. The table shows that one intersection (Bristol/Sunflower) is negatively impacted by the change. The impact occurs in the AM peak hour and can be mitigated with the same mitigation measures recommended for the Proposed Project. These improvements would entail converting the third northbound through lane to a shared through/right-turn lane.

LONG RANGE CUMULATIVE CONDITIONS

The analysis presented earlier in this chapter is based on buildout land use as depicted in the City's General Plan. The analysis in this section includes a proposed General Plan amendment for the Segerstrom Home Ranch site which is located west of Fairview Street, along the north side of I-405. The proposed amendment would result in an increase to the traffic generated by the site's future development, as shown in Table 4-4.

In order to determine the impacts of the Proposed Town Center project given this potential change to the City's General Plan, an analysis has been made in which the Proposed Home Ranch



Legend

↔ xxx Intersection Turning Movement Volume

YY ADT Volume

Figure 4-1
LONG-RANGE NET CHANGE IN TRIPS
(TOWN CENTER - ONE WAY CONFIGURATION
WITH GENERAL PLAN LAND USE)

Table 4-3

ICU COMPARISON - TOWN CENTER DRIVE DELETION

INTERSECTION	2020 GENERAL PLAN		2020 GENERAL PLAN W/DELETION		2020 DELETION W/MITIGATION	
	AM	PM	AM	PM	AM	PM
38. Fairview & Sunflower	.80	.80	.80	.81	--	--
41. Bear & Sunflower	.67	.77	.67	.77	--	--
42. Bristol & Sunflower	.89	1.01	.95*	.99	.84	.99
45. Fairview & South Coast	.77	.91	.78	.91	--	--
48. Bristol & Anton	.54	.71	.52	.70	--	--
51. Fairview & I-405 NB Ramps	.71	.86	.70	.86	--	--
53. Bristol & I-405 NB Ramps	.74	.80	.73	.80	--	--
54. Bristol & I-405 SB Ramps	.67	.88	.67	.88	--	--
59. Bristol & Paularino	.62	.89	.62	.89	--	--
60. Bear & SR-73 SB Ramps	.39	.57	.39	.56	--	--
62. Bristol & Baker	.72	.93	.71	.93	--	--
70. Bear & SR-73 NB Ramp	.45	.76	.45	.76	--	--
71. Park Center & Sunflower	.64	.88	.66	.85	--	--
72. Ave of the Arts & Sunflower	.77	.60	.78	.60	--	--
73. Sakioka/Flower & Sunflower	.80	.77	.80	.78	--	--
74. Anton & Sunflower	.79	.58	.80	.58	--	--
75. Bristol & Town Center Dr	.53	.72	.52	.73	--	--
76. Ave of Arts & Town Center	.55	.50	.45	.56	--	--
77. Park Center & Anton	.37	.43	.39	.43	--	--
78. Ave of the Arts & Anton	.70	.38	.68	.36	--	--
79. Sakioka Dr & Anton	.48	.56	.48	.56	--	--
80. I-405 SB On-Ramp & Anton	.30	.67	.30	.66	--	--

* Significant impact

Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F

Table 4-4

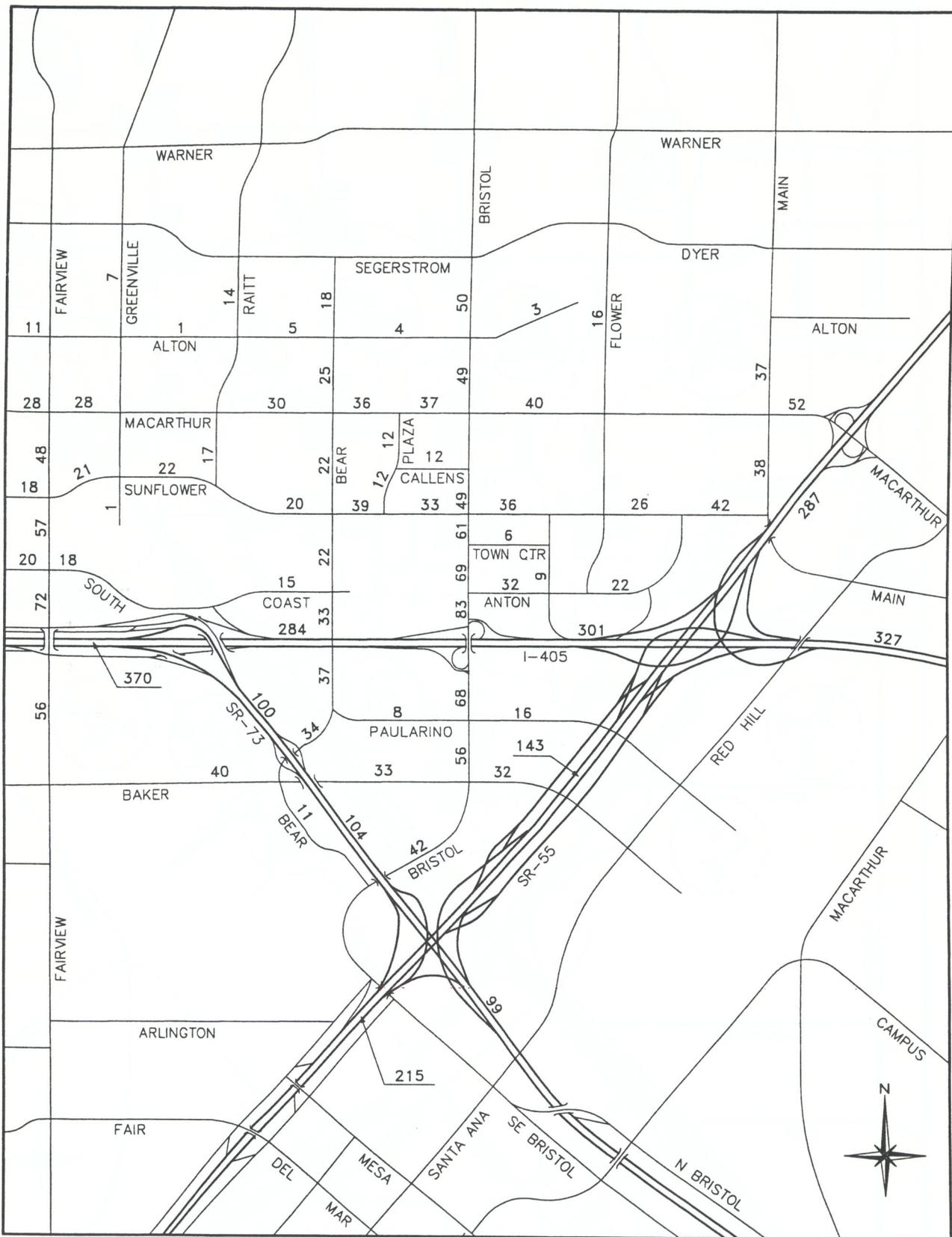
LAND USE SUMMARY - SEGERSTROM HOME RANCH SITE

LAND USE TYPE	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
	IN	OUT	TOTAL	IN	OUT	TOTAL	
General Plan Land Use	771	359	1,130	421	833	1,254	10,192
Proposed Home Ranch Project	1,339	399	1,738	623	1,507	2,130	19,938
Increase	568	40	608	202	674	876	9,746

project is included in the long range forecasts. Figure 4-2 illustrates the forecast ADT volumes that correspond to this long range cumulative setting. These volumes do not include traffic from the Proposed Town Center project and thus represent no-project conditions. Figures 4-3 and 4-4 show the long range cumulative AM and PM peak hour volumes for these same no-project conditions. When compared to the baseline General Plan analysis, it can be seen that the Proposed Home Ranch project adds approximately 1000 ADT or less to the roadways in the immediate area around the Town Center site.

When the Proposed Town Center project is included in the long range cumulative setting, the ADT volumes shown in Figure 4-5 result. Figures 4-6 and 4-7 illustrate the long range cumulative AM and PM peak hour volumes that also include the proposed project.

Peak hour ICU values for no project and with project long range cumulative conditions are presented in Table 4-5. The table presents ICUs both with and without the mitigation associated with the Home Ranch and Town Center projects. This comparison shows how the proposed Home Ranch Project does not change background conditions in such a way that additional Town Center impacts will result. Significant impacts would occur due to the proposed Town Center Project at the same locations previously identified in the 2020 General Plan baseline analysis. The mitigation identified for the Town Center project would still mitigate the Town Center impacts if Home Ranch were to be developed as proposed.

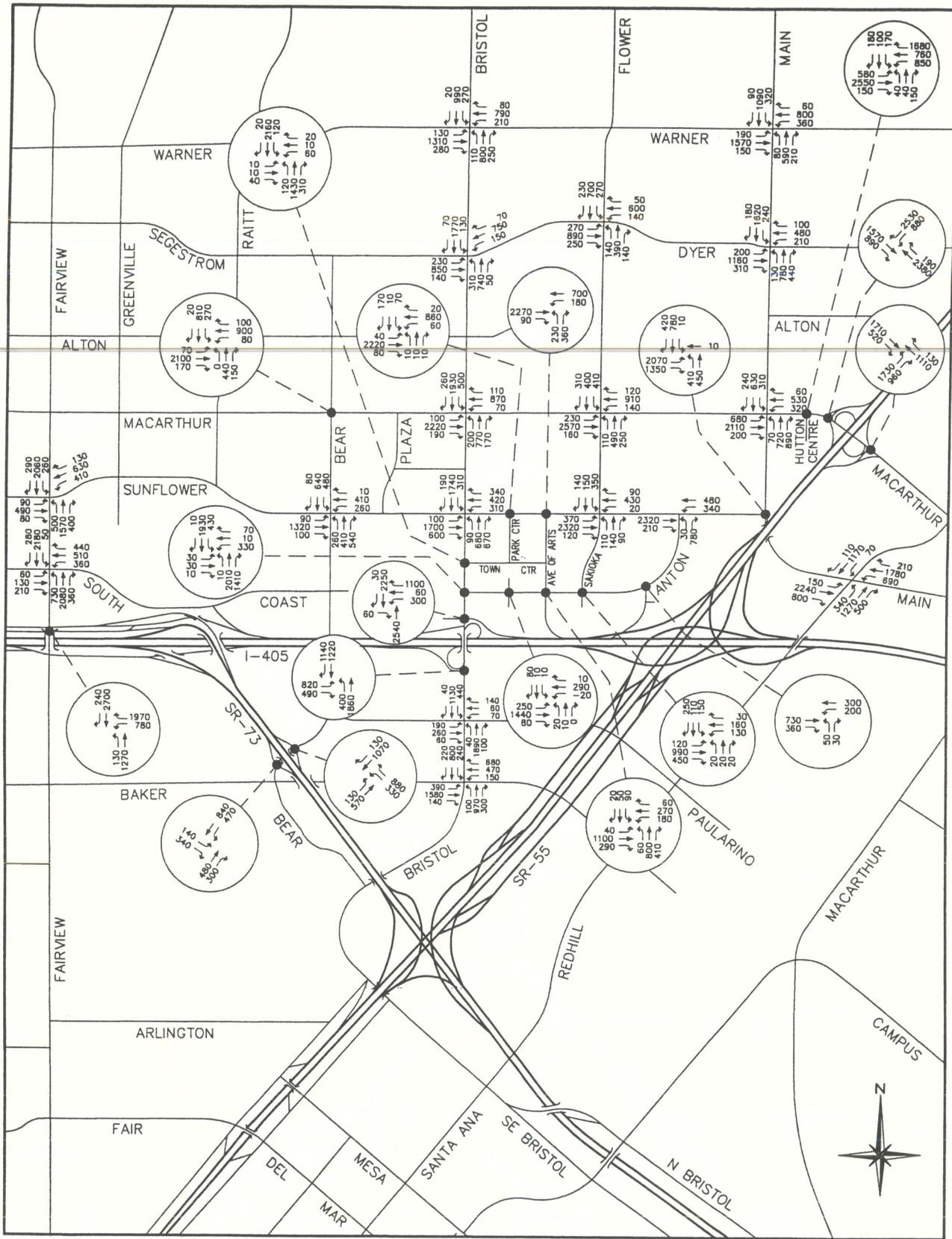


Legend

xxx ADT Volumes (000s)

Figure 4-2

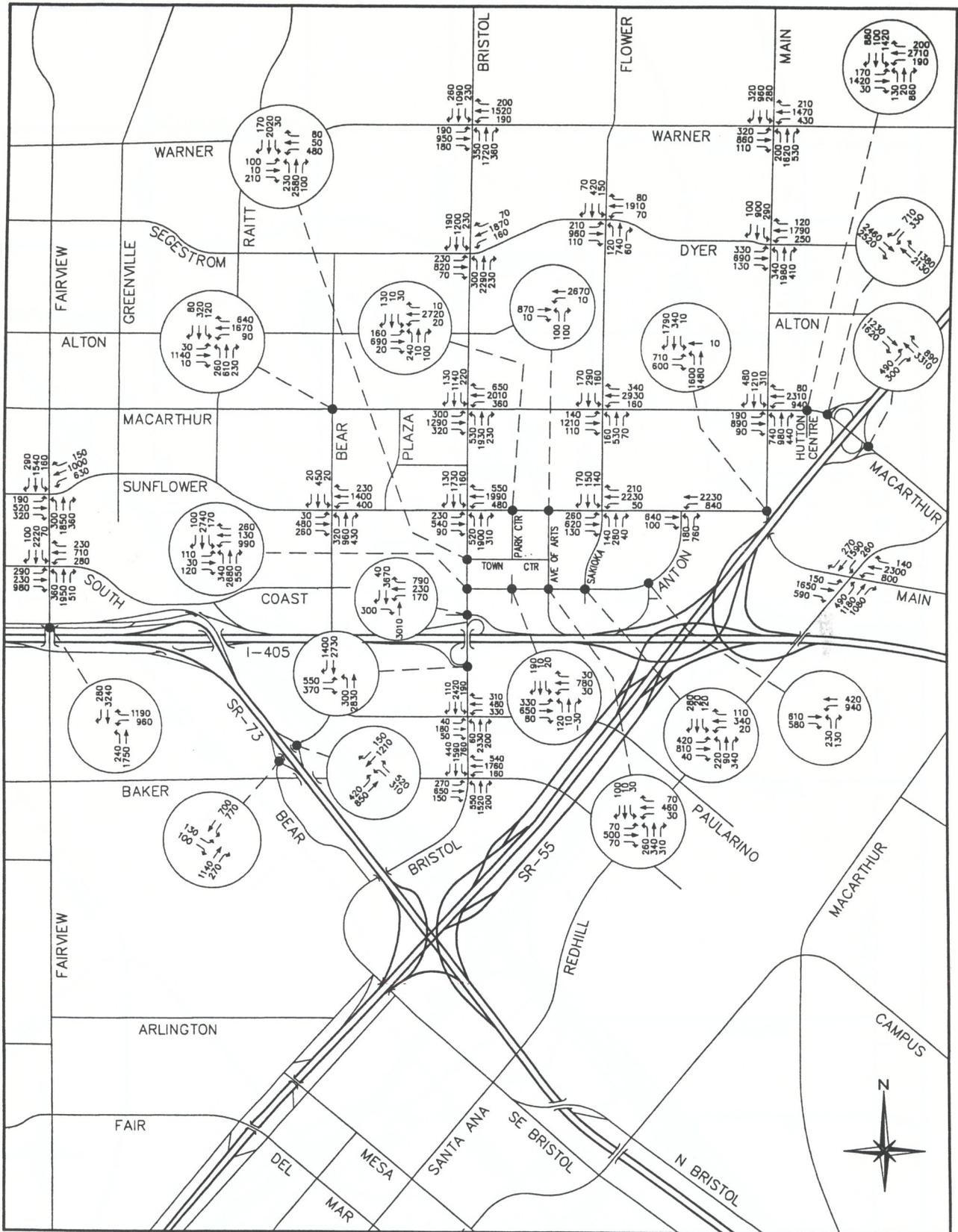
**LONG-RANGE CUMULATIVE ADT VOLUMES
- WITHOUT PROPOSED PROJECT**



Legend

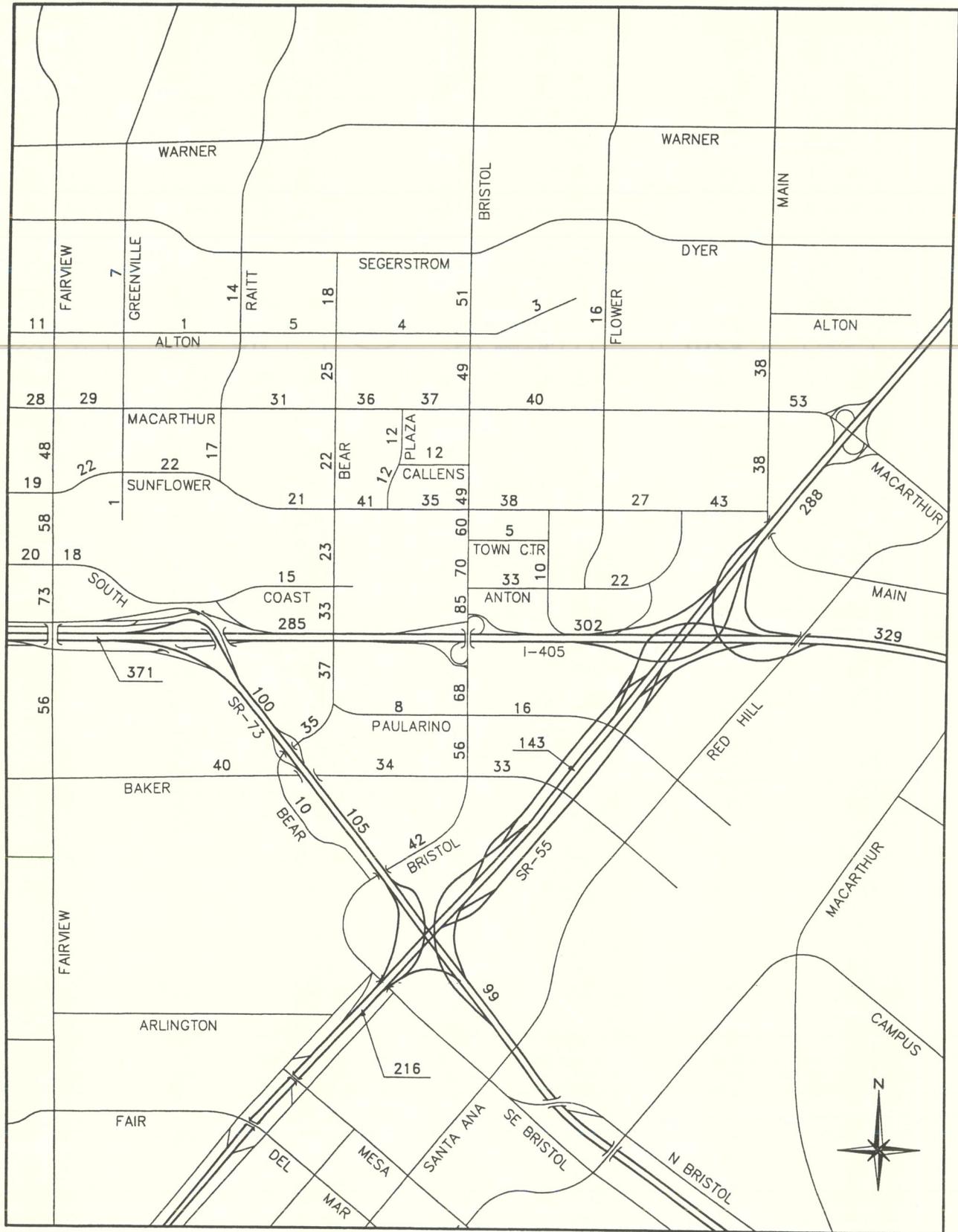
↔ xxx Peak Hour Turning Movement Volumes

Figure 4-3
LONG-RANGE CUMULATIVE AM PEAK HOUR
INTERSECTION VOLUMES
- WITHOUT PROPOSED PROJECT



Legend
 ↪ xxx Peak Hour Turning Movement Volumes

Figure 4-4
 LONG-RANGE CUMULATIVE PM PEAK HOUR
 INTERSECTION VOLUMES
 - WITHOUT PROPOSED PROJECT

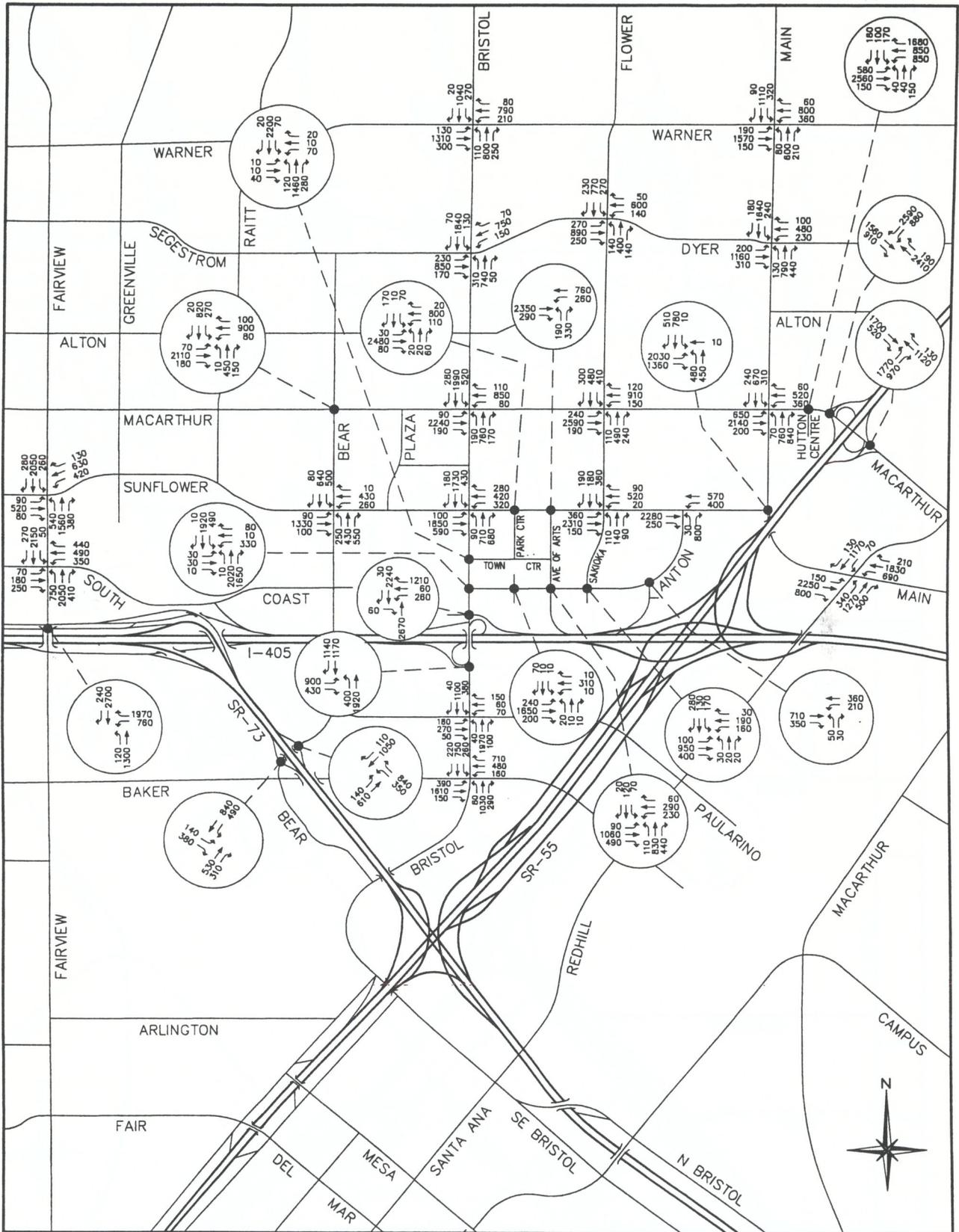


Legend

xxx ADT Volumes (000s)

Figure 4-5

**LONG-RANGE CUMULATIVE ADT VOLUMES
- WITH PROPOSED PROJECT**



Legend

xxx Peak Hour Turning Movement Volumes

Figure 4-6
 LONG-RANGE CUMULATIVE AM PEAK HOUR
 INTERSECTION VOLUMES
 - WITH PROPOSED PROJECT

Table 4-5

ICU SUMMARY - 2020 CUMULATIVE CONDITIONS*

INTERSECTION	GENERAL PLAN WITH HR		GENERAL PLAN WITH HR MITIGATION		CUMULATIVE		CUMULATIVE WITH TC MITIGATION	
	AM	PM	AM	PM	AM	PM	AM	PM
COSTA MESA INTERSECTIONS								
38. Fairview & Sunflower	.88	.81	--	--	.89	.81	--	--
41. Bear & Sunflower	.66	.76	--	--	.67	.77	--	--
42. Bristol & Sunflower**	.89	1.00	.84	1.00	.88	.98	--	--
45. Fairview & South Coast**	.81	1.09	.81	.87	.80	.88	--	--
48. Bristol & Anton	.53	.70	--	--	.56	.74	--	--
51. Fairview & I-405 NB Ramps	.92	.86	.82	.86	.82	.88	--	--
53. Bristol & I-405 NB Ramps	.74	.80	--	--	.80	.82	--	--
54. Bristol & I-405 SB Ramps	.67	.87	--	--	.68	.87	--	--
59. Bristol & Paularino**	.65	.90	--	--	.65	.92	.66	.89
60. Bear & SR-73 SB Ramps	.39	.57	--	--	.41	.58	--	--
62. Bristol & Baker	.72	.95	.77	.93	.79	.92	--	--
70. Bear & SR-73 NB Ramp	.54	.73	--	--	.55	.72	--	--
71. Park Center & Sunflower**	.64	.91	--	--	.72	.93	.70	.86
72. Ave of the Arts & Sunflower	.75	.59	--	--	.80	.59	--	--
73. Sakioka/Flower & Sunflower	.79	.77	--	--	.80	.81	--	--
74. Anton & Sunflower	.80	.57	--	--	.81	.58	--	--
75. Bristol & Town Center Dr	.52	.73	--	--	.53	.75	--	--
76. Ave of Arts & Town Center	.55	.51	--	--	.46	.56	--	--
77. Park Center & Anton	.37	.43	--	--	.42	.47	--	--
78. Ave of the Arts & Anton	.71	.37	--	--	.76	.42	--	--
79. Sakioka Dr & Anton	.49	.57	--	--	.52	.59	--	--
80. I-405 SB On-Ramp & Anton	.29	.67	--	--	.29	.70	--	--
SANTA ANA INTERSECTIONS								
101. Bristol & Warner	.62	.82	--	--	.62	.83	--	--
102. Main & Warner	.71	.85	--	--	.72	.85	--	--
103. Bristol & Segerstrom**	.72	1.01	--	--	.73	1.02	.69	.93
104. Main & Dyer	.71	.98	--	--	.71	.98	--	--
105. Bristol & MacArthur**	.95	.98	--	--	.97	1.02	.86	.92
106. Flower & MacArthur**	1.16	1.06	--	--	1.16	1.08	1.09	.99
107. Main & MacArthur**	1.18	1.07	--	--	1.17	1.10	1.06	1.04
108. SR-55 SB Ramps & MacArthur	.80	.63	--	--	.80	.64	--	--
109. SR-55 NB Ramps & MacArthur**	.93	.85	--	--	.93	.85	.75	.80
110. Main & Sunflower**	1.09	1.83	--	--	1.14	1.87	1.07	1.62
112. Bear & MacArthur	.74	.73	--	--	.75	.74	--	--
113. Flower & Segerstrom/Dyer	.70	.88	--	--	.72	.89	--	--
114. Hutton Centre/MacArthur	1.31	1.32	--	--	1.31	1.32	--	--
IRVINE INTERSECTION								
111. Redhill & Main	.98	.99	--	--	.98	1.00	.98	1.00

* 2020 Cumulative conditions includes buildout of the City's General Plan plus development of the Home Ranch site based on the information available in August 2000, plus the proposed Town Center Project.

** Identified as a location where Town Center project will provide mitigation

TC = Town Center Project

HR = Home Ranch Project

Appendix A

INTERSECTION CAPACITY UTILIZATION WORKSHEETS

Peak hour intersection volume/capacity ratios are calculated by means of intersection capacity utilization (ICU) values. Intersections examined in this traffic study are shown in Figure A-1. The procedure is based on the critical movement methodology, and shows the amount of capacity utilized by each critical move.

The methodology also incorporates a check for right-turn capacity utilization. Both right-turn-on-green (RTOG) and right-turn-on-red (RTOR) capacity availability are calculated and checked against the total right-turn capacity need. (RTOR is not assumed at City of Santa Ana intersections in accordance with their guidelines.) If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. The following example shows how this adjustment is made. (NOTE: The methodology used for intersections within the City of Santa Ana does not incorporate adjustments for right-turn capacity utilization per City guidelines).

Example For Northbound Right

1. Right-Turn-On-Green (RTOG)

If NBT is critical move, then:

$$\text{RTOG} = V/C (\text{NBT})$$

Otherwise,

$$\text{RTOG} = V/C (\text{NBL}) + V/C (\text{SBT}) - V/C (\text{SBL})$$

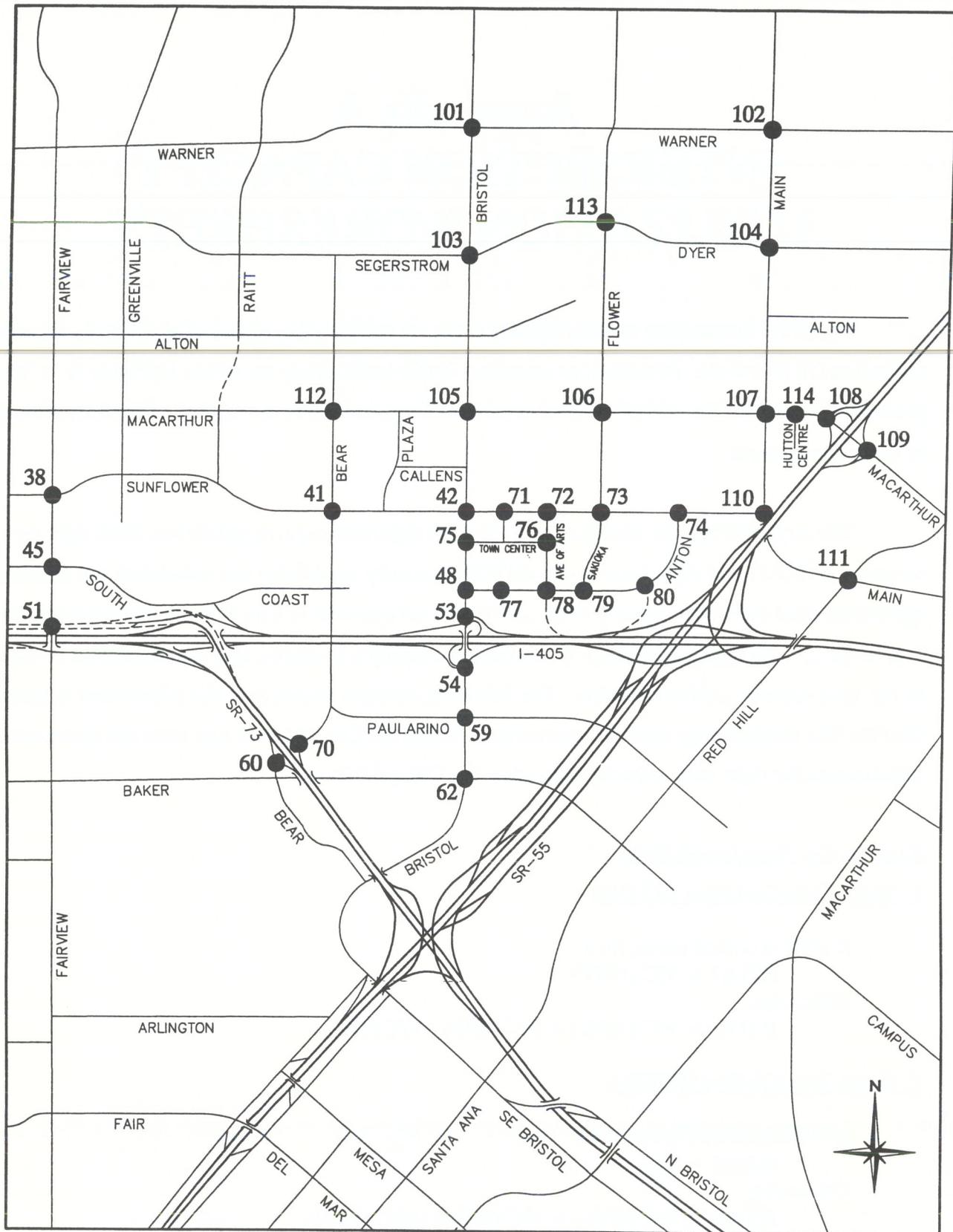
2. Right-Turn-On-Red (RTOR)

If WBL is critical move, then:

$$\text{RTOR} = V/C (\text{WBL})$$

Otherwise,

$$\text{RTOR} = V/C (\text{EBL}) + V/C (\text{WBT}) - V/C (\text{EBT})$$



Legend

--- Future Roadways

● Intersections Included In the Analysis

Figure A-1

TRAFFIC ANALYSIS AREA

3. Right-Turn Overlap Adjustment

If the northbound right is assumed to overlap with the adjacent westbound left, adjustments to the RTOG and RTOR values are made as follows:

$$\begin{aligned} \text{RTOG} &= \text{RTOG} + \text{V/C (WBL)} \\ \text{RTOR} &= \text{RTOR} - \text{V/C (WBL)} \end{aligned}$$

4. Total Right-Turn Capacity (RTC) Availability for NBR

$$\text{RTC} = \text{RTOG} + \text{factor} \times \text{RTOR}$$

Where factor = RTOR saturation flow factor (75%)

Right-turn adjustment is then as follows: Additional ICU = V/C (NBR) - RTC

A zero or negative value indicates that adequate capacity is available and no adjustment is necessary. A positive value indicates that the available RTOR and RTOG capacity does not adequately accommodate the right-turn V/C, therefore the right-turn is essentially considered to be a critical movement. In such cases, the right-turn adjustment is noted on the ICU worksheet and it is included in the total capacity utilization value. When it is determined that a right-turn adjustment is required for more than one right-turn movement, the word "multi" is printed on the worksheet instead of an actual right-turn movement reference, and the right-turn adjustments are cumulatively added to the total capacity utilization value. In such cases, further operational evaluation is typically carried out to determine if under actual operational conditions, the critical right-turns would operate simultaneously, and therefore a right-turn adjustment credit should be applied.

Shared Lane V/C Methodology

For intersection approaches where shared usage of a lane is permitted by more than one turn movement (e.g., left/thru, thru/right, left/thru/right), the individual turn volumes are evaluated to determine whether dedication of the shared lane is warranted to any one given turn movement. The following example demonstrates how this evaluation is carried out:

Example for Shared Left/Thru Lane

1. Average Lane Volume (ALV)

$$ALV = \frac{\text{Left-Turn Volume} + \text{Thru Volume}}{\text{Total Left} + \text{Thru Approach Lanes (including shared lane)}}$$

2. ALV for Each Approach

$$ALV (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Lanes (including shared lane)}}$$

$$ALV (\text{Thru}) = \frac{\text{Thru Volume}}{\text{Thru Approach Lanes (including shared lane)}}$$

3. Lane Dedication is Warranted

If ALV (Left) is greater than ALV then full dedication of the shared lane to the left-turn approach is warranted. Left-turn and thru V/C ratios for this case are calculated as follows:

$$V/C (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (including shared lane)}}$$

$$V/C (\text{Thru}) = \frac{\text{Thru Volume}}{\text{Thru Approach Capacity (excluding shared lane)}}$$

Similarly, if ALV (Thru) is greater than ALV then full dedication to the thru approach is warranted, and left-turn and thru V/C ratios are calculated as follows:

$$V/C (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (excluding shared lane)}}$$

$$V/C (\text{Thru}) = \frac{\text{Thru Volume}}{\text{Thru Approach Capacity (including shared lane)}}$$

4. Lane Dedication is not Warranted

If ALV (Left) and ALV (Thru) are both less than ALV, the left/thru lane is assumed to be truly shared and each left, left/thru or thru approach lane carries an evenly distributed volume of traffic equal to ALV. A combined left/thru V/C ratio is calculated as follows:

$$V/C (\text{Left/Thru}) = \frac{\text{Left-Turn Volume} + \text{Thru Volume}}{\text{Total Left} + \text{Thru Approach Capacity (including shared lane)}}$$

This V/C (Left/Thru) ratio is assigned as the V/C (Thru) ratio for the critical movement analysis and ICU summary listing.

If split phasing has not been designated for this approach, the relative proportion of V/C (Thru) that is attributed to the left-turn volume is estimated as follows:

If approach has more than one left-turn (including shared lane), then:

$$V/C \text{ (Left)} = V/C \text{ (Thru)}$$

If approach has only one left-turn lane (shared lane), then:

$$V/C \text{ (Left)} = \frac{\text{Left-Turn Volume}}{\text{Single Approach Lane Capacity}}$$

If this left-turn movement is determined to be a critical movement, the V/C (Left) value is posted in brackets on the ICU summary printout.

These same steps are carried out for shared thru/right lanes. If full dedication of a shared thru/right lane to the right-turn movement is warranted, the right-turn V/C value calculated in step three is checked against the RTOR and RTOG capacity availability if right-turns are to be included in the V/C ratio calculations. If the V/C value that is determined using the shared lane methodology described here is reduced due to RTOR and RTOG capacity availability, the V/C value for the thru/right lanes is posted in brackets.

When an approach contains more than one shared lane (e.g., left/thru and thru/right), steps one and two listed above are carried out for the three turn movements combined. Step four is carried out if dedication is not warranted for either of the shared lanes. If dedication of one of the shared lanes is warranted to one movement or another, step three is carried out for the two movements involved, and then steps one through four are repeated for the two movements involved in the other shared lane.

Lane Configuration Options

Free Right-Turn

A free right-turn lane is identified by a letter "f" next to the V/C ratios for the appropriate right-turn movement. When a free right-turn is designated, the V/C ratio for that right-turn movement is ignored during the critical movement analysis calculations.

De-Facto Right-Turn

When no separate right-turn lane is provided but the thru-lane nearest the curb is 19 feet or more, then a "de-facto" right-turn lane is used in the ICU calculation. In such cases, a "d" is shown for the right-turn lane in the ICU calculation.

38. Fairview & Sunflower

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	340	.11*	210	.07*
NBT	3	4800	1300	.27	1620	.34
NBR	1	1600	210	.13	210	.13
SBL	2	3200	240	.08	130	.04
SBT	3	4800	1690	.38*	1410	.31*
SBR	0	0	150		100	
EBL	2	3200	60	.02	100	.03*
EBT	2	3200	370	.15*	340	.18
EBR	0	0	120		220	
WBL	2	3200	330	.10*	430	.13
WBT	2	3200	430	.13	960	.30*
WBR	1	1600	120	.08	200	.13

TOTAL CAPACITY UTILIZATION .74 .71

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	380	.12*	270	.08
NBT	3	4800	1570	.33	1860	.39*
NBR	1	1600	420	.26	310	.19
SBL	2	3200	260	.08	140	.04*
SBT	3	4800	1980	.41*	1550	.32
SBR	1	1600	300	.19	250	.16
EBL	2	3200	100	.03	170	.05*
EBT	2	3200	470	.15*	470	.15
EBR	1	1600	90	.06	260	.16
WBL	2	3200	370	.12*	630	.20
WBT	2	3200	580	.18	1020	.32*
WBR	1	1600	120	.08	150	.09

TOTAL CAPACITY UTILIZATION .80 .80

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	400	.13*	250	.08
NBT	3	4800	1560	.33	1850	.39*
NBR	1	1600	400	.25	330	.21
SBL	2	3200	260	.08	120	.04*
SBT	3	4800	1970	.41*	1580	.33
SBR	1	1600	280	.18	250	.16
EBL	2	3200	100	.03	180	.06*
EBT	2	3200	490	.15*	460	.14
EBR	1	1600	90	.06	300	.19
WBL	2	3200	380	.12*	560	.18
WBT	2	3200	580	.18	1080	.34*
WBR	1	1600	120	.08	140	.09

TOTAL CAPACITY UTILIZATION .81 .83

38. Fairview & Sunflower

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	520	.16*	300	.09
NBT	3	4800	1570	.33	1850	.39*
NBR	1	1600	400	.25	360	.23
SBL	2	3200	260	.08	160	.05*
SBT	3	4800	2060	.43*	1540	.32
SBR	1	1600	300	.19	290	.18
EBL	2	3200	90	.03	190	.06*
EBT	2	3200	500	.16*	520	.16
EBR	1	1600	80	.05	320	.20
WBL	2	3200	410	.13*	630	.20
WBT	2	3200	630	.20	1000	.31*
WBR	1	1600	130	.08	150	.09

TOTAL CAPACITY UTILIZATION .88 .81

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	520	.16*	300	.09
NBT	3	4800	1570	.33	1850	.39*
NBR	1	1600	400	.25	360	.23
SBL	2	3200	260	.08	160	.05*
SBT	3	4800	2060	.43*	1540	.32
SBR	1	1600	300	.19	290	.18
EBL	2	3200	90	.03	190	.06*
EBT	2	3200	500	.16*	520	.16
EBR	1	1600	80	.05	320	.20
WBL	2	3200	410	.13*	630	.20
WBT	2	3200	630	.20	1000	.31*
WBR	1	1600	130	.08	150	.09

TOTAL CAPACITY UTILIZATION .88 .81

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	540	.17*	280	.09*
NBT	3	4800	1560	.33	1840	.38
NBR	1	1600	380	.24	380	.24
SBL	2	3200	260	.08	140	.04
SBT	3	4800	2050	.43*	1570	.33*
SBR	1	1600	280	.18	290	.18
EBL	2	3200	90	.03	200	.06*
EBT	2	3200	520	.16*	510	.16
EBR	1	1600	80	.05	360	.23
WBL	2	3200	420	.13*	560	.18
WBT	2	3200	630	.20	1060	.33*
WBR	1	1600	130	.08	140	.09

TOTAL CAPACITY UTILIZATION .89 .81

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	540	.17*	280	.09*
NBT	3	4800	1560	.33	1840	.38
NBR	1	1600	380	.24	380	.24
SBL	2	3200	260	.08	140	.04
SBT	3	4800	2050	.43*	1570	.33*
SBR	1	1600	280	.18	290	.18
EBL	2	3200	90	.03	200	.06*
EBT	2	3200	520	.16*	510	.16
EBR	1	1600	80	.05	360	.23
WBL	2	3200	420	.13*	560	.18
WBT	2	3200	630	.20	1060	.33*
WBR	1	1600	130	.08	140	.09

TOTAL CAPACITY UTILIZATION .89 .81

38. Fairview & Sunflower

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	400	.13*	250	.08
NBT	3	4800	1560	.33	1850	.39*
NBR	1	1600	397	.25	330	.21
SBL	2	3200	259	.08	120	.04*
SBT	3	4800	1970	.41*	1580	.33
SBR	1	1600	280	.18	250	.16
EBL	2	3200	100	.03	180	.06*
EBT	2	3200	487	.15*	460	.14
EBR	1	1600	90	.06	300	.19
WBL	2	3200	380	.12*	559	.17
WBT	2	3200	579	.18	1074	.34*
WBR	1	1600	120	.08	138	.09

TOTAL CAPACITY UTILIZATION .81 .83

38. Fairview & Sunflower

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	390	.12*	270	.08
NBT	3	4800	1570	.33	1860	.39*
NBR	1	1600	440	.28	320	.20
SBL	2	3200	260	.08	140	.04*
SBT	3	4800	1980	.41*	1580	.33
SBR	1	1600	290	.18	270	.17
EBL	2	3200	100	.03	170	.05*
EBT	2	3200	480	.15*	460	.14
EBR	1	1600	90	.06	230	.14
WBL	2	3200	370	.12*	600	.19
WBT	2	3200	580	.18	1040	.33*
WBR	1	1600	120	.08	140	.09

TOTAL CAPACITY UTILIZATION .80 .81

41. Bear & Sunflower

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	50	.02	230	.07
NBT	2	3200	310	.10*	710	.22*
NBR	f		340		440	
SBL	2	3200	130	.04*	70	.02*
SBT	3	4800	520	.12	340	.08
SBR	0	0	70		60	
EBL	2	3200	90	.03	70	.02*
EBT	3	4800	950	.23*	450	.12
EBR	0	0	150		110	
WBL	2	3200	150	.05*	500	.16
WBT	2	3200	360	.11	1340	.42*
WBR	1	1600	20	.01	110	.07

TOTAL CAPACITY UTILIZATION .42 .68

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	180	.06	290	.09
NBT	2	3200	420	.13*	960	.30*
NBR	f		550		420	
SBL	2	3200	500	.16*	20	.01*
SBT	3	4800	590	.14	480	.10
SBR	0	0	70		20	
EBL	2	3200	90	.03	30	.01*
EBT	3	4800	1310	.30*	450	.14
EBR	0	0	120		230	.14
WBL	2	3200	270	.08*	430	.13
WBT	2	3200	390	.12	1440	.45*
WBR	1	1600	10	.01	210	.13

TOTAL CAPACITY UTILIZATION .67 .77

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	170	.05	250	.08
NBT	2	3200	440	.14*	970	.30*
NBR	f		560		460	
SBL	2	3200	520	.16*	20	.01*
SBT	3	4800	590	.14	510	.11
SBR	0	0	70		20	
EBL	2	3200	90	.03	40	.01*
EBT	3	4800	1320	.30*	440	.14
EBR	0	0	120		210	
WBL	2	3200	270	.08*	470	.15
WBT	2	3200	410	.13	1470	.46*
WBR	1	1600	10	.01	260	.16

TOTAL CAPACITY UTILIZATION .68 .78

41. Bear & Sunflower

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	260	.08	320	.10
NBT	2	3200	410	.13*	960	.30*
NBR	f		540		430	
SBL	2	3200	480	.15*	20	.01*
SBT	3	4800	640	.15	450	.10
SBR	0	0	80		20	
EBL	2	3200	90	.03	30	.01*
EBT	3	4800	1320	.30*	480	.15
EBR	0	0	100		260	.16
WBL	2	3200	260	.08*	400	.13
WBT	2	3200	410	.13	1400	.44*
WBR	1	1600	10	.01	230	.14

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	260	.08	320	.10
NBT	2	3200	410	.13*	960	.30*
NBR	f		540		430	
SBL	2	3200	480	.15*	20	.01*
SBT	3	4800	640	.15	450	.10
SBR	0	0	80		20	
EBL	2	3200	90	.03	30	.01*
EBT	3	4800	1320	.30*	480	.15
EBR	0	0	100		260	.16
WBL	2	3200	260	.08*	400	.13
WBT	2	3200	410	.13	1400	.44*
WBR	1	1600	10	.01	230	.14

TOTAL CAPACITY UTILIZATION .66 .76

TOTAL CAPACITY UTILIZATION .66 .76

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	250	.08	280	.09
NBT	2	3200	430	.13*	970	.30*
NBR	f		550		470	
SBL	2	3200	500	.16*	20	.01*
SBT	3	4800	640	.15	480	.10
SBR	0	0	80		20	
EBL	2	3200	90	.03	40	.01*
EBT	3	4800	1330	.30*	470	.15
EBR	0	0	100		240	.15
WBL	2	3200	260	.08*	440	.14
WBT	2	3200	430	.13	1430	.45*
WBR	1	1600	10	.01	280	.18

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	250	.08	280	.09
NBT	2	3200	430	.13*	970	.30*
NBR	f		550		470	
SBL	2	3200	500	.16*	20	.01*
SBT	3	4800	640	.15	480	.10
SBR	0	0	80		20	
EBL	2	3200	90	.03	40	.01*
EBT	3	4800	1330	.30*	470	.15
EBR	0	0	100		240	.15
WBL	2	3200	260	.08*	440	.14
WBT	2	3200	430	.13	1430	.45*
WBR	1	1600	10	.01	280	.18

TOTAL CAPACITY UTILIZATION .67 .77

TOTAL CAPACITY UTILIZATION .67 .77

41. Bear & Sunflower

2020 with Reduced Project

	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	170	.05	250	.08
NBT	2	3200	440	.14*	970	.30*
NBR	f		558		459	
SBL	2	3200	509	.16*	20	.01*
SBT	3	4800	590	.14	510	.11
SBR	0	0	70		20	
EBL	2	3200	90	.03	40	.01*
EBT	3	4800	1308	.30*	440	.14
EBR	0	0	120		210	
WBL	2	3200	270	.08*	469	.15
WBT	2	3200	409	.13	1458	.46*
WBR	1	1600	10	.01	252	.16

TOTAL CAPACITY UTILIZATION .68 .78

41. Bear & Sunflower

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	180	.06	280	.09
NBT	2	3200	420	.13*	970	.30*
NBR	f		540		430	
SBL	2	3200	500	.16*	20	.01*
SBT	3	4800	580	.14	470	.10
SBR	0	0	70		20	
EBL	2	3200	90	.03	30	.01*
EBT	3	4800	1320	.30*	460	.14
EBR	0	0	120		230	
WBL	2	3200	270	.08*	420	.13
WBT	2	3200	390	.12	1450	.45*
WBR	1	1600	10	.01	210	.13
TOTAL CAPACITY UTILIZATION				.67		.77

42. Bristol & Sunflower

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	100	.03*	540	.17
NBT	3	4800	640	.13	1660	.35*
NBR	1	1600	270	.17	250	.16
SBL	2	3200	260	.08	180	.06*
SBT	3	4800	1380	.29*	1000	.21
SBR	1	1600	90	.06	220	.14
EBL	2	3200	120	.04	260	.08*
EBT	2.5	6400	940	.20*	420	{.09}
EBR	1.5		330	{.18}	260	{.01}
WBL	2	3200	280	.09*	340	.11
WBT	3	4800	350	.07	1490	.31*
WBR	1	1600	120	.08	360	.23

TOTAL CAPACITY UTILIZATION .61 .80

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	90	.03*	510	.16*
NBT	3	4800	680	.14	1880	.39
NBR	1	1600	660	.41	320	.20
SBL	2	3200	330	.10	160	.05
SBT	3	4800	1710	.36*	1720	.36*
SBR	1	1600	190	.12	140	.09
EBL	2	3200	110	.03	240	.08*
EBT	2.5	6400	1660	.36*	520	.11
EBR	1.5		660		90	
WBL	2	3200	330	.10*	480	.15
WBT	3	4800	400	.08	1990	.41*
WBR	1	1600	330	.21	530	.33
Right Turn Adjustment			NBR	.04*		

TOTAL CAPACITY UTILIZATION .89 1.01

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	90	.03*	500	.16*
NBT	3	4800	710	.15	1910	.40
NBR	1	1600	670	.42	330	.21
SBL	2	3200	450	.14	230	.07
SBT	3	4800	1700	.35*	1540	.32*
SBR	1	1600	180	.11	140	.09
EBL	2	3200	110	.03	210	.07*
EBT	2.5	6400	1810	.38*	610	.13
EBR	1.5		650		70	
WBL	2	3200	340	.11*	420	.13
WBT	3	4800	400	.08	2120	.44*
WBR	1	1600	270	.17	560	.35
Right Turn Adjustment			NBR	.10*		

TOTAL CAPACITY UTILIZATION .97 .99

2020 with Project & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	90	.03*	500	.16*
NBT	2.5	6400	710	{.20}	1910	.40
NBR	1.5		670		330	
SBL	2	3200	450	.14	230	.07
SBT	3	4800	1700	.35*	1540	.32*
SBR	1	1600	180	.11	140	.09
EBL	2	3200	110	.03	210	.07*
EBT	2.5	6400	1810	.38*	610	.13
EBR	1.5		650		70	
WBL	2	3200	340	.11*	420	.13
WBT	3	4800	400	.08	2120	.44*
WBR	1	1600	270	.17	560	.35

TOTAL CAPACITY UTILIZATION .87 .99

42. Bristol & Sunflower

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	90	.03*	520	.16*
NBT	3	4800	680	.14	1900	.40
NBR	1	1600	670	.42	310	.19
SBL	2	3200	310	.10	160	.05
SBT	3	4800	1740	.36*	1730	.36*
SBR	1	1600	190	.12	130	.08
EBL	2	3200	100	.03	230	.07*
EBT	2.5	6400	1700	{.35}*	540	.11
EBR	1.5		600	{.35}	90	
WBL	2	3200	310	.10*	480	.15
WBT	3	4800	420	.09	1990	.41*
WBR	1	1600	340	.21	550	.34
Right Turn Adjustment			NBR	.05*		

TOTAL CAPACITY UTILIZATION .89 1.00

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	90	.03*	520	.16*
NBT	2.5	6400	680	{.19}	1900	.40
NBR	1.5		670		310	
SBL	2	3200	310	.10	160	.05
SBT	3	4800	1740	.36*	1730	.36*
SBR	1	1600	190	.12	130	.08
EBL	2	3200	100	.03	230	.07*
EBT	2.5	6400	1700	{.35}*	540	.11
EBR	1.5		600	{.35}	90	
WBL	2	3200	310	.10*	480	.15
WBT	3	4800	420	.09	1990	.41*
WBR	1	1600	340	.21	550	.34

TOTAL CAPACITY UTILIZATION .84 1.00

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	90	.03*	510	.16*
NBT	2.5	6400	710	{.20}	1930	.40
NBR	1.5		680		320	
SBL	2	3200	430	.13	230	.07
SBT	3	4800	1730	.36*	1550	.32*
SBR	1	1600	180	.11	130	.08
EBL	2	3200	100	.03	200	.06*
EBT	2.5	6400	1850	.39*	630	.13
EBR	1.5		590	.37	70	
WBL	2	3200	320	.10*	420	.13
WBT	3	4800	420	.09	2120	.44*
WBR	1	1600	280	.18	580	.36

TOTAL CAPACITY UTILIZATION .88 .98

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	90	.03*	510	.16*
NBT	2.5	6400	710	{.20}	1930	.40
NBR	1.5		680		320	
SBL	2	3200	430	.13	230	.07
SBT	3	4800	1730	.36*	1550	.32*
SBR	1	1600	180	.11	130	.08
EBL	2	3200	100	.03	200	.06*
EBT	2.5	6400	1850	.39*	630	.13
EBR	1.5		590	.37	70	
WBL	2	3200	320	.10*	420	.13
WBT	3	4800	420	.09	2120	.44*
WBR	1	1600	280	.18	580	.36

TOTAL CAPACITY UTILIZATION .88 .98

42. Bristol & Sunflower

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	90	.03*	498	.16*
NBT	3	4800	709	.15	1895	.39
NBR	1	1600	670	.42	330	.21
SBL	2	3200	444	.14	229	.07
SBT	3	4800	1678	.35*	1537	.32*
SBR	1	1600	180	.11	140	.09
EBL	2	3200	110	.03	210	.07*
EBT	2.5	6400	1792	{.37}*	610	.13
EBR	1.5		641		70	
WBL	2	3200	336	.11*	420	.13
WBT	3	4800	400	.08	2098	.44*
WBR	1	1600	268	.17	544	.34
Right Turn Adjustment			NBR	.10*		
TOTAL CAPACITY UTILIZATION				.96		.99

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	90	.03*	498	.16*
NBT	2.5	6400	709	{.19}	1895	.39
NBR	1.5		670		330	
SBL	2	3200	444	.14	229	.07
SBT	3	4800	1678	.35*	1537	.32*
SBR	1	1600	180	.11	140	.09
EBL	2	3200	110	.03	210	.07*
EBT	2.5	6400	1792	{.37}*	610	.13
EBR	1.5		641		70	
WBL	2	3200	336	.11*	420	.13
WBT	3	4800	400	.08	2098	.44*
WBR	1	1600	268	.17	544	.34
TOTAL CAPACITY UTILIZATION				.86		.99

42. Bristol & Sunflower

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	90	.03*	530	.17*
NBT	3	4800	690	.14	1870	.39
NBR	1	1600	680	.43	330	.21
SBL	2	3200	420	.13	200	.06
SBT	3	4800	1620	.34*	1620	.34*
SBR	1	1600	190	.12	150	.09
EBL	2	3200	110	.03	230	.07*
EBT	2.5	6400	1690	.36*	580	.12
EBR	1.5		640		90	
WBL	2	3200	340	.11*	470	.15
WBT	3	4800	410	.09	1990	.41*
WBR	1	1600	330	.21	540	.34
Right Turn Adjustment			NBR	.11*		

TOTAL CAPACITY UTILIZATION .95 .99

2020 w/Gen Plan & TC Drive Mod w/Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	90	.03*	530	.17*
NBT	2.5	6400	690	{.19}	1870	.39
NBR	1.5		680		330	
SBL	2	3200	420	.13	200	.06
SBT	3	4800	1620	.34*	1620	.34*
SBR	1	1600	190	.12	150	.09
EBL	2	3200	110	.03	230	.07*
EBT	2.5	6400	1690	.36*	580	.12
EBR	1.5		640		90	
WBL	2	3200	340	.11*	470	.15
WBT	3	4800	410	.09	1990	.41*
WBR	1	1600	330	.21	540	.34

TOTAL CAPACITY UTILIZATION .84 .99

45. Fairview & South Coast

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	470	.15*	270	.08*
NBT	3	4800	1680	.35	1780	.37
NBR	1	1600	220	.14	440	.28
SBL	2	3200	40	.01	80	.03
SBT	3	4800	2020	.43*	1840	.39*
SBR	0	0	50		30	
EBL	1	1600	20	.01	40	.03*
EBT	2	3200	150	.05*	190	.06
EBR	1	1600	130	.08	430	.27
WBL	2	3200	360	.11*	450	.14
WBT	2	3200	270	.14	450	.19*
WBR	0	0	170		170	
Right Turn Adjustment					EBR	.13*
TOTAL CAPACITY UTILIZATION			.74		.82	

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	670	.21*	250	.08
NBT	3	4800	1970	.41	2060	.43*
NBR	1	1600	310	.19	480	.30
SBL	2	3200	60	.02	60	.02*
SBT	4	6400	2270	.36*	2160	.35
SBR	0	0	50		100	
EBL	1	1600	50	.03*	120	.08*
EBT	2	3200	150	.05	220	.07
EBR	1	1600	180	.11	700	.44
WBL	2	3200	390	.12	310	.10
WBT	2	3200	550	.17*	730	.23*
WBR	1	1600	360	.23	220	.14
Right Turn Adjustment					EBR	.15*
TOTAL CAPACITY UTILIZATION			.77		.91	

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	690	.22*	260	.08
NBT	3	4800	1940	.40	2050	.43*
NBR	1	1600	360	.23	450	.28
SBL	2	3200	60	.02	60	.02*
SBT	4	6400	2280	.36*	2180	.35
SBR	0	0	40		70	
EBL	1	1600	60	.04*	110	.07*
EBT	2	3200	180	.06	220	.07
EBR	1	1600	180	.11	670	.42
WBL	2	3200	380	.12	410	.13
WBT	2	3200	530	.17*	710	.22*
WBR	1	1600	360	.23	230	.14
Right Turn Adjustment					EBR	.18*
TOTAL CAPACITY UTILIZATION			.79		.92	

2020 with Project & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	690	.22*	260	.08
NBT	3	4800	1940	.40	2050	.43*
NBR	1	1600	360	.23	450	.28
SBL	2	3200	60	.02	60	.02*
SBT	4	6400	2280	.36*	2180	.35
SBR	0	0	40		70	
EBL	1	1600	60	.04*	110	.07*
EBT	1.5	4800	180	{.06}	220	.14
EBR	1.5		180		670	.21
WBL	2	3200	380	.12	410	.13
WBT	2	3200	530	.17*	710	.22*
WBR	1	1600	360	.23	230	.14
TOTAL CAPACITY UTILIZATION			.79		.74	

45. Fairview & South Coast

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	730	.23*	360	.11*
NBT	3	4800	2080	.43	1950	.41
NBR	1	1600	360	.23	510	.32
SBL	2	3200	50	.02	70	.02
SBT	4	6400	2140	.38*	2220	.36*
SBR	0	0	280		100	
EBL	1	1600	60	.04*	290	.18*
EBT	2	3200	150	.05	250	.08
EBR	1	1600	250	.16	980	.61
WBL	2	3200	360	.11	280	.09
WBT	2	3200	510	.16*	710	.22*
WBR	1	1600	440	.28	230	.14
Right Turn Adjustment					EBR	.22*

TOTAL CAPACITY UTILIZATION .81 1.09

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	730	.23*	360	.11*
NBT	3	4800	2080	.43	1950	.41
NBR	1	1600	360	.23	510	.32
SBL	2	3200	50	.02	70	.02
SBT	4	6400	2140	.38*	2220	.36*
SBR	0	0	280		100	
EBL	1	1600	60	.04*	290	.18*
EBT	1.5	4800	150	{.05}	250	.16
EBR	1.5		250		980	.31
WBL	2	3200	360	.11	280	.09
WBT	2	3200	510	.16*	710	.22*
WBR	1	1600	440	.28	230	.14

TOTAL CAPACITY UTILIZATION .81 .87

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	750	.23*	370	.12*
NBT	3	4800	2050	.43	1940	.40
NBR	1	1600	410	.26	480	.30
SBL	2	3200	50	.02	70	.02
SBT	4	6400	2150	.38*	2240	.36*
SBR	0	0	270		70	
EBL	1	1600	70	.04*	280	.18*
EBT	1.5	4800	180	{.06}	250	.16
EBR	1.5		250		950	.30
WBL	2	3200	350	.11	380	.12
WBT	2	3200	490	.15*	690	.22*
WBR	1	1600	440	.28	240	.15

TOTAL CAPACITY UTILIZATION .80 .88

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	750	.23*	370	.12*
NBT	3	4800	2050	.43	1940	.40
NBR	1	1600	410	.26	480	.30
SBL	2	3200	50	.02	70	.02
SBT	4	6400	2150	.38*	2240	.36*
SBR	0	0	270		70	
EBL	1	1600	70	.04*	280	.18*
EBT	1.5	4800	180	{.06}	250	.16
EBR	1.5		250		950	.30
WBL	2	3200	350	.11	380	.12
WBT	2	3200	490	.15*	690	.22*
WBR	1	1600	440	.28	240	.15

TOTAL CAPACITY UTILIZATION .80 .88

45. Fairview & South Coast

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	690	.22*	260	.08
NBT	3	4800	1937	.40	2050	.43*
NBR	1	1600	360	.23	450	.28
SBL	2	3200	60	.02	60	.02*
SBT	4	6400	2280	.36*	2179	.35
SBR	0	0	40		70	
EBL	1	1600	60	.04*	110	.07*
EBT	2	3200	180	.06	220	.07
EBR	1	1600	180	.11	670	.42
WBL	2	3200	380	.12	409	.13
WBT	2	3200	530	.17*	707	.22*
WBR	1	1600	360	.23	230	.14
Right Turn Adjustment					EBR	.18*
TOTAL CAPACITY UTILIZATION			.79		.92	

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	690	.22*	260	.08
NBT	3	4800	1937	.40	2050	.43*
NBR	1	1600	360	.23	450	.28
SBL	2	3200	60	.02	60	.02*
SBT	4	6400	2280	.36*	2179	.35
SBR	0	0	40		70	
EBL	1	1600	60	.04*	110	.07*
EBT	1.5	4800	180	{.06}	220	.14
EBR	1.5		180		670	.21
WBL	2	3200	380	.12	409	.13
WBT	2	3200	530	.17*	707	.22*
WBR	1	1600	360	.23	230	.14
TOTAL CAPACITY UTILIZATION			.79		.74	

45. Fairview & South Coast

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	670	.21*	250	.08
NBT	3	4800	1990	.41	2080	.43*
NBR	1	1600	300	.19	470	.29
SBL	2	3200	60	.02	60	.02*
SBT	4	6400	2270	.36*	2150	.35
SBR	0	0	50		90	
EBL	1	1600	60	.04*	120	.08*
EBT	2	3200	150	.05	220	.07
EBR	1	1600	180	.11	700	.44
WBL	2	3200	390	.12	320	.10
WBT	2	3200	540	.17*	720	.23*
WBR	1	1600	370	.23	220	.14
Right Turn Adjustment					EBR	.15*
TOTAL CAPACITY UTILIZATION				.78		.91

48. Bristol & Anton

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	50	.02	370	.12
NBT	4	6400	1490	.23*	2350	.37*
NBR	f		1280		420	
SBL	2	3200	260	.08*	130	.04*
SBT	5	8000	1520	.19	1860	.24
SBR	0	0	10		60	
EBL	1	1600	10	.01	70	.04
EBT	1	1600	30	.02*	20	.01*
EBR	1	1600	10	.01	150	.09
WBL	3	4800	300	.06*	1060	.22*
WBT	1	1600	10	.01	110	.07
WBR	1	1600	60	.04	260	.16

TOTAL CAPACITY UTILIZATION .39 .64

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	10	.00	320	.10
NBT	4	6400	2010	.31*	2730	.43*
NBR	f		1420		530	
SBL	2	3200	440	.14*	160	.05*
SBT	5	8000	1940	.24	2700	.35
SBR	0	0	10		110	
EBL	1	1600	30	.02	100	.06
EBT	1	1600	30	.02*	30	.02*
EBR	1	1600	10	.01	120	.08
WBL	3	4800	340	.07*	1030	.21*
WBT	1	1600	10	.01	120	.08
WBR	1	1600	70	.04	250	.16

TOTAL CAPACITY UTILIZATION .54 .71

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	10	.00	330	.10*
NBT	4	6400	2020	.32*	2730	.43
NBR	f		1660		520	
SBL	2	3200	500	.16*	100	.03
SBT	5	8000	1930	.24	2750	.36*
SBR	0	0	10		120	
EBL	1	1600	30	.02	100	.06
EBT	1	1600	30	.02*	30	.02*
EBR	1	1600	10	.01	120	.08
WBL	3	4800	340	.07*	1260	.26*
WBT	1	1600	10	.01	130	.08
WBR	1	1600	80	.05	280	.18

TOTAL CAPACITY UTILIZATION .57 .74

48. Bristol & Anton

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	10	.00	340	.11*
NBT	4	6400	2010	.31*	2680	.42
NBR	f		1410		550	
SBL	2	3200	430	.13*	170	.05
SBT	5	8000	1930	.24	2740	.36*
SBR	0	0	10		100	
EBL	1	1600	30	.02	110	.07
EBT	1	1600	30	.02*	30	.02*
EBR	1	1600	10	.01	120	.08
WBL	3	4800	330	.07*	990	.21*
WBT	1	1600	10	.01	130	.08
WBR	1	1600	70	.04	260	.16

TOTAL CAPACITY UTILIZATION .53 .70

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	10	.00	340	.11*
NBT	4	6400	2010	.31*	2680	.42
NBR	f		1410		550	
SBL	2	3200	430	.13*	170	.05
SBT	5	8000	1930	.24	2740	.36*
SBR	0	0	10		100	
EBL	1	1600	30	.02	110	.07
EBT	1	1600	30	.02*	30	.02*
EBR	1	1600	10	.01	120	.08
WBL	3	4800	330	.07*	990	.21*
WBT	1	1600	10	.01	130	.08
WBR	1	1600	70	.04	260	.16

TOTAL CAPACITY UTILIZATION .53 .70

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	10	.00	350	.11*
NBT	4	6400	2020	.32*	2680	.42
NBR	f		1650		540	
SBL	2	3200	490	.15*	110	.03
SBT	5	8000	1920	.24	2790	.36*
SBR	0	0	10		110	
EBL	1	1600	30	.02	110	.07
EBT	1	1600	30	.02*	30	.02*
EBR	1	1600	10	.01	120	.08
WBL	3	4800	330	.07*	1220	.25*
WBT	1	1600	10	.01	140	.09
WBR	1	1600	80	.05	290	.18

TOTAL CAPACITY UTILIZATION .56 .74

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	10	.00	350	.11*
NBT	4	6400	2020	.32*	2680	.42
NBR	f		1650		540	
SBL	2	3200	490	.15*	110	.03
SBT	5	8000	1920	.24	2790	.36*
SBR	0	0	10		110	
EBL	1	1600	30	.02	110	.07
EBT	1	1600	30	.02*	30	.02*
EBR	1	1600	10	.01	120	.08
WBL	3	4800	330	.07*	1220	.25*
WBT	1	1600	10	.01	140	.09
WBR	1	1600	80	.05	290	.18

TOTAL CAPACITY UTILIZATION .56 .74

48. Bristol & Anton

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	10	.00	329	.10
NBT	4	6400	1981	.31*	2721	.43*
NBR	f		1580		517	
SBL	2	3200	482	.15*	98	.03*
SBT	5	8000	1925	.24	2708	.35
SBR	0	0	10		118	
EBL	1	1600	30	.02	100	.06
EBT	1	1600	31	.02*	30	.02*
EBR	1	1600	10	.01	120	.08
WBL	3	4800	332	.07*	1195	.25*
WBT	1	1600	10	.01	129	.08
WBR	1	1600	78	.05	279	.17

TOTAL CAPACITY UTILIZATION .55 .73

48. Bristol & Anton

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	10	.00	280	.09
NBT	4	6400	1870	.29*	2710	.42*
NBR	f		1530		570	
SBL	2	3200	440	.14*	170	.05*
SBT	5	8000	1960	.25	2710	.35
SBR	0	0	10		110	
EBL	1	1600	30	.02	100	.06
EBT	1	1600	30	.02*	30	.02*
EBR	1	1600	10	.01	120	.08
WBL	3	4800	330	.07*	1030	.21*
WBT	1	1600	10	.01	120	.08
WBR	1	1600	70	.04	240	.15
TOTAL CAPACITY UTILIZATION				.52		.70

51. Fairview & I-405 NB Ramps

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	210	.13*	230	.14*
NBT	3	4800	970	.20	1390	.29
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2290	.29*	2300	.29*
SBR	1	1600	340	.21	450	.28
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	740	.23*	740	.23*
WBT	0	0	0		30	
WBR	2	3200	1440	.45	1190	.37
Right Turn Adjustment			WBR	.05*	WBR	.03*
TOTAL CAPACITY UTILIZATION				.70		.69

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	170	.11*	390	.24*
NBT	3	4800	1100	.23	2000	.42
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2100	.26*	3250	.41*
SBR	1	1600	300	.19	110	.07
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	510	.16*	660	.21*
WBT	0	0	0		0	
WBR	2	3200	1410	.44	800	.25
Right Turn Adjustment			WBR	.18*		
TOTAL CAPACITY UTILIZATION				.71		.86

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	160	.10*	390	.24*
NBT	3	4800	1130	.24	2000	.42
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2100	.26*	3340	.42*
SBR	1	1600	300	.19	110	.07
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	490	.15*	700	.22*
WBT	0	0	0		0	
WBR	2	3200	1410	.44	770	.24
Right Turn Adjustment			WBR	.20*		
TOTAL CAPACITY UTILIZATION				.71		.88

51. Fairview & I-405 NB Ramps

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	130	.08*	240	.15*
NBT	3	4800	1270	.26	1750	.36
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2700	.34*	3240	.41*
SBR	1	1600	240	.15	280	.18
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	780	.24*	960	.30*
WBT	0	0	0		30	
WBR	2	3200	1970	.62	1190	.37
Right Turn Adjustment			WBR	.26*		

TOTAL CAPACITY UTILIZATION .92 .86

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	130	.08*	240	.15*
NBT	3	4800	1270	.26	1750	.36
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2700	.34*	3240	.41*
SBR	1	1600	240	.15	280	.18
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		780		960	.30*
WBT	0	6400	0	{.40}*	30	
WBR	2.5		1970		1190	{.30}

TOTAL CAPACITY UTILIZATION .82 .86

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	120	.08*	240	.15*
NBT	3	4800	1300	.27	1750	.36
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2700	.34*	3330	.42*
SBR	1	1600	240	.15	280	.18
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		760		1000	.31*
WBT	0	6400	0	{.40}*	30	
WBR	2.5		1970		1160	{.28}

TOTAL CAPACITY UTILIZATION .82 .88

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	120	.08*	240	.15*
NBT	3	4800	1300	.27	1750	.36
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2700	.34*	3330	.42*
SBR	1	1600	240	.15	280	.18
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		760		1000	.31*
WBT	0	6400	0	{.40}*	30	
WBR	2.5		1970		1160	{.28}

TOTAL CAPACITY UTILIZATION .82 .88

51. Fairview & I-405 NB Ramps

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	160	.10*	390	.24*
NBT	3	4800	1127	.23	2000	.42
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2100	.26*	3337	.42*
SBR	1	1600	300	.19	110	.07
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	490	.15*	700	.22*
WBT	0	0	0		0	
WBR	2	3200	1410	.44	770	.24
Right Turn Adjustment			WBR	.19*		
TOTAL CAPACITY UTILIZATION				.70		.88

51. Fairview & I-405 NB Ramps

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	160	.10*	390	.24*
NBT	3	4800	1100	.23	2000	.42
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2100	.26*	3250	.41*
SBR	1	1600	300	.19	110	.07
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	510	.16*	660	.21*
WBT	0	0	0		0	
WBR	2	3200	1410	.44	800	.25
Right Turn Adjustment			WBR	.18*		
TOTAL CAPACITY UTILIZATION				.70		.86

53. Bristol & I-405 NB Ramps

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	4	6400	1700	.27*	2440	.38*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	1810	.23	2880	.36
SBR	0	0	20		30	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	2	3200	50	.02	250	.08
WBL	1.5		290	.09*	290	
WBT	1.5	4800	60	.04	220	.11*
WBR	2	3200	1290	.40	880	.28
Right Turn Adjustment			WBR	.31*	Multi	.23*

Note: Assumes Right-Turn Overlap for WBR

TOTAL CAPACITY UTILIZATION .67 .72

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	4	6400	2540	.40*	3000	.47*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2270	.29	3650	.46
SBR	0	0	30		30	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	2	3200	60	.02	290	.09
WBL	1.5		310	.10*	180	
WBT	1.5	4800	70	.04	230	.09*
WBR	2	3200	1090	.34	810	.25
Right Turn Adjustment			WBR	.24*	Multi	.24*

TOTAL CAPACITY UTILIZATION .74 .80

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	4	6400	2670	.42*	2980	.47
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2260	.29	3900	.49*
SBR	0	0	30		30	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	2	3200	60	.02	280	.09
WBL	1.5		270	.08*	180	
WBT	1.5	4800	70	.04	220	.08*
WBR	2	3200	1200	.38	810	.25
Right Turn Adjustment			WBR	.30*	Multi	.24*

TOTAL CAPACITY UTILIZATION .80 .81

53. Bristol & I-405 NB Ramps

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	4	6400	2540	.40*	3010	.47*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2250	.29	3670	.46
SBR	0	0	30		40	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	2	3200	60	.02	300	.09
WBL	1.5		300	.09*	170	
WBT	1.5	4800	60	.04	230	.08*
WBR	2	3200	1100	.34	790	.25
Right Turn Adjustment			WBR	.25*	Multi	.25*
TOTAL CAPACITY UTILIZATION				.74		.80

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	4	6400	2540	.40*	3010	.47*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2250	.29	3670	.46
SBR	0	0	30		40	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	2	3200	60	.02	300	.09
WBL	1.5		300	.09*	170	
WBT	1.5	4800	60	.04	230	.08*
WBR	2	3200	1100	.34	790	.25
Right Turn Adjustment			WBR	.25*	Multi	.25*
TOTAL CAPACITY UTILIZATION				.74		.80

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	4	6400	2670	.42*	2990	.47
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2240	.28	3920	.50*
SBR	0	0	30		40	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	2	3200	60	.02	290	.09
WBL	1.5		260	.08*	170	
WBT	1.5	4800	60	.04	220	.08*
WBR	2	3200	1210	.38	790	.25
Right Turn Adjustment			WBR	.30*	Multi	.24*
TOTAL CAPACITY UTILIZATION				.80		.82

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	4	6400	2670	.42*	2990	.47
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2240	.28	3920	.50*
SBR	0	0	30		40	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	2	3200	60	.02	290	.09
WBL	1.5		260	.08*	170	
WBT	1.5	4800	60	.04	220	.08*
WBR	2	3200	1210	.38	790	.25
Right Turn Adjustment			WBR	.30*	Multi	.24*
TOTAL CAPACITY UTILIZATION				.80		.82

53. Bristol & I-405 NB Ramps

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	4	6400	2610	.41*	2974	.46
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2247	.28	3814	.48*
SBR	0	0	30		29	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	2	3200	60	.02	280	.09
WBL	1.5		270	.08*	180	
WBT	1.5	4800	70	.04	221	.08*
WBR	2	3200	1161	.36	804	.25
Right Turn Adjustment			WBR	.28*	Multi	.24*
TOTAL CAPACITY UTILIZATION				.77		.80

53. Bristol & I-405 NB Ramps

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	4	6400	2520	.39*	3010	.47*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	5	8000	2270	.29	3650	.46
SBR	0	0	30		30	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	2	3200	60	.02	290	.09
WBL	1.5		300	.09*	190	
WBT	1.5	4800	70	.04	230	.09*
WBR	2	3200	1080	.34	810	.25
Right Turn Adjustment			WBR	.25*	Multi	.24*
TOTAL CAPACITY UTILIZATION				.73		.80

54. Bristol & I-405 SB Ramps

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	170	.11*	240	.15*
NBT	4	6400	1320	.21	2210	.35
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1000	.21*	1950	.41*
SBR	f		820		1060	
EBL	3	4800	580	.12*	600	.13*
EBT	0	0	0		0	
EBR	1	1600	450	.28	300	.19
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.08*		
TOTAL CAPACITY UTILIZATION				.52		.69

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	380	.24*	300	.19*
NBT	4	6400	1890	.30	2820	.44
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1250	.26*	2720	.57*
SBR	f		1130		1400	
EBL	3	4800	830	.17*	570	.12*
EBT	0	0	0		0	
EBR	f		430		370	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				.67		.88

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	380	.24*	270	.17*
NBT	4	6400	1950	.30	2840	.44
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1200	.25*	2810	.59*
SBR	f		1130		1490	
EBL	3	4800	910	.19*	550	.11*
EBT	0	0	0		0	
EBR	f		370		360	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				.68		.87

54. Bristol & I-405 SB Ramps

2020 General Plan with Home Ranch

	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	400	.25*	300	.19*
NBT	4	6400	1860	.29	2830	.44
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1220	.25*	2730	.57*
SBR	f		1140		1400	
EBL	3	4800	820	.17*	550	.11*
EBT	0	0	0		0	
EBR	f		490		370	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .67 .87

2020 General Plan with Home Ranch & Mitigation

	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	400	.25*	300	.19*
NBT	4	6400	1860	.29	2830	.44
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1220	.25*	2730	.57*
SBR	f		1140		1400	
EBL	3	4800	820	.17*	550	.11*
EBT	0	0	0		0	
EBR	f		490		370	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .67 .87

2020 General Plan Cumulative (w/Town Center)

	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	400	.25*	270	.17*
NBT	4	6400	1920	.30	2850	.45
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1170	.24*	2820	.59*
SBR	f		1140		1490	
EBL	3	4800	900	.19*	530	.11*
EBT	0	0	0		0	
EBR	f		430		360	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .68 .87

2020 General Plan Cumulative with Mitigation

	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	400	.25*	270	.17*
NBT	4	6400	1920	.30	2850	.45
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1170	.24*	2820	.59*
SBR	f		1140		1490	
EBL	3	4800	900	.19*	530	.11*
EBT	0	0	0		0	
EBR	f		430		360	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .68 .87

54. Bristol & I-405 SB Ramps

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	380	.24*	270	.17*
NBT	4	6400	1926	.30	2836	.44
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1196	.25*	2790	.58*
SBR	f		1124		1444	
EBL	3	4800	873	.18*	547	.11*
EBT	0	0	0		0	
EBR	f		370		360	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .67 .86

54. Bristol & I-405 SB Ramps

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	380	.24*	300	.19*
NBT	4	6400	1890	.30	2830	.44
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1250	.26*	2720	.57*
SBR	f		1140		1400	
EBL	3	4800	820	.17*	570	.12*
EBT	0	0	0		0	
EBR	f		440		370	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .67 .88

59. Bristol & Paularino

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	20	.01	70	.04
NBT	3	4800	1050	.24*	1410	.32*
NBR	0	0	90		110	
SBL	2	3200	320	.10*	290	.09*
SBT	3	4800	970	.21	1520	.34
SBR	0	0	30		120	
EBL	1	1600	170	.11	100	.06*
EBT	1	1600	340	.24*	150	.12
EBR	0	0	40		40	
WBL	1	1600	80	.05*	180	.11
WBT	1	1600	80	.05	510	.32*
WBR	1	1600	210	.13	570	.36

TOTAL CAPACITY UTILIZATION .63 .79

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	30	.02	80	.05*
NBT	4	6400	1900	.31*	2300	.39
NBR	0	0	100		200	
SBL	2	3200	400	.13*	190	.06
SBT	3	4800	1130	.24	2410	.52*
SBR	0	0	40		100	
EBL	1	1600	190	.12	50	.03
EBT	1	1600	220	.14*	190	.12*
EBR	1	1600	60	.04	50	.03
WBL	1	1600	70	.04*	320	.20*
WBT	1	1600	50	.03	470	.29
WBR	2	3200	140	.04	320	.10

TOTAL CAPACITY UTILIZATION .62 .89

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	30	.02	80	.05*
NBT	4	6400	1980	.33*	2320	.39
NBR	0	0	100		190	
SBL	2	3200	340	.11*	180	.06
SBT	3	4800	1100	.24	2480	.54*
SBR	0	0	40		90	
EBL	1	1600	180	.11	50	.03
EBT	1	1600	230	.14*	220	.14*
EBR	1	1600	50	.03	40	.03
WBL	1	1600	70	.04*	320	.20*
WBT	1	1600	50	.03	470	.29
WBR	2	3200	150	.05	310	.10

TOTAL CAPACITY UTILIZATION .62 .93

2020 with Project & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	30	.01	80	.03*
NBT	4	6400	1980	.33*	2320	.39
NBR	0	0	100		190	
SBL	2	3200	340	.11*	180	.06
SBT	3	4800	1100	.24	2480	.54*
SBR	0	0	40		90	
EBL	1	1600	180	.11	50	.03*
EBT	1	1600	230	.18*	220	.16
EBR	0	0	50		40	
WBL	2	3200	70	.02*	320	.10
WBT	1	1600	50	.03	470	.29*
WBR	1	1600	150	.09	310	.19

TOTAL CAPACITY UTILIZATION .64 .89

59. Bristol & Paularino

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	40	.03	60	.04*
NBT	4	6400	1890	.31*	2330	.40
NBR	0	0	100		200	
SBL	2	3200	440	.14*	190	.06
SBT	3	4800	1130	.24	2420	.53*
SBR	0	0	40		110	
EBL	1	1600	190	.12	40	.03*
EBT	1	1600	260	.16*	180	.11
EBR	1	1600	60	.04	50	.03
WBL	1	1600	70	.04*	330	.21
WBT	1	1600	60	.04	480	.30*
WBR	2	3200	140	.04	310	.10

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	40	.03	60	.04*
NBT	4	6400	1890	.31*	2330	.40
NBR	0	0	100		200	
SBL	2	3200	440	.14*	190	.06
SBT	3	4800	1130	.24	2420	.53*
SBR	0	0	40		110	
EBL	1	1600	190	.12	40	.03*
EBT	1	1600	260	.16*	180	.11
EBR	1	1600	60	.04	50	.03
WBL	1	1600	70	.04*	330	.21
WBT	1	1600	60	.04	480	.30*
WBR	2	3200	140	.04	310	.10

TOTAL CAPACITY UTILIZATION .65 .90

TOTAL CAPACITY UTILIZATION .65 .90

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	40	.03	60	.04*
NBT	4	6400	1970	.32*	2350	.40
NBR	0	0	100		190	
SBL	2	3200	380	.12*	180	.06
SBT	3	4800	1100	.24	2490	.54*
SBR	0	0	40		100	
EBL	1	1600	180	.11	40	.03
EBT	1	1600	270	.17*	210	.13*
EBR	1	1600	50	.03	40	.03
WBL	1	1600	70	.04*	330	.21*
WBT	1	1600	60	.04	480	.30
WBR	2	3200	150	.05	300	.09

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	40	.01	60	.02*
NBT	4	6400	1970	.32*	2350	.40
NBR	0	0	100		190	
SBL	2	3200	380	.12*	180	.06
SBT	3	4800	1100	.24	2490	.54*
SBR	0	0	40		100	
EBL	1	1600	180	.11	40	.03*
EBT	1	1600	270	.20*	210	.16
EBR	0	0	50		40	
WBL	2	3200	70	.02*	330	.10
WBT	1	1600	60	.04	480	.30*
WBR	1	1600	150	.09	300	.19

TOTAL CAPACITY UTILIZATION .65 .92

TOTAL CAPACITY UTILIZATION .66 .89

59. Bristol & Paularino

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	30	.02	80	.05*
NBT	4	6400	1957	.32*	2318	.39
NBR	0	0	100		190	
SBL	2	3200	338	.11*	180	.06
SBT	3	4800	1099	.24	2461	.53*
SBR	0	0	40		90	
EBL	1	1600	180	.11	50	.03
EBT	1	1600	230	.14*	220	.14*
EBR	1	1600	50	.03	40	.03
WBL	1	1600	70	.04*	320	.20*
WBT	1	1600	50	.03	470	.29
WBR	2	3200	150	.05	310	.10
TOTAL CAPACITY UTILIZATION			.61		.92	

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	30	.01	80	.03*
NBT	4	6400	1957	.32*	2318	.39
NBR	0	0	100		190	
SBL	2	3200	338	.11*	180	.06
SBT	3	4800	1099	.24	2461	.53*
SBR	0	0	40		90	
EBL	1	1600	180	.11	50	.03*
EBT	1	1600	230	.18*	220	.16
EBR	0	0	50		40	
WBL	2	3200	70	.02*	320	.10
WBT	1	1600	50	.03	470	.29*
WBR	1	1600	150	.09	310	.19
TOTAL CAPACITY UTILIZATION			.63		.88	

59. Bristol & Paularino

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	30	.02	80	.05*
NBT	4	6400	1900	.31*	2300	.39
NBR	0	0	100		200	
SBL	2	3200	410	.13*	190	.06
SBT	3	4800	1130	.24	2400	.52*
SBR	0	0	40		100	
EBL	1	1600	180	.11	50	.03
EBT	1	1600	220	.14*	190	.12*
EBR	1	1600	50	.03	50	.03
WBL	1	1600	70	.04*	320	.20*
WBT	1	1600	50	.03	470	.29
WBR	2	3200	140	.04	330	.10
TOTAL CAPACITY UTILIZATION				.62		.89

60. Bear & SR-73 SB Ramps

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	2	3200	380	.22*	710	.28*
NBR	0	0	330		180	
SBL	2	3200	520	.16*	660	.21*
SBT	2	3200	520	.16	750	.23
SBR	0	0	0		0	
EBL	1.5		110	.07*	160	{.09}*
EBT	0	3200	0		0	.09
EBR	0.5		200	.13	130	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .45 .58

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	3	4800	500	.16*	1130	.29*
NBR	0	0	290	.18	240	
SBL	2	3200	490	.15*	760	.24*
SBT	2	3200	830	.26	700	.22
SBR	0	0	0		0	
EBL	1.5		120	.08*	130	.04*
EBT	0	4800	0		0	
EBR	1.5		380	.12	90	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .39 .57

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	3	4800	550	.17*	1130	.29*
NBR	0	0	300	.19	240	
SBL	2	3200	510	.16*	760	.24*
SBT	2	3200	830	.26	730	.23
SBR	0	0	0		0	
EBL	1.5		120	.08*	150	.05*
EBT	0	4800	0		0	
EBR	1.5		420	.13	100	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .41 .58

60. Bear & SR-73 SB Ramps

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	480	.15*	1140	.29*
NBR	0	0	300	.19	270	
SBL	2	3200	470	.15*	770	.24*
SBT	2	3200	840	.26	700	.22
SBR	0	0	0		0	
EBL	1.5		140	.09*	130	.04*
EBT	0	4800	0		0	
EBR	1.5		340	.11	100	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .39 .57

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	480	.15*	1140	.29*
NBR	0	0	300	.19	270	
SBL	2	3200	470	.15*	770	.24*
SBT	2	3200	840	.26	700	.22
SBR	0	0	0		0	
EBL	1.5		140	.09*	130	.04*
EBT	0	4800	0		0	
EBR	1.5		340	.11	100	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .39 .57

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	530	.17*	1140	.29*
NBR	0	0	310	.19	270	
SBL	2	3200	490	.15*	770	.24*
SBT	2	3200	840	.26	730	.23
SBR	0	0	0		0	
EBL	1.5		140	.09*	150	.05*
EBT	0	4800	0		0	
EBR	1.5		380	.12	110	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .41 .58

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	530	.17*	1140	.29*
NBR	0	0	310	.19	270	
SBL	2	3200	490	.15*	770	.24*
SBT	2	3200	840	.26	730	.23
SBR	0	0	0		0	
EBL	1.5		140	.09*	150	.05*
EBT	0	4800	0		0	
EBR	1.5		380	.12	110	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .41 .58

60. Bear & SR-73 SB Ramps

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	548	.17*	1130	.29*
NBR	0	0	300	.19	240	
SBL	2	3200	510	.16*	760	.24*
SBT	2	3200	830	.26	729	.23
SBR	0	0	0		0	
EBL	1.5		120	.08*	150	.05*
EBT	0	4800	0		0	
EBR	1.5		420	.13	100	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION			.41		.58	

60. Bear & SR-73 SB Ramps

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	3	4800	500	.16*	1130	.28*
NBR	0	0	290	.18	230	
SBL	2	3200	480	.15*	760	.24*
SBT	2	3200	830	.26	710	.22
SBR	0	0	0		0	
EBL	1.5		130	.08*	130	.04*
EBT	0	4800	0		0	
EBR	1.5		380	.12	80	{.00}
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .39 .56

62. Bristol & Baker

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	50	.02	350	.11
NBT	3	4800	630	.13*	860	.18*
NBR	1	1600	170	.11	180	.11
SBL	2	3200	300	.09*	400	.13*
SBT	3	4800	620	.13	920	.19
SBR	1	1600	130	.08	460	.29
EBL	2	3200	280	.09	240	.08*
EBT	2	3200	990	.34*	460	.17
EBR	0	0	110		90	
WBL	2	3200	150	.05*	180	.06
WBT	2	3200	260	.08	1090	.34*
WBR	1	1600	270	.17	300	.19
Right Turn Adjustment					SBR	.03*
TOTAL CAPACITY UTILIZATION			.61		.76	

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	80	.03	540	.17*
NBT	4	6400	1030	.16*	1530	.24
NBR	1	1600	220	.14	230	.14
SBL	2	3200	250	.08*	760	.24
SBT	3	4800	780	.16	1580	.33*
SBR	1	1600	220	.14	430	.27
EBL	2	3200	350	.11	260	.08*
EBT	3	4800	1640	.34*	650	.14
EBR	1	1600	150	.09	140	.09
WBL	2	3200	150	.05*	190	.06
WBT	3	4800	460	.10	1700	.35*
WBR	1	1600	680	.43	540	.34
Right Turn Adjustment					WBR	.09*
TOTAL CAPACITY UTILIZATION			.72		.93	

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	60	.02	510	.16*
NBT	4	6400	1090	.17*	1510	.24
NBR	1	1600	210	.13	280	.18
SBL	2	3200	270	.08*	800	.25
SBT	3	4800	730	.15	1590	.33*
SBR	1	1600	220	.14	440	.28
EBL	2	3200	350	.11	280	.09*
EBT	3	4800	1670	.35*	640	.13
EBR	1	1600	160	.10	130	.08
WBL	2	3200	160	.05*	230	.07
WBT	3	4800	470	.10	1700	.35*
WBR	1	1600	710	.44	560	.35
Right Turn Adjustment			WBR	.09*		
TOTAL CAPACITY UTILIZATION			.74		.93	

62. Bristol & Baker

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	100	.03	550	.17*
NBT	4	6400	970	.15*	1520	.24
NBR	1	1600	300	.19	200	.13
SBL	2	3200	240	.08*	760	.24
SBT	3	4800	800	.17	1590	.33*
SBR	1	1600	220	.14	440	.28
EBL	2	3200	390	.12	270	.08*
EBT	3	4800	1580	.33*	650	.14
EBR	1	1600	140	.09	150	.09
WBL	2	3200	150	.05*	160	.05
WBT	3	4800	470	.10	1760	.37*
WBR	1	1600	680	.43	540	.34
Right Turn Adjustment			WBR	.11*		

TOTAL CAPACITY UTILIZATION .72 .95

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	100	.03	550	.17*
NBT	4	6400	970	.15*	1520	.24
NBR	1	1600	300	.19	200	.13
SBL	2	3200	240	.08*	760	.24
SBT	3	4800	800	.17	1590	.33*
SBR	1	1600	220	.14	440	.28
EBL	3	4800	390	.08	270	.06*
EBT	2	3200	1580	.49*	650	.20
EBR	1	1600	140	.09	150	.09
WBL	2	3200	150	.05*	160	.05
WBT	3	4800	470	.10	1760	.37*
WBR	1	1600	680	.43	540	.34

TOTAL CAPACITY UTILIZATION .77 .93

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	80	.03	520	.16*
NBT	4	6400	1030	.16*	1500	.23
NBR	1	1600	290	.18	250	.16
SBL	2	3200	260	.08*	800	.25
SBT	3	4800	750	.16	1600	.33*
SBR	1	1600	220	.14	450	.28
EBL	3	4800	390	.08	290	.06*
EBT	2	3200	1610	.50*	640	.20
EBR	1	1600	150	.09	140	.09
WBL	2	3200	160	.05*	200	.06
WBT	3	4800	480	.10	1760	.37*
WBR	1	1600	710	.44	560	.35

TOTAL CAPACITY UTILIZATION .79 .92

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	80	.03	520	.16*
NBT	4	6400	1030	.16*	1500	.23
NBR	1	1600	290	.18	250	.16
SBL	2	3200	260	.08*	800	.25
SBT	3	4800	750	.16	1600	.33*
SBR	1	1600	220	.14	450	.28
EBL	3	4800	390	.08	290	.06*
EBT	2	3200	1610	.50*	640	.20
EBR	1	1600	150	.09	140	.09
WBL	2	3200	160	.05*	200	.06
WBT	3	4800	480	.10	1760	.37*
WBR	1	1600	710	.44	560	.35

TOTAL CAPACITY UTILIZATION .79 .92

62. Bristol & Baker

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	60	.02	510	.16*
NBT	4	6400	1083	.17*	1509	.24
NBR	1	1600	210	.13	280	.18
SBL	2	3200	269	.08*	789	.25
SBT	3	4800	729	.15	1582	.33*
SBR	1	1600	220	.14	440	.28
EBL	2	3200	346	.11	280	.09*
EBT	3	4800	1670	.35*	640	.13
EBR	1	1600	160	.10	130	.08
WBL	2	3200	160	.05*	230	.07
WBT	3	4800	470	.10	1700	.35*
WBR	1	1600	699	.44	559	.35
Right Turn Adjustment			WBR	.09*		
TOTAL CAPACITY UTILIZATION				.74		.93

62. Bristol & Baker

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	70	.02	550	.17*
NBT	4	6400	1030	.16*	1520	.24
NBR	1	1600	220	.14	230	.14
SBL	2	3200	240	.08*	760	.24
SBT	3	4800	780	.16	1580	.33*
SBR	1	1600	220	.14	420	.26
EBL	2	3200	330	.10	260	.08*
EBT	3	4800	1650	.34*	640	.13
EBR	1	1600	150	.09	130	.08
WBL	2	3200	150	.05*	190	.06
WBT	3	4800	460	.10	1700	.35*
WBR	1	1600	690	.43	540	.34
Right Turn Adjustment			WBR	.08*		
TOTAL CAPACITY UTILIZATION				.71		.93

70. Bear & SR-73 NB Ramp

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	120	.08*	230	.14*
NBT	2	3200	420	.13	650	.20
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	820	.19*	1120	.29*
SBR	0	0	100		260	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	290	.18*	310	.19*
WBT	0	0	0		0	
WBR	2	3200	670	.21	770	.24

TOTAL CAPACITY UTILIZATION .45 .62

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	60	.04*	410	.26*
NBT	3	4800	570	.12	860	.18
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1080	.25*	1210	.33*
SBR	0	0	130		380	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	250	.16*	270	.17*
WBT	0	0	0		0	
WBR	2	3200	530	.17	630	.20

TOTAL CAPACITY UTILIZATION .45 .76

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	70	.04*	380	.24*
NBT	3	4800	610	.13	910	.19
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1060	.24*	1240	.34*
SBR	0	0	110		410	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	270	.17*	250	.16*
WBT	0	0	0		0	
WBR	2	3200	490	.15	650	.20

TOTAL CAPACITY UTILIZATION .45 .74

70. Bear & SR-73 NB Ramp

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	PM PK HOUR V/C	AM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	130	.08*	420	.26*
NBT	3	4800	570	.12	850	.18
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1070	.25*	1210	.28*
SBR	0	0	130		150	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	330	.21*	310	.19*
WBT	0	0	0		0	
WBR	2	3200	880	.28	520	.16

TOTAL CAPACITY UTILIZATION .54 .73

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	PM PK HOUR V/C	AM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	130	.08*	420	.26*
NBT	3	4800	570	.12	850	.18
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1070	.25*	1210	.28*
SBR	0	0	130		150	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	330	.21*	310	.19*
WBT	0	0	0		0	
WBR	2	3200	880	.28	520	.16

TOTAL CAPACITY UTILIZATION .54 .73

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	PM PK HOUR V/C	AM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	140	.09*	390	.24*
NBT	3	4800	610	.13	900	.19
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1050	.24*	1240	.30*
SBR	0	0	110		180	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	350	.22*	290	.18*
WBT	0	0	0		0	
WBR	2	3200	840	.26	540	.17

TOTAL CAPACITY UTILIZATION .55 .72

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	PM PK HOUR V/C	AM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	140	.09*	390	.24*
NBT	3	4800	610	.13	900	.19
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1050	.24*	1240	.30*
SBR	0	0	110		180	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	350	.22*	290	.18*
WBT	0	0	0		0	
WBR	2	3200	840	.26	540	.17

TOTAL CAPACITY UTILIZATION .55 .72

70. Bear & SR-73 NB Ramp

2020 with Reduced Project

	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	70	.04*	380	.24*
NBT	3	4800	609	.13	910	.19
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1060	.24*	1240	.34*
SBR	0	0	110		410	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	270	.17*	250	.16*
WBT	0	0	0		0	
WBR	2	3200	490	.15	649	.20

TOTAL CAPACITY UTILIZATION .45 .74

70. Bear & SR-73 NB Ramp

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	60	.04*	410	.26*
NBT	3	4800	570	.12	860	.18
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1060	.25*	1220	.33*
SBR	0	0	120		370	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1600	250	.16*	270	.17*
WBT	0	0	0		0	
WBR	2	3200	530	.17	630	.20
TOTAL CAPACITY UTILIZATION				.45		.76

71. Park Center & Sunflower

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01*	250	.16*
NBT	1	1600	10	.02	10	.09
NBR	0	0	20		130	
SBL	1	1600	60	.04	30	.02
SBT	1	1600	10	.11*	10	.08*
SBR	0	0	170		110	
EBL	1	1600	40	.03	160	.10*
EBT	3	4800	1080	.24*	550	.12
EBR	0	0	70		20	
WBL	1	1600	50	.03*	20	.01
WBT	3	4800	530	.11	1890	.39*
WBR	d	1600	10	.01	10	.01

TOTAL CAPACITY UTILIZATION .39 .73

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01*	200	.13*
NBT	1	1600	10	.03	10	.08
NBR	0	0	30		110	
SBL	1	1600	70	.04	30	.02
SBT	1	1600	10	.11*	10	.08*
SBR	0	0	170		120	
EBL	1	1600	40	.03	160	.10*
EBT	3	4800	2210	.48*	690	.15
EBR	0	0	70		20	
WBL	1	1600	60	.04*	20	.01
WBT	3	4800	830	.17	2740	.57*
WBR	d	1600	20	.01	10	.01

TOTAL CAPACITY UTILIZATION .64 .88

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	20	.01*	250 ⁴⁵⁰	.16*
NBT	1	1600	20	.06	20	.14
NBR	0	0	80		200 ⁴⁹⁰	
SBL	1	1600	70	.04	30	.02
SBT	1	1600	10	.11*	10	.08*
SBR	0	0	170		110	
EBL	1	1600	30	.02	150	.09*
EBT	3	4800	2470	.53*	860	.18
EBR	0	0	70		10	
WBL	1	1600	110	.07*	30	.02
WBT	3	4800	770	.16	2790 ⁴⁵⁰	.58*
WBR	d	1600	20	.01	10	.01

TOTAL CAPACITY UTILIZATION .72 .91

2020 with Project & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		20	.01	250	
NBT	0.5	3200	20	.06*	20	.15*
NBR	0		80		200	
SBL	0.5		70		30	
SBT	0.5	1600	10	.05*	10	.03*
SBR	1	1600	170	.11	110	.07
EBL	1	1600	30	.02	150	.09*
EBT	3	4800	2470	.53*	860	.18
EBR	0	0	70		10	
WBL	1	1600	110	.07*	30	.02
WBT	3	4800	770	.16	2790	.58*
WBR	d	1600	20	.01	10	.01

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .71 .85

71. Park Center & Sunflower

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	10	.01*	240	.15*
NBT	1	1600	10	.01	10	.07
NBR	0	0	10		100	
SBL	1	1600	70	.04	30	.02
SBT	1	1600	10	.11*	10	.09*
SBR	0	0	170		130	
EBL	1	1600	40	.03	160	.10*
EBT	3	4800	2220	.48*	690	.15
EBR	0	0	80		20	
WBL	1	1600	60	.04*	20	.01
WBT	3	4800	860	.18	2720	.57*
WBR	d	1600	20	.01	10	.01

TOTAL CAPACITY UTILIZATION .64 .91

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	10	.01*	240	.15*
NBT	1	1600	10	.01	10	.07
NBR	0	0	10		100	
SBL	1	1600	70	.04	30	.02
SBT	1	1600	10	.11*	10	.09*
SBR	0	0	170		130	
EBL	1	1600	40	.03	160	.10*
EBT	3	4800	2220	.48*	690	.15
EBR	0	0	80		20	
WBL	1	1600	60	.04*	20	.01
WBT	3	4800	860	.18	2720	.57*
WBR	d	1600	20	.01	10	.01

TOTAL CAPACITY UTILIZATION .64 .91

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	20	.01*	290	.18*
NBT	1	1600	20	.05	20	.13
NBR	0	0	60		190	
SBL	1	1600	70	.04	30	.02
SBT	1	1600	10	.11*	10	.08*
SBR	0	0	170		120	
EBL	1	1600	30	.02	150	.09*
EBT	3	4800	2480	.53*	860	.18
EBR	0	0	80		10	
WBL	1	1600	110	.07*	30	.02
WBT	3	4800	800	.17	2770	.58*
WBR	d	1600	20	.01	10	.01

TOTAL CAPACITY UTILIZATION .72 .93

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1.5		20	.01	290	
NBT	0.5	3200	20	.05*	20	.16*
NBR	0		60		190	
SBL	0.5		70		30	
SBT	0.5	1600	10	.05*	10	.03*
SBR	1	1600	170	.11	120	.08
EBL	1	1600	30	.02	150	.09*
EBT	3	4800	2480	.53*	860	.18
EBR	0	0	80		10	
WBL	1	1600	110	.07*	30	.02
WBT	3	4800	800	.17	2770	.58*
WBR	d	1600	20	.01	10	.01

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .70 .86

71. Park Center & Sunflower

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	18	.01*	236	.15*
NBT	1	1600	20	.06	20	.12
NBR	0	0	74		175	
SBL	1	1600	70	.04	30	.02
SBT	1	1600	10	.11*	10	.08*
SBR	0	0	170		110	
EBL	1	1600	30	.02	150	.09*
EBT	3	4800	2455	.52*	860	.18
EBR	0	0	62		9	
WBL	1	1600	95	.06*	21	.01
WBT	3	4800	766	.16	2776	.58*
WBR	d	1600	20	.01	10	.01

TOTAL CAPACITY UTILIZATION .70 .90

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		18	.01	236	
NBT	0.5	3200	20	.06*	20	.13*
NBR	0		74		175	
SBL	0.5		70		30	
SBT	0.5	1600	10	.05*	10	.03*
SBR	1	1600	170	.11	110	.07
EBL	1	1600	30	.02	150	.09*
EBT	3	4800	2455	.52*	860	.18
EBR	0	0	62		9	
WBL	1	1600	95	.06*	21	.01
WBT	3	4800	766	.16	2776	.58*
WBR	d	1600	20	.01	10	.01

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .69 .83

71. Park Center & Sunflower

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01*	180	.11*
NBT	1	1600	10	.03	10	.08
NBR	0	0	40		120	
SBL	1	1600	70	.04	30	.02
SBT	1	1600	10	.11*	10	.08*
SBR	0	0	170		120	
EBL	1	1600	40	.03	150	.09*
EBT	3	4800	2360	.50*	810	.17
EBR	0	0	50		10	
WBL	1	1600	60	.04*	20	.01
WBT	3	4800	850	.18	2750	.57*
WBR	d	1600	20	.01	10	.01

TOTAL CAPACITY UTILIZATION .66 .85

72. Ave of the Arts & Sunflower

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	90	.03*	90	.03*
NBT	0	0	0		0	
NBR	1	1600	80	.05	40	.03
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	1060	.24*	690	.15
EBR	0	0	100		20	
WBL	1	1600	220	.14*	10	.01
WBT	3	4800	500	.10	1830	.38*
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				.41		.41

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	220	.07*	120	.04*
NBT	0	0	0		0	
NBR	1	1600	400	.25	80	.05
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2300	.49*	900	.19
EBR	0	0	70		10	
WBL	1	1600	170	.11*	10	.01
WBT	3	4800	690	.14	2680	.56*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.10*		
TOTAL CAPACITY UTILIZATION				.77		.60

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	180	.06*	150	.05*
NBT	0	0	0		0	
NBR	1	1600	370	.23	90	.06
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2380	.55*	1100	.24
EBR	0	0	270		40	
WBL	1	1600	250	.16*	10	.01
WBT	3	4800	750	.16	2670	.56*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.05*		
TOTAL CAPACITY UTILIZATION				.82		.61

72. Ave of the Arts & Sunflower

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	230	.07*	100	.03*
NBT	0	0	0		0	
NBR	1	1600	360	.23	100	.06
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2270	.49*	870	.18
EBR	0	0	90		10	
WBL	1	1600	180	.11*	10	.01
WBT	3	4800	700	.15	2670	.56*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.08*		

TOTAL CAPACITY UTILIZATION .75 .59

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	230	.07*	100	.03*
NBT	0	0	0		0	
NBR	1	1600	360	.23	100	.06
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2270	.49*	870	.18
EBR	0	0	90		10	
WBL	1	1600	180	.11*	10	.01
WBT	3	4800	700	.15	2670	.56*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.08*		

TOTAL CAPACITY UTILIZATION .75 .59

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	190	.06*	130	.04*
NBT	0	0	0		0	
NBR	1	1600	330	.21	110	.07
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2350	.55*	1070	.23
EBR	0	0	290		40	
WBL	1	1600	260	.16*	10	.01
WBT	3	4800	760	.16	2660	.55*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.03*		

TOTAL CAPACITY UTILIZATION .80 .59

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	190	.06*	130	.04*
NBT	0	0	0		0	
NBR	1	1600	330	.21	110	.07
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2350	.55*	1070	.23
EBR	0	0	290		40	
WBL	1	1600	260	.16*	10	.01
WBT	3	4800	760	.16	2660	.55*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.03*		

TOTAL CAPACITY UTILIZATION .80 .59

72. Ave of the Arts & Sunflower

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	180	.06*	136	.04*
NBT	0	0	0		0	
NBR	1	1600	359	.22	87	.05
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2373	.55*	1078	.23
EBR	0	0	254		37	
WBL	1	1600	235	.15*	8	.01
WBT	3	4800	730	.15	2661	.55*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.05*		
TOTAL CAPACITY UTILIZATION				.81		.59

72. Ave of the Arts & Sunflower

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	240	.08*	150	.05*
NBT	0	0	0		0	
NBR	1	1600	350	.22	40	.03
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2370	.53*	960	.21
EBR	0	0	180		40	
WBL	1	1600	180	.11*	10	.01
WBT	3	4800	680	.14	2640	.55*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.06*		
TOTAL CAPACITY UTILIZATION				.78		.60

73. Sakioka/Flower & Sunflower

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	20	.01	30	.02
NBT	2	3200	40	.01*	160	.05*
NBR	1	1600	40	.03	40	.03
SBL	1	1600	250	.16*	80	.05*
SBT	2	3200	150	.07	90	.06
SBR	0	0	80		110	.07
EBL	2	3200	120	.04	190	.06*
EBT	3	4800	1090	.24*	580	.13
EBR	0	0	40		30	
WBL	2	3200	40	.01*	90	.03
WBT	3	4800	470	.12	1530	.35*
WBR	0	0	90		140	
Right Turn Adjustment			NBR	.01*		
TOTAL CAPACITY UTILIZATION				.43		.51

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	110	.07	140	.09
NBT	2	3200	140	.04*	280	.09*
NBR	1	1600	90	.06	40	.03
SBL	1	1600	370	.23*	140	.09*
SBT	2	3200	160	.05	150	.05
SBR	1	1600	140	.09	180	.11
EBL	2	3200	450	.14	270	.08*
EBT	3	4800	2330	.51*	640	.16
EBR	0	0	110		140	
WBL	2	3200	20	.01*	50	.02
WBT	3	4800	420	.11	2230	.51*
WBR	0	0	90		220	
Right Turn Adjustment			NBR	.01*		
TOTAL CAPACITY UTILIZATION				.80		.77

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	110	.07	140	.09
NBT	2	3200	140	.04*	310	.10*
NBR	1	1600	90	.06	40	.03
SBL	1	1600	380	.24*	140	.09*
SBT	2	3200	190	.06	170	.05
SBR	1	1600	190	.12	180	.11
EBL	2	3200	440	.14	360	.11*
EBT	3	4800	2320	.51*	780	.19
EBR	0	0	140		150	
WBL	2	3200	20	.01*	50	.02
WBT	3	4800	510	.13	2260	.52*
WBR	0	0	90		220	
Right Turn Adjustment			NBR	.01*		
TOTAL CAPACITY UTILIZATION				.81		.82

73. Sakioka/Flower & Sunflower

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	110	.07	140	.09
NBT	2	3200	140	.04*	280	.09*
NBR	1	1600	90	.06	40	.03
SBL	1	1600	350	.22*	140	.09*
SBT	2	3200	150	.05	150	.05
SBR	1	1600	140	.09	170	.11
EBL	2	3200	370	.12	260	.08*
EBT	3	4800	2320	.51*	620	.16
EBR	0	0	120		130	
WBL	2	3200	20	.01*	50	.02
WBT	3	4800	430	.11	2230	.51*
WBR	0	0	90		210	
Right Turn Adjustment			NBR	.01*		

TOTAL CAPACITY UTILIZATION .79 .77

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	110	.07	140	.09
NBT	2	3200	140	.04*	280	.09*
NBR	1	1600	90	.06	40	.03
SBL	1	1600	350	.22*	140	.09*
SBT	2	3200	150	.05	150	.05
SBR	1	1600	140	.09	170	.11
EBL	2	3200	370	.12	260	.08*
EBT	3	4800	2320	.51*	620	.16
EBR	0	0	120		130	
WBL	2	3200	20	.01*	50	.02
WBT	3	4800	430	.11	2230	.51*
WBR	0	0	90		210	
Right Turn Adjustment			NBR	.01*		

TOTAL CAPACITY UTILIZATION .79 .77

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	110	.07	140	.09
NBT	2	3200	140	.04*	310	.10*
NBR	1	1600	90	.06	40	.03
SBL	1	1600	360	.23*	140	.09*
SBT	2	3200	180	.06	170	.05
SBR	1	1600	190	.12	170	.11
EBL	2	3200	360	.11	350	.11*
EBT	3	4800	2310	.51*	760	.19
EBR	0	0	150		140	
WBL	2	3200	20	.01*	50	.02
WBT	3	4800	520	.13	2260	.51*
WBR	0	0	90		210	
Right Turn Adjustment			NBR	.01*		

TOTAL CAPACITY UTILIZATION .80 .81

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	110	.07	140	.09
NBT	2	3200	140	.04*	310	.10*
NBR	1	1600	90	.06	40	.03
SBL	1	1600	360	.23*	140	.09*
SBT	2	3200	180	.06	170	.05
SBR	1	1600	190	.12	170	.11
EBL	2	3200	360	.11	350	.11*
EBT	3	4800	2310	.51*	760	.19
EBR	0	0	150		140	
WBL	2	3200	20	.01*	50	.02
WBT	3	4800	520	.13	2260	.51*
WBR	0	0	90		210	
Right Turn Adjustment			NBR	.01*		

TOTAL CAPACITY UTILIZATION .80 .81

73. Sakioka/Flower & Sunflower

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	104	.07	140	.09
NBT	2	3200	140	.04*	308	.10*
NBR	1	1600	92	.06	40	.03
SBL	1	1600	380	.24*	140	.09*
SBT	2	3200	189	.06	170	.05
SBR	1	1600	172	.11	179	.11
EBL	2	3200	435	.14	346	.11*
EBT	3	4800	2308	.51*	754	.19
EBR	0	0	139		146	
WBL	2	3200	20	.01*	51	.02
WBT	3	4800	489	.12	2250	.51*
WBR	0	0	90		220	
Right Turn Adjustment			NBR	.01*		
TOTAL CAPACITY UTILIZATION				.81		.81

73. Sakioka/Flower & Sunflower

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	110	.07	140	.09
NBT	2	3200	140	.04*	280	.09*
NBR	1	1600	90	.06	40	.03
SBL	1	1600	380	.24*	140	.09*
SBT	2	3200	170	.05	170	.05
SBR	1	1600	140	.09	190	.12
EBL	2	3200	460	.14	290	.09*
EBT	3	4800	2290	.50*	640	.16
EBR	0	0	130		150	
WBL	2	3200	20	.01*	50	.02
WBT	3	4800	420	.11	2220	.51*
WBR	0	0	90		210	
Right Turn Adjustment			NBR	.01*		
TOTAL CAPACITY UTILIZATION			.80		.78	

74. Anton & Sunflower

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	10	.01*	10	.01*
NBT	0	0	0		0	
NBR	2	3200	220	.07	480	.15
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	1240	.26*	680	.14
EBR	0	0	10		10	
WBL	1	1600	220	.14*	180	.11
WBT	3	4800	560	.12	1700	.35*
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				.41		.36

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	30	.02*	180	.11*
NBT	0	0	0		0	
NBR	2	3200	740	.23	760	.24
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2340	.53*	670	.16
EBR	0	0	210		100	
WBL	2	3200	340	.11*	830	.26
WBT	3	4800	460	.10	2250	.47*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.13*		
TOTAL CAPACITY UTILIZATION				.79		.58

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	30	.02*	180	.11*
NBT	0	0	0		0	
NBR	2	3200	760	.24	810	.25
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2300	.53*	810	.19
EBR	0	0	250		100	
WBL	2	3200	400	.13*	820	.26
WBT	3	4800	550	.11	2280	.48*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.12*		
TOTAL CAPACITY UTILIZATION				.80		.59

74. Anton & Sunflower

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	30	.02*	180	.11*
NBT	0	0	0		0	
NBR	2	3200	780	.24	760	.24
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2320	.53*	640	.15
EBR	0	0	210		100	
WBL	2	3200	340	.11*	840	.26
WBT	3	4800	480	.10	2230	.46*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.14*		

TOTAL CAPACITY UTILIZATION .80 .57

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	30	.02*	180	.11*
NBT	0	0	0		0	
NBR	2	3200	780	.24	760	.24
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2320	.53*	640	.15
EBR	0	0	210		100	
WBL	2	3200	340	.11*	840	.26
WBT	3	4800	480	.10	2230	.46*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.14*		

TOTAL CAPACITY UTILIZATION .80 .57

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	30	.02*	180	.11*
NBT	0	0	0		0	
NBR	2	3200	800	.25	810	.25
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2280	.53*	780	.18
EBR	0	0	250		100	
WBL	2	3200	400	.13*	830	.26
WBT	3	4800	570	.12	2260	.47*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.13*		

TOTAL CAPACITY UTILIZATION .81 .58

2u20 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	30	.02*	180	.11*
NBT	0	0	0		0	
NBR	2	3200	800	.25	810	.25
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2280	.53*	780	.18
EBR	0	0	250		100	
WBL	2	3200	400	.13*	830	.26
WBT	3	4800	570	.12	2260	.47*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.13*		

TOTAL CAPACITY UTILIZATION .81 .58

74. Anton & Sunflower

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	30	.02*	179	.11*
NBT	0	0	0		0	
NBR	2	3200	761	.24	797	.25
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2291	.53*	785	.18
EBR	0	0	249		99	
WBL	2	3200	395	.12*	815	.25
WBT	3	4800	529	.11	2272	.47*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.13*		
TOTAL CAPACITY UTILIZATION				.80		.58

74. Anton & Sunflower

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	30	.02*	180	.11*
NBT	0	0	0		0	
NBR	2	3200	760	.24	750	.23
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	2300	.53*	670	.16
EBR	0	0	230		100	
WBL	2	3200	350	.11*	830	.26
WBT	3	4800	460	.10	2250	.47*
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.14*		
TOTAL CAPACITY UTILIZATION				.80		.58

75. Bristol & Town Center Dr

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	90	.03*	210	.07
NBT	3	4800	1010	.21	2340	.49*
NBR	1	1600	280	.18	70	.04
SBL	2	3200	30	.01	30	.01*
SBT	3	4800	1630	.34*	1310	.27
SBR	1	1600	20	.01	200	.13
EBL	1	1600	10	.01	110	.07
EBT	1	1600	10	.01*	10	.01*
EBR	1	1600	40	.03	240	.15
WBL	1	1600	50	.03*	250	.16*
WBT	1	1600	10	.01	30	.02
WBR	1	1600	10	.01	50	.03
TOTAL CAPACITY UTILIZATION			.41		.67	

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	120	.04*	230	.07
NBT	3	4800	1420	.30	2580	.54*
NBR	1	1600	300	.19	100	.06
SBL	2	3200	110	.03	30	.01*
SBT	3	4800	2190	.46*	2010	.42
SBR	1	1600	20	.01	170	.11
EBL	1	1600	10	.01	100	.06
EBT	1	1600	20	.01*	10	.01*
EBR	1	1600	40	.03	210	.13
WBL	2	3200	60	.02*	460	.14*
WBT	1	1600	10	.01	50	.03
WBR	1	1600	20	.01	80	.05
Right Turn Adjustment					EBR	.02*
TOTAL CAPACITY UTILIZATION			.53		.72	

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	120	.04*	280	.09
NBT	3	4800	1450	.30	2660	.55*
NBR	1	1600	270	.17	80	.05
SBL	2	3200	60	.02	10	.00
SBT	3	4800	2230	.46*	1870	.39
SBR	1	1600	20	.01	150	.09
EBL	1	1600	10	.01	80	.05
EBT	1	1600	20	.01*	10	.01*
EBR	1	1600	40	.03	210	.13
WBL	2	3200	70	.02*	600	.19*
WBT	1	1600	10	.01	40	.03
WBR	1	1600	20	.01	60	.04
TOTAL CAPACITY UTILIZATION			.53		.75	

75. Bristol & Town Center Dr

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04*	230	.07
NBT	3	4800	1430	.30	2580	.54*
NBR	1	1600	310	.19	100	.06
SBL	2	3200	120	.04	30	.01*
SBT	3	4800	2160	.45*	2020	.42
SBR	1	1600	20	.01	170	.11
EBL	1	1600	10	.01	100	.06
EBT	1	1600	10	.01*	10	.01*
EBR	1	1600	40	.03	210	.13
WBL	2	3200	60	.02*	480	.15*
WBT	1	1600	10	.01	50	.03
WBR	1	1600	20	.01	80	.05
Right Turn Adjustment					EBR	.02*

TOTAL CAPACITY UTILIZATION .52 .73

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04*	230	.07
NBT	3	4800	1430	.30	2580	.54*
NBR	1	1600	310	.19	100	.06
SBL	2	3200	120	.04	30	.01*
SBT	3	4800	2160	.45*	2020	.42
SBR	1	1600	20	.01	170	.11
EBL	1	1600	10	.01	100	.06
EBT	1	1600	10	.01*	10	.01*
EBR	1	1600	40	.03	210	.13
WBL	2	3200	60	.02*	480	.15*
WBT	1	1600	10	.01	50	.03
WBR	1	1600	20	.01	80	.05
Right Turn Adjustment					EBR	.02*

TOTAL CAPACITY UTILIZATION .52 .73

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04*	280	.09
NBT	3	4800	1460	.30	2660	.55*
NBR	1	1600	280	.18	80	.05
SBL	2	3200	70	.02	10	.00
SBT	3	4800	2200	.46*	1880	.39
SBR	1	1600	20	.01	150	.09
EBL	1	1600	10	.01	80	.05
EBT	1	1600	10	.01*	10	.01*
EBR	1	1600	40	.03	210	.13
WBL	2	3200	70	.02*	620	.19*
WBT	1	1600	10	.01	40	.03
WBR	1	1600	20	.01	60	.04

TOTAL CAPACITY UTILIZATION .53 .75

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04*	280	.09
NBT	3	4800	1460	.30	2660	.55*
NBR	1	1600	280	.18	80	.05
SBL	2	3200	70	.02	10	.00
SBT	3	4800	2200	.46*	1880	.39
SBR	1	1600	20	.01	150	.09
EBL	1	1600	10	.01	80	.05
EBT	1	1600	10	.01*	10	.01*
EBR	1	1600	40	.03	210	.13
WBL	2	3200	70	.02*	620	.19*
WBT	1	1600	10	.01	40	.03
WBR	1	1600	20	.01	60	.04

TOTAL CAPACITY UTILIZATION .53 .75

75. Bristol & Town Center Dr

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	120	.04*	280	.09
NBT	3	4800	1450	.30	2659	.55*
NBR	1	1600	228	.14	71	.04
SBL	2	3200	42	.01	8	.00
SBT	3	4800	2213	.46*	1871	.39
SBR	1	1600	20	.01	150	.09
EBL	1	1600	10	.01	80	.05
EBT	1	1600	19	.01*	10	.01*
EBR	1	1600	40	.03	210	.13
WBL	2	3200	65	.02*	553	.17*
WBT	1	1600	10	.01	33	.02
WBR	1	1600	18	.01	43	.03
TOTAL CAPACITY UTILIZATION				.53	.73	

75. Bristol & Town Center Dr

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	110	.03*	270	.08
NBT	3	4800	1450	.30	2630	.55*
NBR	1	1600	190	.12	70	.04
SBL	2	3200	40	.01	10	.00
SBT	3	4800	2220	.46*	2020	.42
SBR	1	1600	30	.02	160	.10
EBL	1	1600	10	.01	80	.05
EBT	1	1600	10	.01*	10	.01*
EBR	1	1600	40	.03	190	.12
WBL	2	3200	60	.02*	500	.16*
WBT	1	1600	10	.01	40	.03
WBR	1	1600	20	.01	80	.05
Right Turn Adjustment					EBR	.01*
TOTAL CAPACITY UTILIZATION				.52		.73

76. Ave of Arts & Town Center

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	100	.06	280	.18*
NBT	2	3200	780	.25*	360	.14
NBR	0	0	10		100	
SBL	1	1600	90	.06*	10	.01
SBT	2	3200	150	.05	20	.01*
SBR	0	0	0		0	
EBL	1	1600	0	.00	0	.00
EBT	1	1600	230	.23*	290	.22
EBR	0	0	140		60	
WBL	1	1600	10	.01*	0	.00
WBT	1	1600	20	.07	470	.31*
WBR	0	0	90		20	

TOTAL CAPACITY UTILIZATION .55 .50

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	170	.11	290	.18
NBT	2	3200	740	.26*	410	.18*
NBR	0	0	80		170	
SBL	1	1600	190	.12*	150	.09*
SBT	2	3200	380	.12	50	.02
SBR	0	0	10		0	
EBL	1	1600	0	.00	0	.00
EBT	1	1600	0	.00	0	.00
EBR	0	0	0		0	
WBL	1	1600	10	.01	10	.01
WBT	1	1600	30	.08*	380	.26*
WBR	0	0	90		40	

TOTAL CAPACITY UTILIZATION .46 .53

76. Ave of Arts & Town Center

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	110	.07	290	.18*
NBT	2	3200	750	.23*	370	.15
NBR	0	0	0		100	
SBL	1	1600	120	.08*	10	.01
SBT	2	3200	160	.05	10	.00*
SBR	0	0	-10		0	
EBL	1	1600	0	.00	0	.00
EBT	1	1600	230	.23*	290	.22
EBR	0	0	140		60	
WBL	1	1600	10	.01*	0	.00
WBT	1	1600	20	.07	520	.33*
WBR	0	0	90		10	

TOTAL CAPACITY UTILIZATION .55 .51

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	110	.07	290	.18*
NBT	2	3200	750	.23*	370	.15
NBR	0	0	0		100	
SBL	1	1600	120	.08*	10	.01
SBT	2	3200	160	.05	10	.00*
SBR	0	0	-10		0	
EBL	1	1600	0	.00	0	.00
EBT	1	1600	230	.23*	290	.22
EBR	0	0	140		60	
WBL	1	1600	10	.01*	0	.00
WBT	1	1600	20	.07	520	.33*
WBR	0	0	90		10	

TOTAL CAPACITY UTILIZATION .55 .51

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	180	.11	300	.19
NBT	2	3200	710	.24*	420	.18*
NBR	0	0	70		170	
SBL	1	1600	220	.14*	150	.09*
SBT	2	3200	390	.12	40	.01
SBR	0	0	0		0	
EBL	1	1600	0	.00	0	.00
EBT	1	1600	0	.00	0	.00
EBR	0	0	0		0	
WBL	1	1600	10	.01	10	.01
WBT	1	1600	30	.08*	430	.29*
WBR	0	0	90		30	

TOTAL CAPACITY UTILIZATION .46 .56

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	180	.11	300	.19
NBT	2	3200	710	.24*	420	.18*
NBR	0	0	70		170	
SBL	1	1600	220	.14*	150	.09*
SBT	2	3200	390	.12	40	.01
SBR	0	0	0		0	
EBL	1	1600	0	.00	0	.00
EBT	1	1600	0	.00	0	.00
EBR	0	0	0		0	
WBL	1	1600	10	.01	10	.01
WBT	1	1600	30	.08*	430	.29*
WBR	0	0	90		30	

TOTAL CAPACITY UTILIZATION .46 .56

76. Ave of Arts & Town Center

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	151	.09	279	.17
NBT	2	3200	731	.25*	393	.18*
NBR	0	0	80		170	
SBL	1	1600	190	.12*	147	.09*
SBT	2	3200	349	.11	49	.02
SBR	0	0	10		0	
EBL	1	1600	0	.00	0	.00
EBT	1	1600	0	.00	0	.00
EBR	0	0	0		0	
WBL	1	1600	9	.01	10	.01
WBT	1	1600	24	.07*	380	.26*
WBR	0	0	90		40	
TOTAL CAPACITY UTILIZATION				.44	.53	

77. Park Center & Anton

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	20	.01*	150	.05*
NBT	1	1600	10	.01	10	.03
NBR	0	0	10		40	
SBL	1	1600	10	.01	30	.02
SBT	0.5	3200	10	{.01}*	10	{.01}*
SBR	1.5		60		170	
EBL	1	1600	230	.14	300	.19*
EBT	3	4800	1150	.27*	460	.11
EBR	0	0	160		60	
WBL	1	1600	10	.01*	40	.03
WBT	3	4800	270	.06	820	.18*
WBR	0	0	20		60	
TOTAL CAPACITY UTILIZATION				.30		.43

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	30	.01*	160	.05*
NBT	1	1600	10	.01	10	.03
NBR	0	0	10		30	
SBL	1	1600	10	.01	20	.01
SBT	0.5	3200	10	{.01}*	10	{.01}*
SBR	1.5		80		180	
EBL	1	1600	250	.16	320	.20*
EBT	3	4800	1440	.34*	610	.14
EBR	0	0	170		80	
WBL	1	1600	10	.01*	30	.02
WBT	3	4800	280	.06	780	.17*
WBR	0	0	10		40	
TOTAL CAPACITY UTILIZATION				.37		.43

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	30	.01	240	.08
NBT	1	1600	10	.02*	10	.07*
NBR	0	0	20		100	
SBL	1	1600	10	.01*	30	.02*
SBT	0.5	3200	10	{.01}	10	{.01}
SBR	1.5		70		180	
EBL	1	1600	240	.15	290	.18*
EBT	3	4800	1650	.40*	690	.15
EBR	0	0	290		30	
WBL	1	1600	40	.03*	20	.01
WBT	3	4800	300	.06	940	.21*
WBR	0	0	10		70	
TOTAL CAPACITY UTILIZATION				.46		.48

77. Park Center & Anton

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	20	.01*	120	.04*
NBT	1	1600	10	.01	10	{.01}
NBR	0	0	0		-30	
SBL	1	1600	10	.01	20	.01
SBT	0.5	3200	10	{.01}*	10	{.01}*
SBR	1.5		80		190	
EBL	1	1600	250	.16	330	.21*
EBT	3	4800	1440	.32*	650	.15
EBR	0	0	80		80	
WBL	1	1600	-20	.03*	30	.02
WBT	3	4800	290	.06	780	.17*
WBR	0	0	10		30	

TOTAL CAPACITY UTILIZATION .37 .43

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	20	.01*	120	.04*
NBT	1	1600	10	.01	10	{.01}
NBR	0	0	0		-30	
SBL	1	1600	10	.01	20	.01
SBT	0.5	3200	10	{.01}*	10	{.01}*
SBR	1.5		80		190	
EBL	1	1600	250	.16	330	.21*
EBT	3	4800	1440	.32*	650	.15
EBR	0	0	80		80	
WBL	1	1600	-20	.03*	30	.02
WBT	3	4800	290	.06	780	.17*
WBR	0	0	10		30	

TOTAL CAPACITY UTILIZATION .37 .43

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	20	.01*	200	.06*
NBT	1	1600	10	.01	10	.03
NBR	0	0	10		40	
SBL	1	1600	10	.01	30	.02
SBT	0.5	3200	10	{.01}*	10	{.01}*
SBR	1.5		70		190	
EBL	1	1600	240	.15	300	.19*
EBT	3	4800	1650	.39*	730	.16
EBR	0	0	200		30	
WBL	1	1600	10	.01*	20	.01
WBT	3	4800	310	.07	940	.21*
WBR	0	0	10		60	

TOTAL CAPACITY UTILIZATION .42 .47

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	20	.01*	200	.06*
NBT	1	1600	10	.01	10	.03
NBR	0	0	10		40	
SBL	1	1600	10	.01	30	.02
SBT	0.5	3200	10	{.01}*	10	{.01}*
SBR	1.5		70		190	
EBL	1	1600	240	.15	300	.19*
EBT	3	4800	1650	.39*	730	.16
EBR	0	0	200		30	
WBL	1	1600	10	.01*	20	.01
WBT	3	4800	310	.07	940	.21*
WBR	0	0	10		60	

TOTAL CAPACITY UTILIZATION .42 .47

77. Park Center & Anton

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	23	.01	213	.07*
NBT	1	1600	10	.02*	10	.06
NBR	0	0	15		80	
SBL	1	1600	10	.01*	30	.02
SBT	0.5	3200	10	{.01}	10	{.01}*
SBR	1.5		70		180	
EBL	1	1600	240	.15	290	.18*
EBT	3	4800	1584	.38*	684	.15
EBR	0	0	259		31	
WBL	1	1600	28	.02*	20	.01
WBT	3	4800	297	.06	899	.20*
WBR	0	0	10		70	
TOTAL CAPACITY UTILIZATION				.43		.46

77. Park Center & Anton

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	30	.01*	160	.05*
NBT	1	1600	10	.01	10	.03
NBR	0	0	10		30	
SBL	1	1600	10	.01	20	.01
SBT	0.5	3200	10	{.01}*	10	{.01}*
SBR	1.5		70		180	
EBL	1	1600	250	.16	320	.20*
EBT	3	4800	1580	.36*	680	.16
EBR	0	0	170		70	
WBL	1	1600	10	.01*	30	.02
WBT	3	4800	280	.06	780	.17*
WBR	0	0	10		40	
TOTAL CAPACITY UTILIZATION				.39		.43

78. Ave of the Arts & Anton

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	20	.01*	290	.18*
NBT	2	3200	10	.00	110	.03
NBR	1	1600	10	.01	130	.08
SBL	1	1600	20	.01	20	.01
SBT	2	3200	70	.04*	10	.01*
SBR	0	0	60		140	.09
EBL	1	1600	40	.03	110	.07*
EBT	3	4800	480	.15*	350	.09
EBR	0	0	410	.26	80	
WBL	1	1600	80	.05*	20	.01
WBT	3	4800	250	.06	490	.11*
WBR	0	0	20		50	
Right Turn Adjustment			EBR	.10*	SBR	.03*
TOTAL CAPACITY UTILIZATION				.35		.40

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	70	.04	260	.16*
NBT	2	3200	770	.24*	340	.11
NBR	1	1600	410	.26	320	.20
SBL	1	1600	100	.06*	30	.02
SBT	2	3200	50	.02	10	.00*
SBR	1	1600	10	.01	110	.07
EBL	1	1600	50	.03	80	.05*
EBT	3	4800	1090	.29*	510	.12
EBR	0	0	300		70	
WBL	1	1600	180	.11*	30	.02
WBT	3	4800	270	.07	490	.12*
WBR	0	0	60		70	
Right Turn Adjustment					Multi	.05*
TOTAL CAPACITY UTILIZATION				.70		.38

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	120	.08	370	.23*
NBT	2	3200	800	.25*	430	.13
NBR	1	1600	440	.28	410	.26
SBL	1	1600	80	.05*	10	.01
SBT	2	3200	120	.04	10	.00*
SBR	1	1600	10	.01	100	.06
EBL	1	1600	100	.06	120	.08*
EBT	3	4800	1050	.32*	580	.14
EBR	0	0	500		110	
WBL	1	1600	230	.14*	30	.02
WBT	3	4800	290	.07	490	.12*
WBR	0	0	60		70	
TOTAL CAPACITY UTILIZATION				.76		.43

78. Ave of the Arts & Anton

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	60	.04	260	.16*
NBT	2	3200	800	.25*	340	.11
NBR	1	1600	410	.26	310	.19
SBL	1	1600	90	.06*	30	.02
SBT	2	3200	50	.02	10	.00*
SBR	1	1600	20	.01	100	.06
EBL	1	1600	40	.03	70	.04*
EBT	3	4800	1100	.29*	500	.12
EBR	0	0	290		70	
WBL	1	1600	180	.11*	30	.02
WBT	3	4800	270	.07	460	.11*
WBR	0	0	60		70	
Right Turn Adjustment					Multi	.06*
TOTAL CAPACITY UTILIZATION			.71		.37	

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	60	.04	260	.16*
NBT	2	3200	800	.25*	340	.11
NBR	1	1600	410	.26	310	.19
SBL	1	1600	90	.06*	30	.02
SBT	2	3200	50	.02	10	.00*
SBR	1	1600	20	.01	100	.06
EBL	1	1600	40	.03	70	.04*
EBT	3	4800	1100	.29*	500	.12
EBR	0	0	290		70	
WBL	1	1600	180	.11*	30	.02
WBT	3	4800	270	.07	460	.11*
WBR	0	0	60		70	
Right Turn Adjustment					Multi	.06*
TOTAL CAPACITY UTILIZATION			.71		.37	

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	370	.23*
NBT	2	3200	830	.26*	430	.13
NBR	1	1600	440	.28	400	.25
SBL	1	1600	70	.04*	10	.01
SBT	2	3200	120	.04	10	.00*
SBR	1	1600	20	.01	90	.06
EBL	1	1600	90	.06	110	.07*
EBT	3	4800	1060	.32*	570	.14
EBR	0	0	490		110	
WBL	1	1600	230	.14*	30	.02
WBT	3	4800	290	.07	460	.11*
WBR	0	0	60		70	
Right Turn Adjustment					SBR	.01*
TOTAL CAPACITY UTILIZATION			.76		.42	

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	370	.23*
NBT	2	3200	830	.26*	430	.13
NBR	1	1600	440	.28	400	.25
SBL	1	1600	70	.04*	10	.01
SBT	2	3200	120	.04	10	.00*
SBR	1	1600	20	.01	90	.06
EBL	1	1600	90	.06	110	.07*
EBT	3	4800	1060	.32*	570	.14
EBR	0	0	490		110	
WBL	1	1600	230	.14*	30	.02
WBT	3	4800	290	.07	460	.11*
WBR	0	0	60		70	
Right Turn Adjustment					SBR	.01*
TOTAL CAPACITY UTILIZATION			.76		.42	

78. Ave of the Arts & Anton

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	115	.07	329	.21*
NBT	2	3200	779	.24*	398	.12
NBR	1	1600	433	.27	365	.23
SBL	1	1600	80	.05*	10	.01
SBT	2	3200	87	.03	8	.00*
SBR	1	1600	11	.01	100	.06
EBL	1	1600	93	.06	115	.07*
EBT	3	4800	1052	.31*	565	.14
EBR	0	0	435		104	
WBL	1	1600	211	.13*	25	.02
WBT	3	4800	289	.07	490	.12*
WBR	0	0	60		69	
Right Turn Adjustment					SBR	.01*
TOTAL CAPACITY UTILIZATION			.73		.41	

78. Ave of the Arts & Anton

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	PK HOUR V/C	PM PK HOUR VOL	PK HOUR V/C
NBL	1	1600	70	.04	270	.17*
NBT	2	3200	760	.24*	340	.11
NBR	1	1600	410	.26	310	.19
SBL	1	1600	50	.03*	10	.01
SBT	2	3200	60	.02	10	.00*
SBR	1	1600	10	.01	100	.06
EBL	1	1600	90	.06	100	.06*
EBT	3	4800	1150	.30*	550	.13
EBR	0	0	300		80	
WBL	1	1600	170	.11*	20	.01
WBT	3	4800	260	.07	500	.12*
WBR	0	0	60		70	
Right Turn Adjustment					SBR	.01*
TOTAL CAPACITY UTILIZATION				.68		.36

79. Sakioka Dr & Anton

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	30	.02*	250	.16*
NBT	2	3200	10	.00	90	.03
NBR	1	1600	10	.01	140	.09
SBL	1	1600	20	.01	20	.01
SBT	2	3200	80	.03*	10	.00*
SBR	1	1600	170	.11	170	.11
EBL	1	1600	40	.03	190	.12*
EBT	2	3200	130	.04*	340	.11
EBR	1	1600	320	.20	30	.02
WBL	1	1600	120	.08*	20	.01
WBT	2	3200	140	.04	150	.05*
WBR	d	1600	10	.01	10	.01
Right Turn Adjustment			Multi	.16*	SBR	.02*
TOTAL CAPACITY UTILIZATION				.33		.35

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	20	.01	210	.13*
NBT	2	3200	20	.01*	90	.03
NBR	1	1600	20	.01	340	.21
SBL	1	1600	140	.09*	120	.08
SBT	2	3200	110	.03	20	.01*
SBR	1	1600	250	.16	290	.18
EBL	1	1600	120	.08	410	.26*
EBT	2	3200	950	.30*	780	.24
EBR	1	1600	450	.28	40	.03
WBL	1	1600	130	.08*	20	.01
WBT	2	3200	150	.05	320	.10*
WBR	d	1600	30	.02	110	.07
Right Turn Adjustment					NBR	.06*
TOTAL CAPACITY UTILIZATION				.48		.56

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	30	.02	200	.13*
NBT	2	3200	20	.01*	100	.03
NBR	1	1600	20	.01	340	.21
SBL	1	1600	160	.10*	130	.08
SBT	2	3200	130	.04	20	.01*
SBR	1	1600	280	.18	290	.18
EBL	1	1600	100	.06	430	.27*
EBT	2	3200	910	.28*	850	.27
EBR	1	1600	400	.25	40	.03
WBL	1	1600	160	.10*	20	.01
WBT	2	3200	180	.06	300	.09*
WBR	d	1600	30	.02	110	.07
Right Turn Adjustment					NBR	.08*
TOTAL CAPACITY UTILIZATION				.49		.58

79. Sakioka Dr & Anton

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	20	.01	220	.14*
NBT	2	3200	20	.01*	90	.03
NBR	1	1600	20	.01	340	.21
SBL	1	1600	150	.09*	120	.08
SBT	2	3200	110	.03	20	.01*
SBR	1	1600	250	.16	280	.18
EBL	1	1600	120	.08	420	.26*
EBT	2	3200	990	.31*	810	.25
EBR	1	1600	450	.28	40	.03
WBL	1	1600	130	.08*	20	.01
WBT	2	3200	160	.05	340	.11*
WBR	d	1600	30	.02	110	.07
Right Turn Adjustment					NBR	.05*
TOTAL CAPACITY UTILIZATION			.49		.57	

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	20	.01	220	.14*
NBT	2	3200	20	.01*	90	.03
NBR	1	1600	20	.01	340	.21
SBL	1	1600	150	.09*	120	.08
SBT	2	3200	110	.03	20	.01*
SBR	1	1600	250	.16	280	.18
EBL	1	1600	120	.08	420	.26*
EBT	2	3200	990	.31*	810	.25
EBR	1	1600	450	.28	40	.03
WBL	1	1600	130	.08*	20	.01
WBT	2	3200	160	.05	340	.11*
WBR	d	1600	30	.02	110	.07
Right Turn Adjustment					NBR	.05*
TOTAL CAPACITY UTILIZATION			.49		.57	

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	30	.02	210	.13*
NBT	2	3200	20	.01*	100	.03
NBR	1	1600	20	.01	340	.21
SBL	1	1600	170	.11*	130	.08
SBT	2	3200	130	.04	20	.01*
SBR	1	1600	280	.18	280	.18
EBL	1	1600	100	.06	440	.28*
EBT	2	3200	950	.30*	880	.28
EBR	1	1600	400	.25	40	.03
WBL	1	1600	160	.10*	20	.01
WBT	2	3200	190	.06	320	.10*
WBR	d	1600	30	.02	110	.07
Right Turn Adjustment					NBR	.07*
TOTAL CAPACITY UTILIZATION			.52		.59	

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	30	.02	210	.13*
NBT	2	3200	20	.01*	100	.03
NBR	1	1600	20	.01	340	.21
SBL	1	1600	170	.11*	130	.08
SBT	2	3200	130	.04	20	.01*
SBR	1	1600	280	.18	280	.18
EBL	1	1600	100	.06	440	.28*
EBT	2	3200	950	.30*	880	.28
EBR	1	1600	400	.25	40	.03
WBL	1	1600	160	.10*	20	.01
WBT	2	3200	190	.06	320	.10*
WBR	d	1600	30	.02	110	.07
Right Turn Adjustment					NBR	.07*
TOTAL CAPACITY UTILIZATION			.52		.59	

79. Sakioka Dr & Anton

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	30	.02	199	.12*
NBT	2	3200	20	.01*	100	.03
NBR	1	1600	20	.01	340	.21
SBL	1	1600	160	.10*	130	.08
SBT	2	3200	129	.04	18	.01*
SBR	1	1600	278	.17	289	.18
EBL	1	1600	100	.06	428	.27*
EBT	2	3200	906	.28*	825	.26
EBR	1	1600	398	.25	39	.02
WBL	1	1600	160	.10*	20	.01
WBT	2	3200	172	.05	295	.09*
WBR	d	1600	30	.02	110	.07
Right Turn Adjustment					NBR	.08*
TOTAL CAPACITY UTILIZATION			.49		.57	

79. Sakioka Dr & Anton

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	20	.01	210	.13*
NBT	2	3200	20	.01*	90	.03
NBR	1	1600	20	.01	350	.22
SBL	1	1600	160	.10*	120	.08
SBT	2	3200	140	.04	20	.01*
SBR	1	1600	260	.16	310	.19
EBL	1	1600	110	.07	400	.25*
EBT	2	3200	930	.29*	750	.23
EBR	1	1600	420	.26	40	.03
WBL	1	1600	130	.08*	20	.01
WBT	2	3200	150	.05	310	.10*
WBR	d	1600	30	.02	110	.07
Right Turn Adjustment					NBR	.07*
TOTAL CAPACITY UTILIZATION				.48		.56

80. I-405 SB On-Ramp & Anton

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	40	.01*	230	.07*
NBT	0	0	0		0	
NBR	1	1600	30	.02	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	680	.14*	600	.13*
EBR	1	1600	360	.23	560	.35
WBL	2	3200	210	.07*	950	.30*
WBT	3	4800	300	.06	410	.09
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.08*	EBR	.17*
TOTAL CAPACITY UTILIZATION				.30		.67

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	40	.01*	230	.07*
NBT	0	0	0		0	
NBR	1	1600	30	.02	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	660	.14*	640	.13*
EBR	1	1600	350	.22	600	.38
WBL	2	3200	220	.07*	940	.29*
WBT	3	4800	360	.08	400	.08
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.07*	EBR	.20*
TOTAL CAPACITY UTILIZATION				.29		.69

80. I-405 SB On-Ramp & Anton

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	50	.02*	230	.07*
NBT	0	0	0		0	
NBR	1	1600	30	.02	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	730	.15*	610	.13*
EBR	1	1600	360	.23	580	.36
WBL	2	3200	200	.06*	940	.29*
WBT	3	4800	300	.06	420	.09
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.06*	EBR	.18*

TOTAL CAPACITY UTILIZATION .29 .67

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	50	.02*	230	.07*
NBT	0	0	0		0	
NBR	1	1600	30	.02	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	730	.15*	610	.13*
EBR	1	1600	360	.23	580	.36
WBL	2	3200	200	.06*	940	.29*
WBT	3	4800	300	.06	420	.09
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.06*	EBR	.18*

TOTAL CAPACITY UTILIZATION .29 .67

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	50	.02*	230	.07*
NBT	0	0	0		0	
NBR	1	1600	30	.02	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	710	.15*	650	.14*
EBR	1	1600	350	.22	620	.39
WBL	2	3200	210	.07*	930	.29*
WBT	3	4800	360	.08	410	.09
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.05*	EBR	.20*

TOTAL CAPACITY UTILIZATION .29 .70

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	50	.02*	230	.07*
NBT	0	0	0		0	
NBR	1	1600	30	.02	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	710	.15*	650	.14*
EBR	1	1600	350	.22	620	.39
WBL	2	3200	210	.07*	930	.29*
WBT	3	4800	360	.08	410	.09
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.05*	EBR	.20*

TOTAL CAPACITY UTILIZATION .29 .70

80. I-405 SB On-Ramp & Anton

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	39	.01*	230	.07*
NBT	0	0	0		0	
NBR	1	1600	30	.02	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	657	.14*	626	.13*
EBR	1	1600	349	.22	590	.37
WBL	2	3200	220	.07*	940	.29*
WBT	3	4800	354	.07	395	.08
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.07*	EBR	.19*
TOTAL CAPACITY UTILIZATION				.29		.68

80. I-405 SB On-Ramp & Anton

2020 w/General Plan & TC Drive Modification						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	40	.01*	230	.07*
NBT	0	0	0		0	
NBR	1	1600	30	.02	130	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	4800	680	.14*	590	.12*
EBR	1	1600	360	.23	550	.34
WBL	2	3200	210	.07*	960	.30*
WBT	3	4800	300	.06	400	.08
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.08*	EBR	.17*
TOTAL CAPACITY UTILIZATION				.30		.66

101. Bristol & Warner

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	100	.06	330	.21
NBT	2	3400	740	.22*	1210	.36*
NBR	1	1700	240	.14	340	.20
SBL	1	1600	250	.16*	210	.13*
SBT	3	5100	910	.18	820	.21
SBR	0	0	20		240	
EBL	1	1600	120	.08	180	.11*
EBT	2	3400	1270	.37*	730	.21
EBR	1	1700	270	.16	170	.10
WBL	1	1600	200	.13*	180	.11
WBT	2	3400	760	.24	1090	.38*
WBR	0	0	70		190	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .93 1.03

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	110	.03	350	.11
NBT	3	5100	800	.16*	1720	.34*
NBR	1	1700	250	.15	360	.21
SBL	2	3200	270	.08*	230	.07*
SBT	3	5100	990	.19	1090	.21
SBR	1	1700	20	.01	260	.15
EBL	2	3200	130	.04	190	.06*
EBT	3	5100	1310	.26*	950	.19
EBR	1	1700	280	.16	180	.11
WBL	2	3200	210	.07*	190	.06
WBT	3	5100	790	.15	1520	.30*
WBR	1	1700	80	.05	200	.12
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .82

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	110	.03	360	.11
NBT	3	5100	800	.16*	1770	.35*
NBR	1	1700	250	.15	360	.21
SBL	2	3200	270	.08*	230	.07*
SBT	3	5100	1040	.20	1090	.21
SBR	1	1700	20	.01	260	.15
EBL	2	3200	130	.04	190	.06*
EBT	3	5100	1310	.26*	950	.19
EBR	1	1700	300	.18	180	.11
WBL	2	3200	210	.07*	190	.06
WBT	3	5100	790	.15	1520	.30*
WBR	1	1700	80	.05	200	.12
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .83

101. Bristol & Warner

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	110	.03	350	.11
NBT	3	5100	800	.16*	1720	.34*
NBR	1	1700	250	.15	360	.21
SBL	2	3200	270	.08*	230	.07*
SBT	3	5100	990	.19	1090	.21
SBR	1	1700	20	.01	260	.15
EBL	2	3200	130	.04	190	.06*
EBT	3	5100	1310	.26*	950	.19
EBR	1	1700	280	.16	180	.11
WBL	2	3200	210	.07*	190	.06
WBT	3	5100	790	.15	1520	.30*
WBR	1	1700	80	.05	200	.12
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .82

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	110	.03	350	.11
NBT	3	5100	800	.16*	1720	.34*
NBR	1	1700	250	.15	360	.21
SBL	2	3200	270	.08*	230	.07*
SBT	3	5100	990	.19	1090	.21
SBR	1	1700	20	.01	260	.15
EBL	2	3200	130	.04	190	.06*
EBT	3	5100	1310	.26*	950	.19
EBR	1	1700	280	.16	180	.11
WBL	2	3200	210	.07*	190	.06
WBT	3	5100	790	.15	1520	.30*
WBR	1	1700	80	.05	200	.12
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .82

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	110	.03	360	.11
NBT	3	5100	800	.16*	1770	.35*
NBR	1	1700	250	.15	360	.21
SBL	2	3200	270	.08*	230	.07*
SBT	3	5100	1040	.20	1090	.21
SBR	1	1700	20	.01	260	.15
EBL	2	3200	130	.04	190	.06*
EBT	3	5100	1310	.26*	950	.19
EBR	1	1700	300	.18	180	.11
WBL	2	3200	210	.07*	190	.06
WBT	3	5100	790	.15	1520	.30*
WBR	1	1700	80	.05	200	.12
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .83

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	110	.03	360	.11
NBT	3	5100	800	.16*	1770	.35*
NBR	1	1700	250	.15	360	.21
SBL	2	3200	270	.08*	230	.07*
SBT	3	5100	1040	.20	1090	.21
SBR	1	1700	20	.01	260	.15
EBL	2	3200	130	.04	190	.06*
EBT	3	5100	1310	.26*	950	.19
EBR	1	1700	300	.18	180	.11
WBL	2	3200	210	.07*	190	.06
WBT	3	5100	790	.15	1520	.30*
WBR	1	1700	80	.05	200	.12
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .83

101. Bristol & Warner

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	110	.03	360	.11
NBT	3	5100	799	.16*	1753	.34*
NBR	1	1700	250	.15	360	.21
SBL	2	3200	270	.08*	230	.07*
SBT	3	5100	1016	.20	1089	.21
SBR	1	1700	20	.01	260	.15
EBL	2	3200	130	.04	190	.06*
EBT	3	5100	1310	.26*	950	.19
EBR	1	1700	300	.18	180	.11
WBL	2	3200	210	.07*	190	.06
WBT	3	5100	790	.15	1520	.30*
WBR	1	1700	80	.05	200	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.62		.82

102. Main & Warner

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	110	.03*	250	.08
NBT	3	5100	460	.12	1260	.32*
NBR	0	0	130		350	
SBL	2	3200	190	.06	160	.05*
SBT	3	5100	910	.20*	760	.22
SBR	0	0	120		350	
EBL	1	1600	210	.13	340	.21*
EBT	2	3400	1050	.31*	770	.23
EBR	1	1700	190	.11	140	.08
WBL	1	1600	210	.13*	270	.17
WBT	2	3400	630	.19	1270	.41*
WBR	0	0	30		110	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		1.04

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	80	.03*	200	.06
NBT	3	5100	590	.12	1620	.32*
NBR	1	1700	210	.12	530	.31
SBL	2	3200	320	.10	280	.09*
SBT	3	5100	1090	.21*	960	.19
SBR	1	1700	90	.05	320	.19
EBL	2	3200	190	.06	320	.10*
EBT	3	5100	1570	.31*	860	.17
EBR	1	1700	150	.09	110	.06
WBL	2	3200	360	.11*	430	.13
WBT	3	5100	800	.16	1470	.29*
WBR	1	1700	60	.04	210	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.71		.85

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	80	.03*	200	.06
NBT	3	5100	600	.12	1640	.32*
NBR	1	1700	210	.12	530	.31
SBL	2	3200	320	.10	280	.09*
SBT	3	5100	1110	.22*	960	.19
SBR	1	1700	90	.05	320	.19
EBL	2	3200	190	.06	320	.10*
EBT	3	5100	1570	.31*	860	.17
EBR	1	1700	150	.09	110	.06
WBL	2	3200	360	.11*	430	.13
WBT	3	5100	800	.16	1470	.29*
WBR	1	1700	60	.04	210	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		.85

102. Main & Warner

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	80	.03*	200	.06
NBT	3	5100	590	.12	1620	.32*
NBR	1	1700	210	.12	530	.31
SBL	2	3200	320	.10	280	.09*
SBT	3	5100	1090	.21*	960	.19
SBR	1	1700	90	.05	320	.19
EBL	2	3200	190	.06	320	.10*
EBT	3	5100	1570	.31*	860	.17
EBR	1	1700	150	.09	110	.06
WBL	2	3200	360	.11*	430	.13
WBT	3	5100	800	.16	1470	.29*
WBR	1	1700	60	.04	210	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.71		.85

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	80	.03*	200	.06
NBT	3	5100	590	.12	1620	.32*
NBR	1	1700	210	.12	530	.31
SBL	2	3200	320	.10	280	.09*
SBT	3	5100	1090	.21*	960	.19
SBR	1	1700	90	.05	320	.19
EBL	2	3200	190	.06	320	.10*
EBT	3	5100	1570	.31*	860	.17
EBR	1	1700	150	.09	110	.06
WBL	2	3200	360	.11*	430	.13
WBT	3	5100	800	.16	1470	.29*
WBR	1	1700	60	.04	210	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.71		.85

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	80	.03*	200	.06
NBT	3	5100	600	.12	1640	.32*
NBR	1	1700	210	.12	530	.31
SBL	2	3200	320	.10	280	.09*
SBT	3	5100	1110	.22*	960	.19
SBR	1	1700	90	.05	320	.19
EBL	2	3200	190	.06	320	.10*
EBT	3	5100	1570	.31*	860	.17
EBR	1	1700	150	.09	110	.06
WBL	2	3200	360	.11*	430	.13
WBT	3	5100	800	.16	1470	.29*
WBR	1	1700	60	.04	210	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		.85

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	80	.03*	200	.06
NBT	3	5100	600	.12	1640	.32*
NBR	1	1700	210	.12	530	.31
SBL	2	3200	320	.10	280	.09*
SBT	3	5100	1110	.22*	960	.19
SBR	1	1700	90	.05	320	.19
EBL	2	3200	190	.06	320	.10*
EBT	3	5100	1570	.31*	860	.17
EBR	1	1700	150	.09	110	.06
WBL	2	3200	360	.11*	430	.13
WBT	3	5100	800	.16	1470	.29*
WBR	1	1700	60	.04	210	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		.85

102. Main & Warner

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	80	.03*	200	.06
NBT	3	5100	597	.12	1630	.32*
NBR	1	1700	210	.12	530	.31
SBL	2	3200	320	.10	280	.09*
SBT	3	5100	1104	.22*	955	.19
SBR	1	1700	90	.05	320	.19
EBL	2	3200	190	.06	320	.10*
EBT	3	5100	1570	.31*	860	.17
EBR	1	1700	150	.09	110	.06
WBL	2	3200	360	.11*	430	.13
WBT	3	5100	800	.16	1470	.29*
WBR	1	1700	60	.04	210	.12
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		.85

103. Bristol & Segerstrom

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	100	.06*	290	.18*
NBT	3	5100	690	.14	1400	.31
NBR	0	0	40		200	
SBL	1	1600	110	.07	110	.07
SBT	3	5100	1100	.23*	950	.22*
SBR	0	0	60		170	
EBL	1	1600	210	.13	120	.08*
EBT	2	3400	640	.23*	530	.18
EBR	0	0	130		70	
WBL	1	1600	130	.08*	140	.09
WBT	2	3400	380	.13	990	.31*
WBR	0	0	60		60	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .65 .84

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	310	.10*	300	.09
NBT	3	5100	740	.15	2290	.45*
NBR	1	1700	50	.03	230	.14
SBL	2	3200	130	.04	230	.07*
SBT	3	5100	1770	.35*	1200	.24
SBR	1	1700	70	.04	190	.11
EBL	2	3200	230	.07*	230	.07*
EBT	4	6800	850	.13	820	.12
EBR	1	1700	140	.08	70	.04
WBL	2	3200	150	.05	160	.05
WBT	3	5100	750	.15*	1870	.37*
WBR	1	1700	70	.04	70	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .72 1.01

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	310	.10*	310	.10
NBT	3	5100	740	.15	2350	.46*
NBR	1	1700	50	.03	230	.14
SBL	2	3200	130	.04	230	.07*
SBT	3	5100	1840	.36*	1200	.24
SBR	1	1700	70	.04	190	.11
EBL	2	3200	230	.07*	230	.07*
EBT	4	6800	850	.13	820	.12
EBR	1	1700	170	.10	70	.04
WBL	2	3200	150	.05	160	.05
WBT	3	5100	750	.15*	1870	.37*
WBR	1	1700	70	.04	70	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .73 1.02

2020 with Project with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	310	.10*	310	.10
NBT	3	5100	740	.15	2350	.46*
NBR	1	1700	50	.03	230	.14
SBL	2	3200	130	.04	230	.07*
SBT	3	5100	1840	.36*	1200	.24
SBR	1	1700	70	.04	190	.11
EBL	2	3200	230	.07*	230	.07*
EBT	4	6800	850	.13	820	.12
EBR	1	1700	170	.10	70	.04
WBL	2	3200	150	.05	160	.05
WBT	4	6800	750	.11*	1870	.28*
WBR	1	1700	70	.04	70	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .69 .93

103. Bristol & Segerstrom

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	310	.10*	300	.09
NBT	3	5100	740	.15	2290	.45*
NBR	1	1700	50	.03	230	.14
SBL	2	3200	130	.04	230	.07*
SBT	3	5100	1770	.35*	1200	.24
SBR	1	1700	70	.04	190	.11
EBL	2	3200	230	.07*	230	.07*
EBT	4	6800	850	.13	820	.12
EBR	1	1700	140	.08	70	.04
WBL	2	3200	150	.05	160	.05
WBT	3	5100	750	.15*	1870	.37*
WBR	1	1700	70	.04	70	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .72 1.01

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	310	.10*	300	.09
NBT	3	5100	740	.15	2290	.45*
NBR	1	1700	50	.03	230	.14
SBL	2	3200	130	.04	230	.07*
SBT	3	5100	1770	.35*	1200	.24
SBR	1	1700	70	.04	190	.11
EBL	2	3200	230	.07*	230	.07*
EBT	4	6800	850	.13	820	.12
EBR	1	1700	140	.08	70	.04
WBL	2	3200	150	.05	160	.05
WBT	3	5100	750	.15*	1870	.37*
WBR	1	1700	70	.04	70	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .72 1.01

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	310	.10*	310	.10
NBT	3	5100	740	.15	2350	.46*
NBR	1	1700	50	.03	230	.14
SBL	2	3200	130	.04	230	.07*
SBT	3	5100	1840	.36*	1200	.24
SBR	1	1700	70	.04	190	.11
EBL	2	3200	230	.07*	230	.07*
EBT	4	6800	850	.13	820	.12
EBR	1	1700	170	.10	70	.04
WBL	2	3200	150	.05	160	.05
WBT	3	5100	750	.15*	1870	.37*
WBR	1	1700	70	.04	70	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .73 1.02

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	310	.10*	310	.10
NBT	3	5100	740	.15	2350	.46*
NBR	1	1700	50	.03	230	.14
SBL	2	3200	130	.04	230	.07*
SBT	3	5100	1840	.36*	1200	.24
SBR	1	1700	70	.04	190	.11
EBL	2	3200	230	.07*	230	.07*
EBT	4	6800	850	.13	820	.12
EBR	1	1700	170	.10	70	.04
WBL	2	3200	150	.05	160	.05
WBT	4	6800	750	.11*	1870	.28*
WBR	1	1700	70	.04	70	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .69 .93

103. Bristol & Segerstrom

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	310	.10*	310	.10
NBT	3	5100	739	.14	2333	.46*
NBR	1	1700	50	.03	230	.14
SBL	2	3200	130	.04	230	.07*
SBT	3	5100	1816	.36*	1199	.24
SBR	1	1700	70	.04	190	.11
EBL	2	3200	230	.07*	230	.07*
EBT	4	6800	850	.13	820	.12
EBR	1	1700	170	.10	70	.04
WBL	2	3200	150	.05	160	.05
WBT	3	5100	750	.15*	1870	.37*
WBR	1	1700	70	.04	70	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .73 1.02

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	310	.10*	310	.10
NBT	3	5100	739	.14	2333	.46*
NBR	1	1700	50	.03	230	.14
SBL	2	3200	130	.04	230	.07*
SBT	3	5100	1816	.36*	1199	.24
SBR	1	1700	70	.04	190	.11
EBL	2	3200	230	.07*	230	.07*
EBT	4	6800	850	.13	820	.12
EBR	1	1700	170	.10	70	.04
WBL	2	3200	150	.05	160	.05
WBT	4	6800	750	.11*	1870	.28*
WBR	1	1700	70	.04	70	.04
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .69 .93

104. Main & Dyer

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	80	.05	200	.13
NBT	2	3400	570	.17*	1450	.43*
NBR	1	1700	290	.17	260	.15
SBL	1	1600	250	.16*	100	.06*
SBT	3	5100	1190	.27	650	.15
SBR	0	0	180		110	
EBL	1	1600	200	.13	130	.08*
EBT	2	3400	860	.25*	440	.13
EBR	1	1700	190	.11	70	.04
WBL	1	1600	140	.09*	140	.09
WBT	2	3400	420	.15	950	.32*
WBR	0	0	100		130	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .72 .94

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	130	.04*	340	.11
NBT	3	5100	780	.15	1980	.39*
NBR	1	1700	440	.26	410	.24
SBL	2	3200	240	.08	290	.09*
SBT	3	5100	1620	.32*	900	.18
SBR	1	1700	180	.11	100	.06
EBL	2	3200	200	.06	330	.10*
EBT	3	5100	1160	.23*	690	.14
EBR	1	1700	310	.18	130	.08
WBL	2	3200	210	.07*	250	.08
WBT	3	5100	480	.09	1790	.35*
WBR	1	1700	100	.06	120	.07
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .71 .98

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	130	.04*	340	.11
NBT	3	5100	790	.15	2000	.39*
NBR	1	1700	440	.26	430	.25
SBL	2	3200	240	.08	290	.09*
SBT	3	5100	1640	.32*	900	.18
SBR	1	1700	180	.11	100	.06
EBL	2	3200	200	.06	330	.10*
EBT	3	5100	1160	.23*	690	.14
EBR	1	1700	310	.18	130	.08
WBL	2	3200	230	.07*	250	.08
WBT	3	5100	480	.09	1790	.35*
WBR	1	1700	100	.06	120	.07
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .71 .98

104. Main & Dyer

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	130	.04*	340	.11
NBT	3	5100	780	.15	1980	.39*
NBR	1	1700	440	.26	410	.24
SBL	2	3200	240	.08	290	.09*
SBT	3	5100	1620	.32*	900	.18
SBR	1	1700	180	.11	100	.06
EBL	2	3200	200	.06	330	.10*
EBT	3	5100	1160	.23*	690	.14
EBR	1	1700	310	.18	130	.08
WBL	2	3200	210	.07*	250	.08
WBT	3	5100	480	.09	1790	.35*
WBR	1	1700	100	.06	120	.07
Clearance Interval				.05*		.05*

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	130	.04*	340	.11
NBT	3	5100	780	.15	1980	.39*
NBR	1	1700	440	.26	410	.24
SBL	2	3200	240	.08	290	.09*
SBT	3	5100	1620	.32*	900	.18
SBR	1	1700	180	.11	100	.06
EBL	2	3200	200	.06	330	.10*
EBT	3	5100	1160	.23*	690	.14
EBR	1	1700	310	.18	130	.08
WBL	2	3200	210	.07*	250	.08
WBT	3	5100	480	.09	1790	.35*
WBR	1	1700	100	.06	120	.07
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .71 .98

TOTAL CAPACITY UTILIZATION .71 .98

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	130	.04*	340	.11
NBT	3	5100	790	.15	2000	.39*
NBR	1	1700	440	.26	430	.25
SBL	2	3200	240	.08	290	.09*
SBT	3	5100	1640	.32*	900	.18
SBR	1	1700	180	.11	100	.06
EBL	2	3200	200	.06	330	.10*
EBT	3	5100	1160	.23*	690	.14
EBR	1	1700	310	.18	130	.08
WBL	2	3200	230	.07*	250	.08
WBT	3	5100	480	.09	1790	.35*
WBR	1	1700	100	.06	120	.07
Clearance Interval				.05*		.05*

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	130	.04*	340	.11
NBT	3	5100	790	.15	2000	.39*
NBR	1	1700	440	.26	430	.25
SBL	2	3200	240	.08	290	.09*
SBT	3	5100	1640	.32*	900	.18
SBR	1	1700	180	.11	100	.06
EBL	2	3200	200	.06	330	.10*
EBT	3	5100	1160	.23*	690	.14
EBR	1	1700	310	.18	130	.08
WBL	2	3200	230	.07*	250	.08
WBT	3	5100	480	.09	1790	.35*
WBR	1	1700	100	.06	120	.07
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .71 .98

TOTAL CAPACITY UTILIZATION .71 .98

104. Main & Dyer

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	130	.04*	340	.11
NBT	3	5100	787	.15	1990	.39*
NBR	1	1700	440	.26	430	.25
SBL	2	3200	240	.08	290	.09*
SBT	3	5100	1634	.32*	895	.18
SBR	1	1700	180	.11	100	.06
EBL	2	3200	200	.06	330	.10*
EBT	3	5100	1160	.23*	690	.14
EBR	1	1700	310	.18	130	.08
WBL	2	3200	230	.07*	250	.08
WBT	3	5100	480	.09	1790	.35*
WBR	1	1700	100	.06	120	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.71		.98

105. Bristol & MacArthur

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	100	.03*	410	.13
NBT	3	5100	620	.12	1650	.32*
NBR	1	1700	120	.07	290	.17
SBL	2	3200	460	.14	220	.07*
SBT	3	5100	1440	.31*	1010	.22
SBR	0	0	150		130	
EBL	2	3200	160	.05	300	.09*
EBT	3	5100	1170	.26*	910	.21
EBR	0	0	150		140	
WBL	2	3200	150	.05*	340	.11
WBT	3	5100	810	.18	1550	.37*
WBR	0	0	130		330	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .70 .90

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	190	.06*	480	.15
NBT	3	5100	750	.15	1940	.38*
NBR	1	1700	140	.08	240	.14
SBL	2	3200	510	.16	230	.07*
SBT	3	5100	1880	.37*	1140	.22
SBR	1	1700	250	.15	140	.08
EBL	2	3200	110	.03	300	.09*
EBT	3	5100	2210	.43*	1240	.24
EBR	1	1700	210	.12	330	.19
WBL	2	3200	80	.03*	350	.11
WBT	3	5100	860	.17	2060	.40*
WBR	1	1700	120	.07	640	.38
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .94 .99

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	180	.06*	480	.15
NBT	3	5100	740	.15	1960	.38*
NBR	1	1700	140	.08	250	.15
SBL	2	3200	530	.17	250	.08*
SBT	3	5100	1940	.38*	1100	.22
SBR	1	1700	270	.16	150	.09
EBL	2	3200	100	.03	330	.10*
EBT	3	5100	2230	.44*	1280	.25
EBR	1	1700	210	.12	280	.16
WBL	2	3200	90	.03*	340	.11
WBT	3	5100	840	.16	2120	.42*
WBR	1	1700	120	.07	660	.39
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .96 1.03

2020 with Project with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	180	.06*	480	.15
NBT	3	5100	740	.15	1960	.38*
NBR	1	1700	140	.08	250	.15
SBL	2	3200	530	.17	250	.08*
SBT	3	5100	1940	.38*	1100	.22
SBR	1	1700	270	.16	150	.09
EBL	2	3200	100	.03	330	.10*
EBT	4	6800	2230	.33*	1280	.19
EBR	1	1700	210	.12	280	.16
WBL	2	3200	90	.03*	340	.11
WBT	4	6800	840	.12	2120	.31*
WBR	1	1700	120	.07	660	.39
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for WBR

TOTAL CAPACITY UTILIZATION .85 .92

105. Bristol & MacArthur

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	200	.06*	530	.17
NBT	3	5100	770	.15	1930	.38*
NBR	1	1700	170	.10	230	.14
SBL	2	3200	500	.16	220	.07*
SBT	3	5100	1930	.38*	1140	.22
SBR	1	1700	260	.15	130	.08
EBL	2	3200	100	.03	300	.09*
EBT	3	5100	2220	.44*	1290	.25
EBR	1	1700	190	.11	320	.19
WBL	2	3200	70	.02*	360	.11
WBT	3	5100	870	.17	2010	.39*
WBR	1	1700	110	.06	650	.38
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .95 .98

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	200	.06*	530	.17
NBT	3	5100	770	.15	1930	.38*
NBR	1	1700	170	.10	230	.14
SBL	2	3200	500	.16	220	.07*
SBT	3	5100	1930	.38*	1140	.22
SBR	1	1700	260	.15	130	.08
EBL	2	3200	100	.03	300	.09*
EBT	3	5100	2220	.44*	1290	.25
EBR	1	1700	190	.11	320	.19
WBL	2	3200	70	.02*	360	.11
WBT	3	5100	870	.17	2010	.39*
WBR	1	1700	110	.06	650	.38
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .95 .98

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	190	.06*	530	.17
NBT	3	5100	760	.15	1950	.38*
NBR	1	1700	170	.10	240	.14
SBL	2	3200	520	.16	240	.08*
SBT	3	5100	1990	.39*	1100	.22
SBR	1	1700	280	.16	140	.08
EBL	2	3200	90	.03	330	.10*
EBT	3	5100	2240	.44*	1330	.26
EBR	1	1700	190	.11	270	.16
WBL	2	3200	80	.03*	350	.11
WBT	3	5100	850	.17	2070	.41*
WBR	1	1700	110	.06	670	.39
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .97 1.02

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	190	.06*	530	.17
NBT	3	5100	760	.15	1950	.38*
NBR	1	1700	170	.10	240	.14
SBL	2	3200	520	.16	240	.08*
SBT	3	5100	1990	.39*	1100	.22
SBR	1	1700	280	.16	140	.08
EBL	2	3200	90	.03	330	.10*
EBT	4	6800	2240	.33*	1330	.20
EBR	1	1700	190	.11	270	.16
WBL	2	3200	80	.03*	350	.11
WBT	4	6800	850	.13	2070	.30*
WBR	1	1700	110	.06	670	.39
Right Turn Adjustment					WBR	.01*
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for WBR

TOTAL CAPACITY UTILIZATION .86 .92

105. Bristol & MacArthur

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	179	.06*	471	.15
NBT	3	5100	739	.14	1943	.38*
NBR	1	1700	140	.08	250	.15
SBL	2	3200	530	.17	250	.08*
SBT	3	5100	1916	.38*	1099	.22
SBR	1	1700	270	.16	150	.09
EBL	2	3200	100	.03	330	.10*
EBT	3	5100	2230	.44*	1280	.25
EBR	1	1700	210	.12	278	.16
WBL	2	3200	90	.03*	340	.11
WBT	3	5100	840	.16	2120	.42*
WBR	1	1700	120	.07	660	.39
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.96	1.03	

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	179	.06*	471	.15
NBT	3	5100	739	.14	1943	.38*
NBR	1	1700	140	.08	250	.15
SBL	2	3200	530	.17	250	.08*
SBT	3	5100	1916	.38*	1099	.22
SBR	1	1700	270	.16	150	.09
EBL	2	3200	100	.03	330	.10*
EBT	4	6800	2230	.33*	1280	.19
EBR	1	1700	210	.12	278	.16
WBL	2	3200	90	.03*	340	.11
WBT	4	6800	840	.12	2120	.31*
WBR	1	1700	120	.07	660	.39
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.85	.92	

Note: Assumes Right-Turn Overlap for WBR

106. Flower & MacArthur

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	90	.06	70	.04
NBT	2	3400	350	.14*	390	.14*
NBR	0	0	130		70	
SBL	1	1600	350	.22*	100	.06*
SBT	2	3400	320	.19	210	.11
SBR	0	0	310		160	
EBL	1	1600	230	.14	160	.10*
EBT	3	5100	1460	.31*	990	.21
EBR	0	0	130		60	
WBL	1	1600	100	.06*	70	.04
WBT	3	5100	960	.21	2210	.47*
WBR	0	0	120		170	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .78 .82

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	170	.11
NBT	2	3400	480	.24*	540	.18*
NBR	0	0	350		60	
SBL	1	1600	410	.26*	140	.09*
SBT	2	3400	410	.21	290	.14
SBR	0	0	310		170	
EBL	1	1600	240	.15	130	.08*
EBT	3	5100	2500	.53*	1180	.25
EBR	0	0	190		110	
WBL	1	1600	140	.09*	170	.11
WBT	3	5100	910	.20	2950	.64*
WBR	0	0	120		330	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.17 1.04

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	200	.13
NBT	2	3400	480	.24*	610	.20*
NBR	0	0	340		70	
SBL	1	1600	410	.26*	140	.09*
SBT	2	3400	490	.23	280	.14
SBR	0	0	300		180	
EBL	1	1600	250	.16	120	.08*
EBT	3	5100	2520	.54*	1220	.26
EBR	0	0	220		130	
WBL	1	1600	150	.09*	170	.11
WBT	3	5100	910	.20	2990	.65*
WBR	0	0	120		320	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.18 1.07

2020 with Project with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	200	.13
NBT	2	3400	480	.14*	610	.18*
NBR	1	1700	340	.20	70	.04
SBL	1	1600	410	.26*	140	.09*
SBT	2	3400	490	.23	280	.14
SBR	0	0	300		180	
EBL	1	1600	250	.16	120	.08*
EBT	3	5100	2520	.54*	1220	.26
EBR	0	0	220		130	
WBL	1	1600	150	.09*	170	.11
WBT	3	5100	910	.18	2990	.59*
WBR	1	1700	120	.07	320	.19
Right Turn Adjustment			NBR	.06*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.14 .99

106. Flower & MacArthur

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	160	.10
NBT	2	3400	490	.22*	530	.18*
NBR	0	0	250		70	
SBL	1	1600	410	.26*	160	.10*
SBT	2	3400	400	.21	290	.14
SBR	0	0	310		170	
EBL	1	1600	230	.14	140	.09*
EBT	3	5100	2570	.54*	1210	.26
EBR	0	0	160		110	
WBL	1	1600	140	.09*	160	.10
WBT	3	5100	910	.20	2930	.64*
WBR	0	0	120		340	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.16 1.06

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	160	.10
NBT	2	3400	490	.22*	530	.18*
NBR	0	0	250		70	
SBL	1	1600	410	.26*	160	.10*
SBT	2	3400	400	.21	290	.14
SBR	0	0	310		170	
EBL	1	1600	230	.14	140	.09*
EBT	3	5100	2570	.54*	1210	.26
EBR	0	0	160		110	
WBL	1	1600	140	.09*	160	.10
WBT	3	5100	910	.20	2930	.64*
WBR	0	0	120		340	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.16 1.06

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	190	.12
NBT	2	3400	490	.21*	600	.20*
NBR	0	0	240		80	
SBL	1	1600	410	.26*	160	.10*
SBT	2	3400	480	.23	280	.14
SBR	0	0	300		180	
EBL	1	1600	240	.15	130	.08*
EBT	3	5100	2590	.55*	1250	.27
EBR	0	0	190		130	
WBL	1	1600	150	.09*	160	.10
WBT	3	5100	910	.20	2970	.65*
WBR	0	0	120		330	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.16 1.08

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	190	.12
NBT	2	3400	490	.14*	600	.18*
NBR	1	1700	240	.14	80	.05
SBL	1	1600	410	.26*	160	.10*
SBT	2	3400	480	.23	280	.14
SBR	0	0	300		180	
EBL	1	1600	240	.15	130	.08*
EBT	3	5100	2590	.55*	1250	.27
EBR	0	0	190		130	
WBL	1	1600	150	.09*	160	.10
WBT	3	5100	910	.18	2970	.58*
WBR	1	1700	120	.07	330	.19
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.09 .99

106. Flower & MacArthur

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	201	.13
NBT	2	3400	477	.24*	595	.20*
NBR	0	0	338		68	
SBL	1	1600	410	.26*	140	.09*
SBT	2	3400	472	.23	279	.14
SBR	0	0	300		180	
EBL	1	1600	250	.16	120	.08*
EBT	3	5100	2520	.54*	1220	.26
EBR	0	0	220		130	
WBL	1	1600	149	.09*	170	.11
WBT	3	5100	910	.20	2990	.65*
WBR	0	0	120		320	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			1.18		1.07	

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	110	.07	201	.13
NBT	2	3400	477	.14*	595	.18*
NBR	1	1700	338	.20	68	.04
SBL	1	1600	410	.26*	140	.09*
SBT	2	3400	472	.23	279	.14
SBR	0	0	300		180	
EBL	1	1600	250	.16	120	.08*
EBT	3	5100	2520	.54*	1220	.26
EBR	0	0	220		130	
WBL	1	1600	149	.09*	170	.11
WBT	3	5100	910	.18	2990	.59*
WBR	1	1700	120	.07	320	.19
Right Turn Adjustment		NBR		.06*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			1.14		.99	

107. Main & MacArthur

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	60	.02	560	.18
NBT	3	5100	320	.09*	690	.19*
NBR	0	0	190	.11	290	
SBL	2	3200	490	.15*	410	.13*
SBT	3	5100	610	.17	440	.13
SBR	0	0	240		330	.19
EBL	2	3200	330	.10	190	.06*
EBT	3	5100	1370	.30*	640	.14
EBR	0	0	160		90	
WBL	2	3200	240	.08*	260	.08
WBT	3	5100	550	.11	1650	.32*
WBR	1	1700	190	.11	290	.17
Right Turn Adjustment Clearance Interval			NBR	.02*	SBR	.05*
				.05*		.05*

TOTAL CAPACITY UTILIZATION .69 .80

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	70	.02	680	.21*
NBT	3	5100	790	.15*	950	.19
NBR	1	1700	760	.45	460	.27
SBL	2	3200	300	.09*	310	.10
SBT	3	5100	640	.13	1180	.23*
SBR	1	1700	240	.14	500	.29
EBL	2	3200	610	.19	200	.06*
EBT	3	5100	2220	.44*	850	.17
EBR	1	1700	180	.11	80	.05
WBL	2	3200	310	.10*	810	.25
WBT	3	5100	510	.10	2370	.46*
WBR	1	1700	60	.04	100	.06
Right Turn Adjustment Clearance Interval			NBR	.30*	SBR	.06*
				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.13 1.07

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	70	.02	700	.22*
NBT	3	5100	830	.16*	980	.19
NBR	1	1700	710	.42	510	.30
SBL	2	3200	300	.09*	290	.09
SBT	3	5100	680	.13	1160	.23*
SBR	1	1700	240	.14	540	.32
EBL	2	3200	580	.18	210	.07*
EBT	3	5100	2250	.44*	870	.17
EBR	1	1700	180	.11	80	.05
WBL	2	3200	350	.11*	820	.26
WBT	3	5100	500	.10	2320	.45*
WBR	1	1700	60	.04	100	.06
Right Turn Adjustment Clearance Interval			NBR	.26*	SBR	.09*
				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.11 1.11

2020 with Project with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	70	.02	700	.22*
NBT	3	5100	830	.16*	980	.19
NBR	1	1700	710	.42	510	.30
SBL	2	3200	300	.09*	290	.09
SBT	3	5100	680	.13	1160	.23*
SBR	1	1700	240	.14	540	.32
EBL	2	3200	580	.18	210	.07*
EBT	3	5100	2250	.44*	870	.17
EBR	1	1700	180	.11	80	.05
WBL	2	3200	350	.11*	820	.26
WBT	3	5100	500	.10	2320	.45*
WBR	1	1700	60	.04	100	.06
Right Turn Adjustment Clearance Interval			NBR	.15*	SBR	.02*
				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.00 1.04

Note: Assumes Right-Turn Overlap for SBR NBR

107. Main & MacArthur

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	70	.02	740	.23*
NBT	3	5100	720	.14*	980	.19
NBR	1	1700	890	.52	440	.26
SBL	2	3200	310	.10*	310	.10
SBT	3	5100	630	.12	1210	.24*
SBR	1	1700	240	.14	480	.28
EBL	2	3200	680	.21	190	.06*
EBT	3	5100	2110	.41*	890	.17
EBR	1	1700	200	.12	90	.05
WBL	2	3200	320	.10*	940	.29
WBT	3	5100	530	.10	2310	.45*
WBR	1	1700	60	.04	80	.05
Right Turn Adjustment			NBR	.38*	SBR	.04*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.18 1.07

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	70	.02	740	.23*
NBT	3	5100	720	.14*	980	.19
NBR	1	1700	890	.52	440	.26
SBL	2	3200	310	.10*	310	.10
SBT	3	5100	630	.12	1210	.24*
SBR	1	1700	240	.14	480	.28
EBL	2	3200	680	.21	190	.06*
EBT	3	5100	2110	.41*	890	.17
EBR	1	1700	200	.12	90	.05
WBL	2	3200	320	.10*	940	.29
WBT	3	5100	530	.10	2310	.45*
WBR	1	1700	60	.04	80	.05
Right Turn Adjustment			NBR	.38*	SBR	.04*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.18 1.07

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	70	.02	760	.24*
NBT	3	5100	760	.15*	1010	.20
NBR	1	1700	840	.49	490	.29
SBL	2	3200	310	.10*	290	.09
SBT	3	5100	670	.13	1190	.23*
SBR	1	1700	240	.14	520	.31
EBL	2	3200	650	.20	200	.06*
EBT	3	5100	2140	.42*	910	.18
EBR	1	1700	200	.12	90	.05
WBL	2	3200	360	.11*	950	.30
WBT	3	5100	520	.10	2260	.44*
WBR	1	1700	60	.04	80	.05
Right Turn Adjustment			NBR	.34*	SBR	.08*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.17 1.10

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3200	70	.02	760	.24*
NBT	3	5100	760	.15*	1010	.20
NBR	1	1700	840	.49	490	.29
SBL	2	3200	310	.10*	290	.09
SBT	3	5100	670	.13	1190	.23*
SBR	1	1700	240	.14	520	.31
EBL	2	3200	650	.20	200	.06*
EBT	3	5100	2140	.42*	910	.18
EBR	1	1700	200	.12	90	.05
WBL	2	3200	360	.11*	950	.30
WBT	3	5100	520	.10	2260	.44*
WBR	1	1700	60	.04	80	.05
Right Turn Adjustment			NBR	.23*	SBR	.02*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.06 1.04

Note: Assumes Right-Turn Overlap for SBR NBR

107. Main & MacArthur

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	70	.02	700	.22*
NBT	3	5100	828	.16*	970	.19
NBR	1	1700	708	.42	502	.30
SBL	2	3200	301	.09*	290	.09
SBT	3	5100	673	.13	1155	.23*
SBR	1	1700	240	.14	540	.32
EBL	2	3200	579	.18	210	.07*
EBT	3	5100	2249	.44*	868	.17
EBR	1	1700	180	.11	80	.05
WBL	2	3200	349	.11*	818	.26
WBT	3	5100	500	.10	2320	.45*
WBR	1	1700	60	.04	100	.06
Right Turn Adjustment Clearance Interval			NBR	.26*	SBR	.09*
				.05*		.05*
TOTAL CAPACITY UTILIZATION			1.11		1.11	

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	70	.02	700	.22*
NBT	3	5100	828	.16*	970	.19
NBR	1	1700	708	.42	502	.30
SBL	2	3200	301	.09*	290	.09
SBT	3	5100	673	.13	1155	.23*
SBR	1	1700	240	.14	540	.32
EBL	2	3200	579	.18	210	.07*
EBT	3	5100	2249	.44*	868	.17
EBR	1	1700	180	.11	80	.05
WBL	2	3200	349	.11*	818	.26
WBT	3	5100	500	.10	2320	.45*
WBR	1	1700	60	.04	100	.06
Right Turn Adjustment Clearance Interval			NBR	.15*	SBR	.02*
				.05*		.05*
TOTAL CAPACITY UTILIZATION			1.00		1.04	

Note: Assumes Right-Turn Overlap for SBR NBR

108. SR-55 SB Ramps & MacArthur

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3200	940	.29*	280	.09*
SBT	0	0	0		0	
SBR	2	3400	1190	.35	770	.23
EBL	0	0	0		0	
EBT	2	3400	1350	.40*	1280	.38
EBR	f		860		1100	
WBL	0	0	0		0	
WBT	2	3400	1150	.34	1490	.44*
WBR	f		230		1110	
Right Turn Adjustment			SBR	.06*	SBR	.14*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.80		.72

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3200	880	.28*	330	.10*
SBT	0	0	0		0	
SBR	f		2540		710	
EBL	0	0	0		0	
EBT	3	5100	1550	.30	2460	.48*
EBR	f		890		2490	
WBL	0	0	0		0	
WBT	3	5100	2340	.46*	2150	.42
WBR	f		210		1370	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.79		.63

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3200	880	.28*	330	.10*
SBT	0	0	0		0	
SBR	f		2600		730	
EBL	0	0	0		0	
EBT	3	5100	1540	.30	2520	.49*
EBR	f		910		2500	
WBL	0	0	0		0	
WBT	3	5100	2370	.46*	2120	.42
WBR	f		210		1370	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.79		.64

108. SR-55 SB Ramps & MacArthur

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3200	880	.28*	330	.10*
SBT	0	0	0		0	
SBR	f		2530		710	
EBL	0	0	0		0	
EBT	3	5100	1570	.31	2460	.48*
EBR	f		890		2520	
WBL	0	0	0		0	
WBT	3	5100	2380	.47*	2130	.42
WBR	f		190		1380	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .80 .63

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3200	880	.28*	330	.10*
SBT	0	0	0		0	
SBR	f		2530		710	
EBL	0	0	0		0	
EBT	3	5100	1570	.31	2460	.48*
EBR	f		890		2520	
WBL	0	0	0		0	
WBT	3	5100	2380	.47*	2130	.42
WBR	f		190		1380	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .80 .63

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3200	880	.28*	330	.10*
SBT	0	0	0		0	
SBR	f		2590		730	
EBL	0	0	0		0	
EBT	3	5100	1560	.31	2520	.49*
EBR	f		910		2530	
WBL	0	0	0		0	
WBT	3	5100	2410	.47*	2100	.41
WBR	f		190		1380	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .80 .64

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3200	880	.28*	330	.10*
SBT	0	0	0		0	
SBR	f		2590		730	
EBL	0	0	0		0	
EBT	3	5100	1560	.31	2520	.49*
EBR	f		910		2530	
WBL	0	0	0		0	
WBT	3	5100	2410	.47*	2100	.41
WBR	f		190		1380	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .80 .64

108. SR-55 SB Ramps & MacArthur

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3200	880	.28*	330	.10*
SBT	0	0	0		0	
SBR	f		2601		730	
EBL	0	0	0		0	
EBT	3	5100	1540	.30	2512	.49*
EBR	f		912		2500	
WBL	0	0	0		0	
WBT	3	5100	2368	.46*	2120	.42
WBR	f		208		1366	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.79		.64

109. SR-55 NB Ramps & MacArthur

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	910	.28*	500	.16*
NBT	0	0	0		0	
NBR	f		850		280	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3400	1480	.44*	790	.23
EBR	f		620		810	
WBL	0	0	0		0	
WBT	3	5100	640	.13	2360	.46*
WBR	f		210		1030	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .77 .67

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	1720	.54*	500	.16*
NBT	0	0	0		0	
NBR	f		980		300	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1690	.33*	1220	.24
EBR	f		520		1620	
WBL	0	0	0		0	
WBT	3	5100	1110	.22	3310	.65*
WBR	f		130		890	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .92 .86

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	1760	.55*	480	.15*
NBT	0	0	0		0	
NBR	f		990		300	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1680	.33*	1220	.24
EBR	f		520		1670	
WBL	0	0	0		0	
WBT	3	5100	1120	.22	3290	.65*
WBR	f		130		890	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .93 .85

2020 with Project with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	3	4800	1760	.37*	480	.10*
NBT	0	0	0		0	
NBR	f		990		300	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1680	.33*	1220	.24
EBR	f		520		1670	
WBL	0	0	0		0	
WBT	3	5100	1120	.22	3290	.65*
WBR	f		130		890	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .75 .80

109. SR-55 NB Ramps & MacArthur

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	1730	.54*	490	.15*
NBT	0	0	0		0	
NBR	f		960		300	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1710	.34*	1230	.24
EBR	f		520		1620	
WBL	0	0	0		0	
WBT	3	5100	1110	.22	3310	.65*
WBR	f		130		890	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .93 .85

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	1730	.54*	490	.15*
NBT	0	0	0		0	
NBR	f		960		300	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1710	.34*	1230	.24
EBR	f		520		1620	
WBL	0	0	0		0	
WBT	3	5100	1110	.22	3310	.65*
WBR	f		130		890	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .93 .85

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	1770	.55*	470	.15*
NBT	0	0	0		0	
NBR	f		970		300	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1700	.33*	1230	.24
EBR	f		520		1670	
WBL	0	0	0		0	
WBT	3	5100	1120	.22	3290	.65*
WBR	f		130		890	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .93 .85

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	3	4800	1770	.37*	470	.10*
NBT	0	0	0		0	
NBR	f		970		300	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1700	.33*	1230	.24
EBR	f		520		1670	
WBL	0	0	0		0	
WBT	3	5100	1120	.22	3290	.65*
WBR	f		130		890	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .75 .80

109. SR-55 NB Ramps & MacArthur

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	1760	.55*	480	.15*
NBT	0	0	0		0	
NBR	f		990		300	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1680	.33*	1217	.24
EBR	f		520		1665	
WBL	0	0	0		0	
WBT	3	5100	1117	.22	3286	.64*
WBR	f		130		890	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.93		.84

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	3	4800	1760	.37*	480	.10*
NBT	0	0	0		0	
NBR	f		990		300	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1680	.33*	1217	.24
EBR	f		520		1665	
WBL	0	0	0		0	
WBT	3	5100	1117	.22	3286	.64*
WBR	f		130		890	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.75		.79

110. Main & Sunflower

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	400	.13*	1510	.47*
NBT	3	5100	280	.05	1130	.22
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	3	5100	660	.19*	260	.08*
SBR	0	0	410	.24	510	.30
EBL	2	3200	600	.19*	590	.18*
EBT	0	0	0		0	
EBR	2	3400	1180	.35	450	.13
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment			Multi	.07*	SBR	.22*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .64 1.01

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	410	.13*	1600	.50*
NBT	3	5100	450	.09	1480	.29
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	3	5100	780	.23*	330	.10*
SBR	0	0	410	.24	1800	1.06
EBL	2	3200	2060	.64*	720	.23*
EBT	0	0	0		0	
EBR	2	3400	1350	.40	610	.18
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.01*
Clearance Interval				.05*		.05*
Right Turn Adjustment					SBR	.96*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.07 1.85

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	480	.15*	1600	.50*
NBT	3	5100	450	.09	1480	.29
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	3	5100	780	.23*	320	.09*
SBR	0	0	500	.29	1810	1.06
EBL	2	3200	2020	.63*	820	.26*
EBT	0	0	0		0	
EBR	2	3400	1360	.40	690	.20
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.06*	SBR	.97*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.13 1.88

2020 with Project with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	480	.15*	1600	.50*
NBT	3	5100	450	.09	1480	.29
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	2	3400	780	.23*	320	.09*
SBR	1	1700	500	.29	1810	1.06
EBL	2	3200	2020	.63*	820	.26*
EBT	0	0	0		0	
EBR	2	3400	1360	.40	690	.20
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.71*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.07 1.62

110. Main & Sunflower

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	410	.13*	1600	.50*
NBT	3	5100	450	.09	1480	.29
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	3	5100	780	.23*	340	.10*
SBR	0	0	420	.25	1790	1.05
EBL	2	3200	2070	.65*	710	.22*
EBT	0	0	0		0	
EBR	2	3400	1350	.40	600	.18
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.02*	SBR	.95*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.09 1.83

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	410	.13*	1600	.50*
NBT	3	5100	450	.09	1480	.29
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	3	5100	780	.23*	340	.10*
SBR	0	0	420	.25	1790	1.05
EBL	2	3200	2070	.65*	710	.22*
EBT	0	0	0		0	
EBR	2	3400	1350	.40	600	.18
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.02*	SBR	.95*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.09 1.83

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	480	.15*	1600	.50*
NBT	3	5100	450	.09	1480	.29
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	3	5100	780	.23*	330	.10*
SBR	0	0	510	.30	1800	1.06
EBL	2	3200	2030	.63*	810	.25*
EBT	0	0	0		0	
EBR	2	3400	1360	.40	680	.20
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.07*	SBR	.96*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.14 1.87

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	480	.15*	1600	.50*
NBT	3	5100	450	.09	1480	.29
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	2	3400	780	.23*	330	.10*
SBR	1	1700	510	.30	1800	1.06
EBL	2	3200	2030	.63*	810	.25*
EBT	0	0	0		0	
EBR	2	3400	1360	.40	680	.20
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.71*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.07 1.62

110. Main & Sunflower

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	461	.14*	1595	.50*
NBT	3	5100	450	.09	1480	.29
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	3	5100	780	.23*	320	.09*
SBR	0	0	493	.29	1802	1.06
EBL	2	3200	2017	.63*	801	.25*
EBT	0	0	0		0	
EBR	2	3400	1354	.40	670	.20
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.06*	SBR	.97*
Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for EBR						

TOTAL CAPACITY UTILIZATION 1.12 1.87

2020 w/Reduced Project w/Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	461	.14*	1595	.50*
NBT	3	5100	450	.09	1480	.29
NBR	0	0	0		0	
SBL	1	1600	10	.01	10	.01
SBT	2	3400	780	.23*	320	.09*
SBR	1	1700	493	.29	1802	1.06
EBL	2	3200	2017	.63*	801	.25*
EBT	0	0	0		0	
EBR	2	3400	1354	.40	670	.20
WBL	0	0	0		0	
WBT	1	1700	10	.01*	10	.01*
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.72*
Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for SBR EBR						

TOTAL CAPACITY UTILIZATION 1.06 1.62

111. Redhill & Main

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	180	.05*	180	.05*
SBT	0	0	0		0	
SBR	1	1700	310	.18	530	.31
EBL	1	1700	260	.15*	250	.15*
EBT	3	5100	1200	.24	960	.19
EBR	0	0	0		0	
WBL	2	3400	0	.00	0	.00
WBT	3	5100	670	.15*	1910	.40*
WBR	0	0	120		150	
Right Turn Adjustment			SBR	.02*	SBR	.15*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .42 .80

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3400	340	.10	490	.14
NBT	3	5100	1270	.25*	1180	.23*
NBR	f		500		1080	
SBL	1	1700	70	.04*	260	.15*
SBT	4	6800	1170	.17	1590	.23
SBR	d	1700	110	.06	270	.16
EBL	1	1700	150	.09	150	.09
EBT	3	5100	2240	.44*	1650	.32*
EBR	f		800		590	
WBL	2	3400	690	.20*	800	.24*
WBT	3	5100	1780	.35	2300	.45
WBR	d	1700	210	.12	140	.08
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .98 .99

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3400	340	.10	490	.14
NBT	3	5100	1270	.25*	1180	.23*
NBR	f		500		1080	
SBL	1	1700	70	.04*	260	.15*
SBT	4	6800	1170	.17	1590	.23
SBR	d	1700	130	.08	270	.16
EBL	1	1700	150	.09	170	.10
EBT	3	5100	2250	.44*	1700	.33*
EBR	f		800		590	
WBL	2	3400	690	.20*	800	.24*
WBT	3	5100	1830	.36	2300	.45
WBR	d	1700	210	.12	140	.08
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .98 1.00

111. Redhill & Main

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	340	.10	490	.14
NBT	3	5100	1270	.25*	1180	.23*
NBR	f		500		1080	
SBL	1	1700	70	.04*	260	.15*
SBT	4	6800	1170	.17	1590	.23
SBR	d	1700	110	.06	270	.16
EBL	1	1700	150	.09	150	.09
EBT	3	5100	2240	.44*	1650	.32*
EBR	f		800		590	
WBL	2	3400	690	.20*	800	.24*
WBT	3	5100	1780	.35	2300	.45
WBR	d	1700	210	.12	140	.08
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .98 .99

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	340	.10	490	.14
NBT	3	5100	1270	.25*	1180	.23*
NBR	f		500		1080	
SBL	1	1700	70	.04*	260	.15*
SBT	4	6800	1170	.17	1590	.23
SBR	d	1700	110	.06	270	.16
EBL	1	1700	150	.09	150	.09
EBT	3	5100	2240	.44*	1650	.32*
EBR	f		800		590	
WBL	2	3400	690	.20*	800	.24*
WBT	3	5100	1780	.35	2300	.45
WBR	d	1700	210	.12	140	.08
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .98 .99

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	340	.10	490	.14
NBT	3	5100	1270	.25*	1180	.23*
NBR	f		500		1080	
SBL	1	1700	70	.04*	260	.15*
SBT	4	6800	1170	.17	1590	.23
SBR	d	1700	130	.08	270	.16
EBL	1	1700	150	.09	170	.10
EBT	3	5100	2250	.44*	1700	.33*
EBR	f		800		590	
WBL	2	3400	690	.20*	800	.24*
WBT	3	5100	1830	.36	2300	.45
WBR	d	1700	210	.12	140	.08
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .98 1.00

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	340	.10	490	.14
NBT	3	5100	1270	.25*	1180	.23*
NBR	f		500		1080	
SBL	1	1700	70	.04*	260	.15*
SBT	4	6800	1170	.17	1590	.23
SBR	d	1700	130	.08	270	.16
EBL	1	1700	150	.09	170	.10
EBT	3	5100	2250	.44*	1700	.33*
EBR	f		800		590	
WBL	2	3400	690	.20*	800	.24*
WBT	3	5100	1830	.36	2300	.45
WBR	d	1700	210	.12	140	.08
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .98 1.00

111. Redhill & Main

2020 with Reduced Project						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	340	.10	490	.14
NBT	3	5100	1270	.25*	1180	.23*
NBR	f		500		1080	
SBL	1	1700	70	.04*	260	.15*
SBT	4	6800	1170	.17	1590	.23
SBR	d	1700	130	.08	270	.16
EBL	1	1700	150	.09	170	.10
EBT	3	5100	2244	.44*	1680	.33*
EBR	f		800		590	
WBL	2	3400	690	.20*	800	.24*
WBT	3	5100	1810	.35	2295	.45
WBR	d	1700	210	.12	140	.08
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.98	1.00	

112. Bear & MacArthur

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	90	.06*	210	.13*
NBT	1	1700	240	.14	360	.21
NBR	1	1700	130	.08	210	.12
SBL	0	0	110		50	
SBT	1	1700	360	.31*	190	.16*
SBR	0	0	50		30	
EBL	1	1600	40	.03	40	.03*
EBT	3	5100	1300	.28*	920	.20
EBR	0	0	120		120	
WBL	1	1600	130	.08*	110	.07
WBT	2	3400	880	.26	1410	.41*
WBR	1	1700	50	.03	250	.15
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.78		.78

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	100	.03*	220	.07
NBT	2	3400	350	.14	650	.29*
NBR	0	0	140		330	
SBL	2	3200	360	.11	270	.08*
SBT	2	3400	760	.25*	230	.14
SBR	0	0	80		340	.20
EBL	2	3200	240	.08	50	.02*
EBT	3	5100	1880	.37*	1000	.20
EBR	1	1700	120	.07	130	.08
WBL	2	3200	130	.04*	160	.05
WBT	3	5100	900	.18	1480	.29*
WBR	1	1700	50	.03	690	.41
Right Turn Adjustment Clearance Interval					WBR	.12*
				.05*		.05*
TOTAL CAPACITY UTILIZATION				.74		.85

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	110	.03*	270	.08
NBT	2	3400	360	.15	670	.29*
NBR	0	0	140		330	
SBL	2	3200	360	.11	280	.09*
SBT	2	3400	770	.25*	240	.14
SBR	0	0	80		340	.20
EBL	2	3200	240	.08	50	.02*
EBT	3	5100	1890	.37*	1010	.20
EBR	1	1700	130	.08	150	.09
WBL	2	3200	130	.04*	160	.05
WBT	3	5100	900	.18	1530	.30*
WBR	1	1700	50	.03	710	.42
Right Turn Adjustment Clearance Interval					WBR	.12*
				.05*		.05*
TOTAL CAPACITY UTILIZATION				.74		.87

112. Bear & MacArthur

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	0	.00	260	.08
NBT	2	3400	440	.17*	610	.25*
NBR	0	0	150		230	
SBL	2	3200	270	.08*	120	.04*
SBT	2	3400	810	.24	320	.12
SBR	0	0	20		80	
EBL	2	3200	70	.02	30	.01*
EBT	3	5100	2100	.41*	1140	.22
EBR	1	1700	170	.10	10	.01
WBL	2	3200	80	.03*	90	.03
WBT	3	5100	900	.18	1670	.33*
WBR	1	1700	100	.06	640	.38
Right Turn Adjustment Clearance Interval				.05*	WBR	.05*
TOTAL CAPACITY UTILIZATION				.74		.73

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	0	.00	260	.08
NBT	2	3400	440	.17*	610	.25*
NBR	0	0	150		230	
SBL	2	3200	270	.08*	120	.04*
SBT	2	3400	810	.24	320	.12
SBR	0	0	20		80	
EBL	2	3200	70	.02	30	.01*
EBT	3	5100	2100	.41*	1140	.22
EBR	1	1700	170	.10	10	.01
WBL	2	3200	80	.03*	90	.03
WBT	3	5100	900	.18	1670	.33*
WBR	1	1700	100	.06	640	.38
Right Turn Adjustment Clearance Interval				.05*	WBR	.05*
TOTAL CAPACITY UTILIZATION				.74		.73

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	10	.00	310	.10
NBT	2	3400	450	.18*	630	.25*
NBR	0	0	150		230	
SBL	2	3200	270	.08*	130	.04*
SBT	2	3400	820	.25	330	.12
SBR	0	0	20		80	
EBL	2	3200	70	.02	30	.01*
EBT	3	5100	2110	.41*	1150	.23
EBR	1	1700	180	.11	30	.02
WBL	2	3200	80	.03*	90	.03
WBT	3	5100	900	.18	1720	.34*
WBR	1	1700	100	.06	660	.39
Right Turn Adjustment Clearance Interval				.05*	WBR	.05*
TOTAL CAPACITY UTILIZATION				.75		.74

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3200	10	.00	310	.10
NBT	2	3400	450	.18*	630	.25*
NBR	0	0	150		230	
SBL	2	3200	270	.08*	130	.04*
SBT	2	3400	820	.25	330	.12
SBR	0	0	20		80	
EBL	2	3200	70	.02	30	.01*
EBT	3	5100	2110	.41*	1150	.23
EBR	1	1700	180	.11	30	.02
WBL	2	3200	80	.03*	90	.03
WBT	3	5100	900	.18	1720	.34*
WBR	1	1700	100	.06	660	.39
Right Turn Adjustment Clearance Interval				.05*	WBR	.05*
TOTAL CAPACITY UTILIZATION				.75		.74

112. Bear & MacArthur

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	2	3200	110	.03*	270	.08
NBT	2	3400	360	.15	670	.29*
NBR	0	0	140		330	
SBL	2	3200	360	.11	280	.09*
SBT	2	3400	770	.25*	240	.14
SBR	0	0	80		340	.20
EBL	2	3200	240	.08	50	.02*
EBT	3	5100	1890	.37*	1010	.20
EBR	1	1700	130	.08	150	.09
WBL	2	3200	130	.04*	160	.05
WBT	3	5100	900	.18	1530	.30*
WBR	1	1700	50	.03	710	.42
Right Turn Adjustment					WBR	.12*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION			.74		.87	

113. Flower & Segerstrom/Dyer

Existing Count						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	130	.08*	110	.07
NBT	2	3400	360	.14	460	.15*
NBR	0	0	130		50	
SBL	1	1600	170	.11	60	.04*
SBT	2	3400	440	.18*	350	.12
SBR	0	0	180		70	
EBL	1	1600	290	.18	100	.06*
EBT	2	3400	710	.29*	630	.21
EBR	0	0	280		100	
WBL	1	1600	110	.07*	60	.04
WBT	2	3400	510	.16	1200	.37*
WBR	0	0	40		60	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.67		.67

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	140	.09*	120	.08
NBT	2	3400	390	.16	740	.24*
NBR	0	0	140		60	
SBL	1	1600	270	.17	150	.09*
SBT	2	3400	700	.27*	420	.14
SBR	0	0	230		70	
EBL	1	1600	270	.17*	210	.13*
EBT	3	5100	890	.17	960	.19
EBR	1	1700	250	.15	110	.06
WBL	1	1600	140	.09	70	.04
WBT	3	5100	600	.12*	1910	.37*
WBR	1	1700	50	.03	80	.05
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.70		.88

2020 with Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	140	.09*	120	.08
NBT	2	3400	400	.16	790	.25*
NBR	0	0	140		60	
SBL	1	1600	270	.17	150	.09*
SBT	2	3400	770	.29*	420	.14
SBR	0	0	230		70	
EBL	1	1600	270	.17*	210	.13*
EBT	3	5100	890	.17	960	.19
EBR	1	1700	250	.15	110	.06
WBL	1	1600	140	.09	70	.04
WBT	3	5100	600	.12*	1910	.37*
WBR	1	1700	50	.03	80	.05
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		.89

113. Flower & Segerstrom/Dyer

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	140	.09*	120	.08
NBT	2	3400	390	.16	740	.24*
NBR	0	0	140		60	
SBL	1	1600	270	.17	150	.09*
SBT	2	3400	700	.27*	420	.14
SBR	0	0	230		70	
EBL	1	1600	270	.17*	210	.13*
EBT	3	5100	890	.17	960	.19
EBR	1	1700	250	.15	110	.06
WBL	1	1600	140	.09	70	.04
WBT	3	5100	600	.12*	1910	.37*
WBR	1	1700	50	.03	80	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .70 .88

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	140	.09*	120	.08
NBT	2	3400	390	.16	740	.24*
NBR	0	0	140		60	
SBL	1	1600	270	.17	150	.09*
SBT	2	3400	700	.27*	420	.14
SBR	0	0	230		70	
EBL	1	1600	270	.17*	210	.13*
EBT	3	5100	890	.17	960	.19
EBR	1	1700	250	.15	110	.06
WBL	1	1600	140	.09	70	.04
WBT	3	5100	600	.12*	1910	.37*
WBR	1	1700	50	.03	80	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .70 .88

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	140	.09*	120	.08
NBT	2	3400	400	.16	790	.25*
NBR	0	0	140		60	
SBL	1	1600	270	.17	150	.09*
SBT	2	3400	770	.29*	420	.14
SBR	0	0	230		70	
EBL	1	1600	270	.17*	210	.13*
EBT	3	5100	890	.17	960	.19
EBR	1	1700	250	.15	110	.06
WBL	1	1600	140	.09	70	.04
WBT	3	5100	600	.12*	1910	.37*
WBR	1	1700	50	.03	80	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .72 .89

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	140	.09*	120	.08
NBT	2	3400	400	.16	790	.25*
NBR	0	0	140		60	
SBL	1	1600	270	.17	150	.09*
SBT	2	3400	770	.29*	420	.14
SBR	0	0	230		70	
EBL	1	1600	270	.17*	210	.13*
EBT	3	5100	890	.17	960	.19
EBR	1	1700	250	.15	110	.06
WBL	1	1600	140	.09	70	.04
WBT	3	5100	600	.12*	1910	.37*
WBR	1	1700	50	.03	80	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .72 .89

113. Flower & Segerstrom/Dyer

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	140	.09*	120	.08
NBT	2	3400	400	.16	790	.25*
NBR	0	0	140		60	
SBL	1	1600	270	.17	150	.09*
SBT	2	3400	752	.29*	419	.14
SBR	0	0	230		70	
EBL	1	1600	270	.17*	210	.13*
EBT	3	5100	887	.17	945	.19
EBR	1	1700	250	.15	110	.06
WBL	1	1600	140	.09	70	.04
WBT	3	5100	600	.12*	1910	.37*
WBR	1	1700	50	.03	80	.05
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.72		.89

114. Hutton Centre/MacArthur

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	30	.02	120	.08
NBT	1	1700	30	.02*	10	.01*
NBR	2	3400	140	.04	850	.25
SBL	2	3200	70	.02*	370	.12*
SBT	1	1700	20	.01	20	.01
SBR	2	3400	20	.01	90	.03
EBL	2	3200	80	.03	10	.00
EBT	3	5100	1990	.39*	1410	.28
EBR	1	1700	140	.08	30	.02
WBL	2	3200	840	.26*	180	.06
WBT	3	5100	1180	.23	1920	.38*
WBR	1	1700	530	.31	50	.03
Right Turn Adjustment Clearance Interval			NBR	.02*	NBR	.24*
				.05*		.05*

TOTAL CAPACITY UTILIZATION .76 .80

2020 with General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	40	.03*	130	.08
NBT	1	1700	40	.02	20	.01*
NBR	2	3400	150	.04	860	.25
SBL	2	3200	170	.05	1420	.44*
SBT	1	1700	100	.06*	100	.06
SBR	2	3400	180	.05	880	.26
EBL	2	3200	580	.18	170	.05*
EBT	3	5100	2550	.50*	1420	.28
EBR	1	1700	150	.09	30	.02
WBL	2	3200	850	.27*	190	.06
WBT	3	5100	760	.15	2710	.53*
WBR	1	1700	1680	.99	200	.12
Right Turn Adjustment Clearance Interval			WBR	.40*	NBR	.24*
				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.31 1.32

2020 with Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	40	.03*	130	.08
NBT	1	1700	40	.02	20	.01*
NBR	2	3400	150	.04	860	.25
SBL	2	3200	170	.05	1420	.44*
SBT	1	1700	100	.06*	100	.06
SBR	2	3400	180	.05	880	.26
EBL	2	3200	580	.18	170	.05*
EBT	3	5100	2560	.50*	1490	.29
EBR	1	1700	150	.09	30	.02
WBL	2	3200	850	.27*	190	.06
WBT	3	5100	850	.17	2700	.53*
WBR	1	1700	1680	.99	200	.12
Right Turn Adjustment Clearance Interval			WBR	.40*	NBR	.24*
				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.31 1.32

114. Hutton Centre/MacArthur

2020 General Plan with Home Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	40	.03*	130	.08
NBT	1	1700	40	.02	20	.01*
NBR	2	3400	150	.04	860	.25
SBL	2	3200	170	.05	1420	.44*
SBT	1	1700	100	.06*	100	.06
SBR	2	3400	180	.05	880	.26
EBL	2	3200	580	.18	170	.05*
EBT	3	5100	2550	.50*	1420	.28
EBR	1	1700	150	.09	30	.02
WBL	2	3200	850	.27*	190	.06
WBT	3	5100	760	.15	2710	.53*
WBR	1	1700	1680	.99	200	.12
Right Turn Adjustment Clearance Interval			WBR	.40*	NBR	.24*
				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.31 1.32

2020 General Plan with Home Ranch & Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	40	.03*	130	.08
NBT	1	1700	40	.02	20	.01*
NBR	2	3400	150	.04	860	.25
SBL	2	3200	170	.05	1420	.44*
SBT	1	1700	100	.06*	100	.06
SBR	2	3400	180	.05	880	.26
EBL	2	3200	580	.18	170	.05*
EBT	3	5100	2550	.50*	1420	.28
EBR	1	1700	150	.09	30	.02
WBL	2	3200	850	.27*	190	.06
WBT	3	5100	760	.15	2710	.53*
WBR	1	1700	1680	.99	200	.12
Right Turn Adjustment Clearance Interval			WBR	.40*	NBR	.24*
				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.31 1.32

2020 General Plan Cumulative (w/Town Center)						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	40	.03*	130	.08
NBT	1	1700	40	.02	20	.01*
NBR	2	3400	150	.04	860	.25
SBL	2	3200	170	.05	1420	.44*
SBT	1	1700	100	.06*	100	.06
SBR	2	3400	180	.05	880	.26
EBL	2	3200	580	.18	170	.05*
EBT	3	5100	2560	.50*	1490	.29
EBR	1	1700	150	.09	30	.02
WBL	2	3200	850	.27*	190	.06
WBT	3	5100	850	.17	2700	.53*
WBR	1	1700	1680	.99	200	.12
Right Turn Adjustment Clearance Interval			WBR	.40*	NBR	.24*
				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.31 1.32

2020 General Plan Cumulative with Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	40	.03*	130	.08
NBT	1	1700	40	.02	20	.01*
NBR	2	3400	150	.04	860	.25
SBL	2	3200	170	.05	1420	.44*
SBT	1	1700	100	.06*	100	.06
SBR	2	3400	180	.05	880	.26
EBL	2	3200	580	.18	170	.05*
EBT	3	5100	2560	.50*	1490	.29
EBR	1	1700	150	.09	30	.02
WBL	2	3200	850	.27*	190	.06
WBT	3	5100	850	.17	2700	.53*
WBR	1	1700	1680	.99	200	.12
Right Turn Adjustment Clearance Interval			WBR	.40*	NBR	.24*
				.05*		.05*

TOTAL CAPACITY UTILIZATION 1.31 1.32

114. Hutton Centre/MacArthur

2020 with Reduced Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	40	.03*	130	.08
NBT	1	1700	40	.02	20	.01*
NBR	2	3400	150	.04	860	.25
SBL	2	3200	170	.05	1420	.44*
SBT	1	1700	99	.06*	98	.06
SBR	2	3400	180	.05	880	.26
EBL	2	3200	580	.18	170	.05*
EBT	3	5100	2557	.50*	1480	.29
EBR	1	1700	150	.09	30	.02
WBL	2	3200	850	.27*	190	.06
WBT	3	5100	850	.17	2700	.53*
WBR	1	1700	1680	.99	200	.12
Right Turn Adjustment Clearance Interval			WBR	.40*	NBR	.24*
				.05*		.05*
TOTAL CAPACITY UTILIZATION			1.31		1.32	

APPENDIX D
AIR QUALITY ASSESSMENT

Air Quality Assessment for Town Center Expansion

City of Costa Mesa

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Report # 00-154.B
June 30, 2000
(Revised October 10, 2000)

Air Quality Analysis for Costa Mesa Town Center Expansion

City of Costa Mesa

1.0 EXISTING AIR QUALITY

The proposed Town Center expansion encompasses approximately 54.5 net acres within the total 62 acre South Coast Town Center. The proposed project expansion would result in a total of approximately 1,389,145 square feet of office, retail, movie theater, hotel, museum, symphony hall and performance theater land uses. The project also involves demolition and removal of approximately 147,575 square feet of existing office, restaurant, retail, theater and other commercial building areas. The project located in the City of Costa Mesa.

The proposed project site is within the South Coast Air Basin (SCAB) and thus is subject to a review with respect to the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP). The SCAB comprises all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino Counties.

1.1 Climate

The climate in and around the project area, as with all of Southern California, is controlled largely by the strength and position of the subtropical high pressure cell over the Pacific Ocean. It maintains moderate temperatures and comfortable humidities, and limits precipitation to a few storms during the winter "wet" season. Temperatures are normally mild, excepting the summer months, which commonly bring substantially higher temperatures. In all portions of the basin, temperatures well above 100 degrees F. have been recorded in recent years. The annual average temperature in the basin is approximately 62 degrees F.

Winds in the project area are usually driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night the wind generally slows and reverses direction traveling towards the sea. Wind direction is altered by local canyons, with wind tending to flow parallel to the canyons. During the transition period from one wind pattern to the other, the dominant wind direction rotates into the south and causes a minor wind direction maximum from the south. The frequency of calm winds (less than 2 miles per hour) is less than 10 percent. Therefore, there is little stagnation in the project vicinity, especially during busy daytime traffic hours.

Southern California frequently has temperature inversions which inhibit the dispersion of pollutants. Inversions may be either ground based or elevated. Ground based inversions, sometimes referred to as radiation inversions, are most severe during clear, cold, early winter mornings. Under conditions of a ground based inversion, very little mixing or turbulence occurs, and high concentrations of primary pollutants may occur local to major roadways. Elevated inversions can be generated by a variety of meteorological phenomena. Elevated inversions act

as a lid or upper boundary and restrict vertical mixing. Below the elevated inversion dispersion is not restricted. Mixing heights for elevated inversions are lower in the summer and more persistent. This low summer inversion puts a lid over the SCAB and is responsible for the high levels of ozone observed during summer months in the air basin.

1.2 Air Quality Management

The proposed project is located in the South Coast Air Basin (SCAB) and, jurisdictionally, is the responsibility of the South Coast Air Quality Management District (SCAQMD) and to a lesser extent, the California Air Resources Board (CARB). The SCAQMD sets and enforces regulations for stationary sources in the basin and develops and implements Transportation Control Measures. The CARB is charged with controlling motor vehicle emissions. CARB establishes legal emission rates for new vehicles and is responsible for the vehicle inspection program. Other important agencies in the air quality management for the basin include the U.S. Environmental Protection Agency (EPA) and the Southern California Association of Governments (SCAG). The EPA implements the provisions of the federal Clean Air Act. This act establishes ambient air quality standards that are applicable nationwide. In areas that are not achieving the standards, the Clean Air Act requires that plans be developed and implemented to meet the standards. The EPA oversees the efforts in this air basin and insures that appropriate plans are being developed and implemented. The primary agencies responsible for writing the plan are SCAG and the SCAQMD, and the plan is called the Air Quality Management Plan (AQMP).

SCAQMD and SCAG, in coordination with local governments and the private sector, have developed the Air Quality Management Plan (AQMP) for the air basin. The AQMP is the most important air management document for the basin because it provides the blueprint for meeting state and federal ambient air quality standards. The 1997 AQMP was adopted locally on November 8, 1996, by the governing board of the SCAQMD. CARB has amended the 1997 AQMP and has submitted it to the U.S. Environmental Protection Agency (EPA) as part of the California State Implementation Plan. The document needs to be reviewed and approved by the U.S. Environmental Protection Agency (EPA). State law mandates the revision of the AQMP at least every three years, and federal law specifies dates certain for developing attainment plans for criteria pollutants. The 1997 AQMP supersedes the 1994 AQMP revision that was adopted locally by the SCAQMD in November 1996. The 1997 revision to the AQMP was adopted in response to the requirements set forth in the California Clean Air Act (CCAA) and the 1990 amendments to the Federal Clean Air Act (CAA). The 1997 AQMP was submitted but was not approved by the EPA. The modified 1997 AQMP became the 1999 AQMP and was adopted by EPA in April 2000. The 1997 PM10 attainment demonstration SIP has also been submitted but has not yet been approved by the EPA.

The SCAB has been designated by the U.S. Environmental Protection Agency (EPA) as a non-attainment area for ozone, carbon monoxide, and suspended particulates. Nitrogen dioxide in the SCAB has met the federal standards for the third year in a row, and therefore, is qualified for redesignation to attainment. A maintenance plan for nitrogen dioxide is included in the 1997 AQMP. The CCAA mandates the implementation of the program that will achieve the

California Ambient Air Quality Standards (CAAQS) and the CAA mandates the implementation of new air quality performance standards.

Attainments of all federal PM10 health standards are to be achieved by December 31, 2006, and ozone standards are to be achieved by November 15, 2010. For CO, the deadline is December 31, 2000.

The overall control strategy for the AQMP is to meet applicable state and federal requirements and to demonstrate attainment with ambient air quality standards. The 1997 AQMP uses four tiers of emission reduction measures; (1) short- and intermediate-term measures, and (2) long-term measures.

Short- and intermediate-term measures propose the application of available technologies and management practices between 1994 and the year 2005. These measures rely on known technologies and proposed actions to be taken by several agencies that currently have statutory authority to implement such measures. Short- and intermediate-term measures in the 1997 AQMP include 35 stationary source, 7 on-road, 6 off-road, 1 transportation control and indirect source, 5 advanced transportation technology, and 1 further study measures. All of these measures are proposed to be implemented between 1995 and 2005. These measures rely on both traditional command and control and on alternative approaches to implement technological solutions and control measures.

To ultimately achieve ambient air quality standards, additional emission reductions will be necessary beyond the implementation of short- and intermediate-term measures. Long-term measures rely on the advancement of technologies and control methods that can reasonably be expected to occur between 1997 and 2010. These long-term measures rely on further development and refinement of known low- and zero-emission control technologies for both mobile and stationary sources, along with technological breakthroughs.

1.3 Monitored Air Quality

Air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates for the SCAB have been made for existing emissions ("1997 Air Quality Management Plan", October 1996). The data indicate that mobile sources are the major source of regional emissions. Motor vehicles (i.e., on-road mobile sources) account for approximately 51 percent of volatile organic compounds (VOC), 63 percent of nitrogen oxide (NOx) emissions, and approximately 78 percent of carbon monoxide (CO) emissions.

The project site is closest to the SCAQMD North Coast Orange County monitoring station. The data collected at this station is considered to be representative of the air quality experienced in the vicinity of the project area. The monitored air quality data at North Coast Orange County are available for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂) and sulfur dioxide (SO₂). PM10 data are available at the Central Orange County monitoring station. The air quality monitored data from 1997 to 1999 for these pollutants are shown in Table 1.

Table 1
Air Quality Measurement Levels from Orange County
Ambient Air Monitoring Stations

Pollutant	California Standard	National Standard	Year	Maximum Level	Days State Std. Exceeded
Ozone	0.09 ppm for 1 hr.	0.12 ppm for 1 hr.	1999	0.10	1
			1998	0.12	5
			1997	0.09*	0*
CO	20 ppm for 1 hour	35 ppm for 1 hour	1999	7.3	0
			1998	9.0	0
			1997	7.3	0
CO	9.0 ppm for 8 hour	9 ppm for 8 hour	1999	6.4	0
			1998	7.1	0
			1997	5.9	0
NO2*	0.25 PPM for 1 hour	0.053 PPM AAM	1999	0.12	0
			1998	0.12	0
			1997	0.12	0
SO2*	.05 ppm for 24 hours	.14 ppm for 24 hours	1999	0.005	0
			1998	0.007	0
			1997	0.015	0
Particulates PM10**	50 ug/m3 for 24 hr.	150 ug/m3 for 24 hr.	1999	111	36(10%)
			1998	70	36(10%)
			1997	86	24(7%)

* Less than 12 full months of data. May not be representative.

** PM10 samples were collected every 6 days. The percentages refer to the percent of samples exceeding the standard and not the number of days per year that the standard was exceeded.

According to the monitoring data in Table 1, ozone is the air pollutant of primary concern in the project area. The state ozone standard was exceeded 1 day in 1999, 5 days in 1998 and none in 1996. Ozone levels have consistently exceeded the state standards in the most recent two years. Ozone is a secondary pollutant; it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO₂, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport

downwind to produce the oxidant concentrations experienced in the South Coast area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon monoxide (CO) is another important pollutant that is due mainly to motor vehicles. High levels of CO commonly occur near major roadways and freeways. CO levels in the project region are currently complied with the state and federal 1-hour and 8-hour standards. CO may potentially be a continual problem in the future for areas next to freeways and other major roadways.

The state standards for PM10 have been exceeded consistently. State standards in the most recent three years were exceeded for approximately 10 percent of the days measured in 1999 and 1998, and 7 percent in 1997. The PM10 trend in the last three years has shown that PM10 levels have slightly increased. PM10 levels in the area are due to natural sources, grading operations and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths.

According to the monitored data shown in Table 1 other than ozone and PM10 exceedances as mentioned above, no state or federal standards were exceeded for the remaining criteria pollutants.

1.4 Local Air Quality

1.4.1 Introduction and Criteria

Local air quality is a major concern along roadways. Carbon monoxide is a primary pollutant. Unlike ozone, carbon monoxide is directly emitted from a variety of sources. The most notable source of carbon monoxide is motor vehicles. For this reason, carbon monoxide concentrations are usually indicative of the local air quality generated by a roadway network and are used to assess its impacts on the local air quality. Comparisons of levels with state and federal carbon monoxide standards indicate the severity of the existing concentrations for receptors in the project area. The Federal and State standards for carbon monoxide are presented in Table 2.

Table 2
Federal and State Carbon Monoxide Standards

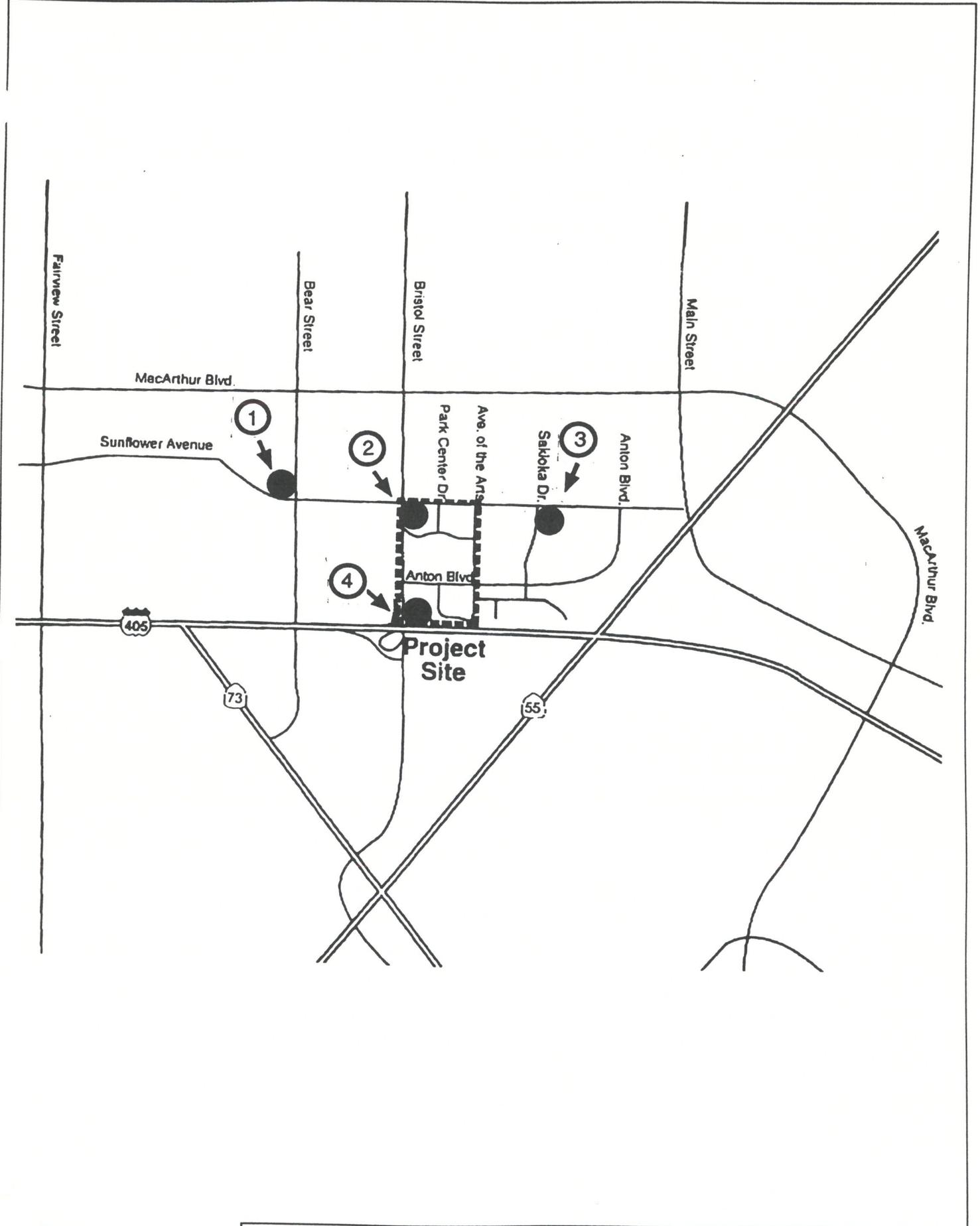
	Averaging Time	Standard
Federal	1 hour	35 ppm
	8 hours	9 ppm
State	1 hour	20 ppm
	8 hours	9 ppm

Carbon monoxide levels in the project vicinity due to nearby roadways were assessed with the CALINE4 computer model. CALINE4 is a fourth generation line source air quality model developed by the California Department of Transportation ("CALINE4," Report No. FHWA/CA/TL-84/15, June 1989). The precise methodology used in modeling existing air quality with the CALINE4 computer model is discussed in more detail in Section 2.2 (Local Air Quality Impacts.) The remainder of this section discusses the resulting existing carbon monoxide levels in comparison to the State and Federal carbon monoxide standards.

The CALINE4 computer modeling results for the existing conditions are shown below in Table 3. The CALINE4 CO modeling was conducted for four receptor locations in the vicinity of the project site. Receptor 1 is located on the northwest corner Sunflower/Bear Street intersection. Receptor 2 is located on the southeast corner of Sunflower/Bristol Street intersection. Receptor 3 is located on the southeast corner of Sunflower/Flower Street intersection. Receptor 4 is located on the northeast corner of Bristol Street/I-405 intersection. The receptors are set back approximately 25 feet from the roadways, and a minimum of 50 feet from the freeway. The four receptor locations are shown in Exhibit 1.

The existing background CO concentrations were taken from the April 1993 CEQA Air Quality Handbook. (The April 1993 CEQA Air Quality Handbook is the latest available source to use.) The existing 1999 background CO concentrations used in the modeling are taken from the Costa Mesa station which is the nearest air quality monitoring station. The existing background CO concentrations are projected to be 7.3 ppm for 1 hour, and 5.8 ppm for 8 hour. Therefore, 7.3 ppm is added to the worst case meteorological 1-hour projections, and 5.8 ppm to the 8-hour projections, to account for the existing background carbon monoxide levels.

The existing peak hour traffic and level-of-service data were obtained from the traffic study prepared by Austin Foust Associates, Inc., June 15, 2000. The modeling results of the existing CO levels are presented in Table 3.



● Receptor Location

Table 3
Existing Carbon Monoxide Concentrations (ppm)

Roadway	Carbon Monoxide Concentrations (ppm)	
	<u>1 Hour</u>	<u>8 Hour</u>
<i>RECEPTOR LOCATIONS</i>		
1 NW Sunflower/Bear	11.3	8.6
2 SE Sunflower/Bristol	12.1	<u>9.2</u>
3 SE Sunflower/Flower	10.2	7.8
4 NE Bristol/I-405	16.3	<u>13.0</u>
Summary of Carbon Monoxide State Standard Exceedances	No. of Sites exceeding <u>20 ppm</u> 0	No. of Sites exceeding <u>9 ppm</u> 2

NOTE: The CO concentrations include the ambient concentrations of 7.3 ppm for 1-hour levels, and 5.8 ppm for 8-hour levels.

Table 3 presents the modeling results for the existing CO concentrations at the four receptor locations. The existing CO concentrations are estimated to be approximately range between 10.2 and 16.3 ppm for 1-hour, and 7.8 and 13.0 ppm for 8-hour at the four receptor locations. The data indicate that the existing CO concentrations currently comply with the 1-hour state and federal standards at the four receptor sites. However, the 8-hour CO levels exceed the 8-hour standard of 9 ppm at Receptors 2 and 4.

2.0 POTENTIAL AIR QUALITY IMPACTS DUE TO THE PROJECT

Air quality impacts are usually divided into short term and long term. Short term impacts are usually the result of construction or grading operations. Long term impacts are associated with the built out condition of the proposed project.

2.1 Short Term Impacts

The project site comprises a total approximately 54.5 acres. However, only 9.2 acres will be graded. The project is assumed to be constructed in one year as a worst case scenario. In addition, the demolition of 165,000 square feet of building areas is assumed to last three months. The technical data utilized in the calculations are shown in the appendix.

Temporary impacts will result from the project's construction activities. Air pollutants will be emitted by construction equipment and fugitive dust will be generated during grading and site preparation. Construction activities for large development projects are estimated by the U.S. Environmental Protection Agency (according to the 1993 CEQA Handbook, emission factor for disturbed soil is 0.40 tons of PM10 per month per acre). If water or other soil stabilizers are used to control dust as required by SCAQMD Rule 403, the emissions can be reduced by 50 percent.

Applying the above factors to the 9.2 acres of graded area and an estimated 3 month grading cycle result in an estimate of 5 tons per year. When there is intense grading activities, the peak PM10 emission is estimated to be approximately 120 pound per day. The demolition activities are estimated to result in approximately 40 pounds per day of PM10.

For the proposed project, the peak emissions of 120 pounds per day of PM10 are minor when compared with the total average annual of 416 tons per day of particulate matter currently released in the whole South Coast Air Basin (SCAB). However, according to the SCAQMD's CEQA Handbook, PM10 emissions greater than 150 pounds per day should be considered significant. The PM10 emissions generated by the proposed project are not projected to be greater than this threshold, and therefore, are not considered to be significant.

It should be noted that the impact due to grading is very localized. Additionally, this material is inert silicates, rather than the complex organic particulate matter released from combustion sources which are more harmful to health. In some cases grading may be near existing development. Care should be taken to minimize the generation of dust. Common practice for minimizing dust generation is watering before and during grading. Without watering, PM10 emission generation would be double the amount mentioned previously (2 x 5 tons/year = 10 tons/year). Additional mitigation measures are proposed in Section 3.0.

Heavy-duty equipment emissions are difficult to quantify because of day to day variability in construction activities and equipment used. Typical emission rates for construction equipment were obtained from the SCAQMD Air Quality Handbook. It is anticipated that five pieces of heavy equipment may be expected to operate at one time. The number of pieces of equipment assumed included one scraper, one tractor, one dozer, one water truck, and one miscellaneous truck. If all of the equipment operated for eight hours per day the following emissions would

result; approximately 32 pounds per day of carbon monoxide, 5 pounds per day of ROG, 88 pounds per day of nitrogen oxides, 11 pounds per day of PM10, and 10 pounds per day of sulfur oxides.

For the demolition activities, it is estimated that twelve pieces of heavy equipment may be expected to operate at any one time. The number of pieces of equipment assumed included four loaders, four tractors and four water trucks. If all of the equipment operated for eight hours per day the following emissions would result; approximately 87 pounds per day of CO, 18 pounds per day of ROG, 238 pounds per day of NOx, 19 pounds per day of PM10, and 19 pounds per day of SOx.

There will also be some emissions generated by construction workers who travel to and from the job site. However, specific information is not available to project these emissions, and therefore, assumptions were made to project the emissions due to construction worker travel. However, they are usually small in comparison to the other construction emissions. The data utilized are shown in the appendix.

Note that some of the pollutant emissions are greater than the Significance Emission Thresholds established by the SCAQMD in the CEQA Air Quality Handbook, and therefore, the project's construction emissions, specifically NOx emissions from demolition activities are considered to be significant. Mitigation measures are recommended for the construction activities of the project to minimize fugitive dust emissions. The mitigation measures are provided in Section 3.0. The construction emission data is summarized in Table 4. The data used to calculate the construction emissions are shown in the appendix.

Table 4
Worst Case Peak Construction Emissions

Pollutant	-----Peak Emissions (Pounds/Day)-----				SCAQMD Thresholds
	Employee Travel	Grading Activities (PM10 only)	Equipment Emissions	Total Emissions	
<u>Demolition</u>					
Carbon Monoxide	9.93	--	22.18	119	550
ROG	0.85	--	17.63	23	75
Nitrogen Oxides	2.59	--	237.72	<u>262</u>	100
PM10*	0.09	40	19.09	61	150
Sulfur Oxides	0.11	--	18.55	19	150
<u>Grading/Construction</u>					
Carbon Monoxide	4.96	--	32.36	37	550
ROG	0.42	--	4.76	5	75
Nitrogen Oxides	1.30	--	87.76	89	100
PM10*	0.04	120	10.62	130	150
Sulfur Oxides	0.05	--	10.42	11	150

NOTE: The underlined data indicates exceedance of the significant threshold.

* Emissions reduced by 50% from watering.

2.2 Long Term Impacts - Local Air Quality

Because the project will introduce changes in traffic on the roadways serving the project, a detailed analysis of carbon monoxide concentrations at sensitive areas in the project vicinity was conducted.

2.2.1 Methodology

Carbon monoxide (CO) is the pollutant of major concern along roadways because the most notable source of carbon monoxide is motor vehicles. For this reason carbon monoxide concentrations are usually indicative of the local air quality generated by a roadway network, and are used as an indicator of its impacts on local air quality. Local air quality impacts can be assessed by comparing future carbon monoxide levels with State and Federal carbon monoxide standards and by comparing future CO concentrations with and without the project. The Federal and State standards for carbon monoxide were presented earlier in Table 2.

Future carbon monoxide concentrations with the project were forecasted with the CALINE4 computer model. CALINE4 is a fourth generation line source air quality model developed by the

California Department of Transportation ("CALINE4," Report No. FHWA/CA/TL-84/15, June 1989). The purpose of the model is to forecast air quality impacts near transportation facilities in what is known as the microscale region. The microscale region encompasses the region of a few thousand feet around the pollutant source. Given source strength, meteorology, site geometry, and site characteristics, the model can reliably predict pollutant concentrations.

Worst case meteorology was assessed. Specifically, a late afternoon winter period with a ground based inversion was considered. For worst case meteorological conditions, a wind speed of 0.5 meter per second (1 mph) and a stability class G was utilized for a 1 hour averaging time. Stability class G is the worst case scenario for the most turbulent atmospheric conditions. A worst case wind direction for each site was determined by the CALINE4 Model. A sigma theta of 10 degrees was also used and represents the fluctuation of wind direction. A high sigma theta number would represent a very changeable wind direction. The temperature used for worst case was 50 degrees Fahrenheit. The temperature affects the dispersion pattern and emission rates of the motor vehicles. The temperature represents the January mean minimum temperature as reported by Caltrans. The wind speed, stability class, sigma theta, and temperature data used for the modeling are those recommended in the "Development of Worst Case Meteorology Criteria," (California Department of Transportation, June 1989). A mixing height of 1,000 meters was used as recommended in the CALINE4 Manual. A surface roughness of the ground in the area, 100 centimeters, was utilized and is based on the CALINE4 Manual. It should be noted that the results are also dependent on the speeds of the vehicles utilized in the model.

Emission factors for the arterials used with the CALINE4 computer model were obtained from the Air Resources Board (ARB). The emission factors of version MVEI7G, which is the most recent updated version, were used in the CALINE4 computer modeling.

The peak hour volumes and the level-of-service data at the critical intersections will be used in the CALINE4 computer modeling. The level-of-service data are important in the CALINE4 computer modeling in that they determine the speeds used. The speeds used in turn determine the emission factors. The lower the speeds, the higher the emission factors, and as a result, the higher the CO results. The p.m. peak hour traffic is utilized for the CALINE4 computer modeling as the worst case scenario, since the p.m. peak hour traffic generally is higher than the a.m. peak hour. The 2020 traffic data were prepared by Austin Foust Associates Inc., June 15, 2000.

Eight hour carbon monoxide levels were projected using Caltrans methodology described in their "Air Quality Technical Analysis Notes." The method essentially uses a persistence factor which is multiplied times the 1 hour emission projections. The projected 8 hour ambient concentration is then added to the product. The persistence factor can be estimated using the highest ratio of 8-hour to 1-hour second annual maximum carbon monoxide concentrations from the most recent three years that data is available. For the project, a persistence factor of 0.7 was utilized for the roadways and 0.8 for the freeway. The data and results of the CALINE4 modeling are also provided in the appendix. (The CALINE4 CO emission results shown in the appendix do not include the ambient background CO levels.)

Generally, the 1-hour CO level is considered the peak maximum CO level since it is the highest CO measured for an hour. According to the Caltrans Air Quality Technical Analysis Notes, changes in meteorology and traffic over time disperse the CO concentration levels and cause it to be less severe. Therefore, it is highly unlikely that the 1-hour CO levels would persist for a full eight hours. As a result, a 1-hour CO level is generally considered to be the peak level and is usually higher than an 8-hour CO level.

The CALINE4 computer modeling for long-range year 2020 is shown in Table 6. The CALINE4 modeling was conducted for four receptor locations. Receptor 1 is located on the northwest corner Sunflower/Bear Street intersection. Receptor 2 is located on the southeast corner of Sunflower/Bristol Street intersection. Receptor 3 is located on the southeast corner of Sunflower/Flower Street intersection. Receptor 4 is located on the northeast corner of Bristol Street/I-405 intersection. The receptors are set back approximately 25 feet from the roadways and a minimum of 50 feet from the freeway. The receptor locations used for the future CO modeling are the same receptor locations as the existing CO modeling in Section 1.4 and shown in Exhibit 1.

The future ambient (background) CO concentration levels were obtained from the 1993 CEQA Handbook. The future projected ambient CO levels are available up to year 2000. Therefore, it is assumed that the background CO levels for year 2000 are the same as 2020. This can be considered as the worst case situation since the background CO levels are projected to decrease steadily in the future years. The future background levels utilized are taken from the Costa Mesa station, and they are 7.3 ppm for CO 1-hour level, and 5.8 ppm for 8-hour CO level.

2.2.2 Carbon Monoxide (CO) Modeling Results

The results of the CALINE4 CO modeling are summarized in Table 5 and are for year 2020. The CO modeling results are shown for the projected future 1 hour and 8 hour CO concentration levels. The pollutant levels are expressed in parts per million (ppm) for each receptor. The carbon monoxide levels reported in Table 5 are composites of the background levels of carbon monoxide coming into the area plus those generated by the local roadways.

Table 5
Worst Case Projections of Carbon Monoxide Concentrations-Year 2020

Receptor Location	Future Carbon Monoxide Concentrations (ppm)			
	No Project		With Project	
	1 Hour	8 Hour	1 Hour	8 Hour
<u>General Plan without Home Ranch</u>				
1 NW Sunflower/Bear	9.1	7.1	9.1	7.1
2 SE Sunflower/Bristol	9.6	7.4	9.7	7.4
3 SE Sunflower/Flower	8.6	6.7	8.6	6.7
4 NE Bristol/I-405	11.2	8.9	11.2	8.9
Summary of Carbon Monoxide State Standard Exceedances	No. of Sites exceeding <u>20 ppm</u>	No. of Sites exceeding <u>9 ppm</u>	No. of Sites exceeding <u>20 ppm</u>	No. of Sites exceeding <u>9 ppm</u>
	0	0	0	0
<u>General Plan with Home Ranch</u>				
1 NW Sunflower/Bear	9.1	7.1	9.1	7.1
2 SE Sunflower/Bristol	9.7	7.5	9.7	7.5
3 SE Sunflower/Flower	8.6	6.7	8.6	6.7
4 NE Bristol/I-405	11.2	8.9	11.2	8.9
Summary of Carbon Monoxide State Standard Exceedances	No. of Sites exceeding <u>20 ppm</u>	No. of Sites exceeding <u>9 ppm</u>	No. of Sites exceeding <u>20 ppm</u>	No. of Sites exceeding <u>9 ppm</u>
	0	0	0	0

NOTE: The CO concentrations include the ambient concentrations of 7.3 ppm for 1-hour levels, and 5.8 ppm for 8-hour levels.

The results of the CO modeling in Table 5 are shown for General Plan (GP) with and without Home Ranch traffic. The future CO concentration levels are projected to be in the range of 8.6 to 11.2 ppm for 1-hour and 6.7 to 8.9 ppm for 8-hour for both scenarios. The future CO levels are projected to comply with the 1-hour and 8-hour CO state and federal standards at the four receptor locations. It should be noted that the 8-hour CO concentration levels will approach the 8-hour CO standard of 9 ppm at Receptor 4. The predominant source of the CO emissions will be I-405 at this location.

The CO concentrations for the four scenarios presented in Table 5 are identical for all receptors except Receptor 2. At Receptor 2, the 1-hour concentration without this project or the Home Ranch project is 0.1 ppm lower than with either or both projects. That is, the proposed project and the Home Ranch project result in a 0.1 ppm increase individually and in combination at Receptor 2 over General Plan buildout conditions.

According to the CEQA Handbook, a measurable increase is defined as 1 ppm for the 1-hour standard, and 0.45 ppm for the 8 hour standard (which is consistent with District Regulation XIII definition of a significant impact). In areas where the state and 1-hour and 8-hour standards are exceeded, any increase above the measurable increase is considered "likely to increase the frequency or severity of an existing CO violation".

In the area of the project, the state 1-hour and 8-hour CO concentration standards are not exceeded. Further, the project, by itself or in combination with the Home Ranch project, is not projected to result in a measurable increase. Therefore, the project will not significantly impact local air pollutant concentrations either alone or in combination with the Home Ranch project.

The future CO modeling results in Table 5 can also be compared with the existing CO levels (Table 3). The future with project CO concentration levels are projected to be lower than the existing CO levels. Future CO concentration levels are projected to be reduced by an average of 2.8 ppm for 1-hour and an average of 2.1 ppm for 8-hour at the four receptor locations. This is mainly due to the decrease in the future background CO concentration levels as well as the anticipated decrease in the future emission factors. In general, the background CO concentration and the emission factors are projected to decrease steadily in the future years. The local traffic will actually increase in the future, but this is more than offset by the decrease of background levels and emission factors.

2.3 Long Term Regional Air Quality

The main source of regional emissions generated by the proposed project will be from motor vehicles. Other emissions will be generated from the combustion of natural gas for space heating and the generation of electricity. Emissions will also be generated by the use of natural gas and oil for the generation of electricity off-site.

2.3.1 Total Project Emissions

The total daily emissions were assessed for the proposed project. The total daily emissions at the project build out will be primarily due to vehicular emissions, and emissions due to on-site combustion of natural gas for space heating and water heating. Also, the generation of electrical energy by the combustion of fossil fuels results in additional emissions off-site.

Vehicular emissions will be the main sources of the project's daily emissions. Estimates were made of the vehicular emissions that would be generated by the proposed project. The future traffic data for the project were provided by Austin Foust Associates, Inc., October 10, 2000.

The project is anticipated to generate approximately 10,001 average daily trips (ADT). The average trip length data for Orange County were obtained from the CEQA Handbook, Table A9-5-D. The average trip length for the proposed project is estimated to be 9 miles. The product of the project daily trips and a 9 mile trip length, translate to total vehicle miles traveled (VMT) of 90,009 due to the proposed project.

The emission factors from version MVEI7G were used to calculate the vehicular emissions. The MVEI7G emission factors were obtained from the Air Resources Board (ARB). The MVEI7G emission factors, at an average speed of 25 miles per hour, were used in the estimates. The emissions were projected for year 2020.

Other emission sources that will be generated by the proposed project are on-site combustion of natural gas for space heating and water heating, and off-site electrical usage. The data used to estimate the on-site combustion of natural gas, and off-site electrical usage are based on the proposed land uses in terms of dwelling units and emission factors taken from the 1993 CEQA Handbook. According to the project's description, the total proposed building areas result in approximately 1,389,145 square feet of commercial uses. These data are also provided as technical data in the appendix. The total emissions due to the project are presented in Table 6.

Table 6
TOTAL DAILY EMISSIONS – Year 2020

Pollutant	----- SOURCE -----			Total Daily Emissions (pounds/day)	Total Daily Emissions (tons/day)
	Vehicular Emissions (pounds/day)	On-Site Emis. from Natural Gas Combustion (pounds/day)	Off-Site Emis. from Electrical Generation (pounds/day)		
CO	558.48	2.64	8.98	570	0.29
TOG/ROG	61.29	0.70	0.45	62	0.03
NOx	105.17	15.85	51.65	173	0.09
PM10	5.95	0.03	1.80	8	0.00
SOx	15.43	0.00	5.39	21	0.01

2.3.3 Total Regional Emissions

The main source of emissions generated by the proposed project will be from motor vehicles. Other sources of emissions will be natural gas combustion for space heating, electrical generation and various activities that are yet to be defined and quantified. Emissions for the proposed project were calculated using methodology and emission factors contained in the SCAQMD's CEQA Air Quality Handbook.

The SCAB emission data are projected for year 2010 provided in the 1997 AQMP. They will be used to compare with the project's total emissions. The total emissions generated by the project are presented in the first line of Table 7.

Table 7
Comparison of Emissions

Contaminant	CO	ROG	NOx	PM10	SOx
Total Emissions Per Day					
Project Emissions (Pounds/Day)	<u>570</u>	<u>62</u>	<u>173</u>	8	21
SCAB (Tons/Day)	3,341	769	697	457	70
<i>SCAQMD Thresholds of Significance (Pounds/Day)</i>	<i>550</i>	<i>55</i>	<i>55</i>	<i>150</i>	<i>150</i>
Project Emissions as a Percent of Regional Emissions					
Percent of County Emissions (Project)	0.009%	0.004%	0.012%	0.001%	0.015%

As can be seen in Table 7, on the regional basis, the proposed project will contribute approximately 0.009 percent or less of the SCAB emissions. The primary source of the proposed project emissions will be from motor vehicles.

Note that the project emissions exceed the SCAQMD thresholds of significance for CO, ROG and NOx. Note also that these thresholds are not necessarily an appropriate reference to determine the significance of project emissions. These thresholds are taken from the “1993 CEQA Air Quality Handbook”, which states that the criteria “are consistent with the federal Clean Air Act definition of a significant source in an area classified as extreme for ozone.” While it is correct that the thresholds are consistent as such, the SCAQMD ignores the fact that such criteria were developed initially by the U.S. EPA to be applied to point source emissions, such as an industrial smokestack. Comparisons between emissions from an extreme point source and emissions from the proposed project are clearly inappropriate in this context. Emissions from the proposed project are primarily from motor vehicles traveling in the area. Emissions from the proposed project bear no resemblance to emissions from industrial sources.

According to the SCAQMD CEQA Handbook, the SCAB has been classified as a non-attainment air basin for compliance with the Federal Clean Air Act. The daily emissions for the project will exceed the significant thresholds for CO, ROG and NOx, and therefore, the project’s long-term impacts will be significant, and will contribute incrementally to a cumulatively significant adverse impact. Mitigation measures are recommended for long-term impacts.

It is also very important to note that, while the SCAQMD states that all projects with emissions exceeding the thresholds are to be considered significant, the final decision whether a project is

declared to have significantly adverse environmental impacts lies, by law, with the lead agency. It is not within the purview of the SCAQMD to declare that projects will have significant impacts or not.

2.4 Compliance with Air Quality Planning

The following sections deal with the major air planning requirements for this project. Specifically, consistency of the project with the AQMP is addressed. As discussed below, consistency with the AQMP is a requirement of the California Environmental Quality Act (CEQA).

2.4.1 Consistency with AQMP

An EIR must discuss any inconsistencies between the proposed project and applicable GPs and regional plans (California Environmental Quality Act (CEQA) guidelines (Section 15125)). Regional plans that apply to the proposed project include the South Coast Air Quality Management Plan (AQMP). In this regard, this section will discuss any inconsistencies between the proposed project with the AQMP.

The purpose of the consistency discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the project would interfere with the region's ability to comply with federal and state air quality standards. If the decision-maker determines that the project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD's CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the plan if it furthers one or more policies and does not obstruct other policies. The Handbook identifies two key indicators of consistency:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (except as provided for CO in Section 9.4 for relocating CO hot spots).
- (2) Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in this report, it is expected that there will be short-term construction impacts for the project. It is unlikely that short-term construction activities will increase the frequency or severity of existing air quality violations due to required compliance with SCAQMD Rules and Regulations, but emissions will be generated in excess of SCAQMD's threshold criteria (refer to Section 2.1).

The proposed project will increase regional emissions, and will increase regional emissions by an amount greater than the SCAQMD thresholds for CO, ROG and NO_x (Refer to Section 2.3.3). However, the project is not projected to contribute significantly to the local air quality when compared to No Project (refer to Section 2.a). The results show that the future CO concentration levels with the project will not increase the severity of the CO concentrations. The 1-hour and 8-hour CO increase levels with project will not exceed the CEQA's measurable increase (1 ppm for 1-hour and 0.45 ppm for 8-hour). Because the project is *not* projected to impact the local air quality, the project is found to be consistent with the AQMP for the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the project with the assumptions in the AQMP. Thus, the emphasis of this criterion is to insure that the analyses conducted for the project are based on the same forecasts as the AQMP. The Regional Comprehensive Plan and Guide (RCP&G) consists of three sections: Core Chapters, Ancillary Chapters, and Bridge Chapters. The Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management chapters constitute the Core Chapters of the document. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA.

Since the SCAG forecasts are not detailed, the test for consistency of this project is not specific. The traffic modeling upon which much of the air quality assessment is based are the City of Costa Mesa Traffic Model (CMTM), Intersection Capacity Utilization (ICU), and Institute of Transportation Engineers (ITE) Trip Generation Sixth Edition. The traffic modeling has growth projections for year 2020 which is the project's buildout year. The future traffic growth projections also include approved projects to be constructed for long range year 2020. It appears that the growth forecasts for the proposed project, at the project's buildout year, are consistent with the SCAG growth forecasts. The forecasts made for the project EIR seem to be based on the same demographics as the AQMP, and therefore, the second criterion is met for consistency with the AQMP.

2.4.2 Inclusion of AQMP Measures

The 1997 AQMP lists strategies designed to improve air quality throughout the region. These measures examine solutions to regional air quality concerns. A two tiered approach is used in the

1997 AQMP. The first is short- and medium-term measures that will utilize existing technology. The second tier is long-term measures that will rely on new technology. Each tier then contains several control measures intended to reduce emissions from specific sources or activities including stationary sources, transportation related and land use related sources, area sources, mobile sources, and off-road mobile sources.

3.0 MITIGATION MEASURES

3.1 Construction Impacts (Short Term) Standard conditions and requirements

All construction contractors shall comply with SCAQMD regulations, including Rule 402, the Nuisance Rule, and Rule 403, Fugitive Dust. Prior to the issuance of a grading permit, the applicant shall submit a grading plan or grading contingency plan to the SCAQMD in accordance with Rule 403. All grading shall apply best available control measures for fugitive dust in accordance with Rule 403. To ensure that the project is in full compliance with applicable SCAQMD dust regulations and that there is no nuisance impact off the site, the contractor will implement each of the following:

Mitigation 1: Water site and clean equipment morning and evening. As these are not optional mitigation measures, but a SCAQMD requirement, this reduction should be, and is, already included in the particulate emission projections in this report. As part of the conditions of grading permit approval, the project shall water the construction site and unpaved haul roads (with use of reclaimed water or chemical soil binder, where feasible) twice daily.

Mitigation 2: Wash off trucks leaving the site. Wash mud-covered tires and under-carriages of trucks leaving construction site. Also, securely cover loads with a tight fitting tarp on any truck leaving the construction sites to dispose debris. Haul trucks leaving the site also are required to have a minimum freeboard distance of 12", or to cover payloads.

Mitigation 3: Spread soil binders on site, unpaved roads and parking areas. SCAQMD Rule 403 requires that "every reasonable precaution (is taken) to minimize fugitive dust emissions" from grading operations to control particulate emissions. Apply chemical stabilizers to disturbed surface areas within five days of completing or apply dust suppressants or vegetation sufficient to maintain a stabilized surface.

Mitigation 4: Sweep streets if silt is carried over to adjacent public thoroughfares. Provide street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud which would otherwise be carried off by trucks departing project site.

Mitigation 5: Reduce traffic speeds on all unpaved road surfaces to 15 miles per hour or less. Data to estimate emissions from vehicles traveling upon unpaved roads is unavailable, so there is no way to specifically quantify the amount of emissions reductions from this measure. A reduction in travel speeds to 15 miles per hour on unpaved road surfaces normally reduces particulate emissions from this activity by approximately 40% to 70%.

Mitigation 6: Suspend grading operations during first and second stage smog alerts. This measure would, of course, almost entirely eliminate emissions from the heavy equipment used in grading activities.

Mitigation 7: Water as often as needed on windy days when wind speeds are less than 25 miles per hour. Also, water as often as needed during very dry weather in order to maintain a surface crust and prevent the release of visible emissions from the construction site.

Mitigation 8: Water excavated soil piles hourly or cover with temporary covering

Mitigation 9: Moisten soil not more than 15 minutes prior to moving soil or conduct whatever watering is necessary to prevent visible dust emissions from exceeding 100 feet in any direction.

Mitigation 10: Employ construction activity management techniques, such as: extending the construction period; reducing the number of pieces of equipment used simultaneously; increasing the distance between the emission sources; reducing or changing the hours of construction; and scheduling activity during off-peak hours. If this measure is implemented, the timetable for the project's construction period would be lengthened. This would probably reduce the amount of emissions per day generated by the construction activities, specifically for equipment emissions. In order to reduce the NOx emissions to below the threshold, the number of equipment operating should not exceed five at any one time, and not operated more than eight hours a day.

3.3 Construction Emissions after Mitigation Measures

In conclusion, the short-term construction emissions due to the proposed project with the recommended mitigation measures will be reduced to below significant levels, specifically for PM10 emissions. If Mitigation 10 is also implemented, then the NOx emissions would be reduced to below the threshold. (However, if Mitigation 10 is not implemented than NOx emissions would be significant).

3.4 Regional Air Quality (Long Term)

The most significant reductions in regional and local air pollutant emissions are attainable through programs which reduce the vehicular travel associated with the project. Support and compliance with the AQMP for the basin is the most important measure to achieve this goal. To reduce emissions from project-related vehicle trips, the project applicant shall adhere to the City of Costa Mesa Municipal Code 13-880 through 13-188 (Transportation Demand Management or TDM) and the South Coast Air Quality Management District Regulation XV to reduce VMT to the maximum extent feasible. The code include measures such as:

- preferential parking for carpool vehicles
- bicycle parking and shower facilities
- information provided to employees on transportation alternatives
- rideshare vehicle loading areas
- vanpool vehicle accessibility
- bus stop improvements

3.5 Local Air Quality Impacts

The future with project CO emissions are not projected to increase above CEQA's measurable increase levels, and therefore, the local air quality impact due to the project is not considered to be significant.

3.6 Regional Impacts After Mitigation Measures

The long term regional air quality impact due to the proposed project with mitigation measures will be reduced to an extent; however, the emissions would still be significant specifically for CO, NOx and ROG.

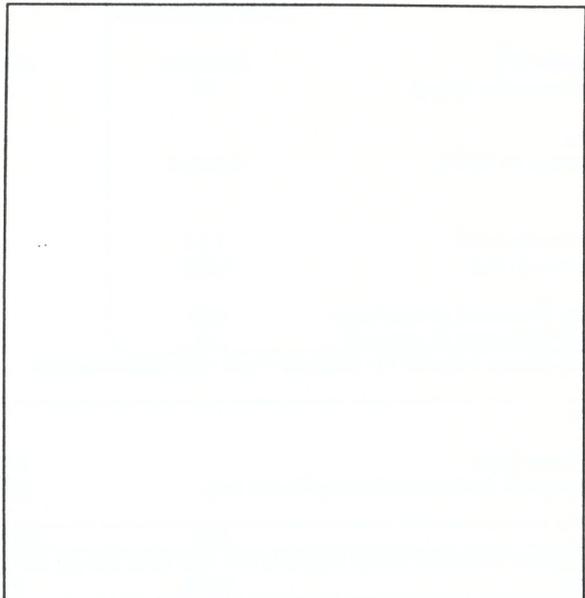
APPENDIX

PROJECT EMISSIONS DATA SHEETS

Construction Employee Travel Emissions					
Enter Number of Employees on Construction Site:	10				
Enter Average Trip Length for Employee Travel to Site:	20				
Enter Area:	1				
(1 for Orange County, 2 for L.A. County, 3 for Riverside Co., or 4 for San Bernardino)					
	CO	ROG	NOx	PM10	SOx
Emission Factors From EMFAC7G Regional For Year 2000 Except SOX					
OC	5.63	0.48	1.47	0.05	0.06
LA	5.68	0.49	1.57	0.05	0.06
RC	5.93	0.61	2.49	0.09	0.06
SB	6.05	0.67	2.95	0.1	0.06
Employee Travel Emissions (lbs./dy)	4.96	0.42	1.30	0.04	0.05

PM10 Emission Source: Page 9-3 of 1993 CEQA Handbook

Particulate Emissions from Grading Activities	
<i>(Enter only in italics)</i>	
<i>Input Data</i>	
Project Size (in acres):	9.2
Grading Cycle (in months):	3
Percent Grading Occurs:	25%
Construction Completion (in years):	1
<i>Assumptions</i>	
PM10 Emissions (in tons/month/acre):	0.40
Watering Reduction:	50%
<i>Results</i>	
Total Emissions (in tons):	5.46
Total Emissions (in pounds):	10,930
Annual Emissions (in tons/year):	5.46
Annual Emissions (in pounds/year):	10,930
Average Daily Emissions (in tons):	0.01
Average Daily Emissions (in pounds):	30
Peak Emissions (tons/day):	0.06
Peak Emissions (pounds/day):	120



Emissions from Grading Equipment						
Enter number of pieces for each type of equipment:						
Scrapers:	1	CO	ROG	NOx	PM10	SOx
Daily Emissions (lbs./day)		10.00	2.16	30.72	3.68	3.28
Loaders:	0					
Daily Emissions (lbs./day)		0.00	0.00	0.00	0.00	0.00
Tracklaying Tractors:	1					
Daily Emissions (lbs./day)		2.56	0.96	10.08	0.90	1.12
Motor Grader:	0					
Daily Emissions (lbs./day)		0.00	0.00	0.00	0.00	0.00
Wheeled Dozers:	1					
Daily Emissions (lbs./day)		--	--	--	1.32	2.80
Water Trucks:	1					
Daily Emissions (lbs./day)		14.40	1.52	33.36	3.60	2.08
Miscellaneous:	1					
Daily Emissions (lbs./day)		5.40	0.12	13.60	1.12	1.14
	5					
Grading Equipment Emissions (lbs./day)		32.36	4.76	87.76	10.62	10.42

TOTAL GRADING EMISSIONS					
Total Emissions (lbs./day)	CO	ROG	NOx	PM10	SOx
	37.32	5.18	89.06	130.44	10.48

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: Town Center

Construction Employee Travel Emissions					
Number of Employees on Construction Site:	20				
Average Trip Length for Employee Travel to Site:	20				
Enter Area:	1				
(1 for Orange County, 2 for L.A. County, 3 for Riverside Co., or 4 for San Bernardino)					
	CO	ROG	NOx	PM10	SOx
Emission Factors From EMFAC7G Regional For Year 2000 Except SOX (g/mi)					
OC	5.63	0.48	1.47	0.05	0.06
LA	5.68	0.49	1.57	0.05	0.06
RC	5.93	0.61	2.49	0.09	0.06
SB	6.05	0.67	2.95	0.1	0.06
Employee Travel Emissions (lbs./dy)	9.93	0.85	2.59	0.09	0.11

Particulate Emissions from Demolition		
<i>(Enter only in italics)</i>		
<i>Input Data</i>		
Building Volume (ft³)	8,662,500	24.75
Duration of Demolition (Days)	90	6
<i>Assumptions</i>		
PM10 Emissions (in lbs/ft³):	0.00042	
<i>Results</i>		
Total Emissions (in tons):	1.82	
Total Emissions (in lbs):	3,638	
Average Daily Emissions (in tons/day):	0.02	
Average Daily Emissions (in lbs/day):	40	

PM10 Emission Source: Page A9-104 (Table A9-10) of 1993 CEQA Handbook

Truck Trips					
Number of Truck Trips	25				
Average Trip Length for Debris Hauling Trucks (mi):	20				
	CO	ROG	NOx	PM10	SOx
Emission Factors From EMFAC7G Regional For Year 2000 Except SOX (g/mi)					
Heavy Trucks	10.06	2	9.71	0.72	0.06
Truck Trips Emissions (lbs./dy)	22.18	4.41	21.41	1.59	0.13

Emissions from Grading Equipment						
Enter number of pieces for each type of equipment:		8		Hours of operation per day		
	CO	ROG	NOx	PM9	SOx	
Scrapers:	0					
Daily Emissions (lbs./day)	0.00	0.00	0.00	0.00	0.00	
Loaders:	4					
Daily Emissions (lbs./day)	18.88	7.59	62.70	0.99	5.61	
Tracklaying Tractors:	4					
Daily Emissions (lbs./day)	10.56	3.96	41.58	3.70	4.62	
Motor Grader:	0					
Daily Emissions (lbs./day)	0.00	0.00	0.00	0.00	0.00	
Wheeled Dozers:	0					
Daily Emissions (lbs./day)	--	--	--	0.00	0.00	
Water Trucks:	4					
Daily Emissions (lbs./day)	57.60	6.08	133.44	14.40	8.32	
Miscellaneous:	0					
Daily Emissions (lbs./day)	0.00	0.00	0.00	0.00	0.00	
	12					
	CO	ROG	NOx	PM10	SOx	
Grading Equipment Emissions (lbs./day)	87.04	17.63	237.72	19.09	18.55	

TOTAL DEMOLITION EMISSIONS					
	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	119.14	22.89	261.72	61.19	18.79

***** AIR EMISSIONS *****

Revision 7/95 (includes 1993 CEQA Air Quality Handbook Update)

Project: Proposed Town Center Expansion
 Study Year: 2020
 Area: 1

(enter in italics only)

(Enter 1 for Orange County, 2 for Los Angeles County,
 3 for Riverside County, or 4 for San Bernardino County)

***** VEHICULAR EMISSIONS

Emission Factor Sources: MVEI7G and BURDEN7G

Speed (mph)=	25				
Number of Trips=	10,001				
Average Trip Length=	9.0				
Vehicle Miles Traveled=	90,009				
Pollutant	CO	ROG	NOx	PM10	SOx
Factor (gm/mi)	2.56	0.12	0.45	0.03	0.07
Emis. (Lb/Dy)	507.99	23.81	89.30	5.95	13.89
Emis. (Tr/Dy)	0.25	0.01	0.04	0.00	0.01
Factor (gm/trip)	2.29	1.70	0.72	0.00	0.07
Emis. (Lb/Dy)	50.49	37.48	15.87	0.00	1.54
Emis. (Tr/Dy)	0.03	0.02	0.01	0.00	0.00
Total Vehicular Emissions (Lb/Dy)	558.48	61.29	105.17	5.95	15.43
Total Vehicular Emissions(Tr/Dy)	0.28	0.03	0.05	0.00	0.01

***** ON SITE EMISSIONS DUE TO NATURAL GAS COMBUSTION

Source: April 1993 CEQA Hand Handbook

Unit Type	Ft3/DU/Mo.	DU or Ft2*	Gas Use (Ft3/Day)		
Single Fam.	6665	0	0		
Mult. Fam. <=4	4105	0	0		
Mult. Fam. >=5	3918	0	0		
	Ft3/Ft2/Mo.			0 Subtotal for Residential	
Office	2	0	0		
Commercial	2.9	1,389,145	132,083		
Hotel/Motel	4.8	0	0		
	Ft3/Customer/Mo.	Customers/Mo.	132,083	Subtotal for Retail/Commercial	
Industrial	2936.6	0	0		
				0 Subtotal for Industrial	
	Total (Ft2)	1,389,145	132,083	Total	
Pollutant	CO	ROG	NOx	PM10	SOx
Factor (lbs/10*6 ft3)	20	5.3	0.7	0.2	0
Emis. (Lb/Dy)	2.64	0.70	15.85	0.03	0.00
Emis. (Tr/Dy)	0.00	0.00	0.01	0.00	0.00

***** OFF SITE EMISSIONS DUE ELECTRICAL GENERATION

Source: April 1993 CEQA Hand Handbook

Unit Type	SCE KWH/Unit/Yr	LADWP KWH/Unit/Yr	Number of Units or Ft2	Electrical Use (KWH/Day)	
Residential	6081	5172	0	0	
	KWH/Ft2/Yr.	KWH/Ft2/Yr.			
Office	8.8	17.1	0	0	
Restaurant	47.3	47.6	0	0	
Commercial/Retail	11.8	15.3	1,389,145	44,909	
Food Store	51.4	55.2	0	0	
Warehouse	3.4	5.3	0	0	
Elementary School	6.3	5.5	0	0	
College	11.6	11.5	0	0	
Hospital	17.9	25.5	0	0	
Hotel/Motel	6.8	13.1	0	0	
Miscellaneous	8.8	12.2	0	0	
		Total (Ft2)	1,389,145	44,909	Total
Contaminant	CO	ROG	NOx	PM10	SOx
Factor (lbs/MWH)	0.2	0.01	1.15	0.04	0.12
Emis. (Lb/Dy)	8.98	0.45	51.65	1.80	5.39
Emis. (Tr/Dy)	0.00	0.00	0.03	0.00	0.00

***** TOTAL EMISSIONS *****

Contaminant	CO	ROG	NOx	PM10	SOx
Emis. (Lb/Dy)	570.10	62.44	172.67	7.78	20.82
Emis. (Tr/Dy)	0.29	0.03	0.09	0.00	0.01
SCAB County (Tons/Day)	3341	769	697	457	70
Percent Regional	0.009%	0.004%	0.012%	0.001%	0.015%

CALINE4

Data Utilized for Modeling

C. Vehicle Distribution (BURDEN7G) NOTE: %VMT will be different for each County

Percent VMT	LIGHT DUTY AUTOS		LIGHT DUTY TRUCKS		MEDIUM DUTY TRUCKS		LIGHT HEAVY TRUCKS		MEDIUM HEAVY TRUCKS		HH TRUCKS		URBAN BUS		MCY	
	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	DESEL	DIESEL	DIESEL	DIESEL	ALL	ALL
	0.88%	0.20%	0.05%	0.09%	0.01%	0.09%	0.22%	1.93%	0.07%	0.25%	1.71%	0.87%	0.00%	0.10%		

Source: Defaults in BURDEN7G for Orange County 2000
Source: CEQA Handbook Pg. A9-13; assumed a trip length of 3.59 mi/trip
Some %VMTs are taken from BURDEN7F.

D. Composite CO Emission Rate (gm/mi) (assumed NCAT, Light Duty Autos, and speed of 25 mph)

SPEED MPH	EMISSION RATE
5	23.16
10	13.83
15	9.79
16	9.28
20	7.73
25	6.52
30	5.72
35	5.15
40	4.76
45	4.57
50	4.70
55	5.38
60	7.43
65	14.39

Orange County
2000

CO Worksheet to Generate Emission Rates for CALINE4

A. Data from MVEI7G Program (enter: 1 for Los Angeles County; 2 for Orange County; 3 for Riverside County; 4 for San Bernardino County)
 2 Orange County

TABLE 1: WINTERTIME RUNNING IM EXHAUST EMISSION FACTORS AT 75 DEG F

YEAR: 2020

POLLUTANT SPEED MPH	NAME: CARBON MONOXIDE		LIGHT DUTY AUTOS		LIGHT DUTY TRUCKS		MEDIUM DUTY TRUCKS		LIGHT HEAVY TRUCKS		MEDIUM HEAVY TRUCKS		HH TRUCKS		URBAN BUS		MCY ALL
	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	
5	0.00	7.33	6.01	9.02	0.00	11.86	0.00	18.50	0.00	22.58	0.00	50.48	28.11	32.47	7.62	52.42	
10	0.00	4.42	4.15	5.23	0.00	6.87	0.00	12.76	0.00	15.02	0.00	33.59	19.38	22.39	4.80	25.20	
15	0.00	3.04	2.99	3.62	0.00	4.76	0.00	10.56	0.00	9.91	0.00	23.61	13.99	16.16	3.21	18.55	
16	0.00	2.85	2.82	3.41	0.00	4.49	0.00	8.67	0.00	9.91	0.00	22.15	13.17	15.22	2.98	15.56	
20	0.00	2.30	2.26	2.81	0.00	3.70	0.00	7.84	0.00	6.15	0.00	17.53	10.56	12.20	2.28	12.89	
25	0.00	1.87	1.79	2.34	0.00	3.08	0.00	6.15	0.00	5.10	0.00	13.76	8.35	9.65	1.71	10.39	
30	0.00	1.60	1.48	2.03	0.00	2.67	0.00	4.55	0.00	4.47	0.00	11.41	6.91	7.98	1.37	8.72	
35	0.00	1.43	1.28	1.81	0.00	2.38	0.00	3.93	0.00	4.14	0.00	9.99	5.98	6.91	1.17	7.47	
40	0.00	1.34	1.16	1.67	0.00	2.19	0.00	3.56	0.00	4.04	0.00	9.25	5.42	6.26	1.05	6.59	
45	0.00	1.32	1.10	1.61	0.00	2.11	0.00	3.38	0.00	4.04	0.00	9.04	5.13	5.93	1.01	6.08	
50	0.00	1.41	1.09	1.69	0.00	2.22	0.00	3.35	0.00	4.56	0.00	10.19	5.29	6.11	1.11	5.84	
55	0.00	1.65	1.13	2.04	0.00	2.68	0.00	3.48	0.00	5.20	0.00	11.75	5.75	6.64	1.27	5.65	
60	0.00	2.24	1.23	3.02	0.00	3.97	0.00	36.78	0.00	6.40	0.00	14.32	6.54	7.56	1.55	5.07	
65	0.00	3.66	1.40	5.98	0.00	7.86	0.00	4.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.65	

TABLE 2 VARIABLE START EMISSION RATES IN GRAMS PER TRIP 20 MPH

CO	0	0.08	0.12	0	0.07	0	0	0.14	0	0	0	0	0	0	0	0	3.15
----	---	------	------	---	------	---	---	------	---	---	---	---	---	---	---	---	------

B. Running + Start Emissions by Vehicle Type (gm/ml)

SPEED MPH	LIGHT DUTY AUTOS		LIGHT DUTY TRUCKS		MEDIUM DUTY TRUCKS		LIGHT HEAVY TRUCKS		MEDIUM HEAVY TRUCKS		HH TRUCKS		URBAN BUS		MCY ALL
	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	
5	0.00	7.35	6.04	9.04	0.00	11.90	0.00	22.58	0.00	50.48	28.11	32.47	7.62	53.30	
10	0.00	4.44	4.18	5.25	0.00	6.91	0.00	15.02	0.00	33.59	19.38	22.39	4.80	26.08	
15	0.00	3.06	3.02	3.64	0.00	4.80	0.00	10.56	0.00	23.61	13.99	16.16	3.21	17.43	
16	0.00	2.87	2.85	3.43	0.00	4.53	0.00	9.91	0.00	22.15	13.17	15.22	2.98	16.44	
20	0.00	2.32	2.29	2.83	0.00	3.74	0.00	7.84	0.00	17.53	10.56	12.20	2.28	13.57	
25	0.00	1.89	1.82	2.36	0.00	3.12	0.00	6.15	0.00	13.76	8.35	9.65	1.71	11.27	
30	0.00	1.62	1.51	2.05	0.00	2.71	0.00	5.10	0.00	11.41	6.91	7.98	1.37	9.60	
35	0.00	1.45	1.31	1.83	0.00	2.42	0.00	4.47	0.00	9.99	5.98	6.91	1.17	8.35	
40	0.00	1.36	1.19	1.69	0.00	2.23	0.00	4.14	0.00	9.25	5.42	6.26	1.05	7.47	
45	0.00	1.34	1.13	1.63	0.00	2.15	0.00	4.04	0.00	9.04	5.13	5.93	1.01	6.96	
50	0.00	1.43	1.12	1.71	0.00	2.26	0.00	4.18	0.00	9.34	5.10	5.89	1.02	6.72	
55	0.00	1.67	1.16	2.06	0.00	2.72	0.00	4.56	0.00	10.19	5.29	6.11	1.11	6.53	
60	0.00	2.26	1.26	3.04	0.00	4.01	0.00	5.20	0.00	11.75	5.75	6.64	1.27	5.95	
65	0.00	3.68	1.43	6.00	0.00	7.90	0.00	6.40	0.00	14.32	6.54	7.56	1.55	4.53	

C. Vehicle Distribution (BURDEN7G) NOTE: %VMT will be different for each County

Percent VMT	LIGHT DUTY AUTOS		LIGHT DUTY TRUCKS		MEDIUM DUTY TRUCKS		LIGHT HEAVY TRUCKS		MEDIUM HEAVY TRUCKS		H-H TRUCKS		MCY ALL
	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	NCAT	DIESEL	DEISEL	URBAN BUS DIESEL	
0.00%	61.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.73%	0.00%	0.00%	0.00%	0.00%	0.00%	0.41%

Source: Defaults in BURDEN7G for Orange County 2020 Source: CEQA Handbook Pg. A9-13; assumed a trip length of 3.59 mi/trip Some %VMTs are taken from BURDEN7F.

D. Composite CO Emission Rate (gm/mi) (assumed NCAT, Light Duty Autos, and speed of 25 mph)

Orange County 2020	
SPEED MPH	EMISSION RATE
5	8.90
10	5.35
15	3.71
16	3.49
20	2.84
25	2.33
30	2.00
35	1.78
40	1.65
45	1.61
50	1.69
55	1.97
60	2.71
65	4.68

REPORT FOR FILE : c:twncTex .CAL
 1. Site Variables

U=	0.5 M/S	ZO=	100.0 CM
BRG=	0.0 DEGREES	VD=	0.0 CM/S
CLASS=	G STABILITY	VS=	0.0 CM/S
MIXH=	1000.0 M	AMB=	0.0 PPM
SIGTH=	10.0 DEGREES	TEMP=	10.0 DEGREE (C)

2. Link Description

LINK	*	LINK COORDINATES (M)				*		EF	H	W
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A.	Snflr/Bear N	-622	1036	-622	2073	AG	1360	6.5	0.0	32.0
B.	Snflr/Bear S	-622	1036	-622	0	AG	2330	6.5	0.0	32.0
C.	Snflr/Bear E	-622	1036	-232	0	AG	2910	6.5	0.0	32.0
D.	Snflr/Bear W	-622	1036	-689	1036	AG	2260	6.5	0.0	32.0
E.	Snflr/Bear W	-689	1036	-1054	1250	AG	2260	6.5	0.0	32.0
F.	Snflr/Brstl N	0	1036	0	2073	AG	3680	7.7	0.0	32.0
G.	Snflr/Brstl S	0	1036	0	0	AG	4050	7.7	0.0	32.0
H.	Snflr/Brstl E	0	1036	366	1036	AG	3040	7.7	0.0	25.0
I.	Snflr/Brstl W	0	1036	-232	0	AG	3190	7.7	0.0	25.0
J.	Snflr/Flwr N	799	1036	799	2073	AG	770	5.7	0.0	32.0
K.	Snflr/Flwr S	799	1036	799	896	AG	440	5.7	0.0	32.0
.	Snflr/Flwr E	799	1036	1615	1036	AG	2460	5.7	0.0	25.0
.	Snflr/Flwr W	799	1036	366	1036	AG	2470	5.7	0.0	25.0
N.	Brstl/I405 N	0	274	0	579	AG	6230	7.7	0.0	32.0
O.	Brstl/I405 S	0	274	0	-536	AG	5860	7.7	0.0	32.0
P.	Brstl/I405 E	0	274	1555	274	AG	27200	13.8	0.0	40.0
Q.	Brstl/I405 W	0	274	-1744	274	AG	27200	13.8	0.0	40.0

3. Receptor Coordinantes

		X	Y	Z
RECEPTOR	1	-646	1012	1.5
RECEPTOR	2	24	1016	1.5
RECEPTOR	3	823	1016	1.5
RECEPTOR	4	366	347	1.5

REPORT FOR FILE : c:twncfwp.CAL
 1. Site Variables

U=	0.5 M/S	ZO=	100.0 CM
BRG=	0.0 DEGREES	VD=	0.0 CM/S
CLASS=	G STABILITY	VS=	0.0 CM/S
MIXH=	1000.0 M	AMB=	0.0 PPM
SIGTH=	10.0 DEGREES	TEMP=	10.0 DEGREE (C)

2. Link Description

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Snflr/Bear N	-622	1036	-622	2073	AG	1820	2.8	0.0	32.0
B. Snflr/Bear S	-622	1036	-622	0	AG	2870	2.8	0.0	32.0
C. Snflr/Bear E	-622	1036	-232	0	AG	3120	2.8	0.0	32.0
D. Snflr/Bear W	-622	1036	-689	1036	AG	2430	2.8	0.0	32.0
E. Snflr/Bear W	-689	1036	-1054	1250	AG	2430	2.8	0.0	32.0
F. Snflr/Brstl N	0	1036	0	2073	AG	4590	3.5	0.0	32.0
G. Snflr/Brstl S	0	1036	0	0	AG	4770	3.5	0.0	32.0
H. Snflr/Brstl E	0	1036	366	1036	AG	4270	3.5	0.0	25.0
I. Snflr/Brstl W	0	1036	-232	0	AG	3650	3.5	0.0	25.0
J. Snflr/Flwr N	799	1036	799	2073	AG	1380	2.8	0.0	32.0
K. Snflr/Flwr S	799	1036	799	896	AG	860	2.8	0.0	32.0
Snflr/Flwr E	799	1036	1615	1036	AG	3490	2.8	0.0	25.0
Snflr/Flwr W	799	1036	366	1036	AG	3870	2.8	0.0	25.0
N. Brstl/I405 N	0	274	0	579	AG	7720	3.5	0.0	32.0
O. Brstl/I405 S	0	274	0	-536	AG	3410	3.5	0.0	32.0
P. Brstl/I405 E	0	274	1555	274	AG	30000	5.4	0.0	40.0
Q. Brstl/I405 W	0	274	-1744	274	AG	30000	5.4	0.0	40.0

3. Receptor Coordinantes

RECEPTOR	X	Y	Z
RECEPTOR 1	-646	1012	1.5
RECEPTOR 2	24	1016	1.5
RECEPTOR 3	823	1016	1.5
RECEPTOR 4	366	347	1.5

REPORT FOR FILE : C:twncfwp2.CAL
 1. Site Variables

U=	0.5 M/S	ZO=	100.0 CM
BRG=	0.0 DEGREES	VD=	0.0 CM/S
CLASS=	G STABILITY	VS=	0.0 CM/S
MIXH=	1000.0 M	AMB=	0.0 PPM
SIGTH=	10.0 DEGREES	TEMP=	10.0 DEGREE (C)

2. Link Description

LINK DESCRIPTION	* *	LINK COORDINATES (M)				* *	EF (G/MI)	H (M)	W (M)	
		X1	Y1	X2	Y2	TYPE	VPH			
A. Snflr/Bear N	*	-622	1036	-622	2073	AG	1810	2.8	0.0	32.0
B. Snflr/Bear S	*	-622	1036	-622	0	AG	2880	2.8	0.0	32.0
C. Snflr/Bear E	*	-622	1036	-232	0	AG	3110	2.8	0.0	32.0
D. Snflr/Bear W	*	-622	1036	-689	1036	AG	2480	2.8	0.0	32.0
E. Snflr/Bear W	*	-689	1036	-1054	1250	AG	2480	2.8	0.0	32.0
F. Snflr/Brstl N	*	0	1036	0	2073	AG	4620	3.7	0.0	32.0
G. Snflr/Brstl S	*	0	1036	0	0	AG	4800	3.7	0.0	32.0
H. Snflr/Brstl E	*	0	1036	366	1036	AG	4300	3.7	0.0	25.0
I. Snflr/Brstl W	*	0	1036	-232	0	AG	3660	3.7	0.0	25.0
J. Snflr/Flwr N	*	799	1036	799	2073	AG	1350	3.5	0.0	32.0
K. Snflr/Flwr S	*	799	1036	799	896	AG	850	3.5	0.0	32.0
L. Snflr/Flwr E	*	799	1036	1615	1036	AG	3460	3.5	0.0	25.0
Snflr/Flwr W	*	799	1036	366	1036	AG	3820	3.5	0.0	25.0
M. Brstl/I405 N	*	0	274	0	579	AG	7740	3.5	0.0	32.0
O. Brstl/I405 S	*	0	274	0	-536	AG	7370	3.5	0.0	32.0
P. Brstl/I405 E	*	0	274	1555	274	AG	30000	5.4	0.0	40.0
Q. Brstl/I405 W	*	0	274	-1744	274	AG	30000	5.4	0.0	40.0

3. Receptor Coordinantes

RECEPTOR		X	Y	Z
RECEPTOR 1		-646	1012	1.5
RECEPTOR 2		24	1016	1.5
RECEPTOR 3		823	1016	1.5
RECEPTOR 4		366	347	1.5

TOWN CENTER
EXISTING

MODEL RESULTS

RECEPTOR			* PRED *	CONC/LINK									
			* COCN *	(PPM)									
			* (PPM) *	A	B	C	D	E	F	G	H		
I	J	K	L	M	N	O	P	Q	BEARING				
-----*													
-----*													
RECPT 1	*	4.0	*	0.0	0.7	1.0	0.0	0.0	0.0	0.1	0.		
0 0.2	0.0												
		0.0		0.0	0.3	0.1	1.6	148					
RECPT 2	*	4.8	*	0.0	0.0	0.1	0.0	0.0	0.0	1.6	0.		
0 1.4	0.0												
		0.0		0.0	0.0	0.0	1.7	200					
RECPT 3	*	2.9	*	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.		
0 0.2	0.0												
		0.1		0.0	0.2	0.1	2.0	238					
RECPT 4	*	9.0	*	0.0	0.1	0.1	0.0	0.0	0.0	0.3	0.		
0 0.2	0.0												
		0.0		0.1	0.2	4.6	3.4	257					
START TIME =				11:21:47	FINISH TIME =				11:23:05				

.I
M

TOWN CENTER
 FUTURE NO PROJECT

MODEL RESULTS

RECEPTOR		* PRED *	CONC/LINK									
		* COCN *	(PPM)									
I	J	(PPM)	A	B	C	D	E	F	G	H		
K	L	M	N	O	P	Q	BEARING					
RECPT 1	*	1.8	* 0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.1	0.	
0 0.1	0.0											
0.0	0.0	0.0	0.1	0.0	0.7	0.1	133					
RECPT 2	*	2.3	* 0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.8	0.	
0 0.7	0.0											
0.0	0.0	0.0	0.0	0.0	0.0	0.7	200					
RECPT 3	*	1.3	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.	
0 0.1	0.0											
0.1	0.0	0.0	0.1	0.0	0.0	0.8	238					
RECPT 4	*	3.9	* 0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.	
0 0.1	0.0											
0.0	0.0	0.0	0.1	0.1	2.0	1.5	257					
START TIME =		11:04:57			FINISH TIME = 11:06:12							

TOWN CENTER
FUTURE WITH PROJECT

MODEL RESULTS

RECEPTOR		* PRED *	CONC/LINK									
		* COCN *	(PPM)									
I	J	(PPM)	A	B	C	D	E	F	G	H		
K	L	M	N	O	P	Q	BEARING					
RECPT 1	*	1.8	* 0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.1	0.	
0 0.1	0.0											
0.0	0.0	0.0	0.1	0.0	0.7	0.1	133					
RECPT 2	*	2.3	* 0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.8	0.	
0 0.7	0.0											
0.0	0.0	0.0	0.0	0.0	0.0	0.7	200					
RECPT 3	*	1.3	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.	
0 0.1	0.0											
0.1	0.0	0.0	0.1	0.0	0.0	0.8	238					
RECPT 4	*	3.9	* 0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.	
0 0.1	0.0											
0.0	0.0	0.0	0.1	0.1	2.0	1.5	257					
START TIME =		11:11:25	FINISH TIME = 11:12:40									
		.M										
		W										

TOWN CENTER
 FUTURE W/HR NO PROJECT

MODEL RESULTS

RECEPTOR			* PRED *	* COCN *	CONC/LINK (PPM)							
I	J		(PPM)		A	B	C	D	E	F	G	H
K	L	M	N	O	P	Q	BEARING					
RECPT 1	*	1.8	*	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.1	0.
0 0.1	0.0											
0.0	0.0	0.0	0.0	0.1	0.1	0.7	146					
RECPT 2	*	2.4	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.9	0.
0 0.7	0.0											
0.0	0.0	0.0	0.0	0.0	0.0	0.7	200					
RECPT 3	*	1.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.
0 0.1	0.0											
0.1	0.0	0.0	0.1	0.0	0.0	0.8	238					
RECPT 4	*	3.9	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.
0 0.1	0.0											
0.0	0.0	0.0	0.1	0.1	2.0	1.5	257					
START TIME =			10:26:53				FINISH TIME = 10:28:09					

TOWN CENTER
 FUTURE W/HR WITH PROJECT

MODEL RESULTS

RECEPTOR	* PRED *	* COCN *	* (PPM) *	CONC/LINK (PPM)	A	B	C	D	E	F	G	H
I	J	K	L	M	N	O	P	Q	BEARING			
RECPT 1	*	1.9	*	0.0	0.4	0.5	0.0	0.0	0.0	0.0	0.1	0.
0 0.1	0.0											
		0.0		0.0	0.1	0.1	0.7	148				
RECPT 2	*	2.4	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.9	0.
0 0.7	0.0											
		0.0		0.0	0.0	0.0	0.7	200				
RECPT 3	*	1.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.
0 0.1	0.0											
		0.1		0.0	0.1	0.0	0.8	238				
RECPT 4	*	3.9	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.
0 0.1	0.0											
		0.0		0.0	0.1	0.1	2.0	1.5	257			
START TIME =		10:30:27										
												FINISH TIME = 10:31:47

APPENDIX E
NOISE ASSESSMENT

Noise Assessment For:
SOUTH COAST PLAZA
TOWN CENTER
COSTA MESA

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October 9, 2000
Report#00-155b

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1.0 EXISTING SETTING

1.1 Project Description

The South Coast Plaza Town Center is a 62 acre mixed-use office, commercial and entertainment area bounded by Bristol Street, Sunflower Avenue, Avenue of the Arts, and the San Diego, I-405 Freeway located in the City of Costa Mesa. A vicinity map is shown in Exhibit 1. The project consists of three major components: 1) Two Town Center located south of Anton Boulevard between Bristol Street and Avenue of the Arts. 2) Segerstrom Center for the Performing Arts located along Avenue of the Arts south of the Orange County Performing Arts Center, north of Plaza Tower and East of South Coast Repertory Theater and, 3) The Balance of Town Center.

In Two Town Center the project includes the demolition of a movie theater, some restaurants, and some retail space. The retail space and restaurant space would be replaced with new buildings and a parking structure and office building would be added. Development proposed for the Segerstrom Center for the Performing Arts area includes the construction of an Art Museum/Academy, Symphony Hall and expansion of the existing Theater. The balance of the project includes the construction of a new office building and 186-room hotel. The entire project results in 1,343,345 square feet of additional development.

This report will analyze the potential noise impacts associated with this project. Traffic volume information used in this report to project traffic noise levels were provided by Austin-Foust and are presented in their traffic study for the project. Traffic noise impacts are evaluated at project build out, 2020. Traffic noise impacts on the project site are identified. Noise impacts from project site activity on nearby residential areas are also discussed.

1.2 Background Information on Noise

1.2.1 Noise Criteria Background

Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dB higher than another is judged to be twice as loud; and 20 dB higher four times as loud; and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud).

Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the "A-weighted decibel," abbreviated dBA. Exhibit 2 provides examples of various noises and their typical A-weighted noise level.

Sound levels decrease as a function of distance from the source as a result of wave divergence, atmospheric absorption and ground attenuation. As the sound wave form travels away from the source, the sound energy is dispersed over a greater area, thereby dispersing the sound power of the wave. Atmospheric absorption also influences the levels that are received by the observer. The greater the distance traveled, the greater the influence and the resultant fluctuations. The degree of absorption is a function of the frequency of the sound as well as the humidity and temperature of the air. Turbulence and gradients of wind, temperature and humidity also play a significant role in determining the degree of attenuation. Intervening topography can also have a substantial effect on the effective perceived noise levels.

Noise has been defined as unwanted sound and it is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. This criteria is based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance. Each of these potential noise impacts on people are briefly discussed in the following narratives:

HEARING LOSS is not a concern in community noise situations of this type. The potential for noise induced hearing loss is more commonly associated with occupational noise exposures in heavy industry or very noisy work environments. Noise levels in neighborhoods, even in very noisy airport environs, is not sufficiently loud to cause hearing loss.

SPEECH INTERFERENCE is one of the primary concerns in environmental noise problems. Normal conversational speech is in the range of 60 to 65 dBA and any noise in this range or louder may interfere with speech. There are specific methods of describing speech interference as a function of distance between speaker and listener and voice level.

SLEEP INTERFERENCE is a major noise concern for traffic noise. Sleep disturbance studies have identified interior noise levels that have the potential to cause sleep disturbance. Note that sleep disturbance does not necessarily mean awakening from sleep, but can refer to altering the pattern and stages of sleep.

PHYSIOLOGICAL RESPONSES are those measurable effects of noise on people that are realized as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent is not known to which these physiological responses cause harm or are sign of harm.

ANNOYANCE is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capability.

1.2.2 Noise Assessment Metrics

The description, analysis and reporting of community noise levels around communities is made difficult by the complexity of human response to noise and the myriad of noise metrics that have been developed for describing noise impacts. Each of these metrics attempts to quantify noise



★ Noise Measurement Site

Exhibit 1-Vicinity Map and Noise Measurement Sites

SOUND LEVELS AND LOUDNESS OF ILLUSTRATIVE NOISES IN INDOOR AND OUTDOOR ENVIRONMENTS

Numbers in Parentheses are the A-Scale Weighted Sound Levels for that Noise Event

dB(A)	OVER-ALL LEVEL Sound Pressure Level Reference: 0.0002 Microbars	COMMUNITY (Outdoor)	HOME OR INDUSTRY	LOUDNESS Human Judgement of Different Sound Levels
130		Military Jet Aircraft Take-Off With After-burner From Aircraft Carrier @ 50 Ft. (130)	Oxygen Torch (121)	120 dB(A) 32 Times as Loud
120 110	UNCOMFORTABLY LOUD	Turbo-Fan Aircraft @ Take Off Power @ 200 Ft. (110)	Riveting Machine (110) Rock-N-Roll Band (108-114)	110 dB(A) 16 Times as Loud
100		Jet Flyover @ 1000 Ft. (103) Boeing 707, DC-8 @ 6080 Ft. Before Landing (106) Bell J-2A Helicopter @ 100 Ft. (100)		100 dB(A) 8 Times as Loud
90	VERY LOUD	Power Mower (96) Boeing 737, DC-9 @ 6080 Ft. Before Landing (97) Motorcycle @ 25 Ft. (90)	Newspaper Press (97)	90 dB(A) 4 Times as Loud
80		Car Wash @ 20 Ft. (89) Prop. Airplane Flyover @ 1000 Ft. (88) Diesel Truck, 40 MPH @ 50 Ft. (84) Diesel Train, 45 MPH @ 100 Ft. (83)	Food Blender (88) Milling Machine (85) Garbage Disposal (80)	80 dB(A) 2 Times as Loud
70	MODERATELY LOUD	High Urban Ambient Sound (80) Passenger Car, 65 MPH @ 25 Ft. (77) Freeway @ 50 Ft. From Pavement Edge, 10:00 AM (76 +or- 6)	Living Room Music (76) TV-Audio, Vacuum Cleaner	70 dB(A)
60		Air Conditioning Unit @ 100 Ft. (60)	Cash Register @ 10 Ft. (65-70) Electric Typewriter @ 10 Ft. (64) Dishwasher (Rinse) @ 10 Ft. (60) Conversation (60)	60 dB(A) 1/2 as Loud
50	QUIET	Large Transformers @ 100 Ft. (50)		50 dB(A) 1/4 as Loud
40		Bird Calls (44) Lower Limit Urban Ambient Sound (40)		40 dB(A) 1/8 as Loud
20	JUST AUDIBLE	Desert at Night (dB(A) Scale Interrupted)		
10	THRESHOLD OF HEARING			

SOURCE: Reproduced from Melville C. Branch and R. Dale Beland, "Outdoor Noise in the Metropolitan Environment,"
Published by the City of Los Angeles, 1970, p.2.

levels with respect to community response. Most of the metrics use the A-Weighted noise level to quantify noise impacts on humans. A-Weighting is a frequency weighting that accounts for human sensitivity to different frequencies.

Noise metrics can be divided into two categories: single event and cumulative. Single-event metrics describe the noise levels from an individual event such as an aircraft fly over or perhaps a heavy equipment pass-by. Cumulative metrics average the total noise over a specific time period, which is typically 1 or 24-hours for community noise problems. For this type of analysis, cumulative noise metrics will be used.

Several rating scales have been developed for measurement of community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on man, (2) the variety of noises found in the environment, (3) the variations in noise levels that occur as a person moves through the environment, and (4) the variations associated with the time of day. They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominate noise scales are the: Equivalent Noise Level (LEQ) and the Community Noise Equivalent Level (CNEL). These scales are described in the following paragraphs.

LEQ is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. LEQ is the "energy" average noise level during the time period of the sample. LEQ can be measured for any time period, but is typically measured for 1 hour. This 1 hour noise level can also be referred to as the Hourly Noise Level (HNL). It is the energy sum of all the events and background noise levels that occur during that time period.

CNEL, Community Noise Equivalent Level, is the predominant rating scale now in use in California for land use compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the A-weighted decibel. Time weighted refers to the fact that noise that occurs during certain sensitive time periods is penalized for occurring at these times. The evening time period (7 p.m. to 10 p.m.) penalizes noises by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dBA. These time periods and penalties were selected to reflect people's increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a "CNEL of 60 dBA," "60 dBA CNEL," or simply "60 CNEL." Typical noise levels in terms of the CNEL scale for different types of communities are presented in Exhibit 3.

Ldn, the day-night scale is similar to the CNEL scale except that evening noises (7 p.m. to 10 p.m.) are not penalized. It is a measure of the overall noise experienced during an entire day. The time-weighted refers to the fact that noise that occurs during certain sensitive time periods is penalized for occurring at these times. In the Ldn scale, those noise levels that occur during the night (10 pm to 7 am) are penalized by 10 dB. This penalty was selected to attempt to account for increased human sensitivity to noise during the quieter period of a day, where home and sleep is the most probable activity.

L(%) is a statistical method of describing noise which accounts for variance in noise levels throughout a given measurement period. L(%) is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example since 5 minutes is 25% of 20 minutes, L(25) is the noise level that is equal to or exceeded for five minutes in a twenty minute measurement period. It is L(%) that is used for most noise ordinance standards. For example most daytime city, state and county noise ordinances use an ordinance standard of 55 dBA for 30 minutes per hour or an L(50) level of 55 dBA. In other words the noise ordinance states that no noise level should exceed 55 dBA for more than fifty percent of a given period.

1.2.3 Noise Criteria

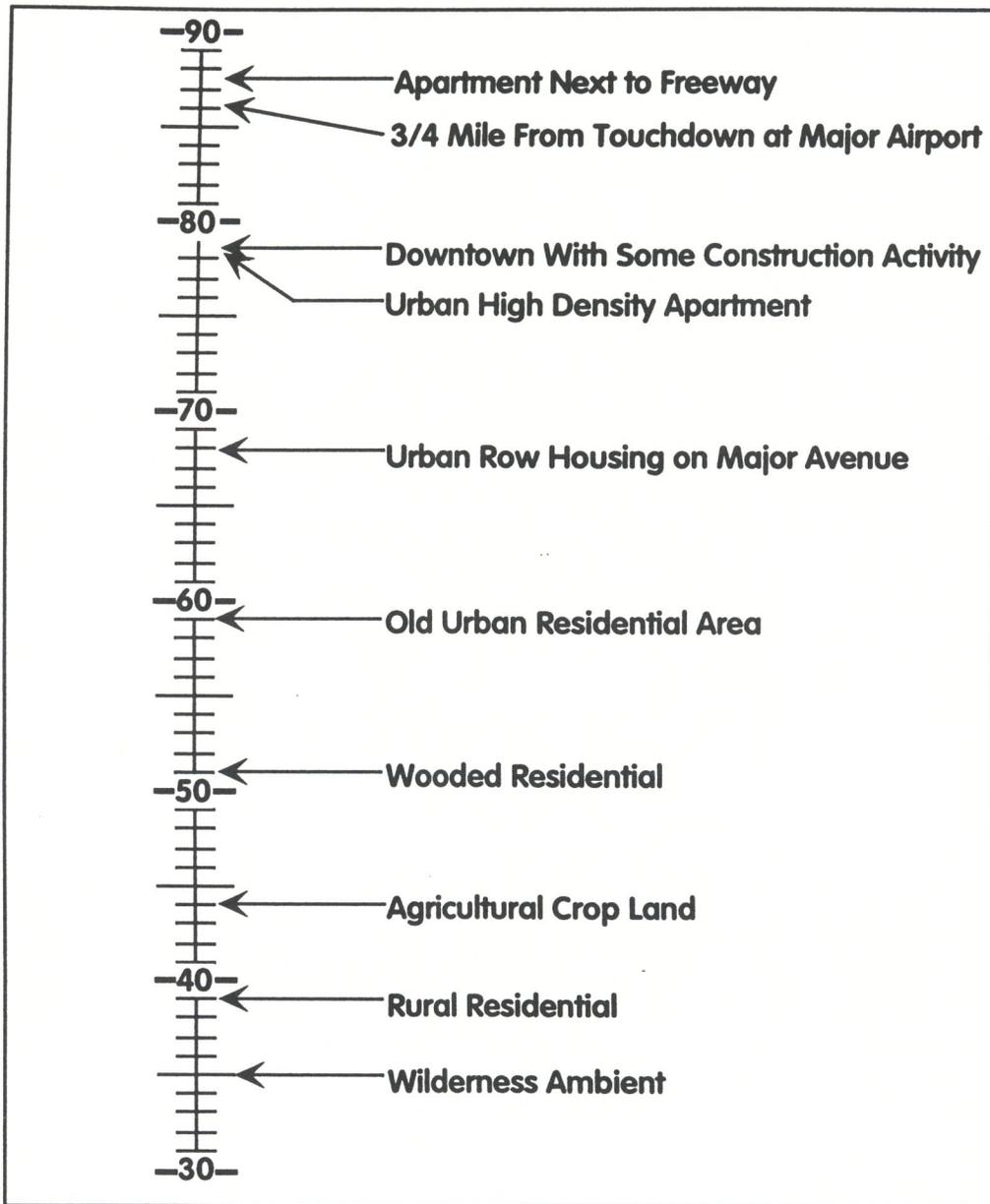
The Costa Mesa Noise Ordinance (Chapter XIII Noise Control - Sections 13-277 to 13-287) establishes exterior and interior noise standards that protect areas that are zoned residential. Table 1 presents the City of Costa Mesa's Noise Ordinance standards. The noise ordinance is designed to control unnecessary, excessive and annoying sounds from stationary (non-transportation) sources such as those noise sources from parking lots, loading docks, etc., at the residential property line. The noise ordinance requirements can not be applied to mobile noise sources such as heavy trucks when traveling on public roadways. Control of the mobile noise sources on public roads is preempted by federal and State laws.

Community noise levels are measured in terms of the "A-weighted decibel," abbreviated dBA. A common method of characterizing noise levels from industrial sources is with the "percent noise level" or L%. The percent noise level describes the noise level which is exceeded during a certain percentage of the measurement period. For example, according to the City of Costa Mesa Noise Ordinance, the L50 noise level represents the noise standard for a cumulative period of more than thirty (30) minutes in any hour, or the L50 is the noise level exceeded more than 50 percent of the time and represents the average noise level. Similarly, the L25 noise level represents noise standard for a cumulative period of more than fifteen (15) minutes in any hour. The L25 is the noise level exceeded more than 25 percent of the time, and so forth.

The City of Costa Mesa establishes exterior and interior noise criteria for non-transportation related noise which impacts adjacent properties. This criteria is given in terms of average L50 noise levels at the property boundary. Greater noise levels are permitted during the day (7 a.m. to 11 p.m.) as compared to the night-time period (11 p.m. to 7 a.m.).

CNEL

Outdoor Location



Source: U.S. Environmental Protection Agency, "Impact Characterization of Noise Including Implications of Identifying and Achieving Levels of Cumulative Noise Exposure," EPA Report NTID 73.4, 1973.

Table 1
CITY OF COSTA MESA NOISE ORDINANCE STANDARDS
RESIDENTIAL ZONE

MAXIMUM TIME OF EXPOSURE	NOISE METRIC	NOISE LEVEL NOT TO BE EXCEEDED	
		7 a.m. to 11 p.m. (daytime)	11 p.m. to 7 a.m. (nighttime)
<i>EXTERIOR NOISE STANDARDS</i>			
30 Minutes/Hour	L50	55 dBA	50 dBA
15 Minutes/Hour	L25	60 dBA	55 dBA
5 Minutes/Hour	L8.3	65 dBA	60 dBA
1 Minute/Hour	L1.7	70 dBA	65 dBA
Any period of time	Lmax	75 dBA	70 dBA
<i>INTERIOR NOISE STANDARDS</i>			
5 Minutes/Hour	L8.3	55 dBA	45 dBA
1 Minute/Hour	L1.7	60 dBA	50 dBA
Any period of time	Lmax	65 dBA	55 dBA

The Costa Mesa Noise Ordinance states that the daytime noise level for a stationary noise source measured at an outdoor area of a residential property cannot exceed 75 dBA ever, 70 dBA for more than 1 minute of any hour, 65 dBA for more than 5 minutes of any hour, 60 dBA for more than 15 minutes of any hour, or 55 dBA for more than 30 minutes of any hour. The nighttime noise levels are penalized by 5 dB to reflect the increased sensitivity to noise occurring during this time period. The noise ordinance also states that the noise level for a stationary source measured at an indoor area of a residential property cannot exceed 65 dBA ever, 60 dBA for more than 1 minute of any hour, and 55 dBA for more than 5 minutes of any hour. The nighttime noise levels are penalized by 10 dB for the indoor noise standards. In the event that the ambient noise level exceeds any of the noise limit categories, the cumulative period applicable to that category shall be increased to reflect the ambient noise level.

The City Noise Ordinance is important because it provides noise levels which are deemed to be acceptable in residential areas. The Noise Ordinance is designed to control unnecessary, excessive and annoying sounds generated from a stationary source impacting an adjacent property. The nearest existing residential areas will be directly adjacent to the project's eastern and northern boundaries.

The City of Costa Mesa specifies outdoor and indoor noise limits for various land uses impacted by transportation noise sources. The noise limits specified in the City's Noise Ordinance are in terms of the Community Noise Equivalent Level (CNEL). The standard states that for residential land use, the exterior noise exposure level shall not exceed 65 CNEL and the interior

noise exposure level shall not exceed 45 CNEL. The City does not have standards for retail and office buildings. However, the city has historically applied noise exposure level limits as a part of the conditions of approval for projects. Specifically, interior noise levels of private offices shall not exceed 45 CNEL, general offices shall not exceed 50 CNEL and retail areas shall not exceed 55 CNEL.

1.3 Existing Noise Measurements

To determine the existing noise environment at the proposed project site, ambient noise measurements were made on June 8, 2000 between 10:00 a.m. and 3:00 p.m. at four locations. Two measurement sites were located within the project boundaries and two were located in residential areas in the vicinity of the project. The locations of the noise measurement sites are shown in Exhibit 1.

Site 1 was located on-site at the corner of Avenue of the Arts and I-405. The monitor was located approximately 100 feet from the edge of the freeway. Site 2 was located at the existing apartments in the northeast T-intersection of Avenue of the Arts and Town Center. A hotel is located adjacent to these apartments. The monitor was approximately 50 feet from the centerline of Avenue of the Arts. It was noted that these existing apartments have second through fifth floor balcony areas. Site 3 was located at the nearest homes to the north of the project site, along Sunflower. The monitor was approximately 200 feet from the centerline of the roadway. Site 4 was located at the nearest apartment complex to the east of the project site, on the south side of Sunflower. The monitor was approximately 50 feet from the centerline of the roadway. These existing apartments also have second through fifth floor balcony areas. There are also existing homes located on the north side of Sunflower. These existing homes have perimeter walls of approximately 6 feet high.

Two fifteen-minute measurements were made at each of the four measurement sites. The measurements were made with a Brüel & Kjær Modular Precision Sound Level Meter, Type 2260. The system was calibrated before and after each measurement series with calibration traceable to the National Institute of Standards and Technology. The wind speeds during the time of measurements were light (0 to 5 miles per hour).

The measurement results are presented in terms of the equivalent noise levels (Leq), maximum noise levels, minimum noise levels and percentile noise levels (L%). The L50 percentile level for example, represents the noise levels exceeded 50 percent of the time, and usually represent the average ambient noise level. The L90 noise levels represent the background noise levels which are exceeded 90 percent of the time. The other percentile levels as well as the L50 relate to the noise ordinance limits presented previously.

Table 2
Existing Noise Measurements

	Leq	Lmax	Lmin	L1.7	L8.3	L25	L50	L90
1 Along I-405-commercial								
	75.6	78.8	72.2	77.8	76.8	76.2	75.4	73.8
	75.6	80.1	71.3	78.2	77.0	76.0	75.4	73.6
2 Along Avenue of the Arts-residential								
	63.5	73.7	55.7	69.4	67.0	64.0	61.8	58.6
	63.2	82.2	57.1	69.6	66.0	63.0	60.2	58.2
3 Along Sunflower - residential								
	62.5	73.2	55.3	68.2	65.8	63.2	61.0	57.4
	62.6	77.0	55.5	68.6	65.4	62.8	60.8	58.2
4 Along Sunflower - residential								
	67.0	77.1	50.9	74.0	71.4	68.4	63.6	54.6
	66.6	75.1	<50	73.4	71.6	68.2	63.0	53.2

The noise environment at all of the sites was dominated by traffic. Local vehicle pass-bys during the measurement period caused the maximum noise levels. At Site 1 a truck on the freeway resulted in the maximum noise level. At Site 2 a loud motorcycle caused the maximum level. At Site 4 a bus on Sunflower caused the maximum while at Site 3 a car on the residential street caused the maximum.

The measurement at Site 1 shows that I-405 generates a significant noise level. The noise levels at the other sites would be considered moderate to somewhat noisy.

1.4 Existing Roadway Noise Levels

An estimate of highway noise levels in terms of CNEL was computed for the roadways affected by project traffic. The Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December 1978) was utilized. The CALVINO noise emission curves developed by Caltrans were used with the FHWA model. These curves better model the California vehicle mix. The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." A computer code has been written which computes equivalent noise levels for each of the time periods used in the calculation of CNEL. Weighting these noise levels and summing them results in the CNEL for the traffic projections used. CNEL contours are found by iterating over many distances until the distances to the 60, 65, and 70 CNEL contours are found.

The distances to the existing 60, 65 and 70 CNEL contours for the roadways in the vicinity of the proposed project site are given in Table 3. The CNEL at 100 feet from the roadway centerline is also presented. These represent the distance from the centerline of the road to the contour value shown. The values given in Table 3 represent existing noise levels and do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. Note that only roadways adjacent to the project or that have noise levels affected by the project are presented below in Table 3. Contours for all roadways analyzed in the traffic study are presented in the appendix along with the traffic volumes, speeds and traffic mixes used to calculate the noise levels.

Table 3
Modeled Existing Roadway Traffic Noise Levels

Roadway Segment	CNEL Level @ 100** (dBA)	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
MacArthur				
West of Fairview	--	--	--	--
Fairview to Greenville	--	--	--	--
Raitt to Bear	--	--	--	--
Main to SR-55	68.7	82	176	379
Sunflower				
West of Fairview	62.5	31	68	146
Fairview to Greenville	64.4	42	91	195
Greenville to Raitt	64.1	40	87	187
Raitt to Bear	64.1	40	87	187
Bear to Plaza	--	--	--	--
Plaza to Bristol	66.4	57	123	265
Bristol to Flower	66.0	54	117	252
Flower to Anton	64.8	45	97	210
Anton to Main	66.4	57	123	265
South Coast				
West of Fairview	61.1	RW	55	118
East of Fairview	--	--	--	--
West of Bear	62.8	33	72	155
Town Center				
Bristol to Ave. of The Arts	55.1	RW	RW	47
Anton				
Bristol to Ave. of The Arts	66.4	57	123	265
Ave. of The Arts to Sunflower	60.5	RW	50	108
Baker				
West of Bear	66.7	60	129	278
Bear to Bristol	--	--	--	--
East of Bristol	65.3	48	104	225
Fairview				
MacArthur to Sunflower	68.3	77	165	356
Sunflower to South Coast	69.0	86	186	400
South Coast to I-405	70.1	102	219	472
Raitt				
MacArthur to Sunflower	--	--	--	--

* From Roadway Centerline

-- Traffic volume data not reported in traffic study

RW Contour does to extend beyond right-of-way

Table 3 (Continued)
Modeled Existing Roadway Traffic Noise Levels

Roadway Segment	CNEL Level @ 100** (dBA)	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Bear				
Sunflower to South Coast	65.1	47	101	217
I-405 to Paularino	67.2	65	141	303
Paularino to Baker	--	--	--	--
Plaza				
Callens to Sunflower	--	--	--	--
Bristol				
Warner to Segerstrom	67.5	68	147	316
Segerstrom to Alton	--	--	--	--
Sunflower to Town Center	69.2	89	191	411
Town Center to Anton	69.6	94	203	437
Anton to I-405	70.6	109	235	506
I-405 to Paularino	69.1	87	188	406
Avenue of the Arts				
Town Center to Anton	59.8	RW	45	97
Flower				
Dyer to MacArthur	62.8	33	72	155
Main				
Dyer to MacArthur	67.0	63	135	291
MacArthur to Sunflower	66.0	54	117	252
Sunflower to Red Hill	--	--	--	--
SR-73				
Bear to SR-55	76.2	260	561	1,208

* From Roadway Centerline

-- Traffic volume data not reported in traffic study

RW Contour does to extend beyond right-of-way

Table 3 shows that there are significant noise levels generated by many roadways in the project area. Note that the noise levels and distances to contours presented above do not take into account any noise barriers or topography. Typically a 5 to 6 foot wall exists along the major roadways where there are adjacent residential land uses. Assuming this standard wall, homes along MacArthur, Sunflower, Baker, Bear and main likely experience noise levels that approach the City's 65 CNEL standard. Some homes along Fairview may even exceed the standard. The I-405 freeway generates significant levels of noise. Where residential land uses are located along the freeways there are noise barriers designed to meet Caltrans' standards. Typically these walls also mitigate traffic noise levels to below 65 CNEL.

1.5 Existing Aircraft Noise Levels

The project site is located approximately 2 miles northwest of John Wayne Airport. The project is located approximately 200 feet outside of the 60 CNEL contour. Aircraft noise levels at the project site are less than 60 CNEL but more than 55 CNEL. This level is not significant when compared with the roadway noise levels in the project area. While noise generated by the airport, in general, may increase in the future, the noise levels on the project site are not expected to increase in the future. This is because the primary source of aircraft noise impacting the project site is general aviation touch-and-go operations. These are not expected to increase significantly in the future.

2.0 POTENTIAL NOISE IMPACTS

Potential noise impacts are commonly divided into two groups; temporary and long term. Temporary impacts are usually associated with noise generated by construction activities. Long term impacts are further divided into impacts on surrounding land uses generated by the proposed project and those impacts which occur at the proposed project site.

2.1 Noise Impact Criteria

Off-site impacts from on-site activities, temporary and long-term, are measured against the City of Costa Mesa Noise Ordinance presented previously. Any activity on private property must comply with the noise ordinance.

Long-term off-site impacts from traffic noise are measured against two criteria. Both criteria must be met for a significant impact to be identified. First, project traffic must cause a noise level increase greater than 3dB on a roadway segment adjacent to a noise sensitive land use. Second the resulting future with project noise level must exceed the criteria level for the noise sensitive land use. In this case the criteria level is 65 CNEL for residential land uses.

In community noise assessment, changes in noise levels greater than 3 dB are often identified as significant, while changes less than 1 dB will not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. Note that there is no scientific evidence is available to support the use of 3 dB as the significance threshold. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dB. In a community noise situation, however, noise exposures are over a long time period, and changes in noise levels occur over years, rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become

discernible is likely to be some value greater than 1 dB, and 3 dB appears to be appropriate for most people.

Long-term on site impacts are measured against the noise level limits typically applied by the City of Costa Mesa on office and retail buildings. The City does not have any exterior noise standards for office, retail and hotel land uses. The City has typically applied interior noise standards to these uses. Specifically these are a 45 CNEL interior noise standard for private offices and hotel guestrooms, 50 CNEL for general offices and 55 CNEL for retail buildings.

2.2 Temporary Impacts

2.2.1 Construction Noise

Construction noise represents a short term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. Worst case examples of construction noise at 50 feet are presented in Exhibit 4. Note that these noise levels are based upon worst case conditions. Typically noise levels near the site will be less. Typically equipment directly involved in the excavation of the site as well as the trucks used to haul the dirt from the site have the potential produce high noise levels. This project also includes demolition activities that could result in high noise levels.

There are no homes located adjacent to the Two Town Center portion of the project where building demolition will occur. There are homes located across the freeway from this portion of the project. However, the distance to the homes, noise barriers and noise generated by the freeway itself will combine so that the demolition and construction will only be slightly audible at these homes. There is a hotel located on the opposite side of Anton Boulevard from this portion of the project. This hotel is located approximately 150 feet from the nearest construction/demolition activity. At 150 feet, the peak construction noise levels range from 61 to 86 dBA. Most of the construction and demolition will occur more than 300 feet from the hotel. At this distance the peak construction noise levels range from 55 to 80 dBA. Average noise levels will be from 5 to 15 dB lower than the peak levels depending on the intensity of the activity.

There are residences located across the Avenue of the Arts from the Segerstrom Center for the Arts portion of the project approximately 100 feet from the closest construction activity and 250 feet from the furthest activity. Peak noise levels from construction activities will range from 82 dBA to 56 dBA at the homes. Average noise levels will be from 5 to 15 dB lower than the peak levels depending on the intensity of the activity.

There are no residential uses located in the immediate vicinity of the proposed office building and hotel on the remainder of the project site. However, the proposed hotel is located almost directly adjacent to the existing hotel. Significant noise levels could be generated at the existing hotel during construction of the proposed hotel. The City's noise ordinance, which governs construction noise, is not specifically applicable to a hotel land use and exempts construction activities between specified hours. Despite this we recommend that measures be taken to reduce construction noise levels at the hotel.

Construction will result in a short-term noise impact. It is not possible at this time to determine the exact length of time that will be needed to demolish existing buildings, excavate and grade the site but demolition and construction activities may last several months.

If noise-related problems do arise, the most effective method of controlling construction noise is through local control of construction hours as required by the City's Noise Ordinance. Mitigation measures for construction are recommended in Section 3.1.

2.3 Long Term Off-Site Impacts

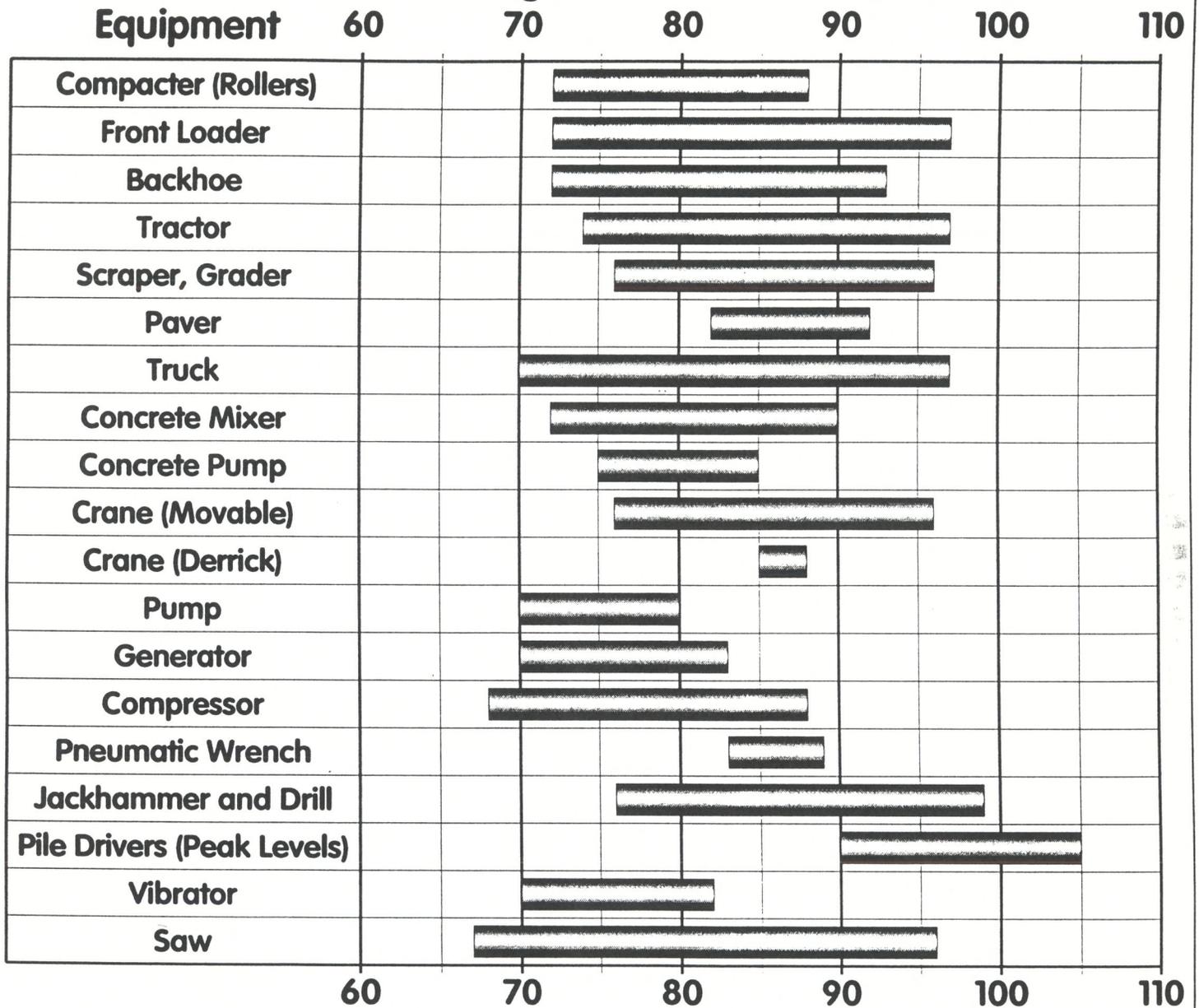
~~This section examines noise impacts from the proposed project on the surrounding land uses. Specifically traffic noise increases due to the project are examined as well as potential noise impacts from activities on the project site. The land uses proposed typically do not result in any noise impacts from on site activities with the exception of the parking lots. It should be noted that any noise generating activity on private property will need to comply with the City of Costa Mesa Noise Ordinance.~~

2.3.1 Traffic Noise

Table 4 shows the incremental noise level increases due to project traffic on roadways in the vicinity of the project. The first column shows the roadway and segment for which the increase is shown. The second and third columns show the total noise level increase in the future (2020) over existing conditions. The second column shows the increase with the proposed project and buildout of the rest of the city per the General Plan. The third column shows the increase with the proposed project, the proposed Home Ranch project, and buildout of the rest of the city per the General Plan. These noise level increases are due to the project as well as other development and general growth in the area. The fourth column shows the portion of this noise level increase due solely to the project. That is, if this project was not undertaken the future noise levels would be reduced by the amount shown. The fifth column shows the portion of this noise level increase due solely to the project and the Home Ranch project. That is, if this project and the Home Ranch Project were not undertaken the future noise levels would be reduced by the amount shown.

Only roadway segments with noise level increases due solely to the project are shown in Table 4. Future noise level increases for all roadways analyzed in the traffic study are presented in the appendix. The noise level increases were calculated using traffic volume data presented in the previously referenced traffic study prepared for the project and data supplied by Austin Foust Associates in a fax Dated October 4, 2000. The traffic volumes used are presented in the appendix.

A-Weighted Sound Level (dBA) At 50 Feet



Source: "Handbook of Noise Control,"
by Cyril Harris, 1979

Exhibit 4 Construction Equipment Noise Levels

Table 4
Traffic Noise Level Increases (dB)

Roadway Segment	Increase Over Existing CNEL w/Project	CNEL w/ Project & Home Ranch	CNEL Increase Due To Project	CNEL Increase Due To Project & Home Ranch
MacArthur				
West of Fairview	--	--	0.0	0.2
Fairview to Greenville	--	--	0.2	0.2
Raitt to Bear	--	--	0.1	0.1
Main to SR-55	0.7	0.6	0.1	0.0
Sunflower				
West of Fairview	1.9	2.4	0.3	0.7
Fairview to Greenville	1.1	1.1	0.2	0.2
Greenville to Raitt	1.2	1.4	0.0	0.2
Raitt to Bear	1.2	1.2	0.2	0.2
Bear to Plaza	--	--	0.2	0.2
Plaza to Bristol	1.0	1.1	0.3	0.4
Bristol to Flower	1.7	2.8	0.2	1.4
Flower to Anton	1.4	1.5	0.2	0.3
Anton to Main	2.0	2.0	0.1	0.1
South Coast				
West of Fairview	2.4	4.0	0.0	1.5
East of Fairview	--	--	0.0	0.2
West of Bear	0.7	1.0	0.0	0.3
Town Center				
Bristol to Ave. of The Arts	4.0	4.0	-0.8	-0.8
Anton				
Bristol to Ave. of The Arts	0.9	0.9	0.3	0.3
Ave. of The Arts to Sunflower	4.8	5.0	0.0	0.2
Baker				
West of Bear	1.3	1.4	0.0	0.1
Bear to Bristol	--	--	0.1	0.1
East of Bristol	2.0	2.0	0.1	0.1
Fairview				
MacArthur to Sunflower	0.5	0.6	0.0	0.1
Sunflower to South Coast	0.6	0.6	0.1	0.2
South Coast to I-405	0.4	0.6	0.1	0.2
Raitt				
MacArthur to Sunflower	--	--	0.0	0.3

-- Traffic volume data not reported in traffic study

Table 4 (Continued)
Traffic Noise Level Increases (dB)

Roadway Segment	Increase Over Existing CNEL		CNEL Increase Due To Project	CNEL Increase Due To Project & Home Ranch
	w/Project	w/ Project & Home Ranch		
Bear				
Sunflower to South Coast	0.6	0.6	0.2	0.2
I-405 to Paularino	0.4	0.5	0.0	0.1
Paularino to Baker	--	--	0.1	0.1
Plaza				
Callens to Sunflower	--	--	0.0	0.4
Bristol				
Warner to Segerstrom	0.5	--	0.1	--
Segerstrom to Alton	--	--	0.1	0.1
Sunflower to Town Center	0.6	0.6	-0.1	-0.1
Town Center to Anton	0.9	0.9	0.1	0.1
Anton to I-405	0.8	0.8	0.1	0.1
I-405 to Paularino	1.2	1.2	0.0	0.1
Avenue of the Arts				
Town Center to Anton	2.2	2.2	0.5	0.5
Flower				
Dyer to MacArthur	1.0	1.2	0.0	0.3
Main				
Dyer to MacArthur	0.9	0.9	0.1	0.1
MacArthur to Sunflower	1.6	1.8	0.0	0.2
Sunflower to Red Hill	--	--	0.1	--
SR-73				
Bear to SR-55	1.1	1.2	0.0	0.1

-- Traffic volume data not reported in traffic study

Table 4 shows that future noise levels will increase over existing conditions by more than 3 dB along Town Center Drive from Bristol to Avenue of the Arts, Anton from Avenue of The Arts to Flower and South Coast West of Fairview. However, there are no sensitive land uses located along any of these roadway segments.

Along Town Center the project actually results in a slight noise level decrease. With the project the future CNEL along the road will be 4.0 dB greater than it currently is. Without the project the CNEL will be 4.8 dB greater. Table 5 presented below shows that the noise levels generated by this road are not significant.

Along Anton the CNEL level will increase 4.8 to 5.0 dB over existing conditions. The proposed project does not affect the projected future noise levels. The proposed project and Home Ranch project are only projected to increase future noise levels by 0.2 dB. This increase is not significant.

Along South Coast the CNEL level will increase 2.4 to 4.0 dB over existing conditions. The proposed project does not affect the projected future noise levels. The proposed project and Home Ranch project are only projected to increase future noise levels by 1.5 dB. This increase is not significant.

The fourth column of Table 4 shows that the greatest future CNEL increase along any roadway due to the project is 0.5 dB. This increase is not significant. The fifth column of Table 4 shows that the greatest future CNEL increase along any roadway due to this project and the Home Ranch project is 1.5 dB. This increase is not significant.

The distances to the future build out (2020 with this project and the Home Ranch project) 60, 65 and 70 CNEL contours for the roadways in the vicinity of the proposed project site are given in Table 5. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The contours do not take into account the effect of any noise barriers or topography that may affect ambient noise levels.

Note that only roadways adjacent to the project or that have noise levels affected by the project are presented below in Table 5. Contours for all roadways analyzed in the traffic study are presented in the appendix along with the traffic volumes, speeds and traffic mixes used to calculate the noise levels.

Table 5
Future (2020) With Project-Traffic Noise Levels

Roadway Segment	CNEL Level @ 100' [*] (dBA)	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70CNEL	65 CNEL	60 CNEL
MacArthur				
West of Fairview	66.5	59	126	272
Fairview to Greenville	66.7	60	129	278
Raitt to Bear	67.0	63	135	291
Main to SR-55	69.3	90	193	416
Sunflower				
West of Fairview	64.8	45	97	210
Fairview to Greenville	65.5	50	108	232
Greenville to Raitt	65.5	50	108	232
Raitt to Bear	65.3	48	104	225
Bear to Plaza	68.2	76	163	351
Plaza to Bristol	67.5	68	147	316
Bristol to Flower	68.9	84	181	390
Flower to Anton	66.4	57	123	265
Anton to Main	68.4	78	168	362
South Coast				
West of Fairview	65.1	47	101	217
East of Fairview	64.6	44	94	203
West of Bear	63.8	39	83	179
Town Center				
Bristol to Ave. of The Arts	59.0	RW	40	86
Anton				
Bristol to Ave. of The Arts	67.2	65	141	303
Ave. of The Arts to Sunflower	65.5	50	108	232
Baker				
West of Bear	68.1	74	160	345
Bear to Bristol	67.4	67	144	310
East of Bristol	67.2	65	141	303
Fairview				
MacArthur to Sunflower	68.9	84	181	390
Sunflower to South Coast	69.7	95	205	442
South Coast to I-405	70.7	111	239	515
Raitt				
MacArthur to Sunflower	64.4	42	91	195

* From Roadway Centerline

RW Contour does to extend beyond right-of-way

Table 5 (Continued)
Future (2020) With Project Traffic Noise Levels

Roadway Segment	CNEL Level @ 100' [*] (dBA)	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70CNEL	65 CNEL	60 CNEL
Bear				
Sunflower to South Coast	65.7	51	111	239
I-405 to Paularino	67.7	71	152	328
Paularino to Baker	67.5	68	147	316
Plaza				
Callens to Sunflower	62.8	33	72	155
Bristol				
Warner to Segerstrom	--	--	--	--
Segerstrom to Alton	69.1	87	188	406
Sunflower to Town Center	69.8	97	210	452
Town Center to Anton	70.5	108	233	501
Anton to I-405	71.3	123	265	570
I-405 to Paularino	70.4	106	228	491
Avenue of the Arts				
Town Center to Anton	62.0	RW	64	137
Flower				
Dyer to MacArthur	64.1	40	87	187
Main				
Dyer to MacArthur	67.8	72	155	333
MacArthur to Sunflower	67.8	72	155	333
Sunflower to Red Hill	--	--	--	--
SR-73				
Bear to SR-55	77.4	312	672	1,448

* From Roadway Centerline

RW Contour does to extend beyond right-of-way

Table 5 shows that in the future, significant noise levels will be experienced along many roadways in the project area. However, Table 4 shows that only a few of these roadway segments with adjacent noise sensitive land uses will experience significant noise increases over existing conditions and only a small portion of this increase is due to the project.

2.3.2 On-Site Activities

Noise levels generated on the project site must comply with the City's Noise Ordinance. The Noise Ordinance defines the noise level limits that can be generated at a residential area by a noise source on private property. There are residences located across Avenue of the Arts and Sunflower Avenue as well as across the I-405 Freeway from the project. The residences located to the east of Avenue of the Arts, across from the project site are approximately 50 feet from the nearest point of the project site. The residences located across Sunflower Avenue will not be impacted by noise from any new development proposed by this project. This is due to the distance between the residences and the new development (more than 200 feet) as well as intervening buildings that would reduce any noise levels.

It is very unlikely that any noise levels generated by the project will impact the residences located south of I-405 along the project. This is due to the distance from the project site, the noise level generated by the freeway and the sound wall that exists between the freeway and the residences beyond. These residences are located more than 600 feet from the nearest point of the project. The minimum noise reduction from a sound wall is 5 dB when the wall breaks line of sight between the source and receiver. A noise source would need to exceed 81 dBA at 50 feet for more than 30 minutes in an hour during the daytime and 76 dBA during the nighttime to exceed the noise ordinance limit. The noise source would need to exceed 101 dBA at 50 feet during the daytime or 96 dBA during the nighttime for the maximum noise level standard at the residences to be exceeded. These noise levels would be considered exceptionally high for an industrial land use and extremely unlikely to be generated by the commercial uses proposed for the project site.

Typical potential noise impacts from this type of project include parking lot activities (discussed below). Typically the proposed land uses do not generate significant noise impacts. However, any use will be required to comply with the City's Noise Ordinance.

Parking Lot Activity

Traffic associated with parking lots is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by car door slamming, engine start-up, and car pass-bys can be annoying to nearby residents. Tire squeal may also be a problem depending on the type of parking surface. Estimates of the maximum noise levels associated with some parking lot activities are presented below and are based on limited measurements conducted by Mestre Greve Associates (Table 6). The noise levels presented are for a distance of 50 feet from the source, and are the maximum noise level generated. A range is given to reflect the variability of noise generated by various automobile types and driving styles.

Table 6
Maximum Noise Levels Generated By Parking Lots
(dBA at 50 feet)

Event	Lmax
Door Slam	60 to 70
Car Alarm Activation	65 to 70
Engine Start-up	60 to 70
Car pass-by	55 to 70

The nearest homes to potential parking lot areas are located to the east of the site across Avenue of the Arts. These residences are located approximately 75 feet from the nearest point of the project site. Maximum noise levels from parking lot activities at the residences will be less than 67 dBA. This is below the 70 dBA maximum noise level ordinance limit. Any parking activities at the Segerstrom Center for the Arts will not exceed the City's noise ordinance. All other residential areas are located further from the potential parking areas than this. Therefore there will be no noise impacts from parking lot activities.

2.4 Long Term On-Site Impacts

The purpose of this section is to examine the noise impacts on the proposed project. For the project the primary source of noise is the I-405 freeway. To a lesser extent traffic noise from the arterial roadways will impact the site.

2.4.1 Traffic Noise

Future build-out noise levels along the roadways along the project were presented previously in Table 5. The City of Costa Mesa noise standards applicable to the project site are interior noise standards. These are 55 CNEL for retail, 50 CNEL for general office spaces and 45 CNEL for private office spaces and hotel guestrooms. Buildings built to current energy efficiency standards achieve a minimum of 20 dB of outdoor-to-indoor noise reduction. Most commercial buildings achieve at least 25 dB of noise reduction.

The office building proposed as a part of Two Town Center is located approximately 650 feet from the centerline of the I-405 freeway. At this distance the noise level from the freeway is slightly less than 70 CNEL. The building will also be located adjacent to Anton Boulevard. The building will be at least 65 feet from the centerline of the roadway and exposed to noise levels less than 70 CNEL from this road. Assuming an outdoor-to-indoor noise reduction of 25 dB for a commercial building. The greatest interior noise level will be less than 45 CNEL. This level complies with the strictest interior noise standards.

The proposed hotel will be located approximately 800 feet from the centerline of the I-405 freeway. At this distance the noise level is approximately 69 CNEL. Shielding from other buildings likely reduces this noise level. This results in interior noise levels of less than 44 CNEL.

The proposed hotel is approximately 100 feet from the centerline of Bristol. At this distance the noise level will be approximately 71 CNEL. This could result in the interior noise levels at the guest rooms for the hotel exceeding 45 CNEL. Compliance with the 45 CNEL standard will

need to be determined at the time of building permits. This is described further in the mitigation section.

The proposed office building near the corner of Bristol and Sunflower is located approximately 115 feet from the centerline of Bristol and more than 150 feet from the centerline of Sunflower. At this distance the noise level from Bristol will be 69 CNEL and the level from Sunflower will be 65 CNEL. This results in a noise level of just above 70 CNEL at the northwest corner of the building. Noise levels in the building will be less than 45 CNEL.

~~The components of the project that are a part of the Segerstrom Center for the Arts are located along Town Center Drive and Avenue of the Arts. These roadways do not generate noise levels significant enough to preclude achievement of the interior noise levels for buildings located along them.~~

3.0 MITIGATION MEASURES

3.1 Temporary Impacts

This section of the report deals with possible methods of minimizing the impact of construction noise upon the nearby residential areas. Due to the preliminary stage of the project, it is unknown exactly what procedures will be used in the project's construction. For this reason, the exact noise impact upon the nearby residents is also unknown. The potential construction noise impacts on the nearby residents may be noticeable. Therefore, construction noise mitigation measures are recommended for this project. Several mitigation methods are recommended for this project and described below:

Local Control of Construction Hours - The most effective method of controlling construction noise is through local control of construction hours. The City of Costa Mesa has adopted a Noise Ordinance that excludes control of construction activities during the hours between 7 a.m. and 8 p.m. All noise generating construction activities within 500' of residential areas should be limited to these hours.

Truck Routes - Truck routes in general should be steered away from residential areas.

In addition to the above measures, temporary noise barriers should be used during the construction of the hotel portion of the project adjacent to the existing hotel. The barriers should be a combination of walls along the edge of the construction site as well as movable barriers to be used with more stationary sources of noise such as sledgehammers.

3.2 Long Term Off-Site Impacts

No off site impacts are expected from the project therefore no mitigation measures are required. There is a slight possibility that uses at the project that have not yet been identified will generate noise levels that may exceed the noise ordinance criteria at nearby residences. All activities on the project site will be required to conform with the noise ordinance. Any potentially noise generating uses should be located away from residential areas if possible.

3.3 Long Term On-Site Impacts

Interior guestroom noise levels for the proposed hotel could potentially exceed 45 CNEL. Prior to issuance of building permits an acoustical study should be prepared by a qualified acoustical consultant and submitted to the city. This study should predict the future ultimate noise levels impacting the building and calculate the outdoor-to-indoor noise reduction provided by the structure. Compliance with the 45 CNEL standard should be demonstrated with any required building component upgrades. The required noise reduction is only slightly greater than what would typically be expected. The 45 CNEL standard is achievable and any measures required to meet the 45 CNEL standard would not be significant.

4.0 UNAVOIDABLE NOISE IMPACTS

There are no unavoidable noise impacts associated with the project.

APPENDIX

Table A-1 Traffic Volumes

Table A-2 Traffic Mixes

Table A-3 Existing Roadway Noise Levels

Table A-4 Roadway Noise Level Increases

Table A-5 Future Roadway Noise Levels

Table A-1
Average Daily Traffic Volumes (1,000's)

Roadway Segment		Speed (mph)	Mix	*****No Project*****			*****With Project*****	
				Existing	2020	w/HR	2020	w/HR
Warner								
Raitt	to Bristol	45	1	--	33.0	--	33.0	--
East	of Main	45	1	--	35.0	--	35.0	--
Segerstrom								
Raitt	to Bristol	45	1	--	26.0	--	26.0	--
East	of Main	45	1	28.0	33.0	--	33.0	--
Alton								
West	of Fairview	45	1	--	11.0	11.0	11.0	11.0
Greenville	to Raitt	45	1	--	1.0	1.0	1.0	1.0
Raitt	to Bear	45	1	--	5.0	5.0	5.0	5.0
Bear	to Bristol	45	1	--	4.0	4.0	4.0	4.0
East	of Bristol	45	1	--	3.0	3.0	3.0	3.0
MacArthur								
West	of Fairview	45	1	--	27.0	28.0	27.0	28.0
Fairview	to Greenville	45	1	--	28.0	28.0	29.0	29.0
Greenville	to Raitt	45	1	--	--	--	--	--
Raitt	to Bear	45	1	--	30.0	30.0	31.0	31.0
Bear	to Plaza	45	1	30.0	36.0	36.0	36.0	36.0
Plaza	to Bristol	45	1	--	37.0	37.0	37.0	37.0
Bristol	to Flower	45	1	--	40.0	40.0	40.0	40.0
Main	to SR-55	45	1	46.0	53.0	52.0	54.0	53.0
Callens								
Plaza	to Bristol	45	1	--	12.0	12.0	12.0	12.0
Sunflower								
West	of Fairview	45	1	11.0	16.0	18.0	17.0	19.0
Fairview	to Greenville	45	1	17.0	21.0	21.0	22.0	22.0
Greenville	to Raitt	45	1	16.0	21.0	22.0	21.0	22.0
Raitt	to Bear	45	1	16.0	20.0	20.0	21.0	21.0
Bear	to Plaza	45	1	--	39.0	39.0	41.0	41.0
Plaza	to Bristol	45	1	27.0	32.0	33.0	34.0	35.0
Bristol	to Flower	45	1	25.0	35.0	36.0	37.0	48.0
Flower	to Anton	45	1	19.0	25.0	26.0	26.0	27.0
Anton	to Main	45	1	27.0	42.0	42.0	43.0	43.0
South Coast								
West	of Fairview	45	1	8.0	14.0	20.0	14.0	20.0
East	of Fairview	45	1	--	17.0	18.0	17.0	18.0
West	of Bear	45	1	12.0	14.0	15.0	14.0	15.0
Town Center								
Bristol	to Ave. of The Arts	45	1	2.0	6.0	6.0	5.0	5.0
Anton								
Bristol	to Ave. of The Arts	45	1	27.0	31.0	32.0	33.0	33.0
Ave. of The Arts	to Sunflower	45	1	7.0	21.0	22.0	21.0	22.0
Paularino								
Bear	to Bristol	45	1	8.0	8.0	8.0	8.0	8.0
East	of Bristol	45	1	17.0	16.0	16.0	16.0	16.0
Baker								
West	of Bear	45	1	29.0	39.0	40.0	39.0	40.0
Bear	to Bristol	45	1	--	33.0	33.0	34.0	34.0
East	of Bristol	45	1	21.0	32.0	32.0	33.0	33.0
Fairview								
MacArthur	to Sunflower	45	1	42.0	47.0	48.0	47.0	48.0
Sunflower	to South Coast	45	1	50.0	56.0	57.0	57.0	58.0
South Coast	to I-405	45	1	64.0	69.0	72.0	70.0	73.0
I-405	to Baker	45	1	47.0	56.0	56.0	56.0	56.0

Table A-1
Average Daily Traffic Volumes (1,000's)

Roadway Segment			Speed (mph)	Mix	No Project			With Project	
					Existing	2020	w/HR	2020	w/HR
Greenville									
Segerstrom	to Alton		45	1	--	7.0	7.0	7.0	7.0
South	of Sunflower		45	1	--	1.0	1.0	1.0	1.0
Raitt									
Segerstrom	to Alton		45	1	--	14.0	14.0	14.0	14.0
MacArthur	to Sunflower		45	1	--	16.0	17.0	16.0	17.0
Bear									
Segerstrom	to Alton		45	1	--	18.0	18.0	18.0	18.0
Alton	to MacArthur		45	1	--	25.0	25.0	25.0	25.0
MacArthur	to Sunflower		45	1	--	22.0	22.0	22.0	22.0
Sunflower	to South Coast		45	1	20.0	22.0	22.0	23.0	23.0
South Coast	to I-405		45	1	--	33.0	33.0	33.0	33.0
I-405	to Paularino		45	1	33.0	36.0	37.0	36.0	37.0
Paularino	to Baker		45	1	--	34.0	34.0	35.0	35.0
Baker	to Bristol		45	1	8.0	10.0	11.0	9.0	10.0
Plaza									
MacArthur	to Callens		45	1	--	12.0	12.0	12.0	12.0
Callens	to Sunflower		45	1	--	11.0	12.0	11.0	12.0
Bristol									
Warner	to Segerstrom		45	1	35.0	38.0	--	39.0	--
Segerstrom	to Alton		45	1	--	50.0	50.0	51.0	51.0
Alton	to MacArthur		45	1	40.0	49.0	49.0	49.0	49.0
MacArthur	to Sunflower		45	1	43.0	49.0	49.0	49.0	49.0
Sunflower	to Town Center		45	1	52.0	61.0	61.0	60.0	60.0
Town Center	to Anton		45	1	57.0	69.0	69.0	70.0	70.0
Anton	to I-405		45	1	71.0	83.0	83.0	85.0	85.0
I-405	to Paularino		45	1	51.0	67.0	68.0	67.0	68.0
Paularino	to Baker		45	1	37.0	56.0	56.0	56.0	56.0
Baker	to Bear		45	1	23.0	42.0	42.0	42.0	42.0
Avenue of the Arts									
Town Center	to Anton		45	1	6.0	9.0	9.0	10.0	10.0
Flower									
Warner	to Dyer		45	1	13.0	--	--	--	--
Dyer	to MacArthur		45	1	12.0	15.0	16.0	15.0	16.0
Main									
Warner	to Dyer		45	1	31.0	39.0	--	39.0	--
Dyer	to MacArthur		45	1	31.0	37.0	37.0	38.0	38.0
MacArthur	to Sunflower		45	1	25.0	36.0	38.0	36.0	38.0
Sunflower	to Red Hill		45	1	--	59.0	--	60.0	--
East	of Red Hill		45	1	--	62.0	--	62.0	--
Red Hill									
MacArthur	to Main		45	1	--	33.0	--	33.0	--
South	of Main		45	1	--	56.0	--	56.0	--
I-405									
West	of SR-73		65	2	--	368.0	370.0	369.0	371.0
SR-73	to Bristol		65	2	259.0	283.0	284.0	284.0	285.0
Bristol	to SR-55		65	2	272.0	299.0	301.0	300.0	302.0
East	of SR-55		65	2	272.0	326.0	327.0	328.0	329.0
SR-73									
I-405	to Bear		65	3	75.0	99.0	100.0	99.0	100.0
Bear	to SR-55		65	3	80.0	103.0	104.0	104.0	105.0
South	of SR-55		65	3	79.0	98.0	99.0	98.0	99.0
SR-55									
MacArthur	to I-405		65	4	237.0	286.0	287.0	287.0	288.0
I-405	to SR-73		65	4	135.0	143.0	143.0	143.0	143.0
South	of SR-73		65	4	125.0	215.0	215.0	216.0	216.0

Table A-2
Day/Evening/Night Traffic Distributions

1. Arterial Roadways

	Day	Eve	Night	Total
Auto	75.51%	12.57%	9.34%	97.42%
MT	1.56%	0.09%	0.19%	1.84%
HT	0.64%	0.02%	0.08%	0.74%

2. I-405

	Day	Eve	Night	Total
Auto	72.93%	11.22%	9.35%	93.50%
MT	2.94%	0.45%	0.38%	3.77%
HT	2.13%	0.33%	0.27%	2.73%

3. SR-73

	Day	Eve	Night	Total
Auto	72.62%	11.17%	9.31%	93.10%
MT	2.88%	0.44%	0.37%	3.69%
HT	2.50%	0.39%	0.32%	3.21%

4. SR-55

	Day	Eve	Night	Total
Auto	73.48%	11.30%	9.42%	94.20%
MT	2.76%	0.42%	0.35%	3.53%
HT	1.77%	0.27%	0.23%	2.27%

Noise Level Increases

Roadway Segment	Increase Over Existing CNEL		CNEL Increase Due To Project	CNEL Increase Due To Project & Home Ranch
	w/Project	w/ Project & Home Ranch		
Warner				
Raitt to Bristol	--	--	0.0	--
East of Main	--	--	0.0	--
Segerstrom				
Raitt to Bristol	--	--	0.0	--
East of Main	0.7	--	0.0	--
Alton				
West of Fairview	--	--	0.0	0.0
Greenville to Raitt	--	--	0.0	0.0
Raitt to Bear	--	--	0.0	0.0
Bear to Bristol	--	--	0.0	0.0
East of Bristol	--	--	0.0	0.0
MacArthur				
West of Fairview	--	--	0.0	0.2
Fairview to Greenville	--	--	0.2	0.2
Greenville to Raitt	--	--	--	--
Raitt to Bear	--	--	0.1	0.1
Bear to Plaza	0.8	0.8	0.0	0.0
Plaza to Bristol	--	--	0.0	0.0
Bristol to Flower	--	--	0.0	0.0
Main to SR-55	0.7	0.6	0.1	0.0
Callens				
Plaza to Bristol	--	--	0.0	0.0
Sunflower				
West of Fairview	1.9	2.4	0.3	0.7
Fairview to Greenville	1.1	1.1	0.2	0.2
Greenville to Raitt	1.2	1.4	0.0	0.2
Raitt to Bear	1.2	1.2	0.2	0.2
Bear to Plaza	--	--	0.2	0.2
Plaza to Bristol	1.0	1.1	0.3	0.4
Bristol to Flower	1.7	2.8	0.2	1.4
Flower to Anton	1.4	1.5	0.2	0.3
Anton to Main	2.0	2.0	0.1	0.1
South Coast				
West of Fairview	2.4	4.0	0.0	1.5
East of Fairview	--	--	0.0	0.2
West of Bear	0.7	1.0	0.0	0.3
Town Center				
Bristol to Ave. of The Arts	4.0	4.0	-0.8	-0.8
Anton				
Bristol to Ave. of The Arts	0.9	0.9	0.3	0.3
Ave. of The Arts to Sunflow	4.8	5.0	0.0	0.2
Paularino				
Bear to Bristol	0.0	0.0	0.0	0.0
East of Bristol	-0.3	-0.3	0.0	0.0

Noise Level Increases

Roadway Segment	Increase Over Existing CNEL		CNEL Increase Due To Project	CNEL Increase Due To Project & Home Ranch
	w/Project	w/ Project & Home Ranch		
Baker				
West of Bear	1.3	1.4	0.0	0.1
Bear to Bristol	--	--	0.1	0.1
East of Bristol	2.0	2.0	0.1	0.1
Fairview				
MacArthur to Sunflower	0.5	0.6	0.0	0.1
Sunflower to South Coast	0.6	0.6	0.1	0.2
South Coast to I-405	0.4	0.6	0.1	0.2
I-405 to Baker	0.8	0.8	0.0	0.0
Greenville				
Segerstrom to Alton	--	--	0.0	0.0
South of Sunflower	--	--	0.0	0.0
Raitt				
Segerstrom to Alton	--	--	0.0	0.0
MacArthur to Sunflower	--	--	0.0	0.3
Bear				
Segerstrom to Alton	--	--	0.0	0.0
Alton to MacArthur	--	--	0.0	0.0
MacArthur to Sunflower	--	--	0.0	0.0
Sunflower to South Coast	0.6	0.6	0.2	0.2
South Coast to I-405	--	--	0.0	0.0
I-405 to Paularino	0.4	0.5	0.0	0.1
Paularino to Baker	--	--	0.1	0.1
Baker to Bristol	0.5	1.0	-0.5	0.0
Plaza				
MacArthur to Callens	--	--	0.0	0.0
Callens to Sunflower	--	--	0.0	0.4
Bristol				
Warner to Segerstrom	0.5	--	0.1	--
Segerstrom to Alton	--	--	0.1	0.1
Alton to MacArthur	0.9	0.9	0.0	0.0
MacArthur to Sunflower	0.6	0.6	0.0	0.0
Sunflower to Town Center	0.6	0.6	-0.1	-0.1
Town Center to Anton	0.9	0.9	0.1	0.1
Anton to I-405	0.8	0.8	0.1	0.1
I-405 to Paularino	1.2	1.2	0.0	0.1
Paularino to Baker	1.8	1.8	0.0	0.0
Baker to Bear	2.6	2.6	0.0	0.0
Avenue of the Arts				
Town Center to Anton	2.2	2.2	0.5	0.5
Flower				
Warner to Dyer	--	--	--	--
Dyer to MacArthur	1.0	1.2	0.0	0.3

Noise Level Increases

Roadway Segment	Increase Over Existing CNEL		CNEL Increase Due To Project	CNEL Increase Due To Project & Home Ranch
	w/Project	w/ Project & Home Ranch		
Main				
Warner to Dyer	1.0	--	0.0	--
Dyer to MacArthur	0.9	0.9	0.1	0.1
MacArthur to Sunflower	1.6	1.8	0.0	0.2
Sunflower to Red Hill	--	--	0.1	--
East of Red Hill	--	--	0.0	--
Red Hill				
MacArthur to Main	--	--	0.0	--
South of Main	--	--	0.0	--
I-405				
West of SR-73	--	--	0.0	0.0
SR-73 to Bristol	0.4	0.4	0.0	0.0
Bristol to SR-55	0.4	0.5	0.0	0.0
East of SR-55	0.8	0.8	0.0	0.0
SR-73				
I-405 to Bear	1.2	1.2	0.0	0.0
Bear to SR-55	1.1	1.2	0.0	0.1
South of SR-55	0.9	1.0	0.0	0.0
SR-55				
MacArthur to I-405	0.8	0.8	0.0	0.0
I-405 to SR-73	0.3	0.3	0.0	0.0
South of SR-73	2.4	2.4	0.0	0.0

Table A-3
Existing Traffic Noise Levels

Roadway Segment	CNEL @ 100'	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Warner				
Raitt to Bristol	--	--	--	--
East of Main	--	--	--	--
Segerstrom				
Raitt to Bristol	--	--	--	--
East of Main	66.5	59	126	272
Alton				
West of Fairview	--	--	--	--
Greenville to Raitt	--	--	--	--
Raitt to Bear	--	--	--	--
Bear to Bristol	--	--	--	--
East of Bristol	--	--	--	--
MacArthur				
West of Fairview	--	--	--	--
Fairview to Greenville	--	--	--	--
Greenville to Raitt	--	--	--	--
Raitt to Bear	--	--	--	--
Bear to Plaza	66.8	61	132	285
Plaza to Bristol	--	--	--	--
Bristol to Flower	--	--	--	--
Main to SR-55	68.7	82	176	379
Callens				
Plaza to Bristol	--	--	--	--
Sunflower				
West of Fairview	62.5	31	68	146
Fairview to Greenville	64.4	42	91	195
Greenville to Raitt	64.1	40	87	187
Raitt to Bear	64.1	40	87	187
Bear to Plaza	--	--	--	--
Plaza to Bristol	66.4	57	123	265
Bristol to Flower	66.0	54	117	252
Flower to Anton	64.8	45	97	210
Anton to Main	66.4	57	123	265
South Coast				
West of Fairview	61.1	RW	55	118
East of Fairview	--	--	--	--
West of Bear	62.8	33	72	155
Town Center				
Bristol to Ave. of The Arts	55.1	RW	RW	47
Anton				
Bristol to Ave. of The Arts	66.4	57	123	265
Ave. of The Arts to Sunflower	60.5	RW	50	108
Paularino				
Bear to Bristol	61.1	RW	55	118
East of Bristol	64.4	42	91	195

Table A-3
Existing Traffic Noise Levels

Roadway Segment	CNEL @ 100'	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Baker				
West of Bear	66.7	60	129	278
Bear to Bristol	--	--	--	--
East of Bristol	65.3	48	104	225
Fairview				
MacArthur to Sunflower	68.3	77	165	356
Sunflower to South Coast	69.0	86	186	400
South Coast to I-405	70.1	102	219	472
I-405 to Baker	68.8	83	178	384
Greenville				
Segerstrom to Alton	--	--	--	--
South of Sunflower	--	--	--	--
Raitt				
Segerstrom to Alton	--	--	--	--
MacArthur to Sunflower	--	--	--	--
Bear				
Segerstrom to Alton	--	--	--	--
Alton to MacArthur	--	--	--	--
MacArthur to Sunflower	--	--	--	--
Sunflower to South Coast	65.1	47	101	217
South Coast to I-405	--	--	--	--
I-405 to Paularino	67.2	65	141	303
Paularino to Baker	--	--	--	--
Baker to Bristol	61.1	RW	55	118
Plaza				
MacArthur to Callens	--	--	--	--
Callens to Sunflower	--	--	--	--
Bristol				
Warner to Segerstrom	67.5	68	147	316
Segerstrom to Alton	--	--	--	--
Alton to MacArthur	68.1	74	160	345
MacArthur to Sunflower	68.4	78	168	362
Sunflower to Town Center	69.2	89	191	411
Town Center to Anton	69.6	94	203	437
Anton to I-405	70.6	109	235	506
I-405 to Paularino	69.1	87	188	406
Paularino to Baker	67.7	71	152	328
Baker to Bear	65.7	51	111	239
Avenue of the Arts				
Town Center to Anton	59.8	RW	45	97
Flower				
Warner to Dyer	63.2	35	76	163
Dyer to MacArthur	62.8	33	72	155
Main				
Warner to Dyer	67.0	63	135	291
Dyer to MacArthur	67.0	63	135	291
MacArthur to Sunflower	66.0	54	117	252
Sunflower to Red Hill	--	--	--	--
East of Red Hill	--	--	--	--

Table A-3
Existing Traffic Noise Levels

Roadway Segment	CNEL @ 100'	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Red Hill				
MacArthur to Main	--	--	--	--
South of Main	--	--	--	--
I-405				
West of SR-73	--	--	--	--
SR-73 to Bristol	81.2	559	1,205	2,596
Bristol to SR-55	81.4	578	1,245	2,683
East of SR-55	81.4	578	1,245	2,683
SR-73				
I-405 to Bear	76.0	249	537	1,157
Bear to SR-55	76.2	260	561	1,208
South of SR-55	76.2	258	556	1,198
SR-55				
MacArthur to I-405	80.7	515	1,110	2,391
I-405 to SR-73	78.2	354	763	1,643
South of SR-73	77.9	336	725	1,561

Table A-5
Future Traffic Noise Levels

Roadway Segment	CNEL @ 100'	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Warner				
Raitt to Bristol	--	--	--	--
East of Main	--	--	--	--
Segerstrom				
Raitt to Bristol	--	--	--	--
East of Main	--	--	--	--
Alton				
West of Fairview	62.5	31	68	146
Greenville to Raitt	52.0	RW	RW	RW
Raitt to Bear	59.0	RW	40	86
Bear to Bristol	58.1	RW	35	74
East of Bristol	56.8	RW	RW	61
MacArthur				
West of Fairview	66.5	59	126	272
Fairview to Greenville	66.7	60	129	278
Greenville to Raitt	--	--	--	--
Raitt to Bear	67.0	63	135	291
Bear to Plaza	67.6	69	149	322
Plaza to Bristol	67.7	71	152	328
Bristol to Flower	68.1	74	160	345
Main to SR-55	69.3	90	193	416
Callens				
Plaza to Bristol	62.8	33	72	155
Sunflower				
West of Fairview	64.8	45	97	210
Fairview to Greenville	65.5	50	108	232
Greenville to Raitt	65.5	50	108	232
Raitt to Bear	65.3	48	104	225
Bear to Plaza	68.2	76	163	351
Plaza to Bristol	67.5	68	147	316
Bristol to Flower	68.9	84	181	390
Flower to Anton	66.4	57	123	265
Anton to Main	68.4	78	168	362
South Coast				
West of Fairview	65.1	47	101	217
East of Fairview	64.6	44	94	203
West of Bear	63.8	39	83	179
Town Center				
Bristol to Ave. of The Arts	59.0	RW	40	86
Anton				
Bristol to Ave. of The Arts	67.2	65	141	303
Ave. of The Arts to Sunflower	65.5	50	108	232
Paularino				
Bear to Bristol	61.1	RW	55	118
East of Bristol	64.1	40	87	187

Table A-5
Future Traffic Noise Levels

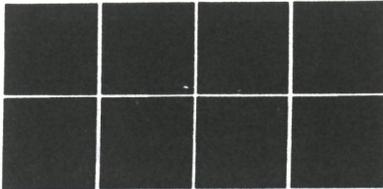
Roadway Segment	CNEL @ 100'	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Baker				
West of Bear	68.1	74	160	345
Bear to Bristol	67.4	67	144	310
East of Bristol	67.2	65	141	303
Fairview				
MacArthur to Sunflower	68.9	84	181	390
Sunflower to South Coast	69.7	95	205	442
South Coast to I-405	70.7	111	239	515
I-405 to Baker	69.5	93	200	432
Greenville				
Segerstrom to Alton	60.5	23	50	108
South of Sunflower	52.0	RW	RW	29
Raitt				
Segerstrom to Alton	63.5	37	80	171
MacArthur to Sunflower	64.4	42	91	195
Bear				
Segerstrom to Alton	64.6	44	94	203
Alton to MacArthur	66.0	54	117	252
MacArthur to Sunflower	65.5	50	108	232
Sunflower to South Coast	65.7	51	111	239
South Coast to I-405	67.2	65	141	303
I-405 to Paularino	67.7	71	152	328
Paularino to Baker	67.5	68	147	316
Baker to Bristol	62.0	RW	64	137
Plaza				
MacArthur to Callens	62.8	33	72	155
Callens to Sunflower	62.8	33	72	155
Bristol				
Warner to Segerstrom	--	--	--	--
Segerstrom to Alton	69.1	87	188	406
Alton to MacArthur	68.9	85	183	395
MacArthur to Sunflower	68.9	85	183	395
Sunflower to Town Center	69.8	97	210	452
Town Center to Anton	70.5	108	233	501
Anton to I-405	71.3	123	265	570
I-405 to Paularino	70.4	106	228	491
Paularino to Baker	69.5	93	200	432
Baker to Bear	68.3	77	165	356
Avenue of the Arts				
Town Center to Anton	62.0	RW	64	137
Flower				
Warner to Dyer	--	--	--	--
Dyer to MacArthur	64.1	40	87	187
Main				
Warner to Dyer	--	--	--	--
Dyer to MacArthur	67.8	72	155	333
MacArthur to Sunflower	67.8	72	155	333
Sunflower to Red Hill	--	--	--	--
East of Red Hill	--	--	--	--

**Table A-5
Future Traffic Noise Levels**

Roadway Segment	CNEL @ 100'	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Red Hill				
MacArthur to Main	--	--	--	--
South of Main	--	--	--	--
I-405				
West of SR-73	82.8	711	1,531	3,299
SR-73 to Bristol	81.6	596	1,285	2,767
Bristol to SR-55	81.9	620	1,335	2,876
East of SR-55	82.3	656	1,414	3,045
SR-73				
I-405 to Bear	77.2	302	651	1,402
Bear to SR-55	77.4	312	672	1,448
South of SR-55	77.2	300	646	1,393
SR-55				
MacArthur to I-405	81.5	587	1,264	2,723
I-405 to SR-73	78.5	368	793	1,708
South of SR-73	80.3	484	1,043	2,248

APPENDIX F

CULTURAL RESOURCE STUDY (RECORDS SEARCH)



Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

July 13, 2000

Mr. R. Michael Robinson, AICP
Planning and Redevelopment Manager
Development Services Department – Planning Division
77 Fair Drive
P.O. Box 1200
City of Costa Mesa, CA 92628-1200

Subject: Records Search Results for Town Center and Two Town Center, located between Sunflower Avenue and the 405 Freeway, and Bristol Street and Avenue of the Arts, in Costa Mesa, Orange County, California.

Dear Mr. Robinson, AICP,

Michael Brandman Associates (MBA) has conducted a records search for Town Center and Two Town Center, located between Sunflower Avenue and the 405 Freeway, and Bristol Street and Avenue of the Arts, in Costa Mesa, Orange County, California.

The purpose of the records check was to identify all previously recorded cultural resources (prehistoric and historic archaeological sites, historic buildings, structures, objects, or districts), as required by Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations 36 CFR Part 800. The records search was conducted on May 31, 2000 at the South Central Coastal Information Center (SCCIC) located at the University of California, Los Angeles. It entailed a review of all previously recorded prehistoric and historic archaeological sites situated within a half-mile radius of the project area, as well as a review of all cultural resource survey and excavation reports.

Additionally, MBA examined the roles of the National Register of Historic Places (NRHP), California Historical Landmarks (CHL), and the California Points of Historical Interest (CPHI) for the purposes of identifying any historic properties. The California State Historic Resources Inventory (HRI) was also reviewed to determine what local resources have been previously evaluated for historic significance.

The results of the records search indicated that three prehistoric sites (Ora-174, Ora-1515, and Ora-1538) have been recorded within a 1/2 mile radius of the project. A total of five survey/excavation reports (OR-246, OR-289, OR-518, OR-1197, and OR-2013) are on file with the SCCIC for the vicinity. Three of these assessed at least part of the subject property (OR-289, OR-518, and OR-1197).

No NRHP, CHL, HRI, or CPHI properties are situated within a 1/2 mile of the project.

Corporate Office: 15901 Red Hill Avenue, Suite 200, Tustin, CA 92780-7318 714 . 258 . 8100 FAX 714 . 258 . 8900
San Bernardino Los Angeles Bakersfield
909.884.2255 213.892.6323 661.334.2755

www.brandman.com

info@mba@brandman.com

Mr. Robinson, AICP
July 13, 2000
Page 2

In summary, PROJECT DESCRIPTION. The existing buildings are modern (1970's - 1990's) and merit no historic consideration. Due to extensive disturbance connected with construction of these structures it is concluded that there is little probability that intact archaeological resources are present at the location. However, because three archaeological sites are recorded within a 1/2 mile radius, may want to have a qualified archaeologist monitor any major soil disturbance, such as new underground parking structures or basements, if required by City standard conditions and requirements.

We at MBA appreciate the opportunity to assist you on this project. If we can be of any further assistance, or if you have any questions concerning this letter, please do not hesitate to contact Jason Brandman at (714) 258-8100, or via his e-mail, jbrandman@brandman.com.

Sincerely,

MICHAEL BRANDMAN ASSOCIATES



Wayne H. Bonner, RPA
Principal Archaeologist

WHB/jc
JN:00800014
H:/Client/0080/00800014/Robinson1.doc

**CITY OF COSTA MESA
RESOLUTION NO. 01-7
SOUTH COAST PLAZA TOWN CENTER
FINAL PROGRAM EIR**

RESOLUTION NO. 01-7

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COSTA MESA, CALIFORNIA, CERTIFYING FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 1047 FOR SOUTH COAST PLAZA TOWN CENTER.

THE CITY COUNCIL OF THE CITY OF COSTA MESA DOES HEREBY RESOLVE AS FOLLOWS:

WHEREAS, Draft Program Environmental Impact Report (EIR) No. 1047 (State Clearinghouse Number 2000041100) has been prepared for the South Coast Plaza Town Center expansion; and

WHEREAS, the Draft Program EIR was prepared in accordance with the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the City of Costa Mesa Environmental Guidelines; and

WHEREAS, the Draft Program EIR was circulated to the public between July 19 and September 1, 2000, for comment and review; and

WHEREAS, the Planning Commission conducted public hearings on August 14, 2000, September 25, 2000, October 9, 2000, October 23, 2000, and November 13, 2000, to receive public testimony with respect to the Program EIR; and

WHEREAS, written and verbal comments were received from the public during and after the review period; and

WHEREAS, responses were given to written comments and oral testimony in the manner set forth in State CEQA Guidelines Section 15088(b) through Comments and Responses submitted to the Planning Commission; and

WHEREAS, by adoption of Resolution PC-00-68, the Planning Commission found that the Program EIR considered all environmental impacts of the proposed project and is complete and adequate and fully complies with all requirements of CEQA, the CEQA Guidelines, and the City of Costa Mesa Environmental Guidelines, and thereby the Planning Commission recommended to the City Council certification of Final Program EIR No. 1047; and

WHEREAS, the City Council conducted public hearings on December 4, 2000, January 15, 2001, and February 5, 2001, to receive public testimony with respect to the Program EIR; and

WHEREAS, the Final Program EIR No. 1047 reflects the independent judgment of the City of Costa Mesa, and it is comprised of the following:

- A. Draft Program Environmental Impact Report No. 1047 (SCH No. 2000041100) dated July 18, 2000;
- B. Responses to Comments on Draft Program Environmental Impact Report No. 1047 dated November 6, 2000; and
- C. Exhibit A – Errata attached to this resolution.

NOW, THEREFORE, BE IT RESOLVED that the Costa Mesa City Council does hereby certify Final Program EIR No. 1047 as complete and adequate in that it addresses all environmental effects on the project and fully complies with the requirements of CEQA, the CEQA Guidelines, and the City of Costa Mesa Environmental Guidelines.

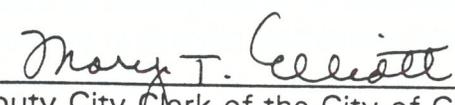
BE IT FURTHER RESOLVED that the administrative record is located in the City of Costa Mesa Development Services Department, 77 Fair Drive, Costa Mesa,

California. The custodian of the administrative record is the Director of Development Services.

PASSED AND ADOPTED this 5th day of February, 2001.


Mayor of the City of Costa Mesa

ATTEST:


Deputy City Clerk of the City of Costa Mesa

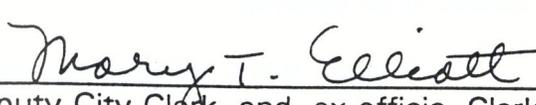
APPROVED AS TO FORM


CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF ORANGE) ss
CITY OF COSTA MESA)

I, MARY T. ELLIOTT, Deputy City Clerk and ex-officio Clerk of the City Council of the City of Costa Mesa, hereby certify that the above and foregoing Resolution No. 01-7 was duly and regularly passed and adopted by the said City Council at a regular meeting thereof, held on the 5th day of February, 2001.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Seal of the City of Costa Mesa this 7th day of February, 2001.


Deputy City Clerk and ex-officio Clerk of
the City Council of the City of Costa Mesa

ERRATA AND REFINEMENTS TO THE DRAFT EIR No. 1047

Revisions as identified throughout the response to comments document, dated November 6, 2000, were based on comments on the Draft EIR (public agency, private organizations, etc.). As a result of these revisions, changes will be made to the Draft EIR and will be provided as part of the comprehensive Final EIR document.

Additional changes to the Draft EIR are as follows:

1. Table 2-1 EXECUTIVE SUMMARY, 5.7 Population, Employment, and Housing, column 1, is hereby amended to read as follows:

"The SCPTC project would result in an increase in employment in excess of local and regional growth projections. Since projected growth in employment from the project and in the local area may occur at a faster pace than housing development, there is the potential for a significant impact to housing availability in the region."

2. Page 5.7-8, paragraph 5, is hereby amended to read as follows:

"The City has recently adopted the General Plan Housing Element. Continued active implementation and refinement of policy programs outlined in the Housing Element will further contribute to the mitigation of potential future housing problems. Since projected growth in employment from the project and in the local area may occur at a faster pace than housing development, there is the potential for a significant impact to housing availability in the region."

An additional change to the Response to Comments document, dated November 6, 2000, is as follows:

1. Page 3-17, RESPONSE CSAPBA-11, is hereby to read as follows:

"A mechanism to coordinate development in Costa Mesa with development in Santa Ana is beyond the scope required for an EIR. This EIR addresses the impact of the individual project on cumulative conditions. As noted in Response CSAPBA 10, the traffic study derives a fair share contribution methodology for the SCPTC impacts in a cumulative setting."