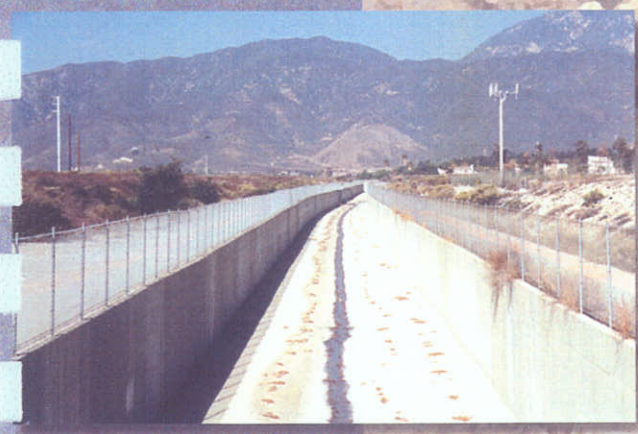


FINAL

The Colonies at San Antonio

Appendices for the Program Environmental Impact Report



Administrative Draft EIR Completed: May 14, 2002
Draft EIR Completed: June 10, 2002
Final EIR Completed: _____

**APPENDICES
TO THE
ENVIRONMENTAL IMPACT REPORT**

**THE COLONIES AT SAN ANTONIO
SPECIFIC PLAN AMENDMENT**

SCH NO. 2001041048

Lead Agency:

CITY OF UPLAND
460 North Euclid Avenue
Upland, California 91786-4732
Contact: Ms. Sylvia Scharf, AICP
909.931.4100

Prepared by:

RBF CONSULTING
14725 Alton Parkway
Irvine, California 92618-2069
Contact: Mr. Glenn Lajoie, AICP
949.472.3505

June 10, 2002

JN 10-101248

TABLE OF CONTENTS

Section 15.0: Appendices

- 15.1 Initial Study/Notice of Preparation
- 15.2 Traffic Study
- 15.3 Air Quality Data
- 15.4 Noise Data
- 15.5 Biological Assessment
- 15.6 Geology/Soils Assessment
- 15.7 Hydrology Data
- 15.8 Correspondence

15.0 Appendices

Section 0.21

15.1 Initial Study/Notice of Preparation

NOTICE OF PREPARATION

To: Interested Agencies and Organizations
(Agency)

(Address)

Subject: **Notice of Preparation of a Draft Environmental Impact Report**

Lead Agency:

Agency Name: City of Upland

Street Address: 460 North Euclid Avenue

City/State/Zip: Upland, California 91786-4732

Contact: Sylvia Scharf, AICP

Consulting Firm:

Firm Name: RBF Consulting

Street Address: 14725 Alton Parkway

City/State/Zip: Irvine, California 92618

Contact: Glenn Lajoie, AICP

CITY OF UPLAND will be the Lead Agency and will prepare an environmental impact report 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 the potential environmental effects are contained in the attached materials. A copy of the Initial Study (is 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 Sylvia Scharf, AICP at the address shown above. We will need the name for a contact person in your agency.

Project Title: Colonies at San Antonio Specific Plan Amendment

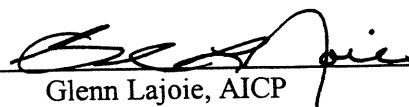
Project Location: City of Upland San Bernardino
City (nearest) County

Project Description: (brief)

The proposed amendment would increase the amount of commercial development proposed within the Specific Plan area. The proposed Specific Plan Amendment would also update design and development standards throughout the project area, and would modify the originally proposed flood control lake to serve as a flood control detention facility which may also serve as a mitigation area and a major open space feature at the center of the project. The proposed project which is described in detail in the attached Initial Study consists of the following discretionary actions which are being requested of the City of Upland:

1. A comprehensive amendment to the existing Colonies at San Antonio Specific Plan.
2. An amendment to the City's General Plan Circulation Element to change the 19th Street alignment as an east-west through route.
3. Conceptual Planning for commercial areas south of the State Route 30/210 Freeway.
4. A master tentative tract map to create the individual planning areas within the Colonies at San Antonio Specific Plan area.
5. Tentative tract maps totaling 438 lots.

Date: 4/10/02

Signature: 
Glenn Lajoie, AICP

Title: City Consultant

Telephone: (949) 472-3505

INITIAL STUDY/ENVIRONMENTAL CHECKLIST

**The Colonies at San Antonio
Specific Plan Amendment**

LEAD AGENCY:

City of Upland

460 North Euclid Avenue
Upland, California 91786-4732
Contact: Ms. Sylvia Scharf, AICP
909/931-4100

PREPARED BY:

RBF Consulting

14725 Alton Parkway
Irvine, California 92718
Contact: Glenn Lajoie, AICP
949-472-3505

April 10, 2001

JN 10-101248

TABLE OF CONTENTS

1.0	Introduction	1
1.1	Statutory Authority and Requirements	1
1.2	Consultation	1
1.3	References	2
2.0	Project Description	3
2.1	Project Location & Setting	3
2.2	Background	3
2.3	Project Characteristics	6
2.4	Project Goals and Objectives	13
3.0	Initial Study Checklist	18
3.1	Background	18
3.2	Environmental Factors Potentially Affected	19
3.3	Lead Agency Determination	19
3.4	Evaluation of Environmental Impacts	20
4.0	Environmental Analysis	30
4.1	Aesthetics	30
4.2	Agriculture Resources	30
4.3	Air Quality	31
4.4	Biological Resources	32
4.5	Cultural Resources	34
4.6	Geology and Soils	34
4.7	Hazards and Hazardous Materials	36
4.8	Hydrology and Water Quality	37
4.9	Land Use and Planning	39
4.10	Mineral Resources	40
4.11	Noise	40
4.12	Population and Housing	41
4.13	Public Services	42
4.14	Recreation	42
4.15	Transportation/Traffic	43
4.16	Utilities and Service Systems	43
4.17	Mandatory Findings of Significance	44

LIST OF EXHIBITS

2-1	Regional Location	4
2-2	Site Vicinity	5
2-3	Preliminary Land Use Plan	9

LIST OF TABLES

2-1	Colonies at San Antonio Land Use Data	8
-----	---	---

1.0 INTRODUCTION

Following preliminary review of the proposed project, the City of Upland has determined that the proposed Colonies at San Antonio Specific Plan Amendment is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA) and the Upland Environmental Guidelines. This Initial Study addresses the direct, indirect, and cumulative environmental effects associated with The Colonies at San Antonio Specific Plan Amendment as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with CEQA (Public Resources Code Section 21000 - 21178.1), this Initial Study has been prepared to analyze the proposed project in order to identify any potential significant impacts upon the environment that would result from construction and implementation of the project. In accordance with Section 15063 of the State CEQA Guidelines, this Initial Study is a preliminary analysis prepared by the Lead Agency, the City of Upland, in consultation with other jurisdictional agencies, to determine whether a Negative Declaration or Environmental Impact Report (EIR) would be required for the proposed Colonies at San Antonio project. The purpose of this Initial Study is to inform the City of Upland decision-makers, affected agencies, and the public of potential environmental impacts associated with construction and implementation of the proposed project.

Following completion of the Initial Study, the City of Upland will make a formal determination as to whether the project may or may not have significant unmitigable environmental impacts. A determination that a project may have less than significant effects would result in the preparation of a Negative Declaration. A determination that a project may have significant impacts on the environment would require the preparation of an EIR to further evaluate issues identified in this Initial Study. Based upon the potential environmental effects, the City will require preparation of a EIR to further evaluate issues identified in this Initial Study. Therefore, this Initial Study and Notice of Preparation (NOP) serve as part of the scoping process to determine the appropriate environmental analysis for the project.

The Initial Study and NOP will undergo a 30-day public review period. During this review, comments by the public and responsible agencies on the project relative to environmental issues are to be submitted to the City of Upland. The City will review and consider all comments as a part of the project's environmental analysis, using the comments to further determine the necessary environmental document, as required in Section 15082 of the CEQA Guidelines. The comments received with regard to this NOP and Initial Study will be included in the project environmental document, for consideration by the City of Upland.

1.2 CONSULTATION

As soon as the Lead Agency has determined that an Initial Study would be required for the project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the project, in order to obtain the recommendations of those agencies on the environmental documentation to be prepared for the project. Following the City of Upland's receipt of any written comments from those agencies, the City of Upland would consider any recommendations of those agencies in the formulation of the City of Upland's preliminary findings. Following execution of this Initial

Study, the City of Upland would initiate formal consultation with these and other governmental agencies as required under CEQA and its implementing guidelines.

1.3 REFERENCES

The following references were utilized during preparation of this Initial Study. These documents are available for review at the City of Upland Community Development Department located at 460 North Euclid, Upland, California, 91786.

- City of Upland General Plan, 1992. The City of Upland General Plan is comprised of all seven elements mandated by State law and two elective elements. The mandated elements are: Land Use; Circulation; Housing; Open Space; Conservation; Noise; and Safety. The elective elements are Scenic Highways and Seismic Safety. Each of the elements of the General Plan provide the goals, policies, and plans for the future of Upland.
- San Antonio Lakes Specific Plan/ Environmental Impact Report, 1988, updated 1998. The Specific Plan and Environmental Impact Report (EIR) address the environmental impacts of a mixed-use planned community of single and multi-family residential, commercial, recreational, and community uses surrounding a flood control lake at an interchange of State Route (SR) 30/210 Freeway on 440.5 acres. The significant unavoidable impacts of the San Antonio Lakes Specific Plan are seismicity safety, slopes, and erosion; hydrology, drainage, water conservation; noise; climate and air quality; traffic and circulation; public services and facilities; biotic resources; and energy.
- The Colonies at San Antonio Draft Supplemental Environmental Impact Report, 1998. The Supplemental EIR was prepared to identify the potential environmental effects that could result from the development of the amendment of the San Antonio Lakes Specific Plan (The Colonies at San Antonio) and to propose mitigation measures that would offset, minimize or avoid significant environmental impacts.
- Upland Circulation Element Amendment/ Final Environmental Impact Report, 1991. This document is an amendment to the Circulation Element of the City of Upland General Plan. This Amendment addresses approved General Plan land uses in relation to the planned State Route 30/210 Freeway and to ensure the compatibility with Caltrans' current freeway design.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION & SETTING

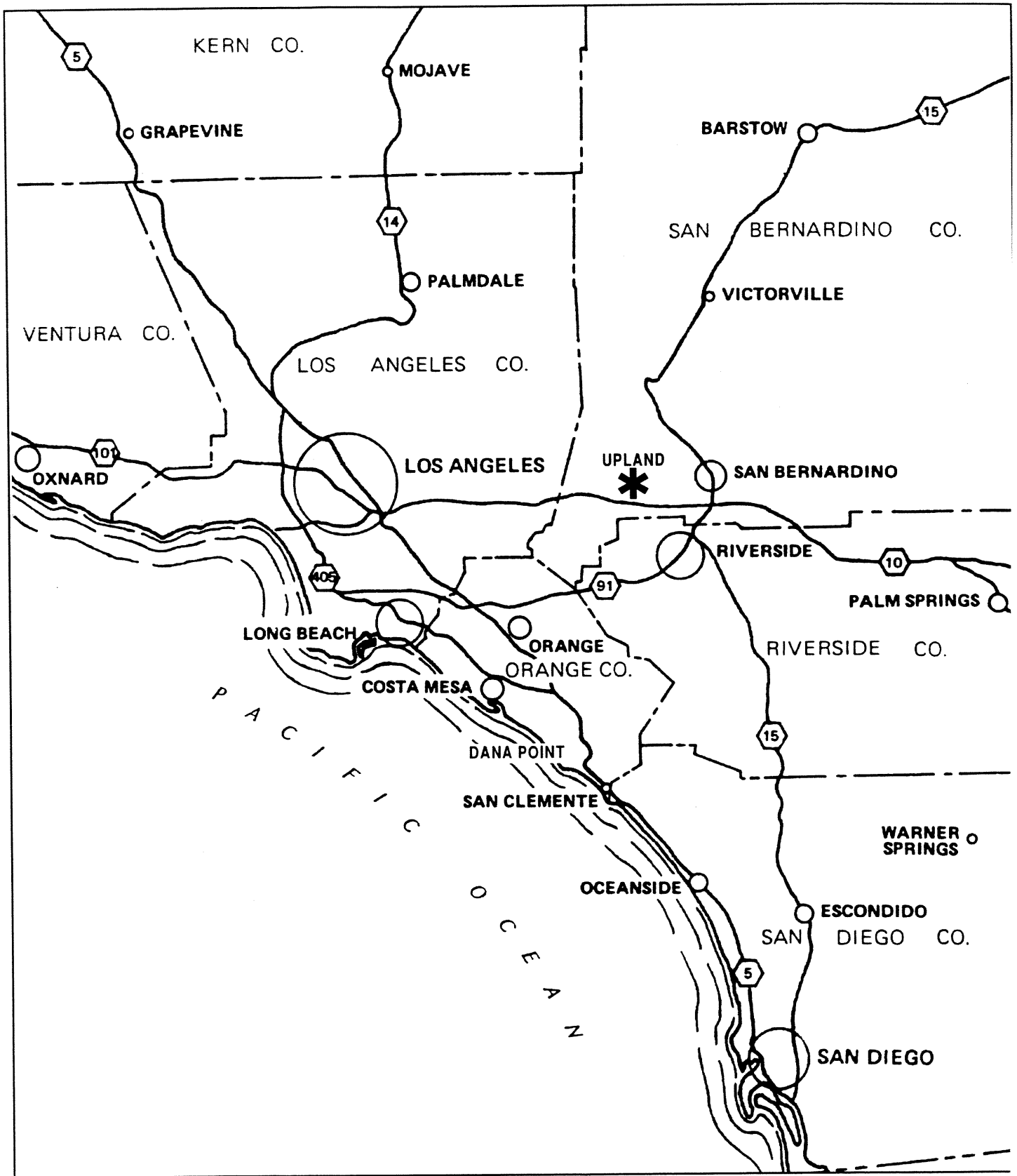
The project site encompasses approximately 444 acres in the northeast portion of Upland, California. The City of Upland is located in the western part of San Bernardino County, north of Ontario and Montclair, between the cities of Claremont and Rancho Cucamonga (refer to Exhibit 2-1, *Regional Location*). The project site is located on the undeveloped area of Upland, near the Upland-Rancho Cucamonga city boundary (refer to Exhibit 2-2, *Site Vicinity*). This area is known as the Cucamonga Basin or "Spreading Grounds", an alluvial fan configuration historically utilized to control area drainage.

The project site is bounded to the north by the City's Master Plan alignment of 20th Street, to the east by the Cucamonga Creek Channel located in Cucamonga Canyon Wash, to the south by 16th Street, and to the west by the existing alignment of Campus Avenue. The property is bisected by the existing alignment of 19th Street extending east and west through the northern portion of the property. Surrounding conditions include the Holliday Rock Company's sand and gravel extraction operation to the north. East of the project site, beyond the Cucamonga Creek, are single-family residences in the cities of Upland and Rancho Cucamonga. South of the project site is a planned residential community consisting of 160 medium density dwelling units. West of the project site, beyond Campus Avenue, is the Southern California Edison north/south transmission line and right-of-way, low density single-family residences and two City reservoirs between 19th and 20th streets. Other uses in the area include a landscape nursery, groves and sheds, the extension of the Metropolitan Water District's right of way, (which extends southwest to northeast through the project site) and an area of vacant land.

With regard to on-site conditions, the southern portion of the project site is largely altered from sand and gravel mining activities, while the northern half of the site is largely undisturbed. Vegetation consists of alluvial fan sage scrub, alluvial chaparral, riparian and ruderal vegetation. The topography is irregular, with a number of man-made holes varying in size, some are filled with water. The project site is located on the southward-sloping surface of large and extensive alluvial fan deposits which extend southward from the lower flanks of the San Gabriel Mountains. Elevations on-site range from 1,680 feet near the northwestern portion of the project site at 20th Street to 1,440 feet near the southeastern extension of 16th Street. The site is currently vacant, with no structures. A large water conservation basin or "lake" is located in the central portion of the project site. The lake area is surrounded with dense riparian vegetation. Wetlands are located in the south-central and western portion of the project site.

2.2 BACKGROUND

The Colonies at San Antonio Specific Plan was originally adopted in September 1988 as the San Antonio Lakes Specific Plan, along with a Final EIR which was certified by the City of Upland. This action included an amendment to the City's General Plan and a Zone Change, granting specific development rights for an undeveloped 440.5-acre parcel of land located in the northeastern corner of the City of Upland. The Specific Plan included a mixed-use planned community of single and multi-family residential, commercial, recreational, and community uses surrounding a flood control lake at an interchange of future SR-30/210 Freeway, which is currently under construction. Development was intended to be implemented in six phases over an eight-year period.



* - Project Location

Not to Scale

THE COLONIES AT SAN ANTONIO SPECIFIC PLAN AMENDMENT
INITIAL STUDY/ENVIRONMENTAL CHECKLIST

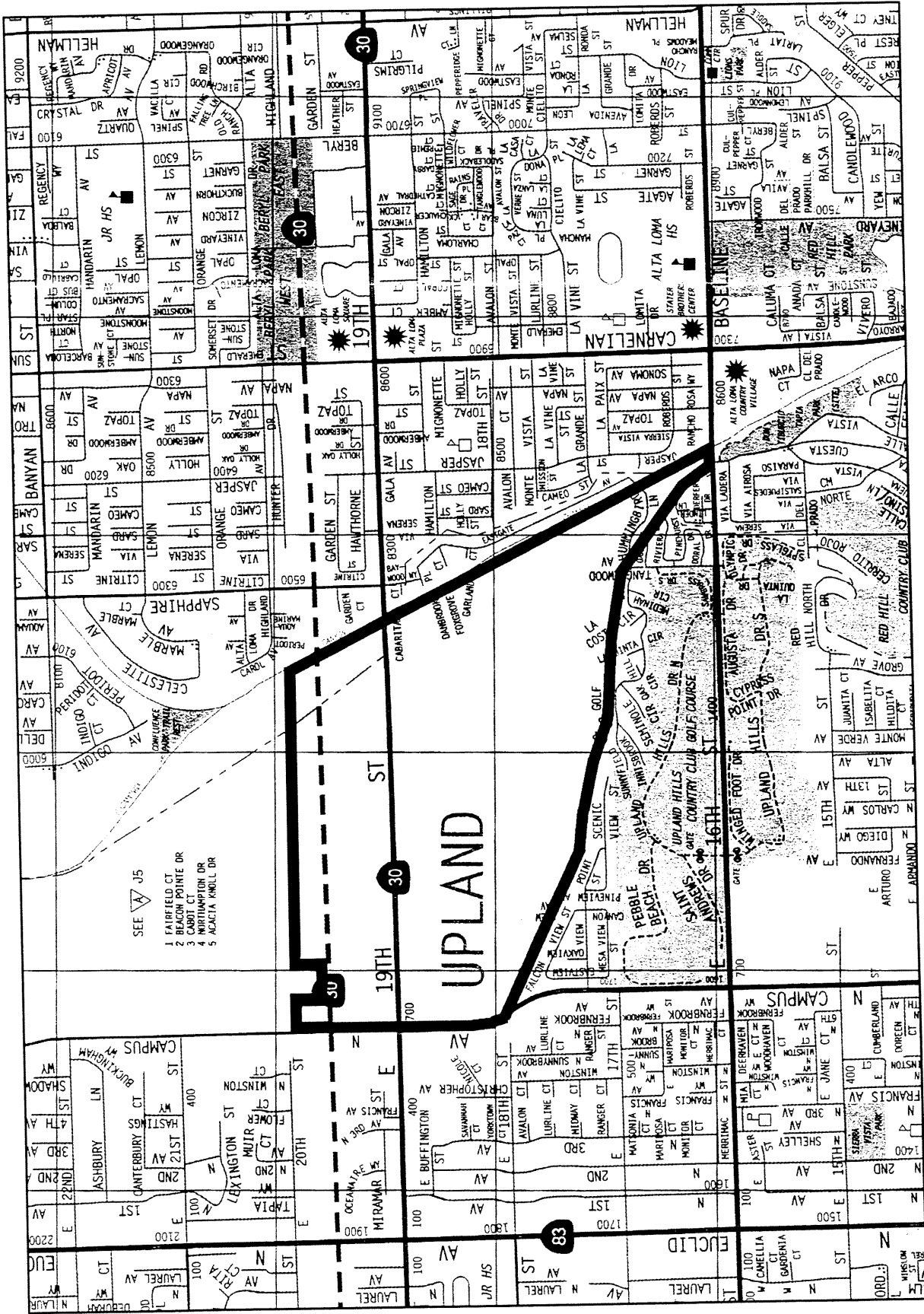


PLANNING ■ DESIGN ■ CONSTRUCTION

04/01

JN 10-101248

Regional Location



Not to Scale

RBF
CONSULTING

Project Area

PLANNING ■ DESIGN ■ CONSTRUCTION
04/01 JUN 10-101248

THE COLONIES AT SAN ANTONIO SPECIFIC PLAN AMENDMENT
INITIAL STUDY/ENVIRONMENTAL CHECKLIST
Site Vicinity

Soon after adoption of the Specific Plan, the regional development market became depressed along with the economy in general, and the project was abandoned. Nine years later, there was renewed interest in developing the site. However, to realistically proceed with site development required certain modifications to the original Specific Plan.

Therefore, the current owner of the property proposed an amendment to the adopted Specific Plan to reflect current economic realities. The City of Upland approved the Specific Plan amendment in October 1998, and certified a Supplemental Environmental Impact Report. In general, the specific plan amendment accomplished the following:

- Changed the name of the project from San Antonio Lakes to The Colonies at San Antonio.
- Modified the Specific Plan's phasing to reverse the order of Phases 1 and 2. As a result, the development of the Specific Plan would begin along its eastern boundary and proceed westerly. The Specific Plan Amendment also modifies the infrastructure development plan to correspond to the proposed modification of land development phasing.
- Reduced the minimum lot size in Planning Area 1 from 7,500 square feet to 6,000 and 5,000 and 4,500 square feet.
- Changed the zoning of Planning Area 1 from Single-Family Residential (SFR) 7.5 (7,500 sq. ft. lots) to SFR-4.5 (4,500 sq. ft. lots), SFR-5 (5,000 sq. ft. lots), and SR-6 (6,000 sq. ft. lots).
- The Colonies Parkway and Tanglewood roadways were realigned to discourage through traffic from 19th Street south through the project to 16th Street.
- Modified the configuration of planning areas along Tanglewood Avenue and Colonies Parkway.
- Revised certain development standards in the zoning regulations portion of the Specific Plan.

Along with the Specific Plan amendment, the City of Upland approved tentative tract maps for 305 single-family dwelling units within Phase 1 in the eastern portion of the Specific Plan area.

2.3 PROJECT CHARACTERISTICS

A comprehensive amendment to the approved Colonies at San Antonio Specific Plan is being proposed by the property owner. The proposed amendment would increase the amount of commercial development proposed within the Specific Plan area. The proposed amendment would also update design and development standards throughout the Specific Plan area, and would modify the originally proposed flood control lake to serve as a flood control detention facility which may also serve as a wetland mitigation area and major open space feature at the center of the project. The proposed project consists of the following discretionary actions which are being requested of the City of Upland:

- A comprehensive amendment to the existing Colonies at San Antonio Specific Plan.
- An amendment to the City's General Plan Circulation Element to change the 19th Street alignment as an east-west through route.
- Conceptual planning for commercial areas south of the State Route 30/210 Freeway.
- A master tentative tract map to create the individual planning areas within the Colonies at San Antonio Specific Plan area.
- Tentative tract maps totaling 438 lots.

A statistical summary of The Colonies at San Antonio Specific Plan as proposed is provided as Table 2-1, *Colonies at San Antonio Land Use Data*, along with a proposed land use map, Exhibit 2-3, *Preliminary Land Use Plan*.

Specific Plan Amendment

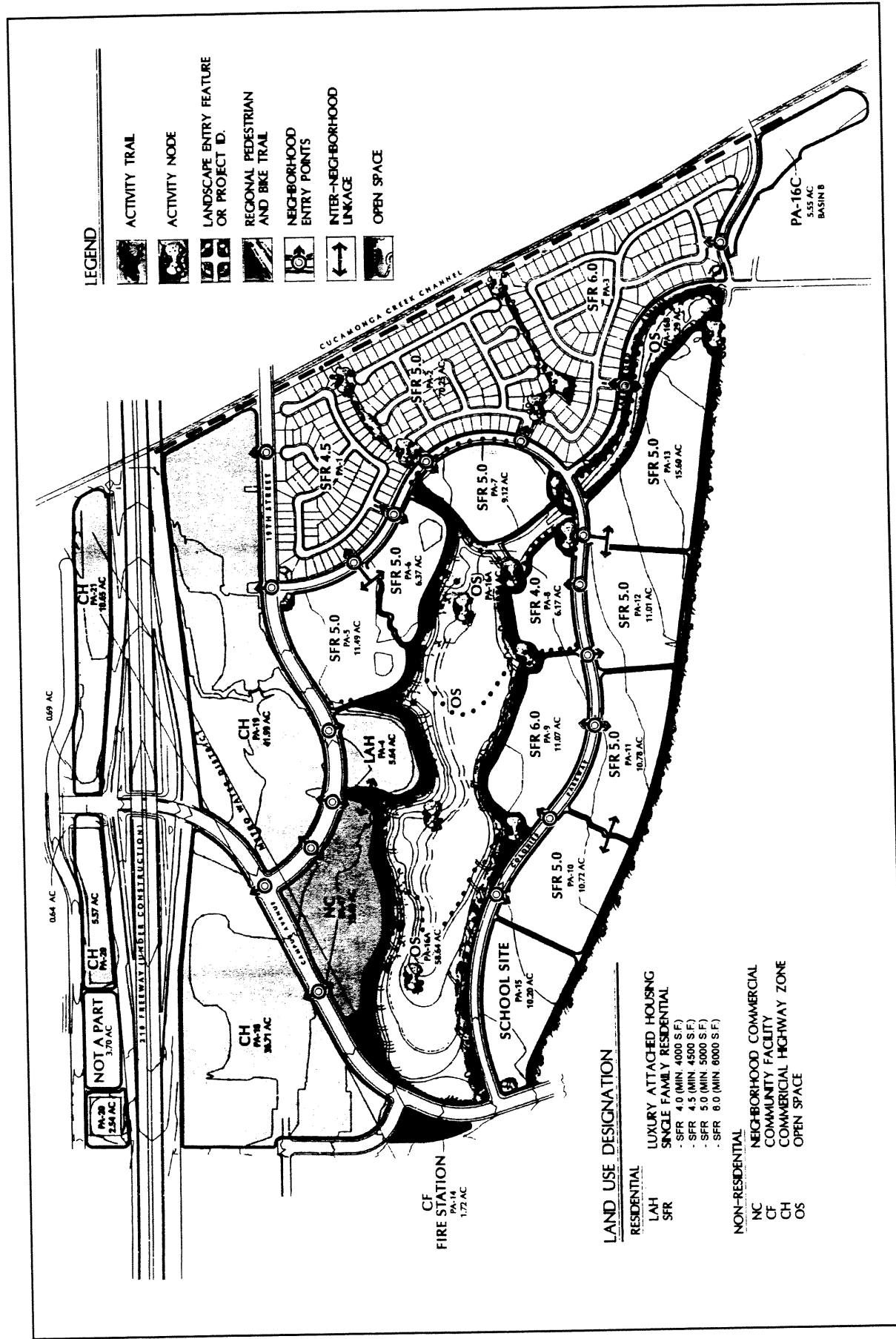
A comprehensive amendment to the existing Colonies at San Antonio Specific Plan is being proposed. The proposed amendment is intended to accomplish the following:

- Increase the amount of commercial development proposed within the Specific Plan area. The proposed Specific Plan amendment would devote the freeway frontage portion of the Specific Plan area to commercial uses such as big box retail, in line shops, restaurants and fast food outlets, office uses, a theater complex, and automobile sales dealerships. A total of 114.89 acres would be devoted to commercial uses. Currently the Specific Plan proposes 48.9 acres of commercial development and 3.0 acres of business park use, which would be deleted as part of the proposed amendment in favor of commercial uses. A maximum of 1,200,000 square feet of commercial development is proposed. Currently, the Specific Plan does not specify maximum square footage of commercial and business park uses; however, it is estimated that build out of the existing approved Specific Plan would yield 530,000 square feet of commercial development and 52,000 square feet of business park use.
- Reduce the residential development yield. Currently, the Colonies at San Antonio Specific Plan permits development of up to 1,479 dwelling units, up to 728 could be attached products. The amended Specific Plan would permit a maximum of 1,150 dwelling units, up to 350 of which could be luxury attached dwelling units.

Table 2-1
Colonies at San Antonio Land Use Data

Proposed Specific Plan Amendment		
Residential	Acreage	Units
LAH	5.64	350
SFR 4.0	6.17	45
SFR 4.5	19.08	105
SFR 5.0	97.22	475
SFR 6.0	40.11	175
	168.22	1,150
Commercial		
Highway Commercial		
North of Freeway	23.79	
South of Freeway	78.70	
Neighborhood Commercial	12.40	
	114.89	
Public Use, Open Space, and Drainage Features		
School (Optional SFR 5.0)	10.20	
Fire Station	1.72	
Open Space	58.64	
Natural Drainage Path	8.53	
Drainage Basin	5.55	
	84.64	
Freeways/Roads		
Freeway	41.54	
Roadways	34.66	
	76.20	
Total	443.95	1,150

THE COLONIES AT SAN ANTONIO SPECIFIC PLAN AMENDMENT INITIAL STUDY/ENVIRONMENTAL CHECKLIST Preliminary Land Use Plan



Source: Colonies Crossroads Inc., February 2001.



Not to Scale



PLANNING ■ DESIGN ■ CONSTRUCTION
04/01
JN-10-101248

- Modify the originally proposed flood control lake to serve as a 60-acre flood control detention facility which would serve as a wetland mitigation area and major open space feature at the center of the project. At the time of the original Specific Plan approval, the abandoned sand and gravel pits within the project site were barren of vegetation. Over the years subsequent to Specific Plan approval, stormwater flowing onto the project site resulted in the establishment of wetland and open water areas. The proposed Specific Plan amendment proposes modifying the purpose of the open space area at the center of the project from a flood control and recreational lake to a flood control detention facility which would serve as a wetland mitigation area and major open space amenity. A wetland delineation undertaken for the project site identified 10.15 acres of wetland and 18.32 acres of non-wetland waters of the United States.¹ Within this 60-acre area, acreage will be devoted to restored wetlands, with the balance devoted to passive open space and trails. The open space area will also be designed to accommodate stormwater flows which currently run through the site, and thereby ensure that the capacity of the adjacent Cucamonga Creek channel will not be exceeded.
- Update implementation provisions of the Specific Plan in relation to the development and timing of the wetland mitigation and central open space area. In addition, the amended Specific Plan will include development and environmental management regulations to ensure preservation and protection of restored wetland areas.
- Update provisions for ensuring ongoing maintenance of project open space and landscaped area, including provisions to ensure the success of wetland restoration and mitigation within the central open space area.
- Modify the statistical summary for the overall specific plan area from 440.5 acres to 443.95 acres, reflecting updated survey data.
- Modify project objectives to better reflect the concepts underlying the proposed Colonies at San Antonio project.
- The proposed amendment would also update design and development standards throughout the Specific Plan area. These modifications include the following:
 - Development standards for SFR-4 residential development, decreasing the minimum lot size in certain planning areas.
 - The description of commercial uses and commercial development standards.
 - An update of design guidelines text and graphics, including separating commercial and residential guidelines from each other. Thus, the

¹ This consists of open water areas which fall under the jurisdiction of the Corps of Engineers pursuant to the provisions of section 404 of the Clean Water Act.

updated Specific Plan provides separate sections for single-family residential, multiple family residential and commercial land uses².

- An update of landscape plans to describe the modified open space area and wetland mitigation, as well as to describe proposed edge conditions along the open space area; clarify entry designs and locations.
- A revised discussion of roadways based on an updated traffic study. A focus of this revision is to ensure adequate access for the proposed expansion of commercial uses, and to minimize through traffic on Colonies Parkway.
- A revised trails plan, consistent with the central open space area and proposed wetlands mitigation.
- Revisions to the drainage plan, reflecting modifications to the previous lake concept.
- Updated water and sewer plans.
- Updated grading program, including a description of how grading will be used to recreate/maintain wetland areas.
- Modifications to the infrastructure phasing program to ensure that adequate infrastructure is available to support development of individual portions of the specific Plan area.
- Updated discussion of infrastructure financing and project maintenance funding.
- Additional zones and zoning regulations to reflect proposed residential and commercial development, since not all residential and commercial development types are reflected in the existing Specific Plan zoning ordinance.
- Modifications to parking standards to ensure adequate parking for all proposed uses, while minimizing the amount of land which needs to be paved over for parking.
- Addition of development and environmental performance standards to minimize the potential environmental effects of specific plan buildout.
- Identification of a development review and entitlement processes for subsequent development of individual planning areas within the Specific Plan area.

² Currently, the guidelines are organized to discuss facades, roofs, and other features for all uses.

Circulation Element Amendment

Historically, 19th Street served as a major east-west regional arterial, connecting foothill communities in San Bernardino County. Residents within the residential neighborhoods west of the Colonies site have expressed concern with traffic speeds and noise created by this roadway. With the construction of the State Route 30/210 Freeway, 19th Street is no longer needed as a regional arterial, and, as part of the planning for the proposed freeway interchange at Campus Avenue within the Colonies project, the project developer and city have sought to slow traffic speeds along 19th, and focus regional through traffic on the freeway, which is currently under construction. This will be accomplished by offsetting the roadway segments of 19th Street at Campus Avenue (refer to Exhibit 2-3, *Preliminary Land Use Plan*).

Commercial Planning Areas

The amended Specific Plan would permit a maximum of 1,200,000 square feet of commercial development, including big box retail, in-line shops, restaurants and fast food outlets, a theater complex, office uses, and automobile sales dealerships. This square footage would be developed within five planning areas, two of which are located north of the SR 30/210 Freeway, and the balance located to the south of the freeway which is currently under construction. These commercial planning areas are centered along the realigned Campus Avenue which will have a full interchange at SR 30/210 Freeway.

Master Tentative Tract Map

The final discretionary action being requested of the City of Upland at this time is approval of a master tentative tract map. The proposed master tentative tract map would establish each of the residential, commercial, open space, and other planning areas as separate legal parcel. The master tentative tract map would also establish dedication and improvement requirements for the Specific Plan's backbone roadway and infrastructure systems.

Tentative Tract Maps

The City of Upland is requested to approve tentative tract maps for 438 lots in the residential planning areas.

2.4 PROJECT GOALS AND OBJECTIVES

Overall Goal

The intent of the Colonies at San Antonio Specific Plan is to provide the City of Upland, its citizens, nearby residents, and project developers with a document that identifies objectives, directions for development, and development regulations which will aid in the achievement of mutual goals. These goals, which evolved during a series of meetings and conferences with all parties concerned, include responding to public demand for a variety of residential product types and housing densities; providing compatible commercial facilities and open space areas; facilitating efficient vehicular circulation flow within the project area while minimizing through traffic on Colonies Parkway; providing essential water conservation and flood control detention facilities; providing infrastructure for public facilities; and responding to existing natural and man-made site conditions. These goals, then, are the framework upon which the Specific Plan is constructed. The success of this Specific Plan depends, in large part, upon its ability to respond to and adequately meet these goals. When implemented, the Colonies at San Antonio project will provide a safe, attractive, and economically viable addition to the City of Upland and the region. Thus, the overall goal of the Colonies at San Antonio Specific Plan is as follows:

Goal: *To establish a unique mixed use community which provides a broad range of commercial, retail, and entertainment opportunities, maintains a high quality living environment, respects the site's natural environment, and enhances the quality of life for present and future residents of the City of Upland.*

To further define this overall goal statement, goals and objectives are provided for Community Design, Land Use, Circulation, Infrastructure, and Project Implementation.

Community Design Objectives

Goal: *to create a design image that builds on Upland's unique charm, and establishes a distinguishable community identity within the City of Upland.*

Objectives:

- To create an identifiable sense of place within the City by using a central natural open space, trails, and community landscaping to define individual neighborhoods.
- To create a visually attractive development by consistent application of architectural and landscape standards/guidelines that will encourage residential sales and strong commercial occupancies.
- To establish a pattern of land uses which will place regional- and freeway-oriented uses north of 19th Street, and which will separate residential land uses from major noise generators.
- To provide easy pedestrian connections between residential neighborhoods and neighborhood-level shopping opportunities.

- To establish a consistent streetscape program to reinforce a Colonies at San Antonio design theme.
- To establish consistent architectural design themes which will provide a visually attractive built environment within the Specific Plan area.
- To promote the use of design features such as walls, fencing, lighting, signs, and street furniture to enhance overall community image.
- To provide identifiable project and neighborhood entries to provide a sense of arrival within the project and to individualize each neighborhood area.
- To capitalize on potential views of the central open space area and of the San Gabriel Mountains.
- To minimize the potential visual intrusiveness of the State Route 30/210 Freeway.

Land Use Objectives

Goal: *Provide a mixture of commercial, residential, and open space uses which is consistent with Upland's low density image.*

Residential Objectives:

- To meet anticipated marketing needs and public demand by providing a diversity of housing types that are marketable in the West Valley portion of San Bernardino County.
- To provide high quality housing to a broad spectrum of buyers, including move-up opportunities for local residents within the project vicinity and the City of Upland.
- To establish distinctive residential neighborhoods, each with convenient vehicular and pedestrian access to a central open area, as well as commercial, educational, and recreational opportunities.

Commercial Objectives:

- To establish a well balanced, productive, and carefully planned collection of specialized and general retail and entertainment uses which can take advantage of the site's accessibility to State Route 30/210 Freeway.
- To attract retail commercial uses that will:
 - Serve as a destination for a regional market (e.g., automobile dealerships which will attract shoppers from a market area substantially larger than the City of Upland);
 - Provide services to travelers along the State Route 30/210 Freeway (e.g., restaurants, automobile service station, hotel);

- Serve community needs, attracting shoppers from throughout the City of Upland and adjacent residential areas outside the City (e.g., home improvement, durable goods, electronics, clothing and other similar retailers); and
- Expand the retail and service options for local consumers (e.g., supermarket, drug stores, and personal services).
- To provide daytime and nighttime shopping and entertainment opportunities in a safe and secure environment.
- To create employment generating opportunities for the citizens of Upland and surrounding communities.
- To augment the City's economic base by providing a variety of tax generating uses which minimize the leakage of taxable sales from Upland and attracts taxable purchases from a regional marketplace.

Open Space Objectives:

- To protect and enhance fragile riparian biotic resources.
- To establish a central open space area as the dominant visual feature of the Colonies at San Antonio, as well as for passive recreational opportunities.
- To provide a system of trails providing access from neighborhoods within the Colonies at San Antonio to the central open space area.
- To provide for the safety of Upland and San Bernardino County residents by detaining flood flows within the central open space area and the flood control basin located in the southeastern portion of the Specific Plan area.
- To provide for the recharge of flood flows into the upper portion of the Chino groundwater basin.

Circulation Objectives

Goal: *To provide for safe and efficient vehicular, pedestrian, and bicycle movement within and through the Specific Plan area, while protecting the integrity of the Colonies at San Antonio planned community.*

Objectives:

- To minimize through traffic and reduce traffic speeds on Colonies Parkway by providing a loop road connecting individual neighborhoods within the Specific Plan area, rather than a direct connection between 19th Street and residential areas to the south.

- To reduce traffic speeds on 19th Street and reduce regional through traffic past residential neighborhoods to the west of the Colonies at San Antonio Specific Plan by providing an offset along 19th Street at Campus Avenue.
- To provide easy pedestrian and bicycle connections between residential neighborhoods, the central open space area, commercial uses, and the elementary school to be developed within the Specific Plan area.

Infrastructure Objectives

Goal: *To provide adequate utility drainage, fire protection, and school facilities to serve the needs of all uses within the Specific Plan area.*

Objectives:

- To provide the water, sewer, electrical, and natural gas utility systems needed to support buildout of the uses proposed by the Colonies at San Antonio Specific Plan.
- To enhance fire protection services within the eastern portion of the City of Upland by providing for a new fire station and enable on-going operation of the station.
- To mitigate impacts of proposed development on the Upland Unified School District by setting aside an elementary school site within the Specific Plan area.
- To provide adequate capacity for the detention of flood flows, protecting residents within and downstream of the Colonies at San Antonio.

Goal: *To provide a clear and comprehensive program for implementation of the development proposed by the Colonies at San Antonio Specific Plan.*

Objectives:

- To correlate the installation of water, sewer, electrical, and natural gas utility systems with land development, in a manner which is economically feasible and which ensures adequate service to residential uses and businesses within the Specific Plan area without impacting services to surrounding uses.
- To establish environmental performance standards which will minimize the potential impacts of project development.
- To ensure the on-going maintenance of project open space and landscaped areas, including provisions to ensure the success of wetland restoration and mitigation within the central open space area.
- To provide comprehensive, understandable zoning regulations and design guidelines which will ensure a high quality of development within the Specific Plan area.

- To provide a clear program for review of development proposals within individual neighborhoods and commercial planning areas, which recognizes the detailed planning and review which went into the Colonies at San Antonio Specific Plan.

3.0 INITIAL STUDY CHECKLIST

3.1 BACKGROUND

1.	Project Title: The Colonies at San Antonio Specific Plan Amendment
2.	Lead Agency Name and Address: City of Upland 460 North Euclid Avenue Upland, California 91786-4732
3.	Contact Person and Phone Number: Ms. Sylvia Scharf, AICP 909/931-9923
4.	Project Location: South of 20 th Street, west of Cucamonga Creek Flood Control Channel, north of 16 th Street and east of Campus Avenue in Upland, California.
5.	Project Sponsor's Name and Address: The Colonies Crossroads, Inc. 10621 Civic Center Drive, 2 nd floor Rancho Cucamonga, CA 91730
6.	General Plan Designation: Residential and Commercial with a Specific Plan overlay.
7.	Zoning: Pursuant to the existing Specific Plan.
8.	Description of the Project: (Describe the whole action involved, including but not limited to, later phases of the project, and any secondary, support or off-site features necessary for its implementation.) The proposed project involves development of 444 acres located south of 20 th Street, east of Campus avenue, west of Cucamonga Creek Flood Control Channel, and north of 16 th Street. The implementation of the Project requires the approval of a Specific Plan amendment (SPA-01), General Plan Amendment to the Transportation Element (GPA-00-02), amendments to Zoning Districts (ZC-00-01) and Zoning Regulations (ZA-180), Design Guidelines, a Master Tentative Tract Map, and tentative tract maps for residential areas
9.	Surrounding Land Uses and Setting: Residential, sand and gravel extraction operation, vacant land, Southern California Edison transmission line and right-of-way, and Cucamonga Creek.
10.	Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement). To be determined as a part of further review in the EIR.

3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated," as indicated by the checklist on the following pages.

X	Aesthetics	X	Land Use and Planning
	Agriculture Resources		Mineral Resources
X	Air Quality	X	Noise
X	Biological Resources		Population and Housing
	Cultural Resources	X	Public Services
X	Geology and Soils	X	Recreation
	Hazards & Hazardous Materials	X	Transportation/Traffic
X	Hydrology & Water Quality	X	Utilities & Service Systems
X	Mandatory Findings of Significance		

3.3 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

I find that the proposed use COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposal could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in Section 3.5 have been added. A NEGATIVE DECLARATION will be prepared.

I find that the proposal MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

 X

I find that the proposal MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.


Signature

City of Upland
Agency

Glenn Lajoie, AICP
for Sylvia Scharf, AICP

April 10, 2001
Date

3.4 EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agriculture Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities & Service Systems

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines and used by the City of Lancaster in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.
- **Less Than Significant Impact.** The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- **Potentially Significant Impact Unless Mitigation Incorporated.** The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact.** The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
1. AESTHETICS. <i>Would the project:</i>				
a. Have a substantial adverse effect on a scenic vista?	✓			
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			✓	
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	✓			
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	✓			
2. AGRICULTURE RESOURCES. <i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</i>				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson act contract?				✓
c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				✓
3. AIR QUALITY. <i>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</i>				
a. Conflict with or obstruct implementation of the applicable air quality plan?	✓			
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	✓			
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	✓			
d. Expose sensitive receptors to substantial pollutant concentrations?	✓			
e. Create objectionable odors affecting a substantial number of people?			✓	

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES. <i>Would the project:</i>				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	✓			
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	✓			
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	✓			
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	✓			
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			✓	
5. CULTURAL RESOURCES. <i>Would the project:</i>				
a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?			✓	
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?			✓	
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				✓
d. Disturb any human remains, including those interred outside of formal cemeteries?			✓	

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
6. GEOLOGY AND SOILS. <i>Would the project:</i>				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			✓	
2) Strong seismic ground shaking?	✓			
3) Seismic-related ground failure, including liquefaction?			✓	
4) Landslides?			✓	
b. Result in substantial soil erosion or the loss of topsoil?			✓	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓
7. HAZARDS AND HAZARDOUS MATERIALS: <i>Would the project:</i>				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓
8. HYDROLOGY AND WATER QUALITY. <i>Would the project:</i>				
a. Violate any water quality standards or waste discharge requirements?	✓			
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	✓			
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	✓			

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	✓			
f. Otherwise substantially degrade water quality?	✓			
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			✓	
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	✓			
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	✓			
j. Inundation by seiche, tsunami, or mudflow?				✓
k. Changes in absorption rates?	✓			
l. Changes in the amount of surface water in any water body?	✓			
m. Changes in the currents, or the course of direction of water movements?	✓			
n. Altered direction or rate of flow of groundwater?	✓			
o. Stormwater discharges that would significantly impair the beneficial uses of receiving waters or areas that provide water quality benefits (e.g., riparian corridors, wetlands, etc.)?	✓			
p. Harm to the biological integrity of drainage systems and water bodies?	✓			
9. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?			✓	
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	✓			

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?			✓	
10. MINERAL RESOURCES. <i>Would the project:</i>				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			✓	
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			✓	
11. NOISE. <i>Would the project result in:</i>				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	✓			
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	✓			
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	✓			
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	✓			
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓
12. POPULATION AND HOUSING. <i>Would the project:</i>				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	✓			
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓
13. PUBLIC SERVICES.				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?	✓			
2) Police protection?	✓			
3) Schools?	✓			
4) Parks?	✓			
5) Other public facilities?	✓			
14. RECREATION.				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	✓			
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	✓			
15. TRANSPORTATION/TRAFFIC. <i>Would the project:</i>				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	✓			
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	✓			

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
e. Result in inadequate emergency access?			✓	
f. Result in inadequate parking capacity?			✓	
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			✓	
16. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	✓			
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	✓			
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	✓			
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	✓			
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	✓			
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	✓			
g. Comply with federal, state, and local statutes and regulations related to solid waste?	✓			

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
17. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	✓			
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	✓			
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	✓			

4.0 ENVIRONMENTAL ANALYSIS

The following is a discussion of potential project impacts as identified in the Initial Study. Explanations are provided for each item.

4.1 AESTHETICS. *Would the proposal:*

- a) *Have a substantial adverse effect on a scenic vista?*

Potentially Significant Impact. Although the project area is not identified as a designated scenic vista by the City of Upland, views across the project area from nearby uses may be obstructed by structures on-site. Views from adjacent residential areas may be directly impacted. Further analysis will be required.

- b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

Less Than Significant Impact. There are no designated State scenic highways extending through Upland. According to the Upland General Plan Scenic Highways Element, Euclid Avenue, located approximately 0.5 miles west of the project site, is a route of scenic and historic interest. Implementation of the proposed project would not obstruct views along Euclid Avenue. Additionally no rock outcroppings, historic buildings or trees that can be deemed as scenic resources exist on-site. Therefore, impacts would be less than significant.

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

Potentially Significant Impact. Current and past sand and gravel mining activities have altered the natural topography and landscape of much of the property. Views across the site would be replaced by developed conditions and open space areas. Further analysis will be required.

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

Potentially Significant Impact. Currently, the site is vacant with limited security lighting for mining operations. Implementation of the proposed project would create light and glare impacts requiring further analysis. The proposed project would include lighting for activity areas involving nighttime uses, parking, lighting around the structures (security lighting, walkways) and lighting for interiors of buildings.

4.2 AGRICULTURE RESOURCES. *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:*

- a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

No Impact. Pursuant to the Farmland Mapping and Monitoring Program for the California Resources Agency, the subject site is not identified as an agricultural resource and is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide importance.

- b) *Conflict with existing zoning for agricultural use, or a Williamson act contract?*

No Impact. The property is not zoned for agriculture and would not result in any conflicts with a Williamson Act Contract. Therefore, no significant impacts would result from project implementation.

- c) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?*

No Impact. The proposed project would not result in the conversion of farmland to a non-agricultural uses. Therefore, no significant impacts would result from project implementation.

4.3 AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

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

Potentially Significant Impact. The project site is located within the South Coast Air Basin (SoCAB), an area monitored by the South Coast Air Quality Management District (SCAQMD). SoCAB is identified as non-attainment for Ozone (O₃), Carbon Monoxide (CO) and Suspended Particulate Matter (PM₁₀). Further review is necessary to confirm the project's status in terms of compliance/conflict with current SCAQMD guidelines.

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

Potentially Significant Impact. Construction and buildout of the project would result in pollutant emissions from three different sources, including: (1) short-term construction emissions, (2) long-term mobile emissions from trucks and vehicles traveling to and from the site once the project is operational, and (3) long-term stationary emissions from power and gas consumption and machinery and equipment on-site.

The greatest potential for air quality impacts from the project would be attributed to mobile emissions. The project's potential air quality impacts on a local and regional level requires an evaluation pursuant to the SCAQMD and California Air Resources Board (CARB) requirements and methodology. Additional analysis is necessary to quantify potential project-related air quality impacts (both short-term and long-term) and identify appropriate mitigation that would be effective in reducing pollutant emissions.

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

Potentially Significant Impact. Refer to Responses 4.3(a) and 4.3(b).

- d) *Expose sensitive receptors to substantial pollutant concentrations?*

Potentially Significant Impact. Sensitive populations (i.e., children, senior citizens and acutely or chronically ill people) are more susceptible to the effects of air pollution than are the general population. Land uses that are considered sensitive receptors include residences, schools, playgrounds, child care centers, hospitals, convalescent homes and retirement homes. Sensitive receptors in proximity to the project site include existing residences to the east, south,

and west. Construction and operation of the project would increase vehicle trips on area roadways and result in associated air pollutants. Grading and excavation operations may also have air quality impacts in the absence of mitigation. These impacts require additional analysis to assess level of significance.

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

Less Than Significant Impact. Commercial uses on-site may have the potential for creating odors. These emissions would be comparable to those anticipated with any type of commercial activity (e.g., food service activities). Some businesses, such as restaurants with exhaust vents, are considered "stationary point sources" and may be subject to further regulatory requirement above and beyond any requisite CEQA mitigation. While the emissions from these activities are common and not identified as being particularly hazardous, they may be subject to permitting requirements that call for the use of "best available control technology" in order to eliminate or reduce the levels of emissions. Any potential nuisance related to odor that may occur with these activities would be mitigated under the SCAQMD's permitting requirements.

4.4 BIOLOGICAL RESOURCES. *Would the project:*

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

Potentially Significant Impact. On-site vegetation consists of alluvial fan sage scrub, alluvial chaparral, riparian and ruderal vegetation. Habitats which may occur in the project area include alluvial chaparral, willow-mulefat, and alluvial fan sage scrub communities.

Future development could change the diversity of plant species. The number of native species and their cover in the project area could be lowered through the loss of habitat. The areas of habitat supporting these species could be replaced by land development, paved surfaces, and ornamental plantings. According to the Biological Assessment for the Colonies at San Antonio (1997), a mature willow forest in a south-central quarry provides habitat suitable for the endangered least Bell's vireo (*Vireo bellii pusillus*); however, endangered, threatened, and candidate animal and plant species were determined to be absent at that time. Future development could also result in the decrease in diversity and number of wildlife species on-site, and in the immediate vicinity, of the plan area through the loss of vegetation that provides shelter, nesting, and foraging habitat. Development could also impose a barrier to travel between the plan area and adjacent lands. Further analysis is required in order to assess potential impacts to candidate, sensitive and special status species in the project vicinity.

- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Potentially Significant Impact. The concrete lined Cucamonga Channel watercourse traverses through the eastern portion of the site. Riparian habitat has been identified within the project area. Numerous borrow pits support dense stands of mulefat and mature willows. Further analysis is required to determine impacts to riparian habitat.

- c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Potentially Significant Impact. Development within the project area could result in degradation of potential on-site wetlands and/or other wetland resources. The Specific Plan Amendment proposes a modification of the open space area centrally located on-site from a flood control and recreational lake to a wetland mitigation area and major open space amenity which would also serve flood control purposed. A wetland delineation undertaken for the project site identified 10.15 acres of wetlands and 18.32 acres of non-wetland waters of the United States. Within this 60-acre open space area, acreage would be devoted to restored wetlands, with the balance devoted to passive open space and trails. The open space area would also be designed to accommodate stormwater flows which currently occur through the site, and thereby ensure that the capacity of the adjacent Cucamonga Creek channel would not be exceeded. Further analysis will be required.

- d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Potentially Significant Impact. Page 9.7 of the City of Upland General Plan Open Space and Conservation Element (1982) states that "as the San Antonio Channel and Cucamonga Channel are dry most of the year, there is no habitat for fish or riparian wildlife". The removal of vacant land within the project area may result in impacts to migratory wildlife which may utilize the area. Further analysis for this potential impact will be required.

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

No Impact. Although the Upland General Plan Open Space/Conservation Element includes the goal of protecting and maintaining natural resources in the City, there are no policies or ordinances protecting biological resources.

- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

Less Than Significant Impact. A substantial portion of the site is vegetated by alluvial fan sage scrub, a natural community considered to be highly sensitive by state and federal resource agencies. Alluvial fan sage scrub is currently a key focus element of a Multi-Species Conservation Planning effort being undertaken by various jurisdictions in southwestern San Bernardino County, including the City of Upland. Willow-mulefat scrub is also found in several areas of the proposed project area and is considered, by state and federal resource agencies, to be a sensitive natural community.

The City of Upland and other participants are in the process of developing the San Bernardino Valley Multi-Species Habitat Conservation Plan. This Plan has not been adopted; thus, impacts are less than significant in this regard.

4.5 CULTURAL RESOURCES. *Would the project:*

- a) *Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?*

Less Than Significant Impact. An archaeological survey and a records/literature search performed as part of the San Antonio Lakes Specific Plan/Environmental Impact Report determined that one artifact of archeological importance was found on-site. No associated artifacts or features were located in the vicinity of the isolate. It is likely that the artifact was redeposited during a major flooding episode from a site farther up the Cucamonga Creek Channel drainage. No historical resources exists on the project site. No other archaeological resources were found in the area during the San Antonio Lakes Specific Plan/Environmental Impact Report study. Considering the topography and hydrology of the study area and the significant amount of human disturbance associate with the construction of drainage basins and mineral resource extraction, it is not likely that any significant archaeological resources would be found in the area.

- b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?*

Less Than Significant Impact. Refer to Response 4.5(a).

- c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

No Impact. A paleontological field survey, performed as part of the San Antonio Lakes Specific Plan/Environmental Impact Report (1988), determined that no paleontological resources exist on-site. In addition, a records search performed as part of San Antonio Lakes Specific Plan/Environmental Impact Report revealed no known fossil localities occurring within the vicinity of the site.

- d) *Disturb any human remains, including those interred outside of formal cemeteries?*

Less Than Significant Impact. Based upon prior cultural assessments for the property, there are no known human remains that occur on-site.

4.6 GEOLOGY AND SOILS. *Would the project:*

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

- 1) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Less Than Significant Impact. No active faults are known to traverse the site and the project is not located within, or immediately adjacent to an Alquist-Priolo Earthquake Fault Zone. A geotechnical investigation (1988) was completed as part of the San Antonio Lakes Specific Plan/Environmental Impact Report. This study confirmed that there were no active or potentially active faults known to transect the project site. Hazards due to ground rupture as a result of earthquake movement are considered less than significant. Furthermore, adherence to standard engineering practices and design criteria relative to seismic and geologic hazards

in accordance with the Uniform Building Code (UBC) would reduce any potential impact to less than significant levels.

2) *Strong seismic ground shaking?*

Potentially Significant Impact. Upland is located in a seismically active area. Although no faults are known to exist beneath the site, ground motion at the site could be generated by earthquakes on any of the major faults in the vicinity. The Cucamonga fault is the closest known fault, located approximately 1.5 miles north-northwest of the project site. The Cucamonga fault is considered an active fault capable of earthquakes reaching magnitude 6.5 on the Richter scale. The maximum peak bedrock acceleration from a 6.5 earthquake on the Cucamonga fault would be greater than .5 gravities (g).

Historically, the site has not experienced horizontal seismic accelerations in excess of 0.1 g. This is based on an earthquake data search with information dating back to 1900. However, the probability that the site will experience horizontal seismic acceleration in excess of 0.1 g in the next 50 years is high. The maximum probable earthquake is an 8.25 Richter magnitude event on the central San Andreas fault located approximately 15 miles to the northeast. The probability of a major earthquake occurring at that segment of San Andreas fault zone in the next 50 years is greater than 50 percent.

Adherence to standard engineering practices and design criteria relative to seismic and geologic hazards in accordance with the Uniform Building Code (UBC) would reduce the significance of potential impacts; however, due to the close proximity of the Cucamonga fault, further analysis for this potential impact will be required.

3) *Seismic-related ground failure, including liquefaction?*

Less Than Significant Impact. A geotechnical investigation was completed by Pioneer Consultants and Richard Mills Associates (1987 and 1988) as part of San Antonio Lakes Specific Plan/Environmental Impact Report for the project site. The geotechnical study confirmed that there were no active or potentially active faults known to transect the project site. The site is underlain by granular materials with a low potential for consolidation. Therefore, the project is not anticipated to result in or expose people to potential impacts related to seismic ground failure or liquefaction.

4) *Landslides?*

Less Than Significant Impact. Geotechnical studies for the project area have concluded that the site is not subject to slope stability, liquefaction, subsidence and inundation from dam failure. Furthermore, adherence to standard engineering practices and design criteria relative to seismic and geologic hazards in accordance with the Uniform Building Code (UBC) would reduce the significance of potential impacts.

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

Less Than Significant Impact. Grading and trenching during construction would increase the potential for erosion; however, implementation of erosion control measures as required by the City and adherence to all requirements set forth in the National Pollutant Discharge Elimination System (NPDES) permit are required for construction would reduce these impacts to less than significant.

- c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Less Than Significant Impact. The project area has not been delineated as a geologic unit that is unstable and, based upon available references, would not become unstable as a result of project implementation. Refer also to responses throughout Section 4.6.

- d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Less Than Significant Impact. Refer to Response 4.6 (a-4).

- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

No Impact. The project proposes to install on-site sewer lines. It would not be necessary to install septic tanks or other alternative types of wastewater disposal systems. No significant impacts are anticipated in this regard.

4.7 HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*

- a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less Than Significant Impact. There is the potential for a hazardous materials release on future State Route 30/210 Freeway since the project site is adjacent to this future regional transit facility. This is due to the fact that hazardous materials haulers may use this route through the region. If hazardous materials were released into the environment, the project area would be potentially exposed to this release. Federal, state and local regulations related to the transport of hazardous materials reduce the potential for release of hazardous materials. Therefore, impacts are anticipated to be less than significant in this regard.

- b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Less Than Significant Impact. The proposed project is not anticipated to result in the creation of health hazards to future residents with compliance with pertinent health and safety regulations. The proposed uses would not use, generate, or dispose of hazardous materials in large quantities.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less Than Significant Impact. A school site is included within the proposed project. Due to the nature of the proposed uses, hazardous emissions would not be anticipated and hazardous materials would not be handled. Thus, impacts are anticipated to be less than significant in this regard.

- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

No Impact. According to the Colonies at San Antonio Draft Supplemental EIR and available records information, the proposed project site is not included on a list of sites containing hazardous materials, and would not result in a significant hazard to the public or to the environment.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

No Impact. The proposed project site is not located within an airport land use plan and the project would not impact any airport operations or create any airport related safety hazards.

- f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

No Impact. Refer to Response 4.7(e).

- g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

No Impact. The proposed project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan.

- h) *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

No Impact. The proposed project is not located in an areas designated as a high fire hazard area. Additionally, much of the existing vegetation would be removed with implementation of the proposed project; thus, reducing potential impacts in this regard.

4.8 HYDROLOGY AND WATER QUALITY. *Would the project:*

- a) *Violate any water quality standards or waste discharge requirements?*

Potentially Significant Impact. Impacts related to water quality would range over three different periods: 1) during the earthwork and construction phase, when the potential for erosion, siltation and sedimentation would be the greatest; 2) following construction, prior to the establishment of ground cover, when the erosion potential may remain relatively high; and 3) following completion of the project, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase.

Construction of the proposed project would result in soil disturbance on-site. During a storm event, particulate matter would run off the site or into the lake and wetlands within the proposed project. Urban runoff is expected to increase as a result of developing the proposed project site. The concentration of chemical constituents dissolved or suspended in runoff waters leaving the site would vary with the distribution pattern of rainfall events. Similarly, the characteristics of rain events affect the concentration of pollutants.

Further review will be required with regard to compliance requirements with the statewide National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity which would prevent storm water pollution from impacting waters of the U.S. in the vicinity of the project site.

- b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Less Than Significant Impact. The level of infiltration to groundwater supplies may decrease due to amount of natural surface that would be replaced by impermeable surfaces. However, water to the proposed project would be supplied by the City of Upland, which is not experiencing water shortages or overdrafts. Furthermore, the project proposes a on-site detention basin. This design feature would serve flood control purposes and allow for infiltration to groundwater supplies. Thus, impacts are anticipated to be less than significant in this regard.

- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

Potentially Significant Impact. Development of the site would involve the construction of impervious surfaces, which would lead to a decrease in ground absorption on-site, an increase in the quantity of surface water and a change in existing drainage patterns. The changes in drainage patterns, altered absorption rates, and the manner in which runoff from the site would be accommodated by existing or future flood control infrastructure improvements. Further analysis is necessary to adequately assess impacts in this regard.

- d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Potentially Significant Impact. Refer to Response 4.8(c).

- e) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Potentially Significant Impact. Refer to Responses 4.8(a) and 4.8(c).

- f) *Otherwise substantially degrade water quality?*

Potentially Significant Impact. Implementation of the proposed project could result in short-term and long-term impacts to surface water quality. Short-term surface water quality impacts may occur from water erosion of soils during construction, with long-term impacts on surface water quality occurring primarily from the addition of project-related automobile trips which generate urban type pollutants (i.e. oil, tire particles, etc) and park and lawn area development (i.e., fertilizers). However, surface water quality is not expected to be significantly affected since the proposed project would be required to implement best management practices (BMPs) to comply with the National Pollutant Discharge Elimination System (NPDES) stormwater quality requirements. Further analysis is necessary to adequately assess impacts in this regard.

- g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

Less Than Significant Impact. The proposed project area is situated within Flood Zone "C" which is not within a 100 year flood hazard area. Potential flood hazard impacts onsite are concluded as less than significant.

- h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*

Potentially Significant Impact. Refer to Response 4.8(g).

- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

Potentially Significant Impact. Refer to Response 4.8(g).

- j) *Inundation by seiche, tsunami, or mudflow?*

No Impact. No significant water features have been identified in the project area. Therefore, no impacts are anticipated in this regard.

- k) *Changes in absorption rates?*

Potentially Significant Impact. Project implementation would result in the development of impervious surfaces which would lead to a decrease in ground absorption on-site. Additional analysis is warranted to determine the significance of impacts in this regard.

- l) *Changes in the amount of surface water in any water body?*

Potentially Significant Impact. The proposed project may result in an increase in offsite stormwater runoff due to an increase in impervious surfaces. Additional analysis is warranted to determine the significance of impacts in this regard.

- m) *Changes in the currents, or the course of direction of water movements?*

Potentially Significant Impact. Refer to Response 4.8(c).

- n) *Altered direction or rate of flow of groundwater?*

Potentially Significant Impact. Refer to Response 4.8(b).

- o) *Stormwater discharges that would significantly impair the beneficial uses of receiving waters or areas that provide water quality benefits (e.g., riparian corridors, wetlands, etc.)?*

Potentially Significant Impact. Project development would be subject to NPDES requirements as noted in Response 4.8(a). Additional analysis is warranted to determine the significance of impacts in this regard.

- p) *Harm to the biological integrity of drainage systems and water bodies?*

Potentially Significant Impact. Refer to Response 4.4(a).

4.9 LAND USE AND PLANNING. *Would the project:*

- a) *Physically divide an established community?*

Less Than Significant Impact. According to the San Antonio Lakes Specific Plan EIR (1988 and updated 1998), the project area is currently designated as Residential, Commercial, and Open Space. The area surrounding the site is currently residential, and as such the proposed project is compatible when compared to the sites's current use for mineral extraction. Furthermore,

Low Density Residential uses are proposed along the project boundaries adjacent to existing residential areas.

- b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

Potentially Significant Impact. The project proposes the following uses: Single-Family Residential-6 (SFR-6, 6,000 sq. ft. lots), Single-Family Residential-5 (SFR-5, 5,000 sq. ft. lots), Single-Family Residential-4.5 (SFR-4.5, 4,500 sq. ft. lots), Single-Family Residential-4.0 (SFR-4.0, 4,000 sq. ft. lots), Administrative and Professional Commercial Zone (AP), Commercial, Highway Zone (CH), Commercial Specialty Zone (CS), and Open Space (OS). The Colonies at San Antonio Specific Plan Amendment proposes an increase in commercial uses acreage and a decrease in the number of residential dwelling units. Further analysis will be required.

- c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

Less Than Significant Impact. Refer to Response 4.4(f)

4.10 MINERAL RESOURCES. *Would the project:*

- a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

Less Than Significant Impact: The project site has been mined for sand and gravel. Remnants of mining operations exist on the southern portion of the site in the form of pits and large holes that have filled with water. Currently, Holliday Rock Sand and Gravel Company operates off-site at the intersection of Campus Avenue and 20th Street. The project site is not a State designated Mineral Resource Zone, nor is it within an area designated to contain significant mineral resources. Therefore, less than significant impacts are anticipated in this regard.

- b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

Less Than Significant Impact. Project implementation would preclude any future use of the project site for mining of mineral resources. The site is not zoned for long-term mineral resource use. Therefore, less than significant impacts are anticipated in this regard.

4.11 NOISE. *Would the project result in:*

- a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Potentially Significant Impact. Project construction and operation would result in both short-term and long-term impacts. Short-term impacts would occur during grading and construction operation and would expose adjacent uses to noise levels between 70 and 90 decibel at 50 feet from the noise source. Long-term noise impacts would be associated with vehicular traffic to/from the site (including employees and visitors), outdoor activities, deliveries and stationary mechanical equipment on-site. Both short- and long-term noise impacts require further evaluation.

- b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Potentially Significant Impact. The project may include extensive earthwork and grading to prepare the site for installation of infrastructure and for site development. Further review will be required to determine the significance of impacts.

- c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Potentially Significant Impact. Refer to Response 4.11(a).

- d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Potentially Significant Impact. Refer to Response 4.11(a).

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. Refer to Response 4.7(e).

- f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The project site is not located within the vicinity of a private airstrip. Therefore, project implementation would not expose people residing or working in the project area to excessive noise levels.

4.12 POPULATION AND HOUSING. *Would the project:*

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

Potentially Significant Impact. The proposed project is designated and planned for residential, commercial, recreational, and open space land uses. The proposed project is also projected to result in the need for new employees which may affect the availability of housing and create additional need throughout the community. Additionally, implementation of the Colonies at San Antonio Specific Plan Amendment would develop 329 fewer residential dwelling units than the previously approved plan. Additional analysis is required to determine the growth inducing potential of the proposed project.

- b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

No Impact. Project implementation would not displace existing housing and would not necessitate the construction of replacement housing elsewhere.

- c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

No Impact. Refer to Response 4.12(b).

4.13 PUBLIC SERVICES.

- a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

- 1) *Fire protection?*

Potentially Significant Impact. The Upland Fire Department provides fire protection services to the project site. Due to the location and nature of project, fire protection needs are anticipated to increase. Additional analysis and consultation with the Fire Department will be required.

- 2) *Police protection?*

Potentially Significant Impact. Police protection for the site is provided by the Upland Police Department. Due to the location and nature of the proposed project, police protection needs are anticipated to increase. Additional analysis will be required.

- 3) *Schools?*

Potentially Significant Impact. The proposed project site is served by the Upland School District. The potential impact of additional students attending schools within the District requires additional analysis.

- 4) *Parks?*

Potentially Significant Impact. Although recreational facilities/amenities such as open space areas and trails, would be provided on-site, further evaluation of the project's ability to meet public recreation requirements will be necessary.

- 5) *Other public facilities?*

Potentially Significant Impact. Public trails and public facilities associated with the project may result in greater maintenance requirements. Further review will be required.

4.14 RECREATION.

- a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Potentially Significant Impact. Refer to Responses 4.13(a)(4).

- b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Potentially Significant Impact. Refer to Responses 4.13(a)(4).

4.15 TRANSPORTATION/TRAFFIC. Would the project:

- a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Potentially Significant Impact. Development of the proposed project would increase vehicular movement in the project vicinity. The project proposes realignment of 19th Street, and modifications of the freeway interchange at Campus Avenue. Impacts resulting from increased traffic volumes and modified circulation patterns require additional analysis to determine significance.

- b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Potentially Significant Impact. Refer to Response 4.15(a).

- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The proposed project would not affect air traffic patterns.

- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The project site plan is subject to review by the City of Upland to evaluate the effectiveness of internal circulation in the parking areas and the driveways. Compliance with City standards would reduce potential impacts to a less than significant level.

- e) Result in inadequate emergency access?

Less Than Significant Impact. Refer to Response 4.7(g).

- f) Result in inadequate parking capacity?

Less Than Significant Impact. Parking requirements for the project would be subject to City standards and requirements.

- g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Less Than Significant Impact. Impacts to alternative transportation modes such as bus facilities and bicycle access/parking requirements are expected to be less than significant.

4.16 UTILITIES AND SERVICE SYSTEMS. Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Potentially Significant Impact. The Inland Empire Utilities District would provide sanitary sewer treatment to the site, while the City is the collection agency. The nearest treatment facilities is Region Plant No. 1 in the City of Ontario. The facility is intended to accommodate the proposed project, with the exception of the transmission sewer line. The proposed project would necessitate the development of an upgraded interceptor to convey wastes from the

project site to Regional Plant No. 1. Therefore, further analysis regarding wastewater treatment will be required.

- b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Potentially Significant Impact. Water service would be provided to the project site by the City of Upland. Water availability is adequate to serve the proposed project needs. However, the extent of modifications, upsizing and required realignments of water and wastewater facilities will require further review to determine the extent of physical impacts associated with improvements.

- c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Potentially Significant Impact. A storm drain system is currently under construction along 20th Street. The terminus of this facility is within the westernmost portion of the proposed project site. The project proposes directing the outflow from the 20th Street storm drain to the proposed wetland mitigation area and open space area, serving as flood control. Further analysis regarding storm water drainage facilities will be required.

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Potentially Significant Impact. Refer to Response 4.16(b).

- e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Potentially Significant Impact. Refer to Response 4.16(b).

- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

Potentially Significant Impact. The proposed project would generate solid waste beyond existing conditions. The disposal of solid waste from the property would be provided by Western Waste Refuse Company. The project's effect upon the landfill capacity and consideration of the City's waste recycling programs require further evaluation.

- g) *Comply with federal, state, and local statutes and regulations related to solid waste?*

Potentially Significant Impact. The project must comply with adopted programs and regulations pertaining to solid waste. Refer also to Response 4.16(f).

4.17 MANDATORY FINDINGS OF SIGNIFICANCE.

- a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Potentially Significant Impact. As stated in Response 4.4(a), further study is required.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Potentially Significant Impact. A review of cumulative impacts for each issue area that has been identified as potentially significant will be required pursuant to Section 15130 of CEQA.

- c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Potentially Significant Impact. The proposed project may have the potential to cause substantial adverse effects on human beings, either directly or indirectly.



MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Office of the General Manager

RECEIVED

MAY 15 2001

COMMUNITY DEVELOPMENT

May 3, 2001

Ms. Sylvia Scharf, AICP
City of Upland
460 North Euclid Avenue
Upland, CA 91786-4732

Dear Ms. Scharf:

Notice of Preparation of a
Draft Environmental Impact Report for the Colonies at San Antonio Specific Plan Amendment

The Metropolitan Water District of Southern California (Metropolitan) has received a Notice of Preparation and Initial Study (NOP/IS) of a Draft Environmental Impact Report (EIR) for the Colonies at San Antonio Specific Plan Amendment in the City of Upland (City). The applicant, City of Upland, proposes to increase the amount of commercial development proposed within the Specific Plan area. The proposed Specific Plan Amendment would also update design and development standards throughout the project area and would modify the originally proposed flood control lake to serve as a flood control detention facility which may also serve as a mitigation area and a major open space feature at the center of the project. The proposed project includes the following discretionary actions: a comprehensive amendment to the existing Colonies at San Antonio Specific Plan, an amendment to the City's General Plan Circulation Element to change the 19th Street alignment as an east-west through route, conceptual planning for commercial areas south of the State Route 30/210 Freeway, a master tentative tract map to create the individual planning areas within the Colonies at San Antonio Specific Plan area, and tentative tract maps totaling 438 lots. This letter contains our response as a potentially affected public agency.

Our review of the Notice indicates that Metropolitan's Foothill Feeder-Riata Pipeline traverses the proposed project area in a generally east-west direction. Metropolitan requests that the Draft EIR evaluates potential impacts and if applicable, proposed mitigation measures, of the proposed plan to Metropolitan's existing facilities that occur within or adjacent to the plan's boundaries. The enclosed map shows these facilities in relation to the proposed project. It will be necessary for the applicant to consider these facilities in its project planning.

Ms. Sylvia Scharf

Page 2

May 2, 2001

In order to avoid potential conflicts with Metropolitan's rights-of-way, we request that any preliminary engineering design drawings or improvement plans for any activity in the area of Metropolitan's pipelines and rights-of-way be submitted for our review and written approval. The applicant may obtain detailed prints of drawings of Metropolitan's pipelines and rights-of-way by calling Metropolitan's Substructures Information Line at (213) 217-6564. To assist the applicant in preparing plans that are compatible with Metropolitan's facilities and easements, we have enclosed a copy of the "Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easements of The Metropolitan Water District of Southern California." Please note that all submitted designs or plans must clearly identify Metropolitan's facilities and rights-of-way.

Metropolitan requests that the City analyze the consistency of the proposed project with the growth management plan adopted by the Southern California Association of Governments (SCAG). Metropolitan uses SCAG's population, housing and employment projections to determine future water demand. Development above these forecast provisions may increase demand on Metropolitan's resources and facilities beyond that anticipated.

Additionally, Metropolitan encourages projects within its service area to include water conservation measures. Water conservation, reclaimed water use, and groundwater recharge programs are integral components to regional water supply planning. Metropolitan supports mitigation measures such as using water efficient fixtures, drought-tolerant landscaping, and reclaimed water to offset any increase in water use associated with the proposed project.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving future environmental documentation on this project. If we can be of further assistance, please contact me at (213) 217-6242.

Very truly yours,



Laura J. Simonek
Principal Environmental Specialist

DTF

Enclosures



Department of Toxic Substances Control



Edwin F. Lowry, Director
5796 Corporate Avenue
Cypress, California 90630

Gray Davis
Governor

John H. Hickox
Deputy Secretary
California Environmental
Protection Agency

RECEIVED

MAY 15 2001

May 4, 2001

COMMUNITY DEVELOPMENT

Ms. Sylvia Scharf
City of Upland
460 North Euclid Avenue
Upland, California 91786-4732
~~San Bernardino, California 92415-0182~~

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR
THE COLONIES AT SAN ANTONIO SPECIFIC PLAN AMENDMENT - SCH #
2001041048

Dear Ms. Scharf:

The Department of Toxic Substances Control (DTSC) has received your Notice of Preparation (NOP) of a draft Environmental Impact Report (EIR) for the above-mentioned Project.

Based on the review of the document, DTSC's comments are as follows:

- 1) The draft EIR needs to identify and determine whether current or historic uses at the Project site have resulted in any release of hazardous wastes/substances at the Project area.
- 2) The draft EIR needs to identify any known or potentially contaminated sites within the proposed Project area. The NOP indicates the presence of a mining site near the project area. For all identified sites, the draft EIR needs to evaluate whether conditions at the site pose a threat to human health or the environment.
- 3) The draft EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may require remediation, and which government agency will provide appropriate regulatory oversight.
- 4) An environmental assessment should be conducted at the site to evaluate whether the site is contaminated with hazardous substances from the potential past and current uses including storage, transport, generation, and disposal of

toxic and hazardous waste/materials. Potential hazard to the public or the environment through routine transportation, use, disposal or release of hazardous materials should be discussed in the draft EIR.

- 5) Although the NOP shows less than significant hazard impact is expected, the potential exists for the inadvertent release of hazardous materials from the future uses and storage of hazardous material. It should be addressed in detail in the draft EIR.
- 6) The NOP indicates the presence of a school within one-quarter of a mile from the project area. Even though less than significant impact is expected from the proposed project, a study should be conducted to provide basic information for determining if there is a potential threat of the release of any hazardous materials at the site that may pose a health risk to students and faculty members attending the school.
- 7) The NOP indicates that a 10.2 acres school will be constructed on the project site. During the proposed school's property acquisition and/or construction utilizing state funding, it should be in compliance with the Assembly Bill 387 (Wildman) and Senate Bill 162 (Escutia) which require a comprehensive environmental review process and that DTSC's approval is required. DTSC's role in the assessment, investigation, and cleanup of proposed school sites is to ensure that the selected properties are free of contamination, and if the property is contaminated, that it is cleaned up to a level that is protective of the students and faculty who will occupy the new schools. A study of the site is to be conducted to provide basic information for determining if there has been a release, or if there is a threatened release of a hazardous material including agricultural chemicals or if there maybe a naturally occurring hazardous material present at the site, that may pose a risk to human health or the environment. Even though the proposed school's construction may not be using state fund, the purpose of the bill is to protect the children who will be attending the school. Therefore, proper environmental studies should be conducted to provide basic information for determining if there is a potential threat of the release of a hazardous material at the site that may pose a health risk to students and faculty members attending the school.
- 8) The project construction may require soil excavation and soil filling in certain areas. Appropriate sampling is required prior to disposal of the excavated soil. If the soil is contaminated, properly dispose them rather than placing them in another location. Land Disposal Restrictions (LDR) are applicable to these soils. Also, if the project is planning to import soil to backfill the areas excavated, proper sampling should be conducted to make sure that the imported soil is free of contamination.

- 9) The NOP indicates that there was prior vegetation or agricultural use on the project site, therefore, onsite soils could contain pesticide residue. The site may have contributed to soil and groundwater contamination. Proper investigation and remedial actions should be conducted at the site prior to the new development. As long as the proposed project is for the development of residential dwellings, proper environmental studies to be conducted to evaluate the health risks associated with these chemicals.
- 10) A groundwater investigation may also be necessary based on the nature of on-site contaminants and the depth to the groundwater.
- 11) The NOP mentions that the project site is largely altered from sand and gravel mining activities. Prior to initiate any construction activities, an environmental investigation should be conducted to evaluate whether the site is contaminated with hazardous chemicals from the mining operations. Existing or abandoned mines and associated mining wastes may pose both physical and chemical hazards. Many of these hazards are the result of historic mining practices, ore processing techniques, improper closure procedures, or the surface exposure of ore deposits. Potential hazards vary greatly from one mine to the next. Each abandoned mine and associated mine waste piles need to be evaluated individually to determine which concerns are associated with it. Some abandoned mine land sites may only pose physical hazards and have no chemical hazards associated with the mine wastes. Chemical hazards are usually associated with heavy metals and/or acid mines drainage. More information will be available from the Department of Toxic Substances Control's guidance document entitled, "Abandoned Mine Lands Preliminary Assessment Handbook," dated January 1998. Human health threats and environmental degradation can exist at or near abandoned mine sites, owing to toxic, corrosive, radioactive, or otherwise noxious metals, chemicals, or materials, or unusual environmental conditions resulting from past mining, milling, and/or smelting operations. The hazards may or may not represent violations of present day environmental laws. Toxic hazards are associated with elevated levels of some metals (e.g., chromium, copper, lead, mercury, nickel), metalloids (arsenic, selenium), nonmetallic minerals such as asbestos (especially amphibole asbestos). Pursuant to Section 66262.11 of the California Code of Regulations, Title 22, it is the responsibility of the generator to determine if that waste is a hazardous waste. If the property is abandoned, the primary responsible person is the owner or operator.
- 12) Although the NOP shows that less than significant hazard to the public is expected with future uses of the site, potential uses and storage of hazardous materials at the site should be addressed in the draft EIR. Remember to obtain a hazardous material's storage permit from an appropriate regulatory agency that has jurisdiction to regulate hazardous substances handling, storage,

Ms. Sylvia Scharf
May 4, 2001
Page 4

treatment and/or disposal. Contact the Certified Unified Program Agency (CUPA) to evaluate the permit requirements. Include that information in the draft EIR.

- 13) Household hazardous waste management has not been addressed in the NOP for the draft EIR. It is evident that the proposed project will increase household hazardous wastes.
- 14) If during construction of the project, soil contamination is suspected, construction in the area should stop and appropriate Health and Safety procedures should be implemented. If it is determined that contaminated soil exists, the draft EIR should identify how any required investigation and/or remediation will be conducted, and which government agency will provide appropriate regulatory oversight.

DTSC provides guidance for the Preliminary Endangerment Assessment (PEA) preparation and cleanup oversight through the Voluntary Cleanup Program (VCP). For additional information on the VCP or to meet/discuss this matter further, please contact Ms. Rania Zabaneh, Project Manager at (714) 484-5479.

Sincerely,



Haissam Y. Salloum, P.E.
Unit Chief
Southern California Cleanup Operations Branch
Cypress Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Mr. Guenther W. Moskat, Chief
Planning and Environmental Analysis Section
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806



Department of Toxic Substances Control



Edwin F. Lowry, Director
400 P Street, 4th Floor, P.O. Box 806
Sacramento, California 95812-0806

Gray Davis
Governor

ston H. Hickox
ncy Secretary
ornia Environmental
ction Agency

MEMORANDUM

TO: Johnson Abraham, Branch Chief
Site Mitigation Program, Region 4

FROM: Guenther W. Moskat, Chief
Planning and Environmental Analysis Section

Date: April 16, 2001

SUBJECT: TRANSMITTAL AND REVIEW OF LEAD AGENCY ENVIRONMENTAL DOCUMENTS FOR
Colonies at San Antonio Specific Plan Amendment - 2001041048

The Department has received a(n) **Notice of Preparation** for the project listed above. As a potential Responsible Agency, the Department is encouraged to make comments pertaining to the project as it relates to hazardous waste and/or any activities which may fall within the Department's jurisdiction. Please have your staff: 1) conduct its review of the attached document prior to the end of the comment period; 2) complete the appropriate items listed in the box below; and 3) return this transmittal sheet and a copy of any response letter from your office to:

Planning & Environmental Analysis Section (PEAS)
CEQA Tracking Center
400 P Street, 4th Floor
P.O. Box 806
Sacramento, California 95812-0806
Fax (916)324-1788

Date Comment Period Began:	04/11/2001
Comments Due to Lead Agcy:	
Comments Due to OPR:	05/10/2001

Reviewed By: RONIA A. ZABANEH Date: 4/23/01

COMMENTS have been prepared and sent to the Lead Agency and to Governor's Office of Planning & Research (OPR), 5/4/01 State Clearinghouse, 1400 Tenth Street, Sacramento, California 95814 on 4/23/01; AND

A copy to PEAS has been provided via: Attached Copy FAX (916-324-1788) or Wide Area Network at U:\ad\oeara\peas\ctc\

Colonies At San Antonio - NRP - CEQA up
[Enter the name of the WordPerfect file for the comments here]

NO COMMENTS NECESSARY because:

All Department concerns have been adequately addressed; OR

Project does not fall within the Department's areas of responsibility.

A copy of the **Notice Of Completion Transmittal Form** (document not included) for this project has been sent to the **Permitting Branch** for their information and possible consideration.

Note: If these documents have been misdirected to you, please immediately notify our office and forward the documents to the appropriate program for review and action!

Thank you for your assistance with this project. If you have any questions, please contact Ken Tipon, CEQA Tracking Center, at (916) 322-5266 or CALNET 492-5266.



San Antonio Water Company

Incorporated October 25, 1882

Serving the original Ontario Colony Lands
(Communities of Ontario - San Antonio Heights - Upland)

May 3, 2001

RECEIVED

City of Upland
460 No. Euclid Avenue
Upland, CA 91786

MAY 08 2001

COMMUNITY DEVELOPMENT

Attn: Ms. Sylvia Scharf, AICP

**Re: Notice of Preparation of an Initial Study for
The Colonies at San Antonio Specific Plan Amendment**

Thank you for the Notice of Preparation and copy of the Initial Study report prepared by RBF Consulting. We've reviewed the report and have concerns; similar to those we have previously expressed, about the impacts upon water spreading and groundwater recharge within the historic recharge area of the Cucamonga Wash. The Cucamonga Wash has been a beneficial water recharge area and source of potable water supply for the surrounding communities. Unfortunately, issues relative to the ongoing and necessary groundwater recharge have been overlooked in the Initial Study, which otherwise emphasizes only temporary detention of storm water runoff on its way out of the Cucamonga Basin.

The San Antonio Water Company has been actively involved in spreading water, for the purpose of recharge, in the Cucamonga Wash since the early 1900's. Since the 1930's this activity has been conducted in conjunction with the San Bernardino County Flood Control District under its water conservation responsibilities. Since 1967 the Company has continued its water spreading operation on the overlying lands under its perpetual reservation to do so on lands within the proposed project site.

The Cucamonga Basin is one of the major water supply sources for the Company and its shareholders as well as the adjacent Cucamonga County Water District. Any loss or reduction of groundwater recharge capacity or depletion of quality of the groundwater will substantially impact the Company's supply, unless reliable mitigation measures are implemented.

The project (Colonies at San Antonio) proposes to convert 444 acres of basically natural open space, that is functioning as recharge area over the Cucamonga Wash, into less than 100 acres of permeable ground space. The project also proposes to replace about 70 acres of existing recharge area with only flood control detention facilities and a wetlands area consisting of 14 acres. This proposal appears to assure the reduction of water recharge and little to no capability for conserving those increased storm water flows arriving in the project area of the Wash. In essence, the current recharge capability of the areas known as basin # 6 and # 7 will be effectively lost from beneficial use for water management in this region unless reasonably mitigated. This could in turn lead to a reduction in groundwater yield from the Basin and costly replacement of that lost water production right.

May 3, 2001
City of Upland
NOP of Initial Study for
Colonies at San Antonio Spec. Plan Amend.
Page 2

Our concerns and comments on the assessment expressed in the Initial Study are as follows:

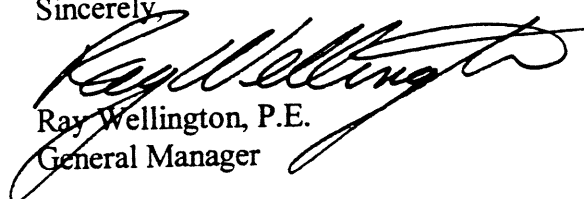
- On page 15 under Land Use Objectives, it states that the proposed project is "To provide for the recharge of flood flows into the upper portion of the Chino groundwater basin." Why is the project removing the current recharge benefit in the Cucamonga Basin and relocating it southerly into the Chino basin?
- On page 24 under 8b the assessment check is placed under "Less than significant impact" and the corresponding comments contained on page 38 are not relevant to the issue of decreased recharge capacity, within the project site, or the expected impact upon adjacent production wells. This item 8b should be checked under "Potentially significant impact."
- On page 25 under 8f the assessment check is placed under "Potentially significant impact" but the corresponding comments on page 38 limit the consideration to surface water quality and mitigation through application of BMP's. The potential for degrading water quality in the subsurface (groundwater) has not been considered for the proposed project. The issue of groundwater quality impacts is significant, due to depleted recharge of storm runoff or spread waters, and could result in a major detriment to the water producers in the Cucamonga Basin.

San Antonio Water Company acknowledges the potential community benefits of a project such as The Colonies at San Antonio. But those benefits cannot be accomplished at the expense of groundwater recharge and management within the Cucamonga Basin. The protection and provision of quality groundwater is an obligation of all that expect and receive a useful benefit of that public resource.

As previously mentioned, the Company has historic and reserved rights over a majority, if not all, of the land within the Cucamonga Wash including that of the proposed development project. Those rights are clear as to water spreading and water facilities. Notwithstanding those rights, the Company is willing to work toward resolution of such development impacts with the developer, the city, the County Flood Control District and Cucamonga County Water District to accomplish mitigation's that will allow for continued conservation of available water in the Cucamonga Basin.

Please feel free to contact the undersigned regarding the above response. If the Company can be of help in resolving the water-related issues affecting the proposed project, please contact the undersigned.

Sincerely,



Ray Wellington, P.E.
General Manager

Cc: Company Directors & General Counsel
General Manager, CCWD
SBdo Co Flood Control Engineer

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

RECEIVED



APR 23 2001

COMMUNITY DEVELOPMENT

April 19, 2001

Sylvia Scharf
City of Upland
460 North Euclid Avenue
Upland, CA 91768-4732

RE: SCH# 2001041048 – Colonies at San Antonio Specific Plan Amendment

Dear Ms. Scharf:

The Native American Heritage Commission has reviewed the above mentioned NOP. To adequately protect archaeological resources from project-related impacts, the Commission recommends the following:

- ✓ Provisions for accidental discovery of archeological resources:
 - 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).
- ✓ Provisions for discovery of Native American human remains
 - Health and Safety Code §7050.5, CEQA §15064.5 (e), 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 me at (916) 653-4040.

Sincerely,

A handwritten signature in cursive script that reads "Rob Wood".

Rob Wood
Associate Governmental Program Analyst

CC: State Clearinghouse



Cucamonga County Water District

*10440 Ashford Street
Rancho Cucamonga, CA 91729-0638
P.O. BOX 638 • (909) 987-2591 • Fax (909) 476-8032*

Robert A. DeLoach
*General Manager
Chief Executive Officer*

April 27, 2001

Sylvia Scharf, AICP
City of Upland
460 North Euclid Avenue
Upland, California 91786-4732

Subject: Notice of Preparation of a Draft Environmental
Impact Report for Colonies at San Antonio
Specific Plan Amendment.

Dear Ms. Scharf:

Thank you for the opportunity to review and comment on the referenced notice of preparation. The Cucamonga County Water District (District) has approximately two-thirds of the stipulated underlying water rights within the defined Cucamonga Groundwater Basin. The Cucamonga Basin is this District's primary source of groundwater therefore any loss of historical water conservation spreading grounds will, without significant mitigation measures, be detrimental to the District's major local water supply. The development of the Colonies at San Antonio project will remove 440 acres of vacant land (70 acres of which were being used as Basin No. 6 to recharge storm water runoff) as a source of recharge to the Cucamonga Basin. This is a significant impact and will effectively reduce the historical yield of the Basin impacting both the District and the San Antonio Water Company, who has one-third of the stipulated underlying water rights.

The Colonies project will preclude Basin No. 6 from being used for groundwater recharge in the future. This will be a major loss of water conservation facilities and steps should be taken to prevent any further loss of facilities. This District requests that the historical spreading facilities north of 20th Street, Basin No. 3, be dedicated for permanent spreading purposes for water conservation. This would prevent any further loss of water conservation facilities and would assure the integrity of the Cucamonga Groundwater Basin. It should be noted that when the Cucamonga Channel project was developed and built by the Corps of Engineers, the facilities for the historical spreading of Cucamonga Canyon water were included in the development at substantial cost and this dedication would preserve the water conservation aspects of that project.

Two measures were proposed by the previous project proponent to offset elimination of Basin 6 and should be incorporated as mitigation measures into new EIR. They are as follows: (1) enlarge Basin(s) 3 as necessary to ensure adequate storage capability and offset the loss of Basin No. 6, (2) divert storm run-off from the northern Upland area (at about 23rd Street) to Basin No. 3 that historically drained to Basin No. 6. These two measures need to be completed to offset the take of Basin No. 6. The wetland set aside and the retention basin to be constructed within the project will do very little to provide recharge facilities that offset the loss of Basin No. 6.

The District believes there is a potential to reduce the safe yield of the Cucamonga Basin with the development of the Colonies project and that this element needs to be analyzed and reported. If a reduction of the safe yield occurs, the pumping rights of the users will have to be adjusted. In addition, any reduction in the safe yield will require the mitigation of that loss. Replenishment of the water loss needs to be addressed in the EIR. Every acre foot of lost safe yield within the Cucamonga Groundwater Basin has an enormous financial effect on the service area of the District and the San Antonio Water Company, which includes the water supply to the City of Upland.

With regards to the Initial Study/Environmental Checklist that was received, this District has the following comments/corrections to the Initial Study.

- On page 15 under “Open Space Objectives” the fifth bullet point states “To provide for the recharge of flood flows into the upper portion of the Chino groundwater basin”. This is incorrect, the statement should be “to the lower portion of the Cucamonga groundwater basin”.
- On page 24 under #8 – Hydrology and Water Quality, item b should be checked “potentially significant unless mitigated” rather than less than significant impact. The comments on page 38 regarding the determination of Less than Significant do not address the issues. A 10 acre wetlands project does not offset the loss of 70 acres of recharge basins nor does the statement that Upland is not experiencing “water shortages” have anything to do with the impacts to the Cucamonga Groundwater Basin.
- On page 33 under c) Potentially Significant Impact, the last word in the second sentence should be “purposes”.

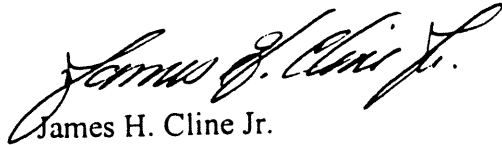
The District recognizes that the Colonies project has many potential benefits, but there must be provisions to protect and/or replace facilities that provide a permanent source of

Ms. Sylvia Scharf
Notice of Preparation
Page 3

recharge of water to the Cucamonga Basin. The District would be more than willing to work with the developer, City of Upland, San Antonio Water Company and the San Bernardino County Flood Control District to develop a plan to provide permanent facilities to enable the continued recharge of water to the Cucamonga Basin.

Thank you for the opportunity to comment. The Cucamonga County Water District looks forward to reviewing and commenting of the forth coming draft EIR. If the District can be of any assistance, please contact the undersigned at your convenience.

Sincerely,
CUCAMONGA COUNTY WATER DISTRICT



James H. Cline Jr.
Special Projects Administrator

Cc Robert DeLoach, CWD
Ray Wellington, SAWCO
Richard Anderson, BBK

DEPARTMENT OF FISH AND GAME

Eastern Sierra - Inland Deserts Region
4775 Bird Farm Road
Chino Hills, California 91709
(909) 597-5043



RECEIVED

May 8, 2001

MAY 15 2001

COMMUNITY DEVELOPMENT

Ms. Sylvia Scharf, AICP
City of Upland
460 Euclid Avenue
Upland, CA 91786

Re: **Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR)
Colonies at San Antonio Specific Plan Amendment
SCH # 2001041048**

Dear Ms. Scharf:

The Department of Fish and Game (Department) appreciates this opportunity to comment on the above-referenced project with regards to impacts to biological resources. The proposed project involves development of 443.95 acres for residential and commercial use, roads, and public use, open space, and drainage features. The implementation of the project requires the approval of a Specific Plan Amendment (SPA-01), General Plan Amendment to the Transportation Element (GPA-00-02), amendments to Zoning districts (ZC-00-01) and Zoning Regulations (ZA-180), Design Guidelines, a Master Tentative Tract Map, and tentative tract maps for residential areas. The Specific Plan Amendment would: (a) increase the amount of commercial development proposed within the Specific Plan area; (b) Reduce the amount of residential development; (c) modify the originally proposed flood control lake to serve as a 60-acre flood control detention facility which would serve as a wetland mitigation area and an open space feature at the center of the project; (d) include development and environmental management regulations to ensure preservation and protection of the restored wetland areas; (e) update provisions for ensuring on-going maintenance of project open space and landscaped area, including provisions to ensure the success of wetland restoration and mitigation within the central open space area; (f) modify the overall specific plan area from 440.5 acres to 443.95 acres; and (g) update design and development standards throughout the Specific Plan Area. The project is located south of 20th Street, east of Campus Avenue, west of Cucamonga Creek Flood Control Channel, and north of 16th Street, in San Bernardino County.

The Department is responding as a Trustee Agency for fish and wildlife resources [Fish and Game Code sections 711.7 and 1802 and the California Environmental Quality Act Guidelines (CEQA) section 15386] and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines section 15381).

A review of records from the California Natural Diversity Database and other available biological information indicates that sensitive species occur in the project vicinity and potentially could occur on site or adjacent to the site. These include: least Bell's vireo (*Vireo bellii pusillus*), burrowing owl (*Athene cunicularia*), white-tailed kite (*Elanus leucurus*), coastal California gnatcatcher (*Polioptila californica californica*), Cooper's hawk (*Accipiter cooperi*), golden eagle (*Aquila chrysaetos*), prairie falcon (*Falco mexicanus*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), orange-throated whiptail

(*Cnemidophorus hyperythrus*), granite spiny lizard (*Sceloporus orcuttii*), western diamondback rattlesnake (*Crotalus viridis*), red-diamondback rattlesnake (*Crotalus ruber*), silvery legless lizard (*Aniella pulchra pulchra*), coastal western whiptail (*Cnemidophorus tigris multiscutatus*), coast patch-nosed snake (*Salvador hexalepis virgultea*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), black-tailed jackrabbit (*Lepus californicus*), Parry's spineflower (*Corisanthe parryi* var. *parryi*), Riversidian Alluvial Fan Sage Scrub habitat, and Southern Sycamore Alder Riparian Woodland.

Specific Comments and Recommendations

Based on the information in the Initial Study/Environmental Assessment (IS/EA) prepared by RBF Consulting on April 10, 2001, the project site consists of alluvial fan sage scrub, alluvial chaparral, riparian and ruderal vegetation. Alluvial fan sage scrub (AFSS) is a relatively open vegetation community, primarily composed of drought-deciduous subshrubs characteristic of the coastal sage scrub community. It also contains large evergreen woody shrubs that are characteristic of the chaparral community. The AFSS community occupies outwash sediment fans and sandy washes predominantly in the interior valleys of Los Angeles, San Bernardino and Riverside Counties. Alluvial fan sage scrub is adapted to, and dependent upon, flood events. Reduction of floodplain flows, such as that found on the project site, results in the reduction of scouring and depositional events in the floodplain. The reduction and containment of flows causes AFSS habitat to eventually succeed to a mature phase of AFSS referred to as "alluvial chaparral".

AFSS is a unique habitat type designated as "very threatened" (State rank S1.1) and may be impacted by implementation of the proposed project. The Department designated AFSS as a very threatened natural community because of the loss of AFSS due to urbanization, mining, agriculture, channelization of drainages, and flood control activities. In 1998, the Department funded a study entitled "Conservation Plan for the Etiwanda-Day Canyon Drainage System Supporting the Rare Natural Community of Alluvial Fan Sage Scrub." This document included a list of sensitive plants and animals which are found in AFSS habitat, many of which are not listed as threatened or endangered, but are considered rare and may become listed in the future. Impacts to rare species, regardless of listing status, may be considered significant under CEQA. The following rare species may potentially occur within AFSS habitat within the Plan Area: coastal California gnatcatcher (*Polioptila californica californica*), Cooper's hawk (*Accipiter cooperi*), golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*), prairie falcon (*Falco mexicanus*), California horned lark (*Eremophila alpestrisactia*), loggerhead shrike (*Lanius ludovicianus*), Bell's sage sparrow (*Amphispiza belli belli*), western spadefoot toad (*Scaphiopus hammondi*), silvery legless lizard (*Aniella pulchra pulchra*), coastal western whiptail (*Cnemidophorus tigris multiscutatus*), coast patch-nosed snake (*Salvador hexalepis virgultea*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), coastal rosy boa (*Lichanura trivirgata rosafusca*), San Diego pocket mouse (*Chaetodipus fallax fallax*), southern grasshopper mouse (*Onychomys torridus*), Los Angeles pocket mouse (*Perognathus longimembris brivinasus*), and San Diego woodrat (*Neotoma lepida intermedia*). Other sensitive species that are known to occur in the project vicinity include San Diego horned lizard (*Phrynosoma coronatum blainvillei*) and Delhi Sands flower-loving fly (*Raphiomidas terminatus abdominalis*). The Department recommends surveys for sensitive species be conducted on-site and results should be included in DEIR along with mitigation measures to avoid and minimize impacts to AFSS and associated sensitive species.

Because of the importance of this habitat type, the Department recommends avoidance of this habitat as well as the hydrological regime that allow this habitat to exist. Any unavoidable impacts to AFSS, the Department recommends in-kind mitigation/compensation. The Department recommends

that preservation of off-site lands at a minimum 2:1 replacement-to-impact ratio be provided as mitigation for impacts to AFSS habitat on-site. The Department recommends the total acreage of AFSS to be impacted by implementation of this project be described in detail in the DEIR so that the Lead Agency can provide appropriate mitigation for impacts to AFSS and associated sensitive species. Any medium and high quality AFSS should be set aside for preservation in perpetuity.

The IS/EA also stated that a wetland delineation identified 10.15 acres of wetland and 18.32 acres of non-wetland waters of the United States, jurisdictional to Army Corps of Engineers (ACOE), present on the site. However, the IS/EA does not identify the amount of State jurisdictional lakes, streams, and associated habitat (i.e. riparian, alluvial fan sage scrub) on the site, pursuant to Section 1600 et seq. of the Fish and Game code. The Department's has jurisdiction generally over a broader area than the ACOE, including the bed and banks and any associated habitat that occurs within and outside the stream channel or lake. The Department is concerned with any potential direct or indirect impacts of the proposed project to streams and lakes and associated riparian and alluvial fan sage scrub habitat on-site. The Department recommends that the lead agency clearly describe in the DEIR all lakes, streams, associated vegetation (i.e. alluvial fan sage scrub and riparian habitat) existing on-site and describe all potential direct and indirect impacts that will occur to these resources as a result of the proposed project. Any impacts to lake, stream, or associated habitat will require a Lake or Streambed Alteration Agreement with the Department prior to commencing project activities. This is described in greater detail below in Section 5 of this letter.

The IS/EA also states that the mature willow fores in a south-central quarry on-site provides habitat suitable for the endangered least Bell's vireo (*Vireo bellii pusillus*). Least Bell's vireo is a State and Federally listed Threatened/Endangered (T/E) species. Any potential impacts (direct or indirect) to this species or its habitat will require permits from the Department and U.S. Fish and Wildlife Service (USFWS). The Department recommends that focused surveys for least Bell's vireo be conducted following Federal protocols and results of these surveys along with appropriate mitigation measures to avoid, minimize, and/or compensation for unavoidable impacts be included in the DEIR. The Department's permit requirements and recommendations are described in greater detail in this letter below in Section 4.

Section 4.4 (f) of the IS/EA states that the City of Upland and other participants are in the process of developing the San Bernardino Valley Multi-Species Habitat Conservation Plan, and since this Plan has not been adopted, impacts are less than significant in this regard. The Department does not agree with that statement. The Department does not believe that a less than significant determination can be made without fully analyzing the importance of this area in relation to other areas within western San Bernardino County in regards to biological resources. The Department recommends the Lead Agency analyze the importance of this area in regards to its biological resource value and look at its relationship to other areas within San Bernardino County.

This project has the potential to have significant environmental impacts on sensitive species and habitats, including State and Federally listed endangered species. Therefore, critical aspects of the DEIR should include an alternatives analysis which focuses on environmental resources and specific mitigation measures for impacts identified as significant, including avoidance, minimization (including, but not limited to a reduced scope alternative), and in-kind compensation. To enable Department staff to adequately review and comment on the proposed project, we recommend the following information 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 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. The 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 does not preclude long-term preserve planning options and that projects conform with other requirements of the NCCP program. Jurisdictions participating in the NCCP should assess specific projects for consistency with the NCCP Conservation Guidelines.
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 the proposed project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA 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 CESA 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 for plants listed as rare under the Native Plant Protection Act.
5. The Department opposes the elimination of watercourses and/or their channelization or conversion to subsurface drains. All wetlands and watercourses, whether intermittent or perennial, must 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. Under Section 1600 et seq of the Fish and Game Code, the Department requires the project applicant to notify the Department of any activity that will divert, obstruct or change the natural flow or the bed, channel, or bank (which includes associated riparian resources) of a river, stream or lake, or use material from a streambed prior to the applicant's commencement of the activity. Streams include, but are not limited to, intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams, and watercourses with subsurface flow. The Department's issuance of a 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. However, if the EIR does not fully identify potential impacts to lakes, streams, and associated resources (including, but not limited to, riparian and alluvial fan sage scrub habitat) and provide adequate avoidance, mitigation, monitoring and reporting commitments, additional CEQA documentation will be required prior to execution (signing) of the Streambed Alteration Agreement. In order to avoid delays or repetition of the CEQA process, potential impacts to a lake or stream, as well as avoidance and mitigation measures need to be discussed within this CEQA document. The Department recommends the following measures to avoid subsequent CEQA documentation and project delays:
 - 1) Incorporate all information regarding impacts to lakes, streams and associated habitat within the DEIR. Information that needs to be included within this document includes: (a) a delineation of lakes, streams, and associated habitat that will be directly or indirectly impacted by the proposed project; (b) details on the biological resources (flora and fauna) associated with the lakes and/or streams; (c) identification of the presence or absence of sensitive plants, animals, or natural communities; (d) a discussion of environmental alternatives; (e) a discussion of avoidance measures to reduce project impacts; and (f) a discussion of potential mitigation measures required to reduce the project impacts to a level of insignificance. The applicant and lead agency should keep in mind that the State also has a policy of no net loss of wetlands.
 - 2) Include in the DEIR a discussion of potential adverse impacts from any increased runoff, sedimentation, soil erosion, and/or urban pollutants on streams and watercourses on or near the project site, with mitigation measures proposed to alleviate such impacts must be included.

3) The Department recommends that the project applicant and/or lead agency consult with the Department to discuss potential project impacts and avoidance and mitigation measures. Early consultation with the Department is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. Pre-project meetings are held every Monday at the Department's Chino Hills office. To schedule a pre-project meeting or to obtain a Streambed Alteration Agreement Notification package, please call (909) 597-4144.

Thank you for this opportunity to comment. If you have any questions regarding this letter, please contact me at (949) 458-1754.

Sincerely,



Leslie MacNair
Environmental Specialist IV
Habitat Conservation Planning - South
Region 6

cc: Jeff Newman, USFWS, Carlsbad

ATTACHMENT 1

State of California
THE RESOURCES AGENCY
Department of Fish and Game
May 4, 1984

GUIDELINES FOR ASSESSING THE EFFECTS OF PROPOSED
DEVELOPMENTS ON RARE AND ENDANGERED PLANTS AND PLANT COMMUNITIES

The following recommendations are intended to help those who prepare and review environmental documents determine when a botanical survey is needed, who should be considered qualified to conduct such surveys, how field surveys should be conducted and what information should be contained in the survey report.

1. Botanical surveys that are conducted to determine the environmental effects of a proposed development should be directed to all rare and endangered plants and plant communities. Rare and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare and/or endangered under the following definitions.

A species, subspecies or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition or disease. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

Rare plant communities are those communities that are of highly limited distribution. These communities may or may not contain rare or endangered species. The most current version of the California Natural Diversity Data Base's Outline of Terrestrial Communities in California may be used as a guide to the names of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or the extent that, rare plants will be affected by a proposed project when:
 - a. Based on an initial biological assessment, it appears that the project may damage potential rare plant habitat;
 - b. Rare plants have historically been identified on the project site, but adequate information of impact assessment is lacking; or
 - c. No initial biological assessment has been conducted and it is unknown whether or not rare plants or their habitat exist on the site.
3. Botanical consultants should be selected on the basis of possession of the following qualifications (in order of importance):
 - a. Experience as a botanical field investigator with experience in field sampling design and field methods;
 - b. Taxonomic experience and a knowledge of plant ecology;
 - c. Familiarity with the plants of the area, including rare species; and
 - d. Familiarity with the appropriate state and federal statutes related to rare plants and plant collecting.
4. Field surveys should be conducted in a manner that will locate any rare or endangered species that may be present. Specifically, rare or endangered plant surveys should be:
 - a. Conducted at the proper time of year when rare or endangered species are both "evident" and identifiable. Field surveys should be scheduled (1) to coincide with known flowering periods, and/or (2) during periods of

phenological development that are necessary to identify the plant species of concern.

- b. Floristic in nature. "Predictive surveys" (which predict the occurrence of rare species based on the occurrence of habitat or other physical features rather than actual field inspection) should be reserved for ecological studies, not for impact assessment. Every species noted in the field should be identified to the extent necessary to determine whether it is rare or endangered.
 - c. Conducted in a manner that is consistent with conservation ethics. Collection of rare or suspected rare species (voucher specimens) should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit regulations. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.
 - d. Conducted using systematic field techniques in all habitats of the site to ensure a reasonably thorough coverage of potential impact areas.
 - e. Well documented. When a rare or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form should be completed and submitted to the Natural Diversity Data Base.
5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations, EIR's and EIS's, should contain the following information:
- a. Project description, including a detailed map of the project location and study area.
 - b. A written description of biological setting referencing the community nomenclature used and a vegetation map.
 - c. Detailed description of survey methodology.
 - d. Dates of field surveys.
 - e. Results of survey (including detailed maps).
 - f. An assessment of potential impacts.
 - g. Discussion of the importance of rare plant populations with consideration of nearby populations and total species distribution.
 - h. Recommended mitigation measures to reduce or avoid impacts.
 - i. List of all species identified.
 - j. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.
 - k. Name of field investigator(s).
 - l. References cited, persons contacted, herbaria visited, and disposition of voucher specimens.

ATTACHMENT 2

SENSITIVITY OF TOP PRIORITY RARE NATURAL COMMUNITIES IN SOUTHERN CALIFORNIA*

Sensitivity rankings are determined by the Department of Fish and Game, California Natural Diversity Data Base and based on either number of known occurrences (locations) and/or amount of habitat remaining (acreage). The three rankings used for these top priority rare natural communities are as follows:

- S1. - Less than 6 known locations and/or on less than 2,000 acres of habitat remaining.
- S2. - Occurs in 6-20 known locations and/or 2,000-10,000 acres of habitat remaining.
- S3. - Occurs in 21-100 known locations and/or 10,000-50,000 acres of habitat remaining.

The number to the right of the decimal point after the ranking refers to the degree of threat posed to the natural community regardless of the ranking. For example:

- S1.1 = very threatened
- S2.2 = threatened
- S3.3 = no current threats known

Sensitivity Rankings (February 1992)

<u>Rank</u>	<u>Community Name</u>
S1.1	Mojave Riparian Forest Sonoran Cottonwood Willow Riparian Mesquite Bosque Elephant Tree Woodland Crucifixion Thorn Woodland Althorn Woodland Arizonan Woodland Southern California Walnut Forest Mainland Cherry Forest Southern Bishop Pine Forest Torrey Pine Forest Desert Mountain White Fir Forest Southern Dune Scrub Southern Coastal Bluff Scrub Maritime Succulent Scrub Riversidean Alluvial Fan Sage Scrub Southern Maritime Chaparral Valley Needlegrass Grassland Great Basin Grassland Mojave Desert Grassland Pebble Plains Southern Sedge Bog Clementane Alkali Marsh
S1.2	Southern Foredunes Mono Pumice Flat Southern Interior Basalt F1. Vernal Pool
S2.1	Venturan Coastal Sage Scrub Diegan Coastal Sage Scrub Riversidean Upland Coastal Sage Scrub Riversidean Desert Sage Scrub Sagebrush Steppe Desert Sink Scrub Malic Southern Mixed Chaparral San Diego Mesa Hardpan Vernal P. San Diego Mesa Claypan Vernal P. Alkali Meadow Southern Coastal Salt Marsh Coastal Brackish Marsh Transmontane Alkali Marsh Coastal and Valley Freshwater Marsh S. Arroyo Willow Riparian Forest Southern Willow Scrub Modoc-G. Bas. Cottonwood Willow Rip. Modoc-Great Basin Riparian Scrub Mojave Desert Wash Scrub Engelmann Oak Woodland Open Engelmann Oak Woodland Closed Engelmann Oak Woodland Island Ironwood Forest Island Cherry Forest S. Interior Cypress Forest Bigcone Spruce-Canyon Oak Forest
S2.2	Active Coastal Dunes Active Desert Dunes Stab. and Part. Stab. Desert Dunes Stab. and Part. Stab. Desert Sandfield Mojave Mixed Steppe Transmontane Freshwater Marsh Coulter Pine Forest S. California Field White Mountains Field
S2.3	Bristlecone Pine Forest Limber Pine Forest

Top Priority Rare Natural Communities
From Region Five

Code Number	Location	Few Records	Name
S1.1 Rank:			
21330	Cis		Southern Dune Scrub
31200	Cis		Southern Coastal Scrub
32400	Cis		Maritime Succulent Scrub
32720	Cis		Riversidean Alluvial Fan Sage Scrub
37030	Cis	Y	Southern Maritime Chaparral
42110	Cis		Valley Needlegrass Grassland
43000	Des	Y	Great Basin Grassland
43777	Des	Y	Mojave Desert Grassland
47000	Cis		Pebble Plains
51177	Cis	Y	Southern Sedge Bog
52310	Cis		Cismontane Alkali Marsh
61700	Des		Mojave Riparian Forest
61810	Des		Sonoran Cottonwood Willow Riparian
61820	Des		Mesquite Bosque
75100	Des	Y	Elephant Tree Woodland
75200	Des	Y	Crucifloron Thorn Woodland
75300	Des	Y	Althorn Woodland
75400	Des	Y	Arizonan Woodland
81600	Cis		Southern California Walnut Forest
81820	Cis	Y	Mainland Cherry Forest
83122	Cis	Y	Southern Bishop Pine Forest
83140	Cis		Torrey Pine Forest
85330	Des	Y	Desert Mountain White Fir Forest
S1.2 Rank			
21230	Cis		Southern Foredunes
35410	Des		Mono Pumice Flat
44310	Cis		Southern Interior Basalt Fl. Vernal Pool
S2.1 Rank			
32300	Cis	Y	Venturan Coastal Sage Scrub
32500	Cis		Diegan Coastal Sage Scrub
32710	Cis	Y	Riversidian Upland Coastal Sage Scr.
32730	Cis	Y	Riversidian Desert Sage Scrub
35300	Des	Y	Sagebrush Steppe
35120	Des	Y	Desert Sink Scrub
37122	Cis	Y	Mafic Southern Mixed Chaparral
44321	Cis		San Diego Mesa Hardpan Vernal P.
44322	Cis		San Diego Mesa Claypan Vernal P.
45310	Des		Alkali Meadow
52120	Cis		Southern Coastal Salt Marsh
52320	Cis		Coastal Brackish Marsh
52410	Des		Transmontane Alkali Marsh

Coded as either cis (for cismontane) or des (for desert)

Code Number	Location	Few Records	Name
52410	Cls		Coastal and Valley Freshwater Marsh
61320	Cls		S. Arroyo Willow Riparian Forest
63320	Cls		Southern Willow Scrub
61610	Des		Modoc-G Bas Cottonwood Willow Rip.
63600	Des	Y	Modoc-Great Basin Riparian Scrub
63700	Des	Y	Mojave Desert Wash Scrub
71180	Cls	Y	Engelmann Oak Wood
71181	Cls	Y	Open Engelmann Oak Wood
71182	Cls	Y	Closed Engelmann Oak Woodland
71190	Cls	Y	Island Oak Woodland
71210	Cls		California Walnut Woodland
81700	Cls	Y	Island Ironwood Forest
81810	Cls		Island Cherry Forest
83230	Cls		S. Interior Cypress Forest
84150	Cls	Y	Bigcone Spruce-Canyon Oak Forest
S2.2 Rank			
21100	Cls	Y	Active Coastal Dunes
22100	Des		Active Desert Dunes
22200	Des		Stab. and Part Stab. Desert Dunes
22300	Des	Y	Stab. and Part Stab. Desert Sandfield
34220	Des	Y	Mojave Mixed Steppe
52420	Des	Y	Transmontane Freshwater Marsh
84140	Cls	Y	Coulter Pine Forest
81130	Cls	Y	S. California Field
81140	Des	Y	White Mountains Field
S2.3 Rank			
86400	Des		Bristlecone Pine Forest
86700	Des	Y	Limber Pine Forest

ELEMENT RANKING

GLOBAL RANKING

The *global rank* (G-rank) is a reflection of the overall condition of an element throughout its global range.

SPECIES OR NATURAL COMMUNITY LEVEL

- G1 = Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres.
G2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.
G3 = 21-100 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.
G4 = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.
G5 = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.

SUBSPECIES LEVEL

Subspecies receive a T-rank attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety. For example: *Charizanthus robusta* var. *harrwegii*. This plant is ranked G2T1. The G-rank refers to the whole species range i.e., *Charizanthus robusta*. The T-rank refers only to the global condition of var. *harrwegii*.

STATE RANKING

The *state rank* (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.

- S1 = Less than 6 EOs OR less than 1,000 individuals OR less than 2,000 acres
 S1.1 = very threatened
 S1.2 = threatened
 S1.3 = no current threats known
S2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
 S2.1 = very threatened
 S2.2 = threatened
 S2.3 = no current threats known
S3 = 21-100 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres
 S3.1 = very threatened
 S3.2 = threatened
 S3.3 = no current threats known
S4 = Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. **NO THREAT RANK.**
S5 = Demonstrably secure to ineradicable in California. **NO THREAT RANK.**

Notes:

- Other considerations used when ranking a species or natural community include the pattern of distribution of the element on the landscape, fragmentation of the population/stands, and historical extent as compared to its modern range. It is important to take a bird's eye or aerial view when ranking sensitive elements rather than simply counting EOs.
- Uncertainty about the rank of an element is expressed in two major ways:

By expressing the rank as a range of values:
e.g., S2S3 means the rank is somewhere between S2 and S3.

By adding a ? to the rank: e.g., S2? This represents more certainty than S2S3, but less than S2.

3. Other symbols

- GH All sites are historical; the element has not been seen for at least 20 years, but suitable habitat still exists (SH = All California sites are historical).
GX All sites are extirpated; this element is extinct in the wild (SX = All California sites are extirpated).
GXC Extinct in the wild; exists in cultivation.
G1Q The element is very rare, but there are taxonomic questions associated with it.



Chino Basin Water Conservation District

May 9, 2001

Ms. Sylvia Scharf, AICP
City of Upland
P. O. Box 460
Upland, CA 91786-4732

RECEIVED

MAY 09 2001

COMMUNITY DEVELOPMENT

Re: Notice of Preparation of a Draft EIR for Project Titled
"Colonies at San Antonio Specific Plan Amendment"

Dear Ms. Scharf:

Upon review of the Initial Study for the referenced project the Conservation District agrees with the recommended "determination" that an Environmental Impact Report is required. Further, the Conservation District believes that the Initial Study itself is "deficient" in its analysis of issues related to "Hydrology & Water Quality" since the Initial Study fails to adequately address water conservation and the issues associated with the "volume and location" of the recharge of stormwater runoff. In this regard I draw your attention to paragraph numbers 7 and 12 of Resolution Number 4186 of the city of Upland, wherein it is noted that the "recharge water facilities shall be designed to accept storm water flow in excess of 100 cfs... for recharge purposes." I further draw your attention to the 1999 "Mitigated Negative Declaration and Initial Study for the 20th Street Storm Drain" project wherein the storm drainage flows that are conveyed through the facilities of this project are to be mitigated through recharge. As a consequence of these earlier conditions, the proposed EIR among other things, needs to provide sufficient information relative to the "wetted area" and "location" of the retention facilities, the "recharge potential" of the soils lining the retention facilities, the hydrology of the water shed, and other necessary information relative to the proposed operation of the retention facility in order to assure that it

DIRECTORS
H. ERIC PETERSON
Division 1
KATH OGDEN
Division 2
JOHN T. REDDICK
Division 3
PAUL HOFFER
Division 4
JOHN VANDEN BRINK
Division 5
HENRY DE HAAN JR.
Division 6
GEOFFREY VANDEN HEUVEL
Division 7

OFFICERS
PAUL HOFFER
President
JOHN T. REDDICK
Vice President
HENRY DE HAAN JR.
Treasurer
BARRETT KEHL
Secretary - Manager

DISTRICT COUNSEL
WILLIAM BRUNICK



4594 SAN BERNARDINO STR
P.O. BOX 2400
MONTCLAIR, CA 91763-09
(909) 626-2711
FAX (909) 626-5974



Chino Basin Water Conservation District

will capture and recharge the "historical" volume of stormwater runoff and those noted in previous conditions.

In conclusion, upon review of the Initial Study for the referenced project the Conservation District concurs that an Environmental Impact Report is required since the Initial Study itself is "deficient" in its analysis of issues related to "Hydrology & Water Quality." Further, as the recommended EIR is being prepared, the Conservation District requests that it be kept informed in order that it may confirm that its concerns are properly addressed and that the volume of storm water historically recharged in this area and that mentioned in previous conditions is not forever lost to the detriment of Chino Groundwater Basin.

Sincerely,

Barrett Kehl

Barrett Kehl,
General Manager

Cc: Board of Directors



DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA

May 15, 2001

801 K STREET
SACRAMENTO
CALIFORNIA
95814

PHONE
916/322-1080

FAX
916/445-0732

TDD
916/324-2555

INTERNET
CONSV.CA.GOV

GRAY DAVIS
GOVERNOR

Ms. Sylvia Scharf
City of Upland
460 North Euclid Avenue
Upland, California 91786-4732

Dear Ms. Scharf:

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Colonies at San Antonio Specific Plan Amendment – **SCH #2001041048**

The California Department of Conservation's Division of Mines and Geology (Division) has reviewed the NOP for the referenced project. The Division maps and reports on the location and nature of significant mineral resource deposits in California. This information is provided to local agencies to promote land use decision-making that conserves mineral resources. We offer the following recommendations for the DEIR with respect to the project's potential impacts on mineral resources.

Nearly 25 percent of the project site, approximately 104 acres, has been designated by the State Mining and Geology Board as containing significant deposits of aggregate resources. The Board designated this area as Subsector C-6, as shown on the Mt. Baldy U.S. Geological Survey map quadrangle of its 1985 report, *Designation of Regionally Significant Construction Aggregate Resources in the Claremont-Upland, San Bernardino Production-Consumption Regions, Surface Mining and Reclamation Act Final Environmental Impact Report No. 5*, 191 pp. We recommend that the DEIR include a characterization of the setting with respect to mineral resources, as well as document the project's impacts on mineral resources, and present mitigation measures and alternatives that would lessen or avoid identified impacts.

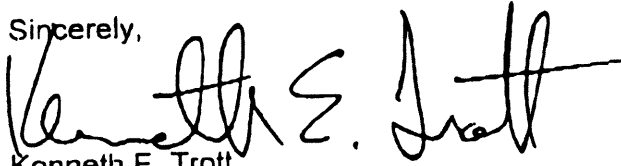
In addition, we suggest that the DEIR address the requirements of Surface Mining and Reclamation Act (SMARA) relative to the permitting of land uses that would preclude future access to designated mineral resources (see Public Resources Code Section 2763). This provision requires that when permitting such a use, the lead agency "shall prepare a statement

Ms. Sylvia Scharf
May 15, 2001
Page 2

specifying its reasons for permitting the proposed use...and shall also, in balancing mineral values against alternative land uses, consider the importance of these minerals to their market region as a whole and not just their importance to the lead agency's area of jurisdiction."

Thank you for the opportunity to review the NOP. If you have questions or require technical assistance or information on mineral resources and SMARA, please call Division Supervising Geologist Robert Hill at (916) 322-6183. You may also call me at (916) 445-8733.

Sincerely,



Kenneth E. Trott
Environmental Coordinator

cc: Robert Hill

BEST BEST & KRIEGER LLP

A CALIFORNIA LIMITED LIABILITY PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

LAWYERS

ARTHUR L. LITTLEWORTH*
WILLIAM R. DEWOLFE*
RICHARD T. ANDERSON*
JOHN D. WAHLIN*
JOHN E. BROWN
MICHAEL T. RIDDELL*
MICHAEL GRANT*
FRANCIS J. BAUM*
GEORGE M. REYES*
WILLIAM W. FLOYD, JR.
GREGORY L. HARDKE
KENDALL H. MACVEY
CLARK H. ALSOP
DAVID J. ERWIN*
MICHAEL J. ANDELSON*
DOUGLAS S. PHILLIPS*
GREGORY K. WILKINSON
GENE TANAKA
VICTOR L. WOLF
DANIEL E. OLIVIER
HOWARD B. GOLDS
STEPHEN P. DEITSCH
JOHN R. ROTTSCHAEFER
MARTIN A. MUELLER
J. MICHAEL SUMMEROUR
SCOTT C. SMITH
JACK B. CLARKE, JR.
BRIAN M. LEWIS*

BRADLEY E. NEUFELD
PETER M. BARMACK
JEFFREY V. DUNN
STEVEN C. DEBAUN*
ERIC L. GARNER*
DENNIS M. COTA
P.H.W.F. PEARCE
ROBERT W. HARGREAVES
C. MICHAEL COWETT
BRUCE W. BEACH
ARLENE PRATER
MARK A. EASTER
MICHELLE OUELLETTE
KEVIN K. RANDOLPH
CYNTHIA M. GERMANO
MARGUERITE S. STRAND
KYLE A. SNOW
JAMES B. GILPIN
KIM A. BYRENS
DEAN DERLETH
SONIA RUBIO CARVALHO
JOHN O. PINKNEY
PIERO C. DALLARDA
DWIGHT M. MONTGOMERY
RICHARD T. EGGER
FRANKLIN C. ADAMS
WILLIAM WOOD MERRILL
WILLIAM D. DAHLING, JR.

BERNIE L. WILLIAMSON
G. HENRY WELLES
DAVID J. HANCOCK
HAYLEY E. PETERSON
ROGER K. CRAWFORD
SHAWN D. HAGERTY
JAMES P. MORRIS
KEVIN T. COLLINS
DAVID W. NEWMAN
JENNIFER T. BUCKMAN
MARIA E. GLESS
GLEN W. PRICE
MARYMICHAEL MCLEOD
JAMES R. TOUCHSTONE
STEVEN M. ANDERSON
ROBERT L. PATTERSON
JAMIE L. RAYMOND
PAULA C.P. DE SOUSA
LYSA M. SALTZMAN
MARCO A. MARTINEZ
JOHN F. WALSH
JEFFRY F. FERRE
DORINE LAWRENCE-HUGHES
ALISON D. ALPERT
KRISHAN S. CHOPRA
JAMES C. TURNER
MICHAEL D. DOLIDA
KAREN M. FREEMAN

JOHN D. HIGGINBOTHAM
MALATHY SUBRAMANIAN
USI MESHREKY
CRAIG M. MARSHALL
JEFFREY S. BALLINGER
M. THERESA TOLENTINO
THERESA E. ANTONUCCI
MELISSA W. WOOD
E. SEAN ARTHUR
TRANG T. TRAN
CARMEN MARTINEZ DE OSABA
TRACIE PHAM
JASON C. GLESS
WILLIAM J. PRIEST
DANIEL S. ROBERTS
MARY BETH COBURN
LINDSEY A. COTTAM
DANIELLE E. GERBER
CHRISTINA A. HENRY
ELISE L. CHENG
KRISTIN C. VARNER
TAM B. TRAN
DEAN J. SILLIMAN

RAYMOND BEST (1 866-1 957)
JAMES H. KRIEGER (1 913-1 975)
EUGENE BEST (1 893-1 981)

3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502-1028
TELEPHONE (909) 686-1450
TELECOPIERS
(909) 686-3083 682-4612
BBKLAW.COM

OF COUNSEL
CHRISTOPHER L. CARPENTER
MICHAEL D. HARRIS*
ANNE T. THOMAS
DONALD F. ZIMMER*
CHRISTINA L. DYER
D. BRIAN REIDER
KIRK W. SMITH
DIANA O. HARRIS
WARREN B. DIVEN
ROBERT J. HANNA
DANIEL G. STEVENSON

OFFICES IN
INDIAN WELLS (760) 568-2611
ONTARIO (909) 989-8584
SAN DIEGO (619) 525-1300
ORANGE (714) 939-5940

*A PROFESSIONAL CORPORATION

File No. 04342.00002

May 16, 2001

VIA FACSIMILE AND FIRST-CLASS U.S. MAIL

Sylvia Scharf, AICP
City of Upland
460 North Euclid Ave.
Upland, CA 91786-4732

RECEIVED
MAY 18 2001
RBF CONSULTING

Re: *Notice of Preparation of a Draft Environmental Impact Report
Amendment of Specific Plan for Colonies at San Antonio Project*

Dear Ms. Scharf:

Cucamonga County Water District (the "District") has asked us to review and comment on the above-referenced Notice of Preparation. This letter is intended to supplement the letter the District submitted on April 27, 2001. (See April 27, 2001 letter from James H. Cline, Jr. to Sylvia Scharf, AICP.) Also, the District concurs in the issues raised in the May 3, 2001 letter from Ray Wellington, P.E., General Manager of San Antonio Water Company, to Sylvia Scharf, AICP, City of Upland. That letter is incorporated herein by reference.

As a preliminary matter, the District believes that it is a responsible agency pursuant to State CEQA Guidelines section 15381 for the Colonies at San Antonio project (the "Project"). To ensure sufficient water pressure to guarantee minimum fire-fighting flows for the east side of the Project area, the City of Upland (the "City") has proposed that the District enter into a contract with the City for the sale of water. (The Project area falls outside of the District's service boundaries.) This contract will require the discretionary approval of the District's Board of Directors. Accordingly, the District is a responsible agency for the purposes of the Project. (See, State CEQA Guidelines, § 15381.) Therefore, the Environmental Impact Report ("EIR") and supporting documents must reflect the District's role in the environmental review process. Based on its review of the Notice of Preparation and Initial Study/Environmental Checklist, the District requests changes in the Project and imposition of mitigation measures as set forth below. (See, Pub. Res. Code, § 21081.6.)

Sylvia Scharf, AICP

May 16, 2001

Page 2

First, mitigation measures must be imposed to address the Project's potentially significant impact to groundwater supplies. Although the Initial Study/Environmental Checklist concludes the Project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, the District strongly disagrees with this conclusion. As you know, both the District and San Antonio Water Company ("San Antonio") use and depend upon the land proposed to be developed as part of the Project for the purpose of spreading water and increasing recharge to the underlying aquifer. Specifically, rainwater, runoff, stormwaters, floodwaters, and the like are captured and diverted to the Cucamonga Channel for spreading in groundwater basins operated by San Bernardino County Flood Control District. For at least the past 25 years, the District and San Antonio have been using 70 of the approximately 440 acres proposed for development in the Project as Basin No. 6 to accomplish recharge of the Cucamonga Basin.¹ This land is ideally suited for this use, as the soil is very porous and has a high conductivity rate.

The importance of Basin No. 6 and the other Cucamonga Basin spreading facilities to the District's water supplies cannot be overemphasized. Of the District's 22 production facilities, 17 of them (77%) are located within the Cucamonga Basin. Likewise, the District obtains the bulk of its water supplies from the Cucamonga Basin. Under the Judgment adjudicating the Basin, the District is entitled to withdraw 15,000 acre-feet of groundwater per year. Since the District's average annual supply is only about 46,000 acre-feet, its rights in the Cucamonga Basin provide nearly one-third of its annual water supply. Obviously, any action reducing any amount of recharge to the Cucamonga Basin will seriously impact the District's water supplies. Any water supply reduction will have grave and far-reaching implications, as the District supplies water for over 35,000 households as well as 2,000 businesses and industrial establishments.

Development of the land overlying Basin No. 6 into residential housing and commercial uses, as contemplated by the Project, would render large portions of this land impermeable and preclude future groundwater recharge. (See, Initial Study/Environmental Checklist, p. 38 ("The level of infiltration to groundwater supplies may decrease due to amount of natural surface that would be replaced by impermeable surfaces.")) This change in the existing land use will directly cause the loss of at least 3,000 acre-feet of recharge per year. San Antonio uses Basin No. 6 to fulfill its obligation in the Judgment of providing 2,000 acre-feet of recharge to the Cucamonga Basin per year. In addition, the natural recharge of water through Basin No. 6 is 1,000 acre-feet in an average year, and may reach up to 4,000 acre-feet in a year of above normal precipitation when more snowmelt runoff is captured. Without mitigation, the Project will reduce the safe yield of the Cucamonga Basin by at least 13.5%. Given these facts, the District vigorously disputes the Initial

¹ The City's description of the Project in the "Project Location and Setting" Section of the Initial Study/Environmental Checklist fails to recognize the historic use of the spreading grounds for recharge purposes. (See, Initial Study/Environmental Checklist, p. 3 ("This area is known as the Cucamonga Basin or "Spreading Grounds," an alluvial fan configuration historically utilized to control area drainage.")) Because it omits any mention of the historical use of Basin No. 6 for recharge, the Project description is inaccurate. When the EIR is prepared, the Project description must be modified to reflect the longstanding use of the Project site for groundwater recharge.

Sylvia Scharf, AICP
May 16, 2001
Page 3

Study's conclusion that the Project has no potential of substantially depleting groundwater supplies or interfering substantially with groundwater recharge. (Initial Study/Environmental Checklist, pp. 24, 38.)

Other portions of the Initial Study/Environmental Checklist inconsistently confirm that the Project has potentially significant impacts on groundwater recharge. The City acknowledges that the Project area is used as "spreading basins." (Initial Study/Environmental Checklist, p. 24.) The City also finds that, among other things, the Project has the potential to: substantially alter the existing drainage pattern of the Project area, change the groundwater absorption rates, change the currents or course of direction of water movements, and alter the direction or rate of flow of groundwater. (Initial Study/Environmental Checklist, pp. 24, 37-39.)

Despite these findings, the City inexplicably reaches the conclusion that the Project's increase in impervious surfaces and channeling and diversion of the water normally available for recharge will not "substantially deplete groundwater supplies or interfere substantially with groundwater recharge." (Initial Study/Environmental Checklist, pp. 24, 38.) As support for its position, the City states that it will supply water service to the Project area and it is not currently experiencing water shortages. (Initial Study/Environmental Checklist, p. 38.)

These statements directly conflict with the available evidence. First, the City is not currently able to supply adequate water to the Project, as evidenced by the fact that it must contract with the District to ensure even minimum fire flows. Second, the Initial Study does not state that the City receives the bulk of its water from San Antonio,² the supplies for which will necessarily be affected if the Project diminishes groundwater recharge by increasing impermeable surfaces without mitigating the impacts. Thus, even if the City's current supplies are adequate, this will likely not be true after development of the Project reduces San Antonio's available water supplies.³ Failing to analyze these potential future environmental impacts would improperly truncate CEQA's required environmental analysis. Thus, the EIR must address whether adequate water supplies are available for the Project at full build-out. (See, e.g., Save Our Peninsula Committee v. Monterey County Board of Supervisors (2001) 87 Cal.App.4th 99; Stanislaus Natural Heritage Project v. County of Stanislaus (1996) 48 Cal.App.4th 182.)

² The District understands that the City is San Antonio's largest volume customer. The City has no independent rights to the Cucamonga Basin and must therefore obtain its water via San Antonio. To ensure an adequate supply for its municipal customers, the City holds a 70% stake in San Antonio.

³ Pursuant to the Judgment adjudicating the Cucamonga Basin, San Antonio's rights to withdraw water from the Basin are contingent upon its providing 2000 acre-feet of recharge into the Basin every year. As indicated above, San Antonio has been relying on Basin No. 6 to fulfill this obligation. If the Project proceeds and Basin No. 6 is developed without any mitigation measures imposed to replace the lost groundwater recharge, it is unclear how San Antonio will be able to comply with its annual recharge commitments.

Sylvia Scharf, AICP
May 16, 2001
Page 4

As currently proposed, the Project does not offer any means of effectively mitigating its significant environmental impact to groundwater supplies. While the Project proposes to construct a detention basin dedicated mainly to flood control purposes and to set aside 14 acres of wetlands, these facilities do not include sufficient capacity to offset the lost recharge capabilities resulting from the conversion of Basin No. 6. Significantly, the Project as currently proposed omits any mention of the enlargements and improvements to Basin No. 3 that were required as mitigation for the previous project proposed for the Project area. (See San Antonio Lakes Specific Plan/Environmental Impact Report (1988).) These mitigation measures required: (1) enlargement of Basin No. 3 to ensure adequate storage capacity to offset the loss of Basin No. 6, and (2) diversion of storm run-off from the northern Upland area, which has historically drained to Basin No. 6, to Basin No. 3. The District understands that the City's 1988 EIR for the Project area specifically found that these mitigation measures were feasible. To offset the Project's potentially significant impacts to groundwater recharge, it is imperative that at least these mitigation measures be imposed on the Project. As a responsible agency, the District requests that the EIR reinstate these two mitigation measures. Additionally, the City must impose all other feasible mitigation measures that would reduce the Project's significant impacts on groundwater recharge.

Second, the Initial Study's analysis of water quality impacts is improperly limited to surface waters. (See, Initial Study/Environmental Checklist, pp. 37, 38.) As the City acknowledges, development of the Project will increase urban run-off. (Initial Study/Environmental Checklist, p. 37.) It is well-known that urban run-off often contains contaminants, such as household chemicals and MTBE, which can leach into the groundwater and potentially contaminate the aquifer. Because the District relies on the aquifer for much of its drinking water supplies, it is held to strict water quality standards. Accordingly, the EIR must examine the Project's potentially significant impacts on groundwater quality.

Third, the District notes that the Initial Study/Environmental Checklist has identified a potential for cumulatively considerable environmental impacts. Please be aware that a trial court has recently invalidated some of the State CEQA Guidelines related to cumulative impacts, including Sections 15130(a)(4), 15064(i)(3) and 15064 (i)(4). These legal changes must be taken into account in preparing the EIR for the Project.

Finally, the District draws the City's attention to the following two typographical errors:

- On page 20, the Initial Study/Environmental Checklist refers to "the CEQA Guidelines . . . used by the City of Lancaster in its environmental review process." Presumably, this reference should be to the City of Upland, the lead agency for this Project.
- On page 15, the Initial Study/Environmental Checklist lists "To provide for the recharge of flood flows into the upper

Sylvia Scharf, AICP
May 16, 2001
Page 5

portion of the Chino Basin" as one of the Project's Open Space Objectives. The Chino Basin and the Cucamonga Basin are hydrogeologically distinct, and the Chino Basin is located far south of the property with its northernmost edge beginning several miles south of Baseline Avenue. The textual reference should be to the Cucamonga Basin, which is the groundwater basin that underlies the Project site and the surrounding area.

Thank you for this opportunity to provide additional comments on the Notice of Preparation and Initial Study/Environmental Checklist for the Project. The District wishes to reaffirm its willingness to work with the City, the Project proponent, San Antonio and San Bernardino County Flood Control District to find a mutually acceptable means of ensuring permanent facilities for providing adequate recharge of groundwater to the Cucamonga Basin. Please feel free to contact me at (909) 686-1450 if you have any questions about the District's position.

Sincerely,



Michelle Ouellette
of BEST BEST & KRIEGER LLP

RVLIT/JTB/612421

cc: Robert A. DeLoach, General Manager & Chief Executive Officer
Cucamonga County Water District

James H. Cline, Jr., Special Projects Administrator
Cucamonga County Water District

Ray Wellington, General Manager
San Antonio Water Company

Glenn LaJoie, AICP
RBF Consulting

PUBLIC COMMENT FORM

MAY 10 2001

COMMUNITY DEVELOPMENT

PROJECT NAME:

Environmental Impact Report (EIR) for the Colonias at San Antonio Specific Plan Amendment.

NAME AND ADDRESS OF COMMENTOR: (include group or public agency affiliation, as applicable)

Cheryl Rybarczyk
 6255 Celestite Ave
 Alta Loma, Calif. 91701

Telephone Number: (909) 987-7543

COMMENTS:

Please provide your comments on potential environmental issues/impacts which you feel should be addressed in further detail in the EIR. Attach additional pieces of paper, as needed.

This form and/or additional comments can be submitted to City Staff at the Scoping Meeting or mailed to the City of Upland, 460 North Euclid Avenue, Upland, California 91786, Attention: Sylvia Scharf, AICP, Senior Planner.

On reviewing the map on the Preliminary Land Use from RBF Exhibit 2-3 of 4/01 (code JN10-10124) noted; the areas marked OS (open space) will be "wetlands" (As I understand it), the lake or pond will be formed from the storm drain run-off from Canyon Ave. If this water is coming from off streets it will be filled with oil & other hazardous chemicals. How are you going to clean the water to prevent the lake from being polluted? Who is going to take care of the lake/pond to keep it free of mosquitoes? Who pays for it? Who patrols the area to reduce crime?

B) Safety Traffic: Why does Canyon have to be so crossed? Don't you think a straight street is safer than "wandering" & less accidents etc.

C) Transportation: Are you keeping Bike trails along the Cucamonga Creek?

PUBLIC COMMENT FORM

PROJECT NAME:

Environmental Impact Report (EIR) for the Colonies at San Antonio Specific Plan Amendment.

NAME AND ADDRESS OF COMMENTOR: (include group or public agency affiliation, as applicable)

Daniel K. Webser

Telephone Number: (909) 982-5589

COMMENTS:

Please provide your comments on potential environmental issues/impacts which you feel should be addressed in further detail in the EIR. Attach additional pieces of paper, as needed.

This form and/or additional comments can be submitted to City Staff at the Scoping Meeting or mailed to the City of Upland, 460 North Euclid Avenue, Upland, California 91786, Attention: Sylvia Scharf, AICP, Senior Planner.

* See Attached

We prefer no commercial zoning in this area of Upland. We will not accept Highway Commercial. Our community area has fought heavier traffic, noise, pollution, and view disruption for thirty-five years. We do not accept greed of a few people as a force that can change our home living style.

1. There are presently enough businesses available to care for our needs. These businesses do not need to be next to us. We selected a home away from the commercial areas for quiet outdoor living. Check out how many grocery stores have left this city. Look to redevelopment of the downtown. It needs it.
2. We see that the road design will accommodate traffic load that exists today. The Plan calls for pulling people from the freeway to the commercial development. This will be an increase traffic load on already heavily used roadways. The increase of 1,150 housing units will bring an additional 2,300 automobiles to the infra structure.
3. The increase in pollutants of air, noise, and trash will greatly diminish the tranquility we now have in our own yards, gardens, patios, and pools.
4. Large Commercial structures are generally more than two stories tall and more imposing than a two story house. Our current view of our beautiful mountains would therefore be obstructed. Also, the glow of the signs for these business, beckoning freeway purchasers, will halo light throughout our neighborhood, so we cannot enjoy the evening sky.

Additional questions we would like answered are:

1. Who will be responsible for maintaining the landscape of the flood plain?
2. Who will be responsible for cleaning and trash removal in the flood plain area?
3. What is luxury attached housing? (apartments?)
4. Will the new homes have 2 entry/exit points to meet fire-code?

We are not oppose to development. However, we want it to meet the same high standards we now have. We do not need hotels, car lots, supermarkets, superstores (Home Depot type), fast-food restaurants, etc.

PUBLIC COMMENT FORM

PROJECT NAME:

Environmental Impact Report (EIR) for the Colonies at San Antonio Specific Plan Amendment.

NAME AND ADDRESS OF COMMENTOR: (include group or public agency affiliation, as applicable)

Joseph D. Hanna
5886 Turquoise Ave.
Alta Loma, CA 91701-2533

Telephone Number:

909-989-2346 (home)
626-812-2168 (work)

COMMENTS:

Please provide your comments on potential environmental issues/impacts which you feel should be addressed in further detail in the FIR. Attach additional pieces of paper, as needed.

This form and/or additional comments can be submitted to City Staff at the Scoping Meeting or mailed to the City of Upland, 460 North Euclid Avenue, Upland, California 91786, Attention: Sylvia Scharf, AICP, Senior Planner.

1. **19th Street should continue to be a straight route through to Euclid.**

The proposed changes to 19th street and Campus Avenue will seriously affect traffic flow between north Upland and north Alta Loma (Rancho Cucamonga). 19th street is currently a major artery serving east-west traffic between these two areas. The northern sections of these cities are currently connected only via 3 routes, namely Foothill Blvd, Baseline Road (16th St.), and 19th St. with 19th street being the northernmost connector. The 210 freeway will carry the majority of east-west **through** traffic, possibly reducing traffic somewhat on the 2 remaining routes, but traffic between the northern parts of the two cities will be forced to either follow a circuitous route on 19th Street and Campus Avenue, "detour" to Baseline Road impacting traffic on residential streets, or similarly detour to Carnelian Ave. or Mountain Ave. to enter the freeway and exit at Mountain or Carnelian and backtrack to the respective destination. This will affect vehicle operating time and efficiency, increasing air pollution, noise, and vehicle operating costs. **Forcing the traffic onto residential streets will reduce public safety.**

(continued on next page)

2. The Campus Ave. freeway ramp should provide convenient access for residents east of the proposed development.

It is only logical that drivers currently accessing 19th street via Sapphire Street for westbound trips will access the 210 freeway at Campus Ave. for the same westbound trips once the freeway is open. This should present the most convenient and efficient route to these drivers. It appears that 5 controlled intersections between the Cucamonga Creek and "new" Campus, a controlled intersection at "new" Campus and 19th, and very likely 2 more signals controlling access to the freeway ramps are intended to discourage "local" traffic from trying to utilize the Campus freeway access. Since this ramp was prevented from being installed at Euclid, and Campus is intended to be realigned nearly putting the ramp into Alta Loma, the residents of Alta Loma will bear the brunt of the impact of the noise and pollution generated by this ramp. Should the residents of Alta Loma not be afforded the use of it? After all, 19th Street in Alta Loma is a straight 4-lane road, which will provide the major eastern non-freeway access for residents of the Colonies. This route will also get them to the Carnelian freeway ramps that many of them will likely find much more convenient for trips to the east.

3. The proposed changes to 19th street and Campus will be a safety hazard.

During peak traffic times and in times of a traffic accident or hazmat incident, traffic will exit the freeway at the nearest available ramp. For an incident on the eastbound freeway, east of Campus, all of the traffic backed up on the freeway from Mountain Ave. will be forced to exit at Campus. Most drivers will be unfamiliar with the area. Those who turn to the north will be forced to turn around on 20th street. Additional confusion will result from the circuitous design of Campus Ave. and of 19th street. As an aside, the present design of the freeway with only 3 regular lanes and one HOV (high occupancy vehicle) lane will likely result in many hours per day of the freeway traffic levels being over capacity from the outset.

4. Campus Ave. north of the proposed development should have access to the Campus freeway ramps.

The land use plan is not clear if this is provided or not. 20th street from the east should connect to Campus providing those residents to the north with convenient access to the freeway without having to drive across town to access the freeway for westbound trips. This will also prevent having to drive the circuitous route along 19th and Campus to access the freeway for eastbound trips.

5. For safety and proper access, Campus Ave. should continue north from 19th to connect with the existing Campus.

While this will require a bridge over the freeway that is currently unplanned and not funded, this would greatly improve public safety access to the northern section of Upland. The land use plan indicates a fire station at the western end of the development. Access from this station to points north of the freeway is greatly impeded by the current traffic plan.

(continued on next page)

6. Quarry traffic should not be forced to use residential streets.

Dump trucks from the quarry should be able to access the freeway and Campus Avenue southbound. This reinforces the need for items #4 and #5 above.

7. The southeastern commercial development (PA-19 on the land use plan) should be accessible from Campus Ave.

Since a large percentage of the customers of this development are expected to arrive and leave via the 210 freeway, forcing all of this traffic onto 19th street will further impede orderly traffic flow on 19th street. Moving one of the "Neighborhood Entry Points" from 19th to Campus would reduce street traffic and move the customers into the stores more efficiently. This would be particularly helpful for exiting traffic that could turn right out of the parking lot onto Campus and onto the freeway.

8. The proposed commercial development could end up being a blight on the community.

Given the current commercial vacancy rate in Upland and Rancho Cucamonga, there is no reason to suspect that this development will perform any better in attracting paying customers to the area. The development is too small to compete with the likes of Ontario Mills, Montclair Plaza, and proposed regional malls. This development could end up just being an oversized strip mall with a high vacancy rate.

9. The proposed commercial development is incongruous with the surrounding area.

With the exception of the quarry to the north, all surrounding areas are residential. Since balance in a community is important, perhaps a smaller commercial development with a grocery store, a gas station, and a couple of restaurants would be more appropriate for this area.

Conclusion:

It seems that this development has been planned as an isolated community with little regard to the existing, surrounding community, both in Upland and in Alta Loma. I do thank the city of Upland for inviting me to the pre-EIR meeting; however, it would have been a bit more useful for me to have participated in the earlier planning. Traffic access between these two cities has been a problem for many years with the limited routes available. During early stages of the freeway construction, we were advised by CalTrans officials to take a more northerly route than 19th Street to the west since our access to 19th Street was being greatly impeded for a portion of the construction. They were amazed when informed that other routes were not available. It certainly would make sense for Banyan Street to connect from its current terminus in Alta Loma to Campus Ave at the western edge of the Cucamonga Creek. While this is outside of the scope of this EIR, it should be seriously considered, as it would have a positive long-term effect on the Colonies at San Antonio.

(909) 981-2030

Fax (909) 981-0910

Marjorie Musser Mikels

Attorney at Law
201 N. First Avenue
Upland, CA 91786-6061

May 10, 2001

CITY OF UPLAND
Attn.: Sylvia Scharf, AICP
460 N. Euclid Avenue
Upland, CA 91786-4732

RECEIVED

MAY 10 2001

COMMUNITY DEVELOPMENT

Re: Scoping for Draft Environmental Impact Report
COLONIES AT SAN ANTONIO
SPECIFIC PLAN AMENDMENT

Dear Ms. Scharf and the City of Upland:

Thank you for holding the public meeting on May 3, 2001 for the purpose of scoping for the EIR on the above referenced project.

I have several concerns that were insufficiently addressed at the meeting.

Additional Time for Written Comments: I do not believe the public had adequate notice of the existence of the Initial Study, and their right to review that document and comment on it. Since the meeting was held only one week before the deadline for submitting written comments, and no copies of the Initial Study were made available to the public at the meeting, I respectfully request an additional 30 days be granted so other interested parties may submit their concerns in writing for consideration in the Draft EIR.

EIR; not Negative Declaration: Given the significant unmitigated environmental impacts this high-density, high impact development is necessarily anticipated to cause, an Environmental Impact Report process must be allowed. We are taking an area that has traditionally provided percolation and spreading grounds for vast amounts of water coming from our mountains, allowing the water to filter down through the soil to

replenish our groundwater basin. We are covering those vital percolation areas over with houses and commercial development, laying concrete and roads, which will create additional runoff, pollution and degradation of water, while straining already diminishing supplies. We are taking an area which provides a corridor and refuge for wild animal and plant life, and are covering it over with development. Instead of the previously planned lake, the owner plans to leave a huge pit, a hole in the ground in the middle of housing development, to periodically collect polluted storm drain water, as "mitigation" for destruction of the natural habitat, and as flood control retention basins.

The project will create dust, particulate matter, air pollution, congestion, circulation problems, safety hazards and noise while the project is proceeding and all that grading of the alluvial plane takes place. But it will also create more smog and congestion and contribute to the worsening air quality in the county after the six phases of the project are completed and thousands of new residents are added to the city. This will bring already strained city services to a breaking point. (I.e., fire, police, library, schools, utilities, water, sewer, storm drains, streets.) If we are broke now, how is it going to be after the developers walk away with their millions of dollars of profits leaving the city to service thousands of new residents?

The City has obviously recognized all of these problems are inevitable if this project goes through, as shown by the checklist in the Initial Study.

HYDROLOGY AND WATER QUALITY AND SUPPLY IMPACTS:

I agree with most of the checks marks made, except on Page 24, Item 8(b). The Initial Study says it is "less than a significant impact" that the project will interfere with groundwater recharge. That is a mistake. One of the main functions the current "wash" provides is a groundwater recharge area. And no where does the initial report identify just how much additional water this project is going to require both in the construction stage and as an ongoing demand on existing supplies. I understand the City already must buy water from the State Water Project and MWD. Upland Citizens residing in the vicinity of the project have already reported a diminished water flow to their residences and yards since the Phase One grading work began. Rumors exist that the developers have not been required to install meters but are using city water without charge. Is that true? Please address this issue. The check on 8 (b) should be changed to show a significant impact by interference with groundwater recharge, depletion of groundwater supplies, possible drop in well levels and in water pressure.

VIEW OBSTRUCTION:

The density of the project is outrageous. On the Preliminary Land Use Plan, Luxury Attached Housing (LAH) is shown on 5.64 acres. But Table 2-1 shows 350 units anticipated or 70 units per acre! **How high are the structures going to be which support 70 units on an acre?** The beautiful view of the mountains above, and the valley below, always provided by that stretch of wash between Upland and Rancho Cucamonga is about to be forever erased by high rise multi-family housing.

IMPACTED SCHOOLS:

The initial report talks of mitigation of the school overcrowding problem, by way of a possible school site within the project area. However, no one discusses where the money will come from to build that school. The last school bond money from the state is about to be distributed in June—further state money will have to come in the future from new bonds. Meanwhile, how is the Upland School District going to meet the needs of the new population generated by this project?

EXPENSIVE INFRASTRUCTURE REQUIREMENTS:

The newspaper recently reported statements from the developers that the infrastructure may cost as much as \$130 million for streets, storm drains, flood control, etc. Is this true? Are the developers going to contribute this money? Or were they planning to have the citizens of the City of Upland pay these costs? Clearly, from the statements of the Redevelopment Agency Director, it was the latter. And clearly, established businesses in older parts of the City, and city residents and tax payers will suffer, while the developers of these new commercial and residential projects will walk away with hundreds of millions in profits. (The rumor is that the landowner bought the land for \$16 million, using a \$12 million loan and plans to sell the property for \$400 million when developed. Is this true?) How much is the infrastructure going to cost per lot? Who will pay this?

Also the Initial Study talks about a new fire station to service the area. But we have recently terminated fire department employees, and taken a fire engine out of service to save money. Where is the money coming from to build and staff a new fire station?

TRACT MAP EXPIRATION: Why, if this project was approved in 1988, didn't the tract map approvals expire by now? Why is the owner being allowed to start in on Phase I when it was approved so long ago and there

have been so many changes in the availability of utilities, water and other services since the plan was first approved?

REQUIRE SOLAR POWER:

If, notwithstanding all of the unmitigated severe environmental impacts of this project, it is still approved by the city, (presumably for the "jobs", sales tax and commercial activity it is hoped to generate, or the campaign contributions given or promised) I respectfully request the following. Please consider requiring solar panels and other alternative renewable energy technologies be installed on each unit built in the project. If the City, by approval of this project, invites thousands of additional energy-consuming residents to move into this town, perhaps this is a perfect time to implement energy conservation methods, instead of further contributing to the power crisis.

Thank you for this opportunity to comment. Please add my name to the list of persons who receive a copy of the draft Environmental Impact Report. I look forward to commenting more fully at that time.

Sincerely,

A handwritten signature in black ink, appearing to read 'JM', is written over a long, horizontal, slightly wavy line that spans across the width of the signature area.

MARJORIE MUSSER MIKELS

PUBLIC COMMENT FORM

RECEIVED

MAY 07 2001

PROJECT NAME:

COMMUNITY DEVELOPMENT

Environmental Impact Report (EIR) for the Colonies at San Antonio Specific Plan Amendment.

NAME AND ADDRESS OF COMMENTOR: (include group or public agency affiliation, as applicable)

David Thorne 1419 Lemonwood, Upland

Telephone Number: 909-949-8046 (home), 909-949-1844 (work)

COMMENTS:

Please provide your comments on potential environmental issues/impacts which you feel should be addressed in further detail in the EIR. Attach additional pieces of paper, as needed.

This form and/or additional comments can be submitted to City Staff at the Scoping Meeting or mailed to the City of Upland, 460 North Euclid Avenue, Upland, California 91786, Attention: Sylvia Scharf, AICP, Senior Planner.

Breaking up 19th Street at Campus Ave seems like a bad idea. It will increase traffic congestion. I think 19th Street should be kept straight. The proposal looks like an attempt to keep west 19th Street residential, but many people already use 19th Street as a throughfare.

I'm glad to see that the open space part of the development increased to 58.64 acres. If done properly, the open space will be an attraction to bring people to the area.

I'm concerned about the proposed apartments/condos. 4 to 5 story apartments do not seem appropriate for North Upland. This proposal was not introduced at the hearing of May 3, 2001.

TO: Planning Commission
Chair Margaret Park
Vice Chair Max A. Van Balgooy
Commissioner Jim Sheridan
Commissioner Dale M. Klein
Commissioner Eldon McColl
Commissioner Carol S. Timm
Commissioner Jack Nisbet

RECEIVED

MAY 07 2001

COMMUNITY DEVELOPMENT

FROM: Mark Floyd

SUBJ: Upland

DATE: 23 April 2001

Dear Planning Commission,

It is amazing how the Upland City Councilman talk about what needs to be done when it comes time for elections, but after the election nothing really gets done. All we hear is that they want to develop commercial locations around the 30/210 freeway (stores, a hotel, a movie theater, a car dealer ship and etc.), but in return that will take away from Foothill Boulevard and Mountain. Then Foothill Boulevard will become just like Holt Boulevard in Ontario, also by developing commercial locations around the 30/210 freeway, will bring down the residential land value.

Q - Why do residents take their money outside Upland City Limits to Ontario, Montclair and Rancho Cucamonga?
A - Because Upland doesn't have some of the businesses people are looking for.

Q - How can this be resolved?
A - Using Foothill Blvd. (Historical Route 66), Mountain, Euclid and Downtown Upland to its fullest.

Q - What can make things worse?
A - Mis-using I-30 by putting stores, a hotel, a movie theater, a car dealer ship and etc. up there and taking away from Foothill Blvd. (Historical Route 66), Mountain, Euclid and Downtown Upland.

- A. Upland has a lot of prime real estate just sitting around not being used to its fullest. But what type of businesses should be brought into Upland to make Uplanders shop in Upland, instead of going outside.
1. Restaurants, Upland needs more big name restaurants for dining out. At the present time, one must go to Montclair or Rancho Cucamonga for most foods. After a hard day at work, most people do not want to drive further just to go out and eat. At the Foothill and Euclid area you have room for an Acapulco, Claim Jumper, Chili's, Tony Romas, TGI Friday's and even a Krispy Kreme Doughnuts. All which would bring in money.
 2. Place a Barnes & Noble in the old Ralph's on Foothill. A lot of mothers have to take their kid for books, students need information that a lot of times the library does not have.
 3. The old gas station across from Taco Bell, put in a drive through Starbucks, like the one in LaVerne on Foothill.
 4. Place a Petco in the old Amar Ranch Market, people have animals.
 5. Place Staples in the old grocery store next to Sav-On on Euclid and Foothill.
 6. Place a Wendy's in the parking lot in front of Mervyn's.
 7. Place a Fuddrucker's on Foothill.
 8. At the corner of Benson and Baseline, put a Dairy Queen. Use the existing building.
 9. The old theater in down town, buy the buildings next to it, and put a new eight-screen multiplex with stadium seating in, with a two level parking garage across the street. Something like Monrovia did in their downtown area. There are other entertainment companies other than Edwards and AMC out there, like UA. This would bring in the businesses down town like specialty stores, sidewalk dining, florist & crafts, help out the antiques shops and the bakery.

- B. With the increase in homes like:
- 124 new homes @ Benson and 16th St.
 - 42 new homes @ Benson and the 30 freeway
 - 1500 new homes @ Campus and 19th area (Colonies)

Upland needs another High school (North Upland High). It could be placed on the north side of 19th street. We can not keep cramming kids into one area. Also place more Senior citizen housing in that area, which needed very badly.

- C. What Upland does not need next to the new freeway:

1. Another grocery store. I live just north of the new I-30 freeway and I already have nine (9) grocery stores within five (5) miles of my residence.
2. Another movie theater, auto center, a Hotel and stores. We should be trying to bring businesses downtown Upland area, Foothill Blvd., Mountain Ave., Euclid, and Benson. Majority of the homes Northern Upland (30/210 freeway) are valued at a half million and up. My father and sister are architects plus I study it. So all you are going to do is bring down the property values and increase crime. In return the city will lose revenue.

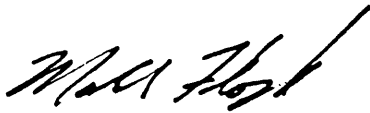
- D. Another small things to help promote the city are to get a better web site. Upland's site is less informative does not jump out at you or the information is not laid out effectively. The city of Rialto has a better web site (<http://www.ci.rialto.ca.us/>); it promotes the Metrolink and also Rialto Airport. You do not see anything about the Metrolink, Cable Airport, or the schools in Upland.

- E. Last thing is to raise the gravel pit north of Cable Airport and put the retail there, like an auto center. This keeps it close to Foothill (Route 66) and close to the I-30/210 freeway.

As stated during the meeting 16 Jan., closing a fire station would save the city money in the long run, rather than laying off fireman and then having to rehire fireman later when the Colonies are built. The city of Rialto closed down one out of four fire stations last year, instead of cutting firemen. It is bad enough that the ambulance service always arrives about 8 to 10 minutes after the firemen do now. I know, because we have had to call for the ambulance three times.

It is time for the City Planning Commission to act and start listening to people. I work for 3M in Monrovia, and have the choice to live close to work in San Dimas or drive the distance to Upland. I chose Upland eight years ago, but if this does not get better, than my family and I will move.

Thank You,



Mark Floyd

RBF
CONSULTING
MEMORANDUM

To: Glenn Lajoie, MS 455
From: Kelly Strain, MS 455
Date: May 4, 2001
Subject: Colonies at San Antonio EIR Scoping Meeting

JN 10-101248

At your request, listed below is a summary of the environmental concerns raised during the Public Scoping meeting held on May 3, 2001:

- Traffic impacts (speed and volume) associated with through traffic in the Eastgate community;
- Dust control during grading activities and short term mitigation;
- Extension of the NOP comment deadline;
- Water Quality for outflow structures at 19th and 20th Streets;
- Need for expansion of fire service;
- Traffic related impacts associated with the realignment of Campus Avenue/210 freeway;
- Traffic related impacts associated with the 19th Street realignment (i.e. Sapphire Street);
- Proposed movie theater traffic impacts;
- Impacts to existing schools;
- Concerns regarding potential commercial tenants (i.e., fast foods);
- Impacts of lighting on the neighboring Eastgate community;
- Viewshed impacts for neighboring communities (i.e., heights of proposed structures);
- Police service response time affects associated with the proposed commercial uses;
- Water availability and Increased water consumption due to the proposed project;
- Traffic impacts to Euclid Avenue due to proposed development;
- On-site Drainage and Hydrology impacts associated with runoff from the 20th Street and 19th Street storm drains;
- Traffic impacts to 21st Street;
- Noise and Lighting impacts associated with the proposed commercial uses;
- Request for details on the proposed buffering plans (i.e. landscaping and trails along the southern boundary of the proposed project);
- Water safety (i.e., drowning) issues with the proposed open space/water features area;

PLANNING DESIGN CONSTRUCTION

14725 Alton Parkway, Irvine, CA 92618-2027 ■ P.O. Box 57057, Irvine, CA 92619-7057 ■ 949.472.3505 ■ Fax 949.472.8373

Offices located throughout California, Arizona & Nevada ■ www.RBF.com

printed on recycled paper

- Traffic impacts associated with Tanglewood Avenue/Hummingbird Lane (i.e., four lane road into two lanes);
- Need for new stop signs on Campus Avenue/Viewpoint;
- Breakdown of traffic impacts (i.e., Phase I, SR 210, and Project);
- Traffic impacts associated with the proposed commercial uses;
- Flood hazards associated with 100 and 500-year floodplains;
- Economic effects to the City due to the implementation of the proposed project;
- Commercial impacts on local neighborhoods;
- Impacts to wildlife (i.e., coyotes, etc);
- Request to have information regarding the proposed project on the City website;
- Social factors regarding seniors and youth;
- Increased need for facilities for pedestrians and bicycles; and
- Land Use compatibility.

15.2 Traffic Study

Faint, illegible text at the top of the page, possibly a header or introductory paragraph.

THE [illegible]

Main body of faint, illegible text, likely the primary content of the document.

Second section of faint, illegible text, possibly a continuation or a separate paragraph.

Faint, illegible text at the bottom of the page, possibly a footer or concluding paragraph.

NOTE TO REVIEWERS:

**KIMLEY-HORN ASSOCIATES REPORT IN ITS
ENTIRETY IS AVAILABLE FROM
THE CITY OF UPLAND UPON REQUEST.**

**TRAFFIC STUDY
FOR
THE COLONIES AT SAN ANTONIO
IN THE CITY OF UPLAND**

Prepared for:

The City of Upland

Prepared by:

Kimley-Horn and Associates, Inc.
2100 W. Orangewood Avenue, Suite 140
Orange, California 92868

June, 2002

TABLE OF CONTENTS

	Page
INTRODUCTION.....	1
HISTORY OF THE PROJECT	2
PROJECT DESCRIPTION.....	2
Project Land Uses	2
Project Network Changes.....	5
ANALYSIS METHODOLOGIES	5
Traffic Volume Forecast Development.....	7
Traffic Operations Analyses	7
Level of Service Standards	8
Measure of Significant Impact.....	9
DEFINITION OF STUDY AREA BASED ON PROJECT TRAFFIC CONTRIBUTION	9
Extent of Study Area.....	9
Project Trip Generation.....	9
Trip Distribution and Assignment	15
TRANSPORTATION IMPROVEMENTS	21
EXISTING CONDITIONS	21
Roadway Characteristics.....	24
Existing Roadway System and Daily Traffic Volumes.....	25
Existing Peak Hour Traffic Volumes.....	25
Existing Peak Hour Operating Conditions.....	30
FUTURE TRAFFIC CONDITIONS	30
Year 2011 Background Operating Conditions.....	32
Year 2011 With Project (Phases 1 and 2)	32
Year 2015 Background Operating Conditions.....	36
Year 2015 With Project (Phases 1, 2, and 3)	36
Year 2020 Build-out Without Project.....	40
Year 2020 With Project (Phase 3 Total Project).....	43
CMP Freeway Evaluation	46
NEEDED IMPROVEMENT COSTS AND PROJECT CONTRIBUTION	51
Summary of Future Intersection Operation.....	51
Intersection Improvements.....	52
Freeway Impacts	56
SUMMARY OF FINDINGS AND CONCLUSIONS.....	56

APPENDICES

APPENDIX A	Peak Hour Roadway Link Post-Processing Worksheets
APPENDIX B	The Colonies Project Resume
APPENDIX C	Project Traffic and Select Zone Worksheets
APPENDIX D	Existing Peak Hour Traffic Count Sheets
APPENDIX E	HCS Intersection Analysis Worksheets

THE COLONIES AT SAN ANTONIO

LIST OF FIGURES

	Page
FIGURE 1 - Project Vicinity Map	3
FIGURE 2 - Project Site Plan	4
FIGURE 3 - Network Changes in Project Vicinity	6
FIGURE 4 - CMP Study Area – Five-Mile Radius.....	10
FIGURE 5 - Project Traffic Distribution.....	16
FIGURE 6 - Project Traffic – Phases 1 and 2	17
FIGURE 7 - Project Traffic – Phase 1, 2, and 3.....	18
FIGURE 8 - Study Intersections	22
FIGURE 9 - City of Upland Circulation Element	23
FIGURE 10 - Existing Average Daily Traffic Volumes	26
FIGURE 11 - Existing Peak Hour Traffic Volumes.....	27
FIGURE 12 - Existing Intersection Configurations	28
FIGURE 13 - Year 2011 Peak Hour Traffic Volumes – Without Project	33
FIGURE 14 - Year 2011 Peak Hour Traffic Volumes – With Project	35
FIGURE 15 - Year 2015 Peak Hour Traffic Volumes – Without Project.....	38
FIGURE 16 - Year 2015 Peak Hour Traffic Volumes – With Project	39
FIGURE 17 - Year 2020 Peak Hour Traffic Volumes – Without Project.....	42
FIGURE 18 - Year 2020 Peak Hour Traffic Volumes – With The Colonies Total Project.....	44

LIST OF TABLES

	Page
TABLE 1 - The Colonies at San Antonio – Phase 1 Trip Generation	12
TABLE 2 - The Colonies at San Antonio – Phase 2 Trip Generation	13
TABLE 3 - The Colonies at San Antonio – Phase 3 Trip Generation	14
TABLE 4 - Summary of Project Traffic on CMP Freeway Segments	19
TABLE 5 - Summary of Freeway Operations – Existing Conditions	29
TABLE 6 - Summary of Intersection Operation – Existing Conditions	31
TABLE 7 - Summary of Future Intersection Operation – Without Project	33
TABLE 8 - Summary of Intersection Operation – Year 2011 With and Without Project	37
TABLE 9 - Summary of Intersection Operation – Year 2015 With and Without Project	41
TABLE 10 - Summary of Intersection Operation – Year 2020 With and Without Project	45
TABLE 11 - Summary of Freeway Operations – Year 2015 Without Project	47
TABLE 12 - Summary of Freeway Operations – Year 2015 With Project	48
TABLE 13 - Summary of Freeway Operations – Year 2020 Without Project	49
TABLE 14 - Summary of Freeway Operations – Year 2020 With Project	50
TABLE 15 - Summary of Intersection Operation with Improvements	53
TABLE 16 - Summary of Intersection Improvement Costs.....	54
TABLE 17 - Summary of Project Fair Share Improvement Costs.....	55

**TRAFFIC IMPACT STUDY
FOR THE PROPOSED COLONIES AT SAN ANTONIO
Mixed-Use Development
In The City Of Upland**

INTRODUCTION

This Traffic Impact Study has been prepared for The Colonies at San Antonio (The Colonies) mixed-use development located in the northeast area of the City of Upland. The project site is located south of 20th Street, north of 16th Street and generally east of Campus Avenue, with one development parcel west of Campus Avenue. Phase One of the project, a tract of 305 single-family dwelling units at the southeast edge of the project site, has already been approved, and is under construction. The applicant proposes to develop the remainder of the site to include single-family dwelling units, condominiums, local and regional shopping centers with specialty retail uses, restaurants and gas stations, a movie theatre, an office building, a hotel, a health club, a day care center, a restaurant, two service stations with convenience markets and car washes, two fast-food restaurants with drive-through windows, and automobile dealerships. The site is currently vacant.

This study addresses the estimated trips to be generated by the project and possible project-related impacts on the surrounding circulation system for three project phases and three analysis years:

- Phases One and Two, in Year 2011
- Total Project (Phases One, Two, and Three) in Year 2015 (representing Opening Day of the project), and
- Total Project in Year 2020 (representing build-out of the City of Upland).

The following discussion includes a description of existing traffic conditions in the surrounding area, estimated project trip generation and distribution, future traffic growth, and an assessment of project-related impacts on the roadway system. Where necessary, circulation system improvements have been identified to ensure satisfactory operating conditions in the vicinity of the project.

The traffic issues related to the proposed Colonies development have been analyzed following the traffic impact guidelines stipulated in the Congestion Management Program (CMP) for San Bernardino County (2001 Update). CMP guidelines require that any development project estimated to generate 250 (or 1,000 for retail uses) two-way peak hour trips must be evaluated in accordance with the requirements of the CMP. The Colonies development is estimated to generate 3,233 total two-way morning peak hour trips and 6,539 two-way afternoon peak hour trips. This level of traffic is in excess of the CMP thresholds and thus, the project is subject to CMP analysis requirements.

The following analysis scenarios were conducted for this study:

- Existing traffic conditions
- Year 2011 background
- Year 2011 with Phases 1 and 2 of the project
- Year 2015 background
- Year 2015 with Phases 1, 2, and 3 of the project (Total Project)
- Year 2020 (General Plan Build-out)
- Year 2020 with the completed project.

HISTORY OF THE PROJECT

The Upland City Council certified an Environmental Impact Report (EIR No. 800) for the project site in 1988. A Supplemental EIR for a revision of the project was certified by the City Council in October 1998 in conjunction with the first phase amendment to the Colonies Specific Plan. A new EIR is now being prepared in conjunction with the current proposed revision to the Specific Plan.

PROJECT DESCRIPTION

Project Land Uses

The project will occupy approximately 434 gross acres, located south of 20th Street, west of the Cucamonga Creek Flood Control Channel, north of 16th Street/Baseline Road, and east of Campus Avenue in the City of Upland, California. A project vicinity map is shown on **Figure 1**. The proposed project site plan is shown on **Figure 2**.

The project will be a mixed-use development consisting of residential, commercial and specialty retail uses, a movie theatre, an office building, and freeway commercial uses. When completed, The Colonies development is proposed to consist of:

South of the I-210 Freeway

- 350 condominiums,
- 800 single-family homes,
- a 900-student elementary school,
- 814,000 square feet of local and regional shopping centers, including anchor tenant retail buildings, grocery and drug stores, ancillary in-line and pad retail shops, stand-alone and in-line restaurants, specialty retail uses and gas stations,
- a 3,900-seat movie theatre,
- an 80,000 square-foot office building,

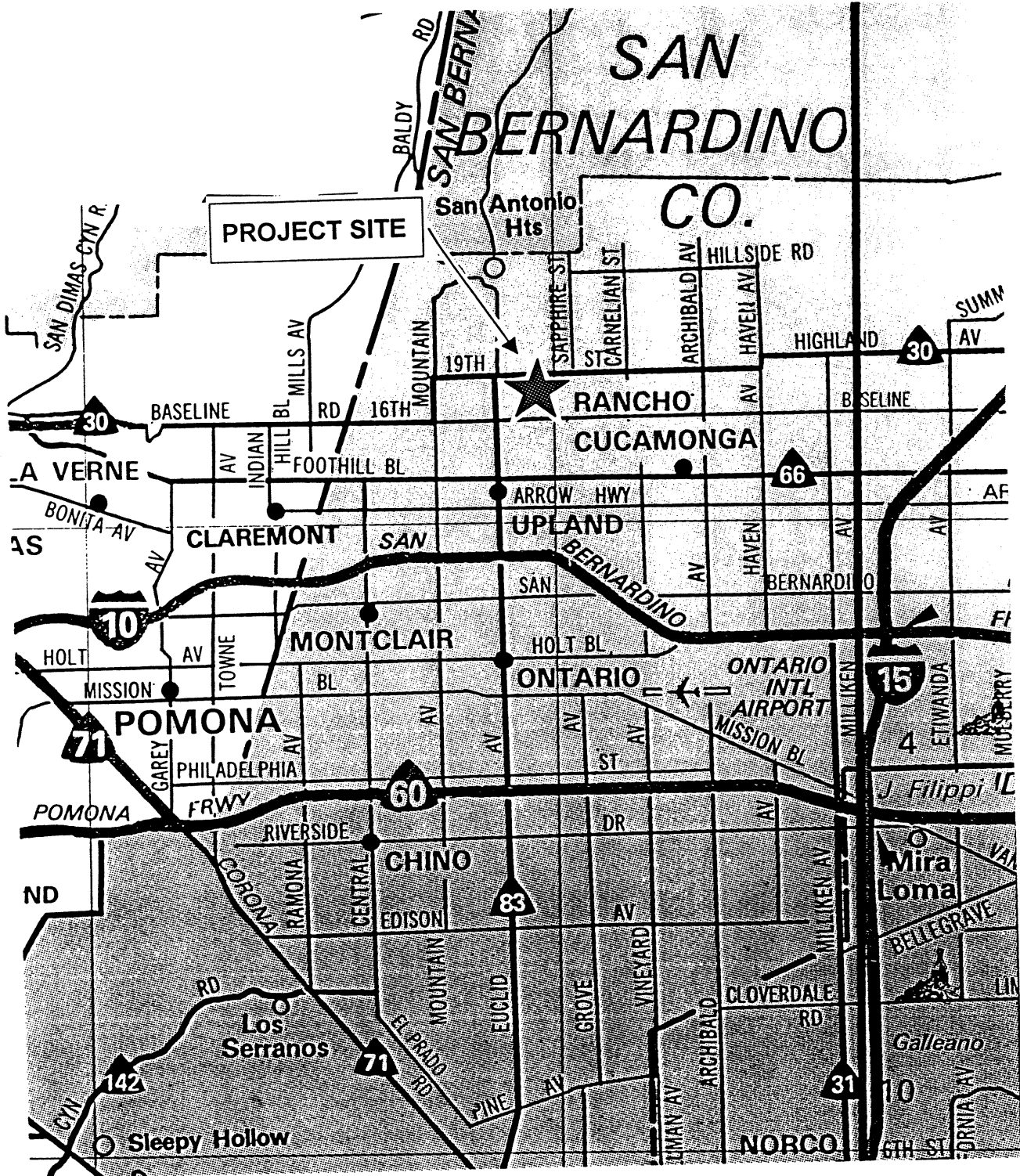
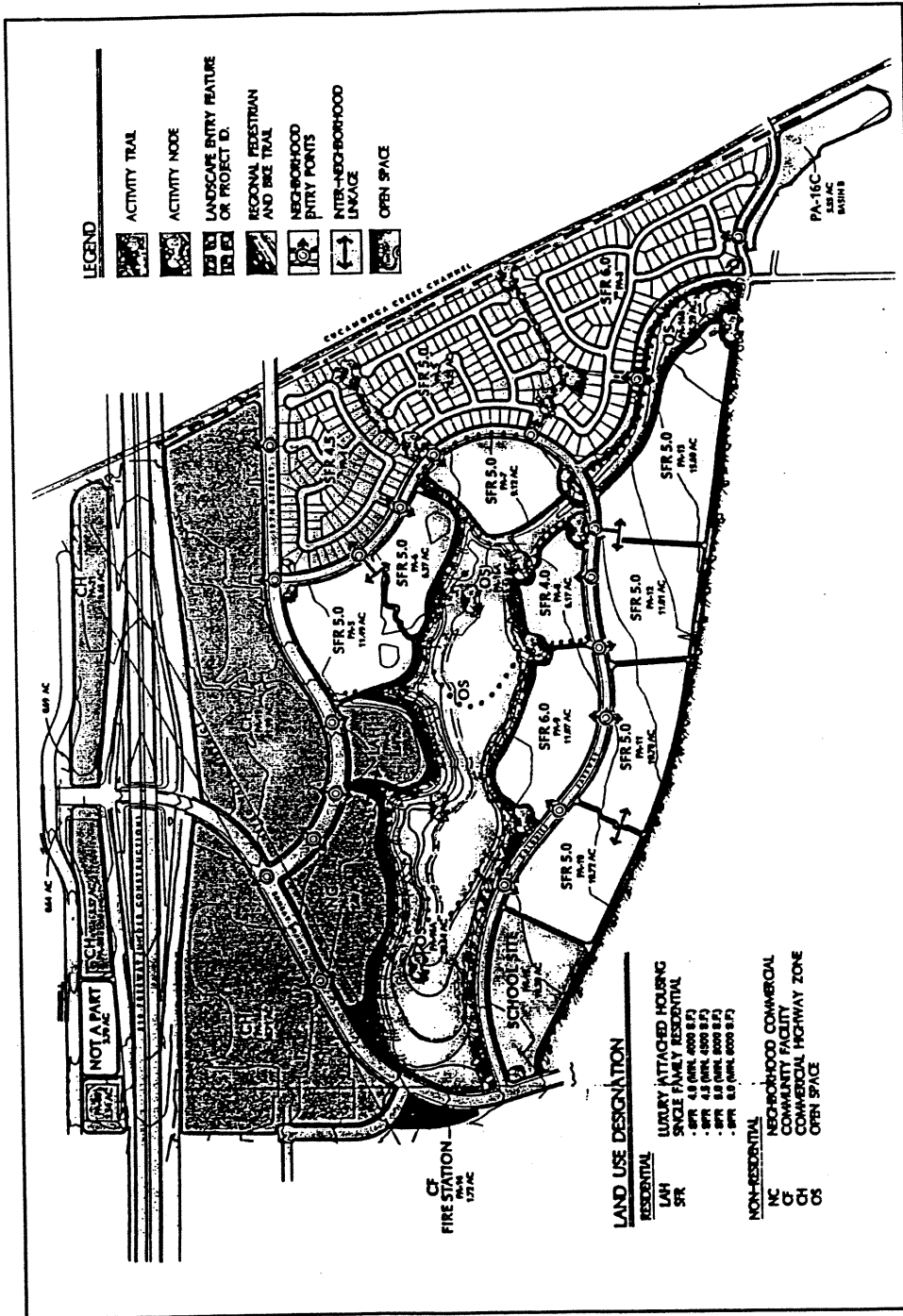


FIGURE 1
PROJECT VICINITY MAP



LEGEND

- ACTIVITY TRAIL
- ACTIVITY NODE
- LANDSCAPE ENTRY FEATURE OR PROJECT ID.
- REGIONAL PEDESTRIAN AND BIKI TRAIL
- NEIGHBORHOOD ENTRY POINTS
- INTR-NEIGHBORHOOD LINKAGE
- OPEN SPACE

LAND USE DESIGNATION

RESIDENTIAL

LURLEY ATTACHED HOUSING
SINGLE FAMILY RESIDENTIAL

- SFR 4.5 (AREA 4000 S.F.)
- SFR 4.5 (AREA 4500 S.F.)
- SFR 5.0 (AREA 4000 S.F.)
- SFR 6.0 (AREA 4000 S.F.)

NON-RESIDENTIAL

- NC NEIGHBORHOOD COMMERCIAL
- CF COMMUNITY FACILITY
- CH COMMERCIAL HIGHWAY ZONE
- OS OPEN SPACE

Source: Colonias Crossroads Inc., February 2001.

**FIGURE 2
PROJECT SITE PLAN**

North of the I-210 Freeway

- a 150-room hotel,
- a 40,000 square-foot health club,
- a 4,000-square foot day care center,
- a 6,000 square-foot high-turnover restaurant,
- two 12-pump service stations with convenience markets and car washes,
- two fast-food restaurants (total of 8,000 square feet) with drive-through windows, and
- 80,000 square feet of automobile dealership uses.

The hotel, health club, day care center, restaurants, service stations, and automobile dealerships will be located between 20th Street and the future Interstate 210 freeway (I-210) on either side of Campus Avenue. Two regional shopping center sites, including the restaurants, gas stations, movie theatre and the office building will be located south of I-210, north of 19th Street, on either side of Campus Avenue. The smaller neighborhood commercial site will be located south of the intersection of Campus Avenue and 19th Street. All of the housing development areas will be located south of 19th Street and east of Campus Avenue.

Project Network Changes

The project also proposes changes to the arterial street system through the project site and in the immediate project vicinity. The network changes proposed in the vicinity of the project are depicted on **Figure 3**, and are summarized below.

- 19th Street will be realigned through the project site, and offset to form two arterial T-intersections at 16th Street. The four-way intersection of 19th Street and Campus Avenue will be replaced in the “With Project” condition with 19th Street at Campus Avenue North, and 19th Street at Campus Avenue South. The shopping center on the northwest side of Campus Avenue will have a main driveway that will align with and form the fourth leg of 19th Street at Campus Avenue North.
- The shopping centers will take primary access from a number of driveways along 19th Street.
- A loop road known as Colonies Parkway will wind in a curvilinear fashion through the project site connecting with 19th Street on the north, and Campus Avenue on the west. Colonies Parkway will provide access to the residential planning areas.
- Existing Tanglewood Avenue which connects to Colonies Parkway, will provide a secondary project access to 16th Street, to the south.
- 18th Street will continue to be terminated west of Campus Avenue, and will not connect to realigned 19th Street, as shown on the City’s Circulation Element.

ANALYSIS METHODOLOGIES

The methodologies used to conduct the traffic analyses in this report are consistent with the requirements of the San Bernardino County CMP document, and are described below.



Not to scale

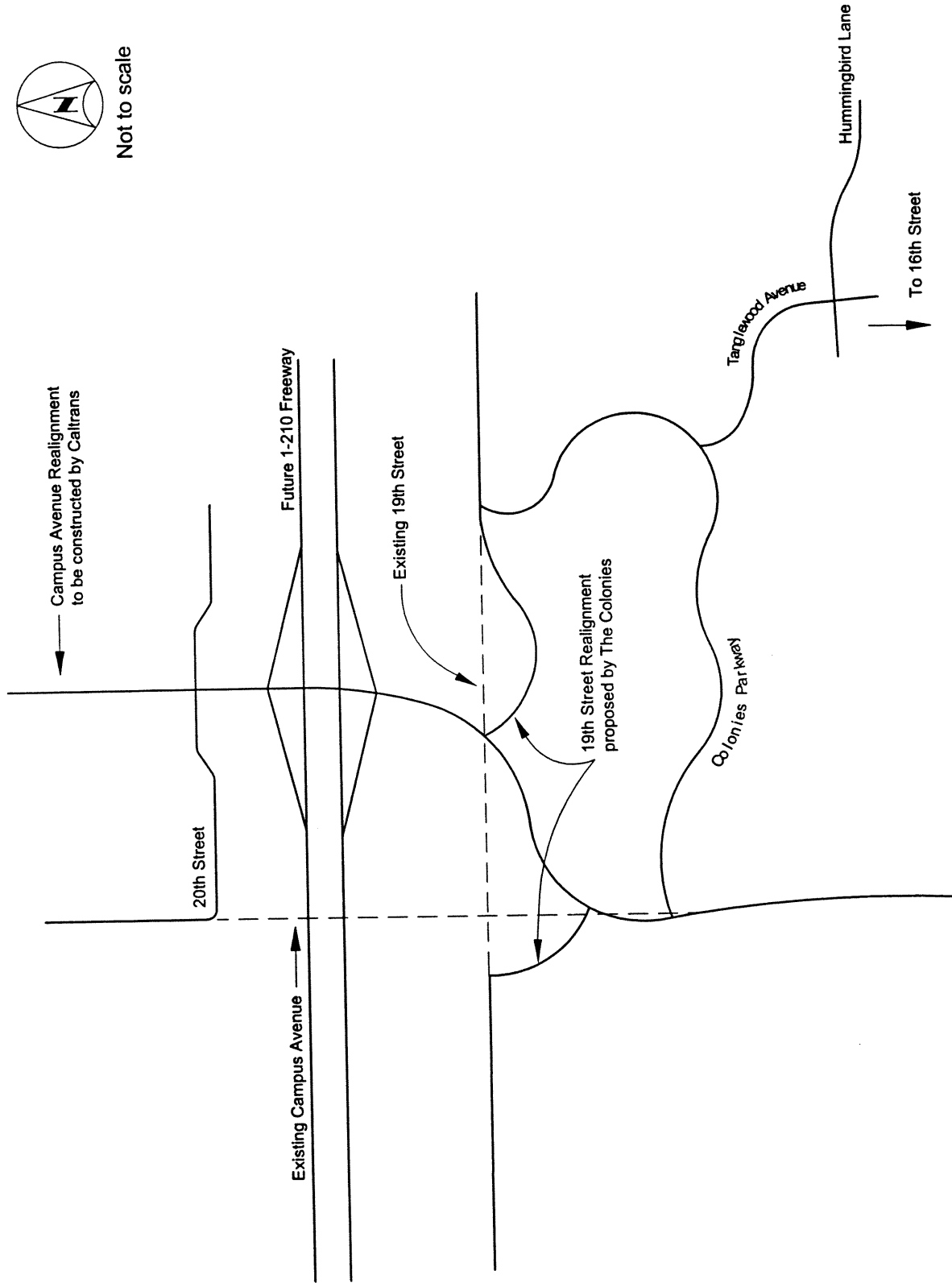


FIGURE 3
NETWORK CHANGES IN PROJECT VICINITY



Kimley-Horn and Associates, Inc.

Traffic Volume Forecast Development

As previously stated, traffic conditions are analyzed in this report for existing conditions and three future scenarios. For existing conditions at the study area intersections, traffic volume data was collected in the field. For existing conditions on the study area freeway segments, traffic volume data was collected from the Caltrans website.

For the three future year scenarios, peak hourly directional link volumes and the peak hourly turning movement intersections volumes were developed using the Southern California Association of Governments (SCAG) 1994 and 2020 Base Comprehensive Transportation Program (CTP) traffic models. Peak period directional link data was extracted from the model, and future peak hour turning movement volumes for each study year were derived using a post-processing methodology (known as "B-Turns") developed by SCAG. For each roadway link within the study area, the 26-year growth increment between Years 1994 and 2020 model-generated peak period traffic volumes was determined and converted to peak hourly traffic volumes. Because growth between the Years 1994 and 2001 (7 years) has already occurred, the growth increment for each study area roadway link was reduced to reflect only growth between Years 2001 and 2020 (19 years), using a factor of 0.73. This amount of growth was added to the Year 2001 ground counts conducted in the study area, resulting in adjusted Year 2020 traffic volumes on the study area roadway links.

For the Year 2011 and 2015 study scenarios, the growth increment per year was calculated based on the model volume comparisons and the appropriate level of growth for each study scenario year was added to the Year 2001 ground counts, resulting in Year 2011 and Year 2015 traffic volumes on the study area roadway links. For the Year 2011 study scenario, ten years of growth was added to existing (Year 2001) counts, and for the Year 2015 study scenario, fourteen years of growth was added. Roadway link post-processing spreadsheets are provided in *Appendix A* of this report.

The future forecast peak hourly turning movements at each of the study area intersections were developed using SCAG's B-Turns program, which was developed to be consistent with the methodologies in the National Cooperative Highway Research Program (NCHRP) Report 255. The post-processed peak hourly roadway link directional volumes were input into the B-Turns program for each intersection along with the existing turning movements counted at each intersection. The program estimates future intersection turning movements by allocating the directional link volumes to separate movements based on the percentage split of existing turns at each intersection. An example of this procedure is also provided in Appendix A of this report.

Traffic Operations Analyses

The San Bernardino CMP requires analysis of traffic operations to be based on the current methodologies of the Highway Capacity Manual (HCM), (Transportation Research Board Special Report 209). The CMP does not define the specific software to be used in the analysis, but allows the use of several software packages that are consistent with the HCM methodologies. The intersection

analysis for the Colonies project has been accomplished using the Highway Capacity Software (HCS) software program using the specific input data as outlined in Appendices A and C of the CMP. For signalized intersections, the level of service is determined by calculating the average total delay in seconds per vehicle for all vehicles traveling through the intersection. The following table defines LOS in terms of level of delay per Table 9-1 of the Highway Capacity Manual:

Level of Service Criteria For Signalized Intersections	
Level of Service	Seconds of delay per vehicle
A	0.00 – 10.00
B	10.01 – 20.00
C	20.01 – 35.00
D	35.01 – 55.00
E	55.01 – 80.00
F	> 80.00

The CMP considers signalized intersections to be operating at LOS F if the overall intersection volume-to-capacity (v/c) ratio equals or exceeds 1.0, regardless of the delay value. The V/C ratio is defined as the sum of the critical volumes divided by the intersection capacity.

The analysis of freeway segments was conducted as outlined in Appendix A of the CMP, which involves application of the HCM methodologies.

Level of Service Standards

According to the San Bernardino CMP, LOS “E” is the minimum threshold at all CMP intersections. According to the CMP, any intersection with a volume-to-capacity (V/C) ratio of 1.00 or greater, regardless of the delay value, is to be designated LOS F. The CMP level of service (LOS) standard for all freeway segments and intersections is “LOS E or the current level, whichever is farthest from level of service A”.

For freeway facilities, the CMP definition of deficiency specifies the goal of maintaining LOS “E” operations or better, unless an existing LOS “F” condition is identified in the San Bernardino CMP (Table 2-1). By CMP definition, therefore, a freeway segment is deficient if it is found to be operating, or is projected to operate at LOS “F”, unless the segment is already identified as LOS “F” in the CMP document.

A CMP deficiency will require further analysis in order to satisfy CMP requirements, including:

- Identify mitigation measures required to achieve acceptable Level of Service operations
- Calculate the project’s fair share portion of the growth traffic at each impacted intersection, and

- Estimate the cost required to implement the improvements required to achieve acceptable level of service.

The City of Upland has a target Level of Service is LOS “D” for peak hour intersection operation.

Measure of Significant Impact

The City of Upland and the CMP do not specify criteria for identification of significant traffic impacts beyond stating that the CMP LOS standard needs to be maintained. For those intersections and freeway segments identified on Table 2-1 of the CMP as already deficient, a project impact of 0.10 or greater increase in V/C would be considered significant. For all other freeway segments and intersections, project traffic would be considered to contribute a significant impact is the project either 1.) causes a freeway segment or study intersection to worsen to an unacceptable level of service, or 2.) contributes measurable delay to a freeway segment or intersection already operating at an unacceptable level of service.

DEFINITION OF STUDY AREA BASED ON PROJECT TRAFFIC CONTRIBUTION

Extent of Study Area

The study area for the project is determined based on the contribution of project traffic to the surrounding street and freeway system. The CMP requires that the study area for the traffic impact analysis include all freeway segments where the proposed project would add 100 or more two-way peak hour trips and other CMP roadways where the project would add 80 or more two-way peak hour trips. Within the defined study area, CMP intersections to which the project will add measurable traffic will be analyzed. In addition, selected local intersections are also be included for study because of their proximity to the project site. Distribution of project traffic is based on the CTP distribution and assignment of project traffic. The study area generally extends no more than five miles from the project site, and may extend into neighboring jurisdictions. The project site, and the surrounding five-mile radius is shown on **Figure 4**.

A discussion of the project trip generation, and the distribution of project traffic to the surrounding street system is provided in the following sections.

Project Trip Generation

Trip generation projections for the Colonies mixed-use project are based on daily and peak hourly trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (Sixth Edition). The Trip Generation manual does not contain trip generation rates for health club facilities, so the San Diego Association of Governments (SANDAG) Trip Generation rates were used..

Trip generation estimates were developed for each phase. Definition of the project study area, however, is based on the trip generation for the entire project.

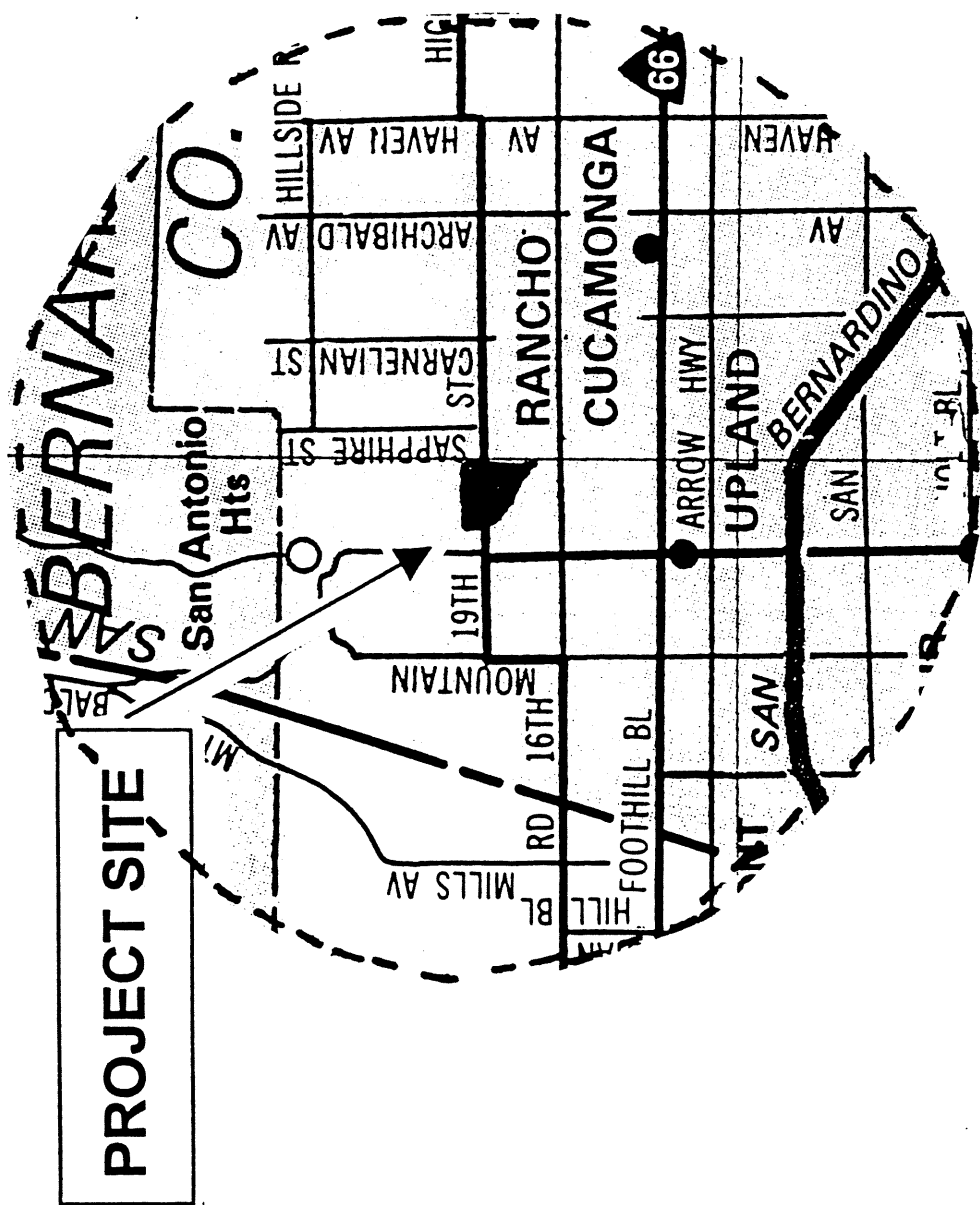


FIGURE 4
 CMP STUDY AREA
 FIVE-MILE RADIUS

The ITE Trip Generation Handbook was consulted to determine the pass-by factor for the commercial components of the project. The Trip Generation Handbook contains data documenting pass-by rates for a number of specific commercial uses, ranging from 17.2% for a discount store to 62% for a gas station. Given that the exact uses and quantities within the commercial areas are not yet defined, the general Shopping Center pass-by rate of 34% was applied to the commercial areas of the project south of the freeway. For the commercial areas north of the freeway, individual pass-by rates were applied to selected land uses, in accordance with the Trip Generation Handbook, as specified on Table 3.

Phase 1

The first phase of development will consist of 305 single-family homes, along the eastern edge of the project site. This phase of the project is already approved. Since it is part of the overall project, however, traffic from Phase 1 will be included in the Phase 2 and Phase 3 analysis. Trip generation rates and resulting trip generation estimates for Phase 1 are summarized on **Table 1**. Phase 1 will generate 2,892 trips on a daily basis, with 223 trips in the morning peak hour, and 293 in the evening peak hour.

Phase 2

Phase 2 will consist of development of the remaining project area south of the future I-210 Freeway. This entails 350 condominium/townhomes, 495 single-family residences, an elementary school, a total of 786,000 square feet of regional and local shopping center uses, a 3,800-seat theater, and 80,000 square feet of office space. A detailed summary of the proposed site uses within each Planning Area is provided in **Appendix B**. Trip generation estimates for Phase 2 are summarized on **Table 2**. Phase 2 is estimated to generate 49,378 daily trips, with 1,812 trips in the morning peak hour, and 5,045 in the evening peak hour. These total trip estimates do not take into account on-site interaction between the complementary uses within the project (i.e. trip attractions between residential and shopping, residential and employment, etc.) or pass-by traffic. With pass-by assumptions, Phase 2 is estimated to generate 35,833 new daily trips, with 1,506 new trips in the morning peak hour, and 3,781 in the evening peak hour. The CTP model accounts for internal trip interactions in the trip assignment process. The actual number of trips added to the surrounding street system, after site attractions and pass-by trips are taken into account, will be less than the raw trip generation estimates shown on Table 2. The combined, unadjusted trip generation for Phases 1 and 2 will be 52,270 daily trips.

Phase 3

Phase 3 will complete The Colonies project, and will comprise the project area located along the north side of the future I-210 Freeway. It will consist of a 150-room hotel, a 40,000-square-foot health club, a day-care center, two service/gasoline stations, restaurants, and auto sales lots. Trip generation estimates for Phase 3 are summarized on **Table 3**. Phase 3 is estimated to generate 15,049 daily trips, with 1,198 trips in the morning peak hour, and 1,201 trips in the evening peak hour. Again, these trip generation estimates do not reflect on-site interaction or pass-by trips.

TABLE 1
The Colonies at San Antonio
Phase 1 Trip Generation

Planning Area	Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
1, 2, 3	Single-Family Detached Housing	305	DU	2,892	56	167	223	188	105	293
TOTAL				2,892	56	167	223	188	105	293

Single-Family Detached Housing

ITE 6th Edition:	210		
Daily	$\ln(T) = 0.920 \ln(\text{Dwelling Units}) + 2.707$	50% In	50% Out
AM Peak Hour	$T = 0.700 * (\text{Dwelling Units}) + 9.477$	25% In	75% Out
PM Peak Hour	$\ln(T) = 0.901 \ln(\text{Dwelling Units}) + 0.527$	64% In	36% Out

TABLE 2
The Colonies at San Antonio
Phase 2 Trip Generation

Planning Area	Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
4	Residential Condominium/Townhouse	350	DU	1,888	23	115	138	116	57	173
5-13	Single-Family Detached Housing	495	DU	4,515	89	267	356	291	163	454
15	Elementary School	900	Student	918	153	108	261	0	0	0
17	Shopping Center	108	1000 SF	7,162	102	65	167	317	344	661
18	Shopping Center	410	1000 SF	16,889	226	144	370	765	828	1,593
19A	Shopping Center	210	1000 SF	10,984	152	97	249	492	533	1,025
19B	Shopping Center	58	1000 SF	4,802	70	45	115	210	228	438
19B	Movie Theater with Matinee	3,800	Seats	1,102	N/A	N/A	N/A	282	250	532
19B	General Office Building	80	1000 SF	1,118	137	19	156	29	140	169
Total Phase 2				49,378	952	860	1,812	2,501	2,544	5,045
Shopping Center - 34%				13,545	187	119	306	607	657	1,264
Total Phase 2 New Trips				35,833	765	740	1,506	1,895	1,887	3,781
Phase 1				2,892	56	167	223	188	105	293
TOTAL PHASE 1 AND 2 New Trips				38,725	821	907	1,729	2,082	1,992	4,074

Single-Family Detached Housing

ITE 6th Edition: 210

Daily $\text{Ln}(T) = 0.920 \text{Ln}(\text{Dwelling Units}) + 2.707$

AM Peak Hour $T = 0.700 * (\text{Dwelling Units}) + 9.477$

PM Peak Hour $\text{Ln}(T) = 0.901 \text{Ln}(\text{Dwelling Units}) + 0.527$

50% In 50% Out

25% In 75% Out

64% In 36% Out

Residential Condominium/Townhouse

ITE 6th Edition: 230

Daily $\text{Ln}(T) = 0.850 \text{Ln}(\text{Dwelling Units}) + 2.564$

AM Peak Hour $\text{Ln}(T) = 0.790 \text{Ln}(\text{Dwelling Units}) + 0.298$

PM Peak Hour $\text{Ln}(T) = 0.827 \text{Ln}(\text{Dwelling Units}) + 0.309$

50% In 50% Out

17% In 83% Out

67% In 33% Out

Elementary School

ITE 6th Edition: 520

Daily $\text{Ln}(T) = 1.007 \text{Ln}(\text{Students}) - 0.086$

AM Peak Hour $T = 0.29 * (\text{Students})$

50% In 50% Out

59% In 41% Out

Movie Theater with Matinee

ITE 6th Edition: 444

Daily $T = 0.29 * (\text{Seats})$

AM Peak Hour N/A

PM Peak Hour $T = 0.14 * (\text{Seats})$

50% In 50% Out

N/A In N/A Out

53% In 47% Out

General Office Building

ITE 6th Edition: 710

Daily $\text{Ln}(T) = 0.768 \text{Ln}(1000\text{'s of SF}) + 3.654$

AM Peak Hour $\text{Ln}(T) = 0.797 \text{Ln}(1000\text{'s of SF}) + 1.558$

PM Peak Hour $T = 1.121 * (1000\text{'s of SF}) + 79.295$

50% In 50% Out

88% In 12% Out

17% In 83% Out

Shopping Center

Passby: 34%

ITE 6th Edition: 820

Daily $\text{Ln}(T) = 0.643 \text{Ln}(1000\text{'s of SF}) + 5.866$

AM Peak Hour $\text{Ln}(T) = 0.596 \text{Ln}(1000\text{'s of SF}) + 2.329$

PM Peak Hour $\text{Ln}(T) = 0.660 \text{Ln}(1000\text{'s of SF}) + 3.403$

50% In 50% Out

61% In 39% Out

48% In 52% Out

TABLE 3
The Colonies at San Antonio
Phase 3 Trip Generation

Planning Area	Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
20	Hotel	150	Rooms	974	41	27	68	39	35	74
20	Health Club	40	1000 SF	1,200	6	6	12	105	67	172
20	Day Care Center	4	1000 SF	317	27	24	51	24	28	52
20	High-Turnover (Sit-Down) Restaurant	6	1000 SF	782	29	27	56	39	26	65
20	Gasoline/Service Station with Convenience Market and Car Wash	12	VFP	1,834	65	63	128	79	79	158
21	Specialty Retail Center	28	1000 SF	1,139	86	93	179	31	42	73
21	Fast-Food Restaurant with Drive-Through Window	8	1000 SF	3,969	203	196	399	139	129	268
21	New Car Sales	80	1000 SF	3,000	129	48	177	72	109	181
21	Gasoline/Service Station with Convenience Market and Car Wash	12	VFP	1,834	65	63	128	79	79	158
Total Phase 3				15,049	652	546	1,198	609	592	1,201
Commercial Passby (See Notes)				4,982	224	219	443	195	188	383
Total Phase 3 New Trips				10,067	428	327	755	414	405	818
Phase 1				2,892	56	167	223	188	105	293
Phase 2				35,833	765	740	1,506	1,895	1,887	3,781
TOTAL PHASES 1, 2, AND 3 New Trips				48,792	1,249	1,234	2,484	2,496	2,397	4,893

NOTES

Hotel

Daily $T = 8.946 * (\text{Rooms}) - 368.112$
AM Peak Hour $\text{Ln}(T) = 1.240 \text{ Ln}(\text{Rooms}) - 1.998$
PM Peak Hour $\text{Ln}(T) = 1.212 \text{ Ln}(\text{Rooms}) - 1.763$

ITE 6th Edition: 310
50% In 50% Out
61% In 39% Out
53% In 47% Out

Health Club

Daily $T = 30 * (1000\text{'s of SF})$ (Source: SANDAG Trip Generators)
AM Peak Hour $T = .3 * (1000\text{'s of SF})$
PM Peak Hour $T = 4.3 * (1000\text{'s of SF})$

ITE 6th Edition: 493
50% In 50% Out
46% In 54% Out
61% In 39% Out

Day Care Center

Daily $T = 79.26 * (1000\text{'s of SF})$
AM Peak Hour $T = 12.71 * (1000\text{'s of SF})$
PM Peak Hour $\text{Ln}(T) = 0.664 \text{ Ln}(1000\text{'s of SF}) + 3.026$

ITE 6th Edition: 565
50% In 50% Out
53% In 47% Out
47% In 53% Out

High-Turnover (Sit-Down) Restaurant

Daily $T = 130.34 * (1000\text{'s of SF})$
AM Peak Hour $T = 9.27 * (1000\text{'s of SF})$
PM Peak Hour $T = 10.86 * (1000\text{'s of SF})$

Passby: 43%

ITE 6th Edition: 832
50% In 50% Out
52% In 48% Out
60% In 40% Out

Gasoline/Service Station with Conv Market and Car Wash

Daily $T = 152.84 * (\text{Vehicle Fueling Positions})$
AM Peak Hour $T = 10.64 * (\text{Vehicle Fueling Positions})$
PM Peak Hour $T = 13.19 * (\text{Vehicle Fueling Positions})$

Passby: 62%

ITE 6th Edition: 846
50% In 50% Out
51% In 49% Out
50% In 50% Out

Specialty Retail Center

Daily $T = 40.67 * (1000\text{'s of SF})$ (AM Peak Hour of Generator was used)
AM Peak Hour $T = 6.41 * (1000\text{'s of SF})$
PM Peak Hour $T = 2.59 * (1000\text{'s of SF})$

Passby: 34%

ITE 6th Edition: 814
50% In 50% Out
48% In 52% Out
43% In 57% Out

Fast-Food Restaurant with Drive-Through Window

Daily $T = 496.12 * (1000\text{'s of SF})$
AM Peak Hour $T = 49.86 * (1000\text{'s of SF})$
PM Peak Hour $T = 33.48 * (1000\text{'s of SF})$

Passby: 49%

ITE 6th Edition: 834
50% In 50% Out
51% In 49% Out
52% In 48% Out

New Car Sales

Daily $T = 37.5 * (1000\text{'s of SF})$
AM Peak Hour $T = 2.21 * (1000\text{'s of SF})$
PM Peak Hour $T = 1.949 * (1000\text{'s of SF}) + 25.401$

ITE 6th Edition: 841
50% In 50% Out
73% In 27% Out
40% In 60% Out

With pass-by assumptions, Phase 3 is estimated to generate 10,067 new daily trips, with 755 in the morning peak hour, and 3,781 in the evening peak hour. The combined, unadjusted trips for the entire Colonies project are estimated to be 67,319 daily trips, with 3,233 trips in the morning peak hour, and 6,539 trips in the evening peak hour.

Trip Distribution and Assignment

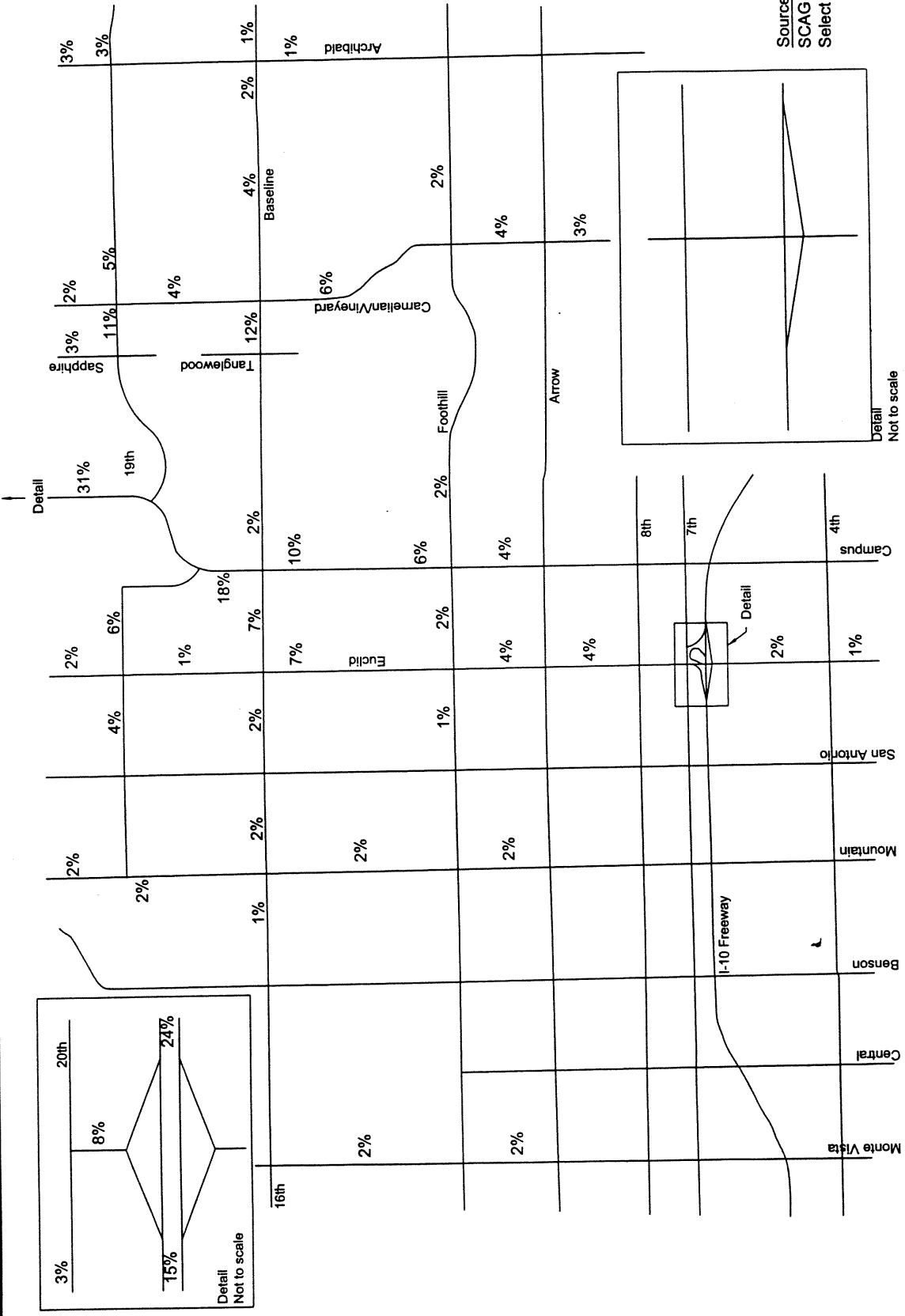
Trip distribution patterns for the project were developed using the SCAG CTP modeling process. The CTP model assigns trips from each zone in the network to appropriate land uses in other zones, taking into account complementary trip productions and attractions, such as residential to employment, residential to commercial, etc. The project site was split into separate zones representing seven major planning areas, and seven select zone runs were conducted for the morning and evening peak periods.

After the assignment process has taken place, the select zone runs isolate project traffic on each roadway link. These peak period directional approach volumes at the study intersections were then processed to develop peak hour project-related turning movement volumes. Copies of the CTP select zone model output plots, and accompanying spreadsheets which were used to develop peak hour turning movements for each study intersection, are provided in *Appendix C*. As stated earlier, the “raw” trip generation estimates shown in Tables 1, 2, and 3, do not reflect internal interaction between land uses or pass-by or diverted trips. Pass-by factors were derived from the ITE Trip Generation Handbook. The CTP model takes internal interactions between complementary land uses into account, and they are reflected in the resulting project traffic at the study intersection. Overall project traffic distribution percentages for The Colonies (total project) as derived from the Select Zone runs are shown on **Figure 5**. As review of Figure 4 reveals, the model distribution assumed that the majority of project traffic would be concentrated on 16th Street / Baseline Road, Euclid Avenue, and the I-210 Freeway.

Peak hour project traffic volumes for Phases 1 and 2, as derived directly from the Select Zone runs are shown on **Figure 6** and peak hour traffic for the Total Project are shown on **Figure 7**.

The total project traffic on freeway segments is shown on **Table 4**. Only segments with 100 or more two-way project trips need to be analyzed for CMP requirements. In the case of the I-210 Freeway, freeway analysis was conducted for Year 2020 conditions, but not for existing, since the freeway does not yet exist in the vicinity of the project.

Note: The CTP model forecasts show a decrease in traffic on the I-10 Freeway in the morning peak hour, and very low project traffic volumes in the evening peak hour. It appears that the explanation for this is the proximity of the project to the new I-210 Freeway. Traffic on the I-10 Freeway in the “Without Project” scenario appears to divert to the I-210 Freeway to access the project site.



Source:
SCAG CTP Model -
Select Zone Runs

**FIGURE 5
UPLAND - THE COLONIES PROJECT TRAFFIC DISTRIBUTION**





Not to scale

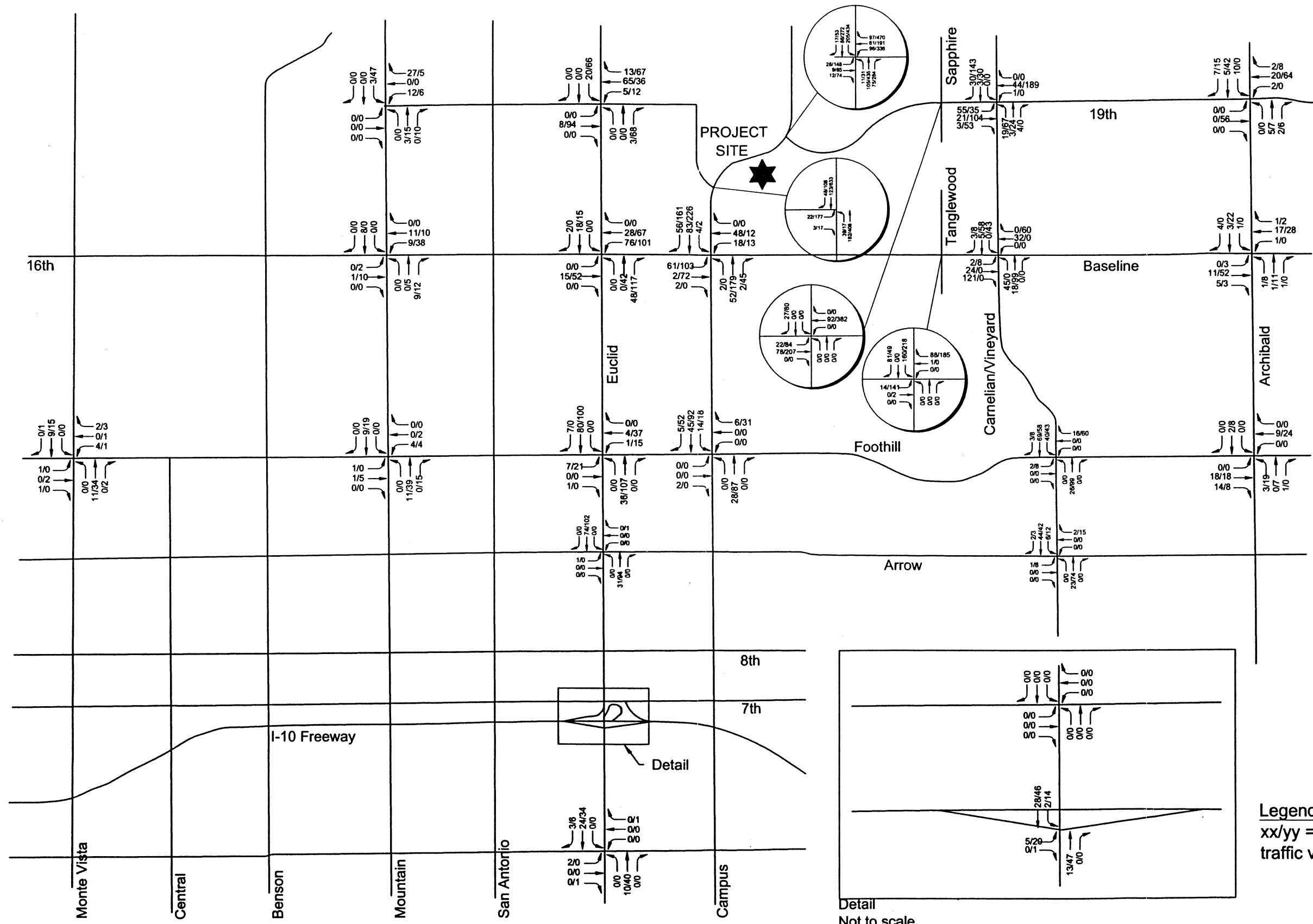
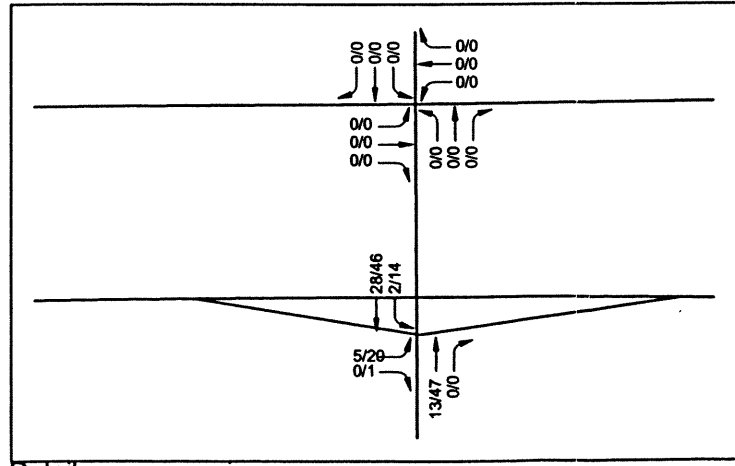


FIGURE 6
THE COLONIES PROJECT TRAFFIC - PHASE 1 AND 2

Legend:
 xx/yy = AM/PM peak hour
 traffic volumes



Detail
 Not to scale



Not to scale

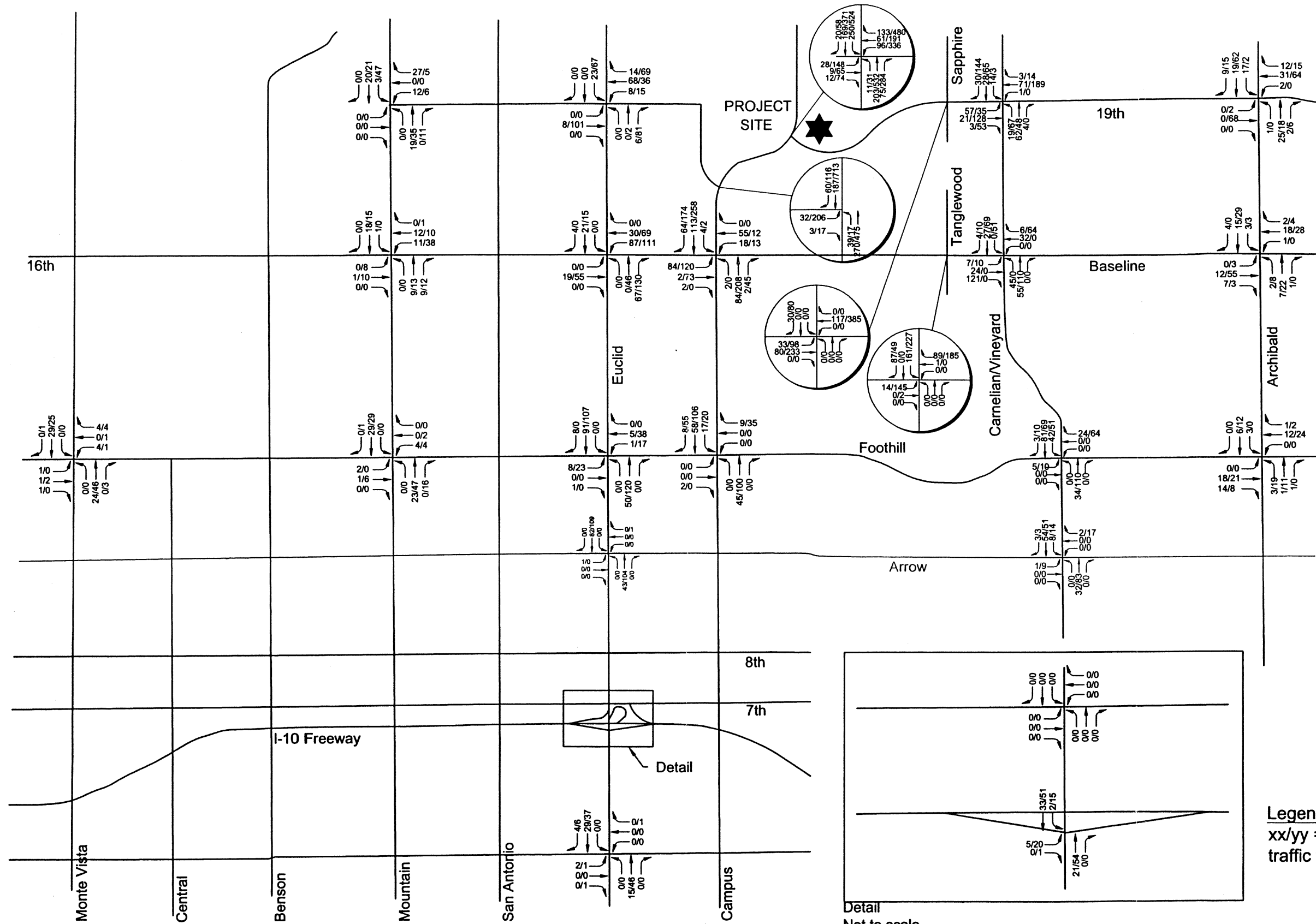


FIGURE 7
THE COLONIES PROJECT TRAFFIC - TOTAL PROJECT

TABLE 4
Summary of Project Traffic
on CMP Freeway Segments

Freeway Segment	Project Trips	
	AM Peak	PM Peak
Interstate 10		
Monte Vista to Central	203	-282
Central to Mountain	226	-214
Mountain to Euclid	340	-95
Euclid to Fourth	358	-162
Interstate 210		
Monte Vista to Central	60	364
Central to Mountain	640	1065
Mountain to Euclid	226	695
Euclid to Fourth	193	473
Carnelian to Haven	157	524
Haven to Milliken	173	402

Using the project trip generation as shown in Table 3 (Total Project trip generation) and “select zone” model runs of the Comprehensive Transportation Program (CTP) model, prepared by Southern California Association of Governments (SCAG), it was determined that the project traffic would meet or exceed CMP thresholds along the following CMP freeway segments and at the following key intersections:

Freeway Segments

- I-10 from Mountain Avenue to Fourth Street ⁽¹⁾
- I-210 (future) from Monte Vista to Haven Avenue

Intersections

1. 19th Street at Mountain Avenue
2. 19th Street at Euclid Avenue ⁽¹⁾
3. 19th Street at Campus Avenue ⁽²⁾
- 3a. 19th Street at Campus Avenue North ⁽²⁾⁽³⁾
- 3b. 19th Street at Campus Avenue South ⁽²⁾⁽³⁾
4. 19th Street at Carnelian Avenue (City of Rancho Cucamonga)
5. 19th Street at Archibald Avenue (City of Rancho Cucamonga)
6. 16th Street at Mountain Avenue
7. 16th Street at Euclid Avenue ⁽¹⁾
8. 16th Street at Campus Avenue ⁽²⁾
9. Baseline Road at Carnelian Avenue (City of Rancho Cucamonga)
10. Baseline Road at Archibald Avenue (City of Rancho Cucamonga)
11. Foothill Boulevard at Monte Vista Avenue
12. Foothill Boulevard at Mountain Avenue ⁽¹⁾
13. Foothill Boulevard at Euclid Avenue ⁽¹⁾
14. Foothill Boulevard at Campus Avenue
15. Foothill Blvd at Carnelian Ave/Vineyard Ave (City of Rancho Cucamonga)
16. Foothill Boulevard at Archibald Avenue (City of Rancho Cucamonga)
17. Arrow Route at Euclid Avenue
18. Arrow Route at Vineyard Avenue (City of Rancho Cucamonga)
19. Euclid Avenue at 7th Street
20. Euclid Avenue at I-10 EB Ramps
21. Euclid Avenue at 4th Street (City of Ontario)
22. 19th Street at Sapphire Street ⁽²⁾
23. 16th Street at Tanglewood Street ⁽²⁾
24. I-210 at Campus Avenue WB Ramps ⁽³⁾
25. I-210 at Campus Avenue EB Ramps ⁽³⁾

⁽¹⁾ freeway segment or intersection already deficient, per CMP Table 2-1

⁽²⁾ not a CMP facility

⁽³⁾ future intersection or freeway

As specifically noted in the list above, the list of study intersections contains selected intersections that are not CMP intersections. These intersections are included in the analysis because of their proximity to the project. The study intersections are indicated on **Figure 8**. The intersection reference numbers shown on Figure 8 are assigned to assist in locating a particular intersection, and are used throughout the report on intersection worksheets and in summary tables.

TRANSPORTATION IMPROVEMENTS

The Year 2020 number of through lanes on the area street system was obtained from the CTP traffic model. The City of Upland Circulation Element is shown on **Figure 9**. As part of the I-210 Freeway project, Campus Avenue will be realigned north of 16th Street, to allow adequate spacing between interchanges. In the vicinity of the project, the Circulation Element assumes the realignment of Campus Avenue and the construction of the I-210 Freeway. The Circulation Element also reflects the on-site roadways and network changes that were previously approved as they had been planned to be constructed with the development of the project site.

Close review of the Circulation Element, reveals that 19th Street is shown as realigned through the commercial portion of the project site, but is still shown as a four-way intersection at Campus Avenue. As mentioned earlier, the current project site plan reflects 19th Street realigned and offset at 16th Street, replacing the four-legged intersection with two T-intersections. In the “With Project” analysis, The 19th Street/Campus intersection is analyzed as two offset intersections -- 19th Street North and 19th Street South at Campus Avenue -- for Phases 2 and 3. Existing turning movement volumes were manually reassigned to the two offset intersections to develop future forecast data for the future “With Project” analysis. Project-proposed improvements at these two intersections are assumed in the With Project analysis. Accordingly, the 19th Street North intersection will be assumed to function as a four-legged intersection, with a major project driveway to one of the shopping centers forming the fourth leg.

Review of the Circulation Element also reveals that 18th Street is shown to connect to the realigned 19th Street, west of Campus Avenue. The current proposal for The Colonies does not assume this connection. 18th Street is assumed to continue to be terminated west of Campus Avenue.

EXISTING CONDITIONS

Regional access to the site will be provided by I-10 (the San Bernardino Freeway) to the south of the project site, and by the future Interstate 210 (I-210) which, when completed, will run through the northern portion of the project site. Local access will be provided by 16th Street, 19th Street, 20th Street, Euclid Avenue, Campus Avenue, and Carnelian Avenue.

Direct access to the project areas south of I-210 will be taken from realigned Campus Avenue and 19th Street; the extension of Tanglewood Avenue, which connects to 16th Street; and from the proposed primary project loop road, Colonies Parkway. Direct access to the project areas north of I-210 will be taken from the future extension of 20th Street.



Not to scale

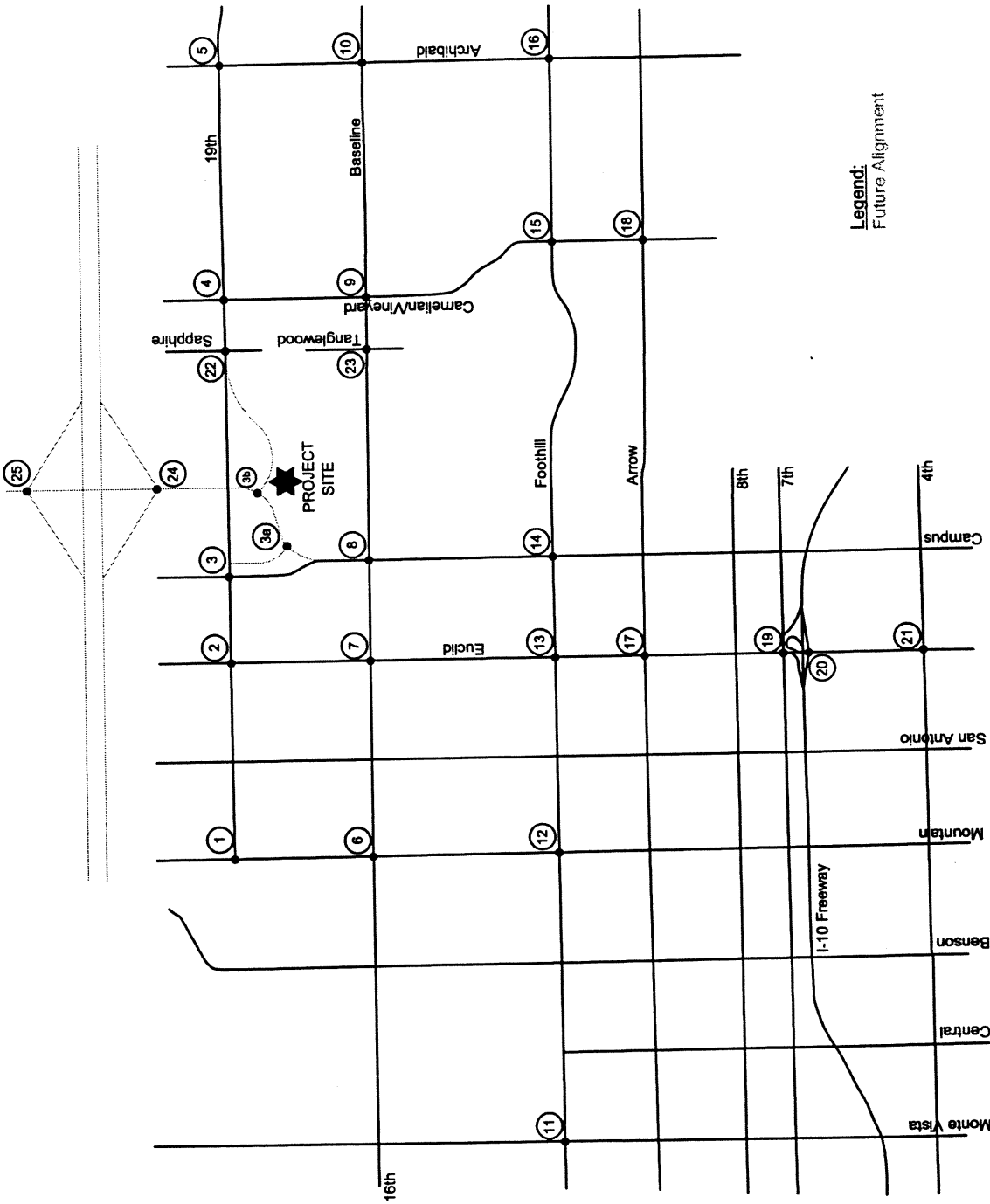


FIGURE 8
STUDY INTERSECTIONS



Kimley-Horn and Associates, Inc.

CIRCULATION ELEMENT

FULL CROSS SECTIONS

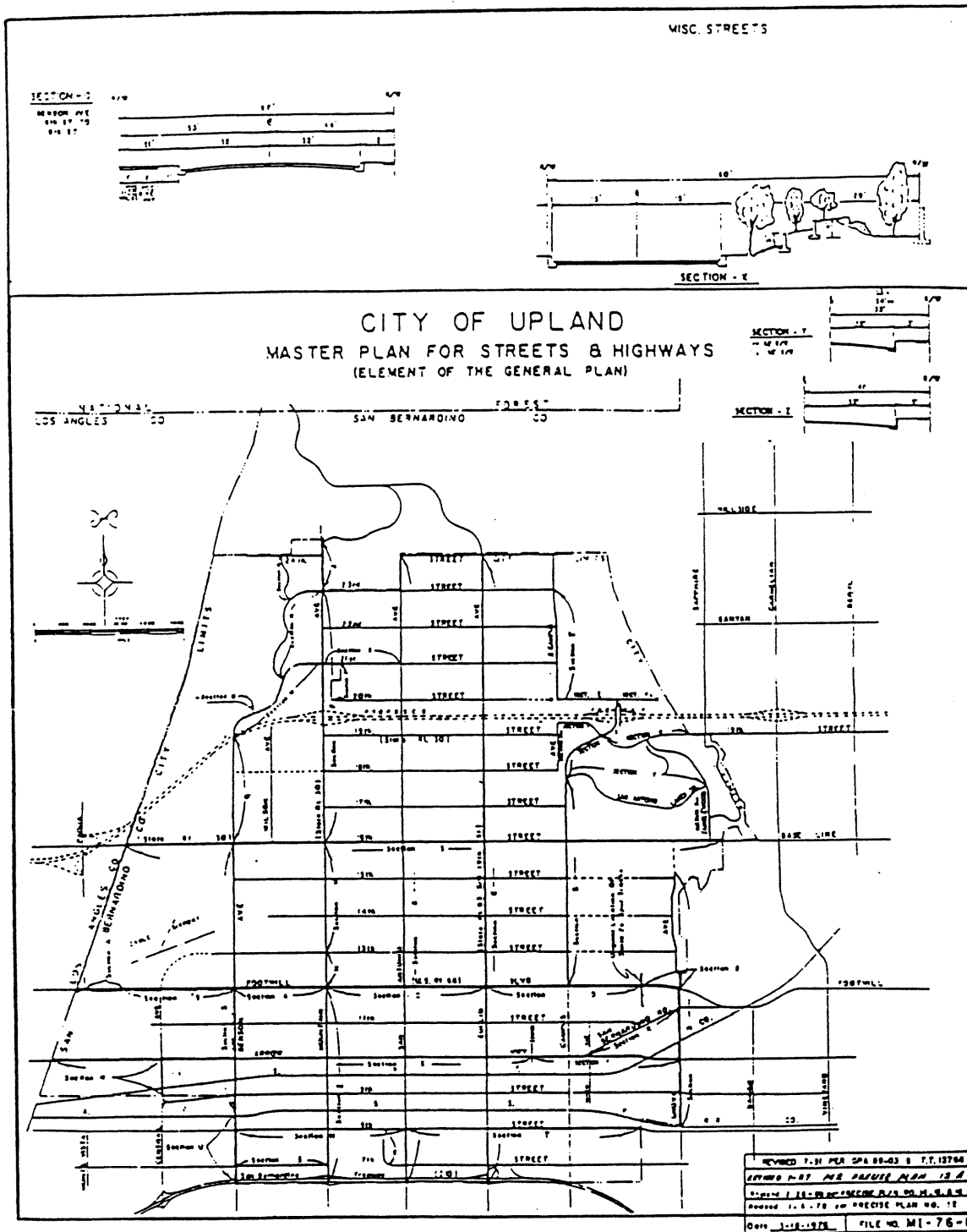
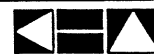


FIGURE 9
CITY OF UPLAND - CIRCULATION ELEMENT



Kimley-Horn and Associates, Inc.

Roadway Characteristics

The following provides a brief description of the arterial roadways expected to carry project traffic

Interstate 210 is currently being constructed as an extension of the existing SR-30 Freeway in La Verne generally along the SR-30 surface street alignment. Once completed, Route 30/210 will extend from Route 66 in La Verne to the I-215 in the City of San Bernardino. The freeway will provide 6 general purpose lanes, and two carpool lanes. In the vicinity of Upland, the I-210 will have interchanges with Mountain Avenue, Campus Avenue, and Carnelian Street.

Euclid Avenue extends from its southern terminus at SR-71 in the County of San Bernardino, northerly through the cities of Chino, Ontario, and Upland to its northern terminus in the San Antonio Heights area. Euclid Avenue is designated as State Route 83, and is currently constructed as a four-lane divided Major arterial. Euclid Avenue has a wide (32 feet) landscaped center median, and some portions of the street within the City of Upland have residential frontage with direct access, and on-street parking. Euclid Avenue has an interchange with the I-10 Freeway, at the south end of the City.

Campus Avenue extends from its southern terminus at Chino Avenue south of the City of Ontario limits northerly to its northern terminus at 24th Street in the City of Upland. Campus Avenue currently intersects 19th Street approximately one-half mile east of Euclid Avenue. As part of the 210 Freeway project, Campus Avenue will be realigned to the east approximately one-half mile and will have a full interchange with the future I-210 Freeway. The realigned portion of Campus Avenue will run through the project site and will terminate at future 20th Street. Through the project site, Campus Avenue will be improved by the project to provide two lanes in each direction, with a raised median. Campus Avenue is classified as a Secondary Arterial (4-lane undivided) on the City's Master Plan.

Carnelian Street is a four-lane divided street in the City of Rancho Cucamonga, immediately east of the City of Upland. South of Foothill Boulevard, Carnelian Street becomes Vineyard Avenue, and has an interchange with the I-10 Freeway.

20th Street does not currently exist east of Campus Avenue. West of Campus Avenue, 20th Street extends from its western terminus at Mountain Avenue easterly through the City of Upland to just west of Campus Avenue. As part of the project, 20th Street will be extended from Campus Avenue eastward to approximately one mile to the east of Campus Avenue to provide direct access to the project land uses to be located between 20th Street and I-210.

19th Street is an east-west street, designated as State Route 30, which extends through the northern part of the City of Upland. 19th Street extends from its western terminus just west of Mountain Avenue easterly through the City of Upland into the City of Rancho Cucamonga, where it turns northward and merges into Highland Avenue (SR-30). 19th Street is designated as a 2-lane undivided Collector on the City's Master Plan for Streets & Highways.

16th Street is a four-lane east-west street, extending from the west edge of the City where it becomes Baseline in the City of Claremont in the County of Los Angeles. Between the City boundary and Mountain Avenue, 16th Street is designated as State Route 30. 16th Street extends through the City of Upland into the City of Rancho Cucamonga, where it becomes Baseline Road again. 16th Street is designated as a Secondary arterial on the City's Master Plan for Streets & Highways.

Tanglewood Avenue extends from its southern terminus at 16th Street in the City of Upland northerly to Colonies Parkway. The segment of Tanglewood Avenue from Hummingbird Lane to Colonies Parkway has been constructed as part of the Phase 1 construction. As part of the project, Tanglewood Avenue would be extended northerly into the project site, providing a connection between the project site and 16th Street. Tanglewood Avenue is designated as a Collector on the City's Master Plan of Streets and Highways.

Existing Roadway System and Daily Traffic Volumes

Existing average daily traffic (ADT) volumes are shown on **Figure 10**. Existing ADT volumes are based on the most recent traffic data available from the City of Upland and recent traffic studies. Volumes on state highways were obtained from the 2000 Traffic Volumes on California State Highways, now available on the Caltrans website. Where current ADT data was not available, volumes were estimated using the following formula:

$$\text{PM peak hour approach and exit volume} \times 11.5 = \text{Estimated daily link volume}$$

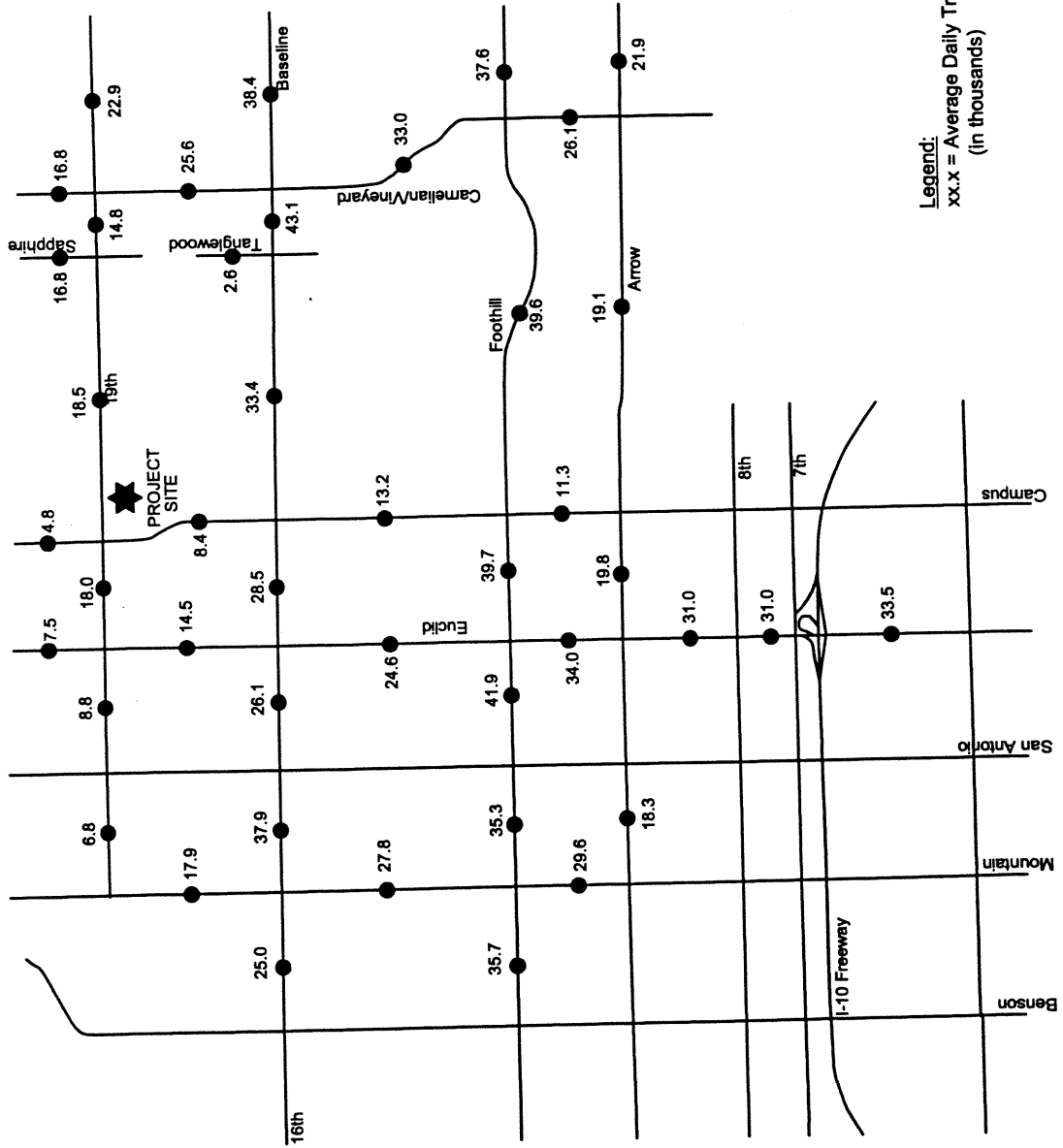
Existing Peak Hour Traffic Volumes

Existing weekday morning and afternoon peak hour traffic volumes were collected during June, 2001, and are illustrated on **Figure 11**. Copies of the traffic data collection sheets are provided in **Appendix D**. All study intersections are signalized. Existing lane configurations and intersection control at the study intersections are shown on **Figure 12**.

Existing peak hourly freeway volumes were obtained from the Caltrans website and represent Year 2000 traffic conditions. An annual growth rate of 4% per year to reflect existing conditions was applied according to the San Bernardino CMP methodologies. In accordance with CMP guidelines, the Caltrans peak hour volume is assumed to reflect evening peak hour conditions and the morning peak hour is assumed to be 90% of the evening peak hour. Because the Caltrans volumes are bi-directional, the CMP assumes a 55/45 split, with 55% heading westbound and 45% eastbound in the morning peak hour, and a reverse in the evening peak hour. Existing freeway volumes are shown on **Table 5**. Table 5 reveals that all freeway study segments are currently operating at LOS "E" or better in the morning peak hour, and two eastbound segments are operating at LOS "F" in the evening peak hour.



Not to scale



Legend:
xx.x = Average Daily Traffic
(in thousands)



Kimley-Horn and Associates, Inc.

FIGURE 10
EXISTING AVERAGE DAILY TRAFFIC VOLUMES



Not to scale

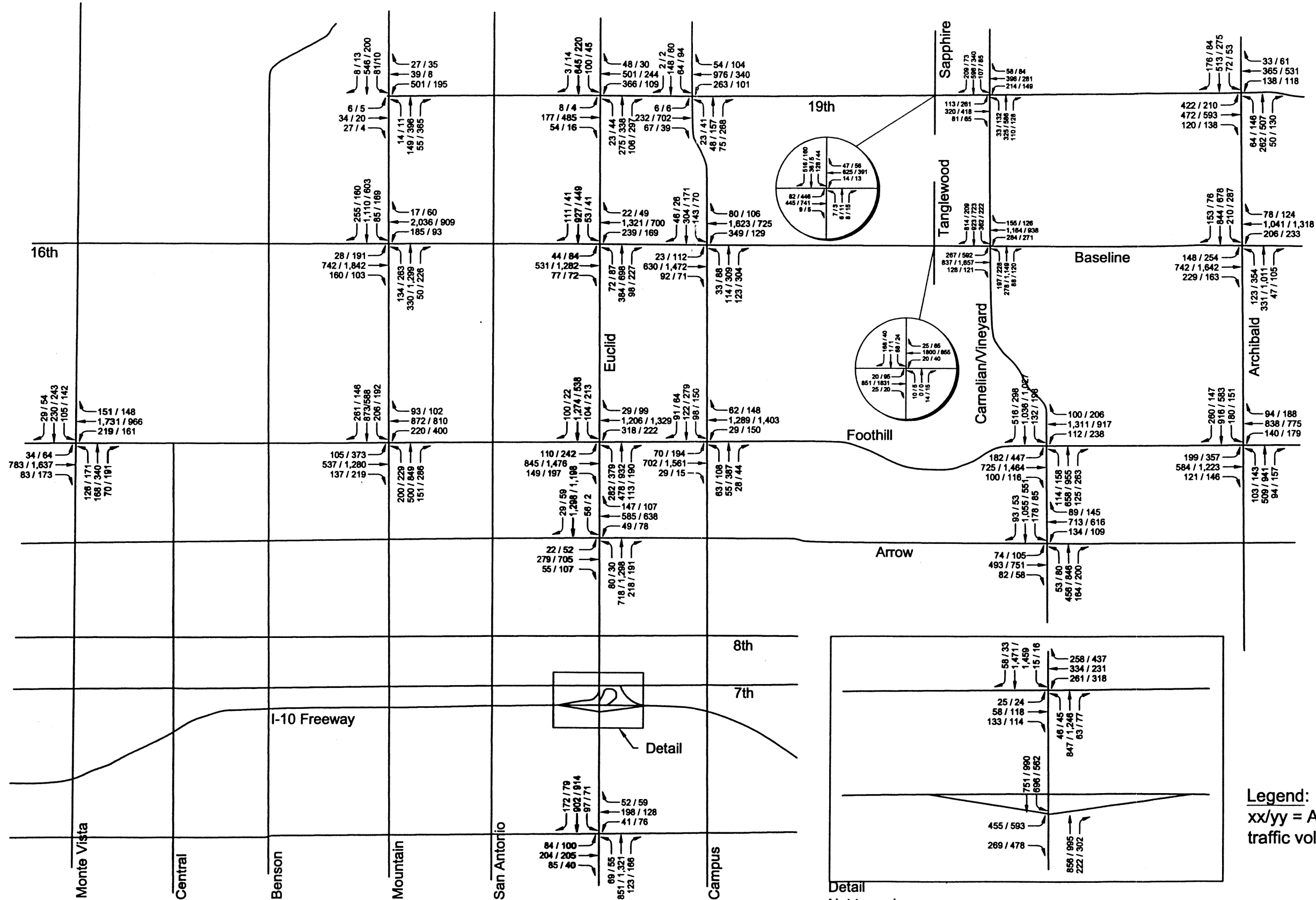


FIGURE 11
EXISTING PEAK HOUR TRAFFIC VOLUMES



Not to scale

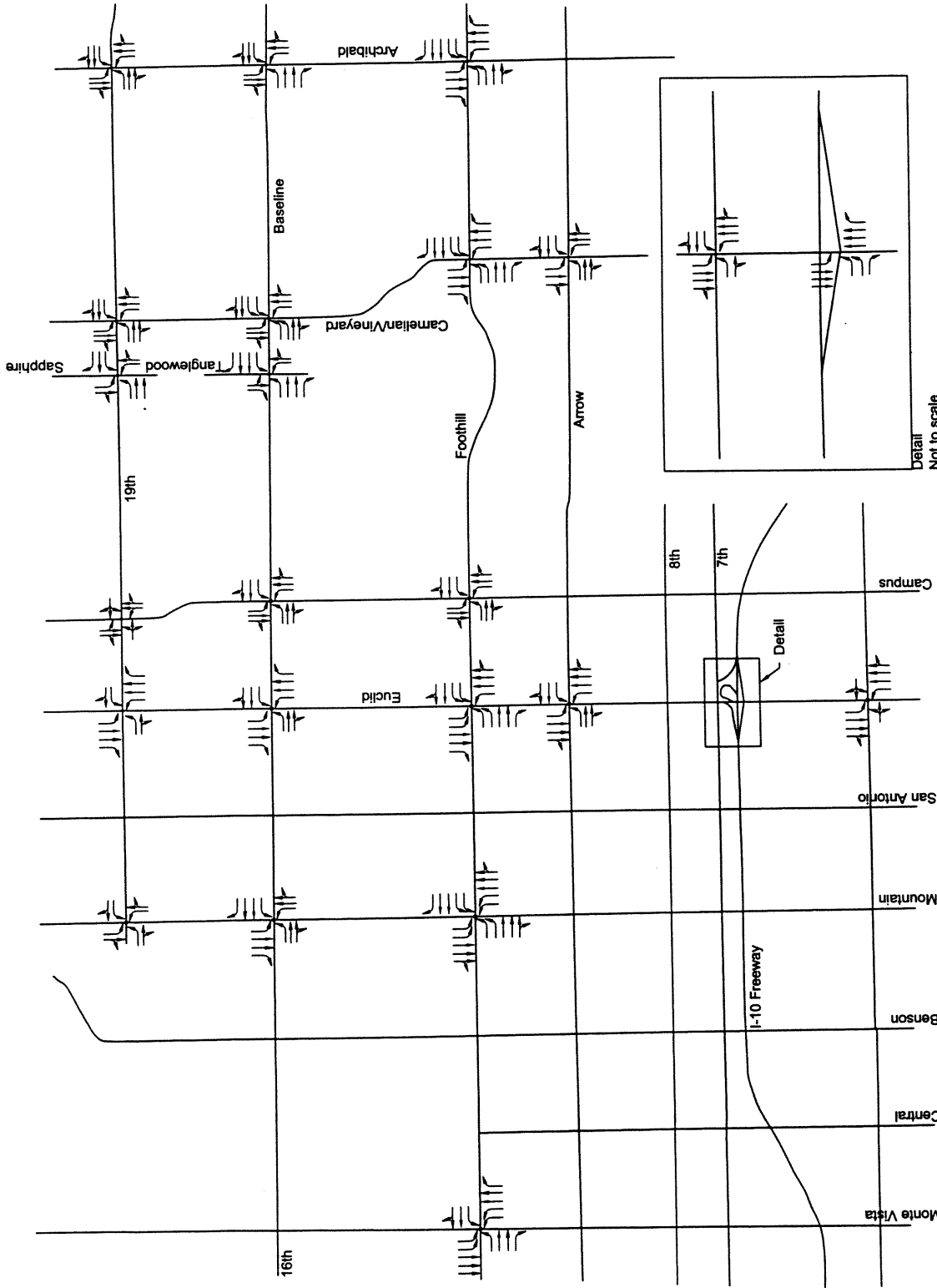


FIGURE 12
EXISTING INTERSECTION CONFIGURATIONS



Kimley-Horn and Associates, Inc.

TABLE 5
Summary of Freeway Operations
Existing Traffic Conditions (2000 Caltrans Data)

AM Peak Hour						
Freeway Segment	AM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10						
Monte Vista to Central	EB 6399	0.95	9200	4 / 0	0.76	C
	WB 7821	0.95	9200	4 / 0	0.93	E
Central to Mountain	EB 6197	0.95	9200	4 / 0	0.73	C
	WB 7574	0.95	9200	4 / 0	0.90	D
Mountain to Euclid	EB 6359	0.95	9200	4 / 0	0.75	C
	WB 7772	0.95	9200	4 / 0	0.92	E
Euclid to Fourth	EB 6156	0.95	9200	4 / 0	0.73	C
	WB 7524	0.95	9200	4 / 0	0.89	D
PM Peak Hour						
Freeway Segment	PM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10						
Monte Vista to Central	EB 8690	0.95	9200	4 / 0	1.03	F
	WB 7110	0.95	9200	4 / 0	0.84	D
Central to Mountain	EB 8415	0.95	9200	4 / 0	1.00	E
	WB 6885	0.95	9200	4 / 0	0.81	D
Mountain to Euclid	EB 8635	0.95	9200	4 / 0	1.02	F
	WB 7065	0.95	9200	4 / 0	0.84	D
Euclid to Fourth	EB 8360	0.95	9200	4 / 0	0.99	E
	WB 6840	0.95	9200	4 / 0	0.81	D

V/C calculations are based on the 1985 Highway Capacity Manual, Chapter 3.
V/C = Volume/(Capacity per lane x Number of lanes x Lane Width Adjustment Factor x Heavy Vehicle Factor x Driver Population Factor)
Capacity per lane is based on 3 to 6 mainline freeway lanes with 2300 vehicles/hour capacity plus capacity. one HOV lane with 1600 vehicles/hour capacity.
fwycex.wk4

Existing Peak Hour Operating Conditions

Intersection analysis has been conducted for the morning and evening peak hours using the analysis procedures and assumptions specified in the CMP. The results of the existing conditions intersection analysis are shown in **Table 6**. Copies of all analysis worksheets are provided in *Appendix E* of this report. Table 6 indicates that three intersections are currently operating at Level of Service "F" in one or both peak hours:

- 16th Street at Mountain Avenue (PM peak)
- Baseline Street at Carnelian Street (AM and PM peaks)
- Baseline Street at Archibald Avenue (PM peak)

The intersections of Baseline Street at Carnelian Street and Baseline Street at Archibald Street are in the City of Rancho Cucamonga.

FUTURE TRAFFIC CONDITIONS

Future conditions analysis was conducted for the following scenarios:

Without Project

- Year 2011 background with General Plan network
- Year 2015 background with General Plan network
- Year 2020 (General Plan Build-out)

With Project

- Year 2011 with Phases 1 and 2 of the project and proposed project network changes
- Year 2015 with Phases 1, 2, and 3 of the project and proposed project network changes
- Year 2020 (Build-out) with the completed project and proposed project network changes

As described earlier, future year forecasts were developed using a per-year growth increment process based on modeled forecast volumes from the CTP model for Years 1994 and 2020. To arrive at future year forecasts, the per-year growth increment is added to actual existing data for the appropriate number of years to represent a particular forecast timeframe. For Year 2011, 10 years of growth were added to Year 2001 count data; for Year 2015, 14 years of growth was applied; and for 2020, 19 years of growth was assumed.

TABLE 6
Summary of Intersection Operation
Existing Conditions

Int. #	Intersection	Existing Conditions			
		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS
1	19th / Mountain	21.1	C	12.9	B
2	19th / Euclid	17.3	B	13.9	B
3	19th / Campus	28.4	C	20.5	C
4	19th / Carnelian	12.8	B	18.2	B
5	19th / Archibald	18.5	B	20.6	C
6	16th / Mountain	48.2	D	89.3	F
7	16th / Euclid	15.7	B	22.0	C
8	16th / Campus	17.9	B	20.6	C
9	Baseline / Carnelian	115.9	F	154.5	F
10	Baseline / Archibald	19.0	B	121.6	F
11	Foothill / Monte Vista	18.0	B	22.5	C
12	Foothill / Mountain	12.7	B	14.0	B
13	Foothill / Euclid	15.1	B	26.7	C
14	Foothill / Campus	15.2	B	31.4	C
15	Foothill / Carnelian	27.6	C	36.3	D
16	Foothill / Archibald	14.1	B	22.7	C
17	Arrow / Euclid	13.5	B	14.5	B
18	Arrow / Vineyard	15.0	B	16.2	B
19	Euclid / 7th	13.1	B	14.7	B
20	Euclid / I-10 EB ramps	22.0	C	22.3	C
21	Euclid / 4th	11.2	B	19.7	B
22	19th / Sapphire	19.5	B	11.7	B
23	16th / Tanglewood	9.3	A	8.3	A
24	Campus / 210 EB	n/a	n/a	n/a	n/a
25	Campus / 210 WB	n/a	n/a	n/a	n/a

Year 2011 Background Operating Conditions

Phases 1 and 2 of The Colonies project are anticipated to be completed by Year 2011. Projected Year 2011 background peak hour volumes without the Project traffic are shown on **Figure 13**. Year 2011 Background conditions assume General Plan network changes, including the I-210 Freeway and the realignment of Campus Avenue, but not the realignment and offset of 19th Street proposed by the project. Intersection analysis was conducted using the forecasted peak hour volumes, and the results are summarized on **Table 7**. By the Year 2011, the following intersections are projected to operate at LOS “E” or “F”

- 19th Street at Campus Avenue (AM and PM peaks)
- 16th Street at Mountain Avenue (AM and PM peaks)
- Baseline Street at Carnelian Street (AM and PM peaks)
- Baseline Street at Archibald Avenue (PM peak)

Review of Table 7 shows that three of these intersections were shown to be already operating at LOS “E” or “F” under existing conditions. The intersection of 19th Street and Campus is projected to worsen to LOS “E” or “F” with the growth in traffic between existing and Year 2011 conditions.

Year 2011 With Project (Phases 1 and 2)

Phase 2 of The Colonies proposes a mix of residential and shopping center uses. The residential portion consists of 350 condominium/townhomes, 495 single-family residences, and an elementary school in the middle and southern part of the project site. On either side of 19th Street, and south of the I-210 Freeway, a total of 786,000 square feet of regional and local shopping center uses are proposed. The commercial planning areas show a variety of commercial uses, including anchor and ancillary retail buildings, outlying restaurant and retail pads and service stations, a 3,800-seat theater, and 80,000 square feet of office space. Phase 2 also involves the realignment of 19th Street through the project to create two off-set intersections at Campus Avenue, rather than a continuous arterial. This realignment of 19th Street was assumed in the CTP “With Project” model runs.

Peak hour traffic from Phases 1 and 2 of The Colonies project was derived from the CTP model through the select zone process, as described previously. The project volumes were added to the Year 2011 forecast volumes, assuming the network changes proposed by the project. Year 2011 peak hour traffic volumes with Phase 1 and 2 are shown on **Figure 14**. It should be noted that intersection volume changes are a result of not only the addition of the project traffic, but also re-routing of some traffic, in response to the network changes proposed by the project, most notably, the realignment and offset of 19th Street.



Not to scale

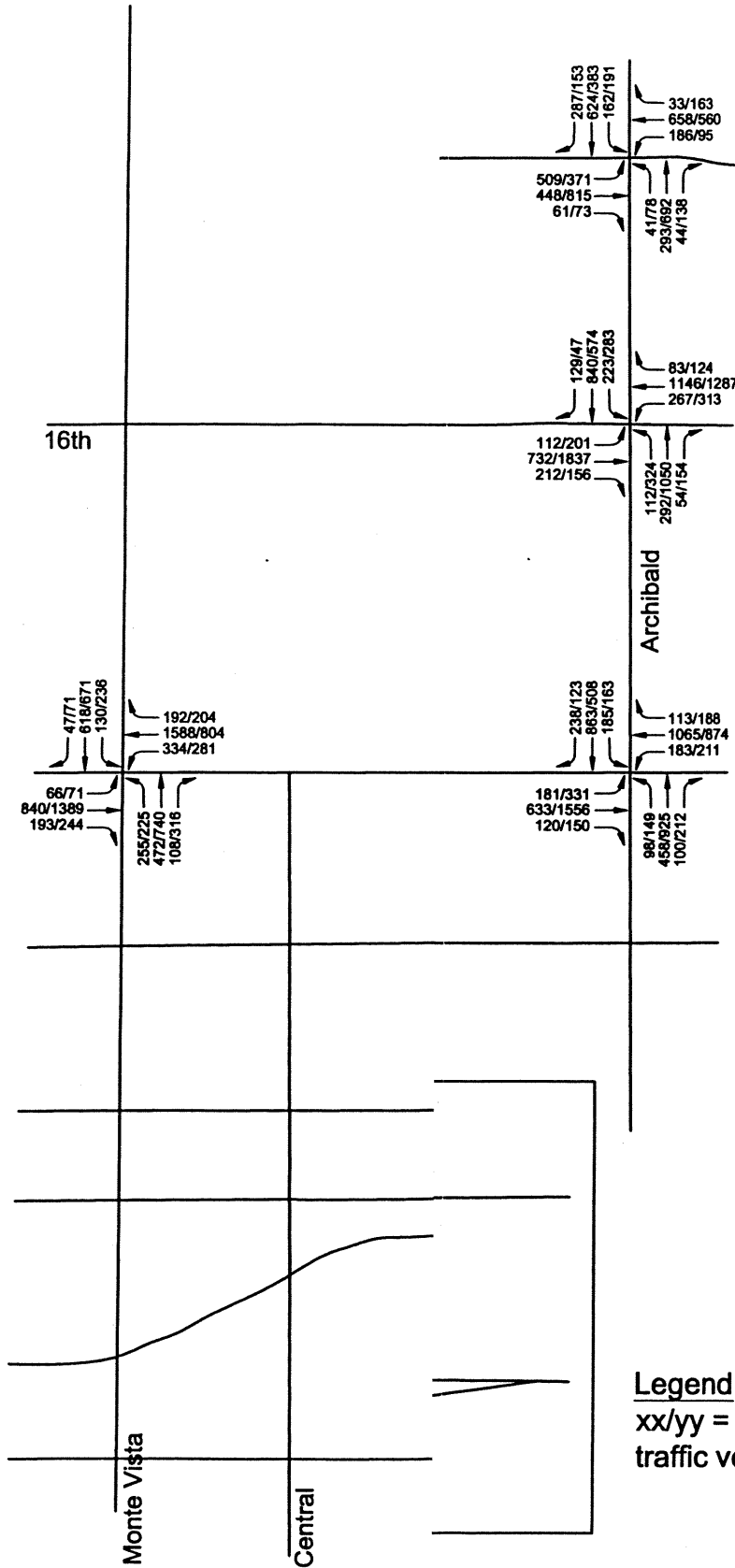


FIGURE 13
YEAR 2011 PEAK HOUR T

TABLE 7
Summary of Existing and Future Intersection Operation
Without Project

Int. #	Intersection	Existing Conditions						Year 2011 w/o Project			Year 2015 w/o Project			Year 2020 w/o Project					
		AM Peak		PM Peak		LOS	Delay	AM Peak		PM Peak		LOS	Delay	AM Peak		PM Peak		LOS	Delay
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	19th / Mountain	21.1	C	12.3	B	26.5	C	11.0	B	49.5	D	37.5	D	74.2	E	119.2	F		
2	19th / Euclid	17.3	B	13.9	B	26.9	C	15.0	B	29.7	C	15.5	B	53.6	D	18.9	B		
3	19th / Campus	28.4	C	20.5	C	63.6	E	55.5	E	105.9	F	280.2	F	176.2	F	305.8	F		
4	19th / Carnelian	12.8	B	18.2	B	14.3	B	21.9	C	14.4	B	29.6	C	17.1	B	49.2	D		
5	19th / Archibald	18.5	B	20.6	C	33.3	C	36.5	D	38.2	D	48.2	D	45.5	D	53.7	D		
6	16th / Mountain	48.2	D	89.3	F	55.3	E	95.4	F	62.4	E	83.4	F	68.9	E	90.5	F		
7	16th / Euclid	15.7	B	22.0	C	16.0	B	29.9	C	16.2	B	33.2	C	17.1	B	49.7	D		
8	16th / Campus	17.9	B	20.6	C	18.2	B	21.9	C	19.7	B	23.6	C	28.5	C	30.7	C		
9	Baseline / Carnelian	115.9	F	154.5	F	132.3	F	173.5	F	123.8	F	157.6	F	129.8	F	170.2	F		
10	Baseline / Archibald	19.0	B	121.6	F	19.2	B	127.7	F	19.3	B	129.4	F	22.4	C	138.8	F		
11	Foothill / Monte Vista	22.5	C	18.0	B	23.4	C	25.3	C	26.9	C	27.1	C	31.7	C	40.2	D		
12	Foothill / Mountain	12.7	B	14.0	B	12.8	B	14.5	B	12.9	B	14.5	B	13.1	B	15.0	B		
13	Foothill / Euclid	15.1	B	26.7	C	16.3	B	32.0	C	16.3	B	28.2	C	16.5	B	29.0	C		
14	Foothill / Campus	15.2	B	31.4	C	16.8	B	40.4	D	18.0	B	43.7	D	24.6	C	48.0	D		
15	Foothill / Carnelian	27.6	C	36.3	D	39.6	D	46.3	D	41.7	D	46.7	D	47.2	D	51.3	D		
16	Foothill / Archibald	14.1	B	22.7	C	14.4	B	33.3	C	15.1	B	27.8	C	15.5	B	41.6	D		
17	Arrow / Euclid	13.5	B	14.5	B	15.9	B	16.1	B	16.9	B	20.1	C	19.3	B	23.0	C		
18	Arrow / Vineyard	15.0	B	16.2	B	15.7	B	18.3	B	15.8	B	19.9	B	16.1	B	21.1	C		
19	Euclid / 7th	13.1	B	14.7	B	17.2	B	26.3	C	17.2	B	26.2	C	18.8	B	30.1	C		
20	Euclid / I-10 EB ramps	22.0	C	22.3	C	26.9	C	32.8	C	30.4	C	34.2	C	33.4	C	36.8	D		
21	Euclid / 4th	11.2	B	19.7	B	11.6	B	24.2	C	11.8	B	26.8	C	18.3	B	29.9	C		
22	19th / Sapphire	19.5	B	11.7	B	41.8	D	12.0	B	54.3	D	13.7	B	75.3	E	13.9	B		
23	16th / Tanglewood	9.3	A	8.3	A	13.3	B	27.4	C	15.1	B	33.7	C	15.9	B	54.1	D		
24	Campus / 210 EB	n/a	n/a	n/a	n/a	13.9	B	15.9	B	14.2	B	16.2	B	14.8	B	16.7	B		
25	Campus / 210 WB	n/a	n/a	n/a	n/a	18.2	B	19.7	B	18.7	B	20.3	C	17.7	B	18.3	B		



Not to scale

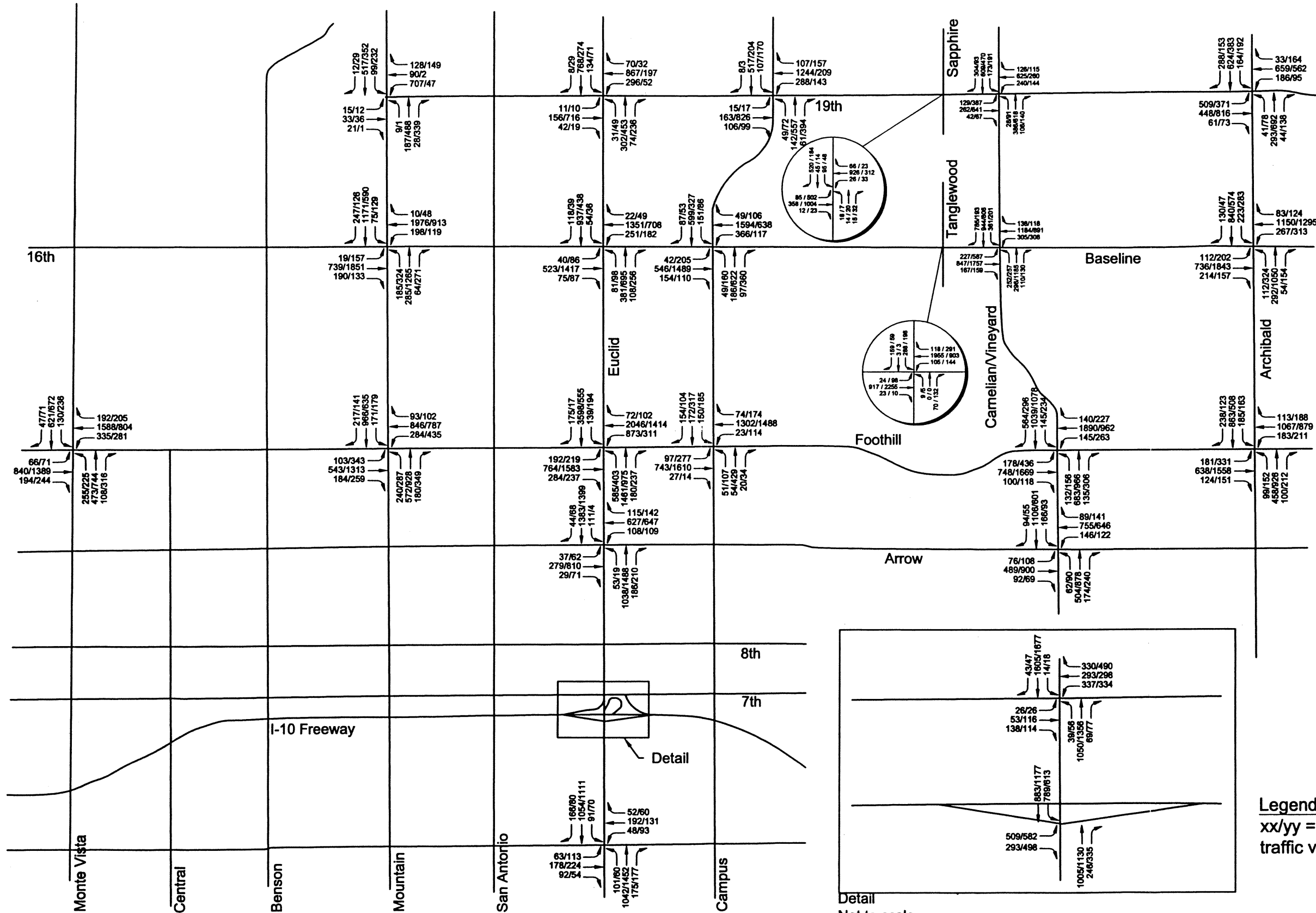


FIGURE 14
YEAR 2011 PEAK HOUR TRAFFIC VOLUMES WITH THE COLONIES

The intersection analysis was re-run assuming these network changes and the Phase 1 and 2 traffic volumes, and the results are summarized on **Table 8**. With the addition of Phase 1 and 2 traffic, and the realignment and offset of 19th Street, the LOS “E” conditions at 19th Street and Campus Avenue are eliminated, and the two offset intersections within the (19th Street at Campus Avenue North and South) are projected to operate at LOS “C” or better. The three other intersections projected to operate at LOS “E” or “F” without the project will continue to do so, and the addition of the project will cause one additional intersection to operate at LOS “E”:

- 19th Street at Sapphire Street (AM and PM peak hours)

Year 2015 Background Operating Conditions

All three phases of The Colonies project are anticipated to be completed by Year 2015. This would be considered the “Opening Year” of the project for CMP Analysis purposes. Projected Year 2015 Background peak hour volumes without the project traffic are shown on **Figure 15**. Year 2015 Background conditions assume General Plan network changes, including the I-210 Freeway and the realignment of Campus Avenue, but not the realignment and offset of 19th Street at Campus Avenue proposed by the project. Intersection analysis was conducted using the forecasted 2015 peak hour volumes, and the results are summarized on Table 7 (presented previously). In Year 2015, it is projected that the following intersections will continue to operate at LOS “E” or “F”:

- 19th Street at Campus Avenue (AM and PM peaks)
- 16th Street at Mountain Avenue (AM and PM peaks)
- Baseline Street at Carnelian Street (AM and PM peaks)
- Baseline Street at Archibald Avenue (PM peak)

Review of Table 7 indicates that these four intersections were shown to be already operating at LOS “E” or “F” under Year 2011 Background conditions. The addition of traffic growth to the Year 2015 is not projected to cause any additional intersections to operate under deficient conditions.

Year 2015 With Project (Phases 1, 2, and 3)

Phase 3 completes The Colonies project with highway commercial development north of the I-210 Freeway, and consists of a 150-room hotel, a 40,000-square-foot health club, a day-care center, two service/gasoline stations, restaurants, and auto sales lots. As with the Year 2011 analysis, the network changes proposed by the project, most notably the realignment and offset of 19th Street, were assumed in the CTP “With Project” model runs.

Peak hour traffic from Phases 1, 2, and 3 of The Colonies project was derived from the CTP model through the select zone process, as described previously. The project volumes for the total project were added to the Year 2015 forecasts. Year 2015 With Phase 3 peak hour traffic volumes are shown on **Figure 16**.

TABLE 8
Summary of Intersection Operation
Year 2011 With and Without Phase 1 and 2 Project

Int. #	Intersection	Year 2011 w/o Project						Year 2011 w/ Phase 1 + 2						Project Impact		
		AM Peak		PM Peak		LOS	Delay	AM Peak		PM Peak		LOS	Delay	LOS	AM Peak	PM Peak
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS					
1	19th / Mountain	26.5	C	11.0	B			22.4	C	20.3	C			-4.1	9.3	
2	19th / Euclid	26.9	C	15.0	B			23.8	C	17.2	B			-3.1	2.2	
3	19th / Campus	63.6	E	55.5	E			n/a	n/a	n/a	n/a			n/a	n/a	
3a	19th / Campus North	n/a	n/a	n/a	n/a			27.8	C	26.9	C			n/a	n/a	
3b	19th / Campus South	n/a	n/a	n/a	n/a			9.1	A	23.0	C			n/a	n/a	
4	19th / Camelian	14.3	B	21.9	C			19.5	B	39.2	D			5.2	17.3	
5	19th / Archibald	33.3	C	36.5	D			36.8	D	42.4	D			3.5	5.9	
6	16th / Mountain	55.3	E	95.4	F			75.1	E	92.0	F			19.8	-3.4	
7	16th / Euclid	16.0	B	29.9	C			19.2	B	30.3	C			3.2	0.4	
8	16th / Campus	18.2	B	21.9	C			26.0	C	34.4	C			7.8	12.5	
9	Baseline / Camelian	132.3	F	173.5	F			153.5	F	183.4	F			21.2	9.9	
10	Baseline / Archibald	19.2	B	127.7	F			23.1	C	130.1	F			3.9	2.4	
11	Foothill / Monte Vista	23.4	C	25.3	C			24.5	C	28.1	C			1.1	2.8	
12	Foothill / Mountain	12.8	B	14.5	B			13.0	B	15.5	B			0.2	1.0	
13	Foothill / Euclid	16.3	B	32.0	C			16.6	B	34.4	C			0.3	2.4	
14	Foothill / Campus	16.8	B	40.4	D			16.9	B	52.3	D			0.1	11.9	
15	Foothill / Camelian	39.6	D	46.3	D			45.1	D	46.6	D			5.5	0.3	
16	Foothill / Archibald	14.4	B	33.3	C			14.5	B	35.4	D			0.1	2.1	
17	Arrow / Euclid	15.9	B	16.1	B			16.9	B	16.7	B			1.0	0.6	
18	Arrow / Vineyard	15.7	B	18.3	B			16.5	B	19.5	B			0.8	1.2	
19	Euclid / 7th	17.2	B	26.3	C			17.6	B	26.8	C			0.4	0.5	
20	Euclid / I-10 EB ramps	26.9	C	32.8	C			27.2	C	36.6	D			0.3	3.8	
21	Euclid / 4th	11.6	B	24.2	C			12.0	B	27.5	C			0.4	3.3	
22	19th / Sapphire	41.8	D	12.0	B			56.3	E	70.4	E			14.5	58.4	
23	16th / Tanglewood	13.3	B	27.4	C			24.6	C	41.7	D			11.3	14.3	
24	Campus / 210 EB	13.9	B	15.9	B			13.6	B	20.1	C			-0.3	4.2	
25	Campus / 210 WB	18.2	B	19.7	B			22.3	C	28.9	C			4.1	9.2	



Not to scale

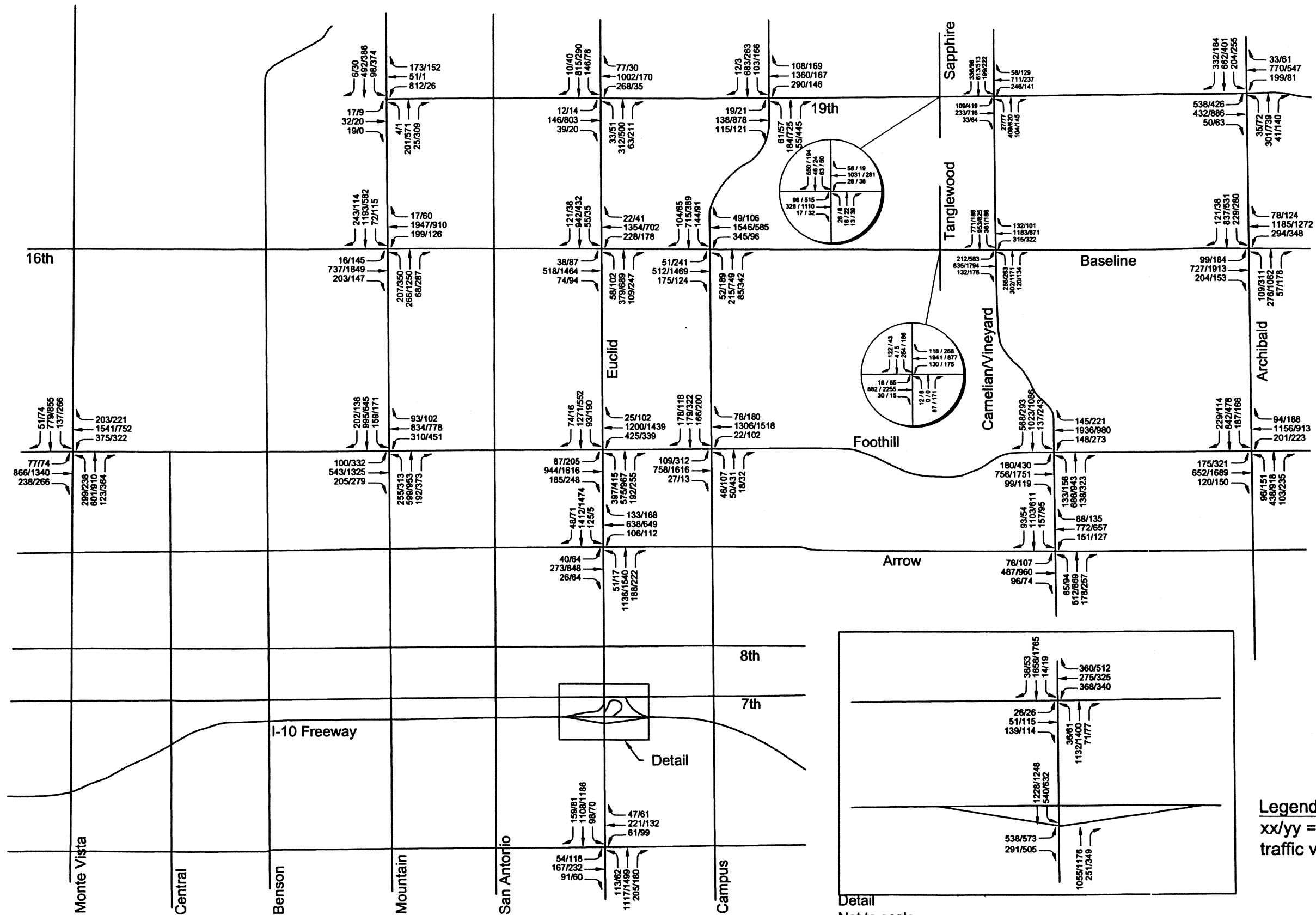
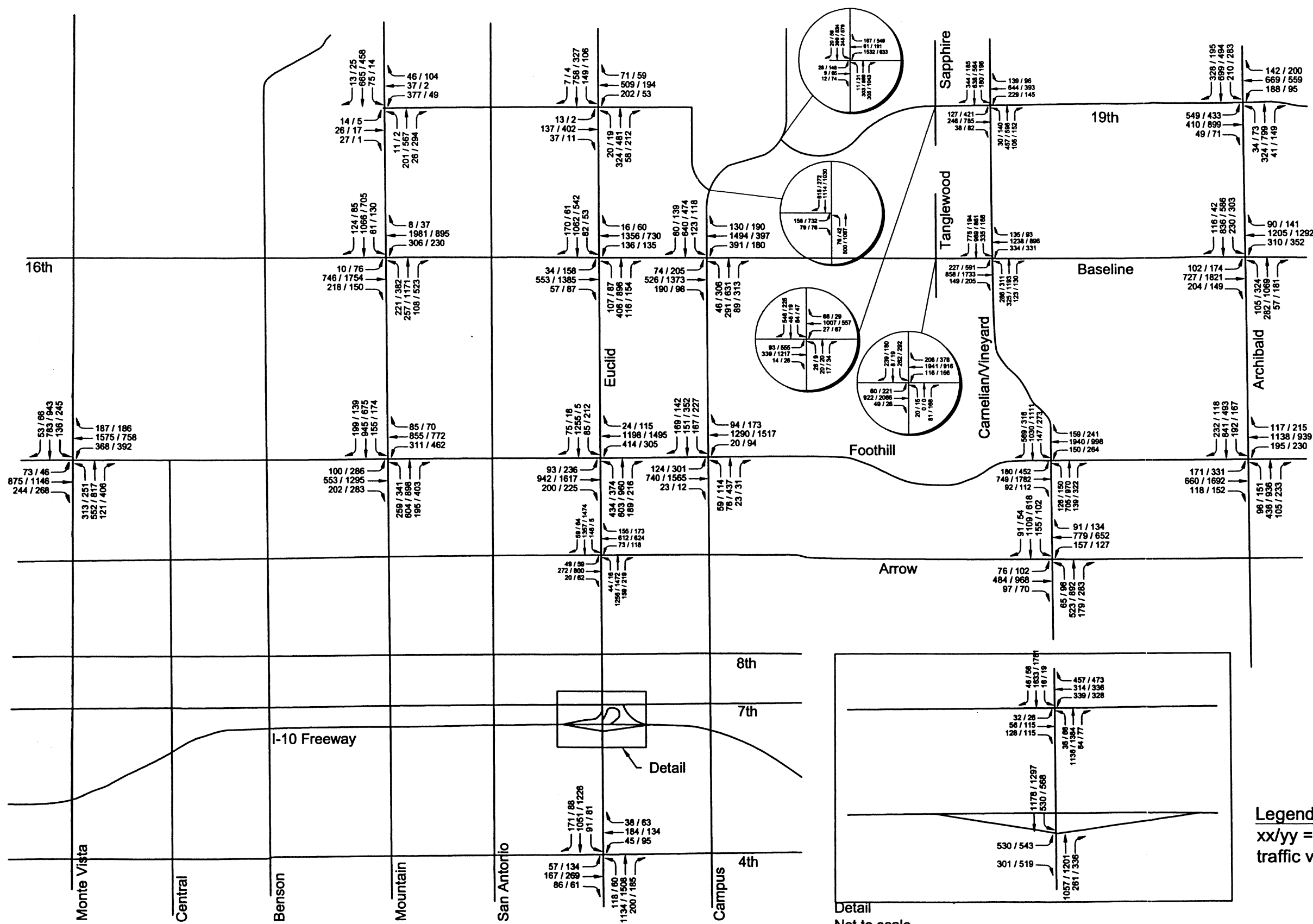


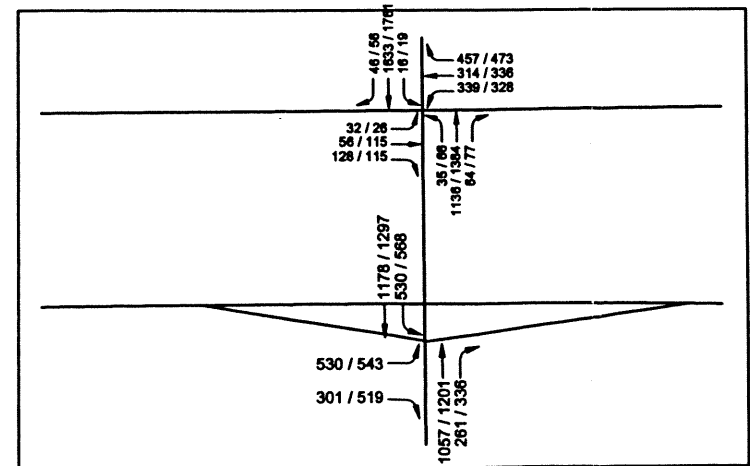
FIGURE 15
YEAR 2015 PEAK HOUR TRAFFIC VOLUMES WITHOUT PROJECT



Not to scale



Legend:
 xx/yy = AM/PM peak hour
 traffic volumes



Detail
 Not to scale

FIGURE 16
YEAR 2015 PEAK HOUR TRAFFIC VOLUMES WITH THE COLONIES

Once again, the changes in peak hour volumes reflect not only the addition of project traffic, but also the changes in traffic patterns in response to the network changes proposed by the project.

The intersection analysis was re-run, and the results are summarized on **Table 9**. With the addition of the Total Project traffic, and the realignment and offset of 19th Street, the LOS “E” conditions at 19th Street and Campus Avenue are eliminated, and the two offset intersections within the (19th Street at Campus Avenue North and South) are projected to operate at LOS “D” or better. The three other intersections projected to operate at LOS “E” or “F” without the project will continue to do so. The addition of the project will cause one additional intersection to operate at LOS “E”:

- 19th Street at Sapphire Street (AM and PM peak hours)

Interestingly, the following intersections are shown to improve in the morning peak hour with the addition of the project.

- 19th Street and Mountain Avenue
- 19th Street and Euclid Avenue.

There are a number of potential explanations for this:

- 1.) The CTP model forecasts suggest that the introduction of the regional shopping centers and the residential neighborhoods in the northeast area of the City will attract people and traffic that are currently existing in the network, in other parts of the area. The attraction of trips to the project site potentially represents the diversion, and therefore a reduction of traffic in other areas.
- 2.) The CTP model forecasts also suggest that the proximity of the project site to the future I-210 Freeway draws people to the site via the freeway, whereas trips with the same purpose but without the project may have stayed on the arterial street system, or may have accessed the area via the I-10 Freeway.
- 3.) With the realignment of 19th Street through the project and the offset of 19th Street at Campus Avenue the CTP model appears to have reassigned east-west through trips to other continuous east-west arterials, such as 16th Street and the I-210 Freeway.

Year 2020 Build-out Without Project

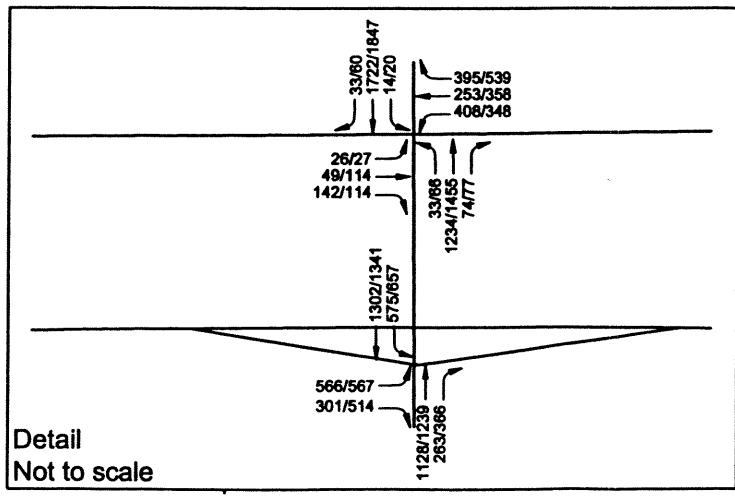
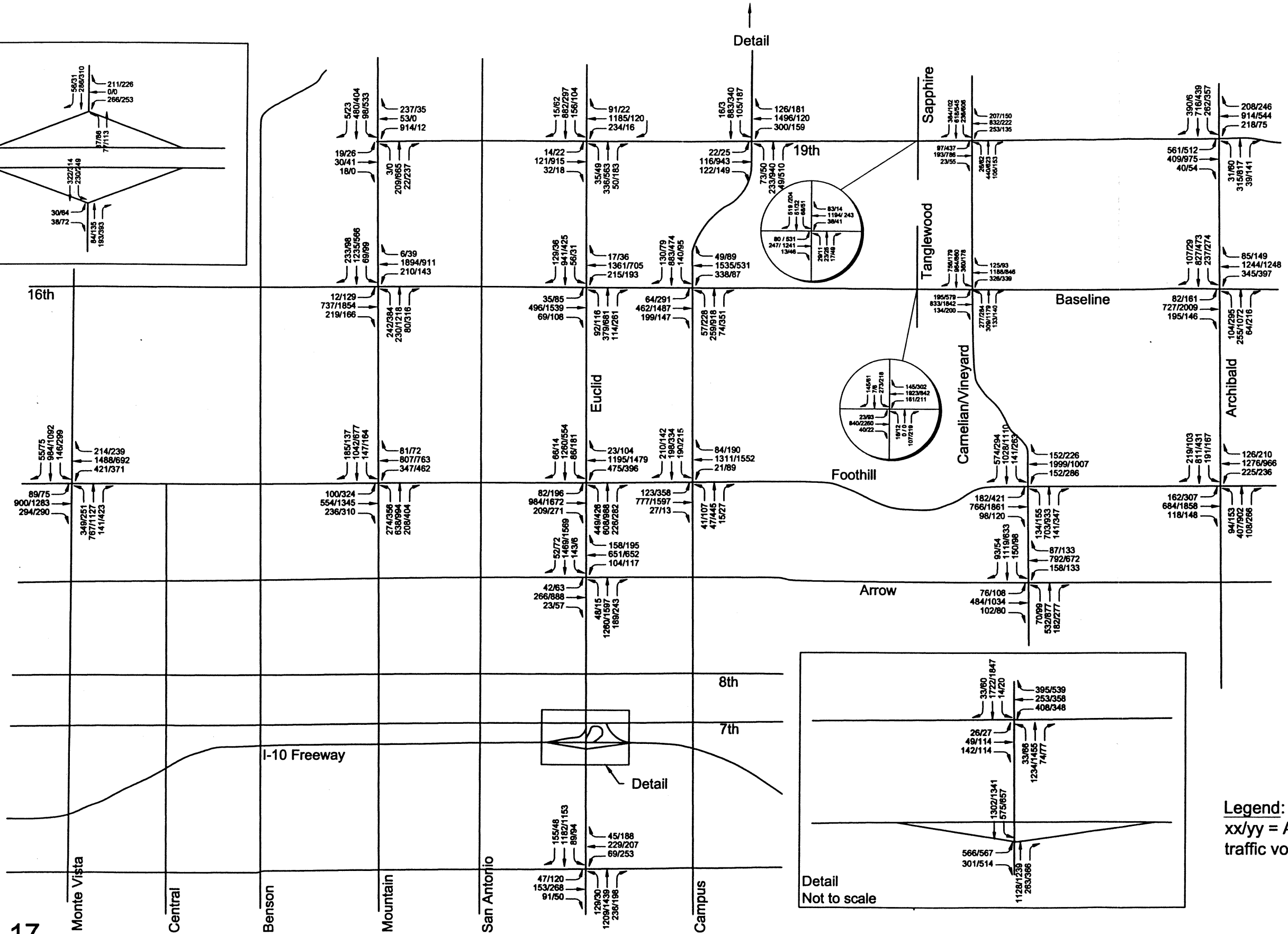
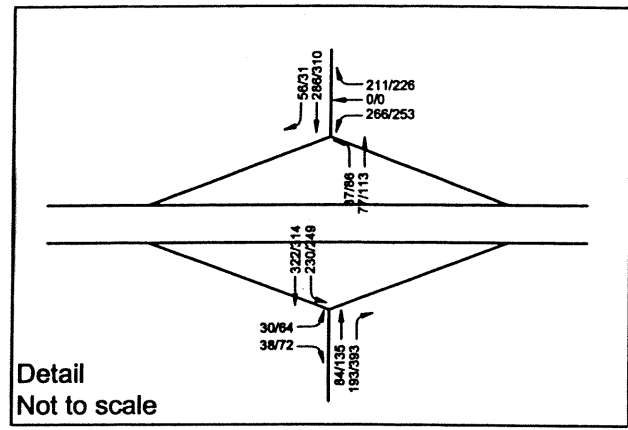
Projected Year 2020 build-out peak hour volumes, representing build-out of the area, are shown on **Figure 17**. Intersection analysis was conducted using these peak hour volumes, and the results are summarized on **Table 7** (presented previously). By the Year 2020, the following intersections will continue to operate at LOS “E” or “F”

TABLE 9
Summary of Intersection Operation
Year 2015 With and Without Project

Int. #	Intersection	Year 2015 w/o Project						Year 2015 w/ Phase 3						Project Impact	
		AM Peak		PM Peak		LOS	Delay	AM Peak		PM Peak		LOS	Delay	AM Peak	PM Peak
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS				
1	19th / Mountain	49.5	D	37.5	D	16.7	B	49.1	D	-32.8	11.6				
2	19th / Euclid	29.7	C	15.5	B	24.0	C	17.6	B	-5.7	2.1				
3	19th / Campus	105.9	F	280.2	F	n/a	n/a	n/a	n/a	n/a	n/a				
3a	19th North / Campus	n/a	n/a	n/a	n/a	36.8	D	48.8	D	n/a	n/a				
3b	19th South / Campus	n/a	n/a	n/a	n/a	9.7	A	22.2	C	n/a	n/a				
4	19th / Carmelian	14.4	B	29.6	C	27.1	C	52.0	D	12.7	22.4				
5	19th / Archibald	38.2	D	48.2	D	43.3	D	53.6	D	5.1	5.4				
6	16th / Mountain	62.4	E	83.4	F	72.1	E	78.3	E	9.7	-5.1				
7	16th / Euclid	16.2	B	33.2	C	19.2	B	34.3	C	3.0	1.1				
8	16th / Campus	19.7	B	23.6	C	32.9	C	43.9	D	13.2	20.3				
9	Baseline / Carmelian	123.8	F	157.6	F	148.4	F	194.0	F	24.6	36.4				
10	Baseline / Archibald	19.3	B	129.4	F	20.7	C	133.1	F	1.4	3.7				
11	Foothill / Monte Vista	26.9	C	27.1	C	28.7	C	32.5	C	1.8	5.4				
12	Foothill / Mountain	12.9	B	14.5	B	12.8	B	15.1	B	-0.1	0.6				
13	Foothill / Euclid	16.3	B	28.2	C	16.3	B	26.5	C	0.0	-1.7				
14	Foothill / Campus	18.0	B	43.7	D	16.5	B	53.9	D	-1.5	10.2				
15	Foothill / Carmelian	41.7	D	46.7	D	41.6	D	49.9	D	-0.1	3.2				
16	Foothill / Archibald	15.1	B	27.8	C	15.2	B	28.8	C	0.1	1.0				
17	Arrow / Euclid	16.9	B	20.1	C	16.1	B	21.4	C	-0.8	1.3				
18	Arrow / Vineyard	15.8	B	19.9	B	16.7	B	20.0	B	0.9	0.1				
19	Euclid / 7th	17.2	B	26.2	C	17.4	B	29.9	C	0.2	3.7				
20	Euclid / I-10 EB ramps	30.4	C	34.2	C	32.5	C	42.9	D	2.1	8.7				
21	Euclid / 4th	11.8	B	26.8	C	13.9	B	32.0	C	2.1	5.2				
22	19th / Sapphire	54.3	D	13.7	B	71.9	E	58.0	E	17.6	44.3				
23	16th / Tanglewood	15.1	B	33.7	C	23.0	C	53.7	D	7.9	20.0				
24	Campus / 210 EB	14.2	B	16.2	B	16.9	B	27.3	C	2.7	11.1				
25	Campus / 210 WB	18.7	B	20.3	C	25.9	C	30.9	C	7.2	10.6				



Not to scale



Legend:
xx/yy = AM/PM peak hour
traffic volumes

FIGURE 17
YEAR 2020 BUILD-OUT PEAK HOUR TRAFFIC VOLUMES WITHOUT PROJECT

- 19th Street at Campus Avenue (AM and PM peaks)
- 16th Street at Mountain Avenue (AM and PM peaks)
- Baseline Street at Carnelian Street (AM and PM peaks)
- Baseline Street at Archibald Avenue (PM peak)

In addition, the following intersections will worsen to LOS "E" or "F":

- 19th Street at Mountain Avenue (AM and PM peaks)
- 19th Street at Sapphire Street (AM peak).

Year 2020 With Project (Phase 3 Total Project)

As with the "With Project" analysis, the realignment of 19th Street was assumed in the CTP "With Project" model runs.

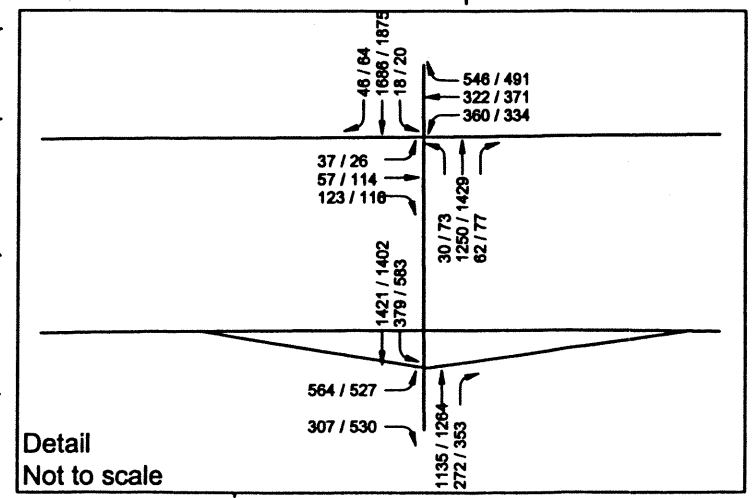
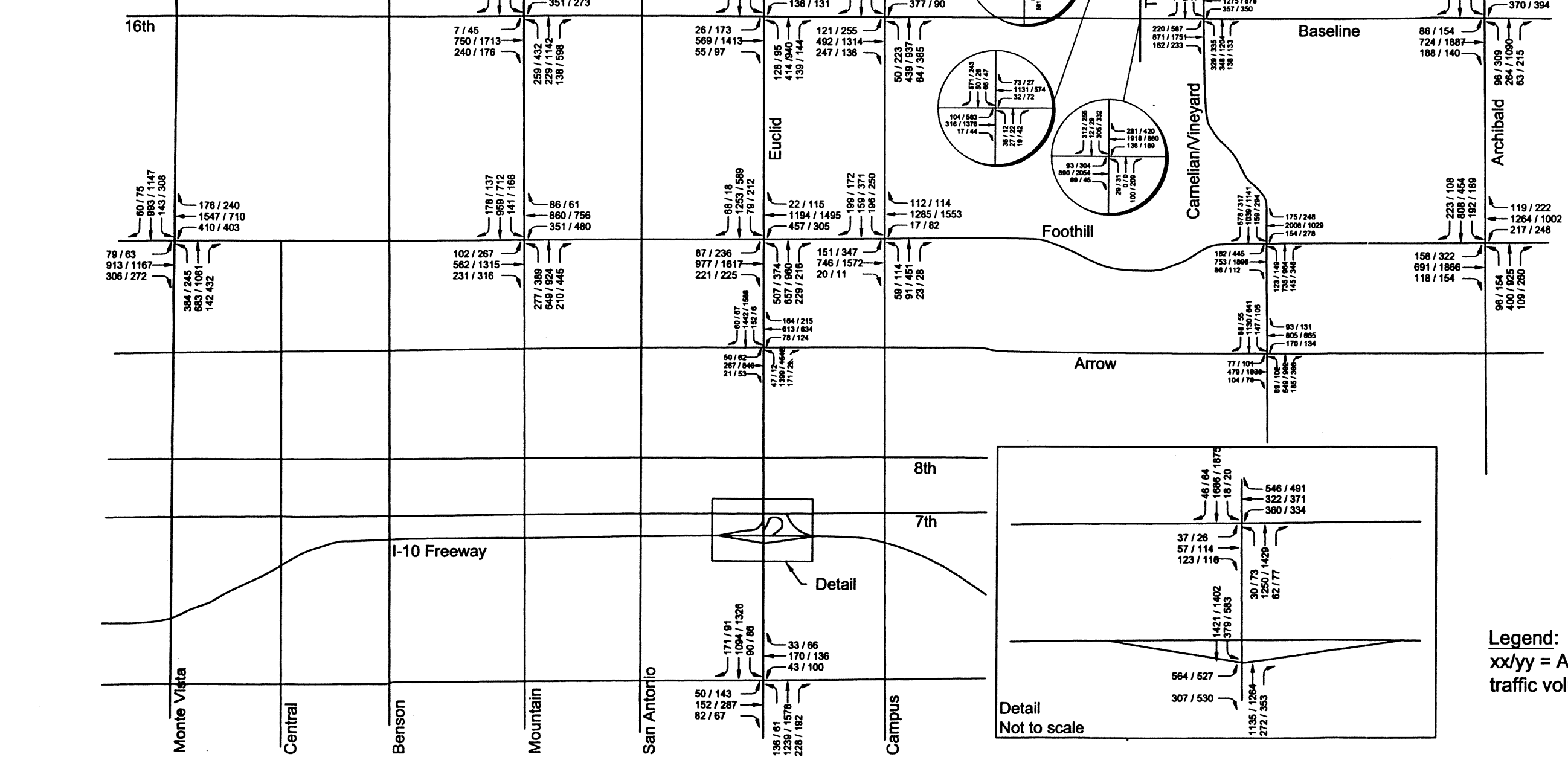
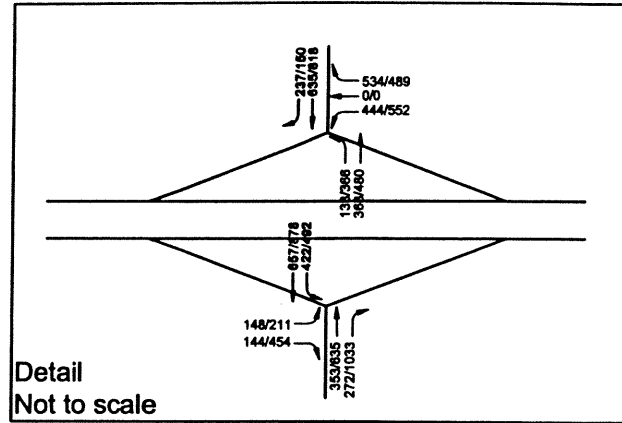
The total project traffic volumes were added to the Year 2020 forecasts. Year 2020 peak hour traffic volumes with the total Colonies project are shown on **Figure 18**. The intersection analysis was re-run, and the results are summarized on **Table 10**. With the addition of the complete Colonies traffic in Year 2020, the following intersections are projected to operate at LOS "E" or "F".

- 16th Street at Mountain Avenue (AM and PM peaks)
- Baseline Street at Carnelian Street (AM and PM peaks)
- Baseline Street at Archibald Avenue (PM peak)
- 19th Street at Sapphire Street (AM Peak)

These four intersections were shown to be operating under deficient conditions in the Without Project condition, and will continue to worsen as traffic volumes grow. The "Project Impact" column on Table 10 indicates that The Colonies total project will contribute to existing and background peak hour deficiencies, but will not cause any additional intersections to operate at LOS "E" or "F".

As with Year 2011 and 2015 "With Project" conditions, the realignment and offset of 19th Street at Campus Avenue, and the improvements proposed by the developer will replace the deficient intersection of 19th Street and Campus with 19th North and 19th South at Campus, both of which are projected to operate at an acceptable level of service.

As shown previously, some intersections are projected to experience improved operations in the "With Phase 3 Project" conditions. Potential explanations for this are the same as enumerated above.



Legend:
xx/yy = AM/PM peak hour traffic volumes

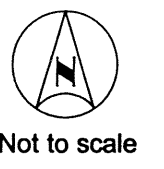


FIGURE 18
YEAR 2020 PEAK HOUR TRAFFIC VOLUMES WITH THE COLONIES TOTAL PROJECT

TABLE 10
Summary of Intersection Operation
Year 2020 With and Without Project

Int. #	Intersection	Year 2020 w/o Project						Year 2020 w/ Project						Project Impact		
		AM Peak		PM Peak		LOS	Delay	AM Peak		PM Peak		LOS	Delay	LOS	AM Peak	PM Peak
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS					
1	19th / Mountain	74.2	E	119.2	F			20.0	B	7.0	A			-54.2	-112.2	
2	19th / Euclid	53.6	D	18.9	B			31.5	C	15.5	B			-22.1	-3.4	
3	19th / Campus	176.2	F	305.8	F			n/a	n/a	n/a	n/a			n/a	n/a	
3a	19th North / Campus	n/a	n/a	n/a	n/a			47.5	D	35.9	D			n/a	n/a	
3b	19th South / Campus	n/a	n/a	n/a	n/a			14.4	B	23.0	C			n/a	n/a	
4	19th / Carnelian	17.1	B	49.2	D			19.2	B	50.2	D			2.1	1.0	
5	19th / Archibald	45.5	D	53.7	D			47.6	D	54.8	D			2.1	1.1	
6	16th / Mountain	68.9	E	90.5	F			108.1	F	113.6	F			39.2	23.1	
7	16th / Euclid	17.1	B	49.7	D			19.4	B	52.2	D			2.3	2.5	
8	16th / Campus	28.5	C	30.7	C			44.1	D	51.6	D			15.6	20.9	
9	Baseline / Carnelian	129.8	F	170.2	F			156.2	F	179.4	F			26.4	9.2	
10	Baseline / Archibald	22.4	C	138.8	F			25.0	C	149.6	F			2.6	10.8	
11	Foothill / Monte Vista	31.7	C	40.2	D			33.8	C	40.4	D			2.1	0.2	
12	Foothill / Mountain	13.1	B	15.0	B			13.3	B	15.1	B			0.2	0.1	
13	Foothill / Euclid	16.5	B	29.0	C			16.8	B	31.4	C			0.3	2.4	
14	Foothill / Campus	24.6	C	48.0	D			30.2	C	49.5	D			5.6	1.5	
15	Foothill / Carnelian	47.2	D	51.3	D			47.9	D	54.2	D			0.7	2.9	
16	Foothill / Archibald	15.5	B	41.6	D			15.5	B	42.6	D			0.0	1.0	
17	Arrow / Euclid	19.3	B	23.0	C			20.0	B	22.1	C			0.7	-0.9	
18	Arrow / Vineyard	16.1	B	21.1	C			16.3	B	22.0	C			0.2	0.9	
19	Euclid / 7th	18.8	B	30.1	C			25.5	C	34.5	C			6.7	4.4	
20	Euclid / I-10 EB ramps	33.4	C	36.8	D			34.7	C	38.2	D			1.3	1.4	
21	Euclid / 4th	18.3	B	29.9	C			19.3	B	34.2	C			1.0	4.3	
22	19th / Sapphire	75.3	E	13.9	B			78.7	E	31.7	C			3.4	17.8	
23	16th / Tanglewood	15.9	B	54.1	D			19.5	B	54.4	D			3.6	0.3	
24	Campus / 210 EB	14.8	B	16.7	B			17.4	B	31.1	C			2.6	14.4	
25	Campus / 210 WB	17.7	B	18.3	B			27.6	C	34.3	C			9.9	16.0	

CMP Freeway Evaluation

As required by the San Bernardino CMP, an analysis of future year freeway level of service is required for all freeway segments which carry 100 or more project trips in the peak hour. The CMP level of service (LOS) standard for all freeway segments and intersections is "LOS E or the current level, whichever is farthest from level of service A".

The freeway peak hour forecasts have been developed for Opening Year (Year 2015) and Build-out (Year 2020) using the peak period CTP model data. The project will contribute traffic to the I-210 and the I-10 Freeways. **Table 11** presents the analysis for Year 2015 freeway operation, for the morning and evening peak hours, and for the Without Project, and With Project conditions are presented on **Table 12**. All freeway segments are shown to operate at LOS "F" in the eastbound direction in the evening peak hour with or without the project. The I-10 segments are included in the already-deficient CMP list (Table 2-1). The project will not increase the v/c on the I-10 Freeway segments by 0.10 or more, and therefore, the project impact would not be significant. The project will contribute to projected LOS "F" conditions in the evening peak hour on the I-210 Freeway. Any contribution to LOS "F" conditions would be considered significant. Since the I-210 Freeway is currently under construction as a new freeway, there are no future planned improvements. Improvements to the I-210 Freeway would be under the authority of Caltrans. However, there is no mechanism for development project proponents to pay fees or make a fair share contribution toward improving mainline freeway lanes. Consequently, there are no feasible mitigation measures and the project impact would be considered to be significant and unavoidable.

Year 2020 Without Project freeway operation is summarized on **Table 13** and With Project is presented on **Table 14**. As these tables show, the westbound segment of I-210 from Mountain Avenue to Euclid Avenue is forecasted to operate at LOS "F" in the morning peak hour. All freeway segments are shown to operate at LOS "F" in the eastbound direction in the evening peak hour with or without the project. The I-10 segments are included in the already-deficient CMP list (Table 2-1). The project will not increase the v/c on the I-10 Freeway segments by 0.10 or more, and therefore, the project impact would not be significant. The project will contribute to projected LOS "F" conditions in the evening peak hour on the I-210 Freeway. Any contribution to LOS "F" conditions would be considered significant. Since the I-210 Freeway is currently under construction as a new freeway, there are no future planned improvements. As stated for the Year 2015 condition, improvements to the I-210 Freeway would be under the authority of Caltrans. However, there is no mechanism for development project proponents to pay fees or make a fair share contribution toward improving mainline freeway lanes. Consequently, there are no feasible mitigation measures and the project impact would be considered to be significant and unavoidable.

As discussed earlier, in the "With Project" condition, traffic volumes are projected to decrease slightly on the I-10 in the evening peak hour. It is postulated that diversion to the I-210 Freeway, due to the proximity of the project site to the I-210 Freeway, is the cause of this.

TABLE 11
Summary of Freeway Operations
2015 General Plan Without Project

AM Peak Hour							
Freeway Segment		AM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10							
Monte Vista to Central	EB	7376	0.95	10800	4 / 1	0.74	C
	WB	8680	0.95	10800	4 / 1	0.87	D
Central to Mountain	EB	7146	0.95	10800	4 / 1	0.72	C
	WB	8415	0.95	10800	4 / 1	0.85	D
Mountain to Euclid	EB	7356	0.95	10800	4 / 1	0.74	C
	WB	8699	0.95	10800	4 / 1	0.88	D
Euclid to Fourth	EB	7182	0.95	10800	4 / 1	0.72	C
	WB	8706	0.95	10800	4 / 1	0.88	D
Interstate 210							
Monte Vista to Central	EB	1251	0.95	8500	3 / 1	0.16	A
	WB	5658	0.95	8500	3 / 1	0.72	C
Central to Mountain	EB	1278	0.95	8500	3 / 1	0.16	A
	WB	5276	0.95	8500	3 / 1	0.68	B
Mountain to Euclid	EB	1578	0.95	8500	3 / 1	0.20	A
	WB	6016	0.95	8500	3 / 1	0.77	C
Euclid to Carnelian	EB	1480	0.95	8500	3 / 1	0.19	A
	WB	5700	0.95	8500	3 / 1	0.73	C
Carnelian to Haven	EB	1363	0.95	8500	3 / 1	0.17	A
	WB	5649	0.95	8500	3 / 1	0.72	C
Haven to Milliken	EB	1253	0.95	8500	3 / 1	0.16	A
	WB	5626	0.95	8500	3 / 1	0.72	C
PM Peak Hour							
Freeway Segment		PM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10							
Monte Vista to Central	EB	11494	0.95	10800	4 / 1	1.16	F
	WB	8507	0.95	10800	4 / 1	0.86	D
Central to Mountain	EB	11150	0.95	10800	4 / 1	1.12	F
	WB	8320	0.95	10800	4 / 1	0.84	D
Mountain to Euclid	EB	11572	0.95	10800	4 / 1	1.17	F
	WB	8690	0.95	10800	4 / 1	0.88	D
Euclid to Fourth	EB	11342	0.95	10800	4 / 1	1.14	F
	WB	8552	0.95	10800	4 / 1	0.86	D
Interstate 210							
Monte Vista to Central	EB	8859	0.95	8500	3 / 1	1.13	F
	WB	3625	0.95	8500	3 / 1	0.46	A
Central to Mountain	EB	8153	0.95	8500	3 / 1	1.04	F
	WB	3590	0.95	8500	3 / 1	0.46	A
Mountain to Euclid	EB	9323	0.95	8500	3 / 1	1.19	F
	WB	4213	0.95	8500	3 / 1	0.54	A
Euclid to Carnelian	EB	8826	0.95	8500	3 / 1	1.13	F
	WB	4062	0.95	8500	3 / 1	0.52	A
Carnelian to Haven	EB	8715	0.95	8500	3 / 1	1.12	F
	WB	3918	0.95	8500	3 / 1	0.50	A
Haven to Milliken	EB	8588	0.95	8500	3 / 1	1.10	F
	WB	3650	0.95	8500	3 / 1	0.47	A

V/C calculations are based on the 1985 Highway Capacity Manual, Chapter 3.
V/C = Volume/(Capacity per lane x Number of lanes x Lane Width Adjustment Factor x Heavy Vehicle Factor x Driver Population Factor)
Capacity per lane is based on 3 to 6 mainline freeway lanes with 2300 vehicles/hour capacity plus capacity one HOV lane with 1600 vehicles/hour capacity.

fwyvcex.wk4

TABLE 12
Summary of Freeway Operations
Year 2015 With Project

AM Peak Hour							
Freeway Segment		AM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10							
Monte Vista to Central	EB	7403	0.95	10800	4 / 1	0.75	C
	WB	8855	0.95	10800	4 / 1	0.89	D
Central to Mountain	EB	7154	0.95	10800	4 / 1	0.72	C
	WB	8632	0.95	10800	4 / 1	0.87	D
Mountain to Euclid	EB	7411	0.95	10800	4 / 1	0.75	C
	WB	8984	0.95	10800	4 / 1	0.91	E
Euclid to Fourth	EB	7170	0.95	10800	4 / 1	0.72	C
	WB	9076	0.95	10800	4 / 1	0.91	E
Interstate 210							
Monte Vista to Central	EB	1371	0.95	8500	3 / 1	0.18	A
	WB	5598	0.95	8500	3 / 1	0.72	C
Central to Mountain	EB	1524	0.95	8500	3 / 1	0.20	A
	WB	5670	0.95	8500	3 / 1	0.73	C
Mountain to Euclid	EB	1742	0.95	8500	3 / 1	0.22	A
	WB	6078	0.95	8500	3 / 1	0.78	C
Euclid to Carnelian	EB	1628	0.95	8500	3 / 1	0.21	A
	WB	5745	0.95	8500	3 / 1	0.74	C
Carnelian to Haven	EB	1484	0.95	8500	3 / 1	0.19	A
	WB	5684	0.95	8500	3 / 1	0.73	C
Haven to Milliken	EB	1365	0.95	8500	3 / 1	0.17	A
	WB	5687	0.95	8500	3 / 1	0.73	C
PM Peak Hour							
Freeway Segment		PM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10							
Monte Vista to Central	EB	11234	0.95	10800	4 / 1	1.13	F
	WB	8485	0.95	10800	4 / 1	0.86	D
Central to Mountain	EB	10965	0.95	10800	4 / 1	1.11	F
	WB	8291	0.95	10800	4 / 1	0.84	D
Mountain to Euclid	EB	11490	0.95	10800	4 / 1	1.16	F
	WB	8677	0.95	10800	4 / 1	0.87	D
Euclid to Fourth	EB	11242	0.95	10800	4 / 1	1.13	F
	WB	8490	0.95	10800	4 / 1	0.86	D
Interstate 210							
Monte Vista to Central	EB	9016	0.95	8500	3 / 1	1.15	F
	WB	3832	0.95	8500	3 / 1	0.49	A
Central to Mountain	EB	8813	0.95	8500	3 / 1	1.13	F
	WB	3996	0.95	8500	3 / 1	0.51	A
Mountain to Euclid	EB	9668	0.95	8500	3 / 1	1.24	F
	WB	4563	0.95	8500	3 / 1	0.58	A
Euclid to Carnelian	EB	9002	0.95	8500	3 / 1	1.15	F
	WB	4359	0.95	8500	3 / 1	0.56	A
Carnelian to Haven	EB	8915	0.95	8500	3 / 1	1.14	F
	WB	4241	0.95	8500	3 / 1	0.54	A
Haven to Milliken	EB	8765	0.95	8500	3 / 1	1.12	F
	WB	3875	0.95	8500	3 / 1	0.50	A

V/C calculations are based on the 1985 Highway Capacity Manual, Chapter 3.

V/C = Volume/(Capacity per lane x Number of lanes x Lane Width Adjustment Factor x Heavy Vehicle Factor x Driver Population Factor)

Capacity per lane is based on 3 to 6 mainline freeway lanes with 2300 vehicles/hour capacity plus capacity. one HOV lane with 1600 vehicles/hour capacity.

fwyvce.wk4

TABLE 13
Summary of Freeway Operations
2020 General Plan Without Project

AM Peak Hour							
Freeway Segment		AM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10							
Monte Vista to Central	EB	7701	0.95	10800	4 / 1	0.78	C
	WB	8966	0.95	10800	4 / 1	0.90	D
Central to Mountain	EB	7462	0.95	10800	4 / 1	0.75	C
	WB	8695	0.95	10800	4 / 1	0.88	D
Mountain to Euclid	EB	7688	0.95	10800	4 / 1	0.77	C
	WB	9008	0.95	10800	4 / 1	0.91	E
Euclid to Fourth	EB	7524	0.95	10800	4 / 1	0.76	C
	WB	9100	0.95	10800	4 / 1	0.92	E
Interstate 210							
Monte Vista to Central	EB	1668	0.95	8500	3 / 1	0.21	A
	WB	7544	0.95	8500	3 / 1	0.97	E
Central to Mountain	EB	1704	0.95	8500	3 / 1	0.22	A
	WB	7034	0.95	8500	3 / 1	0.90	D
Mountain to Euclid	EB	2104	0.95	8500	3 / 1	0.27	A
	WB	8021	0.95	8500	3 / 1	1.03	F
Euclid to Carnelian	EB	1973	0.95	8500	3 / 1	0.25	A
	WB	7600	0.95	8500	3 / 1	0.97	E
Carnelian to Haven	EB	1818	0.95	8500	3 / 1	0.23	A
	WB	7532	0.95	8500	3 / 1	0.96	E
Haven to Milliken	EB	1671	0.95	8500	3 / 1	0.21	A
	WB	7501	0.95	8500	3 / 1	0.96	E
PM Peak Hour							
Freeway Segment		PM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10							
Monte Vista to Central	EB	11445	0.95	10800	4 / 1	1.15	F
	WB	8482	0.95	10800	4 / 1	0.85	D
Central to Mountain	EB	11102	0.95	10800	4 / 1	1.12	F
	WB	8294	0.95	10800	4 / 1	0.84	D
Mountain to Euclid	EB	11520	0.95	10800	4 / 1	1.16	F
	WB	8661	0.95	10800	4 / 1	0.87	D
Euclid to Fourth	EB	11290	0.95	10800	4 / 1	1.14	F
	WB	8522	0.95	10800	4 / 1	0.86	D
Interstate 210							
Monte Vista to Central	EB	8703	0.95	8500	3 / 1	1.11	F
	WB	3562	0.95	8500	3 / 1	0.46	A
Central to Mountain	EB	8010	0.95	8500	3 / 1	1.03	F
	WB	3527	0.95	8500	3 / 1	0.45	A
Mountain to Euclid	EB	9159	0.95	8500	3 / 1	1.17	F
	WB	4139	0.95	8500	3 / 1	0.53	A
Euclid to Carnelian	EB	8671	0.95	8500	3 / 1	1.11	F
	WB	3991	0.95	8500	3 / 1	0.51	A
Carnelian to Haven	EB	11620	0.95	8500	3 / 1	1.49	F
	WB	5224	0.95	8500	3 / 1	0.67	B
Haven to Milliken	EB	11451	0.95	8500	3 / 1	1.47	F
	WB	4866	0.95	8500	3 / 1	0.62	B

V/C calculations are based on the 1985 Highway Capacity Manual, Chapter 3.
V/C = Volume/(Capacity per lane x Number of lanes x Lane Width Adjustment Factor x Heavy Vehicle Factor x Driver Population Factor)
Capacity per lane is based on 3 to 6 mainline freeway lanes with 2300 vehicles/hour capacity plus capacity one HOV lane with 1600 vehicles/hour capacity.
fwyvce.wk4

TABLE 14
Summary of Freeway Operations
Year 2020 With Project

AM Peak Hour							
Freeway Segment		AM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10							
Monte Vista to Central	EB	7728	0.95	10800	4 / 1	0.78	C
	WB	9141	0.95	10800	4 / 1	0.92	E
Central to Mountain	EB	7471	0.95	10800	4 / 1	0.75	C
	WB	8913	0.95	10800	4 / 1	0.90	D
Mountain to Euclid	EB	7743	0.95	10800	4 / 1	0.78	C
	WB	9293	0.95	10800	4 / 1	0.94	E
Euclid to Fourth	EB	7512	0.95	10800	4 / 1	0.76	C
	WB	9470	0.95	10800	4 / 1	0.95	E
Interstate 210							
Monte Vista to Central	EB	1788	0.95	8500	3 / 1	0.23	A
	WB	7484	0.95	8500	3 / 1	0.96	E
Central to Mountain	EB	1950	0.95	8500	3 / 1	0.25	A
	WB	7428	0.95	8500	3 / 1	0.95	E
Mountain to Euclid	EB	2268	0.95	8500	3 / 1	0.29	A
	WB	8083	0.95	8500	3 / 1	1.04	F
Euclid to Camelian	EB	2121	0.95	8500	3 / 1	0.27	A
	WB	7644	0.95	8500	3 / 1	0.98	E
Camelian to Haven	EB	1939	0.95	8500	3 / 1	0.25	A
	WB	7567	0.95	8500	3 / 1	0.97	E
Haven to Milliken	EB	1782	0.95	8500	3 / 1	0.23	A
	WB	7563	0.95	8500	3 / 1	0.97	E
PM Peak Hour							
Freeway Segment		PM Peak Volume	Peak Hour Factor	Total Capacity	Number of Lanes (Main/HOV)	V/C	LOS
Interstate 10							
Monte Vista to Central	EB	11185	0.95	10800	4 / 1	1.13	F
	WB	8460	0.95	10800	4 / 1	0.85	D
Central to Mountain	EB	10917	0.95	10800	4 / 1	1.10	F
	WB	8266	0.95	10800	4 / 1	0.83	D
Mountain to Euclid	EB	11438	0.95	10800	4 / 1	1.15	F
	WB	8648	0.95	10800	4 / 1	0.87	D
Euclid to Fourth	EB	11189	0.95	10800	4 / 1	1.13	F
	WB	8460	0.95	10800	4 / 1	0.85	D
Interstate 210							
Monte Vista to Central	EB	8861	0.95	8500	3 / 1	1.13	F
	WB	3769	0.95	8500	3 / 1	0.48	A
Central to Mountain	EB	8670	0.95	8500	3 / 1	1.11	F
	WB	3933	0.95	8500	3 / 1	0.50	A
Mountain to Euclid	EB	9504	0.95	8500	3 / 1	1.22	F
	WB	4489	0.95	8500	3 / 1	0.57	A
Euclid to Camelian	EB	8847	0.95	8500	3 / 1	1.13	F
	WB	4288	0.95	8500	3 / 1	0.55	A
Camelian to Haven	EB	11820	0.95	8500	3 / 1	1.51	F
	WB	5547	0.95	8500	3 / 1	0.71	C
Haven to Milliken	EB	11628	0.95	8500	3 / 1	1.49	F
	WB	5091	0.95	8500	3 / 1	0.65	B

V/C calculations are based on the 1985 Highway Capacity Manual, Chapter 3.
V/C = Volume/(Capacity per lane x Number of lanes x Lane Width Adjustment Factor x Heavy Vehicle Factor x Driver Population Factor)
Capacity per lane is based on 3 to 6 mainline freeway lanes with 2300 vehicles/hour capacity plus capacity. one HOV lane with 1600 vehicles/hour capacity.

fwyvce.wx4

NEEDED IMPROVEMENT COSTS AND PROJECT CONTRIBUTION

Summary of Future Intersection Operation

This report has identified the projected operating conditions for Years 2011, 2015, and 2020 with and without The Colonies project traffic. LOS "E" or "F" operating conditions are considered deficient by City standards. The analysis results indicated the following in the "Without Project" condition:

- By Year 2011, four intersections would be deficient;
 - 19th Street at Campus Avenue
 - 16th Street at Mountain Avenue
 - Baseline Street at Carnelian Street
 - Baseline Street at Archibald Avenue
- Phase 1 and 2 project traffic would contribute to Year 2011 over-capacity conditions at three of the four deficient intersections, and would cause one additional intersection to operate at LOS "E" in both peak hours: 19th Street and Sapphire Street.
- Also with development of Phase 2, the project will realign 19th Street and construct improvements at 19th Street and Campus Avenue to replace the four-legged intersection with two offset intersections, 19th Street North and 19th Street South at Campus Avenue. With the improvements proposed by the project, the deficient conditions at 19th Street and Campus Avenue will be eliminated, and the two offset intersections will operate at an acceptable level of service in both peak hours.
- By Year 2015 without the project, the same four intersections would remain deficient.
- By Project Opening Year, Phase 1, 2, and 3 project traffic would contribute to Year 2015 over-capacity conditions at three of the four deficient intersections, and would cause one additional intersection to operate at LOS "E" in both peak hours: 19th Street and Sapphire Street.
- Also, with development of Phase 2, the project will realign 19th Street and construct improvements at 19th Street and Campus Avenue to replace the four-legged intersection with two offset intersections, 19th Street North and 19th Street South at Campus Avenue. With the improvements proposed by the project, the deficient conditions at 19th Street and Campus Avenue will be eliminated, and the two offset intersections will operate at an acceptable level of service in both peak hours.
- Also in Year 2015, two intersections are shown to improve in the morning peak hour in the "With Project" condition:
 - 19th Street at Mountain Avenue
 - 19th Street at Euclid Avenue

- By Year 2020 Build-out without the project, the four previously deficient intersections would remain deficient, and two more intersections would worsen to LOS "E" or "F" for a total of six intersections:
 - 19th Street at Mountain Avenue
 - 19th Street at Sapphire Street
- Project traffic from the Total Project would contribute to Year 2020 over-capacity conditions at four of the six deficient intersections, but would not cause any additional intersections to operate at LOS "E" or "F".
- Also in Year 2020, the improved intersections of 19th Street North and 19th Street South at Campus Avenue will replace the deficient intersection of 19th Street at Campus Avenue, and will continue to operate at acceptable levels of service.
- Also in Year 2020 with the total project, as in previous years, with development of the project and its proposed network changes, some intersections are projected to experience improved operations in the With Project conditions.

Intersection Improvements

Improvements which will eliminate the projected intersection deficiencies at the study intersections are summarized on **Table 15**. Also shown on Table 15 are the resulting levels of service with the recommended improvements in place. The improvements shown will bring each intersection back to Level of Service "D" operations under each scenario. Where necessary, if improvements that achieve acceptable level of service in Year 2011 or 2015 are not enough to maintain acceptable level of service in Year 2020, then additional improvements are identified. Three of the intersections where improvements are identified are located in the City of Rancho Cucamonga.

Approximate costs for these improvements have been estimated using cost guidelines in the 1997 CMP handbook, and are summarized on **Table 16**. Order of magnitude costs have been assumed for standard improvements such as the addition of right-turn or left-turn lanes, or through lanes. The total cost of intersection improvements is estimated at \$1,368,000. This cost estimate does not include the following items, which can vary greatly depending on the location: 1. Right-of-way engineering, appraisal, acquisition, and utilities relocation; 2. Minor items and supplemental work (typically 10%); 3. Mobilization (typically 10%); 4. Contingencies (typically 25%); and 5. Landscaping costs.

The project's fair-share costs for these improvements are shown on **Table 17**. Fair-share calculations are based on the evening peak hour traffic, since the intersection deficiencies all occur in the evening peak hour and the project will generate significantly more traffic in the evening peak.

TABLE 15
Summary of Intersection Operation
With Improvements

Int. #	Intersection	2011 Conditions						2011 Without Project, with Improvement						2011 with Project with Improvement						Delay Improvement (s)					
		AM Peak			PM Peak			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM		PM			
		Delay	LOS	Delay	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Peak	Peak			
6	16th / Mountain	55.3	E	95.4	F	Add ER, NL, and NR	45.7	D	51.0	D	9.6	44.4	46.6	D	48.6	D	8.7	46.8							
9	Baseline / Carmelian	132.3	F	173.5	F	Add ER, WR and SL	49.2	D	52.7	D	83.1	120.8	51.2	D	42.8	D	81.1	130.7							
10	Baseline / Archibald	19.2	B	127.7	F	Add ET and WR	17.9	B	54.5	D	1.3	73.2	19.6	B	54.9	D	-0.4	72.8							
22	19th / Sapphire	41.8	D	12.0	B	Add WT	41.8	D	12.0	B	0.0	0.0	30.5	C	30.5	C	11.3	-18.5							

Int. #	Intersection	2015 Conditions						2015 Without Project, with Improvement						2015 with Project, with Improvement						Delay Improvement (s)					
		AM Peak			PM Peak			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM		PM			
		Delay	LOS	Delay	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Peak	Peak			
6	16th / Mountain	62.4	E	83.4	F	Add ER, NL, and NR	48.4	D	51.8	D	14.0	31.6	44.3	D	41.6	D	18.1	41.8							
9	Baseline / Carmelian	123.8	F	157.6	F	Add ER, WR and SL	49.4	D	53.3	D	74.4	104.3	49.5	D	46.8	D	74.3	110.8							
10	Baseline / Archibald	19.3	B	129.4	F	Add ET and WR	18.3	B	52.2	D	1.0	77.2	18.9	B	53.2	D	0.4	76.2							
22	19th / Sapphire	54.3	D	13.7	B	Add WT	54.3	D	13.7	B	0.0	0.0	42.2	D	47.7	D	12.1	-34.0							

Int. #	Intersection	2020 Conditions						2020 Without Project, with Improvement						2020 with Project, with Improvement						Delay Improvement (s)					
		AM Peak			PM Peak			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM		PM			
		Delay	LOS	Delay	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Peak	Peak			
6	16th / Mountain	68.9	E	90.5	F	Add ER, NL, and NR	50.0	D	52.6	D	18.9	37.9	52.2	D	52.8	D	16.7	37.7							
9	Baseline / Carmelian	129.8	F	170.2	F	Add ER, WR and SL	49.9	D	53.4	D	79.9	116.8	50.4	D	54.1	D	79.4	116.1							
10	Baseline / Archibald	22.4	C	138.8	F	Add ET and WR	20.3	C	54.5	D	2.1	84.3	22.5	C	54.7	D	-0.1	84.1							
22	19th / Sapphire	75.3	E	13.9	B	Add WT	22.9	C	13.9	B	52.4	0.0	22.4	C	24.8	C	52.9	-10.9							

**TABLE 16
Summary of Improvement Costs**

INTERSECTION	IMPROVEMENT	COST
16th / Mountain	Add EB Right-turn Lane	\$ 50,000
	Add NB Left-turn Lane	\$ 50,000
	Add NB Right-turn Lane	\$ 50,000
	Signal Modifications	\$ 125,000
	TOTAL	\$ 275,000
Baseline / Carnelian	Add EB Right-turn Lane	\$ 50,000
	Add WB Right-turn Lane	\$ 50,000
	Add ST Left-turn Lane	\$ 50,000
	Signal Modifications	\$ 125,000
	TOTAL	\$ 275,000
Baseline / Archibald	Add EB Through Lane	\$ 135,000
	Add WB Right-turn Lane	\$ 50,000
	Signal Modifications	\$ 125,000
	TOTAL	\$ 310,000
19th / Sapphire	Add WB Through Lane	\$ 135,000
	Signal Modifications	\$ 125,000
	TOTAL	\$ 260,000
TOTAL INTERSECTION COSTS		\$ 1,120,000

Note: These cost estimates do not include the following items:

1. Right-of-way engineering, appraisal, acquisition and utilities relocation costs
2. Minor items and supplemental work (typically 10%)
3. Mobilization (typically 10%)
4. Contingencies (typically 25%)
5. Landscaping costs

TABLE 17
Summary of Project Fair Share of Improvement Costs

INTERSECTION	COST	Existing Traffic	Y 2020 Traffic With Project	Project Traffic	Total New Traffic	Project % of New Traffic	Project Cost Share
16th / Mountain	\$ 275,000	5918	6188	139	270	0.51	\$ 141,574
Baseline / Carnelian	\$ 275,000	6356	6781	284	425	0.67	\$ 183,765
Baseline / Archibald	\$ 310,000	6245	6488	193	243	0.79	\$ 246,214
19th / Sapphire	\$ 260,000	1932	3048	1071	1116	0.96	\$ 249,516
INTERSECTION TOTAL	\$ 1,120,000						\$ 821,069

Note: Based on evening peak hour traffic

Freeway Impacts

The project will contribute to LOS "F" conditions on the I-210 Freeway in the eastbound direction in the evening peak hour from Monte Vista Avenue to Milliken Avenue. Since the I-210 Freeway is currently under construction as a new freeway, there are no future planned improvements. Improvements to the I-210 Freeway would be under the authority of Caltrans. However, there is no mechanism for development project proponents to pay fees or make a fair share contribution toward improving mainline freeway lanes. Consequently, there are no feasible mitigation measures and the project impact would be considered to be significant and unavoidable.

SUMMARY OF FINDINGS AND CONCLUSIONS

- The Colonies at San Antonio is a mix-use development proposed for the northeastern area of the City of Upland
- This traffic impact analysis has been conducted to comply with the requirements of the County of San Bernardino Congestion Management Program (CMP).
- Traffic forecasts for future year scenarios were derived from the Southern California Association of Governments (SCAG) Comprehensive Transportation Program (CTP) traffic model.
- Twenty-three existing signalized intersections and four future intersections have been analyzed for operating level of service.
- Three project phases were analyzed: Phase 1 and Phase 2 development in Year 2011, Phase 1, 2 and 3 (total project) development in Year 2015 (the Project Opening Year), and total project in Year 2020, Build-out;
- All but three study intersections are currently operating at an acceptable level of service in both peak hours.
- In Year 2011, four intersections are projected to operate at a deficient level of service (LOS "E" or "F") in one or more peak hours.
- Phase 1 and 2 project traffic would contribute to Year 2011 over-capacity conditions at the four deficient intersections, and would cause one additional intersection to operate at LOS "E" in both peak hours: 19th Street and Sapphire Street.
- By Year 2015 without the project, the same four intersections would remain deficient, and no additional intersections would worsen to LOS "E" or "F".

- At Project Opening Year, project traffic would contribute to Year 2015 over-capacity conditions at three of the four deficient intersections, and would cause one additional intersection to operate at LOS "E" in both peak hours: 19th Street and Sapphire Street.
- By Year 2020 Build-out without the project, the four previously deficient intersections would remain deficient, and two more intersections would worsen to LOS "E" or "F" for a total of six intersections.
- Total project traffic would contribute to Year 2020 over-capacity conditions at four of the six deficient intersections, but would not cause any additional intersections to operate at LOS "E" or "F".
- Improvements needed to eliminate deficient conditions have been identified. Approximate costs to implement the improvements, and the project's fair-share portion of those costs have been identified.

Traffic Impact Study
Technical Appendices – Volume 1

for:

The Colonies at San Antonio

Mixed-Use Development In the City of Upland

Prepared for:

The City of Upland

APPENDIX A

**PEAK HOUR ROADWAY
LINK POST-PROCESSING
WORKSHEETS**

APPENDIX A

**PEAK HOUR ROADWAY
LINK POST-PROCESSING
WORKSHEETS**

2011 Background

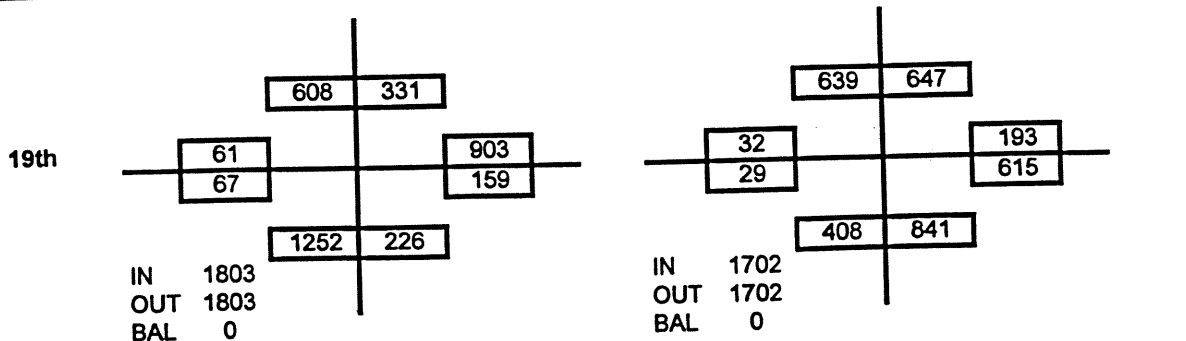
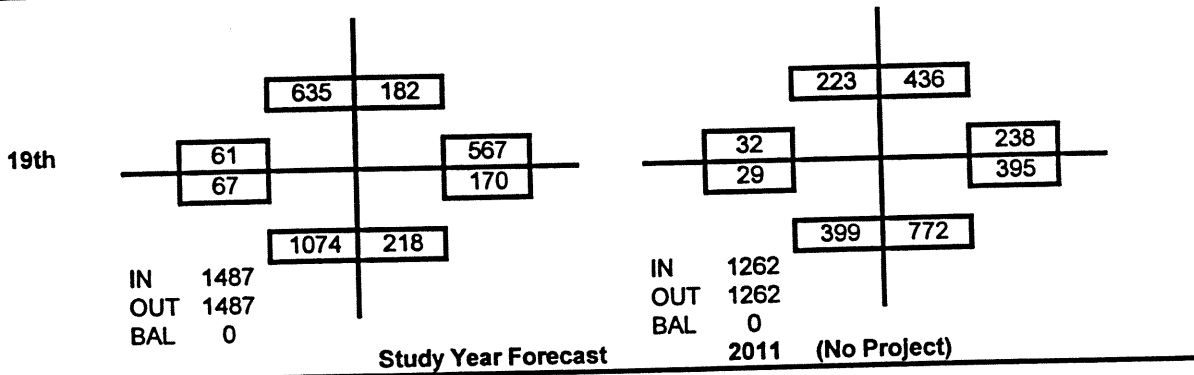
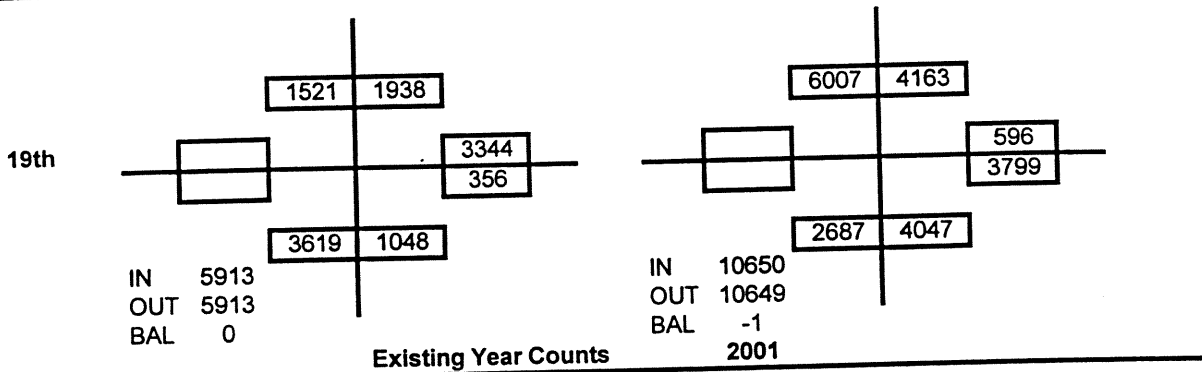
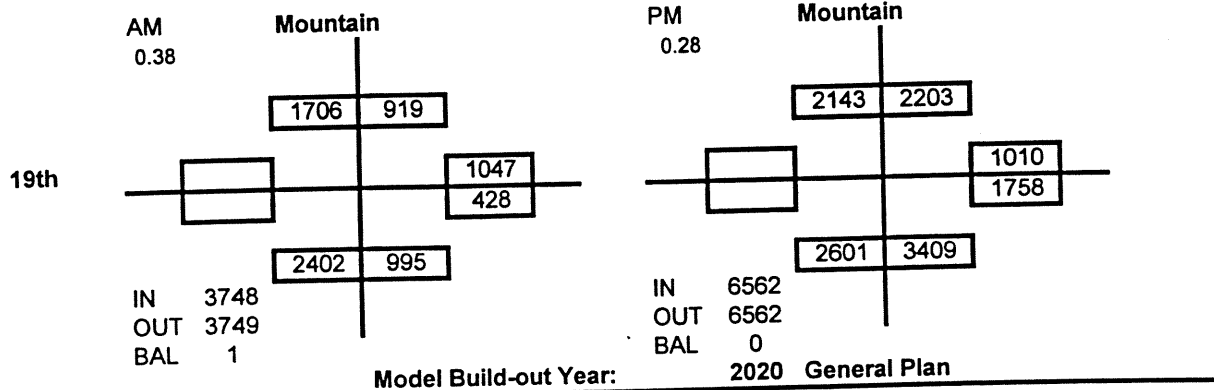
Project: Colonies
 Condition: General Plan
 Intersection Number: 1

North/South Street: Mountain
 East/West Street: 19th

Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Model Base Year: 1994



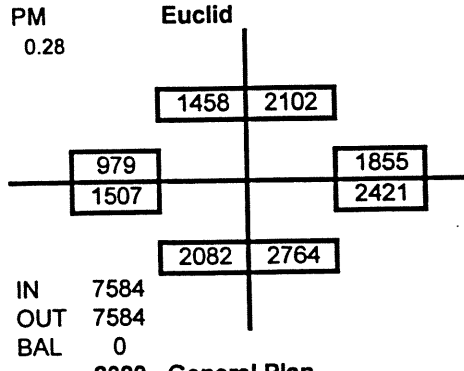
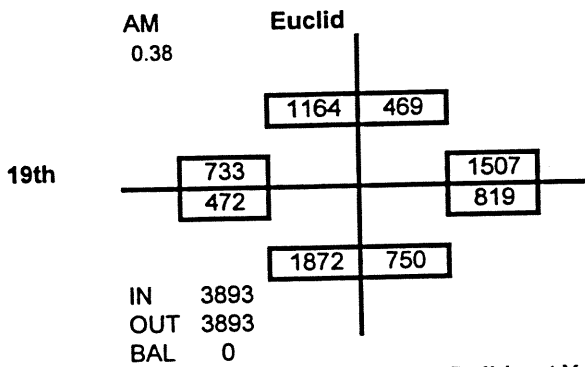
Project: Colonies
 Condition: General Plan
 Intersection Number: 2

North/South Street: Euclid
 East/West Street: 19th

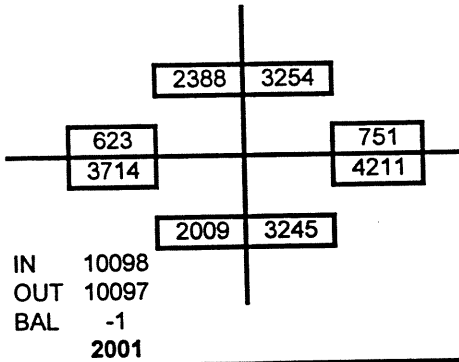
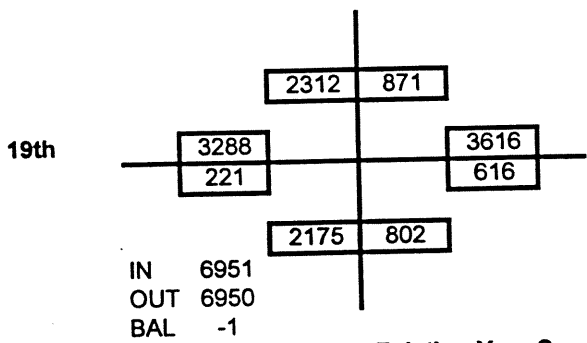
Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

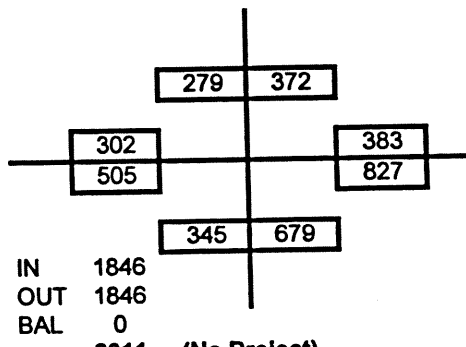
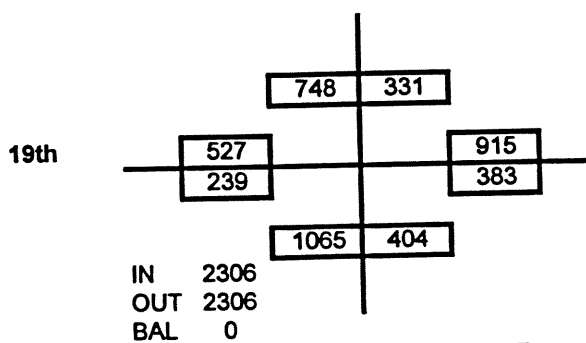
Model Base Year: 1994



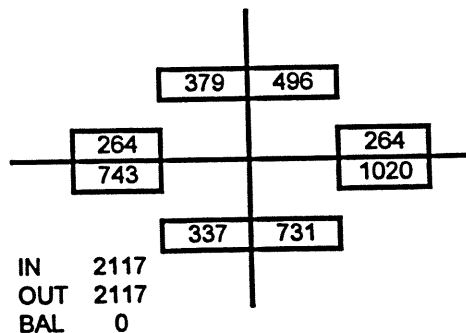
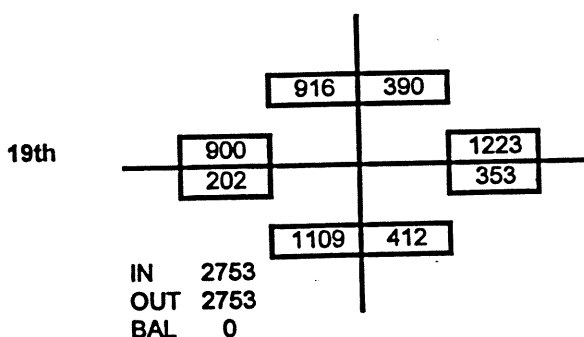
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2011 (No Project)

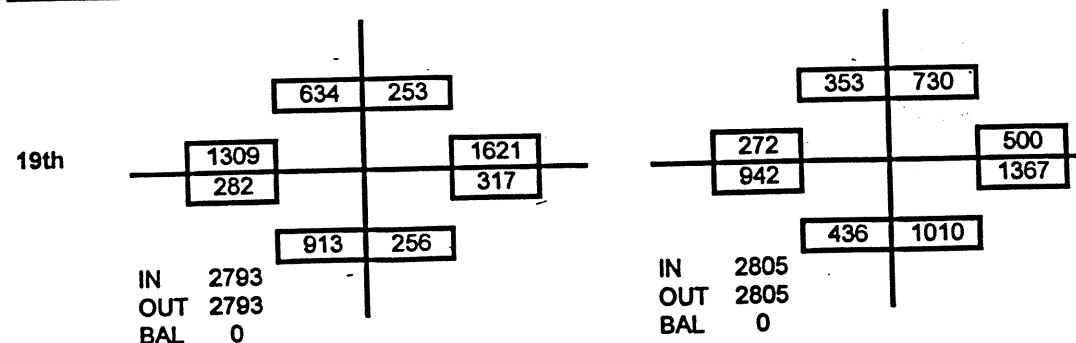
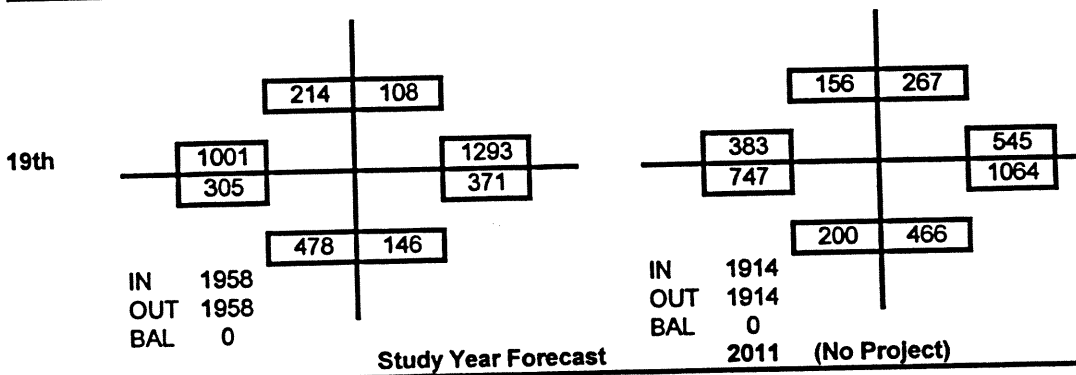
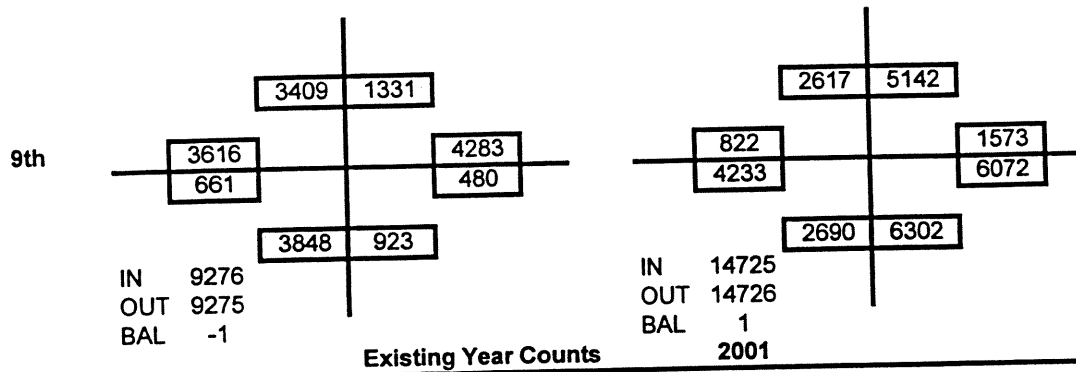
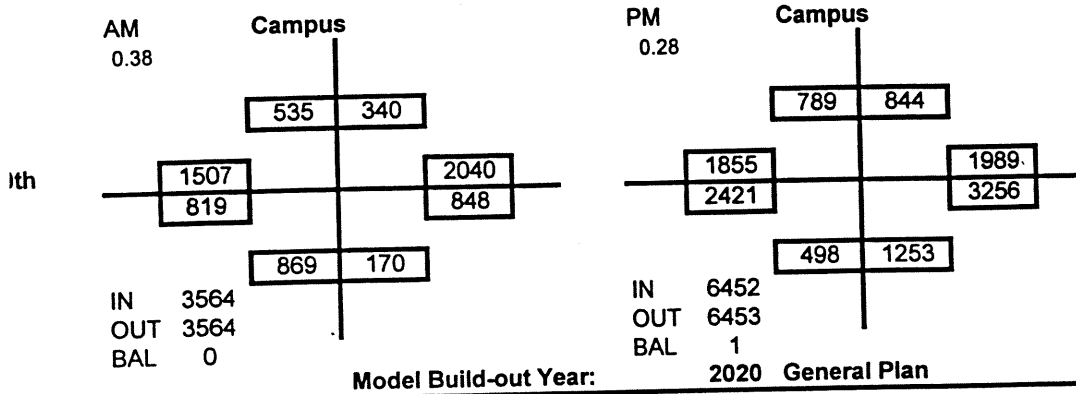


Project: Colonies
 Condition: General Plan
 Intersection Number: 3
 North/South Street: Campus
 East/West Street: 19th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Date: Feb. 22, 2002

Model Base Year: 1994

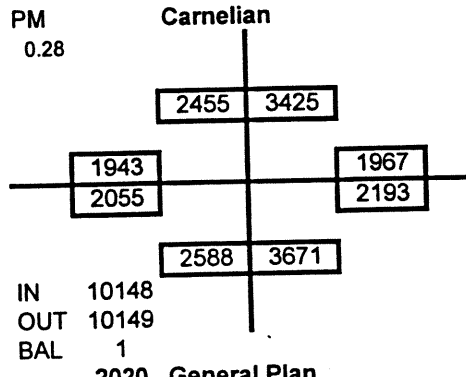
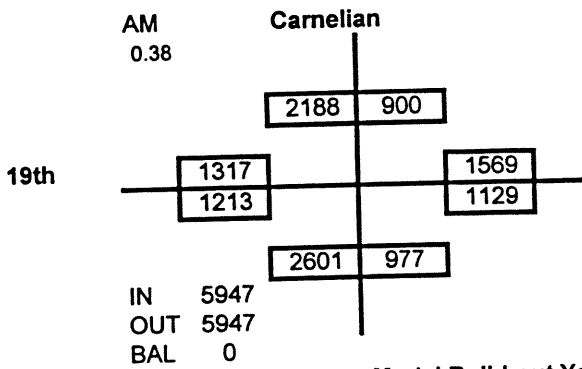


Project: Colonies
 Condition: General Plan
 Intersection Number: 4
 North/South Street: Carnelian
 East/West Street: 19th

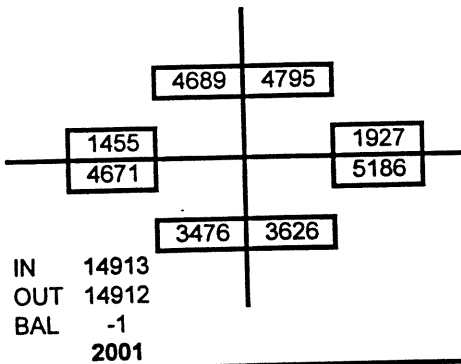
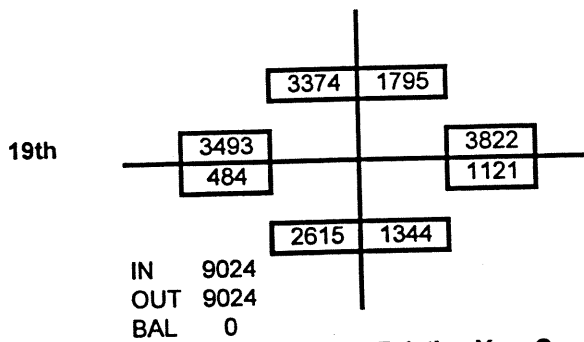
Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2011
Difference Ex to Forecast	10

Date: Feb. 22, 2002

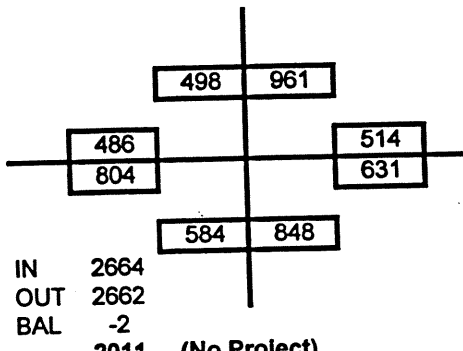
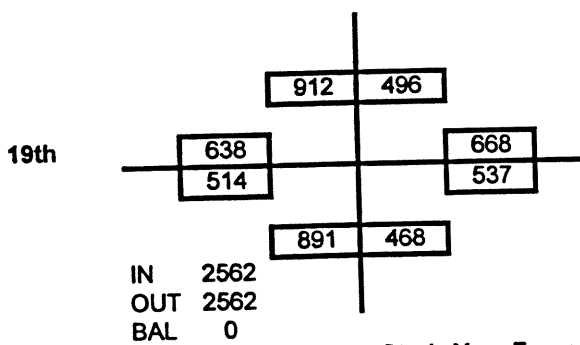
Model Base Year: 1994



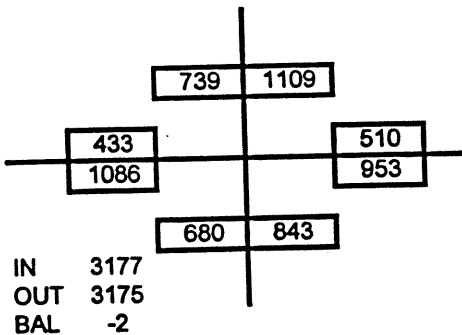
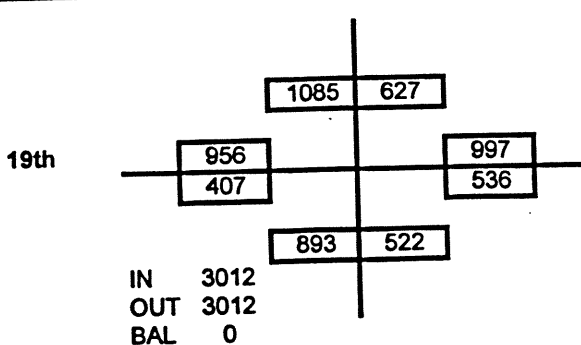
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2011 (No Project)

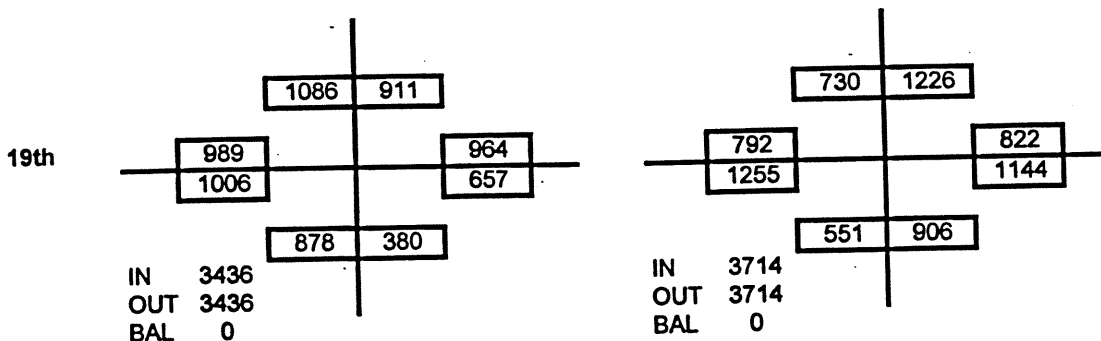
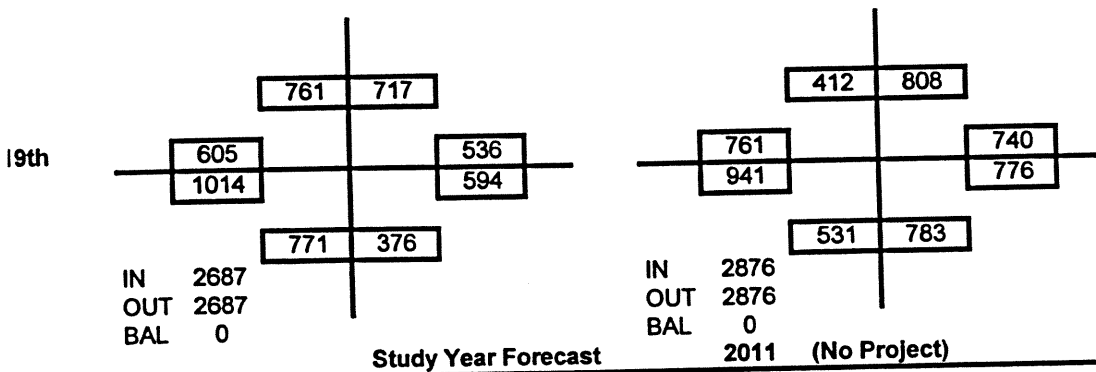
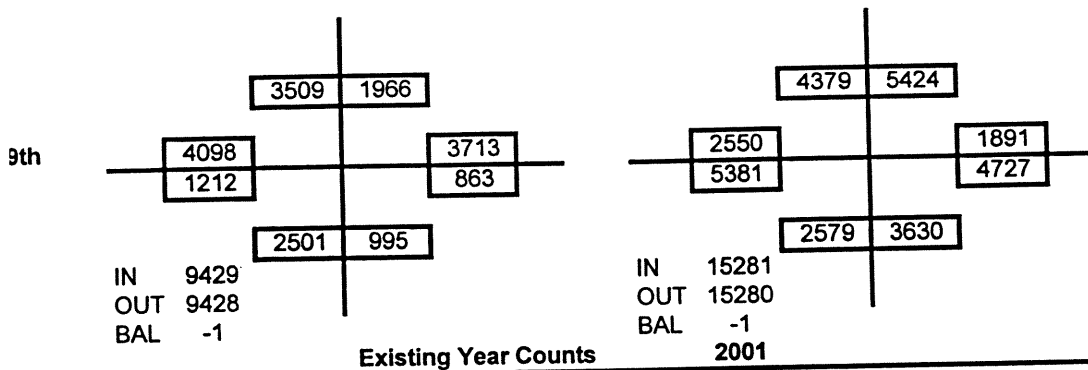
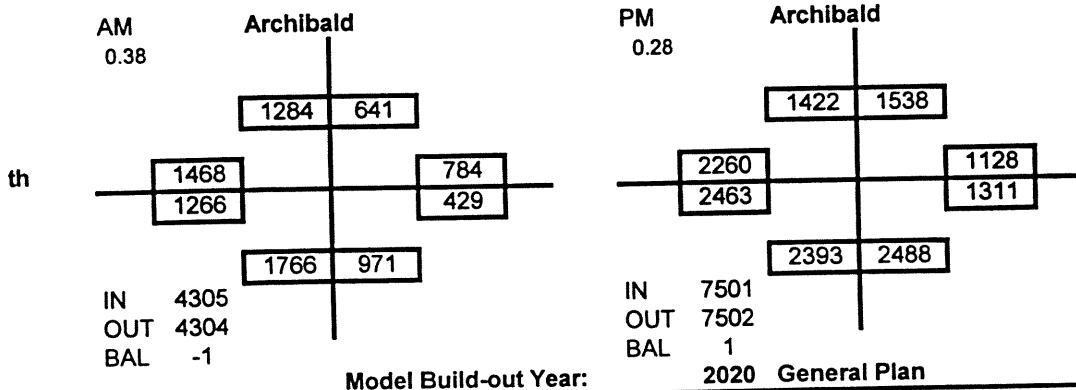


Project: Colonies
 Condition: General Plan
 Intersection Number: 5
 North/South Street: Archibald
 East/West Street: 19th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Date: Feb. 22, 2002

Model Base Year: 1994

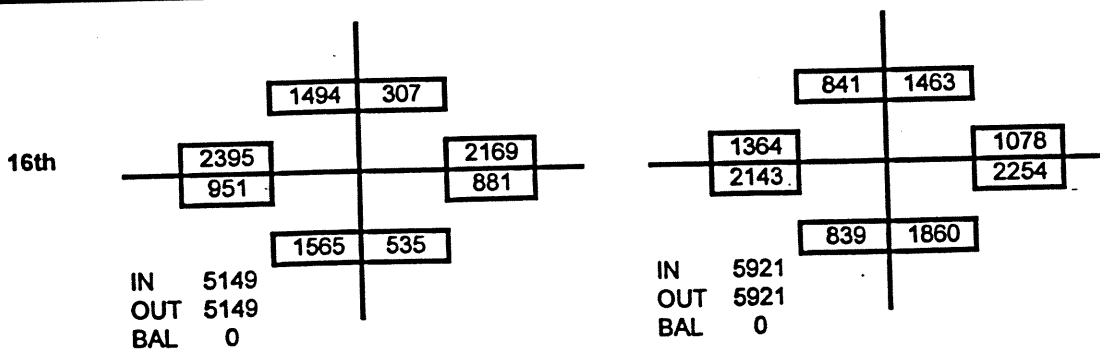
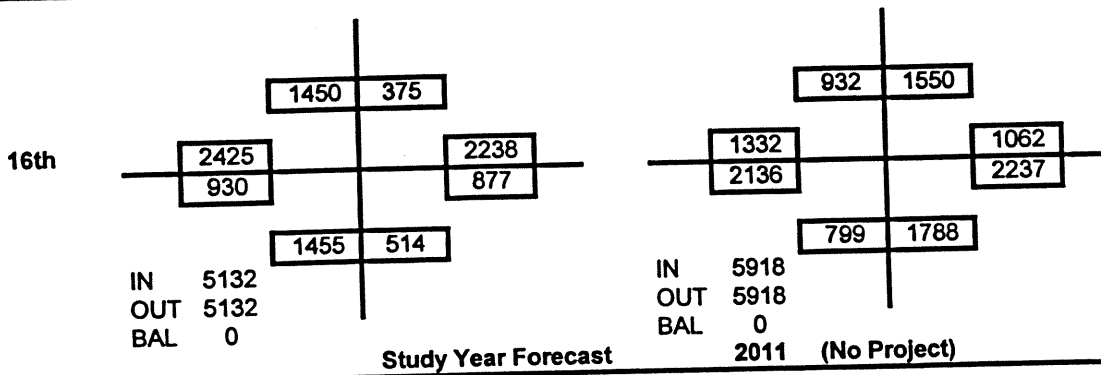
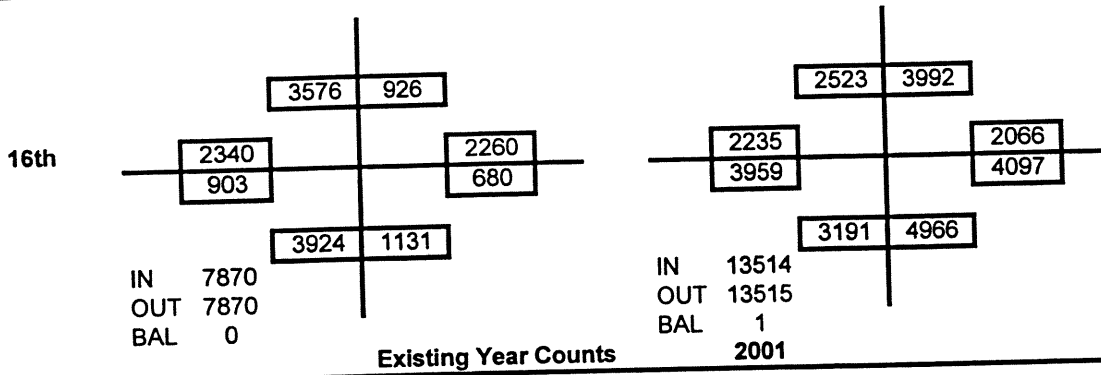
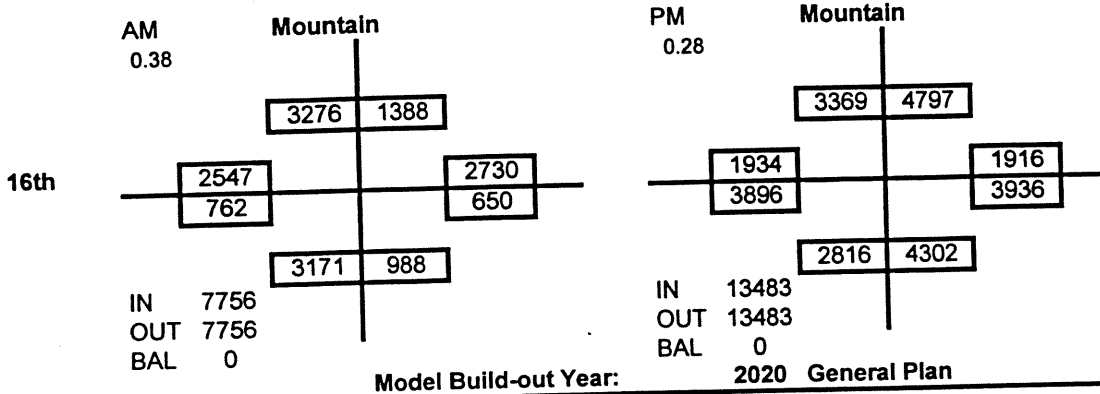


Project: Colonies
 Condition: General Plan
 Intersection Number: 6
 North/South Street: Mountain
 East/West Street: 16th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Date: Feb. 22, 2002

Model Base Year: 1994

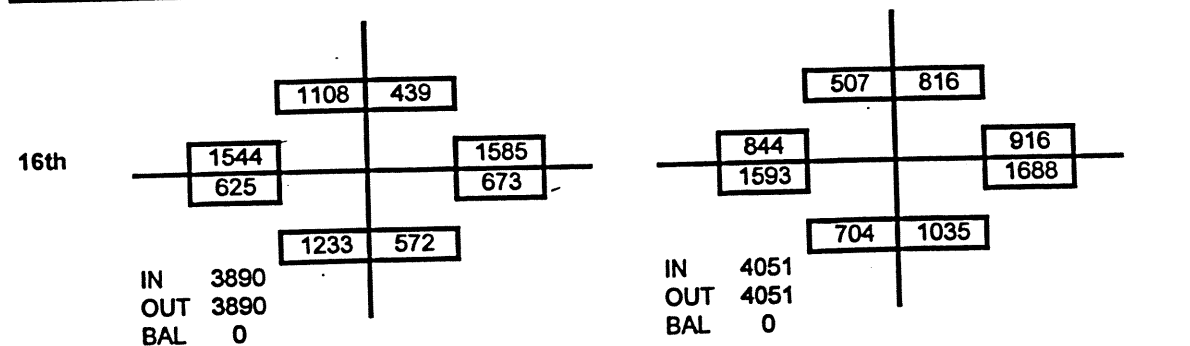
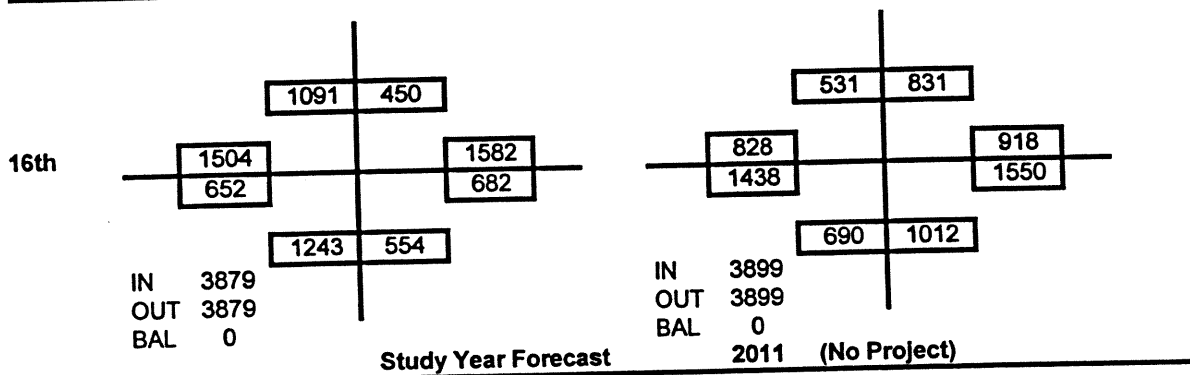
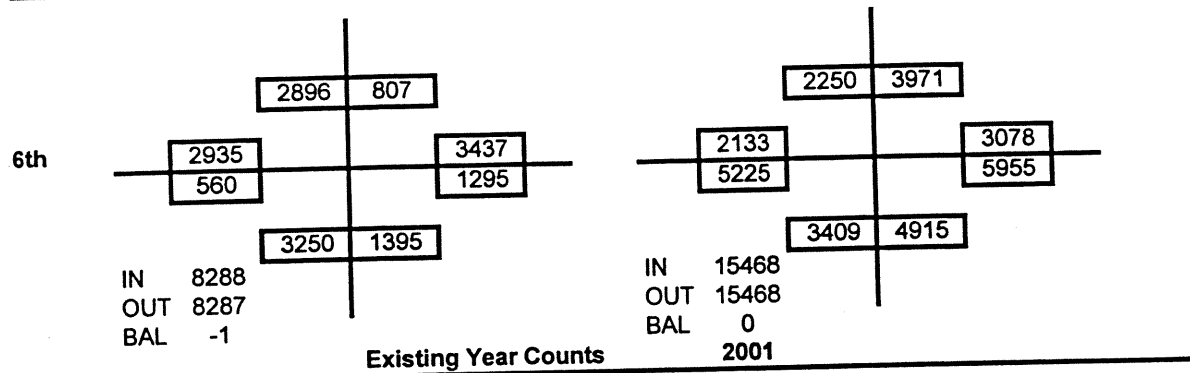
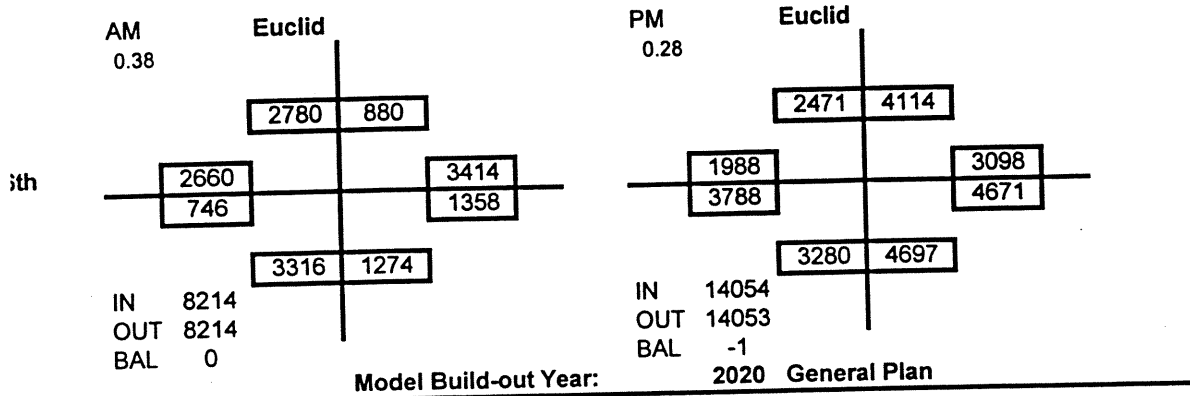


Project: Colonies
 Condition: General Plan
 Intersection Number: 7
 North/South Street: Euclid
 East/West Street: 16th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Date: Feb. 22, 2002

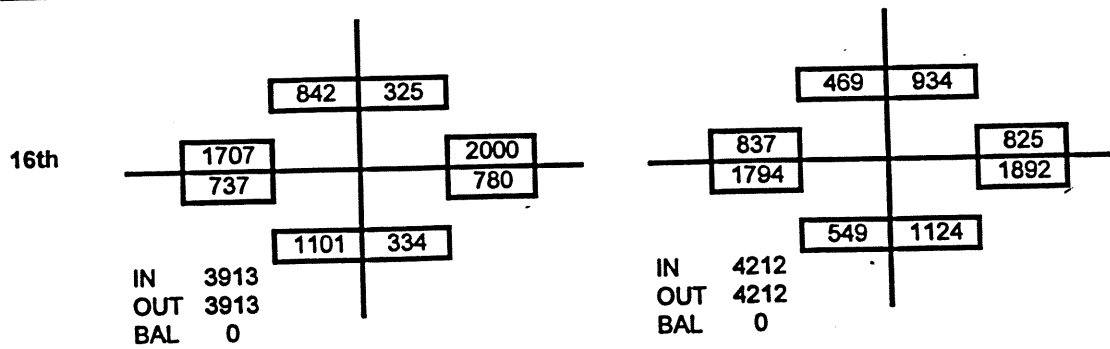
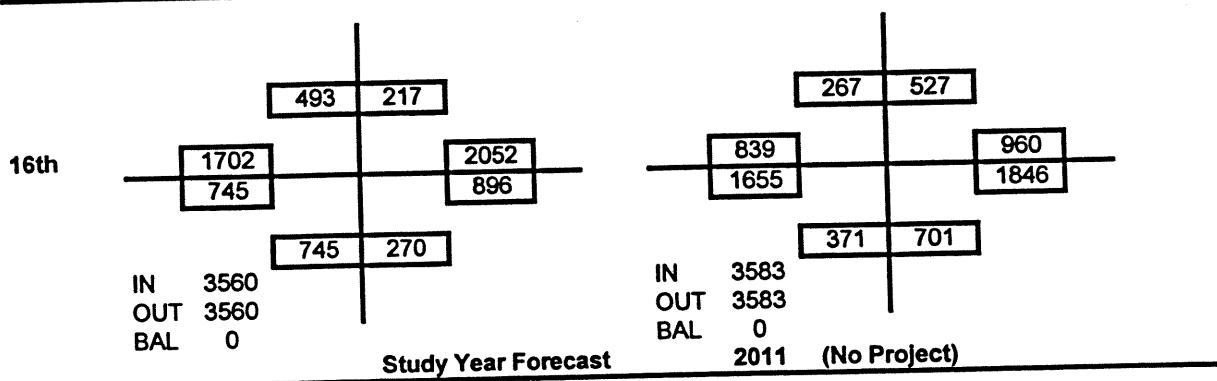
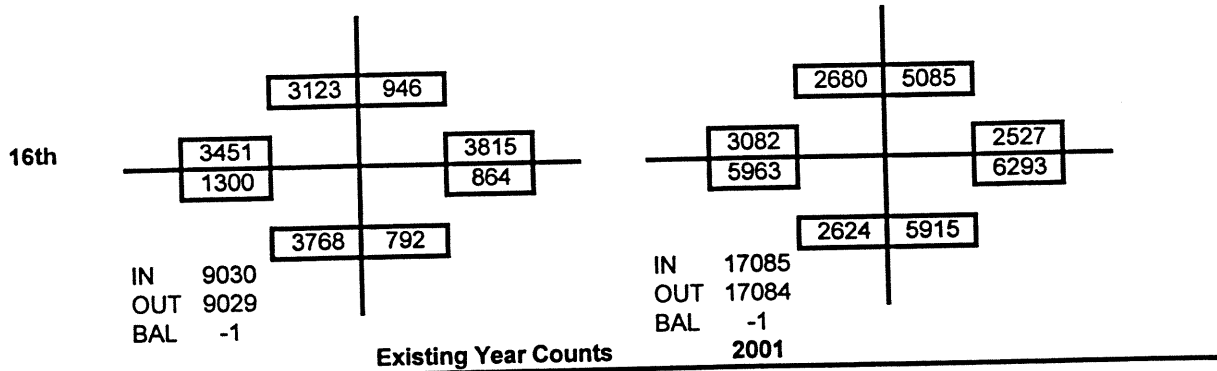
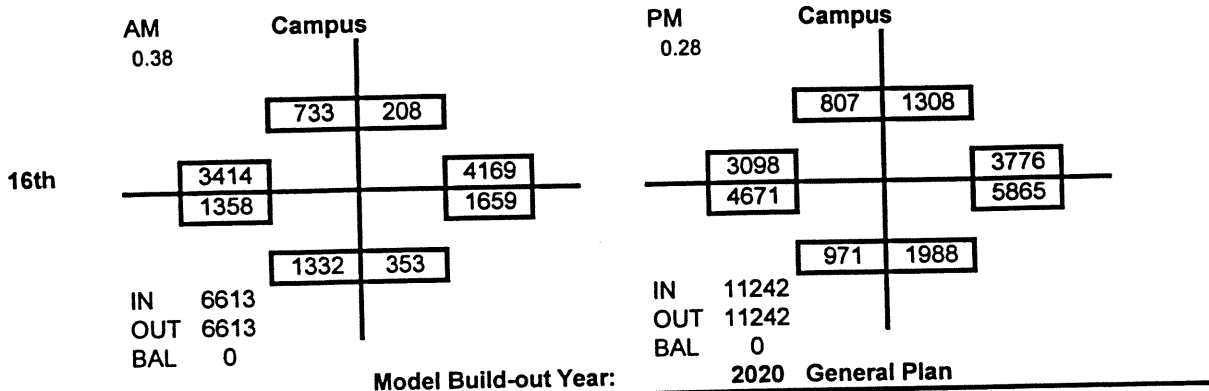
Model Base Year: 1994



Project: Colonies
Condition: General Plan
Intersection Number: 8
North/South Street: Campus
East/West Street: 16th
Peak Hour:
Date: Feb. 22, 2002

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2011
Difference Ex to Forecast	10

Model Base Year: 1994

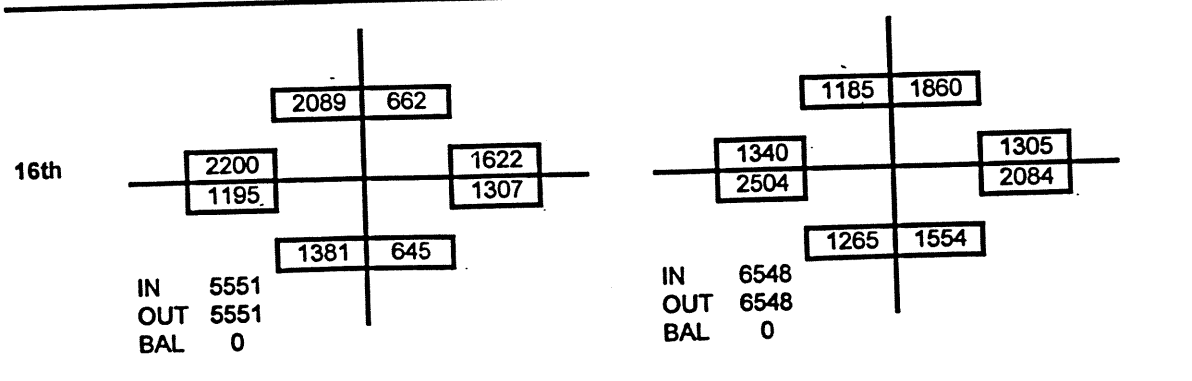
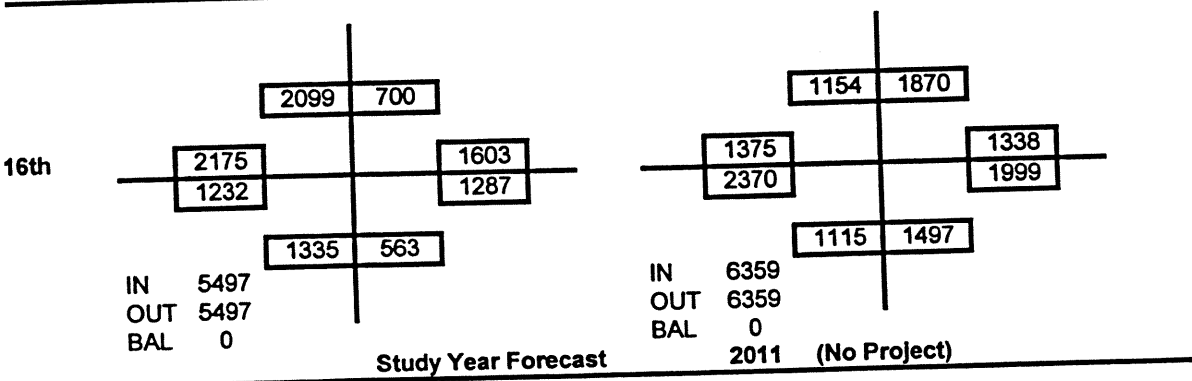
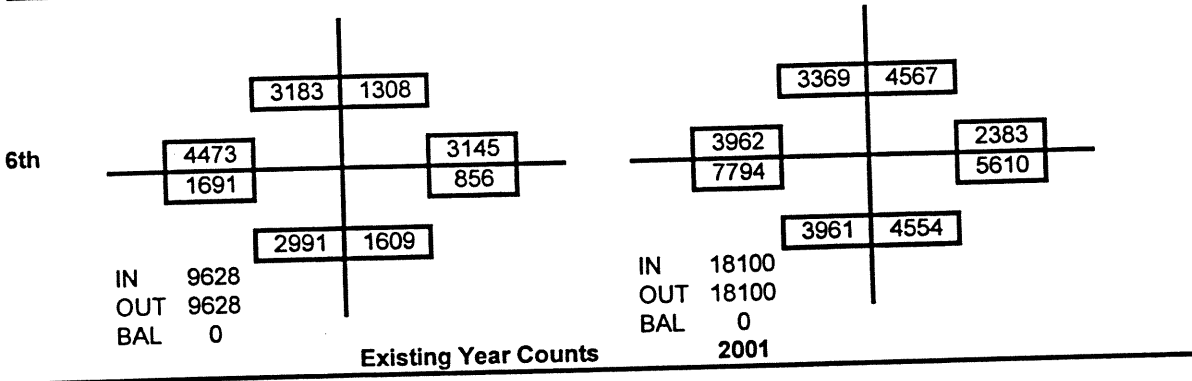
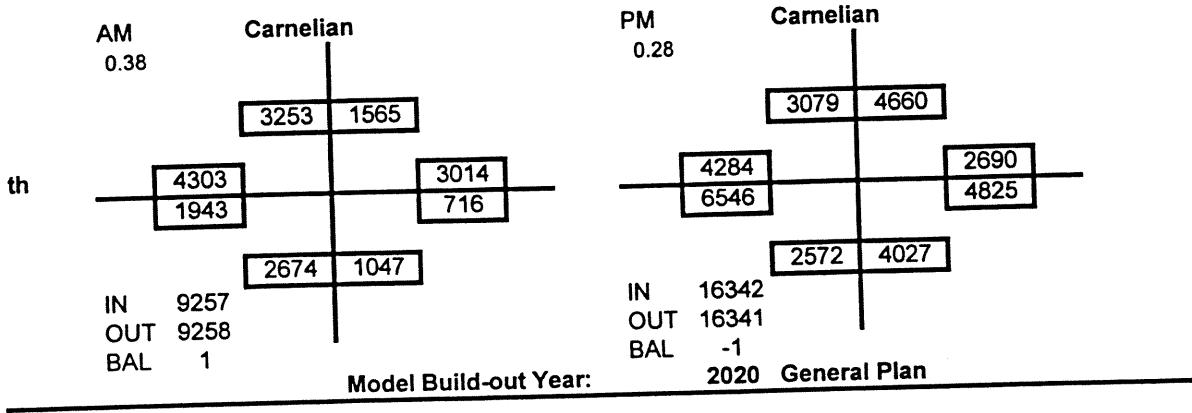


Project: Colonies
 Condition: General Plan
 Intersection Number: 9
 North/South Street: Carnelian
 East/West Street: 16th

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2011
Difference Ex to Forecast	10

Date: Feb. 22, 2002

Model Base Year: 1994



Project: Colonies
Condition: General Plan
Intersection Number: 10

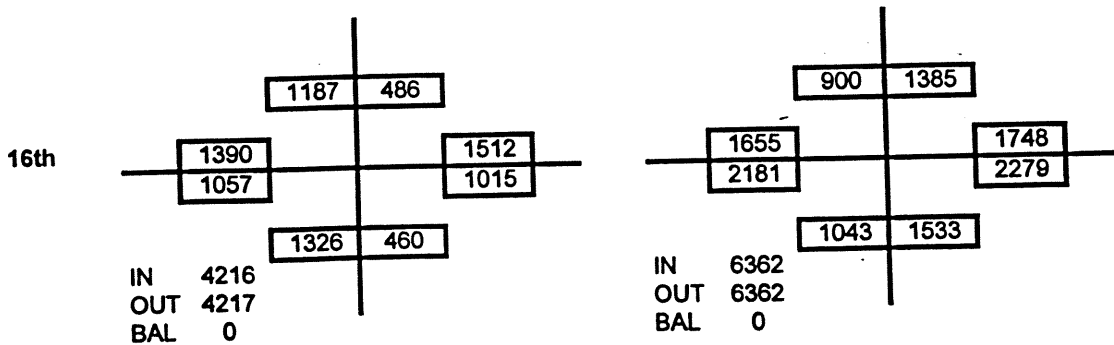
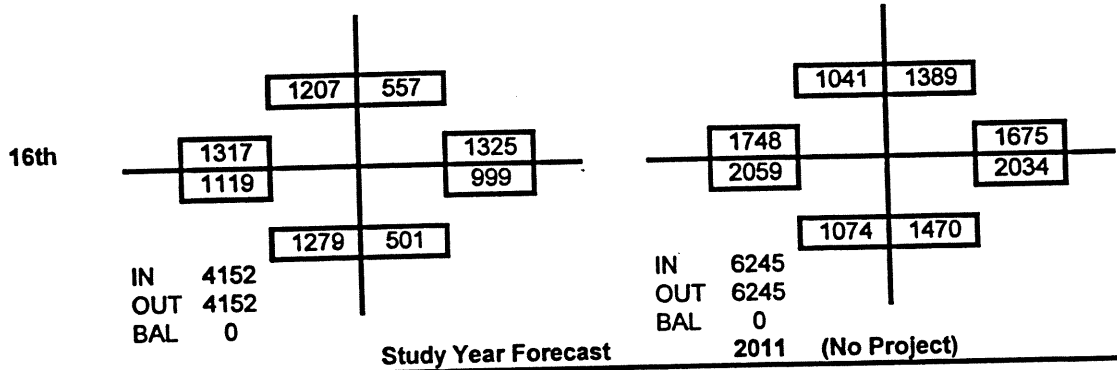
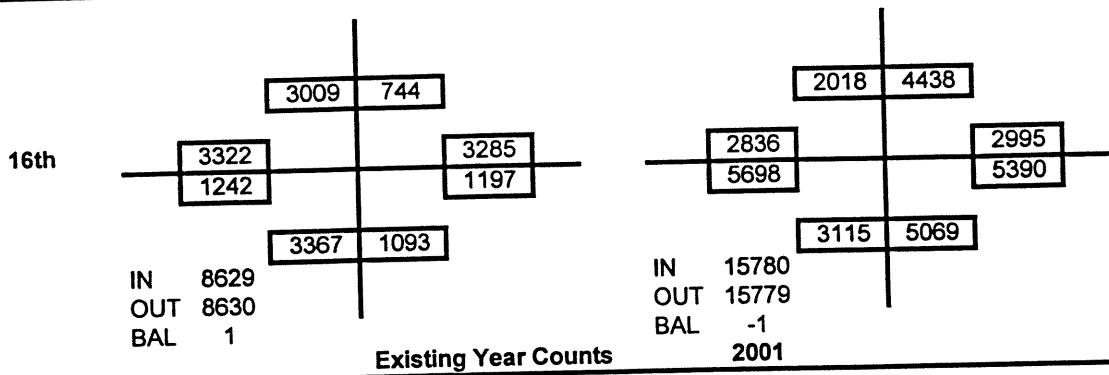
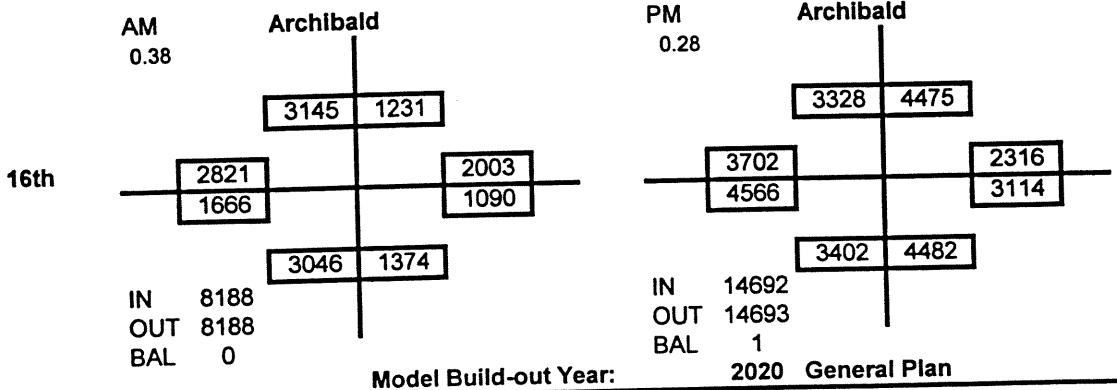
North/South Street: Archibald

East/West Street: 16th

Model Base Year: 1994
Model Build-out Year: 2020
Total Difference: 26
Existing Year Counts: 2001
Difference Ex to B-O: 19
Percent: 0.73
Study Year Forecast: 2011
Difference Ex to Forecast: 10

Date: Feb. 22, 2002

Model Base Year: 1994

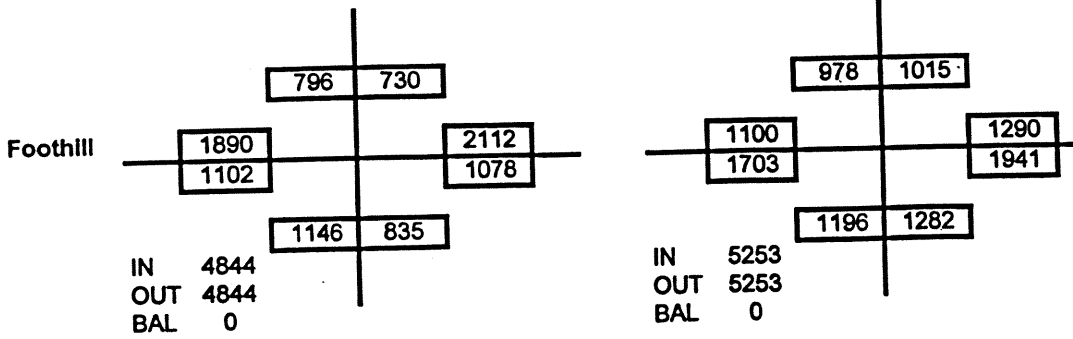
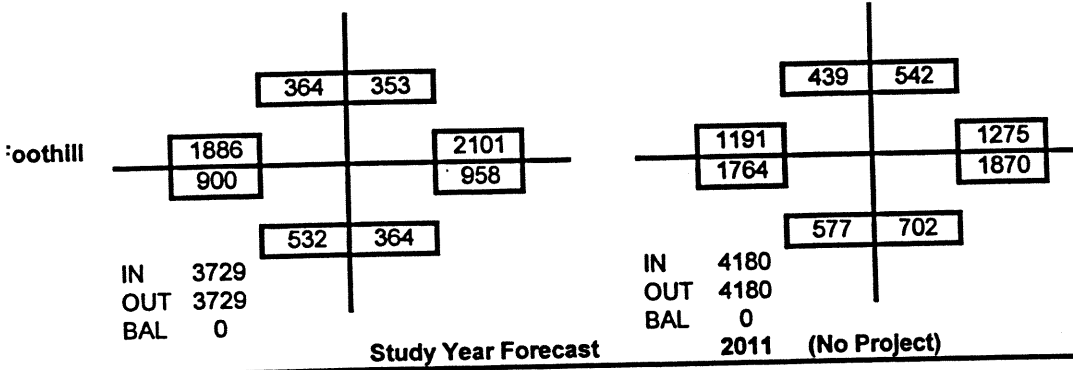
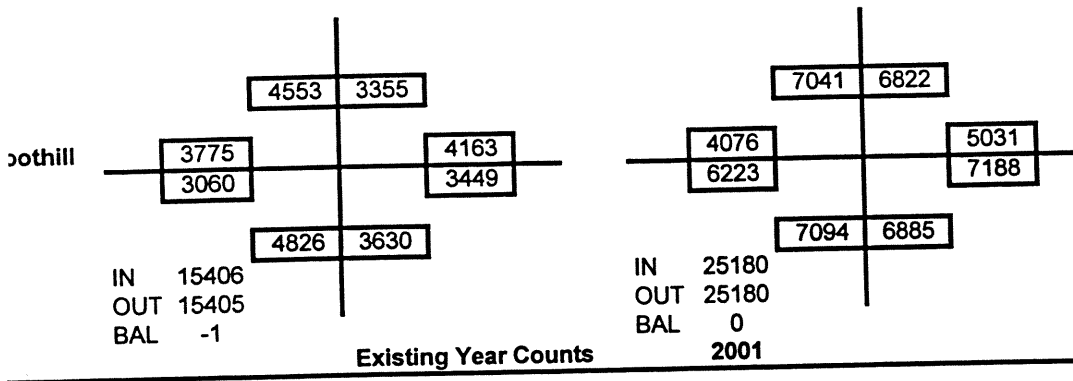
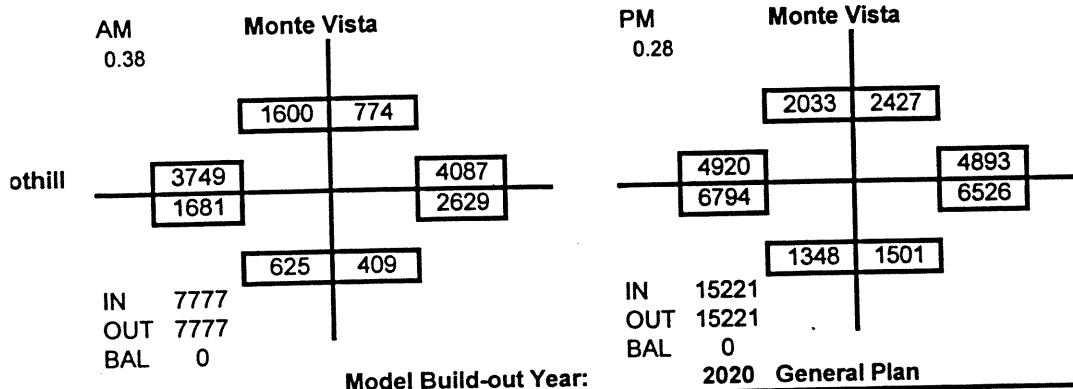


Project: Colonies
 Condition: General Plan
 Intersection Number: 11
 North/South Street: Monte Vista
 East/West Street: Foothill

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2011
Difference Ex to Forecast	10

Date: Feb. 22, 2002

Model Base Year: 1994

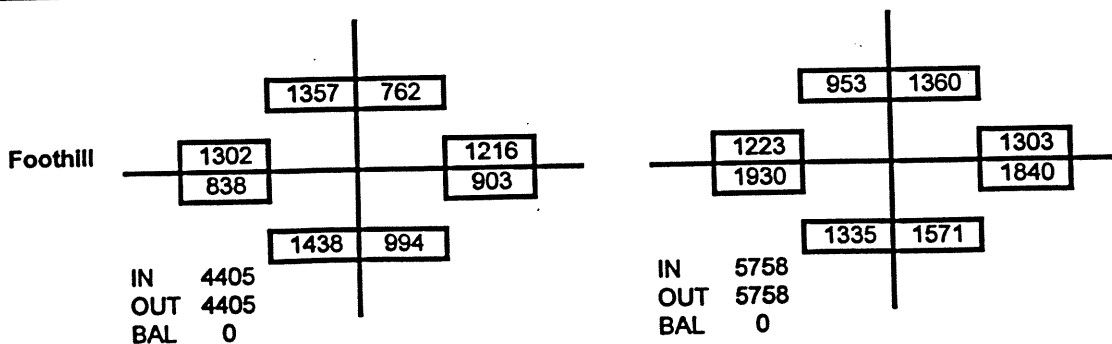
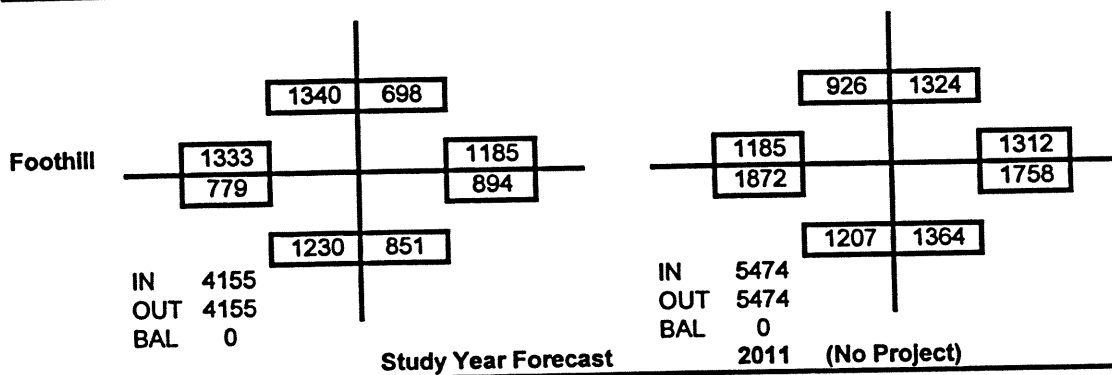
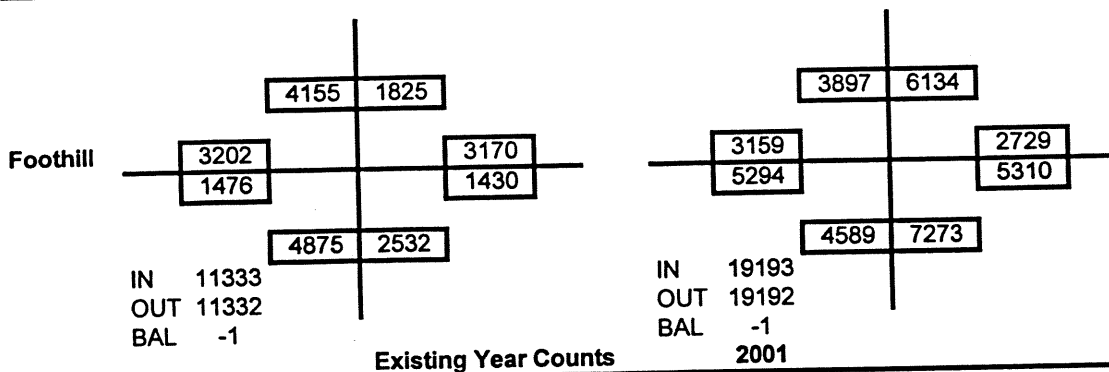
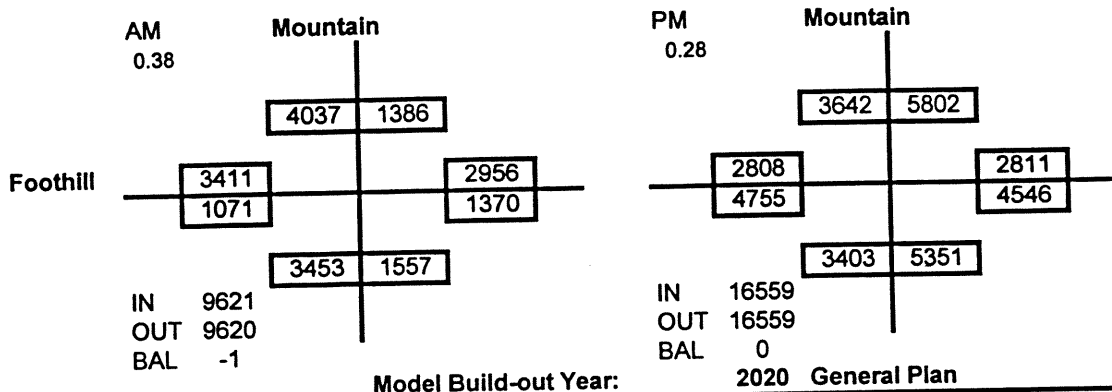


Project: Colonies
 Condition: General Plan
 Intersection Number: 12
 North/South Street: Mountain
 East/West Street: Foothill

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2011
Difference Ex to Forecast	10

Date: Feb. 22, 2002

Model Base Year: 1994



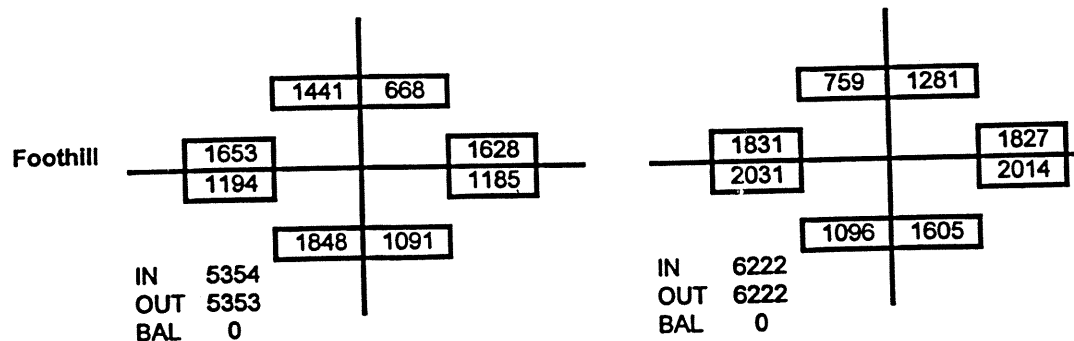
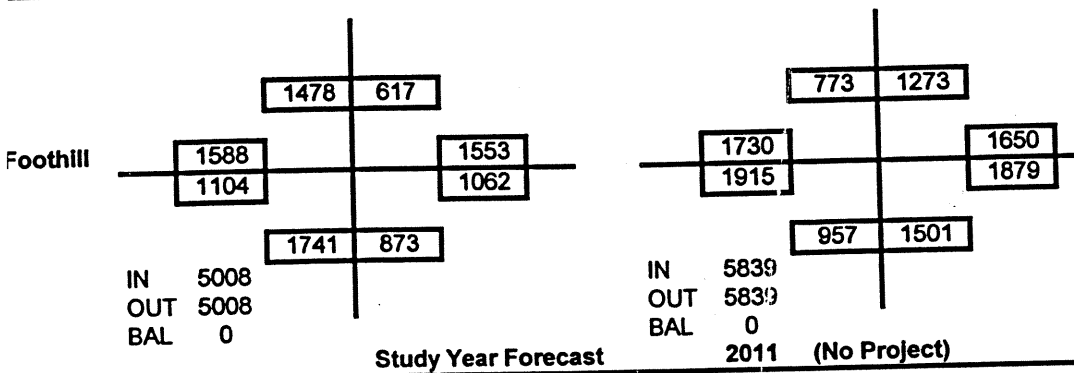
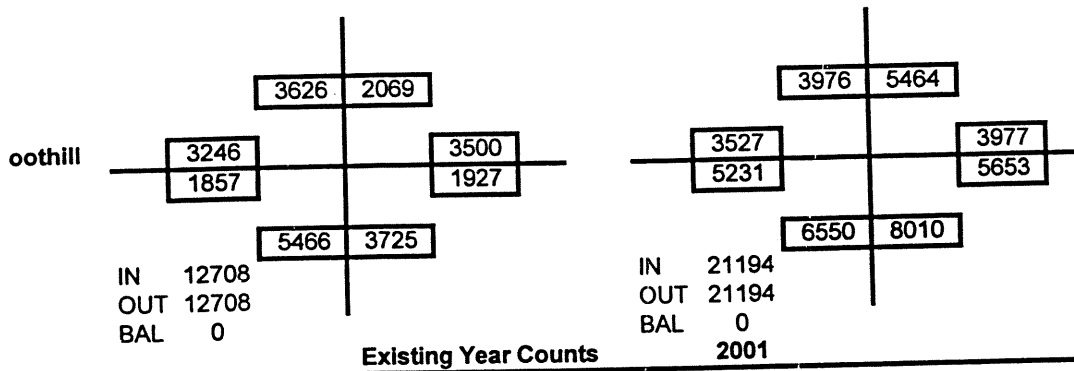
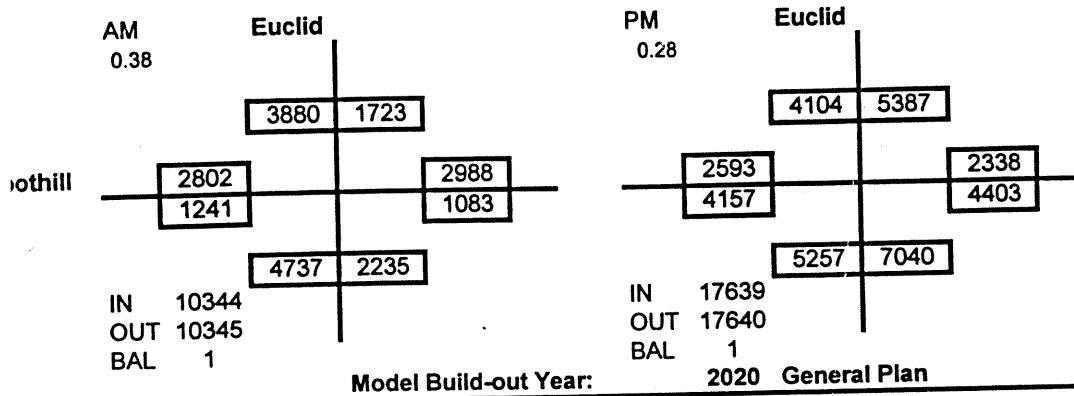
Project: Colonies
 Condition: General Plan
 Intersection Number: 13

North/South Street: Euclid
 East/West Street: Foothill

Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Model Base Year: 1994

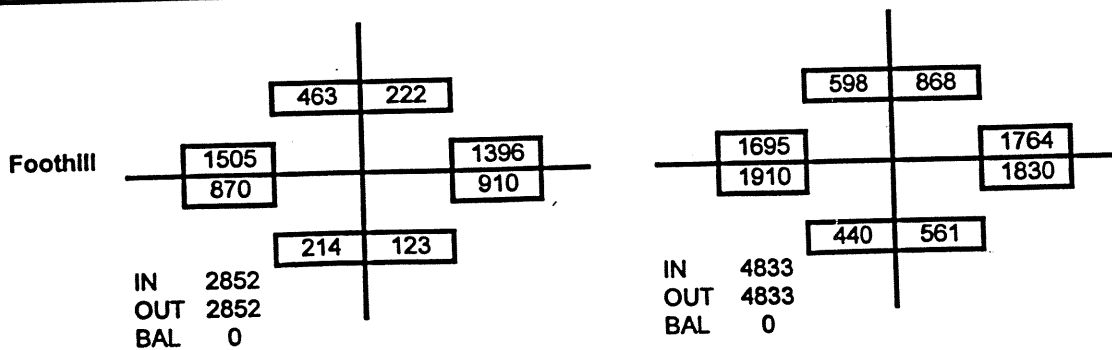
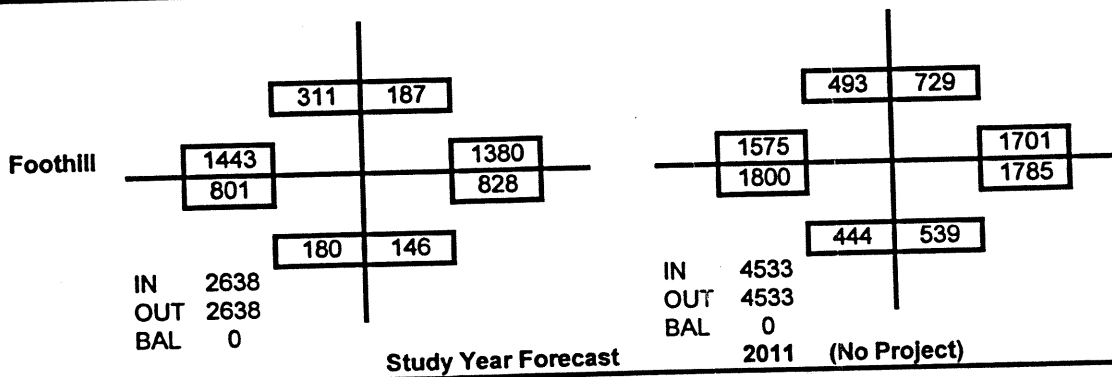
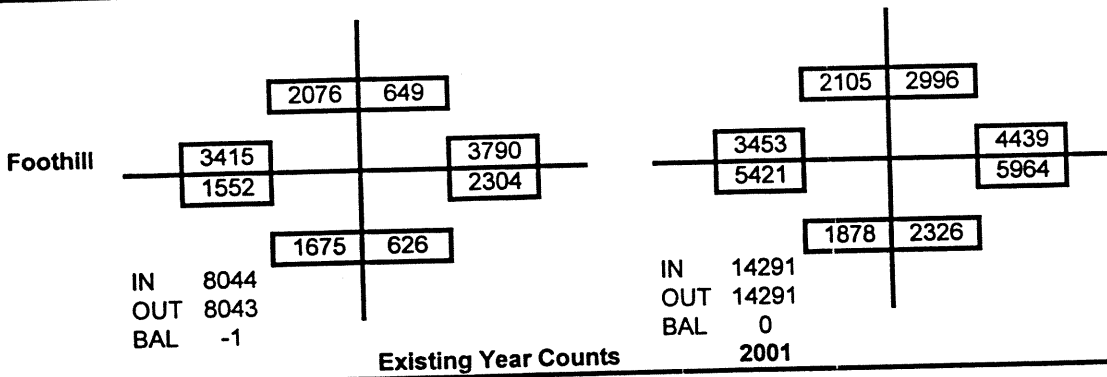
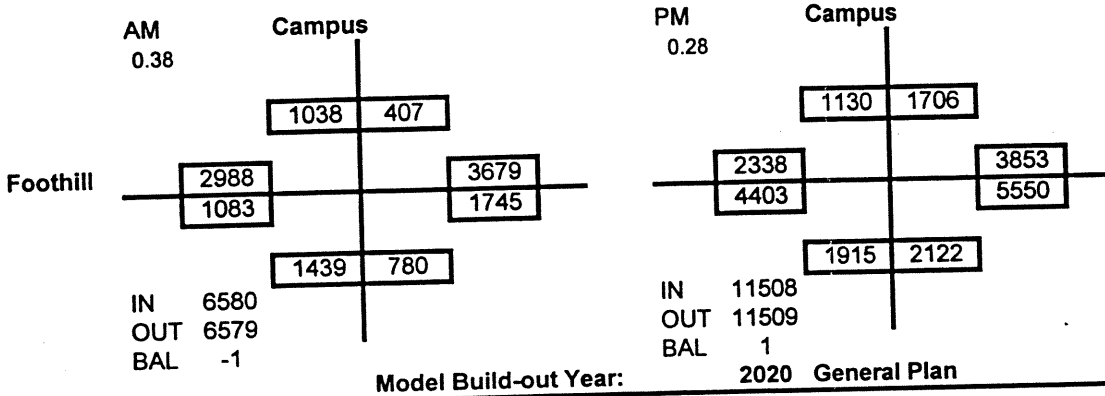


Project: Colonies
 Condition: General Plan
 Intersection Number: 14
 North/South Street: Campus
 East/West Street: Foothill

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Date: Feb. 22, 2002

Model Base Year: 1994

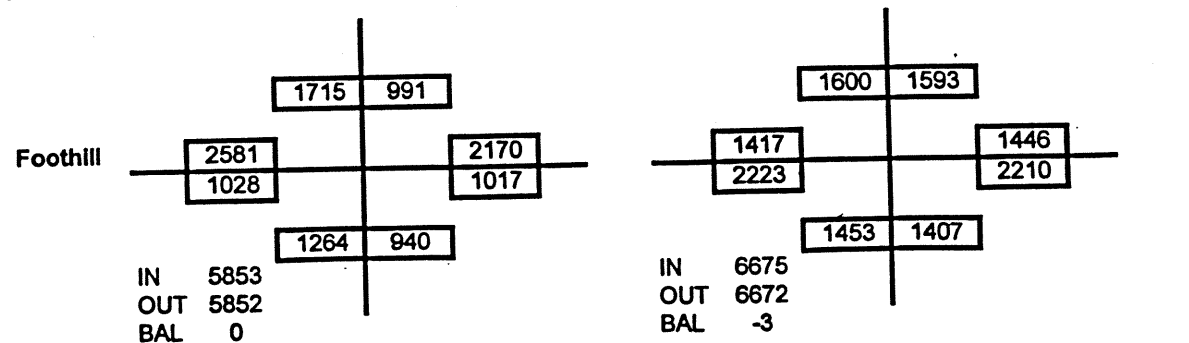
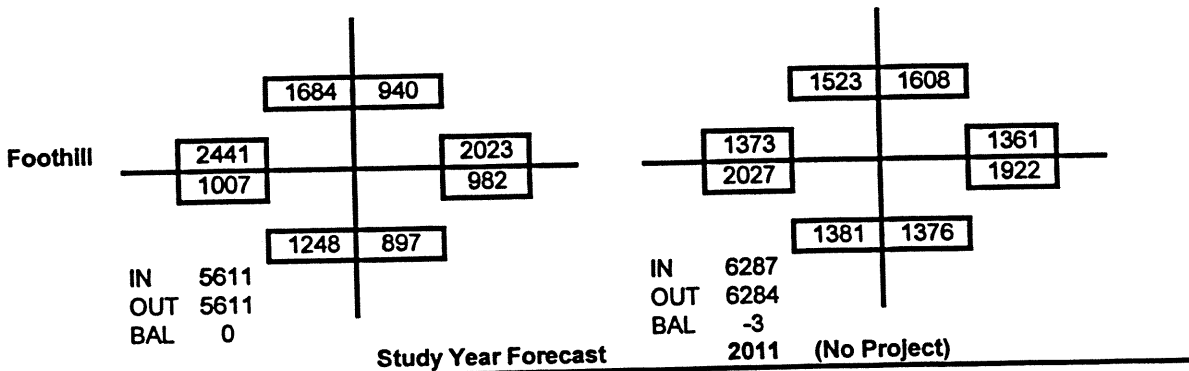
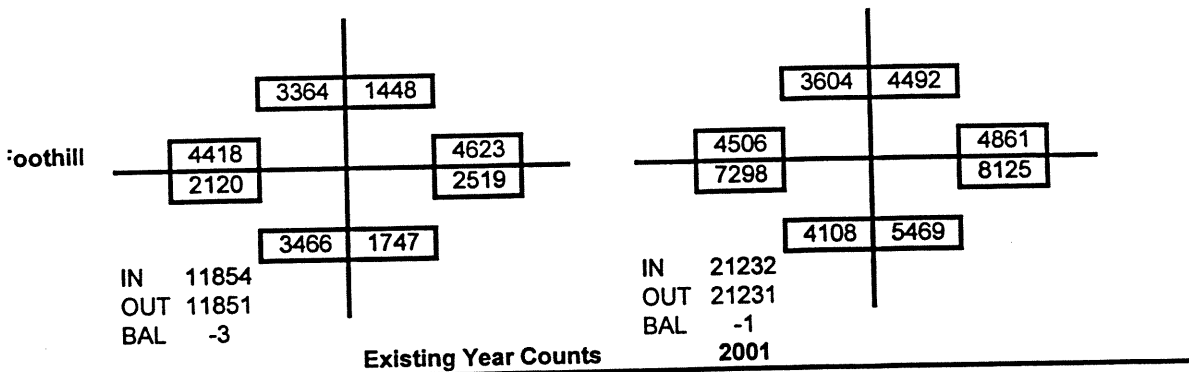
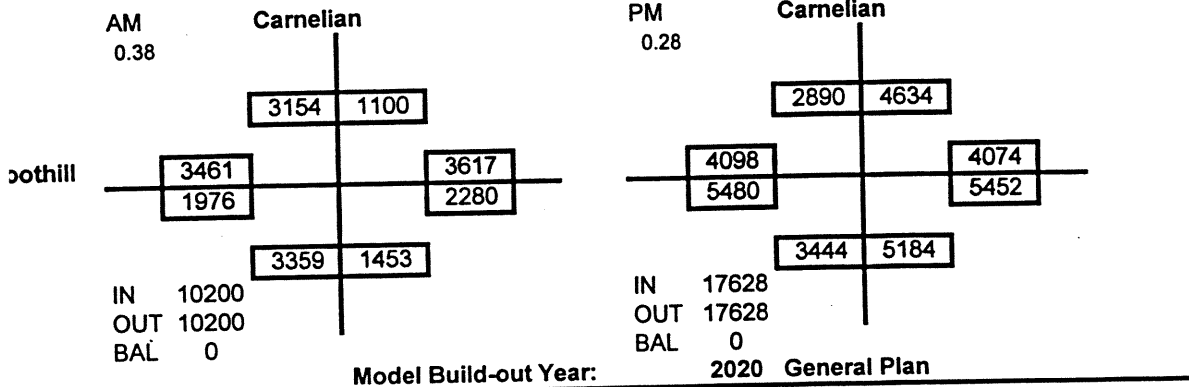


Project: Colonies
 Condition: General Plan
 Intersection Number: 15
 North/South Street: Carnelian
 East/West Street: Foothill

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2011
Difference Ex to Forecast	10

Date: Feb. 22, 2002

Model Base Year: 1994



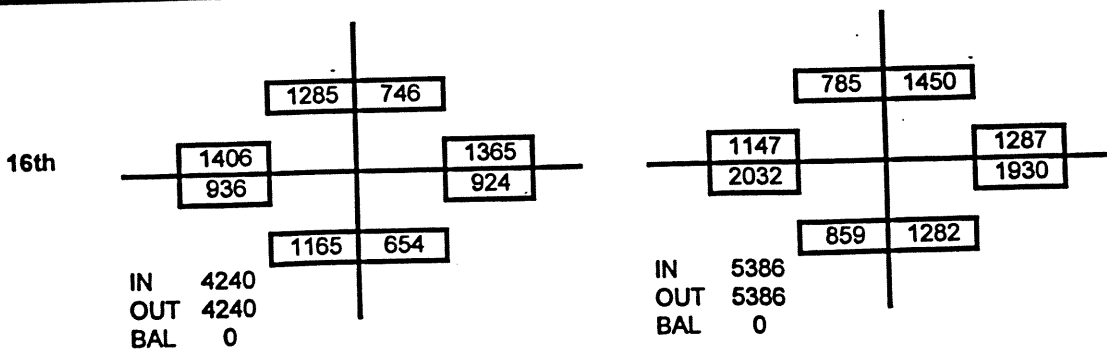
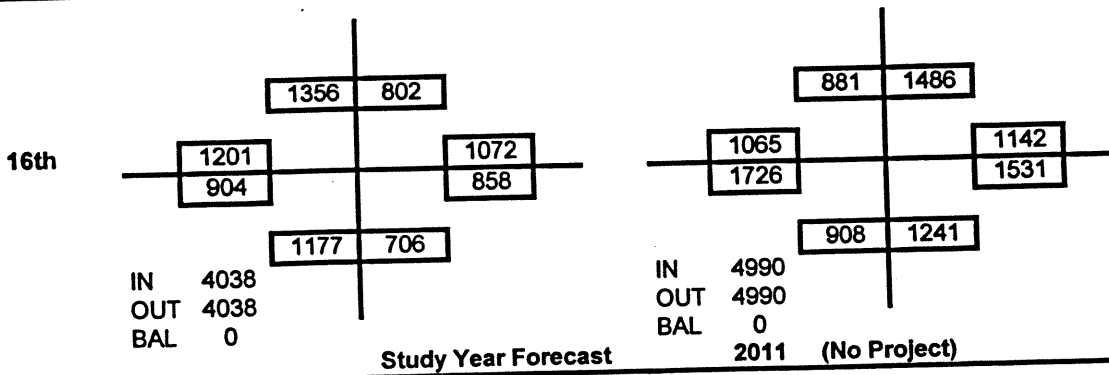
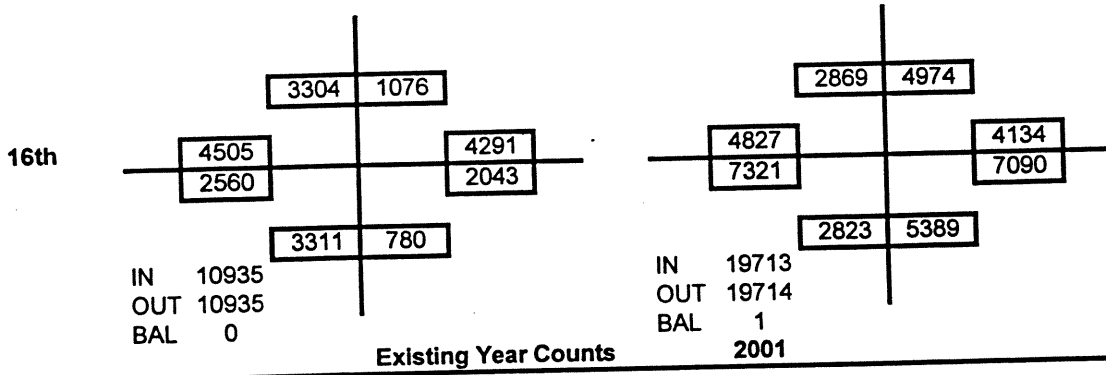
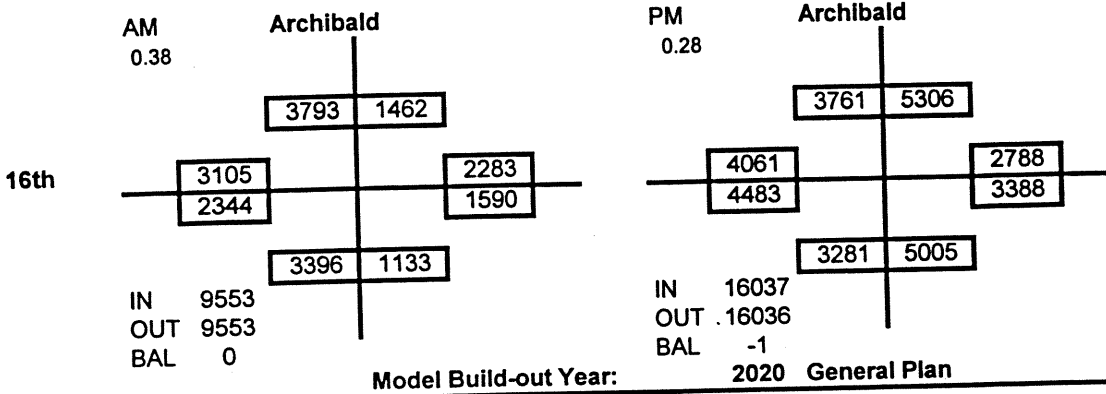
Project: Colonies
 Condition: General Plan
 Intersection Number: 16

North/South Street Archibald
 East/West Street 16th

Date: Feb. 22, 2002

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2011
Difference Ex to Forecast	10

Model Base Year: 1994

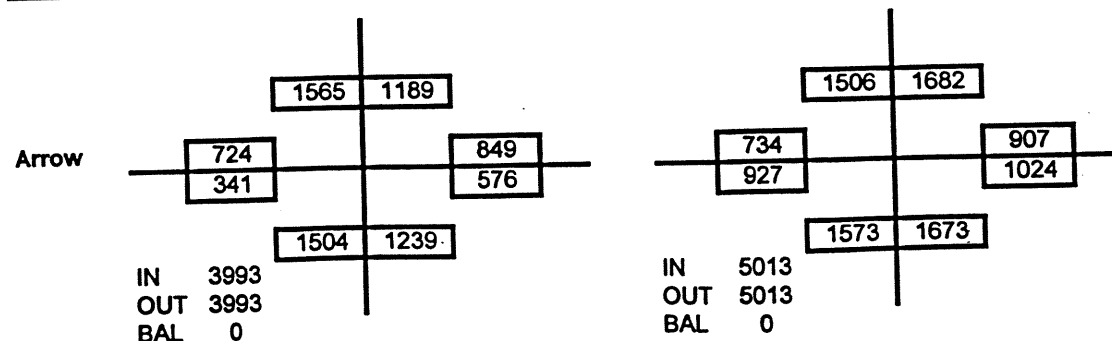
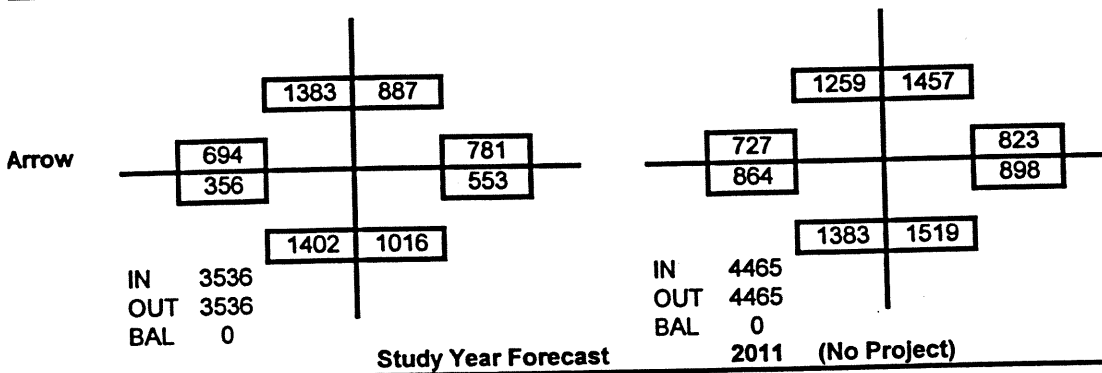
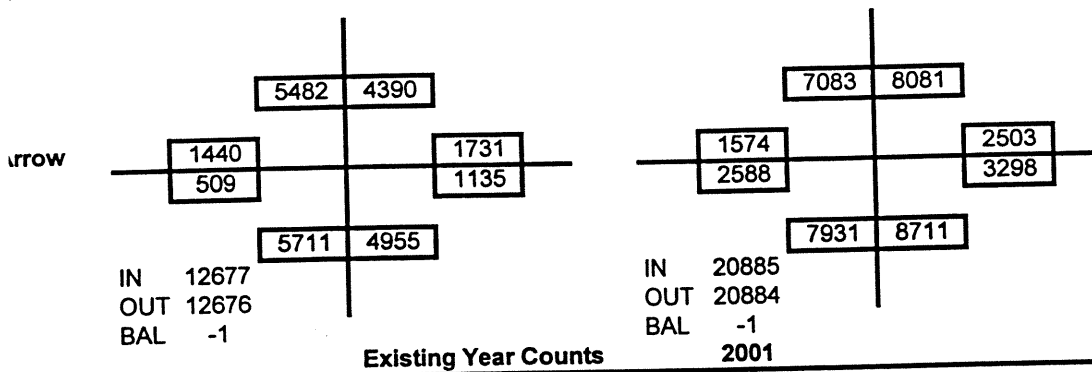
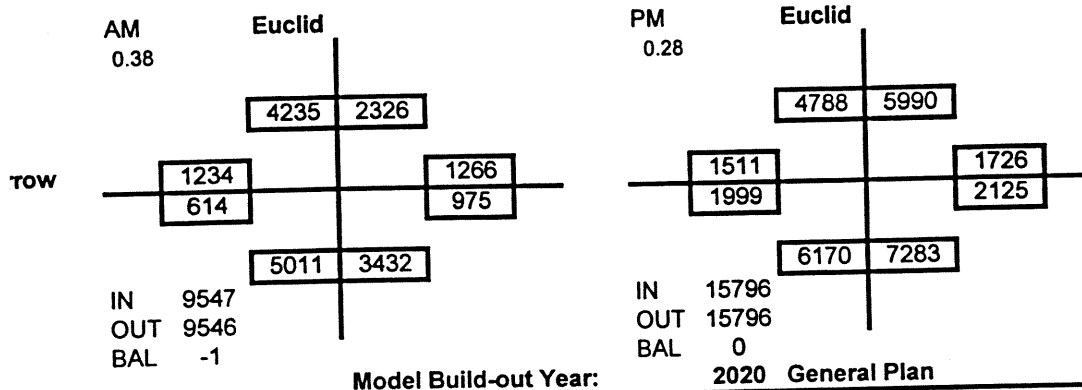


Project: Colonies
 Condition: General Plan
 Intersection Number: 17
 North/South Street: Euclid
 East/West Street: Arrow

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Date: Feb. 22, 2002

Model Base Year: 1994

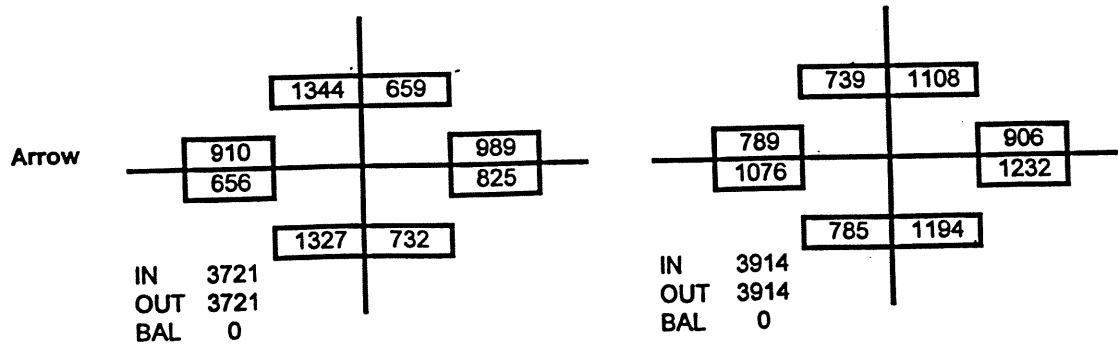
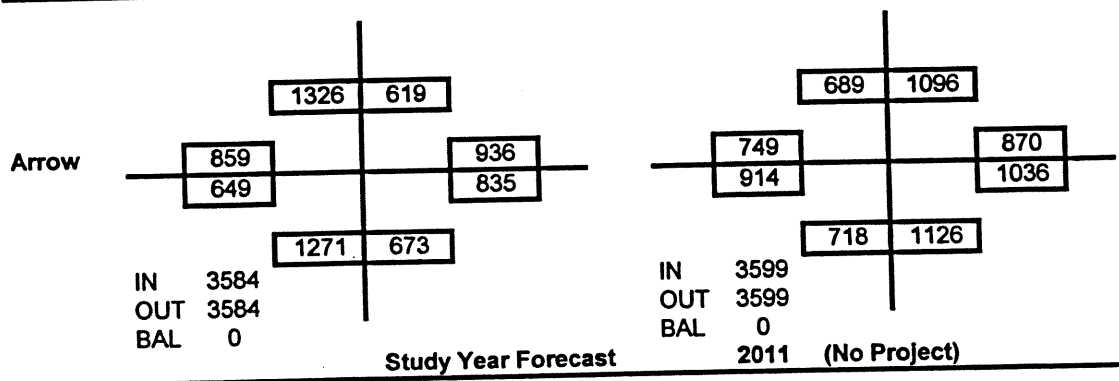
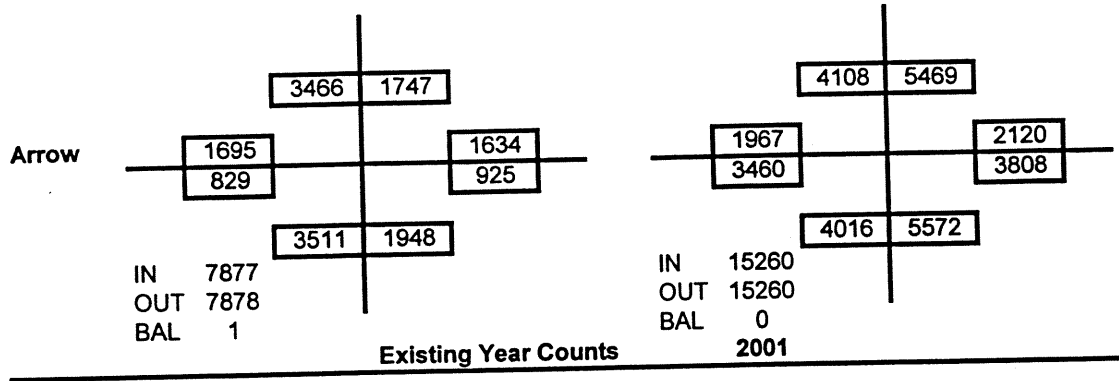
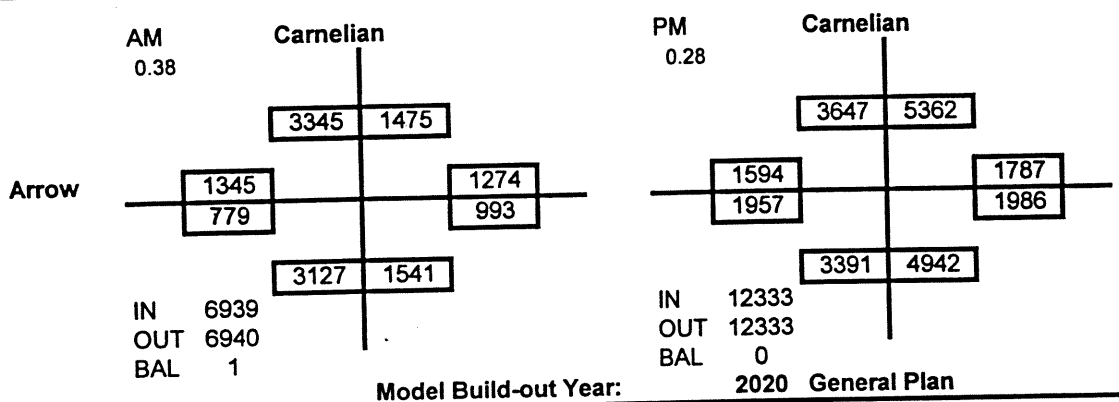


Project: Colonies
 Condition: General Plan
 Intersection Number: 18
 North/South Street: Carnelian
 East/West Street: Arrow

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2011
Difference Ex to Forecast	10

Date: Feb. 22, 2002

Model Base Year: 1994

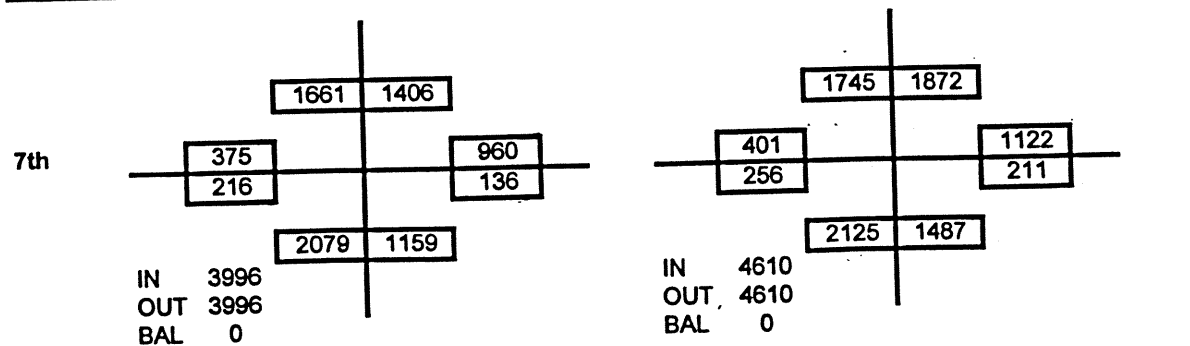
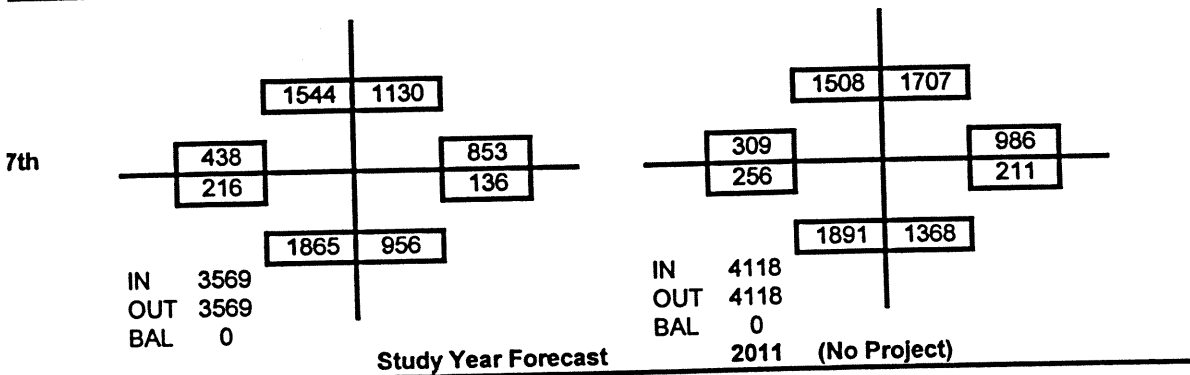
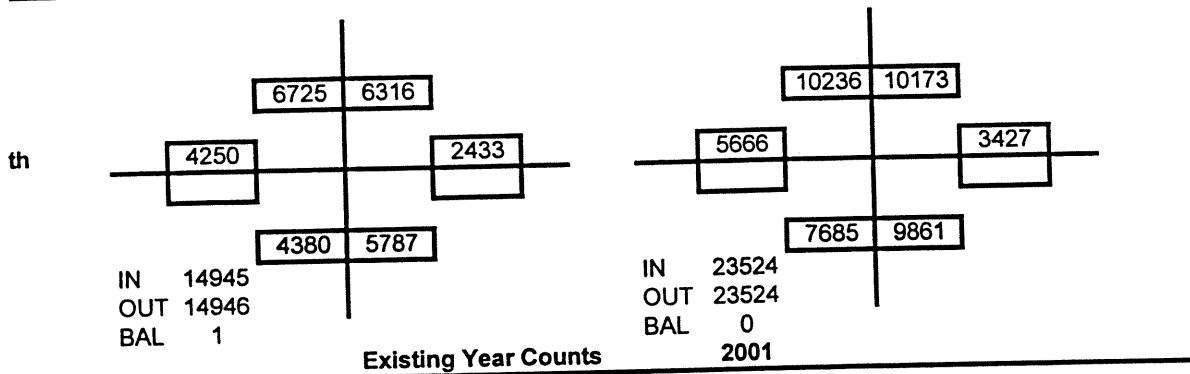
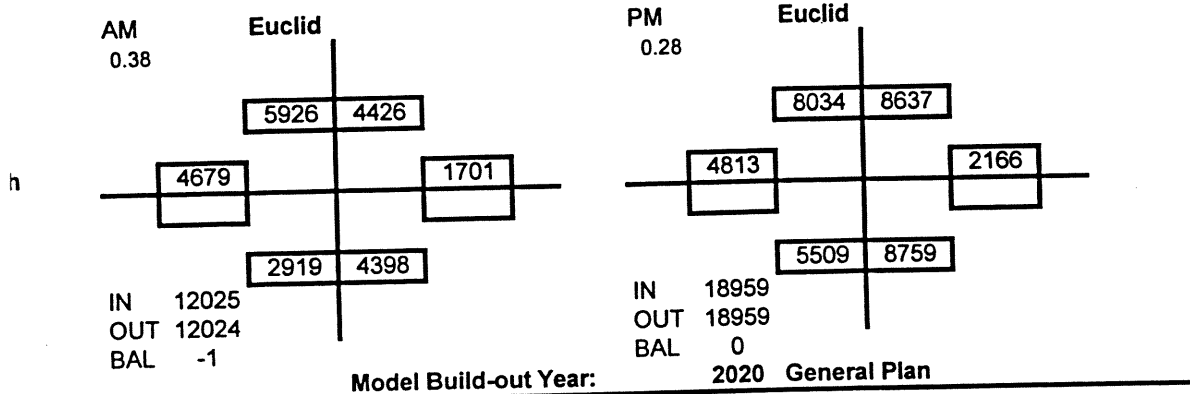


Project: Colonies
 Condition: General Plan
 Intersection Number: 19
 North/South Street: Euclid
 East/West Street: 7th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Date: Feb. 22, 2002

Model Base Year: 1994

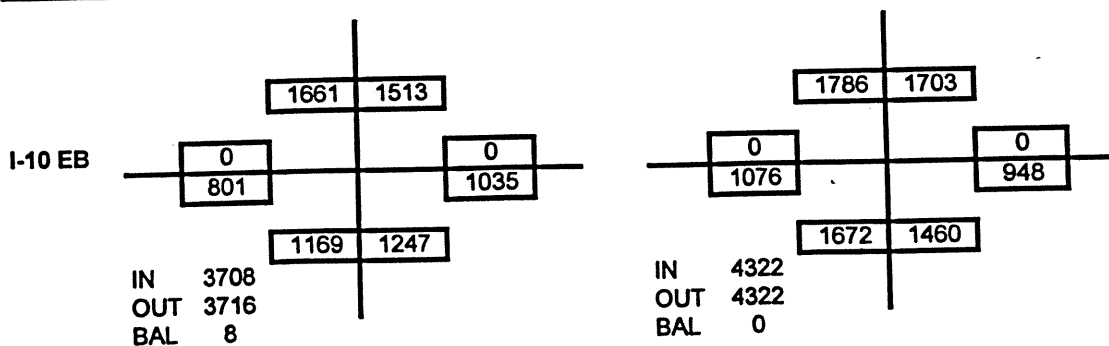
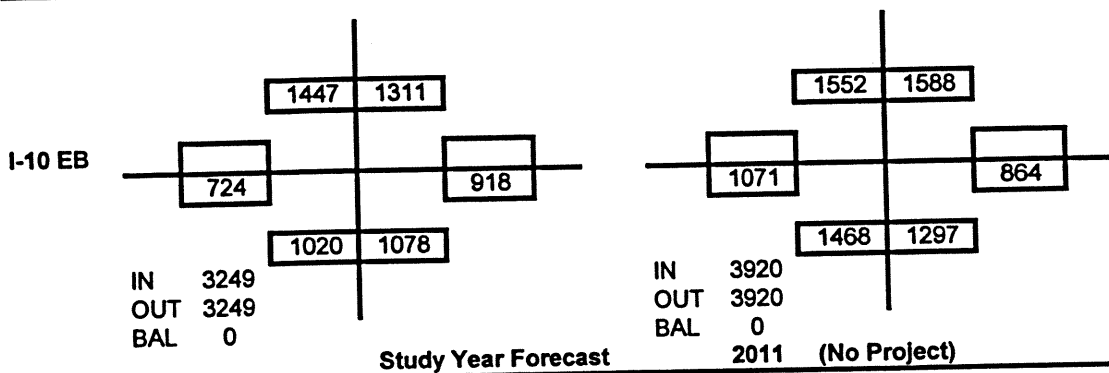
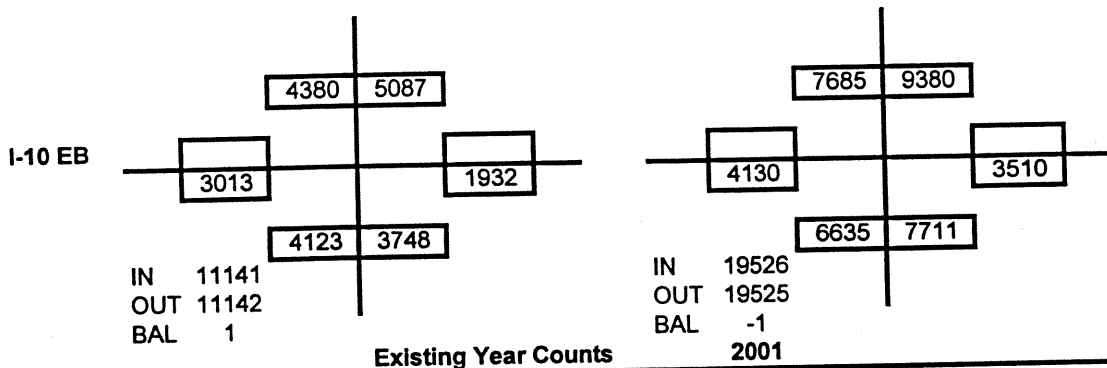
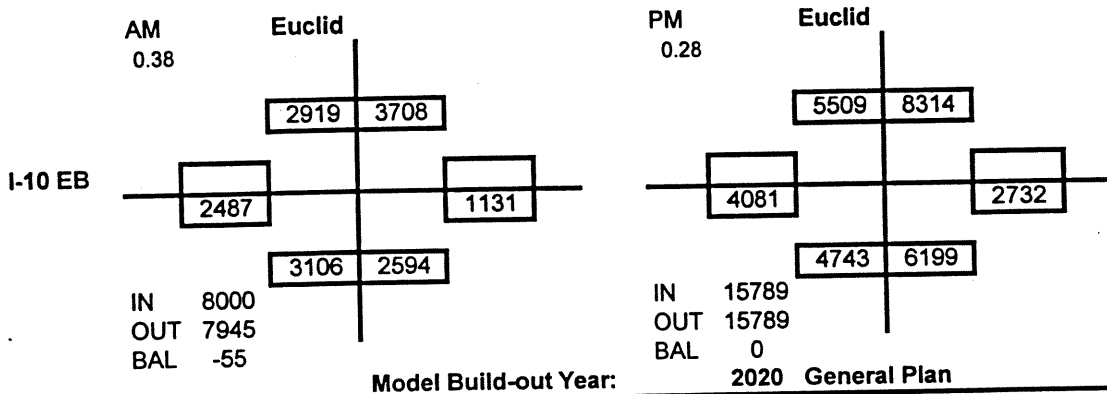


Project: Colonies
 Condition: General Plan
 Intersection Number: 20
 North/South Street: Euclid
 East/West Street: I-10 EB

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Date: Feb. 22, 2002

Model Base Year: 1994



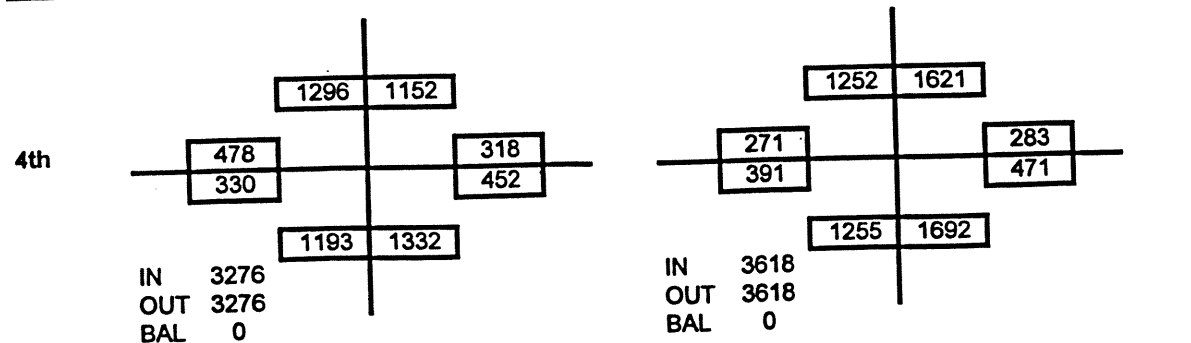
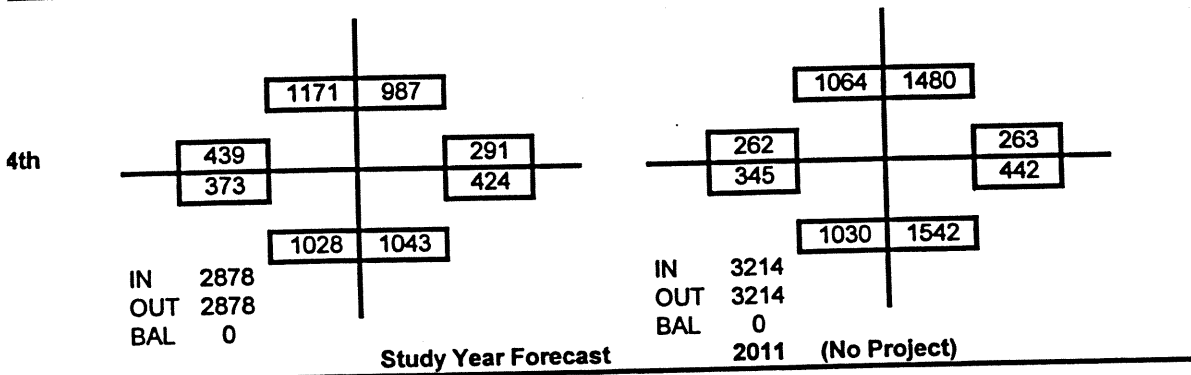
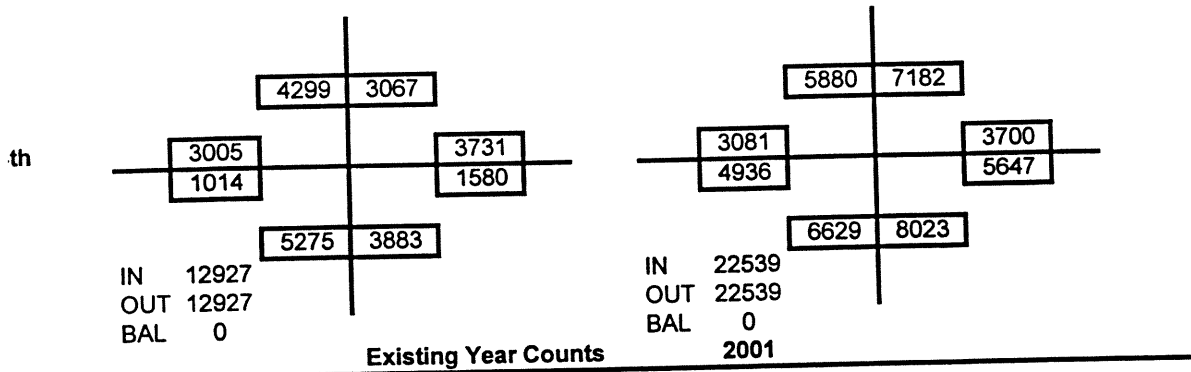
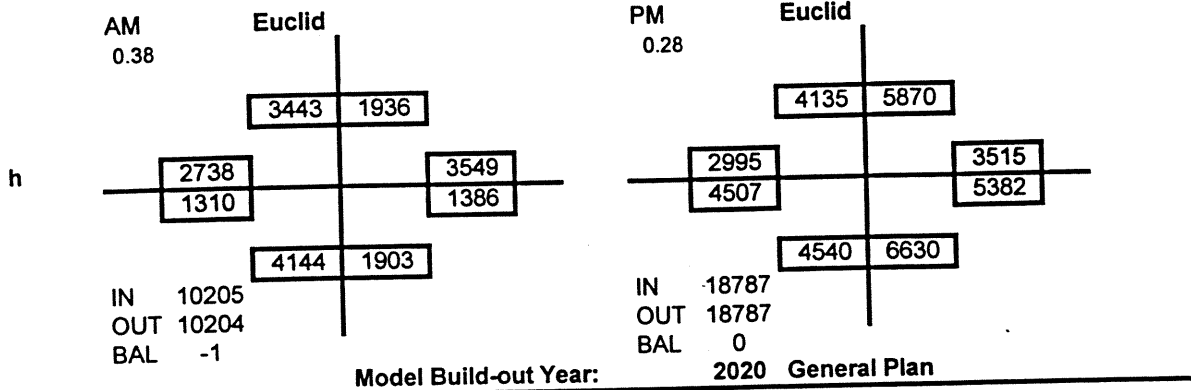
Project: Colonies
 Condition: General Plan
 Intersection Number: 21

North/South Street: Euclid
 East/West Street: 4th

Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Model Base Year: 1994



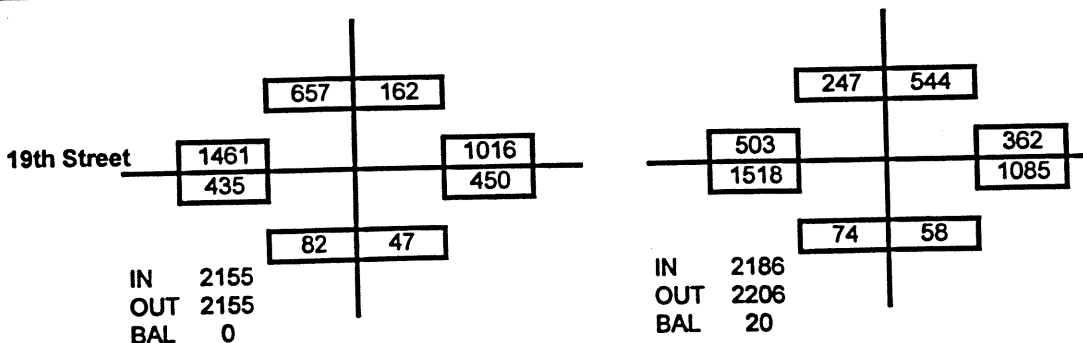
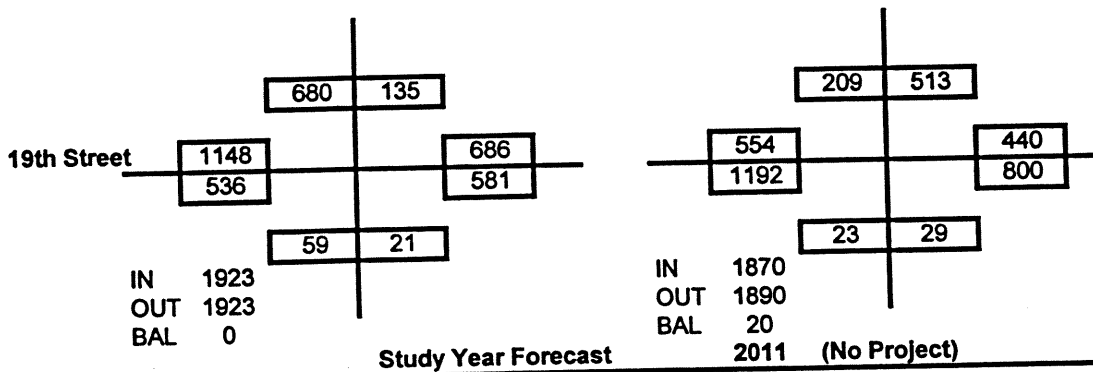
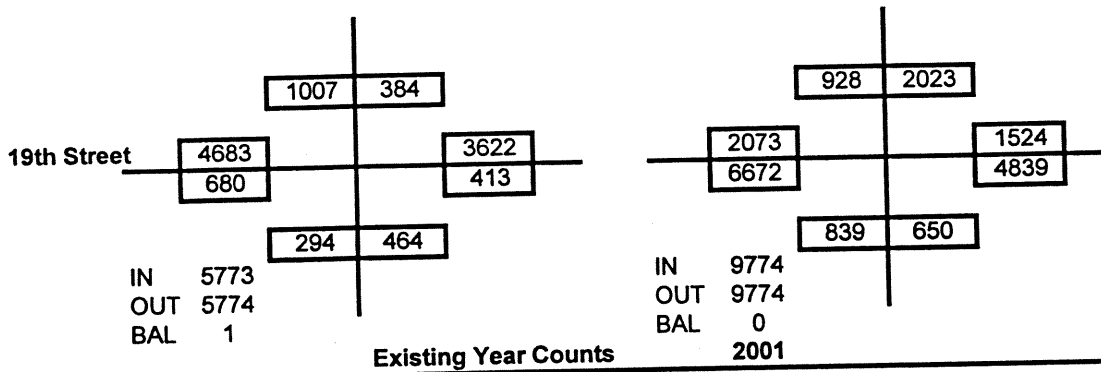
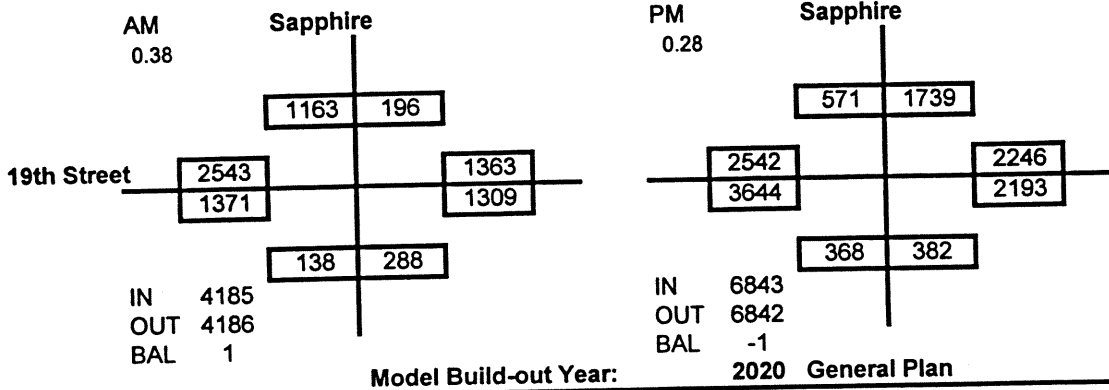
Project: Colonies
 Condition: General Plan
 Intersection Number: 22

North/South Street: Sapphire
 East/West Street: 19th Street

Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2011
 Difference Ex to Forecast: 10

Model Base Year: 1994



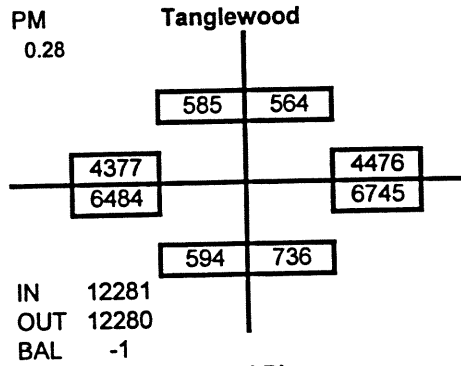
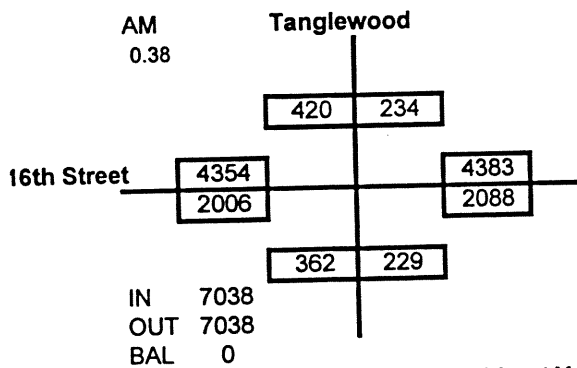
Project: Colonies
 Condition: General Plan
 Intersection Number: 23

North/South Street: Tanglewood
 East/West Street: 16th Street

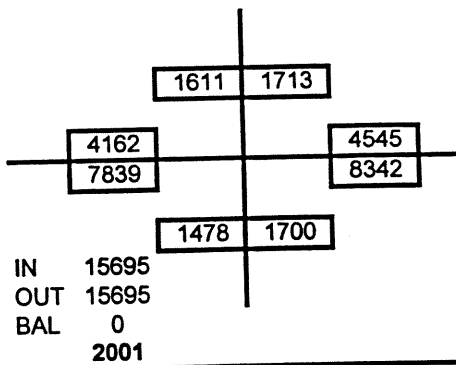
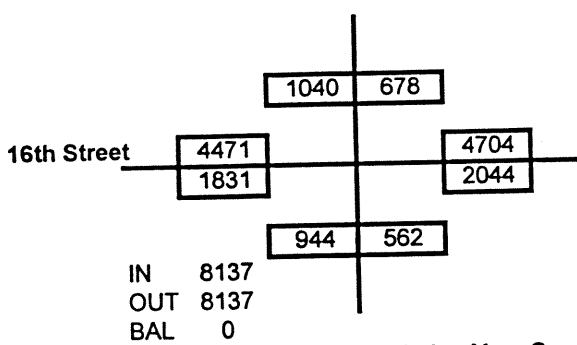
Date: Feb. 22, 2002

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2011
Difference Ex to Forecast	10

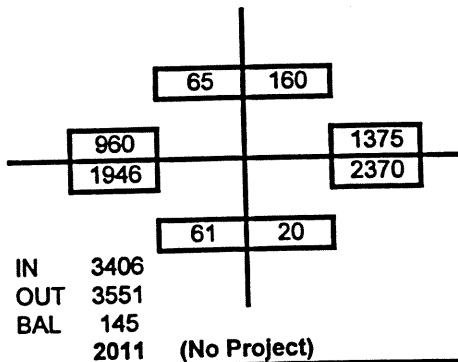
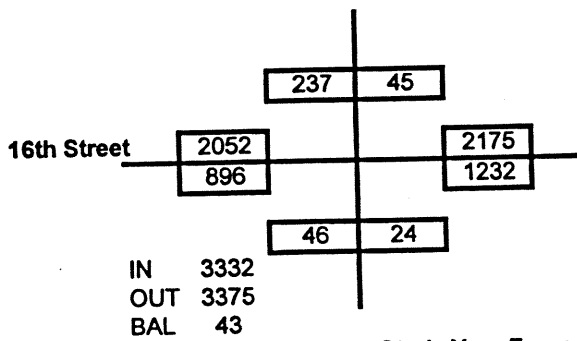
Model Base Year: 1994



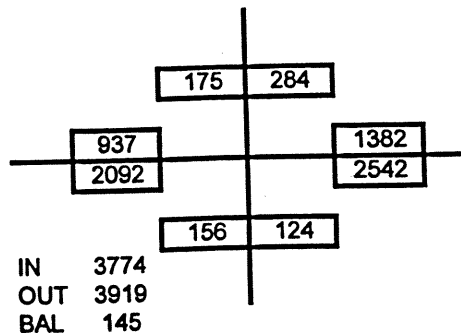
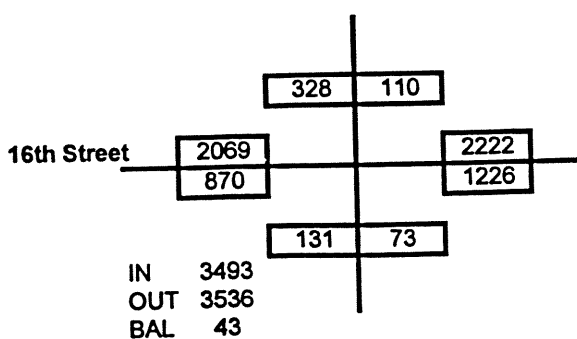
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2011 (No Project)



APPENDIX A

**PEAK HOUR ROADWAY
LINK POST-PROCESSING
WORKSHEETS**

2015 Background

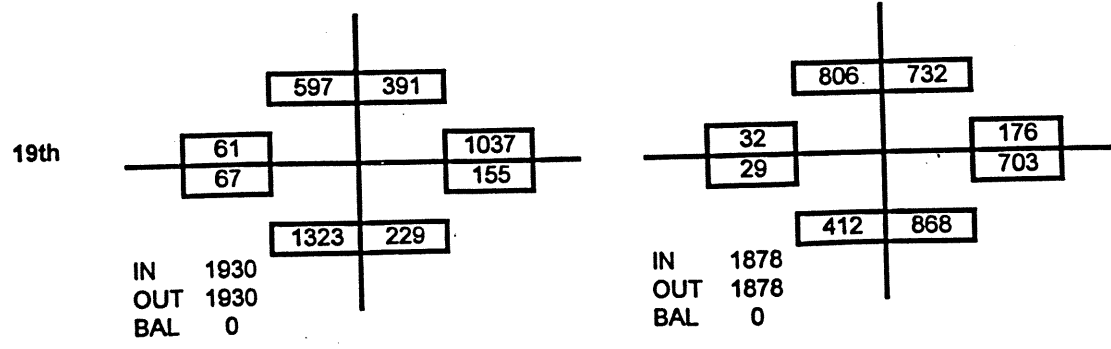
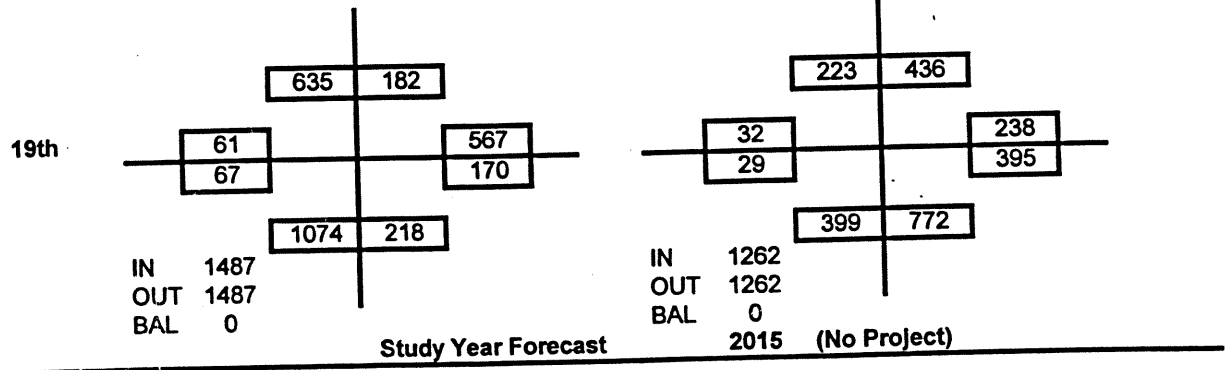
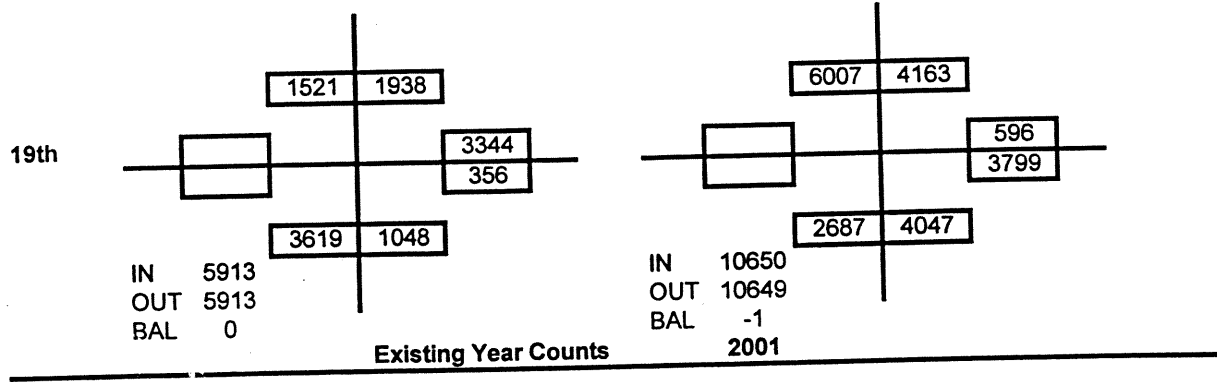
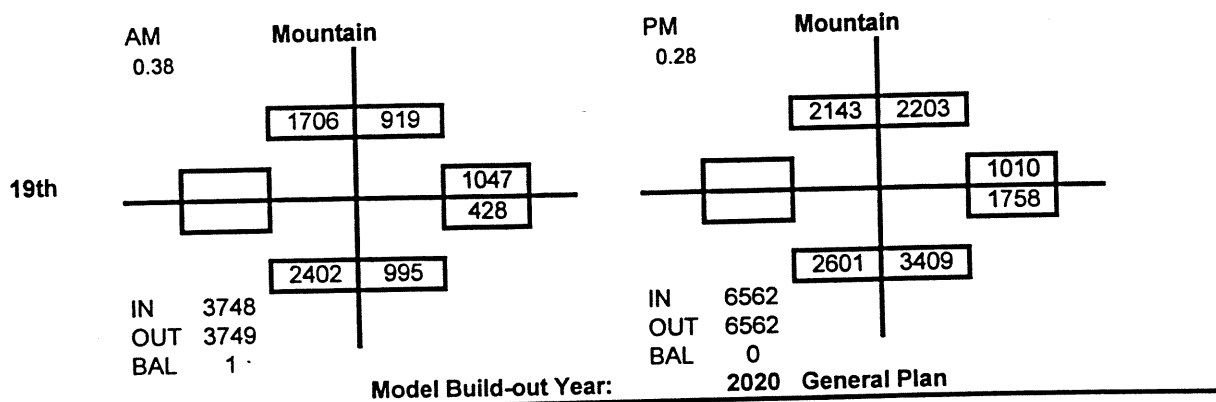
Project: Colonies
 Condition: General Plan
 Intersection Number: 1
 North/South Street: Mountain
 East/West Street: 19th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

General Plan

Date: Feb. 22, 2002

Model Base Year: 1994

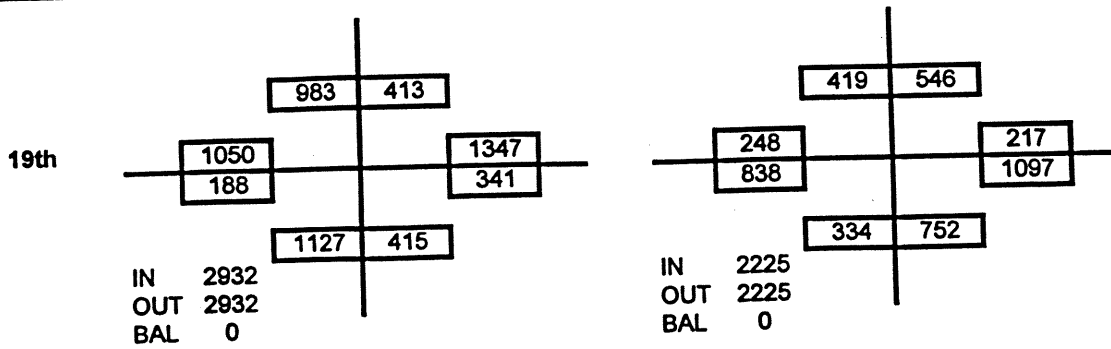
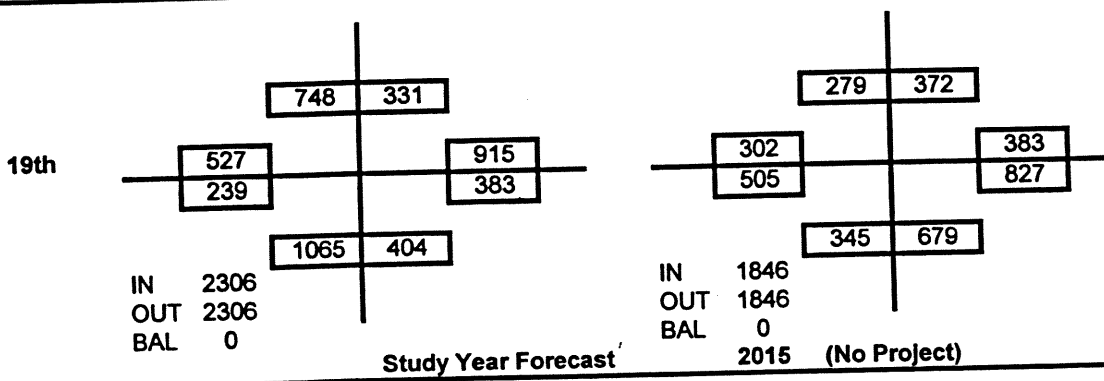
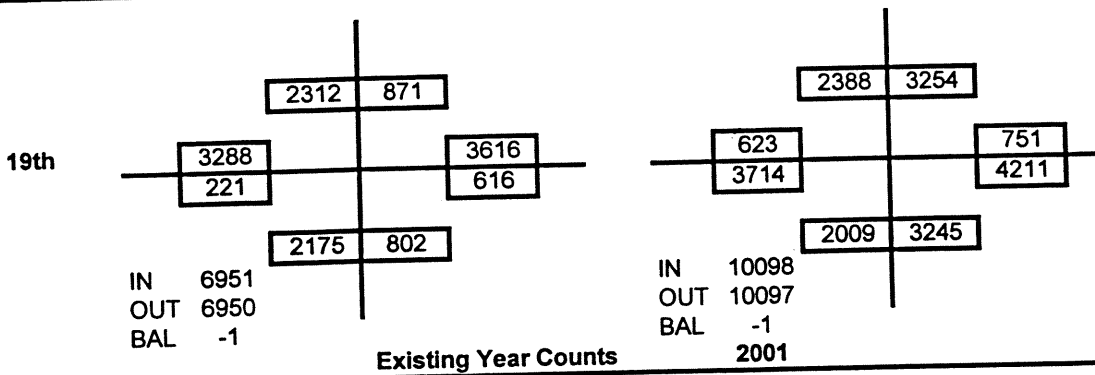
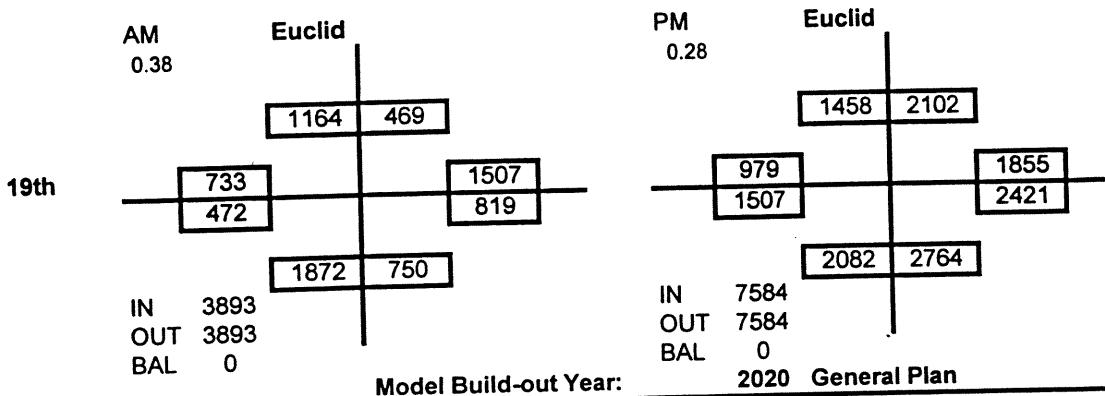


Project: Colonies
 Condition: General Plan
 Intersection Number: 2
 North/South Street: Euclid
 East/West Street: 19th

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2015
Difference Ex to Forecast	14

Date: Feb. 22, 2002

Model Base Year: 1994

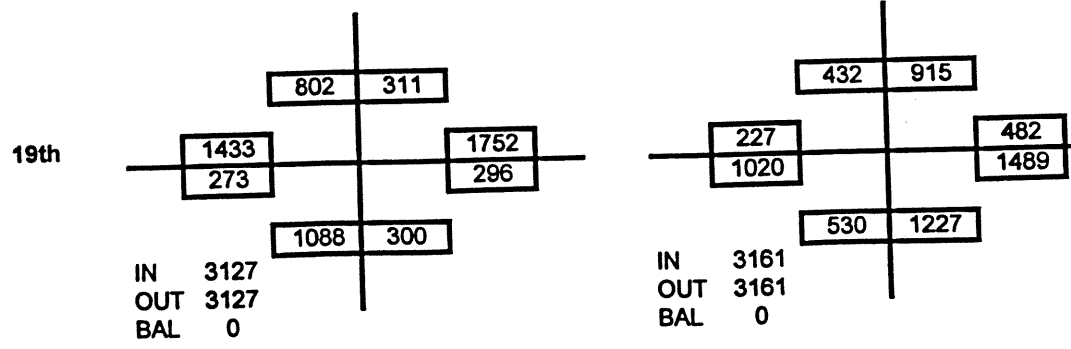
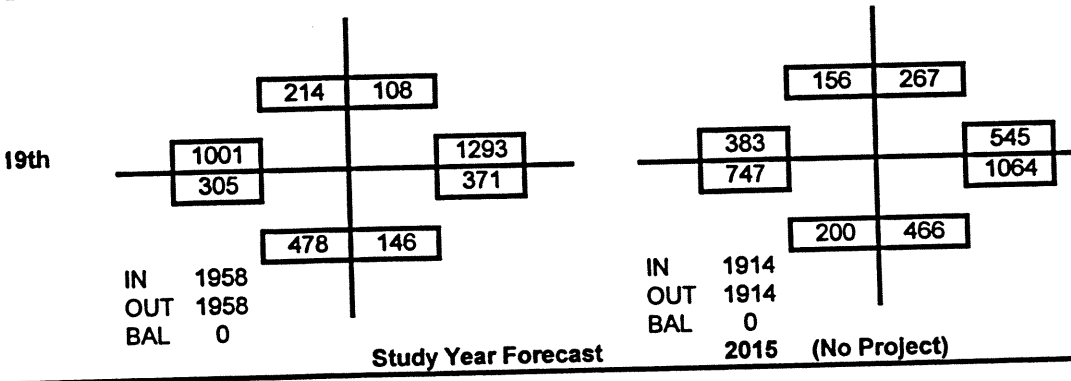
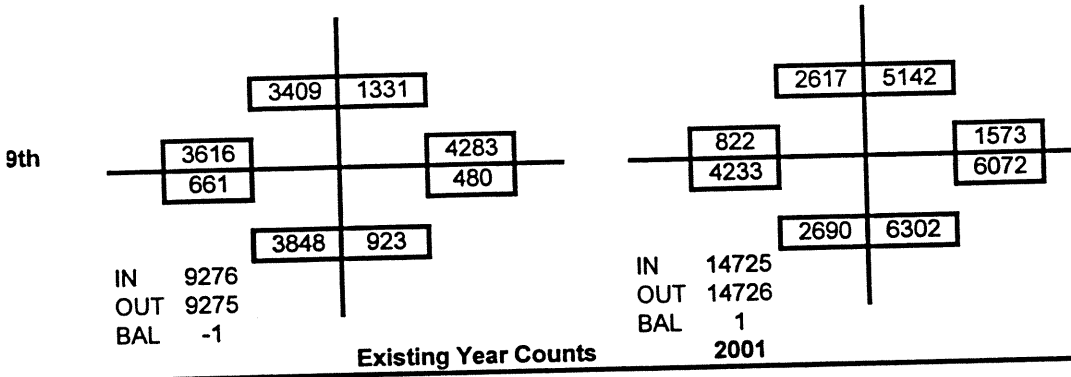
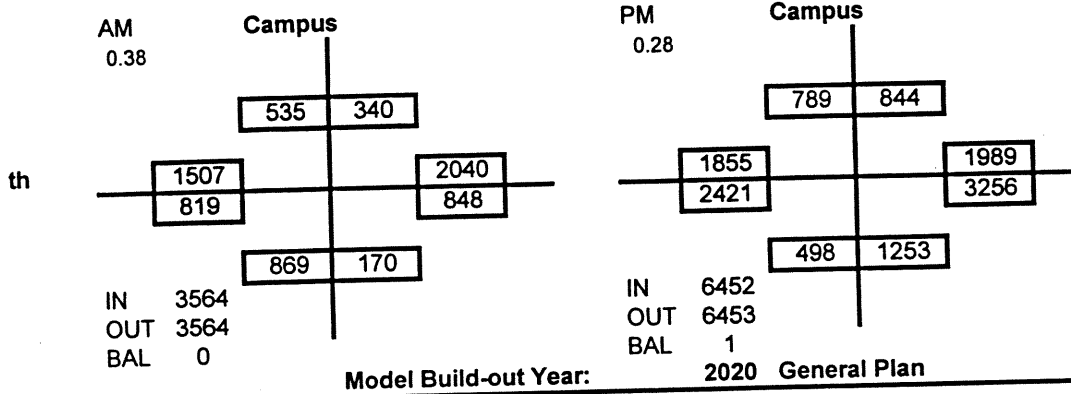


Project: Colonies
 Condition: General Plan
 Intersection Number: 3
 North/South Street: Campus
 East/West Street: 19th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

Date: Feb. 22, 2002

Model Base Year: 1994

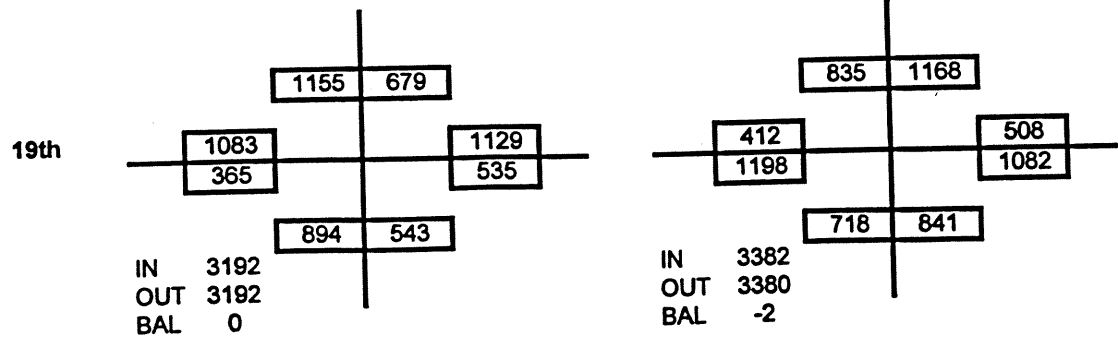
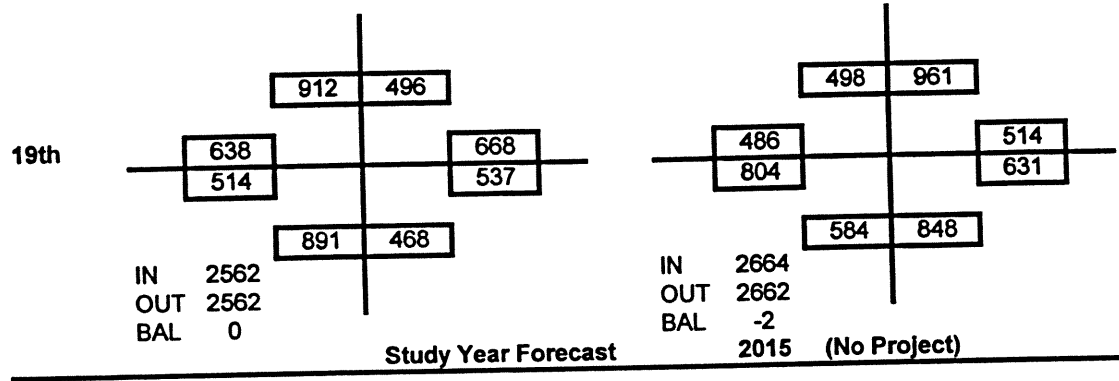
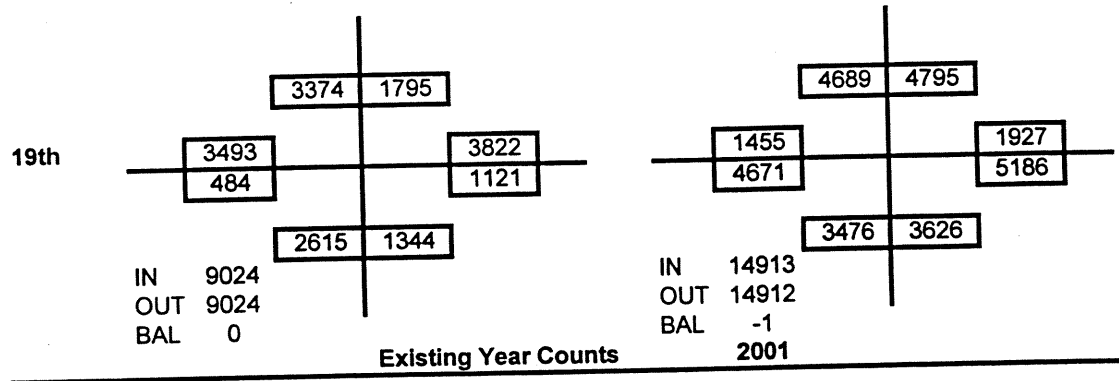
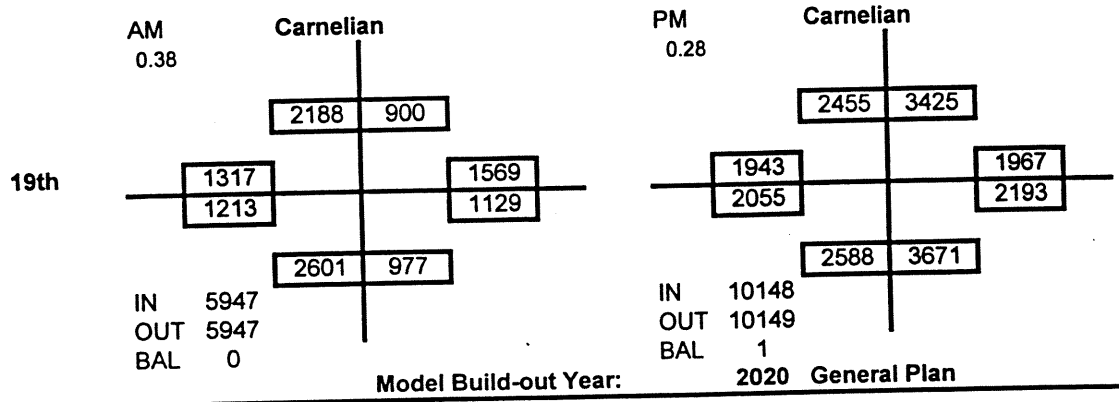


Project: Colonies
 Condition: General Plan
 Intersection Number: 4
 North/South Street: Carnelian
 East/West Street: 19th

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2015
Difference Ex to Forecast	14

Date: Feb. 22, 2002

Model Base Year: 1994

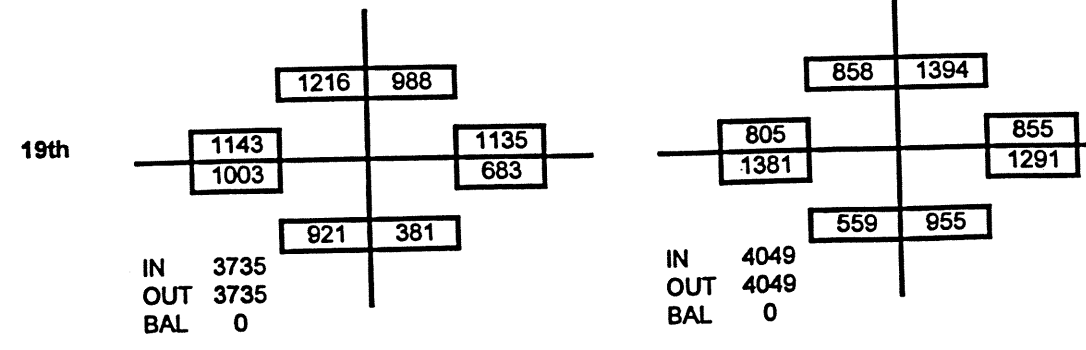
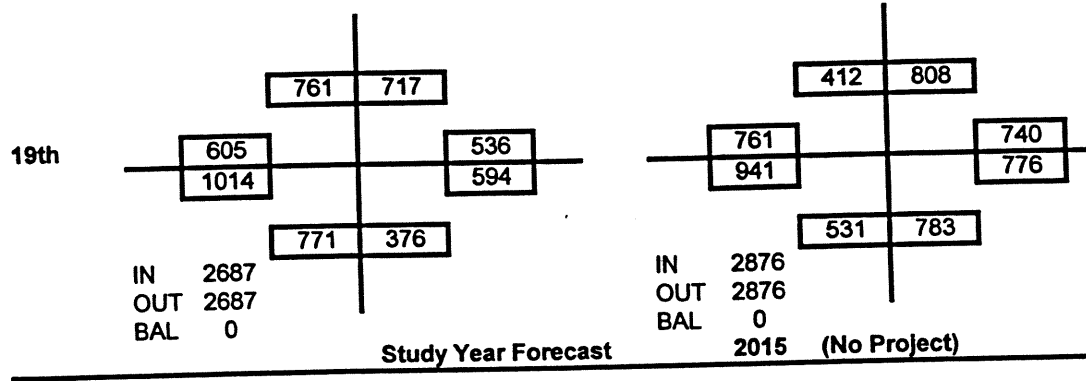
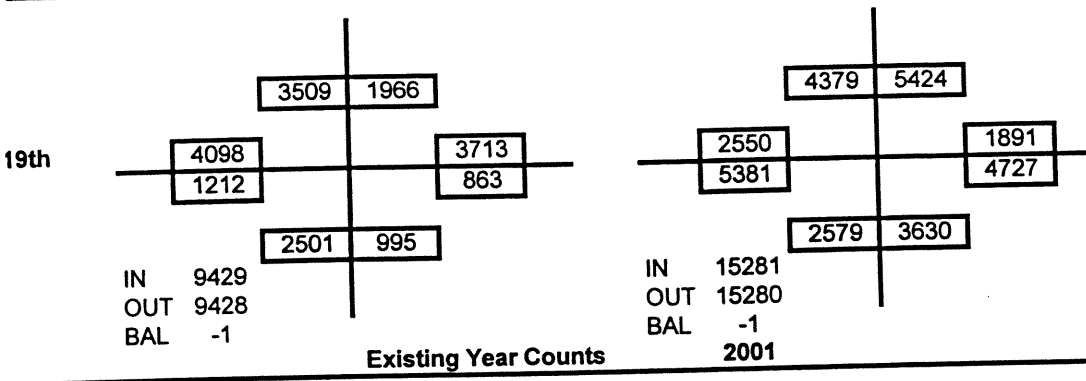
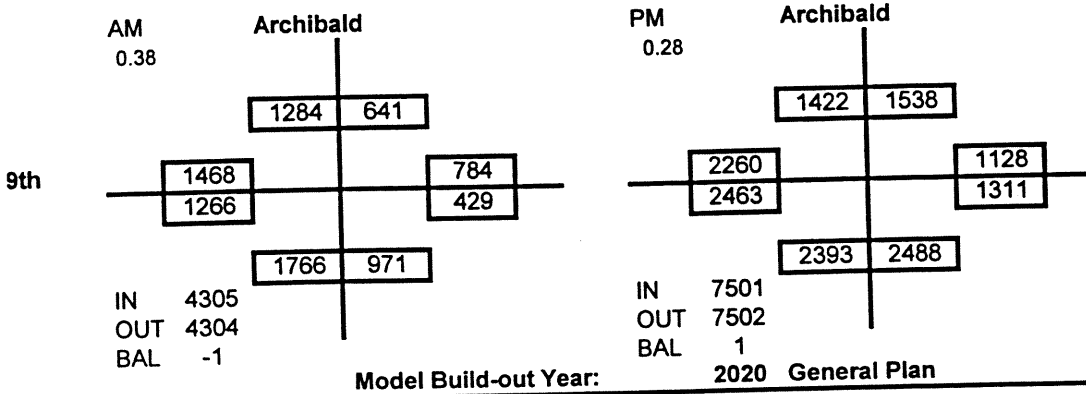


Project: Colonies
 Condition: General Plan
 Intersection Number: 5
 North/South Street: Archibald
 East/West Street: 19th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

Date: Feb. 22, 2002

Model Base Year: 1994



Project: Colonies
 Condition: General Plan
 Intersection Number: 6

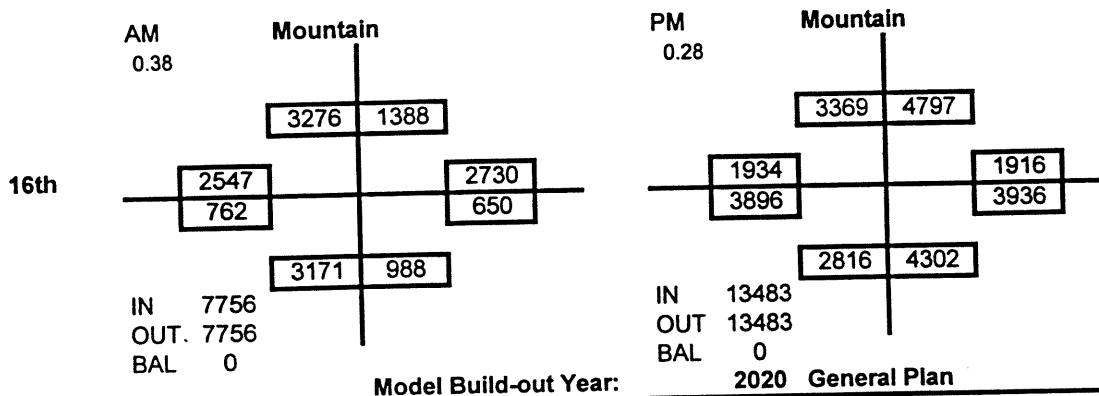
North/South Street: Mountain

East/West Street: 16th

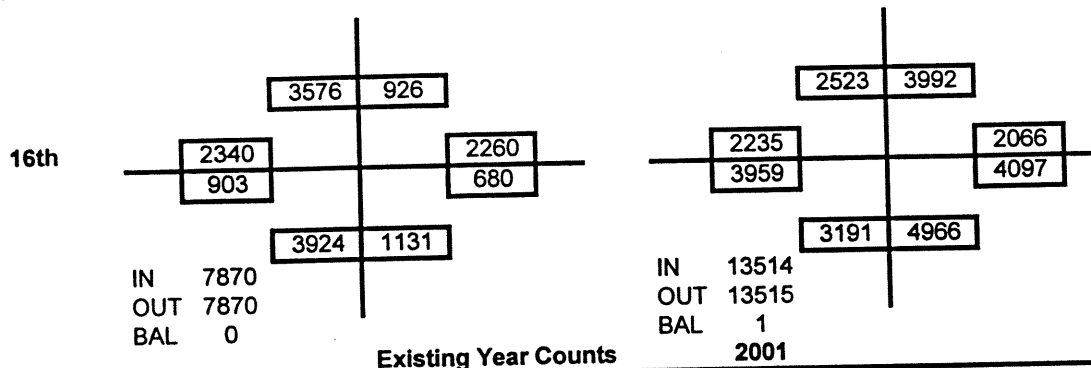
Date: Feb. 22, 2002

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2015
Difference Ex to Forecast	14

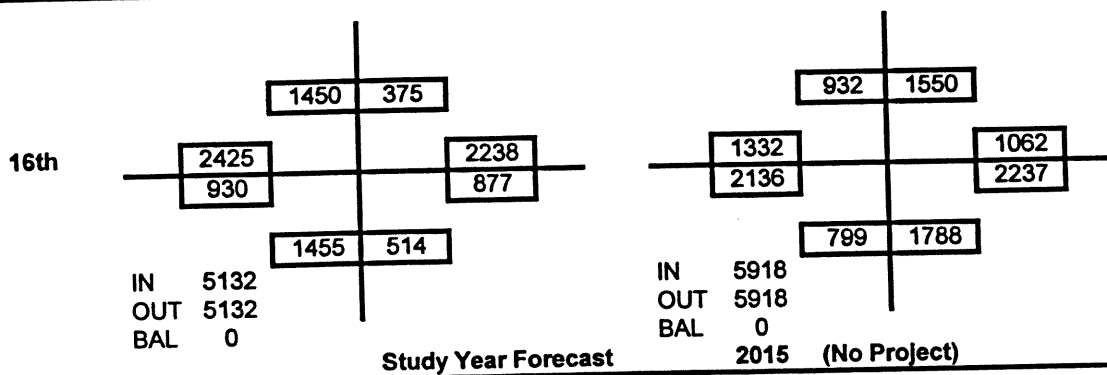
Model Base Year: 1994



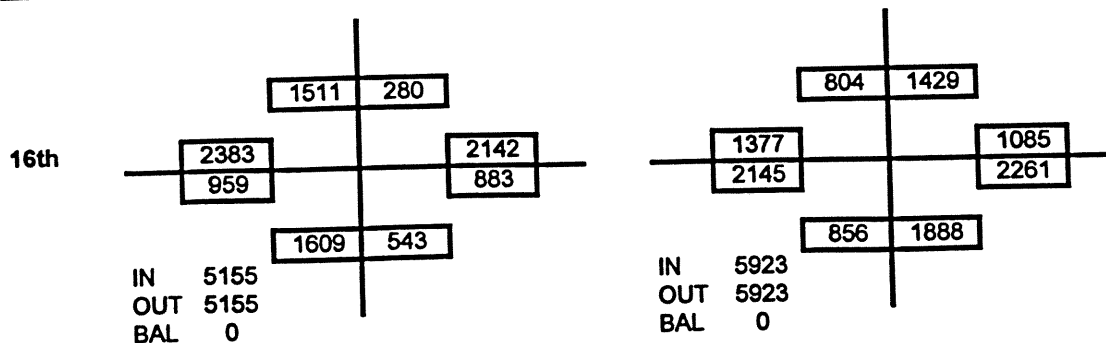
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2015 (No Project)

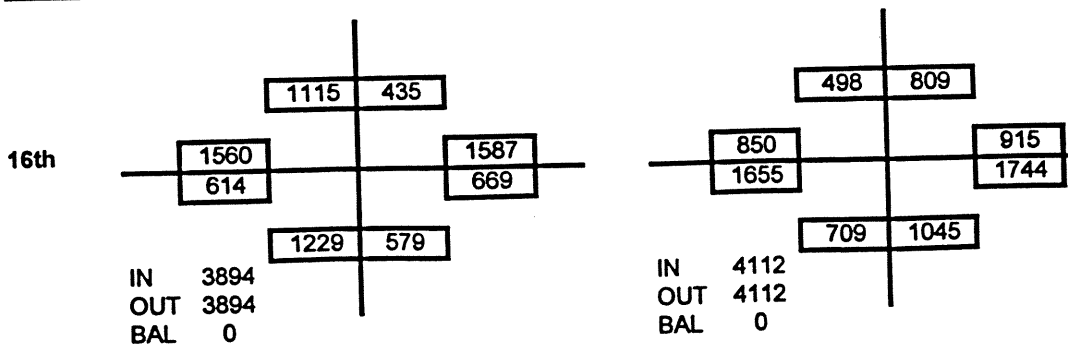
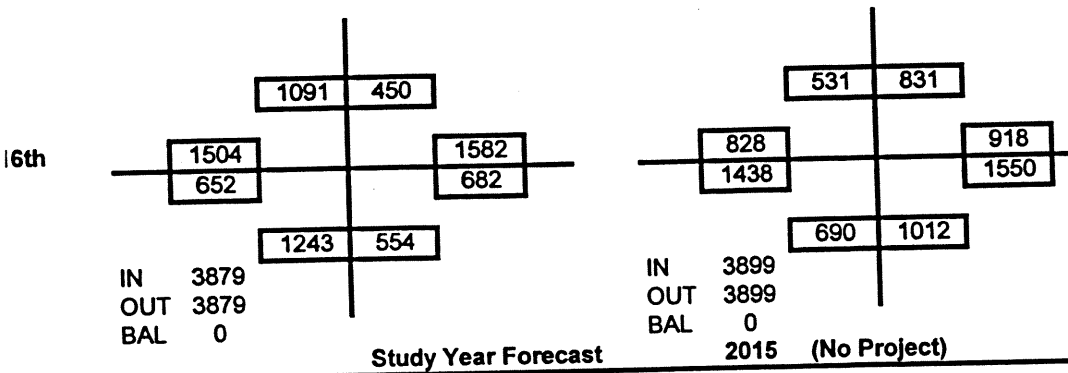
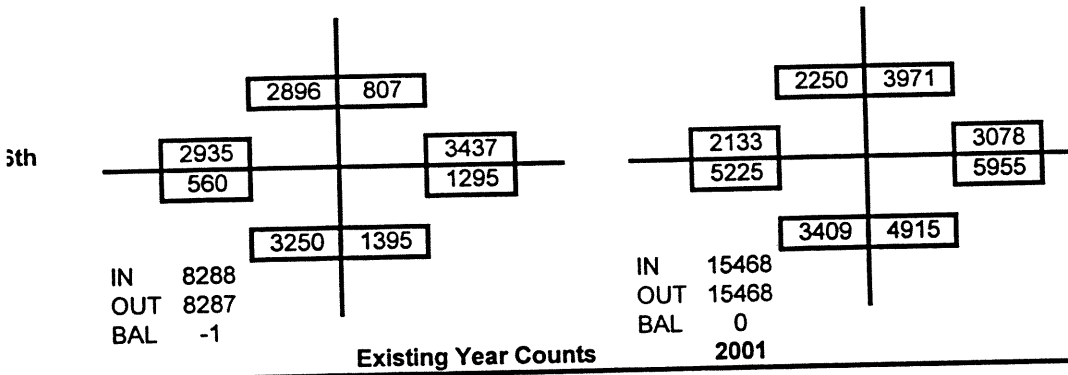
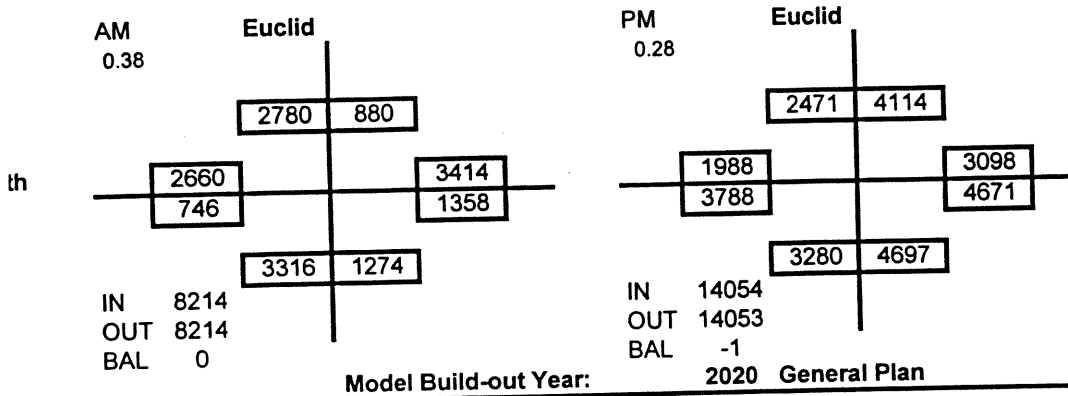


Project: Colonies
 Condition: General Plan
 Intersection Number: 7
 North/South Street: Euclid
 East/West Street: 16th

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2015
Difference Ex to Forecast	14

Date: Feb. 22, 2002

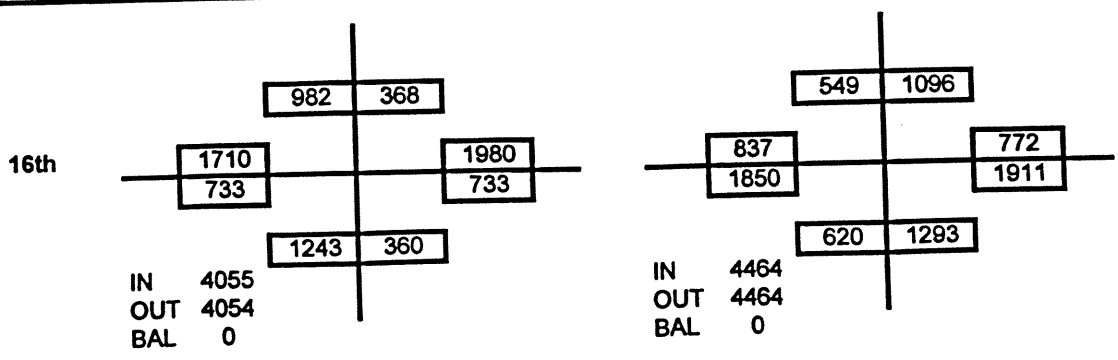
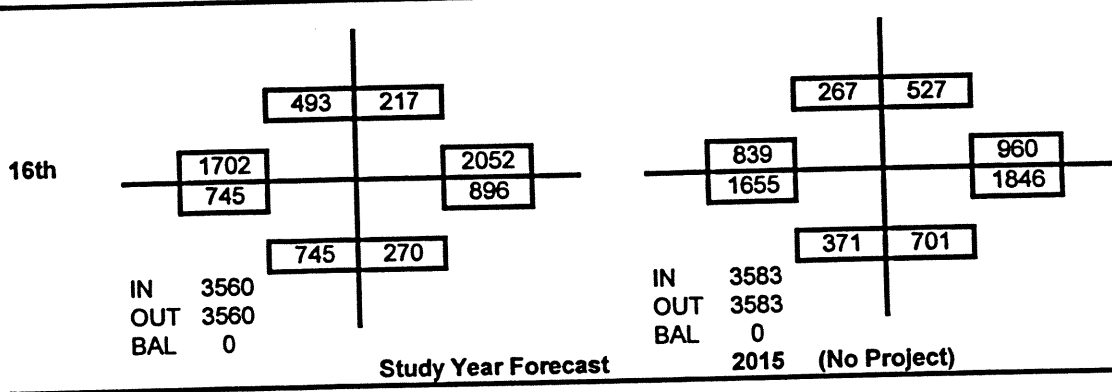
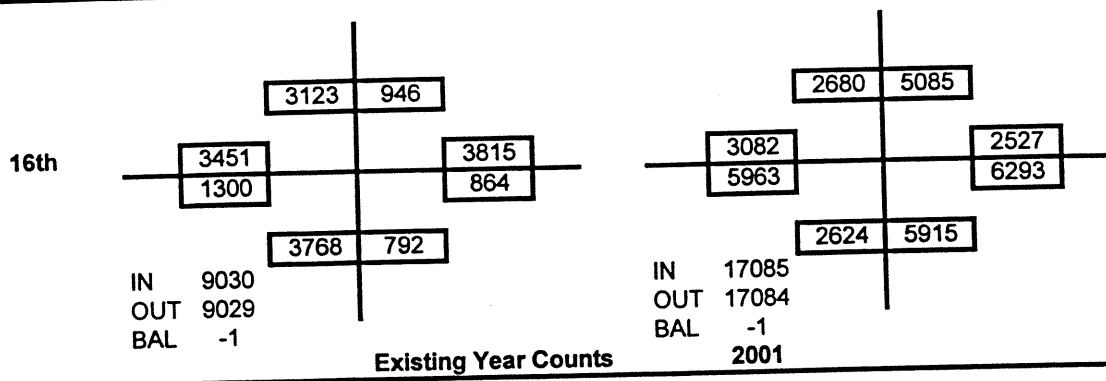
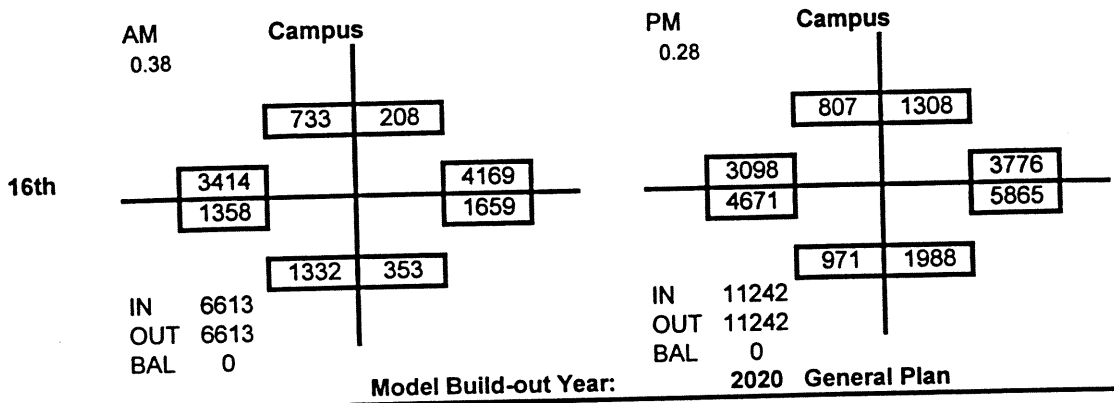
Model Base Year: 1994



Project: Colonies
 Condition: General Plan
 Intersection Number: 8
 North/South Street: Campus
 East/West Street: 16th
 Peak Hour: _____
 Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

Model Base Year: 1994



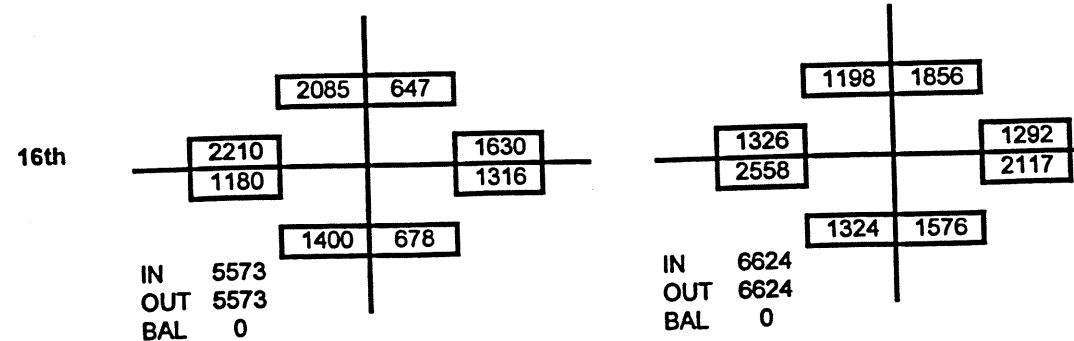
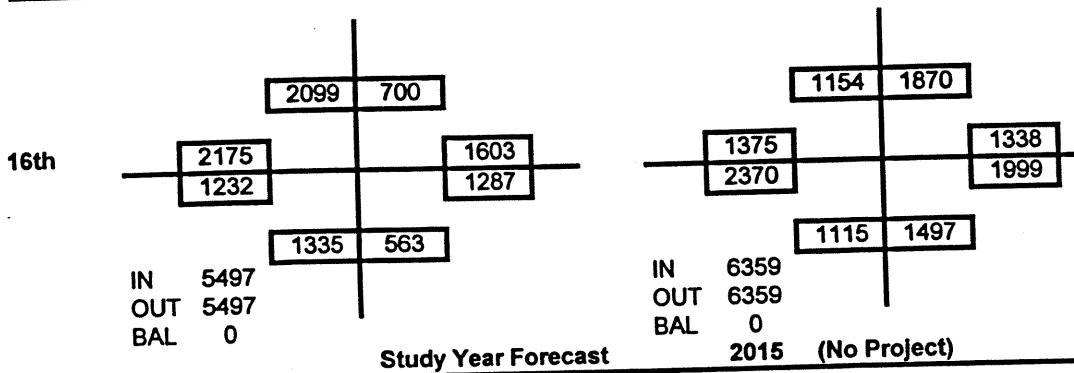
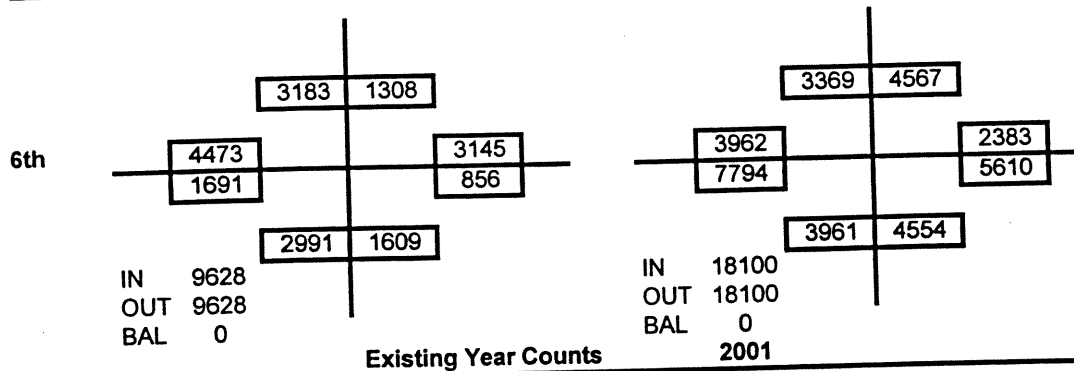
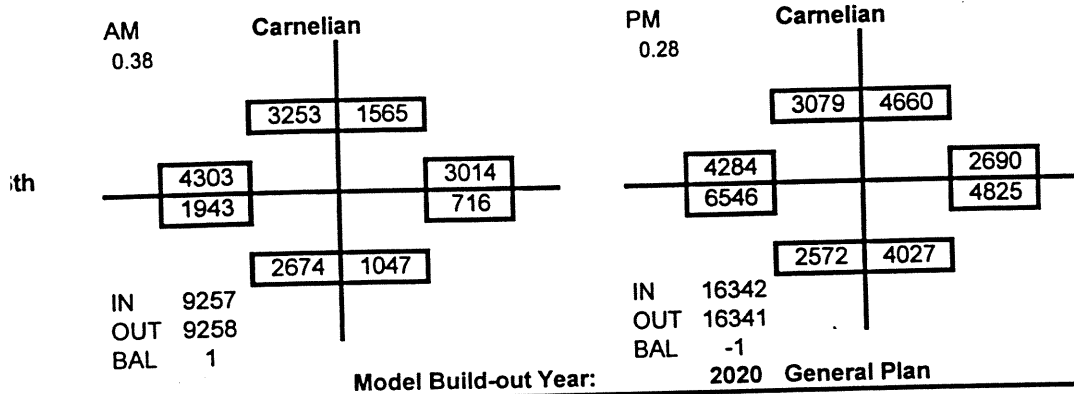
Project: Colonies
 Condition: General Plan
 Intersection Number: 9

North/South Street: Carnelian
 East/West Street: 16th

Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

Model Base Year: 1994

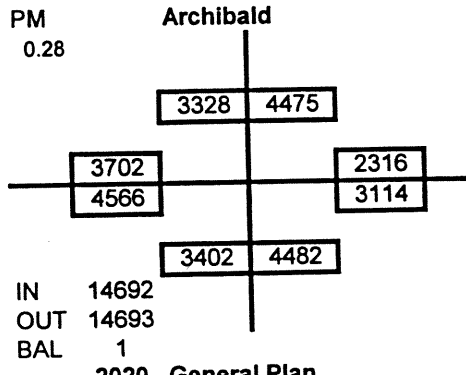
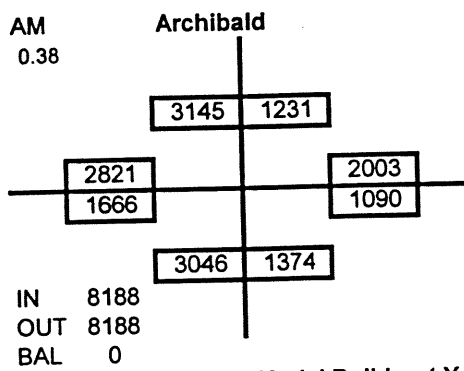


Project: Colonies
 Condition: General Plan
 Intersection Number: 10
 North/South Street: Archibald
 East/West Street: 16th

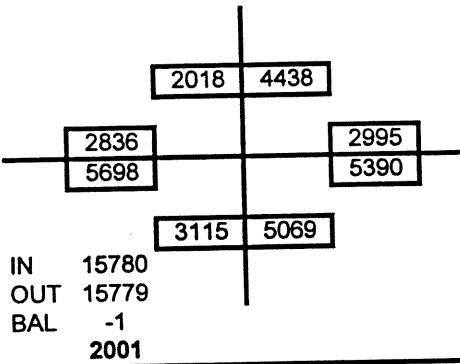
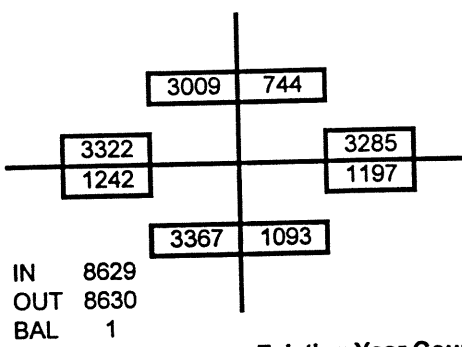
Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

Date: Feb. 22, 2002

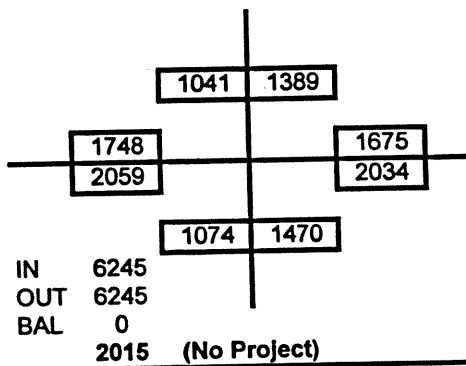
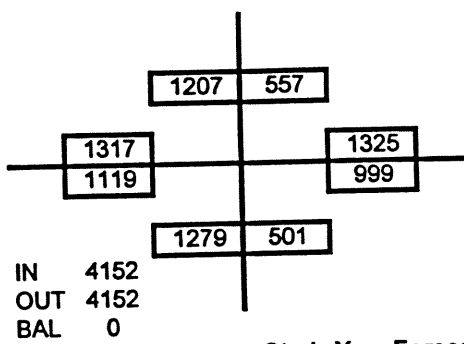
Model Base Year: 1994



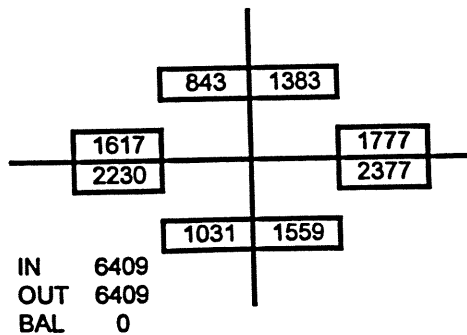
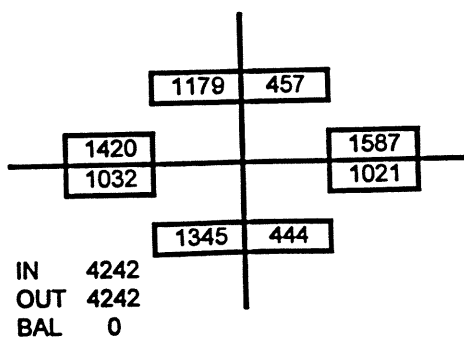
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2015 (No Project)



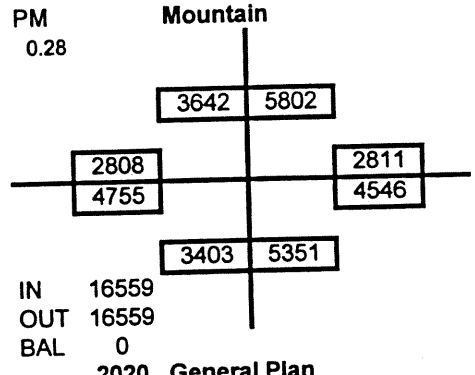
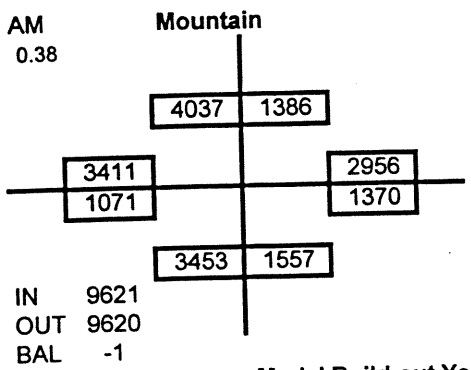
Project: Colonies
 Condition: General Plan
 Intersection Number: 12

North/South Street: Mountain
 East/West Street: Foothill

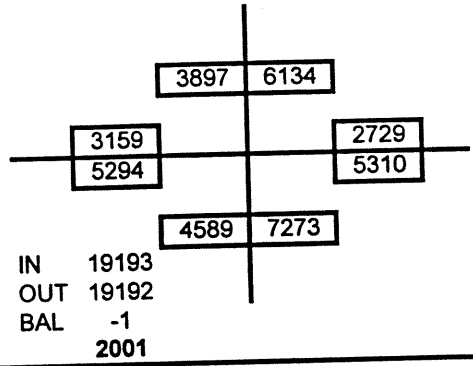
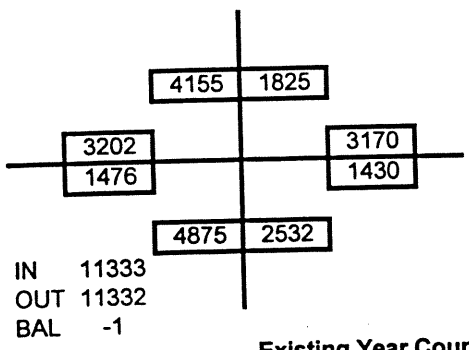
Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

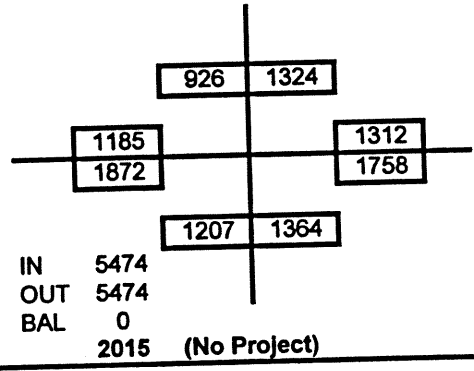
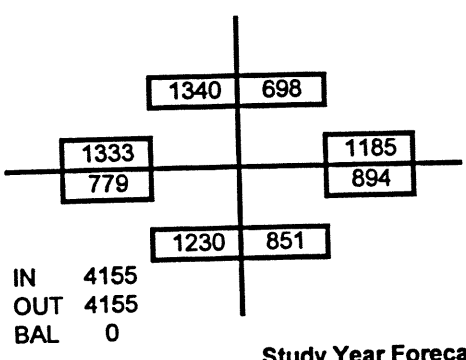
Model Base Year: 1994



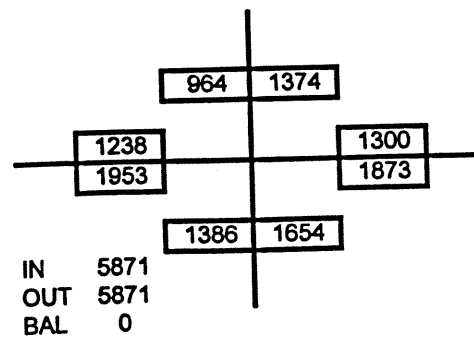
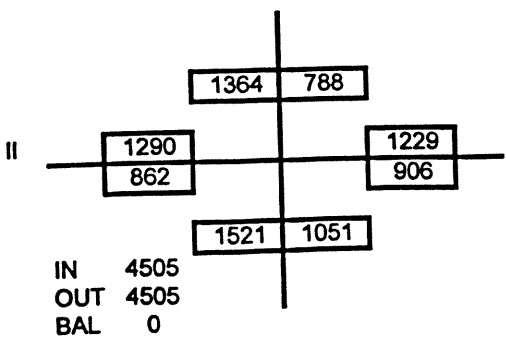
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2015 (No Project)

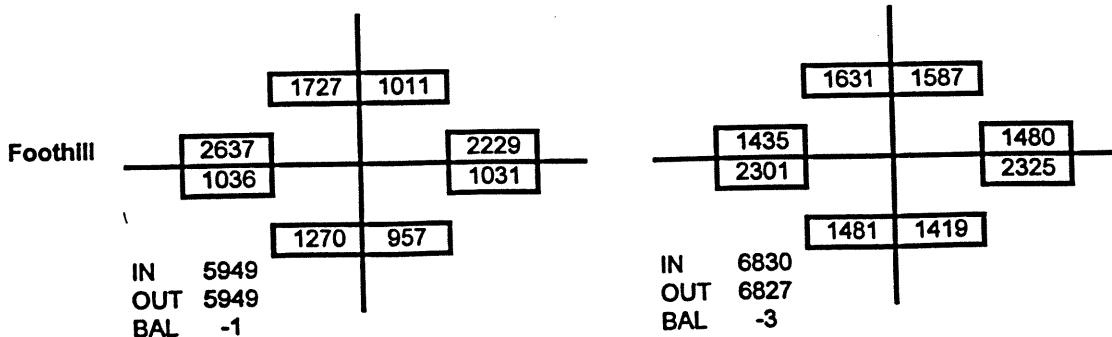
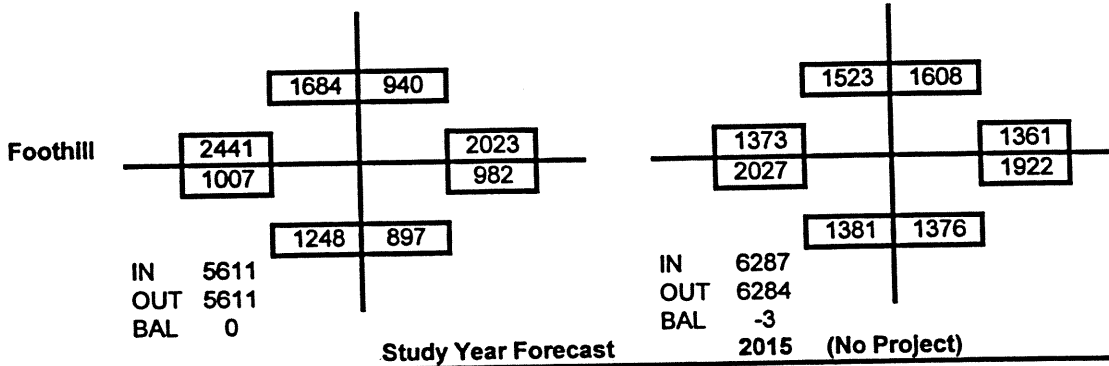
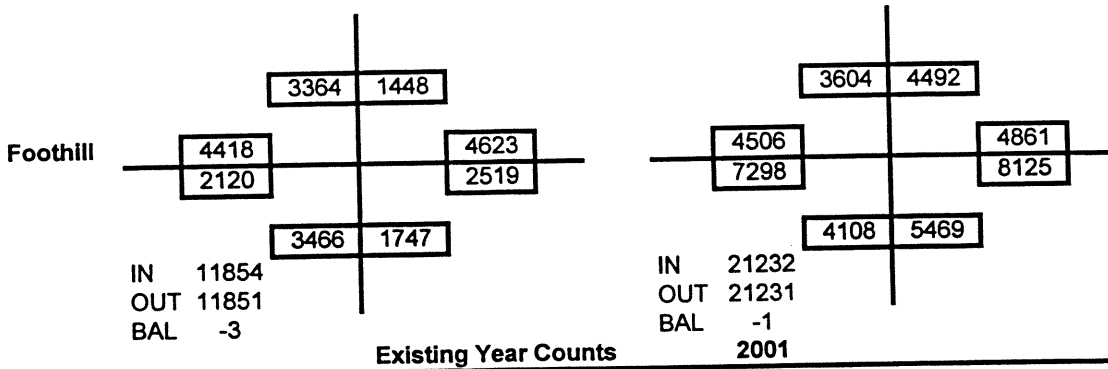
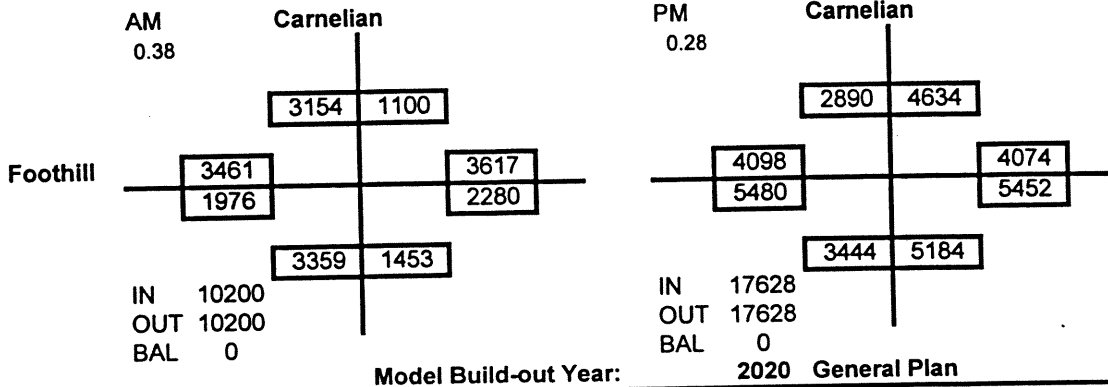


Project: Colonies
Condition: General Plan
Intersection Number: 15
North/South Street: Carnelian
East/West Street: Foothill

Model Base Year: 1994
Model Build-out Year: 2020
Total Difference: 26
Existing Year Counts: 2001
Difference Ex to B-O: 19
Percent: 0.73
Study Year Forecast: 2015
Difference Ex to Forecast: 14

Date: Feb. 22, 2002

Model Base Year: 1994

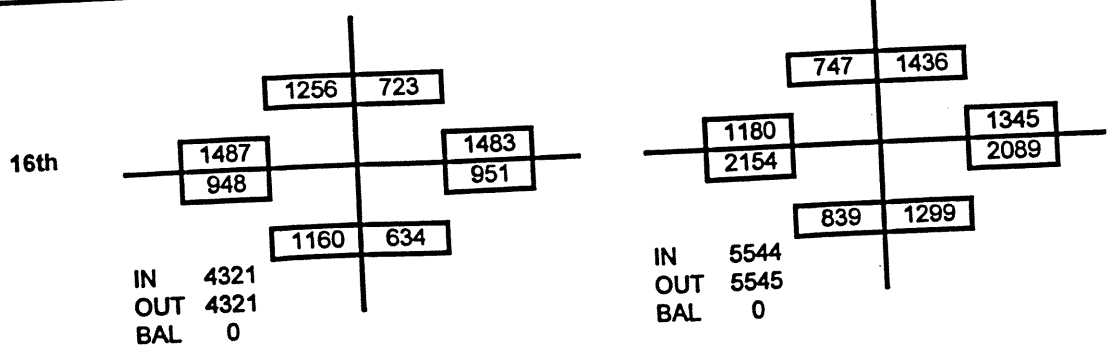
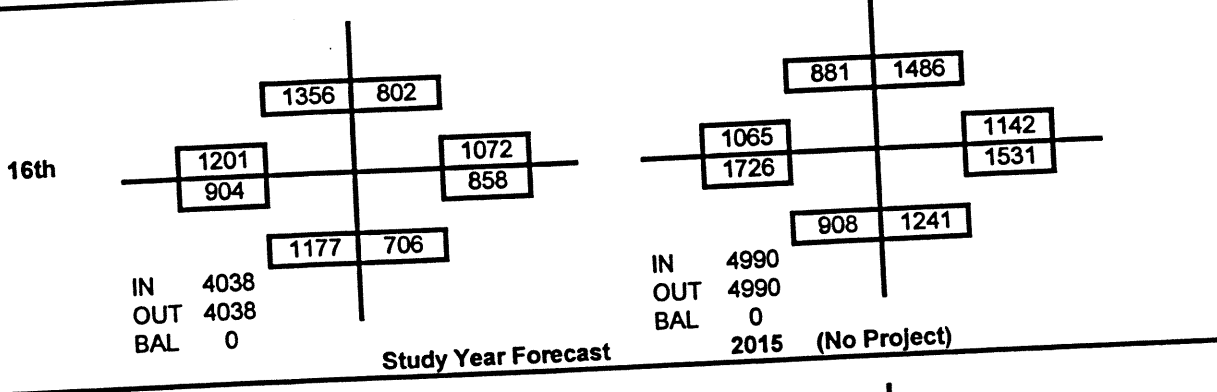
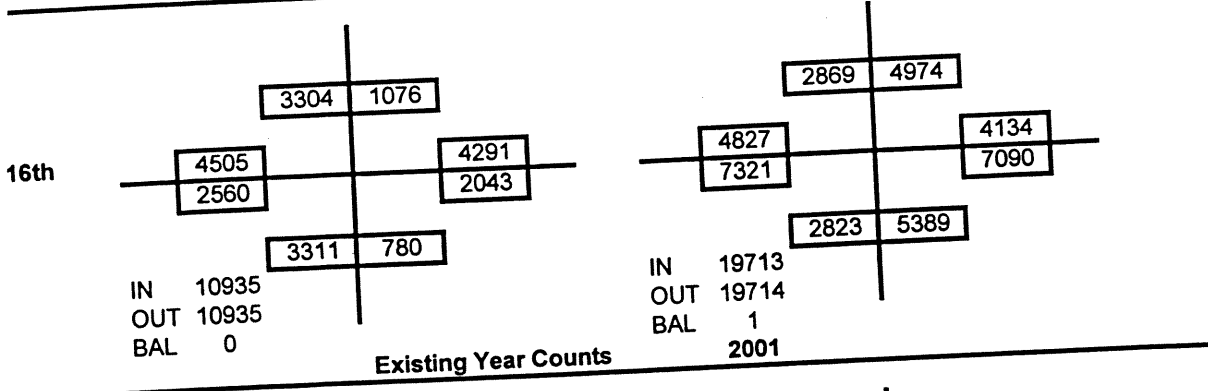
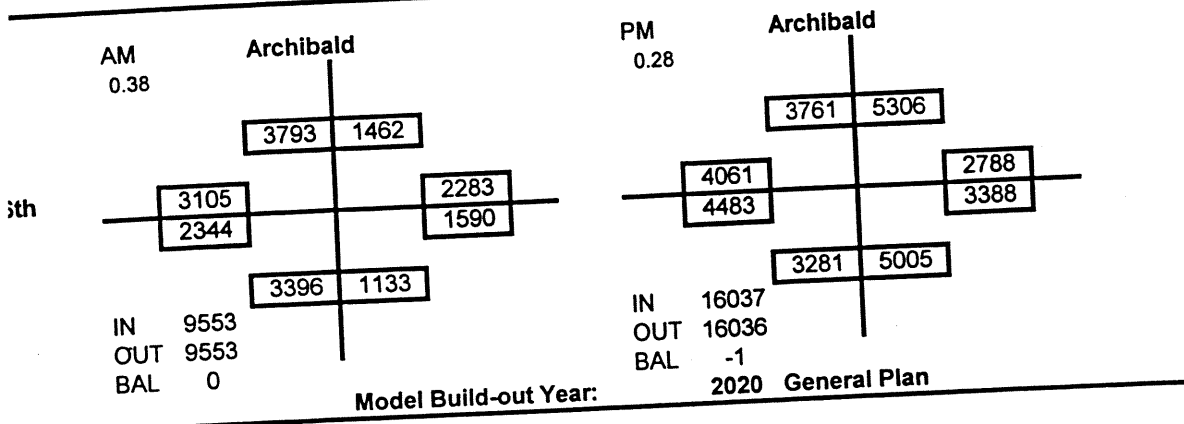


Project: Colonies
 Condition: General Plan
 Intersection Number: 16
 North/South Street: Archibald
 East/West Street: 16th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

Date: Feb. 22, 2002

Model Base Year: 1994



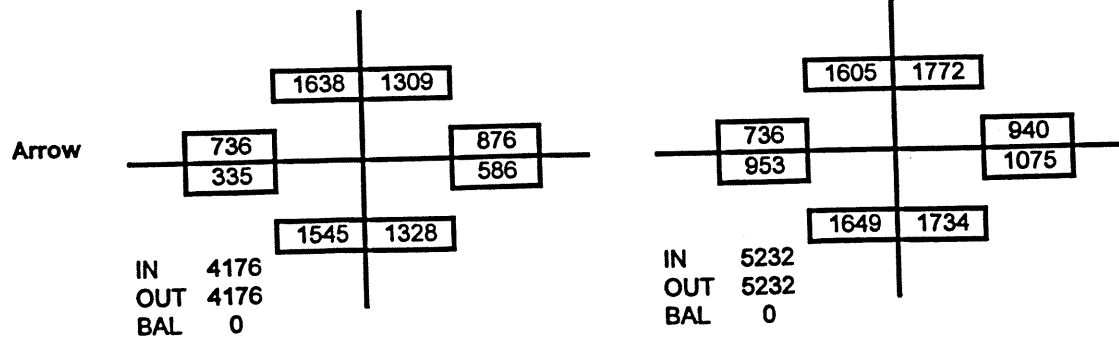
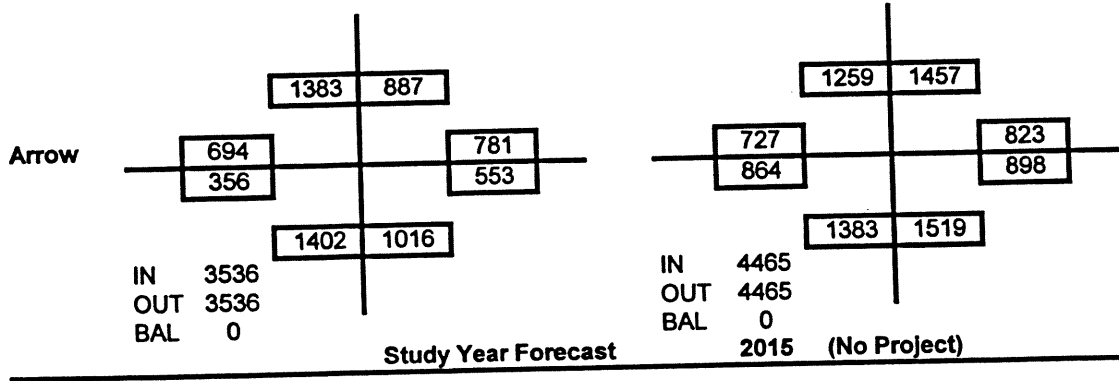
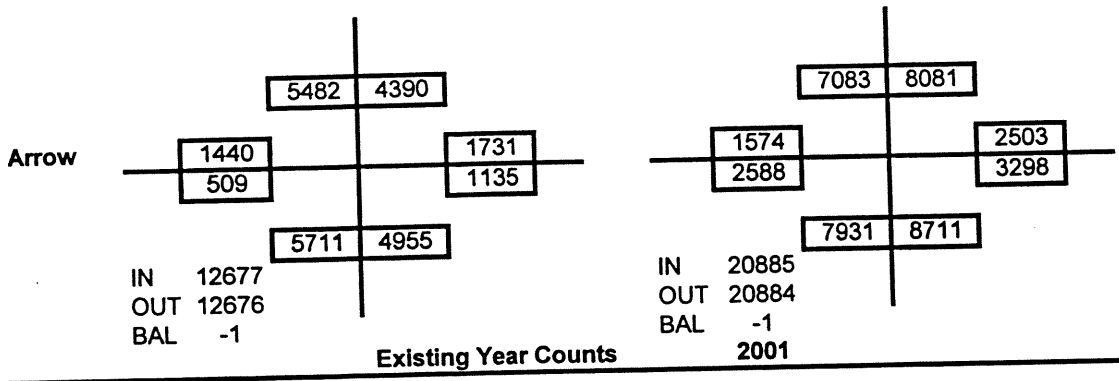
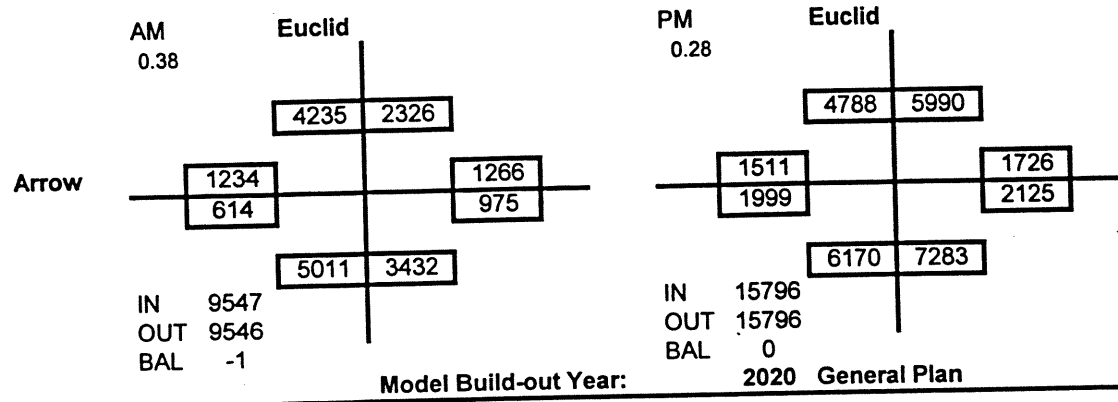
Project: Colonies
 Condition: General Plan
 Intersection Number: 17

North/South Street: Euclid
 East/West Street: Arrow

Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

Model Base Year: 1994

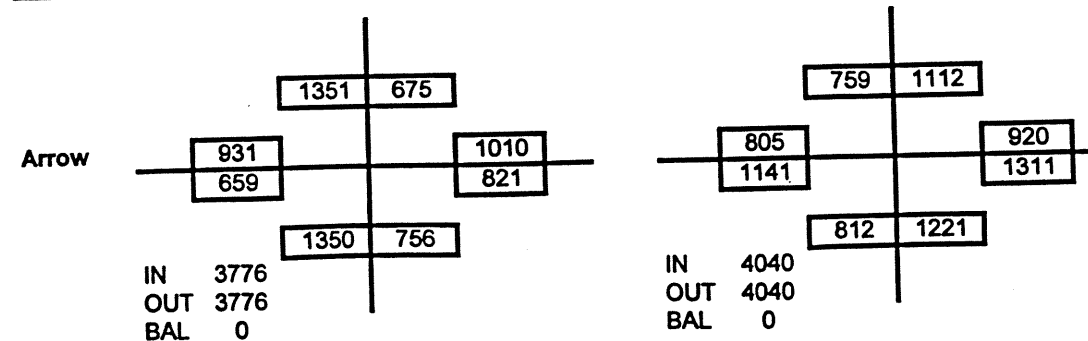
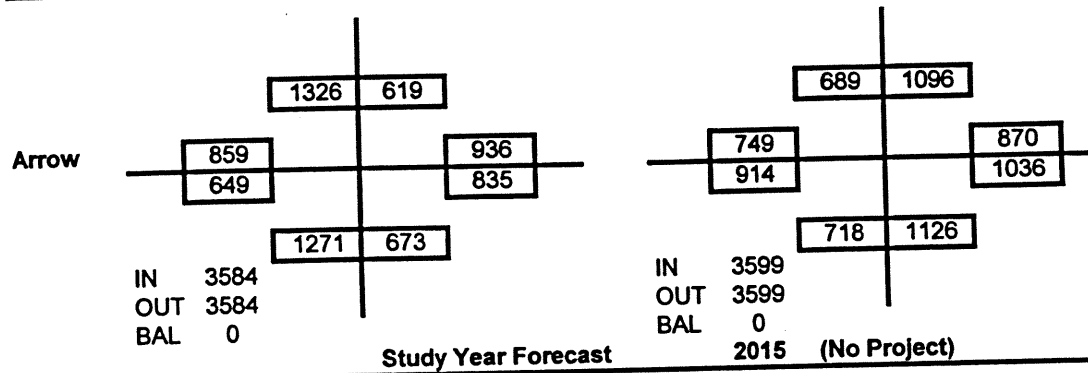
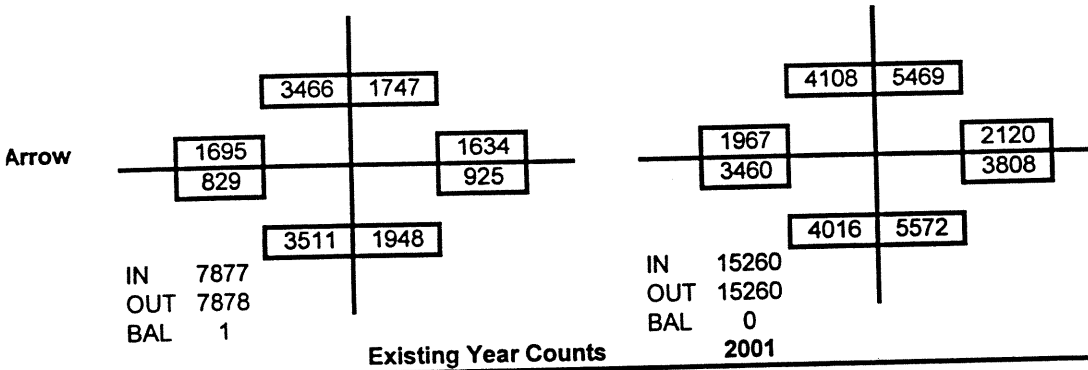
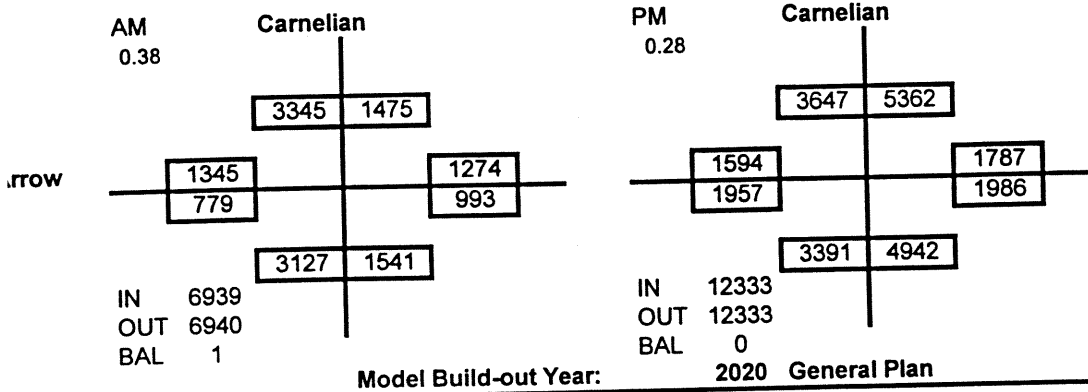


Project: Colonies
 Condition: General Plan
 Intersection Number: 18
 North/South Street: Carnelian
 East/West Street: Arrow

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2015
Difference Ex to Forecast	14

Date: Feb. 22, 2002

Model Base Year: 1994



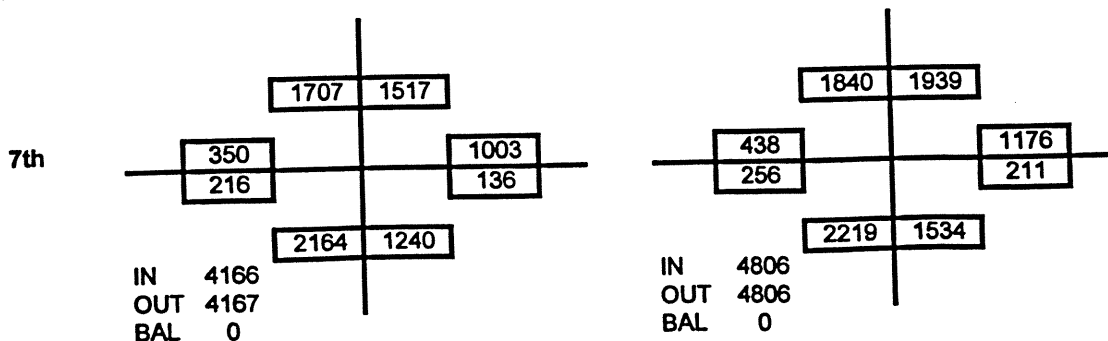
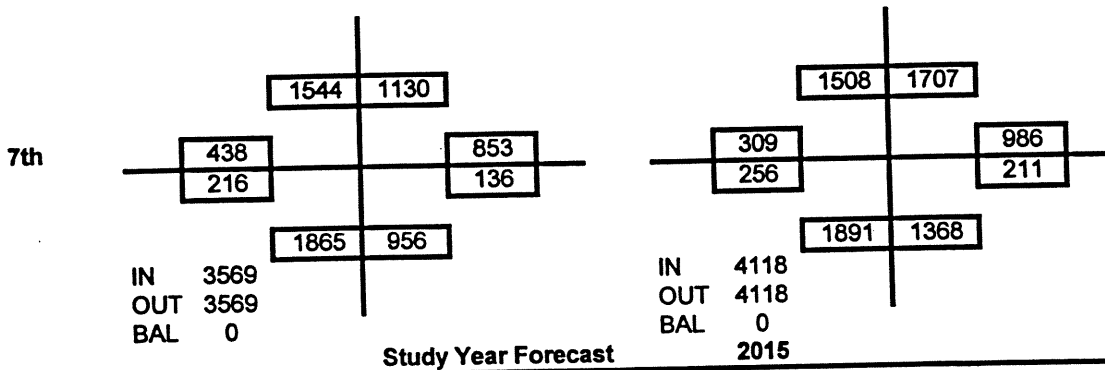
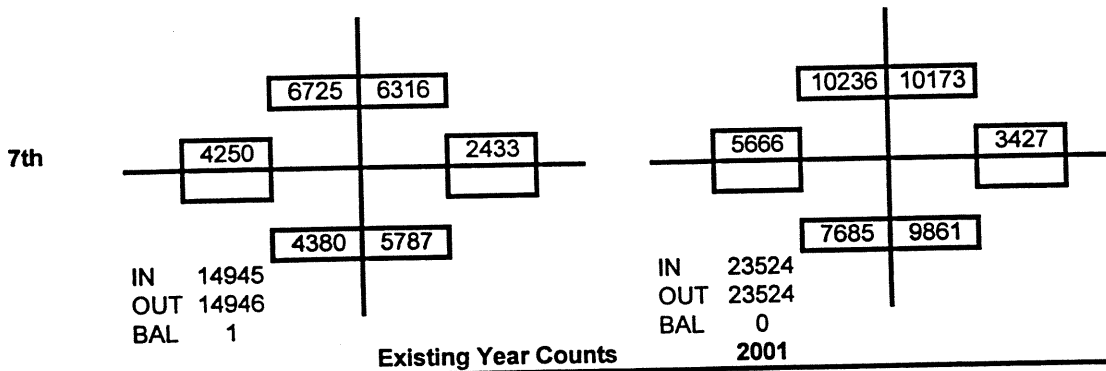
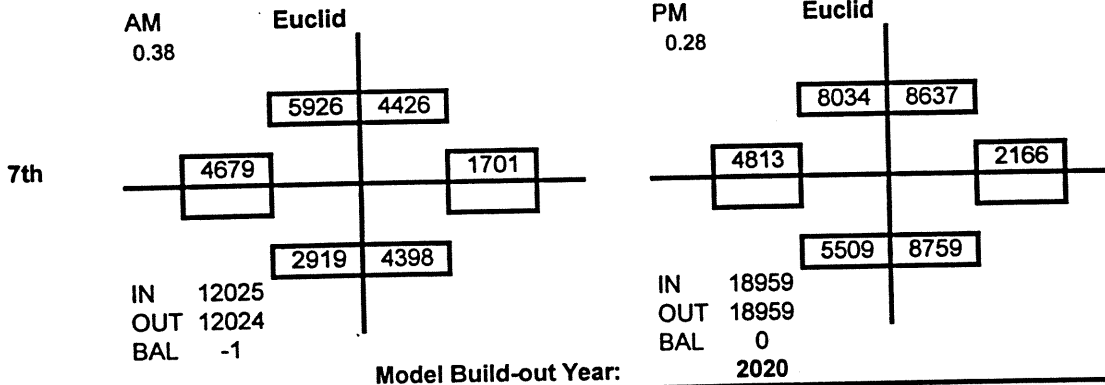
Project: Colonies
Condition: 2020 General Plan
Intersection Number: 19

North/South Street Euclid

East/West Street 7th

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2015
Difference Ex to Forecast	14

Model Base Year: 1994

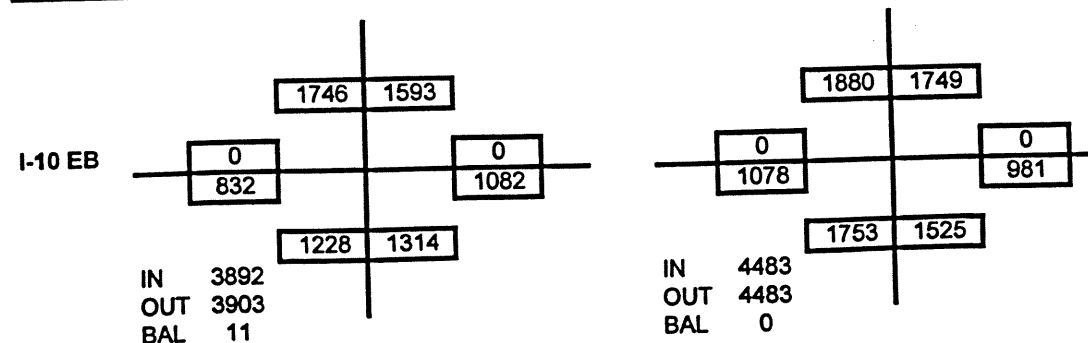
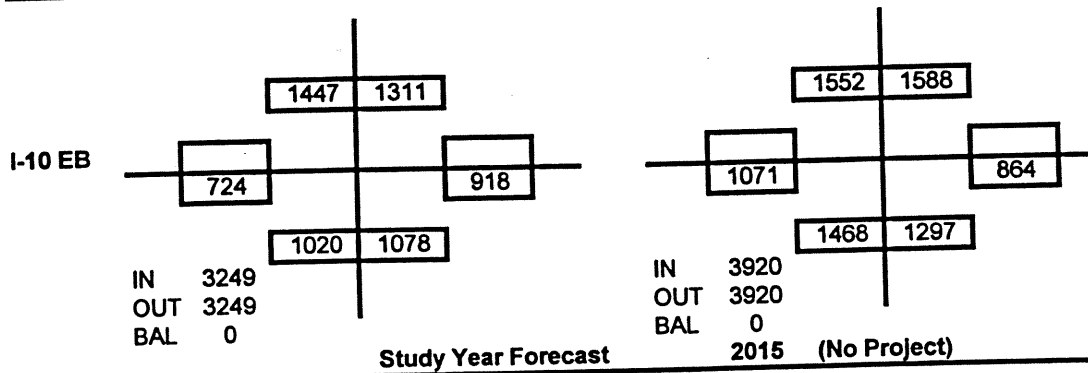
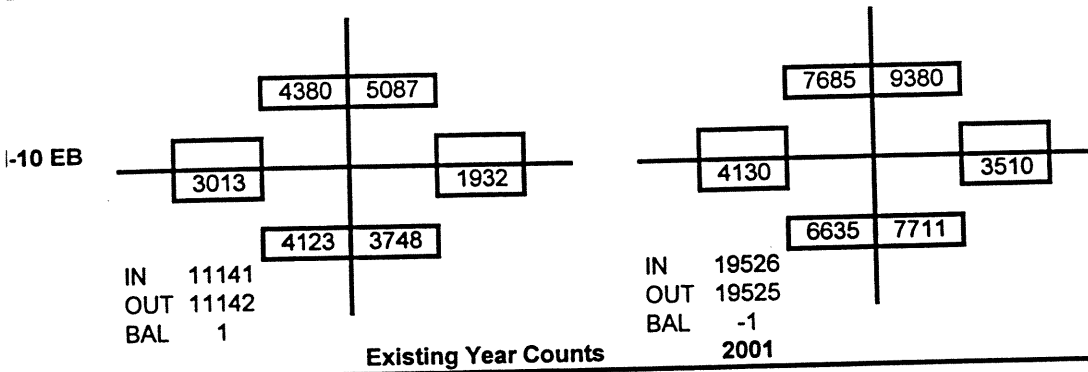
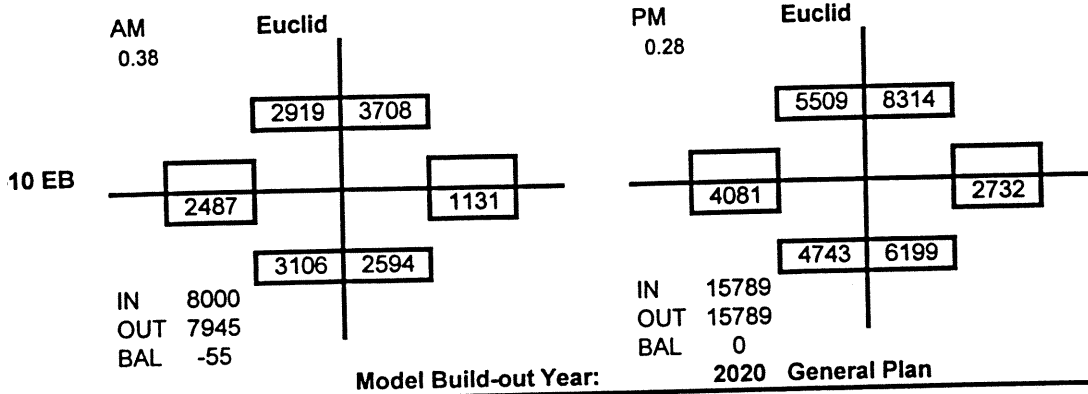


Project: Colonies
 Condition: General Plan
 Intersection Number: 20
 North/South Street: Euclid
 East/West Street: I-10 EB

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

Date: Feb. 22, 2002

Model Base Year: 1994



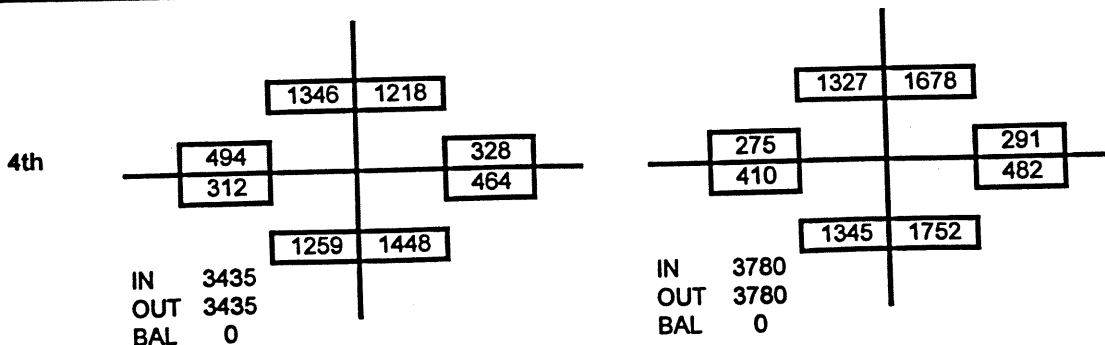
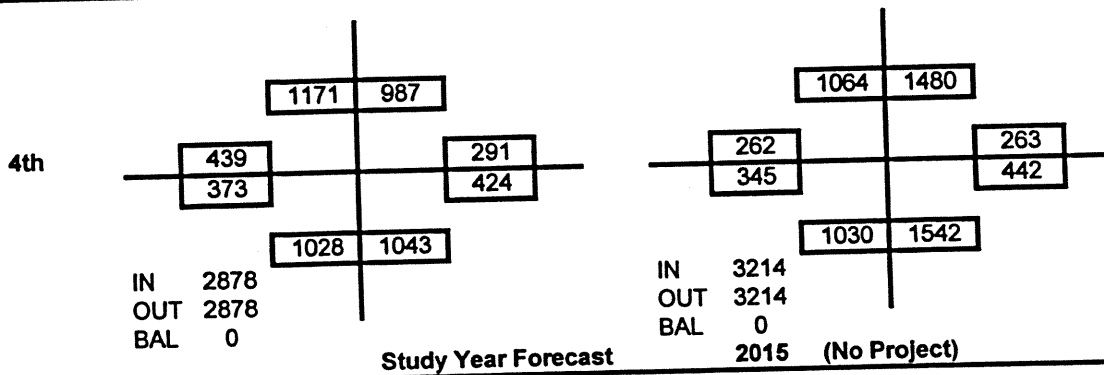
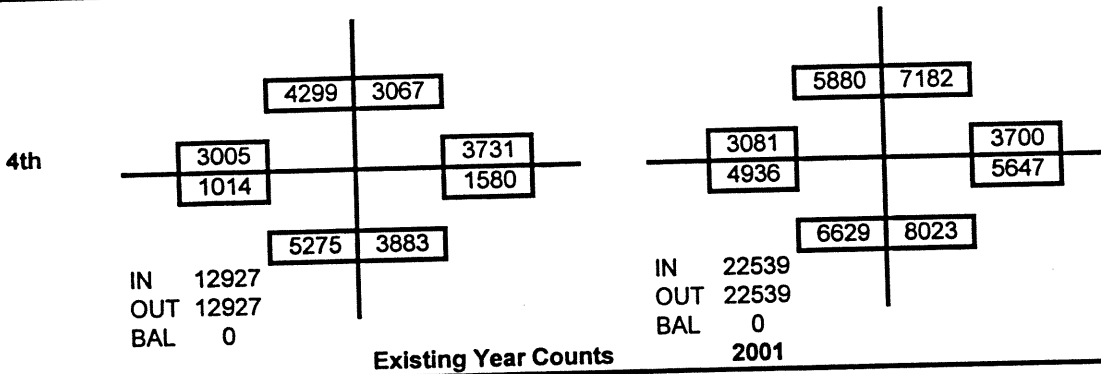
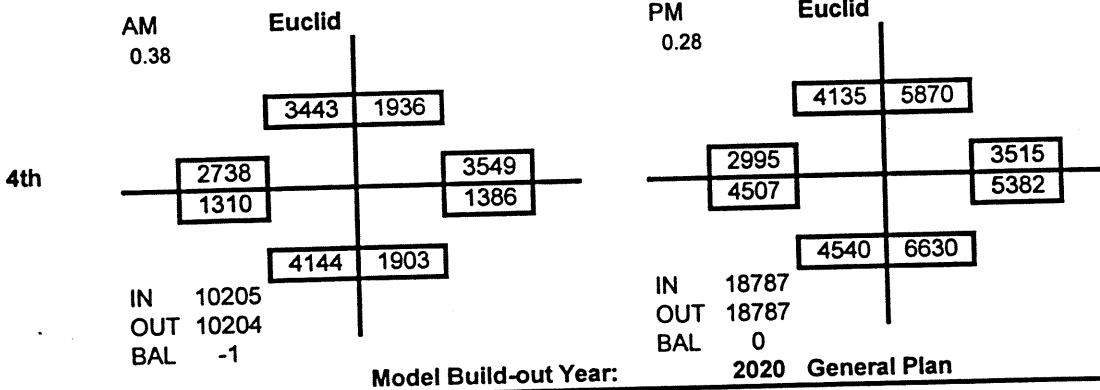
Project: Colonies
 Condition: General Plan
 Intersection Number: 21

North/South Street: Euclid
 East/West Street: 4th

Date: Feb. 22, 2002

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2015
 Difference Ex to Forecast: 14

Model Base Year: 1994



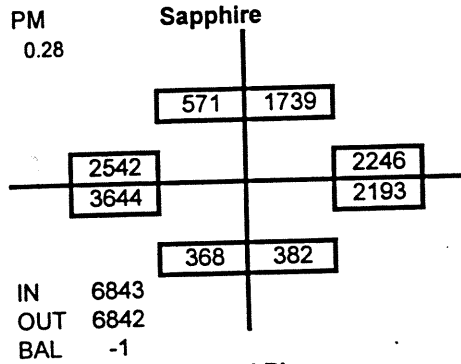
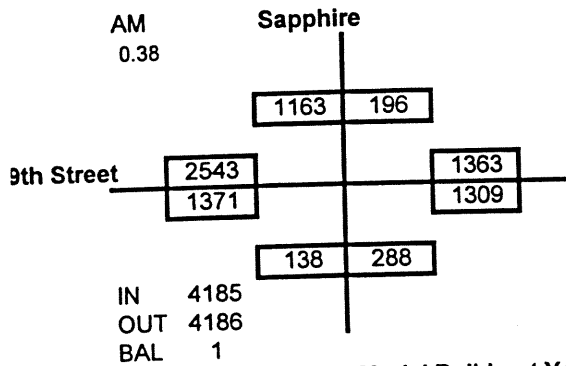
Project: Colonies
 Condition: General Plan
 Intersection Number: 22

North/South Street: Sapphire
 East/West Street: 19th Street

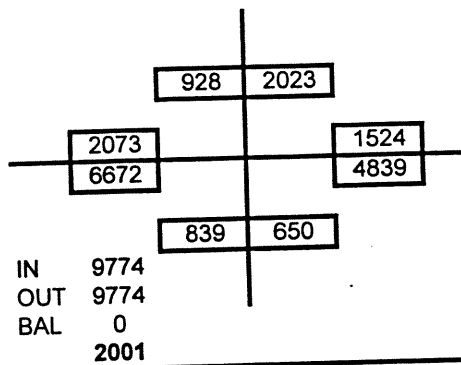
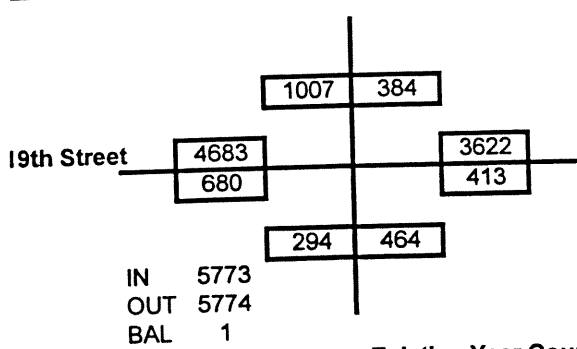
Date: Feb. 22, 2002

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2015
Difference Ex to Forecast	14

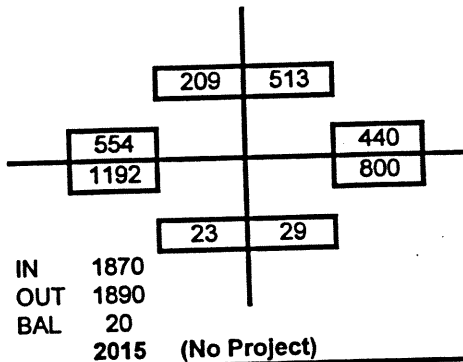
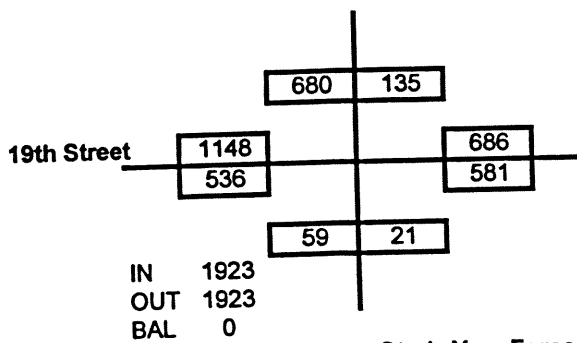
Model Base Year: 1994



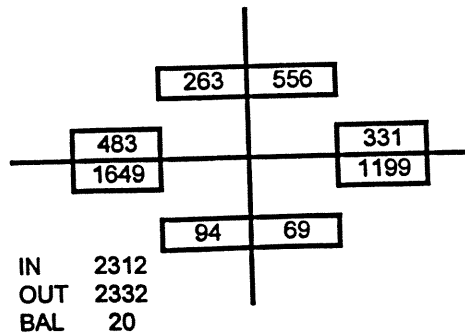
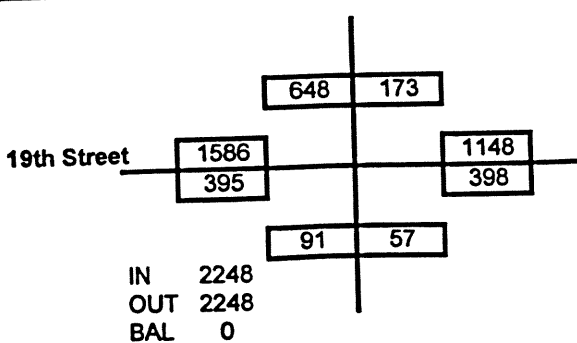
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2015 (No Project)

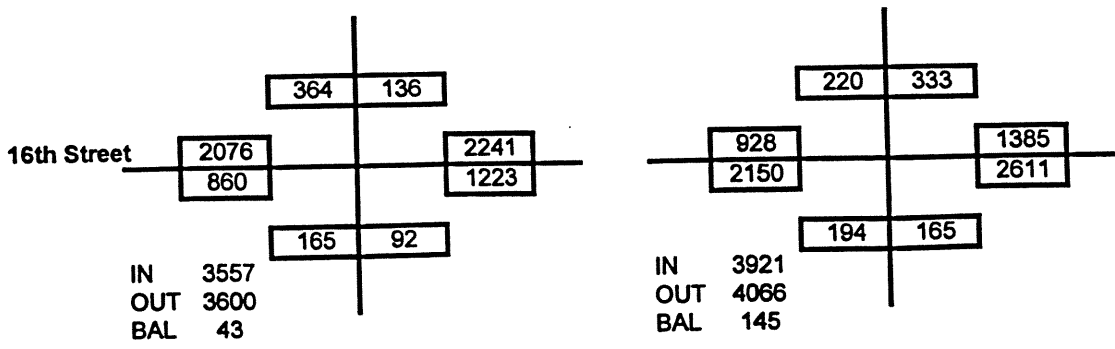
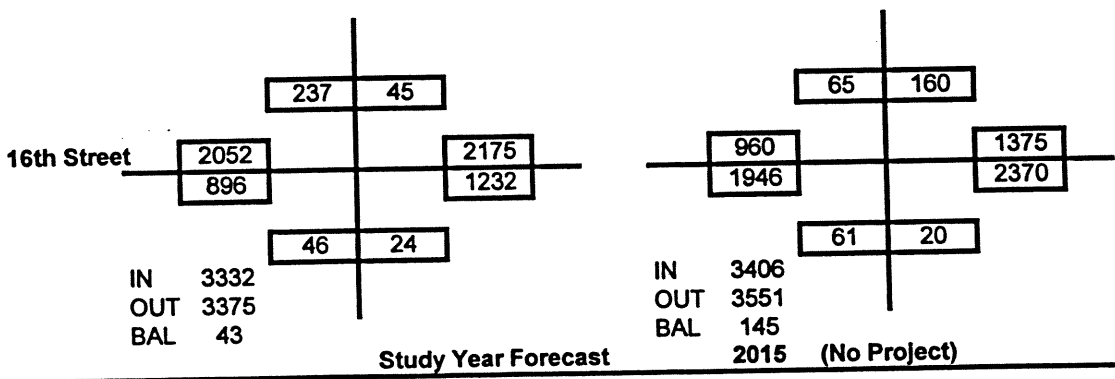
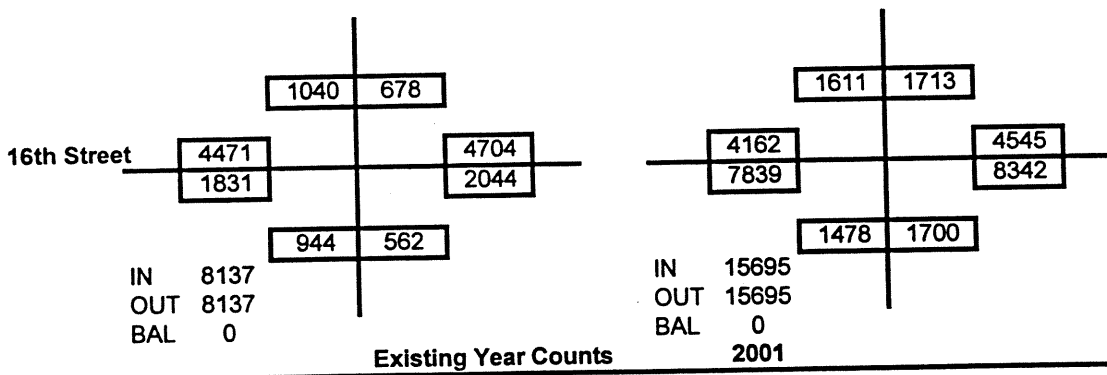
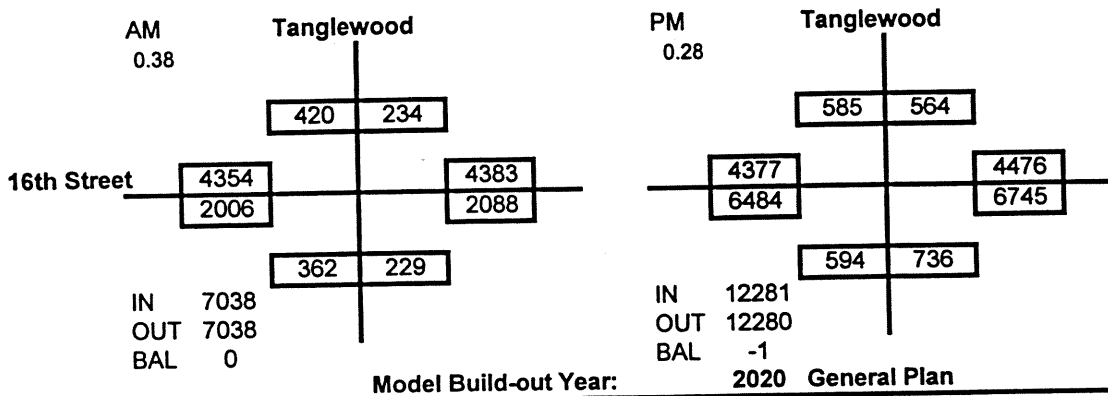


Project: Colonies
 Condition: General Plan
 Intersection Number: 23
 North/South Street: Tanglewood
 East/West Street: 16th Street

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2015
Difference Ex to Forecast	14

Date: Feb. 22, 2002

Model Base Year: 1994



APPENDIX A

**PEAK HOUR ROADWAY
LINK POST-PROCESSING
WORKSHEETS**

2020 General Plan

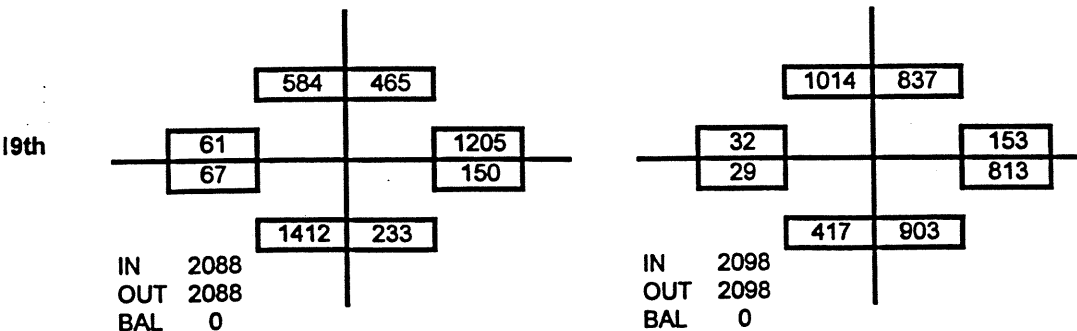
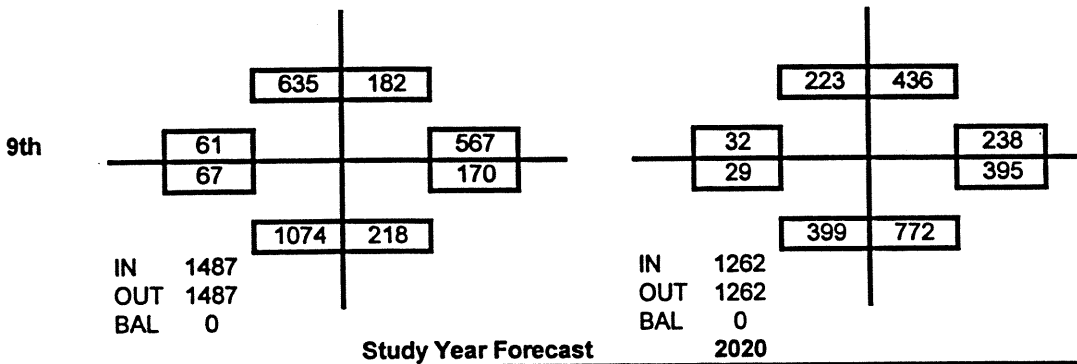
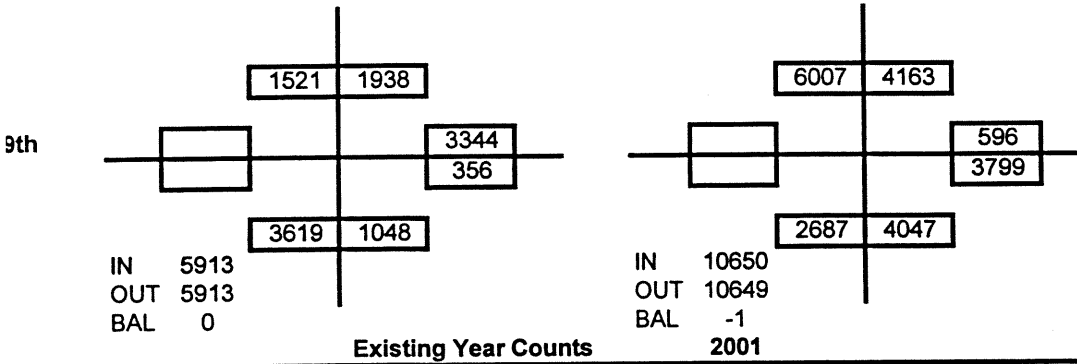
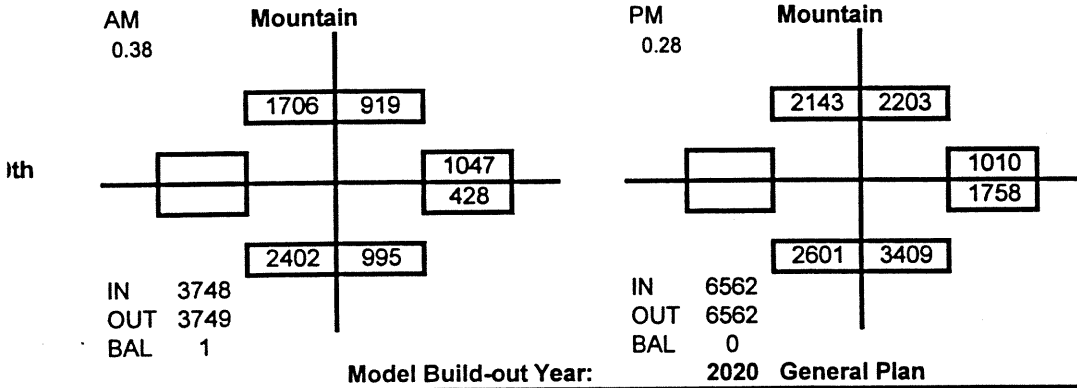
Project: Colonies
Condition: General Plan
Intersection Number: 1

North/South Street: Mountain

East/West Street: 19th

Model Base Year: 1994
Model Build-out Year: 2020
Total Difference: 26
Existing Year Counts: 2001
Difference Ex to B-O: 19
Percent: 0.73
Study Year Forecast: 2020
Difference Ex to Forecast: 19

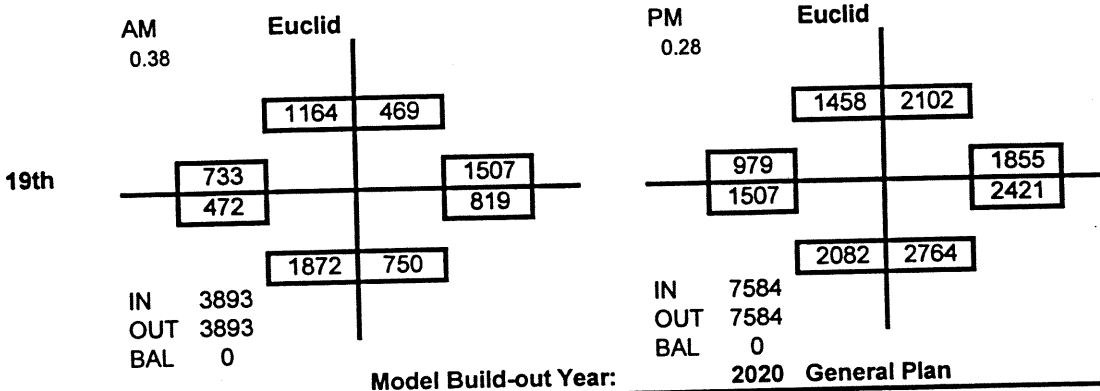
Model Base Year: 1994



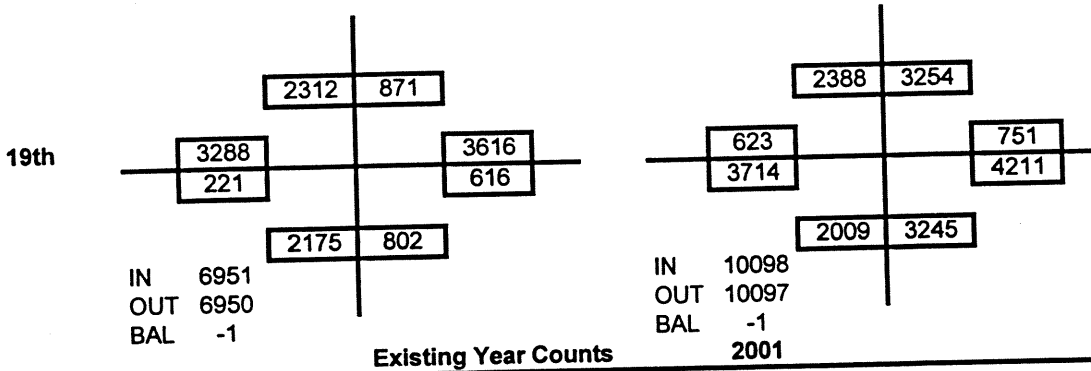
Project: Colonies
 Condition: General Plan
 Intersection Number: 2
 North/South Street: Euclid
 East/West Street: 19th

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2020
Difference Ex to Forecast	19

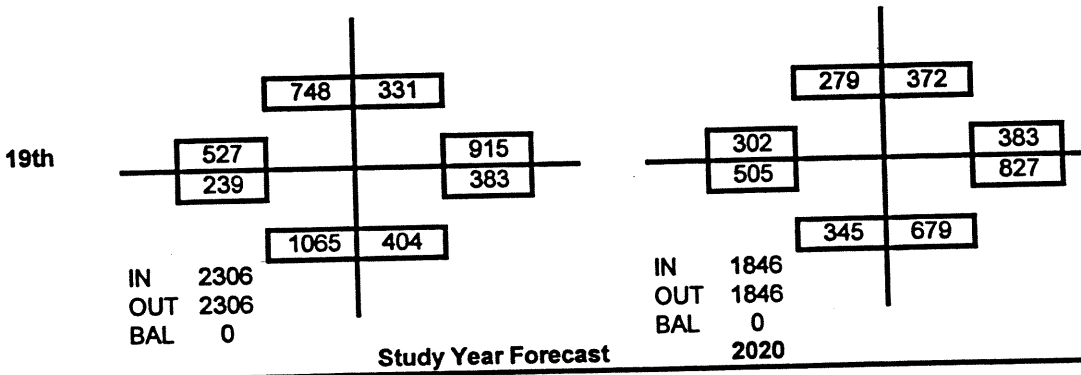
Model Base Year: 1994



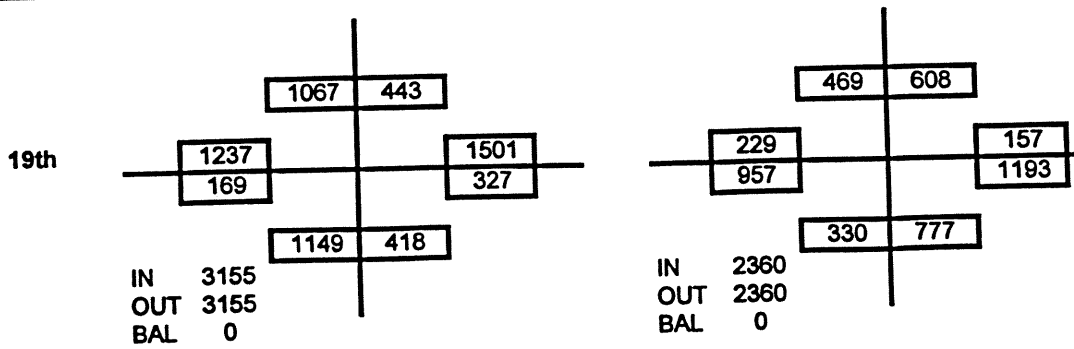
Model Build-out Year: 2020 General Plan



Existing Year Counts



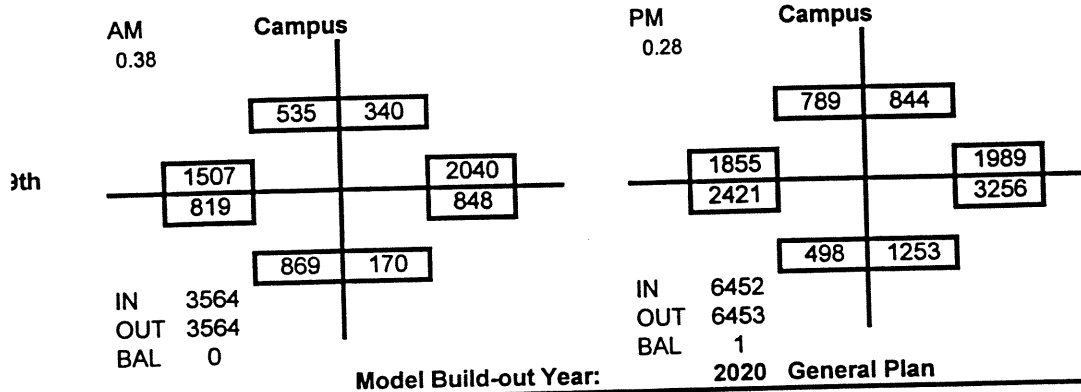
Study Year Forecast



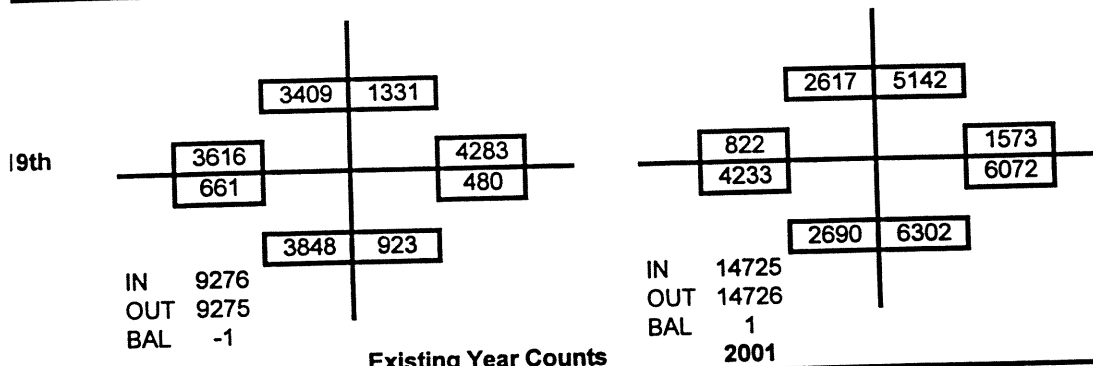
Project: Colonies
 Condition: General Plan
 Intersection Number: 3
 North/South Street: Campus
 East/West Street: 19th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2020
 Difference Ex to Forecast: 19

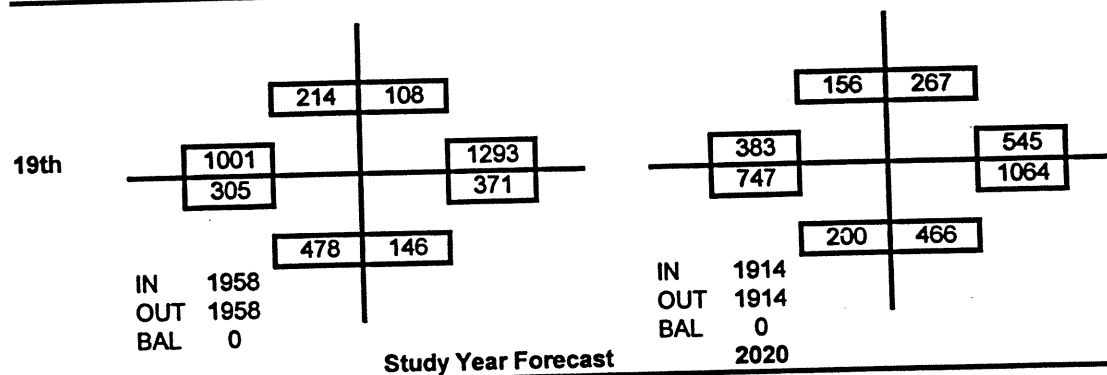
Model Base Year: 1994



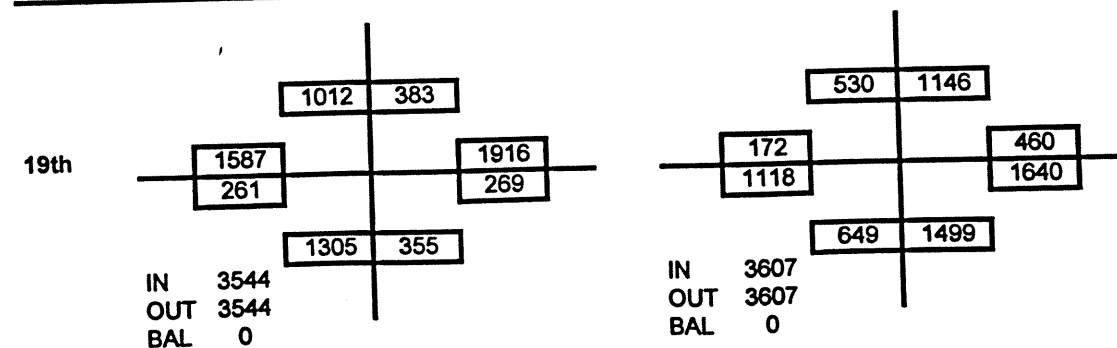
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



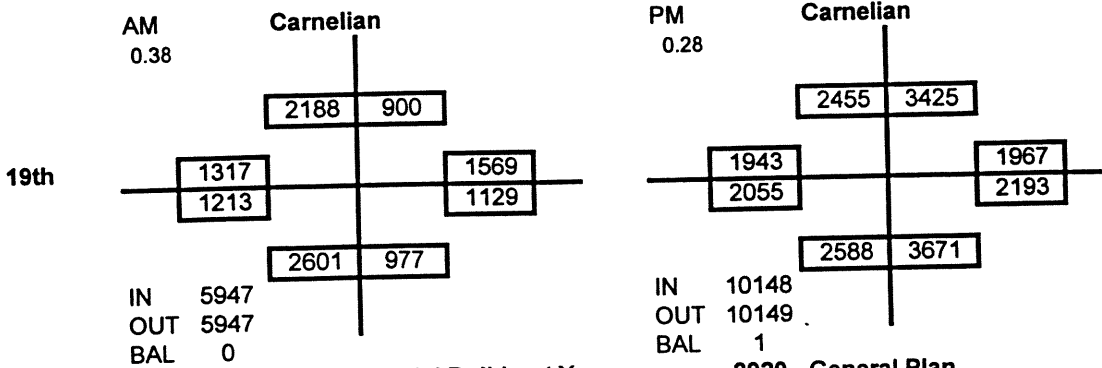
Study Year Forecast 2020



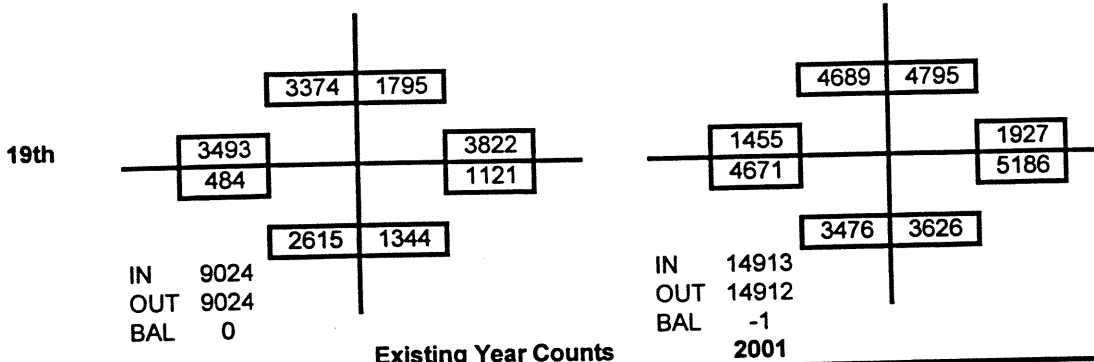
Project: Colonies
 Condition: General Plan
 Intersection Number: 4
 North/South Street: Carnelian
 East/West Street: 19th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2020
 Difference Ex to Forecast: 19

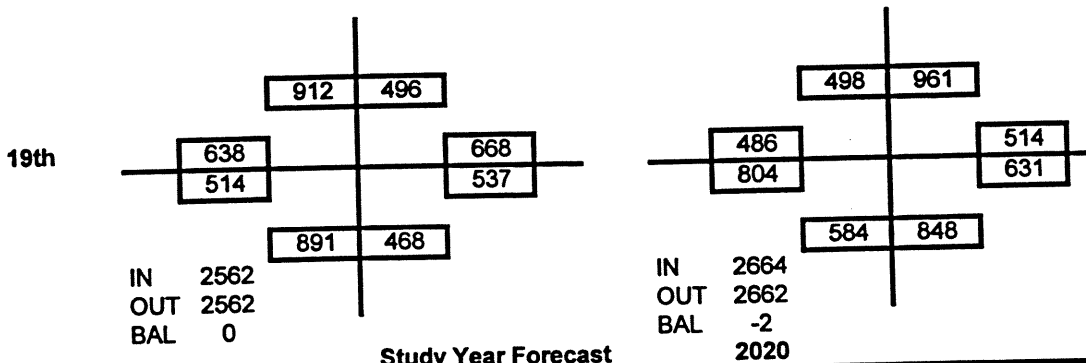
Model Base Year: 1994



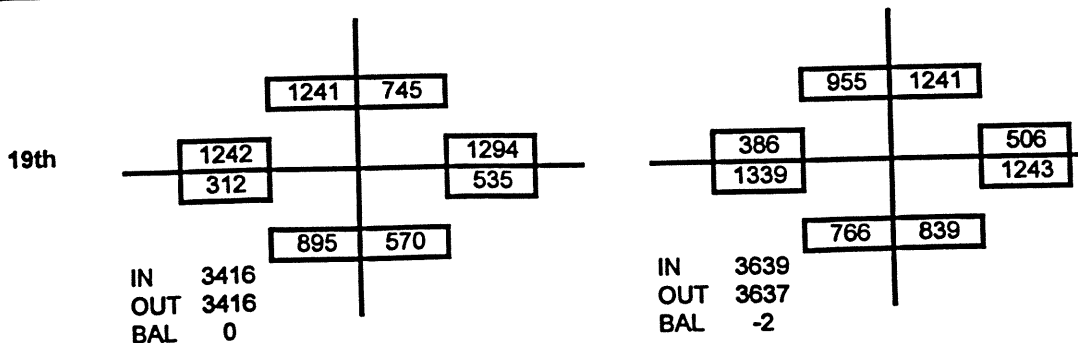
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



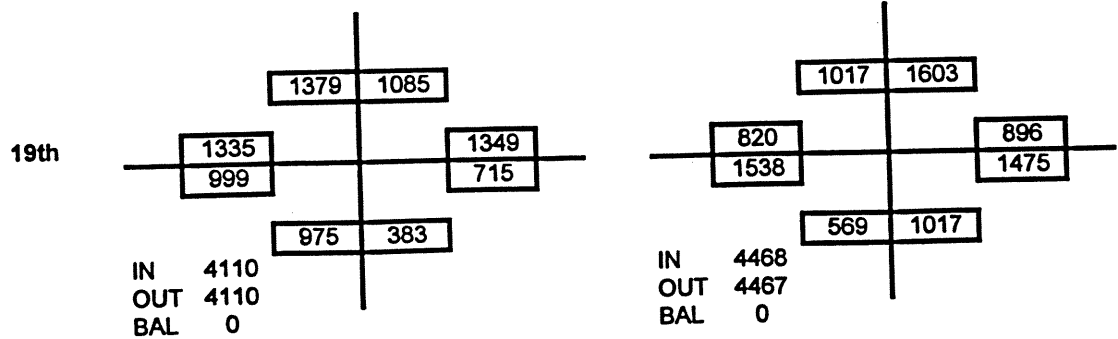
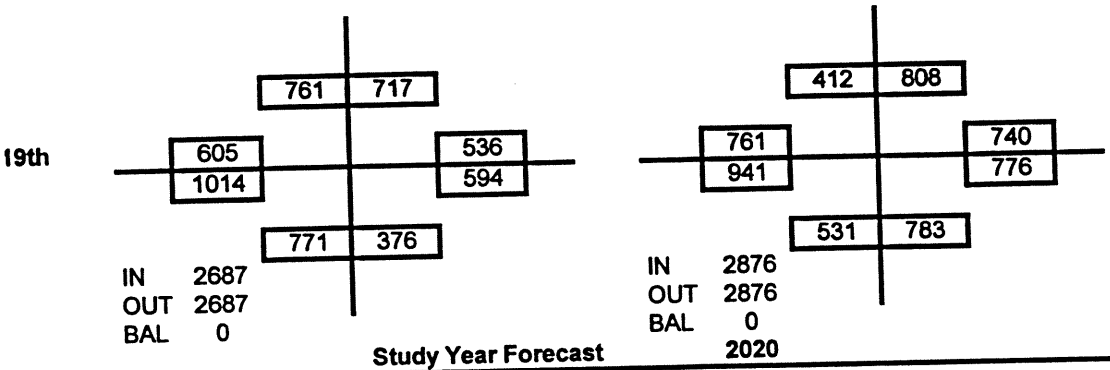
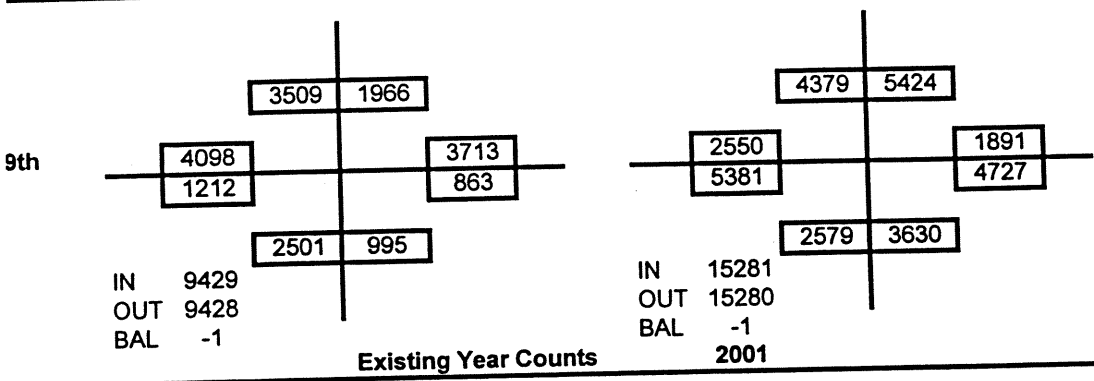
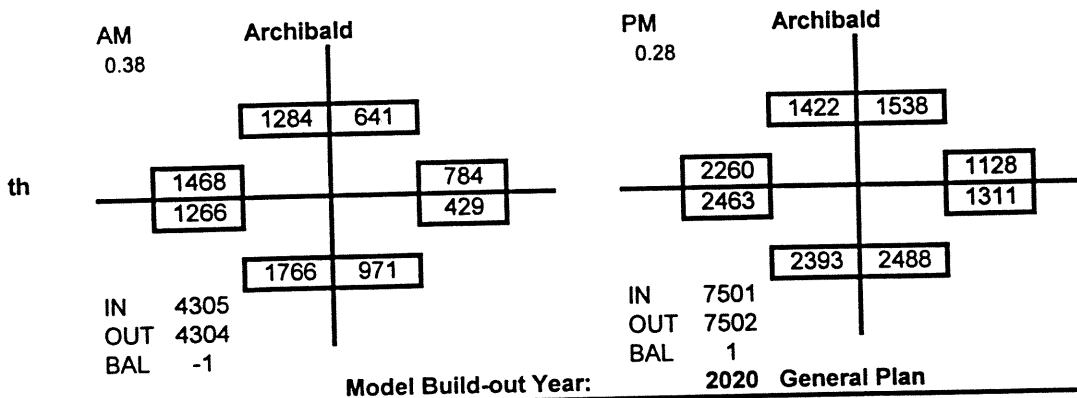
Study Year Forecast 2020



Project: Colonies
 Condition: General Plan
 Intersection Number: 5
 North/South Street: Archibald
 East/West Street: 19th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2020
 Difference Ex to Forecast: 19

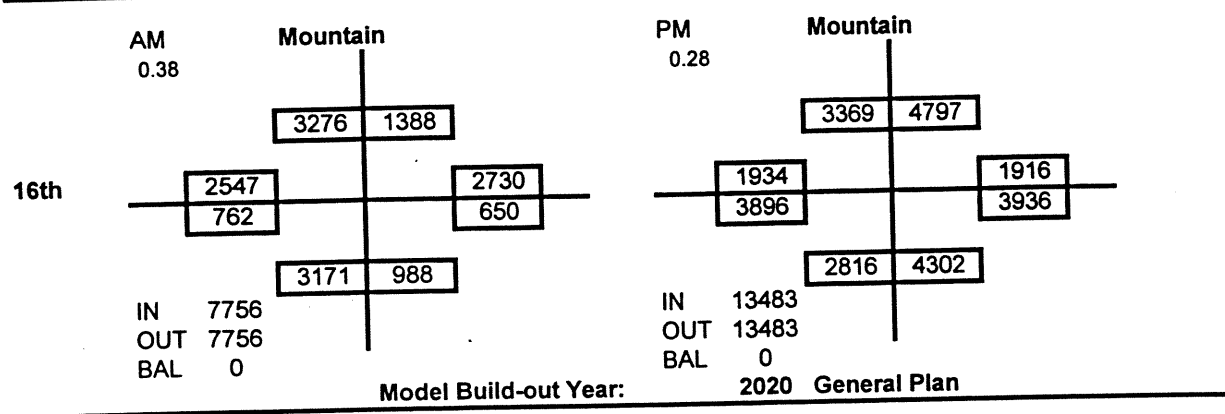
Model Base Year: 1994



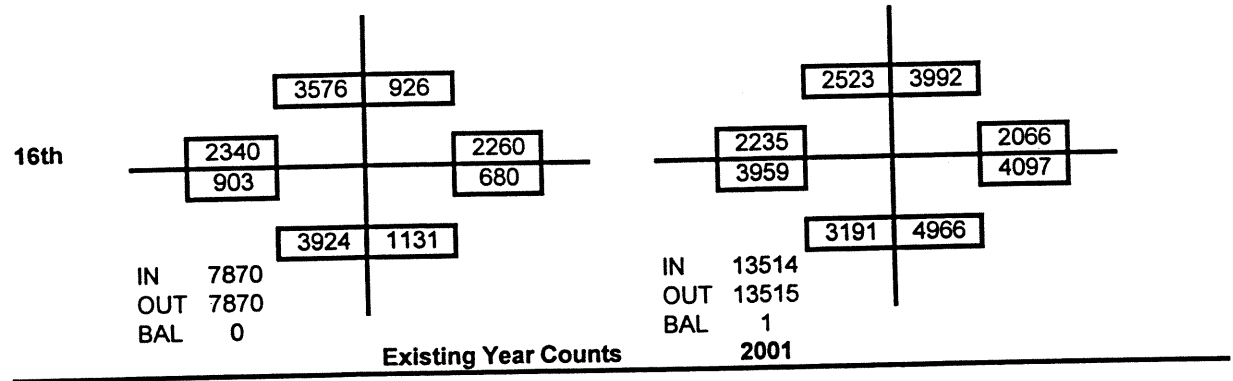
Project: Colonies
Condition: General Plan
Intersection Number: 6
North/South Street: Mountain
East/West Street: 16th

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2020
Difference Ex to Forecast	19

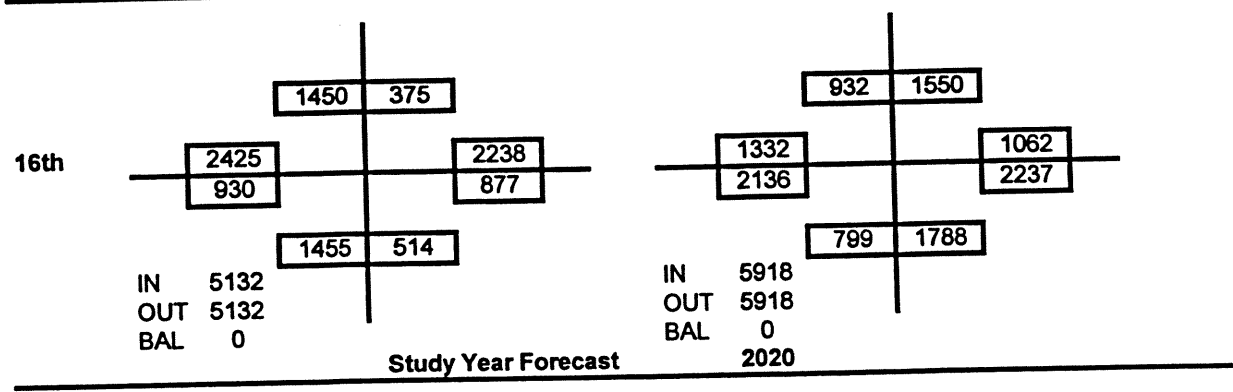
Model Base Year: 1994



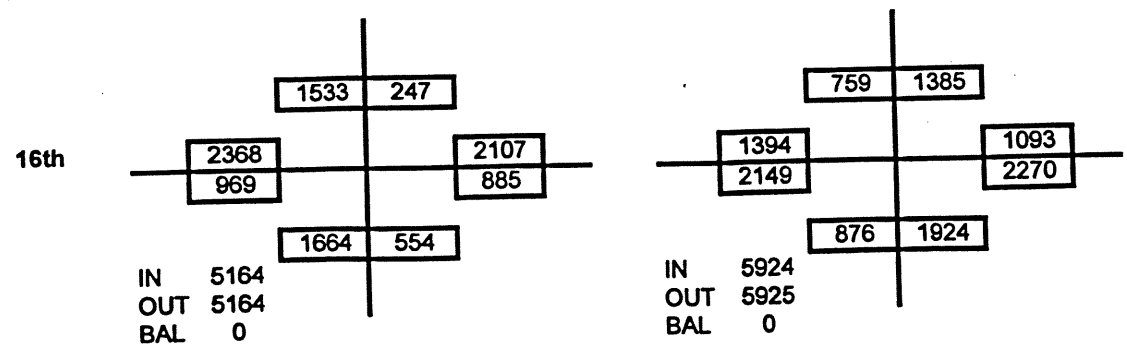
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



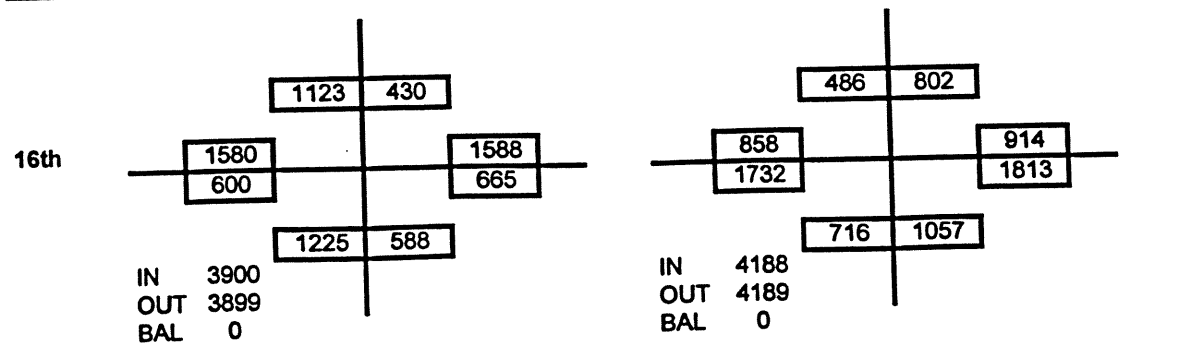
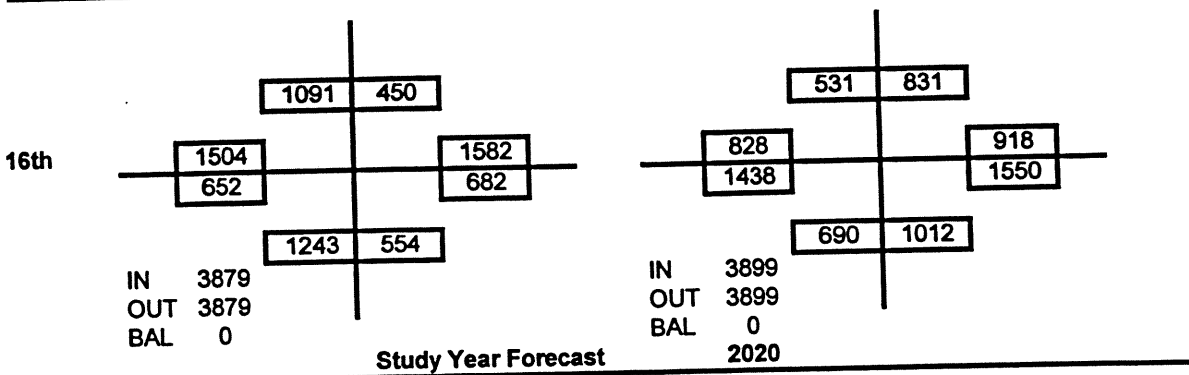
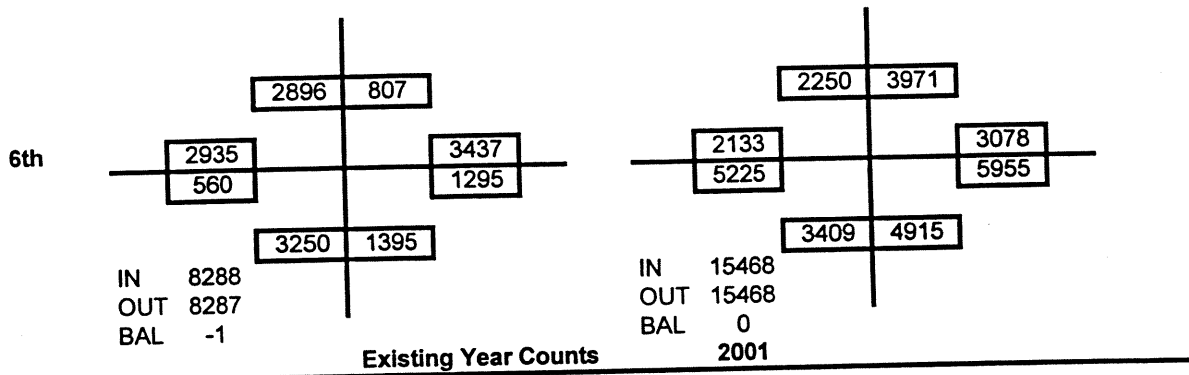
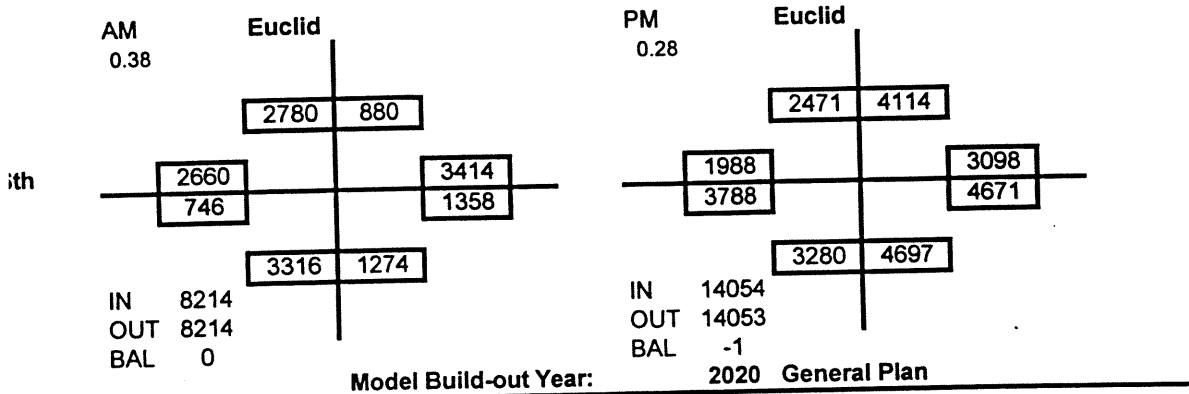
Study Year Forecast 2020



Project: Colonies
 Condition: General Plan
 Intersection Number: 7
 North/South Street: Euclid
 East/West Street: 16th

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2020
 Difference Ex to Forecast: 19

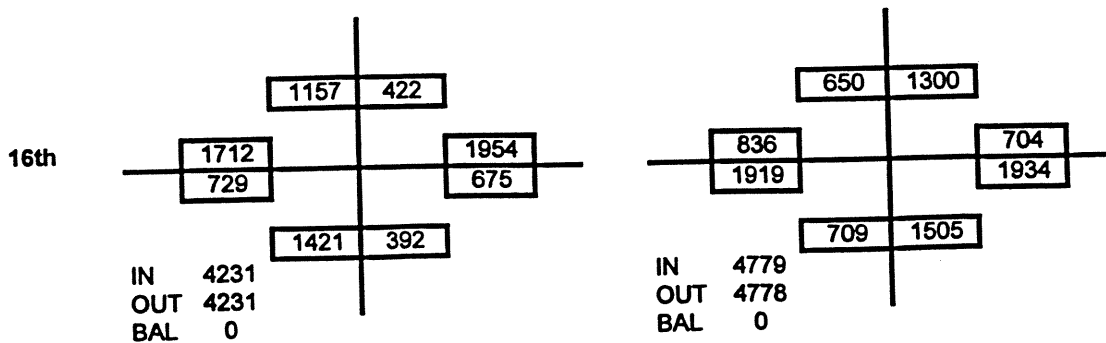
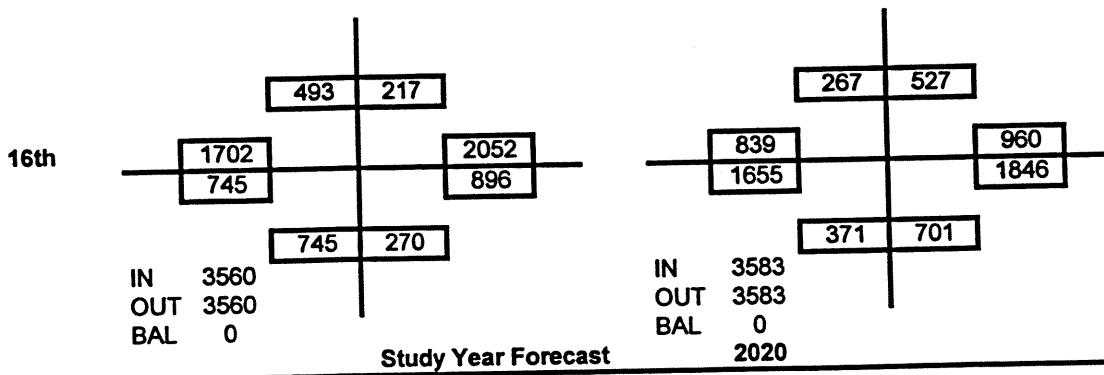
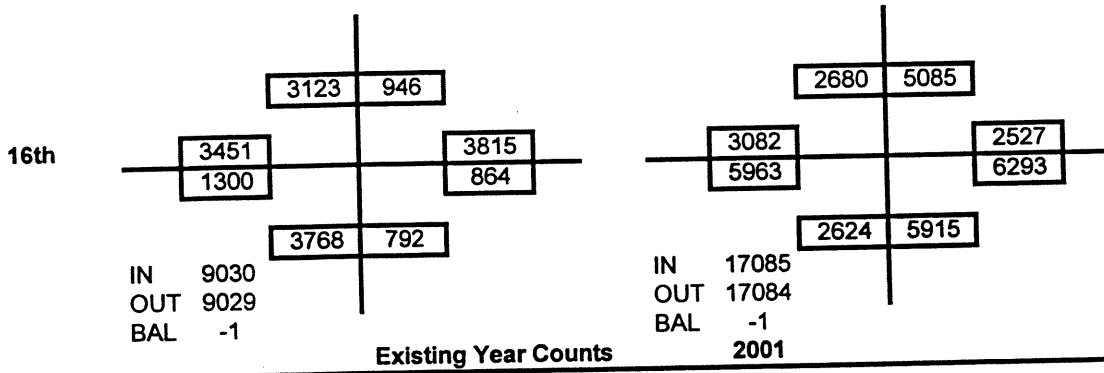
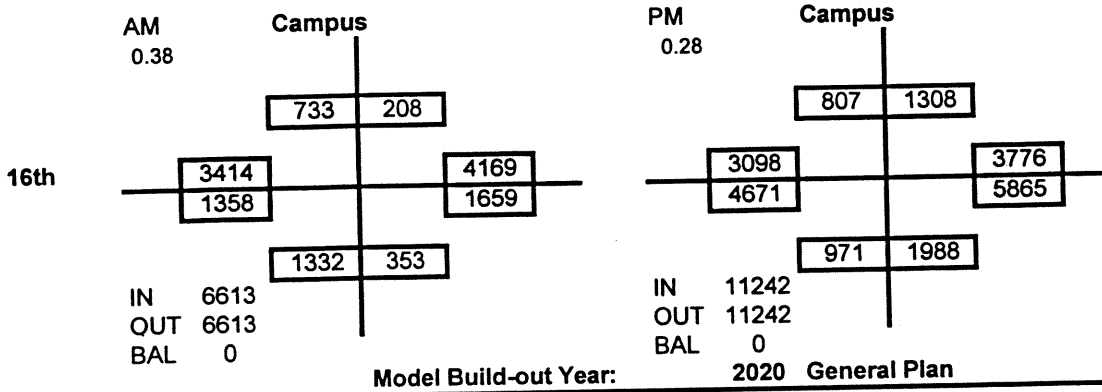
Model Base Year: 1994



Project: Colonies
 Condition: General Plan
 Intersection Number: 8
 North/South Street: Campus
 East/West Street: 16th
 Peak Hour: _____

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2020
 Difference Ex to Forecast: 19

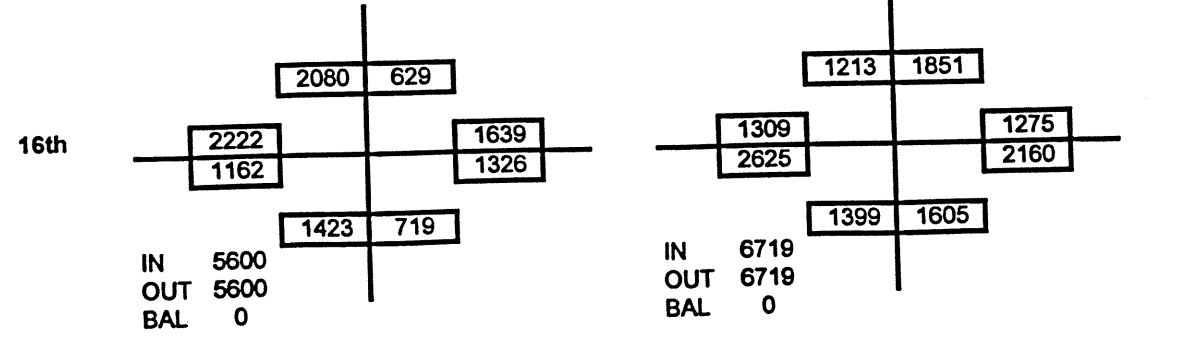
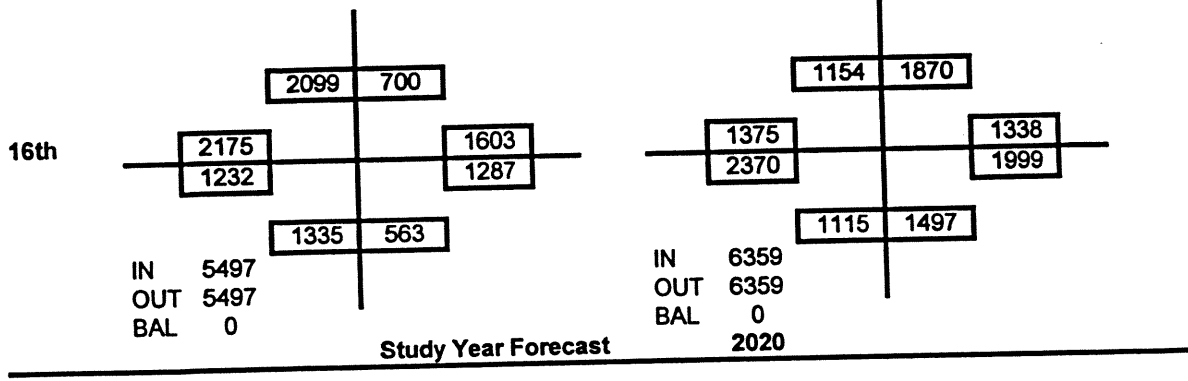
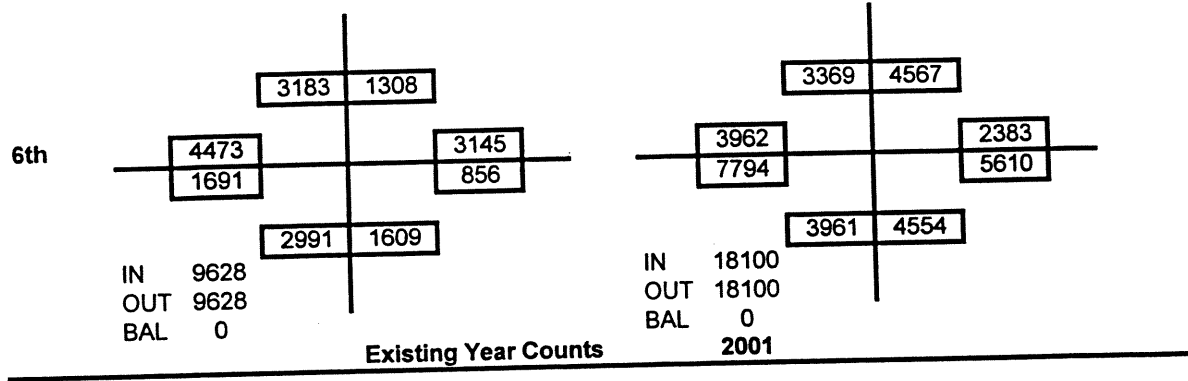
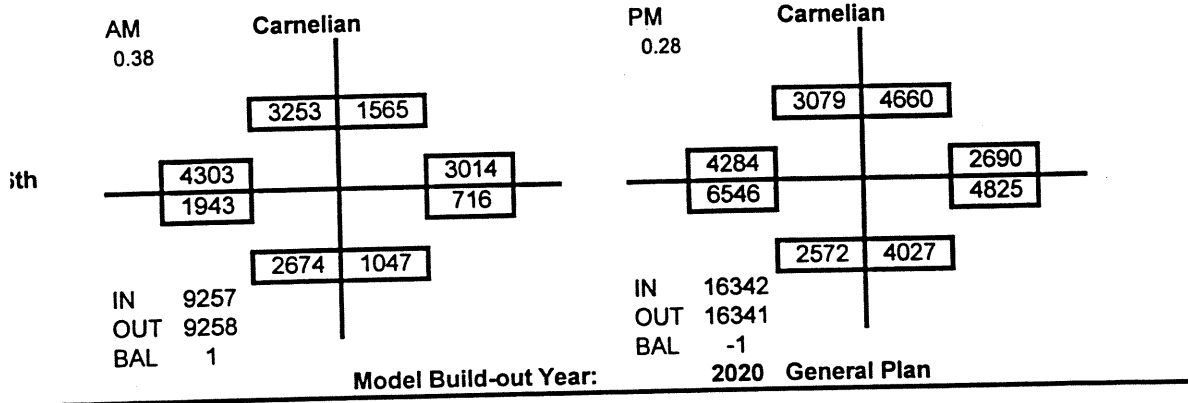
Model Base Year: 1994



Project: Colonies
 Condition: General Plan
 Intersection Number: 9
 North/South Street: Carnelian
 East/West Street: 16th

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2020
Difference Ex to Forecast	19

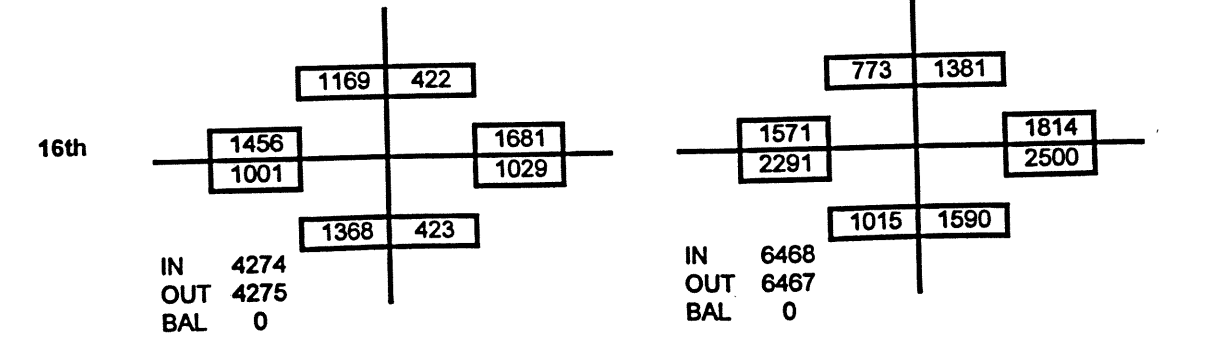
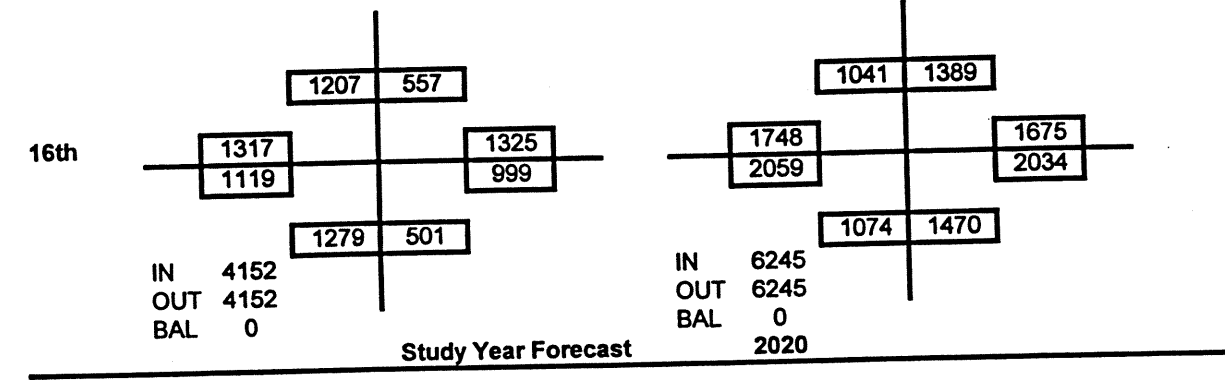
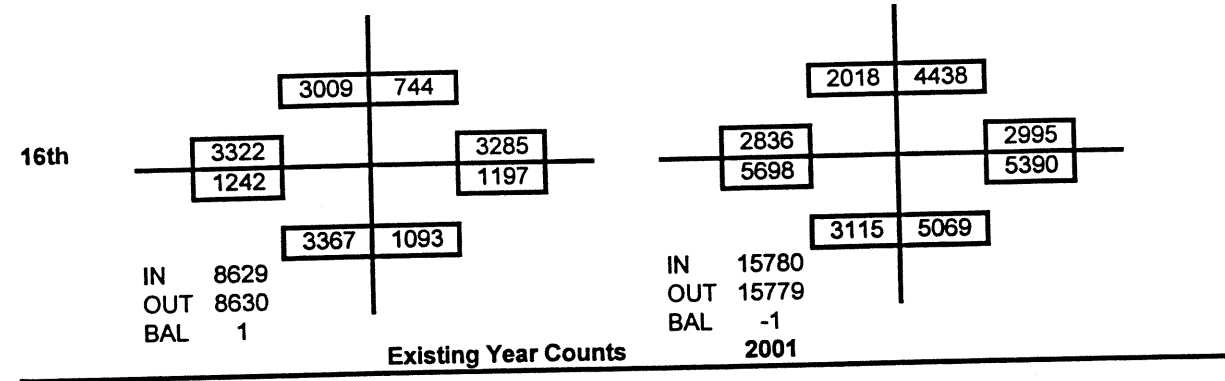
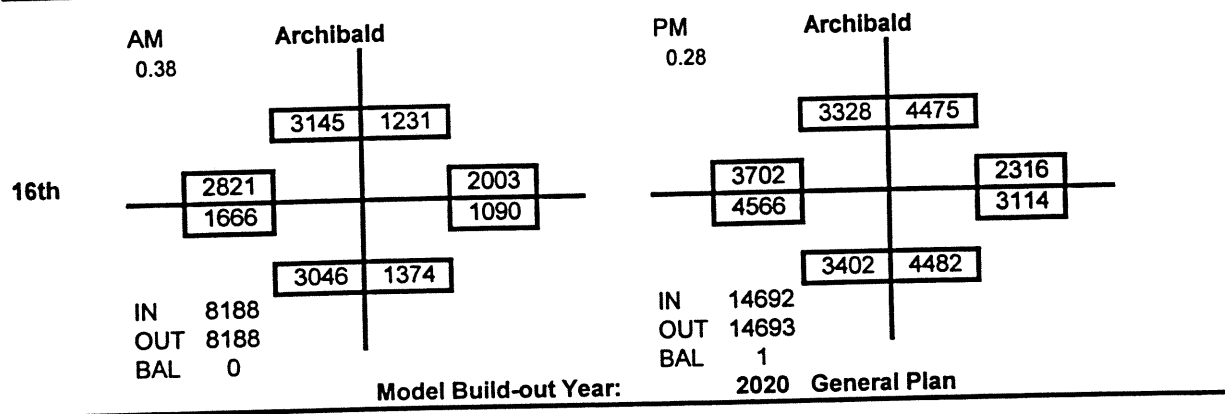
Model Base Year: 1994



Project: Colonies
Condition: General Plan
Intersection Number: 10
North/South Street: Archibald
East/West Street: 16th

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2020
Difference Ex to Forecast	19

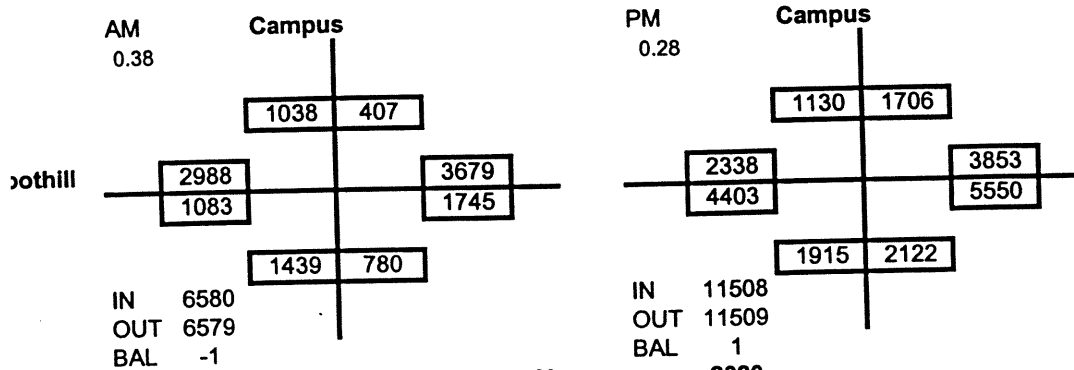
Model Base Year: 1994



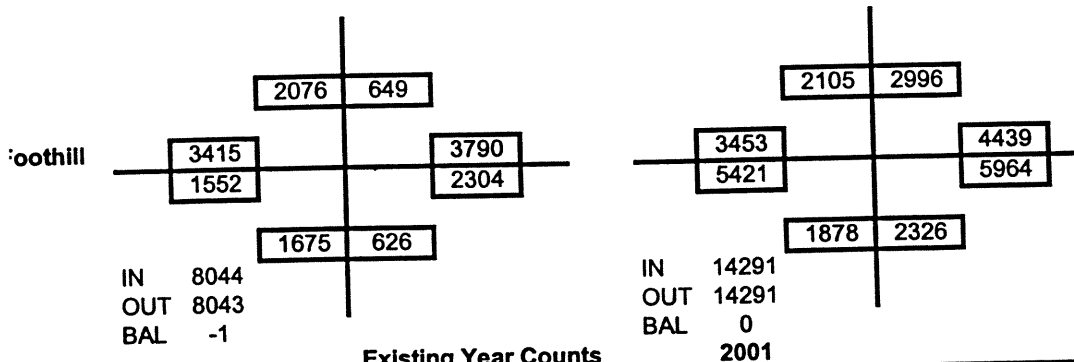
Project: Colonies
 Condition: 2020 General Plan
 Intersection Number: _____
 North/South Street: Campus
 East/West Street: Foothill

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2020
Difference Ex to Forecast	19

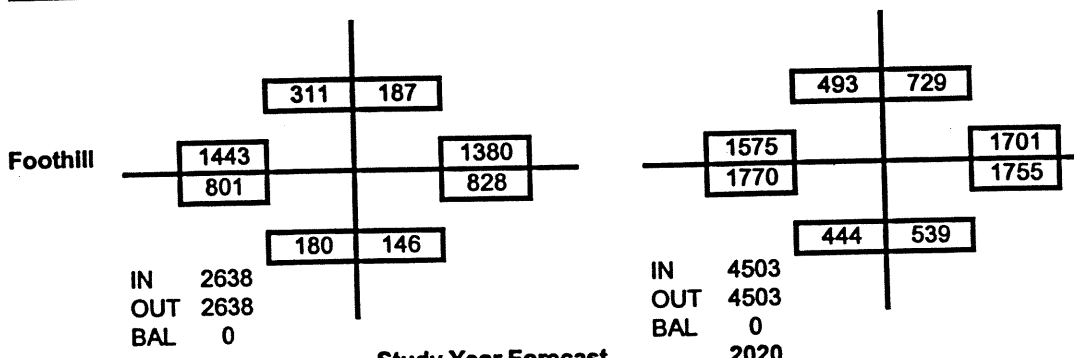
Model Base Year: 1994



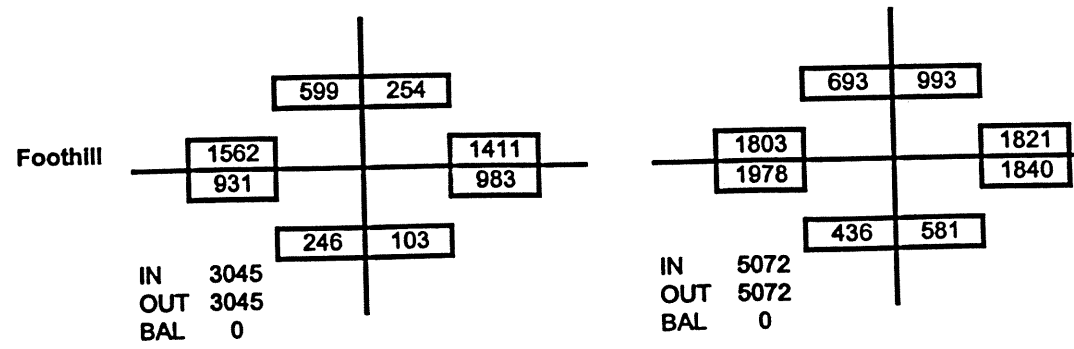
Model Build-out Year: 2020



Existing Year Counts 2001



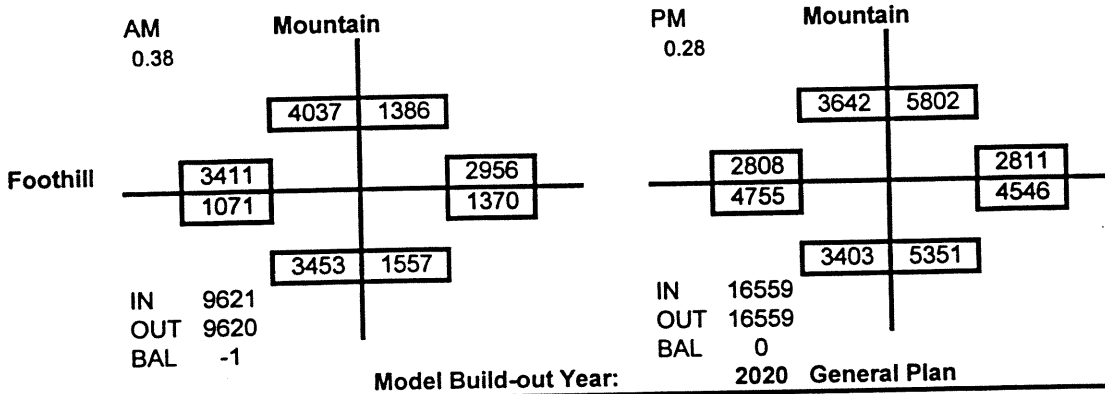
Study Year Forecast 2020



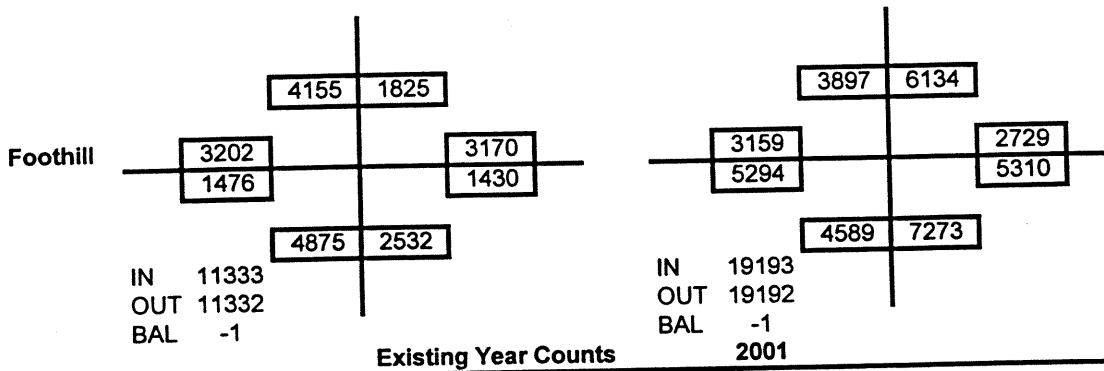
Project: Colonies
Condition: General Plan
Intersection Number: 12
North/South Street: Mountain
East/West Street: Foothill

Model Base Year	1994
Model Build-out Year	2020
Total Difference	26
Existing Year Counts	2001
Difference Ex to B-O	19
Percent	0.73
Study Year Forecast	2020
Difference Ex to Forecast	19

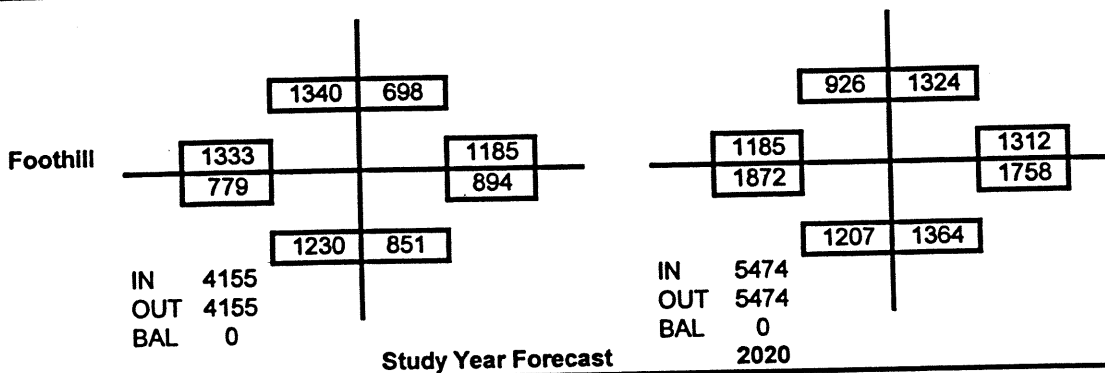
Model Base Year: 1994



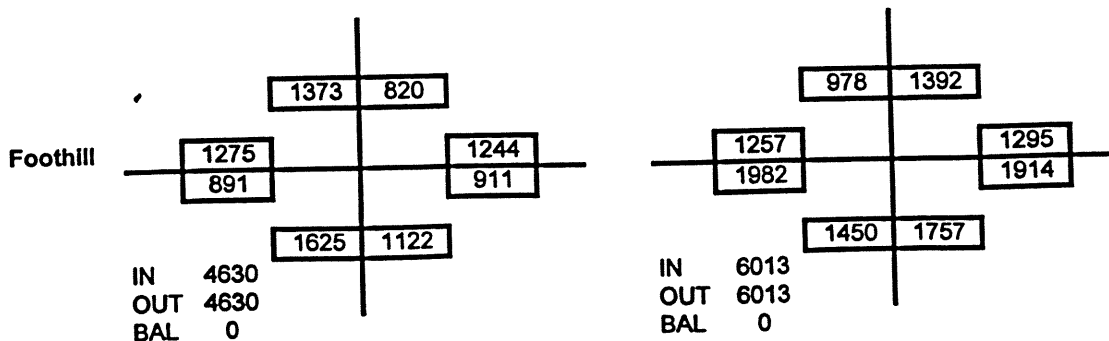
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2020

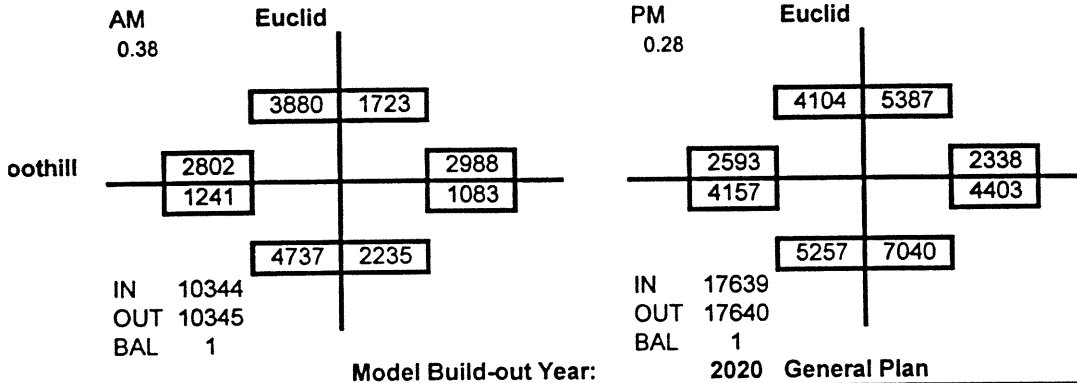


Project: Colonies
Condition: General Plan
Intersection Number: 13

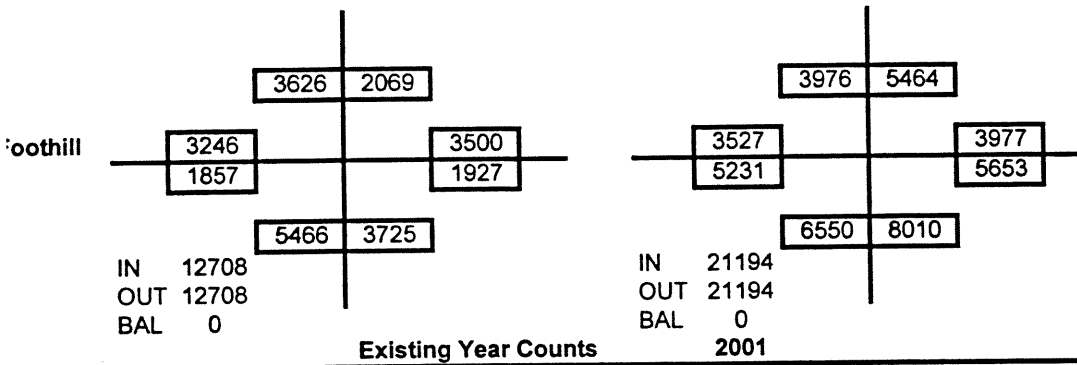
North/South Street: Euclid
East/West Street: Foothill

Model Base Year: 1994
Model Build-out Year: 2020
Total Difference: 26
Existing Year Counts: 2001
Difference Ex to B-O: 19
Percent: 0.73
Study Year Forecast: 2020
Difference Ex to Forecast: 19

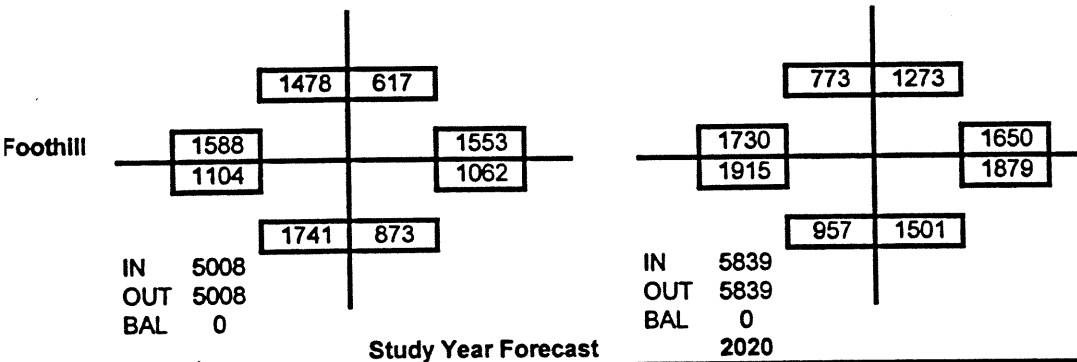
Model Base Year: 1994



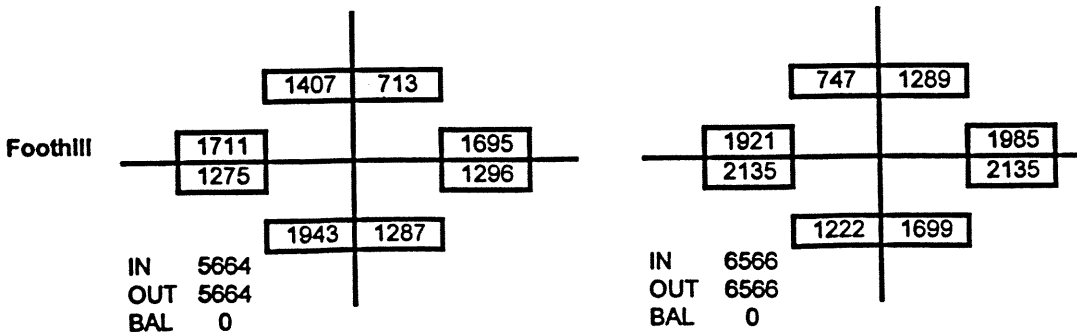
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2020

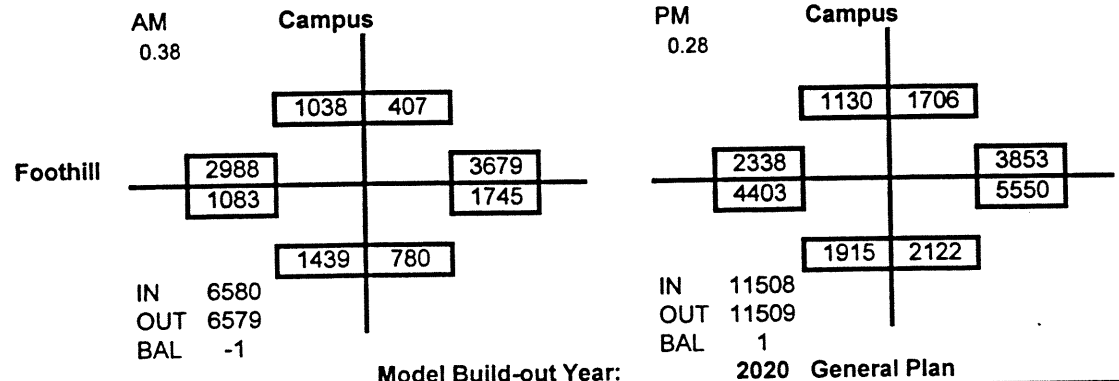


Project: Colonies
Condition: General Plan
Intersection Number: 14

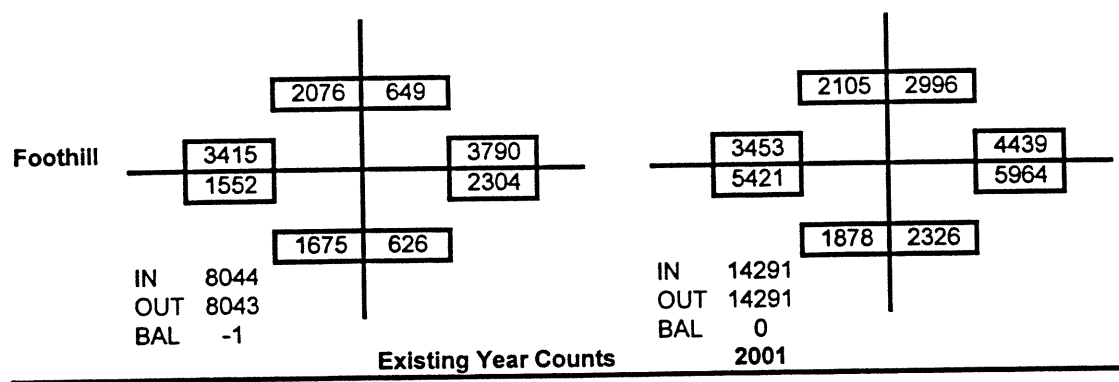
North/South Street Campus
East/West Street Foothill

Model Base Year 1994
Model Build-out Year 2020
Total Difference 26
Existing Year Counts 2001
Difference Ex to B-O 19
Percent 0.73
Study Year Forecast 2020
Difference Ex to Forecast 19

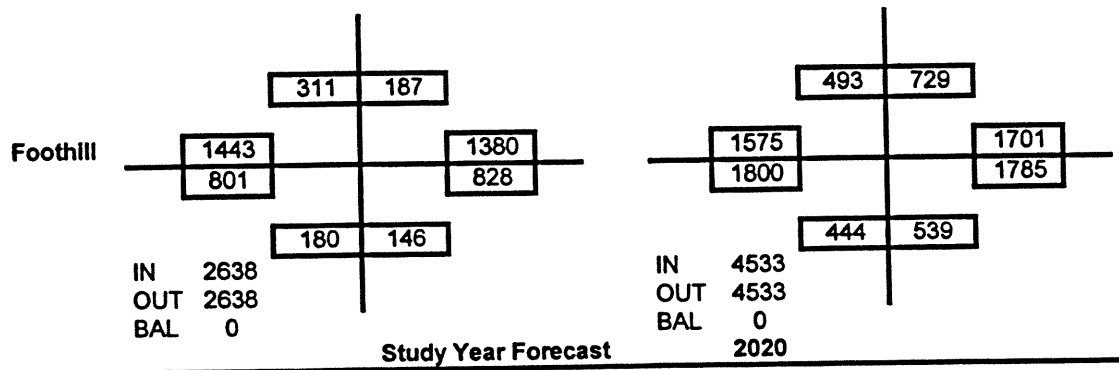
Model Base Year: 1994



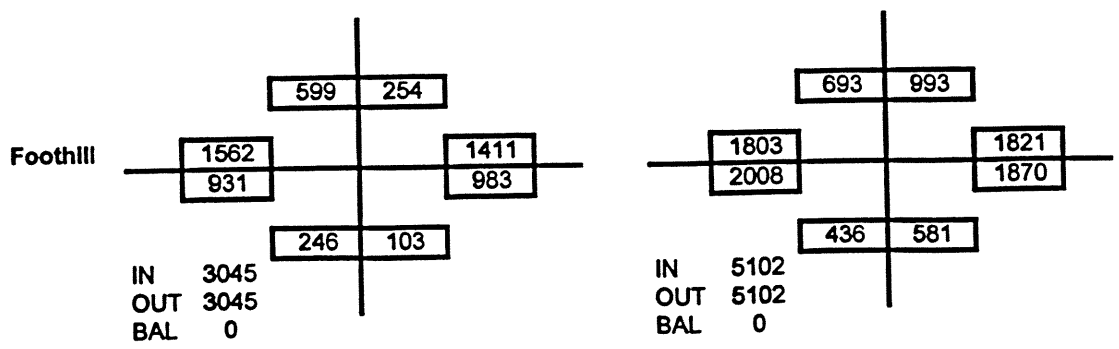
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2020



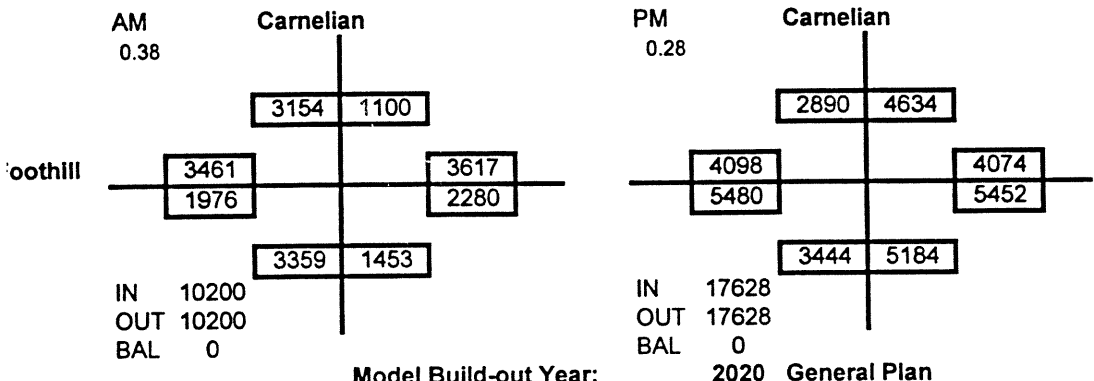
Project: Colonies
Condition: General Plan
Intersection Number: 15

North/South Street: Carmelian

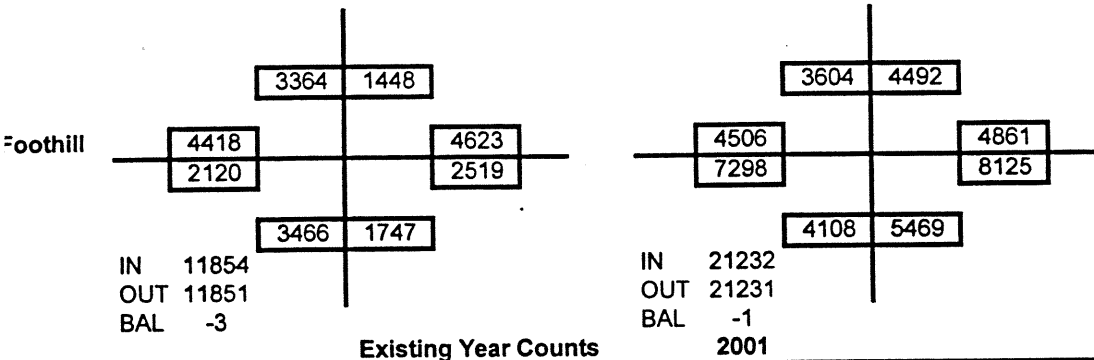
East/West Street: Foothill

Model Base Year: 1994
Model Build-out Year: 2020
Total Difference: 26
Existing Year Counts: 2001
Difference Ex to B-O: 19
Percent: 0.73
Study Year Forecast: 2020
Difference Ex to Forecast: 19

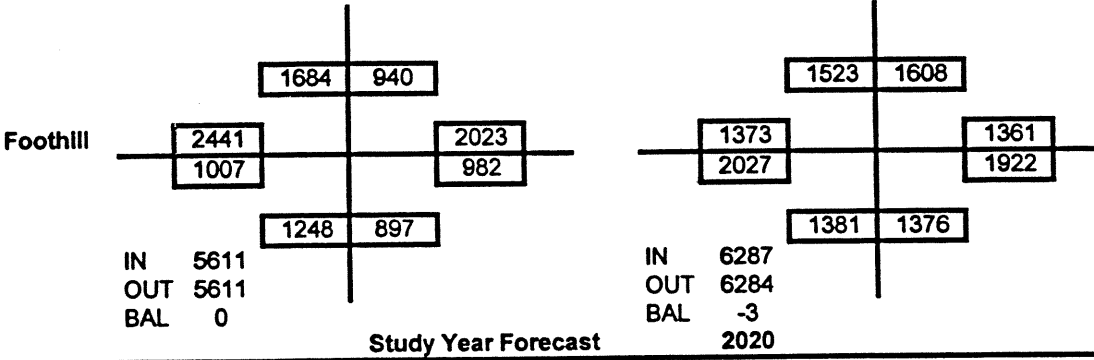
Model Base Year: 1994



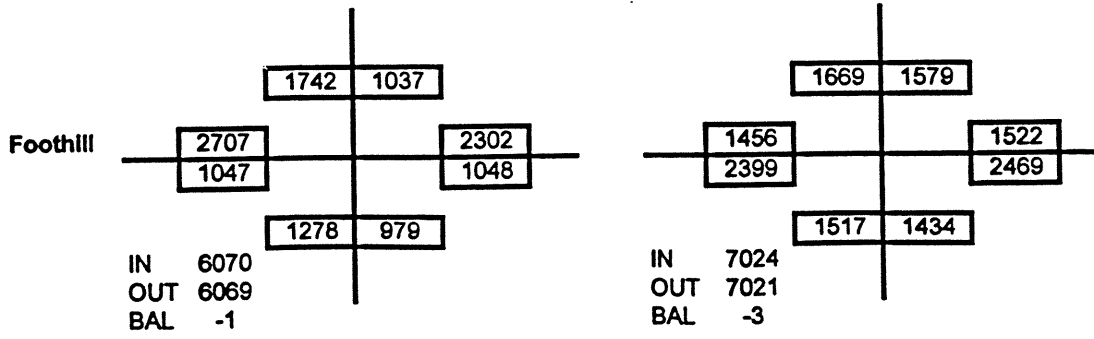
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



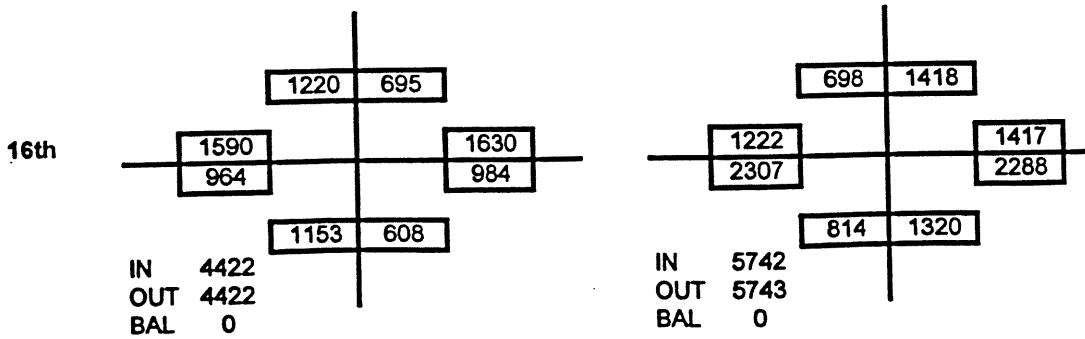
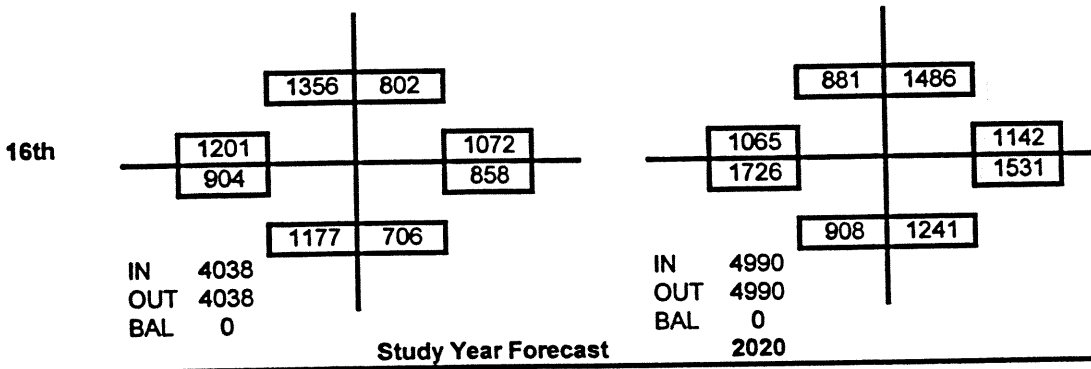
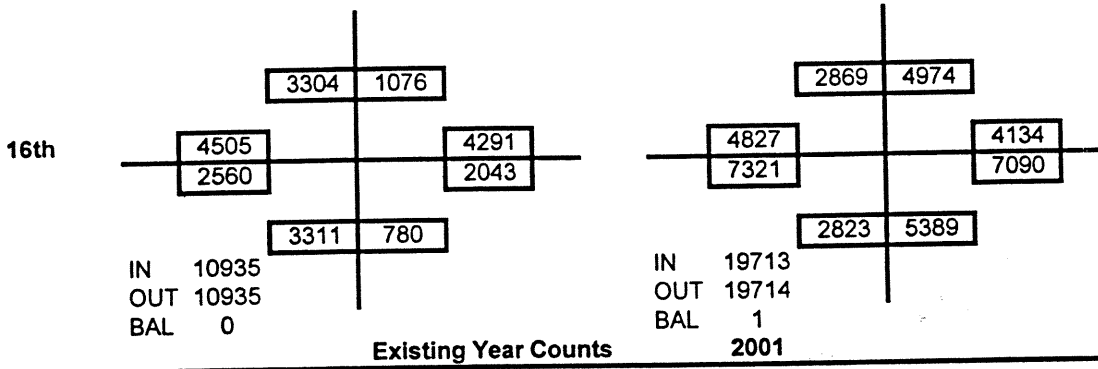
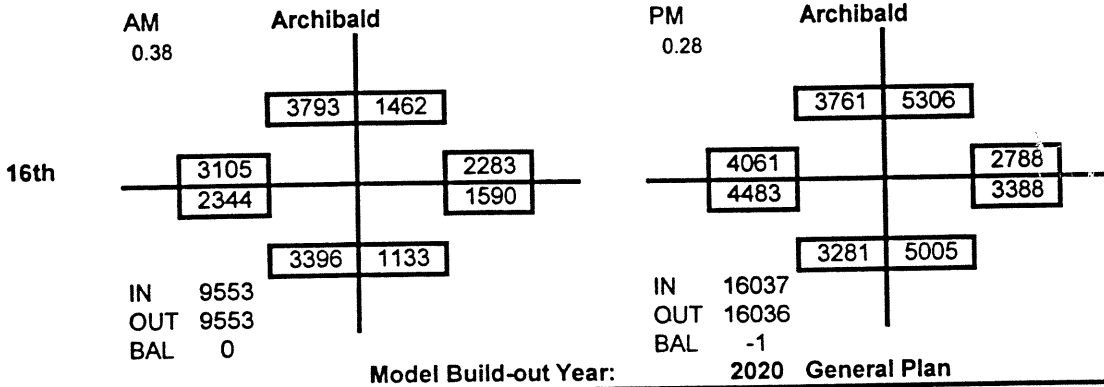
Study Year Forecast 2020



Project: Colonies
Condition: General Plan
Intersection Number: 16
North/South Street: Archibald
East/West Street: 16th

Model Base Year: 1994
Model Build-out Year: 2020
Total Difference: 26
Existing Year Counts: 2001
Difference Ex to B-O: 19
Percent: 0.73
Study Year Forecast: 2020
Difference Ex to Forecast: 19

Model Base Year: 1994



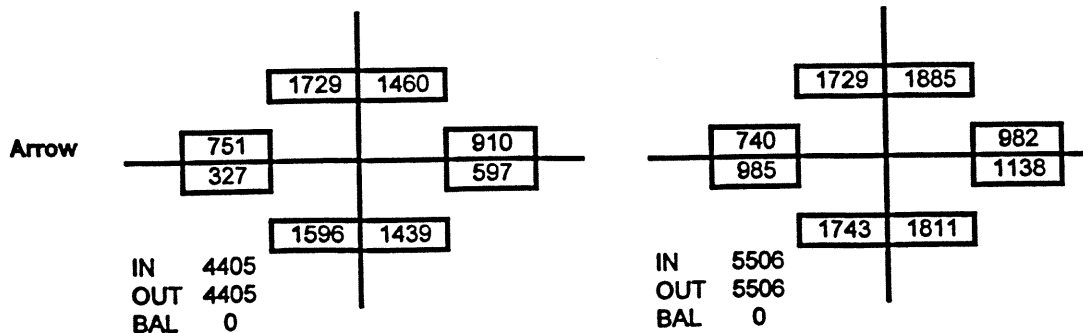
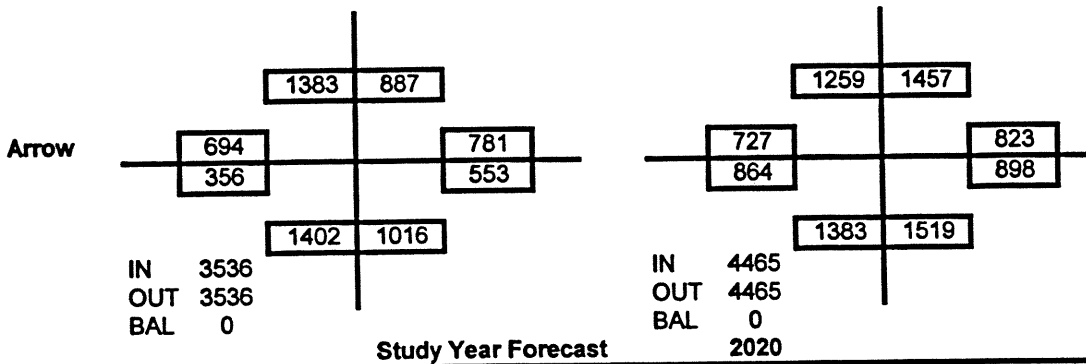
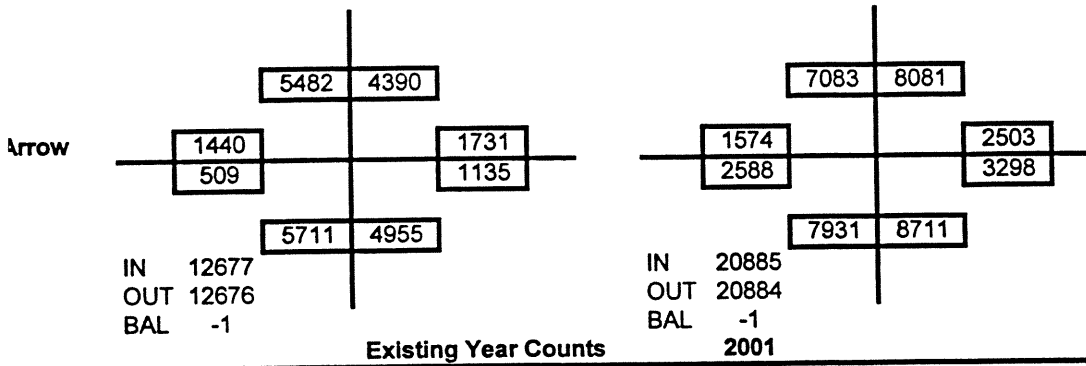
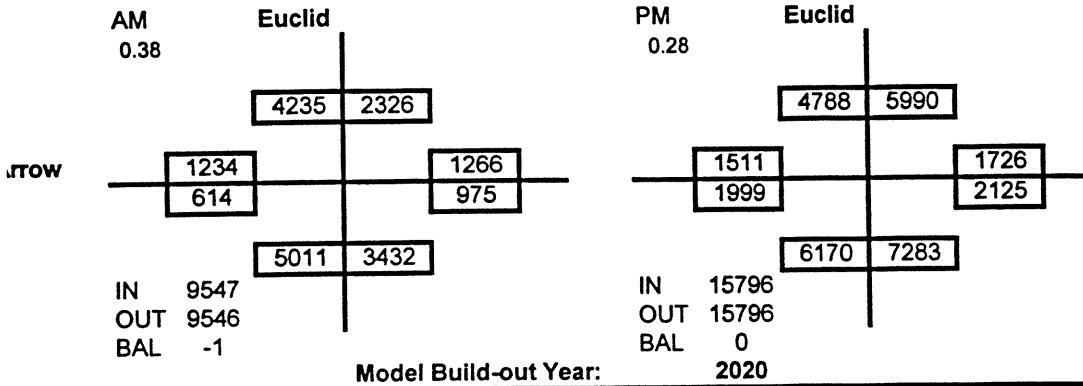
Project: Colonies
Condition: 2020 General Plan
Intersection Number: 17

North/South Street: Euclid

East/West Street: Arrow

Model Base Year: 1994
Model Build-out Year: 2020
Total Difference: 26
Existing Year Counts: 2001
Difference Ex to B-O: 19
Percent: 0.73
Study Year Forecast: 2020
Difference Ex to Forecast: 19

Model Base Year: 1994



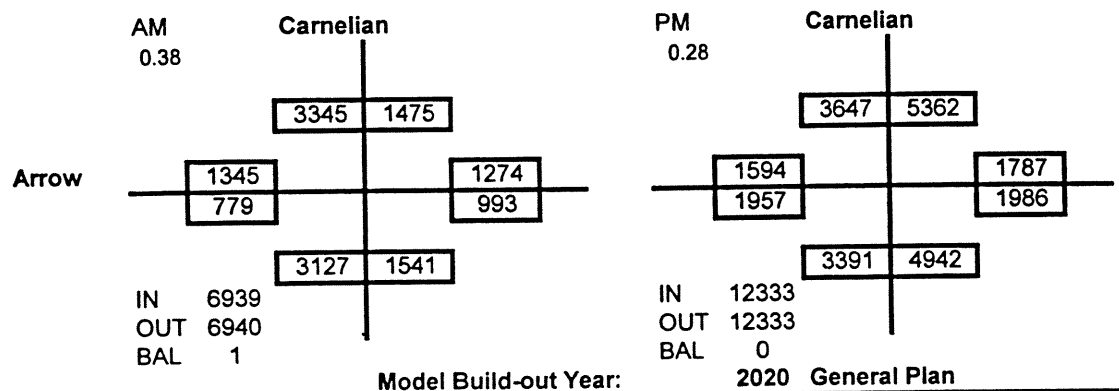
Project: Colonies
Condition: General Plan
Intersection Number: 18

North/South Street: Carnelian

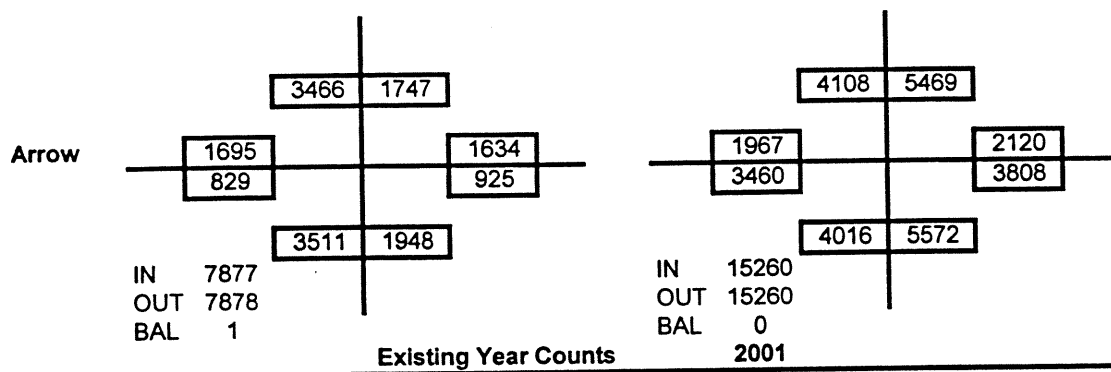
East/West Street: Arrow

Model Base Year: 1994
Model Build-out Year: 2020
Total Difference: 26
Existing Year Counts: 2001
Difference Ex to B-O: 19
Percent: 0.73
Study Year Forecast: 2020
Difference Ex to Forecast: 19

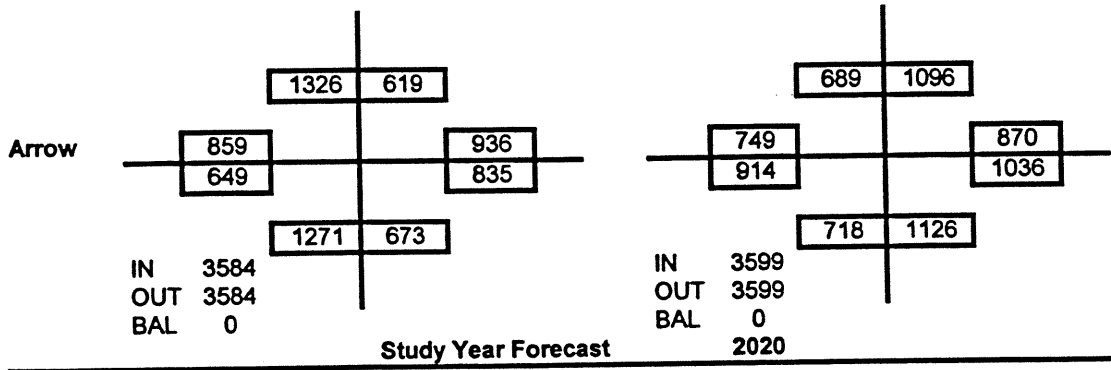
Model Base Year: 1994



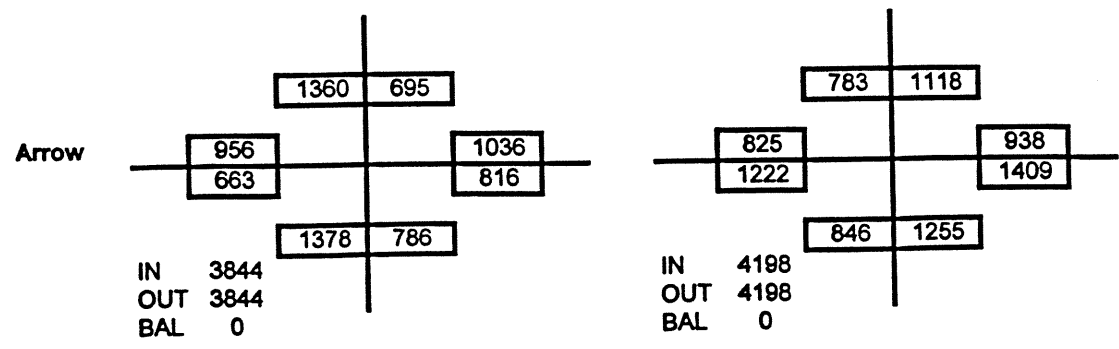
Model Build-out Year: 2020 General Plan



Existing Year Counts 2001



Study Year Forecast 2020



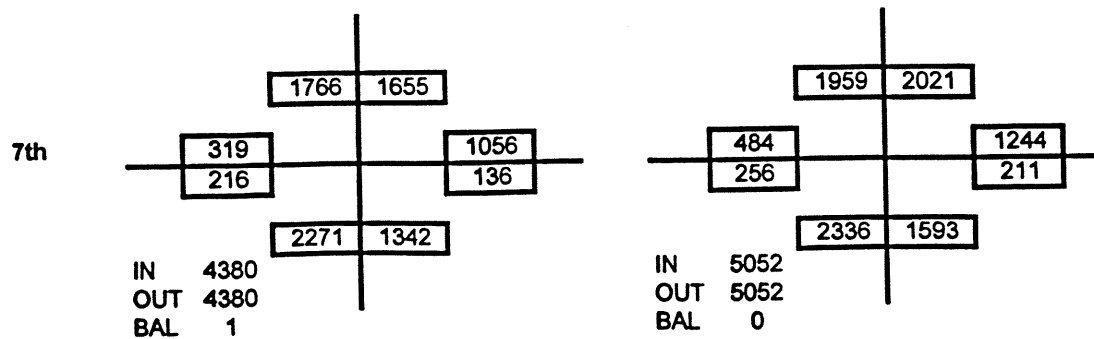
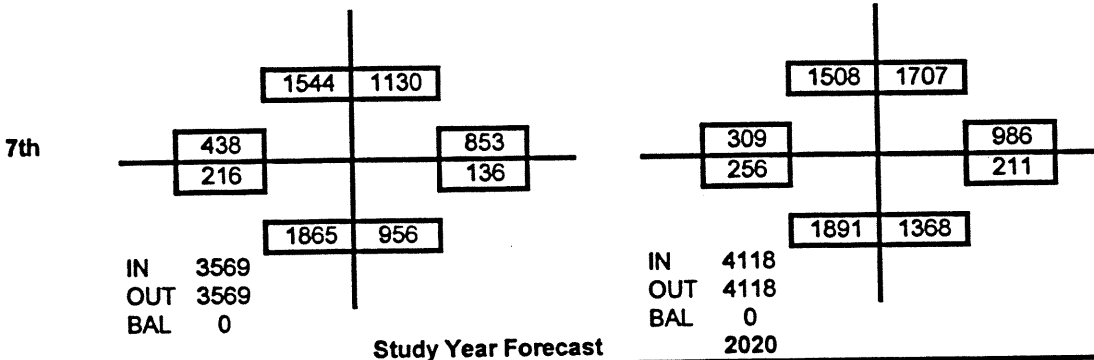
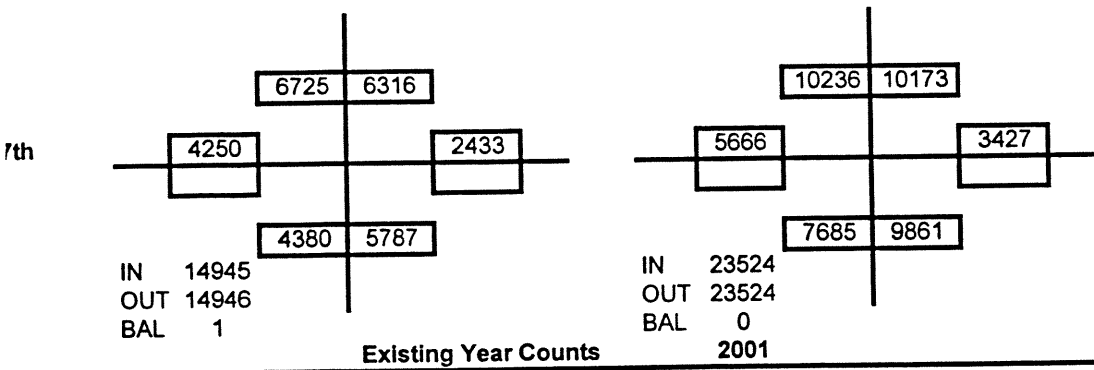
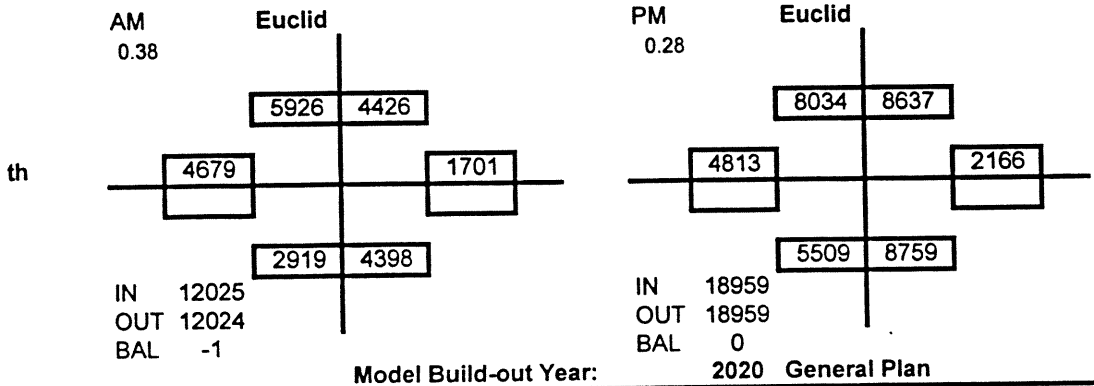
Project: Colonies
Condition: General Plan
Intersection Number: 19

North/South Street Euclid

East/West Street 7th

Model Base Year 1994
Model Build-out Year 2020
Total Difference 26
Existing Year Counts 2001
Difference Ex to B-O 19
Percent 0.73
Study Year Forecast 2020
Difference Ex to Forecast 19

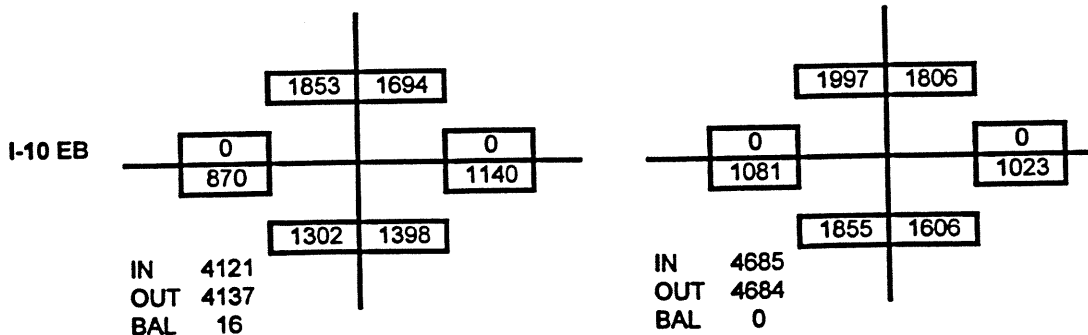
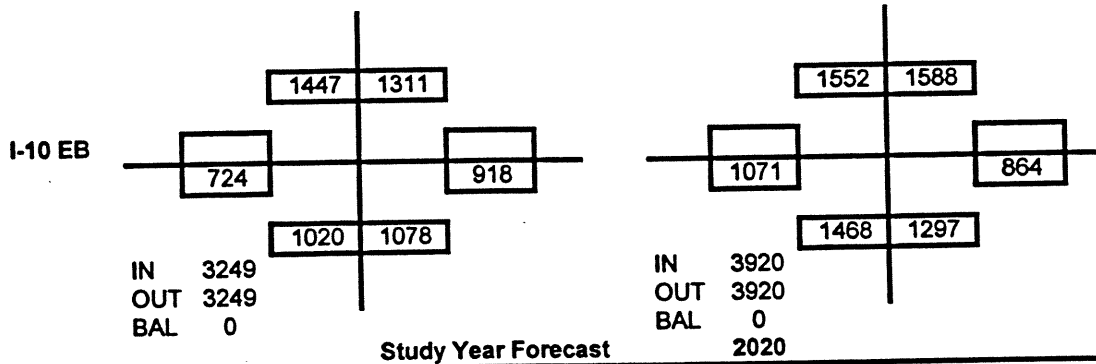
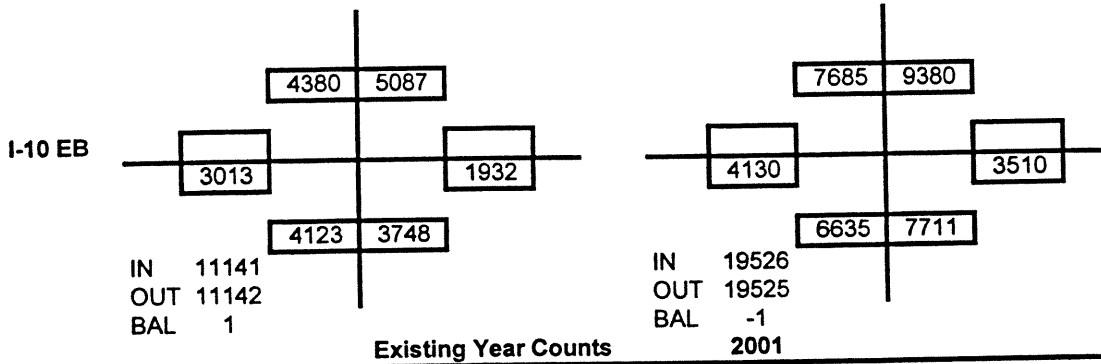
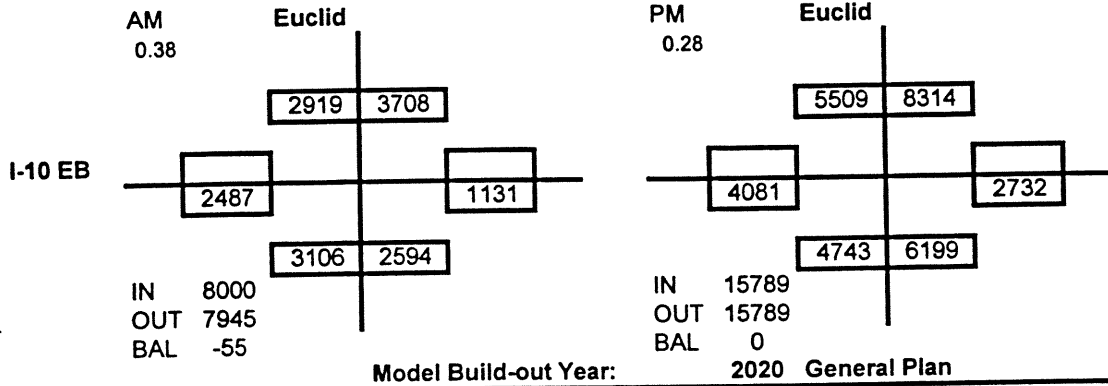
Model Base Year: 1994



Project: Colonies
 Condition: General Plan
 Intersection Number: 20
 North/South Street: Euclid
 East/West Street: I-10 EB

Model Base Year: 1994
 Model Build-out Year: 2020
 Total Difference: 26
 Existing Year Counts: 2001
 Difference Ex to B-O: 19
 Percent: 0.73
 Study Year Forecast: 2020
 Difference Ex to Forecast: 19

Model Base Year: 1994



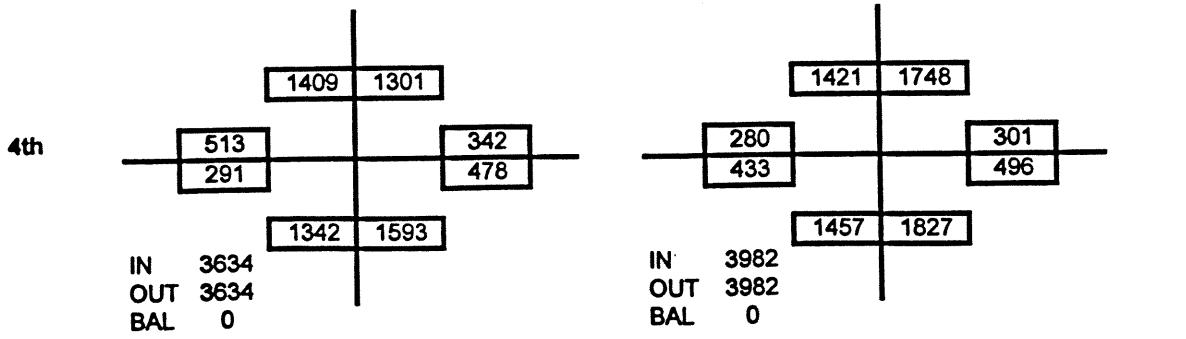
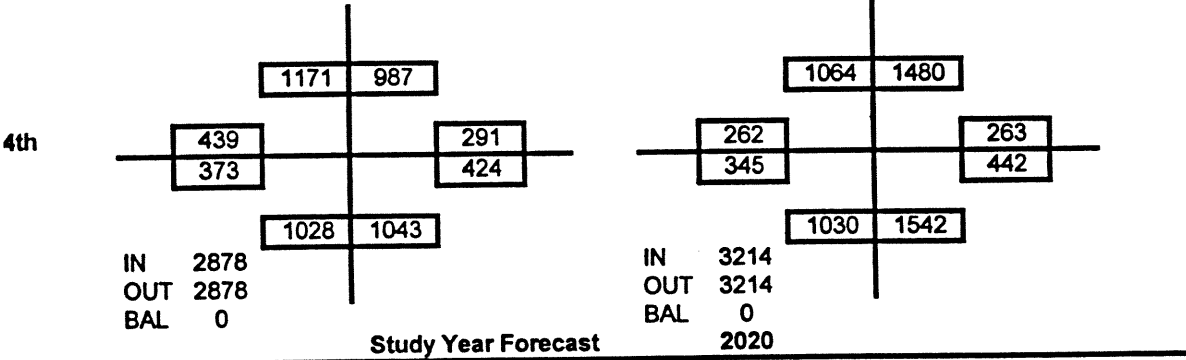
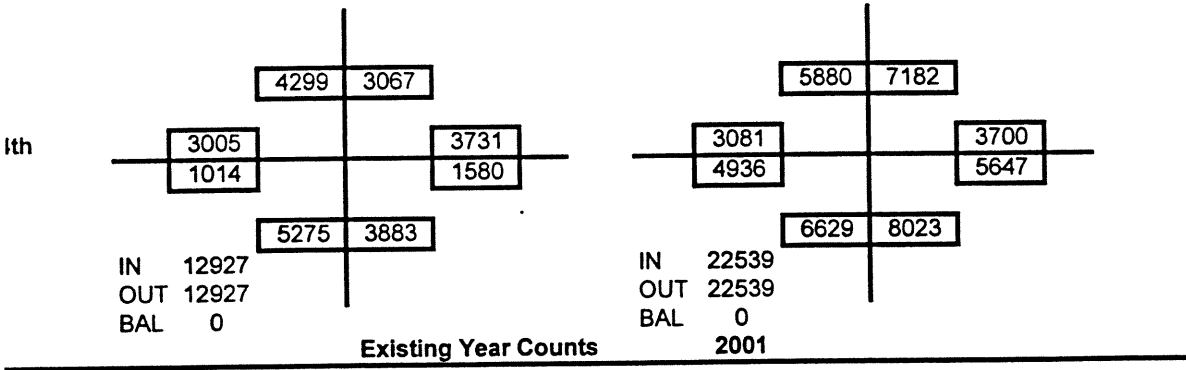
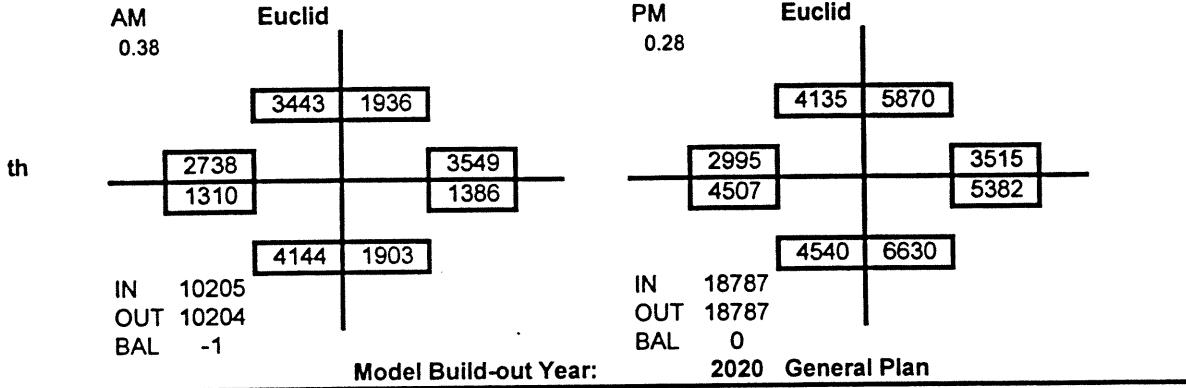
Project: Colonies
Condition: General Plan
Intersection Number: 21

North/South Street Euclid

East/West Street 4th

Model Base Year 1994
Model Build-out Year 2020
Total Difference 26
Existing Year Counts 2001
Difference Ex to B-O 19
Percent 0.73
Study Year Forecast 2020
Difference Ex to Forecast 19

Model Base Year: 1994



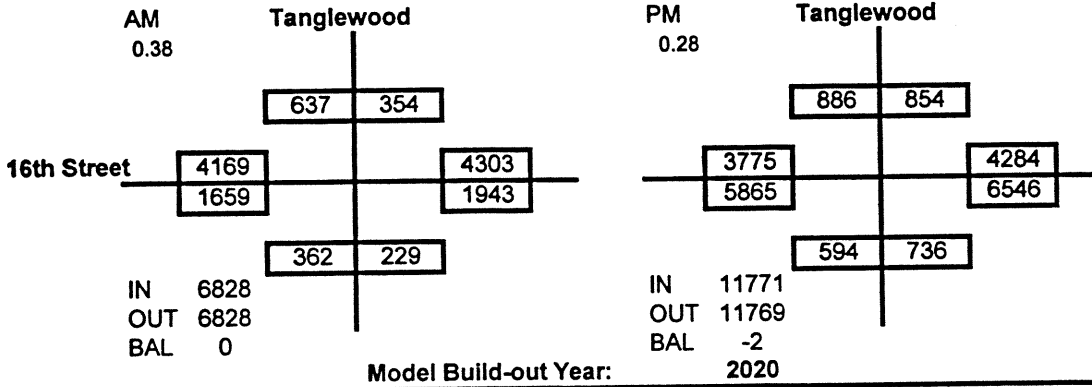
Project: Colonies
Condition: 2020 General Plan
Intersection Number: 22

North/South Street: Tanglewood

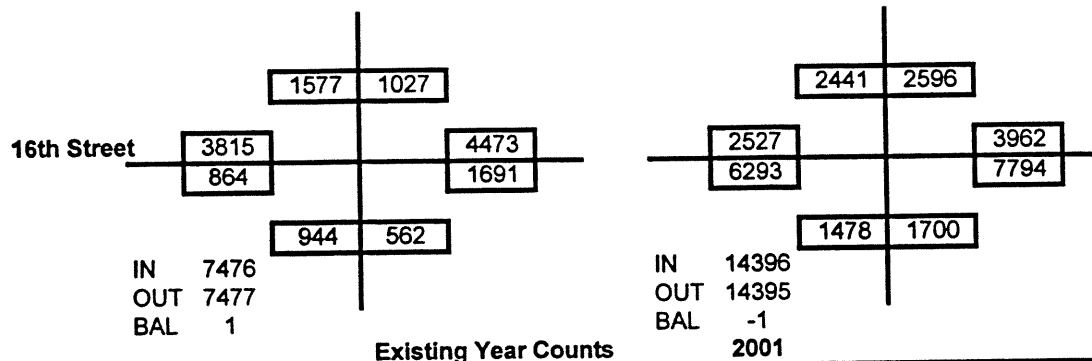
East/West Street: 16th Street

Model Base Year: 1994
Model Build-out Year: 2020
Total Difference: 26
Existing Year Counts: 2001
Difference Ex to B-O: 19
Percent: 0.73
Study Year Forecast: 2020
Difference Ex to Forecast: 19

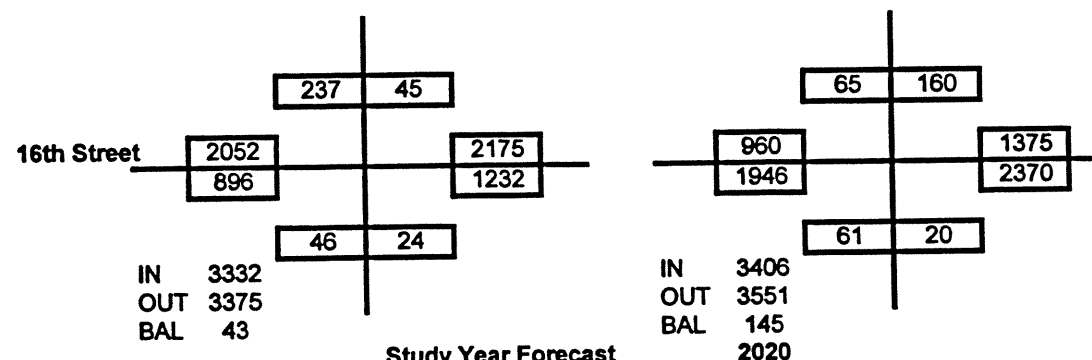
Model Base Year: 1994



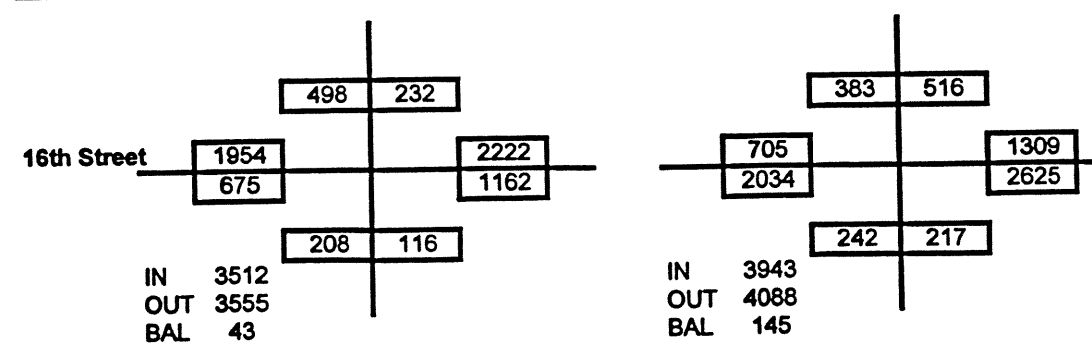
Model Build-out Year: 2020



Existing Year Counts 2001



Study Year Forecast 2020



IN 3943
 OUT 4088
 BAL 145

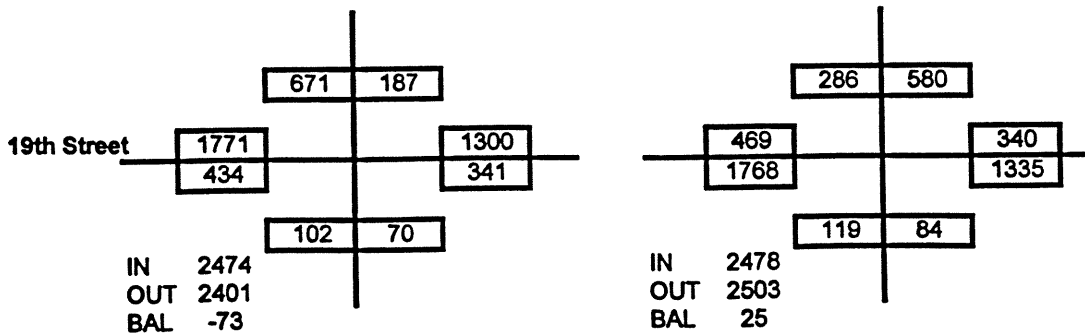
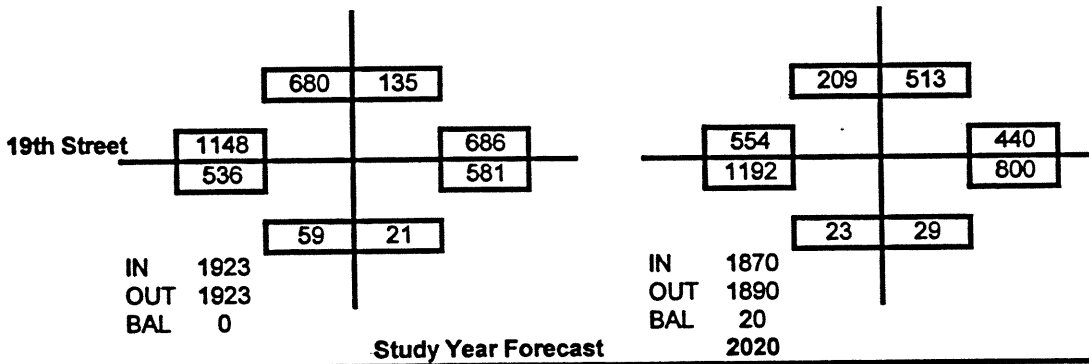
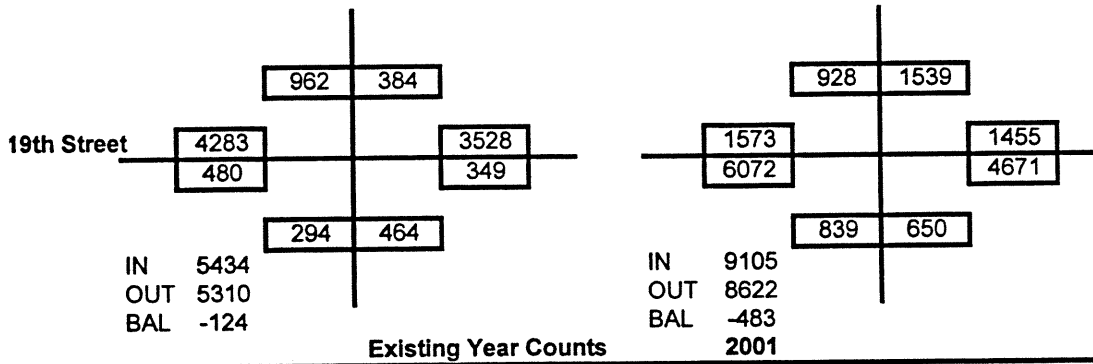
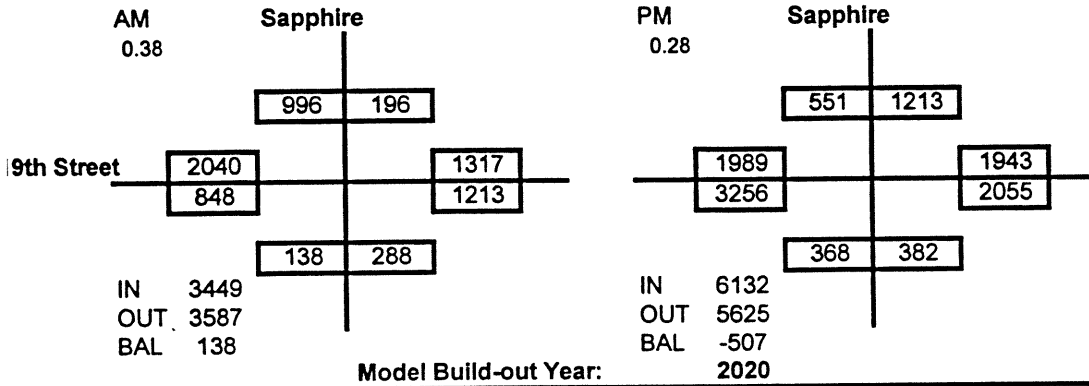
Project: Colonies
Condition: 2020 General Plan
Intersection Number: 23

North/South Street Sapphire

East/West Street 19th Street

Model Base Year 1994
Model Build-out Year 2020
Total Difference 26
Existing Year Counts 2001
Difference Ex to B-O 19
Percent 0.73
Study Year Forecast 2020
Difference Ex to Forecast 19

Model Base Year: 1994



APPENDIX B

**THE COLONIES
PROJECT RESUME**

PRELIMINARY PROJECT RESUME'

Maximum allowed by use for Traffic Generation

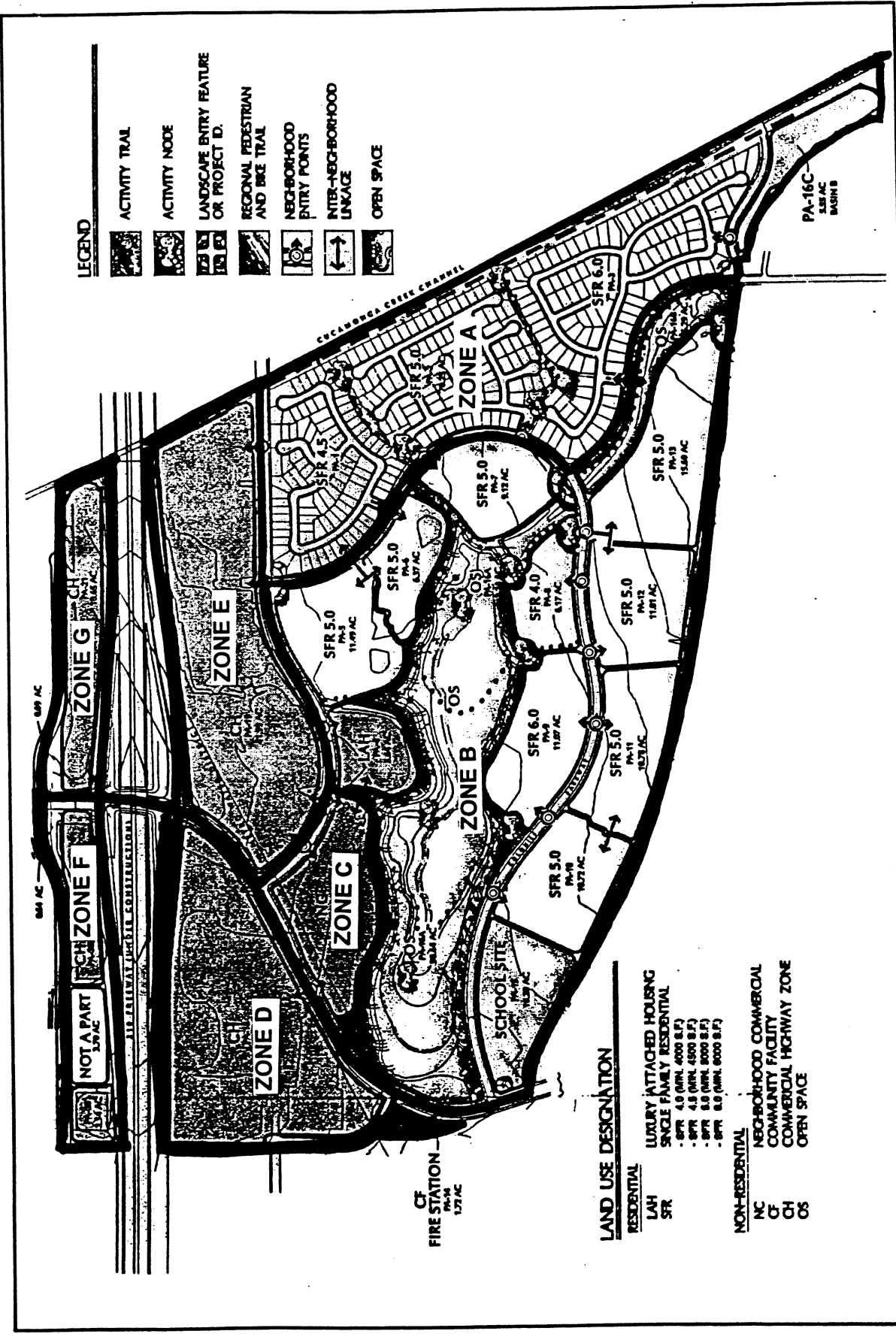
USE DESCRIPTION	GROSS BUILDING AREA (SQUARE FEET)
RETAIL	90,000
RESTAURANT	6,000
DRIVE THRU RESTAURANT	8,000
GAS/WASH/MINIMART	4,000
PLANNING AREA 17 - NH COMM. SITE TOTAL	108,000
USE DESCRIPTION	GROSS BUILDING AREA (SQUARE FEET)
RETAIL	372,000
RESTAURANT	18,000
DRIVE THRU RESTAURANT	16,000
GAS/WASH/MINIMART	4,000
PLANNING AREA 18 - SW COMM. SITE TOTAL	410,000
USE DESCRIPTION	GROSS BUILDING AREA (SQUARE FEET)
RETAIL	190,000
RESTAURANT	12,000
DRIVE THRU RESTAURANT	8,000
PLANNING AREA 18A - SE-E COMM. SITE TOTAL	210,000
USE DESCRIPTION	GROSS BUILDING AREA (SQUARE FEET)
RETAIL	22,000
RESTAURANT	20,000
DRIVE THRU RESTAURANT	8,000
THEATER	80,000
OFFICE	80,000
GAS/WASH/MINIMART	8,000
PLANNING AREA 19B - SE-W COMM. SITE TOTAL	218,000
USE DESCRIPTION	GROSS BUILDING AREA (SQUARE FEET)
RETAIL	212,000
RESTAURANT	32,000
DRIVE THRU RESTAURANT	16,000
THEATER	80,000
OFFICE	80,000
GAS/WASH/MINIMART	8,000
PLANNING AREA 19 - SE COMM. - TOTAL OF PLANNING AREAS A+B	428,000
USE DESCRIPTION	GROSS BUILDING AREA (SQUARE FEET)
RESTAURANT	6,000
HEALTH CLUBS/SPAS	40,000
HOTEL	80,000
GAS/WASH/MINIMART	4,000
DAY CARE FACILITY	4,000
PLANNING AREA 20 - NW COMM. SITE TOTAL	134,000
USE DESCRIPTION	GROSS BUILDING AREA (SQUARE FEET)
RETAIL	28,000
DRIVE THRU RESTAURANT	8,000
GAS/WASH/MINIMART	4,000
AUTO DEALERSHIP	80,000
PLANNING AREA 21 - NE COMM. SITE TOTAL	120,000
USE DESCRIPTION	GROSS BUILDING AREA (SQUARE FEET)
RETAIL	702,000
RESTAURANT	62,000
DRIVE THRU RESTAURANT	48,000
THEATER	80,000
HEALTH CLUBS/SPAS	40,000
OFFICE	80,000
HOTEL	80,000
GAS/WASH/MINIMART	24,000
AUTO DEALERSHIP	80,000
DAY CARE FACILITY	4,000
GRAND TOTAL OF ALL COMMERCIAL PLANNING AREAS	1,200,000

*TRAFFIC
PLAN OR
TRUCK
STOP.*

APPENDIX C

**PROJECT TRAFFIC AND
SELECT ZONE
WORKSHEETS**

THE COLONIES AT SAN ANTONIO SPECIFIC PLAN AMENDMENT
 INITIAL STUDY/ENVIRONMENTAL CHECKLIST
Preliminary Land Use Plan



LEGEND

- ACTIVITY TRAIL
- ACTIVITY NODE
- LANDSCAPE ENTRY FEATURE OR PROJECT ID.
- REGIONAL PEDESTRIAN AND BIKE TRAIL
- NEIGHBORHOOD ENTRY POINTS
- INTER-NEIGHBORHOOD LINKAGE
- OPEN SPACE

LAND USE DESIGNATION

- RESIDENTIAL**
- LAH LUXURY ATTACHED HOUSING
 - SFR SINGLE FAMILY RESIDENTIAL
 - SFR 4.0 (MIN. 4000 S.F.)
 - SFR 4.5 (MIN. 4500 S.F.)
 - SFR 5.0 (MIN. 5000 S.F.)
 - SFR 5.5 (MIN. 5500 S.F.)
 - SFR 6.0 (MIN. 6000 S.F.)
- NON-RESIDENTIAL**
- NC NEIGHBORHOOD COMMERCIAL
 - CF COMMUNITY FACILITY
 - CH COMMERCIAL HIGHWAY ZONE
 - OS OPEN SPACE

Source: Colonies Crossroads Inc., February 2001.



Not to Scale



PLANNING & DESIGN & CONSTRUCTION

0401

JN 10-101246

**The Colonies at San Antonio
Trip Generation
Phase 1**

Planning Area	Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
1, 2, 3	Single-Family Detached Housing	305	DU	2,892	56	167	223	188	105	293
TOTAL				2,892	56	167	223	188	105	293

Single-Family Detached Housing

ITE 6th Edition: 210

Daily $\ln(T) = 0.920 \ln(\text{Dwelling Units}) + 2.707$

AM Peak Hour $T = 0.700 * (\text{Dwelling Units}) + 9.477$

PM Peak Hour $\ln(T) = 0.901 \ln(\text{Dwelling Units}) + 0.527$

50% In 50% Out

25% In 75% Out

64% In 36% Out

**The Colonies at San Antonio
Trip Generation
Phase 2**

Planning Area	Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
4	Residential Condominium/Townhouse	350	DU	1,888	23	115	138	116	57	173
5-13	Single-Family Detached Housing	495	DU	4,515	89	267	356	291	163	454
17	Shopping Center	108	1000 SF	7,162	102	65	167	317	344	661
18	Shopping Center	410	1000 SF	16,889	226	144	370	765	828	1,593
19A	Shopping Center	210	1000 SF	10,984	152	97	249	492	533	1,025
19B	Shopping Center	58	1000 SF	4,802	70	45	115	210	228	438
19B	Movie Theater with Matinee	3,800	Seats	1,102	N/A	N/A	N/A	282	250	532
19B	General Office Building	80	1000 SF	1,118	137	19	156	29	140	169
Subtotal Phase 2				48,460	799	752	1,551	2,501	2,544	5,045
Phase 1				2,892	56	167	223	188	105	293
TOTAL PHASE 1 AND 2				51,352	855	919	1,774	2,689	2,649	5,338

Single-Family Detached Housing

ITE 6th Edition: 210

Daily	$\text{Ln}(T) = 0.920 \text{Ln}(\text{Dwelling Units}) + 2.707$	50% In	50% Out
AM Peak Hour	$T = 0.700 * (\text{Dwelling Units}) + 9.477$	25% In	75% Out
PM Peak Hour	$\text{Ln}(T) = 0.901 \text{Ln}(\text{Dwelling Units}) + 0.527$	64% In	36% Out

Residential Condominium/Townhouse

ITE 6th Edition: 230

Daily	$\text{Ln}(T) = 0.850 \text{Ln}(\text{Dwelling Units}) + 2.564$	50% In	50% Out
AM Peak Hour	$\text{Ln}(T) = 0.790 \text{Ln}(\text{Dwelling Units}) + 0.298$	17% In	83% Out
PM Peak Hour	$\text{Ln}(T) = 0.827 \text{Ln}(\text{Dwelling Units}) + 0.309$	67% In	33% Out

Movie Theater with Matinee

ITE 6th Edition: 444

Daily	$T = 0.29 * (\text{Seats})$	50% In	50% Out
AM Peak Hour	N/A	N/A In	N/A Out
PM Peak Hour	$T = 0.14 * (\text{Seats})$	53% In	47% Out

General Office Building

ITE 6th Edition: 710

Daily	$\text{Ln}(T) = 0.768 \text{Ln}(1000\text{'s of SF}) + 3.654$	50% In	50% Out
AM Peak Hour	$\text{Ln}(T) = 0.797 \text{Ln}(1000\text{'s of SF}) + 1.558$	88% In	12% Out
PM Peak Hour	$T = 1.121 * (1000\text{'s of SF}) + 79.295$	17% In	83% Out

Shopping Center

ITE 6th Edition: 820

Daily	$\text{Ln}(T) = 0.643 \text{Ln}(1000\text{'s of SF}) + 5.866$	50% In	50% Out
AM Peak Hour	$\text{Ln}(T) = 0.596 \text{Ln}(1000\text{'s of SF}) + 2.329$	61% In	39% Out
PM Peak Hour	$\text{Ln}(T) = 0.660 \text{Ln}(1000\text{'s of SF}) + 3.403$	48% In	52% Out

**The Colonies at San Antonio
Trip Generation
Phase 3**

Planning Area	Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
20	Hotel	150	Rooms	974	41	27	68	39	35	74
20	Health Club	40	1000 SF	1,200	6	6	12	105	67	172
20	Day Care Center	4	1000 SF	317	27	24	51	24	28	52
20	High-Turnover (Sit-Down) Restaurant	6	1000 SF	782	29	27	56	39	26	65
20	Gasoline/Service Station with Convenience Market and Car Wash	12	VFP	1,834	65	63	128	79	79	158
21	Specialty Retail Center	28	1000 SF	1,139	86	93	179	31	42	73
21	Fast-Food Restaurant with Drive-Through Window	8	1000 SF	3,969	203	196	399	139	129	268
21	New Car Sales	80	1000 SF	3,000	129	48	177	72	109	181
21	Gasoline/Service Station with Convenience Market and Car Wash	12	VFP	1,834	65	63	128	79	79	158
Subtotal Phase 3				15,049	652	546	1,198	609	592	1,201
Phase 1				2,892	56	167	223	188	105	293
Phase 2				48,460	799	752	1,551	2,501	2,544	5,045
TOTAL PHASES 1, 2, AND 3				66,401	1,507	1,465	2,972	3,298	3,241	6,539

Hotel
Daily $T = 8.946 * (\text{Rooms}) - 368.112$
AM Peak Hour $\text{Ln}(T) = 1.240 \text{ Ln}(\text{Rooms}) - 1.998$
PM Peak Hour $\text{Ln}(T) = 1.212 \text{ Ln}(\text{Rooms}) - 1.763$

ITE 6th Edition: 310
50% In 50% Out
61% In 39% Out
53% In 47% Out

Health Club
Daily $T = 30 * (1000\text{'s of SF})$ (Source: SANDAG Trip Generators)
AM Peak Hour $T = .3 * (1000\text{'s of SF})$
PM Peak Hour $T = 4.3 * (1000\text{'s of SF})$

ITE 6th Edition: 493
50% In 50% Out
46% In 54% Out
61% In 39% Out

Day Care Center
Daily $T = 79.26 * (1000\text{'s of SF})$
AM Peak Hour $T = 12.71 * (1000\text{'s of SF})$
PM Peak Hour $\text{Ln}(T) = 0.664 \text{ Ln}(1000\text{'s of SF}) + 3.026$

ITE 6th Edition: 565
50% In 50% Out
53% In 47% Out
47% In 53% Out

High-Turnover (Sit-Down) Restaurant
Daily $T = 130.34 * (1000\text{'s of SF})$
AM Peak Hour $T = 9.27 * (1000\text{'s of SF})$
PM Peak Hour $T = 10.86 * (1000\text{'s of SF})$

ITE 6th Edition: 832
50% In 50% Out
52% In 48% Out
60% In 40% Out

Gasoline/Service Station with Convenience Market and Car Wash
Daily $T = 152.84 * (\text{Vehicle Fueling Positions})$
AM Peak Hour $T = 10.64 * (\text{Vehicle Fueling Positions})$
PM Peak Hour $T = 13.19 * (\text{Vehicle Fueling Positions})$

ITE 6th Edition: 846
50% In 50% Out
51% In 49% Out
50% In 50% Out

Specialty Retail Center
Daily $T = 40.67 * (1000\text{'s of SF})$
AM Peak Hour $T = 6.41 * (1000\text{'s of SF})$
PM Peak Hour $T = 2.59 * (1000\text{'s of SF})$

ITE 6th Edition: 814
(AM Peak Hour of Generator was us)
50% In 50% Out
48% In 52% Out
43% In 57% Out

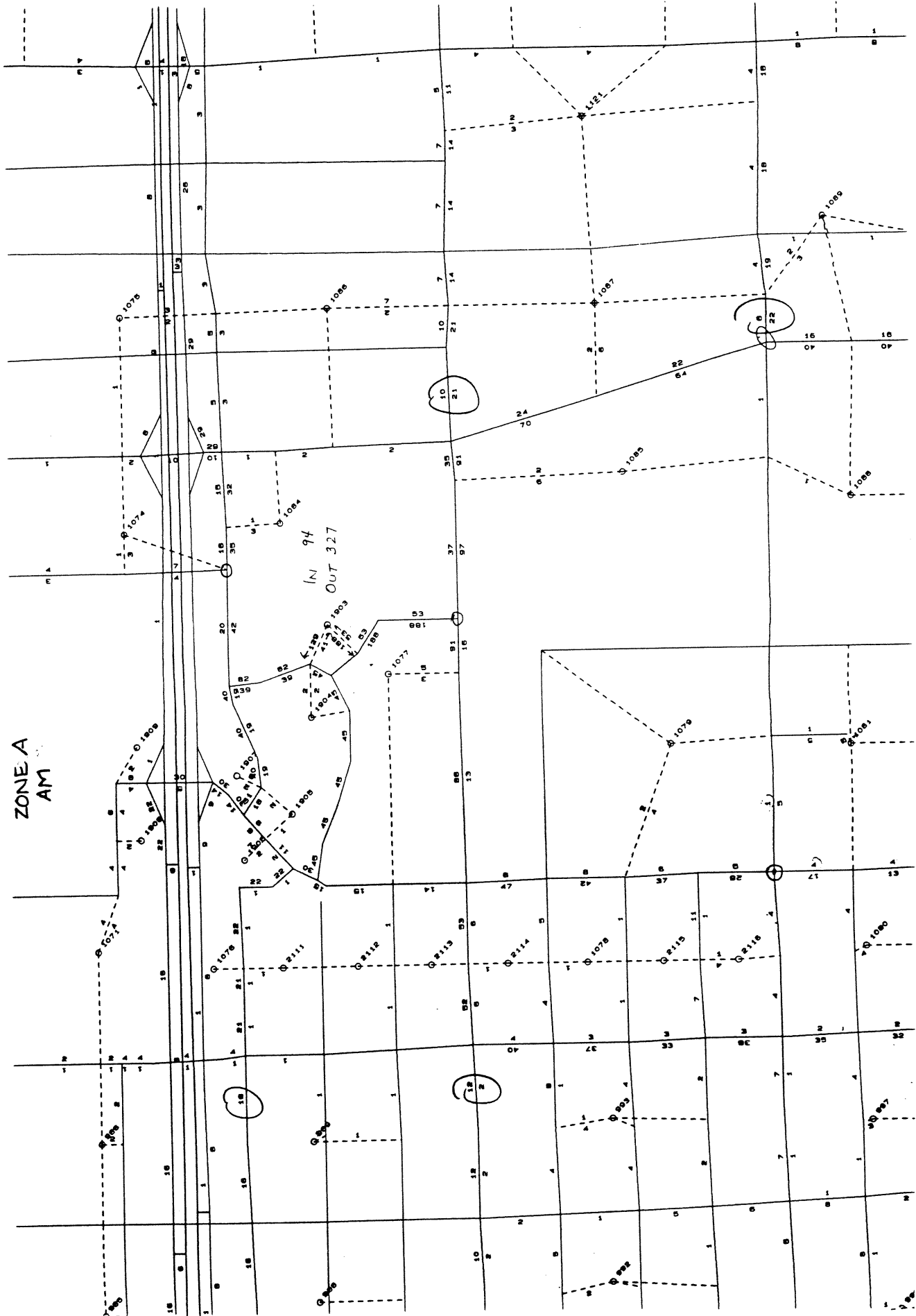
Fast-Food Restaurant with Drive-Through Window
Daily $T = 496.12 * (1000\text{'s of SF})$
AM Peak Hour $T = 49.86 * (1000\text{'s of SF})$
PM Peak Hour $T = 33.48 * (1000\text{'s of SF})$

ITE 6th Edition: 834
50% In 50% Out
51% In 49% Out
52% In 48% Out

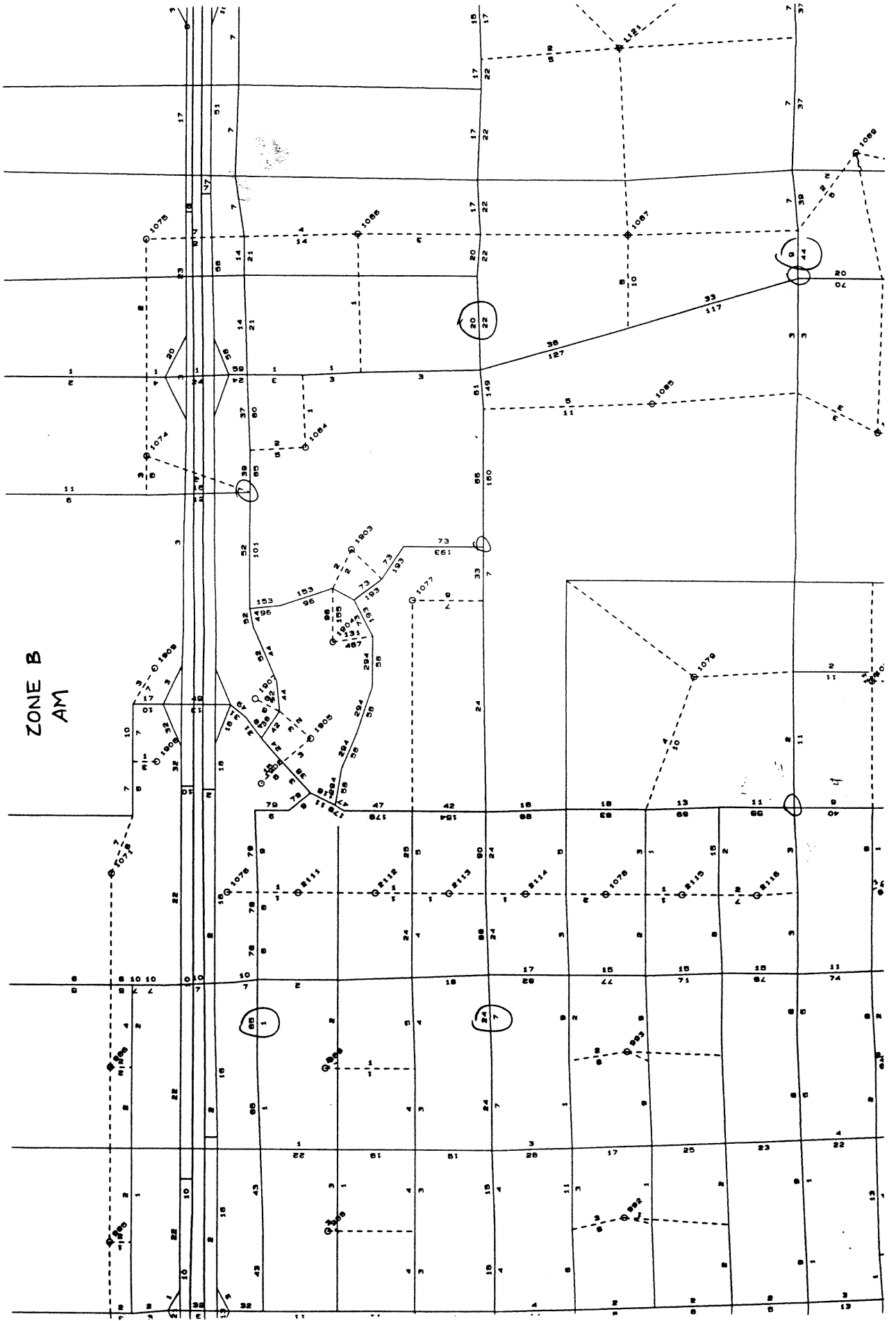
New Car Sales
Daily $T = 37.5 * (1000\text{'s of SF})$
AM Peak Hour $T = 2.21 * (1000\text{'s of SF})$
PM Peak Hour $T = 1.949 * (1000\text{'s of SF}) + 25.401$

ITE 6th Edition: 841
50% In 50% Out
73% In 27% Out
40% In 60% Out

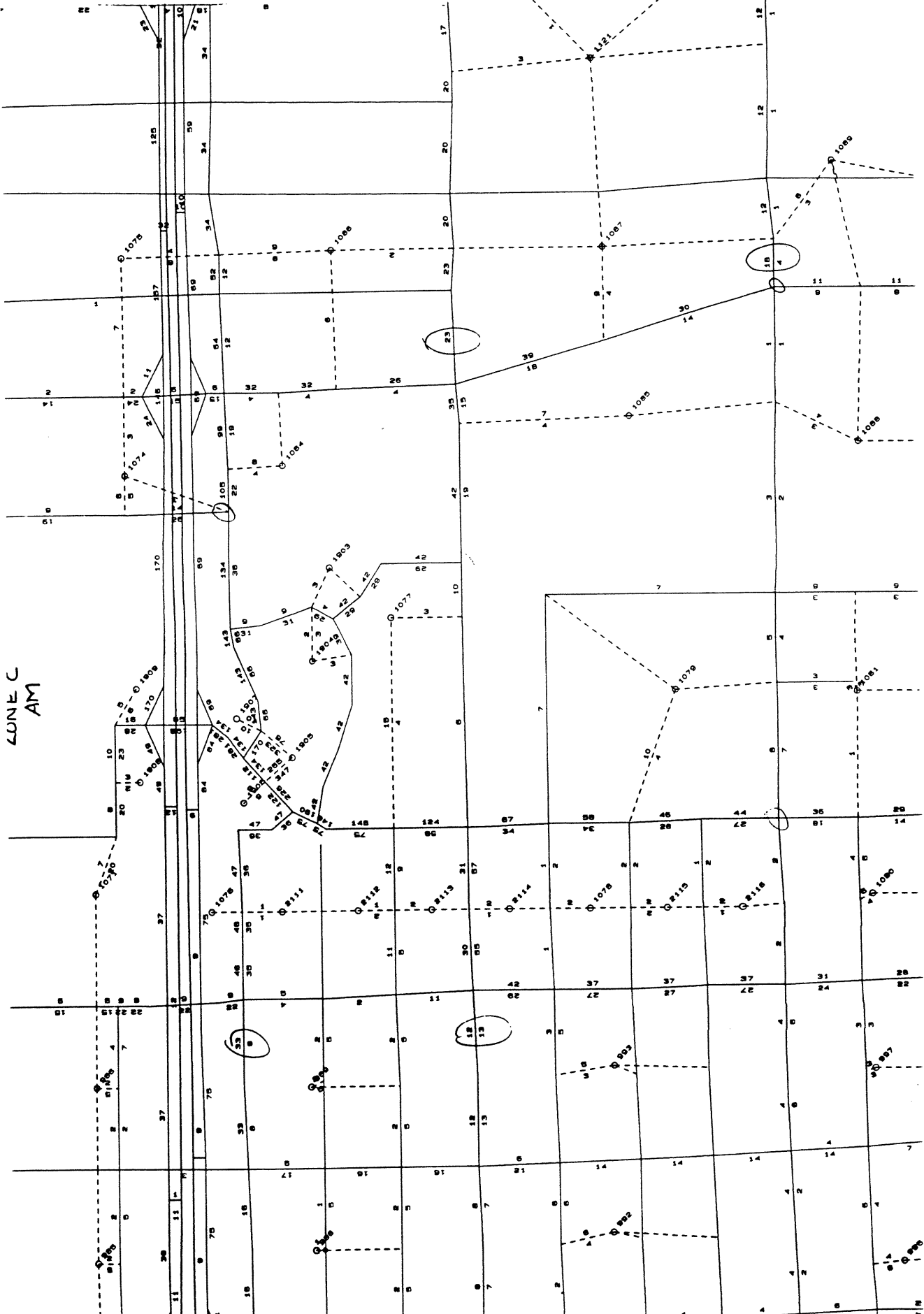
ZONE A
AM

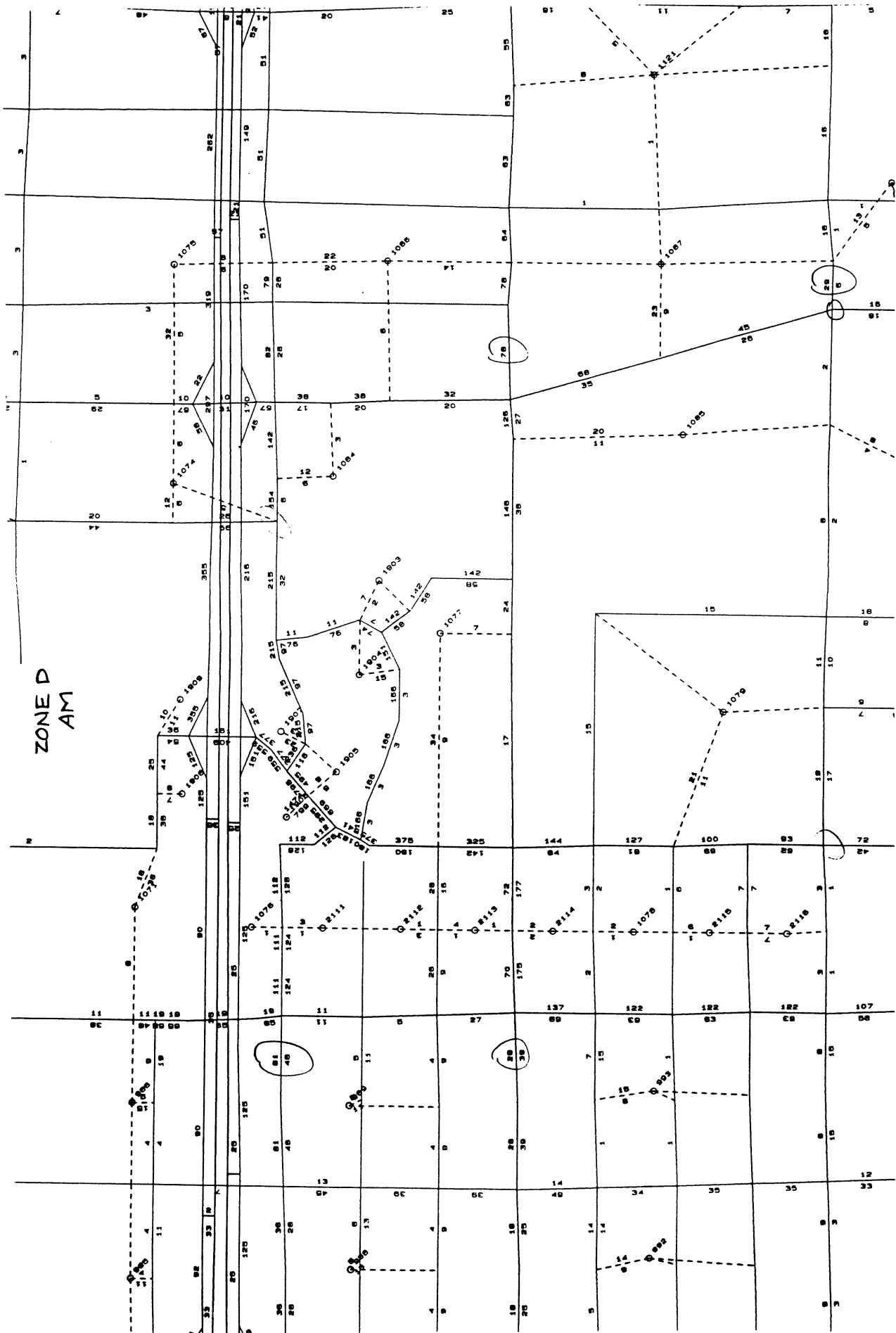


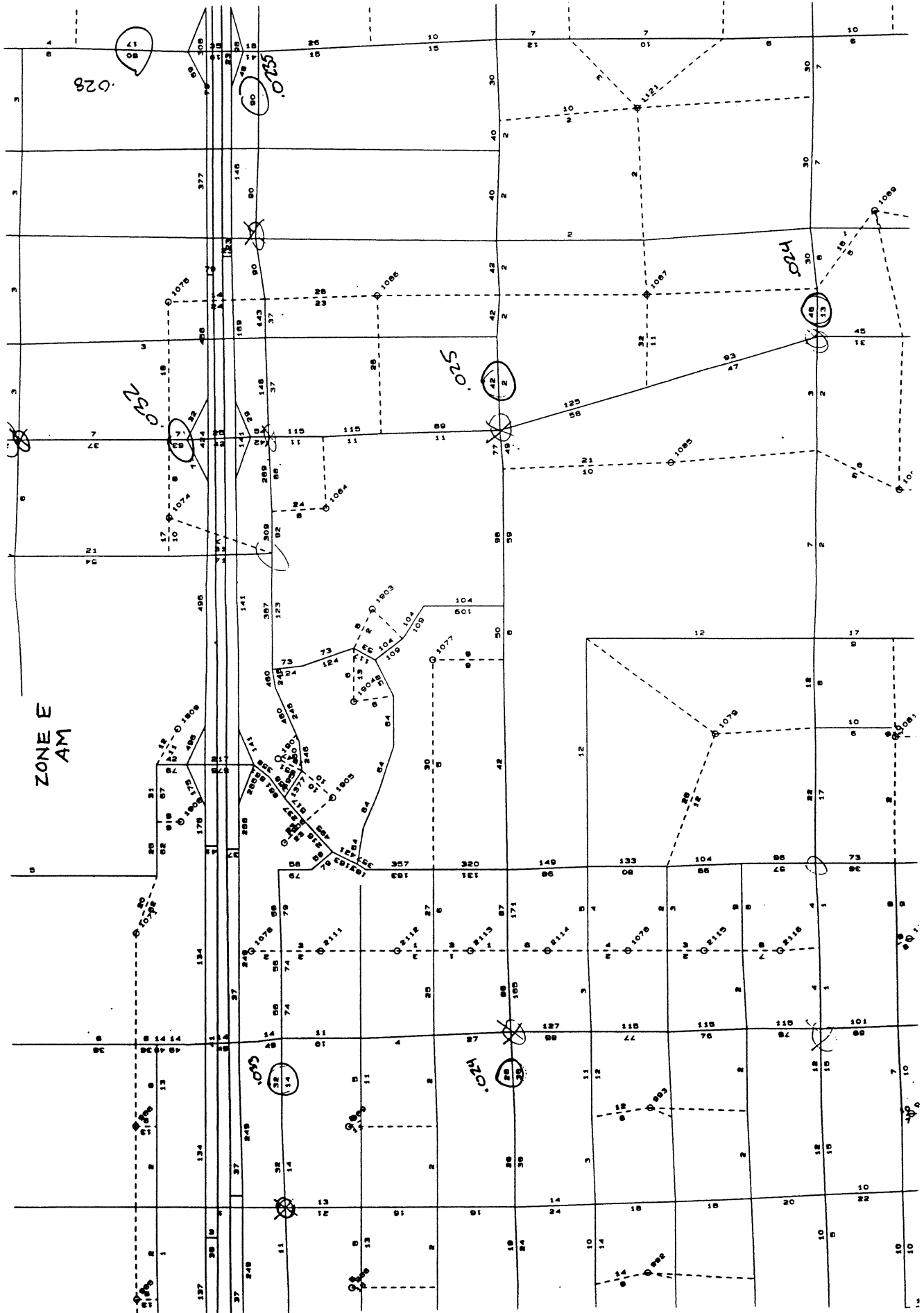
ZONE B
AM



ZONE C
AM







ZONE E
AM

028

020

022

025

029

030

031

032

033

034

035

036

037

038

039

040

041

042

043

044

045

046

047

048

049

050

051

052

053

054

055

056

057

058

059

060

061

062

063

064

065

066

067

068

069

070

071

072

073

074

075

076

077

078

079

080

081

082

083

084

085

086

087

088

089

090

091

092

093

094

095

096

097

098

099

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

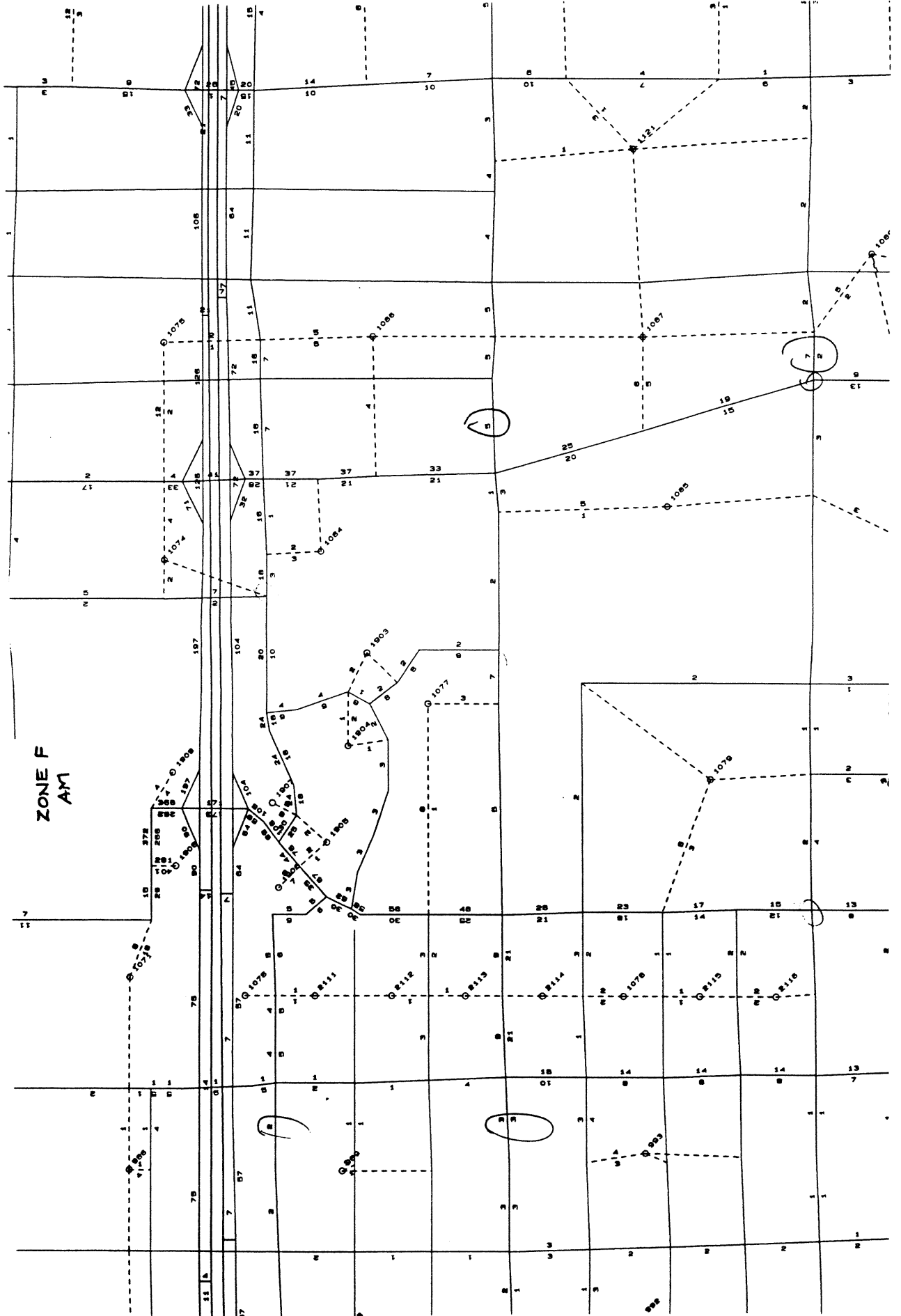
196

197

198

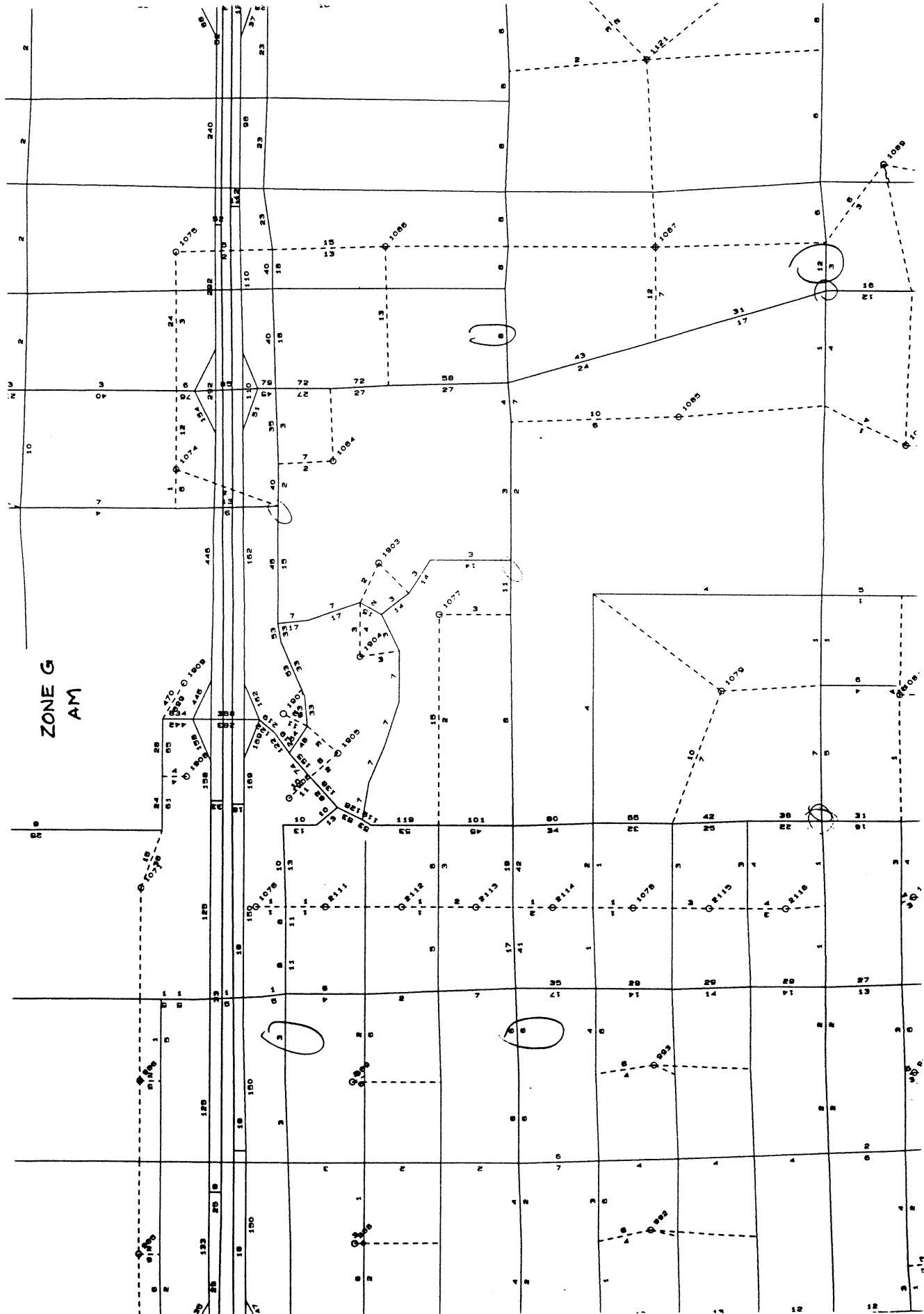
199

200

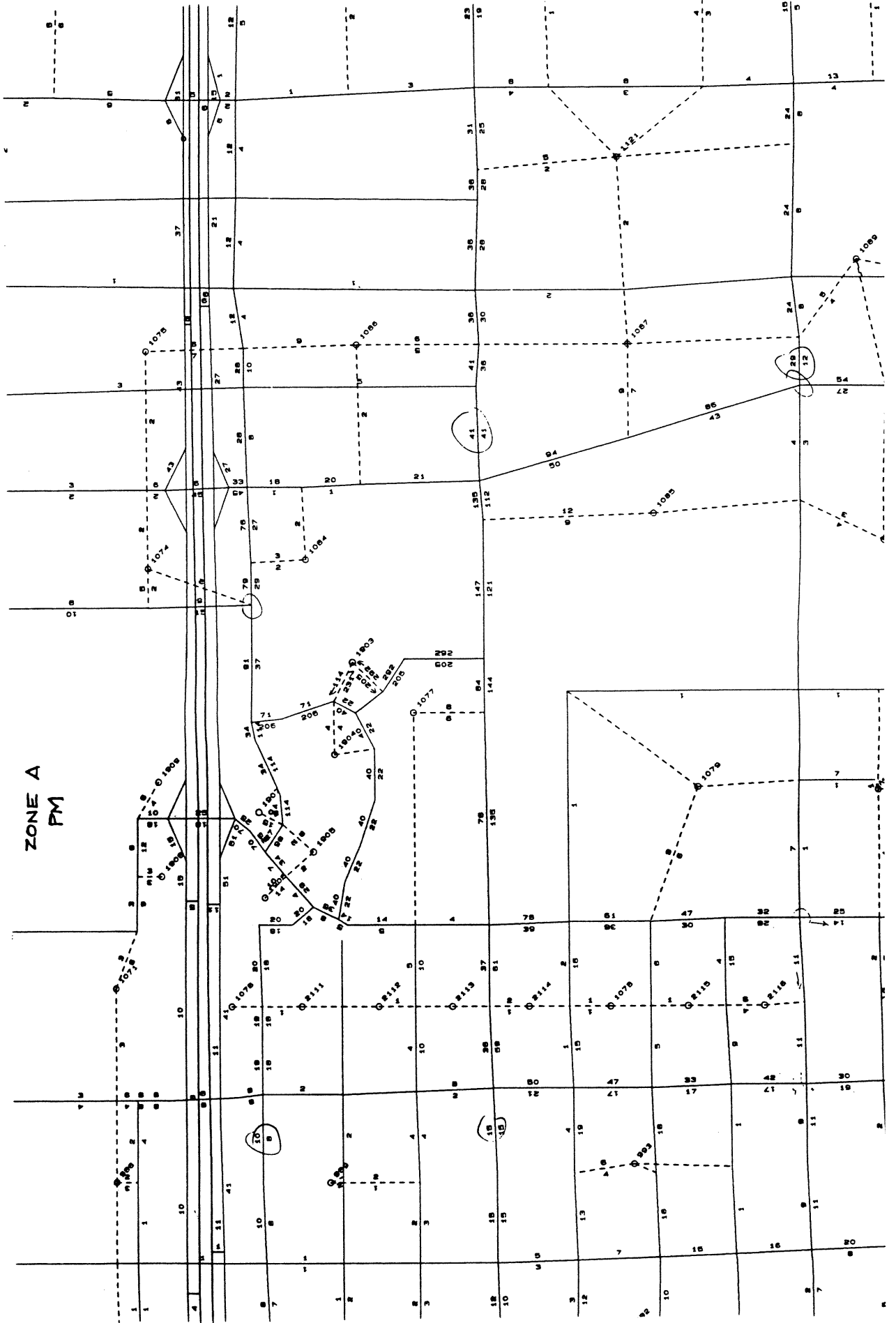


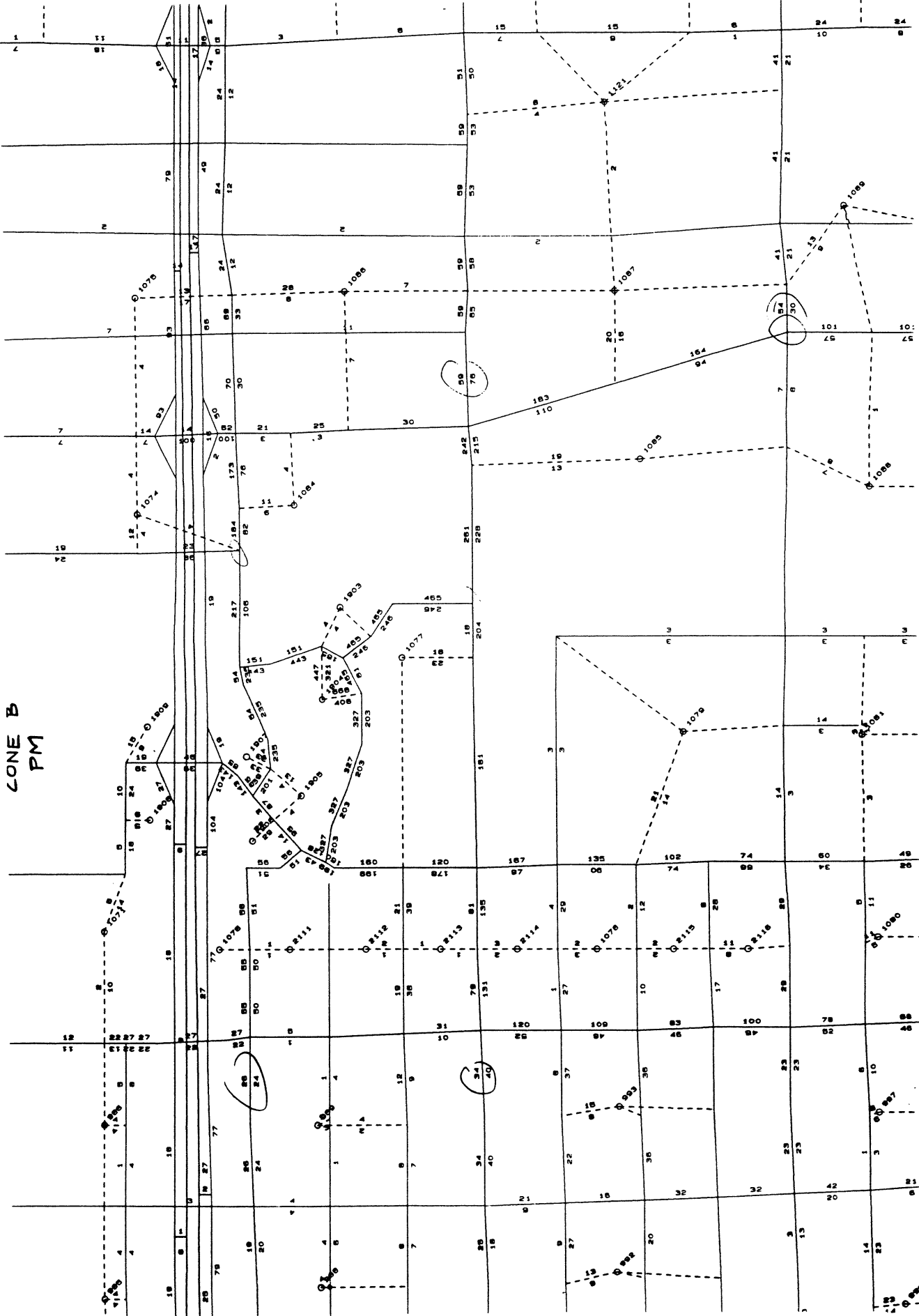
ZONE F
AM

ZONE G
AM

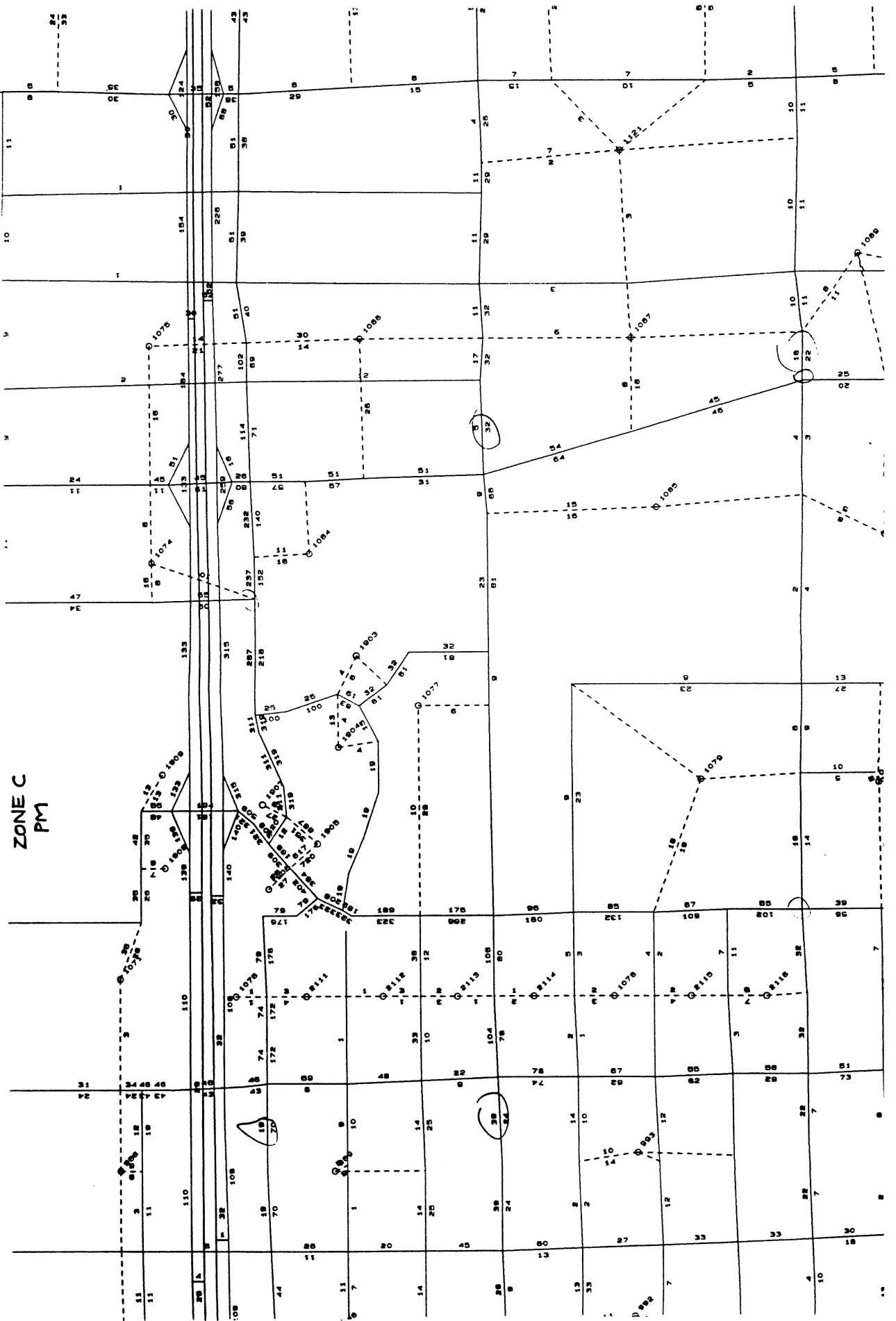


ZONE A
PM



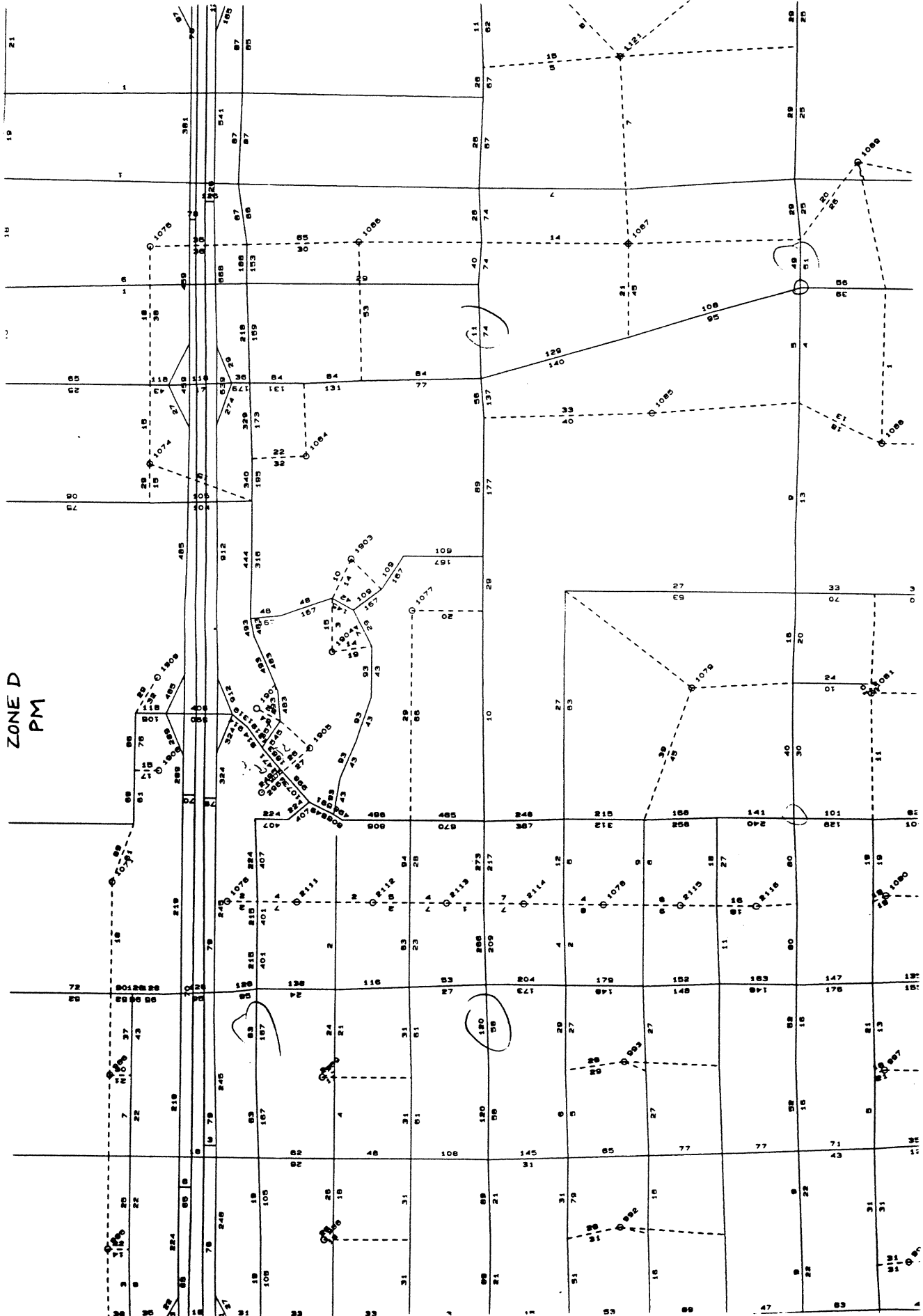


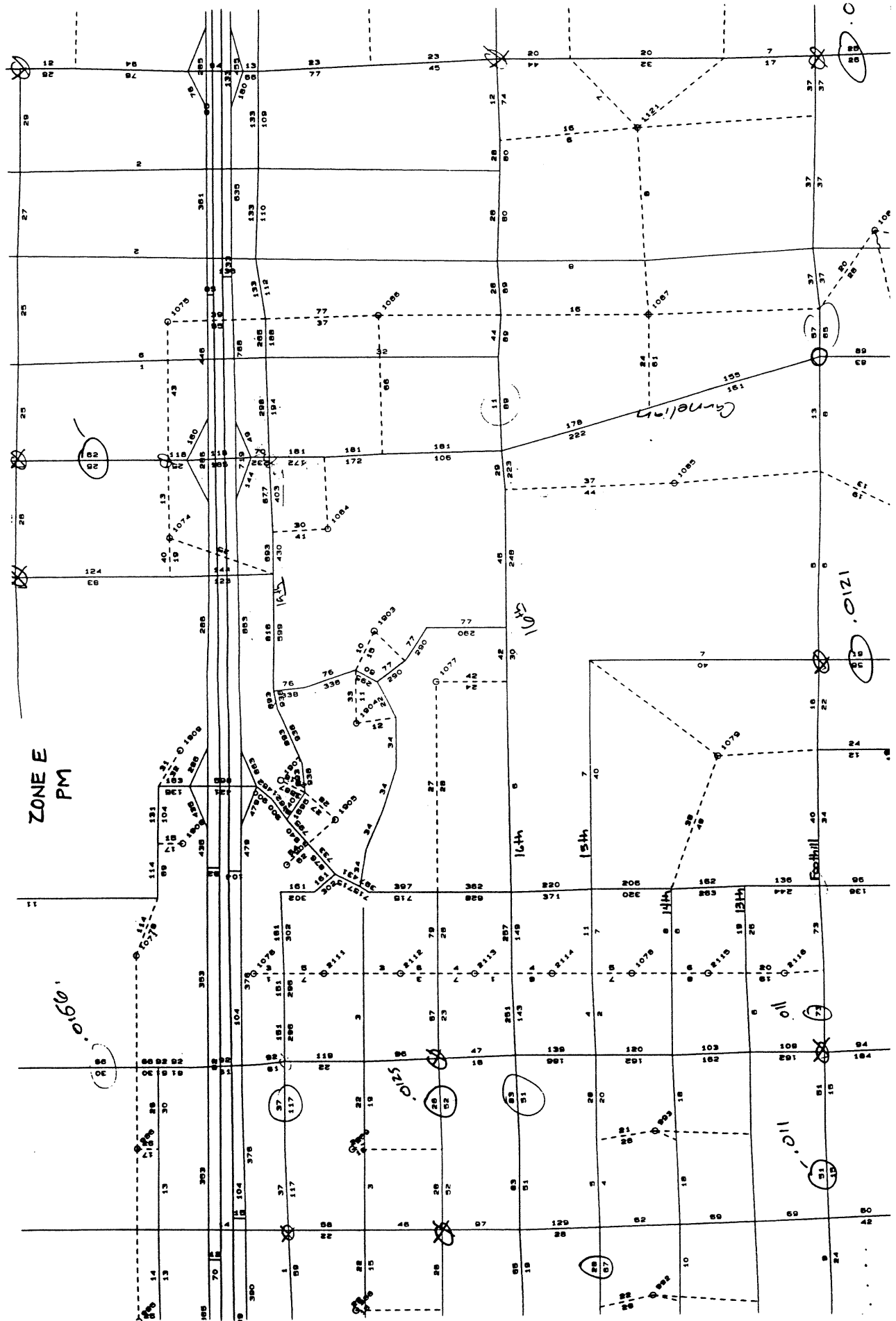
ZONE B
PM



ZONE C
PM

ZONE D
PM





ZONE E
PM

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

Carnegie

1078

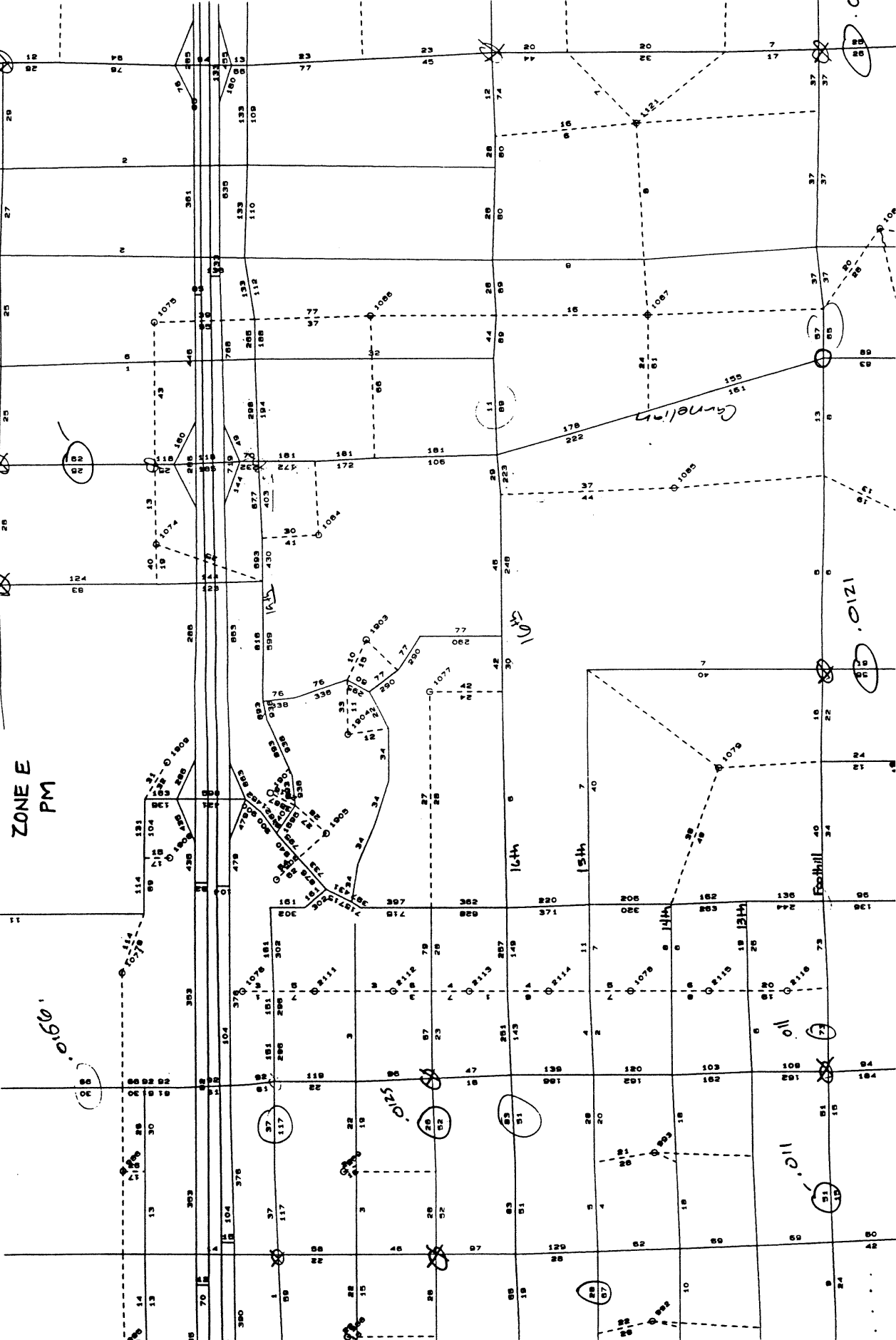
1079

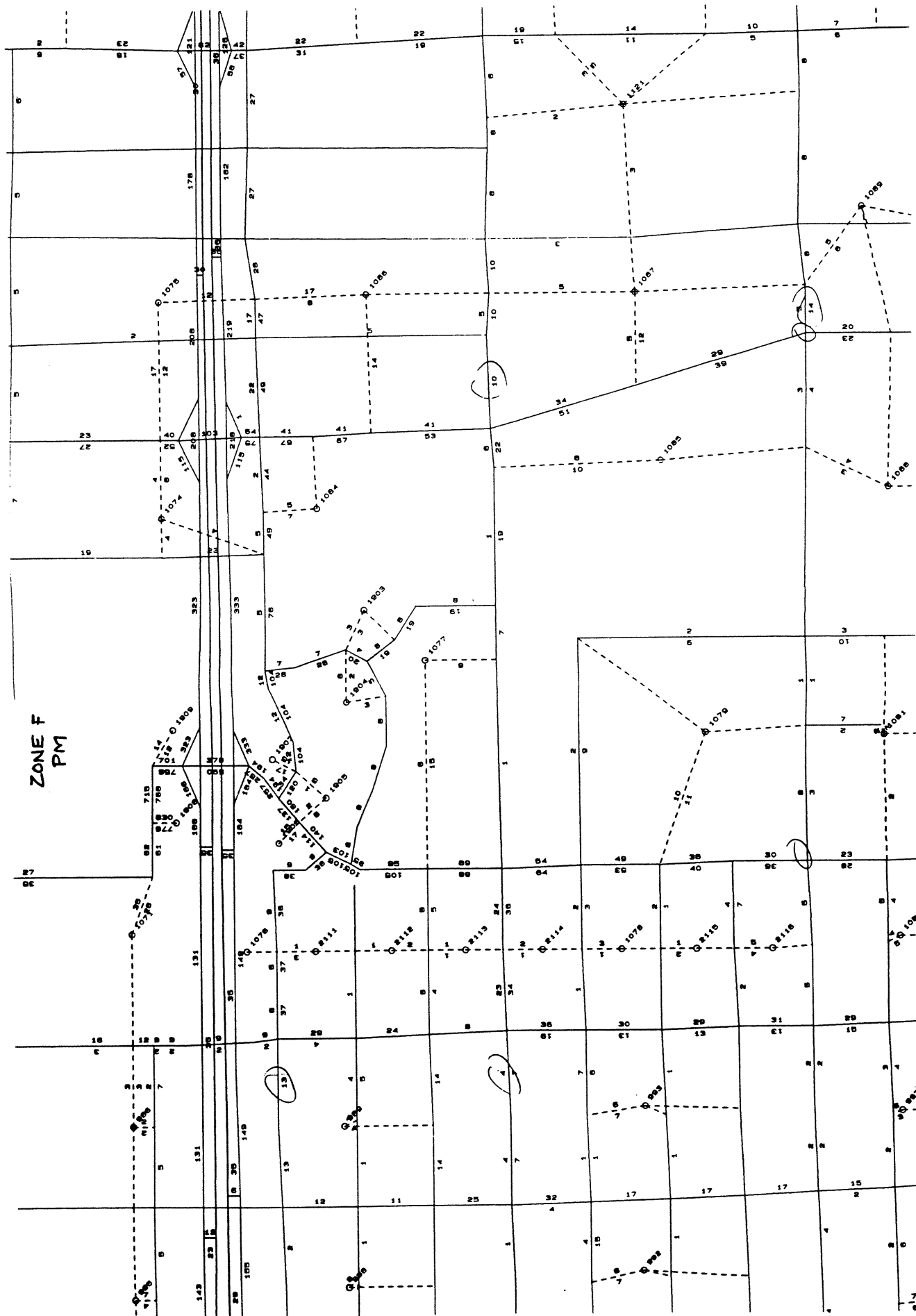
1078

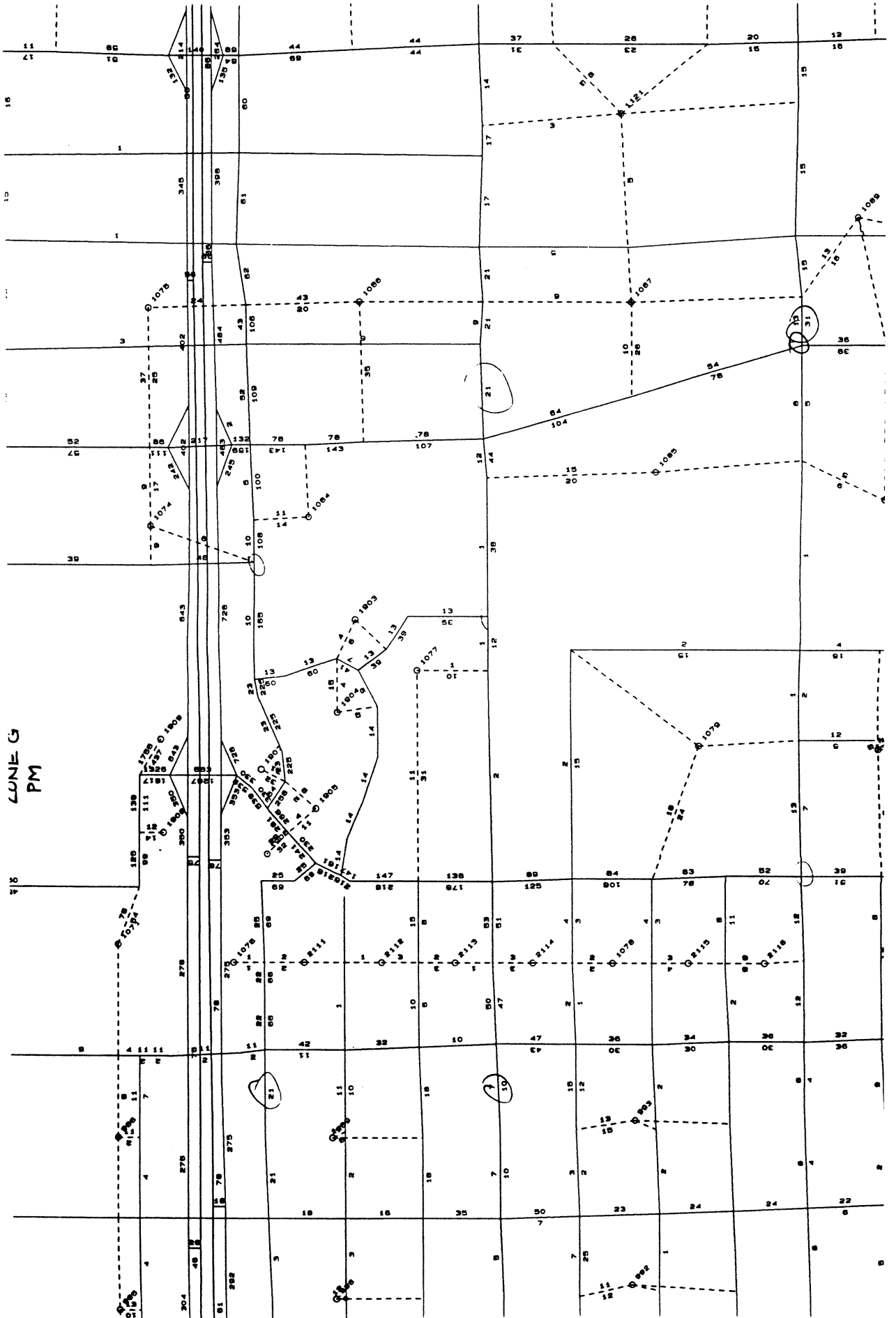
1079

110

110







LONE G
PM

SELECT ZONE

AM PEAK HOUR

Total All		Total All	
Zones SED		Zones Trips	
IN	OUT	IN	OUT

5,614	3,711	1,137	1,212
-------	-------	-------	-------

NL	0	0	0	0
NT	65	0	19	0
NR	0	0	0	0
SL	29	0	3	0
ST	0	38	0	20
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	44	0	12
WT	0	0	0	0
WR	78	0	27	0
				49 31

PM PEAK HOUR

Total All		Total All	
Zones SED		Zones Trips	
IN	OUT	IN	OUT

10,033	#####	2,521	2,408
--------	-------	-------	-------

NL	0	0	0	0
NT	156	0	35	0
NR	46	0	11	0
SL	193	0	47	0
ST	0	128	0	21
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	21	0	6
WT	0	0	0	0
WR	0	24	0	5
				93 33

2

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

69 50 42 0 161

AM PEAK HOUR

Total All		Total All	
Zones SED		Zones Trips	
IN	OUT	IN	OUT

4,314	2,960	657	810
-------	-------	-----	-----

NL	0	0	0	0
NT	22	0	3	0
NR	0	0	0	0
SL	29	0	3	0
ST	0	2	0	0
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	44	0	12
WT	0	0	0	0
WR	78	0	27	0
				33 12

PM PEAK HOUR

Total All		Total All	
Zones SED		Zones Trips	
IN	OUT	IN	OUT

7,820	8,662	2,080	1,974
-------	-------	-------	-------

NL	0	0	0	0
NT	56	0	15	0
NR	41	0	10	0
SL	193	0	47	0
ST	0	0	0	0
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	21	0	6
WT	0	0	0	0
WR	0	24	0	5
				72 12

167

PHASE 1 AND 2

N Leg S Leg E Leg W Leg

34 15 42 0 90

N Leg S Leg E Leg W Leg

109 73 70 0 252

N Leg S Leg E Leg W Leg

68 31 69 0 167

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg S Leg E Leg W Leg	38	15	128	76	257
-------------------------	----	----	-----	----	-----

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
Total All Zones SED	0	1	0	0	0	0	0	0	0	0	0	0	38
Total All Zones Trips	0	0	0	0	0	0	0	0	0	0	0	0	91

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg S Leg E Leg W Leg	137	97	368	137	739
-------------------------	-----	----	-----	-----	-----

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
Total All Zones SED	0	0	0	0	0	0	0	0	0	0	0	0	250
Total All Zones Trips	0	0	0	0	0	0	0	0	0	0	0	0	119

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg	34	9	115	74	231
-------------------------	----	---	-----	----	-----

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg S Leg E Leg W Leg	34	9	115	74	231
-------------------------	----	---	-----	----	-----

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
Total All Zones SED	0	0	0	0	0	0	0	0	0	0	0	0	32
Total All Zones Trips	0	0	0	0	0	0	0	0	0	0	0	0	84

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg S Leg E Leg W Leg	133	80	343	130	685
-------------------------	-----	----	-----	-----	-----

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
Total All Zones SED	0	0	0	0	0	0	0	0	0	0	0	0	228
Total All Zones Trips	0	0	0	0	0	0	0	0	0	0	0	0	115

685

INTERSECTION: Campus/19th

AM PEAK HOUR

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	84	327			56	167
NL	0	0	0.00	0.00	0	0
NR	0	0	0.00	0.00	0	0
BL	4	14	0.04	0.04	0	0
BR	14	4	0.13	0.03	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	0	0	0.00	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	26	13	0.24	0.12	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	229	842			112	382
NL	0	0	0.00	0.00	0	0
NR	13	13	0.05	0.03	0	0
BL	11	14	0.04	0.03	0	0
BR	31	14	0.14	0.03	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	0	0	0.00	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	42	49	0.18	0.06	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	870	341			102	85
NL	0	0	0.00	0.00	0	0
NR	134	0	0.15	0.00	0	0
BL	118	0	0.14	0.00	0	0
BR	105	0	0.12	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	0	0	0.00	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	169	246	0.19	0.07	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	1474	798			228	144
NL	0	0	0.00	0.00	0	0
NR	377	0	0.26	0.00	0	0
BL	118	0	0.08	0.00	0	0
BR	959	0	0.66	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	236	0	0.16	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	118	1172	0.08	0.83	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	1847	851			359	181
NL	0	0	0.00	0.00	0	0
NR	617	0	0.33	0.00	0	0
BL	951	0	0.52	0.00	0	0
BR	101	0	0.05	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	237	0	0.13	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	1378	585	0.74	0.22	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	401	261			166	147
NL	0	0	0.00	0.00	0	0
NR	76	0	0.19	0.00	0	0
BL	25	0	0.06	0.00	0	0
BR	44	0	0.11	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	0	0	0.00	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	25	160	0.06	0.11	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	898	470			483	400
NL	0	0	0.00	0.00	0	0
NR	153	0	0.17	0.00	0	0
BL	48	0	0.05	0.00	0	0
BR	74	0	0.08	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	0	0	0.00	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	64	233	0.07	0.14	0	0

PM PEAK HOUR

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	623	318			188	108
NL	0	0	0.00	0.00	0	0
NR	34	0	0.05	0.00	0	0
BL	64	0	0.10	0.00	0	0
BR	6	0	0.01	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	25	0	0.04	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	104	27	0.17	0.04	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	1,115	729			407	220
NL	0	0	0.00	0.00	0	0
NR	26	0	0.02	0.00	0	0
BL	146	0	0.13	0.00	0	0
BR	3	0	0.00	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	0	0	0.00	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	204	85	0.18	0.06	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	1,071	1,284			317	344
NL	0	0	0.00	0.00	0	0
NR	169	0	0.16	0.00	0	0
BL	12	0	0.01	0.00	0	0
BR	309	0	0.29	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	0	0	0.00	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	320	344	0.30	0.27	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	2,495	2,983			765	828
NL	0	0	0.00	0.00	0	0
NR	1319	0	0.53	0.00	0	0
BL	545	0	0.22	0.00	0	0
BR	914	0	0.37	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	557	0	0.22	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	1471	1884	0.59	0.63	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	2,618	3,387			1,013	1,151
NL	0	0	0.00	0.00	0	0
NR	785	0	0.30	0.00	0	0
BL	800	0	0.31	0.00	0	0
BR	0	0	0.00	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	940	0	0.36	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	1895	2402	0.72	0.71	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	778	830			286	235
NL	0	0	0.00	0.00	0	0
NR	160	0	0.21	0.00	0	0
BL	120	0	0.16	0.00	0	0
BR	137	0	0.18	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	0	0	0.00	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	34	257	0.04	0.03	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL>	1,437	1,758			321	359
NL	0	0	0.00	0.00	0	0
NR	209	0	0.15	0.00	0	0
BL	258	0	0.18	0.00	0	0
BR	281	0	0.20	0.00	0	0
EL	0	0	0.00	0.00	0	0
ER	0	0	0.00	0.00	0	0
WL	0	0	0.00	0.00	0	0
WT	0	0	0.00	0.00	0	0
WR	54	839	0.04	0.05	0	0

AM PEAK HOUR

Total All Zones	IN	OUT	Total All Zones	IN	OUT
5,814	3,111	1,508	1,489	716	748

AM PEAK HOUR

Total All Zones	IN	OUT	Total All Zones	IN	OUT
4,314	2,980	855	919	343	418

AM PEAK HOUR

Total All Zones	IN	OUT	Total All Zones	IN	OUT
14,711	16,864	451	521	658	821

AM PEAK HOUR

Total All Zones	IN	OUT	Total All Zones	IN	OUT
3,311	509	95	136	451	521

AM PEAK HOUR

Total All Zones	IN	OUT	Total All Zones	IN	OUT
814	318	37	9	71	110

PM PEAK HOUR

Total All Zones	IN	OUT	Total All Zones	IN	OUT
8,042	3,711	1,508	1,489	716	748

PM PEAK HOUR

Total All

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg S Leg E Leg W Leg	675	509	490	0	1674
-------------------------	-----	-----	-----	---	------

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	0	760	0	200
NR	650	0	96	0
SL	1148	0	191	0
ST	0	789	0	147
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	479	0	66
WT	0	0	0	0
WR	0	513	0	137
			287	550

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg S Leg E Leg W Leg	1564	1447	1598	0	4610
-------------------------	------	------	------	---	------

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	426	1534	86	296
NR	890	545	265	107
SL	1116	378	338	63
ST	1232	418	254	70
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	557	965	120	249
WT	0	0	0	0
WR	88	1823	18	439
			1081	1224

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

675 509 490 0 1674

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg S Leg E Leg W Leg	406	319	412	0	1136
-------------------------	-----	-----	-----	---	------

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	0	529	0	73
NR	650	0	96	0
SL	1075	0	164	0
ST	0	671	0	83
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	479	0	66
WT	0	0	0	0
WR	0	419	0	85
			260	308

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg S Leg E Leg W Leg	1327	1291	1517	0	4135
-------------------------	------	------	------	---	------

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	0	1534	0	296
NR	890	545	265	107
SL	1116	0	338	0
ST	1232	0	254	0
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	557	965	120	249
WT	0	0	0	0
WR	0	1823	0	439
			977	1091

977 1091 4135

INTERSECTION: 19th/Archibald

AM PEAK HOUR																													
ZONE A				ZONE B				ZONE C				ZONE D				ZONE E				ZONE F				ZONE G					
Select Zone		Percentage		Project Trips		Select Zone		Percentage		Project Trips		Select Zone		Percentage		Project Trips		Select Zone		Percentage		Project Trips		Select Zone		Percentage		Project Trips	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT		
VOL> 84 327				VOL> 228 842				VOL> 870 341				VOL> 1474 799				VOL> 1847 851				VOL> 401 281				VOL> 898 470					
NL	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NT	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NR	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SL	4	0.00	0.01	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
BT	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
BR	1	0.01	0.00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
EL	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ET	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ER	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WL	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WT	2	0.02	0.00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WR	3	0.00	0.00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

PM PEAK HOUR																													
ZONE A				ZONE B				ZONE C				ZONE D				ZONE E				ZONE F				ZONE G					
Select Zone		Percentage		Project Trips		Select Zone		Percentage		Project Trips		Select Zone		Percentage		Project Trips		Select Zone		Percentage		Project Trips		Select Zone		Percentage		Project Trips	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT		
VOL> 523 318				VOL> 1,115 728				VOL> 1,071 1,284				VOL> 2,485 2,963				VOL> 2,919 3,397				VOL> 778 830				VOL> 1,437 1,756					
NL	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NT	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NR	1	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SL	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
BT	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
BR	2	0.00	0.00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
EL	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ET	4	0.00	0.01	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ER	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WL	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WT	10	0.02	0.00	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WR	2	0.00	0.00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

AM PEAK HOUR																															
Total All				Total All				Total All				Total All				Total All				Total All											
Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT				
6,814 3,711 1,608 1,488				4,314 2,980 855 919				81 48				180 107				208 132				48 48				86 116							
NL	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
NT	18	65	3	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
NR	0	11	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
SL	0	50	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
BT	0	58	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
BR	53	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
EL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
ET	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
ER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
WL	0	13	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
WT	164	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
WR	0	32	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

PM PEAK HOUR																											
Total All				Total All				Total All				Total All				Total All											
Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT		
10,033 3,207 3,242				7,820 8,862 2,690 2,648				39 29				180 107				208 132				48 48							
NL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NT	0	97	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NR	0	26	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SL	0	14	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BT	275	0	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BR	58	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EL	0	11	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ET	0	324	0	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WL	247	0	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WT	65	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

AM PEAK HOUR																																
ZONE A				ZONE B				ZONE C				ZONE D				ZONE E				ZONE F				ZONE G								
Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type					
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT					
VOL> 84 327				VOL> 228 842				VOL> 870 341				VOL> 1474 708				VOL> 1847 851				VOL> 401 281				VOL> 899 470								
NL	0.00	0.00	0	NL	1.00	0.00	0	NL	0.05	0.00	5	NL	10	0.01	0.00	2	NL	101	0.05	0.00	20	NL	37	0.00	0.13	0	NL	72	0.00	0.15	0	
NR	0.00	0.00	0	NR	0.00	0.00	0	NR	0.00	0.00	0	NR	28	0.00	0.04	0	NR	14	0.00	0.03	0	NR	37	0.00	0.13	0	NR	72	0.00	0.15	0	
BL	0.00	0.00	0	BL	0.00	0.00	0	BL	0.00	0.00	0	BL	10	0.00	0.01	0	BL	7	0.00	0.02	0	BL	7	0.00	0.02	0	BL	18	0.00	0.04	0	
BR	0.01	0.00	0	BR	1.00	0.00	0	BR	3	0.00	0.01	0	BR	10	0.00	0.01	0	BR	21	0.00	0.07	0	BR	21	0.00	0.07	0	BR	27	0.00	0.08	0
ER	0.10	0.00	0	ER	0.10	0.00	0	ER	0.02	0.00	0	ER	87	0.04	0.00	0	ER	42	0.02	0.00	0	ER	27	0.00	0.08	0						
EL	0.10	0.00	0	EL	0.07	0.00	0	EL	0.02	0.00	0	EL	87	0.04	0.00	0	EL	42	0.02	0.00	0	EL	27	0.00	0.08	0						
WT	0.00	0.00	0	WT	0.00	0.00	0	WT	0.00	0.00	0	WT	75	0.00	0.01	0	WT	146	0.08	0.00	28	WT	35	0.00	0.07	0						
WR	0.00	0.00	0	WR	0.00	0.00	0	WR	0.00	0.00	0	WR	142	0.00	0.00	0	WR	289	0.00	0.00	0	WR	52	0.00	0.01	0						
VOL> 33 32				VOL> 37 82				VOL> 98 22				VOL> 142 45				VOL> 16 68				VOL> 130 258												
NL	0.00	0.00	0	NL	0.00	0.00	0	NL	0.05	0.00	5	NL	10	0.01	0.00	2	NL	101	0.05	0.00	20	NL	37	0.00	0.13	0						
NR	0.00	0.00	0	NR	0.00	0.00	0	NR	0.00	0.00	0	NR	28	0.00	0.04	0	NR	14	0.00	0.03	0	NR	37	0.00	0.13	0						
BL	0.00	0.00	0	BL	0.00	0.00	0	BL	0.00	0.00	0	BL	10	0.00	0.01	0	BL	7	0.00	0.02	0	BL	7	0.00	0.02	0						
BR	0.01	0.00	0	BR	1.00	0.00	0	BR	3	0.00	0.01	0	BR	10	0.00	0.01	0	BR	21	0.00	0.07	0	BR	21	0.00	0.07	0					
ER	0.10	0.00	0	ER	0.10	0.00	0	ER	0.02	0.00	0	ER	87	0.04	0.00	0	ER	42	0.02	0.00	0	ER	27	0.00	0.08	0						
EL	0.10	0.00	0	EL	0.07	0.00	0	EL	0.02	0.00	0	EL	87	0.04	0.00	0	EL	42	0.02	0.00	0	EL	27	0.00	0.08	0						
WT	0.00	0.00	0	WT	0.00	0.00	0	WT	0.00	0.00	0	WT	75	0.00	0.01	0	WT	146	0.08	0.00	28	WT	35	0.00	0.07	0						
WR	0.00	0.00	0	WR	0.00	0.00	0	WR	0.00	0.00	0	WR	142	0.00	0.00	0	WR	289	0.00	0.00	0	WR	52	0.00	0.01	0						

PM PEAK HOUR																															
ZONE A				ZONE B				ZONE C				ZONE D				ZONE E				ZONE F				ZONE G							
Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type	Select Zone	Percentage	Project Trips	Project Type				
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT				
VOL> 523 318				VOL> 1,115 729				VOL> 1,071 1,284				VOL> 2,469 2,963				VOL> 2,619 3,367				VOL> 778 830				VOL> 1,437 1,756							
NL	0.01	0.00	0	NL	0.01	0.00	0	NL	0.04	0.00	1	NL	83	0.03	0.00	19	NL	147	0.06	0.00	37	NL	41	0.05	0.00	15	NL	78	0.05	0.00	17
NR	0.00	0.04	0	NR	0.00	0.02	0	NR	0.00	0.00	0	NR	21	0.00	0.01	0	NR	34	0.00	0.01	0	NR	41	0.05	0.00	15	NR	78	0.05	0.00	17
BL	0.00	0.00	0	BL	0.00	0.00	0	BL	0.00	0.00	0	BL	131	0.05	0.00	40	BL	131	0.05	0.00	40	BL	8	0.00	0.01	0	BL	10	0.00	0.01	0
BR	0.00	0.00	0	BR	0.00	0.00	0	BR	0.00	0.00	0	BR	48	0.02	0.00	16	BR	48	0.02	0.00	16	BR	8	0.00	0.01	0	BR	10	0.00	0.01	0
ER	0.00	0.00	0	ER	0.00	0.00	0	ER	0.00	0.00	0	ER	159	0.00	0.05	0	ER	159	0.00	0.05	0	ER	2	0.00	0.00	0	ER	143	0.00	0.08	0
EL	0.00	0.00	0	EL	0.00	0.00	0	EL	0.00	0.00	0	EL	14	0.00	0.00	0	EL	14	0.00	0.00	0	EL	2	0.00	0.00	0	EL	2	0.00	0.00	0
WT	0.00	0.00	0	WT	0.00	0.00	0	WT	0.00	0.00	0	WT	218	0.00	0.00	0	WT	218	0.00	0.00	0	WT	44	0.00	0.00	0	WT	98	0.00	0.00	0
WR	0.00	0.00	0	WR	0.00	0.00	0	WR	0.00	0.00	0	WR	460	0.00	0.00	0	WR	460	0.00	0.00	0	WR	22	0.00	0.00	0	WR	130	0.04	0.00	28
VOL> 77 41				VOL> 178 82				VOL> 232 153				VOL> 460 194				VOL> 617 437				VOL> 83 110											
NL	0.01	0.00	0	NL	0.01	0.00	0	NL	0.04	0.00	1	NL	83	0.03	0.00	19	NL	147	0.06	0.00	37	NL	41	0.05	0.00	15					
NR	0.00	0.04	0	NR	0.00	0.02	0	NR	0.00	0.00	0	NR	21	0.00	0.01	0	NR	34	0.00	0.01	0	NR	41	0.05	0.00	15					
BL	0.00	0.00	0	BL	0.00	0.00	0	BL	0.00	0.00	0	BL	131	0.05	0.00	40	BL	131	0.05	0.00	40	BL	8	0.00	0.01	0					
BR	0.00	0.00	0	BR	0.00	0.00	0	BR	0.00	0.00	0	BR	48	0.02	0.00	16	BR	48	0.02	0.00	16	BR	8	0.00	0.01	0					
ER	0.00	0.00	0	ER	0.00	0.00	0	ER	0.00	0.00	0	ER	159	0.00	0.05	0	ER	159	0.00	0.05	0	ER	2	0.00	0.00	0					
EL	0.00	0.00	0	EL	0.00	0.00	0	EL	0.00	0.00	0	EL	14	0.00	0.00	0	EL	14	0.00	0.00	0	EL	2	0.00	0.00	0					
WT	0.00	0.00	0	WT	0.00	0.00	0	WT	0.00	0.00	0	WT	218	0.00	0.00	0	WT	218	0.00	0.00	0	WT	44	0.00	0.00	0					
WR	0.00	0.00	0	WR	0.00	0.00	0	WR	0.00	0.00	0	WR	460	0.00	0.00	0	WR	460	0.00	0.00	0	WR	22	0.00	0.00	0					

AM PEAK HOUR											
Total All Zones BED				Total All Zones Trips							
IN	OUT	IN	OUT	IN	OUT	IN	OUT				
3,814	3,711	808	1,465	4,314	2,850	853	919				

N Leg 8 Leg E Leg W Leg
240 187 147 243 708

PM PEAK HOUR											
Total All Zones BED				Total All Zones Trips							
IN	OUT	IN	OUT	IN	OUT	IN	OUT				
10,033	11,240	3,297	3,242	17,820	8,827	2,890	2,843				

N Leg 8 Leg E Leg W Leg
300 318 448 812 1877

AM PEAK HOUR											
Total All Zones BED				Total All Zones Trips							
IN	OUT	IN	OUT	IN	OUT	IN	OUT				
143	0	28	0	143	0	28	0				

N Leg 8 Leg E Leg W Leg
100 43 88 204 433

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg	S Leg	E Leg	W Leg
194	116	113	201
624			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	143	0	19	0
NT	0	124	0	62
NR	0	28	0	4
SL	0	25	0	14
ST	1	62	1	27
SR	143	0	30	0
EL	0	136	0	57
ET	0	73	0	21
ER	0	14	0	3
WL	0	7	0	1
WT	310	35	49	22
WR	0	5	0	3
98 214				

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	11,248	2,521	2,408

N Leg	S Leg	E Leg	W Leg
309	232	334	616
1491			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	258	0	67	0
NT	119	97	24	24
NR	0	0	0	0
SL	0	16	0	3
ST	135	210	30	35
SR	501	7	143	1
EL	0	131	0	35
ET	0	604	0	128
ER	0	229	0	53
WL	0	0	0	0
WT	728	0	189	0
WR	74	0	14	0
467 279				

PHASE 1 AND 2

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg	S Leg	E Leg	W Leg
90	31	69	171
362			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	143	0	19	0
NT	0	15	0	3
NR	0	28	0	4
SL	0	0	0	0
ST	1	14	1	2
SR	143	0	30	0
EL	0	132	0	55
ET	0	73	0	21
ER	0	14	0	3
WL	0	7	0	1
WT	294	0	44	0
WR	0	0	0	0
93 88				

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg	S Leg	E Leg	W Leg
231	173	293	591
1289			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	258	0	67	0
NT	0	97	0	24
NR	0	0	0	0
SL	0	0	0	0
ST	135	0	30	0
SR	501	0	143	0
EL	0	129	0	35
ET	0	462	0	104
ER	0	229	0	53
WL	0	0	0	0
WT	728	0	189	0
WR	0	0	0	0
428 216 1289				

AM PEAK HOUR													
ZONE A		ZONE B		ZONE C		ZONE D		ZONE E		ZONE F		ZONE G	
Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
84	327	229	842	870	341	1474	799	1847	851	401	281	899	470
VOL> 112 392		VOL> 56 187		VOL> 102 65		VOL> 228 144		VOL> 359 161		VOL> 168 147		VOL> 483 400	
NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00
NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00
HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00
BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00
BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00
BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00
EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00
ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00
WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00
WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00
WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00

PM PEAK HOUR													
ZONE A		ZONE B		ZONE C		ZONE D		ZONE E		ZONE F		ZONE G	
Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
83	319	1153	728	1071	1284	2485	2963	2518	3367	778	830	1437	1768
VOL> 188 105		VOL> 407 220		VOL> 317 344		VOL> 765 878		VOL> 1013 1151		VOL> 286 256		VOL> 321 358	
NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00
NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00
HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00
BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00
BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00
BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00
EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00
ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00
WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00
WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00
WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00

AM PEAK HOUR													
Total All		Total All		Total All		Total All		Total All		Total All		Total All	
Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
56	187	56	187	102	65	102	65	184	799	184	799	359	161
VOL> 56 187		VOL> 102 65		VOL> 102 65		VOL> 102 65		VOL> 184 799		VOL> 184 799		VOL> 359 161	
NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00
NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00
HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00
BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00
BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00
BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00
EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00
ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00
WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00
WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00
WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00

PM PEAK HOUR													
Total All		Total All		Total All		Total All		Total All		Total All		Total All	
Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips	Zones BED	Zones Trips
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
56	187	56	187	102	65	102	65	184	799	184	799	359	161
VOL> 56 187		VOL> 102 65		VOL> 102 65		VOL> 102 65		VOL> 184 799		VOL> 184 799		VOL> 359 161	
NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00
NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00
HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00	HR	0.00 0.00
BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00	BL	0.00 0.00
BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00	BT	0.00 0.00
BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00
EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00	EL	0.00 0.00
ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00
WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00
WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00	WT	0.00 0.00
WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00	WR	0.00 0.00

N Leg 8 Leg E Leg W Leg
 108 86 83 53 309
 157 118 210 202 687
 37 19 45 36 137
 N Leg 8 Leg E Leg W Leg
 99 77 180 162 538
 81 48 48 48 18 14
 208 132 81 48 81 48
 160 107 55 30
 4.314 2.960 855 819
 7.820 6.682 2.680 2.648
 10.033 8.688 3.207 3.242
 11.568 1.458
 56 98
 212 132
 175 84
 538

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

4	0	0	0
18	55	3	22
0	11	0	2
0	50	0	17
0	58	0	19
52	0	9	0
0	0	0	0
0	0	0	0
0	0	0	0
0	13	0	2
164	0	31	0
0	32	0	12

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4	0	0	0
18	18	3	2
0	11	0	2
0	37	0	10
0	32	0	5
48	0	7	0
0	0	0	0
0	0	0	0
0	0	0	0
0	13	0	2
134	0	20	0
0	14	0	2

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

0	0	0	0
0	97	0	18
0	26	0	6
0	14	0	2
275	0	62	0
59	0	15	0
0	11	0	2
0	324	0	68
0	0	0	0
0	0	0	0
247	0	64	0
65	0	15	0

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
0	0	0	0
0	31	0	7
0	26	0	6
0	0	0	0
175	0	42	0
59	0	15	0
0	0	0	0
0	248	0	56
0	0	0	0
0	0	0	0
247	0	64	0
31	0	8	0

156 96

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

81 48 63 40 232

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

4	0	0	0
18	18	3	2
0	11	0	2
0	37	0	10
0	32	0	5
48	0	7	0
0	0	0	0
0	0	0	0
0	0	0	0
0	13	0	2
134	0	20	0
0	14	0	2

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

0	0	0	0
0	31	0	7
0	26	0	6
0	0	0	0
175	0	42	0
59	0	15	0
0	0	0	0
0	248	0	56
0	0	0	0
0	0	0	0
247	0	64	0
31	0	8	0

N Leg S Leg E Leg W Leg

114 86 155 149 504

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

129 68 395

N Leg S Leg E Leg W Leg

72 55 133 135 395

PHASE 1 AND 2

N Leg S Leg E Leg W Leg

29 14 35 27 105

INTERSECTION: Mountain/16th

AM PEAK HOUR

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 84 327				
NL	0.00	0.00	0	0
NT	0.00	0.00	0	0
NR	0.02	0.00	0	0
SL	0.00	0.00	0	0
ST	1	0.00	0	1
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.02	0	3
WT	0.00	0.01	0	0
WR	0.00	0.00	0	0
VOL> 228 842				
NL	0.00	0.00	0	0
NT	0.00	0.00	0	0
NR	0.02	0.00	0	0
SL	0.00	0.00	0	0
ST	7	0.00	0	4
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	7	0.00	0	4
WT	8	0.00	0	0
WR	4	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 870 341				
NL	0.00	0.00	0	0
NT	0.00	0.00	0	0
NR	0.01	0.00	1	0
SL	0.00	0.00	0	0
ST	6	0.00	0	1
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	3	0.00	0	1
WT	6	0.00	0	0
WR	7	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 1474 789				
NL	0.00	0.00	0	0
NT	0.00	0.00	0	0
NR	0.01	0.00	3	0
SL	0.00	0.00	0	0
ST	11	0.00	0	2
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	7	0.00	0	1
ER	6	0.00	0	0
WL	6	0.00	0	1
WT	13	0.00	0	2
WR	25	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 1847 851				
NL	0.00	0.00	0	0
NT	0.01	0.00	0	0
NR	0.01	0.00	0	0
SL	0.00	0.00	0	0
ST	10	0.00	0	2
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	7	0.00	0	1
WT	12	0.00	0	2
WR	24	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 401 281				
NL	0.00	0.00	0	0
NT	0.02	0.00	3	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	0
ST	10	0.00	0	0
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	1	0.00	0	0
WL	1	0.00	0	0
WT	1	0.00	0	1
WR	7	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 899 470				
NL	0.00	0.00	0	0
NT	0.02	0.00	10	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	0
ST	14	0.02	0	0
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	3	0.00	0	3
WT	3	0.00	0	0
WR	4	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 1.437 1,756				
NL	0.00	0.00	0	0
NT	0.02	0.00	0	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	0
ST	80	0.00	0	12
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	1	0.00	0	1
WR	5	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 623 318				
NL	0.00	0.00	0	0
NT	0.00	0.00	0	0
NR	0.01	0.00	0	0
SL	0.00	0.00	0	0
ST	0.00	0.00	0	0
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.01	0.00	1	0
ER	0.00	0.00	0	0
WL	0.00	0.03	0	3
WT	0.00	0.01	0	0
WR	4	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 1,115 728				
NL	0.00	0.00	0	0
NT	0.00	0.00	0	0
NR	0.01	0.00	0	0
SL	0.00	0.00	0	0
ST	0.00	0.00	0	0
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	4	0.00	0	0
ER	0.00	0.00	0	0
WL	20	0.00	0	0
WT	8	0.00	0	0
WR	18	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 1,071 1,264				
NL	0.00	0.00	0	0
NT	0.00	0.00	0	0
NR	0.01	0.00	2	0
SL	0.00	0.00	0	0
ST	0.00	0.00	0	0
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	4	0.00	0	0
ER	0.00	0.00	0	0
WL	24	0.00	0	0
WT	2	0.00	0	1
WR	11	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 2,485 2,853				
NL	0.00	0.00	0	0
NT	0.00	0.00	0	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	0
ST	0.00	0.00	0	0
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	9	0.00	0	0
ER	69	0.00	0	0
WL	59	0.00	0	18
WT	30	0.00	0	8
WR	24	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 2,618 3,387				
NL	0.00	0.00	0	0
NT	0.01	0.00	9	0
NR	0.00	0.00	2	0
SL	0.00	0.00	0	0
ST	0.00	0.00	0	0
SR	0.00	0.00	0	0
EL	7	0.00	0	0
ET	15	0.01	0	0
ER	53	0.00	0	18
WL	53	0.00	0	18
WT	2	0.00	0	1
WR	41	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 778 830				
NL	0.00	0.00	0	0
NT	0.02	0.00	0	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	0
ST	27	0.00	0	0
SR	0.00	0.00	0	0
EL	11	0.00	0	0
ET	0.01	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	1	0.00	0	0
WR	1	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL> 1,437 1,756				
NL	0.00	0.00	0	0
NT	0.02	0.00	0	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	0
ST	80	0.00	0	12
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	1	0.00	0	1
WR	5	0.00	0	0

AM PEAK HOUR	
Total All Zones BED	Total All Zones Trips
IN	OUT
5,614	3,711
1,058	1,486

AM PEAK HOUR	
Total All Zones BED	Total All Zones Trips
IN	OUT
4,314	2,860
855	919

AM PEAK HOUR	
Total All Zones BED	Total All Zones Trips
IN	OUT
1,071	1,264
317	344

AM PEAK HOUR	
Total All Zones BED	Total All Zones Trips
IN	OUT
2,485	2,853
765	828

AM PEAK HOUR	
Total All Zones BED	Total All Zones Trips
IN	OUT
2,618	3,387
1,013	1,151

AM PEAK HOUR	
Total All Zones BED	Total All Zones Trips
IN	OUT
778	830
286	235

AM PEAK HOUR	
Total All Zones BED	Total All Zones Trips
IN	OUT
1,437	1,756
321	369

PM PEAK HOUR	
Total All Zones BED	Total All Zones Trips
IN	OUT
10,053	3,227
3,242	

PM PEAK HOUR	
Total All Zones BED	Total All Zones Trips
IN	OUT
8,820	2,890

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT

5,614	3,711	1,137	1,212
-------	-------	-------	-------

NL	0	0	0	0
NT	25	0	9	0
NR	55	0	9	0
SL	2	0	1	0
ST	14	44	6	12
SR	0	0	0	0
EL	0	0	0	0
ET	7	0	1	0
ER	0	0	0	0
WL	0	32	0	11
WT	0	44	0	12
WR	0	0	0	0

26 35

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT

10,033	#####	2,521	2,408
--------	-------	-------	-------

NL	0	0	0	0
NT	60	0	13	0
NR	41	0	12	0
SL	0	0	0	0
ST	0	87	0	15
SR	0	0	0	0
EL	36	0	8	0
ET	37	0	10	0
ER	0	0	0	0
WL	0	164	0	38
WT	0	43	0	10
WR	6	0	1	0

44 62

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

27 47 34 12 121

N Leg S Leg E Leg W Leg

37 77 70 28 212

PHASE 1 AND 2

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT

4,314	2,960	657	810
-------	-------	-----	-----

NL	0	0	0	0
NT	0	0	0	0
NR	55	0	9	0
SL	0	0	0	0
ST	0	34	0	8
SR	0	0	0	0
EL	0	0	0	0
ET	7	0	1	0
ER	0	0	0	0
WL	0	28	0	9
WT	0	42	0	11
WR	0	0	0	0

10 28

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT

7,820	8,662	2,080	1,974
-------	-------	-------	-------

NL	0	0	0	0
NT	19	0	5	0
NR	41	0	12	0
SL	0	0	0	0
ST	0	0	0	0
SR	0	0	0	0
EL	7	0	2	0
ET	37	0	10	0
ER	0	0	0	0
WL	0	164	0	38
WT	0	43	0	10
WR	0	0	0	0

29 47

N Leg S Leg E Leg W Leg

8 26 30 11 76

N Leg S Leg E Leg W Leg

7 55 69 22 153

153

Table with columns for Zone A, B, C, D, E, F, G and sub-columns for Select Zone, Percentage, Project Type, and IN/OUT counts. Includes sub-totals for AM and PM Peak Hours.

Table with columns for Zone A, B, C, D, E, F, G and sub-columns for Select Zone, Percentage, Project Type, and IN/OUT counts. Includes sub-totals for AM and PM Peak Hours.

Table with columns for Zone A, B, C, D, E, F, G and sub-columns for Select Zone, Percentage, Project Type, and IN/OUT counts. Includes sub-totals for AM and PM Peak Hours.

Table with columns for Zone A, B, C, D, E, F, G and sub-columns for Select Zone, Percentage, Project Type, and IN/OUT counts. Includes sub-totals for AM and PM Peak Hours.

Table with columns for Zone A, B, C, D, E, F, G and sub-columns for Select Zone, Percentage, Project Type, and IN/OUT counts. Includes sub-totals for AM and PM Peak Hours.

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg	S Leg	E Leg	W Leg	
25	176	203	53	457

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	0	0	0	0
NR	380	0	67	0
SL	0	0	0	0
ST	0	78	0	21
SR	0	16	0	4
EL	0	0	0	0
ET	107	0	19	0
ER	0	1	0	0
WL	0	255	0	87
WT	0	97	0	30
WR	0	0	0	0

86 143

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg	S Leg	E Leg	W Leg	
61	303	365	124	853

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	177	0	46	0
NR	494	0	130	0
SL	0	0	0	0
ST	0	66	0	15
SR	0	0	0	0
EL	0	0	0	0
ET	205	0	55	0
ER	0	0	0	0
WL	0	502	0	111
WT	0	304	0	69
WR	0	0	0	0

231 195

PHASE 1 AND 2

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg	S Leg	E Leg	W Leg	
19	141	167	45	372

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	0	0	0	0
NR	327	0	48	0
SL	0	0	0	0
ST	0	71	0	18
SR	0	12	0	2
EL	0	0	0	0
ET	98	0	15	0
ER	0	1	0	0
WL	0	234	0	76
WT	0	92	0	28
WR	0	0	0	0

63 123

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg	S Leg	E Leg	W Leg	
57	275	336	118	788

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	159	0	42	0
NR	430	0	117	0
SL	0	0	0	0
ST	0	66	0	15
SR	0	0	0	0
EL	0	0	0	0
ET	188	0	52	0
ER	0	0	0	0
WL	0	440	0	101
WT	0	293	0	67
WR	0	0	0	0

788

211 183

INTERSECTION: Campus/16th

AM PEAK HOUR

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 183 105				
NL	4	0.00	0.01	0
NT	4	0.00	0.00	0
NR	4	0.00	0.00	0
BL	6	0.06	0.00	0
BR	8	0.00	0.00	0
SR	8	0.00	0.00	0
EL	8	0.00	0.00	0
ET	3	0.00	0.01	0
ER	36	0.00	0.11	0
WL	50	0.00	0.15	0
WT	50	0.00	0.15	0
WR	13	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 226 842				
NL	18	0.08	0.00	0
NT	18	0.00	0.00	0
NR	18	0.00	0.00	0
BL	6	0.00	0.00	0
BR	8	0.00	0.14	0
SR	8	0.00	0.10	0
EL	8	0.10	0.00	0
ET	24	0.00	0.00	0
ER	36	0.00	0.00	0
WL	50	0.00	0.00	0
WT	50	0.00	0.00	0
WR	24	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 670 341				
NL	87	0.10	0.00	0
NT	87	0.00	0.00	0
NR	87	0.00	0.00	0
BL	34	0.00	0.00	0
BR	34	0.00	0.10	0
SR	25	0.00	0.07	0
EL	25	0.00	0.00	0
ET	87	0.00	0.00	0
ER	87	0.00	0.00	0
WL	87	0.00	0.00	0
WT	6	0.00	0.02	0
WR	124	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 1474 769				
NL	144	0.10	0.00	0
NT	144	0.00	0.00	0
NR	144	0.00	0.00	0
BL	58	0.00	0.11	0
BR	58	0.00	0.07	0
SR	45	0.00	0.05	0
EL	177	0.00	0.00	0
ET	177	0.00	0.00	0
ER	177	0.00	0.00	0
WL	41	0.00	0.05	0
WT	41	0.00	0.05	0
WR	320	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 1847 851				
NL	148	0.08	0.00	0
NT	148	0.00	0.00	0
NR	148	0.00	0.00	0
BL	86	0.00	0.10	0
BR	86	0.00	0.05	0
SR	45	0.00	0.00	0
EL	177	0.00	0.00	0
ET	177	0.00	0.00	0
ER	177	0.00	0.00	0
WL	41	0.00	0.05	0
WT	41	0.00	0.05	0
WR	320	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 401 281				
NL	28	0.00	0.00	0
NT	28	0.00	0.00	0
NR	28	0.00	0.00	0
BL	21	0.00	0.00	0
BR	4	0.00	0.01	0
SR	4	0.00	0.00	0
EL	21	0.00	0.00	0
ET	21	0.00	0.00	0
ER	21	0.00	0.00	0
WL	5	0.00	0.02	0
WT	5	0.00	0.02	0
WR	48	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 899 470				
NL	80	0.00	0.00	0
NT	80	0.00	0.00	0
NR	80	0.00	0.00	0
BL	34	0.00	0.00	0
BR	11	0.00	0.00	0
SR	11	0.00	0.00	0
EL	42	0.00	0.00	0
ET	42	0.00	0.00	0
ER	42	0.00	0.00	0
WL	8	0.00	0.00	0
WT	8	0.00	0.00	0
WR	102	0.00	0.00	0

PM PEAK HOUR

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 523 319				
NL	4	0.00	0.00	0
NT	4	0.00	0.00	0
NR	4	0.00	0.00	0
BL	74	0.14	0.00	0
BR	87	0.00	0.13	0
SR	87	0.00	0.11	0
EL	81	0.00	0.00	0
ET	81	0.00	0.00	0
ER	81	0.00	0.00	0
WL	39	0.00	0.12	0
WT	37	0.00	0.12	0
WR	139	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 1,115 729				
NL	729	0.11	0.00	0
NT	729	0.00	0.00	0
NR	729	0.00	0.00	0
BL	28	0.00	0.00	0
BR	87	0.00	0.13	0
SR	87	0.00	0.11	0
EL	81	0.00	0.00	0
ET	81	0.00	0.00	0
ER	81	0.00	0.00	0
WL	39	0.00	0.12	0
WT	37	0.00	0.12	0
WR	301	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 1,071 1,264				
NL	98	0.09	0.00	0
NT	98	0.00	0.00	0
NR	98	0.00	0.00	0
BL	43	0.00	0.00	0
BR	100	0.00	0.12	0
SR	100	0.00	0.08	0
EL	80	0.00	0.00	0
ET	80	0.00	0.00	0
ER	80	0.00	0.00	0
WL	39	0.00	0.00	0
WT	37	0.00	0.00	0
WR	178	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 2,485 2,983				
NL	248	0.00	0.00	0
NT	248	0.00	0.00	0
NR	248	0.00	0.00	0
BL	10	0.00	0.00	0
BR	387	0.00	0.13	0
SR	387	0.00	0.09	0
EL	217	0.00	0.00	0
ET	217	0.00	0.00	0
ER	217	0.00	0.00	0
WL	41	0.00	0.00	0
WT	41	0.00	0.00	0
WR	465	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 2,616 3,367				
NL	220	0.00	0.00	0
NT	220	0.00	0.00	0
NR	220	0.00	0.00	0
BL	6	0.00	0.00	0
BR	371	0.00	0.11	0
SR	371	0.00	0.08	0
EL	146	0.00	0.00	0
ET	146	0.00	0.00	0
ER	146	0.00	0.00	0
WL	3	0.00	0.00	0
WT	3	0.00	0.00	0
WR	375	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 778 930				
NL	54	0.00	0.00	0
NT	54	0.00	0.00	0
NR	54	0.00	0.00	0
BL	64	0.00	0.00	0
BR	24	0.00	0.03	0
SR	24	0.00	0.03	0
EL	35	0.05	0.00	0
ET	35	0.05	0.00	0
ER	35	0.05	0.00	0
WL	2	0.00	0.00	0
WT	2	0.00	0.00	0
WR	90	0.00	0.00	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL > 1,437 1,156				
NL	89	0.00	0.00	0
NT	89	0.00	0.00	0
NR	89	0.00	0.00	0
BL	125	0.00	0.00	0
BR	63	0.00	0.00	0
SR	63	0.00	0.00	0
EL	49	0.00	0.00	0
ET	49	0.00	0.00	0
ER	49	0.00	0.00	0
WL	2	0.00	0.00	0
WT	2	0.00	0.00	0
WR	140	0.00	0.00	0

AM PEAK HOUR

Total All	5,614	3,111	1,509	1,466
Zones BED				
IN				
OUT				

4,314 | 2,980 | 855 | 819

Total All	159	231
Zones BED		
IN		
OUT		

7,620 | 6,862 | 2,890 | 2,848

NL	0	0	0	0
NT	0	0	0	0
NR	0	0	0	0
BL	0	0	0	0
BR	0	0	0	0
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	4	1	1	0

PM PEAK HOUR

Total All	159	231
Zones BED		
IN		
OUT		

10,033 | 9,986 | 3,297 | 3,242

NL	0	0	0	0
NT	0	0	0	0
NR	0	0	0	0
BL	0	0	0	0
BR	0	0	0	0
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg	S Leg	E Leg	W Leg
349	221	82	209
861			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	4	0	2
NT	466	0	84	0
NR	4	0	2	0
SL	6	0	4	0
ST	0	355	0	113
SR	0	209	0	64
EL	492	0	84	0
ET	3	0	2	0
ER	0	3	0	2
WL	0	36	0	18
WT	0	147	0	55
WR	4	1	0	0
				177 254

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg	S Leg	E Leg	W Leg
762	524	145	379
1810			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	831	0	208	0
NR	126	0	45	0
SL	0	10	0	2
ST	0	1204	0	258
SR	0	794	0	174
EL	527	0	120	0
ET	202	0	73	0
ER	0	0	0	0
WL	0	39	0	13
WT	0	37	0	12
WR	0	0	0	0
				446 458

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg	S Leg	E Leg	W Leg
256	160	75	170
660			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	4	0	2
NT	378	0	52	0
NR	4	0	2	0
SL	6	0	4	0
ST	0	300	0	83
SR	0	194	0	56
EL	429	0	61	0
ET	3	0	2	0
ER	0	3	0	2
WL	0	36	0	18
WT	0	134	0	48
WR	4	1	0	0
				121 209

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg	S Leg	E Leg	W Leg
671	463	144	348
1627			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	688	0	179	0
NR	126	0	45	0
SL	0	10	0	2
ST	0	1015	0	226
SR	0	717	0	161
EL	443	0	103	0
ET	199	0	72	0
ER	0	0	0	0
WL	0	39	0	13
WT	0	37	0	12
WR	0	0	0	0
				400 414

1627

PHASE 1 AND 2

N Leg S Leg E Leg W Leg
256 160 75 170 660

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

349 221 82 209 861

N Leg S Leg E Leg W Leg

762 524 145 379 1810

INTERSECTION: 16th/Carmellian

AM PEAK HOUR

Select Zone	Percentage		Project Trips		Percentage		Project Trips		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
VOL>	34	327	112	382	102	85	226	144	359	181	168	147
NL	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0
BL	0	0	0	0	0	0	0	0	0	0	0	0
BT	0	0	0	0	0	0	0	0	0	0	0	0
BR	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0

ZONE A

Select Zone	Percentage	Project Trips
IN	0.17	19
OUT	0.00	0

ZONE B

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

ZONE C

Select Zone	Percentage	Project Trips
IN	0.02	2
OUT	0.00	0

ZONE D

Select Zone	Percentage	Project Trips
IN	0.03	8
OUT	0.00	0

ZONE E

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

ZONE F

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

AM PEAK HOUR

Select Zone	Percentage		Project Trips		Percentage		Project Trips		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
VOL>	83	318	188	105	317	344	785	828	1,013	1,181	286	235
NL	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0
BL	0	0	0	0	0	0	0	0	0	0	0	0
BT	0	0	0	0	0	0	0	0	0	0	0	0
BR	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0

ZONE A

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

ZONE B

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

ZONE C

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

ZONE D

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

ZONE E

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

ZONE F

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

AM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
8,814	3,711	1,500	1,495	1,013	1,181

AM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
180	0	48	0	0	0

AM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
4,314	2,860	855	819	33	27

AM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
135	288	73	253	749	

AM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
7,820	6,802	2,890	2,848	81	164

AM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
10,033	8,888	3,297	3,242	220	163

PM PEAK HOUR

Select Zone	Percentage		Project Trips		Percentage		Project Trips		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
VOL>	84	327	112	382	102	85	226	144	359	181	168	147
NL	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0
BL	0	0	0	0	0	0	0	0	0	0	0	0
BT	0	0	0	0	0	0	0	0	0	0	0	0
BR	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0

ZONE A

Select Zone	Percentage	Project Trips
IN	0.17	19
OUT	0.00	0

ZONE B

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

ZONE C

Select Zone	Percentage	Project Trips
IN	0.02	2
OUT	0.00	0

ZONE D

Select Zone	Percentage	Project Trips
IN	0.03	8
OUT	0.00	0

ZONE E

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

ZONE F

Select Zone	Percentage	Project Trips
IN	0.00	0
OUT	0.00	0

PM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
180	0	48	0	0	0

PM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
4,314	2,860	855	819	33	27

PM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
135	288	73	253	749	

PM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
7,820	6,802	2,890	2,848	81	164

PM PEAK HOUR

Total All		Zones BED		Zones Trips	
IN	OUT	IN	OUT	IN	OUT
10,033	8,888	3,297	3,242	220	163

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg	S Leg	E Leg	W Leg
99	248	63	234
645			

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
Total All	160	0	202	0	79	9	23	45	273	2	172	0	81
Zones SED	0	0	0	0	0	4	0	0	0	0	0	12	241
Total All Zones Trips	45	55	0	0	27	4	7	24	121	0	32	0	6

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg	S Leg	E Leg	W Leg
313	179	115	20
625			

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
Total All	0	381	0	225	288	0	35	0	0	0	0	225	183
Zones SED	0	0	0	0	0	43	0	0	0	0	0	0	130
Total All Zones Trips	0	110	0	51	69	10	10	0	0	0	0	64	0

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg	S Leg	E Leg	W Leg
27	189	56	227
499			

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
Total All	160	0	134	0	35	5	13	45	273	2	171	0	79
Zones SED	0	0	0	0	0	3	0	0	0	0	0	0	170
Total All Zones Trips	45	18	0	0	5	2	2	24	121	0	32	0	0

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg	S Leg	E Leg	W Leg
276	157	104	16
553			

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
Total All	0	325	0	180	226	0	26	0	0	0	171	207	167
Zones SED	0	0	0	0	32	0	0	0	0	0	0	0	110
Total All Zones Trips	0	99	0	43	58	8	8	0	0	0	60	0	0

553

PHASE 1 AND 2

N Leg S Leg E Leg W Leg

27 189 56 227 499

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

99 248 63 234 645

INTERSECTION: 16th/Archibell

AM PEAK HOUR		ZONE A				ZONE B				ZONE C				ZONE D				ZONE E				ZONE F				ZONE G													
VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips											
		IN	OUT	IN	OUT			IN	OUT	IN	OUT			IN	OUT	IN	OUT			IN	OUT	IN	OUT			IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT		
64	327	0.00	0.00	0	0	112	342	0.00	0.00	0	0	102	65	0.00	0.00	0	0	226	144	0.00	0.00	0	0	359	161	0.00	0.00	0	0	188	147	0.00	0.00	0	0	483	400		
		NL	1	0.00	0.00	0	0	NL	2	3	0.00	0.00	0	1	NL	7	0.00	0.00	0	0	0	0	0	0	3	0	0.00	0.00	0	0	6	0	0.00	0.00	0	0	3	0	
		NT	0	0.00	0.00	0	0	NR	0	0	0.00	0.00	0	0	NT	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0.00	0.00	0	0	0	0
		NR	0	0.00	0.00	0	0	NR	0	0	0.00	0.00	0	0	NR	4	0.00	0.01	0	1	NR	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0.00	0.00	0	0	0	0
		SL	0	0.00	0.00	0	0	BL	3	3	0.00	0.01	0	1	BL	0	0.00	0.00	0	0	BL	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0.00	0.00	0	0	0	0
		ST	0	0.00	0.00	0	0	ST	3	3	0.00	0.01	0	1	ST	12	0.01	0.00	0	0	ST	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0.00	0.00	0	0	0	0
		SR	0	0.00	0.00	0	0	SR	4	4	0.01	0.00	1	0	SR	17	0.01	0.00	0	0	SR	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0.00	0.00	0	0	0	0
		ER	0	0.00	0.00	0	0	ER	0	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0	0	0	0	0.00	0.00	0	0	0	0	0.00	0.00	0	0	0	0	
		WL	0	0.00	0.00	0	0	WL	2	2	0.02	0.01	0	0	WL	39	0.03	0.00	0	1	WL	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0.00	0.00	0	0	0	0
		WR	0	0.00	0.00	0	0	WR	18	18	0.00	0.01	0	0	WR	6	0.00	0.01	0	1	WR	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0.00	0.00	0	0	0	0
5	11					15	17					3	2										56	27													6	2	

AM PEAK HOUR		ZONE A				ZONE B				ZONE C				ZONE D				ZONE E				ZONE F				ZONE G																	
VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips															
		IN	OUT	IN	OUT			IN	OUT	IN	OUT			IN	OUT	IN	OUT			IN	OUT	IN	OUT			IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT						
83	319	0.02	0.00	3	0	407	220	0.01	0.00	5	0	317	344	0.00	0.00	0	0	785	528	0.00	0.00	0	0	1,013	1,151	0.00	0.00	0	0	286	235	0.00	0.00	0	0	321	359						
		NL	6	0.02	0.00	0	0	NL	15	0.01	0.00	5	0	NL	7	0.01	0.00	2	0	NL	19	0.01	0.00	6	0	NL	20	0.01	0.00	8	0	NL	19	0.02	0.00	7	0	NL	37	0.03	0.00	8	0
		NT	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0
		NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	4	0.00	0.00	0	1	NR	0	0.00	0.00	0	0
		SL	0	0.00	0.00	0	0	BL	0	0.00	0.00	0	0	BL	15	0.00	0.01	0	4	BL	40	0.00	0.01	0	11	BL	44	0.00	0.01	0	15	BL	15	0.00	0.00	0	4	BL	31	0.00	0.02	0	6
		ST	0	0.00	0.00	0	0	ST	0	0.00	0.00	0	0	ST	0	0.00	0.00	0	0	ST	0	0.00	0.00	0	0	ST	0	0.00	0.00	0	0	ST	0	0.00	0.00	0	0	ST	0	0.00	0.00	0	0
		SR	0	0.00	0.00	0	0	SR	0	0.00	0.00	0	0	SR	0	0.00	0.00	0	0	SR	0	0.00	0.00	0	0	SR	0	0.00	0.00	0	0	SR	0	0.00	0.00	0	0	SR	0	0.00	0.00	0	0
		ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0
		WL	0	0.00	0.00	0	0	WL	0	0.00	0.00	0	0	WL	0	0.00	0.00	0	0	WL	0	0.00	0.00	0	0	WL	0	0.00	0.00	0	0	WL	0	0.00	0.00	0	0	WL	0	0.00	0.00	0	0
		WR	0	0.00	0.00	0	0	WR	35	0.03	0.00	13	0	WR	4	0.00	0.00	1	0	WR	11	0.00	0.00	0	0	WR	12	0.00	0.00	0	0	WR	3	0.00	0.00	0	0	WR	3	0.00	0.00	0	0
31	26					50	50					12	11										32	102													38	119			22	25	

AM PEAK HOUR		ZONE A				ZONE B				ZONE C				ZONE D				ZONE E				ZONE F				ZONE G																		
VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips		VOL>	Select Zone	Percentage		Project Trips																
		IN	OUT	IN	OUT			IN	OUT	IN	OUT			IN	OUT	IN	OUT			IN	OUT	IN	OUT			IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT							
6	0	0.00	0.00	0	0	112	342	0.00	0.00	0	0	102	65	0.00	0.00	0	0	226	144	0.00	0.00	0	0	359	161	0.00	0.00	0	0	188	147	0.00	0.00	0	0	483	400							
		NL	0	0.00	0.00	0	0	NL	2	3	0.00	0.01	0	1	NL	7	0.00	0.00	0	0	NL	0	0.00	0.00	0	0	NL	0	0.00	0.00	0	0	NL	0	0.00	0.00	0	0	NL	0	0.00	0.00	0	0
		NT	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	
		NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	NR	0	0.00	0.00	0	0	
		SL	0	0.00	0.00	0	0	BL	3	3	0.00	0.01	0	1	BL	0	0.00	0.00	0	0	BL	0	0.00	0.00	0	0	BL	0	0.00	0.00	0	0	BL	0	0.00	0.00	0	0	BL	0	0.00	0.00	0	0
		ST	0	0.00	0.00	0	0	ST	3	3	0.00	0.01	0	1	ST	3	0.00	0.00	0	0	ST	0	0.00	0.00	0	0	ST	0	0.00	0.00	0	0	ST	0	0.00	0.00	0	0	ST	0	0.00	0.00	0	0
		SR	0	0.00	0.00	0	0	SR	4	4	0.01	0.00	1	0	SR	4	0.01	0.00	0	0	SR	0	0.00	0.00	0	0	SR	0	0.00	0.00	0	0	SR	0	0.00	0.00	0	0	SR	0	0.00	0.00	0	0
		ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	ER	0	0.00	0.00	0	0	
		WL	0	0.00	0.00	0	0	WL	2	2	0.02	0.01	0	0	WL	12	0.02	0.00	0	0	WL	0	0.00	0.00	0	0	WL	0	0.00	0.00	0	0	WL	0	0.00	0.00	0	0	WL	0	0.00	0.00	0	0
		WR	0	0.00	0.00	0	0	WR	18	18	0.00	0.01	0	0	WR	2	0.00	0.00	0	0	WR	0	0.00	0.00	0	0	WR	0	0.00	0.00														

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg	S Leg	E Leg	W Leg
31	33	37	43
145			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	6	0	2	0
NT	0	23	0	7
NR	0	4	0	1
SL	0	9	0	3
ST	12	34	2	13
SR	25	0	4	0
EL	0	0	0	0
ET	3	19	1	11
ER	5	9	2	5
WL	0	10	0	1
WT	99	0	18	0
WR	0	12	0	2
				29
				43

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg	S Leg	E Leg	W Leg
61	63	90	98
313			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	23	0	8	0
NT	102	0	22	0
NR	0	0	0	0
SL	0	17	0	3
ST	0	145	0	29
SR	0	0	0	0
EL	0	11	0	3
ET	0	236	0	55
ER	0	11	0	3
WL	0	0	0	0
WT	85	0	28	0
WR	17	0	4	0
				62
				94

PHASE 1 AND 2

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg	S Leg	E Leg	W Leg
11	12	32	38
93			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	3	0	1	0
NT	0	11	0	1
NR	0	4	0	1
SL	0	6	0	1
ST	12	11	2	1
SR	25	0	4	0
EL	0	0	0	0
ET	0	19	0	11
ER	0	9	0	5
EL	0	10	0	1
EL	96	0	17	0
EL	0	10	0	1
				24
				22

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg	S Leg	E Leg	W Leg
38	44	82	95
259			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	23	0	8	0
NT	46	0	11	0
NR	0	0	0	0
SL	0	1	0	0
ST	0	99	0	22
SR	0	0	0	0
EL	0	11	0	3
ET	0	216	0	52
ER	0	11	0	3
WL	0	0	0	0
WT	85	0	28	0
WR	7	0	2	0
				49
				81

259

AM PEAK HOUR

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	84	327	228	842	112	382
NL	0	0.00	0.00	0.00	0	0
NT	2	0.02	0.01	0.00	0	0
NR	0	0.00	0.00	0.00	0	0
SL	6	0.00	0.00	0.00	0	0
ST	6	0.00	0.00	0.01	0	0
SR	0	0.00	0.00	0.00	0	0
EL	0	0.00	0.00	0.00	0	0
ER	1	0.00	0.00	0.00	0	0
WL	2	0.00	0.00	0.00	0	0
WR	3	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	228	842	112	382	112	382
NL	0	0.00	0.00	0.00	0	0
NT	3	0.01	0.00	0.00	0	0
NR	0	0.00	0.00	0.00	0	0
SL	6	0.00	0.00	0.00	0	0
ST	6	0.00	0.00	0.01	0	0
SR	0	0.00	0.00	0.00	0	0
EL	0	0.00	0.00	0.00	0	0
ER	1	0.00	0.00	0.00	0	0
WL	2	0.00	0.00	0.00	0	0
WR	3	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	876	341	102	65	102	65
NL	0	0.00	0.00	0.00	0	0
NT	4	0.01	0.00	0.00	0	0
NR	0	0.00	0.00	0.00	0	0
SL	2	0.00	0.00	0.00	0	0
ST	2	0.00	0.00	0.01	0	0
SR	0	0.00	0.00	0.00	0	0
EL	4	0.01	0.00	0.00	0	0
ER	3	0.00	0.00	0.00	0	0
WL	1	0.00	0.00	0.01	0	0
WR	11	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	1474	798	226	144	226	144
NL	0	0.00	0.00	0.00	0	0
NT	20	0.01	0.00	0.00	0	0
NR	0	0.00	0.00	0.00	0	0
SL	6	0.00	0.00	0.00	0	0
ST	6	0.00	0.00	0.01	0	0
SR	0	0.00	0.00	0.00	0	0
EL	2	0.00	0.00	0.00	0	0
ER	5	0.00	0.00	0.00	0	0
WL	2	0.00	0.00	0.01	0	0
WR	4	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	1847	851	359	181	359	181
NL	1	0.00	0.00	0.00	0	0
NT	40	0.02	0.00	0.00	0	0
NR	1	0.00	0.00	0.00	0	0
SL	15	0.00	0.00	0.00	0	0
ST	15	0.00	0.00	0.02	0	0
SR	0	0.00	0.00	0.00	0	0
EL	1	0.00	0.00	0.00	0	0
ER	2	0.00	0.00	0.00	0	0
WL	2	0.00	0.00	0.00	0	0
WR	4	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	401	281	168	147	168	147
NL	0	0.00	0.00	0.00	0	0
NT	9	0.02	0.00	0.00	0	0
NR	0	0.00	0.00	0.00	0	0
SL	14	0.00	0.00	0.00	0	0
ST	14	0.00	0.00	0.02	0	0
SR	0	0.00	0.00	0.00	0	0
EL	1	0.00	0.00	0.00	0	0
ER	1	0.00	0.00	0.00	0	0
WL	1	0.00	0.00	0.00	0	0
WR	1	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	898	476	483	400	483	400
NL	0	0.00	0.00	0.00	0	0
NT	25	0.03	0.00	0.00	0	0
NR	0	0.00	0.00	0.00	0	0
SL	23	0.00	0.00	0.00	0	0
ST	23	0.00	0.00	0.02	0	0
SR	0	0.00	0.00	0.00	0	0
EL	2	0.00	0.00	0.00	0	0
ER	2	0.00	0.00	0.00	0	0
WL	3	0.00	0.00	0.00	0	0
WR	3	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	823	315	188	108	188	108
NL	0	0.00	0.00	0.00	0	0
NT	10	0.02	0.00	0.00	0	0
NR	0	0.00	0.00	0.00	0	0
SL	4	0.00	0.00	0.00	0	0
ST	2	0.00	0.00	0.01	0	0
SR	0	0.00	0.00	0.00	0	0
EL	1	0.00	0.00	0.00	0	0
ER	1	0.00	0.00	0.00	0	0
WL	1	0.00	0.00	0.00	0	0
WR	2	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	1,115	726	407	220	407	220
NL	0	0.00	0.00	0.00	0	0
NT	10	0.01	0.00	0.00	0	0
NR	0	0.00	0.00	0.00	0	0
SL	4	0.00	0.00	0.00	0	0
ST	4	0.00	0.00	0.01	0	0
SR	0	0.00	0.00	0.00	0	0
EL	1	0.00	0.00	0.00	0	0
ER	1	0.00	0.00	0.00	0	0
WL	1	0.00	0.00	0.00	0	0
WR	1	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	1,071	1,284	317	344	317	344
NL	13	0.01	0.00	0.00	0	0
NT	26	0.01	0.00	0.00	0	0
NR	2	0.00	0.00	0.00	0	0
SL	10	0.00	0.00	0.00	0	0
ST	10	0.00	0.01	0.00	0	0
SR	0	0.00	0.00	0.00	0	0
EL	1	0.00	0.00	0.00	0	0
ER	1	0.00	0.00	0.00	0	0
WL	1	0.00	0.00	0.00	0	0
WR	1	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	2,483	2,853	765	828	765	828
NL	0	0.00	0.00	0.00	0	0
NT	26	0.01	0.00	0.00	0	0
NR	2	0.00	0.00	0.00	0	0
SL	24	0.00	0.00	0.00	0	0
ST	24	0.00	0.01	0.00	0	0
SR	0	0.00	0.00	0.00	0	0
EL	2	0.00	0.00	0.00	0	0
ER	2	0.00	0.00	0.00	0	0
WL	2	0.00	0.00	0.00	0	0
WR	3	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	2,818	3,307	1,013	1,151	1,013	1,151
NL	0	0.00	0.00	0.00	0	0
NT	65	0.02	0.00	0.00	0	0
NR	5	0.00	0.00	0.00	0	0
SL	25	0.00	0.00	0.00	0	0
ST	25	0.00	0.01	0.00	0	0
SR	2	0.00	0.00	0.00	0	0
EL	2	0.00	0.00	0.00	0	0
ER	2	0.00	0.00	0.00	0	0
WL	2	0.00	0.00	0.00	0	0
WR	5	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	776	830	246	235	246	235
NL	0	0.00	0.00	0.00	0	0
NT	24	0.03	0.00	0.00	0	0
NR	1	0.00	0.00	0.00	0	0
SL	21	0.00	0.00	0.00	0	0
ST	21	0.00	0.00	0.03	0	0
SR	2	0.00	0.00	0.00	0	0
EL	1	0.00	0.00	0.00	0	0
ER	1	0.00	0.00	0.00	0	0
WL	1	0.00	0.00	0.00	0	0
WR	1	0.00	0.00	0.00	0	0

Zone	Select Zone		Percentage		Project Trips	
	IN	OUT	IN	OUT	IN	OUT
VOL >	1,437	1,798	521	559	521	559
NL	0	0.00	0.00	0.00	0	0
NT	35	0.02	0.00	0.00	0	0
NR	4	0.00	0.00	0.00	0	0
SL	38	0.00	0.00	0.00	0	0
ST	38	0.00	0.00	0.02	0	0
SR	2	0.00	0.00	0.00	0	0
EL	1	0.00	0.00	0.00	0	0
ER	1	0.00	0.00	0.00	0	0
WL	1	0.00	0.00	0.00	0	0
WR	1	0.00	0.00	0.00	0	0

AM PEAK HOUR

Total All		Total All	
Zones SED		Zones Trips	
IN	OUT	IN	OUT

5,614	3,711	1,137	1,212
-------	-------	-------	-------

NL	3	1	0	0
NT	103	0	24	0
NR	1	0	0	0
SL	1	0	0	0
ST	0	71	0	29
SR	0	0	0	0
EL	6	0	1	0
ET	4	0	1	0
ER	0	5	0	1
WL	0	13	0	4
WT	0	0	0	0
WR	11	0	4	0
				30 34

PM PEAK HOUR

Total All		Total All	
Zones SED		Zones Trips	
IN	OUT	IN	OUT

10,033	#####	2,521	2,408
--------	-------	-------	-------

NL	0	0	0	0
NT	183	0	46	0
NR	13	0	3	0
SL	0	1	0	0
ST	0	124	0	25
SR	0	4	0	1
EL	0	0	0	0
ET	9	0	2	0
ER	0	0	0	0
WL	0	3	0	1
WT	0	6	0	1
WR	13	0	4	0
				55 27

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

57 59 9 4 129

N Leg S Leg E Leg W Leg

75 75 11 4 165

AM PEAK HOUR

Total All		Total All	
Zones SED		Zones Trips	
IN	OUT	IN	OUT

4,314	2,960	657	810
-------	-------	-----	-----

NL	3	1	0	0
NT	69	0	11	0
NR	1	0	0	0
SL	0	0	0	0
ST	0	34	0	9
SR	0	0	0	0
EL	6	0	1	0
ET	1	0	0	0
ER	0	5	0	1
WL	0	13	0	4
WT	0	0	0	0
WR	7	0	2	0
				14 15

PM PEAK HOUR

Total All		Total All	
Zones SED		Zones Trips	
IN	OUT	IN	OUT

7,820	8,662	2,080	1,974
-------	-------	-------	-------

NL	0	0	0	0
NT	124	0	34	0
NR	8	0	2	0
SL	0	0	0	0
ST	0	65	0	15
SR	0	2	0	1
EL	0	0	0	0
ET	7	0	2	0
ER	0	0	0	0
WL	0	3	0	1
WT	0	5	0	1
WR	12	0	3	0
				42 17

PHASE 1 AND 2

N Leg S Leg E Leg W Leg

23 26 6 3 58

N Leg S Leg E Leg W Leg

52 52 9 3 117

117

INTERSECTION: Mountain/Foothill

AM PEAK HOUR

Select Zone	Percentage		Project Trips		Select Zone		Percentage		Project Trips		
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
VOL>	64	327	0.00	0.00	0	0	VOL>	809	470	183	400
NL	2	0	0.00	0.00	0	0	NL	25	0	0.00	0.00
NR	0	0	0.00	0.00	0	0	NR	0	0	0.00	0.00
SL	0	0	0.00	0.00	0	0	SL	23	0	0.00	0.00
ST	6	0	0.00	0.00	0	0	ST	14	0	0.00	0.00
SR	0	0	0.00	0.00	0	0	SR	0	0	0.00	0.00
EL	1	0	0.00	0.00	0	0	EL	2	0	0.00	0.00
ET	0	0	0.00	0.00	0	0	ET	0	0	0.00	0.00
ER	1	0	0.00	0.00	0	0	ER	0	0	0.00	0.00
WL	3	0	0.00	0.00	0	0	WL	0	0	0.00	0.00
WT	0	0	0.00	0.00	0	0	WT	0	0	0.00	0.00
WR	0	0	0.00	0.00	0	0	WR	0	0	0.00	0.00

AM PEAK HOUR

Select Zone	Percentage		Project Trips		Select Zone		Percentage		Project Trips		
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
VOL>	823	319	0.00	0.00	188	105	VOL>	1,437	1,756	321	359
NL	11	0	0.02	0.00	4	0	NL	15	0	0.02	0.00
NR	0	0	0.00	0.00	0	0	NR	3	0	0.00	0.00
SL	0	0	0.00	0.00	0	0	SL	40	0	0.00	0.00
ST	5	0	0.00	0.00	2	0	ST	19	0	0.00	0.00
SR	0	0	0.00	0.00	0	0	SR	2	0	0.00	0.00
EL	0	0	0.00	0.00	0	0	EL	0	0	0.00	0.00
ET	2	0	0.00	0.00	1	0	ET	3	0	0.00	0.00
ER	0	0	0.00	0.00	0	0	ER	0	0	0.00	0.00
WL	1	0	0.00	0.00	0	0	WL	0	0	0.00	0.00
WT	0	0	0.00	0.00	0	0	WT	0	0	0.00	0.00
WR	0	0	0.00	0.00	0	0	WR	0	0	0.00	0.00

AM PEAK HOUR

Select Zone	Percentage		Project Trips		Select Zone		Percentage		Project Trips		
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
VOL>	1,119	720	0.00	0.00	407	220	VOL>	2,485	2,983	765	828
NL	23	0	0.02	0.00	8	0	NL	47	0	0.02	0.00
NR	10	0	0.01	0.00	4	0	NR	18	0	0.01	0.00
SL	0	0	0.00	0.00	0	0	SL	31	0	0.00	0.00
ST	10	0	0.00	0.00	3	0	ST	25	0	0.00	0.00
SR	0	0	0.00	0.00	0	0	SR	0	0	0.00	0.00
EL	0	0	0.00	0.00	0	0	EL	0	0	0.00	0.00
ET	3	0	0.00	0.00	1	0	ET	6	0	0.00	0.00
ER	0	0	0.00	0.00	0	0	ER	0	0	0.00	0.00
WL	2	0	0.00	0.00	0	0	WL	7	0	0.00	0.00
WT	1	0	0.00	0.00	0	0	WT	4	0	0.00	0.00
WR	0	0	0.00	0.00	0	0	WR	0	0	0.00	0.00

AM PEAK HOUR

Select Zone	Percentage		Project Trips		Select Zone		Percentage		Project Trips		
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
VOL>	228	842	0.00	0.00	112	342	VOL>	1,474	796	228	144
NL	3	0	0.00	0.00	1	0	NL	20	0	0.00	0.00
NR	0	0	0.00	0.00	0	0	NR	0	0	0.00	0.00
SL	0	0	0.00	0.00	0	0	SL	6	0	0.00	0.00
ST	6	0	0.00	0.00	4	0	ST	15	0	0.00	0.00
SR	0	0	0.00	0.00	0	0	SR	0	0	0.00	0.00
EL	1	0	0.00	0.00	0	0	EL	2	0	0.00	0.00
ET	1	0	0.00	0.00	0	0	ET	1	0	0.00	0.00
ER	3	0	0.00	0.00	2	0	ER	0	0	0.00	0.00
WL	0	0	0.00	0.00	0	0	WL	0	0	0.00	0.00
WT	0	0	0.00	0.00	0	0	WT	0	0	0.00	0.00
WR	0	0	0.00	0.00	0	0	WR	0	0	0.00	0.00

AM PEAK HOUR

Select Zone	Percentage		Project Trips		Select Zone		Percentage		Project Trips		
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
VOL>	228	842	0.00	0.00	112	342	VOL>	1,474	796	228	144
NL	3	0	0.00	0.00	1	0	NL	20	0	0.00	0.00
NR	0	0	0.00	0.00	0	0	NR	0	0	0.00	0.00
SL	0	0	0.00	0.00	0	0	SL	6	0	0.00	0.00
ST	6	0	0.00	0.00	4	0	ST	15	0	0.00	0.00
SR	0	0	0.00	0.00	0	0	SR	0	0	0.00	0.00
EL	1	0	0.00	0.00	0	0	EL	2	0	0.00	0.00
ET	1	0	0.00	0.00	0	0	ET	1	0	0.00	0.00
ER	3	0	0.00	0.00	2	0	ER	0	0	0.00	0.00
WL	0	0	0.00	0.00	0	0	WL	0	0	0.00	0.00
WT	0	0	0.00	0.00	0	0	WT	0	0	0.00	0.00
WR	0	0	0.00	0.00	0	0	WR	0	0	0.00	0.00

AM PEAK HOUR

Select Zone	Percentage		Project Trips		Select Zone		Percentage		Project Trips		
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
VOL>	823	319	0.00	0.00	188	105	VOL>	1,437	1,756	321	359
NL	11	0	0.02	0.00	4	0	NL	15	0	0.02	0.00
NR	0	0	0.00	0.00	0	0	NR	3	0	0.00	0.00
SL	0	0	0.00	0.00	0	0	SL	40	0	0.00	0.00
ST	5	0	0.00	0.00	2	0	ST	19	0	0.00	0.00
SR	0	0	0.00	0.00	0	0	SR	2	0	0.00	0.00
EL	0	0	0.00	0.00	0	0	EL	0	0	0.00	0.00
ET	2	0	0.00	0.00	1	0	ET	3	0	0.00	0.00
ER	0	0	0.00	0.00	0	0	ER	0	0	0.00	0.00
WL	1	0	0.00	0.00	0	0	WL	0	0	0.00	0.00
WT	0	0	0.00	0.00	0	0	WT	0	0	0.00	0.00
WR	0	0	0.00	0.00	0	0	WR	0	0	0.00	0.00

AM PEAK HOUR

Zones SED	Total All		Total All	
	IN	OUT	IN	OUT
	5,614	3,711	1,137	1,212

Zones SED	Total All		Total All	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	104	0	23	0
NR	1	0	0	0
SL	0	1	0	0
ST	0	71	0	29
SR	0	0	0	0
EL	6	0	2	0
ET	3	0	1	0
ER	0	0	0	0
WL	0	14	0	4
WT	0	0	0	0
WR	0	0	0	0

26 33

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

54 56 5 3 119

AM PEAK HOUR

Zones SED	Total All		Total All	
	IN	OUT	IN	OUT
	4,314	2,960	657	810

Zones SED	Total All		Total All	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	73	0	11	0
NR	1	0	0	0
SL	0	0	0	0
ST	0	34	0	9
SR	0	0	0	0
EL	4	0	1	0
ET	2	0	1	0
ER	0	0	0	0
WL	0	14	0	4
WT	0	0	0	0
WR	0	0	0	0

13 13

PHASE 1 AND 2

N Leg S Leg E Leg W Leg

22 25 5 2 53

PM PEAK HOUR

Zones SED	Total All		Total All	
	IN	OUT	IN	OUT
	10,033	#####	2,521	2,408

Zones SED	Total All		Total All	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	188	0	47	0
NR	61	0	16	0
SL	0	0	0	0
ST	0	142	0	29
SR	0	3	0	1
EL	0	0	0	0
ET	25	0	6	0
ER	0	0	0	0
WL	0	17	0	4
WT	0	10	0	2
WR	0	0	0	0

212

N Leg S Leg E Leg W Leg

77 97 29 9 212

PM PEAK HOUR

Zones SED	Total All		Total All	
	IN	OUT	IN	OUT
	7,820	8,662	2,080	1,974

Zones SED	Total All		Total All	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	144	0	39	0
NR	56	0	15	0
SL	0	0	0	0
ST	0	83	0	19
SR	0	0	0	0
EL	0	0	0	0
ET	20	0	5	0
ER	0	0	0	0
WL	0	17	0	4
WT	0	10	0	2
WR	0	0	0	0

169

N Leg S Leg E Leg W Leg

58 77 27 8 169

INTERSECTOR: Euclid/Foothill

AM PEAK HOUR																					
ZONE A			ZONE B			ZONE C			ZONE D			ZONE E			ZONE F			ZONE G			
Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
VOL > 84 327 107 113 362 670 341 102 65 1474 798 1847 851 481 281 899 470																					
NL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NT	0.02	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST	35	0.00	0.11	0.00	0.43	24	0.00	0.07	0.10	64	0.00	0.08	0.12	7	0.00	0.02	0.04	13	0.00	0.03	0.11
SR	3	0.00	0.01	0.00	0.00	3	0.00	0.01	0.00	15	0.00	0.01	0.00	1	0.00	0.00	0.00	1	0.00	0.00	0.00
EL	1	0.01	0.00	0.02	0.00	8	0.01	0.00	0.00	15	0.01	0.00	0.00	1	0.00	0.00	0.00	2	0.00	0.00	0.00
ET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WL	4	0.00	0.01	0.00	0.00	2	0.00	0.00	0.00	1	0.00	0.00	0.00	4	0.00	0.00	0.00	1	0.00	0.00	0.00
WT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WR	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PM PEAK HOUR																					
ZONE A			ZONE B			ZONE C			ZONE D			ZONE E			ZONE F			ZONE G			
Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	Select Zone	Percentage	Project Trips	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
VOL > 83 319 107 115 728 1071 1284 1248 2485 2963 2919 3367 778 830 1437 1756																					
NL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NT	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SL	17	0.00	0.05	0.00	0.00	46	0.00	0.00	0.00	148	0.00	0.05	0.41	162	0.00	0.05	0.00	30	0.00	0.02	0.00
ST	17	0.00	0.05	0.00	0.00	62	0.00	0.05	0.17	148	0.00	0.05	0.41	162	0.00	0.05	0.00	30	0.00	0.02	0.00
SR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EL	11	0.02	0.00	0.02	0.00	7	0.01	0.00	0.00	16	0.01	0.00	0.00	15	0.01	0.00	0.00	4	0.00	0.00	0.00
ET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WL	2	0.00	0.01	0.00	0.00	10	0.00	0.01	0.00	28	0.00	0.01	0.00	22	0.00	0.01	0.00	3	0.00	0.00	0.00
WT	9	0.00	0.03	0.00	0.00	22	0.00	0.02	0.00	52	0.00	0.02	0.00	51	0.00	0.02	0.00	6	0.00	0.00	0.00
WR	41	0.00	0.00	0.00	0.00	53	0.00	0.00	0.00	163	0.00	0.00	0.00	100	0.00	0.00	0.00	36	0.00	0.00	0.00

AM PEAK HOUR																					
Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
5,814	13,711	1,508	1,498	1,314	2,860	855	819	1,013	1,151	1,013	1,151	1,013	1,151	1,013	1,151	1,013	1,151	1,013	1,151	1,013	1,151

PM PEAK HOUR														
Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips	Total All	Zone SED	Zone Trips
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
10,035	8,297	3,242	7,620	6,862	2,800	2,848	2,848	2,848	2,848	2,848	2,848	2,848	2,848	

N Leg 8 Leg E Leg W Leg

190 172 7 28 384

153 137 6 22 316

323 319 72 76 790

204 208 66 73 724

N Leg 8 Leg E Leg W Leg

181 201

180 214

172002, 1:34 PM

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg	S Leg	E Leg	W Leg
158	143	6	22
328			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	292	0	50	0
NR	0	0	0	0
SL	0	1	0	0
ST	0	271	0	91
SR	0	32	0	8
EL	43	0	8	0
ET	1	0	0	0
ER	0	1	0	1
WL	0	6	0	1
WT	0	11	0	5
WR	0	0	0	0
				58
				106

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg	S Leg	E Leg	W Leg
249	244	55	61
608			

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
2	0	0	0	0
NT	461	0	120	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	477	0	107
SR	0	0	0	0
EL	78	0	23	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	77	0	17
WT	0	165	0	38
WR	0	0	0	0
				143
				162

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

158 143 6 22

328

PHASE 1 AND 2

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg	S Leg	E Leg	W Leg
130	117	5	19
271			

N Leg S Leg E Leg W Leg

130 117 5 19

271

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	252	0	36	0
NR	0	0	0	0
SL	0	1	0	0
ST	0	251	0	80
SR	0	30	0	7
EL	40	0	7	0
ET	1	0	0	0
ER	0	1	0	1
WL	0	6	0	1
WT	0	10	0	4
WR	0	0	0	0
				43
				93

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg	S Leg	E Leg	W Leg
228	222	52	58
561			

N Leg S Leg E Leg W Leg

228 222 52 58

561

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	400	0	107	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	435	0	100
SR	0	0	0	0
EL	72	0	21	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	68	0	15
WT	0	157	0	37
WR	0	0	0	0
				129
				152

561

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg S Leg E Leg W Leg

NL	0	0	0	0
NT	238	0	45	0
NR	0	0	0	0
SL	0	62	0	17
ST	0	177	0	58
SR	0	21	0	8
EL	1	0	0	0
ET	0	0	0	0
ER	19	0	2	0
WL	0	0	0	0
WT	0	0	0	0
WR	43	0	9	0
				56 83

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg S Leg E Leg W Leg

2	0	0	0	0
NT	383	0	100	0
NR	0	0	0	0
SL	0	92	0	20
ST	0	481	0	106
SR	0	242	0	55
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	138	0	35	0
				135 180

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

137 105 26 10 278

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg S Leg E Leg W Leg

99 75 20 7 201

NL	0	0	0	0
NT	194	0	28	0
NR	0	0	0	0
SL	0	57	0	14
ST	0	153	0	45
SR	0	16	0	5
EL	1	0	0	0
ET	0	0	0	0
ER	19	0	2	0
WL	0	0	0	0
WT	0	0	0	0
WR	34	0	6	0
				36 64

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg S Leg E Leg W Leg

315 206 55 55 630

NL	0	0	0	0
NT	321	0	87	0
NR	0	0	0	0
SL	0	82	0	18
ST	0	402	0	92
SR	0	225	0	52
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	117	0	31	0
				118 162

561

N Leg S Leg E Leg W Leg

280 180 49 52 561

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

190 115 67 8 380

NL	0	0	0	0
NT	120	0	34	0
NR	0	0	0	0
SL	0	90	0	42
ST	0	187	0	81
SR	0	9	0	3
EL	16	0	5	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	109	0	24	0

PM PEAK HOUR

63 127

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg S Leg E Leg W Leg

313 179 115 20 626

NL	0	0	0	0
NT	381	0	110	0
NR	0	0	0	0
SL	0	225	0	51
ST	0	288	0	69
SR	0	44	0	10
EL	35	0	10	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	225	0	64	0

183 130

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

PHASE 1 AND 2

N Leg S Leg E Leg W Leg

155 95 55 5 310

NL	0	0	0	0
NT	98	0	26	0
NR	0	0	0	0
SL	0	85	0	40
ST	0	162	0	69
SR	0	8	0	3
EL	9	0	2	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	86	0	16	0

PM PEAK HOUR

44 111

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg S Leg E Leg W Leg

276 157 104 16 553

NL	0	0	0	0
NT	325	0	99	0
NR	0	0	0	0
SL	0	180	0	43
ST	0	226	0	58
SR	0	33	0	8
EL	26	0	8	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	207	0	60	0

167 110

553

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

4,314	2,960	657	810
-------	-------	-----	-----

Zone	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	17	0	3	0
NT	0	2	0	1
NR	0	3	0	0
SL	0	6	0	3
ST	0	21	0	6
SR	4	0	0	0
EL	0	0	0	0
ET	0	37	0	18
ER	0	26	0	14
WL	0	1	0	0
WT	56	0	12	0
WR	0	2	0	1
			16	44

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

7,820	8,662	2,080	1,974
-------	-------	-------	-------

Zone	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	62	0	19	0
NT	44	0	11	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	58	0	12
SR	0	0	0	0
EL	0	0	0	0
ET	0	95	0	21
ER	0	32	0	8
WL	0	0	0	0
WT	79	0	24	0
WR	9	0	2	0
			55	41

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

12 25 34 48 120

N Leg S Leg E Leg W Leg

24 50 47 72 193

PHASE 1 AND 2

N Leg S Leg E Leg W Leg

2 20 28 45 95

N Leg S Leg E Leg W Leg

16 42 42 68 167

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

7,820	8,662	2,080	1,974
-------	-------	-------	-------

Zone	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	62	0	19	0
NT	25	0	7	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	38	0	8
SR	0	0	0	0
EL	0	0	0	0
ET	0	74	0	18
ER	0	30	0	8
WL	0	0	0	0
WT	79	0	24	0
WR	0	0	0	0
			50	34

167

INTERSECTION: Euclid/Arrow Route

AM PEAK HOUR

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	54	327	381	162	119	281

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	228	112	340	112	382	494

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	870	341	1,211	102	85	187

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	1474	799	2,273	226	144	370

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	1847	851	2,698	359	161	520

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	401	281	682	163	147	310

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	899	470	1,369	163	147	310

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	523	319	842	188	105	293

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	1,115	407	1,522	407	220	627

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	1,071	1,284	2,355	317	344	661

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	2,495	2,893	5,388	765	828	1,593

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	2,616	3,367	5,983	1,013	1,151	2,164

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0
NR	0.00	0.00	0	0	0	0
BL	0.00	0.00	0	0	0	0
BT	0.00	0.00	0	0	0	0
BR	0.00	0.00	0	0	0	0
EL	0.00	0.00	0	0	0	0
ER	0.00	0.00	0	0	0	0
WL	0.00	0.00	0	0	0	0
WT	0.00	0.00	0	0	0	0
WR	0.00	0.00	0	0	0	0
VOL>	778	830	1,608	248	235	483

Select Zone	Percentage			Project Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
NL	0.00	0.00	0	0	0	0
NT	0.00	0.00	0	0	0	0

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg S Leg W Leg	126	125	1	252
-------------------	-----	-----	---	-----

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	253	0	43	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	251	0	82
SR	0	1	0	0
EL	5	0	1	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
			44	82

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg S Leg W Leg	213	213	0	427
-------------------	-----	-----	---	-----

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	402	0	104	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	485	0	109
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	3	0	1	0
			105	109

213

PHASE 1 AND 2

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg S Leg E Leg W Leg	105	105	0	1	211
-------------------------	-----	-----	---	---	-----

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	221	0	31	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	235	0	74
SR	0	1	0	0
EL	4	0	1	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
			32	74

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg S Leg E Leg W Leg	196	196	1	0	392
-------------------------	-----	-----	---	---	-----

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	352	0	94	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	446	0	102
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	2	0	1	0
			94	102

392

INTERSECTION: Carnelian/Arrow Route

AM PEAK HOUR

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	84	327	56	187
NL	0.00	0.00	0	0
NT	0.15	0.00	8	0
NR	0.00	0.00	0	0
SL	0.00	0.02	0	3
ST	0.00	0.10	0	17
SR	0.00	0.00	0	1
EL	0.01	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.01	0.00	1	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	228	113	382	8
NL	0.00	0.00	0	0
NT	0.08	0.00	7	0
NR	0.00	0.00	0	0
SL	0.00	0.01	0	3
ST	0.00	0.06	0	20
SR	0.00	0.00	0	1
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	870	341	102	65
NL	0.00	0.00	0	0
NT	0.01	0.00	2	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	0
ST	0.00	0.02	0	1
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	1474	789	228	144
NL	0.00	0.00	0	0
NT	0.01	0.00	2	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	0
ST	0.00	0.02	0	2
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	1847	851	358	161
NL	0.00	0.00	0	0
NT	0.02	0.00	8	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	1
ST	0.00	0.03	0	5
SR	0.00	0.00	0	1
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	401	281	188	147
NL	0.00	0.00	0	0
NT	0.02	0.00	4	0
NR	0.00	0.00	0	0
SL	0.00	0.01	0	1
ST	0.00	0.04	0	6
SR	0.00	0.00	0	1
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	899	470	483	400
NL	0.00	0.00	0	0
NT	0.02	0.00	8	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	2
ST	0.00	0.02	0	8
SR	0.00	0.00	0	1
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	623	318	184	105
NL	0.00	0.00	0	0
NT	0.07	0.00	28	0
NR	0.00	0.00	0	0
SL	0.00	0.01	0	2
ST	0.00	0.04	0	13
SR	0.00	0.01	0	7
EL	0.01	0.00	3	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.01	0.00	3	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	1,115	407	220	17
NL	0.00	0.00	0	0
NT	0.07	0.00	28	0
NR	0.00	0.00	0	0
SL	0.00	0.01	0	2
ST	0.00	0.04	0	13
SR	0.00	0.01	0	7
EL	0.01	0.00	3	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.01	0.00	3	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	1,071	1,284	317	344
NL	0.00	0.00	0	0
NT	0.02	0.00	6	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	2
ST	0.00	0.01	0	3
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	2,485	2,863	785	828
NL	0.00	0.00	0	0
NT	0.02	0.00	12	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	3
ST	0.00	0.01	0	8
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	2,818	3,367	1,013	1,151
NL	0.00	0.00	0	0
NT	0.02	0.00	26	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	8
ST	0.00	0.01	0	19
SR	0.00	0.00	0	1
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.01	0.00	9	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	778	830	268	285
NL	0.00	0.00	0	0
NT	0.02	0.00	6	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	1
ST	0.00	0.03	0	6
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

Select Zone	Percentage		Project Trips	
	IN	OUT	IN	OUT
VOL >	1,437	1,788	321	348
NL	0.00	0.00	0	0
NT	0.02	0.00	6	0
NR	0.00	0.00	0	0
SL	0.00	0.00	0	1
ST	0.00	0.02	0	7
SR	0.00	0.00	0	0
EL	0.00	0.00	0	0
ET	0.00	0.00	0	0
ER	0.00	0.00	0	0
WL	0.00	0.00	0	0
WT	0.00	0.00	0	0
WR	0.00	0.00	0	0

AM PEAK HOUR			
Total All Zones BED	Total All Zones Trips	IN	OUT
8,614	3,711	1,509	1,498

AM PEAK HOUR			
Total All Zones BED	Total All Zones Trips	IN	OUT
4,314	2,960	855	910

AM PEAK HOUR			
Total All Zones BED	Total All Zones Trips	IN	OUT
0	0	0	0

PM PEAK HOUR			
Total All Zones BED	Total All Zones Trips	IN	OUT
0	0	0	0

PM PEAK HOUR			
Total All Zones BED	Total All Zones Trips	IN	OUT
0	0	0	0

PM PEAK HOUR			
Total All Zones BED	Total All Zones Trips	IN	OUT
0	0	0	0

PM PEAK HOUR			
Total All Zones BED	Total All Zones Trips	IN	OUT
7,620	8,962	2,680	2,948

PM PEAK HOUR			
Total All Zones BED	Total All Zones Trips	IN	OUT
0	0	0	0

PM PEAK HOUR			
Total All Zones BED	Total All Zones Trips	IN	OUT
0	0	0	0

N Leg S Leg W Leg			
Total All Zones BED	Total All Zones Trips	IN	OUT
0	0	0	0

N Leg S Leg W Leg			
Total All Zones BED	Total All Zones Trips	IN	OUT

PHASE 1, 2, AND 3

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg S Leg W Leg

NL	0	0	0	0
NT	115	0	32	0
NR	0	0	0	0
SL	0	21	0	8
ST	0	134	0	54
SR	0	9	0	3
EL	2	0	1	0
ET	0	1	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	9	0	2	0
				35 65

101 86 4 201

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg S Leg W Leg

NL	0	0	0	0
NT	286	0	83	0
NR	0	0	0	0
SL	0	59	0	14
ST	0	216	0	51
SR	0	12	0	3
EL	32	0	9	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	60	0	17	0
				109 68

178 134 13 355

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg S Leg E Leg W Leg

NL	0	0	0	0
NT	91	0	23	0
NR	0	0	0	0
SL	0	17	0	6
ST	0	113	0	44
SR	0	7	0	2
EL	2	0	1	0
ET	0	1	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	8	0	2	0
				26 52

78 67 8 3 156

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg S Leg E Leg W Leg

NL	0	0	0	0
NT	243	0	74	0
NR	0	0	0	0
SL	0	51	0	12
ST	0	163	0	42
SR	0	11	0	3
EL	27	0	8	0
ET	0	0	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	52	0	15	0
				98 58

156 117 27 12 312

312

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

4,314	2,960	657	810
-------	-------	-----	-----

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
NL	0	0	0
NT	0	0	0
NR	0	0	0
SL	0	0	0
ST	0	0	0
SR	0	0	0
EL	0	0	0
ET	0	0	0
ER	0	0	0
WL	0	0	0
WT	0	0	0
WR	0	0	0

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

7,820	8,662	2,080	1,974
-------	-------	-------	-------

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
NL	0	0	0
NT	0	0	0
NR	0	0	0
SL	0	0	0
ST	0	0	0
SR	0	0	0
EL	0	0	0
ET	0	0	0
ER	0	0	0
WL	0	0	0
WT	0	0	0
WR	0	0	0

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

0 0 0 0 0 0

N Leg S Leg E Leg W Leg

0 0 0 0 0 0

PHASE 1 AND 2

N Leg S Leg E Leg W Leg

0 0 0 0 0 0

N Leg S Leg E Leg W Leg

0 0 0 0 0 0

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

4,314	2,960	657	810
-------	-------	-----	-----

Zone	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	111	0	21	0
NR	0	0	0	0
SL	0	17	0	2
ST	0	100	0	33
SR	0	0	0	0
EL	33	0	5	0
ET	0	1	0	0
ER	0	0	0	0
WL	3	6	0	2
WT	0	0	0	0
WR	0	0	0	0

26 38

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

7,820	8,662	2,080	1,974
-------	-------	-------	-------

Zone	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	170	0	47	0
NR	0	0	0	0
SL	0	67	0	14
ST	0	198	0	46
SR	0	0	0	0
EL	74	0	20	0
ET	0	3	0	1
ER	0	0	0	0
WL	0	5	0	1
WT	0	0	0	0
WR	3	0	1	0

68 62

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

61 56 5 5 127

N Leg S Leg E Leg W Leg

141 106 18 21 285

PHASE 1 AND 2

N Leg S Leg E Leg W Leg

48 43 4 5 101

N Leg S Leg E Leg W Leg

128 94 17 21 260

Table with columns: Zone A, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone B, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone C, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone D, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone E, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone F, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone G, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone A, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone B, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone C, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone D, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone E, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone F, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Table with columns: Zone G, Select Zone, Percentage, Project Trips (IN, OUT). Includes sub-tables for AM and PM Peak Hours.

Summary table: AM PEAK HOUR, Total All Zones SED, Zones Trips (IN, OUT).

Table with columns: Zone A, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone B, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone C, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone D, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone E, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone F, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone G, Select Zone, Percentage, Project Trips (IN, OUT).

Summary table: PM PEAK HOUR, Total All Zones SED, Zones Trips (IN, OUT).

Table with columns: Zone A, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone B, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone C, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone D, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone E, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone F, Select Zone, Percentage, Project Trips (IN, OUT).

Table with columns: Zone G, Select Zone, Percentage, Project Trips (IN, OUT).

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg S Leg E Leg W Leg	51	45	0	6	102
-------------------------	----	----	---	---	-----

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	84	0	15	0
NR	1	0	0	0
SL	0	0	0	0
ST	0	86	0	29
SR	0	10	0	4
EL	11	0	2	0
ET	0	2	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
			18	33

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg S Leg E Leg W Leg	91	84	1	8	183
-------------------------	----	----	---	---	-----

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	171	0	46	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	166	0	37
SR	0	30	0	6
EL	2	0	1	0
ET	0	0	0	0
ER	0	4	0	1
WL	0	1	0	0
WT	0	1	0	0
WR	3	0	1	0
			47	45

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

51 45 0 6 102

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg S Leg E Leg W Leg	38	34	0	5	77
-------------------------	----	----	---	---	----

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	69	0	10	0
NR	1	0	0	0
SL	0	0	0	0
ST	0	77	0	24
SR	0	8	0	3
EL	9	0	2	0
ET	0	2	0	0
ER	0	0	0	0
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
			11	27

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg S Leg E Leg W Leg	80	74	1	7	163
-------------------------	----	----	---	---	-----

	Total All Zones SED		Total All Zones Trips	
	IN	OUT	IN	OUT
NL	0	0	0	0
NT	144	0	40	0
NR	0	0	0	0
SL	0	0	0	0
ST	0	145	0	34
SR	0	26	0	6
EL	1	0	0	0
ET	0	0	0	0
ER	0	4	0	1
WL	0	1	0	0
WT	0	1	0	0
WR	3	0	1	0
			41	41

163

INTERSECTION: 19th / Sapphire

AM PEAK HOUR

ZONE A		ZONE B		ZONE C		ZONE D		ZONE E		ZONE F		ZONE G	
Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
34	327	228	842	870	1474	1847	1474	401	281	401	281	808	470
VOL > 112 342													
NL	0.00	NL	0.00	NL	0.00	NL	0.00	NL	0.00	NL	0.00	NL	0.00
NT	0.00	NT	0.00	NT	0.00	NT	0.00	NT	0.00	NT	0.00	NT	0.00
NR	0.00	NR	0.00	NR	0.00	NR	0.00	NR	0.00	NR	0.00	NR	0.00
SL	0.00	SL	0.00	SL	0.00	SL	0.00	SL	0.00	SL	0.00	SL	0.00
ST	0.00	ST	0.00	ST	0.00	ST	0.00	ST	0.00	ST	0.00	ST	0.00
SR	0.04	SR	0.05	SR	0.04	SR	0.04	SR	0.04	SR	0.04	SR	0.01
EL	0.00	EL	0.00	EL	0.00	EL	0.00	EL	0.00	EL	0.00	EL	0.00
ET	0.00	ET	0.00	ET	0.00	ET	0.00	ET	0.00	ET	0.00	ET	0.00
ER	0.00	ER	0.00	ER	0.00	ER	0.00	ER	0.00	ER	0.00	ER	0.00
WL	0.00	WL	0.00	WL	0.00	WL	0.00	WL	0.00	WL	0.00	WL	0.00
WT	0.00	WT	0.00	WT	0.00	WT	0.00	WT	0.00	WT	0.00	WT	0.00
WR	0.00	WR	0.00	WR	0.00	WR	0.00	WR	0.00	WR	0.00	WR	0.00
VOL > 112 342													
Project Trips													
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
112	342	112	342	102	65	228	144	358	181	188	107	483	400

PM PEAK HOUR

ZONE A		ZONE B		ZONE C		ZONE D		ZONE E		ZONE F		ZONE G	
Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
523	318	1115	728	1071	1284	1485	2985	2818	3361	718	830	1437	1756
VOL > 407 220													
NL	0.00	NL	0.00	NL	0.00	NL	0.00	NL	0.00	NL	0.00	NL	0.00
NT	0.00	NT	0.00	NT	0.00	NT	0.00	NT	0.00	NT	0.00	NT	0.00
NR	0.00	NR	0.00	NR	0.00	NR	0.00	NR	0.00	NR	0.00	NR	0.00
SL	0.00	SL	0.00	SL	0.00	SL	0.00	SL	0.00	SL	0.00	SL	0.00
ST	0.00	ST	0.00	ST	0.00	ST	0.00	ST	0.00	ST	0.00	ST	0.00
SR	0.00	SR	0.00	SR	0.00	SR	0.00	SR	0.00	SR	0.00	SR	0.00
EL	0.00	EL	0.00	EL	0.00	EL	0.00	EL	0.00	EL	0.00	EL	0.00
ET	0.00	ET	0.00	ET	0.00	ET	0.00	ET	0.00	ET	0.00	ET	0.00
ER	0.00	ER	0.00	ER	0.00	ER	0.00	ER	0.00	ER	0.00	ER	0.00
WL	0.00	WL	0.00	WL	0.00	WL	0.00	WL	0.00	WL	0.00	WL	0.00
WT	0.00	WT	0.00	WT	0.00	WT	0.00	WT	0.00	WT	0.00	WT	0.00
WR	0.00	WR	0.00	WR	0.00	WR	0.00	WR	0.00	WR	0.00	WR	0.00
VOL > 407 220													
Project Trips													
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
407	220	407	220	317	344	765	928	1013	1151	286	235	321	358

AM PEAK HOUR

Total All Zones		Total All Zones		Total All Zones		Total All Zones		Total All Zones		Total All Zones		Total All Zones	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
5,814	3,711	1,559	1,468	4,314	2,950	655	819	7,820	3,867	2,680	2,643	155	108

PM PEAK HOUR

Total All Zones		Total All Zones		Total All Zones		Total All Zones		Total All Zones		Total All Zones		Total All Zones	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
5,814	3,711	1,559	1,468	4,314	2,950	655	819	7,820	3,867	2,680	2,643	155	108

AM PEAK HOUR

Total All Zones		Total All Zones		Total All Zones		Total All Zones		Total All Zones		Total All Zones		Total All Zones	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
5,814	3,711	1,559	1,468	4,314	2,950	655	819	7,820	3,867	2,680	2,643	155	108

PHASE 1, 2, AND 3

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg S Leg E Leg W Leg

63 0 197 260 520

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
	0	0	0	0	0	0	0	114	0	33	0	0	140
	0	0	0	0	0	0	0	195	0	80	0	0	120
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	177	0	0	0	0	30	0	0	0	0	0	0	207
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	665	18	110	7	0	0	0	0	0	0	0	0	788
	0	0	0	0	0	0	0	0	0	0	0	0	100

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg S Leg E Leg W Leg

178 0 618 797 1593

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	461	0	98	0	0	559
	0	0	0	0	0	0	0	1069	0	233	0	0	1302
	0	0	0	0	0	0	0	0	0	0	0	0	0
	313	0	0	0	0	80	0	0	0	0	0	0	393
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	1465	0	385	0	0	0	0	0	0	0	0	0	1850
	0	0	0	0	0	0	0	0	0	0	0	0	0

465 332

PHASE 1 AND 2

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg S Leg E Leg W Leg

49 0 169 219 438

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
	0	0	0	0	0	0	0	94	0	22	0	0	116
	0	0	0	0	0	0	0	190	0	78	0	0	268
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	169	0	27	0	0	0	0	0	0	0	0	0	196
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	619	0	92	0	0	0	0	0	0	0	0	0	711
	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg S Leg E Leg W Leg

164 0 589 753 1507

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
	0	0	0	0	0	0	0	377	0	84	0	0	461
	0	0	0	0	0	0	0	912	0	207	0	0	1119
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	313	0	80	0	0	0	0	0	0	0	0	0	393
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	1450	0	382	0	0	0	0	0	0	0	0	0	1832
	0	0	0	0	0	0	0	0	0	0	0	0	0

462 291 1507

M

AM PEAK HOUR													
ZONE A		ZONE B		ZONE C		ZONE D		ZONE E		ZONE F		ZONE G	
Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
VOL > 223 842		VOL > 223 842		VOL > 970 341		VOL > 1474 780		VOL > 1847 851		VOL > 401 281		VOL > 899 470	
NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00
NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00
NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00
SL	180 0.00 0.25	SL	180 0.00 0.25	SL	19 0.00 0.08	SL	38 0.00 0.05	SL	59 0.00 0.07	SL	0.00 0.00	SL	2 0.00 0.00
ST	0.00 0.00	ST	0.00 0.00	ST	10 0.00 0.00	ST	20 0.00 0.00	ST	50 0.00 0.00	ST	7 0.00 0.00	ST	11 0.00 0.00
BR	33 0.00 0.00	BR	33 0.00 0.00	BR	10 0.00 0.00	BR	20 0.00 0.00	BR	50 0.00 0.00	BR	7 0.00 0.00	BR	11 0.00 0.00
EL	7 0.00 0.00	EL	7 0.00 0.00	EL	9 0.00 0.00	EL	20 0.00 0.00	EL	50 0.00 0.00	EL	7 0.00 0.00	EL	11 0.00 0.00
ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00
WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00
WR	106 0.29 0.00	WR	106 0.29 0.00	WR	42 0.00 0.00	WR	142 0.10 0.00	WR	98 0.05 0.00	WR	2 0.00 0.00	WR	3 0.00 0.00
112 382		112 382		102 85		228 144		359 181		168 147		483 400	

PM PEAK HOUR													
ZONE A		ZONE B		ZONE C		ZONE D		ZONE E		ZONE F		ZONE G	
Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage	Select Zone	Percentage
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
VOL > 376 121		VOL > 463 228		VOL > 1,071 1,284		VOL > 2,485 2,893		VOL > 2,818 3,387		VOL > 778 830		VOL > 1,437 1,758	
NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00	NL	0.00 0.00
NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00	NT	0.00 0.00
NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00	NR	0.00 0.00
SL	121 0.00 0.31	SL	228 0.00 0.31	SL	81 0.00 0.06	SL	187 0.00 0.06	SL	248 0.00 0.07	SL	19 0.00 0.02	SL	38 0.00 0.02
ST	0.00 0.00	ST	0.00 0.00	ST	0.00 0.00	ST	0.00 0.00	ST	0.00 0.00	ST	0.00 0.00	ST	0.00 0.00
BR	64 0.18 0.00	BR	18 0.02 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00	BR	0.00 0.00
EL	144 0.38 0.00	EL	204 0.18 0.00	EL	9 0.01 0.00	EL	20 0.01 0.00	EL	30 0.01 0.00	EL	7 0.01 0.00	EL	12 0.01 0.00
ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00	ER	0.00 0.00
WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00	WL	0.00 0.00
WR	147 0.38 0.00	WR	261 0.23 0.00	WR	23 0.02 0.00	WR	89 0.04 0.00	WR	46 0.02 0.00	WR	1 0.00 0.00	WR	1 0.00 0.00
188 105		407 220		317 348		765 828		1,013 1,151		288 235		321 359	

AM PEAK HOUR													
Total All		Total All		Total All		Total All		Total All		Total All		Total All	
Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
5,814 3,711		5,814 3,711		4,314 2,900		4,314 2,900		4,314 2,900		4,314 2,900		4,314 2,900	
NL	0 0	NL	0 0	NL	0 0	NL	0 0	NL	0 0	NL	0 0	NL	0 0
NT	0 0	NT	0 0	NT	0 0	NT	0 0	NT	0 0	NT	0 0	NT	0 0
NR	0 0	NR	0 0	NR	0 0	NR	0 0	NR	0 0	NR	0 0	NR	0 0
SL	375 0	SL	375 0	SL	373 0	SL	373 0	SL	373 0	SL	0 0	SL	165 0
ST	0 0	ST	0 0	ST	0 0	ST	0 0	ST	0 0	ST	0 0	ST	0 0
BR	222 0	BR	222 0	BR	204 0	BR	204 0	BR	204 0	BR	0 0	BR	85 0
EL	26 0	EL	26 0	EL	26 0	EL	26 0	EL	26 0	EL	0 0	EL	14 0
ER	0 0	ER	0 0	ER	0 0	ER	0 0	ER	0 0	ER	0 0	ER	0 0
WL	0 0	WL	0 0	WL	0 0	WL	0 0	WL	0 0	WL	0 0	WL	0 0
WR	360 0	WR	360 0	WR	385 0	WR	385 0	WR	385 0	WR	0 0	WR	102 0
212 168		212 168		201 186		201 186		201 186		201 186		201 186	

PM PEAK HOUR													
Total All		Total All		Total All		Total All		Total All		Total All		Total All	
Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone	Zone
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
10,053 3,291		10,053 3,291		7,920 2,690		7,920 2,690		7,920 2,690		7,920 2,690		7,920 2,690	
NL	0 0	NL	0 0	NL	0 0	NL	0 0	NL	0 0	NL	0 0	NL	0 0
NT	0 0	NT	0 0	NT	0 0	NT	0 0	NT	0 0	NT	0 0	NT	0 0
NR	0 0	NR	0 0	NR	0 0	NR	0 0	NR	0 0	NR	0 0	NR	0 0
SL	902 0	SL	902 0	SL	845 0	SL	845 0	SL	845 0	SL	0 0	SL	262 0
ST	0 0	ST	0 0	ST	0 0	ST	0 0	ST	0 0	ST	0 0	ST	0 0
BR	145 0	BR	145 0	BR	144 0	BR	144 0	BR	144 0	BR	0 0	BR	63 0
EL	426 0	EL	426 0	EL	407 0	EL	407 0	EL	407 0	EL	0 0	EL	147 0
ER	0 0	ER	0 0	ER	0 0	ER	0 0	ER	0 0	ER	0 0	ER	0 0
WL	0 0	WL	0 0	WL	0 0	WL	0 0	WL	0 0	WL	0 0	WL	0 0
WR	568 0	WR	568 0	WR	595 0	WR	595 0	WR	595 0	WR	0 0	WR	200 0
409 275		409 275		402 282		402 282		402 282		402 282		402 282	

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
5,614	3,711	1,137	1,212

N Leg	S Leg	E Leg	W Leg
352	0	251	101
			705

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
Total All Zones SED	0	0	0	375	0	222	29	0	0	4	390	0
Total All Zones Trips	0	0	0	161	0	87	14	0	0	0	89	0
191 161												

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
10,033	#####	2,521	2,408

N Leg	S Leg	E Leg	W Leg
606	0	415	196
			1217

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
Total All Zones SED	0	0	0	902	0	145	9	0	0	0	568	0
Total All Zones Trips	0	0	0	227	0	49	2	0	0	0	185	0
381 227												

381 227

PHASE 1, 2, AND 3

N Leg S Leg E Leg W Leg

352 0 251 101 705

AM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
4,314	2,960	657	810

N Leg	S Leg	E Leg	W Leg
342	0	248	95
			685

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
Total All Zones SED	0	0	0	373	0	204	29	0	0	4	385	0
Total All Zones Trips	0	0	0	160	0	81	14	0	0	0	88	0
183 160												

PM PEAK HOUR

Total All Zones SED		Total All Zones Trips	
IN	OUT	IN	OUT
7,820	8,662	2,080	1,974

N Leg	S Leg	E Leg	W Leg
592	0	404	192
			1189

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
Total All Zones SED	0	0	0	845	0	144	407	9	0	0	566	0
Total All Zones Trips	0	0	0	218	0	49	141	2	0	0	185	0
376 218 1189												

376 218 1189

APPENDIX D

**EXISTING PEAK HOUR
TRAFFIC COUNT
DATA SHEETS**



**SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS**

N-S STREET: MOUNTAIN

DATE: 11/29/01

CITY: UPLAND

E-W STREET: 19th

DAY: THURSDAY

PROJECT# 0038001A

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 0.5	NR 0.5	SL 1	ST 0.5	SR 0.5	EL 1	ET 0.5	ER 0.5	WL 1	WT 0.5	WR 0.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	20	11	14	149	1	2	2	4	129	6	4	343
7:15 AM	4	23	15	18	166	2	3	7	6	132	6	6	388
7:30 AM	3	39	16	15	113	3	0	8	9	143	13	8	370
7:45 AM	6	67	13	34	118	2	1	17	8	97	14	9	386
8:00 AM	4	51	13	23	86	1	1	6	5	109	6	5	310
8:15 AM	6	34	14	7	73	1	1	8	3	131	8	3	289
8:30 AM	0	45	19	9	60	0	2	5	2	97	5	3	247
8:45 AM	1	35	15	7	59	1	1	3	2	90	3	1	218
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	25	314	116	127	824	11	11	56	39	928	61	39	2551

AM Peak Hr Begins at 700 AM

PEAK	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	14	149	55	81	546	8	6	34	27	501	39	27	1487

ADDITIONS:



SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: EUCLID

DATE: 11/28/01

CITY: UPLAND

E-W STREET: 19th ST.

DAY: THURSDAY

PROJECT# 0038002A

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	23	21	14	78	2	1	36	9	79	151	5	422
7:15 AM	7	38	19	18	181	2	0	31	17	93	130	8	544
7:30 AM	4	70	19	28	188	0	4	51	18	111	127	10	630
7:45 AM	7	106	32	28	158	0	3	54	8	83	113	16	608
8:00 AM	5	61	36	26	118	1	1	41	11	79	131	14	624
8:15 AM	4	54	29	9	126	3	1	29	8	67	129	12	471
8:30 AM	3	41	21	9	84	0	1	41	11	67	101	10	389
8:45 AM	1	47	30	17	92	1	0	26	8	55	100	15	392
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	34	440	207	149	1025	9	11	309	90	634	982	90	3980

AM Peak Hr Begins at

7:15 AM

PEAK

VOLUMES =

23 275 106 100 645 3 8 177 54 366 501 48 2306

ADDITIONS:



SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: EUCLID

DATE: 11/29/01

CITY: UPLAND

E-W STREET: 19th ST.

DAY: THURSDAY

PROJECT# 0038002P

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	7	68	63	13	52	3	1	70	3	25	57	8	370
4:15 PM	4	89	57	12	64	3	1	85	9	29	56	7	416
4:30 PM	11	69	52	15	65	3	4	91	8	26	56	11	411
4:45 PM	10	85	66	12	55	6	0	98	5	25	53	10	425
5:00 PM	12	91	65	10	65	3	2	110	3	21	66	14	462
5:15 PM	13	86	83	13	42	2	0	122	3	21	64	6	455
5:30 PM	10	68	73	13	54	3	0	129	6	41	70	4	471
5:45 PM	9	93	76	9	59	6	2	124	4	26	44	6	458
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	76	649	535	97	456	29	10	829	41	214	466	66	3468
PM Peak Hr Begins at				500	PM								
PEAK VOLUMES =	44	338	297	45	220	14	4	485	16	109	244	30	1846

ADDITIONS:

3

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: CAMPUS

DATE: 11/29/01

CITY: UPLAND

E-W STREET: 19th

DAY: THURSDAY

PROJECT# 0038003A

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	2	0	0.5	1	0.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	11	14	10	31	0	1	50	11	51	196	12	390
7:15 AM	6	10	17	17	38	1	3	58	15	64	227	17	473
7:30 AM	3	8	13	13	46	0	0	46	13	68	236	15	461
7:45 AM	7	13	19	19	31	0	2	59	18	79	261	12	520
8:00 AM	7	17	26	15	33	1	1	69	21	52	252	10	504
8:15 AM	7	15	23	17	25	0	1	66	12	40	204	13	423
8:30 AM	5	10	24	10	27	1	0	60	13	47	189	11	397
8:45 AM	8	13	28	13	21	0	1	57	14	43	210	13	421
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	46	97	164	114	252	3	9	465	117	444	1775	103	3589

AM Peak Hr Begins at

715 AM

PEAK

VOLUMES = 23 48 75 64 148 2 6 232 67 283 976 54 1958

ADDITIONS: 4-WAY STOP

**SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS**

N-S STREET: **CAMPUS**

DATE: **11/29/01**

CITY: **UPLAND**

E-W STREET: **19th**

DAY: **THURSDAY**

PROJECT# **0038003P**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	2	0	0.5	1	0.5	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5	24	53	16	17	0	1	144	5	23	71	22	381
4:15 PM	2	21	62	19	15	0	0	160	6	33	86	31	435
4:30 PM	8	31	51	24	14	0	1	159	9	21	70	28	418
4:45 PM	11	39	48	29	19	1	0	139	11	24	81	21	423
5:00 PM	8	34	67	21	15	0	1	164	7	27	74	26	444
5:15 PM	14	36	63	26	16	1	2	172	10	20	89	27	476
5:30 PM	12	46	72	25	12	0	2	189	9	23	94	22	506
5:45 PM	7	41	66	22	17	1	1	177	13	31	83	29	488
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	67	272	482	182	125	3	8	1304	70	202	648	206	3569
PM Peak Hr Begins at				500	PM								
PEAK													
VOLUMES =	41	157	268	94	60	2	6	702	39	101	340	104	1914
ADDITIONS:	4-WAY STOP												

(4)

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: CORNELIAN

DATE: 11/29/01

CITY: UPLAND

E-W STREET: 19th

DAY: THURSDAY

PROJECT# 0038004A

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	9	18	5	8	35	36	7	18	8	32	85	4	265
7:15 AM	10	47	13	9	85	50	14	36	9	56	86	5	420
7:30 AM	11	71	18	23	146	51	19	85	21	55	113	18	631
7:45 AM	4	72	32	25	113	49	39	80	18	75	91	18	616
8:00 AM	11	90	34	32	146	50	38	81	13	36	90	15	636
8:15 AM	7	92	26	27	191	59	17	74	29	48	104	7	681
8:30 AM	9	70	14	29	156	57	19	63	20	39	101	11	588
8:45 AM	12	94	41	20	115	47	21	64	19	46	109	19	607
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	73	554	183	173	987	399	174	501	137	387	779	97	4444

AM Peak Hr Begins at 730 AM

PEAK VOLUMES =	33	325	110	107	596	209	113	320	81	214	398	58	2564
----------------	----	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	----	------

ADDITIONS: SIGNALIZED



**SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS**

N-S STREET: CORNELIAN

DATE: 11/29/01

CITY: UPLAND

E-W STREET: 19th

DAY: THURSDAY

PROJECT# 0038004P

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	25	126	36	18	65	9	57	75	19	26	64	7	527
4:15 PM	7	132	35	25	64	26	61	85	19	26	55	16	551
4:30 PM	27	140	31	17	100	25	60	105	17	34	71	19	646
4:45 PM	24	173	34	18	101	19	73	98	12	34	66	19	671
5:00 PM	30	122	33	28	77	19	62	100	21	42	91	35	680
5:15 PM	51	151	30	22	62	10	66	115	15	39	53	11	625
5:30 PM	29	139	30	20	102	19	83	60	13	47	74	15	631
5:45 PM	19	126	27	19	89	19	67	92	24	19	62	23	586
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	212	1109	256	167	660	146	529	730	140	267	536	145	4897

PM Peak Hr Begins at 4:30 PM

PEAK VOLUMES = 132 586 128 85 340 73 261 418 65 149 281 84 2602

ADDITIONS: SIGNALIZED

**SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS**

N-S STREET: ARCHIBALD

DATE: 11/29/01

CITY: UPLAND

E-W STREET: 19th

DAY: THURSDAY

PROJECT# 0038005A

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	5	34	3	9	86	12	11	42	13	20	81	1	317
7:15 AM	16	62	5	19	142	59	18	102	33	40	83	6	585
7:30 AM	21	58	10	14	103	32	335	85	25	31	88	2	804
7:45 AM	12	60	15	17	124	32	30	135	23	28	93	10	579
8:00 AM	15	82	20	22	144	53	39	150	39	39	101	15	719
8:15 AM	16	64	13	10	101	47	38	103	22	34	126	7	581
8:30 AM	29	54	7	15	94	26	19	92	22	29	99	4	490
8:45 AM	25	67	18	7	104	19	28	94	21	26	80	8	497
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	139	481	91	113	898	280	518	803	198	247	751	53	4572

AM Peak Hr Begins at 7:15 AM

PEAK VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	64	262	50	72	513	176	422	472	120	138	365	33	2687

ADDITIONS: SIGNALIZED

5

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIBALD

DATE: 11/29/01

CITY: UPLAND

E-W STREET: 19th

DAY: THURSDAY

PROJECT# 0038005P

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	30	104	29	9	56	26	62	142	46	22	99	13	638
4:15 PM	43	111	27	9	76	22	55	145	34	26	88	11	647
4:30 PM	50	127	31	14	62	20	43	130	23	25	119	14	658
4:45 PM	40	132	41	12	80	20	62	158	32	29	118	15	739
5:00 PM	39	133	31	9	71	30	39	128	42	27	140	11	700
5:15 PM	39	123	34	14	60	14	40	159	34	32	156	17	722
5:30 PM	28	119	24	18	64	20	69	148	30	30	117	18	685
5:45 PM	40	121	38	13	68	7	50	144	32	34	106	18	671
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	309	970	255	98	537	159	420	1154	273	225	943	117	5460
PM Peak Hr Begins at				445	PM								
PEAK VOLUMES =	146	507	130	53	275	84	210	593	138	118	531	61	2848
ADDITIONS:	SIGNALIZED												

**SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS**

N-S STREET: MOUNTAIN DATE: 6/12/01 CITY: UPLAND

E-W STREET: 16TH.STREET DAY: TUESDAY Intersection I.D.:
PROJECT# 06330001

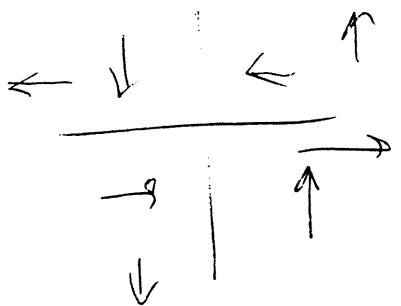
RECEIVING: LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	
	1	2	0	1	2	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	24	36	10	7	226	89	1	79	18	38	434	3	965
7:15 AM	22	69	9	19	299	73	5	166	46	46	472	0	1226
7:30 AM	32	76	14	13	289	69	10	185	41	53	482	3	1267
7:45 AM	42	114	16	23	279	53	9	188	39	45	539	8	1355
8:00 AM	38	71	11	30	243	60	4	203	34	41	543	6	1284
8:15 AM	25	85	13	11	214	77	10	130	29	67	518	3	1182
8:30 AM	38	64	13	19	145	66	10	132	28	51	452	7	1025
8:45 AM	28	85	8	18	182	55	5	134	18	80	369	11	993
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	249	600	94	140	1877	542	54	1217	253	421	3809	41	9297

AM Peak Hr Begins at 715 AM

PEAK VOLUMES =	134	330	50	85	1110	255	28	742	160	185	2036	17	5132
-----------------------	-----	-----	----	----	------	-----	----	-----	-----	-----	------	----	------

ADDITIONS: SIGNALIZED



SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MOUNTAIN DATE: 6/12/01 CITY: UPLAND
E-W STREET: 16TH. STREET DAY: TUESDAY PROJECT# 06330001

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	59	216	37	24	106	27	29	402	33	16	215	16	1180
4:15 PM	54	195	50	26	181	44	30	435	11	21	220	15	1282
4:30 PM	40	259	60	31	135	26	35	435	25	33	225	11	1315
4:45 PM	57	200	54	32	160	36	40	462	22	24	215	11	1313
5:00 PM	68	324	45	50	152	30	46	428	30	16	215	12	1416
5:15 PM	66	371	53	33	138	34	36	480	31	21	207	9	1479
5:30 PM	53	277	39	46	133	42	45	480	25	16	241	26	1423
5:45 PM	76	327	89	40	180	54	64	454	17	40	246	13	1600
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	473	2169	427	282	1185	293	325	3576	194	187	1784	113	11008

PM Peak Hr Begins at 500 PM

PEAK	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	263	1299	226	169	603	160	191	1842	103	93	909	60	5918

ADDITIONS: SIGNALIZED

**SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS**

N-S STREET: EUCLID DATE: 6/12/01 CITY: UPLAND
 E-W STREET: 16TH. STREET DAY: TUESDAY
 Intersection I.D.:
 PROJECT# 06330002

RECEIVING: LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	1	1	2	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	15	45	23	11	221	31	5	98	14	42	326	3	834
7:15 AM	8	64	19	13	275	19	1	127	20	53	310	3	912
7:30 AM	15	139	19	13	262	36	9	143	17	65	290	5	1013
7:45 AM	30	98	25	15	220	36	30	125	20	53	339	3	994
8:00 AM	19	83	35	12	170	20	4	136	20	68	382	11	960
8:15 AM	14	49	18	13	156	16	12	114	20	68	338	5	823
8:30 AM	16	52	27	14	128	27	5	111	37	55	291	7	770
8:45 AM	15	61	18	11	158	14	6	111	24	68	260	11	757
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	132	591	184	102	1590	199	72	965	172	472	2536	48	7063

AM Peak Hr Begins at 715 AM

PEAK VOLUMES =	72	384	98	53	927	111	44	531	77	239	1321	22	3879
----------------	----	-----	----	----	-----	-----	----	-----	----	-----	------	----	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: EUCLID DATE: 6/12/01 CITY: UPLAND
E-W STREET: 16TH. STREET DAY: TUESDAY PROJECT# 0633002

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													929
4:00 PM	25	143	62	7	91	3	20	329	25	21	195	8	929
4:15 PM	25	134	52	8	102	12	14	305	22	26	139	8	847
4:30 PM	17	159	59	12	88	16	18	330	26	38	155	10	928
4:45 PM	28	178	51	9	116	6	12	333	18	34	141	9	935
5:00 PM	26	189	54	14	118	14	21	335	27	39	157	8	1002
5:15 PM	17	185	70	8	118	8	18	342	11	40	181	14	1012
5:30 PM	22	152	52	9	99	5	20	329	19	42	174	14	937
5:45 PM	22	172	51	10	114	14	25	276	15	48	188	13	948
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	182	1312	451	77	846	78	148	2579	163	288	1330	84	7538

PM Peak Hr Begins at 500 PM

PEAK VOLUMES =	87	698	227	41	449	41	84	1282	72	169	700	49	3899
----------------	----	-----	-----	----	-----	----	----	------	----	-----	-----	----	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: CARNELIAN DATE: 6/14/01 CITY: UPLAND
 E-W STREET: 16TH. STREET DAY: THURSDAY PROJECT# 063300025

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 2	ET 2	ER 0	WL 2	WT 2	WR 0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	50	228	38	54	168	71	106	368	23	97	210	39	1452
4:15 PM	44	236	37	51	136	37	144	428	18	50	242	25	1448
4:30 PM	39	235	27	44	145	40	115	406	28	50	275	32	1436
4:45 PM	58	246	53	86	119	67	142	440	20	54	285	36	1606
5:00 PM	65	264	30	53	162	52	191	407	25	63	221	33	1566
5:15 PM	59	270	30	48	128	59	105	388	36	43	209	27	1402
5:30 PM	50	264	29	51	226	53	154	471	24	75	250	31	1678
5:45 PM	54	351	31	70	207	45	142	391	36	90	258	35	1710
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	419	2094	275	457	1291	424	1099	3299	210	522	1950	258	12298

PM Peak Hr Begins at 855 AM I DON'T THINK SO

PEAK VOLUMES =	228	1149	120	222	723	209	592	1657	121	271	938	126	6356
----------------	-----	------	-----	-----	-----	-----	-----	------	-----	-----	-----	-----	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIBALD DATE: 6/13/01 CITY: UPLAND
E-W STREET: 16TH. STREET DAY: WEDNESDAY PROJECT# 06330005

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	36	130	18	40	120	28	53	195	36	40	136	30	862
4:15 PM	74	159	18	73	136	12	65	293	25	41	241	23	1160
4:30 PM	61	221	23	67	155	16	40	436	40	38	330	30	1457
4:45 PM	81	245	13	89	155	7	68	375	57	47	319	39	1495
5:00 PM	109	264	24	52	176	28	61	371	35	48	305	29	1502
5:15 PM	103	281	45	79	192	25	85	460	31	100	364	26	1791
5:30 PM	90	246	27	44	148	32	59	354	29	44	299	21	1393
5:45 PM	64	232	34	56	124	23	80	339	29	54	255	31	1321
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	618	1778	202	500	1206	171	511	2823	282	412	2249	229	10981
PM Peak Hr Begins at				430	PM								
PEAK VOLUMES =	354	1011	105	287	678	76	254	1642	163	233	1318	124	6245
ADDITIONS:	SIGNALIZED												

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

EET: MONTE VISTA

DATE: 2/15/2000

CITY: UPLAND

EET: Foothill

DAY: TUESDAY

PROJECT# 0113001A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	1	2	3	0	1	2	0	1	2	0	

AM													
AM													
AM													
AM													
AM	16	30	17	19	42	2	4	122	21	47	374	26	720
AM	38	31	11	24	54	4	6	154	20	57	464	31	894
AM	31	32	15	21	48	11	5	185	13	60	445	38	904
AM	35	51	17	30	70	6	9	204	28	51	493	41	1035
AM	22	54	27	30	58	8	14	240	22	51	329	41	896
AM	23	39	27	31	60	12	10	211	21	38	320	48	840
AM	25	36	25	32	64	16	9	198	29	43	280	27	784
AM	20	37	34	28	59	8	8	178	24	45	294	30	765
AM													
AM													
AM													
AM													
AM													
AM													
AM													

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
ES =	210	310	173	215	455	67	65	1492	178	392	2999	282	6838

ak Hr Begins at 715 AM

IES =	126	168	70	105	230	29	34	783	83	219	1731	151	3729
-------	-----	-----	----	-----	-----	----	----	-----	----	-----	------	-----	------

IONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

STREET: MONTE VISTA

DATE: 2/15/2000

CITY: UPLAND

STREET: FOOTHILL

DAY: TUESDAY

PROJECT# 0113001P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
ANES:	2	2	1	2	3	0	1	2	0	1	2	0	
00 PM													
15 PM													
30 PM													
45 PM													
00 PM													
15 PM													
30 PM													
45 PM													
00 PM	23	81	39	40	47	6	14	361	33	33	177	27	881
15 PM	30	93	38	29	66	11	13	384	33	50	240	31	1018
30 PM	48	86	52	39	80	13	12	412	49	45	244	36	1116
45 PM	46	72	38	25	53	13	16	444	44	39	226	35	1051
00 PM	33	84	56	42	58	16	17	368	44	41	261	44	1064
15 PM	44	98	45	36	52	12	19	413	36	36	235	33	1059
30 PM	32	84	40	24	38	13	16	439	41	50	250	48	1075
45 PM	54	86	37	30	47	11	13	384	42	34	231	44	1013
00 PM													
15 PM													
30 PM													
45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	310	684	345	265	441	95	120	3205	322	328	1864	298	8277

Peak Hr Begins at 430 PM

PEAK VOLUMES =	171	340	191	142	243	54	64	1637	173	161	966	148	4290
----------------	-----	-----	-----	-----	-----	----	----	------	-----	-----	-----	-----	------

CONDITIONS: SIGNALIZED.

Post-It Fax Note	7671	Date	11/26/01	# of pages	3
To	SERINE	From	Alex G.		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #		Fax #			

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MOUNTAIN DATE: 6/13/01 CITY: UPLAND
E-W STREET: FOOTHILL DAY: WEDNESDAY Intersection I.D.:
PROJECT# 06330006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:	X			X			X			X			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	1	2	2	1	2	2	1	2	2	1	

6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	22	90	24	32	167	59	10	117	24	40	220	8	813
7:15 AM	30	119	27	67	199	67	19	127	22	43	217	16	953
7:30 AM	35	126	39	94	221	71	22	136	27	47	216	22	1056
7:45 AM	55	137	38	52	232	65	29	148	38	57	231	30	1112
8:00 AM	61	116	38	29	217	62	31	134	41	67	214	22	1032
8:15 AM	49	121	36	31	203	63	23	119	31	49	211	19	955
8:30 AM	32	99	29	23	198	50	17	107	26	43	198	17	839
8:45 AM	21	103	24	22	176	44	22	101	24	36	181	11	765
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL													
VOLUMES =	305	911	255	350	1613	481	173	989	233	382	1688	145	7525

AM Peak Hr Begins at 730 AM

PEAK VOLUMES =	200	500	151	206	873	261	105	537	137	220	872	93	4155
----------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MOUNTAIN DATE: 6/13/01 CITY: UPLAND
 E-W STREET: FOOTHILL DAY: WEDNESDAY PROJECT# 06330006

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	1	2	2	1	2	2	1	2	2	1	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	36	167	64	43	127	30	80	307	39	96	189	20	1198
4:15 PM	30	151	59	47	136	33	79	317	44	101	177	18	1192
4:30 PM	43	177	57	51	129	37	83	310	42	99	190	17	1235
4:45 PM	49	181	71	45	153	35	77	321	98	103	197	19	1349
5:00 PM	57	189	73	46	158	36	79	314	39	106	214	29	1340
5:15 PM	60	253	74	53	141	41	119	316	42	91	210	31	1431
5:30 PM	63	226	68	48	136	34	98	329	40	100	189	23	1354
5:45 PM	57	219	70	42	123	31	82	318	36	90	173	26	1267
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	395	1563	536	375	1103	277	697	2532	380	786	1539	183	10366

PM Peak Hr Begins at 445 PM

PEAK VOLUMES =	229	849	286	192	588	146	373	1280	219	400	810	102	5474
----------------	-----	-----	-----	-----	-----	-----	-----	------	-----	-----	-----	-----	------

ADDITIONS: SIGNALIZED

**SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS**

N-S STREET: EUCLID DATE: 6/13/01 CITY: UPLAND

E-W STREET: FOOTHILL DAY: WEDNESDAY Intersection I.D.:
PROJECT# 06330008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:	X	X	X	X	X	X	X	X	X	X	X	TOTAL	
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	26	106	16	26	271	19	22	181	26	61	218	2	974
7:15 AM	53	113	27	29	271	19	24	164	31	72	271	6	1080
7:30 AM	62	120	30	30	301	26	28	192	36	86	301	7	1219
7:45 AM	73	117	28	22	354	23	27	233	38	82	298	7	1302
8:00 AM	76	124	29	28	313	25	29	216	39	76	306	6	1267
8:15 AM	71	117	26	24	306	26	26	204	36	74	301	9	1220
8:30 AM	62	116	21	22	298	24	23	187	34	32	294	6	1119
8:45 AM	56	103	17	20	281	21	23	179	32	60	247	5	1044
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	479	916	194	201	2395	183	202	1556	272	543	2236	48	9225

AM Peak Hr Begins at 730 AM

PEAK
VOLUMES = 282 478 113 104 1274 100 110 845 149 318 1206 29 5008

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: EUCLID DATE: 6/13/01 CITY: UPLAND
E-W STREET: FOOTHILL DAY: WEDNESDAY PROJECT# 06330008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	1	1	3	0	2	2	1	2	2	0	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	71	162	31	35	136	4	37	286	40	32	257	15	1106
4:15 PM	76	186	33	44	126	6	51	311	37	36	261	16	1183
4:30 PM	82	203	36	46	129	6	55	331	43	39	286	22	1278
4:45 PM	91	216	42	49	136	7	61	361	49	46	311	24	1393
5:00 PM	96	233	47	56	137	6	63	391	52	57	341	26	1505
5:15 PM	100	236	55	60	134	5	62	383	50	67	356	24	1532
5:30 PM	92	247	46	48	131	4	56	341	46	52	321	25	1409
5:45 PM	81	237	41	46	129	4	51	317	41	44	301	21	1313
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	689	1720	331	384	1058	42	436	2721	358	373	2434	173	10719

PM Peak Hr Begins at 445 PM

PEAK VOLUMES =	379	932	190	213	538	22	242	1476	197	222	1329	99	5839
----------------	-----	-----	-----	-----	-----	----	-----	------	-----	-----	------	----	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: CAMPUS DATE: 6/13/01 CITY: UPLAND
E-W STREET: FOOTHILL DAY: WEDNESDAY Intersection I.D.:
PROJECT# 06330009

RECEIVING: LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	1	1	1	2	1	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	9	3	3	11	19	16	28	119	6	3	237	8	462
7:15 AM	11	6	5	16	26	16	11	142	4	6	266	16	525
7:30 AM	16	6	7	19	29	19	16	163	4	6	319	12	616
7:45 AM	16	9	6	22	34	23	16	166	9	9	336	14	660
8:00 AM	19	18	6	24	31	22	18	178	6	6	331	17	676
8:15 AM	15	13	9	27	29	25	19	181	8	8	316	16	666
8:30 AM	13	15	7	25	28	21	17	177	6	6	306	15	636
8:45 AM	9	12	6	21	24	17	14	156	6	5	311	12	593
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	108	82	49	165	220	159	139	1282	49	49	2422	110	4834

AM Peak Hr Begins at 7:45 AM

PEAK VOLUMES =	63	55	28	98	122	91	70	702	29	29	1289	62	2638
----------------	----	----	----	----	-----	----	----	-----	----	----	------	----	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: CAMPUS DATE: 6/13/01 CITY: UPLAND
E-W STREET: FOOTHILL DAY: WEDNESDAY PROJECT# 06330009

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	1	1	1	2	0	1	2	0	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	16	76	6	26	47	9	36	316	2	26	301	16	877
4:15 PM	23	79	6	29	56	16	39	324	6	28	306	19	931
4:30 PM	26	101	9	34	59	15	42	356	3	31	334	24	1034
4:45 PM	25	99	11	37	71	15	48	386	5	34	371	27	1129
5:00 PM	29	98	9	42	74	19	50	410	3	46	344	34	1158
5:15 PM	28	97	12	35	66	16	50	397	3	36	352	51	1143
5:30 PM	26	93	12	36	68	14	46	368	4	34	336	36	1073
5:45 PM	23	82	10	31	61	11	41	361	5	31	319	31	1006
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	196	725	75	270	502	115	352	2918	31	266	2663	238	8351

PM Peak Hr Begins at 445 PM

PEAK VOLUMES =	108	387	44	150	279	64	194	1561	15	150	1403	148	4503
----------------	-----	-----	----	-----	-----	----	-----	------	----	-----	------	-----	------

ADDITIONS: SIGNALIZED

**SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS**

N-S STREET: CARNELIAN ST. DATE: 6/13/01 CITY: RANCHO CUCA
 E-W STREET: FOOTHILL DAY: WEDNESDAY Intersection I.D.:
 PROJECT# 063300011

RECEIVING: LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	1	2	2	1	2	2	1	

6:00 AM
 6:15 AM
 6:30 AM
 6:45 AM
 7:00 AM
 7:15 AM
 7:30 AM
 7:45 AM
 8:00 AM
 8:15 AM
 8:30 AM
 8:45 AM
 9:00 AM
 9:15 AM
 9:30 AM
 9:45 AM
 10:00 AM
 10:15 AM
 10:30 AM
 10:45 AM
 11:00 AM
 11:15 AM
 11:30 AM
 11:45 AM

20	113	19	15	242	87	40	107	21	18	269	18	969
26	167	29	26	255	96	51	145	26	29	320	31	1201
31	210	31	41	295	145	46	179	25	27	342	32	1404
26	151	33	34	276	165	47	191	30	30	352	22	1357
31	130	32	31	210	110	38	210	19	26	297	25	1159
13	103	23	22	162	100	25	144	23	20	260	20	915
32	93	28	32	165	95	37	171	20	35	275	22	1005
33	125	34	23	142	77	35	162	25	22	220	31	929

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	212	1092	229	224	1747	875	319	1309	189	207	2335	201	8939

AM Peak Hr Begins at 7:15 AM

PEAK VOLUMES =	114	658	125	132	1036	516	182	725	100	112	1311	110	5121
----------------	-----	-----	-----	-----	------	-----	-----	-----	-----	-----	------	-----	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIBALD AVE. DATE: 6/13/01 CITY: RANCO CUCAMONGA
E-W STREET: FOOTHILL BLVD. DAY: WEDNESDAY PROJECT# 063300012

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	1	2	1 1/2	1/2	2	2	0	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	36	177	48	49	153	16	68	319	41	43	159	37	1146
4:15 PM	32	189	31	38	141	10	81	273	34	47	164	33	1073
4:30 PM	29	234	40	41	176	20	93	297	32	36	165	40	1203
4:45 PM	33	243	45	35	162	15	96	342	39	52	212	39	1313
5:00 PM	31	222	42	37	139	37	85	291	35	40	187	46	1192
5:15 PM	42	255	34	43	154	44	79	312	29	38	180	54	1264
5:30 PM	37	221	36	36	128	51	97	278	43	49	196	49	1221
5:45 PM	30	218	43	40	159	47	89	269	25	39	184	44	1187
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	270	1759	319	319	1212	240	688	2381	278	344	1447	342	9599

PM Peak Hr Begins at 445 PM

PEAK VOLUMES =	143	941	157	151	583	147	357	1223	146	179	775	188	4990
----------------	-----	-----	-----	-----	-----	-----	-----	------	-----	-----	-----	-----	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: EUCLID DATE: 6/13/01 CITY: UPLAND
E-W STREET: ARROW DAY: WEDNESDAY Intersection I.D.:
PROJECT# 063300013

RECEIVING: LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	3	0	0	3	0	0	2	0	0	2	0	

6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	16	139	56	8	291	6	3	46	12	32	111	10	730
7:15 AM	19	147	63	11	289	9	3	50	12	37	124	12	776
7:30 AM	17	183	55	11	338	9	5	67	14	38	133	13	883
7:45 AM	19	177	53	13	317	7	5	68	13	36	146	14	868
8:00 AM	23	186	59	16	331	7	6	71	15	36	145	12	907
8:15 AM	21	172	51	16	312	6	6	73	13	37	161	10	878
8:30 AM	20	156	46	14	281	6	9	82	13	32	132	9	800
8:45 AM	16	148	41	12	264	3	8	62	10	26	126	8	724
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	151	1308	424	101	2423	53	45	519	102	274	1078	88	6566

AM Peak Hr Begins at 730 AM

PEAK VOLUMES =	80	718	218	56	1298	29	22	279	55	147	585	49	3536
----------------	----	-----	-----	----	------	----	----	-----	----	-----	-----	----	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: EUCLID DATE: 6/13/01 CITY: UPLAND
 E-W STREET: ARROW DAY: WEDNESDAY PROJECT# 0600013

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	3	0	0	3	0	0	2	0	0	2	0	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	6	264	29	0	236	8	9	136	11	17	111	13	840
4:15 PM	6	296	36	1	260	11	6	141	16	21	125	16	935
4:30 PM	9	301	38	2	261	12	11	156	17	24	136	16	983
4:45 PM	8	326	46	0	287	12	13	170	29	27	157	21	1096
5:00 PM	7	315	49	1	296	17	14	173	26	26	166	20	1110
5:15 PM	6	296	46	1	301	15	12	186	26	26	161	18	1094
5:30 PM	9	361	50	0	314	15	13	176	26	28	154	19	1165
5:45 PM	6	311	43	0	302	13	13	169	23	24	157	16	1077
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	57	2470	337	5	2257	103	91	1307	174	193	1167	139	8300

PM Peak Hr Begins at 445 PM

PEAK VOLUMES =	30	1298	191	2	1198	59	52	705	107	107	638	78	4465
----------------	----	------	-----	---	------	----	----	-----	-----	-----	-----	----	------

ADDITIONS: SIGNALIZED

**SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS**

N-S STREET: ARROW RT. DATE: 11/29/01 CITY: UPLAND
 E-W STREET: CORNELIAN/ VINEYARD DAY: THURSDAY PROJECT# 0038008A

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													784
7:00 AM	17	119	25	36	231	18	14	103	18	33	146	24	829
7:15 AM	14	125	24	40	246	15	17	98	15	39	168	28	897
7:30 AM	9	132	22	33	298	29	33	92	21	41	156	31	897
7:45 AM	16	102	44	52	273	25	12	146	26	23	224	23	966
8:00 AM	16	102	44	52	273	25	12	146	26	23	224	23	966
8:15 AM	16	102	44	52	273	25	12	146	26	23	224	23	966
8:30 AM	15	108	48	49	230	18	11	131	16	34	162	13	835
8:45 AM	15	108	48	49	230	18	11	131	16	34	162	13	835
9:00 AM	13	114	50	44	254	21	18	124	19	36	171	22	886
9:15 AM	13	114	50	44	254	21	18	124	19	36	171	22	886
9:30 AM	11	122	37	35	243	24	15	118	17	37	184	24	867
9:45 AM	11	122	37	35	243	24	15	118	17	37	184	24	867
10:00 AM	10	116	42	39	233	22	23	111	22	29	158	18	823
10:15 AM	10	116	42	39	233	22	23	111	22	29	158	18	823
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	105	938	292	328	2008	172	143	923	154	272	1369	183	6887

AM Peak Hr Begins at 730 AM

PEAK VOLUMES =	53	456	164	178	1055	93	74	493	82	134	713	89	3584
----------------	----	-----	-----	-----	------	----	----	-----	----	-----	-----	----	------

ADDITIONS:

13

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARROW RT. DATE: 11/29/01 CITY: UPLAND
E-W STREET: CORNELIAN/VINEYARD DAY: THURSDAY PROJECT# 0038006P

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
1:00 PM	1	2	0	1	2	0	1	2	0	1	2	0	
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	14	181	36	19	126	15	21	139	14	23	137	31	758
4:15 PM	21	195	30	24	119	15	18	134	13	19	149	36	773
4:30 PM	11	237	42	21	152	13	25	157	18	31	145	32	884
4:45 PM	20	221	49	23	127	14	30	190	15	20	151	42	902
5:00 PM	26	212	47	24	149	19	23	168	11	35	147	31	892
5:15 PM	13	202	51	18	141	8	28	207	17	24	165	39	913
5:30 PM	21	211	53	20	134	12	24	186	15	30	153	33	892
5:45 PM	17	194	39	21	123	11	20	156	16	22	144	27	790
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	143	1653	347	170	1071	107	189	1337	119	204	1191	271	6802

PM Peak Hr Begins at 445 PM

PEAK VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	80	846	200	85	551	53	105	751	58	109	616	145	3599

ADDITIONS:

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: S. EUCLID

DATE: 12/04/01

CITY: UPLAND

E-W STREET: 7th ST.

DAY: TUESDAY

PROJECT# 0050001A

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	3	0	0	3	0	0	1	0	0	2	0	

6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	128	17	5	307	5	1	7	20	74	37	41	644
7:15 AM	2	177	13	1	328	7	4	9	21	97	66	79	804
7:30 AM	9	203	12	5	314	12	2	11	30	66	90	87	841
7:45 AM	9	232	13	1	416	13	8	25	45	56	112	79	1009
8:00 AM	16	210	17	3	390	17	8	14	28	72	79	45	888
8:15 AM	12	202	21	6	351	16	7	8	30	67	53	47	820
8:30 AM	7	200	25	6	305	11	3	14	21	57	35	49	733
8:45 AM	8	204	19	6	300	11	4	13	18	92	28	55	758
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	65	1558	137	33	2711	92	37	101	213	581	500	482	6508

AM Peak Hr Begins at

730 AM

PEAK VOLUMES =	48	847	63	15	1471	58	25	58	133	261	334	258	3569
----------------	----	-----	----	----	------	----	----	----	-----	-----	-----	-----	------

ADDITIONS:

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: S. EUCLID

DATE: 12/04/01

CITY: UPLAND

E-W STREET: 7th ST.

DAY: TUESDAY

PROJECT# 0050001P

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	3	0	0	3	0	0	1	0	0	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	18	309	26	2	343	6	8	22	29	65	49	74	951
4:15 PM	6	311	12	8	348	6	6	33	13	73	62	85	963
4:30 PM	8	275	35	4	355	7	5	27	31	72	44	89	952
4:45 PM	14	308	28	7	383	11	8	30	28	71	53	104	1043
5:00 PM	10	311	17	2	374	6	8	25	26	81	65	114	1039
5:15 PM	11	313	14	4	387	7	3	26	39	73	53	108	1038
5:30 PM	10	316	18	3	315	9	5	37	21	93	60	111	998
5:45 PM	10	284	22	1	353	11	6	19	21	69	55	71	902
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	87	2405	172	31	2858	63	49	219	208	597	441	756	7886

PM Peak Hr Begins at 445 PM

PEAK	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	45	1246	77	16	1459	33	24	118	114	318	231	437	4118

ADDITIONS:

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: EUCLID DATE: 6/14/01 CITY: ONTARIO
E-W STREET: 10 FWY EB ON RAMP DAY: THURSDAY PROJECT# 063300024

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	3		1	1	3		2		1				
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													826
4:00 PM		292	40	108	207		106		73				908
4:15 PM		269	81	181	185		102		90				968
4:30 PM		215	74	203	232		148		96				916
4:45 PM		243	58	156	211		156		92				1024
5:00 PM		280	99	102	288		145		110				1012
5:15 PM		257	71	101	259		144		180				890
5:30 PM		295	44	153	202		103		93				858
5:45 PM		200	41	168	198		158		93				
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	0	2051	508	1172	1782	0	1062	0	827	0	0	0	7402

PM Peak Hr Begins at 330 AM

PEAK VOLUMES =	0	995	302	562	990	0	593	0	478	0	0	0	3920
----------------	---	-----	-----	-----	-----	---	-----	---	-----	---	---	---	------

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: S. EUCLID

DATE: 12/04/01

CITY: UPLAND

E-W STREET: 4th ST.

DAY: TUESDAY

PROJECT# 0050002A

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	3	0	1	3	0	0	1	0	0	1	0	

6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	25	169	45	31	181	40	22	39	14	10	61	15	652
7:15 AM	19	185	52	32	210	56	21	43	29	15	59	22	743
7:30 AM	15	220	16	26	224	29	23	67	23	5	39	9	696
7:45 AM	10	277	10	8	287	47	18	55	19	11	39	6	787
8:00 AM	4	211	10	9	220	11	7	27	13	10	49	7	578
8:15 AM	14	234	8	7	189	24	8	27	14	8	52	7	592
8:30 AM	13	217	11	16	215	15	13	37	13	6	38	16	610
8:45 AM	2	187	9	6	240	10	11	24	4	13	31	9	546
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	102	1700	161	135	1766	232	123	319	129	78	368	91	5204

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	69	851	123	97	902	172	84	204	85	41	198	52	2878
----------------	----	-----	-----	----	-----	-----	----	-----	----	----	-----	----	------

ADDITIONS:

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: S. EUCLID

DATE: 12/04/01

CITY: UPLAND

E-W STREET: 4th ST.

DAY: TUESDAY

PROJECT# 0050002P

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
1:00 PM	1	3	0	1	3	0	0	1	0	0	1	0	
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	15	298	21	20	232	18	27	53	20	21	41	17	783
4:15 PM	13	276	16	22	257	20	22	54	18	21	33	18	770
4:30 PM	17	316	15	18	259	24	26	55	13	21	40	17	821
4:45 PM	9	334	18	16	220	18	35	61	8	15	33	14	781
5:00 PM	11	329	117	20	208	15	16	41	9	21	21	18	826
5:15 PM	18	342	16	17	227	22	23	48	10	19	34	10	786
5:30 PM	19	280	26	12	201	18	9	50	17	14	39	10	695
5:45 PM	16	265	21	10	192	17	10	42	15	12	29	8	637
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	118	2440	250	135	1796	152	168	404	110	144	270	112	6099

PM Peak Hr Begins at 430 PM

PEAK	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	55	1321	166	71	814	79	100	205	40	76	128	59	3214

ADDITIONS:

LSA |

LSA ASSOCIATES, INC.
1650 SPRUCE STREET, SUITE 500
RIVERSIDE, CALIFORNIA 92507

909.781.9310 TEL
909.781.4277 FAX

(22)

FAX TRANSMITTAL

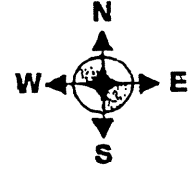
NAME: Serine Ciandella
FIRM: Kimley-Horn
FAX NUMBER: 714/938-9488

DATE: January 29, 2002
PROJECT NUMBER: BGL030
PROJECT NAME: Colonics at San Antonio

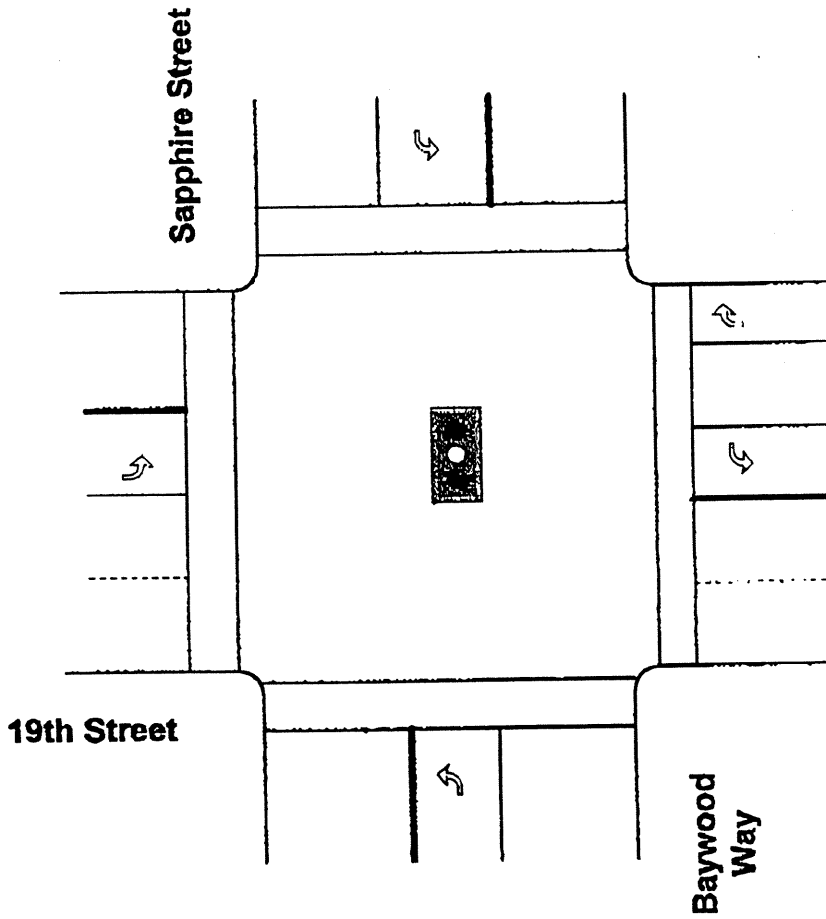
FROM: Kevin Fincher
SENT BY: _____
NUMBER OF PAGES INCLUDING COVER: 6
CC: _____

- URGENT
- AT YOUR REQUEST
- FOR YOUR INFORMATION
- FOR YOUR REVIEW
- FOR YOUR APPROVAL
- HARD COPY TO FOLLOW
- OTHER _____

COMMENTS: _____
Count for 19th/Sapphire.



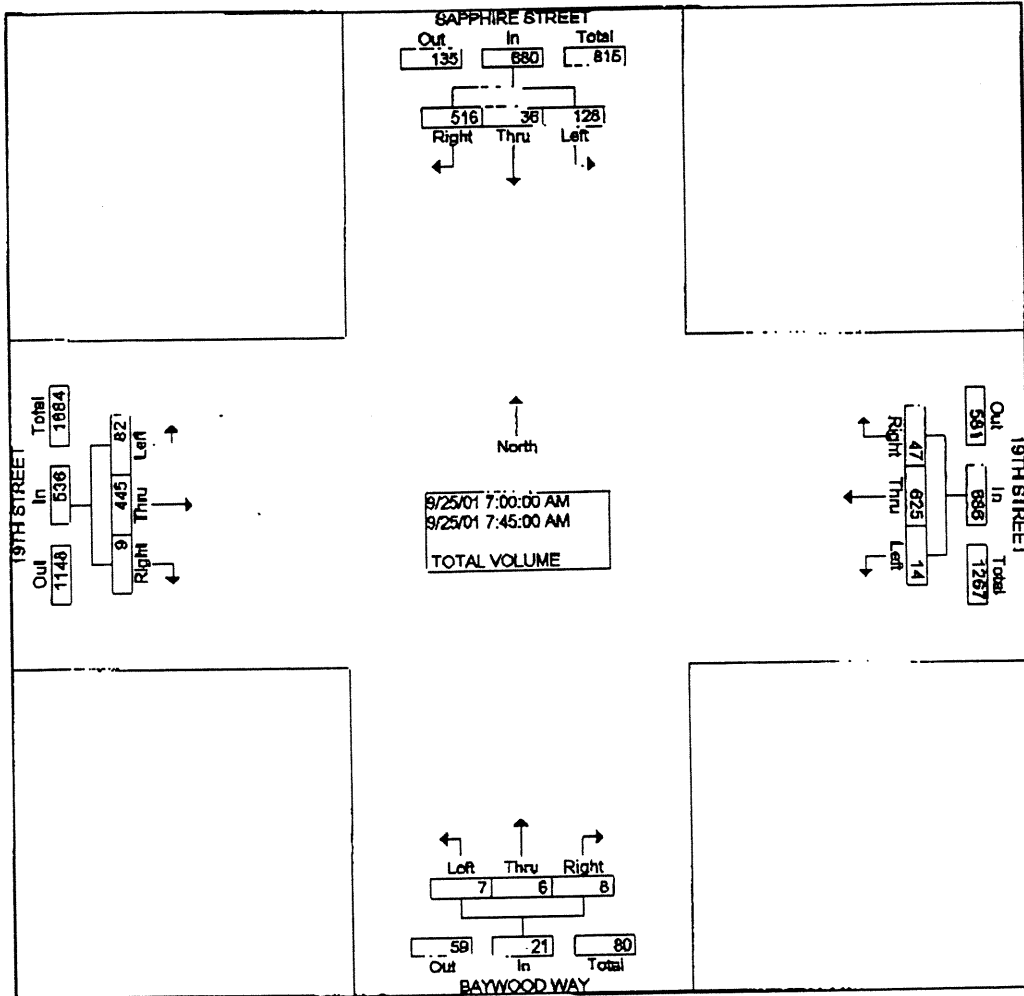
NOT TO SCALE



CITY OF UPLAND
 N/S: SAPPHIRE STREET-BAYWOOD WAY
 W: 19TH STREET
 WEATHER: SUNNY

COUNTS UNLIMITED, INC.
 909.247.6716

File Name : UPSA19AM
 Site Code : 00033036
 Start Date : 09/25/2001
 Page No : 2



Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1

By Approach	07:00 AM				07:15 AM				07:30 AM				07:30 AM			
Volume	128	36	516	680	14	617	57	688	10	4	10	24	114	467	9	590
Percent	18.8	5.3	75.9		2.0	89.7	8.3		41.7	16.7	41.7		19.3	79.2	1.5	
High Int.	07:30 AM				07:15 AM				08:15 AM				07:30 AM			
Volume	36	11	141	188	2	174	9	185	6	0	3	9	27	150	2	179
Peak Factor	0.904				0.930				0.667				0.824			

TY OF UPLAND
 S: SAPPHIRE STREET-BAYWOOD WAY
 W: 19TH STREET
 EATHER: SUNNY

COUNTS UNLIMITED, INC.
 909.247.6716

File Name : UPSA19AM
 Site Code : 00033036
 Start Date : 09/25/2001
 Page No : 1

Groups Printed- TOTAL VOLUME

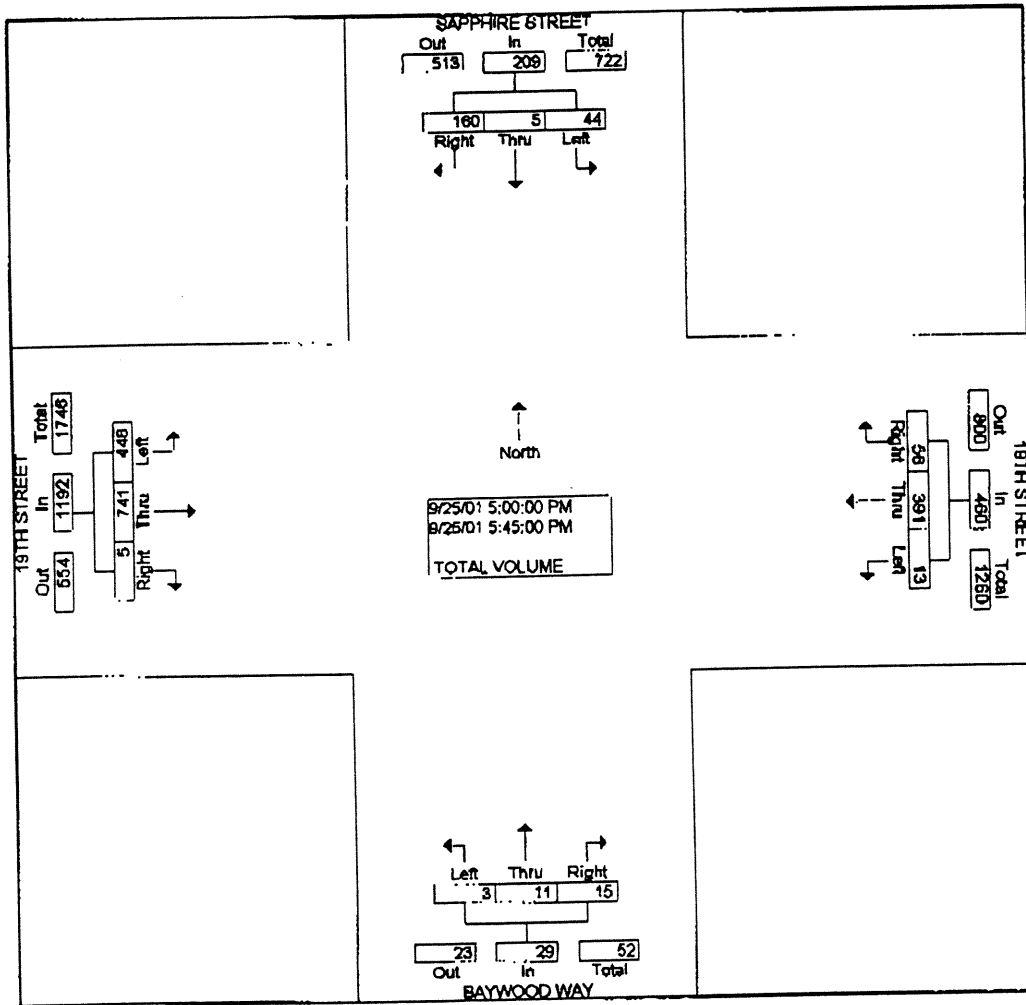
Start Time	SAPPHIRE STREET Southbound				19TH STREET Westbound				BAYWOOD WAY Northbound				19TH STREET Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	17	4	142	163	4	148	5	157	1	2	1	4	8	71	2	81	405
07:15 AM	45	15	125	185	2	174	9	185	3	1	1	5	10	86	2	98	473
07:30 AM	36	11	141	188	7	154	14	175	1	2	2	5	27	150	2	179	547
07:45 AM	30	6	108	144	1	149	19	169	2	1	4	7	37	138	3	178	498
Total	128	36	516	680	14	625	47	686	7	6	8	21	82	445	9	536	1923
08:00 AM	8	7	76	91	4	140	15	159	1	1	1	3	22	91	1	114	367
08:15 AM	6	1	83	90	3	132	7	142	6	0	3	9	28	88	3	119	360
08:30 AM	11	2	113	126	1	127	9	137	0	0	2	2	21	56	2	79	344
08:45 AM	14	1	56	71	1	131	9	141	2	0	2	4	21	68	1	90	306
Total	39	11	328	378	9	530	40	579	9	1	8	18	92	303	7	402	1377
Grand Total	167	47	844	1058	23	1155	87	1265	16	7	16	39	174	748	16	938	3300
Apprch %	15.8	4.4	79.8		1.8	91.3	6.9		41.0	17.9	41.0		18.6	79.7	1.7		
Total %	5.1	1.4	25.6	32.1	0.7	35.0	2.6	38.3	0.5	0.2	0.5	1.2	5.3	22.7	0.5	28.4	

Start Time	SAPPHIRE STREET Southbound				19TH STREET Westbound				BAYWOOD WAY Northbound				19TH STREET Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:00 AM																
Volume	128	36	516	680	14	625	47	686	7	6	8	21	82	445	9	536	1923
Percent	18.8	5.3	75.9		2.0	91.1	6.9		33.3	28.6	38.1		15.3	83.0	1.7		
07:30 Volume	36	11	141	188	7	154	14	175	1	2	2	5	27	150	2	179	547
Peak Factor																	0.879
High Int.	07:30 AM				07:15 AM				07:45 AM				07:30 AM				
Volume	36	11	141	188	2	174	9	185	2	1	4	7	27	150	2	179	
Peak Factor	0.904				0.927				0.750				0.749				

CITY OF UPLAND
 VS: SAPPHIRE STREET - BAYWOOD WAY
 V: 19TH STREET
 WEATHER: SUNNY

COUNTS UNLIMITED, INC.
 909.247.6716

File Name : UPSA19PM
 Site Code : 00033036
 Start Date : 09/25/2001
 Page No : 2



Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1

By Approach	04:00 PM	04:15 PM	04:30 PM	04:45 PM	05:00 PM	05:15 PM	05:30 PM	05:45 PM	Total							
Volume	55	1	161	217	7	419	44	470	3	11	15	29	446	741	5	1192
Percent	25.3	0.5	74.2		1.5	89.1	9.4		10.3	37.9	51.7		37.4	62.2	0.4	
High Int.	04:00 PM				04:15 PM				05:00 PM				05:30 PM			
Volume	19	0	41	60	3	114	14	131	2	4	10	16	162	165	0	327
Peak Factor				0.904				0.897				0.453				0.911

CITY OF UPLAND
 I/S: SAPPHIRE STREET - BAYWOOD WAY
 W/ 19TH STREET
 WEATHER: SUNNY

COUNTS UNLIMITED, INC.
 909.247.6716

File Name : UPSA19PM
 Site Code : 00033036
 Start Date : 09/25/2001
 Page No : 1

Groups Printed- TOTAL VOLUME

Start Time	SAPPHIRE STREET Southbound				19TH STREET Westbound				BAYWOOD WAY Northbound				19TH STREET Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:00 PM	19	0	41	60	4	101	10	115	5	2	1	8	66	151	0	217	400
04:15 PM	9	0	37	46	3	114	14	131	1	0	4	5	69	155	2	226	408
04:30 PM	12	0	39	51	0	104	6	110	0	2	3	5	71	163	1	235	401
04:45 PM	15	1	44	60	0	100	14	114	2	3	5	10	101	176	1	278	462
Total	55	1	161	217	7	419	44	470	8	7	13	28	307	645	4	956	1671
05:00 PM	10	1	33	44	4	89	7	100	0	3	1	4	94	169	3	266	414
05:15 PM	7	1	32	40	2	93	13	108	1	2	1	4	93	204	0	297	449
05:30 PM	14	2	46	62	2	111	23	136	0	2	3	5	162	165	0	327	530
05:45 PM	13	1	49	63	5	98	13	116	2	4	10	16	97	203	2	302	497
Total	44	5	160	209	13	391	56	460	3	11	15	29	446	741	5	1192	1890
Grand Total	99	6	321	426	20	810	100	930	11	18	28	57	753	1386	9	2148	3561
Approch %	23.2	1.4	75.4		2.2	87.1	10.8		19.3	31.6	49.1		35.1	64.5	0.4		
Total %	2.8	0.2	9.0	12.0	0.6	22.7	2.8	26.1	0.3	0.5	0.8	1.6	21.1	38.9	0.3	60.3	

Start Time	SAPPHIRE STREET Southbound				19TH STREET Westbound				BAYWOOD WAY Northbound				19TH STREET Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From	04:00 PM to 05:45 PM - Peak 1 of 1																
Intersection	05:00 PM																
Volume	44	5	160	209	13	391	56	460	3	11	15	29	446	741	5	1192	1890
Percent	21.1	2.4	76.6		2.8	85.0	12.2		10.3	37.9	51.7		37.4	62.2	0.4		
05:30 Volume	14	2	46	62	2	111	23	136	0	2	3	5	162	165	0	327	530
Peak Factor	0.829																
High Int.	05:45 PM																
Volume	13	1	49	63	2	111	23	136	2	4	10	16	162	165	0	327	530
Peak Factor	0.846																
	0.453																
	0.911																

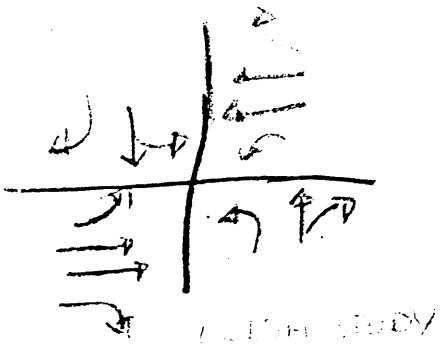
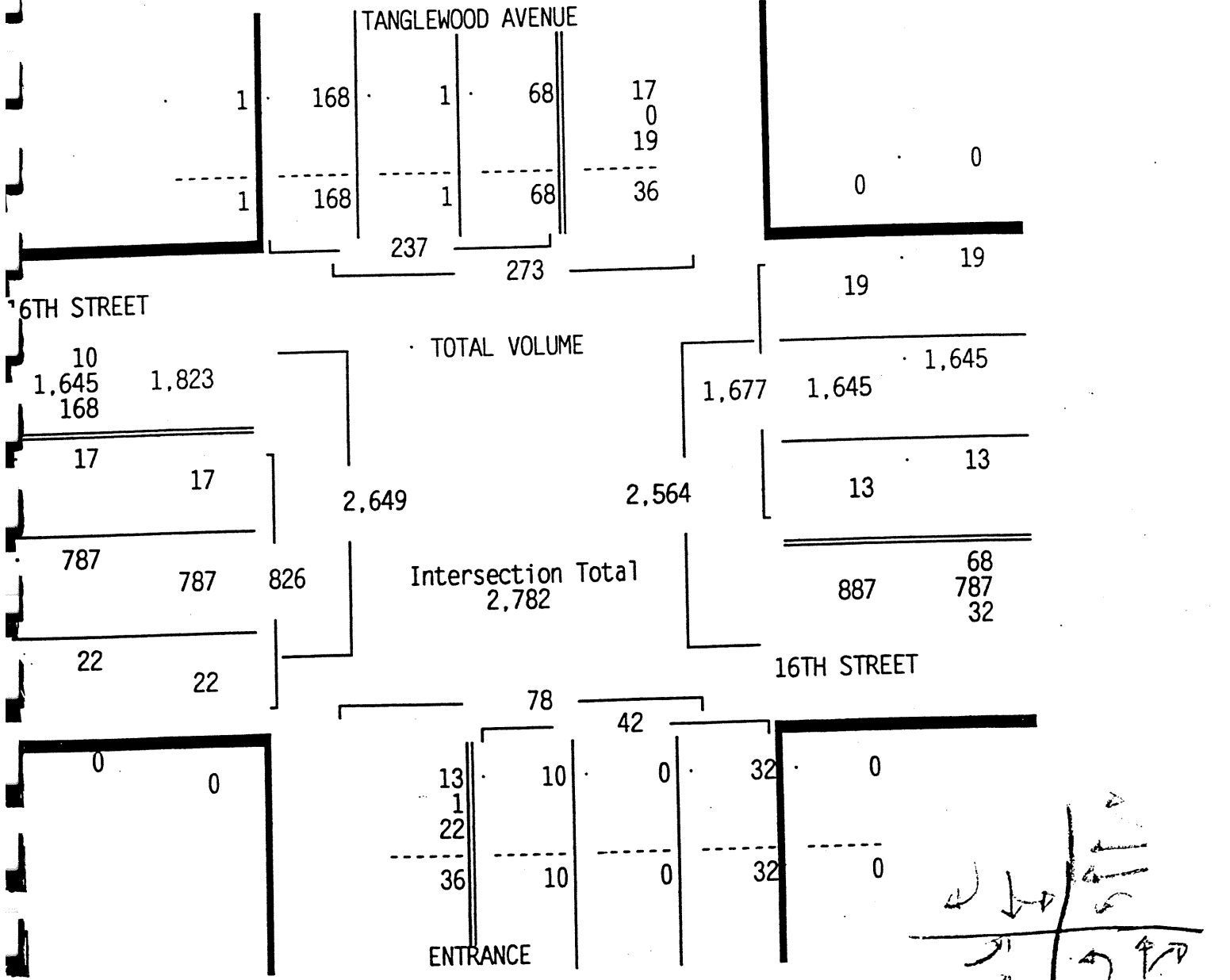
OF UPLAND
 S: TANGLEWOOD AVENUE
 : 16TH STREET
 THER: CLOUDY

COUNTS UNLIMITED
 25424 JACLYN AVENUE
 MORENO VALLEY, CA 92557
 909-247-6716

Site Code : 00036908
 Start Date: 05/14/98
 File I.D. : UPTA16AM
 Page : 1

TOTAL VOLUME

Date	TANGLEWOOD AVENUE Southbound			16TH STREET Westbound			ENTRANCE Northbound			16TH STREET Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
05/14/98													
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 05/14/98													
Peak start 07:15													
Volume	68	1	168	13	1645	19	10	0	32	17	787	22	
Percent	29%	0%	71%	1%	98%	1%	24%	0%	76%	2%	95%	3%	
Volume total	237			1677			42			826			
Peak start 07:45													
Volume	20	0	47	6	432	6	4	0	15	8	214	4	
Volume total	67			444			19			226			
Percent	.88			.94			.55			.91			



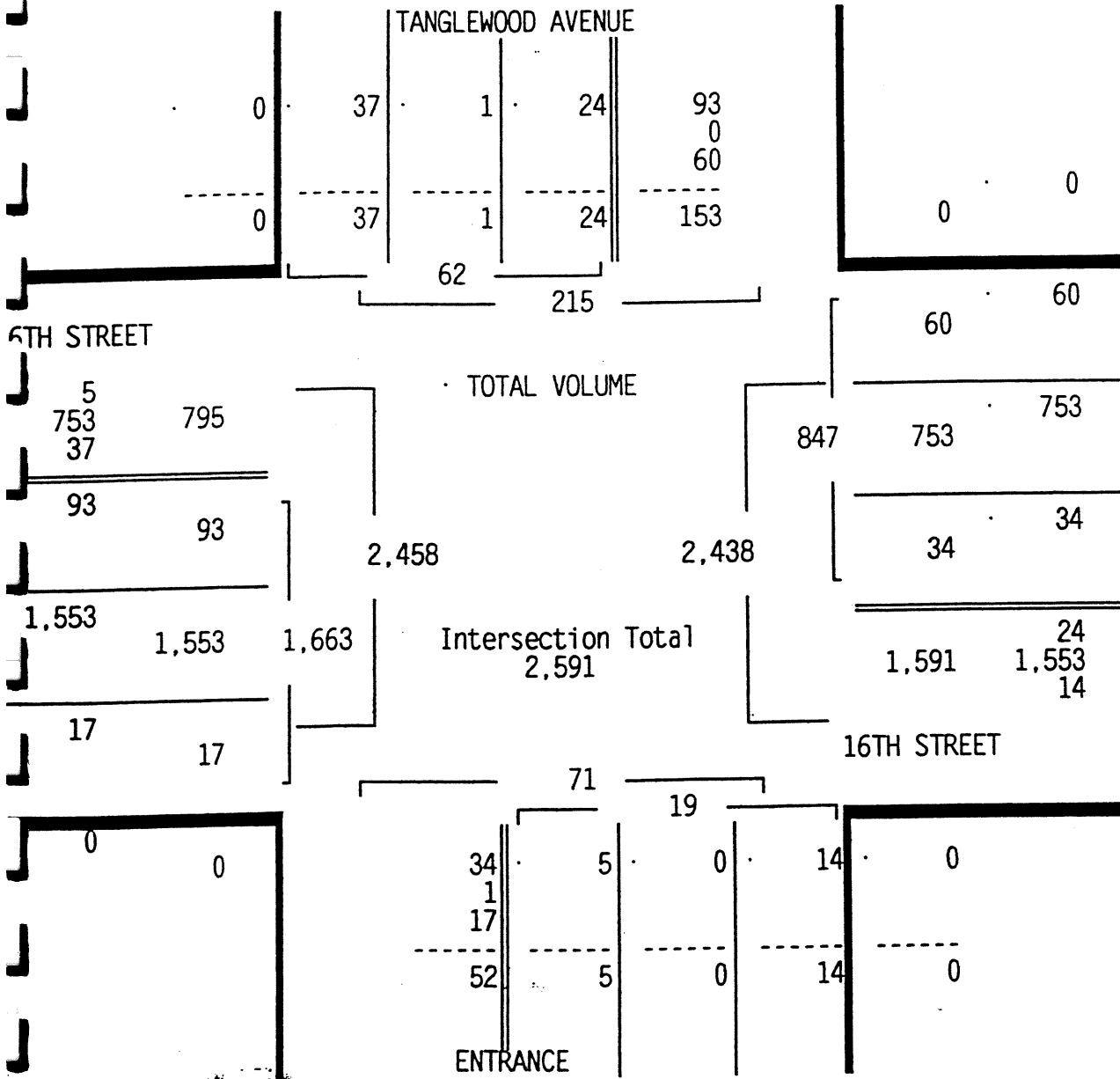
OF UPLAND
 S: TANGLEWOOD AVENUE
 16TH STREET
 HER: CLOUDY

COUNTS UNLIMITED
 25424 JACLYN AVENUE
 MORENO VALLEY, CA 92557
 909-247-6716

Site Code : 00036911
 Start Date: 05/13/98
 File I.D. : UPTA16PM
 Page : 1

TOTAL VOLUME

	TANGLEWOOD AVENUE Southbound			16TH STREET Westbound			ENTRANCE Northbound			16TH STREET Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
05/13/98	Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 05/13/98												
Start 17:00	17:00			17:00			17:00			17:00			
Time	24	1	37	34	753	60	5	0	14	93	1553	17	
Percent	39%	2%	60%	4%	89%	7%	26%	0%	74%	6%	93%	1%	
Total	62			847			19			1663			
Start 17:30	17:30			17:00			17:30			17:15			
Time	6	0	10	5	198	13	1	0	7	24	476	5	
Total	16			216			8			505			
	.97			.98			.59			.82			



CITY OF UPLAND
 1/S: TANGLEWOOD AVENUE
 1/W: 16TH STREET
 WEATHER: CLOUDY

COUNTS UNLIMITED
 25424 JACLYN AVENUE
 MORENO VALLEY, CA 92557
 909-247-6716

Site Code : 0003691
 Start Date: 05/13/98
 File I.D. : UPTA16PM
 Page : 1

TOTAL VOLUME

Date	TANGLEWOOD AVENUE Southbound			16TH STREET Westbound			ENTRANCE Northbound			16TH STREET Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
05/13/98													
16:00	4	0	11	4	187	9	1	0	3	19	289	3	530
16:15	7	0	4	8	205	10	3	0	5	11	324	2	579
16:30	2	1	3	5	181	9	1	0	3	15	368	2	590
16:45	2	0	10	5	209	14	0	0	2	23	357	5	627
Hr Total	15	1	28	22	782	42	5	0	13	68	1338	12	2326
17:00	4	0	11	5	198	13	1	0	3	18	314	5	572
17:15	6	1	8	13	182	21	0	0	2	24	476	5	738
17:30	6	0	10	7	183	10	1	0	7	22	386	6	638
17:45	8	0	8	9	190	16	3	0	2	29	377	1	643
Hr Total	24	1	37	34	753	60	5	0	14	93	1553	17	2591
TOTAL	39	2	65	56	1535	102	10	0	27	161	2891	29	4917

Peak Hour Analysis By Individual Approach for the Period: 16:00 to 18:00 on 05/13/98

Peak start	17:00			16:15			17:00			17:00		
Volume	24	1	37	23	793	46	5	0	14	93	1553	17
Percent	39%	2%	60%	3%	92%	5%	26%	0%	74%	6%	93%	1%
Pk total	62			862			19			1663		
Highest	17:30			16:45			17:30			17:15		
Volume	6	0	10	5	209	14	1	0	7	24	476	5
Si total	16			228			8			505		
PHF	.97			.95			.59			.82		

Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 05/13/98

Peak start	17:00			17:00			17:00			17:00		
Volume	24	1	37	34	753	60	5	0	14	93	1553	17
Percent	39%	2%	60%	4%	89%	7%	26%	0%	74%	6%	93%	1%
Pk total	62			847			19			1663		
Highest	17:30			17:00			17:30			17:15		
Volume	6	0	10	5	198	13	1	0	7	24	476	5
Si total	16			216			8			505		
PHF	.97			.98			.59			.82		

APPENDIX D

**HIGHWAY CAPACITY
SOFTWARE
INTERSECTION ANALYSIS
WORKSHEETS**

15.3 Air Quality Data

SECRET

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland Co
Project Name: Colonies at San Antonio - All SPA
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (lbs/day, unmitigated)	112.47	874.01	23.07	470.67	103.35
TOTALS (lbs/day, mitigated)	108.93	831.98	23.07	203.48	98.24

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
 Project Name: Colonies at San Antonio - All SPA
 Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
 (Pounds/Day - Summer)

Total Land Use Area to be Developed (Estimated): 225 acres
 Retail/Office/Institutional Square Footage: 1033000
 Single Family Units: 800 Multi-family Units: 350

CONSTRUCTION EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Demolition	-	-	-	0.00	-
Site Grading	52.76	636.56	-	450.20	85.07
Const. Worker Trips	8.60	12.16	23.07	2.33	-
Stationary Equip	1.85	1.51	-	0.09	0.02
Mobile Equip. - Gas	26.06	19.78	-	1.25	1.10
Mobile Equip. - Diesel	18.00	204.00	-	16.80	17.16
Architectural Coatings	0.00	-	-	-	-
Asphalt Offgassing	5.20	-	-	-	-
TOTALS (lbs/day, unmitigated)	112.47	874.01	23.07	470.67	103.35

CONSTRUCTION EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Demolition	-	-	-	0.00	-
Site Grading	52.76	604.73	-	183.85	80.81
Const. Worker Trips	8.60	12.16	23.07	2.33	-
Stationary Equip	1.85	1.51	-	0.09	0.02
Mobile Equip. - Gas	26.06	19.78	-	1.25	1.10
Mobile Equip. - Diesel	17.10	193.80	-	15.96	16.30
Architectural Coatings	0.00	-	-	-	-
Asphalt Offgassing	5.20	-	-	-	-
TOTALS (lbs/day, mitigated)	108.93	831.98	23.07	203.48	98.24

Construction-Related Mitigation Measures

Soil Erosion Measures: Water Exposed Surfaces 2x Per Day
 Percent Reduction(ROG 0% NOx 0% CO 0% PM10 68% SOx 0%)
 Properly Maintain Equipment
 Percent Reduction(ROG 5% NOx 5% CO 5% PM10 5% SOx 5%)
 Reduce Speeds on Unpaved Roads to 15 mph or less
 Percent Reduction(ROG 0% NOx 0% CO 0% PM10 70% SOx 0%)
 Mobile Equipment: Properly Maintain Equipment
 Percent Reduction(ROG 5% NOx 5% CO 5% PM10 5% SOx 5%)

Changes made to the default values for Construction

- The demolition option switch changed from on to off.
- The architectural coating option switch changed from on to off.
- The construction year changed from 2000 to 2004.
- The length of construction period changed from 250 to 260.
- The site grading max daily acreage estimate changed from to 38.1.
- The site grading annual days earth moving changed from 250 to 260.
- The site grading scraper total vehicles changed from to 8.
- The site grading wheeled dozer total vehicles changed from to 8.
- The site grading wheeled loader total vehicles changed from to 2.
- The site grading miscellaneous total vehicles changed from to 26.5.
- The worker construction year changed from 2000 to 2004.
- The asphalt acres to be paved changed from 1 to 99.19.
- The asphalt total days of paving changed from 10 to 50.
- The stationary equipment equipment units changed from 2 to 11.
- The mobile gas miscellaneous total vehicles changed from to 6.
- The mobile diesel miscellaneous total vehicles changed from to 15.
- Mitigation measure Soil Erosion Measures: Water Exposed Surfaces 2x Per Day:0
has been changed from off to on.
- Mitigation measure Properly Maintain Equipment: 5
has been changed from off to on.
- Mitigation measure Reduce Speeds on Unpaved Roads to 15 mph or less: 0
has been changed from off to on.
- Mitigation measure Mobile Equipment: Properly Maintain Equipment: 5
has been changed from off to on.

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
Project Name: Colonies at San Antonio - All SPA
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (lbs/day, unmitigated)	112.47	874.01	23.07	470.67	103.35
TOTALS (lbs/day, mitigated)	108.93	831.98	23.07	203.48	98.24

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland C
 Project Name: Colonies at San Antonio - All SPA
 Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
 (Pounds/Day - Winter)

Total Land Use Area to be Developed (Estimated): 225 acres
 Retail/Office/Institutional Square Footage: 1033000
 Single Family Units: 800 Multi-family Units: 350

CONSTRUCTION EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Demolition	-	-	-	0.00	-
Site Grading	52.76	636.56	-	450.20	85.07
Const. Worker Trips	8.60	12.16	23.07	2.33	-
Stationary Equip	1.85	1.51	-	0.09	0.02
Mobile Equip. - Gas	26.06	19.78	-	1.25	1.10
Mobile Equip. - Diesel	18.00	204.00	-	16.80	17.16
Architectural Coatings	0.00	-	-	-	-
Asphalt Offgassing	5.20	-	-	-	-
TOTALS (lbs/day, unmitigated)	112.47	874.01	23.07	470.67	103.35

CONSTRUCTION EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Demolition	-	-	-	0.00	-
Site Grading	52.76	604.73	-	183.85	80.81
Const. Worker Trips	8.60	12.16	23.07	2.33	-
Stationary Equip	1.85	1.51	-	0.09	0.02
Mobile Equip. - Gas	26.06	19.78	-	1.25	1.10
Mobile Equip. - Diesel	17.10	193.80	-	15.96	16.30
Architectural Coatings	0.00	-	-	-	-
Asphalt Offgassing	5.20	-	-	-	-
TOTALS (lbs/day, mitigated)	108.93	831.98	23.07	203.48	98.24

Construction-Related Mitigation Measures

Soil Erosion Measures: Water Exposed Surfaces 2x Per Day
 Percent Reduction (ROG 0% NOx 0% CO 0% PM10 68% SOx 0%)
 Properly Maintain Equipment
 Percent Reduction (ROG 5% NOx 5% CO 5% PM10 5% SOx 5%)
 Reduce Speeds on Unpaved Roads to 15 mph or less
 Percent Reduction (ROG 0% NOx 0% CO 0% PM10 70% SOx 0%)
 Mobile Equipment: Properly Maintain Equipment
 Percent Reduction (ROG 5% NOx 5% CO 5% PM10 5% SOx 5%)

Changes made to the default values for Construction

- The demolition option switch changed from on to off.
- The architectural coating option switch changed from on to off.
- The construction year changed from 2000 to 2004.
- The length of construction period changed from 250 to 260.
- The site grading max daily acreage estimate changed from to 38.1.
- The site grading annual days earth moving changed from 250 to 260.
- The site grading scraper total vehicles changed from to 8.
- The site grading wheeled dozer total vehicles changed from to 8.
- The site grading wheeled loader total vehicles changed from to 2.
- The site grading miscellaneous total vehicles changed from to 26.5.
- The worker construction year changed from 2000 to 2004.
- The asphalt acres to be paved changed from 1 to 99.19.
- The asphalt total days of paving changed from 10 to 50.
- The stationary equipment equipment units changed from 2 to 11.
- The mobile gas miscellaneous total vehicles changed from to 6.
- The mobile diesel miscellaneous total vehicles changed from to 15.
- Mitigation measure Soil Erosion Measures: Water Exposed Surfaces 2x Per Day:0
has been changed from off to on.
- Mitigation measure Properly Maintain Equipment: 5
has been changed from off to on.
- Mitigation measure Reduce Speeds on Unpaved Roads to 15 mph or less: 0
has been changed from off to on.
- Mitigation measure Mobile Equipment: Properly Maintain Equipment: 5
has been changed from off to on.

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland C
Project Name: Colonies at San Antonio - All SPA
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (tpy, unmitigated)	14.08	113.62	3.00	61.19	13.44
TOTALS (tpy, mitigated)	13.62	108.16	3.00	26.45	12.77

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
 Project Name: Colonies at San Antonio - All SPA
 Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
 (Tons/Year)

Total Land Use Area to be Developed (Estimated): 225 acres
 Retail/Office/Institutional Square Footage: 1033000
 Single Family Units: 800 Multi-family Units: 350

CONSTRUCTION EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Demolition	-	-	-	0.00	-
Site Grading	6.86	82.75	-	58.53	11.06
Const. Worker Trips	1.12	1.58	3.00	0.30	-
Stationary Equip	0.24	0.20	-	0.01	0.00
Mobile Equip. - Gas	3.39	2.57	-	0.16	0.14
Mobile Equip. - Diesel	2.34	26.52	-	2.18	2.23
Architectural Coatings	0.00	-	-	-	-
Asphalt Offgassing	0.13	-	-	-	-
TOTALS (tpy, unmitigated)	14.08	113.62	3.00	61.19	13.44

CONSTRUCTION EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Demolition	-	-	-	0.00	-
Site Grading	6.86	78.62	-	23.90	10.51
Const. Worker Trips	1.12	1.58	3.00	0.30	-
Stationary Equip	0.24	0.20	-	0.01	0.00
Mobile Equip. - Gas	3.39	2.57	-	0.16	0.14
Mobile Equip. - Diesel	2.22	25.19	-	2.07	2.12
Architectural Coatings	0.00	-	-	-	-
Asphalt Offgassing	0.13	-	-	-	-
TOTALS (tpy, mitigated)	13.62	108.16	3.00	26.45	12.77

Construction-Related Mitigation Measures

Soil Erosion Measures: Water Exposed Surfaces 2x Per Day
 Percent Reduction(ROG 0% NOx 0% CO 0% PM10 68% SOx 0%)
 Properly Maintain Equipment
 Percent Reduction(ROG 5% NOx 5% CO 5% PM10 5% SOx 5%)
 Reduce Speeds on Unpaved Roads to 15 mph or less
 Percent Reduction(ROG 0% NOx 0% CO 0% PM10 70% SOx 0%)
 Mobile Equipment: Properly Maintain Equipment
 Percent Reduction(ROG 5% NOx 5% CO 5% PM10 5% SOx 5%)

Changes made to the default values for Construction

- The demolition option switch changed from on to off.
- The architectural coating option switch changed from on to off.
- The construction year changed from 2000 to 2004.
- The length of construction period changed from 250 to 260.
- The site grading max daily acreage estimate changed from to 38.1.
- The site grading annual days earth moving changed from 250 to 260.
- The site grading scraper total vehicles changed from to 8.
- The site grading wheeled dozer total vehicles changed from to 8.
- The site grading wheeled loader total vehicles changed from to 2.
- The site grading miscellaneous total vehicles changed from to 26.5.
- The worker construction year changed from 2000 to 2004.
- The asphalt acres to be paved changed from 1 to 99.19.
- The asphalt total days of paving changed from 10 to 50.
- The stationary equipment equipment units changed from 2 to 11.
- The mobile gas miscellaneous total vehicles changed from to 6.
- The mobile diesel miscellaneous total vehicles changed from to 15.
- Mitigation measure Soil Erosion Measures: Water Exposed Surfaces 2x Per Day:0
has been changed from off to on.
- Mitigation measure Properly Maintain Equipment: 5
has been changed from off to on.
- Mitigation measure Reduce Speeds on Unpaved Roads to 15 mph or less: 0
has been changed from off to on.
- Mitigation measure Mobile Equipment: Properly Maintain Equipment: 5
has been changed from off to on.

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland P
Project Name: Upland SPA Phase 1
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (lbs/day, unmitigated)	15.38	3.86	3.38	0.01	0.06
TOTALS (lbs/day, mitigated)	15.38	3.86	3.38	0.01	0.06

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (ppd, unmitigated)	18.37	19.13	156.40	22.28
TOTALS (ppd, mitigated)	18.37	19.13	156.40	22.28

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
Project Name: Upland SPA Phase 1
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	PM10	SOX
Natural Gas	0.30	3.82	1.63	0.01	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.16	0.04	1.76	0.00	0.06
Consumer Prdcts	14.92	-	-	-	-
TOTALS (lbs/day, unmitigated)	15.38	3.86	3.38	0.01	0.06

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
Single family housing	18.37	19.13	156.40	22.28
TOTAL EMISSIONS (lbs/day)	18.37	19.13	156.40	22.28

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.48 trips / dwelling units	305.00	2,891.40

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	61.40	4.70	94.50	0.80
Light Duty Trucks	9.30	11.00	88.90	0.10
Medium Duty Trucks	7.20	12.50	79.20	-
Light-Heavy Duty Trucks	1.10	18.20	72.70	9.10
Med.-Heavy Duty Trucks	1.10	9.10	27.30	63.60
Heavy-Heavy Trucks	0.70	-	-	0.00
Urban Buses	0.00	-	-	0.00
Motorcycles	1.40	90.90% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	30.0	35.0	35.0	35.0	35.0	35.0
Number of Trips - Residential	20.0	37.0	43.0			

Changes made to the default values for Area

The wood stove option switch changed from on to off.
The landscape year changed from 2000 to 2011.
Changes made to the default values for Operations

The pass by trips option switch changed from on to off.
The light duty auto percentage changed from 75.0 to 61.4.
The light duty auto non-catalyst percentage changed from 1.16 to 4.7.
The light duty auto catalyst percentage changed from 98.58 to 94.5.
The light duty auto diesel percentage changed from 0.26 to 0.8.
The light duty truck percentage changed from 10.0 to 9.3.
The light duty truck non-catalyst percentage changed from 0.13 to 11.0.
The light duty truck catalyst percentage changed from 99.54 to 88.9.
The light duty truck diesel percentage changed from 0.33 to 0.1 .
The medium duty truck percentage changed from 3.0 to 7.2.
The medium duty truck non-catalyst percentage changed from 1.44 to 12.5.
The medium duty truck catalyst percentage changed from 98.56 to 79.2.
The light heavy duty truck percentage changed from 1.0 to 1.1.
The light heavy duty truck non-catalyst percentage changed from 19.56 to 18.2.
The light heavy duty truck catalyst percentage changed from 40.0 to 72.7.
The light heavy duty truck diesel percentage changed from 40.44 to 9.1.
The medium heavy duty truck percentage changed from 1.0 to 1.1.
The medium heavy duty truck non-catalyst percentage changed from 19.56 to 9.1.
The medium heavy duty truck catalyst percentage changed from 40.0 to 27.3.
The medium heavy duty truck diesel percentage changed from 40.44 to 63.6.
The heavy heavy duty truck percentage changed from 5.0 to 0.7.
The heavy heavy duty truck diesel percentage changed from 100.0 to 0.
The urban bus percentage changed from 2.0 to 0.
The urban bus diesel percentage changed from 100.0 to 0.
The motorcycle percentage changed from 3.0 to 1.4.
The motorcycle diesel percentage changed from 100.0 to 90.9.
The operational emission year changed from 2000 to 2010.
The operational winter selection item changed from 3 to 2.
The operational summer selection item changed from 8 to 7.
The home based work selection item changed from 8 to 7.
The home based shopping selection item changed from 9 to 8.
The home based other selection item changed from 9 to 8.
The commercial based commute selection item changed from 9 to 8.
The commercial based non-work selection item changed from 9 to 8.
The commercial based customer selection item changed from 9 to 8.
The variable start home to work 480 minute since engine shutoff % changed from 25.4 to 8.6.
The variable start home to work 720 minute since engine shutoff % changed from 44.0 to 8.6.
The variable start home to shop 480 minute since engine shutoff % changed from 2.3 to 2.6.
The variable start home to shop 720 minute since engine shutoff % changed from 18.9 to 2.6.
The variable start home to other 480 minute since engine shutoff % changed from 4.4 to 4.0.
The variable start home to other 720 minute since engine shutoff % changed from 27.1 to 4.0.
The variable start commercial commute 480 minute since engine shutoff % changed from 21.2 to 6.5.
The variable start commercial commute 720 minute since engine shutoff % changed from 29.3 to 6.5.
The variable start commercial non-commute 480 minute since engine shutoff % changed from 14.4 to 1.2.
The variable start commercial non-commute 720 minute since engine shutoff % changed from 5.8 to 1.2.
The variable start commercial customer 480 minute since engine shutoff % changed from 6.6 to 1.2.
The variable start commercial customer 720 minute since engine shutoff % changed from 3.6 to 1.2.
The travel mode environment settings changed from both to: none
The default/noddefault travel setting changed from noddefault to: noddefault
Visually Interesting Uses: No Uses Within Walking Distance
changed to:Visually Interesting Uses: No Uses within Walking Distance

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland Ph
Project Name: Upland SPA Phase 1
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (lbs/day, unmitigated)	356.84	7.70	378.46	51.62	0.60
TOTALS (lbs/day, mitigated)	356.84	7.70	378.46	51.62	0.60

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (ppd, unmitigated)	25.26	24.32	235.16	22.28
TOTALS (ppd, mitigated)	25.26	24.32	235.16	22.28

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
Project Name: Upland SPA Phase 1
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	PM10	SOX
Natural Gas	0.30	3.82	1.63	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	341.63	3.88	376.83	51.62	0.60
Landscaping - No winter emissions					
Consumer Prdcts	14.92	-	-	-	-
TOTALS (lbs/day, unmitigated)	356.84	7.70	378.46	51.62	0.60

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
Single family housing	25.26	24.32	235.16	22.28
TOTAL EMISSIONS (lbs/day)	25.26	24.32	235.16	22.28

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.48 trips / dwelling units	305.00	2,891.40

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	61.40	4.70	94.50	0.80
Light Duty Trucks	9.30	11.00	88.90	0.10
Medium Duty Trucks	7.20	12.50	79.20	-
Light-Heavy Duty Trucks	1.10	18.20	72.70	9.10
Med.-Heavy Duty Trucks	1.10	9.10	27.30	63.60
Heavy-Heavy Trucks	0.70	-	-	0.00
Urban Buses	0.00	-	-	0.00
Motorcycles	1.40	90.90% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	30.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	20.0	37.0	43.0			

Changes made to the default values for Area

The wood stove option switch changed from on to off.
The landscape year changed from 2000 to 2011.
Changes made to the default values for Operations

The pass by trips option switch changed from on to off.
The light duty auto percentage changed from 75.0 to 61.4.
The light duty auto non-catalyst percentage changed from 1.16 to 4.7.
The light duty auto catalyst percentage changed from 98.58 to 94.5.
The light duty auto diesel percentage changed from 0.26 to 0.8.
The light duty truck percentage changed from 10.0 to 9.3.
The light duty truck non-catalyst percentage changed from 0.13 to 11.0.
The light duty truck catalyst percentage changed from 99.54 to 88.9.
The light duty truck diesel percentage changed from 0.33 to 0.1 .
The medium duty truck percentage changed from 3.0 to 7.2.
The medium duty truck non-catalyst percentage changed from 1.44 to 12.5.
The medium duty truck catalyst percentage changed from 98.56 to 79.2.
The light heavy duty truck percentage changed from 1.0 to 1.1.
The light heavy duty truck non-catalyst percentage changed from 19.56 to 18.2.
The light heavy duty truck catalyst percentage changed from 40.0 to 72.7.
The light heavy duty truck diesel percentage changed from 40.44 to 9.1.
The medium heavy duty truck percentage changed from 1.0 to 1.1.
The medium heavy duty truck non-catalyst percentage changed from 19.56 to 9.1.
The medium heavy duty truck catalyst percentage changed from 40.0 to 27.3.
The medium heavy duty truck diesel percentage changed from 40.44 to 63.6.
The heavy heavy duty truck percentage changed from 5.0 to 0.7.
The heavy heavy duty truck diesel percentage changed from 100.0 to 0.
The urban bus percentage changed from 2.0 to 0.
The urban bus diesel percentage changed from 100.0 to 0.
The motorcycle percentage changed from 3.0 to 1.4.
The motorcycle diesel percentage changed from 100.0 to 90.9.
The operational emission year changed from 2000 to 2010.
The operational winter selection item changed from 3 to 2.
The operational summer selection item changed from 8 to 7.
The home based work selection item changed from 8 to 7.
The home based shopping selection item changed from 9 to 8.
The home based other selection item changed from 9 to 8.
The commercial based commute selection item changed from 9 to 8.
The commercial based non-work selection item changed from 9 to 8.
The commercial based customer selection item changed from 9 to 8.
The variable start home to work 480 minute since engine shutoff % changed from 25.4 to 8.6.
The variable start home to work 720 minute since engine shutoff % changed from 44.0 to 8.6.
The variable start home to shop 480 minute since engine shutoff % changed from 2.3 to 2.6.
The variable start home to shop 720 minute since engine shutoff % changed from 18.9 to 2.6.
The variable start home to other 480 minute since engine shutoff % changed from 4.4 to 4.0.
The variable start home to other 720 minute since engine shutoff % changed from 27.1 to 4.0.
The variable start commercial commute 480 minute since engine shutoff % changed from 21.2 to 6.5.
The variable start commercial commute 720 minute since engine shutoff % changed from 29.3 to 6.5.
The variable start commercial non-commute 480 minute since engine shutoff % changed from 14.4 to 5.8.
The variable start commercial non-commute 720 minute since engine shutoff % changed from 5.8 to 1.2.
The variable start commercial customer 480 minute since engine shutoff % changed from 6.6 to 1.2.
The variable start commercial customer 720 minute since engine shutoff % changed from 3.6 to 1.2.
The travel mode environment settings changed from both to: none
The default/noddefault travel setting changed from noddefault to: noddefault
Visually Interesting Uses: No Uses Within Walking Distance
changed to:Visually Interesting Uses: No Uses within Walking Distance

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland Ph
Project Name: Upland SPA Phase 1
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (tpy, unmitigated)	16.80	0.86	15.91	2.12	0.03
TOTALS (tpy, mitigated)	16.80	0.86	15.91	2.12	0.03

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (tpy, unmitigated)	3.77	3.81	33.33	4.07
TOTALS (tpy, mitigated)	3.77	3.81	33.33	4.07

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
Project Name: Upland SPA Phase 1
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Natural Gas	0.05	0.70	0.30	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	14.01	0.16	15.45	2.12	0.02
Landscaping	0.01	0.00	0.16	0.00	0.01
Consumer Prdcts	2.72	-	-	-	-
TOTALS (tpy, unmitigated)	16.80	0.86	15.91	2.12	0.03

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
Single family housing	3.77	3.81	33.33	4.07
TOTAL EMISSIONS (tons/year)	3.77	3.81	33.33	4.07

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 90 Season: Annual

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.48 trips / dwelling units	305.00	2,891.40

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	61.40	4.70	94.50	0.80
Light Duty Trucks	9.30	11.00	88.90	0.10
Medium Duty Trucks	7.20	12.50	79.20	-
Light-Heavy Duty Trucks	1.10	18.20	72.70	9.10
Med.-Heavy Duty Trucks	1.10	9.10	27.30	63.60
Heavy-Heavy Trucks	0.70	-	-	0.00
Urban Buses	0.00	-	-	0.00
Motorcycles	1.40	90.90% all fuels		

Travel Conditions	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	30.0	35.0	35.0	35.0	35.0	35.0
Number of Trips - Residential	20.0	37.0	43.0			

Changes made to the default values for Area

The wood stove option switch changed from on to off.
The landscape year changed from 2000 to 2011.
Changes made to the default values for Operations

The pass by trips option switch changed from on to off.
The light duty auto percentage changed from 75.0 to 61.4.
The light duty auto non-catalyst percentage changed from 1.16 to 4.7.
The light duty auto catalyst percentage changed from 98.58 to 94.5.
The light duty auto diesel percentage changed from 0.26 to 0.8.
The light duty truck percentage changed from 10.0 to 9.3.
The light duty truck non-catalyst percentage changed from 0.13 to 11.0.
The light duty truck catalyst percentage changed from 99.54 to 88.9.
The light duty truck diesel percentage changed from 0.33 to 0.1 .
The medium duty truck percentage changed from 3.0 to 7.2.
The medium duty truck non-catalyst percentage changed from 1.44 to 12.5.
The medium duty truck catalyst percentage changed from 98.56 to 79.2.
The light heavy duty truck percentage changed from 1.0 to 1.1.
The light heavy duty truck non-catalyst percentage changed from 19.56 to 18.2.
The light heavy duty truck catalyst percentage changed from 40.0 to 72.7.
The light heavy duty truck diesel percentage changed from 40.44 to 9.1.
The medium heavy duty truck percentage changed from 1.0 to 1.1.
The medium heavy duty truck non-catalyst percentage changed from 19.56 to 9.1.
The medium heavy duty truck catalyst percentage changed from 40.0 to 27.3.
The medium heavy duty truck diesel percentage changed from 40.44 to 63.6.
The heavy heavy duty truck percentage changed from 5.0 to 0.7.
The heavy heavy duty truck diesel percentage changed from 100.0 to 0.
The urban bus percentage changed from 2.0 to 0.
The urban bus diesel percentage changed from 100.0 to 0.
The motorcycle percentage changed from 3.0 to 1.4.
The motorcycle diesel percentage changed from 100.0 to 90.9.
The operational emission year changed from 2000 to 2010.
The operational winter selection item changed from 3 to 2.
The operational summer selection item changed from 8 to 7.
The home based work selection item changed from 8 to 7.
The home based shopping selection item changed from 9 to 8.
The home based other selection item changed from 9 to 8.
The commercial based commute selection item changed from 9 to 8.
The commercial based non-work selection item changed from 9 to 8.
The commercial based customer selection item changed from 9 to 8.
The variable start home to work 480 minute since engine shutoff % changed from 25.4 to 8.6.
The variable start home to work 720 minute since engine shutoff % changed from 44.0 to 8.6.
The variable start home to shop 480 minute since engine shutoff % changed from 2.3 to 2.6.
The variable start home to shop 720 minute since engine shutoff % changed from 18.9 to 2.6.
The variable start home to other 480 minute since engine shutoff % changed from 4.4 to 4.0.
The variable start home to other 720 minute since engine shutoff % changed from 27.1 to 4.0.
The variable start commercial commute 480 minute since engine shutoff % changed from 21.2 to 6.5.
The variable start commercial commute 720 minute since engine shutoff % changed from 29.3 to 6.5.
The variable start commercial non-commute 480 minute since engine shutoff % changed from 14.4 to 1.2.
The variable start commercial non-commute 720 minute since engine shutoff % changed from 5.8 to 1.2.
The variable start commercial customer 480 minute since engine shutoff % changed from 6.6 to 1.2.
The variable start commercial customer 720 minute since engine shutoff % changed from 3.6 to 1.2.
The travel mode environment settings changed from both to: none
The default/noddefault travel setting changed from noddefault to: noddefault
Visually Interesting Uses: No Uses Within Walking Distance
changed to:Visually Interesting Uses: No Uses within Walking Distance

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland Ph
Project Name: Upland SPA Phase 2
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (lbs/day, unmitigated)	43.04	17.07	11.25	0.04	0.10
TOTALS (lbs/day, mitigated)	43.04	17.07	11.25	0.04	0.10

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (ppd, unmitigated)	267.79	233.45	1,596.62	211.31
TOTALS (ppd, mitigated)	267.79	233.45	1,596.62	211.31

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland [P]
Project Name: Upland SPA Phase 2
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	PM10	SOX
Natural Gas	1.27	16.97	7.02	0.03	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.42	0.09	4.23	0.00	0.10
Consumer Prdcts	41.34	-	-	-	-
TOTALS (lbs/day, unmitigated)	43.04	17.07	11.25	0.04	0.10

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
Single family housing	27.83	31.61	226.46	33.44
Condo/townhouse general	13.60	12.71	91.04	13.45
Elementary school	17.69	5.02	34.27	4.78
Movie Theatre with Matinee	66.66	6.94	46.16	6.74
Regnl shop. center > 5700	136.07	169.44	1,145.95	145.04
General office building	5.94	7.72	52.73	7.86
TOTAL EMISSIONS (lbs/day)	267.79	233.45	1,596.62	211.31

Includes correction for passby trips.
Includes a double counting reduction for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.48 trips / dwelling units	495.00	4,692.60
Condo/townhouse general	5.39 trips / dwelling units	350.00	1,886.50
Elementary school	1.02 trips / students	900.00	918.00
Movie Theatre with Matinee	0.29 trips / seat	3,900.00	1,131.00
Regnl shop. center > 5700	50.68 trips / 1000 sq. ft.	786.00	39,834.48
General office building	13.98 trips / 1000 sq. ft.	80.00	1,118.40

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	61.40	4.70	94.50	0.80
Light Duty Trucks	9.30	11.00	88.90	0.10
Medium Duty Trucks	7.20	12.50	79.20	-
Lite-Heavy Duty Trucks	1.10	18.20	72.70	9.10
Med.-Heavy Duty Trucks	1.10	9.10	27.30	63.60
Heavy-Heavy Trucks	0.70	-	-	0.00
Urban Buses	0.00	-	-	0.00
Motorcycles	1.40	90.90% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
Movie Theatre with Matinee	2.0	1.0	97.0
Regnl shop. center > 570000 sf	2.0	1.0	97.0
General office building	35.0	17.5	47.5

Changes made to the default values for Area

The wood stove option switch changed from on to off.
The landscape year changed from 2000 to 2010.

Changes made to the default values for Operations

The double counting option switch changed from off to on.
The light duty auto percentage changed from 75.0 to 61.4.
The light duty auto non-catalyst percentage changed from 1.16 to 4.7.
The light duty auto catalyst percentage changed from 98.58 to 94.5.
The light duty auto diesel percentage changed from 0.26 to 0.8.
The light duty truck percentage changed from 10.0 to 9.3.
The light duty truck non-catalyst percentage changed from 0.13 to 11.0.
The light duty truck catalyst percentage changed from 99.54 to 88.9.
The light duty truck diesel percentage changed from 0.33 to 0.1 .
The medium duty truck percentage changed from 3.0 to 7.2.
The medium duty truck non-catalyst percentage changed from 1.44 to 12.5.
The medium duty truck catalyst percentage changed from 98.56 to 79.2.
The light heavy duty truck percentage changed from 1.0 to 1.1.
The light heavy duty truck non-catalyst percentage changed from 19.56 to 18.2.
The light heavy duty truck catalyst percentage changed from 40.0 to 72.7.
The light heavy duty truck diesel percentage changed from 40.44 to 9.1.
The medium heavy duty truck percentage changed from 1.0 to 1.1.
The medium heavy duty truck non-catalyst percentage changed from 19.56 to 9.1.
The medium heavy duty truck catalyst percentage changed from 40.0 to 27.3.
The medium heavy duty truck diesel percentage changed from 40.44 to 63.6.
The heavy heavy duty truck percentage changed from 5.0 to 0.7.
The heavy heavy duty truck diesel percentage changed from 100.0 to 0.
The urban bus percentage changed from 2.0 to 0.
The urban bus diesel percentage changed from 100.0 to 0.
The motorcycle percentage changed from 3.0 to 1.4.
The motorcycle diesel percentage changed from 100.0 to 90.9.
The operational emission year changed from 2000 to 2010.
The double counting internal work trip limit changed from to 1315.82.
The double counting shopping trip limit changed from to 697.1748.
The double counting other trip limit changed from to 2829.013.
The variable start home to work 480 minute since engine shutoff % changed from 25.4 to 8.6.
The variable start home to work 720 minute since engine shutoff % changed from 44.0 to 8.6.
The variable start home to shop 480 minute since engine shutoff % changed from 2.3 to 2.6.
The variable start home to shop 720 minute since engine shutoff % changed from 18.9 to 2.6.
The variable start home to other 480 minute since engine shutoff % changed from 4.4 to 4.0.
The variable start home to other 720 minute since engine shutoff % changed from 27.1 to 4.0.
The variable start commercial commute 480 minute since engine shutoff % changed from 21.2 to 6.
The variable start commercial commute 720 minute since engine shutoff % changed from 29.3 to 6.
The variable start commercial non-commute 480 minute since engine shutoff % changed from 14.4 to 2.
The variable start commercial non-commute 720 minute since engine shutoff % changed from 5.8 to 2.
The variable start commercial customer 480 minute since engine shutoff % changed from 6.6 to 1.
The variable start commercial customer 720 minute since engine shutoff % changed from 3.6 to 1.
The travel mode environment settings changed from both to: none

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland Pt
Project Name: Upland SPA Phase 2
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (lbs/day, unmitigated)	989.09	27.72	1,051.03	143.04	1.65
TOTALS (lbs/day, mitigated)	989.09	27.72	1,051.03	143.04	1.65

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (ppd, unmitigated)	350.62	276.93	2,252.28	211.31
TOTALS (ppd, mitigated)	350.62	276.93	2,252.28	211.31

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
Project Name: Upland SPA Phase 2
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)						
Source	ROG	NOx	CO	PM10	SOX	
Natural Gas	1.27	16.97	7.02	0.03	-	
Wood Stoves	0.00	0.00	0.00	0.00	0.00	
Fireplaces	946.48	10.75	1,044.02	143.00	1.65	
Landscaping - No winter emissions						
Consumer Prdcts	41.34	-	-	-	-	
TOTALS(lbs/day,unmitigated)	989.09	27.72	1,051.03	143.04	1.65	

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
Single family housing	35.69	36.99	293.54	33.44
Condo/townhouse general	16.75	14.87	118.01	13.45
Elementary school	19.17	5.94	47.09	4.78
Movie Theatre with Matinee	68.12	8.19	61.59	6.74
Regnl shop. center > 5700	203.02	201.86	1,662.61	145.04
General office building	7.87	9.07	69.44	7.86
TOTAL EMISSIONS (lbs/day)	350.62	276.93	2,252.28	211.31

Includes correction for passby trips.
Includes a double counting reduction for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.48 trips / dwelling units	495.00	4,692.60
Condo/townhouse general	5.39 trips / dwelling units	350.00	1,886.50
Elementary school	1.02 trips / students	900.00	918.00
Movie Theatre with Matinee	0.29 trips / seat	3,900.00	1,131.00
Regnl shop. center > 5700	50.68 trips / 1000 sq. ft.	786.00	39,834.48
General office building	13.98 trips / 1000 sq. ft.	80.00	1,118.40

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	61.40	4.70	94.50	0.80
Light Duty Trucks	9.30	11.00	88.90	0.10
Medium Duty Trucks	7.20	12.50	79.20	-
Lite-Heavy Duty Trucks	1.10	18.20	72.70	9.10
Med.-Heavy Duty Trucks	1.10	9.10	27.30	63.60
Heavy-Heavy Trucks	0.70	-	-	0.00
Urban Buses	0.00	-	-	0.00
Motorcycles	1.40	90.90% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
Movie Theatre with Matinee	2.0	1.0	97.0
Regnl shop. center > 570000 sf	2.0	1.0	97.0
General office building	35.0	17.5	47.5

Changes made to the default values for Area

The wood stove option switch changed from on to off.
The landscape year changed from 2000 to 2010.

Changes made to the default values for Operations

The double counting option switch changed from off to on.
The light duty auto percentage changed from 75.0 to 61.4.
The light duty auto non-catalyst percentage changed from 1.16 to 4.7.
The light duty auto catalyst percentage changed from 98.58 to 94.5.
The light duty auto diesel percentage changed from 0.26 to 0.8.
The light duty truck percentage changed from 10.0 to 9.3.
The light duty truck non-catalyst percentage changed from 0.13 to 11.0.
The light duty truck catalyst percentage changed from 99.54 to 88.9.
The light duty truck diesel percentage changed from 0.33 to 0.1 .
The medium duty truck percentage changed from 3.0 to 7.2.
The medium duty truck non-catalyst percentage changed from 1.44 to 12.5.
The medium duty truck catalyst percentage changed from 98.56 to 79.2.
The light heavy duty truck percentage changed from 1.0 to 1.1.
The light heavy duty truck non-catalyst percentage changed from 19.56 to 18.2.
The light heavy duty truck catalyst percentage changed from 40.0 to 72.7.
The light heavy duty truck diesel percentage changed from 40.44 to 9.1.
The medium heavy duty truck percentage changed from 1.0 to 1.1.
The medium heavy duty truck non-catalyst percentage changed from 19.56 to 9.1.
The medium heavy duty truck catalyst percentage changed from 40.0 to 27.3.
The medium heavy duty truck diesel percentage changed from 40.44 to 63.6.
The heavy heavy duty truck percentage changed from 5.0 to 0.7.
The heavy heavy duty truck diesel percentage changed from 100.0 to 0.
The urban bus percentage changed from 2.0 to 0.
The urban bus diesel percentage changed from 100.0 to 0.
The motorcycle percentage changed from 3.0 to 1.4.
The motorcycle diesel percentage changed from 100.0 to 90.9.
The operational emission year changed from 2000 to 2010.
The double counting internal work trip limit changed from to 1315.82.
The double counting shopping trip limit changed from to 697.1748.
The double counting other trip limit changed from to 2829.013.
The variable start home to work 480 minute since engine shutoff % changed from 25.4 to 8.6.
The variable start home to work 720 minute since engine shutoff % changed from 44.0 to 8.6.
The variable start home to shop 480 minute since engine shutoff % changed from 2.3 to 2.6.
The variable start home to shop 720 minute since engine shutoff % changed from 18.9 to 2.6.
The variable start home to other 480 minute since engine shutoff % changed from 4.4 to 4.0.
The variable start home to other 720 minute since engine shutoff % changed from 27.1 to 4.0.
The variable start commercial commute 480 minute since engine shutoff % changed from 21.2 to 6.3.
The variable start commercial commute 720 minute since engine shutoff % changed from 29.3 to 6.3.
The variable start commercial non-commute 480 minute since engine shutoff % changed from 14.4 to 5.8.
The variable start commercial non-commute 720 minute since engine shutoff % changed from 5.8 to 5.8.
The variable start commercial customer 480 minute since engine shutoff % changed from 6.6 to 1.4.
The variable start commercial customer 720 minute since engine shutoff % changed from 3.6 to 1.4.
The travel mode environment settings changed from both to: none

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland Pr
 Project Name: Upland SPA Phase 2
 Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
 (Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (tpy, unmitigated)	46.62	3.55	44.47	5.87	0.08
TOTALS (tpy, mitigated)	46.61	3.55	44.47	5.87	0.08

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (tpy, unmitigated)	53.91	45.25	331.27	38.56
TOTALS (tpy, mitigated)	53.91	45.25	331.27	38.56

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
Project Name: Upland SPA Phase 2
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Natural Gas	0.23	3.10	1.28	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	38.81	0.44	42.80	5.86	0.07
Landscaping	0.04	0.01	0.38	0.00	0.01
Consumer Prdcts	7.54	-	-	-	-
TOTALS (tpy, unmitigated)	46.62	3.55	44.47	5.87	0.08

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
Single family housing	5.56	6.10	45.41	6.10
Condo/townhouse general	2.67	2.45	18.26	2.45
Elementary school	3.32	0.97	7.03	0.87
Movie Theatre with Matinee	12.25	1.34	9.36	1.23
Regnl shop. center > 5700	28.91	32.90	240.57	26.47
General office building	1.20	1.49	10.64	1.43
TOTAL EMISSIONS (tons/year)	53.91	45.25	331.27	38.56

Includes correction for passby trips.
Includes a double counting reduction for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 90 Season: Annual

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.48 trips / dwelling units	495.00	4,692.60
Condo/townhouse general	5.39 trips / dwelling units	350.00	1,886.50
Elementary school	1.02 trips / students	900.00	918.00
Movie Theatre with Matinee	0.29 trips / seat	3,900.00	1,131.00
Regnl shop. center > 5700	50.68 trips / 1000 sq. ft.	786.00	39,834.48
General office building	13.98 trips / 1000 sq. ft.	80.00	1,118.40

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	61.40	4.70	94.50	0.80
Light Duty Trucks	9.30	11.00	88.90	0.10
Medium Duty Trucks	7.20	12.50	79.20	-
Lite-Heavy Duty Trucks	1.10	18.20	72.70	9.10
Med.-Heavy Duty Trucks	1.10	9.10	27.30	63.60
Heavy-Heavy Trucks	0.70	-	-	0.00
Urban Buses	0.00	-	-	0.00
Motorcycles	1.40	90.90% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
Movie Theatre with Matinee	2.0	1.0	97.0
Regnl shop. center > 570000 sf	2.0	1.0	97.0
General office building	35.0	17.5	47.5

Changes made to the default values for Area

The wood stove option switch changed from on to off.
The landscape year changed from 2000 to 2010.

Changes made to the default values for Operations

The double counting option switch changed from off to on.
The light duty auto percentage changed from 75.0 to 61.4.
The light duty auto non-catalyst percentage changed from 1.16 to 4.7.
The light duty auto catalyst percentage changed from 98.58 to 94.5.
The light duty auto diesel percentage changed from 0.26 to 0.8.
The light duty truck percentage changed from 10.0 to 9.3.
The light duty truck non-catalyst percentage changed from 0.13 to 11.0.
The light duty truck catalyst percentage changed from 99.54 to 88.9.
The light duty truck diesel percentage changed from 0.33 to 0.1 .
The medium duty truck percentage changed from 3.0 to 7.2.
The medium duty truck non-catalyst percentage changed from 1.44 to 12.5.
The medium duty truck catalyst percentage changed from 98.56 to 79.2.
The light heavy duty truck percentage changed from 1.0 to 1.1.
The light heavy duty truck non-catalyst percentage changed from 19.56 to 18.2.
The light heavy duty truck catalyst percentage changed from 40.0 to 72.7.
The light heavy duty truck diesel percentage changed from 40.44 to 9.1.
The medium heavy duty truck percentage changed from 1.0 to 1.1.
The medium heavy duty truck non-catalyst percentage changed from 19.56 to 9.1.
The medium heavy duty truck catalyst percentage changed from 40.0 to 27.3.
The medium heavy duty truck diesel percentage changed from 40.44 to 63.6.
The heavy heavy duty truck percentage changed from 5.0 to 0.7.
The heavy heavy duty truck diesel percentage changed from 100.0 to 0.
The urban bus percentage changed from 2.0 to 0.
The urban bus diesel percentage changed from 100.0 to 0.
The motorcycle percentage changed from 3.0 to 1.4.
The motorcycle diesel percentage changed from 100.0 to 90.9.
The operational emission year changed from 2000 to 2010.
The double counting internal work trip limit changed from to 1315.82.
The double counting shopping trip limit changed from to 697.1748.
The double counting other trip limit changed from to 2829.013.
The variable start home to work 480 minute since engine shutoff % changed from 25.4 to 8.6.
The variable start home to work 720 minute since engine shutoff % changed from 44.0 to 8.6.
The variable start home to shop 480 minute since engine shutoff % changed from 2.3 to 2.6.
The variable start home to shop 720 minute since engine shutoff % changed from 18.9 to 2.6.
The variable start home to other 480 minute since engine shutoff % changed from 4.4 to 4.0.
The variable start home to other 720 minute since engine shutoff % changed from 27.1 to 4.0.
The variable start commercial commute 480 minute since engine shutoff % changed from 21.2 to 6.2.
The variable start commercial commute 720 minute since engine shutoff % changed from 29.3 to 6.2.
The variable start commercial non-commute 480 minute since engine shutoff % changed from 14.4 to 2.
The variable start commercial non-commute 720 minute since engine shutoff % changed from 5.8 to 2.
The variable start commercial customer 480 minute since engine shutoff % changed from 6.6 to 1.0.
The variable start commercial customer 720 minute since engine shutoff % changed from 3.6 to 1.0.
The travel mode environment settings changed from both to: none

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland Pt
Project Name: Upland SPA Phase 3
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (lbs/day, unmitigated)	0.31	0.88	2.54	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (ppd, unmitigated)	23.56	42.65	242.18	52.24

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
Project Name: Upland SPA Phase 3
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	PM10	SOX
Natural Gas	0.06	0.84	0.34	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.25	0.04	2.21	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.31	0.88	2.54	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
New Car Sales	5.85	12.23	69.08	17.80
Racquetball/health	2.09	3.78	21.53	4.94
Day-care center	0.45	0.80	4.58	0.91
High turnover (sit-down)	1.04	1.89	10.80	2.07
Fast food rest. w/ drive	5.02	9.28	53.05	9.90
Motel	2.76	3.55	20.18	4.97
Regnl shop. center < 5700	1.88	3.50	19.81	4.49
Gasoline/service station	4.47	7.61	43.14	7.15
TOTAL EMISSIONS (lbs/day)	23.56	42.65	242.18	52.24

includes correction for passby trips.

includes the following double counting adjustment for internal trips:

Residential trips: 0.00 % reduction. Nonresidential trips: 0.00 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2015 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
New Car Sales	37.50 trips / 1000 sq. ft.	80.00	3,000.00
Racquetball/health	30.00 trips / 1000 sq. ft.	40.00	1,200.00
Day-care center	79.30 trips / 1000 sq. ft.	4.00	317.20
High turnover (sit-down)	130.34 trips / 1000 sq. ft.	6.00	782.04
Fast food rest. w/ drive	496.13 trips / 1000 sq. ft.	8.00	3,969.04
Motel	6.49 trips / rooms	150.00	973.50
Regnl shop. center < 5700	40.68 trips / 1000 sq. ft.	28.00	1,139.04
Gasoline/service station	152.83 trips / Pumps	24.00	3,667.92

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	61.40	4.70	94.50	0.80
Light Duty Trucks	9.30	11.00	88.90	0.10
Medium Duty Trucks	7.20	12.50	79.20	-
Light-Heavy Duty Trucks	1.10	18.20	72.70	9.10
Med.-Heavy Duty Trucks	1.10	9.10	27.30	63.60
Heavy-Heavy Trucks	0.70	-	-	0.00
Urban Buses	0.00	-	-	0.00
Motorcycles	1.40	90.90% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

New Car Sales	2.0	1.0	97.0
Racquetball/health	5.0	2.5	92.5
Day-care center	5.0	2.5	92.5
High turnover (sit-down) rest.	5.0	2.5	92.5
Fast food rest. w/ drive thru	5.0	2.5	92.5
Hotel	5.0	2.5	92.5
Regnl shop. center < 570000 sf	2.0	1.0	97.0
Gasoline/service station	2.0	1.0	97.0



Changes made to the default values for Area

The wood stove option switch changed from on to off.
The area source mitigation measure option switch changed from on to off.
The landscape year changed from 2000 to 2015.
Changes made to the default values for Operations

The double counting option switch changed from off to on.
The mitigation option switch changed from on to off.
The light duty auto percentage changed from 75.0 to 61.4.
The light duty auto non-catalyst percentage changed from 1.16 to 4.7.
The light duty auto catalyst percentage changed from 98.58 to 94.5.
The light duty auto diesel percentage changed from 0.26 to 0.8.
The light duty truck percentage changed from 10.0 to 9.3.
The light duty truck non-catalyst percentage changed from 0.13 to 11.0.
The light duty truck catalyst percentage changed from 99.54 to 88.9.
The light duty truck diesel percentage changed from 0.33 to 0.1 .
The medium duty truck percentage changed from 3.0 to 7.2.
The medium duty truck non-catalyst percentage changed from 1.44 to 12.5.
The medium duty truck catalyst percentage changed from 98.56 to 79.2.
The light heavy duty truck percentage changed from 1.0 to 1.1.
The light heavy duty truck non-catalyst percentage changed from 19.56 to 18.2.
The light heavy duty truck catalyst percentage changed from 40.0 to 72.7.
The light heavy duty truck diesel percentage changed from 40.44 to 9.1.
The medium heavy duty truck percentage changed from 1.0 to 1.1.
The medium heavy duty truck non-catalyst percentage changed from 19.56 to 9.1.
The medium heavy duty truck catalyst percentage changed from 40.0 to 27.3.
The medium heavy duty truck diesel percentage changed from 40.44 to 63.6.
The heavy heavy duty truck percentage changed from 5.0 to 0.7.
The heavy heavy duty truck diesel percentage changed from 100.0 to 0.
The urban bus percentage changed from 2.0 to 0.
The urban bus diesel percentage changed from 100.0 to 0.
The motorcycle percentage changed from 3.0 to 1.4.
The motorcycle diesel percentage changed from 100.0 to 90.9.
The operational emission year changed from 2000 to 2015.
The double counting option changed from 1 to 0.
The variable start home to work 480 minute since engine shutoff % changed from 25.4 to 8.6.
The variable start home to work 720 minute since engine shutoff % changed from 44.0 to 8.6.
The variable start home to shop 480 minute since engine shutoff % changed from 2.3 to 2.6.
The variable start home to shop 720 minute since engine shutoff % changed from 18.9 to 2.6.
The variable start home to other 480 minute since engine shutoff % changed from 4.4 to 4.0.
The variable start home to other 720 minute since engine shutoff % changed from 27.1 to 4.0.
The variable start commercial commute 480 minute since engine shutoff % changed from 21.2 to 6.3.
The variable start commercial commute 720 minute since engine shutoff % changed from 29.3 to 6.3.
The variable start commercial non-commute 480 minute since engine shutoff % changed from 14.4 to 2.
The variable start commercial non-commute 720 minute since engine shutoff % changed from 5.8 to 2.
The variable start commercial customer 480 minute since engine shutoff % changed from 6.6 to 1.2.
The variable start commercial customer 720 minute since engine shutoff % changed from 3.6 to 1.2.
The travel mode environment settings changed from both to: none

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
Project Name: Upland SPA Phase 3
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (lbs/day, unmitigated)	0.06	0.84	0.34	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (ppd, unmitigated)	30.69	51.84	314.22	52.24

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland Ph
 Project Name: Upland SPA Phase 3
 Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
 (Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SOX
Natural Gas	0.06	0.84	0.34	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.06	0.84	0.34	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
New Car Sales	7.09	14.71	82.44	17.80
Racquetball/health	2.65	4.58	27.22	4.94
Day-care center	0.60	0.98	6.14	0.91
High turnover (sit-down)	1.43	2.31	14.65	2.07
Fast food rest. w/ drive	7.01	11.36	72.65	9.90
Hotel	3.18	4.28	24.68	4.97
Regnl shop. center < 5700	2.40	4.25	25.17	4.49
Gasoline/service station	6.34	9.37	61.29	7.15
TOTAL EMISSIONS (lbs/day)	30.69	51.84	314.22	52.24

Includes correction for passby trips.

Includes the following double counting adjustment for internal trips:

Residential trips: 0.00 % reduction. Nonresidential trips: 0.00 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2015 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
New Car Sales	37.50 trips / 1000 sq. ft.	80.00	3,000.00
Racquetball/health	30.00 trips / 1000 sq. ft.	40.00	1,200.00
Day-care center	79.30 trips / 1000 sq. ft.	4.00	317.20
High turnover (sit-down)	130.34 trips / 1000 sq. ft.	6.00	782.04
Fast food rest. w/ drive	496.13 trips / 1000 sq. ft.	8.00	3,969.04
Hotel	6.49 trips / rooms	150.00	973.50
Regnl shop. center < 5700	40.68 trips / 1000 sq. ft.	28.00	1,139.04
Gasoline/service station	152.83 trips / Pumps	24.00	3,667.92

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	61.40	4.70	94.50	0.80
Light Duty Trucks	9.30	11.00	88.90	0.10
Medium Duty Trucks	7.20	12.50	79.20	-
Lite-Heavy Duty Trucks	1.10	18.20	72.70	9.10
Med.-Heavy Duty Trucks	1.10	9.10	27.30	63.60
Heavy-Heavy Trucks	0.70	-	-	0.00
Urban Buses	0.00	-	-	0.00
Motorcycles	1.40	90.90% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

of Trips - Commercial (by land use)			
ew Car Sales	2.0	1.0	97.0
racquetball/health	5.0	2.5	92.5
Day-care center	5.0	2.5	92.5
igh turnover (sit-down) rest.	5.0	2.5	92.5
ast food rest. w/ drive thru	5.0	2.5	92.5
Hotel	5.0	2.5	92.5
Regnl shop. center < 570000 sf	2.0	1.0	97.0
asoline/service station	2.0	1.0	97.0

Changes made to the default values for Area

The wood stove option switch changed from on to off.
The area source mitigation measure option switch changed from on to off.
The landscape year changed from 2000 to 2015.
Changes made to the default values for Operations

The double counting option switch changed from off to on.
The mitigation option switch changed from on to off.
The light duty auto percentage changed from 75.0 to 61.4.
The light duty auto non-catalyst percentage changed from 1.16 to 4.7.
The light duty auto catalyst percentage changed from 98.58 to 94.5.
The light duty auto diesel percentage changed from 0.26 to 0.8.
The light duty truck percentage changed from 10.0 to 9.3.
The light duty truck non-catalyst percentage changed from 0.13 to 11.0.
The light duty truck catalyst percentage changed from 99.54 to 88.9.
The light duty truck diesel percentage changed from 0.33 to 0.1 .
The medium duty truck percentage changed from 3.0 to 7.2.
The medium duty truck non-catalyst percentage changed from 1.44 to 12.5.
The medium duty truck catalyst percentage changed from 98.56 to 79.2.
The light heavy duty truck percentage changed from 1.0 to 1.1.
The light heavy duty truck non-catalyst percentage changed from 19.56 to 18.2.
The light heavy duty truck catalyst percentage changed from 40.0 to 72.7.
The light heavy duty truck diesel percentage changed from 40.44 to 9.1.
The medium heavy duty truck percentage changed from 1.0 to 1.1.
The medium heavy duty truck non-catalyst percentage changed from 19.56 to 9.1.
The medium heavy duty truck catalyst percentage changed from 40.0 to 27.3.
The medium heavy duty truck diesel percentage changed from 40.44 to 63.6.
The heavy heavy duty truck percentage changed from 5.0 to 0.7.
The heavy heavy duty truck diesel percentage changed from 100.0 to 0.
The urban bus percentage changed from 2.0 to 0.
The urban bus diesel percentage changed from 100.0 to 0.
The motorcycle percentage changed from 3.0 to 1.4.
The motorcycle diesel percentage changed from 100.0 to 90.9.
The operational emission year changed from 2000 to 2015.
The double counting option changed from 1 to 0.
The variable start home to work 480 minute since engine shutoff % changed from 25.4 to 8.6.
The variable start home to work 720 minute since engine shutoff % changed from 44.0 to 8.6.
The variable start home to shop 480 minute since engine shutoff % changed from 2.3 to 2.6.
The variable start home to shop 720 minute since engine shutoff % changed from 18.9 to 2.6.
The variable start home to other 480 minute since engine shutoff % changed from 4.4 to 4.0.
The variable start home to other 720 minute since engine shutoff % changed from 27.1 to 4.0.
The variable start commercial commute 480 minute since engine shutoff % changed from 21.2 to 6.3
The variable start commercial commute 720 minute since engine shutoff % changed from 29.3 to 6.3
The variable start commercial non-commute 480 minute since engine shutoff % changed from 14.4 to 2
The variable start commercial non-commute 720 minute since engine shutoff % changed from 5.8 to 2
The variable start commercial customer 480 minute since engine shutoff % changed from 6.6 to 1.0
The variable start commercial customer 720 minute since engine shutoff % changed from 3.6 to 1.0
The travel mode environment settings changed from both to: none

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland P
 Project Name: Upland SPA Phase 3
 Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
 (Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (tpy, unmitigated)	0.03	0.16	0.26	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (tpy, unmitigated)	4.73	8.34	48.58	9.53

URBEMIS 7G For Windows 5.1.0

File Name: C:\Documents and Settings\etorres\Desktop\New Folder (2)\Upland
Project Name: Upland SPA Phase 3
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Natural Gas	0.01	0.15	0.06	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping	0.02	0.00	0.20	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (tpy, unmitigated)	0.03	0.16	0.26	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
New Car Sales	1.14	2.38	13.42	3.25
Racquetball/health	0.42	0.74	4.28	0.90
Day-care center	0.09	0.16	0.93	0.17
High turnover (sit-down)	0.21	0.37	2.21	0.38
Fast food rest. w/ drive	1.04	1.82	10.87	1.81
Hotel	0.53	0.69	3.96	0.91
Regnl shop. center < 5700	0.37	0.68	3.94	0.82
Gasoline/service station	0.93	1.50	8.98	1.31
TOTAL EMISSIONS (tons/year)	4.73	8.34	48.58	9.53

Includes correction for passby trips.

Includes the following double counting adjustment for internal trips:

Residential trips: 0.00 % reduction. Nonresidential trips: 0.00 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2015 Temperature (F): 90 Season: Annual

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
New Car Sales	37.50 trips / 1000 sq. ft.	80.00	3,000.00
Racquetball/health	30.00 trips / 1000 sq. ft.	40.00	1,200.00
Day-care center	79.30 trips / 1000 sq. ft.	4.00	317.20
High turnover (sit-down)	130.34 trips / 1000 sq. ft.	6.00	782.04
Fast food rest. w/ drive	496.13 trips / 1000 sq. ft.	8.00	3,969.04
Hotel	6.49 trips / rooms	150.00	973.50
Regnl shop. center < 5700	40.68 trips / 1000 sq. ft.	28.00	1,139.04
Gasoline/service station	152.83 trips / Pumps	24.00	3,667.92

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	61.40	4.70	94.50	0.80
Light Duty Trucks	9.30	11.00	88.90	0.10
Medium Duty Trucks	7.20	12.50	79.20	-
Lite-Heavy Duty Trucks	1.10	18.20	72.70	9.10
Med.-Heavy Duty Trucks	1.10	9.10	27.30	63.60
Heavy-Heavy Trucks	0.70	-	-	0.00
Urban Buses	0.00	-	-	0.00
Motorcycles	1.40	90.90% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

New Car Sales	2.0	1.0	97.0
Racquetball/health	5.0	2.5	92.5
Day-care center	5.0	2.5	92.5
High turnover (sit-down) rest.	5.0	2.5	92.5
Fast food rest. w/ drive thru	5.0	2.5	92.5
Hotel	5.0	2.5	92.5
Regnl shop. center < 570000 sf	2.0	1.0	97.0
Gasoline/service station	2.0	1.0	97.0

anges made to the default values for Area

The wood stove option switch changed from on to off.
The area source mitigation measure option switch changed from on to off.
The landscape year changed from 2000 to 2015.
anges made to the default values for Operations

The double counting option switch changed from off to on.
The mitigation option switch changed from on to off.
The light duty auto percentage changed from 75.0 to 61.4.
The light duty auto non-catalyst percentage changed from 1.16 to 4.7.
The light duty auto catalyst percentage changed from 98.58 to 94.5.
The light duty auto diesel percentage changed from 0.26 to 0.8.
The light duty truck percentage changed from 10.0 to 9.3.
The light duty truck non-catalyst percentage changed from 0.13 to 11.0.
The light duty truck catalyst percentage changed from 99.54 to 88.9.
The light duty truck diesel percentage changed from 0.33 to 0.1 .
The medium duty truck percentage changed from 3.0 to 7.2.
The medium duty truck non-catalyst percentage changed from 1.44 to 12.5.
The medium duty truck catalyst percentage changed from 98.56 to 79.2.
The light heavy duty truck percentage changed from 1.0 to 1.1.
The light heavy duty truck non-catalyst percentage changed from 19.56 to 18.2.
The light heavy duty truck catalyst percentage changed from 40.0 to 72.7.
The light heavy duty truck diesel percentage changed from 40.44 to 9.1.
The medium heavy duty truck percentage changed from 1.0 to 1.1.
The medium heavy duty truck non-catalyst percentage changed from 19.56 to 9.1.
The medium heavy duty truck catalyst percentage changed from 40.0 to 27.3.
The medium heavy duty truck diesel percentage changed from 40.44 to 63.6.
The heavy heavy duty truck percentage changed from 5.0 to 0.7.
The heavy heavy duty truck diesel percentage changed from 100.0 to 0.
The urban bus percentage changed from 2.0 to 0.
The urban bus diesel percentage changed from 100.0 to 0.
The motorcycle percentage changed from 3.0 to 1.4.
The motorcycle diesel percentage changed from 100.0 to 90.9.
The operational emission year changed from 2000 to 2015.
The double counting option changed from 1 to 0.
The variable start home to work 480 minute since engine shutoff % changed from 25.4 to 8.6.
The variable start home to work 720 minute since engine shutoff % changed from 44.0 to 8.6.
The variable start home to shop 480 minute since engine shutoff % changed from 2.3 to 2.6.
The variable start home to shop 720 minute since engine shutoff % changed from 18.9 to 2.6.
The variable start home to other 480 minute since engine shutoff % changed from 4.4 to 4.0.
The variable start home to other 720 minute since engine shutoff % changed from 27.1 to 4.0.
The variable start commercial commute 480 minute since engine shutoff % changed from 21.2 to 6.3.
The variable start commercial commute 720 minute since engine shutoff % changed from 29.3 to 6.3.
The variable start commercial non-commute 480 minute since engine shutoff % changed from 14.4 to 2.
The variable start commercial non-commute 720 minute since engine shutoff % changed from 5.8 to 2.
The variable start commercial customer 480 minute since engine shutoff % changed from 6.6 to 1.2.
The variable start commercial customer 720 minute since engine shutoff % changed from 3.6 to 1.2.
The travel mode environment settings changed from both to: none



15.4 Noise Data

SECRET 10/10/58 4-27

Campus: North of 19th: Existing

```

////////////////////////////////////
// Speed                               Vehicle Speed (mph, 0 to 100)      45           //
// Grad                                Road Gradient (% , 0 to 6)           //
// Sep1                                Centerline Separation (feet)        40           //
//      with                            (Usually 23' for 2-lane, 38'       //
//      median                           for 4-lane, 50' for 6-lane)         //
// Dist1                               Distance from observer to the       100          //
//                                       nearest lane centerline (>50')     //
//                                       (used in calculations)           //
// Dist2                               Dist. from ROW to NLC               30           //
//                                       *** CNEL @ 100' (SOFT)          57.8         //
// VOL                                TOTAL Vehicle Volume (two-way)     4,800        //
// ALPHA                              Hard site=0, Soft site=0.5         0.5          //

```

DISTANCE FROM		R E S U L T S	DISTANCE FROM	
Cntrline	ROW		Centerline	ROW
144	96	<-- hard 60 CNEL soft -->	84	36
46	-3	65 CNEL	39	-9
14	-34	70 CNEL	18	-30

```

//
// View                               View Angle of Observer (180)      180          //
//                                       SHIELDING (adjust output by hand) //
//                                       ~~~~~~                          //
// Woods                               Thickness of woodland between      0            //
//                                       observer and road (feet)           //
// Cover                               Percent view coverage between      0            //
//                                       observer and road (0-100)         //
// Rows                               Building rows between observer    0            //
//                                       and roadway (0-4).                //
////////////////////////////////////

```

Campus: North of 19th: 2011 w-out Project

```

////////////////////////////////////
// Speed          Vehicle Speed (mph, 0 to 100)      45          //
// Grad           Road Gradient (% , 0 to 6)         //
// Sep1           Centerline Separation (feet)        40          //
//               with      >>      (Usually 23' for 2-lane, 38' //
//               median    >>      for 4-lane, 50' for 6-lane) //
// Dist1          Distance from observer to the       100         //
//               nearest lane centerline (>50')      //
//               (used in calculations)              //
// Dist2          Dist. from ROW to NLC                30          //
//               *** CNEL @ 100' (SOFT)             61.93       //
// VOL            TOTAL Vehicle Volume (two-way)      12,443      //
// ALPHA         Hard site=0, Soft site=0.5          0.5         //

```

DISTANCE FROM		RESULTS	DISTANCE FROM	
Cntrline	ROW		Centerline	ROW
374	326	<-- hard 60 CNEL soft --->	159	111
118	70	65 CNEL	74	26
37	-11	70 CNEL	34	-14

```

//
// View          View Angle of Observer (180)         180         //
//               SHIELDING (adjust output by hand)    //
//               ~~~~~~                               //
// Woods         Thickness of woodland between        0          //
//               observer and road (feet)             //
// Cover         Percent view coverage between        0          //
//               observer and road (0-100)            //
// Rows          Building rows between observer      0          //
//               and roadway (0-4).                   //
////////////////////////////////////

```

Campus: North of 19th: 2011 with Project

```

////////////////////////////////////
// Speed                Vehicle Speed (mph, 0 to 100)           45           //
// Grad                Road Gradient (% , 0 to 6)                //
// Sep1                Centerline Separation (feet)             40           //
//                    (Usually 23' for 2-lane, 38'                //
//                    with >>                                   for 4-lane, 50' for 6-lane) //
//                    median >>                                  //
// Dist1                Distance from observer to the            100          //
//                    nearest lane centerline (>50')            //
//                    (used in calculations)                     //
// Dist2                Dist. from ROW to NLC                    30           //
//                    *** CNEL @ 100' (SOFT)                    62.04        //
// VOL                  TOTAL Vehicle Volume (two-way)           12,742       //
// ALPHA                Hard site=0, Soft site=0.5               0.5          //

```

DISTANCE FROM		RESULTS	DISTANCE FROM	
Cntrline	ROW		Centerline	ROW
383	335	<-- hard 60 CNEL soft -->	162	114
121	73	65 CNEL	75	27
38	-10	70 CNEL	35	-13

```

//
// View                View Angle of Observer (180)              180          //
//                    SHIELDING (adjust output by hand)           //
//                    -----                                     //
// Woods                Thickness of woodland between            0           //
//                    observer and road (feet)                   //
// Cover                Percent view coverage between            0           //
//                    observer and road (0-100)                  //
// Rows                 Building rows between observer           0           //
//                    and roadway (0-4).                          //
////////////////////////////////////

```

Campus: North of 19th: 2015 w-out Project

```

////////////////////////////////////
// Speed                               Vehicle Speed (mph, 0 to 100)      45           //
// Grad                                Road Gradient (% , 0 to 6)                                     //
// Sep1                                Centerline Separation (feet)      40           //
//      with                            (Usually 23' for 2-lane, 38'   //
//      median                           for 4-lane, 50' for 6-lane)   //
// Dist1                               Distance from observer to the   100          //
//                                       nearest lane centerline (>50') //
//                                       (used in calculations)       //
// Dist2                               Dist. from ROW to NLC          30           //
//                                       *** CNEL @ 100' (SOFT)      62.89        //
// VOL                                TOTAL Vehicle Volume (two-way)  15,491       //
// ALPHA                              Hard site=0, Soft site=0.5     0.5          //

```

DISTANCE FROM		RESULTS		DISTANCE FROM	
Cntrline	ROW			Centerline	ROW
466	417	<-- hard	60 CNEL soft -->	184	136
147	99		65 CNEL	86	37
47	-2		70 CNEL	40	-9

```

//
// View                               View Angle of Observer (180)   180          //
//                                       SHIELDING (adjust output by hand) //
//                                       ----- //
// Woods                              Thickness of woodland between   0            //
//                                       observer and road (feet)       //
// Cover                              Percent view coverage between   0            //
//                                       observer and road (0-100)     //
// Rows                              Building rows between observer  0            //
//                                       and roadway (0-4).           //
////////////////////////////////////

```

Campus: North of 19th: 2015 with Project

```

////////////////////////////////////
// Speed          Vehicle Speed (mph, 0 to 100)          45          //
// Grad           Road Gradient (% , 0 to 6)             //
// Sep1           Centerline Separation (feet)           40          //
//               with      >>      (Usually 23' for 2-lane, 38' //
//               median    >>      for 4-lane, 50' for 6-lane) //
// Dist1          Distance from observer to the          100         //
//               nearest lane centerline (>50') //
//               (used in calculations) //
// Dist2          Dist. from ROW to NLC                   30          //
//               *** CNEL @ 100' (SOFT)                 65.94       //
// VOL            TOTAL Vehicle Volume (two-way)         31,326      //
// ALPHA         Hard site=0, Soft site=0.5             0.5         //

```

DISTANCE FROM		RESULTS	DISTANCE FROM	
Cntrline	ROW		Centerline	ROW
942	894	<-- hard 60 CNEL soft --->	295	246
298	250	65 CNEL	137	88
94	46	70 CNEL	63	15

```

//
// View          View Angle of Observer (180)           180         //
//               SHIELDING (adjust output by hand) //
//               ----- //
// Woods         Thickness of woodland between          0          //
//               observer and road (feet) //
// Cover         Percent view coverage between          0          //
//               observer and road (0-100) //
// Rows         Building rows between observer          0          //
//               and roadway (0-4). //
////////////////////////////////////

```

Campus: North of 19th: 2020 w-out Project

```

////////////////////////////////////
// Speed                               Vehicle Speed (mph, 0 to 100)      45      //
// Grad                                Road Gradient (% , 0 to 6)      //
// Sep1                                Centerline Separation (feet)    40      //
//      with                            (Usually 23' for 2-lane, 38'   //
//      median                           for 4-lane, 50' for 6-lane)   //
// Dist1                               Distance from observer to the  100     //
//                                       nearest lane centerline (>50') //
//                                       (used in calculations)      //
// Dist2                               Dist. from ROW to NLC          30      //
//                                       *** CNEL @ 100' (SOFT)      63.84   //
// VOL                                TOTAL Vehicle Volume (two-way) 19,274  //
// ALPHA                              Hard site=0, Soft site=0.5     0.5     //

```

DISTANCE FROM		RESULTS	DISTANCE FROM	
Cntrline	ROW		Centerline	ROW
580	531	<-- hard 60 CNEL soft --->	213	165
183	135	65 CNEL	99	51
58	10	70 CNEL	46	-2
				//
//		View Angle of Observer (180)	180	//
//		SHIELDING (adjust output by hand)		//
//		~~~~~		//
//		Thickness of woodland between	0	//
//		observer and road (feet)		//
//		Percent view coverage between	0	//
//		observer and road (0-100)		//
//		Building rows between observer	0	//
//		and roadway (0-4).		//
				//

Campus: North of 19th: 2020 with Project

```

////////////////////////////////////
// Speed Vehicle Speed (mph, 0 to 100) 45 //
// Grad Road Gradient (% , 0 to 6) //
// Sep1 Centerline Separation (feet) 40 //
// with >> (Usually 23' for 2-lane, 38' //
// median >> for 4-lane, 50' for 6-lane) //
// Dist1 Distance from observer to the 100 //
// nearest lane centerline (>50') //
// (used in calculations) //
// Dist2 Dist. from ROW to NLC 30 //
// *** CNEL @ 100' (SOFT) 66.4 //
// TOTAL Vehicle Volume (two-way) 34,765 //
// ALPHA Hard site=0, Soft site=0.5 0.5 //

```

DISTANCE FROM		RESULTS	DISTANCE FROM	
Cntrline	ROW		Centerline	ROW
*****	997	<-- hard 60 CNEL soft -->	316	268
330	282	65 CNEL	147	98
104	56	70 CNEL	68	20
//				//
// View		View Angle of Observer (180)	180	//
//		SHIELDING (adjust output by hand)		//
//		~~~~~		//
// Woods		Thickness of woodland between	0	//
//		observer and road (feet)		//
// Cover		Percent view coverage between	0	//
//		observer and road (0-100)		//
// Rows		Building rows between observer	0	//
//		and roadway (0-4).		//
//				//

19th Street - Campus to Sapphire: Existing

```

////////////////////////////////////
// Speed          Vehicle Speed (mph, 0 to 100)          55          //
// Grad           Road Gradient (% , 0 to 6)             0           //
// Sep1          Centerline Separation (feet)            40           //
//               (Usually 23' for 2-lane, 38'             //
//               with      >>                             //
//               median    >>                             //
//               for 4-lane, 50' for 6-lane)              //
// Dist1         Distance from observer to the           100          //
//               nearest lane centerline (>50')          //
//               (used in calculations)                  //
// Dist2         Dist. from ROW to NLC                   30           //
//               *** CNEL @ 100' (SOFT)                 65.91        //
// VOL           TOTAL Vehicle Volume (two-way)          18,500       //
// ALPHA        Hard site=0, Soft site=0.5              0.5          //

```

DISTANCE FROM	
Cntrline	ROW
933	885
295	247
93	45

RESULTS

<-- hard 60 CNEL soft -->
 65 CNEL
 70 CNEL

DISTANCE FROM	
Centerline	ROW
293	245
136	88
63	15

```

//
// View          View Angle of Observer (180)           180          //
//               SHIELDING (adjust output by hand)      //
//               ~~~~~~                                  //
// Woods        Thickness of woodland between           0           //
//               observer and road (feet)               //
// Cover        Percent view coverage between           0           //
//               observer and road (0-100)              //
// Rows         Building rows between observer         0           //
//               and roadway (0-4).                    //
////////////////////////////////////

```

19th Street - Campus to Sapphire: 2011 w/out Project

```

////////////////////////////////////
// Speed                Vehicle Speed (mph, 0 to 100)           55           //
// Grad                 Road Gradient (% , 0 to 6)              0            //
// Sep1                 Centerline Separation (feet)           40           //
//                      (Usually 23' for 2-lane, 38'           //
//                      with >>                                //
//                      median >>                             for 4-lane, 50' for 6-lane) //
// Dist1                Distance from observer to the          100          //
//                      nearest lane centerline (>50')         //
//                      (used in calculations)                 //
// Dist2                Dist. from ROW to NLC                  30           //
//                      *** CNEL @ 100' (SOFT)                 66.56        //
// VOL                  TOTAL Vehicle Volume (two-way)         21,471       //
// ALPHA                Hard site=0, Soft site=0.5            0.5          //

```

DISTANCE FROM		RESULTS			DISTANCE FROM	
Cntrline	ROW			Centerline	ROW	
*****	1036	<-- hard	60 CNEL	soft --->	324	276
343	295		65 CNEL		150	102
108	60		70 CNEL		70	21

```

//
// View                View Angle of Observer (180)           180          //
//                      SHIELDING (adjust output by hand)     //
//                      -----                                //
// Woods               Thickness of woodland between          0            //
//                      observer and road (feet)               //
// Cover               Percent view coverage between          0            //
//                      observer and road (0-100)              //
// Rows                Building rows between observer          0            //
//                      and roadway (0-4).                     //
////////////////////////////////////

```


19th Street - Campus to Sapphire: 2015 w-out Project

```

////////////////////////////////////
// Speed          Vehicle Speed (mph, 0 to 100)          55          //
// Grad           Road Gradient (% , 0 to 6)             0           //
// Sep1           Centerline Separation (feet)           40          //
//               with          >>          (Usually 23' for 2-lane, 38' //
//               median        >>          for 4-lane, 50' for 6-lane) //
// Dist1          Distance from observer to the          100         //
//               nearest lane centerline (>50') //
//               (used in calculations) //
// Dist2          Dist. from ROW to NLC                   30          //
//               *** CNEL @ 100' (SOFT)                 66.79       //
// VOL            TOTAL Vehicle Volume (two-way)         22,667      //
// ALPHA         Hard site=0, Soft site=0.5              0.5         //

```

DISTANCE FROM		RESULTS	DISTANCE FROM	
Cntrline	ROW		Centerline	ROW
*****	1097	<-- hard 60 CNEL soft --->	336	287
362	314	65 CNEL	156	107
115	66	70 CNEL	72	24
//				//
// View		View Angle of Observer (180)	180	//
//		SHIELDING (adjust output by hand)		//
//		~~~~~		//
// Woods		Thickness of woodland between	0	//
//		observer and road (feet)		//
// Cover		Percent view coverage between	0	//
//		observer and road (0-100)		//
// Rows		Building rows between observer	0	//
//		and roadway (0-4).		//
//				//

19th Street - Campus to Sapphire: 2015 with Project

```

////////////////////////////////////
// Speed          Vehicle Speed (mph, 0 to 100)          55          //
// Grad           Road Gradient (% , 0 to 6)             0           //
// Sep1           Centerline Separation (feet)           40           //
//               with >> (Usually 23' for 2-lane, 38' //
//               median >> for 4-lane, 50' for 6-lane) //
// Dist1          Distance from observer to the          100          //
//               nearest lane centerline (>50') //
//               (used in calculations) //
// Dist2          Dist. from ROW to NLC                   30           //
//               *** CNEL @ 100' (SOFT)                   68.7         //
// VOL            TOTAL Vehicle Volume (two-way)         35,179       //
// ALPHA          Hard site=0, Soft site=0.5             0.5          //

```

DISTANCE FROM		RESULTS			DISTANCE FROM	
Cntrline	ROW			Centerline	ROW	
*****	1726	<-- hard	60 CNEL	soft --->	450	402
561	513		65 CNEL		209	160
177	129		70 CNEL		97	49

```

//
// View          View Angle of Observer (180)           180          //
//               SHIELDING (adjust output by hand) //
//               ~~~~~ //
// Woods         Thickness of woodland between          0           //
//               observer and road (feet) //
// Cover         Percent view coverage between          0           //
//               observer and road (0-100) //
// Rows         Building rows between observer          0           //
//               and roadway (0-4). //
////////////////////////////////////

```

19th Street - Campus to Sapphire: 2020 w/out Project

```

////////////////////////////////////
// Speed                               Vehicle Speed (mph, 0 to 100)           55           //
// Grad                                Road Gradient (% , 0 to 6)           0           //
// Sep1                                Centerline Separation (feet)         40           //
//      with                            (Usually 23' for 2-lane, 38'       //
//      median                           for 4-lane, 50' for 6-lane)         //
// Dist1                                Distance from observer to the       100          //
//                                       nearest lane centerline (>50')     //
//                                       (used in calculations)           //
// Dist2                                Dist. from ROW to NLC                30           //
//                                       *** CNEL @ 100' (SOFT)           67.07        //
// VOL                                  TOTAL Vehicle Volume (two-way)     24,150       //
// ALPHA                               Hard site=0, Soft site=0.5          0.5          //

```

DISTANCE FROM		RESULTS	DISTANCE FROM	
Cntrline	ROW		Centerline	ROW
*****	1171	<-- hard 60 CNEL soft -->	350	302
386	337	65 CNEL	163	114
122	74	70 CNEL	75	27
//				//
// View		View Angle of Observer (180)	180	//
//		SHIELDING (adjust output by hand)		//
//		~~~~~		//
// Woods		Thickness of woodland between	0	//
//		observer and road (feet)		//
// Cover		Percent view coverage between	0	//
//		observer and road (0-100)		//
// Rows		Building rows between observer	0	//
//		and roadway (0-4).		//
//				//

19th Street - Campus to Sapphire: 2020 with Project

```

////////////////////////////////////
// Speed Vehicle Speed (mph, 0 to 100) 55 //
// Grad Road Gradient (% , 0 to 6) 0 //
// Sep1 Centerline Separation (feet) 40 //
// with >> (Usually 23' for 2-lane, 38' //
// median >> for 4-lane, 50' for 6-lane) //
// Dist1 Distance from observer to the 100 //
// nearest lane centerline (>50') //
// (used in calculations) //
// Dist2 Dist. from ROW to NLC 30 //
// *** CNEL @ 100' (SOFT) 69.03 //
// VOL TOTAL Vehicle Volume (two-way) 37,939 //
// ALPHA Hard site=0, Soft site=0.5 0.5 //

```

DISTANCE FROM		RESULTS	DISTANCE FROM	
Cntrline	ROW		Centerline	ROW
*****	1866	<-- hard 60 CNEL soft -->	473	425
605	557	65 CNEL	220	171
191	143	70 CNEL	102	54
//				//
// View		View Angle of Observer (180)	180	//
//		SHIELDING (adjust output by hand)		//
//		-----		//
// Woods		Thickness of woodland between	0	//
//		observer and road (feet)		//
// Cover		Percent view coverage between	0	//
//		observer and road (0-100)		//
// Rows		Building rows between observer	0	//
//		and roadway (0-4).		//
//				//

15.5 Biological Assessment

Transmittance Spectra

15.6 Geology/Soils Assessment

Environmental Assessment

NOTE TO REVIEWERS:

**RMA GROUP REPORT IN ITS ENTIRETY IS
AVAILABLE FROM
THE CITY OF UPLAND UPON REQUEST.**

**REVIEW OF
MAJOR GEOTECHNICAL AND GEOLOGIC CONSTRAINTS
COLONIES, PHASE II RESIDENTIAL & COMMERCIAL
19TH STREET AND CAMPUS AVENUE
UPLAND, CA**

for

Colonies Crossroads, Inc.
10621 Civic Center Drive, 2nd floor
Rancho Cucamonga, CA 91730

February 15, 2002

02-027-01

February 15, 2002

Colonies Crossroads, Inc.
10621 Civic Center Drive, 2nd floor
Rancho Cucamonga, CA 91730

Attention: Mr. Phil Burum

Subject: Review of Major Geotechnical and Geologic Constraints
Colonies, Phase II Residential & Commercial
19th Street and Campus Avenue
Upland, CA

Gentlemen:

In accordance with your request, a review of major geotechnical and geologic constraints has been completed for the above-referenced site. This report has been prepared to provide geologic and geotechnical data for an environmental impact report. The accompanying report presents a description of our findings, as well as our conclusions and recommendations.

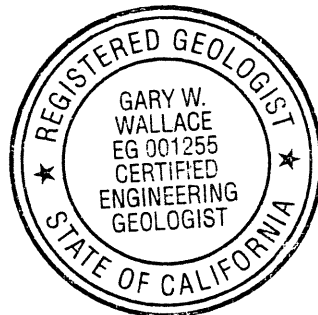
We appreciate this opportunity to be of continued service to you. If you have any questions regarding this report, please do not hesitate to contact us at your convenience.

Respectfully submitted,

RMA Group



Gary Wallace
Engineering Geologist
CEG 1255



Ed Lyon, P.E.
Vice President
GE 2362



Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

TABLE OF CONTENTS

SECTION	PAGE
1.00 INTRODUCTION	1
1.01 Purpose	1
1.02 Scope of the Investigation	1
1.03 Site Location and Description	2
1.04 Current Land Usage	3
1.05 Past land Usage	3
1.06 Planned Usage	3
1.07 Investigation Methods	4
2.00 FINDINGS	4
2.01 Geologic Setting	4
2.02 Earth Materials	4
2.03 Landslides	6
2.04 Surface and Ground Water Conditions	7
2.05 Faults	8
2.06 Seismicity	10
2.07 Secondary Earthquake Hazards	12
2.08 Flooding Potential	12
2.09 Regional Land Subsidence	12
3.00 CONCLUSIONS AND RECOMMENDATIONS	12
3.01 General Conclusion	12
3.02 General Earthwork and Grading	12
3.03 Earth Material Characteristics	13
3.04 Subdrains and Ground Water	13
3.05 Slopes	13
3.06 Foundations	13
3.07 Pavement Sections	14
3.08 Faulting	14
3.09 Seismicity	14
3.10 Secondary Seismic Hazards	14
3.11 Other Geologic Considerations	14

TABLE OF CONTENTS
(continued)

SECTION	PAGE
3.12 Additional Studies	15
4.00 CLOSURE	15

FIGURES

Figure 1	Site Location Map
Figure 2	Regional Geologic Map
Figure 3	Regional Ground Contour Water Map
Figure 4	Earthquake Fault Zone Map
Figure 5	Fault and Earthquake Epicenter Map
Table 1	Notable Faults within 100 km and Seismic Data
Table 2	Historical Strong Earthquakes in Southern California Since 1812

APPENDIX

Appendix A	Logs of Prior Subsurface Exploration	A1
Appendix B	Geophysical Report by Ryland Associates, 1987	B1
Appendix C	References	C1

PLATES

Plate 1	Conceptual Grading Plan
Plate 2	Geologic Map

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

1.00 INTRODUCTION

1.01 Purpose

The purpose of this study was to identify and evaluate major geotechnical and geologic constraints affecting the subject site with respect to a proposed residential and commercial development. This report has been prepared to provide geologic and geotechnical data for an environmental impact report.

1.02 Scope of the Investigation

The general scope of this investigation included the following:

- Review of regional geologic maps and reports prepared by the California Division of Mines and Geology, the U.S. Geological Survey, the California Department of Water Resources, and other sources.
- Review of regional ground water data compiled by California Division of Mines and Geology, the U.S. Geological Survey, the California Department of Water Resources, and Chino Basin Watermaster.
- Review of regional land planning documents and hazard maps including: California Earthquake Fault Zone Maps, San Bernardino County General Plan Maps, the City of Upland General Plan, and Federal Emergency Management Agency Flood Zone Maps.
- Examination of aerial photographs consisting of a flight of the site provided by the project civil engineer, photographs contained in the RMA Group in-house library, and photographs on file with the San Bernardino County Flood Control District.
- Field reconnaissance and geologic mapping of existing conditions.
- Geologic and geotechnical evaluation of the compiled data.
- Preparation of this report presenting our findings, conclusions and recommendations.

Our scope of work did not include a preliminary site assessment for the potential of hazardous materials onsite or any subsurface investigation.

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

1.03 Site Location and Description

The site consists of approximately 300 acres of land in the northern part of the City of Upland, California, approximately 2 miles south of the mouth of Cucamonga Canyon and the foothills of the San Gabriel Mountains. Most of the property is a gently sloping alluvial fan surface that has been substantially modified by past construction of flood control levees, by excavation of sand and gravel quarries, and by other activities of man. In general, the property is bounded to the north by undeveloped land and a sand and gravel processing facility, to the east by the Cucamonga Creek wash and recently graded residential tracts, to the south by residential properties, and to the west by Campus Avenue. The northern part of the property is bisected by the Foothill Freeway corridor, which is currently under construction, and by 19th Street. The approximate location of the site is illustrated on the accompanying Site Location Map (Figure 1).

Vegetation consists predominately of native chaparral and brush with a few scattered trees. However, in many areas brush has been removed by road construction, by recent grading and construction activity, and by past quarrying and pipeline construction. In addition, there are fairly dense trees and brush in a quarry in the southern part of the site that was partially backfilled with fine-grained soils generated by the processing of the aggregates. There are also trees and dense brush in the western part of the site in an area that receives water from a storm drain outlet.

The most prominent man-made features on the site consist of:

- Five sand and gravel quarries that were excavated and partly backfilled. For purposes of this report, these abandoned quarries have been numbered one through five.
- Numerous levees, berms and other fills.
- Two large soil stockpiles that were placed on the property during grading of Phase I of the Colonies project.
- A paved road, 19th Street, which passes through the northern part of the property in an east-west direction.
- A Metropolitan Water District (MWD) water supply pipeline that crosses the northwest part of the site.
- A storm drain outlet structure in the western part of the site.
- Construction staging areas in the northern part of the property adjacent to the Foothill Freeway corridor, outside the boundaries of this site.

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

1.04 Current Usage

The majority of the site is not currently used. Current land usage consists of:

- Parking earth moving grading equipment and storage of other construction equipment in construction staging areas adjacent to the Foothill Freeway route.
- Stockpiling of excess soils generated during grading of the Foothill Freeway extension and the Colonies Phase I residential tracts to the east.
- Transportation of water via the MWD pipeline in the northwest part of the site.
- Infiltration of runoff water that originates from a storm drainage outlet structure in the western part of the site.

1.05 Past Usage

Aerial photographs indicate that by the 1930's the site had been modified by the construction of a number of flood control levees and berms. U.S. Geological Survey quadrangle maps indicate that the areas upslope of the levees and berms were used as percolation basins. In the 1950's quarrying for sand and gravel began at the site. This land use continued until about the early 1980's. Concurrent with, and following the mining operations, quarries were partly backfilled with fine-grained soils separated from the mined sand and gravel, and with soil and other materials brought into the site. In the mid-1970's, the MWD water pipeline was constructed through the site. Following quarry excavation, a storm drain outlet was constructed in the northern basin on the western part of the site (Quarry No. 1). In the past year, stockpiles of excess soils generated from grading of the Foothill Freeway extension and the Colonies Phase I residential tracts were placed in the eastern part of the site.

1.06 Planned Usage

It is currently proposed to develop the property with a subdivision of single-family residences and retail shopping centers. A portion of the northern quarry (Quarry No. 1) will continue to be used as a storm water percolation basin. Other portions of the quarry will be regarded for development. Slopes as much as 80 to 90 feet high will be graded around the perimeter of the quarry. Other quarries to the south will be regraded for development. Campus Avenue will be rerouted to connect with a freeway off-ramp located in the north-central part of the site. In addition, a portion of 19th Street will be rerouted to connect with the relocated Campus Avenue, and a portion of 19th Street will be abandoned. As much as 60± feet of fill will be placed on the site. The maximum

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

depth of cut will be on the order of 30 feet. A preliminary grading concept and the locations of the currently proposed residential and commercial areas are illustrated on Plate 1.

1.07 Investigation Methods

Our study has consisted of office research, field reconnaissance, review of the compiled data, and preparation of this report. The work has been performed in a manner consistent with generally accepted engineering and geologic principles and practices, and has incorporated codes, ordinances, regulations and laws that, in our professional opinion, are applicable.

2.00 FINDINGS

2.01 Geologic Setting

The site is located on a broad, coalescing alluvial fan that emanates from Cucamonga Canyon and the San Gabriel Mountains to the north. These sediments fill the northern portion of a deep structural depression known as the upper Santa Ana River Valley. According to Fife and others (1976), the alluvial deposits beneath the site are approximately 1,000 feet thick and ultimately rest on a basement of crystalline bedrock.

The upper Santa Ana River Valley is bordered by the San Gabriel Mountains and the active Cucamonga fault to the north, and the Puente Hills and potentially active Chino fault to the west. To the south are the Jurupa Mountains and other resistant granitic and metamorphic hills. The eastern boundary of the valley is the San Bernardino Mountains and the active San Andreas fault.

The general geologic setting of the site is illustrated on the accompanying Regional Geologic Map (Figure 2).

2.02 Earth Materials

Earth materials underlying the site consist of two basic geologic units: artificial fill and alluvium. The fills were placed at different times and for different purposes, and vary in thickness and composition. For purposes of this report, the fill has been classified into 8 categories. These categories identify the major fills for the purpose of reviewing of major geologic and geotechnical constraints. Other more localized, smaller and thinner fills are present which could not be practically delineated at the scale of map used in the preparation of this report. Aside from local changes in color, density and texture, the alluvial soils are relatively uniform. Thus only a single alluvial unit has been designated for this report.

Descriptions of soils encountered during prior subsurface investigations of the site are presented in

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

Appendix A. The locations of prior exploratory excavations and contacts between the various soil units are illustrated on the accompanying Geologic Map (Plate 2). Fill and alluvial soils differentiated for this study are described briefly below.

Cobble and Boulder Stockpiles (map symbol afcb)

At several locations, cobbles and boulders generated by recent grading and construction have been stockpiled on the site. These materials are composed of intrusive granitic and metamorphic gneissic and schistose rock types typical of outwash from Cucamonga Canyon.

Stockpile fill – Phase I grading (map symbol afs)

Excess soils generated from grading of the Foothill Freeway extension and the adjacent residential subdivisions have been placed in two stockpiles in the eastern part of the site. These stockpile soils were derived from younger and older alluvium and generally consist of gravelly sand and gravelly, silty sand with cobbles and some boulders. Placement of these fills were observed and tested by RMA Group (2002a) to approximately elevations 1,560 to 1,570 in the northern stockpile and approximately 1,530 to 1,540 in the southern stockpile.

Engineered fill – Phase I grading (map symbol afe)

During the past year engineered (compacted) fill was placed in the Phase I area of the Colonies project, to the east of the limits of this study. Placement of the fill was observed and tested by RMA Group (2002a). The fill is composed of soil derived from younger and older alluvium, and consists principally of gravelly sands and gravelly, silty sands with cobbles. The fill also contains widely scattered boulders and a few areas of silts and clays.

Miscellaneous fill (map symbol afm)

Scattered throughout the property are non-engineered fills of miscellaneous composition, thickness and lateral extent. Typically the fills are composed of granular soils and in many locations contain varying amounts of man-made debris. Many of these fills were imported onto the site. Smaller miscellaneous fills are not shown on Plate 2, owing to the scale of that map.

Quarry bottom fill (map symbol afqb)

Quarry No. 4 has been partially backfilled with fine-grained soils derived from screening operations during past sand and gravel processing operations. Prior subsurface exploration (Richard Mills Associates, 1998b) indicates that this non-engineered fill is on the order of 30 feet thick. However, additional exploration and evaluation will be needed to estimate the quantity of the fill in this basin.

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

Quarry side slope fill (map symbol afqs)

Following the excavation of the quarries, soils were dumped over some of the quarry side slopes. Most of these non-engineered fills were imported into the site, thus their composition is variable. Typically the quarry side slope fill is composed of granular soils that, in many locations, contain man-made materials and organic matter.

Pipeline backfill – water aqueduct (map symbol afp)

Trench backfill has been placed over an MWD pipeline that crosses the northwest corner of the site. The composition of the backfill is unknown, but is expected to be similar the onsite, native soils. It is not known if the fill was placed in a controlled manner as an engineered fill.

Berm and levee fill (map symbol afbl)

Numerous berms and levees have been constructed on the property. Surface observations and past subsurface exploration suggests that these fills were likely derived from onsite native soils. These fills were placed more than 60 years ago and are therefore considered to be non-engineered.

Quarry bottom fill and alluvium, undifferentiated (map symbol afqb-Qal)

The bottoms of Quarries 1, 2 and 3 contain thin fill, moderately thick fill and alluvium. Where feasible, thicker fills, on the order of 5 to 10 feet thick, have been identified as miscellaneous fill (afm). In many areas, thin fills cannot be distinguished from alluvium without subsurface exploration, as the materials are of similar composition. Thus most of the bottoms of Quarries 1, 2 and 3 have been designated as undifferentiated fill and alluvium.

Alluvium (map symbol Qal)

The alluvium underlying the site consists of gray-white and reddish brown gravelly sand and gravelly, silty sand with cobbles and boulders. The gray white deposits occur near the surface and are underlain by reddish brown deposits. The reddish brown color is indicative of older deposits. According to regional geologic mapping by Morton (1974), near surface alluvium is Holocene in age and is underlain by Pleistocene age older alluvium.

2.03 Landslides

The site was originally a gently slope alluvial fan, and thus not prone to landsliding. The base of the San Gabriel Mountains is located about 2 miles north of the site. Thus landsliding originating

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

from the San Gabriel Mountains is not expected to impact the site. Quarry excavations and backfilling have created many steep and potentially unstable slopes that will require remedial grading to stabilize.

2.04 Surface and Ground Water Conditions

Standing water was present in Quarry No. 1 at the time of this study. The sources of this water are a storm drain outlet in the western part of the site and local runoff within the property. Varying amounts of surface water has been present within this quarry for many years and surface water is expected to be present in the future. The approximate limits of the standing water at the time of this study are shown on Plate 2. Other localized areas of standing water were noted within the site related to a temporary water storage tower used to fill water trucks and recent rain. These areas are small and not expected to be persistent, and thus are not noted on Plate 2.

According to the California Department of Water Resources (1970) and the California Division of Mines and Geology (1976) the historic depth to ground water beneath the site has been on the order of 400 to 500 feet. Carson and Matti (1985) indicate that the minimum depth to ground water beneath the site from 1973 to 1979 ranged from about 50 to 200 feet (Figure 3).

2.05 Faults

The site is not located within the boundaries of an Earthquake Fault Zone for fault-rupture hazard as defined by the Alquist-Priolo Earthquake Fault Zoning Act or within a City of Upland designated fault hazard zone. The nearest Earthquake Fault Zone is located about 1½ miles to the northwest along the Cucamonga fault (Figure 4). The two most prominent faults in proximity of the site are the Red Hill and Cucamonga faults.

Red Hill Fault

The Red Hill fault is a postulated fault believed responsible for uplift of Red Hill, which is located approximately 1 1/3 miles south of the site. It has also been postulated that the Red Hill fault extends northwest and northeast from Red Hill as a subsurface ground water barrier.

Regional geologic and ground water contour maps by Carson and Matti (1985), the California Department of Water Resources (1970), Jennings (1994), and the Chino Basin Watermaster (1999) show the Red Hill fault curving northwest from Red Hill either toward or through the site (Figure 3). However, other regional geologic maps Bortugno and Spittler (1986) and Morton (1974) do not show a northerly curve of the Red Hill fault projecting toward or through the site (Figure 2). The possibility of the Red Hill fault passing through the site was investigated by Richard Mills Associates and Ryland and Associates in 1987. Their investigation included examination of aerial

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

photographs for lineaments suggestive of faulting, a geophysical survey consisting of 7,800 feet of seismic refraction lines and 6,000 feet of magnetometer lines, and examination of a trench excavated along a photo lineament and a geophysical anomaly. The studies by Ryland and Mills did not detect any features attributable to the Red Hill fault. Consequently no mitigation for potential surface fault rupture along the postulated trace of the Red Hill fault was deemed necessary. The complete text of the geophysical study by Ryland and Associates is presented in Appendix B.

The regional maps cited above show the postulated northeasterly extension of the Red Hill fault continuing to a fault located about 6 miles east-northeast of the site. However, the most recent detailed mapping of the area (Morton, 1991) has identified the fault east of the site as a separate feature named the Etiwanda Avenue fault. Numerous subsurface investigations along the postulated trace of the Red Hill fault between the Etiwanda Avenue fault and Red Hill have not detected any evidence of near surface faulting (Earth Consultants International, 1999).

The earthquake potential of the Red Hill fault is unknown.

Cucamonga Fault

The most prominent potential seismic source in the vicinity of the site is the Cucamonga fault, which is located about 1 ½ miles northwest of the site at its nearest point (Figures 2 and 4). The Cucamonga fault is the primary fault along the southern front of the eastern San Gabriel Mountains. This north dipping thrust fault separates the crystalline bedrock of the San Gabriel Mountains and valley alluvium. The Cucamonga fault is thought to be capable of generating earthquakes as large as magnitude 7.0 with intervals between ground rupturing events being in the range of 150 to 700 years (Morton and Matti, 1987). Typical ground rupture during major earthquakes along the Cucamonga fault has been estimated to be on the order of 2 meters (Morton and Matti, 1987).

Other Faults

There are of course many other faults in southern California that could produce earthquakes that would be felt at the site. The accompanying Southern California Fault Map (Figure 5) illustrates the location of the site with respect to major faults in the region. The distance to notable faults within 100 kilometers of the site is presented on Table 1.

2.06 Seismicity

The site is located in a seismically active area, as is the case throughout Southern California. At this time it is not possible to state with certainty when and where future large magnitude earthquakes will occur, or what the magnitude and intensity of these events will be. However, estimates can be made based on the tectonic data and seismic history. The seismic setting of the

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

site has been evaluated by review of historic seismicity, by deterministic methods, by probabilistic methods and by code procedures.

Historic Earthquakes

Strong earthquakes that have occurred in this region in historic time are summarized in Table 2. The nearest of these historic earthquakes was the magnitude 5.5 Upland Earthquake of 1990. It was epicentered approximately 4 miles to the west. Estimated peak horizontal ground accelerations at the site from the historic strong earthquakes listed in Table 2 are estimated to have ranged from about 0.07g to 0.34g.

Deterministic Evaluation

The California Division of Mines and Geology (Petersen et. al., 1996 and 1998) has compiled earthquake parameters related to faults in California. The information represents a consensus of many scientists and an interpretation of earthquake hazard parameters most accepted within the greater earth-science community. Activity of faults with reported displacement during latest Pliocene and Holocene time was evaluated using slip rates and recurrence intervals from paleoseismic investigations. Postulated maximum earthquake magnitudes were assigned to each fault based on rupture of an entire fault segment, or in the case of Class "A" faults, rupture of multiple segments. Lengths and geometry of faults, along with other information, were also compiled. The geometries, magnitudes, slip rates and recurrence intervals reported by Petersen for faults within 100 kilometers of the site are summarized in Table 1. Anticipated peak horizontal ground accelerations for the postulated maximum moment magnitude earthquake of each fault are also present in Table 1. Using deterministic methods, it is anticipated that the most intense ground shaking at the site would result from a nearby large magnitude earthquake along the Cucamonga fault. Should a magnitude 7.0 earthquake occur along the Cucamonga fault at a point near the site, it is estimated that the peak horizontal ground acceleration at the site could range from 0.65g to more than 1g.

Probabilistic Evaluation

A probabilistic analysis has been performed using Version 3.01b of the FRISKSP computer program developed by Thomas F. Blake (1998). Results of such an analysis are dependent upon a number of factors, including the attenuation relationship, soil characteristics, and fault data. For this analysis we have selected the attenuation relationship of Boore et al. (1997), a soil site classification (average shear velocity = 310 m/sec), a fault search radius of 100 kilometers, and fault data based on a modified version of the California Division of Mines and Geology fault data base for southern California. This analysis indicates a mean peak horizontal ground acceleration of 0.70g for a 10% probability of occurrence in 50 years.

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

Seismic Coefficients and Near Source Factors

The 1997 Uniform Building Code presents seismic data in terms of seismic zones, factors, sources and coefficients, and soil profiles. Utilizing information generated by this investigation and data from the California Division of Mines and Geology (Petersen, et. al., 1998), the following parameters may be used to determine 1997 UBC seismic coefficients (Ca and Cv) and near-source factors (Na and Nv):

Uniform Building Code Seismic Parameters

Closest Distance to Known Seismic Source: <2 km
Seismic Source and Type: Cucamonga fault, Type A
Seismic Zone: 4
Seismic Zone Factor: 0.4
Soil Profile: S_D

Utilization of Seismic Data for Design

The information presented above, and on the accompanying figures and tables, is basic data for preliminary seismic evaluation and is not intended to be structural design criteria without due consideration of building types, occupancy category, seismic importance factors and possibly other factors. Seismic factors should be determined for each individual area of development, as distances to faults will vary slightly.

2.07 Secondary Earthquake Hazards

Potential secondary seismic hazards that can affect land development projects include liquefaction, tsunamis, seiches, seismically induced settlement, lurching, seismically induced flooding and seismically induced landsliding.

Liquefaction

Liquefaction is a phenomenon where earthquake induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure. When this occurs, the soil can completely lose its shear strength and enter a liquefied state. The possibility of liquefaction is dependent upon grain size, relative density, confining pressure, saturation of the soils, strength of the ground motion and duration of ground shaking. In order for liquefaction to occur three criteria must be met: underlying loose, coarse-grained (sandy) soils, a groundwater depth of less than about 50 feet and a nearby large magnitude earthquake.

Regional data indicates the depth to ground water beneath the site is in excess of 50 feet, and thus liquefaction is unlikely. Standing water is locally present within Quarry No. 1 and thus localized

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

shallow ground water is likely present. Because of the gravelly, cobbly nature of the underlying soils and the probable Pleistocene age of the deposits, the potential for liquefaction in this area appears to be low, however this should be confirmed during future geotechnical investigation.

Tsunamis and Seiches

Tsunamis are sea waves that are generated in response to large magnitude earthquakes. When these waves reach shorelines, they sometimes produce coastal flooding. Seiches are the oscillation of large bodies of standing water, such as lakes, that can occur in response to ground shaking. Due to the inland location of the site, tsunamis do not pose hazards to this site. There is a slight potential for seiches in the area of standing water in Quarry 1, however this will only be of concern if structures or improvements are planned in close proximity to the standing water.

Seismically Induced Settlement and Lurching

Seismically induced settlement occurs most frequently in areas underlain by loose, granular sediments. Damage as a result of seismically induced settlement is most dramatic when differential settlement occurs in areas with large variations in the thickness of sediments. The California Division of Mines and Geology (Fife and others, 1976) have prepared a map of the base of fresh water bearing alluvium for southwest San Bernardino County. The map indicates that the site is underlain by about 1,000 feet of alluvium of relatively uniform thickness. Alluvial soils in the Rancho Cucamonga area are fairly dense. Considering this and the anticipated recompaction of any loose surficial soils and non-engineered fill, the potential for significant seismically induced differential settlement is considered to be low.

Lurching is cracking and fissuring not associated with fault rupture that occurs during earthquakes. It occurs most frequently in areas underlain by loose, granular soils and high ground water or in close proximity of faults. Therefore it appears that the potential for lurching is limited to the area within and near the standing water in Quarry 1. This is provided loose surficial soils and non-engineered fill are removed and recompacted during future grading.

Seismically Induced Flooding

The site is located downstream of the Cucamonga Canyon spreading grounds and adjacent to the Cucamonga Creek Wash (a concrete lined drainage course). There are also two large water storage tanks west of the site, north of 19th Street and west of Campus Avenue. The site could potentially experience seismically induced flooding in the event of failure of these structures, however the potential for such failures is judged to be low. In addition, the runoff direction from the tanks is expected to be to the south, generally away from the site, although some runoff might be directed into Quarry 1 via an existing storm drain system.

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

Seismically Induced Landsliding

The potential for seismically induced landsliding is expected to be very low upon regrading of the property to remove potentially unstable slopes that currently exist onsite.

2.08 Flooding Potential

According to Federal Emergency Management Agency (2002) the site is not located within the boundaries of a 100-year flood zone. Quarry No. 1, of course, floods as a result of storm water runoff that is directed into that area. Control of runoff originating from within and outside of the site will need to be included in planning, design and construction of the project.

2.09 Regional Land Subsidence

According to the City of Upland general plan, the area has experienced historic, regional land subsidence due to removal of ground water. However, the general plan indicates that in the 1970's the County of San Bernardino instituted a program to recharge ground water. The general plan contains no further updates, suggesting that ongoing, significant subsidence has not been noticeable. In addition, the infiltration basin, which is to remain onsite, should further minimize the potential for significant regional land subsidence at the site due to ground water extraction. These observations are predicated upon suitable ground water management in the future.

3.00 CONCLUSIONS AND RECOMMENDATIONS

3.01 General Conclusion

Based upon the results of this study, it is our opinion that residential and commercial development of the site is feasible from an engineering geologic and geotechnical perspective, subject to the more specific conclusions and recommendations presented below.

3.02 General Earthwork and Grading

All earthwork will need to be performed in accordance with applicable City, County, Regional and State agency requirements. Earthwork will also need to be performed in conformance with approved grading plans and any applicable geotechnical reports. Non-engineered fill will need to be over-excavated to competent natural ground or approved engineered fill. Over-excavation will encompass cobble and boulder stockpiles (afcb), any non-engineered fill in the soil stockpile area created during the Phase I grading (afs), miscellaneous fill (afm), quarry bottom fill (afqb), quarry side slope fill (afqs), and berm and levee fill (afbl). The impact of the pipeline backfill (afpb) will

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

require further evaluation during future geotechnical studies. In addition, loose surficial natural soils will need to be over-excavated to competent alluvium. The quantity of over-excavation should be determined upon the performance of additional geotechnical study and when grading plans are being finalized. Excavated soils may be utilized for engineered fill provided they are free of deleterious organic matter and deleterious man-made materials.

3.03 Earth Material Characteristics

Based on observation of surface observations, logs of prior subsurface exploration and our experience in the area, soils are generally expected to be granular with very low expansion and low to moderate corrosion potentials. However, fine-grained fill soils placed in Quarry 4 and a few other areas of the site may be more expansive and corrosive. These soil properties should be further evaluated during future geotechnical studies and during rough grading of the site.

It is expected that all earth materials within the site will be rippable with conventional, heavy duty grading equipment. Some over-sized rock (greater than 12 inches in maximum dimension) is expected to be generated during site grading in addition to the over-sized materials present in the existing cobble and boulder stockpiles. Over-sized materials will need to be placed in deeper fills or hauled from the site. Estimates of the percentage of oversize material will need to be determined during future site investigations and at the time of grading.

3.04 Subdrains and Ground Water

Considering the depth to ground water and the permeability of the underlying soils, it is expected that installation of canyon subdrains will not be necessary. It is expected that backdrains or weep holes will be required for retaining walls. Backdrains may be required for slopes descending into Quarry 1, which will continue to be used as an infiltration basin for surface runoff. This will need to be further evaluated during future geotechnical studies.

3.05 Slopes

Existing potentially unstable slopes will need to be regraded. It is expected that stable slopes can be created provided that the slopes are properly keyed, benched and compacted, and provided that the slopes are inclined no steeper than 2:1 (horizontal to vertical). Specific slope stability calculations, analysis and design of slopes will need to be performed during future geotechnical studies.

3.06 Foundations

Soils at the site are expected to have good bearing qualities, provided foundations are established in engineered fill or competent native ground. It is also expected that residential and commercial

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

structures may be constructed on conventional, continuous and/or spread footings with concrete floor slabs. Design of foundation elements should be evaluated during future geotechnical studies.

3.07 Pavement Sections

Onsite soils are generally granular and are expected to have moderate to high R-Values. These soils should provide good subgrade for paving. Pavement sections should be determined at the completion of rough grading based on representative R-value samples. Fine grained soils in Quarry 4 are less suitable for pavement subgrade and should be not be placed in subgrade areas, if possible.

3.08 Faulting

Since the site is not located within the boundaries of an Earthquake Fault Zone and prior studies by Richard Mills Associates and Ryland Associates did not detect features attributable to the Red Hill fault, the potential for future surface fault rupture within the site is considered unlikely and establishment of fault setback zones is not needed. Geologic mapping should be performed during grading to verify the findings of the earlier studies.

3.09 Seismicity

The site is expected to experience ground shaking as a result of regional seismic activity. Such ground shaking could be substantial, owing to the proximity of the Cucamonga fault, as well as other fault zones in the region. Mitigation of earthquake ground shaking should be incorporated into design and construction in accordance with building code requirements and site specific design, which should be performed for each specific area of development.

3.10 Secondary Seismic Hazard

Based on geologic and geotechnical conditions as currently known, the potential for secondary seismic hazards at the site appears to be low, provided appropriate mitigation measures are implemented in planning, design and construction. Specific evaluation of the proposed slopes descending into Quarry 1 will need to be made to evaluate the seismic stability of such slopes and the impact of water within infiltration basins near the toe of such slopes.

3.11 Other Geologic Considerations

Development of the site will result in the loss of some potential sand and gravel mineral deposits (Cole, 1987 and Goldman, 1968). However, the City of Upland General Plan states that conflicts with the existing MWD water line, the Foothill Freeway extension and setbacks from existing streets results in small areas which are not appropriate for mineral extraction.

Colonies Crossroads, Inc.
Phase II Residential & Commercial
Upland, CA
February 15, 2002

Sedimentation and erosion are expected to be minimal upon development, landscaping and maintenance of the project. Interim erosion control measures should be implemented during construction.

Wastewater generated by development of the site will be disposed of via a public sewer system and thus will not impact the quality or elevation of ground water underlying the site. Any solid waste generated by over-excavation of existing fills should be transported to an appropriate waste disposal site by a suitably licensed contractor.

According to the U.S. Geological Survey (Miller, 1989) the site is not located within a zone of potential hazards from future nearby volcanic eruptions, but could experience ash fall in the event of enormous eruptions of volcanoes in northern and central California. However, the ash fall potential at this site is not greater than other nearby areas in southern California and is substantially less than the ash fall potential in northern and central California.

3.12 Additional Studies

As planning progresses, additional geologic and geotechnical studies should be undertaken in order to verify the findings, conclusions and recommendations of this report, and to develop specific design parameters.

4.00 CLOSURE

The findings and recommendations in this report were prepared in accordance with generally accepted engineering and geologic principles and practices. No other warranty, either express or implied, is made. This report has been prepared for Colonies Crossroads, Inc. to be used solely for environmental impact report purposes. Anyone using this report for any other purpose must draw their own conclusions.

FIGURES

15.7 Hydrology Data

Faint, illegible text at the top of the page, possibly a header or introductory paragraph.

Large block of faint, illegible text in the upper middle section of the page.

SECRET

Large block of faint, illegible text in the middle section of the page.

Faint, illegible text in the lower middle section of the page.

Large block of faint, illegible text in the lower section of the page.

Faint, illegible text at the bottom of the page, possibly a footer or concluding paragraph.

NOTE TO REVIEWERS:

**ASSOCIATES ENGINEERS INC. REPORT IN ITS
ENTIRETY IS AVAILABLE FROM
THE CITY OF UPLAND UPON REQUEST.**

DRAINAGE SYSTEM STUDY FOR THE COLONIES AT SAN ANTONIO



APRIL 2002

Associated Engineers Inc.

3311 E. Shelby St. • Ontario, CA 91764-4872
Tel (909) 980-1982 • Fax (909) 941-0891



**DRAINAGE SYSTEM STUDY
FOR THE
COLONIES AT SAN ANTONIO**

**APRIL 2002
(Originally Published in the
Master Drainage Report dated
June 9, 2000)**



Prepared by:

**Associated Engineers Inc.
3311 E. Shelby St., Ontario, CA 01764-4872
Tel (909) 980-1982
Fax (909) 941-0891**

A handwritten signature in black ink, appearing to read 'Bruce W. Lyon', is written over a horizontal line.

Bruce W. Lyon RCE 31920 Date

Table of Contents

EXECUTIVE SUMMARY	3
SCOPE	7
EXISTING HYDROLOGY STUDIES.....	7
ULTIMATE DEVELOPMENT PLAN	7
DESIGN CRITERIA.....	8
STORM DRAIN SYSTEM CONCEPT	10
DRAINAGE SYSTEM SERVICE AREAS.....	10
HYDROLOGY	13
HYDRAULIC GRADE LINE ANALYSIS	16
OWNERSHIP AND MAINTENANCE.....	17
SAWCO DISCHARGES	18
SAN BERNARDINO COUNTY EASEMENTS	18
DRAINAGE RIGHT-OF-WAY DEDICATIONS	18

APPENDICES:

APPENDIX A	Reference: Rational Method Study – 19 th Street Storm Drain (Appendix A of Master Drainage Report, dated June 9, 2000)
APPENDIX B	Reference (portion): Drainage Report 20 th Street Storm Drain, dated July 26, 1999
APPENDIX C	Reference (portion): Drainage Report State Route 30 – Segment 2, dated October 29, 1999 and supplemental materials issued in May 2000 supporting the design of State Route 30’s Drainage System No. 56.
APPENDIX D	Rational Method Study - DSSA 1, 2, 3, 6 and 7
APPENDIX E	Rational Method Study - Campus Avenue Storm Drain
APPENDIX F	Rational Method Study –19 th St. Storm Drain Extension
APPENDIX G	Rational Method Study –Planning Area 19C Storm Drain
APPENDIX H	Small Area Unit Hydrograph Analysis – 20 th St. Storm Drain
APPENDIX I	Hydraulic Grade Line Analysis – 20 th St. Storm Drain
APPENDIX J	Hydraulic Grade Line Analysis – Campus Avenue Storm Drain
APPENDIX K	Hydraulic Grade Line Analysis – 19 th St. Storm Drain Extension

APPENDIX L Hydraulic Grade Line Analysis – Planning Area 19C Storm Drain
APPENDIX M Hydraulic Grade Line Analysis – DSSA 3 Storm Drain
APPENDIX N Hydraulic Grade Line Analysis – Planning Area 19A Storm Drain

EXECUTIVE SUMMARY

This Drainage System Study update reflects the latest planning being done for the commercial site (Planning Area 19) located just north of 19th Street. In addition, this study addresses in more detail the design flows, sizing and preliminary hydraulic grade lines through the proposed facilities.

The storm drain systems presented in this report have been designed to maintain a balance of flows between The Colonies detention Basins A and B. The design of this proposed detention basin system is to be presented in a separate report "Detention System Study for The Colonies at San Antonio".

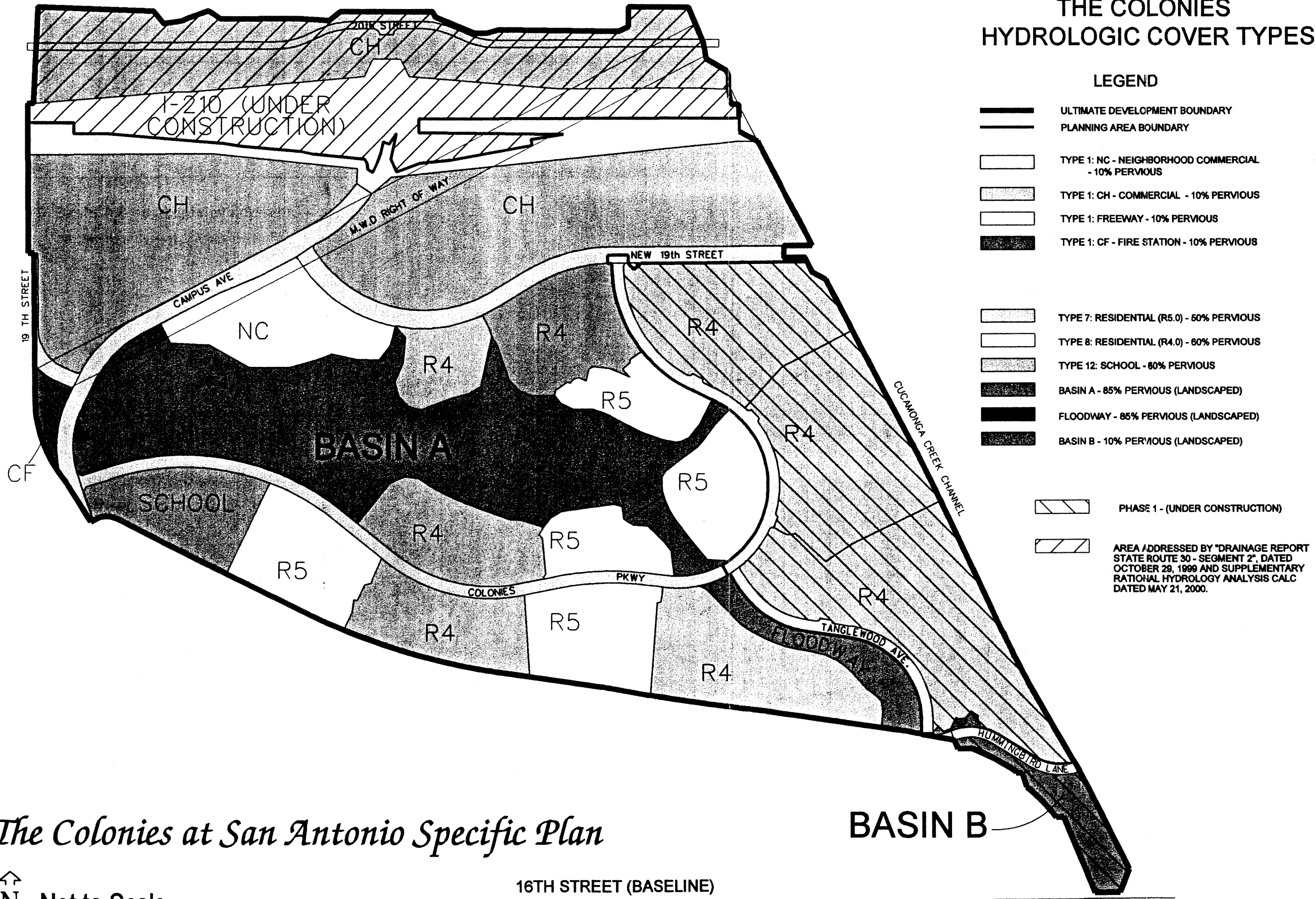
The hydrologic covers within The Colonies project includes residential, school, commercial, fire station and freeway as shown in Figure 4.1. The storm drain concept proposed to serve these areas is shown in Figure 4.2.

The Colonies Project's onsite watershed covers a total of 465 acres as shown in Figure 4.3. Included in this onsite total is the new I-210 freeway currently under construction. Offsite drainage flows enter the project via the 20th Street Storm Drain and the 19th Street Storm Drain. Upon completion of the I-210's drainage system, these two (2) facilities will bring 100 year storm flows onsite from a total of 2097.84 acres of watershed. While, the 20th Street Storm Drain (completed last year) is sized to handle all 100 year flows from its upstream watershed, the existing 19th Street Storm Drain is not. This study proposes to only replace and extend facilities within the project limits. These proposed improvements include replacement of the existing 7' x 6' box located under the existing Campus Avenue.

Combining onsite and offsite watersheds, the total area tributary to The Colonies project is 2559.51 acres. This project watershed was divided into eleven (11) Drainage System Service Areas (DSSA) based on the (1) the tributary areas of the proposed storm drains and (2) areas previously identified in drainage reports for the 19th and 20th Street storm drains and for the I-210 Freeway (Route 30) drainage improvements. The hydrologic data developed by these reports were used for all areas within their scope.

Phase I development of The Colonies project, previously approved, included a number of key elements to the proposed storm drain concept. These elements which are now completed or under construction, are shown as existing in Figure 4.2. The areas covered by the Phase I construction is shown in gray.

THE COLONIES HYDROLOGIC COVER TYPES



The Colonies at San Antonio Specific Plan
















↑
N Not to Scale

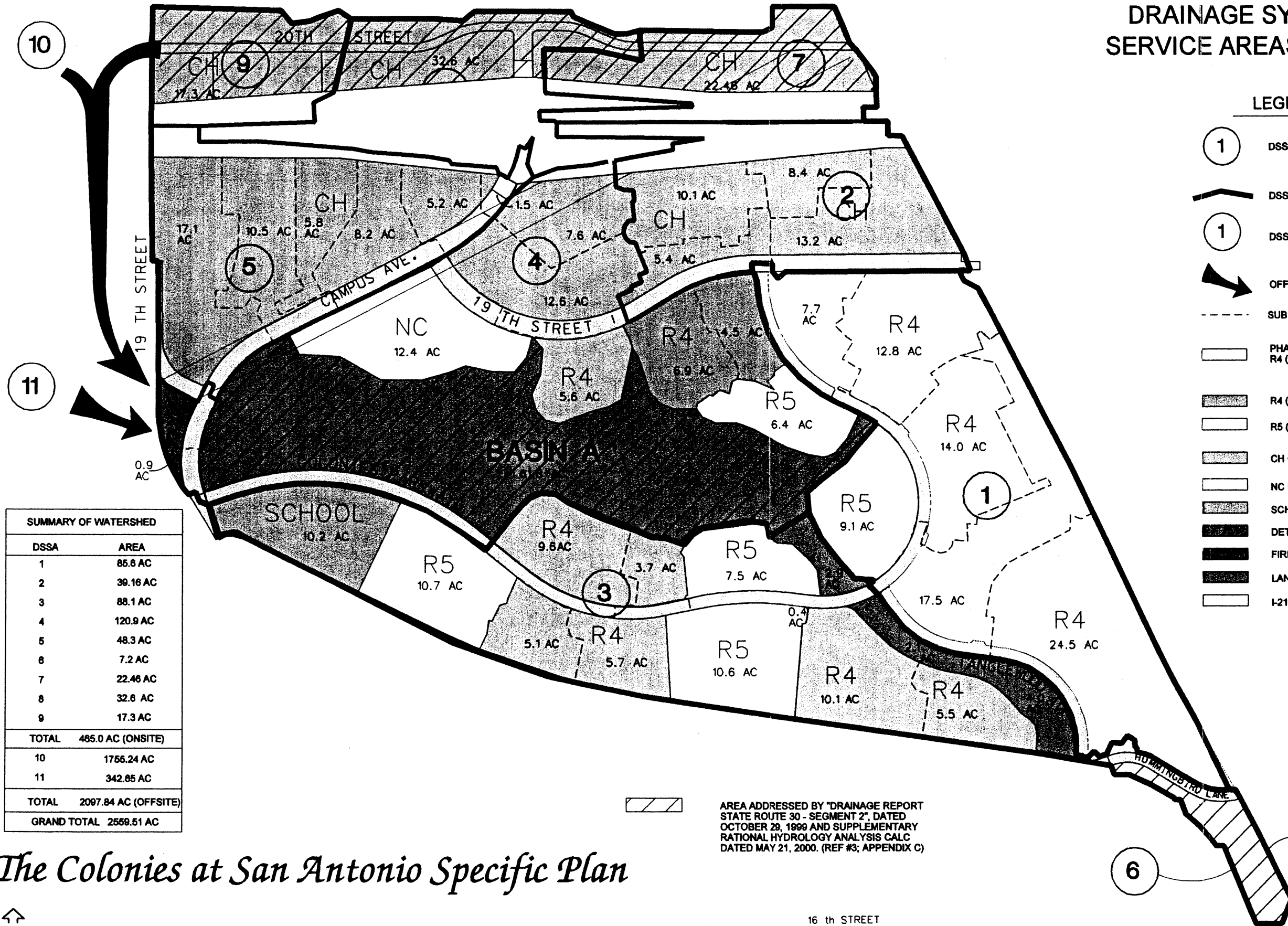
16TH STREET (BASELINE)

FIGURE 4.1

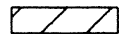
COLONIES DRAINAGE SYSTEM SERVICE AREAS (DSSA)

LEGEND

-  DSSA NO. (ONSITE)
-  DSSA BOUNDARY
-  DSSA NO. (OFFSITE)
-  OFFSITE FLOW
-  SUB AREA BOUNDARY
-  PHASE 1 - R4 (RESIDENTIAL AND BASIN B)
-  R4 (RESIDENTIAL)
-  R5 (RESIDENTIAL)
-  CH COMMERCIAL HIGHWAY ZONE
-  NC NEIGHBORHOOD COMMERCIAL
-  SCHOOL
-  DETENTION BASIN
-  FIRE STATION
-  LANDSCAPED DRAINAGE CHANNEL
-  I-210 (UNDER CONSTRUCTION)



SUMMARY OF WATERSHED	
DSSA	AREA
1	85.8 AC
2	39.16 AC
3	88.1 AC
4	120.9 AC
5	48.3 AC
6	7.2 AC
7	22.46 AC
8	32.6 AC
9	17.3 AC
TOTAL	485.0 AC (ONSITE)
10	1755.24 AC
11	342.65 AC
TOTAL	2087.84 AC (OFFSITE)
GRAND TOTAL	2569.51 AC

 AREA ADDRESSED BY "DRAINAGE REPORT STATE ROUTE 30 - SEGMENT 2", DATED OCTOBER 28, 1999 AND SUPPLEMENTARY RATIONAL HYDROLOGY ANALYSIS CALC DATED MAY 21, 2000. (REF #3; APPENDIX C)

The Colonies at San Antonio Specific Plan

 **N** Not to Scale

FIGURE 4.3

SCOPE

This study presents a storm drain system concept for the ultimate development condition of The Colonies project. Current land use plans for the future phases of The Colonies have been used and hydrology models were prepared to provide sizing of the drainage elements proposed to convey 100 year storm flows. In-tract storm drain facilities shown in this report are speculative and will be addressed with each tract as they are designed. These models have been structured to provide time of concentration and other hydrologic data for design of the detention basin system. A separate report "Detention System Study for The Colonies at San Antonio" is being prepared to confirm the adequacy of this system.

EXISTING HYDROLOGY STUDIES

Existing hydrology studies prepared for the 19th Street Storm Drain, 20th Street Storm Drain and State Route 210 (30 – Segment 2) drainage system were referenced in the preparation of this update. These documents are listed below:

- Ref. # 1: Rational Method Study – 19th Street Storm
- Ref. # 2: Drainage Report 20th Street Storm Drain, dated July 26, 1999
- Ref. # 3: Drainage Report State Route 30 – Segment 2, dated October 29, 1999 and supplemental materials issued in May 2000.

Copies of pertinent sections of these reference documents are provided in Appendix A, B & C respectively.

ULTIMATE DEVELOPMENT PLAN

The land uses planned for the future phases of The Colonies as well as the Phase I development, currently under construction, fall into one of six different hydrologic cover types as shown in Figure 4.1. These cover types, taken from the San Bernardino County Hydrology Manual (No.'s reflect the numbering in the AES hydrology program), describe the land use's tendency to generate runoff. Cover types vary in percentages of impervious area (pavement, building etc.) and condition of pervious areas (landscaped, barren etc.). The six hydrologic cover types best fitting The Colonies existing and planned land uses are as follows:

- Type 1: (NC) NeighborhoodCommercial, (CH) Commercial Highway zone, Freeway and (CF) Community Fire station – these land uses are nearly entirely covered by pavement and buildings with an average of only 10% of their acreage landscaped.

Type 7: Residential (R5) – densities are in the range of 5 to 7 dwelling units per acre with an average of 50% of their acreage landscaped.

Type 8: Residential (R4) – densities are in the range of 3 to 4 dwelling units per acre and are modeled as having 60% of their acreage landscaped.

Type 12: School – similar to Type 8 with 60% landscaping.

Basin A – 10% paved roads/structures/trails and 90% maintained landscaping.

Floodway - 15% paved roads/structures/trails and 85% maintained landscaping.

Basin B – 10% paved roads/structures/slope protection and 90% landscaping.

DESIGN CRITERIA

The storm drain infrastructure for all future phases of The Colonies is to be designed in accordance with the criteria listed in Table 1. These criteria are based on the City of Upland's Engineering Directive "ED-S-1" with modifications and additions made as necessary to reflect San Bernardino County Flood Control District and project specific requirements. Section A of Table 1 lists these modifications and additions.

TABLE 1

Drainage Criteria

The Colonies at San Antonio

A. Project Specific Additions and Modifications to Engineering Directive (ED-S-1)

Criteria No.	Brief Description	Type	Comments
A-1	Hydrology per SBCFCD Hydrology Manual	Hydrology / Hydraulic	Use AMCII for storm drain design and AMC III for basin design.
A-2	Street hydraulic capacity - Velocity x Depth of flow in gutters	Hydraulic	If $vd > 6$, install Storm Drain (SD)
A-3	Street hydraulic capacity - spread width of water in gutters	Hydrology / Hydraulic	Maintain one lane clear each direction for up to Q10; Maintain 16' feet on local streets, 24' on collector streets.
A-4	Street hydraulic capacity - up to top of curb	Hydrology / Hydraulic	Q25 not to exceed top of curb; => install or enlarge SD
A-5	Storm Drain - pipe design capacity (excludes sump areas)	Hydrology / Hydraulic	SD pipe minimum design = Q10
A-6	Storm Drain - sumps	Hydrology / Hydraulic	Inlets and pipes will be sized for Q100; overflow will be designed to carry Q100 with 1-foot freeboard to pad elevation
A-7	Storm Drain - sumps @ cul-de-sacs & knuckles w/ overflow through common area	Hydrology / Hydraulic	Overflow will be designed to carry Q100 with 1-foot freeboard to pad elevation; inlets and pipes may be sized for Q25 when overflow is through common area if approved by PWD.
A-8	Storm Drain - inlet sizing	Hydraulic	Design inlets to accommodate design storms; no multiplier.
A-9	Storm Drain - manhole spacing and details	Design	Pipe, 24" = 300'; Pipe 36" to 60" = 400'; Pipe >60" = 500'; use manhole shaft w/36" minimum at top and two-piece lid (24" inside 36"); manholes required at each end of horizontal curve with a maximum spacing of 250'
A-10	Storm Drain - use of Non-City Standard Drawings	Design	Use APWA, or LA County Flood Control
A-11	Storm Drain - horizontal curves	Design	A storm drain pipe with a horizontal curve must meet the same City criteria as for a sanitary sewer including a 200' minimum radius; see CU-Z-4 for other requirements
A-12	Storm Drain - inlet markings	Design	Plans should direct contractor to stencil on all storm drain inlets "No Dumping"
A-13	Storm Drain - outlet location	Design	No discharge to streets; special conditions will be reviewed by the Public Works Director (PWD).
A-14	Storm Drain - use of cast-in-place pipe	Design	Optional but not preferred; requires tight specs and more intense inspection.
A-15	Storm Drain - plans	Design	SD's will be designed with stationing increasing upstream without regard for orientation on plan.
A-16	Surface Runoff - use of City of Upland Std Dwg CU-E-7 "Drainage Channels and Misc. Lot Drains"	Design	No Type 4 Channels.
A-17	Surface Runoff - flow path	Design	No cross lot drainage; special conditions will be reviewed by the Public Works Director (PWD).

B. City of Upland ED-S-1

Section Number	Brief Description	Status	Comments
Introduction	Moffatt and Nichol Hydrologic Design Criteria	Superseded	Use Criteria No. A-1 above
I.A	Design for street drainage - North/South streets	Modified	By Criteria No.'s A-2 and 3 above
I.B	Design for street drainage - East/West streets	Superseded	Use Criteria No.'s A-2, 3 and 4 above
II.A	Design for SD pipes - North/South streets	Modified	By Criteria No.'s A-2 and 3 above
II.B	Design for SD pipes - East/West streets	Superseded	Use Criteria No.'s A-2, 3, 4 and 5 above
II.C	Minimum Size of SD pipes	Modified	Additional requirements per Criteria No. A-5, 6 and 7 above
II.D	Inlet Capacity	Modified	By Criteria No. A-8 above
III.A	Minimum pipe capacity and inlet sizing in sumps	Superseded	Use Criteria No. A-6, 7 and 8 above
III.B	Overland flow conveyance out of sump areas	<no change>	<Q100 w/ 1 foot freeboard to pad elevation>
III.C	Drainage devices per CU-E-7.	Modified	By Criteria No. A-16 above
IV.A	Intersections and knuckles - North/South streets	Disregard	Design per specific site conditions.
IV.B	Intersections and knuckles - East/West streets	Disregard	Design per specific site conditions.
IV.C	Knuckles and widenings - minimum 2% cross fall	Disregard	Design per specific site conditions.
IV.D	Location of handicap ramps	OK	
IV.E	Water barriers	Disregard	Design per specific site conditions.

STORM DRAIN SYSTEM CONCEPT

The Colonies storm drain system concept divides runoff from the project watershed into two (2) detention basins designated as Basin A and Basin B. Basin B (now completed) has a small storage capacity of just over 35 acre feet. This basin outlets to the Cucamonga Creek Channel located on The Colonies project's east property line. The peak rate of discharge from Basin B is limited by the Corps of Engineers to a maximum of 658 cfs during a 100 year storm. This limit was previously reviewed and approved as part of Phase I of The Colonies. The analysis on which this limit was based has been republished as a separate document entitled "Cucamonga Creek Channel Capacity Analysis for The Colonies at San Antonio". To ensure that this limit is not exceeded, a majority of the project watershed must be directed into Basin A.

Considered in the design of the storm drain concept layout is the collection and safe discharge of the 100 year storm flows from the 19th Street Storm Drain, 20th Street Storm Drain and drainage infrastructure constructed as part of the State Route 210 project.

Also considered was collection and/or safe direction of overland 100 year storm flows. Drainage systems in or crossing 19th, 20th and new Campus Avenues must be sized to collect and convey 100 year storm flows. The proposed storm drain along the south boundary of The Colonies project will also need to be sized for 100 year storm flows from the adjacent tracts. Cul-de-sacs draining to this line should be graded to provide safe passage of 100 year storms maintaining 1 foot freeboard to building pads. Where limited space prevents this, capacity must be provided by a storm drain dewatering each of these cul-de-sacs. All tracts on the north side of Basin A will discharge to Basin A. Low points in these tracts must also be similarly designed to dewater 100 year storm surface flows.

DRAINAGE SYSTEM SERVICE AREAS

The Colonies storm drain and detention basin systems will ultimately serve a watershed covering 2559.51 acres as tabulated in Figure 4.3. Dividing this watershed by storm drain system and/or points of discharge results in 11 distinct service areas. These Drainage System Service Areas (DSSA) were further subdivided to provide subareas of a single coverage type and point of discharge. The drainage system service areas and subareas located within The Colonies project are shown in Figure 4.3. Descriptions of the 11 DSSA's are presented below:

DSSA No. 1 – This drainage system service area includes all tracts developed in Phase I plus the 9.1 acre future residential tract north of the intersection of Tanglewood Avenue and Colonies Parkway. Flows from this service area are tributary to the Phase I storm drain system and Basin B.

DSSA No. 2 – This drainage system service area also drains to the Phase I storm drain system and Basin B. Some surface flows off State Route 210 and the discharges from downdrains and a freeway culvert (see Ref. # 3 node 402) are conveyed southerly through this service area. Flows are discharged into the Phase I storm drain at 19th Street and Colonies Parkway.

DSSA No. 3 – This drainage system service area also drains to the Phase I storm drain system and Basin B. Discharges from this service area are directed to the inlet of the triple 12'x9' RCB located at northwest of the intersection of Tanglewood Avenue and Hummingbird Lane. This culvert is referred to in this study as the “Hummingbird Culvert”. The sub-areas within DSSA 3 total 88.10 acres as shown in Table 2.

DSSA No. 4 - This drainage system service area drains to Basin A. In addition to outlet structures for 19th Street Storm Drain and 20th Street Storm Drain, it is anticipated that five (5) additional culvert outlets will discharge flows from tracts on the north side of Basin A. Also, overside drains are anticipated to be necessary at the west end of Basin A to dewater portions of Colonies Parkway and Campus Avenue. A storm drain crossing 19th Street will be necessary to convey 100 years flows from the commercial site planning area 19C (PA-19C). Node 4.4 in Exhibit A indicates the outlet from the PA-19C storm drain. The general location of the other outlets and down drains are indicated by drainage pattern arrows in Exhibit A. All outlets and down drains will discharge onto slope protection and/or an energy dissipation pads. These erosion protection improvements will be designed in accordance with the overall landscaping concept. Slope protection in ravines will be extended to the bottom of the basin. As noted in Table 3 and shown in Exhibit A, DSSA No. 4's sub-area 4J (2.20 AC) is anticipated to drain into the 19th Street Storm Drain then to Basin A. The remaining 118.70 acres of DSSA No. 4 also drains to Basin A.

DSSA No. 5 – This drainage system service area delineates the tributary area of the new Campus Avenue storm drain south of the I-210 freeway. Flows from this facility is discharged into the 20th Street Storm Drain. The combined flows from DSSA Nos. 5, 8, 9 and 10 are discharged into Basin A via the 20th Street Storm Drain and outlet structure.

DSSA No. 6 – This drainage system service area includes areas within and immediately adjacent to Basin B.

DSSA No. 7 – This drainage system service area drains to the culvert under State Route 210 (see Ref. #3 Node 402). Flows from this service area are conveyed through DSSA No. 2 into the Phase I storm drain system and Basin B. DSSA No. 7 contains 3 subareas OFS20, OFS21 & OFWB15 totaling 22.46 acres as defined in Ref. #3 (see Appendix C). All three subareas were modeled by Ref. #3 with the following hydrologic characteristics; $A_p=0.1$, Soil=A and CN (AMCII)=32. The assumed flow pattern within this service area is shown in the hydrology maps in Ref. #3.

TABLE 2

BASIN B WATERSHED: ULTIMATE CONDITIONS																	SUB-AREAS (ac)	SUB-TOTALS (ac)	TOTALS (ac)		
DRAINAGE SUBAREA	Ap	Soil	CN(II)	1 Area (ac)	2 Area (ac)	3 Area (ac)	4 Area (ac)	5 Area (ac)	6 Area (ac)	7 Area (ac)	8 Area (ac)	9 Area (ac)	10 Area (ac)	11 Area (ac)	12 Area (ac)	13 Area (ac)				14 Area (ac)	
				1.0/B/72	1.0/B/78	0.7/B/56	0.6/B/56	0.5/B/56	0.1/B/56	.47/-39.3	1.0/A/78	1.0/A/32	0.85/A/32	0.7/A/32	0.6/A/32	0.5/A/32	0.1/A/32				
I. Area Tributary to the Hummingbird Culvert Inlet Structure																					
A. Drainage System Service Area No. 3:																					
3A		School	0.60	A	32										10.20			10.20			
3B		R5	0.50	A	32											10.70		10.70			
3C		R4	0.60	A	32										5.10			5.10			
3D		R4	0.60	A	32										9.60			9.60			
3E		R4	0.60	A	32										5.70			5.70			
3F		R5	0.50	A	32											10.60		10.60			
3G		R4	0.60	A	32										3.70			3.70			
3H		R5	0.50	A	32											7.50		7.50			
3I		R5	0.50	A	32											0.40		0.40			
3J		R4	0.60	A	32										10.10			10.10			
3K		R4	0.60	A	32										5.50			5.50			
3L		FLOODWAY	0.85	A	32								2.90					2.90			
3M		FLOODWAY	0.85	A	32								2.10					2.10			
3N		FLOODWAY	0.85	A	32								4.00					4.00			
Total for area tributary to the Hummingbird culvert Inlet structure							0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.00	0.00	49.90	29.20	0.00	88.10		88.10
II. Other Tributary Areas - Hummingbird Culvert Sidedrains & Basin B																					
A. Drainage System Service Area No. 1:																					
1A		R4	60.00	A	32										7.70			7.70			
1B		R4	60.00	A	32										12.80			12.80			
1C		R4	60.00	A	32										14.00			14.00			
1E		R4	60.00	A	32										17.50			17.50			
1F		R4	60.00	A	32										24.50			24.50			
1D		R5	50.00	A	32											9.10		9.10	85.60		
B. Drainage System Service Area No. 2:																					
2A		FWY	0.10	A	32												2.06		2.06		
2B		CH	0.10	A	32												10.10		10.10		
2C		CH	0.10	A	32												5.40		5.40		
2D		CH	0.10	A	32												8.40		8.40		
2E		CH	0.10	A	32												13.20		13.20	39.16	
C. Drainage System Service Area No. 6:																					
6A		Basin B	0.10	A	32												7.20		7.20	7.20	
D. Drainage System Service Area No. 7 (see Ref #3):																					
OFS20		CH	0.10	A	32												3.83		3.83		
OFS21		CH	0.10	A	32												14.68		14.68		
OFWB15		FWY	0.10	A	32												3.95		3.95	22.46	
Total for other tributary areas - Hummingbird Culvert Sidedrains & Basin B							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.50	9.10	68.82	154.42		154.42
TOTAL BASIN B WATERSHED																			242.52		

Flows from DSSA Nos. 1, 2 and 7 all discharge to the Hummingbird culvert via side-drains. These drainage areas plus Basin B total 154.42 acres as shown in Table 2. Together with DSSA No. 3, the total area directly tributary to Basin B is 242.52 acres.

DSSA No. 8 – This drainage system service area drains to the new Campus Avenue storm drain (see Ref. #3 Node 506). Flows from this service area are conveyed through the new Campus Avenue storm drain to the 20th Street Storm Drain and then into Basin A. DSSA No. 8 contains 19 sub-areas totaling 32.60 acres as listed in Table 3. These sub-areas are defined in Ref. #3 (see Appendix C). All sub-areas were modeled by Ref. #3 with the following hydrologic characteristics; $A_p=0.1$, Soil=A and CN (AMCII)=32. The assumed flow pattern within this service area is shown in the hydrology maps in Ref. #3. Together, DSSA Nos. 5 and 8 cover the entire watershed of the new Campus Avenue storm drain and total 80.90 acres as shown in Table 3.

DSSA No.'s 9 & 10 – Together these drainage system service areas make up the watershed of the 20th Street Storm Drain (see Ref. #2 & 3). Flows from these service areas are conveyed by the 20th Street Storm Drain into Basin A. As discussed in the text of Ref. #2 (copy provided in Appendix B), 20th Street at San Antonio and the “Farmer’s Ditch System” (located east of Euclid) does not have the capacity to intercept 100% of 100 year storm flows. The text states that overflows at these locations during a 100 year storm will be 70 CFS and 338 CFS respectively. The watershed of the 20th Street Storm Drain was modeled by Ref. #2 using three groups of land uses totaling 1755.24 acres, as listed in Table 3. The hydrologic characteristics of these land use groups are listed in on a data sheet from Ref. #2 (copy provided in Appendix B). The assumed flow patterns within these service areas are defined in the hydrology maps of Ref. #2 & 3.

DSSA No. 11 – This drainage system service area consists of the watershed of the 19th Street Storm Drain (see Ref. #1 in Appendix A). Flows from this service area are discharged directly to Basin A.

HYDROLOGY

Hydrology models were prepared in order to project peak 100 year storm flows tributary to the major components of this conceptual storm drain and detention basin system. The Hydrology Map, provided at the back of this report, (Exhibit A), documents the locations and numbers of the system nodes and sub-areas used in these models. Copies of these models are provided in Appendix D through H. While preliminary sizing of these storm drains is calculated by some of these hydrology models, adjustments were made where necessary to match the upstream storm drain diameter and to utilize commonly manufactured sizes.

TABLE 3

BASIN A WATERSHED: ULTIMATE CONDITIONS																				
DRAINAGE SUBAREA	Ap	Soil	CN(II)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	SUB-AREAS (ac)	SUB-TOTALS (ac)	TOTALS (ac)
				Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)	Area (ac)			
				1.0/B/72	1.0/B/78	0.7/B/56	0.6/B/56	0.5/B/56	0.1/B/56	.471-/39.3	1.0/A/78	0.9/A/32	0.85/A/32	0.7/A/32	0.6/A/32	0.5/A/32	0.1/A/32			
I. Basin A & adjacent development																				
A. Drainage System Service Area No. 4:																				
4A		CH	0.10	A	32												7.60	7.60		
4B		CH	0.10	A	32												12.60	12.60		
4C		NC	0.10	A	32												12.40	12.40		
4D		R4	0.60	A	32										5.60			5.60		
4E		R4	0.60	A	32										6.90			6.90		
4F		R4	0.60	A	32										4.50			4.50		
4G		R5	0.50	A	32											6.40		6.40		
4H		BASIN	0.90	A	32						61.80							61.80		
4I		CF	0.10	A	32												0.90	0.90	118.70	
Total for Basin A & adjacent development							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.00	6.40	33.50	118.70		118.70
II. Campus Avenue Storm Drain																				
A. Drainage System Service Area No. 5:																				
5A		CH	0.10	A	32													1.50		
5B		CH	0.10	A	32												6.70	5.20		
5C		CH	0.10	A	32												8.20	8.20		
5D		CH	0.10	A	32												5.80	5.80		
5E		CH	0.10	A	32												10.50	10.50		
5F		CH & FWY	0.10	A	32												17.10	17.10	48.30	
B. Drainage System Service Area No. 8 (see Ref. #3):																				
OFEB4		FWY	0.10	A	32												1.53	1.53		
OFEB5		FWY	0.10	A	32												1.11	1.11		
OFEB6		FWY	0.10	A	32												0.74	0.74		
OFWB13		FWY	0.10	A	32												1.07	1.07		
OFWB14		FWY	0.10	A	32												0.83	0.83		
OFS18		CH	0.10	A	32												3.28	3.28		
OFS19		CH	0.10	A	32												2.87	2.87		
OFS22		CH	0.10	A	32												2.11	2.11		
OFS23		CH	0.10	A	32												3.56	3.56		
OFS24		CH	0.10	A	32												3.02	3.02		
OFS25		FWY	0.10	A	32												0.85	0.85		
OFS26		FWY	0.10	A	32												1.44	1.44		
OFS27		FWY	0.10	A	32												0.89	0.89		
OFS28		FWY	0.10	A	32												1.31	1.31		
OFS29		FWY	0.10	A	32												0.67	0.67		
OFS30		FWY	0.10	A	32												0.71	0.71		
OFS31		FWY	0.10	A	32												3.18	3.18		
OFS32		FWY	0.10	A	32												2.21	2.21		
OFS33		FWY	0.10	A	32												1.22	1.22	32.60	

HYDRAULIC GRADE LINE ANALYSIS

For each of the major storm drains proposed in the concept system, a hydraulic grade line analysis was made using WSPG. These models are provided in Appendix J through N.

In the case of the new Campus Avenue Storm Drain, a separate analysis of the downstream 20th Street Storm Drain was necessary to establish a downstream hydraulic grade line (tailwater elevation). These proposed major storm drain elements are described below by Drainage System Service Area in which they are located.

◇ **DSSA No. 1:** <completed>

◇ **DSSA No. 2:**

Onsite extension of the State Route 210 culvert (Ref. #3 Node 402)

- ◆ 948 LF of 36" RCP (Node 2.3 to 2.2)
- ◆ 266 LF of 42" RCP (Node 2.2 to 2.4)

◇ **DSSA No. 3:**

Collector along southern boundary of The Colonies

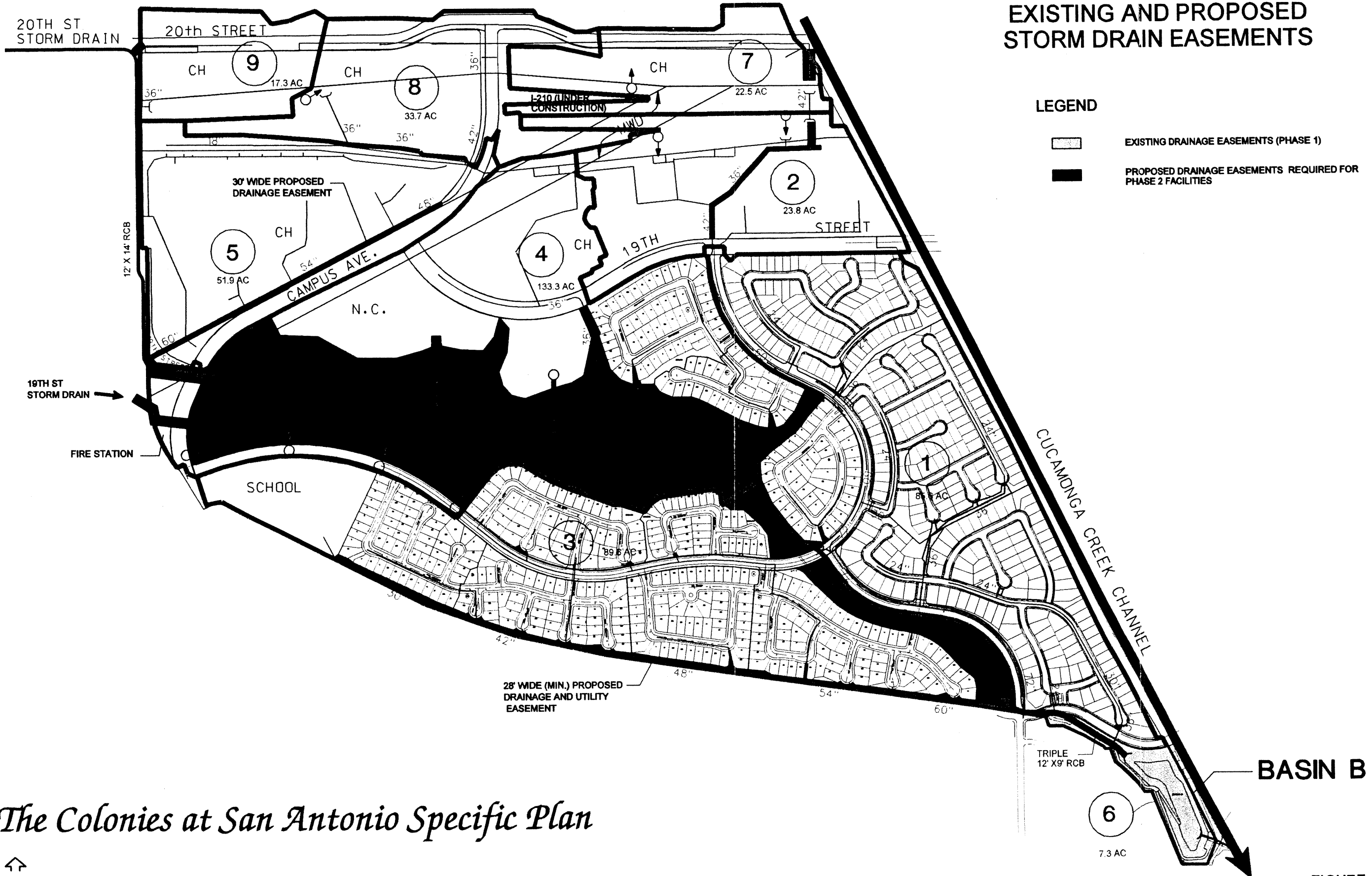
- ◆ 994 LF of 30" RCP (Node 3.1 to 3.2)
- ◆ 582 LF of 42" RCP (Node 3.2 to 3.3)
- ◆ 1063 LF of 48" RCP (Node 3.3 to 3.4)
- ◆ 467 LF of 54" RCP (Node 3.4 to 3.5)
- ◆ 552 LF of 54" RCP (Node 3.5 to 3.6)
- ◆ 632 LF of 60" RCP (Node 3.6 to 3.7) & outlet structure

◇ **DSSA No. 4:**

Collector in 19th Street west of Colonies Parkway (for PA-19C)

- ◆ 302 LF of 36" RCP (Node 4.2 to 4.3)
- ◆ 421 LF of 36" RCP (Node 4.3 to 4.4) & outlet structure

COLONIES EXISTING AND PROPOSED STORM DRAIN EASEMENTS



The Colonies at San Antonio Specific Plan

↑
N Not to Scale

FIGURE 4.4

15.8 Correspondence

Faint, illegible text at the top of the page, possibly a header or title.

Second line of faint, illegible text.

Third line of faint, illegible text.

Fourth line of faint, illegible text, spanning most of the page width.