ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED

BASELINE ROAD MASTER PLAN

RESIDENTIAL, COMMERCIAL RETAIL AND RECREATIONAL DEVELOPMENT ON 99 ACRES

SCH NO. 2006011124

Prepared for:

CITY OF UPLAND, SAN BERNARDINO COUNTY
Community Development Department

Prepared by:

LILBURN CORPORATION
1905 Business Center Drive
San Bernardino, California 92408
909/890-1818
www.lilburncorp.com

December 2007

DRAFT
ENVIRONMENTAL IMPACT REPORT
(SCH No. 2006011124)

FOR THE
BASELINE ROAD MASTER PLAN
ENCOMPASING THE
PARK VEIW SPECIFIC PLAN
AND THE
CITY SPORTS PARK

Prepared for:

City of Upland
Community Development Department
460 North Euclid Avenue
Upland, CA 91768

Contact Person:
Rosalie Staudenmayer, Senior Planner

Prepared by:

Lilburn Corporation
1905 Business Center Drive
San Bernardino, California 92408

DECEMBER 2007

TABLE OF CONTENTS

Page

1.0 INTRODUCTION 1-1
1.1 PROJECT UNDER REVIEW 1-1
1.2 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT 1-7
1.2.1 Purpose of the EIR 1-7
1.2.2 Lead Agency 1-8
1.2.3 EIR as an Informational Document 1-8
1.2.4 Use of the EIR 1-9
1.3 ENVIRONMENTAL REVIEW PROCESS 1-9
1.3.1 Initial Study 1-9
1.3.2 Public Scoping Meeting 1-10
1.3.3 Notice of Preparation 1-11
1.3.4 Draft EIR 1-13
1.3.5 Final EIR 1-13
1.4 ORGANIZATION OF THE EIR 1-14
1.5 DOCUMENTS INCORPORATED BY REFERENCE 1-15
1.6 ACRONYMS 1-16
1.7 GLOSSARY OF TERMS 1-18

2.0 SUMMARY 2-1
2.1 PROJECT UNDER REVIEW 2-1
2.1.1 Existing Conditions 2-1
2.1.2 Project Description 2-2
2.2 AREAS OF CONTROVERSY 2-3
2.3 ISSUES TO BE RESOLVED 2-4
2.4 EIR IMPACT EVALUATION FORMAT 2-5
2.5 SUMMARY OF ALTERNATIVES 2-5
2.5.1 Description of Alternatives Considered and Rejected 2-6
2.5.2 Evaluation of Feasible Alternatives 2-6
2.6 SUMMARY OF FINDINGS OF THE INITIAL STUDY 2-8
2.7 SUMMARY OF ENVIRONMENTAL IMPACTS 2-10
2.7.1 Findings of Impacts That Can Be Mitigated To Less Than Significant Levels 2-10
2.7.2 Findings of Significant Impacts After Mitigation Measures Have Been Implemented 2-10
2.7.3 Findings of Significant Cumulative Impacts 2-10

3.0 PROJECT DESCRIPTION 3-1
3.1 INTRODUCTION 3-1
3.1.1 Project Objections 3-1
3.2 PROJECT DESCRIPTION 3-3
3.2.1 Location 3-3

TABLE OF CONTENTS

Page

3.2.2 Project Setting 3-3
3.2.3 Project History 3-3
3.2.4 Project Characteristics 3-9
3.2.5 Project Approvals 3-19
3.2.6 Project Improvements 3-22
3.2.7 Phasing 3-23
3.2.8 Easements 3-24
3.2.9 Related Action 3-24

4.0 ENVIRONMENTAL IMPACT EVALUATION 4-1
4.1 AESTHETICS AND VISUAL QUALITY 4.1-1
4.1.1 Introduction 4.1-1
4.1.2 Environmental Setting 4.1-1
4.1.3 Impacts and Mitigation Measures 4.1-7
4.2 AIR QUALITY 4.2-1
4.2.1 Introduction 4.2-1
4.2.2 Environmental Setting 4.2-1
4.2.3 Applicable Polices, Plans and Regulations 4.2-14
4.2.4 Project Impacts and Mitigation Measures 4.2-16
4.3 BIOLOGICAL RESOURCES 4.3-1
4.3.1 Introduction 4.3-1
4.3.2 Environmental Setting 4.3-1
4.3.3 Impacts and Mitigation Measures 4.3-11
4.4 CULTURAL RESOURCES 4.4-1
4.4.1 Introduction 4.4-1
4.4.2 Environmental Setting 4.4-1
4.4.3 Impacts and Mitigation Measures 4.4-3
4.5 GEOLOGY AND SOILS 4.5-1
4.5.1 Introduction 4.5-1
4.5.2 Environmental Setting 4.5-1
4.5.3 Impacts and Mitigation Measures 4.5-11
4.6 HAZARDS 4.6-1
4.6.1 Introduction 4.6-1
4.6.2 Environmental Setting 4.6-1
4.6.3 Impacts and Mitigation Measures 4.6-5
4.7 HYDROLOGY AND WATER QUALITY 4.7-1
4.7.1 Introduction 4.7-1
4.7.2 Environmental Setting 4.7-1
4.7.3 Impacts and Mitigation Measures 4.7-14
4.8 LAND USE 4.8-1
4.8.1 Introduction 4.8-1

TABLE OF CONTENTS

Page

4.8.2 Environmental Setting 4.8-1
4.8.3 Impacts and Mitigation Measures 4.8-10
4.9 Mineral Resources 4.9-1
4.9.1 Introduction 4.9-1
4.9.2 Environmental Setting 4.9-1
4.9.3 Impacts and Mitigation Measures 4.9-5
4.10 Noise 4.10-1
4.10.1 Introduction 4.10-1
4.10.2 Environmental Setting 4.10-4
4.10.3 Impacts and Mitigation Measures 4.10-12
4.11 TRAFFIC AND CIRCULATION 4.11-1
4.11.1 Introduction 4.11-1
4.11.2 Environmental Setting 4.11-1
4.11.3 Impacts and Mitigation Measures 4.11-17
4.12 Public Services 4.12-1
4.12.1 Introduction 4.12-1
4.12.2 Environmental Setting, Impacts, and Mitigation Measures 4.12-1
4.13 PUBLIC UTILITIES AND INFRASTRUCTURE 4.13-1
4.13.1 Introduction 4.13-1
4.13.2 Environmental Setting 4.13-1
4.13.3 Impacts and Mitigation Measures 4.13-4
4.14 POPULATION, EMPLOYMENT AND HOUSING 4.14-1
4.14.1 Introduction 4.14-1
4.14.2 Environmental Setting 4.14-1
4.14.3 Impacts and Mitigation Measures 4.14-6

5.0 CUMULATIVE IMPACTS 5-1
5.1 INTRODUCTION 5-1
5.2 STANDARDS OF SIGNIFICANCE 5-2
5.3 SUMMARY 5-12

6.0 ALTERNATIVES 6-1
6.1 INTRODUCTION 6-1
6.1.1 Project Description 6-3
6.1.2 Project Objectives 6-3
6.2 ALTERNATIVES CONSIDERED AND REJECTED 6-4
6.3 EVALUATION OF FEASIBLE ALTERNATIVES 6-5
6.4 ALTERNATIVES CONSIDERED FOR EVALUATION 6-8
6.4.1 No Project – No Development Alternative 6-8
6.4.2 Buildout Under the Existing General Plan Alternative (Flood Control and Mining 6-10

TABLE OF CONTENTS

Page

6.4.3 Park Access Alternative 6-15
6.4.4 Development of the City Sports Park and Mining Alternative 6-18
6.4.5 Development of the City Sports Park and Major Commercial Tenants ... 6-22
6.4.6 Development of the City Sports Park and Single Family Residential Tract 6-25
6.5 SUMMARY OF ALTERNATIVES ANALYSIS 6-28

7.0 OTHER CEQA-REQUIRED ANALYSIS 7-1
7.1 INTRODUCTION 7-1
7.2 GROWTH INDUCEMENT 7-1
7.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES 7-1
7.4 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED 7-2

8.0 REFERENCES 8-1
8.1 LIST OF PREPARERS 8-1
8.2 PERSONS AND ORGANIZATIONS CONSULTED 8-1
8.3 BIBLIOGRAPHY 8-2

TECHNICAL APPENDICES

Appendix A Notice of Availability, Notice of Preparation, and Public Comments
Appendix B Air Quality Assessment
Appendix B-2 Air Quality Assessment for GHG
Appendix C Biological Assessment
Appendix D Cultural Resources Assessment
Appendix E Noise Assessment
Appendix F Traffic Impact Analysis
Appendix G Air Quality Assessment for Cumulative Projects
Appendix H Air Quality Assessment for the Mining Alternative

LIST OF FIGURES

1-1 Regional Location 1-2
1-2 Vicinity Map 1-3
1-3 Conceptual Master Plan 1-4
1-4 Conceptual Park View Specific Plan Site Plan 1-5
1-5 Conceptual City Sports Park Site Plan 1-6

TABLE OF CONTENTS

Page

LIST OF FIGURES

3-1 Regional Location 3-4
3-2 Vicinity Map 3-5
3-3 Surrounding Land Uses 3-6
3-4 Cable Airport Planning Area 3-7
3-5 Conceptual Master Plan 3-10
3-6 Park View Plan Specific Plan Conceptual Land Use Plan 3-12
3-7 Conceptual Park View Specific Plan Site Plan 3-13
3-8 Conceptual City Sports Park Site Plan 3-20

4.1-1 Existing and Proposed Land Use 4.1-2

4.2-1 CALINE4 Modeling Receptor Locations 4.2-13

4.6-1 Cable Airport Planning Area 4.6-2

4.7-1 Groundwater Basins 4.7-2
4.7-2 Six Basins Area Final Boundary Map 4.7-4
4.7-3 Existing Water Facilities 4.7-6
4.7-4 Cortese Sites and Flood Zones Map 4.7-9

4.8-1 Existing Land Use 4.8-3

4.10-1 Typical Outdoor Noise Levels 4.10-3
4.10-2 Noise Measurement Locations 4.10-5
4.10-3 Cable Airport Noise Contours 4.10-10
4.10-4 Construction Equipment Noise Levels 4.10-14
4.10-5 Partial Site Plan 4.10-20
4.10-6 I-210 Traffic Noise CNEL Contours 4.10-22

4.11-1 Existing Roadway Conditions and Intersection Controls 4.11-3
4.11-2 Existing AM Peak Hour Traffic Volumes 4.11-6
4.11-3 Existing PM Peak Hour Traffic Volumes 4.11-7
4.11-4 Location of Cumulative Projects 4.11-26

5-1 Location of Cumulative Projects 5-3

TABLE OF CONTENTS

Page

LIST OF TABLES

2-1 Summary of Impacts and Mitigation Measures 2-11

3-1 Existing Land Use and General Plan/Zoning Designations 3-9
3-2 Land Use Summary 3-11
3-3 Types of Housing Within Planning Area 3-17

4.2-1 Ambient Air Quality Standards 4.2-5
4.2-2 Global Warming Potentials 4.2-7
4.2-3 Top Ten CO_2 Producing Nations in 2003 ..... 4.2-8
4.2-4 Air Quality Levels Measured at Upland/San Bernardino Monitoring Stations 4.2-11
4.2-5 Federal and State Carbon Monoxide Standards 4.2-12
4.2-6 Existing Carbon Monoxide Concentrations (ppm) 4.2-14
4.2-7 SCAQMD Regional Pollutant Emission Thresholds of Significance 4.2-17
4.2-8 Worst Case Peak Construction Emissions (pounds/day) 4.2-19
4.2-9 Required Best Available Control Measures 4.2-20
4.2-10 Dust Control Actions for Large Operations 4.2-23
4.2-11 Contingency Control Measures for Large Operations (greater than 50 acres) 4.2-24
4.2-12 Worst Case Projections of Carbon Monoxide Concentrations (ppm) 4.2-27
4.2-13 Total Project Emissions (2009) 4.2-31
4.2-14 Comparison of Project Emissions with SCAB Emissions 4.2-31
4.2-15 Total Project Emissions 4.2-33
4.2-16 Comparison of Daily Project Emissions With Daily Global Emissions 4.2-34
4.2-17 Strategies California EPA Shall Implement Emission Reduction Strategies 4.2-34
4.2-18 Strategies Resources Agency's Shall Implement Emission Reduction Strategies 4.2-38

4.3-1 Sensitive Biological Resources Reported from the Region but Not Addressed Due to Habitat or Geographic Range 4.3-3
4.3-2 Special Status Species 4.3-4

4.5-1 Upland Local and Regional Faults 4.5-3

4.7-1 Groundwater Production for the Upper Claremont Heights Basin be Producer 4.7-5
4.7-2 Historical Water Spreading by PVPA 4.7-7

4.8-1 Existing Land Use and General Plan/Zoning Designations 4.8-2

4.10-1 Existing Noise Measurements (dB) 4.10-4
4.10-2 Modeled Existing Roadway Traffic Noise Levels 4.10-8
4.10-3 City of Upland Noise Ordinance Standards 4.10-11

TABLE OF CONTENTS

Page

LIST OF TABLES

4.10-4 City of Claremont Noise Ordinance Standards 4.10-12
4.10-5 Traffic Noise CNEL Level Increases 4.10-17
4.10-6 Distance to Future (2025) Traffic Noise Contours 4.10-18
4.10-7 Future (2025) With Project Traffic Noise Levels 4.10-21

4.11-1 Level of Service Criteria for Signalized Intersections San Bernardino County 4.11-10
4.11-2 Level of Service Criteria for Signalized Intersections Los Angeles County 4.11-11
4.11-3 Level of Service Criteria for Unsignalized Intersections 4.11-11
4.11-4 Existing Peak Hour Levels of Service Summary 4.11-13
4.11-5 Project Traffic Generation Rates/Equations 4.11-15
4.11-6 Project Traffic Generation Forecast 4.11-16
4.11-7 Location and Description of Cumulative Projects 4.11-22
4.11-8 Year 2009 Peak Hour Intersection Capacity Analysis 4.11-27
4.11-9 Year 2025 Peak Hour Intersection Capacity Analysis 4.11-30
4.11-10 Related Projects Traffic Generation Forecast 4.11-32
4.11-11 Year 2009 Peak Hour Intersection Capacity Analysis ICU/LOS Method of Analysis 4.11-34
4.11-12 Year 2025 Peak Hour Intersection Capacity Analysis ICU/LOS Method of Analysis 4.11-34
4.11-13 CMP Freeway Project Contribution Summary 4.11-36
4.11-14 Year 2009 Summary of Recommended Intersection Mitigation Measures and Costs 4.11-37
4.11-15 Year 2025 Improvements and Costs 4.11-38
4.11-16 Year 2009 Project Fair Share Cost Contribution 4.11-41
4.11-17 Year 2009 Project Fair Share Cost Allocation Per Project Component 4.11-41
4.11-18 Year 2025 Project Fair Share Cost Contribution 4.11-42
4.11-19 Year 2025 Project Fair Share Cost Allocation Per Project Component 4.11-42

4.12-1 Upland Fire Department 4.12-2
4.12-2 Upland Unified School District Estimated 2006 Enrollment by School 4.12-6
4.12-3 City of Upland Maintained Park Land 4.12-10

4.14-1 Population Characteristics, 1990, 2000 and 2005 ..... 4.14-2
4.14-2 SCAG Population Projections 4.14-2
4.14-3 2000 Housing Characteristics 4.14-3
4.14-4 Housing Changes, 1990-2000 ..... 4.14-3
4.14-5 SCAG Household Growth Projections, 2005-2020 ..... 4.14-4
4.14-6 Labor Force and Unemployment Rate for City of Upland, County of San Bernardino, and State of California 4.14-4

TABLE OF CONTENTS

Page

LIST OF TABLES

4.14-7 SCAG Employment Projections 4.14-5

5-1 Location and Description of Cumulative Projects 5-5
5-2 Cumulative Operational Emissions 5-8

6-1 Impact Comparison of Proposed and Alternative Projects 6-2
6-2 Existing Land Use and General Plan/Zoning Designations 6-11

1.0 INTRODUCTION

1.1 PROJECT UNDER REVIEW

The Baseline Road Master Plan is a proposed mixed use project located on approximately 99 acres within the cities of Upland and Claremont that incorporates a 42-acre Specific Plan known as the Park View Specific Plan and a 57-acre City Sports Park. The Baseline Road Master Plan (Master Plan) is located on the north side of Baseline Road between Benson Avenue on the east and State Route 210 on the west. Approximately 96.6 acres of this land are located in the City of Upland, San Bernardino County and approximately 2.4 acres are located in the City of Claremont, Los Angeles County. Figures 1-1 and 1-2 show the Regional Location and Vicinity Map of the proposed project, respectively.

The Master Plan incorporates the proposed Park View Specific Plan to allow for approximately 32 acres of residential, and approximately 10 acres of commercial development. The City Sports Park is also incorporated in the Master Plan to allow recreational development on approximately 57 acres of property. Figure 1-3 shows the conceptual Master Plan area that incorporates the Park View Specific Plan and the City Sports Park.

Allied Retail Partners, LLC, is proposing to develop the Park View Specific Plan portion of the Master Plan area into distinct commercial and residential areas. Of the 42 acres, approximately 10 acres will be retail containing up to 100,000-square feet of commercial building area. Approximately 32 acres will be residential containing densities of 10 to 20[1] units per acre, for up to 400 housing units. Figure 1-4 shows conceptual land uses within the Park View Specific Plan area.

The City Sports Park area encompasses approximately 57 acres and is located immediately north of the Park View Specific Plan portion. The City Sports Park portion of the Master Plan is owned by the City of Upland. The City intends to design a City Sports Park that would be compatible with the existing water development and water conservation uses on-site. The proposed City Sports Park amenities include six soccer fields (two of which convert into softball fields), two tennis courts, a basketball court, a volleyball court, a "Tot Lot", a small community amphitheater, and a concession stand (refer to Figure 1-5).

Approval of the Baseline Road Master Plan will include a General Plan Amendment (GPA), as well as other entitlements; these include:

- Zone Change
- Parcel Map
- Site Plan Review
- Architectural Review
- Grading and Building Permits
- Conditional Use Permit
- Specific Plan

[1] Density transfer in the residential development allows density of up to 20 dwelling units per acre.

Regional Location

Baseline Road Master Plan
City of Upland, California

Figure 1-1

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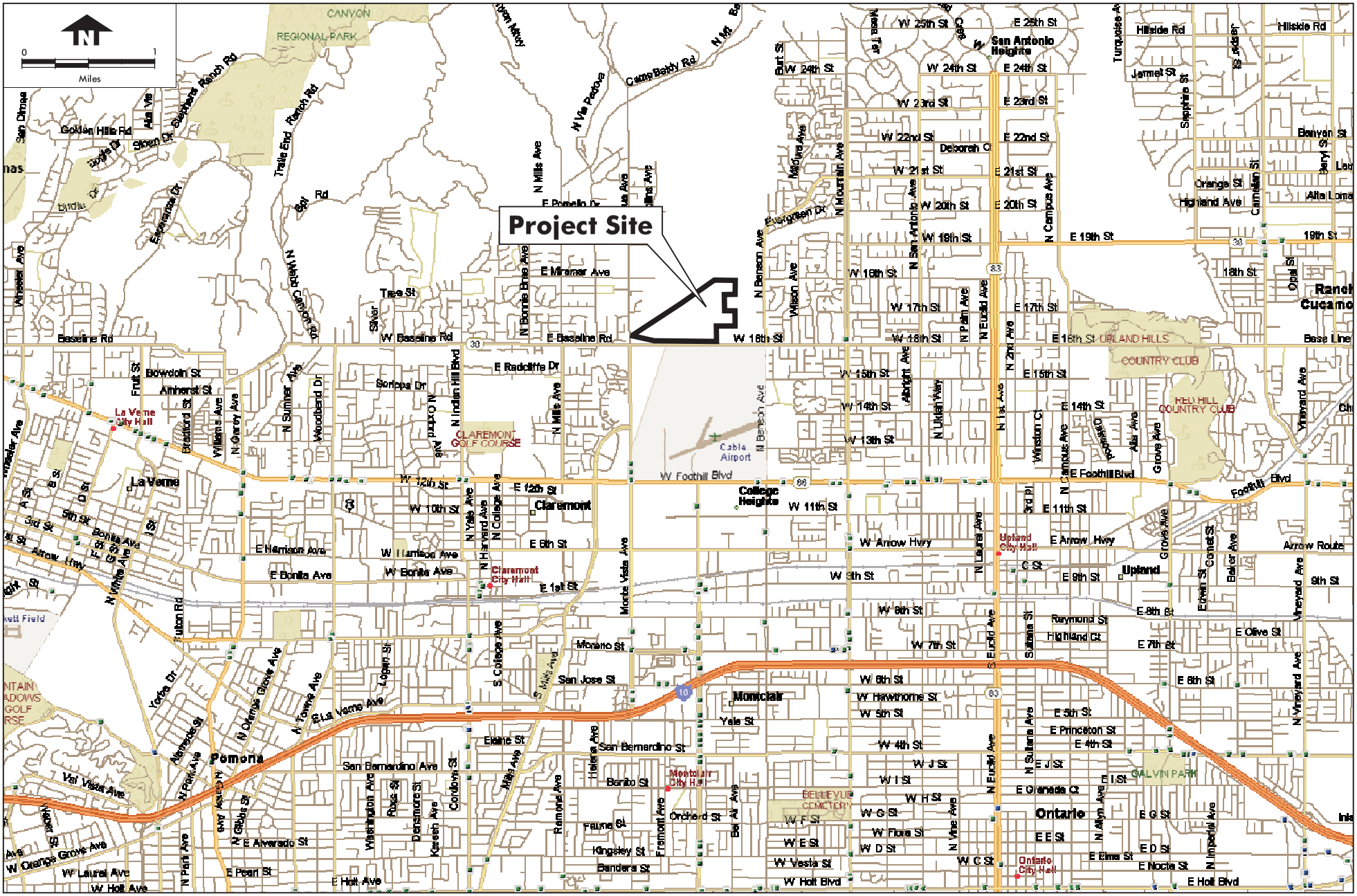
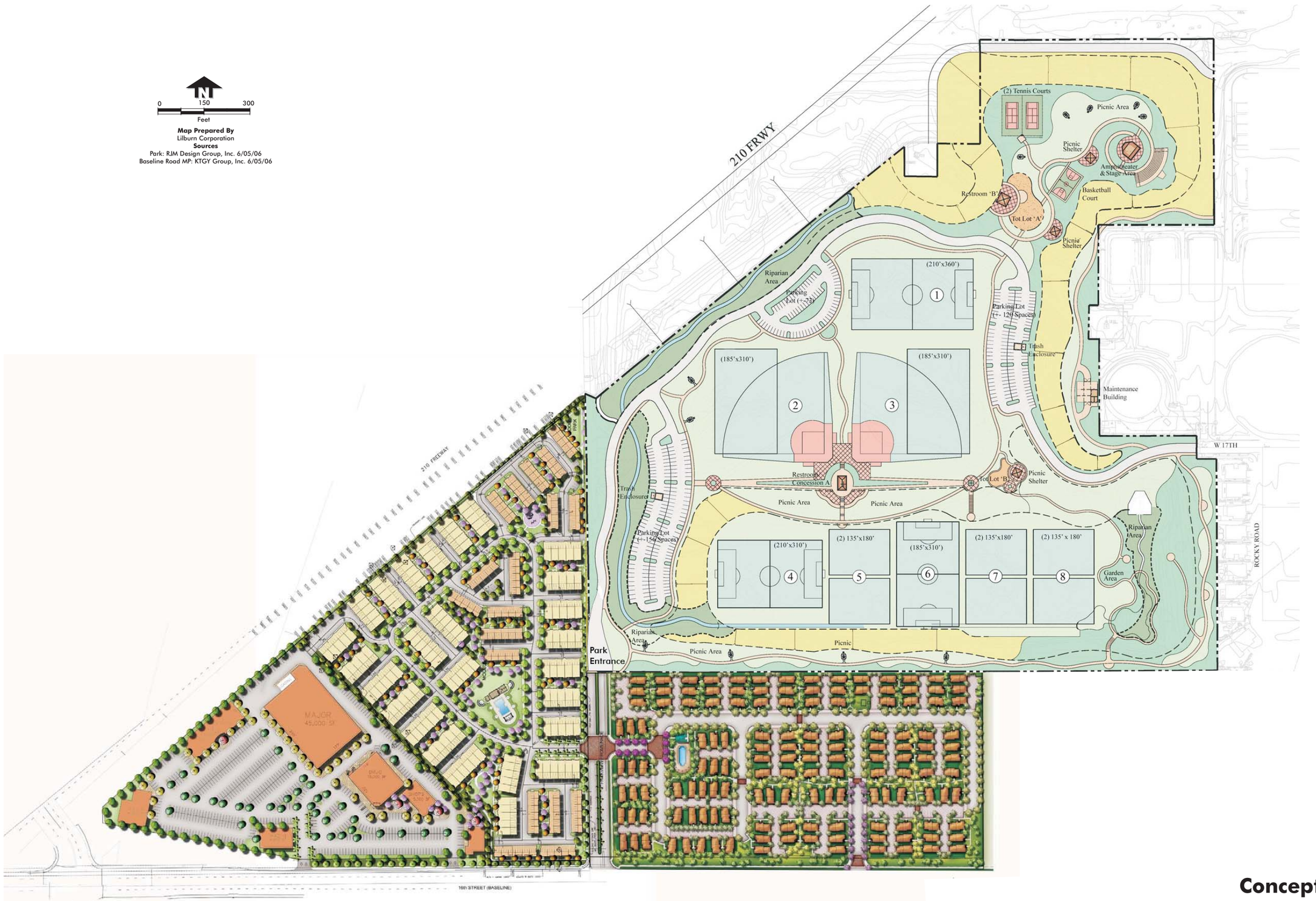

Project Site
N
0
1
Miles
CANYON
REGIONAL PARK
Baseline Rd
W Baseline Rd
E Baseline Rd
E Foothill Blvd
W Foothill Blvd
Claremont
La Verne
Pomona
Upland
Ontario
Montclair
College Heights
CLAREMONT GOLF COURSE
UPLAND HILLS COUNTRY CLUB
RED HILL COUNTRY CLUB
Cable Airport
BELLEVUE CEMETERY
GALVIN PARK
La Verne City Hall
Claremont City Hall
Upland City Hall
Montclair City Hall
Ontario City Hall
Indian Hill Blvd
N Mills Ave
N Monte Vista Ave
N Euclid Ave
N Campus Ave
N Benson Ave
N Mountain Ave
N San Antonio Ave
N Palm Ave
N Vineyard Ave
N Grove Ave
N Garey Ave
N Towne Ave
N Garey Ave
N Claremont Blvd
N Indian Hill Blvd
N College Ave
N Harvard Ave
N Monte Vista Ave
N Euclid Ave
N Laurel Ave
N Mountain Ave
N San Antonio Ave
N Campus Ave
N Palm Ave
N 2nd Ave
N 1st Ave
N Vineyard Ave
N Grove Ave
N Garey Ave
N Towne

N

0 150 300

Feet

Map Prepared By
Lilburn Corporation
Sources
Park: RJM Design Group, Inc. 6/05/06
Baseline Road MP: KTGY Group, Inc. 6/05/06



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Conceptual Master Plan

Baseline Road Master Plan
Upland, California

Figure 1-3

Conceptual Park View Specific Plan
Site Plan

Baseline Road Master Plan
Upland, California

Figure 1-4

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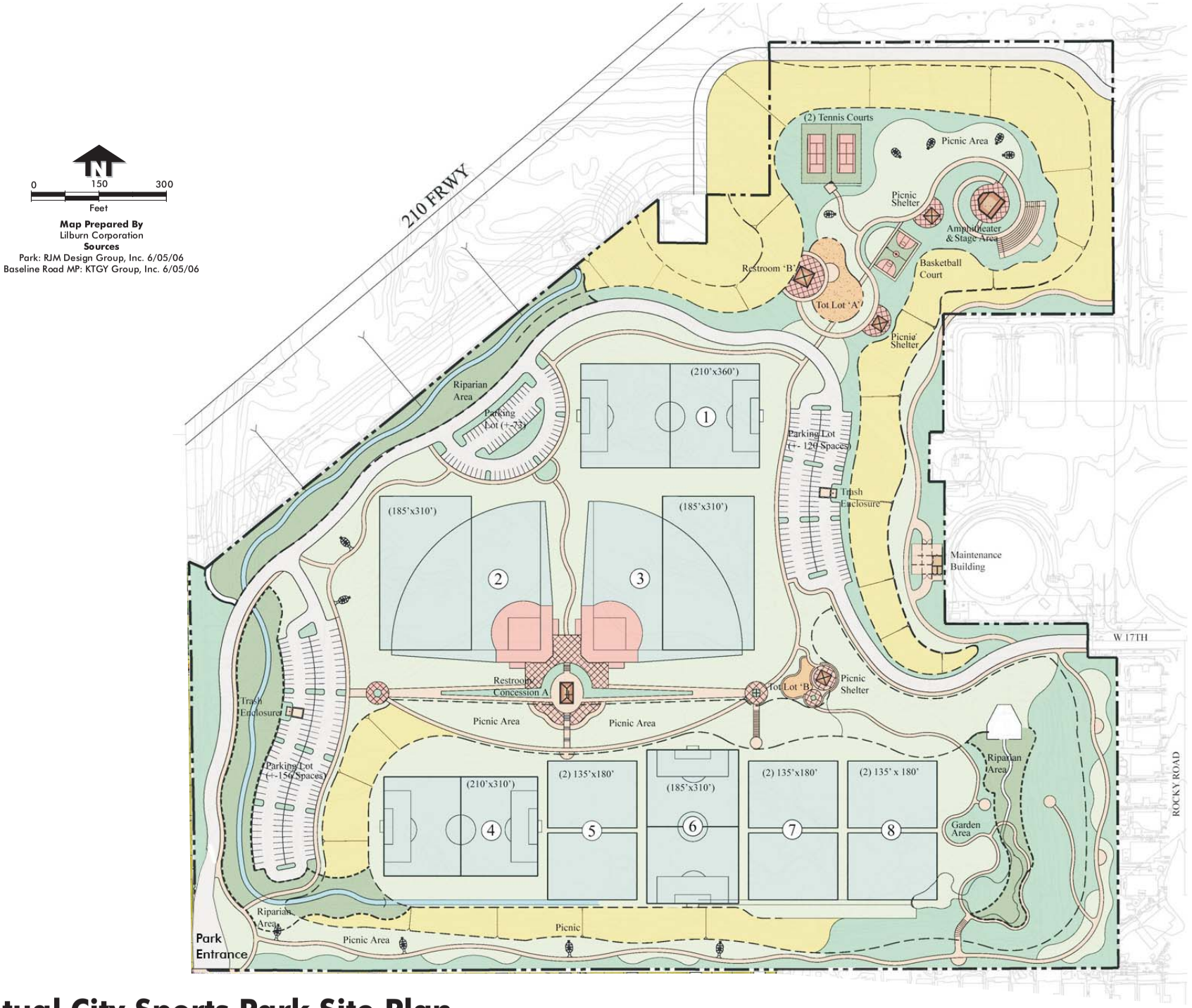

Conceptual City Sports Park Site Plan

Baseline Road Master Plan
Upland, California

Figure 1-5

The proposed Baseline Road Master Plan is located on the north side of Baseline Road between Benson Avenue on the east and State Route (SR) 210 on the west. Existing land uses on the approximate 99 acres site consist of an inactive aggregate mining pit used for flood control and groundwater recharge activities, water wells, and a composting/demolition and recycling operation (Intravaia Rock and Sand, Inc.).

Approval of the Park View Specific Plan portion of the Baseline Road Master Plan would require the City of Upland to amend the existing General Plan land use designation from Open Space to that of Park View Specific Plan on the approximate 39.6 acre portion located within the City of Upland. The City of Claremont General Plan Land Use Map designates the 2.4 acre portion of the Park View Specific Plan area located within Claremont as "Commercial.", thus a general plan amendment would not be necessary. However, the Claremont portion is zoned as Open space and would require a Zone Change to Commercial.

The 57-acre City Sports Park portion of the Baseline Road Master Plan is an allowable use under the City of Upland General Plan/Zoning designation of Open Space and will require a Conditional Use Permit.

The entire Baseline Road Master Plan area is within a State-designated Mineral Resources Zone. The City Sports Park portion has historically been used for extraction of aggregate materials and includes a 40-foot deep pit that pre-dates the States Surface Mine and Reclamation Act (SMARA). The pit is owned by the City of Upland and is part of the Pomona Valley Protective Association's (PVPA) San Antonio Spreading Grounds. An approximate 10-acre parcel located on the City Sports Park portion of the Master Plan is used for water facilities and an access road. An approximate 23-acres parcel located on the west side of the Park View Specific Plan portion of the Master Plan is identified as Phase 2 (Basin 1) of the Holliday Rock, Foothill Plan Reclamation Plan (adopted August 2003). Holliday Rock has already disturbed this site and has a conveyor crossing the property.

The proposed Master Plan includes commercial, residential, recreational, flood control, groundwater recharge and water development land uses. Allied Retail Partners, LLC has developed a conceptual plan for the Park View Specific Plan portion that is a mixed-use project. The City intends to maintain certain existing water development and water conservation uses on the City Sports Park portion and construct a Sports Park that would be compatible with the existing uses.

1.2 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

1.2.1 Purpose of the EIR

This Environmental Impact Report (EIR), (State Clearinghouse No. 2006011124), was prepared in accordance with the California Environmental Quality Act (CEQA) and the State Guidelines for Implementation of CEQA (as amended, 2004). The purpose of the EIR is to characterize the existing environment, describe the proposed project, evaluate the potential environmental

effects associated with the project, and identify mitigation measures or alternatives that could reduce the potentially significant environmental effects of the project.

1.2.2 Lead Agency

The City of Upland, Community Development Department is the lead agency as defined in Section 15051(b) of the Guidelines for implementing CEQA which states "If the project is to be carried out by a non-governmental person, the Lead Agency shall be the public agency with the greatest responsibility for supervising or approving the project as a whole."

The Draft EIR will circulate for a 45-day public review period. Anyone reviewing the document may submit written comments during this period. Responses to comments received will be prepared and included in the Final EIR to be prepared prior to the public hearing on the project. Correspondence on this Draft EIR should be sent to the following City representative:

City of Upland
Community Development Department
460 North Euclid Avenue
Upland, CA 91786-0460
Attention: Rosalie Staudenmayer, Senior Planner

1.2.3 EIR as an Informational Document

The purpose of an EIR is to serve as an informational document that will inform public agency decision-makers and the public of the significant environmental effects associated with a proposed project, identify ways to minimize or eliminate the significant effects, and evaluate a reasonable range of alternatives to the project that would meet the major objectives of the proposed project but further reduce or avoid significant environmental effects. The EIR provides objective planning and environmental information to guide and assist decision-makers, lead agency staff and the public in their evaluation of the potential environmental effects that may result from implementation of the project as proposed. CEQA Guidelines Section 15151 contains the following standards of adequacy:

> *"An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection; but for adequacy, completeness and a good faith effort at full disclosure."*

1.2.4 Use of the EIR

This EIR is being prepared as a program EIR, a first tier document prepared by an agency for a program or series of actions that can be characterized as one large project such as the Baseline Road Master Plan. A program EIR is prepared to analyze broad environmental effects of a program or plan with the understanding that more site-specific environmental review may be required as projects within the Master Plan are proposed (CEQA Guidelines 15168(a)). If a program EIR addresses the environmental effects as specifically and as comprehensively as possible, subsequent activities can often be found to be within the scope of the program EIR and no additional review would be required (CEQA Guidelines Section 15168(c)). It is this approach that was used to evaluate the potential environmental effects of the Baseline Road Master Plan where the proposed Park View Specific Plan portion of the Master Plan has been planned and can be evaluated at a "project level" of detail but the City Sports Park is still in the design/conceptual phase and only the concept can be evaluated at this time.

It is the City of Upland's intent to move forward with the Park View Specific Plan portion of the project, which has been designed to a level of detail allowing specific environmental effects to be identified and evaluated. The EIR would be used by the City to support entitlements to allow development of that portion of the project to move forward.

The City Sports Park portion is not at a planning stage yet where all specific impacts can be evaluated and therefore, the environmental evaluation herein is at a program level. That is, a more generalized discussion of environmental effects of a City Sports Park has been completed, with subsequent environmental review to occur at such time as more specific park plans have been developed.

1.3 ENVIRONMENTAL REVIEW PROCESS

1.3.1 Initial Study

Although not required when a Lead Agency has made the determination that an EIR shall be prepared (CEQA Guidelines Section 15063), an Initial Study was prepared by the City of Upland in June 2003 to identify areas where the proposed project could have an adverse effect on the environment. However, the project as discussed within the 2003 Initial Study was on approximately 460,000 square feet of Highway Commercial Development on the 42-acre Park View Specific Plan portion. In late 2005, the project was modified from Highway Commercial to the current Baseline Road Master Plan that is being evaluated in this EIR. The City's Administrative Review Committee reviewed the document and determined that an EIR should be prepared to further evaluate the issues identified in the Initial Study. The Initial Study and a subsequent Public Scoping Meeting identified a number of issues requiring additional review in the EIR including: Land Use, Aesthetics, Traffic and Circulation, Air Quality, Noise, Hydrology and Water Quality, Public Services, Biological Resources, Cultural Resources, Geology and Soils, Hazards, Mineral Resources, and Public Utilities.

1.3.2 Public Scoping Meeting

A public scoping meeting was held by City staff on February 15, 2006 in order to obtain input from local residents and interested parties on the proposed project. Appendix A includes comments received during the scoping meeting. The Areas of Controversy and sections of this EIR where addressed are summarized below:

Park Issues

- A buffer should be provided between the park and adjacent neighborhood (Section 4.8 – Land Use and 4.10 – Noise).
- An analysis of noise impacts to the adjacent neighborhood should be included in the EIR. Hours of operation should also be discussed (Section 4.10 – Noise).
- Impacts from nighttime lighting should be included in the EIR (Section 4.1 – Aesthetics).
- Alternative land uses should be discussed such as using the existing pit to buffer the I-210 Freeway (Section 4.8 – Land Use).
- Using 17th Street as the main access to the park may increase traffic and safety issues within the residential area as park patrons may by-pass the traffic signal and cut through the neighborhood (Section 4.11 – Traffic and Circulation).

Commercial/Residential Issues

- Are there any proposed gas stations at the project site (Section 4.6 – Hazards)?
- EIR should identify impacts associated with service stations (Section 4.2 - Air Quality).
- EIR should address commercial lighting impacts on residential neighborhoods within the project vicinity. Impacts should include a discussion of nighttime lighting, illuminated signs, and hours or operation (Section 4.1 – Aesthetics and 4.8 – Land Use).
- The EIR should discuss potential increases in crime associated with commercial land uses and the impact to public services (Section 4.12 - Public Services).
- The EIR should identify the proposed location of trash bins and potential odor impacts to residences (Section 4.2 - Air Quality).
- Traffic Impact Analysis should analyze proposed access to the site during peak periods (i.e. holidays) to identify impacts from the spill-over of traffic into residential areas (Section 4.11 - Traffic and Circulation).
- The proposed project may increase traffic on Benson Avenue between 16th and 18th Streets and between Benson Avenue and Mountain Avenue along Baseline Road. Additionally, impacts to traffic may occur at Mountain Avenue/Baseline Road on and off ramp (Section 4.11 - Traffic and Circulation).
- The EIR should identify hazardous materials associated with the proposed land uses (Section 4.6 - Hazards).

- EIR should discuss impacts on property values.
- EIR should identify alternative land uses (Section 2.8 - Summary of Alternatives).
- EIR should identify noise impacts to adjacent residences (Section 4.10 - Noise).
- EIR should discuss air quality impacts associated with the construction/post-construction of the site (Section 4.2 - Air Quality).
- EIR should identify potential health and safety impacts associated with construction activities and the potential release of chlorine gas within the mining pit (Section 4.6 - Hazards).
- Implementation of the Master Plan may increase flood hazards within the area (Section 4.7 – Hydrology and Water Quality).
- Proposed Master Plan will displace existing wildlife (i.e. coyotes, rodents), causing an increase in wildlife to occur within residential neighborhood (Section 4.3 – Biological Resources).
- EIR should address aesthetic impacts, mitigation should include buffers between Lemon Heights residences (neighborhood north of 18th Street) and the proposed City Sports Park (Section 4.1 – Aesthetics, 4.8 – Land Use and 4.10 – Noise).
- Truck traffic from mining operations should be included in Traffic Analysis (Section 4.11 - Traffic and Circulation).
- Land use alternatives should include alternatives that would reduce commercial use at the site (Section 6.0 - Alternatives).
- What is the status on the existing mulching facility (Section 4.8 – Land Use).
- EIR should address impacts to parking (Section 4.11 - Traffic and Circulation).
- The City of Claremont should be involved with the EIR (Sections 1.0, 3.0 and 4.8 – Land Use).
- Sidewalks should be constructed along the west side of Benson Avenue and a signal should be installed at 17th Street to ensure pedestrian safety (Section 4.11 - Traffic and Circulation).

1.3.3 Notice of Preparation

A Notice of Preparation (NOP) was prepared for the project and circulated to responsible agencies and interested parties beginning on January 27, 2006 for a period of 30 days (CEQA Guidelines Section 15082). A NOP states that an EIR will be prepared and must be sent to any responsible government agency involved in approving the project and to trustee agencies responsible for natural resources that may be affected by the project. A responsible agency is an agency other than the lead agency that has discretionary approval power over the project. A trustee agency is an agency that has jurisdiction over natural resources that may be affected by the proposed project. Interested parties are also notified that an EIR will be prepared.

Letters submitted in response to NOP have been considered and are incorporated into the Draft EIR where appropriate. The NOP and comment letters are included in this EIR in Appendix A.

Issues Raised in Response to the Notice of Preparation

The following is a summary of comments received in response to the NOP:

- Several letters mirrored concerns raised by the public at the scoping meeting and included topics such as: Land Use and Aesthetics, Traffic and Circulation, Air Quality, Noise, Water Quality, Public Health and Safety, and Public Services.
- The City of Claremont expressed concerns relating to traffic impacts on I-210, aesthetic impacts to Claremont residents, freeway signage and effects of the master plan development on existing mining activities and the PVPA water recharge activities (Sections 4.11 – Traffic and Circulation, 4.1 – Aesthetics, 4.5 – Geology and Soils, and 4.7 Hydrology and Water Quality).
- The County of San Bernardino Department of Public Works requested that the County Flood Control easements be identified and addressed within the EIR, and that any additional stormwater flows generated as a result of the project be addressed for both San Bernardino and Los Angeles County Flood Control districts (Section 4.7 – Hydrology and Water Quality).
- Attorneys for the PVPA requested that the EIR discuss and address the PVPA's historic and current groundwater spreading rights and mining leaseholds within the Pit No. 3, preserving the groundwater quality, and potential taking of property reserved for groundwater spreading and recharge (Section 4.7 – Hydrology and Water Quality).
- The Department of Toxic Substances Control requested that the EIR identify whether the project site is impacted by previous uses as a result of hazardous releases, and if so how would this impacted property be properly remediated (Section 4.6 – Hazards).
- The California Department of Fish and Game requested that the EIR address potential biological impacts to threatened and endangered species that may inhabit the property (Section 4.3 – Biological Resources).
- The San Antonio Water Company requested that the EIR address and mitigate if necessary two water wells it owns (reserved easements) on the subject property, and various easements for water pipelines and power lines that traverse the property (Section 4.7 – Hydrology and Water Quality).
- The South Coast Air Quality Management District requested that the EIR address potential air quality impacts resulting from the project (Section 4.2 – Air Quality).
- The Six Basins Watermaster requested that the EIR address various water rights and potential impacts to groundwater quality/quantity in the regional area (Section 4.7 – Hydrology and Water Quality).
- The Metropolitan Water District (MWD) requested that the project protect easements owned by MWD immediately adjacent to the project site (4.13 – Public Utilities).

- Department of Transportation (DOT) requested that the EIR should address concerns regarding airport related noise and safety and regional airport land use planning issues. (Sections 4.6 – Hazards, 4.8 – Land Use and 4.10 – Noise).
- The Water Facilities Authority requested that the EIR include the discharge issues from the Agua de Lajos Water Treatment Plant (WTP) in the planning of the proposed City Sports Park (Section 4.7 – Hydrology and Water Quality).
- Native American Heritage Commission (NAHC) requested that the EIR include mitigation measures for potential discovery of cultural resources (Section 4.4 – Cultural Resources).
- Inland Empire Utilities Agency (IEUA) requested analysis of flood control and groundwater recharge on the City Sports Park portion of the project site (Section 4.7 – Hydrology and Water Quality).

1.3.4 Draft EIR

Circulation of the Draft EIR begins when a Notice of Completion (NOC) is filed with the State Office of Planning and Research Clearinghouse (State Clearinghouse) (CEQA Guidelines Section 15085). Filing the NOC starts the review period for the Draft EIR; generally lasting 45 days. Concurrent with the filing of the NOC, the lead agency will also provide a Notice of Availability of the Draft EIR to all organizations and individuals that have previously requested such notice or are located in proximity to the project site. This notice briefly describes the proposed project; identifies the date when comments must be received and where they are to be sent; and provides locations where copies of the Draft EIR can be reviewed (CEQA Guidelines Section 15087).

In conjunction with the preparation of the Draft EIR, a Mitigation Monitoring Program (MMP) has been prepared (CEQA Section 21081.6). The MMP contains the mitigation measures along with the action that must be taken to implement them and the method that will be used to document or verify fulfillment of the measure. A procedure for determining and recording compliance is outlined for each action that must be implemented in order to mitigate impacts as identified in the EIR and adopted when the project is approved. This procedure identifies what action will be taken and when, designates who will be responsible for implementing the action, and to whom and when compliance will be reported. The MMP is included in this EIR in Chapter 9.0.

1.3.5 Final EIR

At the end of the public review period, written comments received on the Draft EIR will be compiled and responses will be prepared for inclusion in the Final EIR. A Final EIR consists of the following: 1) the Draft EIR, 2) a list of all persons, organizations and public agencies commenting on the Draft EIR; 3) copies of the comments received on the Draft EIR; 4) responses to comments; and 5) any other pertinent information added by the lead agency (CEQA Guidelines Section 15132).

The Final EIR will serve as the CEQA compliance document for the City of Upland and all other agencies that may be responsible for review of the proposed project and issuance of required permits including but not limited to a Conditional Use Permit. Chapter 3.0 Project Description, contains a summary of the various agencies and permits required.

1.4 ORGANIZATION OF THE EIR

The Draft EIR is organized into the following chapters:

- Chapter 1.0 - Introduction: Provides an introduction and overview that describes the intended use of the document and the Lead Agency authority under CEQA. This chapter also includes a brief description of the proposed project, describes the purpose of an EIR, summaries the review process, and lists the documents incorporated by reference. This chapter also includes a list acronyms and glossary of terms.

- Chapter 2.0 - Summary: Summarizes the proposed project, areas of controversy, issues to be resolved, regulatory compliance requirements, the potential environmental effects that may result from the implementation of the proposed project (including cumulative), the mitigation measures proposed to reduce or eliminate significant effects, and a summary of the proposed alternatives.

- Chapter 3.0 - Project Description: Provides a detailed description of the existing site conditions and proposed development. This chapter includes a statement of project objectives and provides background data on the project and project site. This chapter also includes a list of permits required to implement the project.

- Chapter 4.0 – Environmental Setting and Impact Evaluation: Describes the existing environmental conditions on the site and in the vicinity of the project site, and the regulatory environment. Describes the project's characteristics related to each of the topical environmental issues and states the significance criteria used to evaluate potentially significant effects of the proposed project. Evaluates the potential environmental effects, identifies mitigation measures to reduce or eliminate effects found to be significant, and determines the level of significance of the effect after measures have been implemented.

- Chapter 5.0 - Cumulative Impacts: Evaluates cumulative environmental effects of the project when considered with the effects of other approved and/or reasonably foreseeable projects that when combined, would be significant.

- Chapter 6.0 - Alternatives to the Proposed Project: Describes a reasonable range of alternatives to the project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects identified in the environmental analysis of the project.

- Chapter 7.0 - Other CEQA Required Analysis: Includes descriptions of: 1) ways in which the project may foster economic or population growth and thereby be growth inducing;

2) any significant irreversible environmental changes which may result with the implementation of the proposed project; and 3) a summary of impacts found not to be significant.

- Chapter 8.0 – References: Includes a list of lead agency staff members who participated in the preparation of the EIR as well as the consultants who prepared the technical reports to support the environmental analysis. Chapter 8.0 also includes a bibliography of information used to prepare the EIR and lists persons and organizations consulted during report preparation.

- Chapter 9.0 – Mitigation Monitoring Program: Includes a list of all measures, responsible department, timing of implementation and description of whether the measure is time specific or on-going.

1.5 DOCUMENTS INCORPORATED BY REFERENCE

Pertinent documents relating to this EIR have been cited and incorporated by reference, in accordance with Section 15150 of the CEQA Guidelines as a means of reducing the redundancy and length of environmental impact reports.

CEQA Guidelines Section 15150(c) states that where an EIR uses incorporation by reference, the incorporated part of the referenced document must be briefly summarized where possible or briefly described if the data or information cannot be summarized.

The following documents are available for public review at the City of Upland or the City of Claremont, Community Development Department and are hereby incorporated by reference into this EIR. Information contained within these documents has been used for the preparation of chapters throughout this EIR. Where information has been used, the document has been cited. For example, the Land Use Elements of the City of Upland and City of Claremont General Plans were utilized extensively to prepare the Land Use Section of the EIR.

- City of Upland *General Plan*, Updated 1996: The general plan reflects the attitudes and desires of the community in order to be an effective guide for growth. The general plan is the official statement of a City's governing body, which sets forth its major policies concerning desirable future development. It is a guide for decision-making and the legal basis for land-use ordinances.

- City of Upland Zoning Code (Article IX of the City Municipal Code). The purpose of the Development Code is to promote the public health, safety, general welfare and preserve and enhance the aesthetic quality of the City by providing regulations to ensure an appropriate mix of land uses in an orderly manner.

- City of Claremont, General Plan: The general plan reflects the attitudes and desires of the community in order to be an effective guide for growth. The general plan is the official statement of a City's governing body, which sets forth its major policies concerning

desirable future development. It is a guide for decision-making and the legal basis for land-use ordinances.

- City of Claremont, Land Use and Development Code, Amended June 2003. The purpose of the Development Code is to promote the public health, safety, general welfare and preserve and enhance the aesthetic quality of the City by providing regulations to ensure an appropriate mix of land uses in an orderly manner.

1.6 ACRONYMS

AAQS Ambient air quality standards
AASHTO American Association of Sate Highway and Transportation Officials
ADA Average daily attendance
ADT Average daily traffic
AQMD Air Quality Management District
AQMP Air Quality Management Program
AMR American Medical Response
BMP Best Management Practices
CAA Clean Air Act
CAAA Clean Air Act Amendments
CAAQS California Ambient Air Quality Standards
CARB California Air Resources Board
CCR California Code of Regulations
CDFG California Department of Fish and Game
CESA California Endangered Species Act
CEQA California Environmental Quality Act
CFR Code of Federal Regulations
CHL California Historical Landmarks
CNDDB California Natural Diversity Database
CNEL Community noise equivalent level
CNPS California Native Plant Society
CO Carbon monoxide
CO_2 Carbon dioxide
CPHI California Points of Historical Interest
CRHR California Register of Historical Resources
dB Decibel
dBA A-weighted decibel scale
DOF California Department of Finance
EIR Environmental Impact Report
ESA Endangered Species Act
EPA Environmental Protection Agency (federal and state)
F Fahrenheit
FAA Federal Aviation Administration
FESA Federal Endangered Species Act
GA General Aviation
GMP Growth Management Plan

GPA	General Plan Amendment
GPM	Gallons per minute
HCM	Highway Capacity Manual
HRI	Historic Resources Inventory
ITE	Institute of Transportation Engineers
L_{eq}	Equivalent noise levels
L_{max}	Maximum sound level
L_{min}	Minimum sound level
LOS	Level of service
MCE	Maximum Credible Earthquake
MG	million gallons
MGD	Million gallons per day
MMP	Mitigation Monitoring Program
mph	Miles per hour
MSL	Mean sea level
M_w	Moment Magnitude
NAAQS	National ambient air quality standards
NO_2	Nitrogen dioxide
NOC	Notice of Completion
NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	Nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Place
O_3	Ozone
Pb	Lead
PCE	Passenger car equivalent, generally 1 truck being equal to approximately 1.5-2 cars
$PM_{2.5}$	Fine particulate matter (2.5 microns or less)
PM_{10}	10-micron or less particulate matter
ppm	Parts per million
ppm_v	Parts per million by volume
ROWD	Report of Waste Discharge
ROG	Reactive organic gases
RWQCB	Regional Water Quality Control Board
SANBAG	San Bernardino Associated Governments
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison Company
SMARA	Surface Mining and Reclamation Act
SO_2	Sulfur dioxide
SWPPP	Stormwater Pollution Prevention Program
SWRCB	State Water Resources Control Board
TAC	Toxic air contaminants
TIA	Traffic Impact Analysis
USDA	United States Department of Agriculture

USFWS United States Fish and Wildlife Service
USGS United States Geological Survey
V/C Volume to capacity
VOC Volatile organic compound
WDR Waste discharge requirements

1.7 GLOSSARY OF TERMS

Acre-foot: Volume of liquid or solid required to cover an area of one acre to a depth of one foot. Equals approximately 325,850 gallons of water.

Active fault: Geologic fault with recent seismic activity that has displaced materials not more than 12,000 years old.

Alluvium: A geologic term for general deposits made by streams, riverbeds, or floodplains. A deposit of silt clay laid down during time of flood.

Alquist-Priolo Fault Zone: State-identified areas of potentially active and recently active faults.

Alquist-Priolo Special Studies Zones Act: Places specific responsibilities on local governments for identification and evaluation of seismic and geologic hazards, and formulation of programs and regulations to reduce risk in identified locations.

Aquifer: A geological formation that is sufficiently permeable to conduct groundwater and to yield significant quantities of water to wells and springs.

California Endangered Species Act: California state legislation, enacted in 1984, with the intent to protect floral and faunal species by listing them as "rare," "threatened" "endangered," or "candidate" and by providing a consultation process for the determination and resolution of potential adverse impact to the species.

California Environmental Quality Act (CEQA): Policies enacted in 1970, and subsequently amended (through September 2004), the intent of which is the maintenance of a quality environment for the people of California now and in the future.

CALINE4: Computer Model, air quality model developed by the California Department of Transportation.

CNEL: Community Noise Equivalent Level-a noise index that accounts for the greater annoyance of noise during evening and nighttime hours.

Discretionary actions: Conditions which can be imposed on a project action prior to approval for implementation. The approval would thus be "at the discretion" of an agency.

Drawdown: The lowering of the water table caused by extraction of groundwater.

EMFAC2002: A computer program published by the California Air Resources Board (CARB) that calculates on road vehicle emissions.

Endangered species: A species whose prospects of survival and reproduction in the wild are in immediate jeopardy from one or more causes.

Environmental Impact Report (EIR): Document in which the impacts of any state or local, public or private project action which may have a significant environmental effect are evaluated prior to its approval and subsequent construction or implementation, as required by the California Environmental Quality Act.

Fault: A geologic fracture or fracture zone along which there has been displacement of the sides relative to one another.

Groundwater: Water found beneath the land surface in the zone of saturation below the water table.

Hazardous material: Substance which, because of its potential for either corrosivity, toxicity, ignitability, chemical reactivity, or explosiveness, may cause injury to persons or damage to property.

Hydrogeology: The study of surface and subsurface water.

Lead Agency: The public agency which has the principal responsibility for carrying out or approving a project.

Level of Service (LOS): An indicator or traffic conditions at an intersection or on a stretch of roadway, and of the delay that can be expected in the general area; A is the best (no delay) and F is the worst.

Notice of Preparation (NOP): A brief notice sent by the public agency with principal responsibility for carrying out or approving a project to notify other agencies that an EIR is being prepared.

NO_x: A generic term for various oxides of nitrogen.

Ozone (O_3): An end product of complex reactions between reactive organic gases (or non-methane hydrocarbons) and nitrogen oxides (NO_x) in the presence of intense ultraviolet radiation.

Permeability: The capacity of porous rock, sediment, or soil for transmitting a fluid.

PM_{10} Particulate Matter: Extremely small-suspended particles or droplets 10 microns or smaller in diameter that can lodge in lungs contributing to respiratory problems.

$PM_{2.5}$ Fine Particulate Matter: Extremely small-suspended particles 2.5 microns in diameter and arising primarily from combustion sources.

Rare species: A species which, although not presently threatened with extinction, is in such small numbers throughout its range that it may become endangered if its present environmental worsens.

Regional Water Quality Control Board (RWQCB): Agency which administers the requirements of the California Administrative Code, Title 23, Division 3, Chapter 15 (Section 2595,g,7) to ensure the highest possible water quality consistent with all demands.

Responsible agency: A public agency which proposes to carry out or approve a project for which a lead agency has prepared an EIR. A responsible agency is any agency with discretionary approval over a project.

Right-of-way (ROW): The right to pass over property owned by another. The strip of land over which facilities such as roadways, railroads, or power lines are built.

Reactive organic gases (ROG): Are organic chemical compounds that have high enough vapour pressures under normal conditions to significantly vaporize and enter the atmosphere.

Safe Yield: Safe yield is the maximum amount of water that can be continuously produced from a source of water supply during a period of years during which the probable driest period or period of greatest deficiency in water supply is likely to occur.

Seismicity: The likelihood of an area being subject to earthquakes.

Sensitive species: Generic term for any plant or animal species which is recognized by the government or by any conservation group as being depleted, rare, threatened, or endangered.

Significant environmental impact: As defined by CEQA, Chapter 3, Article 1, Section 15002(g), "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project."

Threatened Species: Species which, although not presently threatened with extinction, is likely to become endangered in the foreseeable future in the absence of special protection and management efforts.

Trustee Agency: A state agency having jurisdiction over natural resources that may be affected by the project, which are held in trust by the state. These include the California Department of Fish and Game, State Lands Commission, State Department of Parks and Recreation.

Waste discharge requirements: Regulation described in Title 23, Division 3, Chapter 15, of the California Code of Regulations which governs discharge of wastes to land in order to preserve the quality of the state's surface and groundwaters.

Watershed: A region bounded by a narrow tract of high ground which divides the flow of surface waters. A region that contributes water to a particular stream channel or system of channels.

Water table: The upper water level of a body of groundwater.

2.0 SUMMARY

2.1 PROJECT UNDER REVIEW

This Environmental Impact Report (EIR) (State Clearinghouse No. 2006011124) has been prepared in compliance with CEQA and the State Guidelines for Implementation of CEQA. The EIR describes the proposed development of Baseline Road Master Plan compromising approximately 99 acres, documents the existing conditions within the City of Upland and City of Claremont in the vicinity of the project, and evaluates the potentially significant environmental impacts that may occur with the proposed project. Several land use entitlements will be required from the cities of Upland and Claremont for approval of the proposed Baseline Road Master Plan. These include, at minimum:

- General Plan Amendment
- Zone Change
- Parcel Map
- Site Plan Review
- Grading and Building Permits
- Conditional Use Permits as required
- Temporary Use Permit for rock crushing/grading activities as necessary
- Park View Specific Plan

2.1.1 Existing Conditions

The approximate 42-acre Park View Specific Plan portion of the project site consists of the following parcels (from west to east): 1) an approximate 2.4-acre vacant, triangular shaped parcel located east of the State Route-210 (SR-210) Freeway within the City of Claremont; 2) one triangular shaped parcel totaling approximately 23 acres which is currently leased to Holliday Rock for sand and gravel extraction (Holliday Rock Foothill Quarry, see Section 4.9 Mineral Resources) by the Pomona Valley Protective Association (PVPA); 3) one rectangular shaped approximately 6.75-acre parcel owned by Upland Gateway, LLC which currently contains a composting/demolition and recycling facility (Intravaia Rock and Sand, Inc.); and 4) one 9.5-acre parcel which contains a water well/access road currently owned and leased by Upland Gateway, LLC to the Southern California Water Company, a private water company.

Approximately 96.6 acres of this land are located in the City of Upland, San Bernardino County and approximately 2.4 acres are located in the City of Claremont, Los Angeles County.

The City Sports Park portion of the Master Plan area, consisting of approximately 57 acres, is located north of the 42-acre Park View Specific Plan portion and is bounded on the north by the right-of-way for 18th Street, on the south by the right-of-way for 17th Street and the Park View Specific Plan portion, on the west by the SR-210, and on the east by the Agua de Lejos Water Treatment Plant. This area consists of all or portions of eight parcels that have been previously disturbed by sand and gravel extraction activities. Parcels that have been truncated are associated with SR-210. No mining has occurred recently and the property is designated for groundwater recharge and flood control purposes.

Access to the Park View Specific Plan portion of the project site will be via Baseline Road, along the southern boundary of the project site. Proposed access to the City Sports Park would be provided by the proposed Park View Promenade along Baseline Road through the Park View Specific Plan's residential development. Emergency, pedestrian and bicycle access to the City Sports Park would also be from 17th Street. No access from 18th Street is proposed. The site would continue to function as Open space. Since the City Sports Park slopes slightly towards the south, the southerly end of the City Sports Park may be inaccessible during flood events.

2.1.2 Project Description

The proposed project is a Master Plan to allow for commercial, residential and recreational development of approximately 99 acres located on the north side of Baseline Road between Benson Avenue on the east and SR-210 on the west. Approximately 96.6 acres of this land are located in the City of Upland, San Bernardino County and approximately 2.4 acres are located in the City of Claremont, Los Angeles County. The Master Plan incorporates the proposed Park View Specific Plan to allow for approximately 32 acres of residential, and approximately 10 acres of commercial development. The City Sports Park is also incorporated in the Master Plan to allow recreational development on approximately 57 acres of property.

Electrical, water, and sewer lines will need to be extended into the project site from the surrounding area. Existing aboveground transmission lines may be grounded. The water and sewer lines will be extended from the existing lines at Benson Avenue and Baseline Road. These pipelines will travel along Baseline Road for approximately 500 feet before being routed onto the project site. It is possible that sections of Baseline Road will be temporarily disturbed in order to connect the water and sewer lines and underground the existing electrical transmission lines.

Park View Specific Plan

Allied Retail Partners, LLC, is proposing to develop the Park View Specific Plan portion of the Master Plan site into distinct commercial and residential areas. Of the 42 acres, approximately 10 acres will be retail containing up to 100,000 square feet of commercial building area. The Park View Specific Plan's commercial center is anticipated to accommodate development of an anchor store, such as a supermarket and drug store, specialty shops, and restaurants. The remaining approximately 32 acres will be residential containing densities of 10 to 20[1] units to the acre, for up to 400 units.

Grading of the Park View Specific Plan portion will entail approximately 300,000 to 400,000 cubic yards of soil movement, which is estimated to be completed in two phases of 90 days each. The grading material from the eastern 16.25 acres may temporarily be stockpiled on the western 26 acres portion. Proposed grades for the Park View Specific Plan portion would range from 0.55 to 5%. Grading within the Specific Plan area will attempt to balance cut and fill for the site. The quantity of grading necessary for the development of the City Sports Park is unknown at this time. However, any excess grading material may be utilized in the Sports Park area.

[1] Density transfer in the residential development allows density up to 20 dwelling units per acre.

City Sports Park

The City Sports Park area encompasses approximately 57 acres, located immediately north of the Park View Specific Plan portion, the City Sports Park portion of the Master Plan is owned by the City of Upland. The City intends to design a City Sports Park that would be compatible with the existing water development and water conservation uses on-site. The proposed City Sports Park will be developed on approximately 57 acres; planned park amenities include six soccer fields (two of which convert into softball fields), two tennis courts, a basketball court, a volleyball court, a "Tot Lot", a small community amphitheater, and a concession stand

Access to the City Sports Park portion of the project site will be via Baseline Road, along the southern boundary of the project site. Proposed access to the City Sports Park will be provided by the proposed Park View Promenade along Baseline Road through the Park View Specific Plan's residential development. Emergency, pedestrian and bicycle access to the City Sports Park will also be from 17th Street. No access from 18th Street is proposed. The site would continue to function as Open space. Since the City Sports Park slopes slightly towards the south, the southerly end of the City Sports Park may be inaccessible during flood events.

2.2 AREAS OF CONTROVERSY

CEQA Guidelines Section 15123(b)(2) requires a discussion of areas of controversy known to the lead agency, including issues raised by responsible and trustee agencies and the public. The Draft EIR addresses the areas of controversy known to the City of Upland and City of Claremont or raised by responsible or trustee agencies or the public in response to the Notice of Preparation (NOP) and by the public during the public scoping meeting. Section 1.3.2 and Appendix A of this EIR list the issues raised by the public during the meeting held February 15, 2006. Appendix A also includes letters sent by responsible and trustee agencies in response to the NOP, which circulated between January 30 and February 28, 2006. The Areas of Controversy are summarized below:

- Multiple access points to the City Sports Park should be provided (Section 3.0 – Project Description).
- There would be air quality impacts on sensitive users of the City Sports Park due to proximity to the Freeway. AQMD recommends that a localized significance analysis be performed to evaluate air quality impacts (Section 4.2 - Air Quality).
- The proposed project would introduce new residents. Concerns were raised regarding impact to traffic specifically increased traffic during peak hours and potential conflict with trucks at some intersections, with access to the 210-Freeway. Issues were raised about providing main access from Baseline Road and whether it would be signalized. Street improvements under the proposed project could potentially disturb the existing circulation patterns. There were concerns about the timing and duration of street improvements (Section 4.11 - Traffic and Circulation).
- Concerns were raised regarding pedestrian access to the City Sports Park and commercial areas from the existing residential developments (Section 3.0 – Project Description).

- Concerns were raised regarding City Sports Park hours and increased noise due to the park (Section 4.10 – Noise).
- Concerns were raised that the planned impervious surfaces would contribute to water runoff as a source of pollution (Section 4.7 – Hydrology and Water Quality).
- The Draft EIR should thoroughly address Cable Airport related noise, safety and land use concerns. In addition to submitting the proposal to ALUC, the proposed project should also be coordinated with the airport staff to ensure that the proposal will be compatible with future as well as existing airport operations (Section 4.6 - Hazards).
- Concerns were raised about potential land use conflicts of situating housing close to industrial uses (Section 4.8 - Land Use).
- A portion of the proposed development was previously used to extract mineral resources. Leasehold issues with regard to mineral resources must be addressed (Section 4.9 – Mineral Resources).
- Concerns were raised regarding presence of toxic/hazardous wastes on the site due to current or historic uses (Section 4.6 – Hazards).
- Metropolitan Water District is concerned with potential impacts to its Rialto Feeder-Pipeline located within right-of-way and fee property along the northern boundary of the project site (Section 4.6 – Hazards).
- Concerns were raised regarding drainage (Section 4.7 – Hydrology and Water Quality).
- Impacts to aesthetics from future freeway signs, lighted sports fields, and parking lot lighting were of concern (Section 4.1 – Aesthetics).
- Proposed development of the Park View Specific Plan portion would need to account for San Antonio Water Company's existing wells and discharge to waste line located on the southerly 100 feet of Well 27A which currently discharges into the existing groundwater recharge basin. The proposed project may introduce constituents and activities that may contribute to water quality degradation and reduction of water recharge capacity resulting in an impact on existing well levels (Section 4.7 – Hydrology and Water Quality).
- PVPA maintains water recharge rights on portions of the City Sports Park area that may need to be preserved in perpetuity thereby limiting the development of the 57 acres into a City Sports Park (Section 4.7 – Hydrology and Water Quality).
- Potential reduction of water recharge capacity and impacts to existing well levels (Section 4.7 – Hydrology and Water Quality).
- Development would affect conjunctive use (water conservation/development programs), as grant funding and other aspects of basin development would be changed (Section 4.7 – Hydrology and Water Quality).

2.3 ISSUES TO BE RESOLVED

CEQA Guidelines Section 15123(b)(3) requires a discussion of issues to be resolved including a choice between alternatives and whether or how to mitigate the significant effects of the

proposed project. In addition to the choice between alternatives, the primary issues to be resolved for this project are:

- Exposure of residents to health hazards or potential health hazards from past and current uses of property (Section 4.6 - Hazards).
- The merits in amending the General Plan and changing the zoning from Open Space to Park View Specific Plan on the 42-acre Park View Specific Plan portion (Section 4.8 - Land Use).
- Impacts to roadways resulting from the generation of increased traffic volumes over existing conditions (Section 4.11 - Traffic and Circulation).
- Impacts to air quality as a result of construction activities during development (Section 4.2 - Air Quality).
- Cumulative environmental effects of the proposed project when considered in conjunction with other reasonably foreseeable projects (Chapter 5.0 - Cumulative Impact Analysis).
- Alternative uses of the site to reduce or eliminate potentially significant impacts of the proposed projects (Chapter 6.0 - Alternatives).

2.4 EIR IMPACT EVALUATION FORMAT

Chapter 4.0 of this EIR contains an evaluation of environmental impacts that could occur with the implementation of the proposed project. Each section in Chapter 4.0 begins with a description of the environmental setting for each environmental issue. This setting includes a general discussion of the existing conditions taken from the City of Upland General Plan, the City of Claremont General Plan, site visits, and from information provided by the organizations and agencies contacted during preparation of this EIR. The setting description is followed by a discussion of applicable plans, policies, and regulations pertaining to the specific issue being addressed. A discussion of identified impacts associated with the proposed project follows, which describes the thresholds used to determine the levels of significance before and after mitigation.

2.5 SUMMARY OF ALTERNATIVES

CEQA requires that an EIR include an evaluation of a reasonable range of alternatives to the proposed project. The alternatives identified should achieve the basic objectives of the proposed project while substantially lessening or avoiding significant environmental damage (CEQA Guidelines Section 15126(d)). This discussion must focus on feasible alternatives capable of either eliminating any significant adverse effects, or reducing them to a less than significant level. The Guidelines also require that this section include a summary of alternatives considered and found to be infeasible. Finally, the Guidelines require the selection of an environmentally superior alternative (other than the no-project alternative).

Chapter 6.0 of this EIR contains an analysis of alternatives to the proposed project. CEQA Guidelines Section 15126.6 requires that an EIR consider and discuss alternatives that would

feasibly attain most of the basic objectives of the proposed project but would avoid or substantially lessen any of the significant effects of the project.

2.5.1 Description of Alternatives Considered and Rejected

Alternative Location for the Master Plan

The evaluation of an alternative location is difficult as the City of Upland is an older established City with few vacant developable parcels remaining in the City that are of similar size. A review of undeveloped properties in the City showed that the proposed project could not feasibly be developed at another site, not already being considered for development. The City of Upland owns approximately 60 percent of the Master Plan area. No alternative sites were considered because the proposed project represents the last available parcel of this size within the City limits. No site outside the City's corporate boundary was considered.

Alternative Development for the Park View Specific Plan Portion

An alternative to develop high rise/high density multifamily apartment or townhouse development was also rejected because, such a project would be at a height and would violate the cable airport safety zone requirements for high density residential within the cable airport safety zone.

2.5.2 Evaluation of Feasible Alternatives

Five alternatives to the proposed project are evaluated in Chapter 6.0. These are:

- No-Project-No-Development Alternative: The Master Plan would not be adopted. The existing approximately 99 acres would remain unchanged. The existing commercial business (Intravaia Rock and Sand, Inc.) would continue to operate. This alternative is similar to the discussion of existing conditions for each issue addressed in Chapter 4.0 Environmental Impact Evaluation (e.g., aesthetics, air quality, biological resources, etc.).
- Buildout Under the Existing General Plan Alternative (Flood Control/Mining): The Park View Specific Plan portion of the project site would not be developed with the residential and commercial land uses. Instead, existing uses would continue as follows:
    - Approximately 42 acres in four parcels fronting Baseline Road designated Open Space and Aggregate Mining would consist of:
        - Approximately 23 acres representing Basin 1 of the Holliday Rock Mine Reclamation Plan (adopted August 2003).
        - An approximate 6.75-acre parcel owned by Upland Gateway, LLC, which currently contains a composting/demolition and recycling facility (Intravaia Rock and Sand, Inc.).
        - An approximate 9.5-acre parcel which contains a water well/access road currently owned and leased by Upland Gateway, LLC to the Southern California Water Company, a private water company

  - Approximately 2.4 acres within the City of Claremont

- 57 acres that make up the City-owned mine pit would remain as flood control, open space and groundwater percolation as currently occurs.

- Park Access Alternative: The Park View Specific Plan portion of the project site would be developed into a mixed–use neighborhood commercial and residential development. All City Sports Park access would be from 17th Street, instead of access from the residential development.

- Development of the City Sports Park only, no Park View Specific Plan Development but mining (as permitted under the General Plan) would occur: The mixed-use development would not occur, no general plan amendment would occur on the Park View Specific Plan portion of the site and only the City Sports Park site would be developed. The following scenario is assumed:

  The City Sports Park would consist of approximately 57-acre City Sports Park that would consist of:

  - 6 soccer fields (two could be converted to soft ball fields)
  - 2 tennis courts
  - 1 basketball court
  - "Tot lot"
  - Small community amphitheater
  - Concession stand
  - Access to the City Sports Park would be from 17th Street

  Approximately 42 acres in four parcels fronting Baseline Road designated Open Space and Aggregate Mining would consist of:

  - Approximately 23 acres representing Basin 1 of the Holliday Rock Mine Reclamation Plan (adopted August 2003)

  - An approximate 6.75-acre parcel owned by Upland Gateway, LLC, which currently contains a composting/demolition and recycling facility (Intravaia Rock and Sand, Inc.)

  - An approximate 9.5-acre parcel which contains a water well/access road currently owned and leased by Upland Gateway, LLC to the Southern California Water Company, a private water company

  - Approximately 2.4 acres within the City of Claremont (developed as commercial according to the City's General Plan)

- Development of the City Sports Park, Major Commercial Tenants: The Park View Specific Plan mixed-use development would be replaced by a highway-commercial shopping center consisting of approximately 460,000 square feet of commercial building. The following scenario is assumed:

Approximately 57-acre City Sports Park site in a reclaimed mine pit would consist of:

- 6 soccer fields (two could be converted to soft ball fields)
- 2 tennis courts
- 1 basketball court
- "Tot lot"
- Small community amphitheater
- Concession stand
- Access to the City Sports Park would be from 17th Street

Approximately 42 acres in four parcels fronting Baseline Road designated open space would consist of:

- Two large retail stores of approximately 225,000 and 136,000 square feet each,
- Eight small to mid-size retails establishments totaling approximately 59,000 square feet of development.
- Approximately 21,000 square feet of development in two buildings located in Claremont.

- Development of the City Sports Park and Single Family Residential Tract: The commercial uses, currently proposed on approximately 10 acres of the Park View Specific Plan portion would not be developed, and a single-family residential tract on the entire 42-acre specific plan area, at a lower density than what is currently being proposed, would be developed. The following scenario is assumed:

  Approximately 57-acre City Sports Park site in a reclaimed mine pit would consist of:

  - 6 soccer fields (two could be converted to soft ball fields)
  - 2 tennis courts
  - 1 basketball court
  - "Tot lot"
  - Small community amphitheater
  - Concession stand
  - Access to the City Sports Park would be from 17th Street

  Approximately 42 acres in four parcels fronting Baseline Road designated Open Space would consist of:

  - 168 Single Family Residences (4 dwelling units per acre).
  - Approximately 7,200 square-feet (net after roads, sidewalks, etc.) per dwelling unit.

2.6 SUMMARY OF FINDINGS OF THE INITIAL STUDY

The Initial Study, included in Appendix A, identified the following issues where no impacts would occur, or impacts would be less than significant and therefore do not require further evaluation in this EIR.

Biological Resources - As the San Antonio Channel (concrete lined) is dry most of the year, there is no habitat for fish or riparian wildlife. Sand and gravel mining, citrus cultivation, and urbanization have disrupted native vegetation and wildlife within the alluvial fan area in the City of Upland.

Cultural Resources - Due to the location of the project site on an alluvial fan in a wash that for millennia has been subject to flooding from the local foothills and mountains via San Antonio Canyon, it is unlikely that archaeological resources are present on the project site. In addition, most of the project site has been previously disturbed by sand and gravel extraction and to date, no resources or human remains have been uncovered.

Geology and Soils - The project site is not located within an Alquist-Priolo Earthquake Fault Zone. Rupture of a known earthquake fault is not anticipated on-site. The project site is not located in an area identified as containing expansive soils. Additionally, there are no septic systems existing on-site and none are proposed as a part of the project. Existing sewer lines adjacent to the project area would be extended to the site. The applicant does not intend to develop a septic system.

Hazards - The project site is not located within one-quarter mile of a school site. The closest school is Pepper Tree Elementary located approximately one mile east of the corner of 18th Street and Benson Avenue. Due to the nature of the project site and surrounding area, there is risk of exposure to wildland fires. There are no wildlands adjacent to the project site or adjacent residences. This is discussed further in the EIR under Hazards section.

Hydrology and Water Quality (Flooding) - The project site is located in a wash that has historically flooded during heavy storm events prior to the construction of the San Antonio Dam at the upper end of the wash above 24th Street. The development of the project site would result in placement of structures in the wash. However, SR-210 has recently been completed between the project site and the dam, and the area north of SR-210 contains retention basins designed to minimize potential impacts to SR-210 resulting from dam failure, so inundation from a dam failure is unlikely. Also, since there is no large body of water in the vicinity, inundation from a seiche, tsunami or mudflow would not occur. No housing will be placed within a 100-year flood plain within the Master Plan area. This is discussed further in the EIR under Hydrology and Water Quality section.

Land Use and Planning - The project site is located in an area designated as Open Space associated with flood control, groundwater recharge, and sand and gravel extraction. Development on the project site would not divide an established community. The project site is not identified in any habitat conservation plan or community conservation plan and therefore would not conflict with any such plan.

Noise - The nearest airport, Cable Airport, is located on Benson Avenue north of Foothill Boulevard, approximately one mile south of the project site. A portion of the site is located within Cable Airport Safety Zone 2. However the project, which includes the construction of a commercial and residential development within the southern portion of the site, and a City Sports Park within the northern portion of the site, would not expose people to excessive noise levels. Noise from SR-210 could impact the proposed project. This is discussed further in the EIR under Noise section.

Population and Housing - The proposed project site has never been developed with residential structures, therefore future development will not result in the removal of existing housing. However,

the proposed project would add up to 400 new homes and the impacts are discussed further in the EIR under Population and Housing section.

Recreation - The proposed Master Plan is approximately 42 acres of mixed-use development and approximately 57 acres of recreational uses (City Sports Park). The proposed project would not increase the demand for recreational facilities within the City.

Transportation/Traffic - The proposed project would not result in hazardous design features. The primary access to the Master Plan project will be from Baseline Road.

2.7 SUMMARY OF ENVIRONMENTAL IMPACTS

Table 2-1, included at the end of this section, summarizes the potential environmental impacts associated with the proposed project, the mitigation measures that would reduce or eliminate potentially significant impacts, and the level of significance of an impact that would occur after mitigation is implemented. This information is presented in detail in Chapter 4.0. The table summarizes all impacts that could occur with implementation of the project. The second column of the table indicates the level of significance of the impact prior to the implementation of any mitigation measures, but with consideration of design features, adherence to regulatory requirements and compliance with permit conditions.

2.7.1 Findings of Impacts That Can Be Mitigated To Less Than Significant Levels

Table 2-1 shows a matrix of potentially significant impacts that may occur with project implementation. Mitigation measures have been identified to reduce these impacts to less than significant levels. Most impacts identified will be less than significant after mitigation measures are implemented.

2.7.2 Findings of Significant Impacts After Mitigation Measures Have Been Implemented

The following impacts will remain significant after mitigation measures are implemented:

Mineral Resources – No mitigation measure can replace the loss of mining 3.25 million tons of aggregate. The loss of approximately 57 acres designated as MRZ-2 zone would remain significant.

Air Quality – Construction emissions of NO_X, PM_{10} and $PM_{2.5,}$ and emissions from painting will exceed the SCAQMD thresholds even after mitigation. Long-term regional air quality impacts regarding CO, NO_x and ROG emissions would continue to exceed the SCAQMD thresholds and be considered significant and unavoidable.

2.7.3 Findings of Significant Cumulative Impacts

Chapter 5.0 discusses cumulative impacts of the proposed Master Plan in conjunction with potential developments within the vicinity of the proposed project. The proposed Master Plan, in conjunction with other proposed projects identified in Table 5-1 (see Chapter 5.0) would result in cumulatively significant impacts to Air Quality.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES/REGULATORY REQUIREMENTS FOR THE PROPOSED PROJECT

IDENTIFIED IMPACTS	PARK VIEW SPECIFIC PLAN PORTION			CITY SPORTS PARK PORTION		
	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)
AESTHETICS AND VISUAL QUALITY						
AVQ-1: The development of the proposed project would establish residential structures and retail buildings and parking in a currently vacant area. This would introduce new sources of glare and nighttime light to the area.	Potentially Significant	**AVQ-1:** Prior to issuance of Building Permits, the Applicant shall submit a final lighting plan to City of Upland that complies with all applicable requirements and policies of the City of Upland and which shows the exact locations of light poles and the proposed orientation of the fixtures and demonstrating that the light and glare is directed away from the homes to the north and east. All streets within Park View will have uniform lighting standards with respect to style, materials, and colors in order to ensure consistent design. Each residential Planning Area may develop its own lighting standards, provided that the selected lighting fixture style is used consistently throughout the residential development and is approved by the Southern California Edison and the City of Upland. Lighting fixtures will be integrated into the visual environment and the appropriate architectural theme. All lighting fixtures shall comply with the regulations and provisions such as:	Less than significant			

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AESTHETICS AND VISUAL QUALITY (Continued)						
		• The level of on-site lighting and lighting fixtures will comply with all applicable requirements and policies of the City of Upland. Energy conservation, safety and security measures should be emphasized when designating any lighting system. • All outdoor lighting, including spotlights, floodlights, electrical reflectors and other means of illumination for signs, structures, landscaping, parking, loading, unloading, and similar areas will be focused, directed, and arranged to prevent glare and illumination on streets or adjoining property. • All exterior lights will be shielded and focused to minimize spill light into the night sky or adjacent properties per the City of Upland regulations for light pollution. • Neon and similar types of lighting are prohibited in all areas of Park View Specific Plan.				

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AESTHETICS AND VISUAL QUALITY (Continued)						
		• No freestanding residential light fixtures will exceed twenty-five feet in height; parking lot light standards will not exceed thirty feet. In no instance will over wash occur beyond property lines. Playing field light fixtures may exceed these standards. • The lighting concept for the entry monumentation features will illuminate the sign graphics and to gently wash the walls and pilasters with light. Trees and other landscape features will be illuminated by ambient light reflecting off of entrance walls. • All electrical meter pedestals and light switch/control equipment shall be located with minimum public visibility or shall be screened with appropriate plant materials.				

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AESTHETICS AND VISUAL QUALITY (Continued)						
AVQ-2: The development of the City Sports Park would establish multiple recreational playing fields in a currently vacant, reclaimed quarry. In order to use the fields at night, lighting would be constructed throughout the City Sports Park. This would introduce new sources of nighttime light to the area.				Potentially Significant	**AVQ-2:** Prior to issuance of Permits for the City Sports Park, the City of Upland shall prepare a final lighting plan showing the exact locations of light poles and the proposed orientation of the fixtures and directing light and glare away from the homes along the northern, eastern, and southern boundaries of the City Sports Park portion.	Less than significant
AIR QUALITY						
AQ-1: Development of the proposed Master Plan would violate pollutant level thresholds established by the SCAQMD during the construction phase of the Master Plan.	Potentially Significant	**AQ-1:** Comply with SCAQMD's Rule 402 and 403. Applicable mitigation measures listed within Rule 402 403, Tables 1, 2 and 3 (Tables 4.2-7, 4.2-8 and 4.2-9 above) shall be utilized. In addition, the contractors will be required to submit a fully executed Large Operation Notification to the SCAQMD's Executive Officer and provide copies to the City of Upland. **AQ-2:** Reduce construction equipment emissions by implementing the following measures. The following measures should be implemented and be included in grading and improvement plans specifications	Potentially Significant (short-term)	Potentially Significant	**AQ-1**: Comply with SCAQMD's Rule 402 and 403. Applicable mitigation measures listed within Rule 402 403, Tables 1, 2 and 3 (Tables 4.2-7, 4.2-8 and 4.2-9 above) shall be utilized. In addition, the contractors will be required to submit a fully executed Large Operation Notification to the SCAQMD's Executive Officer and provide copies to the City of Upland. **AQ-2:** Reduce construction equipment emissions by implementing the following measures. The following measures should be implemented and be included in grading and improvement plans specifications	Potentially Significant (short-term)

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AIR QUALITY (Continued)						
		for implementation by contractors. • Use low emission mobile construction equipment. The Applicant shall comply with CARB requirements for heavy construction equipment. • Maintain construction equipment engines by keeping them tuned. • Use low sulfur fuel for stationary construction equipment. This is required by SCAQMD Rules 431.1 and 431.2. • Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators. • Configure construction parking to minimize traffic interference. • Minimize obstruction of through-traffic lanes. Construction should be planned so that lane closures on existing streets are kept to a minimum. • Schedule construction operations affecting traffic for off-peak hours to the best extend when possible.			for implementation by contractors. • Use low emission mobile construction equipment. The Applicant shall comply with CARB requirements for heavy construction equipment. • Maintain construction equipment engines by keeping them tuned. • Use low sulfur fuel for stationary construction equipment. This is required by SCAQMD Rules 431.1 and 431.2. • Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators. • Configure construction parking to minimize traffic interference. • Minimize obstruction of through-traffic lanes. Construction should be planned so that lane closures on existing streets are kept to a minimum. • Schedule construction operations affecting traffic for off-peak hours to the best extend when possible.	

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AIR QUALITY (Continued)						
		• Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service.)			• Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service.)	
AQ-2: Other pollutants generated by architectural coatings will exceed SCAQMD thresholds.	Potentially Significant	**AQ-3:** Architectural Coating Emission Control • Limit the amount of painting each day. • Minimize the amount of paint used by using pre-coated, pre-colored and naturally colored building materials. • Use Water-Based and LOW-VOC coatings with VOC contents less than those required by SCAQMD Rule 1113. • Use high transfer efficiency painting methods such as HVLP (High Volume Low Pressure) sprayers and brushes/rollers were possible.	Potentially Significant (short-term)	Potentially Significant	**AQ-3:** Architectural Coating Emission Control • Limit the amount of painting each day. • Minimize the amount of paint used by using pre-coated, pre-colored and naturally colored building materials. • Use Water-Based and LOW-VOC coatings with VOC contents less than those required by SCAQMD Rule 1113. • Use high transfer efficiency painting methods such as HVLP (High Volume Low Pressure) sprayers and brushes/rollers were possible.	Potentially Significant (short-term)
AQ-5: Development of the Master Plan would increase vehicular travel to the site and increase urban land uses.	Potentially Significant	**AQ-4:** Transportation Demand Management measures • Provide adequate ingress and egress at all entrances to public facilities to minimize vehicle idling at curbsides.	Potentially Significant	Potentially Significant	**AQ-4:** Transportation Demand Management measures • Provide adequate ingress and egress at all entrances to public facilities to minimize vehicle idling at curbsides.	Potentially Significant

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AIR QUALITY (Continued)						
		• Provide dedicated turn lanes as appropriate and provide roadway improvements at heavily congested roadways. Energy Efficient Measures • Improve thermal integrity of the buildings and reduce thermal load with automated time clocks or occupant sensors. • Install energy efficient street lighting. • Capture waste heat and reemploy it in nonresidential buildings. • Landscape with native drought-resistant species to reduce water consumption and to provide passive solar benefits. • Provide lighter color roofing and road materials and tree planning programs to comply with the AQMP Miscellaneous Sources MSC-01 measure. • Synchronize traffic signals. • Introduce window glazing, wall insulation, and efficient ventilation methods.			• Provide dedicated turn lanes as appropriate and provide roadway improvements at heavily congested roadways. Energy Efficient Measures • Improve thermal integrity of the buildings and reduce thermal load with automated time clocks or occupant sensors. • Install energy efficient street lighting. • Capture waste heat and reemploy it in nonresidential buildings. • Landscape with native drought-resistant species to reduce water consumption and to provide passive solar benefits. • Provide lighter color roofing and road materials and tree planning programs to comply with the AQMP Miscellaneous Sources MSC-01 measure. • Synchronize traffic signals. • Introduce window glazing, wall insulation, and efficient ventilation methods.	

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BIOLOGICAL RESOURCES						
BIO-1: The proposed project could adversely affect California gnatcatchers that have formal status under state or federal Endangered Species Acts.	Potentially Significant	**BIO-1:** The Applicant shall conduct protocol level surveys for coastal California Gnatcatchers in all areas supporting suitable coastal sage scrub habitat that may be affected by the project. This will include a minimum 300-foot buffer. Presence/absence of this species shall be determined no more than one year prior to construction activities. If present, the Applicant shall avoid construction in or adjacent to occupied habitat during the breeding season (March 15-July 31). If direct impacts to coastal California gnatcatcher occupied habitat cannot be avoided, project activities shall not occur in occupied habitat until impacts to this species have been addressed through Section 10(a)(1)(B) process under the Federal Endangered Species Act of 1973, as amended. The Applicant shall complete compliance with the Federal Endangered Species Act prior to project construction. Mitigation measures developed through this process may include restriction of construction activities within coastal sage scrub habitat during the gnatcatcher breeding season	Less than significant	Potentially Significant	**BIO-1:** The Applicant shall conduct protocol level surveys for coastal California Gnatcatchers in all areas supporting suitable coastal sage scrub habitat that may be affected by the project. This will include a minimum 300-foot buffer. Presence/absence of this species shall be determined no more than one year prior to construction activities. If present, the Applicant shall avoid construction in or adjacent to occupied habitat during the breeding season (March 15-July 31). If direct impacts to coastal California gnatcatcher occupied habitat cannot be avoided, project activities shall not occur in occupied habitat until impacts to this species have been addressed through Section 10(a)(1)(B) process under the Federal Endangered Species Act of 1973, as amended. The Applicant shall complete compliance with the Federal Endangered Species Act prior to project construction. Mitigation measures developed through this process may include restriction of construction activities within coastal sage scrub habitat during the gnatcatcher breeding season (March 15-July 31),	Less than significant

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BIOLOGICAL RESOURCES (Continued)						
		(March 15-July 31), restoration/creation/enhancement of on-site coastal sage scrub habitat, and/or the purchasing of land or mitigation bank credits at an appropriate ratio to offset impacts to gnatcatchers and their habitat.			restoration/creation/enhancement of on-site coastal sage scrub habitat, and/or the purchasing of land or mitigation bank credits at an appropriate ratio to offset impacts to gnatcatchers and their habitat.	
BIO-2: Although no nesting or migratory birds were observed during the site visit, the incidental killing of migratory birds is prohibited by the Migratory Bird Treaty Act and U.S. Fish and Game Code. The killing of nesting or migratory birds by grading or land clearing activities would be considered a potentially significant impact.	Potentially Significant	**BIO-2:** To avoid incidental killing of birds protected under the Migratory Bird Treaty Act and the California Fish and Game Code, scheduling initial grading and brush removal of any previously undisturbed habitat shall occur outside the breeding season. No vegetation removal should occur between early spring (15 March) and mid summer (15 July).	Less than significant	Potentially Significant	**BIO-2:** To avoid incidental killing of birds protected under the Migratory Bird Treaty Act and the California Fish and Game Code, scheduling initial grading and brush removal of any previously undisturbed habitat shall occur outside the breeding season. No vegetation removal should occur between early spring (15 March) and mid summer (15 July).	Less than significant

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	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)
BIOLOGICAL RESOURCES (Continued)						
BIO-3: If Burrowing owls inhabit the site, they could become trapped within their burrows during land clearing and grading activities associated with development of the Park View Specific Plan portion of the project thereby creating a potentially significant impact.	Potentially Significant	**BIO-3:** A qualified biologist shall conduct pre-construction surveys for burrowing owls no more than 30 days prior to commencement of project activities. If burrowing owls are observed within the project area or areas adjacent to it during the breeding season (February 1 to August 31), a 250-foot buffer zone shall be established around the occupied burrow(s) and construction delayed in that buffer zone until all young have fledged and are able to feed on their own, as determined by monitoring surveys conducted by a qualified biologist. Breeding burrowing owls and their young should not be relocated. **BIO-4:** If burrowing owls are observed within the project area or areas adjacent to it during the non-breeding season (September to January), a 50 meter/160-foot buffer zone shall be established around the occupied burrow(s) and construction delayed in that buffer zone until the owls have vacated the occupied burrow, as determined by monitoring conducted by a qualified biologist. If this is not practical, obtain a Memorandum of Understanding (MOU) from the	Less than significant	Potentially Significant	**BIO-3:** A qualified biologist shall conduct pre-construction surveys for burrowing owls no more than 30 days prior to commencement of project activities. If burrowing owls are observed within the project area or areas adjacent to it during the breeding season (February 1 to August 31), a 250-foot buffer zone shall be established around the occupied burrow(s) and construction delayed in that buffer zone until all young have fledged and are able to feed on their own, as determined by monitoring surveys conducted by a qualified biologist. Breeding burrowing owls and their young should not be relocated. **BIO-4:** If burrowing owls are observed within the project area or areas adjacent to it during the non-breeding season (September to January), a 50 meter/160-foot buffer zone shall be established around the occupied burrow(s) and construction delayed in that buffer zone until the owls have vacated the occupied burrow, as determined by monitoring conducted by a qualified biologist. If this is not practical, obtain a Memorandum of Understanding (MOU) from the	Less than significant

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES/REGULATORY REQUIREMENTS FOR THE PROPOSED PROJECT

IDENTIFIED IMPACTS	PARK VIEW SPECIFIC PLAN PORTION			CITY SPORTS PARK PORTION		
	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)
BIOLOGICAL RESOURCES (Continued)						
		California Department of Fish and Game to allow passive relocation of non-breeding burrowing owls. Passive relocation usually involves placing a "one-way" door on the occupied burrow to allow the owl to escape, but not reenter the burrow, and monitoring of the burrow by a qualified biologist for one week to ensure that the owl has vacated the burrow.			California Department of Fish and Game to allow passive relocation of non-breeding burrowing owls. Passive relocation usually involves placing a "one-way" door on the occupied burrow to allow the owl to escape, but not reenter the burrow, and monitoring of the burrow by a qualified biologist for one week to ensure that the owl has vacated the burrow.	
CULTURAL RESOURCES						
CR-1: Excavation during development may result in the disturbance of previously unidentified human remains.	Potentially Significant	**C-1:** If human remains are encountered during grading and other construction excavation, work in the immediate vicinity shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5. **C-2:** In the event that Native American cultural resources are discovered during project development/construction, all work in the immediate vicinity of the find shall cease and a qualified archaeologist meeting Secretary of Interior Standards shall be hired to assess the find. Work on the overall project may continue during this assessment period.	Less than significant	Potentially Significant	**C-1:** If human remains are encountered during grading and other construction excavation, work in the immediate vicinity shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5. **C-2:** In the event that Native American cultural resources are discovered during project development/ construction, all work in the immediate vicinity of the find shall cease and a qualified archaeologist meeting Secretary of Interior Standards shall be hired to assess the find. Work on the overall project may continue during this assessment period.	Less than significant

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CULTURAL RESOURCES (Continued)						
		C-3: If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the Applicant or his archaeologist shall contact the Morongo Band of Mission Indians. If requested by the Tribe, the Applicant or the project archaeologist shall, in good faith, consult on the discovery and its disposition (e.g. avoidance, preservation, return of artifacts to tribe, etc.).			**C-3:** If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the Applicant or his archaeologist shall contact the Morongo Band of Mission Indians. If requested by the Tribe, the Applicant or the project archaeologist shall, in good faith, consult on the discovery and its disposition (e.g. avoidance, preservation, return of artifacts to tribe, etc.).	
CR-2: Excavation during development may result in the disturbance of previously unidentified paleontological resources, sites, or unique geological features.	Potentially Significant	**C-4:** Fossils found by contractors, or subcontractors during the development of the Master Plan, shall be reported immediately to the Planning Department of the governing jurisdiction (City of Upland or City of Claremont). These officials shall provide direction to contact a paleontological monitor from the San Bernardino County Museum. A member of the museum staff or a museum-authorized paleontologist will be dispatched to monitor the fossil location. All excavation shall cease in the area of the find until the monitor is on-site. If significant fossils (those having potential to increase scientific knowledge; including all identifiable vertebrate remains) are encountered on the property,	Less than significant	Potentially Significant	**C-4:** Fossils found by contractors, or subcontractors during the development of the Master Plan, shall be reported immediately to the Planning Department of the governing jurisdiction (City of Upland or City of Claremont). These officials shall provide direction to contact a paleontological monitor from the San Bernardino County Museum. A member of the museum staff or a museum-authorized paleontologist will be dispatched to monitor the fossil location. All excavation shall cease in the area of the find until the monitor is on-site. If significant fossils (those having potential to increase scientific knowledge; including all identifiable vertebrate remains) are encountered on the property,	Less than significant

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CULTURAL RESOURCES (Continued)						
		the following mitigation procedures shall be followed: • The paleontologist retained for the project shall immediately evaluate the fossils that have been discovered to determine if they are significant and, if so, to develop a plan to collect and study them for the purpose of mitigation. • If fossils are found, the paleontologic monitor shall be empowered to temporarily halt or redirect excavation equipment to allow evaluation and removal of the fossils as needed. To minimize construction delays, the monitor should be equipped to speedily collect specimens if they are encountered. • The monitor, with assistance if necessary, shall collect individual fossils and/or samples of fossil bearing sediments. If specimens of small animal species are encountered, the most time- and cost-efficient method of recovery is to remove a selected volume of fossil bearing earth from the grading area and screen wash it off-site.			the following mitigation procedures shall be followed: • The paleontologist retained for the project shall immediately evaluate the fossils that have been discovered to determine if they are significant and, if so, to develop a plan to collect and study them for the purpose of mitigation. • If fossils are found, the paleontologic monitor shall be empowered to temporarily halt or redirect excavation equipment to allow evaluation and removal of the fossils as needed. To minimize construction delays, the monitor should be equipped to speedily collect specimens if they are encountered. • The monitor, with assistance if necessary, shall collect individual fossils and/or samples of fossil bearing sediments. If specimens of small animal species are encountered, the most time- and cost-efficient method of recovery is to remove a selected volume of fossil bearing earth from the grading area and screen wash it off-site.	

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CULTURAL RESOURCES (Continued)						
		• Fossils recovered during earthmoving, or as a result of screen washing of sediment, shall be cleaned and prepared sufficiently to allow identification. This allows the fossils to be described in a report of findings and reduces the volume of matrix around specimens prior to storage, thus reducing storage costs. • A report of findings shall be prepared and submitted to the San Bernardino County Museum, as the agency responsible for overseeing developments and mitigation of environmental impacts upon completion of mitigation. This report would minimally include a statement of the types of paleontologic resources found, the methods and procedures used to recover them, an inventory of the specimens recovered, and a statement of their scientific significance. • The paleontological specimens recovered as a result of mitigation shall be transferred to a qualified scientific institution where they would be afforded long-term preservation for future scientific study.			• Fossils recovered during earthmoving, or as a result of screen washing of sediment, shall be cleaned and prepared sufficiently to allow identification. This allows the fossils to be described in a report of findings and reduces the volume of matrix around specimens prior to storage, thus reducing storage costs. • A report of findings shall be prepared and submitted to the San Bernardino County Museum, as the agency responsible for overseeing developments and mitigation of environmental impacts upon completion of mitigation. This report would minimally include a statement of the types of paleontologic resources found, the methods and procedures used to recover them, an inventory of the specimens recovered, and a statement of their scientific significance. • The paleontological specimens recovered as a result of mitigation shall be transferred to a qualified scientific institution where they would be afforded long-term preservation for future scientific study.	

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GEOLOGY AND SOILS						
G-1: Development of the proposed land use may expose people and structures to loss, injury, or death arising from strong seismic ground shaking.	Potentially Significant	**G-1:** All new structures shall be built according to the California Building Code and respective City standards. Building officials shall check and inspect all plans for seismic safety requirements before approval of any construction.	Less than significant	Potentially Significant	**G-1:** All new structures shall be built according to the California Building Code and respective City standards. Building officials shall check and inspect all plans for seismic safety requirements before approval of any construction.	Less than significant
G-2: Construction activities such as grading, excavation or any other soil disturbing activities may expose bare soils to erosion and loss of soils.	Potentially Significant	**G-2:** Grading activities shall be minimized and performed immediately prior to any new construction activities. **G-3:** Disturbed soils shall be watered at least twice daily to ensure the control of fugitive dust escaping off-site. **G-4:** A National Pollutant Discharge Elimination System permit shall be obtained before construction is started. To obtain the permit, a SWPPP must be submitted showing how storm waters will be controlled through BMP's to avoid off-site sedimentation. **G-5:** Soils left bare or inactive for longer than thirty days shall be planted with ground cover or covered by approved means to assure no loss of topsoil.	Less than significant	Potentially Significant	**G-2:** Grading activities shall be minimized and performed immediately prior to any new construction activities. **G-3:** Disturbed soils shall be watered at least twice daily to ensure the control of fugitive dust escaping off-site. **G-4:** A National Pollutant Discharge Elimination System permit shall be obtained before construction is started. To obtain the permit, a SWPPP must be submitted showing how storm waters will be controlled through BMP's to avoid off-site sedimentation. **G-5:** Soils left bare or inactive for longer than thirty days shall be planted with ground cover or covered by approved means to assure no loss of topsoil.	Less than significant

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HAZARDS						
H-1: The proposed Park View Specific Plan may include the construction and operation of a fueling station. This would introduce the potential of an accidental release of hazardous materials to the environment, and potential exposure to people.	Potentially Significant	**H-1:** Prior to issuance of occupancy permits for businesses that would use, store, or transport hazardous materials, the Applicant shall submit detailed building plans showing where storage areas would be located and where use would occur, to City and County agencies responsible for oversight and permitting such businesses. In conjunction with building plans the Applicant shall propose a Business Emergency Response Plan to be approved prior to occupancy. **H-2:** All proposed tenant improvements or change of business/occupancy applications shall require the submittal of detailed site plans indicating the location of hazardous material storage areas. The Applicant shall concurrently submit a Business Emergency Response Plan to be approved prior to occupancy.	Less than significant			

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HAZARDS (continued)						
H-2: The proposed Baseline Road Master Plan could create a significant impact to the safety and/or operation of Cable Airport or to the people working/ residing within the Master Plan area.	Potentially Significant	**H-3:** No portion of any structure shall exceed 1,644 feet above sea level to avoid conflict with Federal Aviation Regulation Part 77 (Objects Affecting Navigable Airspace) Standards associated with the Cable Airport. **H-4:** Properties shall be accompanied with the following disclosure: This property is presently located in the vicinity of an airport (Cable Airport), within what is known as an aircraft influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (i.e. noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances are associated with the property before you complete your purchase and determine whether they are acceptable to you.	Less than significant			

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HAZARDS (continued)						
H-3: The proposed Baseline Road Master Plan lies within an area of high fire zone.	Potentially Significant	**H-5:** The property Owners Association for the residential development and the Property Owner/Management Company for the commercial development shall maintain a 100-foot clearance around their respective properties. **H-6:** All roofing and construction for commercial and residential buildings shall comply with the Wildland-Urban Interface Building Codes. **H-7:** All residential and commercial buildings shall include a natural hazard disclosure as part of a real estate transfer.	Less than significant			
HYDROLOGY AND WATER QUALITY						
HWQ-1: Construction activities associated with the Park View Specific Plan portion of the Master Plan would alter the drainage pattern of the site, increasing on-site flow by changing the impermeable surfaces on-site. Development of the site would also alter the patterns of flows from the existing drainages entering the site from the east and southeast.	Potentially Significant	**HWQ-1:** Prior to issuance of grading permits, the Applicant shall submit a detailed storm water drainage plan that includes design drawings for the drainage facilities that would capture, hold and/or convey storm water through the site and that the proposed infrastructure will accommodate resulting flows in a 100 year storm event. The plans shall be subject to approval of the City of Upland Public Works Department.	Less than significant	Potentially Significant	**HWQ-1:** Prior to issuance of grading permits, the Applicant shall submit a detailed storm water drainage plan that includes design drawings for the drainage facilities that would capture, hold and/or convey storm water through the site and that the proposed infrastructure will accommodate resulting flows in a 100 year storm event. The plans shall be subject to approval of the City of Upland Public Works Department.	Less than significant

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HYDROLOGY AND WATER QUALITY (Continued)						
HWQ-2: During storm events, construction activities, particularly vegetation removal, grading and excavation, could affect the amounts of sediments and suspended solids leaving the site ultimately affecting water quality down stream.	Potentially Significant	**HWQ-2:** Prior to issuance of any grading permits, the Applicant shall prepare a Water Quality Management Plan and submit proof of the filing of a Notice of Intent (NOI) for coverage under the State General Permit to comply with RWQCB requirements for storm water discharge. The Applicant shall comply with NPDES requirements of the SWPPP and WQMP and employ BMPs identified in the documents during all phases of construction. BMPs shall be shown on all construction drawings and grading plans for the Park View Specific Plan portion of the Master Plan.	Less than significant	Potentially Significant	**HWQ-2:** Prior to issuance of any grading permits, the Applicant shall prepare a Water Quality Management Plan and submit proof of the filing of a Notice of Intent (NOI) for coverage under the State General Permit to comply with RWQCB requirements for storm water discharge. The Applicant shall comply with NPDES requirements of the SWPPP and WQMP and employ BMPs identified in the documents during all phases of construction. BMPs shall be shown on all construction drawings and grading plans for the Park View Specific Plan portion of the Master Plan.	Less than significant
HWQ-3: Development of vacant land within the Park View Specific Plan portion of the Master Plan project site would result in new quantities of urban pollutants entering the local drainages thereby creating or contributing runoff water which would provide substantial	Potentially Significant	**HWQ-3:** Prior to issuance of grading permits, the Applicant shall prepare a Water Quality Management Plan and file a Notice of Intent (NOI) to comply with RWQCB requirements for storm water discharge, including a full description of the discharge and a demonstration of compliance with EPA-specified effluent limits. **HWQ-4:** Landscaping plans shall include provisions for controlling and minimizing the use of fertilizers/pesticides/herbicides.	Less than significant	Potentially Significant	**HWQ-3:** Prior to issuance of grading permits, the Applicant shall prepare a Water Quality Management Plan and file a Notice of Intent (NOI) to comply with RWQCB requirements for storm water discharge, including a full description of the discharge and a demonstration of compliance with EPA-specified effluent limits. **HWQ-4:** Landscaping plans shall include provisions for controlling and minimizing the use of fertilizers/pesticides/ herbicides.	Less than significant

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HYDROLOGY AND WATER QUALITY (Continued)						
additional sources of polluted runoff; or otherwise substantially degrade water quality, and violate any water quality standards or waste discharge requirements.		Plans for these areas shall be submitted to the City for review and approval prior to the issuance of grading permits. **HWQ-5:** Landscaped areas shall include use of bio-swales and natural filters to the extent feasible.			Plans for these areas shall be submitted to the City for review and approval prior to the issuance of grading permits. **HWQ-5:** Landscaped areas shall include use of bio-swales and natural filters to the extent feasible.	
HWQ-4: The proposed project may reduce the amount of land available for groundwater recharge activities by the Pomona Valley Protective Association (PVPA) and for flood control activities by the County Flood Control District in the City Sports Park portion of the project area and thus 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.				Potentially Significant	**HWQ-6:** Upon design of the City Sports Park, and prior to grading, the specific impacts to flood control and groundwater recharge operations would be determined. The City shall work with the San Bernardino County Flood Control Department and the PVPA in design of the park to limit significant impacts to existing operations and to transport water across Baseline Road for spreading and groundwater recharge if feasible.	Less than significant

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HYDROLOGY AND WATER QUALITY (Continued)						
HWQ-5: Development of the City Sports Park would result in additional use of fertilizers, pesticides and herbicides that could impact the underlying groundwater quality.				Potentially Significant	**HWQ-7:** During the design of the City Sports Park, the amount of fertilizers, pesticides, and herbicides that would be used would be determined and addressed within a Landscaping Operations Plan. This plan shall be addressed by the Six Basins Watermaster and the Regional Water Quality Control Board, Santa Ana Region to ensure the amount of chemicals would not significantly impact groundwater quality. The City shall develop a Landscaping Operations Plan in accordance with the Santa Ana Regional Water Quality Control Board requirements to minimize potential impacts to groundwater quality.	Less than significant
MINERAL RESOURCES						
MR-1: The development within the Park View Specific Plan portion of the Master Plan area would result in the loss of an availability of a known mineral resource that would be of value to the region and the residences of the state.	Potentially Significant	No Mitigation	Potentially Significant			

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MINERAL RESOURCES (Continued)						
MR-2: Development of the 57-acre City Sports Park portion of the Master Plan area as Sports Park could result in the loss of a known mineral resource of value to the region.				Potentially Significant	No Mitigation	Potentially Significant
NOISE						
NOI-1: Construction noise represents a short-term impact on ambient noise levels. The primary source of construction noise is heavy equipment. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. Grading will generate the highest levels of noise during construction.	Potentially Significant	**NOI-1:** Noise generating construction activities near residential uses shall be restricted to the hours between 7:00 AM and 6:00 PM on weekdays and prohibited on Saturdays, Sundays and holidays. **NOI-2:** The rock crusher required for the project shall be located on the site so that it is more than 750 feet from the nearest residence.	Less than significant	Potentially Significant	**NOI-1:** Noise generating construction activities near residential uses shall be restricted to the hours between 7:00 AM and 6:00 PM on weekdays and prohibited on Saturdays, Sundays and holidays. **NOI-2:** The rock crusher required for the project shall be located on the site so that it is more than 750 feet from the nearest residence.	Less than significant
NOI-2: The surrounding land uses may be subject to noise levels in excess of the City Noise	Potentially Significant	**NOI-3:** Deliveries to the major retail store area loading docks and operation of heavy trucks along the northeast boundary of the project between the retail stores	Less than significant			

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NOISE (Continued)						
Standards during operation of the Park View Specific Plan developments both due to increased traffic and on-site activities.		and the residential areas shall be restricted to the hours between 7:00 a.m. and 11:00 p.m. Signs, approved by the City of Upland shall be placed at the loading docks describing this restriction. If the nighttime restriction is not amenable to the tenants of the retail/grocery store and/or adjacent retail stores, then they have the option of having a noise assessment prepared showing that they can comply with the City of Upland Noise Ordinance. The noise assessment shall identify the number of truck deliveries, the types of trucks to be used, the hours of delivery and any measures necessary to insure that compliance with the ordinance will be obtained. The noise assessment shall be submitted to the City, and the City shall review and approve the assessment and proposed mitigation measures prior to the issuance of occupancy permits. **NOI-4:** A sound wall shall be located at the property line between the residences and retail center as shown in Figure 4.10-5. The sound wall shall be 12 feet high near the westernmost residences and then decreases to				

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NOISE (Continued)						
		8 feet for the remaining residences (will vary depending upon the noise study requirements). (The sound wall also provides needed protection to the residences from traffic on SR-210) To be effective, noise barriers are required to have a surface density of at least 3.5 pounds per square foot, and have no openings or cracks. They may be a solid wall, an earthen berm, or a combination of the two. They may be constructed of wood studs with stucco exterior, 1/4 inch plate glass, 5/8 inch plexiglass, any masonry material, or a combination of these materials. Caltrans Encroachment Permit (Temporary Encroachment Permit) shall be submitted to the City of Upland. **NOI-5:** Prior to issuance of building permits for the project, a final noise assessment shall be prepared to determine the final noise mitigation required to reduce HVAC equipment associated with the major retail store and other adjacent retail stores, such that noise does not exceed Noise Ordinance levels during day and nighttime operations. The study shall be				

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NOISE (Continued)						
		prepared by a qualified acoustical engineer and submitted to the City of Upland prior to issuance of building permits for the retail buildings. The study shall use detailed noise data for the specific mechanical equipment to be used and identify the necessary noise control requirements. Noise control can include, but is not limited to, sound walls, parapet walls, relocation of equipment, use of quieter equipment, and sound control enclosures. . The recommendation of the acoustic engineer shall be implemented. **NOI-6:** Prior to construction of any residential units whose outdoor ground floor areas are subject to noise in excess of 65 CNEL, a sound wall shall be constructed along SR-210 to reduce first floor outdoor areas to less than 65 CNEL. A preliminary calculation indicates that a sound wall of roughly 12 feet tall would need to be along the property line adjacent to SR-210. The wall would need to wrap at the south end of this residential area and extend past the first building. (This wrap would also				

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SUMMARY OF IMPACTS AND MITIGATION MEASURES/REGULATORY REQUIREMENTS FOR THE PROPOSED PROJECT

IDENTIFIED IMPACTS	PARK VIEW SPECIFIC PLAN PORTION			CITY SPORTS PARK PORTION		
	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)
NOISE (Continued)						
		protect the residences from the loading dock noise at the proposed major retail store site.) High performance windows and possibly attic baffle vents shall be utilized to achieve the 30 dB outside to inside noise reduction needed to achieve the 45 CNEL indoor noise standard. A final noise study shall be prepared to determine the exact soundwall and building insulation requirements. **NOI-7:** Prior to the issuance of grading permits, a noise study shall be prepared for the residential portions of the project along Baseline Street and SR-210 by a qualified acoustical engineer. The noise study will examine the noise generated by these roadways and describe the measures required to ensure that the City's standards of 65 CNEL for outdoor areas and 45 CNEL indoor areas will be achieved for existing and future conditions. . The recommendation of the acoustic engineer shall be implemented.				

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES/REGULATORY REQUIREMENTS FOR THE PROPOSED PROJECT

IDENTIFIED IMPACTS	PARK VIEW SPECIFIC PLAN PORTION			CITY SPORTS PARK PORTION		
	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)
NOISE (Continued)						
NOI-3: The residents within the vicinity of the proposed project may be subject to noise levels in excess of the City Noise Standards during operation of the City Sports Park.				Potentially Significant	**NOI-8:** Prior to issuance of grading permits, a noise study shall be prepared for the City Sports Park portion of the project by a qualified acoustical engineer. The noise study will examine the noise generated by SR-210 and describe the measures required to ensure that regular use areas of the City Sports Park are not exposed to noise levels in excess of 70 CNEL and passive use areas of the City Sports Park are not exposed to levels in excess of 65 CNEL.	Less than significant
TRAFFIC AND CIRCULATION						
TC-1: The proposed project would increase vehicle trips/traffic levels, and affect the level of service along arterial roadways and intersections.	Potentially Significant	**TC-1:** **Baseline Road, adjacent to the project site:** Widen and improve Baseline Road bordering the project site to ultimate half-section width per the City of Upland Circulation Element. **Baseline Road at Driveway #1**: It is recommended that Driveway #1 provide one inbound lane and two outbound lanes (one exclusive left-turn lane and one exclusive right-turn lane). It is recommended that a three-phase traffic signal be installed at this project driveway. This improvement will cost	Less than significant	Potentially Significant	**TC-1:** **Baseline Road, adjacent to the project site:** Widen and improve Baseline Road bordering the project site to ultimate half-section width per the City of Upland Circulation Element. **Baseline Road at Driveway #1**: It is recommended that Driveway #1 provide one inbound lane and two outbound lanes (one exclusive left-turn lane and one exclusive right-turn lane). It is recommended that a three-phase traffic signal be installed at this project driveway. This improvement will cost	Less than significant

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES/REGULATORY REQUIREMENTS FOR THE PROPOSED PROJECT

IDENTIFIED IMPACTS	PARK VIEW SPECIFIC PLAN PORTION			CITY SPORTS PARK PORTION		
	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)
TRAFFIC AND CIRCULATION (Continued)						
		approximately $120,000.00 and is the sole responsibility of the proposed project. **Baseline Road at Driveway #2:** It is recommended that Driveway #2 provide one inbound lane and one outbound lane (one exclusive right-turn lane). It is recommended that a "STOP" sign and stop bar be installed at this project driveway. **Baseline Road at Park View Promenade**: It is recommended that Park View Promenade provide two inbound lanes and two outbound lanes (one exclusive left-turn lane and one shared through/right-turn lane). It is recommended that the existing traffic signal be modified for five-phase operation with protected eastbound and westbound left-turn phasing. This improvement will cost approximately $75,000.00 and is the sole responsibility of the proposed project. **Baseline Road at Driveway #4:** It is recommended that Driveway #4 provide one inbound lane and one outbound lane (one exclusive right-turn lane). It is recommended that a "STOP" sign and stop bar be installed at this project driveway.			approximately $120,000.00 and is the sole responsibility of the proposed project. **Baseline Road at Driveway #2:** It is recommended that Driveway #2 provide one inbound lane and one outbound lane (one exclusive right-turn lane). It is recommended that a "STOP" sign and stop bar be installed at this project driveway. **Baseline Road at Park View Promenade**: It is recommended that Park View Promenade provide two inbound lanes and two outbound lanes (one exclusive left-turn lane and one shared through/right-turn lane). It is recommended that the existing traffic signal be modified for five-phase operation with protected eastbound and westbound left-turn phasing. This improvement will cost approximately $75,000.00 and is the sole responsibility of the proposed project. **Baseline Road at Driveway #4:** It is recommended that Driveway #4 provide one inbound lane and one outbound lane (one exclusive right-turn lane). It is recommended that a "STOP" sign and stop bar be installed at this project driveway.	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES/REGULATORY REQUIREMENTS FOR THE PROPOSED PROJECT

IDENTIFIED IMPACTS	PARK VIEW SPECIFIC PLAN PORTION			CITY SPORTS PARK PORTION		
	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)
TRAFFIC AND CIRCULATION (Continued)						
TC-2: The proposed project could impact emergency access both during construction and operation.	Potentially Significant	**TC-2:** Prior to issuance of any permits, the applicant shall submit a construction Traffic Management Plan to the City of Upland for review and approval. The plan shall be prepared by a registered civil engineer and traffic engineer and shall address traffic controls for any street closure, lane closure, detour, or any other disruption to traffic circulation. The plan shall identify routes that construction vehicles shall utilize to access the site, the hours of construction traffic, traffic controls and detours, off-site vehicle staging and parking, and proposed construction phasing plan for the Project. The plan shall require the applicant to keep all haul routes clean and free of debris including but not limited to gravel, dirt, as a result of its operations.	Less than significant	Potentially Significant	**TC-2:** Prior to issuance of any permits, the applicant shall submit a construction Traffic Management Plan to the City of Upland for review and approval. The plan shall be prepared by a registered civil engineer and traffic engineer and shall address traffic controls for any street closure, lane closure, detour, or any other disruption to traffic circulation. The plan shall identify routes that construction vehicles shall utilize to access the site, the hours of construction traffic, traffic controls and detours, off-site vehicle staging and parking, and proposed construction phasing plan for the Project. The plan shall require the applicant to keep all haul routes clean and free of debris including but not limited to gravel, dirt, as a result of its operations.	Less than significant
PUBLIC SERVICES						
PS-3: Project implementation would contribute to an incremental increase in the number of students attending public schools within the Upland Unified School Districts.	Potentially Significant	**PS-1:** Proposed commercial and residential development shall be subject to Upland Unified School District's development impact fees which are currently $2.63 per square-foot of residential development and 0.42 per square-foot of commercial development, or the formation of a Community Facilities District	Less than significant			

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES/REGULATORY REQUIREMENTS FOR THE PROPOSED PROJECT

IDENTIFIED IMPACTS	PARK VIEW SPECIFIC PLAN PORTION			CITY SPORTS PARK PORTION		
	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)
PUBLIC SERVICES (Continued)						
		or other means to the satisfaction of the School District, which would alleviate any impact to schools as a result of project implementation.				
PUBLIC UTILITIES AND INFRASTRUCTURE						
PU-1: The proposed project would result in the development of more intense land uses than what currently exists on-site, resulting in additional demand on existing water resources.	Potentially Significant	**PU-1:** Prior to the issuance of building permits, the Applicant shall ensure that required governmental approvals and any associated agreements are secured for providing water service by the City of Upland to the 2.4 acres in Claremont.	Less than significant			
PU-3: The proposed project would result in the development of more intense land uses than what currently exists on-site, which may require the construction of new storm water drainage facilities or expansion of existing facilities.	Potentially Significant	**PU-2:** The project Applicant would be required to submit a Stormwater Drainage Plan to be approved by the City of Upland, prior to any earth-disturbing activities, for the Park View Specific Plan portion of the Master Plan. The Stormwater Drainage Plan shall describe necessary improvements and demonstrate that infrastructure to be developed will accommodate resulting flows in a 100 year storm event.	Less than significant			

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES/REGULATORY REQUIREMENTS FOR THE PROPOSED PROJECT

IDENTIFIED IMPACTS	PARK VIEW SPECIFIC PLAN PORTION			CITY SPORTS PARK PORTION		
	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)	LEVEL OF SIGNIFICANCE (Before Mitigation)	MITIGATION MEASURES/ REGULATORY REQUIREMENTS	LEVEL OF SIGNIFICANCE (After Mitigation)
PUBLIC UTILITIES AND INFRASTRUCTURE (Continued)						
		PU-3: The City of Upland would prepare a Stormwater Drainage Plan to be approved, prior to any earth-disturbing activities, for the City Sports Park portion of the Master Plan. The Stormwater Drainage Plan shall describe necessary improvements and demonstrate that infrastructure to be developed will accommodate resulting flows in a 100 year storm event.				
PU-4: The proposed project would result in the development of more intense land uses than what currently exists on-site, and therefore would increase the burden on the existing solid waste system.	Potentially Significant	**PU-4:** Prior to the issuance of building permits, the Applicant shall ensure that required governmental approvals and any associated agreements, and methods to track quantity of waste and recycling, are secured for providing solid waste service by the City of Upland to the 2.4 acres in Claremont.	Less than significant			

3.0 PROJECT DESCRIPTION

3.1 INTRODUCTION

The Baseline Road Master Plan is a proposed mixed use project located on approximately 99 acres within the cities of Upland and Claremont that incorporates a 42-acre Specific Plan known as the Park View Specific Plan and a 57-acre City Sports Park. The Baseline Road Master Plan (Master Plan) is located on the north side of Baseline Road between Benson Avenue on the east and State Route 210 (SR-210) on the west. Approximately 96.6 acres of the Master Plan area are located in the City of Upland, San Bernardino County and approximately 2.4 acres are located in the City of Claremont, Los Angeles County.

Allied Retail Partners, LLC, is proposing to develop the Park View Specific Plan portion of the Master Plan area into distinct commercial and residential areas. Of the 42 acres, approximately 10 acres will be retail containing up to 100,000 square feet of commercial building area. The remaining approximately 32 acres will be residential with densities of 10 to 20[1] units per acre, for up to 400 housing units.

The City Sports Park area encompasses approximately 57 acres and is located immediately north of the Park View Specific Plan portion. The City Sports Park portion of the Master Plan is owned by the City of Upland. The City intends to design a City Sports Park that would be compatible with the existing water development and water conservation uses on-site. The proposed City Sports Park would be developed on approximately 44 net acres; planned City Sports Park amenities include six soccer fields (two of which convert into softball fields), two tennis courts, a basketball court, a volleyball court, a "Tot Lot", a small community amphitheater, and a concession stand.

The proposed Master Plan will require a Zone Change and an amendment to the City of Upland General Plan to change the existing land use designation from Open Space to Park View Specific Plan allowing neighborhood commercial and medium density residential; a Zone Change for the City of Claremont from Open Space to Park View Specific Plan; and a Conditional Use Permit to allow the development of a City Sports Park.

3.1.1 Project Objectives

CEQA Guidelines Section 15124(b) requires that the project description include a statement of objectives sought by the project. The goals and objectives of the City on behalf of its residents and the members of the general public, and those of the landowner/developer are vitally important as these factors, in conjunction with the City's regulatory enactments such as the General Plan and zoning ordinance, guide the review and analysis of development projects. The goals and objectives of all parties, including third parties, are considered in the course of the review of the project, its potential impacts, mitigation measures, alternatives and conditions imposed upon the land use. The following are the primary goal and objectives the Applicant and the City have regarding the Master Plan project.

[1] Density transfer in the residential development allows density of up to 20 dwelling units per acre.

City's General Land Development Project Objectives

- Provide a beneficial use for the underutilized mine pit. The development of the reclaimed mining pit (City Sports Park portion) as a combined use park/flood control basin will allow for the multiple uses benefiting the City's residences and enhancing the visual character of the mining pit through reclamation.
- Provide for a balance of mixed land uses promoting a community wide beneficial use of the property while assisting in balancing the housing to jobs ratio of the City, and providing a long-term taxable revenue base for the City.
- Providing adequate transition between proposed residential, commercial, and City Sports Park uses and adjacent residential uses, while mitigating potentially significant environmental impacts of the proposed land uses.

City Sports Park Component Project Objectives

- Maximize public active and passive uses in conjunction with other complementary public uses such as water conservation and recharge, and flood control.
- Provide opportunities for active and passive, parkland use.
- Increase the quantity of parklands. The City of Upland contains approximately 2.2 acres of developed parkland per thousand residents. The City has determined the need for more developed park acreage.

Park View Specific Plan Project Objectives

- Combine residential land uses, recreational amenities (parks and trails), and commercial services to create a livable mixed use community.
- The circulation plan for the Specific Plan area will provide a comprehensive system of streets accommodating bicycle and pedestrian travel, while providing for the safe and efficient movement of automobiles.
- Provide for the development of adequate infrastructure and public facilities to serve the community as development is constructed.
- Develop new parks, bike trails, and pedestrian trail amenities to enhance outdoor recreational opportunities for residents.
- Provide for diverse and varied architecture combined with comprehensive site planning within the Specific Plan area to create a harmonious community aesthetically and functionally, preserving residents' privacy, and encouraging neighborhood interaction.
- Provide for a Development Plan compatible with surrounding residential and non-residential land uses.

3.2 PROJECT DESCRIPTION

3.2.1 Location

The project area is located in both the cities of Upland and Claremont. The City of Upland is located approximately 35 miles east of Los Angeles in the western portion of San Bernardino County. The western boundary of the City coincides with the boundary line between San Bernardino and Los Angeles counties. The City of Claremont borders the City of Upland to the west. Figure 3-1 shows the regional location of the City and the project area.

The Master Plan is located on the north side of Baseline Road between Benson Avenue on the east and SR-210 on the west. Approximately 96.6 acres of the Master Plan area is located in the City of Upland, San Bernardino County and approximately 2.4 acres are located in the City of Claremont, Los Angeles County. Figure 3-2 shows the local vicinity of the project area.

3.2.2 Project Setting

The project area is located on an alluvial fan below the San Gabriel Mountains, on the historic floodplain of San Antonio Creek. Soils are made up of alluvial and colluvial sand, gravel, and rock. Much of the property has been altered by other land uses, including the former sand and gravel quarry on the City Sports Park portion of the area, a large triangular parcel in the western part of the area which was also used for sand and gravel quarrying and perhaps for equipment staging during construction of SR-210, and the composting/demolition and recycling operation.

Existing land uses within the Master Plan area consist of an inactive aggregate mining pit used for flood control and groundwater recharge activities, water wells, and a composting/demolition and recycling operation.

Land uses surrounding the Master Plan area are shown on Figure 3-3 and include SR-210 and on/off ramps to the west, single family residential to the east at the corner of Baseline Road and Benson Avenue and to the north at 18th and Benson. The Holliday Rock Foothill Quarry is adjacent to the south. The Park View Specific Plan portion of the Master Plan area is within the northern portion of the Cable Airport Planning Area (Figure 3-4).

Table 3-1 lists surrounding land uses, and General Plan and Zoning designations for surrounding properties as well as the Master Plan area.

3.2.3 Project History

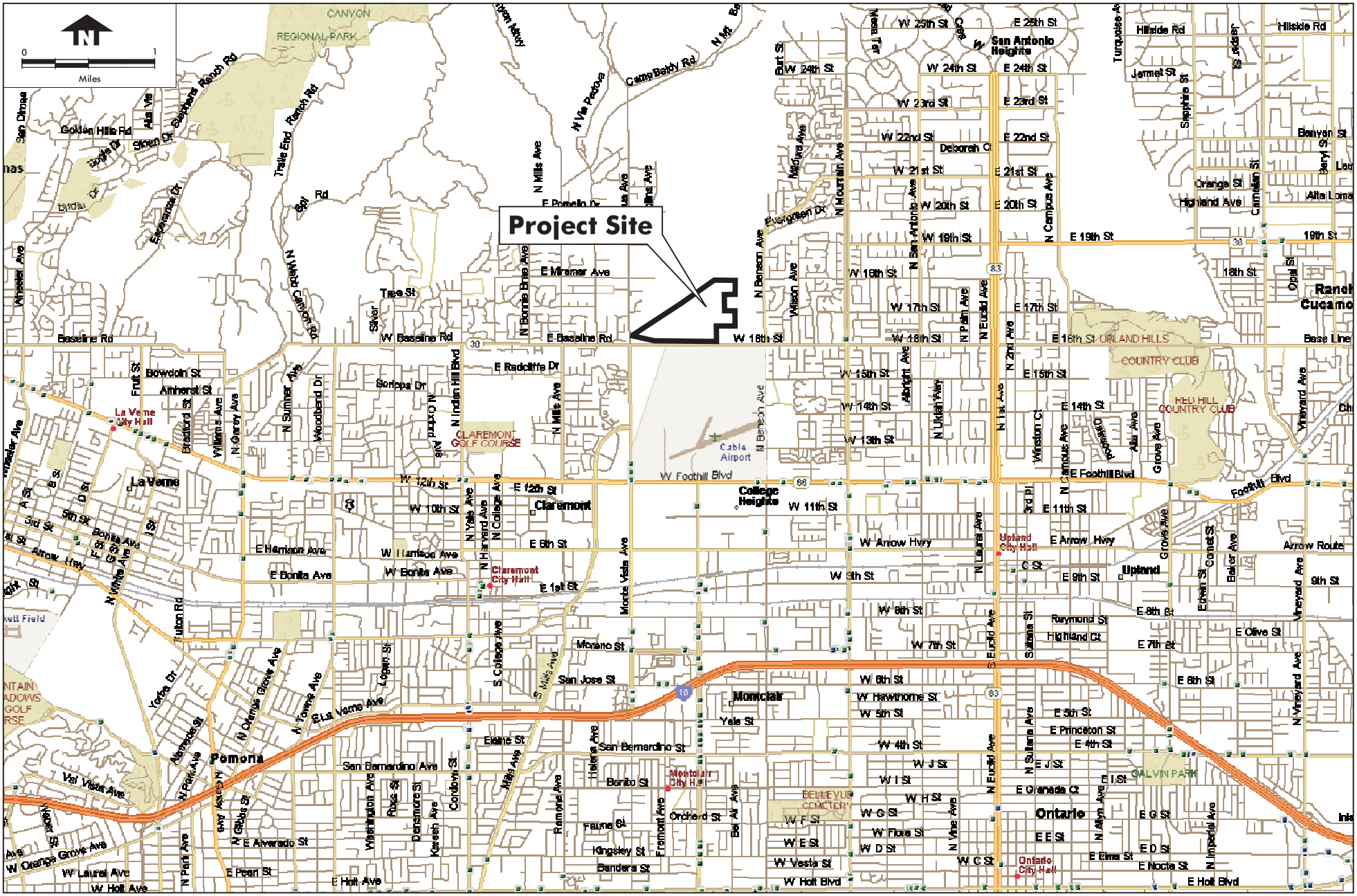
The Specific Plan area has historically been intended for mining of aggregate. Prior to the construction of the SR-210, the area was also used for flood control and groundwater recharge activities, water wells, and a demolition and recycling operation. The approximate 42-acre Park View Specific Plan consists of the following parcels (from west to east): 1) an approximate 2.4-acre vacant, triangular shaped parcel located east of the SR-210 Freeway within the City of Claremont; 2) one triangular shaped parcel totaling approximately 23 acres owned by the Pomona Valley Protective Association (PVPA) and permitted for sand and gravel extraction;

Regional Location

Baseline Road Master Plan
City of Upland, California

Figure 3-1

Prepared By:
LILBURN CORPORATION



Vicinity Map

Baseline Road Master Plan
City of Upland, California

Figure 3-2

Prepared By:
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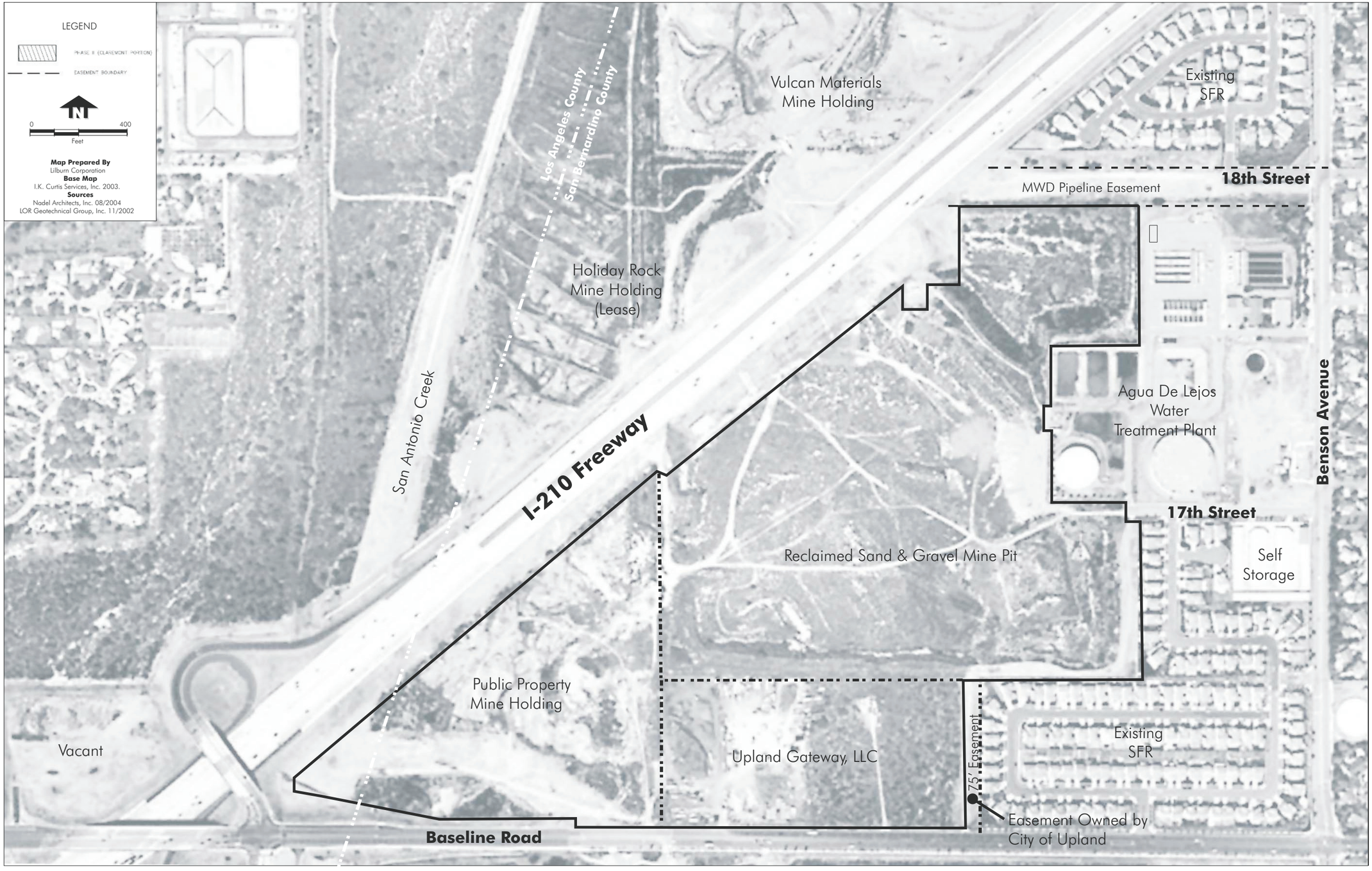

Surrounding Land Use

Baseline Road Master Plan
Upland, California

Figure 3-3

Prepared By:
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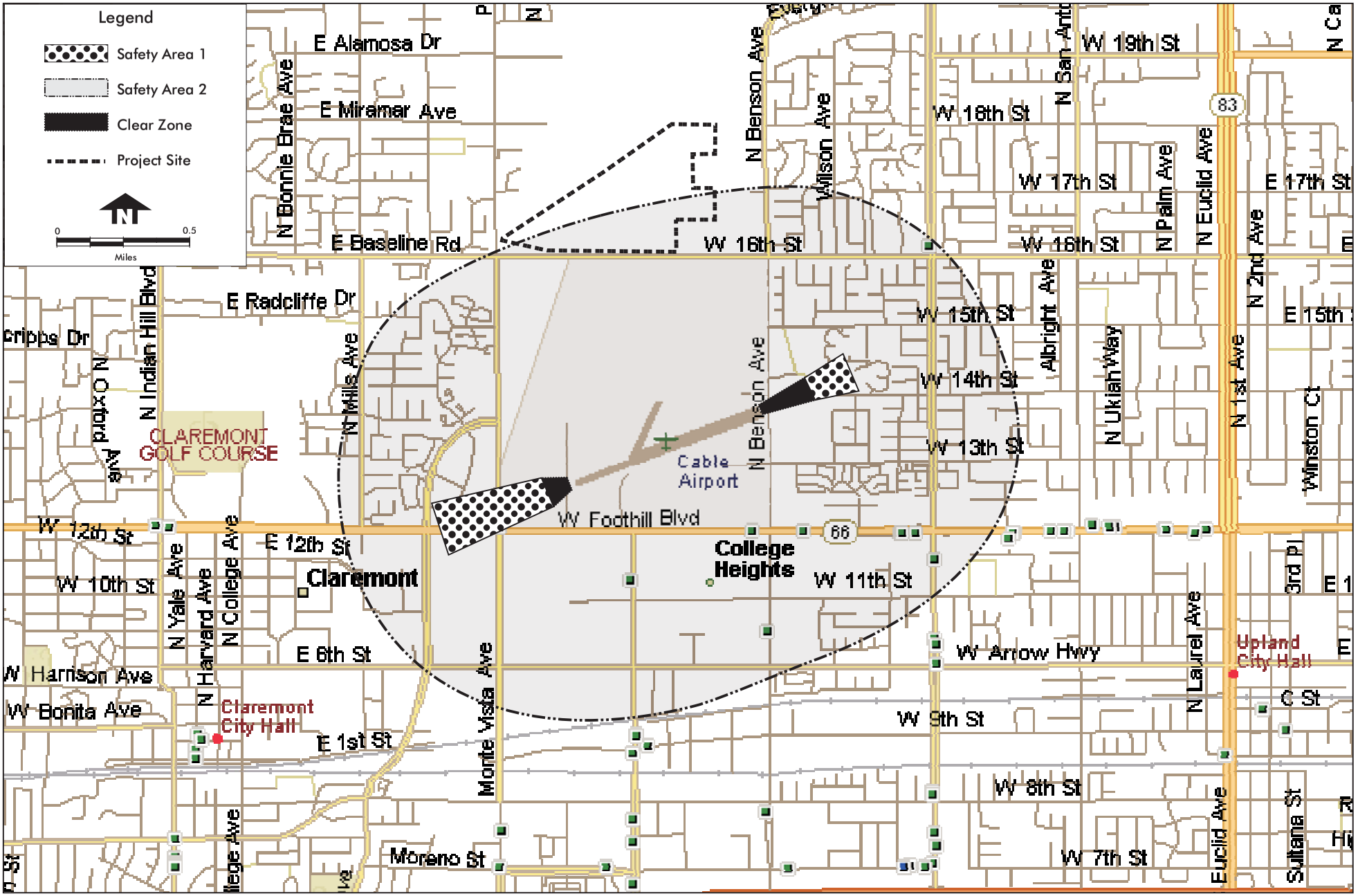
CORPORATION



Cable Airport Planning Area

Baseline Road Master Plan
City of Upland, California

Figure 3-4

Prepared By:
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3) one rectangular shaped approximately 6.75-acre parcel owned by Upland Gateway, LLC, and 4) one approximately 9.5-acre parcel which contains a water well/access road currently owned and leased by Upland Gateway, LLC to the Southern California Water Company, a private water company.

Table 3-1
Existing Land Use and General Plan/Zoning Designations

Direction	Existing Land Use	General Plan Designation	Zoning Designation
Park View Specific Plan	Composting/demolition and recycling facility on center parcel, water well and access road on east parcel (39.6 acres)	City of Upland: Open Space	Open Space
Park View Specific Plan	Open Space/Mining (2.6 acres)	City of Claremont Commercial	Open Space
City Sports Park	Undeveloped Land (reclaimed sand and gravel pit) (57-acres)	City of Upland: Open Space	Open Space
North	SR-210 Single Family (Lemon Heights) at 18th Street and Benson Avenue Undeveloped Land (idled sand and gravel pit)	City of Upland: Single-Family Residential (4 to 6 units per acre)	RS 7.5
South	Holliday Rock Foothill Quarry Mine	City of Upland: Flood Control	Open Space
East	Self Storage Facility at 17th Street and Benson Water Treatment Plant at 18th Street and Benson Avenue 75-foot undeveloped strip of land owned by the City of Upland[2] – further east residential (Mountain Shadows) at Baseline Road and Benson Avenue	City of Upland: Light Industrial Single-Family Residential (6 du/ac)	Light Industrial RS 7.5
West	SR-210 and Vacant Land	Public Facility	Open Space

3.2.4 Project Characteristics

The proposed project incorporates a Specific Plan known as the Park View Specific Plan to allow for residential and commercial development on approximately 42 acres and a City Sports Park on approximately 57 acres of property located on the north side of Baseline Road between Benson Avenue on the east and SR-210 on the west. Figure 3-5 shows the Conceptual Master Plan.

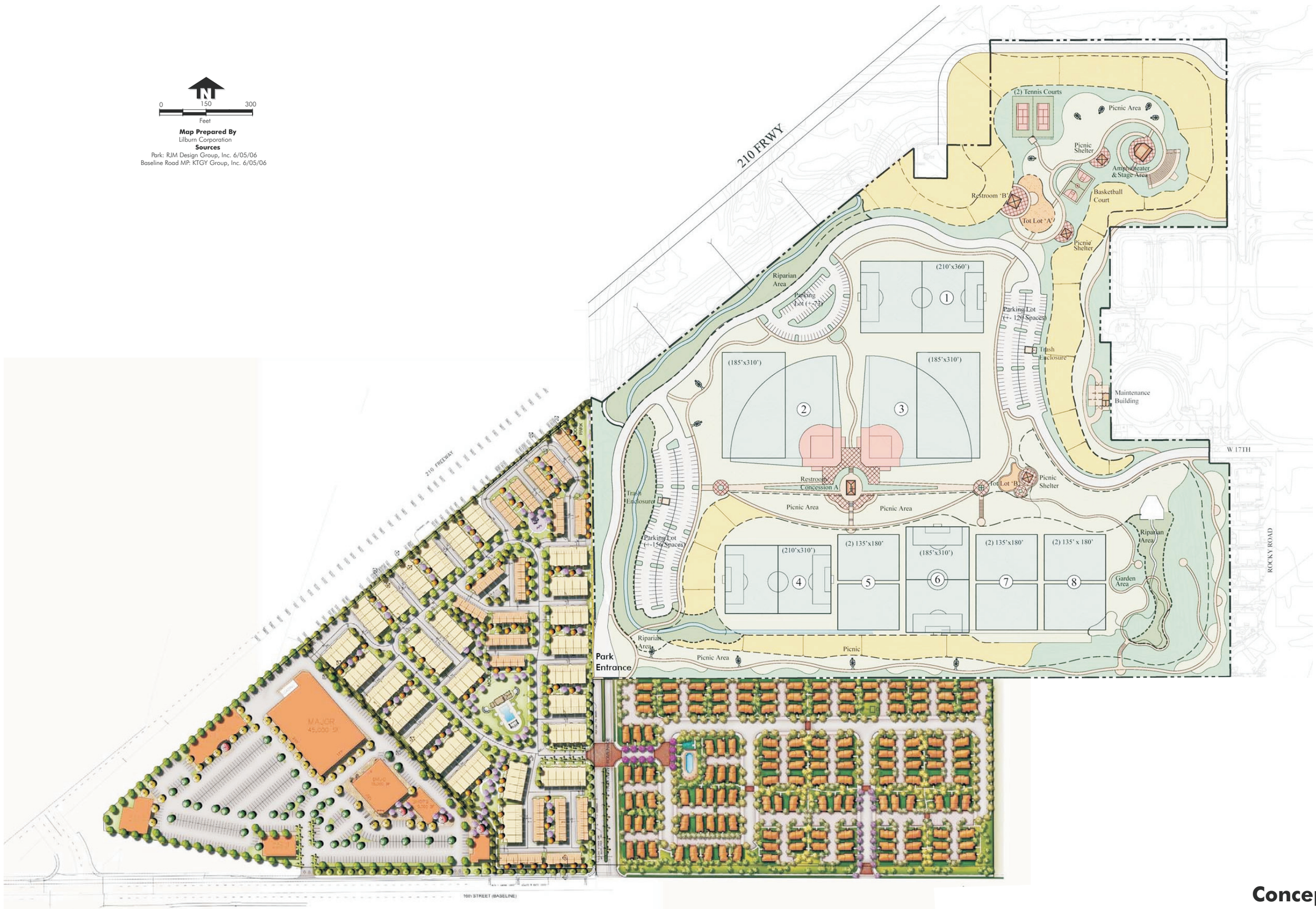
[2] This easement (approximately 75 feet by 595 feet wide) may possibly be used as a landscape buffer and/or pedestrian access to the City Sports Park in the future.

N

0 150 300

Feet

Map Prepared By
Lilburn Corporation
Sources
Park: RJM Design Group, Inc. 6/05/06
Baseline Road MP: KTGY Group, Inc. 6/05/06



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Conceptual Master Plan

Baseline Road Master Plan
Upland, California

Figure 3-5

Park View Specific Plan Portion

Allied Retail Partners, LLC, is proposing to develop the Park View Specific Plan portion of the Master Plan area into distinct commercial and residential areas. Of the 42 acres, approximately 10 acres will be retail containing up to 100,000 square feet of commercial building area. The commercial center is anticipated to accommodate development of an anchor store, such as a supermarket and drug store, specialty shops, and restaurants. The remaining approximately 32 acres will be residential with densities of 10 to 20 units to the acre, for up to 400 units. The conceptual area plan is preliminary and subject to change based on specific tenant needs. Figure 3-6 shows the proposed Park View Specific Plan Conceptual Land Use Plan. Table 3-2 describes the land uses proposed in the Specific Plan. The Park View Specific Plan permits flexibility in the distribution of residential types within each residential planning area. The specific residential type and mix to be developed in each planning area will be determined at the time of review and approval by the City of Upland of four tentative tract maps. Figure 3-7 shows the Conceptual Park View Specific Site Plan.

Table 3-2
Land Use Summary

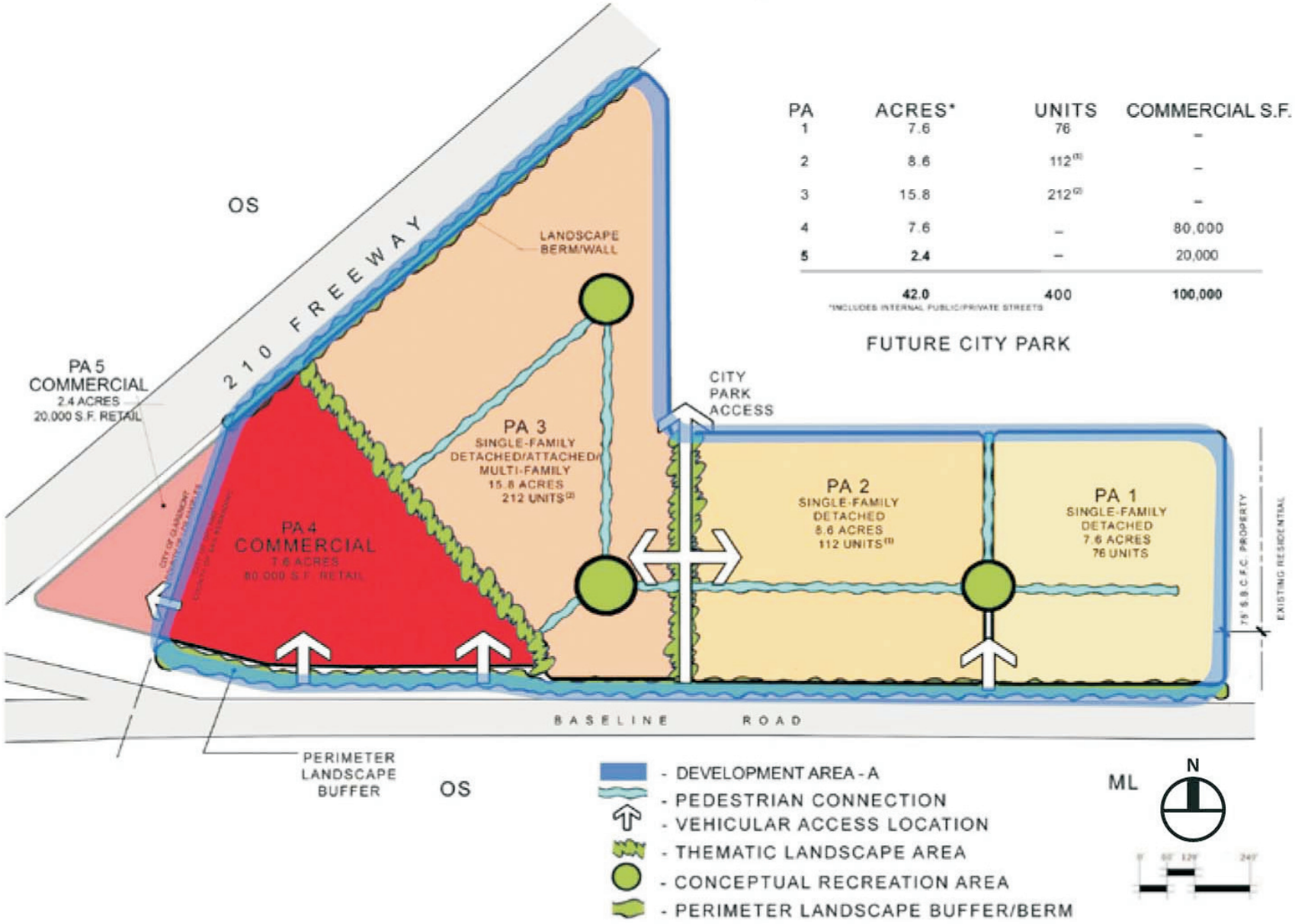
Planning area	Acres[1]
1	7.6
2	8.6
3	15.8
4	7.6
5	2.4
Total	**42.0**

1. Includes internal public/private streets.

Commercial Land Use

The Park View Specific Plan provides for the development of approximately 100,000 square feet of commercial uses on approximately 10 acres within the Specific Plan area. A commercial center located at the key intersection of the SR-210 interchange and Baseline Road will offer convenient access to retail goods and services for the residents of Park View Specific Plan as well as to the surrounding community. Land uses planned for the commercial center may include a major anchor store, such as a supermarket and drug store, smaller specialty shops, and restaurants. Approximately 7.6 acres of the commercial center are located within the City of Upland and approximately 2.4 acres are located in the City of Claremont.

The commercial center is designed to promote a pedestrian and bicycle friendly environment with amenities including outdoor dining, plazas, and informal gathering spaces. Pedestrian and bicycle connectivity to the center from the residential planning areas of the Park View Specific Plan is provided through a landscaped greenbelt extending along the length of the boundary between residential Planning Area 3 and Planning Area 4 (Figure 3-6). The design of the commercial center within Planning Area 4 will provide for vehicular access and pedestrian connectivity to Planning Area 5 located within the City of Claremont.



PA	ACRES*	UNITS	COMMERCIAL S.F.
1	7.6	76	–
2	8.6	112(1)	–
3	15.8	212(2)	–
4	7.6	–	80,000
5	2.4	–	20,000
	42.0	400	100,000

*INCLUDES INTERNAL PUBLIC/PRIVATE STREETS

1. *Represents a target maximum number of dwelling units in Planning Area 2. Dwelling units assigned to Planning Area 1 not developed in Planning Area 1 may be transferred to Planning Areas 2 or 3 provided the total number of dwelling units in the project does not exceed 400 and the project complies with all applicable development standards.*
2. *Represents a target maximum number of dwelling units for Planning Area 3. Dwelling units assigned to Planning Areas 1 and 2 which are not developed in these Planning Areas may be transferred to Planning Area 3 provided the total number of dwelling units does not exceed 400 and the project complies with all applicable development standards.*

Proposed Park View Plan
Specific Plan Conceptual Use

Baseline Road Master Plan
City of Upland, California

Figure 3-6

Prepared By:
LILBURN CORPORATION

Conceptual Park View Specific Plan
Site Plan

Baseline Road Master Plan
Upland, California

Figure 3-7

Prepared By:
LILBURN
CORPORATION

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The following are some of the permitted and conditionally permitted uses as identified in the Park View Specific Plan commercial center.

Permitted Uses

- Vocational/Trade Schools
- Animal Hospital/Veterinarian
- Pharmacies and Drug Stores without drive thru facilities[3]
- Government Offices/Library/Police/Fire Station
- Campaign Offices/Charitable, Philanthropic, Service and other Non-Profit Organization Offices
- Automotive Parts and Accessories Stores (Retail Sales Only)
- Commercial Day Care
- Restaurants (sit down/full service)
- Bowling Alley
- Offices
- Retail Stores

Conditionally Permitted Uses

- Ambulance Service (Office Only – No Storage of Vehicles)
- Assisted Living/Congregate Care/Substance Abuse Clinics/Facilities
- Convalescent Care Facility (with continuous skilled nursing care)
- Medical Office
- Pharmacies and Drug Stores with drive thru facilities
- Church
- Alcoholic Beverage Sales/Liquor Store
- Automotive Services (i.e. tune-up, emission tests, batteries, etc. - no use of impact wrenches or other equipment that could create noise impacts)
- Gas Stations (per Section 9-1.1305 G)
- Car Wash – Full/Car Wash Self Service (Ancillary)
- Fast Food with Drive-through (per Development Code, Section 9-10305D)
- Live Entertainment
- Drive-thru Banks.
- Auditorium/Movie Theatre
- Minor Repair (i.e. Brakes, tires, radiators, electrical, etc)/Tire Stores

Residential Land Use

The Park View Specific Plan permits the development of up to 400 residential dwelling units providing single-family detached homes and single-family attached homes. Residential land use areas are designed within three distinctive Planning Areas linked by a network of street-separated sidewalks (paths) and on-street bicycle paths connecting all the Planning Areas to parks and the commercial center.

[3] A separate CUP and supplemental CEQA compliance is required for a 24-hour commercial business.

A maximum of 76-residential single-family detached dwelling units are permitted for development within Planning Area 1. Any portion of the 76 dwelling units not developed within Planning Area 1 may be developed within Planning Areas 2 or 3. The maximum number of residential single-family detached dwelling units permitted to be developed within Planning Areas 1 and 2 combined is 188. Any portion of the units not developed within Planning Areas 1 and 2 may be developed within Planning Area 3. Single-family detached and single-family attached residential units are permitted in Planning Area 3. The transfer of residential dwelling units from one Planning Area to another is permitted in accordance with the provisions of the Park View Specific Plan provided the total number of residential dwelling units developed within the Specific Plan area does not exceed 400 units with adequate on and off street parking and open space requirements.

Residential development, comprising approximately 32 acres, is designed to address a variety of lifestyles, such as singles, families, executives, and empty nesters. Development of a variety of single-family detached and single-family attached housing is provided for within the Specific Plan. The following Table 3-3 lists different housing types within different planning areas.

Architectural Styles

The architectural character within each neighborhood shall consist of complementary traditional architectural styles. The materials and colors of these home styles shall complement the overall neighborhood design. Acceptable architectural styles within Park View Specific Plan include:

Commercial Area

- Craftsman

Residential

- Craftsman
- Tuscany
- Monterey
- Spanish Colonial
- Traditional
- Ranch

Alternative styles proposed by the commercial developer/builder must be submitted to and approved by the City of Upland.

Landscaping

Approximately 3.5 net acres are provided within Park View Specific Plan as parks, open space, and greenbelt areas within easy walking distance to any residence. The 3.5 acres designated for parks, open space, and greenbelt areas exclude public and private streets, parkways, and sidewalks. Of the 3.5 acres, approximately 1.86 acres are provided as parks and recreation areas within the residential Planning Areas. A minimum of .46 acres of park are provided within

Table 3-3
Types of Housing Within Planning Areas 1 through 3

Housing Type	Description	Planning Area 1	Planning Area 2	Planning Area 3
Single-Family Conventional Detached Homes	• "Architecture forward" design relating the home to the street, through the incorporation of porches and other elements	Permitted	Permitted	Permitted
Single-Family Detached – 2-Pack[1] and 3-Pack[2]	• Configuration of units in a 2-Pack or a 3-Pack design with a larger usable side yard area for each unit, • Garages can be either located to the rear of the lot or set back from the front of the homes	Permitted	Permitted	Permitted
Single-Family Detached Cottage Homes	• Will be served by alleys with front doors opening to a common open space area	Permitted	Permitted	Permitted
Single-Family Detached 6-Pack[3] Homes	• 6-Pack configuration designed around a common private drive. • Garages are accessed from the motorcourt[4].	Permitted	Permitted	Permitted
Single-Family Detached Greencourt Homes	• 6-Pack configuration with access from a private drive located at the rear of the building. • Homes front onto a greenbelt creating an open space setting	Permitted	Permitted	Permitted
Single-Family Attached-Greencourt Townhomes	• Townhomes are served by rear alleys with residences fronting on a common greenway, maintaining an architectural street scene and creating an open space environment	Not permitted	Not permitted	Permitted
Single-Family Attached-Paired Homes	• Duplexes in row configurations of two units per module	Not permitted	Not permitted	Permitted
Single-Family Attached-TriPlex Condominiums	• Include townhomes, stacked flats, and carriage homes • Front doors and porches face the street with garages located to the rear of the building served by a private drive	Not permitted	Not permitted	Permitted
Single-Family Attached-Row Townhomes	• Traditional building type of alley loaded attached homes designed in a row configuration • Garages are located to the rear of the building	Not permitted	Not permitted	Permitted
Single-Family Attached-Cluster Townhomes	• Attached units clustered around a common motorcourt.	Not permitted	Not permitted	Permitted
Multi-Family Stacked Flats and Townhomes	• Attached Multi-Family Stacked Flats and Townhomes designed as stacked residential units • Garages are oriented onto a private motorcourt served by an alley	Not permitted	Not permitted	Permitted

[1] – 2 units bundled together
[2] – 3 units bundled together
[3] – 6 units bundled together
[4] – a common driveway for access to the garage of six homes.

Planning Areas 1 and 2 combined and a minimum of 1.4 acres of park will be provided in Planning Area 3. Recreational facilities include the development of a minimum of one swimming pool to serve Planning Areas 1 and 2 and one swimming pool to serve Planning Area 3. Parks are located within walking or biking distance to any residence and are improved with barbecue and picnic facilities, tot lots, trails, and open play areas. Parks and recreational areas are connected by a network of pedestrian walkways and linear greenbelts developed adjacent to roadways within Park View. The ultimate location, size, and configuration of each park or recreational facility developed within Park View will be determined at the time of approval of tentative maps for residential development.

Access and Circulation

The development of Park View Specific Plan includes the construction of new streets within the Specific Plan area. Baseline Road, the primary access roadway serving the Park View Specific Plan, is currently improved with travel lanes, a median, curb and gutter on each side of the street. As part of development of the project, a new 7-foot wide landscaped parkway and 5-foot wide sidewalk will be constructed by the developer within the northerly right of way of Baseline Road.

Two categories of internal streets are planned for the Specific Plan area. Park View Promenade is planned to provide primary access to the Specific Plan area from Baseline Road and to connect to the future City Sports Park to be developed north of the Specific Plan area. Park View Promenade is planned with a total right of way of 82 feet with a 20-foot raised landscaped median, 16 feet of vehicular travel lane in each north and south direction, and a 5-foot wide bike lane on each side of the road. The Park View Promenade will be a dedicated public street. A 5-foot wide sidewalk separated from the street by a 5-foot wide landscaped parkway is planned to be developed on each side of the street to enhance the pedestrian orientation of the street and an additional landscaped buffer area is provided between the back of the sidewalk and community perimeter walls. Other improvements would include a minimum of 5-foot landscape buffer between the sidewalk and any structures, such as perimeter walls.

A 20-foot landscaped median will be constructed on Baseline Road with a 29-foot roadway for each direction of travel on Baseline Road.

Private driveways will provide access to the commercial center. Access to the residences will be provided from on-site private driveways. Private alleys developed within the Park View Specific Plan will consist of a 30-foot wide total right of way with 20 to 24 feet of paved travel area and a 3 to 5-foot wide easement area for landscaping.

The Park View Specific Plan pedestrian path system provides connectivity among all residential Planning Areas and to other components of the Specific Plan area including the commercial center, on-site parks, and the future City sports park planned for development north of the Specific Plan area.

A Class III bike lane is planned within Park View Promenade connecting to an existing 6-foot wide on-street bicycle path located within Baseline Road. The bicycle path developed within Park View Promenade will extend from Baseline Road to the City Sports Park planned for

development by the City north of the Specific Plan area. Development of local residential streets within the Specific Plan area includes adequate area to allow bicycling within the street right of way. Local residential streets will connect to the on street bike trails within Park View Promenade and Baseline Road providing bicycle connectivity from all residential areas to Park View Promenade and to Baseline Road.

Parking

Parking for the single-family detached and attached homes is proposed at minimum of 2 parking spaces per residence. Residences that would be clustered or stacked would also have guest parking of 0.25 spaces per dwelling unit. A total of approximately 1,066 (including garage and guest parking) parking spaces would be provided for the residential development. A total of 500 parking spaces would be provided in the commercial development (5 spaces per 1,000 square feet of Gross Building Area).

City Sports Park

The City Sports Park area encompasses approximately 57 acres, located immediately north of the Park View Specific Plan portion, the City Sports Park portion of the Master Plan is owned by the City of Upland. The City intends to design a City Sports Park that would be compatible with the existing water development and water conservation uses on-site. The proposed City Sports Park will be developed on approximately 44 net acres; planned park amenities include six soccer fields (two of which convert into softball fields), two tennis courts, a basketball court, a volleyball court, a "Tot Lot", a small community amphitheater, and a concession stand. Figure 3-8 show the Conceptual Site Plan.

The Site Plan for the City Sports Park is conceptual in that details concerning the existing uses such as the water well and easement as leased to the Southern California Water Company are not shown. However, access to and operation of the existing well would continue under the proposed Master Plan.

Proposed access to the City Sports Park will be provided by the proposed Park View Promenade along Baseline Road through the Park View Specific Plan portion's residential development. Emergency, pedestrian and bicycle access to the City Sports Park will also be from 17th Street. No access from 18th Street is proposed. The site would continue to function as Open space. Since the City Sports Park slopes slightly towards the south, the southerly end of the City Sports Park may be inaccessible during flood events.

3.2.5 Project Approvals

The proposed project would require approval from the following:

City of Upland

- Adoption of the Specific Plan
- Adoption of the City Sports Park Master Plan
- General Plan Amendment

Park View Specific Plan
Conceptual Land Use Plan

Baseline Road Master Plan
Upland, California

Figure 3-8

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- Zone Change
- Parcel Map
- Site Plan Review
- Grading and Building Permits
- Conditional Use Permits as Required by the Zoning Ordinance
- Lot Line Adjustment
- General Variances (i.e. Sound Walls, Signage, etc.)

City of Claremont
- Zone Change
- Parcel Map
- Site Plan Review
- Conditional Use Permits
- Grading and Building Permits

Regional Water Quality Control Board
- Storm Water Pollution Prevention Plan (SWPPP)
- Water Quality Management Plan (WQMP)
- Cable Airport Authority
- Site Plan Review

Caltrans
- Temporary Encroachment Permit (for sound walls)

County of San Bernardino Flood Control District
- Review of site plans for consistency with District Plan for flood control in San Antonio Wash

Pomona Valley Protective Association (PVPA)
- Resolution of issues associated with mining leaseholds

Prior to implementation of the City Sports Park portion of the Master Plan, the following permits and other approvals will be required for the City Sports Park portion of the Master Plan. These include, but are not limited to:

City of Upland
- Site Plan Review
- Grading and Building Permits
- Conditional Use Permits as required

Regional Water Quality Control Board
- Storm Water Pollution Prevention Plan (SWPPP)
- Water Quality Management Plan (WQMP)

County of San Bernardino Flood Control District

- Review of site plans for consistency with District Plan for flood control in San Antonio Wash

Pomona Valley Protective Association (PVPA)

- Resolution of issues associated with mining leaseholds

3.2.6 Project Improvements

Roadway

Baseline Road, the primary access roadway serving the Park View Specific Plan area, is currently improved with travel lanes, a median, curb and gutter on each side of the street. As part of development of the project, a new 7-foot wide landscaped parkway and 5-foot wide sidewalk will be constructed by the developer within the northerly right of way of Baseline Road. The existing median along Baseline Road will be raised as a part of the improvements.

Water

Development of the Park View Specific Plan area will require the construction of a new public 12-inch water main in Baseline Road connecting to an existing 10-inch water main located east of the Specific Plan area at the intersection of Baseline Road and Benson Avenue. It is anticipated that the 12-inch water main located in Park View Promenade will be extended through the future City Park and out to 17th Street connecting to an existing water main located within Benson Avenue.

Sewer

As part of the development of Park View Specific Plan, the 8-inch Baseline Road sewer main that currently terminates near the project site's eastern boundary, will be extended approximately 1,600 feet to the west in order to serve the Park View Specific Plan area. A new 10-inch sewer main will be constructed throughout the Specific Plan area and extended to the southern boundary of the future City Park located north of Park View. Due to the location and proposed grades for the commercial area of the Park View Specific Plan, an on-site, private sewer lift station will be constructed to serve this area that would be maintained by the property owner/management company. In addition, deficient sewer main segments on Benson Avenue from Foothill Boulevard south to Arrow Highway (approximately 2,700 linear feet) will be upgraded from an 8-inch to a 10-inch sewer main.

Drainage

Existing drainage for the Specific Plan area generally flows from the north and northeast in a south and southwest direction. Numerous quarries that currently serve as retention/detention basins surround the Specific Plan area on the north, south, and east. The San Antonio Channel bisects the existing flood plane to the north and has numerous earthen berms on the west side that direct surface flow into San Antonio Channel. The surface flows that do not discharge into

the San Antonio Channel are then discharged into the existing culverts that extend beneath the 210 Freeway into the Park View Specific Plan area. These surface flows then flow to the existing culverts located beneath Baseline Road eventually out-letting into borrow pits owned by Holliday Rock and Sand. The number and size of these culverts are the same as the culverts beneath the 210 Freeway. The volume from the peak surface flows are retained in Holliday's borrow pit and ultimately percolate into the ground.

An existing single 48-inch storm drain culvert and existing twin 48-inch storm drain culverts are located beneath the 210 Freeway within Los Angeles County. The twin 48-inch storm drain culverts will be extended into the Park View Specific Plan area and connected into the existing dual 48-inch culverts beneath Baseline Road which will remain within Los Angeles County. The existing single 48-inch culvert will be extended into the Park View Specific Plan area within Los Angeles County and San Bernardino County. An existing 36-inch culvert located beneath the 210 Freeway within San Bernardino County will also be extended and connect into an existing 36-inch culvert located beneath Baseline Road. The San Bernardino County Flood Control District is responsible for regional flood control facilities north and south of the Park View Specific Plan area, while the City of Upland maintains publicly-owned local facilities within and immediately adjacent to the Park View Specific Plan area.

All on-site surface water will be collected in an on-site storm drain system which will discharge unretained into a proposed 54-inch storm drain pipe to be constructed beneath Park View Promenade, and subsequently will cross Baseline Road and flow easterly along the southerly Baseline Road right of way towards Benson Avenue discharging into the borrow pit owned and operated by Holliday Rock and Sand. The point of discharge has been estimated to be the mid-point between Benson Avenue and the main entry at Park View Promenade. The discharge into the borrow pit requires a storm drain culvert to descend from the top of the northerly slope of the Holliday borrow pit into a dissipater at the bottom of the borrow pit to avoid scouring or erosion.

Grading

Grading of the Park View Specific Plan portion will entail approximately 300,000 to 400,000 cubic yards of soil movement, which is estimated to be completed in two phases of 90 days each. The grading material from the eastern 16.25 acres may temporarily be stockpiled on the western 26 acres portion. Proposed grades for the Park View Specific Plan Portion would range from 0.55 to 5 percent. Grading within the Specific Plan area will attempt to balance cut and fill for the site. The quantity of grading necessary for the development of the City Sports Park is unknown at this time. However, any excess grading material may be utilized in the Sports Park area.

In addition, all the existing electrical distribution lines on the project site will be undergrounded.

3.2.7 Phasing

Phasing of the commercial area of the Specific Plan will be based upon market and economic conditions. Adequate infrastructure and public facilities will be provided as determined and deemed necessary by the City of Upland, concurrent with development of each phase.

The phasing of residential development areas will be determined by the developer and consistent with City of Upland adopted master infrastructure plans. The development of residential uses will be implemented through the approval of tentative and final tract maps and development permits for each Planning Area as developed. Appropriate levels of infrastructure and community facilities shall be subject to the review and approval of the City of Upland Engineer and shall be installed and available to serve each subsequent phase of residential development as it occurs.

3.2.8 Easements

Several easements exist within the Specific Plan area of the Master Plan. The San Antonio Channel, an easement in favor of the U.S. Army Corps of Engineers, a designated drainage channel, extends in a north/south direction below the surface across the Specific Plan area within the proposed commercial area. This channel will remain in place. Construction of buildings will not be permitted above the channel but parking areas will be permitted.

A twenty-foot wide easement in favor of Mountain View Land Company, Incorporated exists near the county line between San Bernardino and Los Angeles Counties. This easement contains a conveyor belt carrying aggregate to the quarry located south of the Specific Plan area. As part of the project, this conveyor belt system will be undergrounded and encased in a 6-foot by 6-foot concrete culvert similar to the culvert encasing a conveyor belt system that currently exists beneath the SR-210. Buildings will not be permitted to be located on top of this easement once the conveyor belt system is undergrounded; however, parking areas will be permitted over this easement.

A 16-foot wide easement, in favor of the Pomona College and Golden State Water Company, extending from the Wilcox well south to Baseline Road, provides access for service vehicles to the Wilcox well and contains utilities serving the well. This easement may be relocated as part of the project and service vehicles will utilize interior project streets to access the well for maintenance purposes. A water main extends northwesterly across the Specific Plan area from the well and across a portion of the future park site to be developed by the City of Upland.

3.2.9 Related Action

The proposed Master Plan will require a Zone Change and an amendment to the City of Upland General Plan to change the existing land use designation from Open Space to Park View Specific Plan allowing neighborhood commercial and medium density residential; a Conditional Use Permit to allow the development of a City Sports Park; and a Zone Change for the City of Claremont from Open Space to Park View Specific Plan.

4.0 ENVIRONMENTAL IMPACT EVALUATION

This section contains an evaluation of environmental impacts that could occur with approval of the proposed Baseline Road Master Plan. Environmental impacts are evaluated for the following topics:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards
- Hydrology and Water Quality
- Land Use
- Mineral Resources
- Noise
- Traffic/Circulation
- Public Services
- Public Utilities
- Population and Housing

Format of Environmental Topic Sections

Each topic identified above is addressed in a section of this chapter. Sections are outlined following the consistent format as follows:

- Introductory paragraph describing the focus of the analysis and summary of background material used to prepare the analysis;
- Description of the environmental setting as it relates to the specific environmental topic;
- Identification of the thresholds of significance;
- Evaluation of project-specific impacts for the Park View Specific Plan portion of the Master Plan to allow the commercial and residential development; evaluation of impacts at a program-level to allow future development of the City Sports Park portion; and a determination of significance based on documented threshold levels;
- Identification of mitigation measures; and
- Determination of the level of significance after mitigation measures are implemented.

The **Introduction** describes the purpose of the section, identifies background reports used to prepare the section, and summarizes the main focus of the analysis.

The **Environmental Setting** describes existing conditions at the local level as well as the regulatory environment where applicable policies, plans and regulations apply to the proposed project. As set forth in CEQA Guidelines Section 15125 (a)(d)(e), the EIR includes a description

of the physical environmental conditions in the vicinity of the project as they exist at the time the Notice of Preparation (NOP) was published, from both a local and regional perspective. The EIR discusses any inconsistencies between the proposed project and applicable local and regional plans, and examines the existing physical conditions as well as potential future conditions discussed in these plans.

Thresholds of Significance are used to determine the level of significance of impacts by environmental topic are identified as required by CEQA Guidelines. Thresholds are identifiable quantitative, qualitative, or performance levels of a particular environmental effect.

The **Impact Analysis** focuses on changes in the existing physical environment that would be caused by the proposed project identifying direct and indirect adverse effects of development of the proposed mixed use development and development potential associated with the Master Plan.

The **Mitigation Measures** to reduce any significant impacts are identified.

Finally, a determination of the **Level of Significance** following implementation of the recommended mitigation measures is provided.

4.1 AESTHETICS & VISUAL QUALITY

4.1.1 Introduction

The immediate vicinity surrounding the project site is developed with commercial mining operations, State Route 210 (SR-210), and residential development. Existing visual resources include views of San Gabriel Mountains to the north from Baseline Road. The visual character of the existing reclaimed mining pit and groundwater recharge basin would change with development of the Baseline Road Master Plan. This section of the EIR describes existing visual and aesthetic resources for the project site and evaluates potential impacts of the project with respect to the proposed Master Plan's changes in current land uses.

4.1.2 Environmental Setting

The Baseline Road Master Plan incorporates the proposed Park View Specific Plan to allow for approximately 32 acres of residential, and approximately 10 acres of commercial development. The City Sports Park is also incorporated in the Master Plan to allow recreational development on approximately 57 acres of property. The Baseline Road Master Plan incorporates approximately 99 acres located on the north side of Baseline Road between Benson Avenue on the east and SR-210 on the west. Approximately 96.6 acres of this land are located in the City of Upland, San Bernardino County and approximately 2.4 acres are located in the City of Claremont, Los Angeles County.

The proposed Master Plan includes the development of land designated as open space and that is currently vacant or used for flood control, water spreading, a composting/demolition/recycling operation, and aggregate extraction into residential, commercial, recreational, flood control, groundwater recharge, and water development uses. This would result in the creation of a built environment that currently does not exist at the site. A portion of the City Sports Park portion would continue to double as Open Space for flood control as required by the County of San Bernardino Flood Control District. The project area can be characterized as undeveloped land that is highly disturbed by the construction of SR-210, previous sand and gravel operations, mostly below grade, and a composting/demolition and recycling operation. Figure 4.1-1 shows an aerial of the existing and proposed land uses on and around the project site.

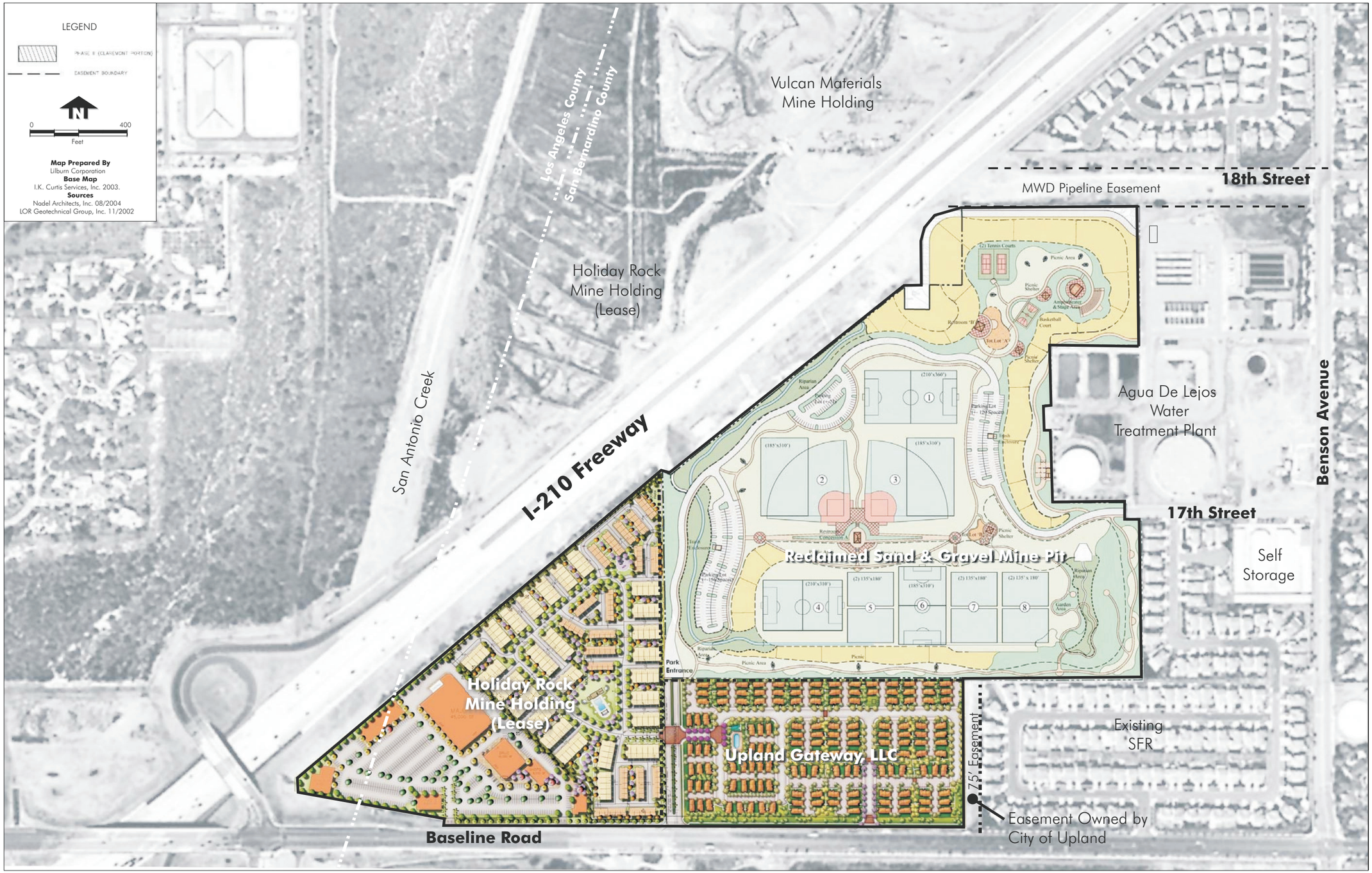
Area-Wide Visual Character

North – Running in a northeast to southwest direction, SR-210 forms most of the northern boundary of the site. Near the northeast corner of the site, a single-family residential community (Lemon Heights) occurs on the northwest corner of 18th Street and Benson Avenue.

South – Located south of the proposed Master Plan area is the Holliday Rock Foothill Quarry mine site and Cable Airport, a private general aviation (GA) airport.

East – A 75-foot wide strip of land owned by the City of Upland[1], east of which a single-family residential development (Mountain Shadows), with a density of approximately six dwelling units per acre is located.

[1] This easement (approximately 75 feet by 595 feet wide) may possibly be used as a landscape buffer and/or pedestrian access to the City Sports Park in the future.



Existing and Proposed Land Use

Baseline Road Master Plan
Upland, California

Figure 4.1-1

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CORPORATION

Further north at the southwest corner of 17th Street and Benson Avenue is a self-storage facility, and at the southwest corner of 18th Street and Benson Avenue is the Agua De Lejos Water Treatment Plant.

West – Immediately west of the proposed Master Plan area is SR-210 and on/off ramps. West of the freeway are existing mine holdings and vacant land.

Existing Views of the Site from the Surrounding Area

Currently, the Park View Specific Plan portion contains vacant land and an existing composting/demolition and recycling operation. The City Sports Park portion is an inactive mining pit that is used for flood control. The surrounding area includes SR-210, single-family residences, vacant land, and an existing mining operation. The project area is zoned Open Space. A General Plan Amendment for the City of Upland will be required in order to change the Park View Specific Plan portion's current designation of Open Space to Park View Specific Plan allowing neighborhood commercial and medium density residential development. The Park View Specific Plan portion of the property in the City of Claremont is zoned as Open Space and would require a Zone Change. Development of the City Sports Park portion, which is also designated Open Space, will require a Conditional Use Permit.

Park View Specific Plan portion

From the North – The project site is visible from SR-210. The project site has been disturbed, and is currently vacant except for the existing composting/demolition and recycling operation. Some homes within the Lemon Heights single-family residential community may have a view of the Park View Specific Plan portion from across the existing mine pit. However, the homes are in excess of approximately 2,000 feet from the Park View Specific Plan portion.

From the East – The westernmost boundary of the Mountain Shadows single-family residential development borders the eastern edge of a 75-foot wide strip easement owned by the City of Upland that lies adjacent to the Park View Specific Plan portion. These homes view the vacant, but disturbed project site and overlook the existing composting/demolition and recycling operation.

From the South – The project site is visible from SR-210 as well as Baseline Road. The project site is currently a disturbed, but mostly vacant area except for the existing composting/demolition and recycling facility. Current uses do not interfere with views of the surrounding mountains.

From the West – The western-most boundary of the entire project site is located where SR-210 meets Baseline Road. The freeway parallels the northwestern boundary of the project site. Further to the west, beyond the freeway, is vacant land within the City of Claremont and residential properties. Views of the project site are largely obstructed by the Baseline Road Freeway Overpass, on- and off-ramps. SR-210 south of Baseline Road is below grade and drivers are not able to see the project site until they reach the apex of the Baseline Road

interchange. At this point the freeway meanders to the north, rises to grade, and the project site is visible from the freeway.

City Sports Park portion

From the North and West – The City Sports Park portion of the project site is below grade and there are no existing land uses close enough to the site's border to be able to see into the reclaimed inactive mine pit. Therefore, the City Sports Park portion is not visible from the north or west.

From the East – Single-family residences and a water treatment plant lie to the east of the City Sports Park portion. Although the site is below grade, residents and water treatment plant employees can look into the reclaimed inactive mine pit.

From the South – Single-family homes and vacant land lie to the south of the City Sports Park portion. Although the site is below grade, residents can look into the inactive mine pit.

Existing Views From the Site

Park View Specific Plan portion

To the North – SR-210 runs along the northwestern boundary line of the project site. Views from the project site are of the San Gabriel Mountain foothills and peaks, and the proposed City Sports Park.

To the East – Residences lie to the east of the Park View Specific Plan portion.

To the South – There is vacant land and an existing quarry operation to the south across Baseline Road. Patrons and residents in eastern portion of the Park View Specific Plan would have a view of the vacant land from some areas. Park View Specific Plan residents located on the western side of the residential portion would have a view of the back side of the commercial portion of the specific plan area.

To the West – The westernmost boundary of the entire project site is at SR-210/Baseline Road intersection. The freeway parallels the length of the project site. Further to the west, beyond the freeway, is vacant land within the City of Claremont. The freeway would be visible from the project site.

City Sports Park portion

To the North – The single-family residential development (Lemon Heights) is not close enough to be visible from the City Sports Park portion.

To the East – Residences to the east and a water treatment plant would be visible from the City Sports Park portion.

To the South – The vacant portion of the project site to the south is not visible from the City Sports Park portion.

To the West – SR-210 parallels the northwestern boundary of the project site and would be visible to the west.

Project Related Views of the Site from the Surrounding Area

Park View Specific Plan portion

From the North – The residences to the north are located at a distance of approximately 2,200 feet from the northern boundary of the Park View Specific Plan portion. The proposed residential development within the Specific Plan would be visible from the north. However given the distance between the proposed residences and the existing residences to the north, these views would be indistinct.

From the East – The easternmost proposed residential homes within Park View Specific Plan portion of the site would be visible from the east. The proposed commercial development would approximately be 1,400 feet to the west of the existing residences to the east and would not constitute as primary views for the current residents. Assuming that the 15.5 feet above ground level viewpoint is consistent with each home, the view of the on-site commercial development would vary depending on the homes' elevations.

From the South – Views of the mountains to the north from Baseline Road would be affected by development of the site. Replacing open space with residential development, commercial buildings and parking areas would change the character of the area and could block some views of the foothills and mountains currently seen by travelers along Baseline Road. Holliday Rock mining operations exist south of Baseline Road. The proposed green belt along the proposed residences and the commercial development to the south would be visible from Baseline Road.

From the West – Views from the west will be primarily obstructed by the Baseline Road Freeway Overpass, on-ramps and off-ramps. The closest residence from the western boundary of the project site is located at a distance of approximately 1,200 feet.

City Sports Park portion

From the North – SR-210 parallels the northwestern edge of the proposed future City Sports Park for approximately 1/3-mile. However, due to the fact that the City Sports Park will be below grade, the Park would not be easily visible from the freeway. Lemon Heights residential development is located further north of the park's northern boundary and will not have any significant views of the park.

From the East – Single-family residences and a water treatment plant lie to the east of the City Sports Park portion. The water treatment plant would continue to have a view of the inactive mining pit. In the future, the plant would overlook the City Sports Park, which is not expected to have a significant negative visual impact. Homes along the eastern boundary of the future City

Sports Park would also have views of the park. The City Sports Park may include sports fields that could use lighting for night games. There is a potential visual impact from lighting.

From the South – The southern boundary of the City Sports Park portion is adjacent to the northern boundary of the Park View Specific Plan portion. Future development of the City Sports Park would not have a significant negative visual impact. However, the City Sports Park may include sports fields that could use lighting for night games. Future residential development to the south may be impacted from lighting of the sports fields.

From the West – The western boundary of the City Sports Park portion is adjacent to the northeastern portion of the Park View Specific Plan. Similar to the view from the south, future residential development proposed west of the City Sports Park portion would not be visually impacted from future development of the City Sports Park. However, the City Sports Park could include sports fields that could use lighting for night games. Future residential development to the west may be impacted from lighting of the sports fields.

Park View Specific Plan Design Considerations

In order to reduce potential visual impacts to the surrounding area, specific design elements will be implemented within the Baseline Road Master Plan project area. The major retail store building (approximately 45,000 square feet) is proposed to be moderately sized as compared to smaller (average size of 10,260 square feet) adjacent commercial structures, and will include design elements such as parapets, textured building materials, and towers to soften the typical rectangular-shaped supermarket structure. Similarly, commercial structures within the Park View Specific Plan portion will include elements typically occurring in residential development to create a more compatible neighborhood commercial area which would assist in continuing the design aspects (stucco, wood trim, arbors, natural paint palette) of proposed residential development to the east.

The architectural theme of the commercial center will be an adaptation of the Craftsman style. This style is characteristic of historic Upland and the surrounding area. This style is also compatible with the proposed architectural styles selected for the residential development. This will strengthen the visual connection between the two land uses within the Park View Specific Plan area.

The majority of the residential units within the Park View Specific Plan will be designed with garages oriented to the rear of the lots onto private drives, alleys or motor courts. These home types eliminate the negative visual impact of garages along the street and further reinforce a pedestrian environment and create an attractive traditional streetscene characterized by front doors and porches rather than garage doors and driveways.

The Park View Specific Plan proposes a variety of architectural expressions based on styles found in historical neighborhoods within the City of Upland and the surrounding area. The architectural styles selected for the residential community include Craftsman, Spanish Colonial, Traditional, Tuscany, Monterey, and Ranch. These styles are characteristic of older homes within

the City of Upland and reflective of the agricultural history of Southern California. These styles have been successfully interpreted into modern production home construction.

A community monument feature will be placed at the primary entry at Park View Promenade and Baseline Road which will also have decorative pavement. The monument will consist of a sign aesthetically designed with blended construction materials enhanced with specialty lighting and formal landscaping. The community monument will be maintained by the homeowner association (HOA) and will be located outside of the public right of way. All monuments, signage and walls will conform to setback and height requirements of the City of Upland vehicular sight line and signage standards and will be subject to Planning Commission's review and approval.

Landscaping will occur along the perimeter of the project and would soften the view of the Park View Specific Plan portion for travelers along Baseline Road. Vegetation and landscaping will also occur within the proposed residential development and would screen views of commercial development on the eastern boundary of the Park View Specific Plan portion. Once trees become established, proposed residential development to the east would have limited views of commercial structures.

4.1.3 Impacts and Mitigation Measures

Assessment of existing conditions combined with graphics identifying anticipated physical changes resulting from project development, provides the necessary framework by which to evaluate visual impacts in the context of the adopted significance criteria.

Thresholds of Significance

An impact to aesthetics and visual quality is considered significant if the project would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the project site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Impacts Determined to Have No Impact

Would the project have a substantial adverse effect on a scenic vista?

City Sports Park

The City Sports Park portion is below grade and does not obstruct any views. Therefore, it would have no impact on any scenic vistas.

Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Park View Specific Plan Portion

City of Upland

The City of Upland does not contain any State or County Highways that are designated as scenic. The City has designated routes that are of scenic or historic interest, including Euclid Avenue, Mountain Avenue, Benson Avenue, and Foothill Boulevard. The nearest of these scenic routes is Benson Avenue, located approximately one-half mile east of the project site. Residences and the Agua de Lejos Water Treatment Plant lay between the project site and Benson Avenue. Therefore, the development of the Park View Specific Plan portion would not have an impact on scenic resources along a scenic route.

City of Claremont

The City of Claremont does not contain any official State or County designated Scenic Highways. However, the City's General Plan has focused particular attention on the landscape of the City's north/south streets because of their dramatic view of the mountains. There are no north/south Claremont streets within the proposed project boundary. Due to the function as regional connectors traversing the City from east to west, Foothill Boulevard, Baseline Road, and Arrow Highway have been identified as scenic routes through a visual enhancement program coordinated with the efforts of neighboring communities. The stretch of Baseline Road associated with the project and within the city limits of Claremont is approximately 400 feet in length. Travelers along this portion of the road would only be affected briefly as they pass by the westernmost 1/10-mile of the project site. The development of the project would not impact scenic resources along any official or unofficial scenic routes.

City Sports Park portion

The City of Upland does not contain any State or County Highways that are designated as scenic. The City has designated routes that are of scenic or historic interest, including Euclid Avenue, Mountain Avenue, Benson Avenue, and Foothill Boulevard. The nearest of these scenic routes is Benson Avenue, located approximately ¼ to ½-mile east of the project site. Residences and the Agua de Lejos Water Treatment Plant lay between the project site and Benson Avenue. In addition, the City Sports Park portion of the project site will be below grade during development and operation. Therefore, the development of the City Sports Park portion would not have an impact on scenic resources along a City of Claremont scenic route.

Would the project substantially degrade the existing visual character or quality of the project site and its surroundings?

City Sports Park portion

SR-210 parallels the northwestern edge of the proposed City Sports Park for approximately 1/3-mile. Views from the Lemon Heights single-family residences could include indistinct views of the proposed residences within the Park View Specific Plan portion of the project site. The Mountain Shadow single-family residences and a water treatment plant lie to the east and south. Existing and proposed homes along the edge of the City Sports Park portion would view the City Sports Park. Similarly, proposed residential development adjacent to the south and west (proposed Park View Specific Plan) would have a view of the City Sports Park. Currently, the City Sports Park portion is an inactive, reclaimed mine pit, and is presently used for groundwater recharge and flood control. The development of a City Sports Park would not substantially degrade the existing visual character or quality of the project site or its surroundings. The proposed project would include a 'Welcome to Upland" sign reinforcing a harmonious visual characteristic. The proposed signage would be subject to Planning Commission's review and approval.

Impacts Determined to be Less Than Significant

Would the project have a substantial adverse effect on a scenic vista?

Park View Specific Plan portion

The development of the proposed project will create mostly residential development with commercial development occurring on approximately 24 percent of the undeveloped site. The size and character of the commercial development is proposed to be moderate with the largest tenant occupying a 45,000 square-foot building, and the smallest tenant occupying 6,000 square feet, located near the southwest corner of the site just south and east of the SR-210 freeway. The maximum height of the proposed residential and commercial development will be 45 feet or less and would not significantly obstruct views of the foothills and mountains for travelers along Baseline Road and SR-210. In addition sporadic views of the mountains would still be visible. Therefore, development of the Park View Specific Plan portion would not have a substantial adverse effect on a scenic vista.

Baseline Road

The project site is visible from Baseline Road. The project site is currently a disturbed, but mostly vacant area aside from the existing composting/demolition and recycling operation. Current uses do not significantly interfere with views of the surrounding mountains. Replacing open space with residential development, commercial buildings and parking areas would block some views of the foothills and mountains, but not more than what is currently experienced from residential development that occurs east of the project site. No significant impact would occur.

A Master Sign Program for the City of Upland portion of the Park View Specific Plan will be submitted by the developer(s) of the residential area and approved by the City of Upland to address residential project entries, residential neighborhood identification signs, entry to the City Sports Park, and way finding signs within the Specific Plan. No project signs shall be permitted in the public right-of-way. All other signs will be subject to the approval of a sign permit pursuant to the City's Development Code.

A Master Sign Program will be submitted by the developer of the commercial center in the City of Upland's portion of the Park View Specific Plan and approved by the City of Upland. These signs will be designed to match the buildings' exterior elements within the Park View Specific Plan portion; and would be highly visible for travelers on Baseline Road. Due to the large scale of the mountains in the background, there are numerous areas along Baseline Road that would continue to have a view of the mountains and foothills beyond the parking lots and proposed residences.

The Park View Specific Plan portion extends for approximately 3,500 feet along Baseline Road. Travelers on Baseline Road would view the Park View Specific Plan portion for a short period (less than two minutes at 40 mph). Therefore, given the relatively short amount of time travelers would be exposed to the development, the visual intrusion of the project into the scenic view would be minimal and less than significant impacts are anticipated.

SR-210

The northwestern boundary of the entire project site abuts the SR-210 and Baseline Road on and off ramps. Further to the west, beyond the freeway, is vacant land within the City of Claremont. The project site is currently a disturbed, but mostly vacant area aside from the existing composting/demolition and recycling operation. Current uses do not interfere with views of the surrounding mountains or open space.

SR-210 south of Baseline Road is below grade and drivers would not be able to see the project site until they reach the Baseline Road interchange. At this point, the freeway meanders to the north, rises to grade, and the project site is visible from the freeway. The freeway parallels the northwest edge of the Park View Specific Plan portion for approximately ½-mile. Typical speeds for travelers on the road would be in excess of 65 miles per hour and therefore would be driving along the Park View Specific Plan portion of the project site for less than 30 seconds. Therefore, the views would be only for a short duration.

One freeway sign may be permitted adjacent to the SR-210 right-of-way within Planning Area 4 with a maximum height of forty (40) feet above the adjacent grade of the SR-210 right-of-way. However, the proposed sign would not block views of the mountains or foothills. Therefore, impacts from the development of the Park View Specific Plan portion for travelers on SR-210 would be less than significant.

Would the project substantially degrade the existing visual character or quality of the project site and its surroundings?

Park View Specific Plan portion

The development of the proposed project will create residential and commercial development in an area that is currently vacant and zoned for Open Space. The surrounding areas are residential in character. The project site can currently be characterized as undeveloped land that is highly disturbed by the construction of SR-210, previous sand and gravel operations, and a composting/demolition and recycling operation. Although the proposed project would change the visual character of the area, development of the project site would not substantially degrade the visual character or quality of the site and its surrounding area.

The architectural theme of the commercial center is an adaptation of the Craftsman style. This style is characteristic of historic Upland and the surrounding area. This style is also compatible with the proposed architectural styles for the residential neighborhood. This will strengthen the visual connection between the two land uses within the Park View Specific Plan site.

The neighborhood design concept for the Park View Specific Plan proposes a variety of interior open space park areas distributed in the residential planning areas. The circulation system includes public and private streets, including a public park access road (Park View Promenade) that will be designed as a boulevard cross section with a landscaped center median. Internal private loop streets or cul-de-sacs will serve each residential planning area within the Park View Specific Plan. Although homes are oriented toward the public park access road, no residential driveways are proposed along this road. This allows for pedestrian friendly front doors and porches along the park access road but restricts vehicular interaction, to allow a safer entry to the future City Sports Park.

Proposed residences are to be oriented around a variety of landscaped areas. The site plan proposes a variety of detached and attached home types which increase in density from lower density detached homes on the eastern portion of the site, to higher density attached homes on the western portion of the site.

The majority of the residential units within the Park View Specific Plan will be designed with garages oriented to the rear of the lots onto private drives, alleys or motor courts. These home types eliminate the negative visual impact of garages along the street and further create a traditional street scene characterized by front doors and porches rather than garage doors and driveways.

Proposed buildings in the commercial center will be designed to be compatible with the residential architecture in the area. The design theme for the commercial center will establish a pedestrian friendly environment and building massing will reflect a scale reflective of the adjacent residential community.

A landscaping plan will be submitted to the City of Upland for approval prior to any development activity. The majority of the landscaping would likely be done along the southern project boundary to provide shade for future residences and to reduce impacts on views for travelers along Baseline Road. The streetscape along Baseline Road would include street trees, project walls consistent with the Master Wall and Fence Plan and Wall and Fence Details, a

5-foot wide sidewalk separated from the roadway by a 7-foot wide landscaped parkway to be constructed within the public right-of-way, and a Home Owner Association-maintained 24-foot wide landscaped buffer area adjacent to the public right-of-way. Plantings within the right-of-way of Baseline Road will be designed to meet City of Upland standards.

The park View Promenade that will be the Primary Entry Roadway will include formal street tree plantings, project walls consistent with the Master Wall and Fence Plan and Wall and Fence Details, a 5-foot wide sidewalk, a 5-foot wide landscaped parkway, and an 8-foot wide raised landscaped median-island. All plantings and irrigation within the right-of-way areas will be designed to meet the City of Upland requirements. The proposed freeway sound wall will match style, height, color & materials of existing sound walls in Upland.

To minimize visual impacts of the Specific Plan's commercial development to the proposed Master Plan residential development to the east, trees would be planted along the southeastern boundary of the proposed commercial development. The tree species will be approved by the City of Upland. The tree planting will be designed to be spaced so the branches "knit together," creating a solid green screen. Once trees are fully-grown, the homes to the east would have a limited view of commercial development and SR-210.

All signage for the Park View Specific Plan will be approved by the City of Upland's Planning Commission. The signs located at the entrance to the commercial center on Baseline Road will not exceed 12 feet in height. The Pylon sign on SR-210 will not exceed 40 feet in height. Less than significant impacts would occur.

Landscaping and vegetative screening, in addition to strategically placed retaining walls, would minimize any visual impacts to a less than significant level.

Impacts Determined to be Potentially Significant

Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Park View Specific Plan

Impact AVQ-1

The development of the proposed project would establish residential structures and retail buildings and parking in a currently vacant area. This would introduce new sources of glare and nighttime light to the area. This is a potentially significant impact.

The proposed project will include light fixtures scattered throughout the commercial parking areas and near buildings. Since the businesses would be open past sundown, the nighttime lights would create an impact to the proposed residences. The existing residences would be buffered from the proposed commercial development by the City Sports Park and the proposed residential development within the Park View Specific Plan. The project site is currently vacant and dark at night. In addition to the parking area lights, stores and signs would also create new sources of

light. The tenant names on the monument signs and pylon sign would be lit from the inside for nighttime visibility. These signs, along with the parking lot light poles, would be lit from sundown to sunrise. The proposed project also includes lit signage on the façades of the Park View Specific Plan portion commercial buildings.

Proposed homes to the east of the Park View Specific Plan portion, would potentially be exposed to security lighting along the backside of the Specific Plan's commercial development. However, these lights would be approximately 140 feet away from the homes, and would be installed and shielded to shine towards the ground, not perpendicular to the homes. There would also be a vegetative screen along the Park View Specific Plan property line to further diminish any potential affects from lights.

All outdoor lighting, including spotlights, floodlights, electrical reflectors and other means of illumination for signs, structures, landscaping, parking, loading, unloading, and similar areas will be focused, directed, and arranged to prevent glare and illumination on streets or adjoining property. All exterior lights will be shielded and focused to minimize spill light into the night sky or adjacent properties per the City of Upland regulations for light pollution. Neon and similar types of lighting are prohibited in all areas of the Park View Specific Plan. No freestanding residential light fixtures will exceed twenty-five feet in height; parking lot light standards will not exceed thirty feet. However, playing field light fixtures may exceed these standards.

Alley lighting fixtures for the residential development shall be on sensors for automatic nighttime lighting. Style and specifications for alley lights shall be subject to the City of Upland's approval as part of the City's Development Review. Lighting within parks, paseos, tot lots and other recreational areas will also be subject to the City of Upland approval as part of the City's Development Review of these facilities.

Daytime glare would be generated by the introduction of residential structures, commercial buildings, parking areas, vehicles, and windows at the currently vacant site. However, the project site is relatively remote, with the existing Mountain Shadows residential development to the east the only potentially affected area. However, these homes would not be significantly impacted, as proposed residential development would separate existing houses from proposed commercial development, and consequently any associated glare. Therefore, glare from the Specific Plan's commercial development would not create a significant impact to future residents.

Although impacts are less than significant, the following mitigation measure(s) are recommended in order to minimize potential impacts from nighttime light:

Mitigation Measure AVQ-1

Prior to issuance of Building Permits, the Applicant shall submit a final lighting plan to the City of Upland that complies with all applicable requirements and policies of the City of Upland and which shows the exact locations of light poles and the proposed orientation of the fixtures demonstrating that the light and glare is directed away from the homes to the north and east.

All streets within Park View will have uniform lighting standards with respect to style, materials, and colors in order to ensure consistent design. Each residential Planning Area may develop its own lighting standards, provided that the selected lighting fixture style is used consistently throughout the residential development and is approved by the Southern California Edison and the City of Upland. Lighting fixtures will be integrated into the visual environment and the appropriate architectural theme.

All lighting fixtures shall comply with the regulations and provisions such as,

- *The level of on-site lighting and lighting fixtures will comply with all applicable requirements and policies of the City of Upland. Energy conservation, safety and security measures should be emphasized when designating any lighting system.*
- *All outdoor lighting, including spotlights, floodlights, electrical reflectors and other means of illumination for signs, structures, landscaping, parking, loading, unloading, and similar areas will be focused, directed, and arranged to prevent glare and illumination on streets or adjoining property.*
- *All exterior lights will be shielded and focused to minimize spill light into the night sky or adjacent properties per the City of Upland regulations for light pollution.*
- *Neon and similar types of lighting are prohibited in all areas of Park View Specific Plan.*
- *No freestanding residential light fixtures will exceed twenty-five feet in height; parking lot light standards will not exceed thirty feet. In no instance will over wash occur beyond property lines. Playing field light fixtures may exceed these standards.*
- *The lighting concept for the entry monumentation features will illuminate the sign graphics and to gently wash the walls and pilasters with light. Trees and other landscape features will be illuminated by ambient light reflecting off of entrance walls.*
- *All electrical meter pedestals and light switch/control equipment shall be located with minimum public visibility or shall be screened with appropriate plant materials.*

Level of Significance After Mitigation

With appropriate lighting and shielding, the adverse effects of exposure to light and glare from the Park View Specific Plan portion can be reduced and/or eliminated. Therefore, the impact would be less than significant.

<u>City Sports Park portion</u>

Impact AVQ-2

The development of the City Sports Park would establish multiple recreational playing fields in a currently vacant, reclaimed quarry. In order to use the fields at night, lighting would be constructed throughout the City Sports Park. This would introduce new sources of nighttime light to the area. This is a potentially significant impact.

The Lemon Heights homes located to the north, Mountain Shadows homes located to the south and east, and Park View Specific Plan residential development proposed to be located west and south of the proposed City Sports Park would potentially be exposed to lighting from the playing fields. However, these lights will be below grade, and would be situated to shine towards the ground, not towards the homes. The light from the fields would not affect SR-210, which runs parallel to the northwestern edge of the City Sports Park portion, due to light shielding.

A lighting plan that will meet the safety standards for the City Sports Park and minimize the effects of nighttime lighting on surrounding properties and viewsheds to the extent feasible would be prepared prior to development activities.

Mitigation Measure AVQ-2

Prior to issuance of Permits for the City Sports Park, the City of Upland shall prepare a final lighting plan showing the exact locations of light poles and the proposed orientation of the fixtures and directing light and glare away from the homes along the northern, eastern, and southern boundaries of the City Sports Park portion.

Level of Significance After Mitigation

With appropriate lighting and shielding, the adverse effects of exposure to light and glare from the City Sports Park can be reduced and/or eliminated. Therefore, the impact would be less than significant.

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4.2 AIR QUALITY

4.2.1 Introduction

This section of the EIR provides background air quality information including a regulatory overview, a description of the climate, and existing or ambient air quality in the Upland area and the northeastern portion of the South Coast Air Basin (SCAB). This background information is used to assess the potential air quality impacts from the Baseline Road Master Plan. The potential air quality impacts associated with the project, and recommended mitigation measures for impacts determined to be potentially significant are assessed. Information obtained from the report, *Air Quality Assessment for Baseline Road Master Plan, City of Upland,* prepared by Mestre Greve Associates on January 12, 2007, was used in the formation of this section. The Air Quality Assessment is included in Appendix B. A greenhouse gas assessment was prepared using the URBEMIS 2007 Air Quality Model in August 2007. The data tables are include as Appendix B-2.

4.2.2 Environmental Setting

Regional Setting

The City of Upland is located in the northeast portion of the SCAB, which includes Orange County and portions of Los Angeles, Riverside and San Bernardino counties. The air basin encompasses an area of approximately 6,600 square miles bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east. These mountains, which reach heights of up to 11,000 feet above mean sea level act to prevent airflow and thus the transport of air pollutants out of the basin.

The climate in and around the project area, as with all of southern California, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean which maintains moderate temperatures and comfortable humidities, and limits precipitation to a few storms during the winter "wet" season. Temperatures are normally mild, excepting the summer months, which commonly bring substantially higher temperatures. During summer months in all portions of the basin, temperatures well above 100 degrees Fahrenheit (°F) have been regularly recorded. The annual average temperature in the basin is approximately 62°F.

Winds in the project area are typically driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime on-shore sea breezes. At night the wind generally slows and reverses direction traveling towards the sea. Wind direction can be altered by local canyons, with wind tending to flow parallel to the canyons. During the transition period from one wind pattern to another, the dominant wind direction rotates to the south and causes a minor wind direction maximum from the south. The frequency of calm winds (less than two miles per hour) occurs less than ten percent of the time. Therefore, there is little stagnation in the project vicinity, especially during busy daytime traffic hours.

The vertical dispersion of air pollutants in the air basin is limited by the presence of a persistent temperature inversion. Generally, the greater the distance from the ground, the colder the air usually becomes. During a temperature inversion, there is a temperature increase with altitude. So an inversion layer is a layer of warm air over cooler air. The result is that the inversion layer blocks the cooler air from rising and prevents pollutants from being dispersed.

Southern California frequently has temperature inversions that inhibit the dispersion of pollutants. Inversions may be either ground-based or elevated. Ground-based inversions, sometimes referred to as radiation inversions, are most severe during clear, cold, early winter mornings. Under conditions of a ground-based inversion, very little mixing or turbulence occurs, and high concentrations of primary pollutants may occur, particularly near major roadways or industrial areas. Elevated inversions can be generated by a variety of meteorological phenomena. Elevated inversions (inversions that occur at higher altitudes) act as a lid or upper boundary and restrict vertical mixing. Below the elevated inversion, dispersion is not restricted. Mixing heights for elevated inversions are lower in the summer and more persistent. This low summer inversion puts a lid over the air basin and is responsible for the high levels of ozone observed during summer months in the air basin. These types of inversions are common in the local San Bernardino and San Gabriel mountain communities during summer months.

Air Quality Management

The proposed project is located in the South Coast Air Basin (SCAB). The SCAB is comprised of parts of Los Angeles, Riverside and San Bernardino counties and all of Orange County. The basin is bounded on the west by the Pacific Ocean and surrounded on the other sides by mountains. To the north lie the San Gabriel Mountains, to the north and east the San Bernardino Mountains, to the southeast the San Jacinto Mountains and to the south the Santa Ana Mountains. The basin forms a low plain and the mountains channel and confines air flow which trap air pollutants.

The primary agencies responsible for regulations to improve air quality in the SCAB are the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The Southern California Association of Governments (SCAG) is an important partner to the SCAQMD, as it is the designated metropolitan planning authority for the area and produces estimates of anticipated future growth and vehicular travel in the basin which are used for air quality planning. The SCAQMD sets and enforces regulations for non-vehicular sources of air pollution in the basin and works with SCAG to develop and implement Transportation Control Measures (TCM). TCM measures are intended to reduce and improve vehicular travel and associated pollutant emissions.

CARB was established in 1967 by the California Legislature to attain and maintain healthy air quality, conduct research into the causes and solutions to air pollution, and systematically attack the serious problem caused by motor vehicles, which are the major causes of air pollution in the State. CARB sets and enforces emission standards for motor vehicles, fuels, and consumer products. It sets the health based California Ambient Air Quality Standards (CAAQS) and monitors air quality levels throughout the state. The board identifies and sets control measures for toxic air contaminants. The board also performs air quality related research, provides

compliance assistance for businesses, and produces education and outreach programs and materials. CARB provides assistance for local air quality districts, such as SCAQMD.

The U.S. Environmental Protection Agency (U.S. EPA) is the primary federal agency for regulating air quality. The EPA implements the provisions of the Federal Clean Air Act (FCAA). This Act establishes national ambient air quality standards (NAAQS) that are applicable nationwide. The EPA designates areas with pollutant concentrations that do not meet the NAAQS as non-attainment areas for each criteria pollutant. States are required by the FCAA to prepare State Implementation Plans (SIP) for designated non-attainment areas. The SIP is required to demonstrate how the areas will attain the NAAQS by the prescribed deadlines and what measures will be required to attain the standards. The EPA also oversees implementation of the prescribed measures. Areas that achieve the NAAQS after a non-attainment designation are redesignated as maintenance areas and must have approved Maintenance Plans to ensure continued attainment of the NAAQS.

The California Clean Air Act (CCAA) required all air pollution control districts in the state to prepare a plan prior to December 31, 1994 to reduce pollutant concentrations exceeding the CAAQS and ultimately achieve the CAAQS. The districts are required to review and revise these plans every three years. The SCAQMD satisfies this requirement through the publication of an Air Quality Management Plan (AQMP). The AQMP is developed by SCAQMD and SCAG in coordination with local governments and the private sector. The AQMP is incorporated into the SIP by CARB to satisfy the FCAA requirements.

The l997 AQMP is the current federally approved applicable air plan for Ozone. The successor 2003 AQMP was adopted locally on August 1, 2003, by the governing board of the SCAQMD. California Air Resources Board (CARB) adopted the plan as part of the California State Implementation Plan on October 23, 2003. The EPA adopted the mobile source emission budgets from the plan on March 25, 2004. The PM_{10} attainment plan from the 2003 AQMP received final approval on November 14, 2005 with an effective date of December 14, 2005. The EPA has not approved the ozone or CO attainment plans of the 2003 AQMP to date. For federal purposes, the 1997 AQMP with the 1999 amendments is the currently applicable ozone attainment plan. The CO attainment plan in the 1997 AQMP was approved by the EPA but only on an interim basis through 1998. Therefore, the basin does not have a federally approved CO attainment plan.

The overall control strategy for the 2003 AQMP is to meet applicable state and federal requirements and to demonstrate attainment with ambient air quality standards. The 2003 AQMP contains short- and long-term measures. These measures are included in Appendix IV-B of the AQMP.

Short-term measures propose the application of available technologies and management practices between 2005 and the year 2010. The 2003 AQMP includes 24 short-term control measures for stationary and mobile sources that are expected to be implemented within the next several years. The stationary source measures in the 2003 AQMP include measures from the 1997 AQMP and 1999 Amendment to the Ozone SIP with eleven additional new control measures. In addition, a new transportation conformity budget backstop measure is included in the 2003 AQMP.

One long-term measure for stationary sources is included in the 2003 AQMP. This control measure seeks to achieve additional VOC reductions from stationary sources. The long-term measure is made up of Tier I and Tier II components. Tier I long-term measure has an adoption date between 2005 and 2007 and implementation date between 2007 and 2009. Tier II has an adoption date between 2006 and 2008 and implementation date between 2008 and 2010.

To ultimately achieve ambient air quality standards, additional emission reductions will be necessary beyond the implementation of short-term measures. Long-term measures rely on the advancement of technologies and control methods that can reasonably be expected to occur between 2005 and 2010. Additional stationary source control measures are included in Appendix IV-B of the AQMP, Proposed 2003 State and Federal Strategy for the California SIP. Contingency measures are also included in Appendix IV-Section 2 of the 2003 AQMP.

The SCAQMD has published Draft 2007 AQMP in response to the new federal $PM_{2.5}$ and 8-hour ozone standards. The plan focuses on control of Sulfur Oxides (SO_x), directly emitted $PM_{2.5}$, and nitrogen oxides (NO_x) to achieve the $PM_{2.5}$ standard. Achieving the 8-hour ozone standard builds upon the $PM_{2.5}$ attainment strategy with additional VOC reductions. Control measures proposed by the District for sources under their jurisdiction include facility modernization, energy efficiency and conservation, good management practices, market incentives/compliance flexibility, area source programs, emission growth management and mobile source programs. CARB has developed an overview of possible control strategies for sources controlled by CARB (i.e. on-road and off-road motor vehicles and consumer products) and the District has recommended several measures for CARB to consider. The AQMP states that significant additional emission reductions are required from sources under state and federal jurisdictions to meet the standards. A final draft of the AQMP is expected to be published in January 2007 with projected adoption by the SCAQMD board in April 2007 and by CARB in May 2007. The plan is to be submitted to the U.S. EPA by June 2007.

Under the FCAA, the U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for six major pollutants; ozone (O_3), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide (CO) nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. These six air pollutants are often referred to as the criteria pollutants. The NAAQS are two tiered: primary, to protect public health, and secondary, to prevent degradation to the environment (i.e., impairment of visibility, damage to vegetation and property).

Under the CCAA, CARB has established CAAQS to protect the health and welfare of Californians. State standards have been established for the six criteria pollutants as well as four additional pollutants; visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Table 4.2-1 presents the state and national ambient air quality standards.

Table 4.2-1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1,3]		Federal Standards[2]		
		Concentration	Method	Primary[3,5]	Secondary[3,6]	Method
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	---	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.08 ppm (157 µg/m^3)[8]		
Respirable Particulate Matter (PM_{10})[8]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation*	---	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	A A M[6]	20 µg/m^3		50 µg/m^3		
Fine Particulate Matter ($PM_{2.5}$)[8]	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	A A M[6]	12 µg/m^3	Gravimetric or Beta Attenuation*	15 µg/m^3		
Carbon monoxide (CO)	8 Hour	9.0 ppm (10mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		---	---	---
Nitrogen dioxide (NO_2)	1 Hour	0.25 ppm (470 µg/m^3)	Gas Phase Chemiluminescence		Same as Primary Standard	Gas Phase Chemiluminescence
	A A M[6]	---		0.053 ppm (100 µg/m^3)		
Sulfur Dioxide (SO_2)	A A M[6]	---	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	---	Spectrophotometry (Pararosaniline Method)
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	---	
	3 Hour	---		---	0.5 ppm (1300 µg/m^3)	
	1 Hour	0.25 ppm (655 µg/m^3)		---	--	---
Lead[7]	30 Day Average	1.5 µg/m^3	Atomic Absorption	---	Same as primary Standard	---
	Calendar Quarter	---		1.5 µg/m^3		High Volume Sampler and Atomic Absorption
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility of 10 miles or more due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape		**No Federal Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[7]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: CARB 2007.

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, PM_{10}, $PM_{2.5}$, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded.
2. National standards (other than ozone, $PM_{10,}$ $PM_{2.5}$,, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25˚ C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25˚ C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
5. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
6. Annual Arithmetic Mean
7. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
8. On September 21, 2006 EPA published a final rule revoking the annual 150 µg/m^3 PM_{10} standard and lowering the 24-hour $PM_{2.5}$ standard from 65 µg/m^3. Attainment designations are to be issued in December, 2009 with attainment plans due April, 2010.

Greenhouse Gases and Climate Change

The Earth's climate has always been in the process of changing, due to many different natural factors. These factors have included changes in the Earth's orbit, volcanic eruptions, and varying amounts of energy released from the sun. Differences such as these have caused fluctuations in the temperature of the climate, ranging from ice ages to long periods of warmth. However, since the late 18th century, humans have had an increasing impact of the rate of climate change, starting with the Industrial Revolution.

Human activities have augmented the amount of "greenhouse gases" being released into the atmosphere, specifically the burning of fossil fuels, such as coal and oil, and deforestation. The gases increase the efficiency of the greenhouse effect, which is the process of trapping and recycling energy (in the form of heat) that the Earth emits naturally. This process of increasing greenhouse gases is what is causing the change in the climate, and subsequently, the increase in the temperature. The temperature is rising to levels that it has never been before. According to NOAA and NASA data, the Earth's average surface temperature has increased by about 1.2 to 1.4ºF since 1900. The warmest global average temperatures on record have all occurred within the past 15 years, with the warmest two years being 1998 and 2005.

This process of heating is often referred to as 'global warming', though the National Academy of Sciences prefers the terms 'climate change' as an umbrella phrase that includes global warming as well as the other changes that are taking place, besides the increasing temperatures. Some of these changes include rainfall, wind, and current patterns, as well as snow and ice cover, and sea level.

With the rising amount of greenhouse gases, climate models predict that the Earth's average temperature could raise anywhere from 2.5 to 10.4ºF from 1990 to the end of the 21st century. Though the changes are certainly occurring at an alarming rate, scientists currently have no way of predicting how great the changes or their impact will be.

Climate change documentation uses the units of "million metric tons of carbon dioxide equivalents (MMT CO2EQ)" to describe the magnitude of greenhouse gas (GHG) emissions or reductions. A metric ton of greenhouse gas is approximately 2,205 lbs. Some of the greenhouse gases emitted into the atmosphere are naturally occurring, while others are caused solely by human activities. The principal greenhouse gases that enter the atmosphere because of human activities are:

> **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), agriculture, irrigation, and deforestation, as well as the manufacturing of cement.
>
> **Methane (CH_4)** is emitted through the production and transportation of coal, natural gas, and oil, as well as from livestock. Other agricultural activities influence methane emissions as well as the decay of waste in landfills.

Nitrous oxide (N_2O) is released most often during the burning of fuel at high temperatures. This greenhouse gas is caused mostly by motor vehicles, which also include non-road vehicles, such as those used for agriculture.

Fluorinated Gases are emitted primarily from industrial sources, which often include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Though they are often released in smaller quantities, they are referred to as High Global Warming Potential ("High GWP Gases) because of their power. Fluorinated gases are often used as substitutes for ozone depleting substances.

These different gases have different potentials for trapping heat in the atmosphere, called global warming potential (GWP). For example, 1 pound of methane has 21 times more heat capturing potential than does 1 pound of carbon dioxide. When dealing with an array of emissions, they are converted to carbon dioxide equivalents. The GWPs for common greenhouse gases are shown in Table 4.2-2.

Table 4.2-2
Global Warming Potentials (GWP)

Gas	Global Warming Potential
Carbon Dioxide	1
Methane	21
Nitrous Oxide	310
HFC-23	11,700
HFC-134a	1,300
HFC-152a	140
PFC: Tetrafluoromethane (CF_4)	6,500
PFC: Hexafluoroethane (C_2F_6)	9,200
Sulfur Hexafluoride (SF_6)	23,900

Emission Inventories

To put perspective on the emissions generated by a project and to better understand the sources of greenhouse gases, it is important to look at emission inventories. Emission inventories for the world, the United States and California are presented and compared below. The United Nations has taken a lead in quantifying greenhouse gas emissions and compiling the literature on climate change. The United Nations estimate for CO_2 equivalents for the world and for the top ten countries is presented in Table 4.2-3.

Global CO_2 emissions totaled about 27,941 million metric tons (MMT) in 2004. As inferred from the data, the United States released 7,068 MMT in 2004, which is approximately 25-percent of the earth's emissions. The major developed countries in the world generated the most CO_2 emissions as would be expected.

Table 4.2-3
Top Ten CO2 Producing Nations in 2003
(Emissions in MMT CO_2 Equivalents[1])

Country	Emissions	Percent of Global
1. United States	7067.57	25.3%
2. China	4057.31	14.5%
3. Japan	1355.17	4.9%
4. India	1214.25	4.3%
5. Germany	1015.27	3.6%
6. Canada	758.07	2.7%
7.United Kingdom	665.33	2.4%
8. Brazil	658.98	2.4%
9. Italy	582.52	2.1%
10. France	562.63	2.0%
Total Global	**27,940.70**	**100.0%**

Sources of Greenhouse Gas (GHG) in California
[1]All emissions converted to equivalent of CO_2

Within the United States, California has the second highest level of greenhouse gas production with Texas having the highest. In 2001, over 81-percent of greenhouse gases produced were by the burning of fossil fuels. In relation to other states, California is the second highest producer of CO_2 by fossil fuels.

The California Energy Commission categorizes GHG generation by source into five broad categories. The categories are:

Transportation includes the combustion of gasoline and diesel in automobiles and trucks. Transportation also includes jet fuel consumption.

Agriculture and forestry GHG emissions are composed mostly of nitrous oxide from agricultural soil management, CO_2 from forestry practice changes, methane from enteric fermentation, and methane and nitrous oxide from manure management.

Commercial and residential uses generate GHG emissions primarily from the combustion of natural gas for space and water heating.

Industrial GHG emissions are produced from many industrial activities. Major contributors include oil and natural gas extraction; crude oil refining; food processing; stone, clay, glass, and cement manufacturing; chemical manufacturing; and cement production. Wastewater treatment plants are also a significant contributor in this category.

Electric generation includes both emissions from power plants in California as well as power plants located outside of the state that supply electricity to the state.

Most of California's GHG is emitted by transportation sources. The automobile, trucks, airplanes and other transportation sources generate the greatest amount of GHG in the state. The electric generation sector is the second largest GHG contributor for the state.

While California does have the second highest rate of GHG production, it also has one of the lowest rates of GHG per capita. California had the fourth lowest rate of CO_2 production from fossil fuels in the country in 2001. Wyoming has the highest rate per capita while the District of Columbia has the lowest.

The Global Warming Solutions Act of 2006 (AB 32)

In September 2006, Governor Swarzenegger signed Assembly Bill 32, which was created to address the Global warming situation in California. The Act requires that the GHG emissions in California be reduced to the levels of 1990 by 2020. This is part of a larger plan in which California hopes to reduce its emissions by 80 percent below 1990 levels by 2050. This will be accomplished through a statewide cap on GHG emissions by 2012, which will be regulated by the CARB. With the act in place, CARB is in charge of setting specific standards for different sources of emissions, as well as implementing these standards and monitoring whether they are being met. This includes distributing cost and funding appropriately, ensuring that GHG levels don't increase in specific communities, protecting entities that have already accomplished GHG emission goals, and opening up communication with other states and countries about these goals.

The CARB is responsible to develop regulations and market mechanisms to achieve these goals. At the end of June 2007, CARB released their "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California." At this time the cap and trade system would be aimed at industrial and other "point of emission" sources. No regulations have been passed yet to implement the cap and trade program. At some later time the transportation sector may be included as well as the commercial and residential sectors.

Monitored Air Quality

Air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates for the SCAB have been made for existing emissions ("2003 Air Quality Management Plan", August 1, 2003). The data indicate that mobile sources are the major source of regional emissions. Motor vehicles (i.e., on-road mobile sources) account for approximately 45 percent of volatile organic compounds (VOC), 63 percent of nitrogen oxide (NO_x) emissions, and 76 percent of CO emissions.

Air quality data for this area is collected at the Upland and San Bernardino monitoring station, which is considered representative of the air quality experienced in the vicinity of the project. The air pollutants measured at the Upland station include ozone, CO and NOx. $PM_{2.5}$ and PM_{10} were collected at the San Bernardino station. The air quality monitored data from 2002 to 2005 for all of these pollutants are shown in Table 4.2-4. Table 4.2-5 also presents the federal and state air quality standards for comparison.

The Upland monitoring data presented in Table 4.2-4 show that ozone is the air pollutant of primary concern in the project area. The state 1-hour standard was exceeded 34 days in 2005, 31 days in 2004, 48 days in 2003, and 36 days in 2002. The federal 1-hour standard was exceeded 8 days in 2005, 3 days in 2004, 15 days in 2003, and 5 days in 2002. The federal 8-hour standard was exceeded between 15 and 34 days each year in the past four years. The data shows a slight downward trend in the maximum levels and the number of days exceeding the state and federal ozone standards between 2003 and 2005.

Ozone is a secondary pollutant; it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Particulate matter ($PM_{2.5}$ and PM_{10}) is another air pollutant of primary concern in the area. The state standards for PM_{10} have been exceeded at the San Bernardino monitoring station between 122 and 198 days over the last four years. The federal standard for PM_{10} was not exceeded. The annual average PM_{10} concentrations have exceeded the state standards for the past four years and the federal standard for two of the past four years. The federal standard for $PM_{2.5}$ was exceeded 1 day in 2005 and 2003, 4 days in 2004 and 3 days in 2002. Both the state and federal annual $PM_{2.5}$ standards were exceeded in the last four years. Particulate levels in the area are due to natural sources, grading operations and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles ($PM_{2.5}$ and PM_{10}). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in $PM_{2.5}$ and PM_{10}.

Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths.

CO is another important pollutant that is due mainly to motor vehicles. Currently, CO levels in the project region are in compliance with the state and federal 1-hour and 8-hour standards. High levels of CO commonly occur near major roadways and freeways. CO may potentially be a continual problem in the future for areas next to freeways and other major roadways.

The monitored data shown in Table 4.2-4 show that other than ozone, $PM_{2.5}$ and PM_{10} exceedances as mentioned above, no state or federal standards were exceeded for the remaining criteria pollutants.

Table 4.2-4
Air Quality Levels Measured at Upland/San Bernardino Monitoring Stations

Pollutant	California Standard	National Standard	Year	% Meas.[1]	Max. Level	Days State Standard Exceeded[2]	Days National Standard Exceeded[2]
Ozone	0.09 ppm for 1 hr.	0.12 ppm for 1 hr.	2005	100	0.149	34	8
			2004	100	0.138	31	3
			2003	99	0.155	48	15
			2002	98	0.139	36	5
Ozone	0.070 ppm for 8 hr.	0.08 ppm for 8 hr.	2005	100	0.121	n/a	15
			2004	100	0.104	n/a	18
			2003	99	0.134	n/a	34
			2002	98	0.116	n/a	19
Particulates PM_{10} (24 Hour)	50 µg/m^3 for 24 hr.	150 µg/m^3 for 24 hr.	2003	98	72	20/122	0
			2002	96	118	25/158	0
			2003	94	98	21/129	0
			2002	98	94	33/198	0
Particulates PM_{10} (Annual)	20 µg/m^3 AAM[3]	50 µg/m^3 AAM[3]	2005	98	52	Yes	Yes
			2004	96	50	Yes	No
			2003	94	52	Yes	Yes
			2002	98	50	Yes	No
Particulates $PM_{2.5}$ (24 Hour)	None	65 µg/m^3 for 24 hr.	2005	--	106.2	n/a	1
			2004	--	93.4	n/a	4
			2003	--	73.9	n/a	1
			2002	100	82.1	n/a	3
Particulates $PM_{2.5}$ (Annual)	12 µg/m^3 AAM[3]	15 µg/m^3 AAM[3]	2005	--	17.4	Yes	Yes
			2004	--	21.9	Yes	Yes
			2003	--	22.2	Yes	Yes
			2002	100	25.8	Yes	Yes
CO	20 ppm for 1 hour	35 ppm for 1 hour	2005	97	2.5	0	0
			2004	97	3.3	0	0
			2003	95	3.7	0	0
			2002	93	3.5	0	0
CO	9.0 ppm for 8 hour	9 ppm for 8 hour	2005	97	1.9	0	0
			2004	97	2.2	0	0
			2003	95	2.7	0	0
			2002	93	1.7	0	0
NO_2 (1-Hour)	0.25 ppm for 1 hour	None	2005	98	0.102	0	n/a
			2004	100	0.106	0	n/a
			2003	98	0.115	0	n/a
			2002	99	0.122	0	n/a

1. Percent of year where high pollutant levels were expected that measurements were made
2. For annual averaging times a yes or no response is given if the annual average concentration exceeded the applicable standard. For the PM10 24 hour standard, daily monitoring is not performed. The first number shown in Days State Standard Exceeded column is the actual number of days measured that State standard was exceeded. The second number shows the number of days the standard would be expected to be exceeded if measurements were taken every day.
3. Annual Arithmetic Mean

n/a – not applicable (no standards to compare with).
-- Data not reported.
Source: CARB Air Quality Data Statistics web site www.arb.ca.gov/adam/ accessed 11/3/06

Local Air Quality

Local air quality is a major concern along roadways. CO is a primary pollutant. Unlike ozone, CO is directly emitted from a variety of sources. The most notable source of CO is motor vehicles. CO concentrations are usually indicative of the local air quality generated by a roadway network and are used to access its impacts on the local air quality. Comparisons of levels with state and federal CO standards indicate the severity of the existing concentrations for receptors in the project area. The Federal and State standards for carbon monoxide are presented in Table 4.2-5.

Table 4.2-5
Federal and State Carbon Monoxide Standards

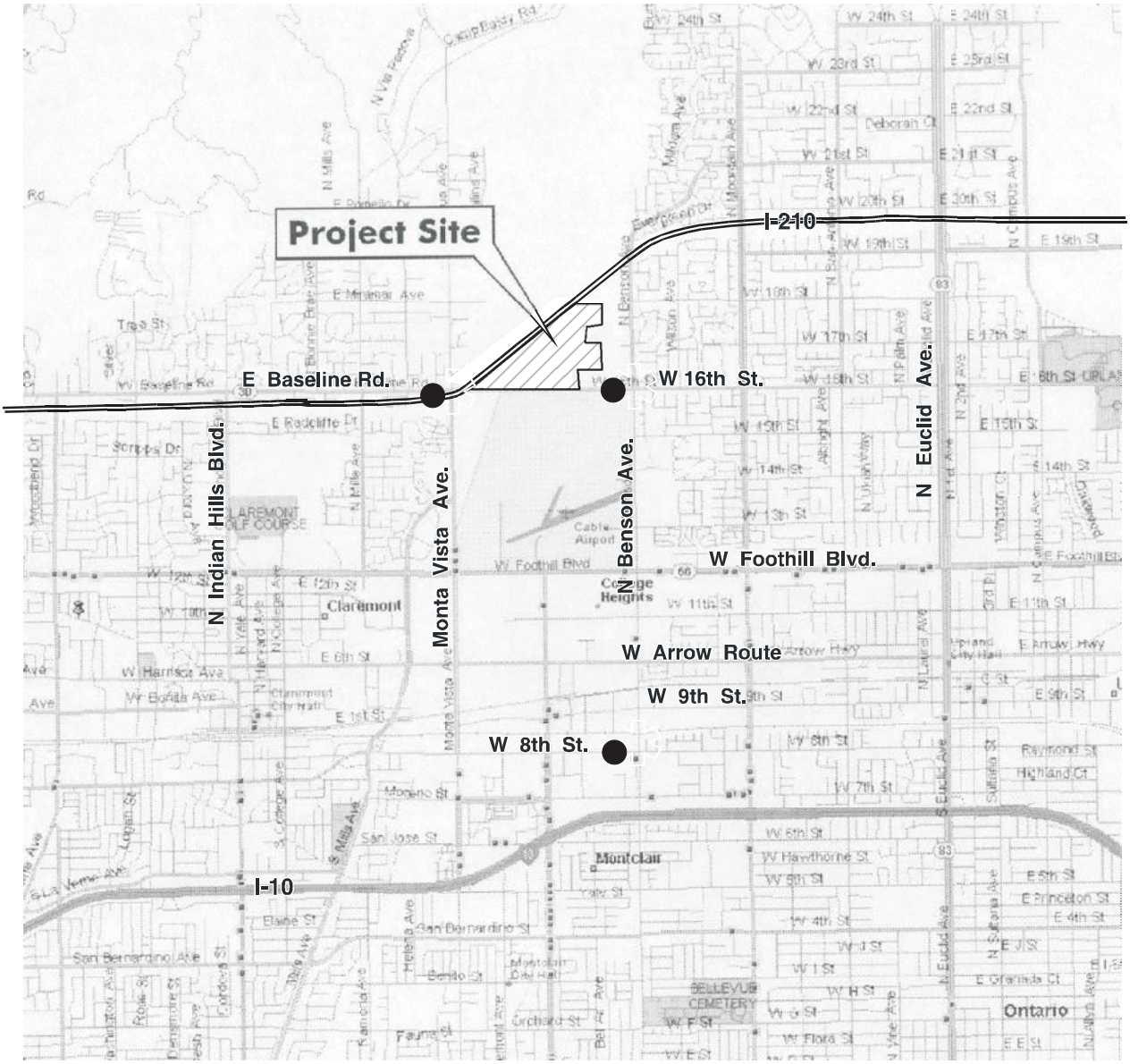
	Averaging Time	Standard
Federal	1 hour	35 ppm
	8 hours	9 ppm
State	1 hour	20 ppm
	8 hours	9 ppm

CO levels in the project vicinity due to nearby roadways were assessed with the CALINE4 computer model. CALINE4 is a fourth generation line source air quality model developed by the California Department of Transportation ("CALINE4", Report No. FHWA/CA/TL-84/15, June 1989).

The existing peak-hour traffic data was obtained from the traffic study titled "Baseline Road Master Plan" prepared by Linscott Law and Greenspan Engineers, September 20, 2006. Peak p.m. traffic data was utilized in the CALINE4 CO modeling to represent the worst-case scenario. Composite vehicular emission factors were derived from EMFAC2002. EMFAC2002 is a computer program published by CARB that calculates on-road vehicle emissions.

Three key intersections were selected for CALINE4 analysis. The worst case intersections were selected based on the highest overall traffic volume or the greatest traffic increase due to the project that are adjacent to sensitive land uses. These intersections are: Monte Vista Avenue at Baseline Road, Benson Avenue at 8th Street, and Benson Avenue at Baseline Road. CALINE4 modeling was conducted for four receptors in each corner of each intersection. The receptors are located approximately 10 feet from the corner of the intersections. The receptor locations are shown in Figure 4.2-1.

The existing background CO concentrations were obtained from the SCAQMD website (November 2002). Projected background concentrations are available for years 1999, 2000, 2010 and 2020. The nearest available CO background data for the project area is the San Bernardino monitoring station. The existing (2006) background CO concentrations were calculated by linear interpolation between year 2000 and year 2010. As a result, the 2005 CO background levels were determined to be 4.1 parts per million (ppm) for 1-hour and 3.3 ppm for 8-hour. Therefore, 4.1 ppm is added to the worst-case meteorological 1-hour projections, and 3.3 ppm to the 8-hour projections, to account for the existing background carbon monoxide levels. The 8-hour CO concentration was estimated utilizing a persistence factor of 0.75. The modeling results of the existing CO levels are presented in Table 4.2-6.



Source: Mestre Greve Associates, 2003

● CO Modeling Intersection

N

N.T.S.

CALINE4 Modeling Receptor Locations

Baseline Road Master Plan
City of Upland, California

Figure 4.2-1

Prepared By:
LILBURN CORPORATION

Table 4.2-6
Existing Carbon Monoxide Concentrations (ppm)

Receptor Location	Existing CO Concentrations	
	1-Hour	**8-Hour**
1.Monte Vista Ave. and Baseline Rd.	7.5	5.8
2. 8th Street and Benson Ave.	5.9	4.6
3. Baseline Rd. and Benson Ave.	6.1	4.8
State Standard	**20**	**9**
No. of Exceedances	0	0

Note: The CO concentrations include the ambient concentrations of 4.1 ppm for 1-hour levels and 3.3 ppm for 8-hour levels.

The existing CO concentrations are estimated to range between 5.9 and 7.4 ppm for 1-hour averaging time and between 4.6 and 5.7 ppm for 8-hour averaging time in the vicinity of the intersections modeled. The data indicates that the existing CO concentrations in the vicinity of the project site comply with the 1-hour and 8-hour state and federal standards.

Localized Significance Thresholds

SCAQMD has developed a methodology to assess the localized impacts of emissions from within a project site (SCAQMD, Draft Localized Significance Threshold Methodology, June 19, 2003). SCAQMD recommends, but does not require, comparing projects to localized significance thresholds (LSTs). The LST's were developed to analyze the significance of potential local air quality impacts of projects and provides screening tables for smaller projects, in which emissions may be less than the mass daily emission thresholds analyzed above. The SCAQMD also recommends project-specific air quality modeling for larger projects. Because of the proposed project's size, the screening tables provided by SCAQMD are not applicable. However, given the size and location of the project, it is anticipated that dispersion analysis would confirm that the project will have a significant short-term localized impact for NO_2, PM_{10}, and $PM_{2.5}$. Therefore, the proposed project will have a significant impact on local air quality during construction.

4.2.3 Applicable Polices, Plans and Regulations

A combination of climatic factors and urbanization cause the Los Angeles Basin and the interior valleys to have some of the highest air pollution levels in the country. This region, defined as the SCAB, falls under the jurisdiction of the SCAQMD for statutory air quality issues. Specifically, the SCAQMD monitors and enforces the federal and state air quality standards in association with federal, state, local, and regional government agencies. These agencies work jointly as well as individually to reduce air pollution through legislation, regulation, policy making, education, and a variety of programs. These agencies include:

EPA - Responsible for setting and enforcing the national standards for atmospheric pollutants, including the Clean Air Act (CAA), as amended.

CARB - Part of the California Environmental Protection Agency (Cal-EPA) and responsible for assuring implementation of the CCAA, responding to federal regulations, and regulating emission standards.

SCAQMD - Primarily responsible for comprehensive air pollution control in the SCAB and Riverside and Los Angeles County portions of the South East Desert Air Basin (SEDAB). SCAQMD implements the CCAA and works directly with federal, state, and local agencies.

Local Governments - Have the authority and responsibility to reduce air pollution through their local land use decision-making authority.

Air emissions from the proposed Baseline Road Master Plan are subject to federal, state, and local rules and regulations as implemented through provisions of the FCAA, CCAA, and the AQMP adopted and updated regularly by SCAQMD. The following is an overview of these rules and regulations.

Federal Clean Air Act (FCAA). The FCAA was established in an effort to assure that acceptable levels of air quality are maintained in all areas of the United States. These levels are based upon health-related exposure limits and are referred to as National Ambient Air Quality Standards (NAAQS). The NAAQS establish maximum allowable concentrations of specific pollutants in the atmosphere and characterize the amount of exposure deemed safe of the public. The NAAQS set standards for the following pollutants:

Nitrogen dioxide (NO_2)
Sulfur dioxide (SO_2)
Particulate matter less than 10 microns, aerodynamic diameter (PM_{10})
Particulate matter less than 2.5 microns, aerodynamic diameter ($PM_{2.5}$)
Ozone (O_3)
Lead (Pb)

Primary and secondary NAAQS have been established and are shown in Table 4.2-1. Primary standards reflect levels of air quality deemed necessary by the EPA to provide an adequate margin of safety to protect public health. Areas found to be in violation of primary standards are termed "non-attainment areas". Secondary standards reflect levels of air quality necessary to protect public welfare from the known or anticipated adverse effects of a pollutant.

California Clean Air Act. Under the CCAA, state and local authorities have primary responsibility for assuring that their respective regions are in attainment of, or have a verifiable plan to attain, the NAAQS. The federal CAA provides state and local agencies authority to promulgate more stringent ambient air quality standards. The NAAQS for the following pollutants are also included in Table 4.2-1.

Hydrogen sulfide (H_2S)
Vinyl chloride
Sulfates (SO_4)
Visibility-reducing particles

SCAQMD Air Quality Management Plan. SCAQMD has local regulatory review and primary authority over potential sources of air pollution within the SCAB. The EPA and CARB serve as technical review and advisory agencies, providing technical advice when necessary and offering guidance when SCAQMD regulations are not sufficiently detailed to address a particular issue.

Under the provisions of the federal and California CAAs, areas not in attainment of the NAAQS or CAAQS are required to prepare an AQMP. An AQMP establishes an area-specific program to control existing and proposed sources of air emissions so that the NAAQS or CAAQS may be attained by the applicable target date. CARB and EPA are required to designate areas of the state as "attainment", "nonattainment", or "unclassified" for state and federal ambient air quality standards. An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an extraordinary event. An unclassified designation indicates a lack of adequate air quality data or other information on which to base an attainment or nonattainment designation.

The SCAB has been classified as "extreme" non-attainment for ozone, "serious" non-attainment for CO and PM_{10}, and non-attainment for NO_2 in accordance with the FCAA.

4.3.4 Impacts and Mitigation Measures

Standards of Significance

Significant impacts to air quality may result if the Baseline Road Master Plan:

- Conflicts with or obstruct implementation of the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan.
- Violates any air quality standard or contributes substantially to an existing or projected air quality violation.
- Exposes sensitive receptors to substantial pollutant concentrations.
- Creates objectionable odors affecting a substantial number of people.
- Results 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).

Air quality impacts are usually divided into short-term and long-term. Short-term impacts are usually the result of construction or grading operations. Long-term impacts are associated with the build-out condition of the proposed project (operational emissions).

SCAQMD has established significance thresholds to assess the regional impact of project-related air pollutant emissions. Table 4.2-7 presents these significance thresholds. There are separate

thresholds for short-term construction and long-term operational emissions. A project with daily emission rates below these thresholds is considered to have a less than significant effect on regional air quality throughout the air basin.

Table 4.2-7
SCAQMD Regional Pollutant Emission Thresholds of Significance

	Pollutant Emissions (lbs/day)					
	CO	**ROG**	**NOx**	**PM_{10}**	**$PM_{2.5}$**	**SOx**
Construction	550	75	100	150	55	150
Operation	550	55	55	150	55	150

Source: SCAQMD CEQA Air Quality Handbook

Impacts Determined to Have No Impact

Create objectionable odors affecting a substantial number of people?

Implementation of the Baseline Road Master Plan would include development of medium density of residential land uses, commercial uses and a City Sports Park. These land uses are generally not associated with creating objectionable odors. Development of the proposed project shall comply with the policies of the City of Upland and City of Claremont's Municipal Codes and the General Plans. No impacts related to objectionable odors are anticipated.

Impacts Determined to be Potentially Significant

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

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 that exceed quantitative thresholds for ozone precursors)?

Impact Analysis

Impact AQ-1

Development of the proposed Master Plan would violate pollutant level thresholds established by the SCAQMD during the construction phase of the Master Plan. This is a potentially significant short-term impact.

Temporary impacts will result from project construction activities. Air pollutants will be emitted by construction equipment and fugitive dust will be generated during grading of the site.

Construction activities for large development projects are estimated by the U.S. Environmental Protection Agency (according to the 1993 CEQA Handbook, emission factor for disturbed soil is 26.4 pounds of PM_{10} per day per acre, or 0.40 tons of PM_{10} per month per acre). If water or other

soil stabilizers are used to control dust as required by SCAQMD Rule 403, the emissions can be reduced by 50 percent. The PM_{10} calculations include the 50 percent reduction from watering.

Typical emission rates for construction equipment were obtained from the 1993 CEQA Air Quality Handbook. These emission factors are presented in terms of pounds of pollutant per hour of equipment operation. Most of these emission factors were initially published in 1985 in the EPA's AP-42 Compilation of Emission Factors. These have not been updated since their original publication. Several state and federal regulations have been enacted since this time that requires reduced emissions from construction equipment. The effect of these regulations is not included in the emission factors used to calculate construction equipment emissions presented herein. The actual emissions from construction equipment, therefore, will likely be lower than presented; however, the exact reduction is not known. It would be dependent on the age of the specific equipment used at the construction site. As time passes, older equipment will be replaced with newer equipment manufactured with the lower emission requirements. Therefore, construction occurring farther in the future would likely be reduced by a greater amount versus near term construction.

Emission factors from EMFAC2002 published by the SCAQMD on their CEQA Handbook web site (http://www.aqmd.gov/ceqa/hdbk.html) were used to estimate vehicular emissions. EMFAC2002 is a computer program generated by the CARB that calculates emission rates for vehicles.

In 1998 the CARB identified particulate matter from diesel-fueled engines [Diesel Particulate Matter (DPM)] as a Toxic Air Contaminant (TAC). The majority of the heavy construction equipment utilized during construction will be diesel fueled and emit DPM. Impacts from toxic substances are related to cumulative exposure and are assessed over a 70-year period. Cancer risk is expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to the cancer-causing substance over a 70-year lifetime (California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Guide to Health Risk Assessment). While construction of the project is projected to occur over a 1-year period, grading, when the peak diesel exhaust emissions would occur, is expected to take approximately six months, relatively short in duration compared to a 70-year lifespan. Diesel emissions resulting from the construction of the project are not anticipated to result in a significant impact.

Grading

The residential/commercial portion (Park View Specific Plan) of the project is 44 acres and is assumed to be graded in one phase. The park portion of the project is 55 acres. As a worst case scenario, it is assumed the entire park site would be graded subsequent to buildout of the Specific Plan portion. This will happen after the commercial site. The construction of the project is assumed for emission modeling purposes, to be completed in two years.

Based on the above worst case assumptions, the peak daily emissions are estimated to be 594 pounds per day of PM_{10} and 132 pounds per day of $PM_{2.5}$. for Phase I, and 742 pounds per day of PM_{10} and 166 pounds per day of $PM_{2.5}$ for Phase II. The PM_{10} and $PM_{2.5}$ emissions

generated by the project are projected to be greater than the thresholds, and therefore, are considered to be significant.

It should be noted that the impact due to grading is very localized. Additionally, this material is inert silicates, rather than the complex organic particulate matter released from combustion sources which are more harmful to health. In some cases, grading may be near existing development. Care should be taken to minimize the generation of dust. Common practice for minimizing dust generation is watering before and during grading. Without watering, PM_{10} and $PM_{2.5}$ emission generation would be double the amount mentioned previously.

Heavy-duty equipment emissions are difficult to quantify because of day to day variability in construction activities and equipment used. Typical emission rates for construction equipment were obtained from the SCAQMD Air Quality Handbook. For Phase 1, heavy equipment estimated to be used in the grading includes (4) scrapers, (4) dozers, (4) graders, and (4) water trucks, all operating 8 hours per day. For Phase 2, heavy equipment estimated to be used in the grading includes (5) scrapers, (5) dozers, (5) graders, and (5) water trucks, all operating 8 hours per day.

Using the estimates presented above, the peak air pollutant emissions during grading were calculated and presented in Table 4.2-8. These emissions represent the highest level of emissions during construction of the proposed project. Refer to Appendix B for additional information.

Table 4.2-8
Worst Case Peak Construction Emissions (pounds/day)

	Pollutant Emissions (lbs/day)					
Activity	**CO**	**VOC**	**NOX**	**PM_{10}**	**$PM_{2.5}$**	**SOX**
PHASE 1						
On-Road Vehicle	10.5	1.2	4.5	0.2	0.1	0.0
Heavy Duty Trucks	2.1	0.6	7.0	0.3	0.3	0.0
Ground Disturbance	0.0	0.0	0.0	580.8	120.8	0.0
Construction Equipment	124.5	30.5	273.1	12.2	11.3	0.2
Total Emissions	**137.2**	**32.2**	**284.5**	**593.6**	**132.5**	**0.2**
PHASE 2						
On-Road Vehicle	14.7	1.7	6.6	0.3	0.2	0.0
Heavy Duty Trucks	2.6	0.7	8.6	0.4	0.4	0.0
Ground Disturbance	0.0	0.0	0.0	726.0	151.0	0.0
Construction Equipment	155.6	38.1	341.3	15.3	14.1	0.3
Total Emissions	**172.9**	**40.4**	**356.5**	**742.0**	**165.7**	**0.3**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*55*	*150*

Underline data indicate exceedances.

As shown in Table 4.2-8 some short-term construction emissions exceed the Significance Emission Thresholds established by the SCAQMD in the CEQA Air Quality Handbook, specifically for NO_X and PM_{10} and $PM_{2.5}$. The project construction emissions are considered to be significant.

Control measures for reducing dust emissions are listed in the SCAQMD's Rule 403 (Tables 1 and 2) as recently amended in April 2004. Rule 403 includes additional new requirements for large operations (greater than 50 acres). The proposed project would be considered a large operation and is required to implement applicable actions specified in Table 2 and applicable actions in Table 3 when performance standards cannot be met through use of Table 2 actions. These tables and measures are included in this section as Tables 4.2-9, 4.2-10 and 4.2-11. Table 4.2-10 contains measures such as maintaining adequate moisture content in the soil, watering grading areas, establishing ground cover on inactive areas and watering unpaved roads. Implementation of these measures potentially results in a much higher reduction of particulate emissions than estimated in Table 4.2-8 above. These measures would be implemented through a Large Operation Notification, which includes a dust control plan submitted to the SCAQMD prior to the granting of the first grading permit.

Table 4.2-9
Required Best Available Control Measures (Rule 403 Table 1)

Source Category	
Control Measure	**Guidance**
Backfilling	
01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	• Mix backfill soil with water prior to moving • Dedicate water truck or high capacity hose to backfilling equipment • Empty loader bucket slowly so that no dust plumes are generated • Minimize drop height from loader bucket
Clearing and Grubbing	
02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	• Maintain live perennial vegetation where possible • Apply water in sufficient quantity to prevent generation of dust plumes
Clearing Forms	
03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	• Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	
04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	• Follow permit conditions for crushing equipment • Pre-water material prior to loading into crusher • Monitor crusher emissions opacity • Apply water to crushed material to prevent dust plumes
Cut and Fill	
05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	• For large sites, pre-water with sprinklers or water trucks and allow time for penetration • Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – Mechanical/Manual	
06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	• Apply water in sufficient quantities to prevent the generation of visible dust plumes

Source Category	
Control Measure	**Guidance**
Disturbed Soil	
07-1 Stabilize disturbed soil throughout the construction site; and 07-02 Stabilize disturbed soil between structures	• Limit vehicular traffic and disturbances on soils where possible • If interior block walls are planned, install as early as possible • Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-Moving Activities	
08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	• Grade each project phase separately, timed to coincide with construction phase • Upwind fencing can prevent material movement on site • Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Importing/Exporting of Bulk Materials	
09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	• Use tarps or other suitable enclosures on haul trucks • Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage • Comply with track-out prevention/mitigation requirements • Provide water while loading and unloading to reduce visible dust plumes
Landscaping	
10-1 Stabilize soils, materials, slopes	• Apply water to materials to stabilize Maintain materials in a crusted condition • Maintain effective cover over materials • Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes • Hydroseed prior to rain season
Road Shoulder Maintenance	
11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	• Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs • Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs
Screening	
12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	• Dedicate water truck or high capacity hose to screening operation • Drop material through the screen slowly and minimize drop height • Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging Areas	
13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	• Limit size of staging area • Limit vehicle speeds to 15 miles per hour • Limit number and size of staging area entrances/exists

Source Category	
Control Measure	**Guidance**
Stockpiles/ Bulk Material Handling	
14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	• Add or remove material from the downwind portion of the storage pile • Maintain storage piles to avoid steep sides or faces
Traffic Areas for Construction Activities	
15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	• Apply gravel/paving to all haul routes as soon as possible to all future roadway areas • Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	
16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16.2 Stabilize soils at the completion of trenching activities.	• Pre-watering of soils prior to trenching is an effective preventive measure. • For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching • Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck Loading	
17-1 Pre-water material prior to loading; and 17.2 Ensure that freeboard exceeds six inches (CVC 23114)	• Empty loader bucket such that no visible dust plumes are created • Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	
18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	• Haul waste material immediately off-site
Unpaved Roads/Parking Lots	
19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	• Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
Vacant Land	
20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Source: SCAQMD Rule 403 Table 1 (amended April 2, 2004)

Table 4.2-10
Dust Control Actions for Large Operations

Fugitive Dust Source Category	Control Actions	
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving, which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 [70] percent of the unstabilized surface area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface area	(3a)	Apply water to at least 80 [70] percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 [30] days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of plating, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 [70] percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity, which extend, at a minimum, to the top of the pile.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 4.2-6 may be used.

Source: SCAQMD Rule 403 Table 2 (as amended April 2, 2004)

Table 4.2-11
Contingency Control Measures for Large Operations
(Greater than 50 acres)

Fugitive Dust Source Category	Control Measures	
Earth-moving	(1A)	Cease all active operations; OR
	(2A)	Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B)	On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR
	(1B)	Apply chemical stabilizers prior to wind event; OR
	(2B)	Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR
	(3B)	Take the actions specified in Table 4.2-6, Item (3c); OR
	(4B)	Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C)	Apply chemical stabilizers prior to wind event; OR
	(2C)	Apply water twice [once] per hour during active operation; OR
	(3C)	Stop all vehicular traffic.
Open storage piles	(1D)	Apply water twice [once] per hour; OR
	(2D)	Install temporary coverings.
Paved road track-out	(1E)	Cover all haul vehicles; OR
	(2E)	Comply with the vehicle freeboard requirements to Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F)	Any other control measure approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in this table may be used.

Source: SCAQMD Rule 403 Table 3 (amended April 2, 2004)

Mitigation Measure

Mitigation Measure AQ-1

Comply with SCAQMD's Rule 402 and 403. Applicable mitigation measures listed within Rule 402 403, Tables 1, 2 and 3 (Tables 4.2-7, 4.2-8 and 4.2-9 above) shall be utilized. In addition, the contractors will be required to submit a fully executed Large Operation Notification to the SCAQMD's Executive Officer and provide copies to the City of Upland.

Mitigation Measure AQ-2

Reduce construction equipment emissions by implementing the following measures. The following measures should be implemented and be included in grading and improvement plans specifications for implementation by contractors.

- *Use low emission mobile construction equipment. The Applicant shall comply with CARB requirements for heavy construction equipment.*
- *Maintain construction equipment engines by keeping them tuned.*
- *Use low sulfur fuel for stationary construction equipment. This is required by SCAQMD Rules 431.1 and 431.2.*

- *Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators.*
- *Configure construction parking to minimize traffic interference.*
- *Minimize obstruction of through-traffic lanes. Construction should be planned so that lane closures on existing streets are kept to a minimum.*
- *Schedule construction operations affecting traffic for off-peak hours to the best extend when possible.*
- *Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service.)*

Level of Significance After Mitigation

As indicated, project emissions from grading activities will exceed the SCAQMD's Thresholds of Significance for NO_X, PM_{10} and $PM_{2.5}$. Mitigation will reduce emissions, but not to the point that they will fall under the SCAQMD's thresholds. Therefore, construction emissions of NO_X, PM_{10} and $PM_{2.5}$ will exceed the SCAQMD thresholds even after mitigation. Short-term construction air quality impacts are significant and unavoidable.

Impact AQ-2

Other pollutants generated by architectural coatings will exceed SCAQMD thresholds. This is a potentially significant impact.

Architectural coatings include painting exterior and interior walls as well as coatings applied to windows and window casings. ROGs are emitted from these coatings as well as the solvents used in cleanup of the coatings. The amount of ROGs that are emitted is dependent on the specific coating being used and its ROC content. The data presented in the SCAQMD CEQA Handbook shows that this can cause the emissions to range from 6.66 pounds of ROC emissions per 1,000 square feet of painted surface 1 mil thick to 149.34 pounds of ROC emissions per 1,000 square feet of painted surface 1 mil thick. The specific paints that will be used for the project are not known at this time. When specific data is not available, the SCAQMD CEQA Handbook recommends the use of an emission factor of 18.50 pounds of ROC emissions per 1,000 square feet of painted surface 1 mil thick. For most architectural coatings, this is the maximum emission factor allowed by SCAQMD Rule 1113, which regulates the ROC content of architectural coatings. The URBEMIS2002 Users' Guide also assumes a thickness of 1 mil when specific data is not available.

The SCAQMD CEQA Handbook (Table A9-13-C) recommends using twice the gross floor area as an estimate of the total painted area for commercial uses. This accounts for both interior and exterior surface areas. For this project, the proposed 100,000 square feet of the commercial buildings gross floor area will result in an estimate of 200,000 square feet of painted area. For the residential uses, it is assumed that each dwelling unit has an average of 10 rooms and a gross floor area of 2,500 square feet. This results in approximately 3,023,858 square feet of painted

area based on 400 dwelling units. The data used to calculate painting emissions are included in the appendix.

Using the above data the total emissions from painting of the project is estimated to be 59,641 pounds of ROG. Assuming painting takes place over a 30-day period results in an estimate of 1,988 pounds of ROG emissions per day from painting. This is significantly above the 75 pounds per day significance threshold. There are no practical measures to reduce emissions from architectural coatings to below the significance threshold. The following measures should be incorporated into project construction to the greatest extent feasible.

Mitigation Measure AQ-3

Architectural Coating Emission Control

- *Limit the amount of painting each day.*
- *Minimize the amount of paint used by using pre-coated, pre-colored and naturally colored building materials.*
- *Use Water-Based and LOW-VOC coatings with VOC contents less than those required by SCAQMD Rule 1113.*
- *Use high transfer efficiency painting methods such as HVLP (High Volume Low Pressure) sprayers and brushes/rollers were possible.*

Level of Significance After Mitigation

As indicated above, project emissions from architectural activities will exceed the SCAQMD's Thresholds of Significance. Mitigation will reduce emissions, but not to the point that they will fall under the SCAQMD's thresholds. Therefore, construction emissions from painting will exceed SCAQMD thresholds even after mitigation. Short-term construction air quality impacts are significant and unavoidable.

Expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-3

Increased traffic on roadways serving the proposed project may cause CO concentrations to exceed local air quality standards. This is a potentially significant impact.

Carbon monoxide (CO) is the pollutant of major concern along roadways as the most notable source of CO is motor vehicles. CO concentrations are usually indicative of the local air quality generated by a roadway network, and are used as an indicator of its impacts on local air quality. Local air quality impacts are assessed by comparing future CO levels with state and federal standards, and by comparing future CO concentrations with and without the project. Refer to Table 4.2-3 for federal and state CO standards.

Future CO concentrations with the project were forecasted with the CALINE4 computer model. The future peak hour traffic data were obtained from the traffic study titled "Baseline Road Master Plan" prepared by Linscott Law and Greenspan Engineers, September 20, 2006. Peak p.m. traffic data were utilized in the CALINE4 CO modeling to represent the worst-case scenario. Three key intersections were selected for CALINE4 analysis. The worst-case intersections were selected based on the highest overall traffic volume or the greatest traffic increase due to the project that are adjacent to sensitive land uses. The peak hour volumes and the Level of Service (LOS) data at the critical intersections were used in the CALINE4 computer modeling. The LOS data are important in the CALINE4 computer modeling in that they determine the speeds and the emission factors. The lower the speeds, the higher the emission factors, hence, the higher the CO results. The p.m. peak hour traffic is utilized in the CALINE4 computer modeling as the traffic data shows that the p.m. peak hour traffic volumes are projected to be higher than the a.m. peak hour volumes.

Eight-hour CO levels were projected using Caltrans methodology described in their "Air Quality Technical Analysis Notes." The method essentially uses a persistence factor, which is multiplied times the 1-hour emission projections. For the project, a persistence factor of 0.75 was utilized based on monitoring data from the Upland monitoring station. The data and results of the CALINE4 modeling are provided in Appendix B. The CALINE4 CO emission results shown in Appendix B do not include the ambient background CO levels. The highest modeled concentration for the three receptors at each intersection is reported below in Table 4.2-12.

Table 4.2-12
Worst Case Projections of Carbon Monoxide Concentrations (ppm)

Intersection	Modeled CO Concentration (ppm)				
	Existing	**2009 No Project**	**2009 With Project**	**2025 No Project**	**2025 With Project**
	Modeled 1-Hour Average Concentration				
Monte Vista Ave. and Baseline Rd.	7.5	7.0	7.1	4.8	4.8
8th St. and Benson Ave.	5.9	5.4	5.7	4.5	4.5
Baseline Rd. and Benson Ave.	6.1	5.6	5.8	4.5	4.5
State Standard	**20**	**20**	**20**	**20**	**20**
No. of Exceedances	**0**	**0**	**0**	**0**	**0**
	Modeled 8-Hour Average Concentration				
Monte Vista Ave. and Baseline Rd.	5.8	5.5	5.5	3.8	3.8
8th St. and Benson Ave.	4.6	4.3	4.5	3.6	3.6
Baseline Rd. and Benson Ave.	4.8	4.4	4.6	3.6	3.6
State Standard	**9**	**9**	**9**	**9**	**9**
No. of Exceedances	**0**	**0**	**0**	**0**	**0**

NOTE: The CO concentrations include the ambient concentrations of 4.1 ppm for existing 1-hour average levels, 3.9 ppm for 2009 1-hour average levels, 3.6 ppm for 2025 1-hour average levels, 3.3 ppm for existing 8-hour average levels, 3.0 ppm for 2009 8-hour levels, and 2.9 ppm for 2025 8-hour levels.

The 2009 (opening year) background CO concentrations were calculated by linear interpolation between year 2000 and year 2010. As a result, the 2009 CO background levels at the San Bernardino station were estimated to be 3.7 ppm for the 1-hour averaging time and 3.0 ppm for 8-hour averaging time. The background levels are anticipated to decrease steadily in future years. This occurs even though traffic volumes are projected to increase in the future. The reductions

occur because vehicular pollutant emissions are projected to decrease in the future, as newer cars, complying with increasingly stringent emissions regulations, become a greater portion of the overall vehicle fleet in operation as projected by the EMFAC2007 computer model published by CARB. 2020 background concentrations were used for the 2025 scenario. The 2025 CO background levels at the San Bernardino station were estimated to be 3.6 ppm for the 1-hour averaging time and 2.9 ppm for the 8-hour averaging time.

The results of the CALINE4 CO modeling are summarized in Table 4.2-12. The CO modeling results are shown for the projected 1-hour and 8-hour average CO concentration levels. Existing concentrations are presented along with opening year, 2009, concentrations with and without the project as well as area buildout, year 2025, concentrations. The pollutant levels are expressed in parts per million (ppm) for each receptor. The CO levels reported in Table 4.2-12 are composites of the background levels of CO coming into the area plus those generated by the local roadways.

Opening year as well as in 2025 with the project constructed, CO concentrations are projected to be below existing levels. This occurs even though traffic volumes are projected to increase in the future. The reductions occur because vehicular pollutant emissions are projected to decrease in the future, as newer cars, complying with increasingly stringent emissions regulations, become a greater portion of the overall vehicle fleet in operation as projected by the EMFAC2007 computer model published by CARB. The projected decreases in vehicular emissions significantly offset the projected increases in traffic volumes. Therefore, no impact is anticipated.

Mitigation Measure

No mitigation measures are required.

Conflict with or obstruct implementation of the Southern California Air Quality Management District's (SCAQMD) Air Quality Management Plan?

Impact AQ-4

The proposed project may be inconsistent with the SCAQMD AQMP. This is a potentially significant impact.

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

The purpose of the consistency discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the project would interfere with the region's ability to comply with federal and state air quality standards. If the decision-maker determines that the project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD's CEQA Handbook states "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the plan if it furthers one or more policies and does not obstruct other policies. The Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (except as provided for CO in Section 9.4 for relocating CO hot spots).

(2) Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in this report, there will be significant short-term construction and long-term operational impacts due to the project based on the SCAQMD thresholds of significance. While emissions will be generated during construction in excess of SCAQMD's threshold criteria, it is unlikely that short-term construction activities will increase the frequency or severity of existing air quality violations due to required compliance with SCAQMD Rules and Regulations. Emissions resulting from the operation of project are projected to be a small fraction of a percentage of the basin-wide emissions and therefore, would not substantially affect pollutant concentrations. The analysis for long-term local air quality impacts showed that local pollutant concentrations are not anticipated to exceed any of the air quality standards.

The proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards, thus the project is found to be consistent with the AQMP for the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the project with the assumptions in the AQMP. Thus, the emphasis of this criterion is to insure that the analyses conducted for the project are based on the same forecasts as the AQMP. The Regional Comprehensive Plan and Guide (RCP&G) consists of three sections: Core Chapters, Ancillary Chapters, and Bridge Chapters. The Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management chapters constitute the Core Chapters of the document. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA.

Since the SCAG forecasts are not detailed, the test for consistency of this project is not specific. The traffic modeling methodologies upon which much of the air quality assessment are based on

are from the County of San Bernardino Congestion Management Plan (CMP), Highway Capacity Manual (HCM), and ITE Trip Generation, 2nd Edition (June 2004). The AQMP assumptions are based upon projections from local general plans. Projects that are consistent with the local general plan are consistent with the AQMP assumptions. It appears that the growth forecasts for the proposed project, at the project's opening year and buildout year, are consistent with the SCAG growth forecasts. The forecasts made for the project EIR appear to be based on the same demographics as the AQMP, and therefore, the second criterion is met for consistency with the AQMP.

The project is consistent with the SCAQMD's AQMP. Therefore, no impact is anticipated.

Mitigation Measure

No mitigation measures are required.

Impact AQ-5

Development of the Master Plan would increase vehicular travel to the site and increase urban land uses. This is a potentially significant impact to regional air quality.

The primary source of regional emissions generated by the proposed project will be from motor vehicles. Other on-site emissions will be generated from the combustion of natural gas for water, space heating and the use of consumer products. Emissions will also be generated by the use of natural gas consumed by the project.

The emission factors from EMFAC2007 were used to calculate the vehicular emissions. EMFAC2007 is a computer model published by the CARB. The EMFAC2007 emission factors for San Bernardino County for the year 2009, the opening year of the project, at an average speed of 25 miles per hour were used to calculate motor vehicle emissions associated with the project.

Many consumer products, including air fresheners, automotive products, household cleaners, and personal care products emit ROG's. CARB has estimated that the amount of ROG released from consumer products is primarily dependant on the increased population associated with residential development. CARB estimates that 0.0171 pounds of ROG are emitted per person. For the purposes of the calculation, it was assumed that each residential unit within the specific plan would have three residents.

The traffic study prepared for the project indicates that the project will generate 7,801 daily trips. The average trip length for the proposed project is assumed to be 8.2 miles. This is a composite trip length derived from data contained in the SCAQMD CEQA Handbook (Page 9-24) for San Bernardino County. The product of the project daily trips and trip length, translate to a total of 63,968 vehicle miles traveled (VMT) generated by the proposed project. An average speed of 25 miles per hour was assumed.

Additional pollutant emissions associated with the project will be generated on-site by the combustion of natural gas for space heating and water heating. The project will consist of 265 single family homes, 135 condominiums and a maximum of 100,000 square feet of commercial/retail land uses. The square footages and emission factors utilized in calculating the emissions with these sources are provided in Appendix B. The emissions are projected for year 2009. The total project emissions are presented in Table 4.2-13.

Table 4.2-13
Total Project Emissions (2009)

	CO	ROG	NOx	PM_{10}	$PM_{2.5}$	SOx
Vehicular Trips	686.6	75.0	200.9	10.1	7.5	0.8
Natural Gas Consumption	1.7	0.5	7.2	0.0	0.0	0.0
Consumer Product Usage	0.0	25.1	0.0	0.0	0.00	0.0
Total Project Emissions	**688.3**	**100.5**	**208.2**	**10.1**	**7.5**	**0.8**
SCAQMD Thresholds	550	55	55	150	55	150
Significance	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

Table 4.2-13 shows that the total project emissions are above the SCAQMD Thresholds, specifically for CO, ROG and NO_X. Since the project emissions are above the significance thresholds, the project will result in significant regional air quality impacts.

Table 4.2-14 compares the project's emissions to the projected basin wide emissions from the 2003 AQMP. This comparison shows that the project represents a very small fraction of the total regional emissions. For the two pollutants above the thresholds, the project represents, approximately, 6.7 thousands (.0067) of a percent of the total regional emissions.

Table 4.2-14
Comparison of Project Emissions with SCAB Emissions

	Pollutant Emissions (tons/day)				
	CO	ROG	NOx	PM_{10}	SOx
Project Emissions	0.360	0.054	0.105	0.004	0.000
2020 South Coast Air Basin*	2,414	584	532	318	76
Project as Percentage of Basin	0.0149%	0.0093%	0.0198%	0.0011%	0.0005%

* Source: 2003 AQMP Tables 3-5A & 3-5B

The most significant reductions in regional and local air pollutant emissions are attainable through programs which reduce the vehicular travel associated with the project. Support and compliance with the AQMP for the basin is the most important measure to achieve this goal. The AQMP includes improvement of mass transit facilities and implementation of vehicular usage reduction programs. However, the project emissions are above the significance thresholds and will result in significant regional air quality impacts. Additionally, energy conservation measures are included.

Mitigation Measure

Mitigation Measure AQ-4

Transportation Demand Management Measures

- *Provide adequate ingress and egress at all entrances to public facilities to minimize vehicle idling at curbsides.*
- *Provide dedicated turn lanes as appropriate and provide roadway improvements at heavily congested roadways.*

Energy Efficient Measures[1]

- *Improve thermal integrity of the buildings and reduce thermal load with automated time clocks or occupant sensors.*
- *Install energy efficient street lighting.*
- *Capture waste heat and reemploy it in nonresidential buildings.*
- *Landscape with native drought-resistant species to reduce water consumption and to provide passive solar benefits.*
- *Provide lighter color roofing and road materials and tree planning programs to comply with the AQMP Miscellaneous Sources MSC-01 measure.*
- *Synchronize traffic signals.*
- *Introduce window glazing, wall insulation, and efficient ventilation methods.*

Level of Significance After Mitigation

The long-term regional air quality impacts due to the proposed project with the recommended measures will be reduced to an extent. However, CO, NO_x and ROG emissions would continue to exceed the SCAQMD thresholds and be considered significant and unavoidable.

Impact AQ-6

Development of the Master Plan would increase greenhouse gas emissions. This is a potentially significant impact to regional air quality.

There are currently no published thresholds of significance for measuring the impact of GHG emission generated by a project. Neither CARB nor the SCAQMD has issued recommendations, methodologies or significance thresholds for evaluating projects under CEQA law. CEQA Guidelines §15064.7 indicates only that, "each public agency is encouraged to develop and

[1] These measures also reduce impacts from Greenhouse Gases.

publish thresholds of significance that the agency uses in the determination of the significance of environmental effects."

Global climate change is an average rise in the earth's temperature, which is thought to cause climate changes. An individual project cannot generate enough GHG emissions to influence global climate change. The project contributes incrementally to the cumulative increase of all other sources of GHG, which when taken together cause global climate change impacts.

Project Emissions

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

The URBEMIS2007 Air Quality Model was used to estimate GHG emissions as it incorporates EMFAC2007 emission factors. URBEMIS2007 also includes default natural gas usage rates for residential, industrial, and commercial land uses. Emission factors for natural gas are from the U.S. EPA (EPA 1998). Default values were used for natural gas consumption. GHG emissions associated with proposed project are listed in Table 4.2-15. The emission levels listed reflect the estimated winter season levels, which are normally higher due to atmospheric conditions (marine layer) and increased use of heating systems. Refer to Appendix B-2 for URBEMIS2007 data tables.

Table 4.2-15
Total Project Emissions
(Pounds Per Day)

Source	GHG Emissions
Project Emissions in Pounds Per Day	84,658.62
Project Emissions in Metric Tons Per Day (MT)	38.4

Source: URBEMIS2007

Table 4.2-16 compares the emissions due to the project in million metric tons of carbon dioxide equivalent (MMT CO_2EQ) to emissions of California, the United States, and the world. This comparison shows that the project represents a very small percentage of the total GHG emissions. The project would result in a less than 0.000001% increase in the estimated GHG generated in the State of California.

To reduce California's GHG emissions, the California EPA Climate Action Team developed a report that outlined strategies for meeting the Governor's targets. Consistency of the proposed project with the strategies are the most appropriate action to be used at this time as the report "proposed a path to achieve the Governor's target that will build on voluntary actions of California businesses, local governments and community actions, and state incentive and regulatory programs" (Climate Action Team, p.97). AB 32 requires that a list of emission reduction strategies be published to achieve the goals set out in AB 32. However, until these are published, Executive Order S-3-05 issued by the Governor of California shall be considered.

Table 4.2-16
Comparison of Daily Project Emissions With Daily Global Emissions

	MMT CO2EQ*
Project Emissions	0.0000384
State of California	471
United States	7,068
World	27,941

*Climate change documentation uses the units of "million metric tons of carbon dioxide equivalents (MMT CO2EQ)" to describe the magnitude of greenhouse gas (GHG) emissions or reductions. A metric ton of greenhouse gas is approximately 2,205 lbs

California EPA strategies that are to be implemented over the next two years are summarized in Table 4.2-17. Strategies to be implemented by other agencies are summarized in Table 4.2-18. The tables include a column to describe how the project would comply with or implement those strategies that are relevant or applicable. As GHG regulations are relatively emerging and thresholds have not been established, any increase in the production of GHG may be considered as a potential cumulative and unavoidable impact.

Table 4.2-17
Strategies California EPA Shall Implement
Emission Reduction Strategies

Strategy	Proposed Project
Vehicle Climate Change Standards With the passage of AB 1493, Pavley, Chapter 200, Statutes of 2002, California moved to the forefront of reducing vehicle climate change emissions. This bill required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the CARB in September 2004.	**Compliance** This measure applies to industrial/consumer products. When CARB adopts regulations for these reduction measures, any products that the regulations apply to will comply with the measures.
Diesel Anti-Idling Reduced idling times and the electrification of truck stops can reduce diesel use in trucks by about 4 percent, with major air quality benefits. In July 2004 the ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.24 ARB 42 analysis indicates that anti-idling measures could reduce climate change emissions by 1.2 MMtCO2e in 2020.25 ARB also estimates that the proposed measures would provide savings of up to $575 million (NPV through 2013) to California businesses as a result of fuel savings and reduced engine maintenance costs..	**Not Applicable** This measure applies to industrial/consumer products. When CARB adopts regulations for these reduction measures, any products that the regulations apply to will comply with the measures.
Other New Light Duty Vehicle Technology Improvements In September 2004 the California Air Resources Board approved regulations to reduce climate change emissions from new motor vehicles. The regulations apply to new passenger vehicles and light duty trucks beginning with the 2009 model year. The standards adopted by the Board phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009–2012) standards will result in about a 22 percent reduction as compared to the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30 percent reduction.	**Compliance** This measure applies to consumer products. When CARB adopts regulations for these reduction measures, any products that the regulations apply to will comply with the measures.

Strategy	Proposed Project
Hydrofluorocarbon Reduction CARB staff has identified five possible measures to reduce HFC emissions from vehicular and commercial refrigeration systems: 1. Ban the retail sale of hydrofluorocarbon (HFC) in small (mostly 12-oz.) cans. This would end the loss of can "heels" (small amounts of HFCs remaining in the can after service is complete) and prevent do-it-yourself re-filling of vehicular air conditioning systems. 2. Require that only low-GWP refrigerants be used in new vehicular systems. For vehicles subject to the CARB motor vehicle climate change emission reduction regulations, this requirement would take effect in 2017 because the adopted regulations already specify standards and compliance options through 2016. For medium- and heavy-duty vehicles not subject to the AB 1493 regulation, the requirement would take effect in the 2010 timeframe. 3. Adopt specifications for new commercial refrigeration. Limit the global warming potential of refrigerants used in refrigerators in retail food stores, restaurants, and refrigerated transport vehicles (trucks and railcars) and/or require that centralized systems with large refrigerant charges and long distribution lines be avoided in favor of systems that use much less refrigerant and lack long distribution lines. 4. Add refrigerant leak-tightness to the "pass" criteria for vehicular Inspection and Maintenance programs (all vehicles) and adopt an "inspect 43 and repair" measure for commercial systems. Require that systems either be leak-free at smog-check or be empty and inoperable. 5. Enforce the federal ban on releasing HFCs. This measure would focus on reducing emissions during the servicing and dismantling of vehicular air conditioners and commercial refrigeration systems.	**Compliance** This measure applies to consumer products. When CARB adopts regulations for these reduction measures, any products that the regulations apply to will comply with the measures.
Transportation Refrigeration Units (TRUs), Off-Road Electrification, Port Electrification *Transportation Refrigeration Units* Require all new transportation refrigeration units (TRU) to be equipped with electric standby. Require cold storage facilities to install electric infrastructure to support electric standby TRUs. The technologies to be employed in this measure include electric standby for TRUs and electric infrastructure at cold storage facilities. Emission reduction estimates are about 0.14 MMT in 2020 assuming 50 percent electrification and TRU operation at a facility of about 30 percent. *Off-road Electrification* Off-road electrification would likely be achieved using a combination of regulatory and incentive approaches. ARB could conduct outreach to encourage replacement of diesel engines with electric motors to take advantage of the incentive rate structure and Moyer funding, and to comply with District and pending ARB regulations. The in-use stationary diesel agricultural engine regulation currently under development at CARB will propose emission performance standards for engines rather than mandate electrification or any other specific technology. Staff believes that most engines will be replaced with new cleaner certified diesel engines or with electric motors. Retrofit and alternative fuels are other potential means of compliance.	**Compliance** When CARB adopts regulations for these reduction measures, products shipped to retail uses within the Specific Plan area would be transported in a manner(s) that achieves emission reduction. .

Strategy	Proposed Project
Port Electrification CARB would require phase-in of vessel modifications and infrastructure to support expanded use of shore-side power. Technologies to be employed in this measure include vessel modifications and shore-side infrastructure. Shore-side power could be used in 2 to 5 percent of ship visits in 2010 and 20 to 25 percent of ship visits in 2020. The reductions in CO2 emissions are calculated as the difference between the CO2 emissions resulting from the generation of shore-side power supplied by utility companies and the CO2 emissions resulting from power generated by shipboard diesel generators. 2010 Goal: 5 percent of ship visits use shore-side power 44 Estimated CO2 reduction: 0.016 MMT 2020 Goal: 25 percent of ship visits use shore-side power Estimated CO2 reductions: 0.18 MMT	
Manure Management Proposed San Joaquin Valley Rule 4570, Confined Animal Facilities, is intended to reduce volatile organic compounds (VOC) from confined animal facilities and is in the initial stages of development. Some general concepts that may appear in the rule include: (1) different requirements based on facility size; (2) specific control requirements included on a list of technologies; (3) a mix of control options selected from a list; and (4) a facility-wide control efficiency that will achieve a certain percentage reduction. Possible control options include management practices, manure handling practices, and lagoon/liquid waste control options.	**Not applicable**
Alternative Fuels: Biodiesel Blends CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel. A climate change emission reduction of about 0.4 MMT would be achieved in 2010 based on 2 percent displacement of diesel fuel. CARB and CEC staff estimates that biodiesel could likely provide up to a 4 percent displacement of diesel fuel by 2020. This would provide about 0.8 MMT of climate change emission reductions. It is important to note, however, that current supplies of biodiesel are limited in California. Thus this strategy presumes significant market expansion in addition to regulatory steps.	**Compliance** The use of biodiesel on this site is not applicable. However, when CARB adopts regulations for these reduction measures, any products that the regulations apply to would likely be in use, as required on the project site.
Alternative Fuels: Ethanol The percentage of ethanol used in gasoline could be increased to the maximum 10 percent (E-10) that is compatible with current vehicles. (The current gasoline supply contains 5.7 percent ethanol). However, significant permeation emissions caused by low percentage ethanol blends used in the summertime suggest that low percentage blends are best limited to wintertime use. In addition, other fuel properties may need to be adjusted to ensure that the use of E-10 does not increase emissions of smog forming compounds. Use of ethanol derived from biomass or waste material would more than double the climate change emission reduction benefit. Using 10 percent ethanol content in gasoline during the wintertime (six months) would result in ethanol use roughly equivalent to the level required under the recently adopted federal energy bill, and thus produce no additional climate change emission reduction benefits.	**Compliance** The use of alternative fuels on this site is not applicable. However, when CARB adopts regulations for these reduction measures, any products that the regulations apply to would likely be in use, as required on the project site.

Strategy	Proposed Project
Heavy-Duty Vehicle Emission Reduction Measures Climate change emissions can be reduced with improved aerodynamics, engine-based improved efficiency, vehicle weight reduction, and rolling and inertia resistance improvements. CARB has also identified other possible measures, such as an education program for the heavy duty vehicle sector as well as the light and medium duty vehicle sectors that would educate drivers as to how to optimize vehicle operation.	**Compliance** Heavy-duty vehicles that access the project site would be required to comply with the standards.
Reduced Venting and Leaks in Oil and Gas Systems A model rule would be developed to be considered for adoption by the Air Pollution Control Districts. This measure involves improved management practices and does not rely on the application of new technology.	**Compliance** Upon adoption of a rule by the Local APCD, emissions at the project site may be reduced.
Hydrogen Highway The California Hydrogen Highway Network (CA H2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy in order to achieve a secure energy future, address 46 environmental, public health, and economic challenges, and work in partnership with other State programs to advance energy efficiency and renewable energy. The mission of the CA H2 Net is to assure that hydrogen infrastructure is in place as fuel cells and other hydrogen technologies reach commercial readiness.	**Not Applicable**
Achieve 50% Statewide Recycling Goal Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. Currently a diversion rate of 48 percent has been achieved on a statewide basis. This strategy would result in achieving an additional 2% waste diversion of recyclables from landfills using existing authorities and mandates, collection infrastructures, and recycling processes.	**Compliance** The project shall comply with current development standards related to solid waste disposal which include: • Generated construction waste will adhere to a Waste Management Plan as required by the City. • Operational: solid waste would be individually separated as to green waste and recyclable waste in their own individual containers as handled by the City's contracted waste hauler
Zero Waste—High Recycling Additional recovery of recyclable materials from landfills will reduce the climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. Transforming organics/biomass and plastic waste into marketable products will also reduce the amount of material going to landfill, and therefore will further reduce climate change emissions. Currently, the State is mandated to divert 50 percent of waste going to landfills as established by the Integrated Waste Management Act of 1989. Efforts to exceed the 50 percent goal would allow for additional reductions in climate change emissions.	**Compliance** The project shall comply with current development standards related to solid waste disposal which include: • Generated construction waste will adhere to a Waste Management Plan as required by the City. • Operational: solid waste would be individually separated as to green waste and recyclable waste in their own individual containers as handled by the City's contracted
Source: Climate Action Team Early Actions, March 2006 (p. 39-46).	

Table 4.2-18
Strategies Resources Agency's Shall Implement
Emission Reduction Strategies

Strategy	Proposed Project
Urban Forestry This strategy would expand the State Urban Forestry program. A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	**Compliance** Trees shall be planted near structures to act as insulators from weather thereby decreasing energy requirements and provide carbon storage. The project design incorporates trees along the park areas and in common areas.
Afforestation (Planting Trees)/Reforestation Projects Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types. Recent studies have estimated that approximately 9 million acres of land in California could be reforested to increase carbon stocks and provide other benefits. Each acre has the potential to store between 150 to 230 tons of carbon.	**Not Applicable**
Water Use Efficiency Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. The California Energy Commission (CEC) estimates 44 million tons of CO2 emissions are expelled annually on average to provide the 44 million acre feet of water used statewide. The key to the reduction of climate change emissions through water use efficiency is strategic investment in measures tied to water energy intensity. When a unit of water is saved, so too is the energy required to convey, treat, affect local delivery, perform wastewater treatment and safely dispose of that unit of water. In short, saving water saves energy. Saving water that gets treated as wastewater saves more energy. Saving water that gets heated or additionally pressurized saves still more.	**Compliance** The use of Energy Star appliances (or equivalent) as well as low water use fixtures is recommended.
Building Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings). The 52 Energy Commission updates the standards at its discretion (i.e. three-year cycle for building standards). In addition to the long existing legislative mandates, recent policies have placed priority on and established specific goals for updating of the standards.	**Compliance** The project will comply with the energy standards as required by the State and/or City, whichever may be stricter.
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California). The Energy Commission updates the standards at its discretion. In addition to the long existing legislative mandates, recent policies have placed priority on and established specific goals for updating of the standards.	**Compliance** The project will comply with the energy standards as required by the State and/or City, whichever may be stricter.

Strategy	Proposed Project
Cement Manufacturing This strategy involves cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry. There is a large technical potential to improve energy efficiency in cement operations at a reasonable cost.	**Not Applicable**
Municipal Utilities Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	**Not Applicable**
Alternative Fuels: Non-Petroleum Fuels This strategy involves increasing the use of non-petroleum fuels in California's transportation sector, as recommended in the Energy Commission's *2003 and 2005 Integrated Energy Policy Reports.* The Governor has also directed the Energy Commission to develop a workable, long-term transportation fuels plan that will result in significant reductions in gasoline and diesel use and that will establish realistic and achievable objectives. The Bio-Energy Interagency Working Group, which the Energy Commission is leading, has been asked to recommend options for optimizing the market potential for bio-fuels through a coordinated state level effort.	**Not Applicable**
Measures to Improve Transportation Energy Efficiency This strategy builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.	**Not Applicable**
Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce and socioeconomic needs for the full spectrum of the population. Smart land use, demand management, ITS, and value pricing are critical elements in this plan for improving mobility and transportation efficiency. Specific strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high density residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.	**Compliance** The project incorporates high density and commercial uses, adjacent to a State highway. The project entails a mix residential and commercial use project
Enteric Fermentation Enteric fermentation is the process of feed digestion by ruminant animals (primarily dairy and beef cattle). This process results in methane emission from the animals. To reduce climate change emissions resulting from enteric fermentation, feed adjustments may be made that improve milk and meat productivity.	**Not Applicable**

Strategy	Proposed Project
Green Buildings Initiative Governor Schwarzenegger's Green Building Executive Order, S-20-04, sets an ambitious goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. The Executive Order and related action plan spell out specific actions state agencies are to take with state-owned and -leased buildings. The order and plan also discuss various strategies and incentives to encourage private building owners and operators to achieve the 20 percent target.	**Compliance** The project will comply with the energy standards as required by the City.
Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33 percent renewables in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005Energy Action Plan II (EAP II) adopts the 33 percent goal. The PUC and Energy Commission have already commenced review of the legal, regulatory, and infrastructure changes necessary to achieve the Governor's goal.	**Not Applicable**
California Solar Initiative The solar initiative includes installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses, increased use of solar thermal systems to offset the increasing demand for natural gas, use of advanced metering in solar applications, and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	**Compliance** Photovoltaic cells may be feasible for this project. Use of solar applications is recommended where feasible or as required by the City is suggested to decrease energy demand and bring the project into compliance with the overall GHG emission reduction strategies.
Investor-Owned Utilities Investor owned utility strategies that includes energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy.	**Not Applicable**
Source: Climate Action Team Early Actions, March 2006 (p. 47-63).	

Because thresholds of significance relating to impacts from GHG have not been established, a determination of level of significance is difficult to ascertain. It is unlikely that GHG emissions directly related to implementation of the Baseline Road Master Plan would contribute significantly to California or world-wide GHG emissions. However, the following mitigation measure will assist in reducing potential GHG impacts generated as a result of development both individually and cumulatively.

Mitigation Measure AQ-5

The Applicant shall comply with the energy standards and GHG reduction measures as required by the City, State, or Federal Government at the time of issuance of building permits and will include but not be limited to:

- *The utilization of florescent light bulbs where feasible;*
- *Prohibiting delivery trucks from idling for more than two minutes;*
- *The use of Energy Star efficiency rated appliances in all residential and commercial buildings;*
- *The utilization of tank-less water heaters where feasible in all residential and commercial buildings; and*
- *The use of solar energy where feasible.*

4.3 BIOLOGICAL RESOURCES

4.3.1 Introduction

This section of the EIR describes the type of habitat occurring on-site and evaluates the potential impacts that could occur to biological resources occupying the site proposed for development of the Baseline Road Master Plan. Information used to prepare this section was summarized from *Biological Technical Report: Baseline Road Master Plan, City of Upland*, prepared by White and Leatherman BioServices on September 8, 2003, and Baseline Road Master Plan Botanical Survey, dated February 7, 2007, prepared by Andrew C. Sanders. Field visits were conducted on September 5 and 7, 2003, to document plants and animals on the site and describe vegetation and habitat. Subsequent focused surveys for the California gnatcatcher were completed in March 2004. A separate survey was conducted on January 26, 2007, by Andrew C. Sanders, for the City Sports Park portion of the Master Plan. A copy of the Biological Technical Reports are included as Appendix C. The potential impacts to biological resources are discussed in Section 4.3.3. The biological studies assessed the entire 99-acre site as a whole, regardless of City boundaries.

4.3.2 Environmental Setting

Description of the Physical Environment

The project site is bounded by residential development and State Route 210 (SR-210) on the north, Baseline Road and the Holliday Rock Foothill Quarry on the south, residential and light industrial developments on the east and SR-210 to the west. Existing land uses on the approximately 99-acre area consist of an inactive aggregate mining pit used for flood control and groundwater recharge activities, water wells, and a composting/demolition and recycling operation.

The project site is located on an alluvial fan below the San Gabriel Mountains, on the historic floodplain of San Antonio Creek. Soils are made up of alluvial and colluvial sand, gravel, and rock. Prior to historic land use changes, the entire site would have been covered by alluvial fan sage scrub vegetation.

Much of the property has been altered by other land uses, including the former sand and gravel quarry on the City Sports Park portion of the site, a large triangular parcel in the western part of the site which was also used for sand and gravel quarrying and perhaps for equipment staging during construction of SR-210, and the composting/demolition and recycling operation.

Vegetation and Habitat

There are a few small remnant patches of alluvial fan sage scrub within the triangular area in the western part of the site, and a single larger patch in the southeastern corner. These areas are dominated by native shrubs, including California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), spiny redberry (*Rhamnus crocea*), and chaparral yucca (*Yucca whipplei*). Scalebroom (*Lepidospartum squamatum*), the most characteristic shrub of alluvial fan sage scrub, also occurs regularly throughout these parts of the site. This alluvial shrubland is regarded

as a special status vegetation type by the California Department of Fish and Game (CDFG) (CNDDB 2002).

The inactive quarry (City Sports Park portion) may hold some remnant or early-successional native vegetation. In this region, long-inactive gravel quarry slopes generally become vegetated with a mix of native shrubs (California buckwheat, brittlebush, etc.) and non-native grasses and forbes including brome grasses (*Bromus* spp.), mustards (*Brassica* spp.), and tocalote (*Centaurea melitensis*). Idle quarry floors tend to be compacted and generally support primarily non-native weedy species, but the lowest areas in quarry bottoms may pool water during all or part of the year and may support non-native riparian plants, particularly mulefat (*Baccharis salicifolia*) around their margins.

Vegetation on the site is of the type that could support local wildlife species occurring in similar arid shrublands throughout the region. Examples include reptiles (side-blotched lizard, western fence lizard, southern alligator lizard, gopher snake, southwestern pacific rattlesnake), birds (mourning dove, spotted towhee, California towhee, Bewick's wren), and mammals (California ground squirrel, agile kangaroo rat, deer mouse, coyote, and bobcat).

In many regions, land development and linear structures (e.g., roadways) have converted once-contiguous habitat into scattered patches separated by barriers, so that individual animals and entire populations are now isolated in remnant habitat "fragments." Depending on their size and other characteristics, these fragments may not support viable populations of some animals. For example, certain bird populations (including California gnatcatcher) become extinct when their habitat is fragmented by urban development.

The project site is largely isolated from other open space. It is bounded by SR-210 on the north and west, a water treatment plant and residential housing on the east, and Baseline Road on the south. These surrounding land uses tend to isolate or fragment natural habitat and wildlife populations within them. The result is that many species cannot or do not access the site because of barriers to their movement, and species left within the isolated habitat patch tend to decline in numbers. Due to its isolation from large areas of natural open space, if the project site supported any native wildlife species populations, they would only be remnant populations whose movement is interrupted by surrounding land uses and roadways.

Special Status Plants

Based on habitat occurring on the project site, it was concluded that there is a low or moderate potential that several special status plants could occur on the site (see Tables 4.3-1 and 4.3-2). There was no observation of any of these plants on either the Park View Specific Plan portion or the City Sports Park portion of the site, but the site visit was conducted outside their flowering or growing seasons, and therefore an absolute conclusion of "absent" from the surveys cannot be made.

Plants with a low or moderate probability of occurring on the site are: Plummer's mariposa lily (*Calochortus plummerae,* moderate probability in remnant shrublands), Parry's spineflower (*Chorizanthe parryi* var. *parryi,* moderate probability in remnant shrublands), smooth tarplant

Table 4.3-1
Sensitive Biological Resources Reported From The Region But Not Addressed Due To Habitat Or Geographic Range

Latin name	Common name	Reason for exclusion
PLANTS		
Aster greatae	Greata's aster	No suitable habitat (chaparral, woodlands, near springs), below elev. range (above about
Brodiaea filifolia	Thread-leaved brodiaea	No suitable habitat (vernal pools, clay soils)
Claytonia lanceolata var. piersonii	Pierson's spring beauty	No suitable habitat (pinyon woodlands), well below elev. range (above ±
Dudleya densiflora	San Gabriel Mts. dudleya	No habitat (granitic canyon walls)
Eriogonum microthecum var. johnstonii	Johnston's buckwheat	Well below elev. range (above about 8,500 ft.)
Lilium parryi	Lemon lily	No habitat (streamsides), well below elev. range (above 4,000 ft.)
Linanthus concinnus	San Gabriel linanthus	Well below elev. range (above 5,500 ft.)
Monardella macrantha ssp. hallii	Hall's monardella	No habitat (shaded chaparral & woodland), below elev. range (above about 2,000 ft.)
Navarretia prostrata	Prostrate navarretia	No suitable habitat (vernal pools, alkaline flats and seasonal wetlands)
Oreonana vestita	Woolly mountain-parsley	No habitat (mountain ridgetops); well below elev. range (above about 7,800 ft.)
Orobanche valida ssp. valida	Rock Creek broomrape	No habitat (chaparral, woodland); well below elev. range (above about 4,500 ft.)
Parnassia cirrata	Fringed grass of parnassus	No habitat (streamsides, meadows); well below elev. range (above about 7,500 ft.)
Senecio aphanactis	Rayless ragwort	No suitable habitat (alkaline flats)
Sidalcea neomexicana	Salt spring checkerbloom	No suitable habitat (seasonal wetlands; alkaline flats)
FISH		
Catostomus santaanae	Santa Ana sucker	No habitat (aquatic)
Gila orcuttii	Arroyo chub	No habitat (aquatic)
Rhinichthys osculus "ssp.3"	Santa Ana speckled dace	No habitat (aquatic)
INVERTEBRATES		
Raphiomidas terminatus abdominalis	Delhi sands flower-loving fly	No habitat (dunes and stabilized fine sand)
Incisalia mossi hidakupa	San Gabriel Mts elfin	No habitat (mountain forest, north-facing slopes)
AMPHIBIANS		
Rana muscosa	Mountain yellow-legged frog	No habitat (aquatic)
Batracoseps gabrieli	San Gabriel Mts slender salamander	No habitat (talus slopes, seeps, etc.; steep mountain canyons, above ca. 3,000 ft.)
Taricha torosa torosa	Coast Range newt	No habitat (oak or riparian woodland; breeds in streams)
REPTILES		
Clemmys marmorata pallida	Southwestern pond turtle	No habitat (aquatic)
Thamnophis hammondii	Two-striped garter snake	No habitat (aquatic)
BIRDS		
Cypseloides niger	Black swift	Nest on cliffs behind waterfalls
MAMMALS		
Ovis canadensis nelsoni	Nelson's bighorn sheep	No habitat (high mountain slopes, woodlands and shrublands)

Table 4.3-2
Special Status Species

Special Status Plants	Habitat and Distribution[1]	Flower season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated Impact	CEQA significance criteria
Atriplex serenana var. *davidsonii* Davidson's saltscale (= *A. pacifica*?)	Coastal bluffs, saltbush scrub; Channel Islands, coastal S Calif., also very uncommon in San Jacinto Val near Lakeview (Riv. Co.).	March - October	Fed: none Calif: S2? CNPS: List 1B R-E-D:3-2-2	Absent (no suitable habitat)	None	No
Berberis nevinii (*Mahonia nevinii*) Nevin's barberry	Coastal sage scrub, chaparral, oak woodland, usually below 2000 ft.; scattered localities in LA, San Bernardino, Riverside, San Diego Cos.	Spring; (can be IDd all year)	Fed: **END** Calif: S2.2 **END** CNPS: List 1B R-E-D:3-3-3	Absent (field survey)	None	No
Calochortus clavatus var. *gracilis* Slender mariposa lily	Shrubland, open forest or woodland, often clay soil, about 1300-3300 ft. elev.; San Gabriel, Liebre, & Santa Susana Mts.	April - June	Fed: None Calif: S1.1? CNPS: List 1B R-E-D:3-2-3	Absent (no suitable soil; historic disturbance)		No
Calochortus plummerae Plummer's mariposa lily	Chaparral, alluvial fans, pine forest, below ±5600 ft. elev.; widespread but uncommon throughout S. Calif. mts., foothills & valleys	May - July	Fed: none Calif: S3.2 CNPS: List 1B R-E-D:2-2-3	Moderate (remnant shrubland is suitable)	Moderate likelihood of losing occupied habitat and individual plants	No
Calochortus weedii var. *intermedius* Weed's mariposa lily	Chaparral, coastal sage scrub, valley grassland, sandy or clay soils, below about 6200 ft. elev.; coastal S and cent. Calif. Cos.	June - Aug.	Fed: none Calif: S2.2 CNPS: List 1B R-E-D:2-2-3	Absent (margin of geogr. range; historic disturbance)	None	No
Chorizanthe parryi var. *parryi* Parry's spineflower	Shrublands; open sandy places on alluvial slopes below about 5600 ft. elev.; Inland Empire and also coastal LA Co., Banning Pass, Cajon Pass	April - June	Fed: none Calif: S2.1 CNPS: List 3 R-E-D:?-2-3	Moderate (remnant shrubland is suitable)	Moderate likelihood of losing occupied habitat and individual plants	No
Docecahema leptoceras (*Chorizanthe leptocerus, Centrostegia leptocerus*) Slender-horned spineflower	Open, sandy alluvial benches in valleys and canyons; San Fernando Valley, Santa Ana River Valley, western Riverside Co.; about 600-2200 ft. elev.	April - June	Fed: **END** Calif: S1.1 **END** CNPS: List 1B R-E-D:3-3-3	Absent (minimal habitat, far distant from known sites)	None	No
Dudleya multicaulis Many-stemmed dudleya	Heavy soils, often clay, in grassland or shrubland, SW Calif., below about 2000 ft. elev.	May - June	Fed: none Calif: S2.1 CNPS: List 1B R-E-D:1-2-3	Absent (no suitable soils)	None	No
Eriastrum densifolium ssp. *sanctorum* Santa Ana River woollystar	Shrubland, alluvial fans and plains; endemic to Santa Ana River watershed, primarily in San Bern. Co.; below about 2000 ft. elev.	May -Sept.	Fed: **END** Calif: S1.1 **END** CNPS: List 1B R-E-D:3-3-3	Absent (no suitable soils)	None	No
Hemizonia laevis (*H. pungens* ssp. *laevis; Centromadia p.* ssp. *laevis*) Smooth tarplant	Seasonally wet low elev. grassland, also fallow fields, drainage ditches; primarily in SW Riv. Co. but a few sites in interior valleys of LA, San Bern., San Diego Cos.	April -Sept	Fed: none Calif: 2.1 CNPS: List 1B R-E-D:2-3-3	Low (poorly suitable habitat, margin of geogr. range)	Low likelihood of losing occupied habitat and individual plants	No
Horkelia cuneata ssp. *Puberula* Mesa horkelia	Shrublands, woodlands, gen sandy alluvial plains; SLO to San Diego Co, away from immediate coast; rarely inland to San Bern. Co., about 2002300 ft. elev.	April -Sept	Fed: none Calif: S2.1 CNPS: List 1B R-E-D:2-3-3	Low (field survey)	Low likelihood of losing occupied habitat and individual plants	No
Juglans californica var. *californica* So. California black walnut	Walnut woodland, coastal sage scrub, chaparral, gen. < ±3000 ft. elev.; Ventura, LA, Orange, San Bernardino Cos.	Can be IDd all year	Fed: none Calif: S3.2 CNPS: List 4 R-E-D:1-2-3	Low (field survey)	Low likelihood of losing occupied habitat and individual plants	No
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	Chaparral & coastal sage scrub below about 1700 ft. elev.; LA Co, inland to Riverside & San Bernardino Cos, and S to Baja Calif	Jan -July	Fed: none Calif: SH (error) CNPS: List 1B R-E-D:3-2-2	Moderate (remnant shrubland is suitable)	Moderate likelihood of losing occupied habitat and individual plants	No
Mucronea californica (*Chorizanthe californica*) California spineflower	Sandy soils, many habitats, below ±4500 ft. elev.; San Luis Obispo to San Diego Cos., inland to San Bernardino and Kern Cos.	April -July	Fed: none Calif: S3.2? CNPS: List 4 R-E-D:1-2-3	Moderate (remnant shrubland is suitable)	Moderate likelihood of losing occupied habitat and individual plants	No

Special Status Plants	Habitat and Distribution[1]	Flower season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated Impact	CEQA significance criteria
Muhlenbergia californica California muhly grass	Stream banks and shaded rocky slopes above streams, 300-6500 ft. elev.; coastal and interior S Calif. valleys and mts	July -Sept.	Fed: none Calif: S3.3 CNPS: List 4 R-E-D:1-2-3	Absent (no suitable habitat)	None	No
Senecio aphanactis Rayless ragwort	Drying alkaline flats western central and S Calif., Baja Calif., below about 1300 ft. elev.	Jan. - April	Fed: none Calif: S1.2 CNPS: List 2 R-E-D:3-2-1	Absent (no suitable habitat)	None	No
Special Status Wildlife	**Habitat and Distribution[1]**	**Activity Season[1]**	**Status Designation[2]**	**Occurrence Probability[3]**	**Anticipated Impact**	**CEQA significance criteria**
REPTILES						
Coleonyx variegatus abbotti San Diego banded gecko	Rock outcrops in shrublands, to 5000 ft. elev.; SW Calif. through much of N Baja Calif.	Spring –summer	Fed: none Calif: S2S3	Moderate (marginally suitable habitat on slopes)	Moderate likelihood of losing occupied habitat and individual animals	No
Phrynosoma coronatum blainvillei San Diego horned lizard	Forest, shrubland or grassland with sandy areas; W Calif. from LA Co. S through Baja Calif., below ±6000 ft. elev.	Spring –summer	Fed: none Calif: CSC S2S3	Moderate (habitat suitable but site isolated)	Moderate likelihood of losing occupied habitat and individual animals	No
Cnemidophorus hyperythrus beldingi Belding's orange-throated whiptail	Coastal sage scrub, chaparral; Orange Co., extreme SE LA Co., W Riv. Co., through Baja Calif.	Spring –summer	Fed: none Calif: CSC S2	Low (margin of geogr. range; isolated locn.)	Low probability of losing habitat and individual animals	No
Cnemidophorus tigris multiscutatus Coastal western whiptail	Woodlands, shrublands; SW Calif. through much of Baja Calif. , below ±7500 ft. elev.	Spring –summer	Fed: none Calif: S2S3	Moderate habitat suitable but site isolated)	Moderate likelihood of losing occupied habitat and individual animals	No
Lichanura trivirgata Rosy boa	Rocky, chaparral-covered hillsides; LA Co. through nw Baja Calif.	Spring –summer	Fed: none Calif: S3S4	Moderate - high (suitable habitat ±throughout)	Moderate-high probability of losing habitat and individual animals	No
Crotalus exsul (= C. ruber ruber) Red diamond rattlesnake	Coastal sage scrub, chaparral, desert scrub; SW Calif. (gen. Peninsular ranges and west), Baja Calif.; sea level to about 5,00 ft. elev.	Spring -summer	Fed: none USFS: none Calif: SC, S2?	Low (margin of geogr. range; isolated locn.)	Low probability of losing habitat and and individual animals	No
Diadophis punctatus modestus San Bernardino ringneck snake	Open rocky areas in woodlands, chaparral and grasslands habitats; W San Diego and Riv. Cos., SW San Bern. Co., Vent. and LA Co., NW Baja Calif.	Spring -summer	Fed: none Calif: S2?	Moderate - high (suitable habitat ±throughout)	Moderate-high probability of losing habitat and individual animals	No
Salvadora hexalepis virgultea Coast patch-nosed snake	Shrublands, usually with open sand; Sta. Barb. Co. through SW Calif., to NW Baja Calif.	Spring -summer	Fed: none Calif: CSC S2S3	Moderate - high (suitable habitat ±throughout)	Moderate-high probability of losing habitat and individual animals	No
BIRDS						
Elanus leucerus White-tailed kite	Breeds in woodlands and riparian forests, forages over open terrain; Pacific Coast (Calif., N Baja, Oregon), other scattered localities worldwide	Spring -summer	Fed: none Calif: S3	Nesting: Absent Foraging: High (occas.)	None to nest sites; loss or degradation of foraging habitat expected	No
Circus cyaneus Northern harrier	Breeds colonially in grasslands and wetlands; forages over open terrain; N America and Eurasia	Winter; rare in summer	Fed: none Calif: CSC S3 (nesting only)	Nesting: Absent Foraging: High (occas.)	None to nest sites; loss or degradation of foraging habitat expected	No
Aquila chrysaetos Golden eagle	Nests in remote trees and cliffs; forages over shrublands and grasslands; breeds throughout W N America, winters to E coast	Year-around	Fed: none Calif: CSC S3 (year-around)	Nesting: Absent Foraging: High (rare)	None to nest sites; loss or degradation of foraging habitat expected	No
Buteo regalis Ferruginous hawk	Forages over grassland and shrubland; winters in W and SW N Amer. (breeds in Great Basin and N plains)	Winter	Fed: former C2 Calif: CSC S3S4 (wintering)	Nesting: Absent Winter: High (rare)	None to nest sites; loss or degradation of winter foraging habitat expected	No
Accipiter striatus Sharp-shinned hawk	Nests and hunts in forests and woodlands, also forages in open areas; throughout N America, parts of S America	Spring -early summer	Fed: none Calif: CSC S3 (nesting only)	Nesting: Absent Winter: High	None to nest sites; loss or degradation of winter foraging habitat expected	No
Accipiter cooperii Cooper's hawk	Nests and hunts in forests and woodlands occasionally forages in open areas; most of US, Central and S America	Year-around	Fed: none Calif: CSC S3 (nesting only)	Nesting: Absent Winter: High	None to nest sites; loss or degradation of foraging habitat expected	No
Falco columbaris Merlin	Uncommon wintering species in S Calif. desert and valleys (breeds in northern N America and Eurasia)	Winter	Fed: none Calif: CSC S3 (wintering)	Nesting: Absent Winter: High (rare)	None to nest sites; loss or degradation of winter foraging habitat expected	No

Special Status Wildlife	Habitat and Distribution[1]	Activity Season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated Impact	CEQA significance criteria
Coccyzus americanus occidentalis California yellow-billed cuckoo	Nests in dense riparian forest; rare and local in Calif.; subspecies not recognized as distinct by some authors	Summer	Fed: Candidate Calif: **END** S1	Absent (no suitable habitat, local occurrences extinct)	None	No
Speotyto cunicularia (*Athene cunicularia hypugea*) Burrowing owl	Nests in rodent burrows, usually in grasslands; forages in open habitat; increasingly uncommon in S Calif.; occurs through W US and Mexico	Year-around	Fed: none Calif: CSC S2 (burrow sites)	Breeding: Low Winter: Low	Low probability of degrading or losing birds or habitat	No
Asio otus Long-eared owl	Breeds & roosts in riparian forests & woodlands; forages (at night) over open lands; rare breeding in S Calif.; occurs through N America and Eurasia	Year-around	Fed: none Calif: CSC S3 (nesting only)	Breeding: Absent Foraging: Low	Low probability of degrading or losing foraging habitat	No
Empidonax traillii extimus Southwestern willow flycatcher	Rare and local is S Calif.; breeds in willow riparian forests; SW US and N Baja	Summer	Fed: **END** Calif: **END** S1	Nesting: Absent Migration: Low	Low probability of degrading migration stopover site	No
Campytorhynchus bruneicapillus couesi San Diego (coastal population) cactus wren	Coastal sage scrub with cactus patches; S Calif. and NW Baja Calif.	Year-around	Fed: none Calif: CSC S2?	Absent (n None suitable cactus thickets)	None	No
Lanius ludovicianus Loggerhead shrike	Woodlands, shrublands, open areas with scattered perch sites; widespread in N America	Year-around	Fed: none Calif: CSC S4	High	High probability of losing habitat and individual birds	No
Polioptila californica California gnatcatcher	Coastal sage scrub; scattered in Ven and LA Cos; regular in Riv and San Diego Cos. and N Baja Calif; evidently extirpated in San Bern. Mtn. foothills	Year-around	Fed: **THR** Calif: CSC S2	Low (isolated site)	Low probability of losing habitat and individual birds	Potential, depending on occurrence
Vireo bellii ssp. *pusillus* Least Bell's vireo	Riparian forests and willow scrub; breeds in S Calif. and N Baja, winters in Baja; endangered by habitat loss and cowbird parasitism	Spring –summer	Fed: **END** Calif: **END** S2	Nesting: Absent Migration: Low	Low probability of degrading migration stopover site	No
Dendroica petechia Yellow warbler	Breeds in riparian habitat; much of N Amer. but increasingly rare in S Calif. (habitat loss, cowbird parasitism); winters Mex. to S Amer.	Spring –summer	Fed: none Calif: CSC S2 (nesting only)	Nesting: Absent Migration: Low	Low probability of degrading migration stopover site	No
Icteria virens Yellow-breasted chat	Breeds in dense riparian habitat, low elev., much of US, winters S to Cent. Amer.; becoming rare in Calif. (cowbirds & habitat loss)	Spring –summer	Fed: none Calif: CSC S3 (nesting only)	Nesting: Absent Migration: Low	Low probability of degrading migration stopover site	No
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	Coastal sage scrub, open chaparral; S Calif. and NW Baja Calif.	Year-around	Fed: none Calif: CSC S2S3	Low (isolated site)	Low probability of losing habitat and individual birds	No
Amphispiza belli belli Bell's sage sparrow	Coastal sage scrub, chaparral, saltbush scrub, cismontane cent. and S Calif., NW Baja Calif.	Year-around	Fed: none Calif: CSC S2? (nesting only)	Low (isolated site)	Low probability of losing habitat and individual birds	No
MAMMALS						
Lepus californicus bennettii San Diego black-tailed jackrabbit	Most habitat types, esp. shrublands; W Calif. and NW Baja Calif.	Year-around	Fed: none Calif: CSC S3?	High	Loss of animals and occupied habitat	No
Chaetodipus fallax fallax (*Perognathus fallax*) San Diego pocket mouse	Open shrublands and sandy areas; SW Calif. and NW Baja Calif.	Year-around (?)	Fed: none Calif: CSC S3	High	Loss of occupied habitat and individual animals	No
Perognathus longimembris brevinasus Los Angeles pocket mouse	Open shrublands, grasslands; S Calif. valleys, LA, SW San Bernardino and W Riverside Cos.	Year-around (?)	Fed: none Calif: CSC S1?	Low	Low probability of losing occupied habitat and individual animals	No
Dipodomys merriami parvus San Bernardino Merriam's kangaroo rat	Alluvial scrub; interior valleys of S Calif., Cajon Pass and San Gorgonio Pass south to Aguanga	Year-around	Fed: **END** Calif: CSC S1	Absent (see text)	None	No
Onychomys torridus ramona Southern grasshopper mouse	Arid cismontane lowlands, LA through San Diego Cos. and NW Baja Calif.	Year-around	Fed: none Calif: CSC S3?	Unknown	Unknown	No
Neotoma lepida intermedia San Diego desert woodrat	Chaparral and other shrublands, W Calif., Point Conception south, through NW Baja Calif.	Year-around	Fed: none Calif: CSC S3?	High	Loss of occupied habitat and individual animals	No
Macrotus californicus (*M. waterhousii*) California leaf-nosed bat	Arid lowlands, S Ca., S and W Az., Baja Ca. and Sonora, Mx.; roost in mineshafts, forage over open shrub-lands	Year-around	Fed: none Calif: CSC S2S3	Roosting: Absent Foraging: Moderate	Moderate likelihood of losing or degrading foraging habitat	No
Myotis lucifugus occultus Occult little brown bat (*M. occultus*, Arizona brown bat)	Mostly pine forests, 6000-9000 ft. elev. (also lower elev. riparian habitat); roost in buildings, trees, rocks, etc.; feed over water or open land; hibernates in winter; SE Calif thr AZ & NM	Warm Season	FWS: none Calif: CSC S2S3	Roosting: Absent Foraging: Moderate	Moderate likelihood of losing or degrading foraging habitat	No
Eumops perotis californicus California mastiff bat	Lowlands (with rare exceptions); cent. and S Calif., S Ariz., NM, SW Tex., N Mexico; roost in deep rock crevices, forage over wide area	Unkn.	Fed: none Calif: CSC S3?	Roosting: Absent Foraging: Unknown	Unknown probability of losing or degrading foraging habitat	No
Nyctinomops macrotis (*Tadarida molossa*) Big free-tailed bat	Rocky cliffs, scattered localities in W N. Amer. through Cent. Amer.	Year-around (?)	Fed: none Calif: CSC S2	Roosting: Absent Foraging: Unknown	Unknown probability of losing or degrading foraging habitat	No

Special Status Wildlife	Habitat and Distribution[1]	Activity Season[1]	Status Designation[2]	Occurrence Probability[3]	Anticipated Impact	CEQA significance criteria
Nyctinomops femorosaccus (*Tadarida femorosaccus*) Pocketed free-tailed bat	Deserts and arid lowlands, SW US, Baja Calif., mainland Mexico; Roost mainly in crevices of high cliffs	Year-around	Fed: none Calif: CSC S2S3	Roosting: Absent Foraging: Unknown	Moderate probability of losing or degrading foraging habitat	No

[1] **References and notes**

Barbour & Davis 1969 (bats); Calif. Dept. of Fish & Game 2003a, 2003b; California Natural Diversity Data Base 2003; Garrett & Dunn 1981; Grinell and Miller 1943; Hall and Kelson 1959; Hickman 1993; Ingles 1965; Jennings and Hayes1994; McKernan 1997 (San Bernardino kangaroo rat); Munz 1974; Remsenm 1978; Stebbins 1954, 1985; Tibor 201; U.S. Fish and Wildlife Service 1999; Williams 1976; Zeiner et al. 1988, 1990a, 1990b.

[2] **Status Designations**

Federal designations (US Fish and Wildlife Service). Note that some agencies, but not FWS, continue to use "SOC" as a federal status designation. Until 1996, FWS maintained a list of "category 2 candidates," described as species of concern, but for which insufficient data were available to support listing. This list is no longer maintained and FWS has no "SOC" category.

END: Federally listed, endangered.
THR: Federally listed, threatened.
PROP: Proposed for the federal status shown.
CAND: Candidate for federal listing; sufficient data are available to support listing, but not yet listed.
None: Not designated.

State designations (California Dept. of Fish and Game):

END: State listed, endangered.
THR: State listed, threatened.
RARE: State listed as rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
PROP: Proposed for the state status shown.
None: Not designated.

CDFG Natural Diversity Data Base Designations: Applied to special status species and sensitive plant communities; where correct category is uncertain, CDFG uses two categories or question marks.

S1: Fewer than 6 occurrences or fewer than 1000 individuals or less than 2000 acres.
S1.1: Very threatened
S1.2: Threatened
S1.3: No current threats known

S2: 6-20 occurrences or 1000-3000 individuals or 2000-10,000 acres (decimal suffixes same as above).
S3: 21-100 occurrences or 3000-10,000 individuals or 10,000-50,000 acres (decimal suffixes same as above).
S4: Apparently secure in California; clearly lower than S3 but factors exist to cause some concern, i.e., some threat or somewhat narrow habitat. No threat rank.
S5: Demonstrably secure or ineradicable in California. No threat rank.
SH: All California sites are historical (i.e., no known extant occurrences; generally presumed extinct)

California Native Plant Society (CNPS) designations: (Note: According to CNPS (Tibor 2001), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code.) List 1A: Plants presumed extinct in California. List lB: Plants rare and endangered in California and throughout their range. List 2: Plants rare, threatened or endangered in California but more common elsewhere in their range.
List 3: Plants about which we need more information; a review list. List 4: Plants of limited distribution; a watch list.

CNPS R-E-D Code: *Rarity*

l: Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.
2: Occurrence confined to several populations or one extended population.
3: Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

Endangerment

1: Not endangered.
2: Endangered in a portion of its range.
3: Endangered throughout its range.

Distribution

1: More or less widespread outside California.
2: Rare outside California.
3: Endemic to California (i.e., does not occur outside California).

[3] **Occurrence Probabilities**

Occurrence probabilities are determined from field surveys and habitat analyses reported here, plus information in the references cited earlier.

Present: Observed on the site during this study, or recorded on-site by other qualified biologists.

Expected: Not observed or recorded on the site, but very likely present during at least a portion of the year.

High: Reported sighting(s) in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.

Moderate: Reported sighting(s) in surrounding region, or site is within the known range of the species and habitat on the site is marginally suitable or of a type occasionally used by the species.

Low: Site is within the known range of the species but habitat on the site is rarely used by the species, and there are no reported sighting(s) of the species in the vicinity. It is unlikely that the species exists in substantial numbers if present.

Absent: A focused study failed to detect the species, the site is out of the currently known range, or no suitable habitat is present.
Unknown: No focused surveys have been performed in the region, and the species distribution and habitat are poorly known.

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(*Hemizonia laevis*, low probability, throughout site), mesa horkelia (low probability, remnant shrublands), southern California black walnut (*Juglans californica* var. *californica*, low probability in former quarry area), Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*, low probability in remnant shrublands), and California spineflower (*Mucronea californica*, low probability in remnant shrublands). None of these plants are listed as threatened or endangered under state or federal Endangered Species Acts or meet criteria for listing; instead, they are generally regarded as "special plants" by the CDFG and are included in the California Native Plant Society's (CNPS's) Inventory (Table 4.3-2).

Wildlife

Based on habitat, geographic range, and elevation, the Biological Resources report concluded that there is a low or moderate potential that several special status animals could occur on the site (refer to Tables 4.3-1 and 4.3-2).

Reptiles: Several special status reptiles could occur, with probabilities ranging from moderate to high. These include San Diego banded gecko, coastal western whiptail, San Diego horned lizard, rosy boa, San Bernardino ringneck snake, red diamond rattlesnake, and coast patch-nosed snake. None of these species is listed as threatened or endangered under state or federal Endangered Species Acts or meets criteria for listing; instead, they are generally regarded as species of special concern by CDFG (refer to Tables 4.3-1 and 4.3-2).

Birds: Listed threatened or endangered birds known from the general area are generally limited to riparian habitats (e.g., southwestern willow flycatcher, least Bell's vireo) or coastal sage scrub (California gnatcatcher). There is no riparian habitat on the site (except perhaps adventive shrubby riparian vegetation in the quarry bottom), and that birds using this habitat are absent from the site (southwestern willow flycatcher and least Bell's vireo could briefly visit the site during migration, but not during breeding season).

It was concluded that there is a low probability that California gnatcatcher could occur on the project site due to presence of suitable habitat and historic occurrences in the region. The isolation from surrounding undisturbed habitat makes the probability that California gnatcatcher could occur very low, and the site is not within the area proposed as critical habitat by the U.S. Fish and Wildlife Service (USFWS) (2003).

Other special status birds potentially occurring on the site, either to breed or to forage, include burrowing owl (low probability, open places), long-eared owl (low probability, foraging only), loggerhead shrike (high probability, throughout), Bell's sage sparrow (low probability, shrubland), and southern California rufous-crowned sparrow (low probability, shrubland). None of these species is listed as threatened or endangered under state or federal Endangered Species Acts or meets criteria for listing; instead, they are generally regarded as species of special concern by CDFG.

Many migratory birds, including some special status birds, might use the site briefly during spring or fall; these include southwestern willow flycatcher, least Bell's vireo, yellow warbler, and yellow-breasted chat. Several sensitive raptors might forage over the site, particularly during winter, but do not nest on the site. These include white-tailed kite, northern harrier, golden eagle,

ferruginous hawk, sharp-shinned hawk, Cooper's hawk, merlin, and prairie falcon (refer Tables 4.3-1 and 4.3-2).

Mammals: It is concluded that no state or federally listed mammals occur on the project site. One listed species, San Bernardino kangaroo rat (*Dipodomys meeriami parvus*), is known from similar habitats in the region. San Bernardino kangaroo rats occur in alluvial fan and bajada habitats in pioneer to intermediate-aged shrublands associated with occasional flooding. The site is outside designated critical habitat for San Bernardino kangaroo rat (USFWS, 2002).

San Bernardino kangaroo rats occur only infrequently or not at all in mature shrubland habitats. Most extant occurrences are centered around Redlands, Devore, and San Jacinto, where large floodplain areas have not been converted to other land uses. Small extant populations and historic sites occur around the perimeter of basins in interior southern California, including the alluvial fan below Etiwanda Canyon, and at the bases of some hills within the basins (Reche Canyon, Jurupa Mts.). The nearest occurrences to Upland are just east of Slover Mtn. near SR-10 and the Etiwanda alluvial fan. The site is evidently west of the animal's geographic range. The site meets only two of the four "primary constituent elements" of San Bernardino kangaroo rat habitat identified by USFWS (2002). The site provides sandy or loamy soils and alluvial scrub or associated vegetation. But the site is not subject to flooding processes or adjacent to land subject to flooding due to the long-term effects of the San Antonio Canyon dam upstream and channelization of San Antonio Creek, and its more recent isolation by SR-210 and other surrounding land uses. It is further concluded that San Bernardino kangaroo rat is absent from the site for the following reasons:

- There are no known occurrences in the project area, either recently or historically.
- The site is isolated by development and major roads from surrounding open lands.
- Remnant mature alluvial fan sage scrub vegetation on the site is only marginally suitable.

Special status mammals that could occur on the site include: San Diego black-tailed jackrabbit, San Diego pocket mouse, Los Angeles pocket mouse, southern grasshopper mouse, and San Diego desert woodrat. Also, several sensitive bats could use the site for foraging or roosting. All these species are California Species of Special Concern (CDFG 2003b). All except the Los Angeles pocket mouse are relatively widespread in southern California and do not meet criteria for state or federal listing. The Los Angeles pocket mouse is poorly known, but apparently is nearly restricted to shrublands with sandy soils in the Inland Empire region (reviewed by Patten et. al. 1993). CDFG (2003) indicates that it is known from fewer than six occurrences, but qualifies this ranking with a question mark. Its populations seem to fluctuate widely, and it probably spends winters in a state of hibernation; thus, it may often go undetected even on sites where it occurs. It's limited geographic range, occurrence in habitats subject to extensive ongoing land use conversions, and poorly known ecology support its status as a Species of Special Concern. But the present state of knowledge does not meet criteria for state or federal listing. The Los Angeles pocket mouse often overlaps in its distribution and habitat with the listed endangered San Bernardino kangaroo rat, and ongoing efforts to preserve this habitat will likely also favor long-term persistence of the Los Angeles pocket mouse. While it may occur on the project site, the population would be isolated from other regional populations due to

surrounding land uses and therefore would be unable to migrate into other habitat areas and unlikely to persist in the long term (refer to Tables 4.3-1 and 4.3-2).

A separate survey was conducted on January 26, 2007, by Andrew C. Sanders, for the City Sports Park portion of the Master Plan. Coastal sage brush (*Artemisia californica*) was in abundance at the bottom of the old gravel pit, and the stands are thick in many places, making it difficult to walk through. Coastal sage scrub is a shrub-dominated community of drought deciduous species, with many annuals and herbs as well. On the alluvial slopes with some supplemental water, a few evergreen species typical of the chaparral community were also present. In general, these evergreen species have substantially recovered on the slopes of the pit, but they are still very infrequent on the floor. On a portion of the south or west-facing pit slopes, laurel sumac (*Rhus laurina*) was visually dominant. Aside from coastal sage scrub in either its relatively intact alluvial form, on the small remnant patches, or in the recovered form on disturbed slopes, there are really no other significant vegetation types present. The area is cut by several dirt roads and tracks and relatively had little or no vegetation.

Project development would eliminate any recovering coastal sage scrub within the inactive quarry area. Although coastal sage scrub and alluvial fan sage scrub are considered special status plant communities, this local loss would not be significant in terms of CEQA because of the small quantity, its isolated from surrounding open space, and the fact that the area is no longer subject to natural ecological processes (particularly flooding).

No special status plants were observed during field surveys on the City Sports Park portion of the site. Sensitive species that might be considered potentially present are: Nevin's barberry (*Berberis nevinii*), Plummer's mariposa lily (*Calochortus plummerae)*, slender-horned spineflower *(Centrostegia leptoceras)*, Parry's spineflower *(Chorizanthe parryi parryi)*, mesa horkelia *(Horkelia cuneata ssp. Puberula), and* Brand's phacelia *(Phacelia stellaris*). However, no species or a suitable habitat for either of these species was found during the survey.

4.3.3 Impacts and Mitigation Measures

Thresholds of Significance

The project would have a significant effect on biological resources if it would:

- 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;

- 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 US Fish and Wildlife Service;

- 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;

- 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;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

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

Impacts Determined to Have No Impact

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 US Fish and Wildlife Service?

The Master Plan area would not cross any mapped perennial or ephemeral stream channel. Construction would likely eliminate any such vegetation that may occur. Presumably, the City Sports Park would provide suitable replacement habitat in the form of ornamental trees. Construction would eliminate about ten acres of alluvial fan sage scrub vegetation, though this would not be a "substantial" loss due to its isolation from more significant regional open space areas.

Project development would eliminate about 10 acres of mature alluvial fan sage scrub in the southeast corner of the Park View Specific Plan portion of the project and some smaller patches of coastal sage scrub in the triangular parcel near the western boundary. Although coastal sage scrub and alluvial fan sage scrub are considered special status plant communities, this local loss would not be significant in terms of CEQA because the site is small, isolated from surrounding open space, and no longer subject to natural ecological processes (particularly flooding).

No special status plants were observed during field surveys. None is listed, proposed for listing, or a candidate for listing as rare, threatened or endangered. Impacts to any of these plants, if they occur on the site, would not meet CEQA criteria for significance and therefore no mitigation is required.

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?

No known impacts to jurisdictional wetlands would result from the proposed project, though it is possible that wetlands may occur in the bottom of the quarry area. According to the January 26,

2007 survey, the lowest points of the gravel pit clearly support pools of water in wet years, but the only plants found in them were widespread hydrophytic weeds, such as rabbit-foot grass (*Polypogon monspeliensis*) and hyssop-leaved loosestrife (*Lythrum hyssopifolium*).

The San Antonio Channel a designated drainage channel, extends in a north/south direction below the surface across the Specific Plan area within the commercial area in the City of Claremont. This channel will remain in place. Construction of buildings will not be permitted above the channel but parking areas will be permitted. Therefore, no impacts are anticipated.

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?

The Biological Technical Reports concluded that the Master Plan area would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites (Refer to Appendix C).

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

Based on the Biological Technical Report, no conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance would occur (Refer to Appendix C).

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

Although the Initial Study concluded this may be a potentially significant impact it was determined after further investigation by White & Leatherman BioServices that no such conflict is present (Refer to Appendix C).

<u>Impacts Determined to be Potentially Significant</u>

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?

Impact BIO-1

The proposed project could adversely affect California gnatcatchers that have formal status under state or federal Endangered Species Acts. This would be considered a potentially significant impact.

The Biological Technical Report completed in September 2003 recommended a formal presence/absence survey, following guidelines recommended by USFWS for the California gnatcatcher. None of the other species occurring or potentially occurring in the Park View Specific Plan portion of the site have formal status under state or federal Endangered Species Acts and adverse impacts generally would not meet the CEQA criteria for mandatory findings of significance. In October 2003 a formal presence/absence survey was initiated. The survey followed the protocol developed by the USFWS in 1997. This protocol requires that surveys conducted during the non-breeding season require nine visits at least two weeks apart. Surveying was completed in March 2004. No California gnatcatchers were observed or heard during the surveys.

Six occurrences for California gnatcatcher were reported on the CNDDB search for the Ontario and surrounding quadrangles. The nearest records are from the vicinity of Indian Hill Rancho Santa Ana Botanic Garden; one from an egg collection in 1918 and one from an observation in 1994. None are currently known from the area. The nearest known existing population is at Bonelli Regional Park over 6 miles away to the southwest. All the remaining records are from more than 10 miles away, and represent single sightings.

The 2004 presence/absence survey only covered the Park View Specific Plan portion of the Master Plan area. However, it is possible that California gnatcatchers could have re-inhabited the entire Master Plan area since the 2004 survey. The California gnatcatcher could be impacted by clearing and grading activities associated with development of both the Park View Specific Plan portion and the City Sports Park portion of the project thereby creating a potentially significant impact. Implementation of the following mitigation measure would reduce the impacts to less than significant:

Mitigation Measure BIO-1

The Applicant shall conduct protocol level surveys for coastal California Gnatcatchers in all areas supporting suitable coastal sage scrub habitat that may be affected by the project. This will include a minimum 300-foot buffer. Presence/absence of this species shall be determined no more than one year prior to construction activities. If present, the Applicant shall avoid construction in or adjacent to occupied habitat during the breeding season (March 15-July 31). If direct impacts to coastal California gnatcatcher occupied habitat cannot be avoided, project activities shall not occur in occupied habitat until impacts to this species have been addressed through Section 10(a)(1)(B) process under the Federal Endangered Species Act of 1973, as amended. The Applicant shall complete compliance with the Federal Endangered Species Act prior to project construction. Mitigation measures developed through this process may include restriction of construction activities within coastal sage scrub habitat during the gnatcatcher breeding season (March 15-July 31), restoration/creation/enhancement of on-site coastal sage scrub habitat, and/or the purchasing of land or mitigation bank credits at an appropriate ratio to offset impacts to gnatcatchers and their habitat.

Level of Significance After Mitigation

Implementation of Mitigation Measure BIO-1 would reduce potential significant impacts on California gnatcatchers to a less than significant level.

Impact BIO-2

Although no nesting or migratory birds were observed during the site visit, the incidental killing of migratory birds is prohibited by the Migratory Bird Treaty Act and U.S. Fish and Game Code. The killing of nesting or migratory birds by grading or land clearing activities would be considered a potentially significant impact.

Many migratory birds, including some special status birds, might use the site briefly during spring or fall; these include southwestern willow flycatcher, least Bell's vireo, yellow warbler, and yellow-breasted chat. Several sensitive raptors might forage over the site, particularly during winter, but do not nest on the site. These include white-tailed kite, northern harrier, golden eagle, ferruginous hawk, sharp-shinned hawk, Cooper's hawk, merlin, and prairie falcon. The following mitigation measures are recommended to comply with the Migratory Bird Treaty Act.

Mitigation Measure BIO-2

To avoid incidental killing of birds protected under the Migratory Bird Treaty Act and the California Fish and Game Code, scheduling initial grading and brush removal of any previously undisturbed habitat shall occur outside the breeding season. No vegetation removal should occur between early spring (15 March) and mid summer (15 July).

Level of Significance After Mitigation

Implementation of Mitigation Measure BIO-2 would reduce potential significant impacts to a less than significant level.

Impact BIO-3

If burrowing owls inhabit the site, they could become trapped within their burrows during land clearing and grading activities associated with development of the Park View Specific Plan portion of the project thereby creating a potentially significant impact.

No burrowing owls were observed on the site during the survey. However, they may occur in areas not covered by this field survey (particularly the sand and gravel quarry). The following mitigation measures shall be implemented to comply with the California Department of Fish and Game guidelines for species of special concern (Burrowing owl).

Mitigation Measure BIO-3

A qualified biologist shall conduct pre-construction surveys for burrowing owls no more than 30 days prior to commencement of project activities. If burrowing owls are observed within

the project area or areas adjacent to it during the breeding season (February 1 to August 31), a 250-foot buffer zone shall be established around the occupied burrow(s) and construction delayed in that buffer zone until all young have fledged and are able to feed on their own, as determined by monitoring surveys conducted by a qualified biologist. Breeding burrowing owls and their young should not be relocated.

Mitigation Measure BIO-4

If burrowing owls are observed within the project area or areas adjacent to it during the non-breeding season (September to January), a 50 meter/160-foot buffer zone shall be established around the occupied burrow(s) and construction delayed in that buffer zone until the owls have vacated the occupied burrow, as determined by monitoring conducted by a qualified biologist. If this is not practical, obtain a Memorandum of Understanding (MOU) from the California Department of Fish and Game to allow passive relocation of non-breeding burrowing owls. Passive relocation usually involves placing a "one-way" door on the occupied burrow to allow the owl to escape, but not reenter the burrow, and monitoring of the burrow by a qualified biologist for one week to ensure that the owl has vacated the burrow.

Level of Significance After Mitigation

Implementation of Mitigation Measures BIO-3 and BIO-4 would reduce potential significant impacts to a less than significant level.

4.4 CULTURAL RESOURCES

4.4.1 Introduction

This section of the EIR addresses historic and pre-historic resources that together comprise Cultural Resources. Information for this section is summarized from *A Cultural Resource Assessment of the 99-Acre Baseline Master Plan Site, Cities of Upland and Claremont, San Bernardino and Los Angeles Counties,* prepared by Archaeological Associates, February 2004. The Cultural Resources Survey Report is included in this EIR as Appendix D. This report covered the entire 99-acre project site, regardless of city or county lines.

4.4.2 Environmental Setting

Cultural Resources

Cultural resources generally consist of sites of archeological significance that are prehistoric or historic, and a few historic structures. Prehistoric archaeological resources may date from prior to 8,000 years ago to around 1770, the time of historic contact between indigenous people and Europeans. Historic archaeological resources include refuse deposits such as can and bottle dumps, filled-in privy pits and cisterns, melted adobe walls and foundations, collapsed structures and associated features, and roads and trails. They may date back from the earliest Spanish mission to the beginning of the last century, roughly the period between 1770 and 1900.

A records search of the study area was conducted at the Archaeological Information Center at the San Bernardino County Museum. The search entailed a review of all previously recorded prehistoric and historic archaeological sites situated on or within a one-mile radius of the project area. Additionally, the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historical Landmarks (CHL), California Points of Historical Interest (CPHI), and the California State Historic Resources Inventory (HRI) were reviewed for the purpose of identifying any historic properties.

Archaeological Sites within the Study Area

The results of the search indicated that no prehistoric or historic archaeological sites have been previously recorded within the boundaries of the project area.

Archaeological Sites Within a One-Mile Radius

Only one archaeological site (historic in nature) has been recorded within a one-mile radius of the subject property. The site comprises the historic alignment of Baseline Road (Primary # 36-015497) that lies immediately adjacent to the southern property boundary.

Heritage Properties

No listed NRHP, CRHR, CHL, or CPHI properties have been recorded within the study area. A review of the HRI list indicated that no local structures have been previously evaluated for

historical significance. However, one CPHI property (Baseline Road [P#36-015497/SBR-12]) has been recorded within a one-mile radius of the project.

Baseline Road (P# 36-015497/SBR-12)

The origin of Baseline Road dates back to 1853 when Henry Washington was laying out the grid of townships and sections in southern California. From a monument on Mt. San Bernardino, Washington laid out a meridian line oriented north-south and a base line oriented east-west. In the 1850's, there was no direct road from San Bernardino to Los Angeles. Consequently, it was decided to use Washington's grid base line as the alignment for Baseline Road, which was eventually constructed in 1856.

Beginning at the foot of the San Bernardino Mountains at East Highland, the road runs westward through such communities as San Bernardino, Etiwanda, Alta Loma, Upland, Claremont, and San Dimas where it finally joins Foothill Boulevard. In pre-freeway days, this road handled traffic between San Bernardino and Los Angeles. Today, it still carries a great deal of local and intercity traffic.

Previous Studies Conducted in the Project Area

The record search indicated that no previous archaeological assessments have been conducted within the boundaries of the study area. However, approximately 20 percent of the surrounding region has been previously evaluated. Fifteen cultural resources surveys have been conducted within a mile of the project area. These comprise small and large acreage investigations as well as wireless (cellular phone) sites and linear studies (roads and water transportation routes).

Results of the Field Survey

A field reconnaissance of the study area was conducted on October 11, 2003. The pedestrian survey began in the southwest corner of the property and proceeded in a northeasterly direction. Surface visibility was generally very good, varying from 75-100 percent depending on the density of the low-lying vegetation.

When feasible, the pedestrian survey was conducted by walking parallel transects spaced at 10-15 meter intervals across the property. Where irregular terrain rendered parallel transects impractical, meandering transects were employed. Additionally, the larger boulders encountered outside the mine pits were checked for milling features and/or rock art. By employing these techniques, a thorough examination of all accessible portions of the Master Plan area was accomplished. The results of the field investigation were entirely negative. No prehistoric or historic resources were observed anywhere within the boundaries of the study area.

Applicable Plans, Policies, and Regulations

City of Upland

The City of Upland has no adopted goals, policies or regulations regarding cultural resources.

City of Claremont General Plan

Claremont intends to generate interest and awareness of Claremont's historic resources and to focus appropriate attention on the protection of these resources. The following are goals and policies of the Historic Preservation Element of the City of Claremont General Plan that are relevant to the proposed project:

It is the goal of the City of Claremont to…

- Protect and enhance social, architectural, archaeological, aesthetic, and historical resources located within the City of Claremont which evoke distinctive stages of the City's history so that such resources might be part of the consciousness of present and future generations.

General Policies

- The City shall incorporate the protection of architectural, historical and archaeological resources in the immediate and long-range planning process of both public and private actions throughout the City.

Design Review Policies

- The City shall maintain the harmonious appearance of each historic area and address the transitional areas between residential and commercials areas, the residential and industrial areas, and residential areas and the colleges.

- The City shall define historical districts or preservation areas within which all development and rehabilitation shall be reviewed in terms of both site and building design.

4.4.3 Impacts and Mitigation Measures

Thresholds of Significance

Significant impacts related to cultural resources would result from development of the proposed project if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15604.5;

- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15604.5;

- Disturb any human remains, including those interred outside of formal cemeteries; or

- Disturb a unique paleontological resource or site or unique geological feature.

Impacts Determined to Have No Impact

Would the project cause a substantial adverse change in the significance of a historical or an archaeological resource?

The results of the records search failed to indicate the presence of any previously recorded prehistoric or historic resources within the Park View Specific Plan portion or the City Sports Park portion of the project site. The findings of the field study were equally as negative. Therefore, since a thorough investigation has failed to reveal the presence of any historical or archeological resources within the study area, no impacts have been identified.

Impacts Determined to be Potentially Significant

Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact C-1

Excavation during development may result in the disturbance of previously unidentified human remains. This is a potentially significant impact.

The project site has been highly disturbed by the construction of State Route 210 (SR-210), previous sand and gravel operations, and a composting/demolition and recycling operation. No human remains have been recovered to this date. However, pursuant to SB 18 that requires local governments to consult with tribes prior to making adoption and amendment of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.), the Native American Heritage Commission (NAHC) and the list of tribes provided by NAHC were notified of the proposed project. Only the Morongo Band of Mission Indians responded. The following mitigation measures shall be implemented:

Mitigation Measure C-1

If human remains are encountered during grading and other construction excavation, work in the immediate vicinity shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5.

Mitigation Measure C-2

In the event that Native American cultural resources are discovered during project development/construction, all work in the immediate vicinity of the find shall cease and a qualified archaeologist meeting Secretary of Interior Standards shall be hired to assess the find. Work on the overall project may continue during this assessment period.

Mitigation Measure C-3

If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the Applicant or his archaeologist shall contact the Morongo Band of Mission Indians. If requested by the Tribe, the Applicant or the project archaeologist shall, in good faith, consult on the discovery and its disposition (e.g. avoidance, preservation, return of artifacts to tribe, etc.).

Level of Significance After Mitigation

Application of the above mitigation will reduce the potential impacts to unidentified human remains to less than significant.

Would the project disturb a unique paleontological resource or site or unique geological feature?

Impact C-2

Excavation during development may result in the disturbance of previously unidentified paleontological resources, sites, or unique geological features. This is a potentially significant impact.

The project site has been highly disturbed by the construction of SR-210, previous sand and gravel operations, and a composting/demolition and recycling operation. No paleontological resources, sites, or unique geological features have been recovered to this date. However, there is always a possibility that excavation during development may result in the disturbance of previously unidentified paleontological resources, sites, or unique geological features. Therefore, the following mitigation measure is required:

Mitigation Measure C-4

Fossils found by contractors, or subcontractors during the development of the Master Plan, shall be reported immediately to the Planning Department of the governing jurisdiction (City of Upland). These officials shall provide direction to contact a paleontological monitor from the San Bernardino County Museum. A member of the museum staff or a museum-authorized paleontologist will be dispatched to monitor the fossil location. All excavation shall cease in the area of the find until the monitor is on-site. If significant fossils (those having potential to increase scientific knowledge; including all identifiable vertebrate remains) are encountered on the property, the following procedures shall be followed:

a) The paleontologist retained for the project shall immediately evaluate the fossils that have been discovered to determine if they are significant and, if so, to develop a plan to collect and study them for the purpose of mitigation.

b) If fossils are found, the paleontologic monitor shall be empowered to temporarily halt or redirect excavation equipment to allow evaluation and removal of the fossils as

needed. To minimize construction delays, the monitor should be equipped to speedily collect specimens if they are encountered.

c) The monitor, with assistance if necessary, shall collect individual fossils and/or samples of fossil bearing sediments. If specimens of small animal species are encountered, the most time- and cost-efficient method of recovery is to remove a selected volume of fossil bearing earth from the grading area and screen wash it off-site.

d) Fossils recovered during earthmoving, or as a result of screen washing of sediment, shall be cleaned and prepared sufficiently to allow identification. This allows the fossils to be described in a report of findings and reduces the volume of matrix around specimens prior to storage, thus reducing storage costs.

e) A report of findings shall be prepared and submitted to the San Bernardino County Museum, as the agency responsible for overseeing developments and mitigation of environmental impacts upon completion of mitigation. This report would minimally include a statement of the types of paleontologic resources found, the methods and procedures used to recover them, an inventory of the specimens recovered, and a statement of their scientific significance.

f) The paleontological specimens recovered as a result of mitigation shall be transferred to a qualified scientific institution where they would be afforded long-term preservation for future scientific study.

Level of Significance After Mitigation

Application of the above mitigation will reduce the potential impacts to unidentified paleontological resources, sites, or unique geological features to less than significant.

4.5 GEOLOGY AND SOILS

4.5.1 Introduction

This section describes the geology of the Upland/Claremont Basin, and soils characteristics of the proposed Baseline Road Master Plan site in the City of Upland. The discussion of soils within this section is based on the *Soil Survey of San Bernardino County, Southwestern Part, California*, conducted by the United States Department of Agriculture, Soil Conservation Service, issued in January of 1980. Information used to prepare this section also came from the City of Upland General Plan, the City of Claremont General Plan, as well as the Southern California Earthquake Data Center.

4.5.2 Environmental Setting

Geological Setting

The City of Upland is located at the base of the south side of the San Gabriel Mountains. The City of Claremont is located west of the City of Upland and the City of Rancho Cucamonga is east of the City of Upland. The cities of Montclair and Ontario are south of Upland. The San Gabriel Mountains, to the north, are part of the Central Transverse Range, a block of mountains oriented east to west.

The diverse terrains of southwestern California can be grouped into rocks of the Peninsular Ranges of the San Gabriel and San Bernardino Mountains. These Peninsular Ranges are a part of the Central Transverse ranges and form a structurally complex region that is crossed by several major fault zones, including the San Andreas and San Jacinto fault zones.

The San Gabriel Mountains are a fault-bounded block of ancient crystalline rocks that rise north of the Los Angeles Basin and the upper Santa Ana River Basin. The San Gabriel's are bounded on the north by the San Andreas fault zone, on the south and southwest by thrust and reverse faults of the Cucamonga-Sierra Madre fault complex, and on the east by faults of the San Jacinto fault zone. Lower plate rocks are a composite of metamorphosed sedimentary and volcanic rocks known as the Pelona Schist. Upper plate rocks are metamorphic and plutonic rocks that originally formed part of the ancient North American continental platform. Deep, steep-sided canyons cut into highly fractured crystalline basement rocks that form the bedrock underpinnings of the San Gabriel Mountains. The sides of most canyons are blanketed by unstable hill-slope rock debris that is constantly being stripped away by slope failures and by runoff and washed out to the range fronts, where sediment is deposited on surfaces and channels of alluvial fans. The San Gabriel's rise more than 9,850 feet above sea level at Mount Baldy, their peak.

The project site is located in the seismically active Los Angeles region where many diverse faults can be found. The San Gabriel Mountains are bounded to the north by the seismically active right lateral San Andreas fault, which separates the mountains from the Mojave Desert on the north and the San Bernardino Mountains to the east. South of the San Gabriel Mountains, a series of active left lateral reverse faults, the Cucamonga and Sierra Madre faults, have been responsible for much of the on-going uplift of the mountains. The San Jacinto fault penetrates the

southeastern corner of the San Gabriel Mountains. Near the mouth of Lytle Creek, a 985-foot zone generally identified as the San Jacinto fault zone consists of three nearly vertical faults. The three faults are overlain by apparently unfaulted alluvium thought to be 200,000 to 500,000 years old. The alluvial relationship attests to the antiquity of the San Jacinto fault zone in the southeastern part of the San Gabriel Mountains.

Seismic Activity

Earthquakes are described in terms of the Maximum Credible Earthquake (MCE). MCE is based on correlations between the length, area, and displacement of a fault and earthquake magnitude. It is expressed in terms of moment magnitude (M_w), a comprehensive scale based on analysis of all seismic waves, and which is the best measurement of the size of the earthquake.

Recent earthquakes that have occurred on a regional scale nearest to the proposed project site are the 4.2 M_w West Hollywood earthquake on September 9, 2001 and the 4.5 M_w Crafton Hills earthquake of March 11, 1998. The West Hollywood earthquake was felt throughout the Los Angeles basin and in parts of the San Fernando Valley. The depth of the earthquake was only two and one half miles below the earth's surface and was the largest earthquake to occur in the Los Angeles basin since the 1994 6.7 M_w Northridge earthquake. The Crafton Hills earthquake was located in the San Bernardino Valley and was centered almost nine miles below the earth's surface. The earthquake was widely felt over all of southern California and was situated at the intersection of the San Jacinto fault and the Crafton Hills fault.

Presented in Table 4.5-1 are many of the regional and local faults surrounding the City of Upland and Claremont with descriptions of their activity, possible magnitudes, and fault type. According to the City of Upland General Plan, the City of Claremont General Plan and the Department of Conservation, Division of Mines and Geology Fault Activity Map, three local and two regional faults directly affect the proposed project area. The Cucamonga and the Sierra Madre faults are discussed separately in the following section due to differences in slip rate and potential for individual rupture, but have been counted as one due to their close proximity. The local and regional faults that could potentially affect the proposed Master Plan site are as follows:

San Andreas Fault – The San Andreas Fault is a right lateral, strike slip fault traversing much of the state of California. The San Andreas Fault affects communities from San Francisco in northern California to Indio in southern California. The San Andreas Fault extends through a portion of San Bernardino County and is located approximately sixteen miles north of the project site. The San Andreas is noted for infrequent, strong earthquakes. The last major rupture in southern California for the San Andreas Fault was in 1857 on the Mojave segment of the fault. The interval for major earthquakes on this portion of the San Andreas Fault is 140 years; leaving southern California due for a major rupture. An 8.0 M_w earthquake would be possible on the San Andreas Fault.

Table 4.5-1
Upland Local and Regional Faults

Map #	Fault	Type	Miles from Site	MCE	Seismic Activity	Remarks
381	Lenwood	Right lateral strike slip fault	61.6	Mw 6.5 - 7.4	Holocene	No recent seismic activity on this fault. However, the fault experienced triggered slip near the southeast and in 1992 due to the Landers earthquake.
365	Lockhart Fault	Right lateral strike slip	62.7	Mw 6.5 - 7.4	Holocene to Late Quaternary	Continuous with the Lenwood Fault system and may also form continuous fault system with the Helendale Fault.
382	Helendale Fault	Right lateral	46.8	Mw 6.5 - 7.3	Holocene	Fault cuts through North Frontal Fault Zone of the San Bernardino Mountains.
270	Garlock Fault Zone	Left lateral	75.8	Mw 6.8 - 7.6	1500 A.D.	Most obvious geologic feature in southern California, clearly marking the northern boundary between the Mojave Clock and the southern end of the Sierra Nevada and Valleys of the westernmost Basin and range province. No earthquake has produced surface rupture in historic times, although cracks opened along a short segment of the fault in 1952 due to shaking during the Kern County earthquake. The most recent earthquake in the fault zone occurred in 1992 (M 5.7) near the town of Mojave, triggered by the Landers earthquake.
415	Johnson Valley Fault	Right lateral	65.1	Mw 6.5 - 7.3	1992 – Mw 7.3	Ruptured in conjunction with the Landers earthquake in 1992. The Johnson Valley Fault is linked to the Homestead Valley Fault by the Landers Fault.
407	North Frontal Fault Zone	Primarily thrust	33.1	Mw 6.0 - 7.1	Holocene	65 kilometers in length, but is cut by the Helendale Fault. This zone consists of numerous faults and is offset right-laterally by the Helendale Fault forming a complex junction with the Old Women Springs Fault. This is a thrust fault zone where the San Bernardino Mountains are being pushed up and over the Mojave Desert.

Table 4.5-1
Upland Local and Regional Faults

Map #	Fault	Type	Miles from Site	MCE	Seismic Activity	Remarks
427A	San Andreas Fault	Right lateral	16	Mw 8.2	1857	The southern portion of this fault last ruptured in 1857 on a section between the Cajon Pass (separating the San Bernardino and San Gabriel mountains) and the Tejon Pass in the Tehachapi's.
401	San Jacinto Fault	Right Lateral Strike Slip; minor right reverse	15.4	Mw 7.5	April 9, 1968	Fault is 210 kilometers when the Coyote Creek segment is added. Ruptures usually occur at intervals of 100-300 years.
457	Casa Loma Fault		35.5	Mw*	Holocene	One of the larger and more active segments of the San Jacinto Fault. Fault runs from near the Perris Reservoir to north of Anza.
461	Elsinore Fault Zone/Glen Ivy North Fault	Right Lateral Strike Slip	22.2	Mw 7.5	May 15, 1910	The Glen Ivy North Fault is a segment of the Elsinore Fault Zone. The Elsinore Fault Zone is one of the largest faults in Southern California.
398	Red Hill-Etiwanda Ave Fault	Thrust	3.3	Mw 7.0	Holocene	Fault dips to the north and the eastern 9 kilometers is often considered to be a part of the Cucamonga Fault Zone.
399	Cucamonga Fault	Thrust	2.1	Mw 7.0	Holocene	The 30-kilometer fault lies near the communities of Claremont, Upland, and Rancho Cucamonga. The typical rupture for an earthquake event is a 2 meter offset.
429	Rialto-Colton Fault	Strike Slip	14.2	Mw*	Holocene	Fault is a major, basement-cutting fault on strike with the southern extension of the San Jacinto Fault and parallel with the San Andreas fault across the San Bernardino basin.
449	Banning Fault Zone	Right Lateral Strike Slip, Oblique right reverse, and Thrust	26.6	Mw 7.2	Holocene	The 40-kilometer fault is inferred to extend all the way to San Bernardino. The Banning Fault Zone has a long history and is believed to be part of the San Andreas and San Gorgonio Pass fault zones.
357	Sierra Madre Fault Zone	Reverse	7.7	Mw 7.0	Holocene	The fault zone is a north-dipping fault about 55 kilometers long. The fault zone is divided into 5 main segments of complex parallel and branching faults.
447	Claremont Fault	Right Slip, Reverse Slip	35.5	Mw*	Holocene	Both the Claremont and Casa Loma faults are major strands of the San Jacinto Fault Zone. The scarp of the fault rises 600 meters above the basin floor.

Table 4.5-1
Upland Local and Regional Faults

Map #	Fault	Type	Miles from Site	MCE	Seismic Activity	Remarks
427	Mill Creek Fault	Right Lateral Strike Slip	35.8	Mw*	Holocene	Fault extends 80 kilometers through the communities of Forest Falls, Crestline, and Morongo Valley.
432	Central Avenue Fault		5.9	Mw 6.7	Late Quaternary	Fault has a slip rate of about 1 millimeter/year and a length of 28 kilometers.
412	Santa Ana Fault	Thrust	29.6	Mw*	Quaternary Time	Fault dips to the north and parallels the Santa Ana River. The fault has a length of 40 kilometers and is near the communities of Seven Oaks, Running Springs, and Big Bear Lake.
411	Waterman Canyon Fault	Reverse	20.4	Mw*	Late Quaternary	This 24-kilometer fault is situated near the communities of Running Springs and Crestline.
402	Glen Helen Fault		17.5	Mw*	Holocene	Fault is exposed along the west side of the Cajon Canyon and has youthful fault features such as sag ponds and scarps. The Glen Helen Fault is the western strand of the San Jacinto Fault Zone.
456	Beaumont Plain Fault Zone	Dip Slip	40.8	Mw*	Not documented	A series of north/west trending staggered fault scarps.
431	Chino Fault	Right Reverse	9.5	Mw 7.0	Late Quaternary	Fault dips to the southwest with a slip rate of 1 millimeter/year. The fault is located near the cities of Corona and Chino.
397	Indian Hill Fault		.6	Mw*	Late Quaternary	Fault runs north and parallel to Foothill Boulevard. 600 feet of vertical displacement exists along the fault.
396	San Jose Fault	Left Lateral Strike Slip; Minor Reverse	.3	Mw 6.5	February 28, 1990 Mw 5.4 No surface rupture	The 18-kilometer fault dips to the north with a slip rate between 0.2-2 millimeters/year. Affected communities include Claremont, La Verne, and Pomona
384	San Gabriel Fault Zone	Right Lateral Strike Slip	8	Mw*	Holocene; Activity between the communities of Saugus and Castaic	Fault zone has a slip rate between 1-5 millimeters/year with a steep dip to the north.
448	San Gorgonio Pass Fault Zone	Thrust	36.1	Mw 7.0	Holocene	The 35-kilometer fault lies near Banning, Cabazon, and Beaumont. The San Gorgonio Pass Fault zone dips to the north and could rupture concurrently with the Banning Fault.

Table 4.5-1
Upland Local and Regional Faults

Map #	Fault	Type	Miles from Site	MCE	Seismic Activity	Remarks
403	Cleghorn Fault	Left Lateral	19.2	Mw*	Holocene	Fault dips steeply to the north and has a slip rate of 3 millimeters/year. The surface trace of the fault crosses Silverwood Lake.
404	Grass Valley Fault	Left Lateral Strike Slip	26.6	Mw*	Late Quaternary	The 9-kilometer fault lies near the communities of Crestline and Lake Arrowhead.
410	Tunnel Ridge Fault	Left Lateral	29.3	Mw*	Late Quaternary	Fault is a total of 17 kilometers long and the northern section is sometimes referred to as the Bowen Ranch Fault.
	San Antonio Fault	Left Lateral Strike Slip	3.6	Mw*	Late Quaternary	The 20-kilometer fault is nearest the communities of Mt. Baldy and Alta Loma.
400	Lytle Creek Fault		14.8	Mw 6.55	Holocene	Fault is the farthest west, parallel strand of the San Jacinto Fault zone
444	Whittier Fault	Right Lateral Strike Slip with some reverse slip	15.1	Mw 7.2	Holocene	Fault is about 40 kilometers long with a slip rate between 2.5-3 millimeters/year. The Whittier Fault dips to the northeast.
446	Fresno/Tin Mine/Main Street Fault		19.8		Late Quaternary; Holocene	An earthquake fault zone exists for the Fresno Fault in the southern part of Corona.
445	Peralta Hills Fault	Reverse	20.1	Mw*	Late Quaternary	Fault is a north-dipping reverse fault, 10 kilometers in length. A landslide event could be mistaken for a Holocene rupture.
394	Raymond Fault	Left Lateral; only minor reverse slip	18.9	Mw 7.0	Holocene	The 26-kilometer fault caused the Pasadena earthquake in 1988. Evidence exists that the Raymond Fault has ruptured at least 8 times in the last 36,000 years.
395	Duarte Fault	Reverse	10.7	Mw 6.0	Holocene	Fault is 1 of 5 strands of the Sierra Madre Fault Zone and a location of the most recent surface rupture.
385	Clamshell-Sawpit Canyon Fault Zone	Reverse	13	Mw*	Late Quaternary	The fault zone splays off from the Sierra Madre system. The 1991 Sierra Madre earthquake probably originated on the Clamshell-Sawpit Canyon fault but the depth of the quake prevented any surface rupture.
361	Llano Fault	Reverse	28.1	Mw*	Holocene	The 7-kilometer fault dips to the southwest and faulting does not generally extend to the surface, but the fault is expressed at the surface by folded Quaternary sediments that form a 30-foot high scarp.

Source: Southern California Earthquake Data Center (www.data.scec.org)
* Due to lack of data, the Mw for these faults is currently unknown.

San Jacinto Fault – The San Jacinto Fault is a right lateral, strike slip, minor right reverse fault about 130 miles in length. The San Jacinto Fault is about 15 miles northeast of the project site and forms a complex zone of splaying and overlapping strike slip fault segments, steps and bends, and associated zones of contractional and extensional deformation. The San Jacinto belongs to a wide zone of ongoing crustal deformation that makes up the active Pacific – North America Plate boundary and includes the southern San Andreas Fault to the east, the Elsinore Fault to the west, and poorly understood offshore faults farther west. The seismicity on the San Jacinto Fault is considerably greater than that of the San Andreas and an earthquake of M_w 7.5 could occur on this fault.

Sierra Madre Fault – The Sierra Madre Fault is a reverse fault about 34 miles in length. The Sierra Madre is approximately eight miles west of the project site and is considered an active fault, rupturing sometime during the Holocene time period (within the last 11,000 years). The Sierra Madre Fault is divided into five main segments, the easternmost part of this fault zone meets up with several other faults in a complex zone northwest of the City of Upland, near the epicenter of the 1990 Upland earthquake. The Sierra Madre Fault continues eastward from this point along the base of the San Gabriel Mountains, but the eastern continuation is considered the Cucamonga Fault, which has a greater slip rate than the Sierra Madre Fault. Nonetheless, the Sierra Madre Fault could produce a 7.0 M_w earthquake and could rupture simultaneously with a strong earthquake on the San Andreas Fault.

Red Hill Fault – The Red Hill Fault is a thrust fault approximately 16 miles in length located three miles northeast of the project site. The Red Hill Fault is oddly shaped due to its trend south from San Antonio Heights to Red Hill Avenue, which then it makes an abrupt change in direction to the northeast. The Red Hill Fault has had Holocene activity on its eastern end. This eastern end is more often considered to be a part of the Cucamonga Fault as it shows surface rupture more similar to that of the Cucamonga Fault than to that on the rest of the Red Hill Fault.

Cucamonga Fault – The Cucamonga Fault is a thrust fault 19 miles in length near the communities of Claremont, Upland, and Rancho Cucamonga. The Cucamonga Fault is an active Holocene fault with a slip rate of between five and fourteen millimeters per year, but during a major ground rupture event slip could measure two meters. The Cucamonga Fault is part of the same fault system, along with the Sierra Madre Fault, marking the southern boundary of the San Gabriel Mountains. The Cucamonga Fault lies two miles north of the project site.

San Jose Fault – The San Jose Fault is a left lateral, strike slip fault, with a possible right reverse component. The eastern end of the San Jose Fault is approximately 0.3 miles from the proposed project site. The San Jose Fault is about 11 miles in length and last produced shaking on February 28, 1990 with a 5.4 M_w earthquake, but expressed no surface rupture. The San Jose Fault dips steeply to the north and meets as the central line of an apex, which is formed by the Cucamonga and Red Hill Faults. From this northern point, the San Jose Fault runs southwesterly through the northwest corner of Upland. The lack of information on the San Jose Fault makes understanding its behavior difficult. An earthquake of 6.5 M_w is believed to be possible on the San Jose Fault.

The project site does not lie within an Alquist-Priolo Earthquake Fault Zone. The Alquist-Priolo Earthquake Fault Zoning Act was enacted in 1972 to mitigate hazards associated with surface rupture of faults. The main purpose of the Act is to prevent the construction of buildings that would be occupied by humans on the surface trace of active faults. The act only addresses hazards of surface fault rupture and does not address other earthquake hazards such as seismically induced landslides or liquefaction. The Cucamonga Fault does lie within an earthquake fault zoning act area, but the fault zoning area is offset north of the site.

Soils

The materials that comprise the soils in the area of the project site are erosional debris deposited along the San Antonio Creek Channel and on the alluvial fan extending from the San Gabriel Mountains. Before the San Antonio Dam was built, mountain streams flowed down the mountainsides picking up decomposing rock and debris material and transported it to the lower-lying, less steep areas.

The soils of alluvial fans are associated with well to excessively drained sand and gravel. Short of clays to hold moisture and act as binders, they are subject to wind and water erosion once disturbed. The alluvial deposits have been derived from the San Gabriel Mountains for many years and now make up the dominant soil components found in the immediate vicinity of the Master Plan area. The following soils are listed in the USDA Soil Survey of San Bernardino County, Southwestern Part, as found in the immediate area and are listed in order of area covered.

Soboba stony loamy sand, 2 to 9 percent slopes – The Soboba series consists of excessively drained, nearly level to moderately sloping soils. These soils formed on alluvial fans in granitic alluvium. The surface layer is grayish-brown stony loamy sand about ten inches thick. Underlying material is brown very stony loamy sand and very pale brown very stony sand that extends to a depth of 60 inches or more. The Soboba soils are slightly acid in the upper 24 inches and neutral to a depth of 60 inches. Soboba soils are rapidly permeable, runoff is slow, and the hazard of erosion is slight. The stony loamy sand is non-plastic giving it low shrink or swell potential, and the soil is classified by the American Association of State Highway and Transportation Officials (AASHTO) as A-1, the highest rating for a soils bearing strength, making the soil excellent for foundations.

Another small soil unit found at the banks of the San Antonio Creek Channel are called Psamments and Fluvents. These soils are frequently flooded and consist of sandy and gravelly material in intermittent streambeds. During flood events alluvium from stream banks is freshly deposited and partly reworked. The concrete lining of the San Antonio Creek Channel has limited the amount of new depositional material placed along the channel banks.

Applicable Plans, Policies and Regulations

City of Upland General Plan

The following are policies adopted by the City of Upland to protect the safety of citizens and to assure the correct implementation of planning policies.

Section 8.0 Seismic Safety/Safety Elements

- The City of Upland should identify and further investigate seismic and geologic conditions affecting the community.

- Public works projects should be promoted in order to minimize the effects of a seismic hazard.

- A program of building inspection should be instigated to identify structures that do not satisfy modern earthquake standards for construction and accommodate design standards of the City building code.

- Future developments should be scrutinized with the implications of potential seismic risk taken into account.

- Construction of buildings or other structures directly on or near an active fault system or other geologic hazards should be discouraged.

- The locating of critical facilities and structures of high or involuntary occupancy adjacent to a potentially active fault should be discouraged.

- A program of public education should be instigated so that the citizens of Upland may have information concerning seismic and geologic hazards.

- All new developments within the City of Upland should be required to comply with established seismic safety standards.

City of Claremont General Plan

The City of Claremont Seismic Safety Element contains two general goals and eleven policies, which are designated to suggest the minimum controls necessary to protect the public with an adequate margin of safety.

Applicable Goals, Objectives and Policies of the Seismic Element of the City of Claremont General Plan that apply to approximately 2.4 acres of the 42-acre Park View Specific Plan portion of the project are as follows:

It is the goal of the City of Claremont to:

- Achieve an acceptable margin of safety from the effects of anticipated major events.

- Assure that new avoidable risks to public safety from seismic events are avoided.

The following are policies adopted by the City of Claremont to protect the safety of citizens and to assure the correct implementation of planning policies:

- The City shall adopt amendments to the Los Angeles County Building code which will implement the policies stated in this section and which will further reduce earthquake-generated hazards associated with structures.

- The City shall require that all proposals for development within the Landslide Hazard Management Area shall submit to the City for review and approval a review of potential hazards that might exist if the project proceeds.

- The suitability of soil and/or rock formations for development should be the prime basis for deciding on the type and intensity of development permitted.

- The City shall restrict development in identifiable hazardous areas.

- The City shall require that projects to develop a major facility within the Earthquake Management Area, such as critical public buildings, critical utility structures, and high-occupancy of high-rise (over three stories or 40 feet) uses, shall submit a design analysis as well as soils, geologic, and seismic reports to the City to indicate that an undue hazard does not exist or would not result from construction on the property. These technical reports shall also address any potential or known problems relating to ground water hazards either from known cienegas or other areas that have experienced surface water flow.

- The City shall develop a disaster plan coordinated with the surrounding cities, the Counties, the State, and the Federal government, to the greatest extent possible.

- Disaster planning by the City shall include a thorough review of the City's communication system.

- The City shall ensure that those buildings which are determined to be extremely likely to lead to loss of life in an earthquake should be made structurally safe at the earliest possible date.

- The City shall develop an equitable hazard abatement program for those structures which are determined to be structurally hazardous by State licensed experts.

- The City's abatement program shall consist of alternative approaches to mitigating hazards including various degrees of rehabilitation, possible changes of use or occupancy, and, in the most extreme situations, condemnation.

- The City shall prepare and maintain a list of public buildings which could support identified emergency functions in event of a disaster.

The City Sports Park portion of the Baseline Road Master Plan does not lie within the City of Claremont. No goals or policies within the City of Claremont's General Plan would apply to this portion of the proposed project.

4.5.3 Impacts and Mitigation Measures

Thresholds of Significance

Significant impacts related to geology and soils would result from implementation of the Master Plan if the project would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - 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;
  - Strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction;
  - Landslides
- Result in substantial soil erosion or the loss of topsoil;
- 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;
- Be located on expansive soil, as defined in the Uniform Building Code (1994), creating substantial risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Impacts Determined to Have No Impact

Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?

Liquefaction

Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other rapid loading. Liquefaction occurs in saturated soils when the space between individual particles is completely filled with water. If liquefaction occurs, the strength of the soil is decreased and the ability of the soil to support buildings, foundations, or bridges is lost. Liquefaction occurs when the water table is within 50 feet of the surface. In

the vicinity of the project, historic water table levels have been measured at between 200 and 600 feet deep due to groundwater fluctuations and aquifer configurations. Although the City Sports Park portion of the project site may be used for groundwater recharge, the lack of normally high groundwater levels to saturate soils within 50 feet of the surface eliminates the potential for impacts related to liquefaction. Therefore, there would be no impacts from liquefaction.

Would the project 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?

Unstable Geologic Unit

An unstable geologic unit is a part of the earth's crust that has shown marked uplift, subsidence, or lateral deformation. No signs of any crustal deformations are known in the project area. The soils currently support composting/demolition and recycling operations and no signs of wall or slope failure have been witnessed. The soils in the area have been mapped by the USDA Soil Conservation Service and are of uniform consistency, which adds to their strength against ground failures. Groundwater is located several hundred feet below the ground surface reducing the chance for liquefaction and the alluvium is between 300 and 1,000 feet thick assuring a stable unit. No impact is expected from unstable soils.

Subsidence

Subsidence is the sinking or downward settling of the earth's surface, not restricted in rate, magnitude, or the area involved. Subsidence can be caused by natural geologic processes, such as solution, compaction, or withdrawal of fluid lava from beneath a solid crust; or by man's activity, such as subsurface mining or the pumping of oil or ground water. Subsidence can also be the gradual sinking or downwarping of a large part of the earth's crust relative to its surrounding parts forming rift valleys or coastal lowering all due to tectonic movements. Subsidence normally occurs in inland areas due to the over pumping of groundwater aquifers or removal of some other mineral or resource from within the subsurface. According to information obtained from Jim Moody, Water Operations Manager for the City of Upland, no subsidence has occurred in the area of the Master Plan. Static water levels, as measured monthly in the vicinity of the project area, have ranged from 132-232 feet below the ground surface. Due to the existing and planned use of the City Sports Park portion for water recharge basins and the presence of the San Antonio Spreading Grounds the opportunity for subsidence to occur is remote and should not pose a significant impact.

Would the project be located on expansive soil, as defined in the Uniform Building Code (1994), creating substantial risks to life or property?

Expansive Soil

The soil contains very little components of clay, which can be an expansive soil. The soil has a low shrink-swell potential and is non-plastic. The soils on the project site are not expansive. Therefore, there would be no impact from expansive soils.

Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Septic Systems

Local sewer collection and wastewater treatment providers would serve the site; there is no need for septic systems. (See Public Utilities and Infrastructure, Section – 4.13 for a complete discussion of wastewater service).

Impacts Determined to be Less Than Significant

Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: 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?

Several local faults exist within a close distance to the project area, along with two major faults that affect much of the southern California region. The Cucamonga Fault is located within an Earthquake Fault Zone area but is offset north of the planned project site. No other Alquist-Priolo Earthquake Fault Zones exist in the project vicinity. The potential for ground rupture is considered less than significant.

Impacts Determined to be Potentially Significant

Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

Impact G-1

Development of the proposed land use may expose people and structures to loss, injury, or death arising from strong seismic ground shaking. This is a potentially significant impact.

Ground shaking is the horizontal and vertical acceleration, as a fraction of gravity, which fault movement will generate, as well as the length of time the movement occurs. Ground shaking is anticipated to be the most serious threat to the proposed development. The length of time the shaking occurs varies with the distance from the fault and the length of the fault that ruptures. A major earthquake on the San Andreas fault can be expected to last between one and two minutes and register an 8 M_w. The magnitude is calculated from measurements of the maximum

amplitude on seismograms recorded on a standard instrument at a distance of 100 kilometers from the epicenter. The scale is logarithmic so that 8 M_w is 10 times that of a 7 M_w and 100 times that of 6 M_w. In terms of energy, an 8 M_w earthquake radiates 30 times more energy than that of 7M_w and 900 times more energy than that of 6 M_w.

The effect of strong ground shaking can be catastrophic unless all proper mitigation efforts are made. Un-reinforced masonry buildings would probably collapse, but well-made steel or wooden frame buildings have the best survival rates. All structures would be affected in different ways according to the strength of the foundation and how well the structure is attached to the foundation.

The soils in the project area have a very high bearing strength and very little shrink or swell potential. In addition, the soils are homogenous in the project area and contain varying sizes of particles adding additional strength to the soil. The following mitigation measure would be required to ensure impacts resulting from strong ground shaking are reduced to a less than significant level.

Mitigation Measure G-1

All new structures shall be built according to the California Building Code and respective City standards. Building officials shall check and inspect all plans for seismic safety requirements before approval of any construction.

Level of Significance After Implementation

Upon implementation of the required mitigation measure, impacts associated with seismic ground shaking and activity would be reduced to less than significant levels.

Would the project result in substantial soil erosion or the loss of topsoil?

Impact G-2

Construction activities such as grading, excavation or any other soil disturbing activities may expose bare soils to erosion and loss of soils. This is a potentially significant impact.

Development on the site in which grading and filling activities take place can leave soils especially vulnerable to wind and water erosion during construction. The lack of soil moisture and the minimal amount of clay material for binding could subject loose soils to high winds or substantial rainfall. Grading of the approximate 42-acre Park View Specific Plan portion would entail approximately 300,000 to 400,000 cubic yards of soil movement, which is estimated to take six months to complete.

The City Sports Park portion of the site is located in an inactive mining quarry and is currently below ground surface. The lowered elevation of this area would protect it from strong winds and would catch storm water run-off. For use as a City Sports Park, portions of the site would be

seeded with grass or planted with trees further increasing the area's ability to control the loss of topsoil or potential erosion. The future plans could include small storage facilities, restrooms, or play areas, that would require leveling or grading activities resulting in some soil disturbance.

Blowing soil not only depletes soils on-site, it reduces visibility, decreases air quality, abrades surfaces, and can affect the operation of machinery off-site as well. Water eroded soil can make travel on roads dangerous, it can affect water levels by blocking culverts and increasing the chance of flooding, eroded sediment could carry petroleum or other pollutants into the water system, and the sediment from eroding soils could affect light penetration into water bodies reducing the photosynthetic ability of water plants.

Slope of the soil in the area of the project is between two and nine percent reducing the chance of fast running water and heavy amounts of sediment-laden water escaping off-site. The site is located on an alluvial fan formed by the erosional deposition of debris from the San Gabriel Mountains over many years. Since the construction of the San Antonio Dam, debris flows have been eliminated or slowed to unnoticeable amounts. Nonetheless, the possibility of eroding soils would need to be controlled to ensure the impacts are less than significant.

Soils left bare during construction activities can erode due to high wind speeds or the presence of swiftly moving water. The detrimental effects of wind borne dust particles or water washed soils have been explained above. To avoid these detrimental effects mitigation measures would be implemented to control off-site migration of soils. In addition, as part of the National Pollution Discharge Elimination System (NPDES), a storm water management plan would be required of the contractor delineating the methods used to control the erosion process on-site and the types of containment structures that would be used to control eroding soils such as sand bags or hay bales. The NPDES permit process causes developers or contractors to reduce, to the extent practical, the discharge of pollutants into water bodies by using Best Management Practices (BMP's). Compliance with NPDES permitting process requires storm water quality management to be considered during a project's planning phase and be implemented during construction. A Storm Water Pollution Prevention Program (SWPPP) would be formed that would identify structural and non-structural controls using BMP's to avoid storm water effluence.

Mitigation Measure G-2

Grading activities shall be minimized and performed immediately prior to any new construction activities.

Mitigation Measure G-3

Disturbed soils shall be watered at least twice daily to ensure the control of fugitive dust escaping off-site.

Mitigation Measure G-4

A National Pollutant Discharge Elimination System permit shall be obtained before construction is started. To obtain the permit, a SWPPP must be submitted showing how storm waters will be controlled through BMP's to avoid off-site sedimentation.

Mitigation Measure G-5

Soils left bare or inactive for longer than thirty days shall be planted with ground cover or covered by approved means to assure no loss of topsoil.

Level of Significance After Implementation

Implementation of proposed mitigation measures would ensure impacts to soils or the loss of topsoil would be less than significant.

4.6 HAZARDS

4.6.1 Introduction

This section of the EIR provides a discussion of environmental hazard issues associated with the development of the Baseline Road Master Plan, which includes several parcels comprising approximately 99 acres located north of Baseline Road, south of 18th Street, west of Benson Avenue, and east of State Route-210 (SR-210). In July 2003, Lilburn Corporation prepared a Phase I Environmental Site Assessment (ESA) to evaluate current and/or historical sources of environmental concerns, evidence of hazardous substance disposal, or release of hazardous substances from or onto the project site. Krazan and Associates, Inc prepared a subsequent Phase II Limited Soil Assessment (LSA), in September 2004. The LSA evaluated 14 soil samples from 6 test pit locations. Both documents are available at the City of Upland Planning Counter. Potential Hazard impacts to both the City of Upland and the City of Claremont are analyzed within this section.

4.6.2 Environmental Setting

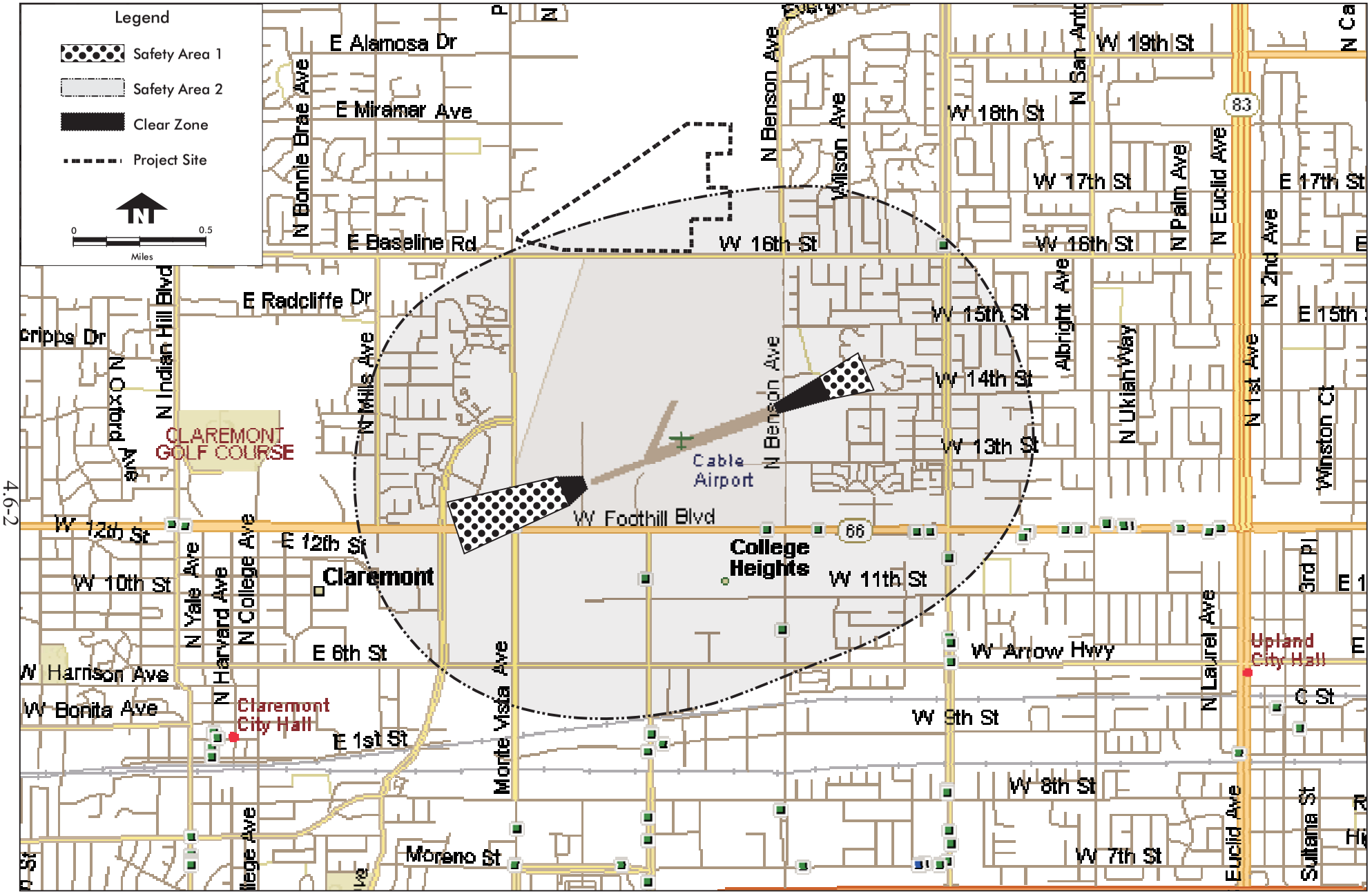
The project site is surrounded by the following land uses: SR-210 and single-family residential to the north, Baseline Road and Holiday Rock Foothill Quarry to the south, SR-210 and associated ramps to the north and west, and a residential development, a self storage facility, and the Agua de Lejos Water Treatment Plant to the east. Intravaia Rock and Sand, Inc. Company operates on-site near the southern boundary along Baseline Road.

Proximity of the Project Site to the Cable Airport

Cable Airport is located at 1749 W. 13th Street, City of Upland, California. The project site is located approximately one-mile north of Cable Airport. The southern portion of the site is located within the Airport's Safety Zone, Safety Area 2 (Figure 4.6-1).

Cable Airport is classified as a Class D Airport under the United States Airspace classification system. A Class D Airport generally refers to the airspace available at the airport site, which is measured from the site's ground surface up to 2,500 feet above the site's elevation. The configuration of each Class D airspace is individually tailored and when instrument procedures are published, the airspace will normally be designed to contain the procedures. Unless otherwise authorized, each person must establish two-way radio communications with the Air Traffic Control (ATC) facility providing air traffic services prior to entering the airspace and thereafter maintain communication while in the airspace.

Cable Airport has a 3,865-foot runway and experiences approximately 88,000 annual aircraft operations per year, well below the permitted FAA license of 209,000 annual aircraft. Aircraft operations include turbine and piston engine aircraft. Cable Airport operates on a Cable Unicom/Common Traffic Air Frequency (CTAF) because it is a tower free airport. Airports are categorized under two categories, a) Aircraft Approach Category: a grouping of aircraft based on 1.3 times their stall speed in their landing configuration at their maximum certificated landing weight and b) Airplane Design Group: A grouping of airplanes based on wingspan. Cable



4.6-2

Cable Airport Planning Area

Baseline Road Master Plan
City of Upland, California

Figure 4.6-1

Prepared By:
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Airport is categorized as a Category B: speed 91 knots or more but less than 141 knots and a Group II: 49 feet (15m) up to but not including 79 feet (24m).

Caltrans Airport Land Use Planning Handbook

California Environmental Quality Act (CEQA), Public Resources Code Section 21096, requires the Caltrans Airport Land Use Planning Handbook (Handbook) be utilized as a resource in the preparation of the environmental document for projects within two miles of an airport.

According to Figure 9 K of the Handbook the southern portion of the project site is located within Zone 6, Traffic Pattern Zone. Development within this zone is limited to residential and most nonresidential uses; outdoor stadiums and similar uses with very high intensities are prohibited. Schools, large day care centers, hospitals, and nursing homes should be avoided.

City of Upland

According to the Cable Airport Comprehensive Airport Land Use Plan, the southern portion of the Master Plan is located within the Safety Area 2. The City of Upland has adopted the following stipulations required by all land development that lies within the boundary of Safety Area 2:

- No structure shall be constructed or object permitted within the Airport's, Safety Zone Safety Area 2 that would penetrate the airport imaginary surfaces as defined in Federal Aviation Regulation Part 77 (establishes obstruction to air navigation, flight paths of approaching and departing aircrafts). Due to the proximity to aircraft operations, structures in this area should not exceed a height of 200 feet above the airport runway elevation of 1,444 above sea level (asl) or above the established airport elevation, reflect glare, emit electronic interference, or produce smoke so as to endanger aircraft operations.

City of Claremont

As defined by the Aviation Safety Section of the County of San Bernardino's General Plan, the northeast corner of Foothill Boulevard and the Claremont Boulevard in Claremont are situated in areas defined as Safety Area 1 and Safety Area 2 for Cable Airport. Restrictions on land use are associated with these safety areas. Any development that would result in large concentrations of people (more than 100 persons) must be considered carefully and may be unacceptable.

Proximity to Intravaia Rock and Sand, Inc.

Intravaia Rock and Sand, Inc., located adjacent to Baseline Road and west of residential development, is a composting/demolition and recycling operation that creates mulch, topsoil, and sand and gravel. A maintenance shop, located on-site repairs and maintains company vehicles and machinery. This portion of the facility includes a number of 55-gallon drums on-site as well as two above-ground storage tanks. A fuel truck/trailer situated on a concrete slab surrounded by

a block wall that is used as a secondary containment unit, located at the center of the facility, is used to provide fuel for the operation.

Phase I Environmental Site Assessment (ESA)

A Phase I ESA was conducted and revealed no evidence of adverse environmental conditions associated with the site. However, it was noted that a full assessment of the property occupied by Intravaia Rock and Sand, Inc. could not be completed until the site is vacated. The City of Upland Fire Department has indicated that Intravaia Rock and Sand, Inc. has no violations or hazardous materials citations. They are authorized to have 300 gallons of motor oil (stored in 55 gallon drums) and 1,000 gallons of diesel fuel (stored on truck/trailer) on-site. Refer to the Phase I ESA, Photographs 8 and 9. A copy of the report is available at the City of Upland Planning Counter.

Phase II Limited Soil Assessment

In September 2004 Krazan and Associates, Inc prepared a ESA. Test pit locations were marked and Underground Service Alert (USA) was notified of the locations of the proposed intrusive activities.

Six test pits (TP1 through TP6) at various locations were excavated at the project site on September 14 and 15, 2004. A total of 14 soil samples were collected at various depths, [5, 10, 13 and 14 feet below ground surface (bgs)], due to backhoe refusal (backhoe could not dig deeper due to large rocks), from the test pit locations. The soil samples were analyzed for TPH-g, TPH-d, BTEX and MTBE using EPA Methods 8015GD/8020M. Sunstar Laboratories, Inc. (Sunstar) of Tustin, California, a State-certified analytical laboratory, analyzed the soil samples.

Results of the ESA indicate concentrations of TPH-g, TPH-d, BTEX and MTBE in soil samples collected and analyzed from each test pit location to the maximum depth explored of 14 feet bgs were below the respective laboratory detection limits for each of the constituents of concern. A copy of the report is available at the City of Upland Planning Counter.

Water Quality

Data base research for the Phase I Site Assessment included research of approximately 52 state and federal data sources to confirm the presence or absence of environmental/hazardous sites on or near the project site. The Cortese database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with underground storage tanks (USTs) having a reportable release, and all solid waste disposal facilities from which there is known migration. The source for this data is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list has revealed that there are four Cortese sites within approximately one-mile of the project site as follows:

Equal/Higher Elevation	Address	Distance/Direction
Weston Montgomery	3232 Padua Ave North	½ -1 mile NW
Cal-Mat Company Conrock D	1975 Benson Avenue	½ -1 mile NE

Lower Elevation	Address	Distance/Direction
Upland City Yard	1370 Benson Avenue	½ -1 mile E
Dineen Trucking Inc.	1284 Airport Drive	½ -1 mile S

The Cortese database list indicates that cleanup and/or remediation has occurred on all sites and no further governmental action is required. The lower elevation sites that include the Upland City Yard and Dineen Trucking Inc., required clean up of gasoline and/or diesel fuel.

As discussed, a Phase I ESA was prepared to evaluate current and/or historical sources of environmental concerns, evidence of hazardous substance disposal, or release of hazardous substances from or onto the project site. A Phase II ESA was also prepared. After a records search, the ESA concluded no historic uses resulted in any release of hazardous wastes/substances at the site and there is no known potential of contaminated sites within the proposed Project area. Any hazardous wastes/materials encountered during construction should be remediated in accordance with local, state, and federal regulations. In addition, during construction activities, if soil and/or groundwater contamination were suspected, the developer would be required to suspend construction in the area and implement appropriate Health and Safety procedures.

4.6.3 Impacts and Mitigation Measures

Threshold of Significance

The proposed project would have a significant effect related to hazards if it would:

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

- 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;

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

- Be located on a site that 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;

- 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;

- 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;

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

- 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.

Impacts Determined to Have No Impact

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

The Master Plan is not located within one-quarter mile of a school site. Pepper Tree Elementary located 1045 W 18th Street is approximately one mile east of the Park View Specific Plan area.

Be located on a site that 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?

A Phase I site assessment prepared for the Master Plan in July 2003 revealed that the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Master Plan will be accessed from Baseline Road. Access points (emergency access) will be designed in accordance with standard requirements of the City of Upland Fire Department. Therefore, impacts to an emergency response plan or an emergency evacuation plan are anticipated to be less than significant with the approval of the Fire Department.

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?

Due to the existing conditions of the project site (disturbed) and existing surrounding land uses (generally developed) impacts from wildland fires are not anticipated.

Impacts Determined to be Potentially Significant

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

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?

Impact Analysis

Park View Specific Plan portion

Impact H-1

The proposed Park View Specific Plan may include the construction and operation of a fueling station. This would introduce the potential of an accidental release of hazardous materials to the environment, and potential exposure to people. This is a potentially significant impact.

Proposed uses that would use, store or transport hazardous materials include fuel stations that typically require the use of oil, gasoline, antifreeze, solvents, and other liquids required for maintenance and fueling. In addition, these facilities generally require aboveground and/or underground storage tanks for storage of these materials. Storage and use of petroleum products on-site are regulated by various governmental agencies within the State of California which require appropriate permits and monitoring and reporting to a number of agencies including:

City of Upland

- City of Upland – Fire Prevention Information/Inspection – all businesses are inspected annually to ensure conformance with the California Fire Code.
- City of Upland – Wastewater Discharge Permit – may be required if a commercial/industrial facility discharges waste into the sewer.
- City of Upland Fire Department – permit for underground storage tank.

County of San Bernardino

- San Bernardino County Fire Department – approval of a Business Emergency/Contingency Plan.
- San Bernardino County Department of Environmental Health Services – Environmental Protection Agency hazardous waste generator/handler permit.

State of California

- An Air Tank Permit is required for businesses using any or all of the following: 1) pressurized tanks with a volume greater than 1.5 cubic feet and containing greater than 150 PSI (pounds per square inch) of air; 2) Steam boilers over 15 PSI; and/or 3) retail stationary propane tanks.

- An Environmental Protection Agency (EPA) Identification Number is required for all businesses that generate, surrender to be transported, transport, treat, or dispose of hazardous waste.

- Registration with the Board of Equalization (BOE) is required for all hazardous materials stored within an underground storage tank. Appropriate fees are collected at the time of registration.

- Waste Discharge Requirements (WDR's) are required by the Regional Water Quality Control Board for any facility or activity that discharges, or proposes to discharge waste that may affect groundwater quality or from which waste may be discharged in a diffused manner (e.g., erosion from soil disturbance).

- A permit for underground storage tanks is required from the Regional Water Quality Control Board.

- South Coast Air Quality Management District – permits to construct/operate an auto fueling station, including underground storage tanks.

Plans and fees for the above applicable permits must be submitted, approved and issued by the respective agencies prior to the City issuing a Certificate of Occupancy. In addition, all new automobile service facilities, fueling stations, and related equipment must be constructed to the following standards:

- All tanks, piping and vent/vapor piping must be double-walled and contain leak detection capability;

- All piping and venting must be sloped back to the storage tank sumps to prevent discharge;

- Each pump island must have a containment pan underneath to prevent spilled fuel from escaping;

- All secondary containment systems are required to be tested;

- Best Available Containment Technology is a minimum requirement of the State Water Resources Control Board (as fueling stations age, they must be periodically updated to meet current requirements); and

- All equipment associated with underground storage tanks must be tested and approved by a third party laboratory and meet all state and local requirements.

Mitigation Measures

To ensure the provision of the highest level of protection to the health and safety of City of Upland residents and the environment, the following mitigation measures shall be implemented for businesses locating within the Park View Specific Plan, as applicable.

Mitigation Measure H-1

Prior to issuance of occupancy permits for businesses that would use, store, or transport hazardous materials, the Applicant shall submit detailed building plans showing where storage areas would be located and where use would occur, to City and County agencies responsible for oversight and permitting such businesses. In conjunction with building plans the Applicant shall propose a Business Emergency Response Plan to be approved prior to occupancy.

Mitigation Measure H-2

All proposed tenant improvements or change of business/occupancy applications shall require the submittal of detailed site plans indicating the location of hazardous material storage areas. The Applicant shall concurrently submit a Business Emergency Response Plan to be approved prior to occupancy.

Level of Significance After Mitigation

Implementation of Mitigation Measures H-1 and H-2 would reduce potentially significant impacts to a less than significant level.

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?

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?

Impact H-2

The proposed Baseline Road Master Plan could create a significant impact to the safety and/or operation of Cable Airport or to the people working/residing within the Master Plan area. This is a potentially significant impact.

The project site is located approximately one-mile north of Cable Airport. The southern portion of the Park View Specific Plan is located within Cable Airport's Safety Zone, Safety Area 2, as shown on Figure 4.6-1.

The City of Upland has adopted the following standard for all development occurring within Safety Area 2. The City of Claremont has no such standards.

- No structure shall be constructed or object permitted within Safety Area 2 that would penetrate the airport imaginary surfaces as defined in Federal Aviation Regulation Part 77 (establishes obstruction to air navigation, flight paths of approaching and departing aircrafts). Due to the proximity to aircraft operations, structures in this area should not exceed a height of 200 feet above ground level or above the established airport elevation, reflect glare, emit electronic interference, or produce smoke so as to endanger aircraft operations.

Proposed site development would be designed in accordance with City of Upland standards, and land use standards contained in Section 5.3 of the Cable Airport Comprehensive Airport Land Use Plan. The Park View Specific Plan portion of the Master Plan would be subject to Site Plan Review and approval by the Cable Airport Authority. Implementation of applicable development standards (within Safety Area 2) would ensure no significant impacts are anticipated. However, the applicant will be required to implement a disclosure as referenced in Section 11010 of the Business and Professions Code and Sections 1102.6, 1103.4, and 1353 of the Civil Code. Therefore the following mitigation measures are required.

Mitigation Measure H-3

No portion of any structure shall exceed 1,644 feet above sea level to avoid conflict with Federal Aviation Regulation Part 77 (Objects Affecting Navigable Airspace) Standards associated with the Cable Airport.

Mitigation Measure H-4

Properties shall be accompanied with the following disclosure:

This property is presently located in the vicinity of an airport (Cable Airport), within what is known as an aircraft influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (i.e. noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances are associated with the property before you complete your purchase and determine whether they are acceptable to you.

Level of Significance After Mitigation

Implementation of Mitigation Measures H-3 and H-4 would satisfy public disclosure concerns and reduce potentially significant impacts to less than significant.

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?

Impact H-3

The proposed Baseline Road Master Plan lies within an area of high fire zone. This is a potentially significant impact.

According to the Draft Very High Fire Hazard Severity Zone Maps, September 9, 2007, for Local Responsibility Areas (LRA) by California Department of Forestry and Fire Protection (CDF), the project site lies within the Fire Hazard Severity Zones (FHSZ). The project site lies in an area that is largely developed and urbanized. There are existing residences to the north and east. FHSZ maps are based on the physical conditions that create a likelihood that an area will burn over a 30 to 50-year period without considering modifications such as fuel reduction efforts. The model used to determine a FHSZ evaluates properties using characteristics that affect the probability of the area burning and potential fire behavior in the area. Many factors are considered such as fire history, existing and potential fuel, flame length, blowing embers, terrain, weather and the likelihood of buildings igniting. Implementation of the following mitigation measures would reduce the impacts to less than significant.

Mitigation Measure H-5

The Property Owners Association for the residential development and the Property Owner/Management Company for the commercial development shall maintain a 100-foot clearance around their respective properties.

Mitigation Measure H-6

All roofing and construction for commercial and residential buildings shall comply with the Wildland-Urban Interface Building Codes.

Mitigation Measure H-7

All residential and commercial buildings shall include a natural hazard disclosure as part of a real estate transfer.

Level of Significance After Mitigation

Implementation of Mitigation Measures H-5 through H-7 would reduce potentially significant impacts to less than significant.

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4.7 HYDROLOGY AND WATER QUALITY

4.7.1 Introduction

This section of the EIR describes the existing project site conditions related to hydrology (specifically storm water runoff, groundwater recharge operations, and water supply) and water quality. The project's potential impacts in these areas are discussed and mitigation measures are provided for impacts determined to be significant. Information used in the preparation of this section includes correspondence, groundwater production data and Annual Reports prepared by the Six Basins Watermaster; correspondence received regarding the proposed project's NOP; and the September 28, 1998 Judgment for Southern California Water Company v. City of La Verne et al. The water service infrastructure and utility provider to provide water supply to the proposed project is discussed in Section 4.13 - Public Utilities and Infrastructure. This section analyzes the entire 99-acre project site, regardless of city or county lines.

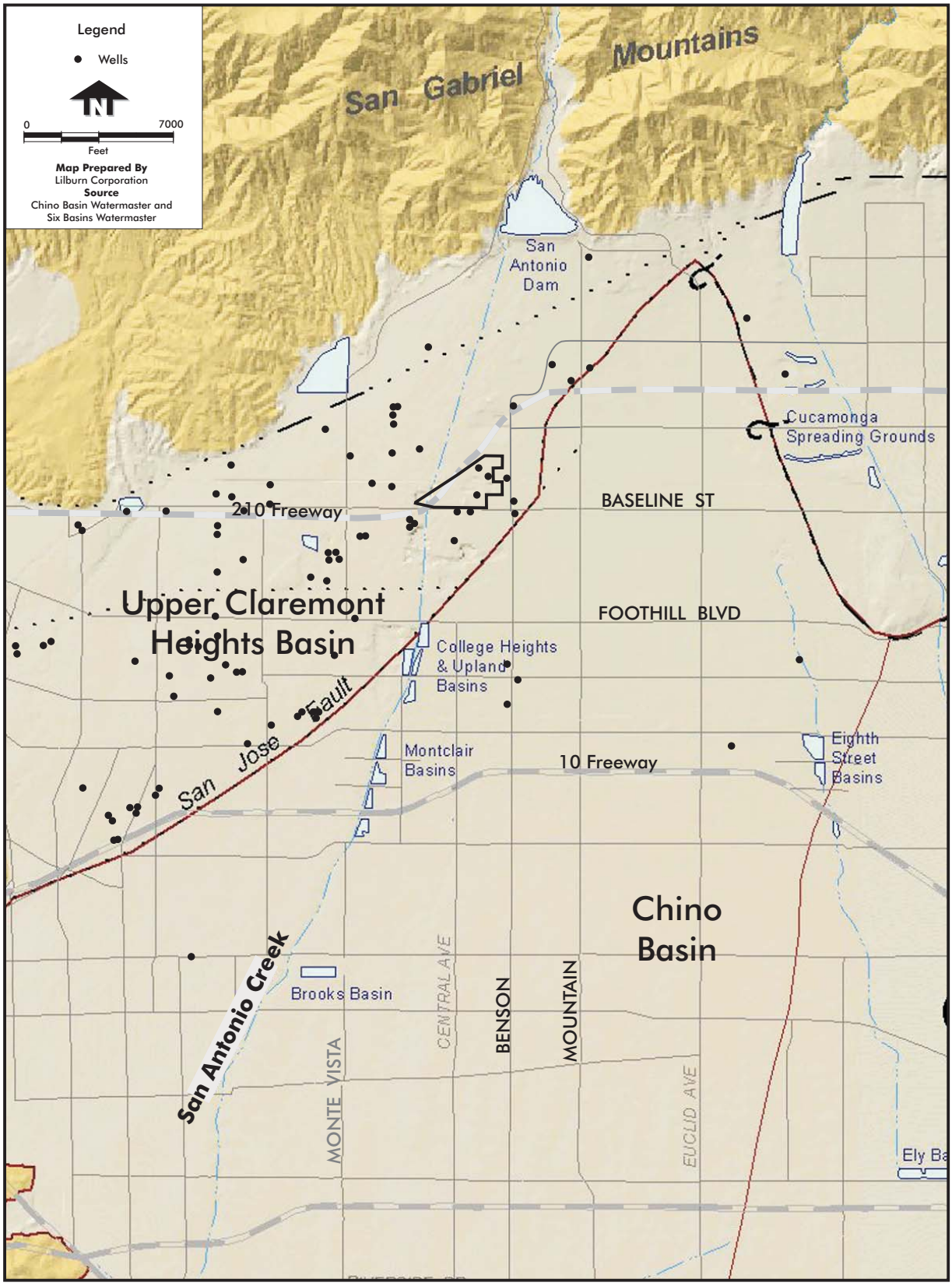
4.7.2 Environmental Setting

Groundwater

A major portion of the City of Upland is located within the upper Santa Ana River Basin, which is part of the Santa Ana Watershed. Natural drainage systems in the Upland area include the San Antonio Creek Wash, and the Cucamonga Creek Wash. These drainage courses carry storm flows from the San Gabriel Mountains, across the alluvial fans at the mouths of the canyons, onto the upper basin plain. Groundwater recharge basins are formed by the permeable water-bearing sands and gravels within the alluvial sediments of the Upland plain.

The northwesterly portions of the City overlie part of the Six Basins groundwater basins. The Six Basins Area lies outside the Santa Ana Watershed, between the San Jose Hills on the south, the Chino Basin on the east, the San Gabriel Mountains on the north and the Main San Gabriel Basin on the west (see Figure 4.7-1). The area consists of six interconnected groundwater basins, each of which consists of alluvium or other water-bearing formations lying beneath the surface of the basin. The Upper Claremont Heights Basin underlies the City of Upland, and is recharged by surface flows from the San Gabriel Mountains. The surface of the Upper Claremont Heights Basin is bounded on the south by the surface trace of the Indian Hill Fault, on the east by the westerly boundary of the Chino Basin, on the north by the surface trace of the Sierra Madre/Cucamonga Fault and on the west by the surface trace of the Claremont Heights Barrier. A number of water producers pump groundwater from the Six Basins Area, including: Southern California Water Company, City of Pomona, City of La Verne, City of Upland, City of Claremont, San Antonio Water Company (SAWCo), West End Consolidated Water Company, Upland Gateway LLC, Simpson, Inc., and Three Valleys Municipal Water District.

In the early 1990's, the water producers recognized that the water being extracted from the basins exceeded the supply of water, thus creating an overdraft situation. The annual and seasonal variability in available storm water runoff made it difficult to plan ahead and ensure a reliable water supply. In 1996 the local producers and others began formal negotiations to resolve the issues surrounding water production, storage and recharge of the Six Basins Area.



Groundwater Basins

Baseline Road Master Plan
City of Upland, California

LILBURN CORPORATION

Figure 4.7-1

In 1998, the Six Basins Area was adjudicated with the filing of a legal Judgment specifying groundwater rights and management of the basin. The final Judgment became effective in January 1999 and established a "Physical Solution" to the overdraft situation and groundwater production issues. The basin is managed by the Six Basins Watermaster; an annual review of the groundwater production of each agency is conducted and a maximum safe yield rate is established for each agency.[1] The original safe yield established for the Six Basins area for purposes of the adjudication was 19,300 acre-feet.[2]

The Six Basins Watermaster specifically defines safe yield as "the amount of groundwater, including Replenishment and return flows from Imported Water, that can be reasonably produced from the combined Two Basins and Four Basins Areas on an annual basis without causing undesirable results, including but not limited to land subsidence, water quality degradation, and harm from high groundwater levels, i.e. 19,300 acre-feet per year."

The Operating Safe Yield, as defined by the Six Basins Watermaster, is "the amount of groundwater, in acre-feet, which the Watermaster shall determine can be produced from the Four Basins Area by the parties during any single year, free of any replacement obligation under the Physical Solution."

The Four Basins Area includes the following groundwater basins: Canyon, Upper Claremont Heights, Lower Claremont Heights, and Pomona. The Two Basins Area includes Live Oak and Ganesha Basins (refer to Figure 4.7-2). Production of groundwater from the Two Basins Area is minimal. The initial Operating Plan in the Judgment set the Initial Operating Safe Yield of the Four Basins Area at 24,000 acre-feet. For calendar years 2000 and 2001, it was decreased to 22,000 acre-feet and for calendar year 2002, it was decreased again to 18,500 acre-feet. The Watermaster recommends a 2004 Operating Safe Yield of 16,500 acre-feet. The Operating Safe Yield decreases as the amount of water produced decreases, thereby allowing a "carryover" of water rights from previous years. Historical water production, as reported by the Six Basins Watermaster is shown in Table 4.7-1.

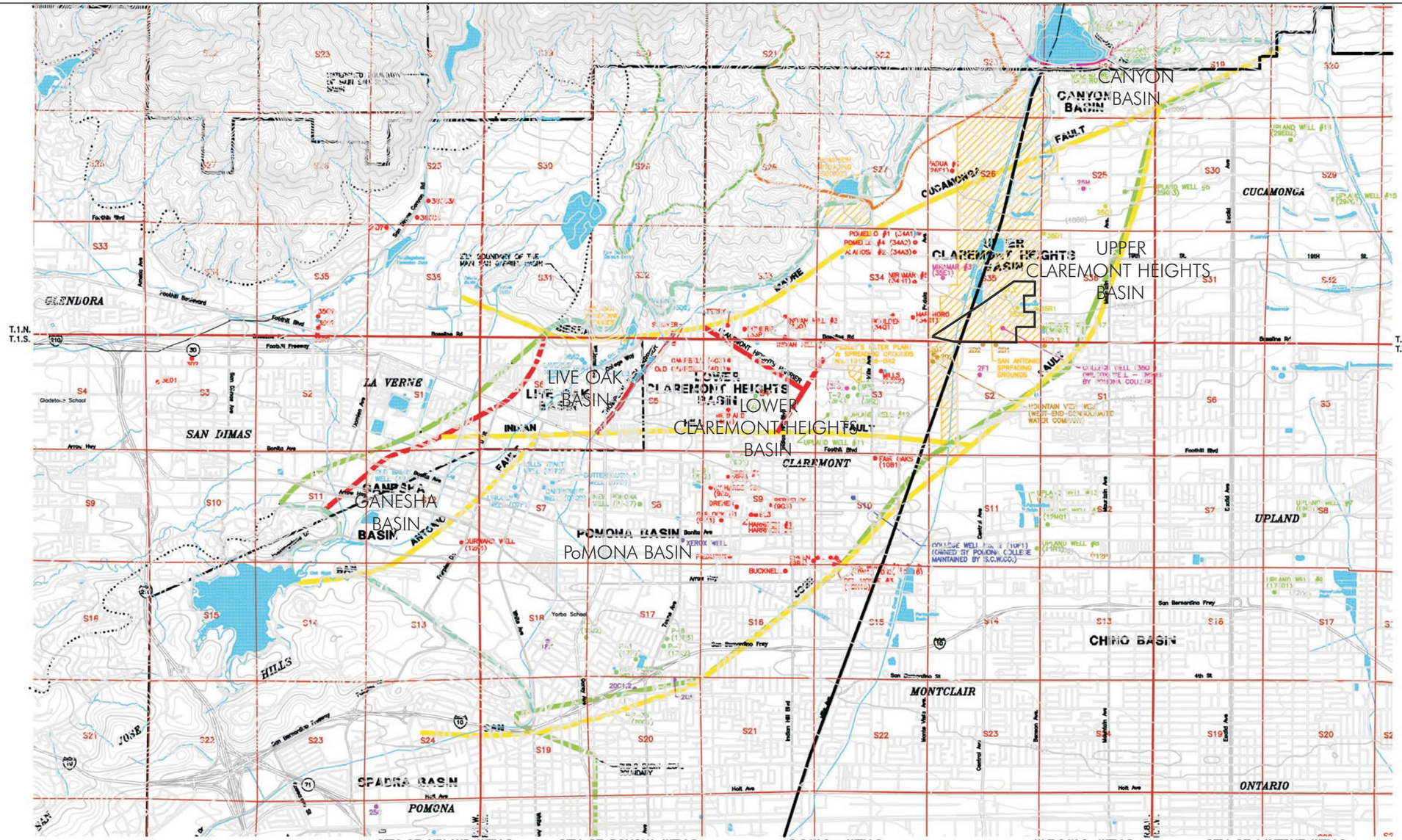
The production data shows that pumping in the Upper Claremont Heights Basin was the highest on record for the year 1999. This amount is 4,000 acre-feet greater than the 12-year average. In calendar years 2001 and 2002, production decreased to 8,600 acre-feet which is much closer to the long-term average.

The Pomona Valley Protective Association (PVPA) owns land in the San Antonio Wash area that is used for groundwater recharge. The PVPA was formed to provide for groundwater replenishment. Surface flows of the San Antonio Wash are diverted into a series of spreading basins (San Antonio Spreading Grounds), north of Baseline Road, south of the San Antonio Dam and west of Benson Avenue. The southernmost basin is Pit No. 3 of the PVPA Storm Water Retention Basin Plan, and is located in the City Sports Park portion of the Master Plan project.

[1] Safe yield is the maximum amount of water that can be continuously produced from a source of water supply during a period of years during which the probable driest period or period of greatest deficiency in water supply is likely to occur.

[2] An acre-foot of water is approximately 325,850 gallons of water.

Six Basins Area Final Boundary Map



LEGEND

- THOMPSON CREEK WATERSHED BOUNDARY
- LIVE OAK WATERSHED BOUNDARY
- SAN ANTONIO WATERSHED BOUNDARY
- FAULT LINE
- LEGAL BOUNDARY OF ADJACENT BASIN
- GEOLOGIC FEATURE
- ALLUVIUM BOUNDARY
- MAIN SAN GABRIEL BASIN WATERSHED BOUNDARY
- MAIN SAN GABRIEL BASIN
- GROUNDWATER RECHARGE FACILITY

SCALE: 1" = 2000'

CITY OF UPLAND WELLS — 18J02 WELL AND NUMBER

STATE ID #	CITY ID #
24L1	UPLAND WELL #1 (DESTROYED)
24E02	UPLAND WELL #1A
24E01	UPLAND WELL #2
12M01	UPLAND WELL #3 (INACTIVE)
25K03	UPLAND WELL #5
8N01	UPLAND WELL #7
11R1	UPLAND WELL #8 (INACTIVE)
17E01	UPLAND WELL #9
3M3	UPLAND WELL #11 (DESTROYED)
3MI	UPLAND WELL #12 (DESTROYED)
11J01	UPLAND WELL #13 (INACTIVE)
29P01	UPLAND WELL #15
29E02	UPLAND WELL #16
36N01	UPLAND WELL #17

CITY OF POMONA WELLS — 18J02 WELL AND NUMBER

STATE ID #	CITY ID #
17P7	P-1
18J2	P-3
17K2	P-7
17P5	P-8
8H2	P-9
9D1	P-13
4L1	P-20
17P3	P-32
20C1	P-33
8F1	P-37
3F2	T-1
3F4	T-2
3F3	T-3
3F5	T-4

S.C.W.Co. WELLS — 18J02 WELL AND NUMBER

STATE ID #	COMPANY ID #
34A3	ALAMOSA #2
9G3	BERKELEY
4M1	BERNARD
34Q1	BOULDER
4C3	CAMPBELL
35Q1	COLLEGE WELL
10N1	DEL MONTE #1
10N3	DEL MONTE #2
10N15	DEL MONTE #3
10N16	DEL MONTE #4
9F	DREHER
12R1	DURWARD WELL
10B1	FAIR OAKS
9E2	FORD #1
9M3	GARLOCK #1
9R1	GREEN
9L3	HARRISON #1
9L2	HARRISON #2
33Q	INDIAN HILL #3
34R1	MARLBORO
3Q2	MILLS #1
33E1	MIRAMAR #3
34H1	MIRAMAR #5
26E1	PADUA #1
34A1	POMELLO #1
34A2	POMELLO #4
33P	POMEROY
9E5	RICHARDS 180

W.E.C.W.C. WELLS — 18J02 WELL AND NUMBER

STATE ID #	COMPANY ID #
25Q2	CANYON RIDGE WELL (DESTROYED)
1D2,3	LEMON HEIGHTS #4
2D1	ML VIEW #1
2D2	ML VIEW #2 (DESTROYED)
2F1	ML VIEW #4
12P1	WEST END WELL #1 (INACTIVE)
2B1	WEST END WELL #3
2B2	WEST END WELL #4
25M1	UPLAND--FOOTHILL #1 (DESTROYED)
25L1,2	UPLAND--FOOTHILL #3

CITY OF LAVERNE WELLS — 18J02 WELL AND NUMBER

STATE ID #	CITY ID #
07Q2	CARTWRIGHT
07F1	LINCOLN
05Q2	MALONE 2 (INACTIVE)
07F2	MILLS TRACT
12A	OLD BALDY
06A2	LAVERNE HEIGHTS 1
06A1	LAVERNE HEIGHTS 2
05Q3	LAVERNE HEIGHTS 3
07Q1	BUTTERBAUGH 1 (DESTROYED)

S.A.W.C. WELLS — 18J02 WELL AND NUMBER

STATE ID #	COMPANY ID #
25Q1	SAWC WELL #17 (INACTIVE)
35P1	SAWC WELL #23 (INACTIVE)
35J3	SAWC WELL #26
3K1,2	SAWC WELL #27 (INACTIVE)
36D1	SAWC WELL #28 (INACTIVE)

SIMPSON PAPER CO. — 18J02 WELL AND NUMBER

STATE ID #	COMPANY ID #
18K	WELL 5
20A	WELL 1
20C1	WELL 2A
20C2	WELL 2B
25C	WELL 3

KEY MONITORING WELLS — 18J02 WELL AND NUMBER

STATE ID #	COMPANY ID #
12M01	UPLAND WELL #3
2F1	ML VIEW #4
35E1	MIRAMAR #3
35Q1	COLLEGE WELL No. 1
3F3	T-3

POMONA COLLEGE — 18J02 WELL AND NUMBER

STATE ID #	COMPANY ID #
35Q1	COLLEGE WELL No. 1
10F1	COLLEGE WELL No. 2

PREPARED BY:
CIVILTEC engineering inc.
(626) 357-0565

SIX BASINS AREA
FINAL BOUNDARY MAP

DESIGN: JM/MR	CHECKED: WDB	SCALE: 1" = 2000'
DRAWN: PWH	J.N. 97106	SHEET 1 OF 1

EXHIBIT "A"

NORTH

Figure 4.7-2

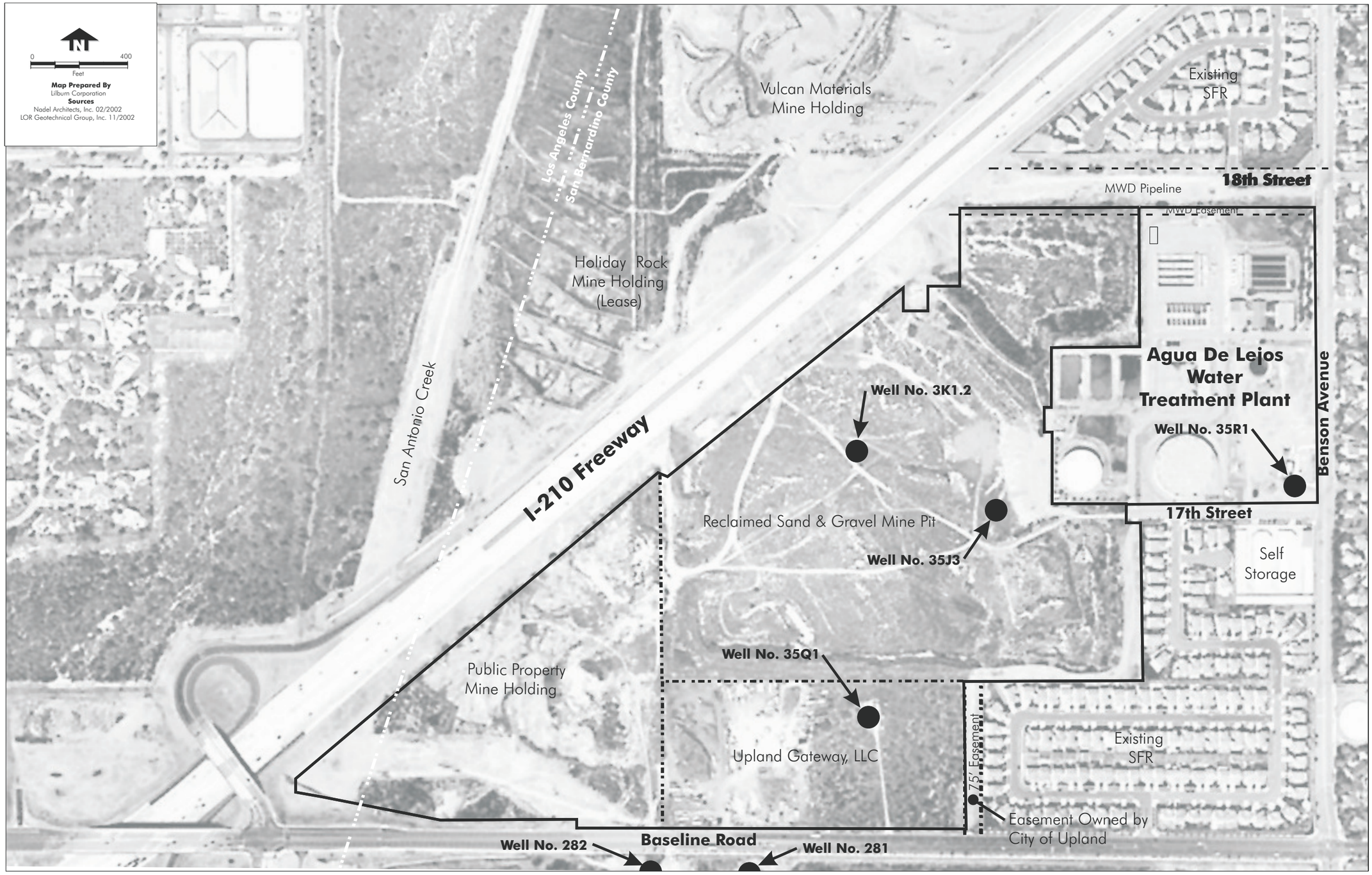
Table 4.7-1
Groundwater Production for the Upper Claremont Heights Basin by Producer[1]

Year	Pomona	San Antonio	So Cal Water[2]	Upland	West End	Subtotal
1985	906	1,814	3,606	1,261	2,732	10,319
1986	1,238	1,671	3,689	1,109	3,911	11,618
1987	1,209	1,392	3,952	1,218	2,779	10,550
1988	845	2,847	2,633	939	2,632	9,896
1989	526	1,905	2,592	1,030	2,839	8,892
1990	646	1,730	2,276	1,207	2,231	8,090
1991	950	1,005	2,816	763	2,323	7,857
1992	1,012	853	3,852	1,564	3,017	10,298
1993	2,010	498	4,048	1,186	4,258	12,000
1994	1,495	1,156	4,036	2,043	3,149	11,879
1995	2,061	442	4,327	2,129	4,078	13,037
1996	1,997	1,240	4,397	2,369	3,838	13,841
12-year Average	1,241	1,379	3,519	1,402	3,149	10,690
1997	1,676	NA	4,810	2,358	NA	8,844
1998	2,181	NA	4,055	2,059	NA	8,295
1999	2,096	964	4,716	2,442	4,515	14,733
2000	1,319	885	3,970	1,390	2,630	10,194
2001	1,122	1,303	3,043	1,439	1,983	8,890
2002	840	1,338	2,903	1,118	2,145	8,344

Source: Six Basins Watermaster "Preliminary Determination of Operating Safe Yield for Calendar Year 2004," May 16, 2003.
[1]Data for Years 1985-96 is from preliminary information; values established in Exhibit D of the Judgment may vary slightly.
[2]So. Calif. Water Co, production in the Upper Claremont Heights and Pomona Basins include extractions through Upland Gateway, LLC wells.
NA = not available

The PVPA has rights to use Pit No. 3, for groundwater recharge; the property is currently owned by the City of Upland. PVPA also spreads water in the Thompson Creek Spreading Grounds. The total PVPA replenishment activities account for approximately 40 percent of the groundwater extracted from the Six Basins Area. The annual spreading by PVPA, as reported by the Six Basins Watermaster is shown in Table 4.7-2.

San Antonio Water Company is a private mutual water company that provides domestic water supply service to the City of Upland. The City is the major stockholder in the company. San Antonio owns and operates two municipal production wells (Well 26 and Well 27A) located in the Park View Specific Plan portion of the project area. A transmission line exists between the two well sites and the water company has overhead power easements to supply electricity to the wells. A third production well is owned and operated by the Southern California Water Company (Upland Gateway, LLC #1) and is situated in Pit No. 3. Water facilities within the Master Plan area are shown on Figure 4.7-3.



Existing Water Facilities

Baseline Road Master Plan
Upland, California

Figure 4.7-3

Table 4.7-2
Historical Water Spreading by PVPA

Calendar Year	Amount Spread (acre-feet)
1994	10
1995	27,464
1996	4,662
1997	3,402
1998	25,970
1999	503
2000	718
2001	1,185
2002	243

Source: Six Basins Watermaster "Preliminary Determination of Operating Safe Yield for Calendar Year 2004," May 16, 2003.

Groundwater in the general area has a south, southwest gradient. Groundwater is encountered at depths between approximately 400 to 420 feet below ground surface (per telephone conversation with Mr. Charles Moorrees, SAWCo Assistant Manager).

Flood Control and Drainage

San Antonio Creek is an improved flood control channel that passes through/under the western-most corner of the Park View Specific Plan portion of the project site (See Figure 4.7-1). The facility is owned and operated by the U.S. Army Corps of Engineers (ACOE). Areas within the northern and western portions of the project site are used for storm water collection. In response to the Notice of Preparation (NOP) for this EIR, the County of San Bernardino, Department of Public Works responded (July 23, 2003 letter) that the 57-acre area for a future City Sports Park site, and the triangular parcel on the west end of the project site are encumbered by easements to the County Flood Control District. Certain easement documents related to these properties, dated from 1939 and 1941, were reviewed in preparation of this EIR to determine allowable uses. Although the easements were between the PVPA and the County, they continue to encumber the property as they are appurtenant to the land. The easements allow the Flood Control District the right to enter the land to construct and maintain ditches, embankments, walls or other water diversion structures, excavations, and works (including dams, cuts, weirs, and dikes) for the purpose of conserving and controlling flood waters on said lands. It appears that the intent of the PVPA in granting the easements was to allow for perpetual water conservation that would benefit both the PVPA and the County (e.g. flood control protection and water conservation [groundwater recharge]). This channel will remain in place. Construction of buildings will not be permitted above the channel but parking areas will be permitted.

The Master Plan area is located in a wash that historically flooded during heavy storm events prior to the construction of the San Antonio Dam. The development of the project site would result in placement of structures in the wash area. However, construction of State Route 210 (SR-210) and the area north of SR-210, included the construction of retention basins designed to minimize potential impacts to the freeway resulting from dam failure. These facilities also provide flood protection from major flooding to the Master Plan project site. The potential loss

of spreading capacity was mitigated by the freeway project via the construction of three eight-foot culverts capable of carrying water from the north side of the freeway to areas on the south side including Pit No. 3.

According to the Phase I Site Assessment, prepared for the Master Plan property, the site does not occur within a 100-year or 500-year flood plain (see Figure 4.7-4). Marylou Mermilloid of the County Public Works Department, Water Resources Division, also confirmed that the Master Plan project site is not within a Federal Emergency Management Agency (FEMA) designated flood zone (personal communication, November 13, 2003). The project area drains from the north to the south at an approximately four percent gradient. Existing surface flows are not concentrated at any one point. Currently there is no urban infrastructure on the project site (other than improvements to San Antonio Creek Channel) to control or capture storm water runoff. Surface flows eventually drain to the San Antonio Creek. Water flows are controlled and released to percolate into the groundwater via a series of recharge basins located along the San Antonio Creek Wash. The pits created from prior sand and gravel extraction act as recharge basins.

Water Quality

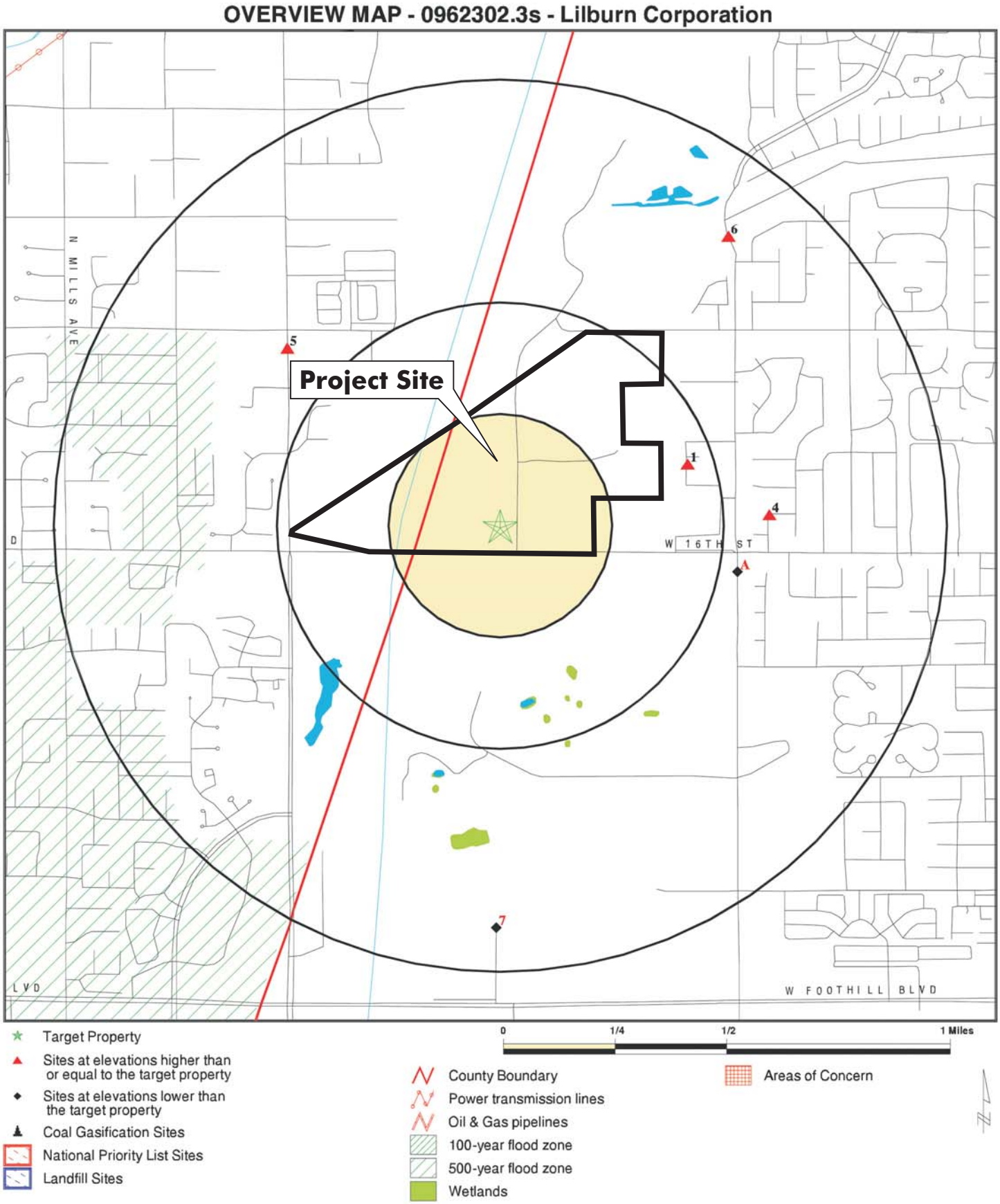
Data base research for the Phase I Site Assessment included research of approximately 52 state and federal data sources to confirm the presence or absence of environmental/hazardous sites on or near the project site. The Cortese database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with underground storage tanks (USTs) having a reportable release, and all solid waste disposal facilities from which there is known migration. The source for this data is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list has revealed that there are four Cortese sites within approximately one-mile of the project site (see Figure 4.7-4) as follows:

Equal/Higher Elevation	**Address**	**Distance/Direction**
Weston Montgomery	3232 Padua Ave North	½ -1 mile NW
Cal-Mat Company Conrock D	1975 Benson Avenue	½ -1 mile NE

Lower Elevation	**Address**	**Distance/Direction**
Upland City Yard	1370 Benson Avenue	½ -1 mile E
Dineen Trucking Inc.	1284 Airport Drive	½ -1 mile S

The Cortese database list indicates that cleanup and/or remediation has occurred on all sites and no further governmental action is required. The lower elevation sites required clean-up of gasoline and/or diesel fuel.



Source:
EDR Overview Map, April 2003

Prepared By:
LILBURN CORPORATION

Cortese Sites and Flood Zones Map
(from July 2003 Phase I Environmental Site Assessment)

Baseline Road Master Plan
City of Upland, California

Figure 4.7-4

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The Six Basins Watermaster Annual Report for 1999 (April 2000), states that water quality in the Upper Claremont Heights and Canyon Basins "has been and remains good through CY (calendar year) 1999." Portions of the Lower Claremont Basin, much of the Live Oak and Ganesha Basins, and areas in the northeastern portion of the Pomona Basin all exhibit high nitrate levels. There is also a plume of volatile organic compounds (VOCs) in the southern portion of the Pomona Basin. Several wells within these basins have been shutdown or have wellhead treatment facilities.

Applicable Policies, Plans and Regulations

Federal

Clean Water Act (CWA)

The CWA was enacted with the primary purpose of restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters. The U.S. EPA has delegated responsibility for implementation of portions of the CWA to the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) for water quality control planning and control programs, such as the National Pollutant Discharge Elimination System (NPDES) Program.

State

Responsibility for the protection of water quality in California rests with the SWRCB and the nine RWQCBs. The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations. The RWQCBs develop and implement Water Quality Control Plans (Basin Plans) that consider regional beneficial uses, water quality characteristics, and water quality problems. The City of Upland is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (SARWQCB). The SARWQCB implements a number of federal and state laws, the most important of which are the State Porter-Cologne Water Quality Control Act and the federal CWA.

Porter-Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act §13000 directs each RWQCB to develop a Basin Plan for all areas within its region. The Basin Plan is the basis for each RWQCB's regulatory programs. The proposed project site is located within the purview of the SARWQCB (Region 8), and must comply with applicable elements of the region's Basin Plan, as well as the Porter-Cologne Water Quality Control Act, and the federal Clean Water Act.

National Pollutant Discharge Elimination System (NPDES)

The NPDES permit system was established in the CWA to regulate both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. As

defined in the federal regulations, nonpoint sources are generally exempt from federal NPDES permit program requirements, with two exceptions: (1) nonpoint source discharges caused by general construction activities of over 1 acre; and (2) stormwater discharges in municipal stormwater systems either as part of a combined system or as a separate system in which runoff is carried through a developed conveyance system to specific discharge locations.

Point Source Discharges – For point source discharges, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge through the establishment of Waste Discharge Requirements.

Nonpoint Source Discharges Caused by General Construction and Operational Activities- One of the primary objectives of the regulations for nonpoint source discharges is the reduction of pollutants in urban stormwater discharge through the use of structural and nonstructural Best Management Practices (BMPs). The EPA implemented the NPDES stormwater program in two phases. Phase I addressed large dischargers and construction activities that affect five acres or greater, while Phase II, which was implemented in 1999, addressed smaller dischargers and construction activities that affect one or more acres. The regulations require that storm water and non-storm water runoff associated with a construction activity, which discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4s), must be regulated by a NPDES permit.

Typical construction BMPs include, but are not necessarily limited to the following:

- Scheduling or limiting activities to certain times of year
- Prohibiting certain construction practices
- Implementing equipment maintenance schedules and procedures; implementing a monitoring program
- Other management practices to prevent or reduce pollution, such as using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils
- Storing materials and equipment to ensure that spills or leaks do not enter the storm drain system or surface waters
- Developing and implementing a spill prevention and cleanup plan
- Installing traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains
- Using barriers, such as straw bales or plastic, to minimize the amount of uncontrolled runoff that could enter drains or surface water

Typical operation BMPs include, but are not necessarily limited to the following:

- Controlling roadway and parking lot contaminants by installing oil and grease separators at storm drain inlets
- Cleaning parking lots on a regular basis

- Incorporating peak-flow reduction and infiltration features (such as grass swales, infiltration trenches, and grass filter strips) into landscaping
- Implementing educational programs

The San Bernardino County Flood Control District, as principal permittee under the County's MS4 permit (Order No. R8-2002-0012), has recently revised its Water Quality Management Plan (WQMP), which was approved by the SARWQCB and made available to the public as of June 1, 2004. The Model WQMP Guidance document supersedes the "Guidelines for New Development and Redevelopment," dated June 2000. The purpose of the new WQMP is to guide the Permittees that have land-use planning and development authority in the development and implementation of a program to minimize the detrimental effects of urbanization on the beneficial uses of receiving waters, including effects caused by increased pollutant loads and changes in hydrology.

The SARWQCB administers the NPDES permit program regulating storm water from construction activities for projects greater than one acre in size. The main compliance requirement of the NPDES permits is the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The purpose of a SWPPP is to identify potential on-site pollutants, identify and implement appropriate storm water pollution prevention measures to reduce or eliminate discharge of pollutants to surface water from storm water and non-storm water discharges. Storm water BMPs to be implemented during construction and grading, as well as post-construction BMPs, will be outlined in the SWPPP prepared for the proposed project. The project proponent will be required to obtain coverage under the General NPDES Permit for construction activities prior to site disturbance, and will need to meet San Bernardino County's requirements for new development that are specified in its WQMP. Impacts other than water quality impacts that pertain to construction and grading are discussed in Section 4.2, Air Quality and Section 4.5, Geology and Soils. Examples of construction BMPs include: detention basins for capture and containment of sediments, use of silt fencing, sandbags, gravel bags, or straw bales to control runoff and identification of emergency procedures in case of hazardous materials spills.

Pursuant to San Bernardino County Flood Control District's MS4 permit (Order No. 2002-0012) of which the City of Upland is a co-permittee, the project's WQMP would be required to:

- Incorporate and implement Site Design BMPs. Justification is required for any Site Design BMPs not incorporated into the Project.
- Incorporate and implement all Source Control BMPs, unless not applicable to the project due to project characteristics. Justification is required for any Source Control BMP not incorporated into the project.
- Either incorporate and implement Treatment Control BMPs, by including a selection of such BMPs into the project design; or participate in or contribute to an approved regional-based treatment program. Site Design and Source Control BMPs are required for projects participating in regional-based treatment programs.

- The combination of Site Design, Source Control, and/or Treatment Control BMPs or Regional-based treatment program must address all identified pollutants and hydrologic conditions of concern.

Local

City of Upland General Plan

Two goals within the City of Upland General Plan address groundwater resources and their protection:

Goal IV.11. To protect vital groundwater resources for present and future beneficial uses.

Policy IV.3.J. Because San Bernardino County obtains about 85 percent of its drinking water from groundwater and a significant percentage of the population of Southern California also depends on San Bernardino County groundwater for its beneficial uses, and because inappropriately sited development (including specified hazardous waste facilities) have the potential to adversely impact groundwater, the City shall seek to cooperate with the County in the development of a County-wide groundwater protection strategy. The strategy should consider specific policies and programs for regulation of potential sources of pollution as well as identify mechanisms to detect and correct possible impacts to the groundwater

4.7.3 Impacts and Mitigation Measures

Thresholds of Significance

The proposed project would have a significant effect on hydrology or water quality if it would:

- Violate any water quality standards or waste discharge requirements;

- 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);

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

- Substantially alter the existing drainage pattern of the project 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;

- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;

- Otherwise substantially degrade water quality;
- 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;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- 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; or
- Inundation by seiche, tsunami, or mudflow.

Impacts Determined to Have No Impact

Would the project 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?

The proposed Park View Specific Plan would result in the development of 400 housing units. According to the Phase I Site Assessment, prepared for the Master Plan property, the site does not occur within a 100-year or 500-year flood plain (see Figure 4.7-4). Marylou Mermilloid of the County Public Works Department, Water Resources Division, also confirmed that the Master Plan project site is not within a Federal Emergency Management Agency (FEMA) designated flood zone (personal communication, November 13, 2003). The project area drains from the north to the south at an approximately four percent gradient. Existing surface flows are not concentrated at any one point. No impact is anticipated.

Would the project 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?

The project site is located in a wash that has historically flooded during heavy storm events prior to the construction of the San Antonio Dam at the upper end of the wash above 24th Street. The development of the project site would result in placement of structures in the wash. However, SR-210 is constructed between the project site and the dam, and the area north of SR-210 contains retention basins designed to minimize potential impacts to the freeway resulting from dam failure. Therefore, inundation from a dam failure is unlikely.

Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The project site is located in a wash that has been historically flooded during heavy storm events prior to the construction of the San Antonio Dam at the upper end of the wash above 24th Street. The development of the project site would result in placement of structures in the wash. However, SR-210 is constructed between the project site and the dam, and the area north of SR-210 contains retention basins designed to minimize potential impacts to SR-210 resulting

from flooding. Flood flows are therefore contained by the dam and/or retention basins and would be altered by the project.

Would the project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?

Since there is no large body of water in the vicinity, inundation from a seiche, tsunami or mudflow would not occur.

Impacts Determined to be Less Than Significant

Would the project 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)?

Groundwater

The proposed commercial and residential development would have an estimated water demand of approximately 227 acre-feet annually for up to 100,000 square feet of building space and landscape area and 400 residential units. Water service would be provided by the City of Upland and the San Antonio Water Company. The 227 acre-feet increase in demand for groundwater from the Four Basins Area represents 13.8 percent of the CY 2003 total production right (1,639.1 acre-feet) for San Antonio Water Company. This water demand is considered a less than significant impact because the Six Basin Area has continued to operate with carryover pumping rights and without supplemental water supplies. Accordingly, the development and operations of the project will not substantially deplete the 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.

Additionally, imported supplies may be made available if necessary to meet demands. The Three Valleys Municipal Water District prepared a June 2000 report entitled “Regional Water Plan Report.” One project considered in the report was the Recharge at the San Antonio Spreading Grounds, which includes delivering supplemental water to fulfill any future replacement water obligations (under the Judgment) or to store available water in the aquifer for future extractions. The project is presently under technical and financial evaluation.

For Areas Overlying the City Sphere of Influence

The City of Upland can provide water service to areas within the Baseline Road Master Plan that are outside the City of Upland Sphere of Influence, subject to securing governmental approvals and any associated agreements for providing water service within these areas.

On-site Water Wells

The Park View Specific Plan portion of the project site includes two active domestic water wells currently operated by the San Antonio Water Company (SAWCo). SAWCo owns and operates two municipal production wells (Well 26 and Well 27A) located on the Park View Specific Plan portion of the project area. A transmission line exists between the two well sites and SAWCo has overhead power easements to supply electricity to the wells. The Park View Specific Plan provides for protection of the existing water facilities on-site. The wells would remain in operation and be accessible for testing, sampling, maintenance and repair. No additional impacts would occur with the proposed project design.

Impacts Determined to Have Potentially Significant Impacts

Park View Specific Plan Portion

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

Would the project substantially alter the existing drainage pattern of the project 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?

Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Impact HWQ-1

Construction activities associated with the Park View Specific Plan portion of the Master Plan would alter the drainage pattern of the site, increasing on-site flow by changing the impermeable surfaces on-site. Development of the site would also alter the patterns of flows from the existing drainages entering the site from the east and southeast. This is a potentially significant impact.

The existing Park View Specific Plan portion of the site is composed of approximately 42 acres, of which approximately 10 percent is developed. The composting/demolition and recycling operation site includes impermeable surfaces totaling an estimated one-acre maximum. The remaining area is undeveloped and consists of open space with sparse vegetation and a uniform slope in a southwesterly direction of two percent. Development of the Park View Specific Plan portion would add approximately 42 acres of impermeable surface that would require a storm water drainage and collection system.

According to the Park View Specific Plan, the proposed on-site peak surface flows have been determined to be approximately 173 cfs for a 100-year storm event, which represents an increase

of 105 percent over the existing on-site peak surface flows of 84.20 cfs. All on-site surface water will be collected in an on-site storm drain system which will discharge into a proposed 54-inch storm drain pipe to be constructed beneath Park View Promenade (the main entryway into the Park View Specific Plan), and subsequently will cross Baseline Road and flow easterly along the southerly Baseline Road right-of-way towards Benson Avenue discharging into the quarry pit owned and operated by Holliday Rock and Sand. The point of discharge has been estimated to be the mid-point between Benson Avenue and the main entry at Park View Promenade. The discharge into the quarry pit requires a storm drain culvert to descend from the top of the northerly slope of the Holliday quarry pit into a dissipater at the bottom of the pit to avoid scouring or erosion. The amount of water discharging from the Park View Specific Plan area into the quarry pit has been estimated to be 1.5 acre-feet. The Holliday Rock and Sand quarry pit has a total holding capacity of approximately 200 acre-feet. The quarry pit will be able to accommodate all existing surface discharge generated both on-site and off-site.

The City of Upland retains the right to drain on-site and off-site waters into the Holliday Rock and Sand quarry pit via the Stormwater Easement Agreement executed between the City of Upland and Holliday Rock and Sand dated December 9, 2002. The Stormwater Easement Agreement permits acceptance of waters that the City of Upland would ordinarily accept to drain into the Holliday Rock and Sand quarry pit as well as other lands owned by Holliday Rock and Sand. Less than significant impact would occur.

Mitigation Measure HWQ-1

Prior to issuance of grading permits, the Applicant shall submit a detailed storm water drainage plan that includes design drawings for the drainage facilities that would capture, hold and/or convey storm water through the site and that the proposed infrastructure will accommodate resulting flows in a 100-year storm event. The plans shall be subject to approval of the City of Upland Public Works Department.

Level of Significance After Mitigation

Implementation of Mitigation Measure HWQ-1 would ensure that potential impacts from increased storm water flows are less than significant.

Would the project violate any water quality standards or waste water discharge requirements?

Would the project otherwise substantially degrade water quality?

Impact HWQ-2

During storm events, construction activities, particularly vegetation removal, grading and excavation, could affect the amounts of sediments and suspended solids leaving the site ultimately affecting water quality down stream. This is a potentially significant impact.

The grading and excavation on the Park View Specific Plan portion of the Master Plan site would result in the disturbance of approximately 42 acres for commercial and residential development and associated parking areas. The amount of sediment in storm runoff is determined by the amount of time since the last rainfall, the intensity and duration of the storm, the existing land uses in the drainage area and the amount of area disturbed by earthwork (excavation and grading).

The proposed project would require vegetation removal and grading that would expose the soil to erosion by wind and rain. Rainfall could carry more sediment off the disturbed areas of the site, and this increased sedimentation may adversely affect water quality downstream from the project site.

Pollutants likely to be present in storm water discharges in small quantities during earthwork and construction include the following:

- Vehicle fluids such as oil, grease and coolants;
- Asphaltic emulsions associated with asphalt-concrete paving operations;
- Paints and solvents;
- Wood products; and
- Metal and plated products.

The proposed project is subject to the National Pollutant Discharge Elimination System (NPDES) permit. The State of California is authorized to administer various aspects of the NPDES. Construction activities covered under the State's General Construction permit include removal of vegetation, grading, excavating, or any other activity that causes the disturbance of one acre or more. The General Construction permit requires recipients to reduce or eliminate non-storm water discharges into storm water systems, and to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The purpose of a SWPPP is to: 1) identify pollutant sources that may affect the quality of discharges of storm water associated with construction activities; and 2) identify, construct and implement storm water pollution control measures to reduce pollutants in storm water discharges from the construction site both during and after construction.

The Park View Specific Plan portion of the Master Plan site is within both San Bernardino and Los Angeles counties. The SARWQCB has indicated that those portions of San Antonio Creek within San Bernardino County would be within their jurisdiction. Those within Los Angeles County would be under the Los Angeles Region's jurisdiction. The Santa Ana Region has issued an area-wide NPDES Storm Water Permit for the County of San Bernardino, the San Bernardino County Flood Control District, and the incorporated cities of San Bernardino County. The City of Upland requires implementation of measures for a project to comply with the area-wide permit requirements. A SWPPP and WQMP is based on the principles of Best Management Practices (BMPs) to control and abate pollutants. The SWPPP must include (BMPs) to prevent the pollution of surface waters during the construction of the project. BMPs may include, but are not limited to street sweeping of paved roads around the site during construction, and the use of hay bales or sand bags to control erosion during the rainy season. BMPs may also include the following:

- The contractor shall to use enclosed storage sheds where possible. Any hazardous materials stored in the open would be placed on pallets to prevent contact with the ground. Materials shall be kept in their original containers and adequate supply of clean-up material shall be kept on hand at all times in case of a spill.

- The contractor shall avoid applying materials during periods of rainfall and protect freshly applied materials from runoff until dry.

- Any washing of equipment or vehicles shall be done in a designated place where a sump can be located so wash water can be collected for disposal.

- All waste shall be disposed of in accordance with local, state and federal regulations. The contractor will contract with a local waste hauler or ensure that waste containers are emptied weekly. Waste containers shall not be washed out on-site.

- All equipment and vehicles shall be serviced off-site.

- Maximize permeable areas to allow more percolation of runoff into the ground through such means as:

    - Biofilters;
    - Green strips;
    - Swales.
    - The use of permeable materials in lieu of or to replace hardscape will increase the amount of runoff seepage into the ground.
    - Maximize the amount of runoff directed to permeable areas and/or maximize stormwater storage for reuse or infiltration by such means as: Orienting roof runoff towards permeable surfaces, drywells, French drains, or other structural BMPs rather than directly to driveways or non-permeable surfaces so that runoff will penetrate into the ground instead of flowing off-site.
    - Grading the site to divert flow to permeable areas.
    - Using cisterns, retention structures, or green rooftops to store precipitation or runoff for reuse.
    - Removing or designing curbs, berms or the like so as to avoid isolation of permeable or landscaped areas.

- Remove pollutants through installation of treatment control BMPs.

- For purposes of compliance with this Section, pools, hot tubs, and spas shall be considered impermeable surfaces.

- The Water Quality Management Plan must also include the applicant's plan for the maintenance of all BMP's requiring ongoing maintenance.

- The Water Quality Management Plans shall include the applicant's signed statement accepting responsibility for all structural and treatment control BMP maintenance. The transfer of property subject to a Water Quality Management Plan must include as a written condition to the transfer that the transferee assumes full responsibility for maintenance of any structural, and/or source or treatment control BMPs.

- Urban runoff shall not be allowed to come into contact with the following areas:

    - Loading and unloading dock areas;
    - Repair and maintenance bays;
    - Vehicle and equipment wash areas;
    - Fueling areas.

- Where new development will include outdoor areas for the storage of material that may contribute pollutants to the storm water conveyance system, these materials must be:

    - Placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or

    - Protected by secondary containment structures such as berms, dikes, or curbs.

- The outdoor storage area for materials subject to subdivision (2) of this Section must be:

    - Paved and sufficiently impervious to contain leaks and spills;
    - Covered with a roof or awning to minimize collection of storm water within the secondary containment area.

- The area where a trash receptacle or receptacles are located for use as a repository for solid wastes must meet the following Structural or Treatment Control BMP requirements:

    - Drainage from adjoining roofs and pavement must be diverted away from the trash storage areas.

    - The area must be covered with roof or awning (to prevent rain from entering the area and sewer or storm drain conveyance system), screened or walled to prevent off-site transport of trash, and connected to the sanitary sewer.

    - Trash bins must have solid covers and be covered at all times except while being emptied.

Erosion and Sediment Control

- During construction, areas previously undisturbed shall be excavated and graded to prepare the site for development. Contractors shall employ BMPs to control erosion and minimize sediment transport off-site. In addition to the BMPs identified for control of

pollutants related to equipment, vehicles and construction materials, other control measures for sediment tracking, wind erosion, non-storm water management, and waste management and disposal shall be required. Prior to the onset of precipitation, soil stabilization practices and sediment control measures to protect the disturbed area of the project site shall be required.

- Caltrans has identified a number of BMPs to stabilize soils during construction. A sample of these BMPs are presented below. BMPs specific to the Master Plan project shall be identified in the SWPPP and WQMP prepared for the project.

- Where possible, limit clearing and grubbing to the limits of active construction. To limit the time of exposure to erosion, preserve existing vegetation as long as practicable to take advantage of its ability to control erosion and filter sediment. Existing vegetation in the work areas shall not be removed until immediately prior to beginning any work in those areas.

- To prevent any increase in sediment load in storm water that leaves the project site, the contractor shall place sandbag barriers to intercept runoff and force it to pond behind the sandbags. The contractor will remove the sediment from the site in accordance with specifications of local, state and federal regulations.

Permits will be required to mitigate potentially significant impacts to water quality. Employing BMPs that would reduce the potential for storm water discharges to affect water quality have been proven successful when implemented at construction projects. The RWQCB oversees enforcement of BMPs.

Mitigation Measure HWQ-2

Prior to issuance of any grading permits, the Applicant shall prepare a Water Quality Management Plan and submit proof of the filing of a Notice of Intent (NOI) for coverage under the State General Permit to comply with RWQCB requirements for storm water discharge. The Applicant shall comply with NPDES requirements of the SWPPP and WQMP and employ BMPs identified in the documents during all phases of construction. BMPs shall be shown on all construction drawings and grading plans for the Park View Specific Plan portion of the Master Plan.

Level of Significance After Mitigation

The implementation of the above mitigation measure will reduce the impact to less than significant.

Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Would the project otherwise substantially degrade water quality?

Impact HWQ-3

Development of vacant land within the Park View Specific Plan portion of the Master Plan project site would result in new quantities of urban pollutants entering the local drainages thereby creating or contributing runoff water which would provide substantial additional sources of polluted runoff; or otherwise substantially degrade water quality, and violate any water quality standards or waste discharge requirements. This is a potentially significant impact.

The quality of storm water in an area is generally determined by the amount of time since the last rainfall, the intensity and duration of the precipitation, and existing land use in the area. In particular the land use determines the type and quantity of pollutants. Development of the Park View Specific Plan portion would convert open, undeveloped land into a series of buildings and parking lots, thereby creating new sources of urban runoff. Typical urban pollutants that may be associated with the project consist of: oil and gas from trucks, autos and landscaping equipment, and fertilizer/pesticide/herbicide use. Generally, the first rain after an extended dry spell carries the greatest pollutant load. The EPA has identified streets as the greatest sources of urban water pollution.

Runoff from the commercial and residential buildings, paved parking lots, internal roads and other impermeable surfaces would be directed into an on-site drainage system. Prior to construction, the project proponent would prepare and submit a WQMP to demonstrate how urban pollutants would be addressed on-site.

To reduce the amount of urban pollution, storm water management controls in the form of BMPs would be included in the WQCP. BMPs include both structural and non-structural control methods. Structural controls used to manage storm water pollutant levels include detention basins, oil/grit separators, and porous pavement. Non-structural controls focus on controlling pollutants at the source, generally through implementing erosion and sediment control plans, and educating the public on the proper use and storage of hazardous materials. Practices, such as periodic parking lot sweeping can substantially reduce the amount of pollutants entering the storm drain system. Potential impacts from stormwater runoff are potentially significant and therefore the mitigation measures below shall be implemented.

Mitigation Measure HWQ-3

Prior to issuance of grading permits, the Applicant shall prepare a Water Quality Management Plan and file a Notice of Intent (NOI) to comply with RWQCB requirements for storm water discharge, including a full description of the discharge and a demonstration of compliance with EPA-specified effluent limits.

Mitigation Measure HWQ-4

Landscaping plans shall include provisions for controlling and minimizing the use of fertilizers/pesticides/herbicides. Plans for these areas shall be submitted to the City for review and approval prior to the issuance of grading permits.

Mitigation Measure HWQ-5

Landscaped areas shall include use of bio-swales and natural filters to the extent feasible.

Level of Significance After Mitigation

Implementation of Mitigation Measures HWQ-3 and HWQ-5 would reduce impacts to water quality associated with urban runoff to a less than significant level.

Impact HWQ-4

The proposed project may reduce the amount of land available for groundwater recharge activities by the Pomona Valley Protective Association (PVPA) and for flood control activities by the County Flood Control District in the City Sports Park portion of the project area and thus 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. This is a potentially significant impact.

The PVPA has rights for use of the City Sports Park portion property for groundwater recharge. Although Pit No. 3 has not historically been used by PVPA, it provides for additional capacity should major storm events occur or should imported water be made available for spreading in the future. The County of San Bernardino Flood Control District has encumbrances on the land to provide for flood protection.

The project would be subject to a determination of impacts to available water rights via any changes to the existing recharge operations, groundwater production rates, safe yield of the basin, and water quality. The responsibilities of the Six Basins Watermaster for groundwater management and determination of an annual safe yield make the project subject to a determination by parties to the Judgment of no detrimental impact. Development of a City Sports Park within the boundaries of Pit No. 3 would impact groundwater recharge if impermeable surfaces were increased.

The City of Upland intends to design the City Sports Park facilities so that recharge and flood control operations could continue during major events and/or during times when imported water may be made available for spreading. Minimizing building, parking lot or other impermeable structure space would allow the two water activities to continue unimpeded.

Mitigation Measure HWQ-6

Upon design of the City Sports Park, and prior to grading, the specific impacts to flood control and groundwater recharge operations shall be determined. The City shall work with the San Bernardino County Flood Control Department and the PVPA in design of the park to limit significant impacts to existing operations and to transport water across Baseline Road for spreading and groundwater recharge if feasible.

Level of Significance After Mitigation

Design of the City Sports Park to meet the objectives of the San Bernardino County Flood Control District and PVPA would ensure impacts to existing flood control and groundwater recharge activities would be less than significant.

Impact HWQ-5

Development of the City Sports Park would result in additional use of fertilizers, pesticides and herbicides that could impact the underlying groundwater quality. This is a potentially significant impact.

The City of Upland proposes to develop approximately 57 acres as a City Sports Park. Assuming 44 acres are landscaped with turf, to allow for continued recharge and flood control operations, the use of fertilizers, pesticides, and herbicides would increase on-site.

Mitigation Measure HWQ-7

During the design of the City Sports Park, the amount of fertilizers, pesticides, and herbicides that would be used would be determined and addressed within a Landscaping Operations Plan. This plan shall be addressed by the Six Basins Watermaster and the Regional Water Quality Control Board, Santa Ana Region to ensure the amount of chemicals would not significantly impact groundwater quality. The City shall develop a Landscaping Operations Plan in accordance with the Santa Ana Regional Water Quality Control Board requirements to minimize potential impacts to groundwater quality.

Level of Significance After Mitigation

Development of a Landscape Operations Plan would ensure that the types, quantities and frequencies of fertilizers, pesticides and herbicides application at the future City Sports Park would be appropriate. The plan would be developed to avoid any contribution to the degradation of groundwater quality. Implementation of mitigation measure HWQ-7 would reduce potential impacts to water quality to a less than significant level.

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4.8 LAND USE

4.8.1 Introduction

This section provides a description of current land use designations and existing land uses on-site and in the vicinity of the site, and analyzes potential land use impacts within the context of local and regional land use plans and surrounding land use compatibility. Documents relied upon include the City of Upland General Plan Land Use Element, the City of Claremont General Plan Land Use Element, and the Southern California Association of Government (SCAG) Growth Management Plan.

4.8.2 Environmental Setting

CEQA Section 15125(d) states that an EIR shall discuss any inconsistencies between the proposed project and applicable general plan and regional plans. Where a proposed project is compared with an adopted plan, the analysis shall examine the existing physical conditions as well as the potential future conditions discussed in an adopted plan.

Local Environment/Existing Land Uses

The proposed project is the Baseline Road Master Plan to allow for commercial, residential and recreational development of approximately 99 acres located on the north side of Baseline Road between Benson Avenue on the east and State Route 210 (SR-210) on the west. Approximately 96.6 acres of this land is located in the City of Upland and is presently designated as Open Space in the General Plan with a zoning designation of Open Space. Approximately 2.4 acres of this land is located in the City of Claremont and is currently designated as Commercial in the General Plan with a zoning designation of Open Space. The proposed project also includes development of the 2.4-acre City of Claremont parcel. Existing land uses on the 99-acre project site consist of an inactive aggregate quarry used for flood control and groundwater recharge activities, water wells, and a composting/demolition and recycling operation.

Allied Retail Partners, LLC is proposing a Specific Plan known as Park View Specific Plan for development of approximately 42 acres, of which approximately 10 acres will be retail containing up to 100,000[1] square feet of commercial building area. The remaining approximately 32 acres will be residential densities of 10 to 20[2] units to the acre, for up to 400 housing units.

The City Sports Park portion of the Master Plan consist of approximately 57 acres located immediately north of the Park View Specific Plan portion that is an inactive aggregate quarry presently used for groundwater recharge and flood control activities. This area is owned by the City of Upland. The City intends to design a City Sports Park that would be compatible with the existing water development and water conservation uses on-site.

All surrounding land uses, General Plan Land Use Designation and Zoning Districts are itemized in Table 4.8-1 and summarized below. The area proposed for development is presently designated as Open Space. Figure 4.8-1 shows existing land uses.

[1] Final square footage would depend on the actual tenant mix. For environmental evaluation 100,000 square feet is used to presume a worst-case scenario.
[2] Density transfer in the residential development allows density of up to 20 dwelling units per acre.

Table 4.8-1
Existing Land Use and General Plan/Zoning Designations

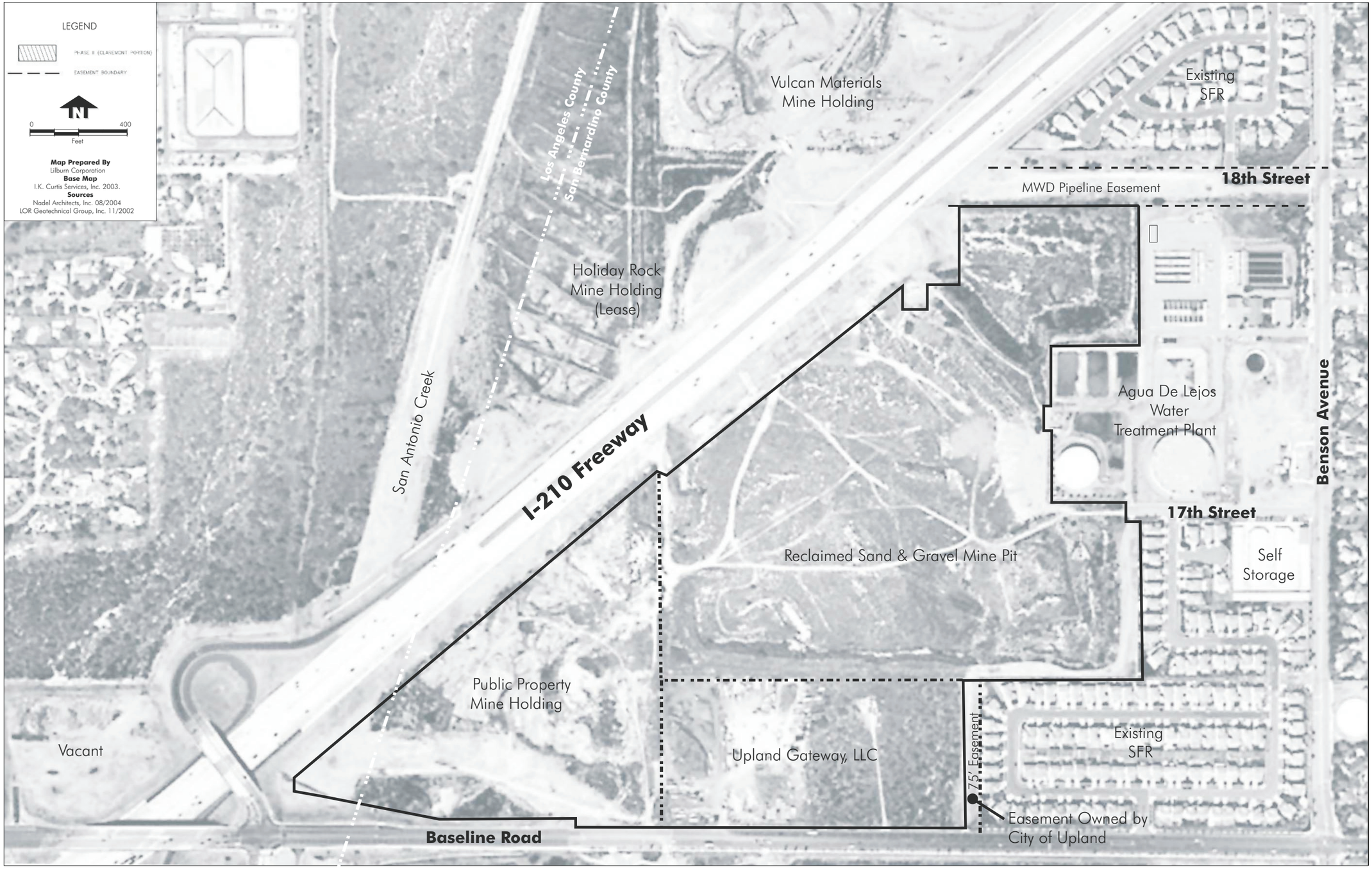
Direction	Existing Land Use	General Plan Designation	Zoning Designation
Park View Specific Plan Portion	Composting/demolition and recycling facility on center parcel, water well and access road on east parcel (39.6 acres)	City of Upland: Open Space	Open Space
Park View Specific Plan Portion	Open Space/Mining (2.4 acres)	City of Claremont: Commercial	Open Space
City Sports Park Portion	Undeveloped Land (idled sand and gravel pit)	City of Upland: Open Space	Open Space
North	SR-210 Single Family (Lemon Heights) at 18th Street & Benson Avenue	Single Family Residential (4 to 6 units per acre)	RS 7.5
South	Holliday Rock Foothill Quarry Mine Site Cable Airport	Open Space	Open Space
East	75-foot undeveloped strip of land owned by the City of Upland[3] – further east lies single-family residential (6 d/ac) Self Storage Facility at 17th Street & Benson Avenue Water Treatment Plant at 18th Street & Benson Avenue	Single-Family Residential (6 d/ac) Light Industrial	RS 7.5 Light Industrial
West	SR-210 and ramps City of Claremont, Undeveloped Land	--- Public Facility	--- Open Space

North. Running in a northeast to southwest direction, SR-210 forms most of the northern boundary of the project site. Near the northeast corner of the site, Lemon Heights, a single-family residential community is on the northwest corner of 18th Street and Benson Avenue.

South. Located south of the proposed Master Plan area is the Holliday Rock Foothill Quarry 1 mine site and further south is Cable Airport.

East. A 75-foot undeveloped strip of land owned by the City of Upland. Existing single-family residences (Mountain Shadows tract), with a density of seven to ten dwelling units per acre, are located immediately east of the strip along Baseline Road and Benson Avenue. Further north at the southwest corner of 17th Street and Benson Avenue is a self-storage facility, and at the southwest corner of 18th Street and Benson Avenue is the Agua De Lejos Water Treatment Plant.

[3] This easement (approximately 75 feet by 595 feet wide) may possibly be used as a landscape buffer and/or pedestrian access to the City Sports Park in the future.



Existing Land Use

Baseline Road Master Plan
Upland, California

Figure 4.8-1

Prepared By:
LILBURN
CORPORATION

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West. Immediately west of the proposed Master Plan area is the SR-210 and on/off ramps. West of the freeway is undeveloped land in the City of Claremont. The area immediately adjacent to the west of the freeway is Open Space associated with groundwater recharge.

Project Site

The approximate 42-acre Park View Specific Plan portion of the project site consists the following parcels (from west to east): 1) an approximate 2.4-acre vacant, triangular shaped parcel located west of the SR-210 Freeway within the City of Claremont; 2) one triangular shaped parcel totaling approximately 23 acres permitted for sand and gravel extraction; 3) one rectangular shaped 6.75-acre parcel owned by Upland Gateway, LLC which is leased to Intravaia Rock and Sand, Inc.; and 4) one 9.5-acre parcel which contains a water well/access road currently owned and leased by Upland Gateway, LLC to the Southern California Water Company, a private water company.

The City Sports Park portion of the Master Plan area, consisting of approximately 57 acres is located north of the 42-acre Park View Specific Plan portion and is bounded on the north by the right-of-way for 18th Street, on the south by the right-of-way for 17th Street and the Park View Specific Plan portion, on the west by SR-210, and on the east by the Agua de Lejos Water Treatment Plant. This area consists of all or portions of eight parcels that have been previously disturbed by sand and gravel extraction activities. Parcels that have been truncated are associated with SR-210. Currently the property is designated for groundwater recharge and flood control purposes.

Proposed access to the City Sports Park will be provided the proposed road along Baseline Road through the Park View Specific Plan's residential development. Emergency, pedestrian and bicycle access to the City Sports Park will also be provided from 17th Street. No access from 18th Street is proposed. The site would continue to function as open space. Since the City Sports Park slopes slightly towards the south, the southerly end of the Park may be inaccessible during flood events.

The Master Plan area is just within the northern portion of the Cable Airport Planning Area (see Section 4.6–Hazards, Figure 4.6-1 for a discussion of the airport).

Project Design

Park View Specific Plan Portion

Allied Retail Partners, LLC, is proposing a Specific Plan known as Park View Specific Plan to develop approximately 42-acres into a Commercial Center and Medium Density Residential development. Approximately 10 acres of the Park View Specific Plan portion will be developed as commercial and approximately 32 acres will be developed as residential consisting of 10 to 20 dwelling units per acre, for up to 400 housing units. Figure 3-7 in Chapter 3.0, Project Description, shows the Conceptual Site Plan prepared for this portion of the site. Land uses for the Park View Specific Plan portion conceptual and subject to change based on specific tenant needs.

The Park View Specific Plan calls for approximately 80,000 square feet of commercial building area within the City of Upland and approximately 20,000 square feet of commercial building within the City of Claremont.

The Park View Specific Plan is conceptual in that details concerning the existing uses such as the water well and easement as leased by Upland Gateway, LLC to the Southern California Water Company are not shown. However, access to and operation of the existing well would continue under the proposed Park View Specific Plan.

A Master Signage Program will be submitted by the developer(s) of the residential and commercial areas of the Park View Specific Plan and approved by the City of Upland to address project entries, residential neighborhood identification signs, and way finding signs within the Specific Plan. No project signs shall be permitted in the public right-of-way. All other signs will be subject to the approval of a sign permit pursuant to the City's Development Code.

City Sports Park Portion

The City Sports Park area encompasses approximately 57 acres and is located immediately north of the Park View Specific Plan portion, the City Sports Park portion of the Master Plan is owned by the City of Upland. The City intends to design a City Sports Park that would be compatible with the existing water development and water conservation uses on-site. The proposed City Sports Park would be developed on approximately 44 net acres; planned City Sports Park amenities could potentially include six soccer fields (two of which convert into softball fields), two tennis courts, a basketball court, a volleyball court, a "Tot Lot", a small community amphitheater, and a concession stand. Proposed access to the City Park will be provided by one road proposed along Baseline Road through the Park View Specific Plan portion residential development. Emergency, pedestrian and bicycle access to the City Park will also be provided from 17th Street. No access from 18th Street is proposed. The City Sports Park portion would continue to function as Open space. Since the area slopes slightly towards the south, the southerly end of the City Sports Park may be inaccessible during flood events.

Applicable Policies, Plans and Regulations

City of Upland General Plan

The Land Use Element of the General Plan designates the general distribution, location and extent of the uses of land for housing, commercial, industrial, public buildings and grounds, open space and recreation, special uses and other categories of public and private land use. The General Plan Designation of the project site is Open Space (excluding the 2.4 acres located near Claremont and designated as commercial). The Zoning Ordinance implements the general land use categories of the General Plan through the identification of allowed uses, and development criteria including setbacks and building heights. The Zoning Designation of the project site is Open Space.

The City of Upland General Plan establishes comprehensive goals, objectives, policies, and proposed implementation programs to meet the City's future planning needs. The proposed

project will require a Zone Change and an amendment to the City of Upland General Plan to change the existing land use designation from Open Space to one of Park View Specific Plan allowing commercial and medium density residential on the Park View Specific Plan portion. Development of the City Sports Park portion, which is also currently designated as Open Space, would require a Conditional Use Permit to allow the development of this area into a City Park.

The proposed development under the Park View Specific Plan will conform to the development standards adopted for the Park View Specific Plan. Whenever the provisions and development standards contained in the Specific Plan conflict with the Cities of Upland and Claremont Zoning Codes, the provisions of the Specific Plan shall take precedence. Where the Specific Plan is silent, each respective City Code shall apply.

Park View Specific Plan Portion

Applicable Goals, Objectives and Policies of the Land Use Element of the City of Upland General Plan that apply to the Park View Specific Plan portion of the project are as follows:

Objectives

- Increase compatibility between residential land uses and their abutting commercial and industrial uses.
- Improve the quality of site development and construction.
- Maintain neighborhood commercial support for the residential population.
- Promote the creation of professional and skilled employment in the City.

Goal 1C

Create cohesive neighborhoods with compatible land use patterns.

Goal 2A

Provide a healthy, affordable, and desirable living environment through the application of space and occupancy standards and acceptable planning and development principles.

Goal 4A

Provide for the continuation and development of sufficient land uses to serve the commercial, educational, recreational, industrial and social needs of existing residents and projected population growth.

Goal 4C

Ensure that nonresidential types of land use developed in the City complement and do not adversely affect the quality of life and health of Upland's residents and businesses.

Strategies

- Segregate and/or buffer land uses having the potential for creation of substantial adverse environmental effects from land uses sensitive to such impacts.

- Maintain suitable and adequate standards for landscaping, sign control, site and building design, parking and provisions of appropriate utilities and public infrastructure.

- Require that appropriate landscaped buffer space be provided when a project abuts a freeway. This requirement is applicable to both residential and non-residential land uses.

Goal 7

Promote an economic development strategy that includes approaches for broadening the City's economic base, creating residential employment opportunities and enhancing the City's tax base.

Strategies

- Deliver unique messages which define the character of the community as a quality experience; focus on the City as a desirable business location and select consistent, quality new development and re-use projects.

- Increase the urban design quality in new developments and revitalization projects which achieve a higher visibility for the City and induce new economic activity.

City Sports Park Portion

Applicable goals of the Land Use Element of the City General Plan that apply to the City Sports Park portion of the project are as follows:

Goals

- To provide a sufficient range of opportunities to meet the needs of individuals, families, and groups who reside in the City of Upland.

- To protect the maintain natural resources in the City with emphasis on those scarce resources that require special control and management.

City of Upland Development Code

In accordance with City of Upland Development Code Chapter 9401, Section 9401.028, all amendments and changes to the official zoning classification shall be made by ordinance, in compliance with the procedures for amendments as prescribed in Chapter 9403, "Amendments" which states, *"Boundaries of the zones established by this part, the classification of property uses therein, or other provisions of this part, including any change in the working, context or substance thereof, may be amended whenever public necessity and convenience and general welfare require when adopted by ordinance passed by the City Council in the manner prescribed by law."*

Park View Specific Plan Portion

The Park View Specific Plan portion will include up to 400 residential units and approximately 100,000 square feet of commercial uses. The proposed development under the Park View Specific Plan will conform to the development standards contained in the Specific Plan. Whenever the provisions and development standards contained in the Specific Plan conflict with the City of Upland's Zoning Code, the provisions of the Specific Plan shall take precedence. Where the Specific Plan is silent, City's Code shall apply.

City Sports Park Portion

The City Sports Park portion of the project site is currently designated as Open Space. The Open Space zone is intended to provide for a permanent open space in the community and to safeguard the health, safety, and welfare of the people limiting development in areas containing high-quality rock, sand, and gravel deposits and surface mining operations. The Open Space designation allows for water spreading basins and groundwater recharge. In accordance with Section 9481.050 of the City's Development Code, areas designated Open Space may under a conditional use permit allow parks, playgrounds and public facilities. In accordance with Section 9481.080, other uses deemed by the planning commission as being similar to those permitted, which do not impair the use of adjacent properties, may be proposed by written determination.

City of Claremont General Plan

The City of Claremont Land Use Element contains various goals and policies, which are designated to provide a range of land uses, protect neighborhoods, and serve the needs of the City. The City intends to designate and maintain land uses that will enhance the environmental, social, and spatial qualities of the community.

Park View Specific Plan Portion

Applicable Goals, Objectives and Policies of the Land Use Element of the City of Claremont General Plan that apply to the 2.4 acres of the 42-acre Park View Specific Plan portion of the project are as follows:

Goals

- The City shall provide a range of land uses that serve the economic and social requirements of the City.

General Policies

- The City shall encourage a mix of retail, office, professional, wholesale, and non-polluting, industrial within Claremont.

- The City shall preserve and promote viable commercial centers.

- The City shall encourage development that will broaden the local tax base, create employment, and benefit the citizens of Claremont.

Southern California Association of Governments (SCAG)

The City of Upland is located within the SCAG planning area. SCAG is responsible for administering the Growth Management Plan (GMP) for the region, which includes Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial counties. The GMP was adopted by SCAG in 1989 in response to the rapid growth in population, housing, and employment in the region. The GMP presents the region's forecasts and policies for dealing with anticipated growth through 2010. The intent of the GMP is to close the gap between residential areas and employment centers.

The proposed project is a Master Plan to allow for commercial, residential and recreational development of approximately 99 acres located on the north side of Baseline Road between Benson Avenue on the east and SR-210 on the west. Allied Retail Partners, LLC is proposing a Commercial Center and Medium Density Residential development under the Park View Specific Plan on approximately 42 acres of the Baseline Road Master Plan area. Approximately 2.4 acres of the Park View Specific Plan portion is located within the city limits of the City of Claremont, Los Angeles County. Approximately 57 acres, known as the City Sports Park portion, located immediately north of the Park View Specific Plan portion, is presently used for groundwater recharge and flood control activities. This area is owned by the City of Upland. The City intends to design a City Sports Park that would be compatible with existing water development and water conservation uses on-site.

The proposed project will require a General Plan Amendment and a Zone Change for the Park View Specific Plan portion located in the City of Upland in order to change the existing land use designation from Open Space to Park View Specific Plan to allow commercial and medium density residential development on the 39.6-acre section of the "Park View Specific Plan portion" of the Master Plan. The City Sports Park facilities will require a Conditional Use Permit in lieu of a GPA. The City of Claremont will not require a GPA as the approximate 2.4 acres located in Claremont is designated as Commercial. However, a Zone Change would be required to change the current designation of Open Space to Commercial.

SCAG reviewed the Notice of Preparation for the proposed Baseline Road Master Plan project and responded that the project would not have an impact on regional planning (see Appendix A – Responses to NOP).

4.8.3 Impacts and Mitigation Measures

Thresholds of Significance

Implementation of the Master Plan would have a significant effect on land use if it would:

- Physically divide an established community;
- Conflict with any applicable local or regional land use plans, policies, or regulations (including, but not limited to the general plan, specific plan, zoning ordinance, or regional plans) adopted for the purpose of avoiding or mitigating an environmental effect;
- Conflict with any applicable habitat conservation plan or natural community conservation plan; or
- Be incompatible with existing land use in the vicinity.

Impacts Determined to have No Impact

Would the project physically divide an established community?

The project will not occur within the boundaries of any residential communities and therefore, will not divide established communities.

Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

The project site is not identified in any habitat conservation plan or community conservation plan. Issues associated with wildlife and vegetation are addressed in the Biological Resources section of this EIR, Section 4.3.

Would the project be incompatible with existing land use in the vicinity?

Park View Specific Plan Portion

The proposed Master Plan includes approximately 32 acres of residential development with densities of 10 to 20 units to the acre, for up to 400 housing units. The proposed residences will be built adjacent to a 75-foot undeveloped strip of land owned by the City of Upland. Existing residential development (Mountain Shadow) lies to the east of the strip. The proposed commercial uses in the Park View Specific Plan portion of the Master Plan will be sited to the west further away from the existing residential development and closer to SR-210. The proposed project will include a raised median along Baseline Road that would buffer the proposed residential uses from the existing Holliday Rock Quarry to the south. Therefore, the proposed Master Plan would not result in incompatible land uses.

City Sports Park Portion

The Initial Study concluded that development of the approximate 57-acre City Sports Park portion of the Baseline Road Master Plan area into a City Sports Park might be inconsistent with the existing General Plan land use designation of Open Space. However, park facilities are allowable under the existing designation and would only require a Conditional Use Permit. The project site has historically been used for flood control and groundwater recharge as well as sand and gravel extraction. The City Sports Park portion would continue to be used for flood control/groundwater recharge activities. The approval of a Conditional Use Permit will require environmental review, which may be supplemental to this EIR. In addition, the Sports Park would serve the surrounding residential development and is not generally considered incompatible with residential development. It is not expected to result in adjacent land uses being incompatible.

Impacts Determined to be Potentially Significant

Would the project conflict with any applicable local or regional land use plans, policies, or regulations (including, but not limited to the general plan, specific plan, zoning ordinance, or regional plans) adopted for the purpose of avoiding or mitigating an environmental effect?

Impact LU-1

Implementation of the proposed project would result in the conversion of an area designated as Open Space (City of Upland) to Park View Specific Plan. This is a potentially significant impact.

The Park View Specific Plan portion of the project site is characterized as undeveloped land, with disturbance occurring near the southern boundary of the site occupied by Intravaia Rock and Sand Inc. The Park View Specific Plan portion is visible from Baseline Road as well as from SR-210. An existing single-family neighborhood (Mountain Shadow) is located east of the 75-foot undeveloped strip of land that lies immediately east of the Park View Specific Plan portion. The potential for commercial development is not unanticipated by the residents of Mountain Shadows residential community. Each property in the residential neighborhood has within its chain of title a document recorded against the property notifying the residents that the project property has the potential to be used as a commercial shopping center. Moreover, the proposed commercial development under the Park View Specific Plan would be sited approximately 1,400 feet west of the existing residences to the east. The proposed residential development would be sited closer to the existing residences and would be a compatible land use.

The proposed General Plan Amendment is required to change the existing land use designation from Open Space to Park View Specific Plan on this portion of the Master Plan. The City of Upland's General Plan contains a number of goals and policies, as summarized in Section 4.8.2; the proposed General Plan Amendment is consistent with these Goals and Policies.

The City of Upland General Plan designation of Open Space provided at the time of adoption of the General Plan (Updated July 1992) was an appropriate designation for the existing land uses

of mining and flood control activities. However, mining operations have since ceased and flood control/groundwater recharge activities occur mostly within the City Sports Park portion of the project site. The proposed General Plan Amendment will convert approximately 39.6 acres of the 42-acre Park View Specific Plan portion of the project site located in the City of Upland from Open Space to Park View Specific Plan. Based on the location of the Park View Specific Plan portion, adjacent to SR-210, immediately north of Baseline Road, and west of residential development, the proposed medium density residential and commercial development under the Park View Specific Plan would be appropriate, and in accordance with Goal 1A and Goal 2A of the City's General Plan.

The Park View Specific Plan is envisioned as a comprehensively planned mixed-use commercial and residential community. The land use plan combines a pedestrian oriented commercial center, offering quality goods and services, with residential neighborhoods designed around parks and greenbelts. Residential areas are connected through pedestrian trails and greenbelts to the commercial center and to the proposed City Sports Park to be developed north of the Specific Plan area.

The City of Claremont General Plan designation for the approximately 2.4 acres is Commercial. Based on the location of the Park View Specific Plan portion, adjacent to SR-210 and immediately north of Baseline Road, the proposed commercial center under the Park View Specific Plan would be appropriate. This would also be in accordance with the City's goal of providing a range of land uses that serve the economic and social requirements of the City.

Approximately 3.5 net acres are provided within Specific Plan as parks, open space, and greenbelt areas within easy walking distance to any residence. The 3.5 acres designated for parks, open space, and greenbelt areas exclude public and private streets, parkways, and sidewalks. Of the 3.5 acres, approximately 1.86 acres are provided as parks and recreation areas within the residential Planning Areas. A minimum of 0.46 acres of park are provided within Planning Areas 1 and 2 combined and a minimum of 1.4 acres of park will be provided in Planning Area 3. Recreational facilities include the development of a minimum of one swimming pool to serve Planning Areas 1 and 2 and one swimming pool to serve Planning Area 3. Parks are located within walking or biking distance to any residence and are improved with barbecue and picnic facilities, tot lots, trails, and open play areas. Parks and recreational areas are connected by a network of pedestrian walkways and linear greenbelts developed adjacent to roadways within the Park View Specific Plan. The ultimate location, size, and configuration of each park or recreational facility developed within the Park View Specific Plan will be determined at the time of approval of tentative maps for residential development. The overall landscape plan is intended to unify and shape the community, linking residential areas to parks and commercial establishments, with pedestrian friendly paseos.

The Park View Specific Plan portion of the proposed project would create new land uses on undeveloped land designated as Open Space. However, the pits were not open to the public or otherwise usable as open space for any active recreational opportunities. The proposed land uses would be compatible with the surrounding development and commercial development is already anticipated by the existing land uses in the vicinity. The proposed Master Plan also includes development of a 57-acre City Sports Park that would provide a variety of recreational

opportunities for the City. In addition, provision of 3.5 acres of parks, open space, and greenbelt within the Park View Specific Plan would compensate for the loss of open space. Therefore, the loss of open space is not considered significant.

Mitigation Measure

None required.

4.9 MINERAL RESOURCES

4.9.1 Introduction

The following section describes the impact the development of the project will have on the extraction of minerals from the project site. The proposed project is known as the Baseline Road Master Plan to allow for commercial, residential, and recreational development of approximately 99 acres located on the north side of Baseline Road between Benson Avenue on the east and State Route 210 (SR-210) on the west.

Information for this section was obtained from the Mineral Resources Supplement to the Open Space/Conservation Element of the City of Upland General Plan; the Open Space/Conservation Element of the City of Claremont General Plan, and relevant sections of the state's Surface Mining and Reclamation Act (SMARA).

4.9.2 Existing Conditions

Importance of Mineral Commodities

Rapid growth of cities and communities in California has emphasized the importance of mineral resource conservation for future use as a land use issue. To maintain the existing community structure and provide for its continued growth, adequate supplies of mineral resources, particularly aggregate resources, must be available at an economical cost. Urban expansion has resulted in some reduction of the availability of important aggregate resources. Competing land uses have reduced or eliminated access to important areas of aggregate materials. The loss of accessible resources occurs to some extent as a result of the lack of knowledge regarding the location and importance of aggregate resources.

The California Geological Survey (formerly the Division of Mines and Geology), in conjunction with the State Mining and Geology Board, are agencies responsible for categorizing locations as sources for regionally significant mineral resources. The objective of the classification process was to provide cities and counties with information on the location, need, and importance of mineral resources within their jurisdiction and to make use of the information in local land use planning decisions. As land use decisions are made, cities and counties who become lead agencies and grant permits, or approve plans, must balance the value of the resource and their loss of access to them against alternative land uses, and consider the importance of these resources to their market region and not just its importance to their jurisdiction.

Aggregate is the basic filler material in all uses of concrete including: construction of homes and non-residential buildings, dams, bridges, highways, and other structures common to our society. Aggregate typically means materials composed of natural or crushed, hard, sound, and durable particles of unreactive minerals. Aggregate, such as sand and gravel, is a key component, providing 80 to 100 percent of the material volume, in products including Portland cement concrete, asphaltic concrete, railroad ballast, stucco, road base, and fill. Portland cement concrete is an important product used in many applications such as concrete blocks and pipes, foundation

pilings, pre-cast concrete beams, and tilt-up concrete walls. These products play an important role in our economy and the construction industry.

Economic Considerations

According to the California Geological Survey, California Non-Fuel Minerals 2005, California ranked second among the fifty states in non-fuel mineral production, accounting for approximately seven percent of the U.S. total. Mineral production for California amounted to 3.7 billion dollars. Production of at least thirty types of industrial minerals in the state accounted for about 97 percent of the total value; the other three percent was accounted for by gold and silver. California led the nation in the production of sand and gravel, diatomite, and natural sodium sulfate.

Construction sand and gravel was California's leading industrial mineral with a total value of 1.27 billion dollars produced for 2005. Sand and gravel production was estimated to be 173 million tons, a five percent increase from the year before. Portland cement was the second largest industrial mineral produced in the state with a total of 1.1 billion, an increase of about seven percent from 2004. Boron valued at about 483 million dollars, ranked third, and crushed stone ranked fourth with a value of 362 million dollars.

Aggregate Deposits

Aggregate materials are derived from several different types of deposits and a complex interplay of various factors comprising their formation including the source of the material, weathering, transportation, and deposition of material. Stream channel deposits arise from heavy rainfall and runoff in which large amounts of material are moved as suspended bed load in the waters. When energy and flow rate dissipate, material settles and forms sediment deposits. Stream channels are desirable aggregate sources because they are easily mined and periodically replenished by rainfall and runoff.

Floodplain deposits are formed by streams or rivers overflowing their channels during high water events. The overflowing water loses its transportation power and deposits sediments over a wide area. Floodplain deposits are composed of considerable amounts of sand, silt and clay and tend to be less desirable in comparison to other sources of aggregate because of the larger amounts of fine materials.

Alluvial fans develop in valley areas near the bases of mountains. The fans are characterized by sparse vegetation and infrequent torrential rainfall, which pushes poorly sorted aggregate out of mountain highlands. When rainwater reaches the base of the mountain, transport energy is lost and a rapid deposition of material builds up to form the fan. Alluvial fans yield a variety of different sizes of materials, which are generally very durable and contain an abundance of large, course material ideal for sizing.

Sand and gravel mining occurs primarily in active stream deposits or in older deposits formed from alluvial fans or historic streams. Aggregate is hard, inert materials, such as sand, gravel, slag, or crushed stone, used for mixing with a cementing or bituminous material to form

concrete, mortar, or plaster, or to be used in road base, railroad ballast or graded fill. Aggregate comes in different forms and sizes including coarse, fine, and lightweight.

Two coalescing alluvial fans in the City of Upland comprise a significant sand and gravel resource for this region: the San Antonio fan on the west side and Cucamonga fan on the east side. These alluvial fan deposits are formed when mountain streams carrying large volumes of material enter a valley or plain. The decrease in slope over the length of the fan reduces the carrying capacity and energy needed to push the materials. Coarse materials such as boulders and large rocks are left near the top of the fan and finer materials cobble, pebbles and sand are gently pushed to the outer/lower parts of the fan.

The San Antonio fan is composed of poorly sorted sediments ranging from oversized boulders to clay-size particles. The coarse material is composed of several rock types, the most common being quartz diorite, high-grade metamorphic rocks, granodiorite, and schist. Upper layers of the fan contain clasts that are hard and durable. The older alluvium varies both laterally and longitudinally across the fan due to a complex depositional and erosional history.

The Master Plan area lies within an area defined by the California Geological Survey, as a resource Sector B because of its location near the San Antonio alluvial fan. Sand and gravel extraction from the upper portions of the San Antonio Fan has been occurring since 1909. Subsurface information indicates that the alluvium in Sector B ranges from 300 to 1,000 feet thick.

The site lies within a Mineral Resource Zone-2 (MRZ-2) as determined by the California Geological Survey. The designation was performed pursuant to Section 2790 of SMARA. MRZ-2 designation indicates significant mineral deposits are present or where it is judged that a high likelihood of their presence exists (deposits that are marketable under present technologic and economic conditions or which can be estimated to exist in the foreseeable future, and that contained in excess of five million dollars worth of aggregate material in 1978 - equivalent dollars – *Mineral Land Classification of the Greater Los Angeles Area, Special Report 143, Part VII, 1987*). In addition, in order for a deposit to be categorized as significant, geologic factors in which the deposit formed must be understood so clear interpretations can be made from exposed surface material. Currently, two construction aggregate operations are in production on the San Antonio fan and are supplying the surrounding areas with the needed product to avoid delays in construction and building projects and to ensure fair market price.

Relevant Standards and Policies

Upland General Plan

The following public policies contained in the City of Upland's General Plan Open Space/Conservation Element provide guidance and standards for the use of mineral lands and to minimize impacts on those resources. If a project conflicts with any of the following policies, the City of Upland could deem the impact significant:

- Maintain land use categories which will allow for timely mineral extraction to meet projected demand in areas classified as MRZ-2 or designated to be of regional or statewide significance and which are not otherwise designated for urban uses incompatible with mineral extraction; and establish regulations for these land use categories which will protect them from land uses which would preclude mineral extraction.

- Proposed development shall be considered in defined mineral resource extraction areas only when said development can be demonstrated to utilize lands which, due to their proximity to urban improvements, may no longer be mined for mineral resources.

- Surface mining within these classified lands and designated areas should be controlled to assure that:

  - Adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition, which is readily adaptable for alternative, land uses.

  - The production and conservation of minerals are encouraged, while giving consideration to recreation, watershed, wildlife, range and forage, aesthetic enjoyment, and other environmental factors.

  - Residual hazards to the public health and safety are eliminated.

- Implement regulations, which will buffer land use categories permitting mineral extraction from uses incompatible with mining.

- Implement regulations to ensure that after mitigation measures are taken; a proposed mining operation will not create any significant nuisances, hazards, or adverse environmental impacts.

- Implement regulations to insure that all mining operations provide for adequate reclamation of mined lands before issuing mining permits.

Claremont General Plan

The following goals and policies contained in the City of Claremont's General Plan provide guidance and standards for the use of mineral lands and to minimize impacts on those resources.

It is the goal of the City of Claremont to:

- Preserve and improve the quality of the physical environment so that it is conducive to the satisfaction of human needs for safety, health, privacy, inspiration, and beauty.

- Manage those natural resources and natural settings of the physical environment that could adversely affect the health, safety, or economic welfare of the general population.

- Manage the use and consumption of those natural resources, which are limited, in a manner to assure future generations of a share in the environmental wealth of the Claremont area.

Policies for the Conservation of Natural Resources (relevant to Mineral Resources):

- The City shall regulate surface mining operations pursuant to state policy as set forth in the Surface Mining and Reclamation Act, Public Resources Code, Sections 2710 et seq., and the 14 Cal. Code of Regs., Sections 3500 et seq.

- The City shall encourage the conservation of aggregate deposits in designated aggregate resource areas of regional significance where such areas are not already covered by or committed to urban development, or located within already urbanized areas, in order that such deposits may be available if needed in the future.

- In determining the value of aggregate resources, the City shall weigh the regional need to conserve and produce sand and gravel against alternative land uses and the need to preserve and protect the City's other natural resources.

- The City shall ensure that mining operations do not negatively impact existing and planned development or adversely affect the livability of Claremont's residential neighborhoods.

- Mined lands shall not be left in an unproductive state any longer than is necessary and shall be reclaimed to provide for the beneficial, sustainable long-term productive use of the lands.

4.9.3 Impacts and Mitigation Measures

Thresholds of Significance

The following guidelines are used to determine if development of the proposed project would result in significant impacts to aggregate resources:

- 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;

- 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.

Impacts Determined to be Potentially Significant

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.

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.

Park View Specific Plan Portion

Impact MR-1

The development within the Park View Specific Plan portion of the Master Plan area would 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. This is a potentially significant impact.

The proposed Master Plan area is located within the boundaries of the San Antonio Creek alluvial fan. Two aggregate mining operations currently extract resources in the area to be developed. Several areas located in the Claremont-Upland Production Consumption Region are designated MRZ–2. Within the areas classified as MRZ-2, resource sectors are identified that contain potentially extractable aggregate resources from a land use perspective. According to the California Geological Survey, the project is located in Resource Sector B-1. Resource Sector B-1 includes eight parcels south of San Antonio Creek Flood Control Dam in the uninhabited areas of the San Antonio Creek Fan, northeast of the City of Claremont. Sector B-1 is roughly bounded by Foothill Boulevard to the south, San Antonio Avenue to the east, and Thompson Creek to the west.

The Claremont-Upland area is the smallest production and consumption region in southern California. Included in the Claremont-Upland region are the cities of Claremont, Upland, Ontario, Rancho Cucamonga and Chino. Aggregate materials are derived from the alluvial fans of San Antonio, Cucamonga, Day and Deer creeks with some small amounts arising from the foothills of the San Gabriel Mountains. The largest sources of aggregate for construction raw materials are the San Antonio and Cucamonga Canyon alluvial fans. Each of these fans extends approximately eight miles in a southerly direction and the surface gradient of the fans is about 120 feet per mile.

A complete and precise understanding of the terms “reserves” and “resources” is needed to comprehend the amount of aggregate material located within the Claremont-Upland Production-Consumption Region. The California Division of Mines and Geology has adopted the following definitions as they apply to aggregate deposits as well as other types of minerals:

- Reserves as used within this section refer to measurable amounts of mineral-bearing materials that can be produced with current technology under existing economic and political conditions. Reserves, more specifically, are deposits that are owned or leased by a mining company, are currently available for removal using accepted techniques, and are permitted for extraction by a lead agency.

- Resources are mineral-bearing materials that could become mineral reserves either through future technological developments, improved economic conditions, different political conditions, or a combination of all of the above. According to the Division of Mines and Geology, the only factor distinguishing aggregate reserves from aggregate resources is that reserves have permits for their extraction, and resources lack a permit from a lead agency.

In figuring the amount of reserves and resources, the appropriate setbacks, slopes and quarry depths were used and materials underneath processing plants and other structures were included. The conclusion in 1987 was that an estimated 1,350 million tons of aggregate resources existed in the Claremont-Upland Production-Consumption Region. Although these resources exist, the majority of the resources lack appropriate permits for extraction (mining). Consequently, currently permitted reserves are not adequate for supplying construction aggregate to the region for the next fifty years. In 1987, projections of needed aggregate equaled approximately 245 million tons; this amount could supply the region until the year 2031. In 1987, only 55 million tons of permitted aggregate reserves remained within the production-consumption region, which was estimated to be depleted in 10 years. With implementation of the Master Plan, an estimated 3.25 million tons of resources would be lost in the 42-acre Park View Specific Plan portion of the project site.

The southwestern corner of the Park View Specific Plan portion is comprised of two triangular shaped parcels totaling approximately 25 acres. Of the 25 acres, approximately 23 acres are leased by Holliday Rock from the PVPA for the extraction of aggregate material. This area is included in Holliday Rock's approved Foothill Quarry Reclamation Plan. The remaining 2.4 acres lie within the City of Claremont and have not been permitted for aggregate extraction.

Records show alluvial material extends more than 700 feet below the surface, originating from the igneous and metamorphic complex within the San Gabriel Mountains. During heavy rainfall large volumes of material such as varieties of granitic and mafic rocks, felspathic gneisses, and schists are transported down the creek channels as far away as 30 miles from the source area. These deposits are poorly sorted, with coarse material at the head of the fan and finer material carried farther away. Material sizes range from very large boulders, to clay. The coarse material makes up approximately 60 to 75 percent of available material. Producers consider aggregate processed from the fan to be of high quality because it is durable, relatively free of reactive and weak rock, and varies in size.

The loss of this resource is considered significant.

Mitigation Measures

No mitigation measures are proposed as no mitigation measure can replace the loss of an available 3.25 million tons of aggregate.

Level of Significance

The loss of 3.25 million tons of an available, locally important, permitted mineral resource recovery site on approximately 25 acres would remain significant.

City Sports Park portion

Impact MR-2

Development of the 57-acre City Sports Park portion of the Master Plan area could result in the loss of a known mineral resource of value to the region. This is a potentially significant impact.

Approximately 57 acres of the 99-acre Master Plan area is located immediately north of the Park View Specific Plan portion and is owned by the City of Upland. This area is also designated as MRZ-2. These 57 acres would be developed as a City Sports Park upon approval of a Conditional Use Permit.

The 57-acre City Sports Park portion of the Master Plan area was once part of a Vulcan Materials (now Cal-Mat) mining operation. The operation commenced in 1973 and continued until 1978, at which time reclamation began. Permits were obtained from the San Bernardino County Flood Control District to conduct excavations at the site and ultimately to create a series of water recharge basins on-site. Reclamation was started upon the completion of mining in 1978 and was finished in 1984. Upon completion of reclamation, the site was under the control of the Flood Control District. At this point the quarry configuration approximately matched the current day configuration covering a nearly square parcel of land about 1,600 square feet by 1,600 square feet. The mine operation was apparently abandoned and had no known plan for reclamation. An aggregate resource remains at the site, but its economic viability is not known.

According to Douglas Sprague, Manager of Reclamation for Cal-Mat, the site is not devoid of extractable materials; available material suitable for mining would depend on an operator's specifications and requirements. The presence of recent alluvium overlain by older alluvium would facilitate the extraction and blending of materials to achieve a marketable product, although whether the current political climate and regulatory environment would approve such a plan is unknown.

Mining is an allowable use under the Open Space designation in the Upland General Plan. The loss of a locally important mineral recovery site would be significant. The conversion of land designated as MRZ-2 into a City Sports Park could result in the loss or reduction of a mineral recovery site of local importance and is considered significant.

Mitigation Measures

No mitigation measures are proposed as no mitigation measure can replace the loss of a potential aggregate extraction operation.

Level of Significance

The loss of approximately 57 acres of potential aggregate resource within a Mineral Resource Zone-2 would remain significant.

4.10 NOISE

4.10.1 Introduction

This section of the EIR addresses the existing acoustical environment on and adjacent to the project site and evaluates off-site noise impacts related to project implementation. A noise analysis for the proposed project was prepared by Mestre Greve Associates, January 24, 2007, to specifically address potential impacts related to project construction as well as effects on the existing residential neighborhoods adjacent to the site. The Noise Analysis is included in this EIR as Appendix E.

Noise Level Criteria

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

The human ear is not equally sensitive to sound at all frequencies. A special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the dBA.

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

Noise Assessment

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

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

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

L_{eq} - Equivalent Noise Levels – the energy average noise level during a sample time period; typically one hour, and the energy sum of all events including background noise levels.

CNEL - Community Noise Equivalent Level – a time weighted 24-hour average noise level based on the A-weighted decibel. Time weighted means penalizing noise when it occurs during sensitive periods – evening (5 dBA) and nighttime (10 dBA). Typical noise levels in terms of the CNEL scale for different types of communities are presented in Figure 4.10-1.

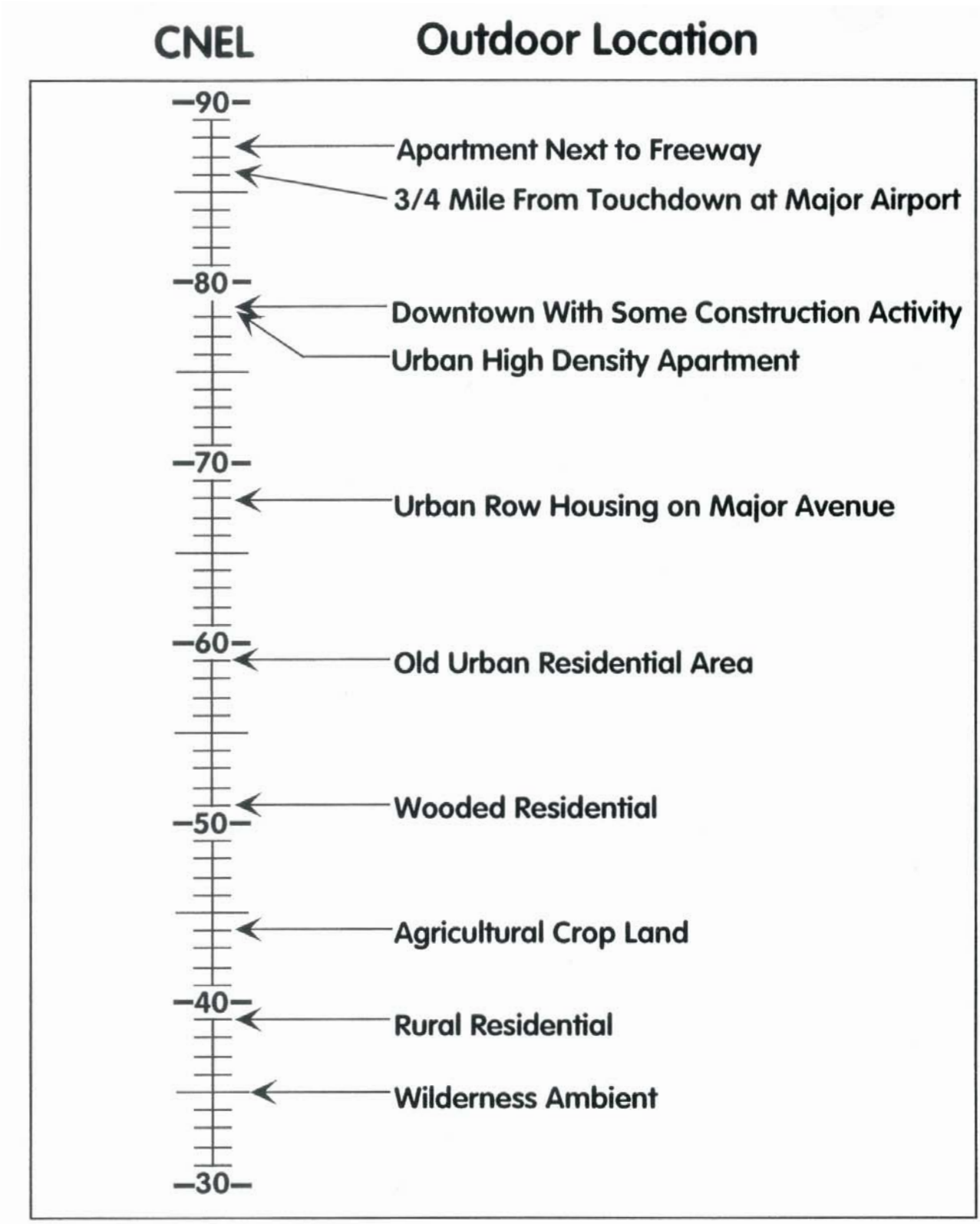
L_{dn} - The day/night scale measures the overall noise experience of a 24-hour period with no time weighting for evening noise and a 10 dBA weighting for nighttime noise.

L (%) - Statistical method for describing noise to account for noise levels throughout a specific measurement period. Expressed as an exceedance of the noise level for a percentage of time. For example, since five minutes is 25 percent of 20 minutes, L(25) is the noise level that is equal to or exceeds five minutes during a 20-minute measurement period.

L_{max} - (Maximum Sound Level) – A statistical value that represents the highest maximum sound level reading during a given period.

L_{min} - (Minimum Sound Level) – A statistical value that represents the highest minimum sound level reading during a given period.

In a community noise assessment, changes in noise levels greater than 3 dB are often identified as significant, while changes less than 1 dB would not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. Note



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

Source:
Mestre Greve Associates, 2007

Prepared By:
LILBURN CORPORATION

Typical Outdoor Noise Levels

Baseline Road Master Plan
City of Upland, California

Figure 4.10-1

that there is no scientific evidence available to support the use of 3 dB as the significance threshold.

In laboratory testing situations, humans are able to detect noise level changes of slightly less than one dB. In a community noise situation, however, noise exposures are over a long time period, and changes in noise levels occur over years, rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dB, and 3 dB appears to be appropriate for most people.

4.10.2 Environmental Setting

Noise Measurement Data

Ambient noise measurements were taken to document the noise levels at three locations near the project site. Figure 4.10-2 shows the locations where measurements were taken on-site. The noise measurements were conducted between 10:30 a.m. to 12:00 p.m. on December 10, 2003. The measurement survey utilized a Brüel & Kjær 2236 automated digital noise data acquisition system for short-term (15-min) readings. (Appendix E).

The measurement results are presented in terms of the equivalent noise levels (Leq), maximum noise levels, minimum noise levels and percentile noise levels (L%). The L50 percentile level for example, represents the noise levels exceeded 50 percent of the time, and usually represent the average ambient noise level. The L90 noise levels represent the background noise levels which are exceeded 90 percent of the time. The other percentile levels as well as the L50 relate to the Noise Ordinance limits presented previously. Table 4.10-1 lists the results of the noise measurement presented in dB.

Table 4.10-1
Existing Noise Measurements (dB)

Site	Time	Leq	Lmax	L10	L50	L90	Lmin
1	10:23	52	62	56	49	47	45
2	11:17	60	74	62	59	57	55
3	11:43	54	65	57	53	51	49

Source: Mestre Greve, 2007.

At Site 1 the sources of noise included traffic on State Route-210 (SR-210) and Benson Avenue, mechanical equipment at the adjacent water tank, general aviation (GA) aircraft, a helicopter, and birds. The maximum noise level recorded was from a helicopter flying over the freeway. Otherwise, the noise environment near Site 1 is relatively quiet.

At Site 2 the sources of noise included traffic on SR-210, General Aviation (GA) aircraft, and a helicopter. The maximum noise level recorded was from a GA aircraft flyover. The noise environment near Site 2 is considered moderate and actually somewhat quieter than one would expect this close to a freeway.

Source: Mestre Greve Associates, 2007

Noise Measurement Locations

Baseline Road Master Plan
City of Upland, California

Figure 4.10-2

Prepared By:
LILBURN CORPORATION

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At Site 3 the sources of noise included traffic on Baseline Road, and GA aircraft. Traffic on Baseline Road passed in groups, and during periods of no traffic on Benson Avenue the noise level was relatively low. Traffic on SR-210 was audible during periods of no traffic on Baseline Road. Traffic passing on Benson Avenue resulted in the maximum noise level recorded at this site.

Existing Noise

On-site Noise

The Park View Specific Plan portion of the project site has one existing operating business, the Intravaia Rock and Sand, Inc. Company. This composting/demolition and recycling company is located approximately 800 feet west of the existing residences at (near noise measurements taken on Site 3). Little if any discernable noise was evident when ambient noise measurements were taken. Similarly, the City Sports Park portion of the project site is currently unused and is therefore not generating or adding to the ambient noise levels.

Roadway Noise Levels

An estimate of traffic noise levels in terms of CNEL was computed for the roadways that would be affected by future project traffic. The Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December 1978) was utilized. The CALVENO noise emission curves developed by Caltrans were used with the FHWA model. These curves characterize the noise levels generated by traffic and best model the California vehicle mix. The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." Equivalent noise levels for each of the time periods used in the calculation of CNEL are calculated. Weighting these noise levels and summing the results in the CNEL for the traffic projections used. CNEL contours are found by iterating over many distances until the distances to the 60, 65, and 70 CNEL contours are found.

Truck mixes and time of day traffic distributions used to calculate the noise levels are presented in Appendix E. The traffic distribution used for the arterial roadways was derived from a study of traffic patterns on arterial roadways in Southern California. Truck mix data for freeways is typically obtained from Caltrans. However, because the section of SR-210 adjacent to the project site began service within the past couple of years, truck traffic data is not yet available from Caltrans. The nearest section of SR-210 for which truck mix data is available is the section north of SR-57. This represents the best available data to be used for this section of the freeway. This truck data indicates that traffic on SR-210 is 2.1% medium trucks and 5.5% heavy trucks.

The distances to the existing 60, 65 and 70 CNEL contours for the roadways that would have their noise levels affected by the proposed project (i.e. CNEL changed by 0.5 dB or more due to the project) or are projected to experience substantial noise increases over existing conditions (i.e. CNEL increased by 3.0 dB or more in the future over existing conditions) are presented in Table 4.10-2. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The values given in

Table 4.10-2 represent existing noise levels and do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. Existing traffic noise levels along all roadways in the vicinity of the project as well as the traffic volumes used to calculate the levels are presented in Appendix E.

Table 4.10-2
Modeled Existing Roadway Traffic Noise Levels

Roadway Segment	CNEL @ 100'*	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
21st Street				
West of Mountain Ave.	58.2	RW	RW	76
Baseline Rd.				
West of Indian Hill Blvd.	61.7	RW	60	129
East of Indian Hill Blvd.	63.5	37	79	170
East of SR-210 Ramps	64.0	40	86	185
West of Benson Ave.	64.4	42	91	196
East of Benson Ave.	63.2	RW	76	164
West of Mountain Ave.	63.1	RW	74	160
East of Mountain Ave.	62.7	RW	70	151
West of San Antonio Ave.	62.2	RW	65	140
West of Euclid Ave.	61.8	RW	61	132
13th Street				
West of Benson Ave.	49.8	RW	RW	RW
Indian Hill Blvd.				
North of Baseline Rd.	56.8	RW	RW	61
Benson Ave.				
North of 18th St.	59.6	RW	43	94
North of Baseline Rd./16th St.	62.0	RW	63	136
South of Baseline Rd./16th St.	63.6	38	81	175
North of 13th Street	64.2	41	89	192
SR-210				
Baseline Rd. to Mountain Ave.	77.3	307	662	1,426
Mountain Ave. to Campus Ave.	77.2	301	647	1,395
Campus Ave. to Carnelian Ave.	77.2	301	649	1,398

Source: Mestre Greve, 2007.
*From Centerline of Roadway
RW-Contour falls within roadway Right of Way

Table 4.10-2 shows that noise levels along SR-210 are substantial. However, since this is a relatively new freeway, noise abatement was included in the design to reduce noise levels at noise sensitive areas to applicable standards. Noise levels along Baseline Road and Benson Avenue are moderate. Residential uses along these roadways with existing noise barriers (concrete block walls) likely do not experience noise levels in excess of 65 CNEL City standard.

Noise Levels along 17th Street and Indian Hill Boulevard are minor. Noise levels along the edge of these roadways does not exceed 65 CNEL. Noise levels along 13th Street west of Benson Avenue are less than 60 CNEL.

Aircraft Noise Levels

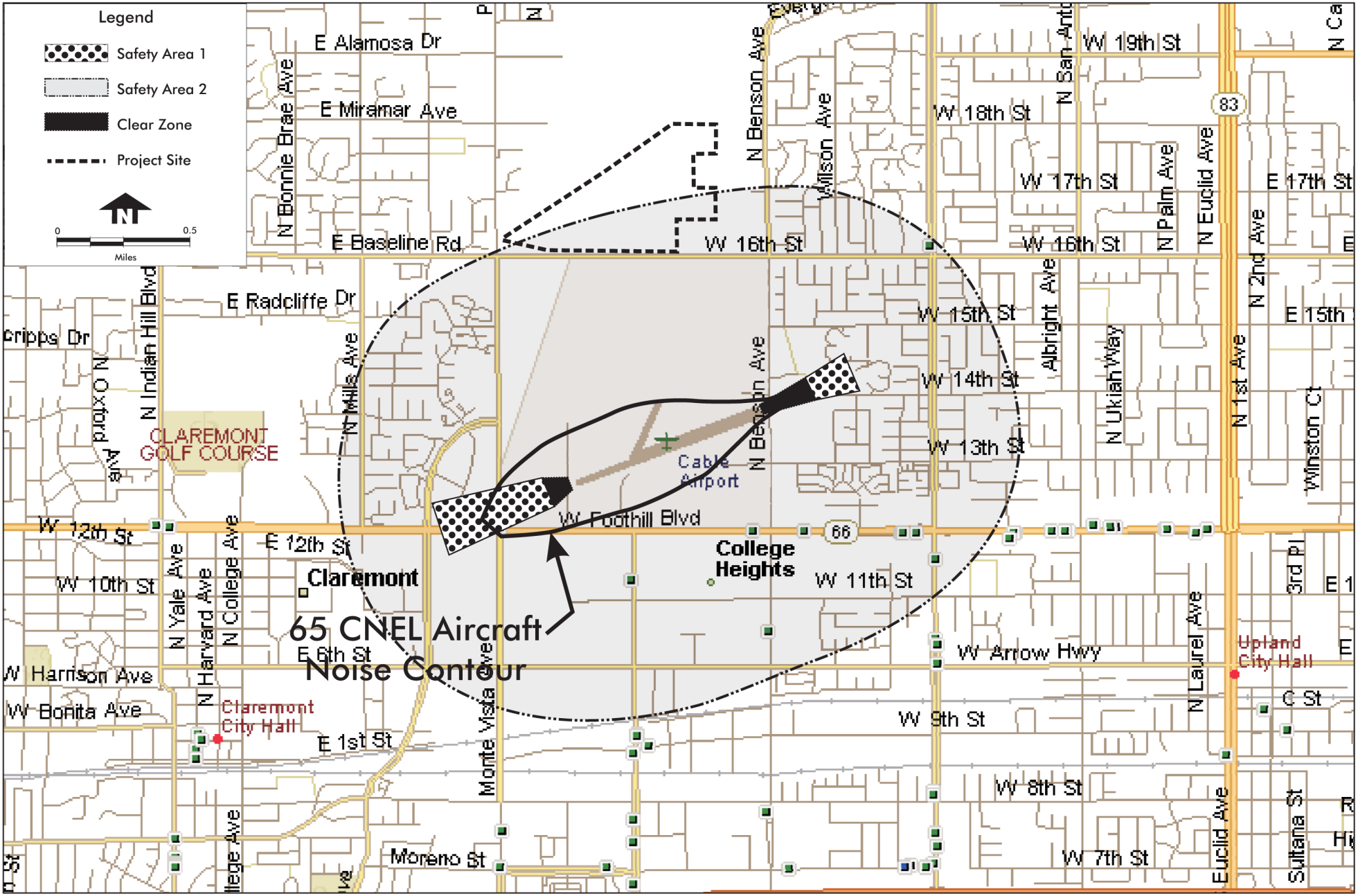
The project site is located north of Cable Airport and the southern portion of the project is located within the Cable Airport Planning Area. Figure 4.10-3 shows the project site in relation to the airport. The project site is located approximately 3,500 feet north of Cable Airport. Cable Airport which is a privately owned general aviation airport with approximately 88,000 annual operations (an operation is a take-off or a landing). The projected 1990 65 CNEL noise contour from the airport is shown in Figure 4.10-3. This contour is taken from the City of Upland Noise Element. The contour presented in the Noise Element was taken from the Cable Airport Master Plan adopted in 1981. These are the most current noise contours available for the airport. In a phone teleconference, Mr. Bob Blanchett, the airport planning director, indicated that the noise contour estimates presented in the Baseline Road Master Plan are greater than the current operations and the number of operations expected to see in the future. Therefore, the noise contour presented in Figure 4.10-3 is a worst-case noise contour for the airport.

Applicable Policies, Plans and Regulations

The Noise Ordinance and Noise Element of the General Plan contain a city's policies on noise. The Noise Ordinance applies to noise on one property impacting a neighboring property. Typically, it sets limits on noise levels that can be experienced at the neighboring property. The Noise Ordinance is part of the city's Municipal Code and is enforceable throughout the city. The Noise Ordinance requirements cannot be applied to noise generated by vehicles traveling on public roadways, railroads, or aircraft. Federal and State laws preempt control of the mobile noise sources on public roads and also apply to vehicles traveling on private property (e.g. parking lots or delivery trucks).

The Noise Element of the General Plan presents limits on noise levels from transportation noise sources - vehicles on public roadways, railroads, and aircraft. These limits are imposed on new developments to ensure that the limits are not exceeded.

Most of the project and neighboring residential areas are located in the City of Upland. Approximately 2.5 acres of the Park View Specific Plan is located within the City of Claremont. Buildings within the City of Claremont would need to be developed to the City of Claremont standards. However, the City of Claremont Noise Element does not contain any specific noise standards. Therefore, the City of Upland's noise standards were used to assess the noise compatibility of the proposed project. Chapter 5, Part 3 of the City of Claremont Land Use and Development Code contains the City's Noise Ordinance. The City of Upland's Noise Ordinance and Noise Element policies are presented below along with the City of Claremont's Noise Ordinance.



Source: Mestre Greve Associates, 2007

Cable Airport Noise Contours

Baseline Road Master Plan
City of Upland, California

Figure 4.10-3

Prepared By:
LILBURN CORPORATION

City of Upland Noise Ordinance

The Upland Noise Ordinance (Chapter 4.5 of the Municipal Code) establishes exterior noise standards that protect residential areas from noise generated on adjacent properties. The Noise Ordinance is designed to control unnecessary, excessive and annoying sounds from noise sources on private property such as parking lots, truck loading and HVAC equipment from impacting adjacent residential areas. The Noise Ordinance requirements cannot be applied to vehicles when traveling on public roadways. Federal and state laws preempt control of the mobile noise sources on public roads. However, operation of vehicles on private property is subject to the standards. Table 4.10-3 these standards.

The Noise Ordinance standards are in terms of the "A-weighted decibel," abbreviated dBA. The ordinance defines levels that cannot be exceeded for a certain period of time. In terms of a noise metric this represents the L(%) metric. The L(%) metric describes the noise level that is exceeded during a certain percentage of the measurement period. The lowest outdoor noise levels defined in the Noise Ordinance are the levels that cannot be exceeded for more than 30 minutes in an hour. This is equivalent to the L50 metric. Similarly the Noise Ordinance defines a noise level that cannot be exceeded for more than 1 minute per hour. This is the noise level exceeded 1.7% of the time and the L1.7 metric.

Table 4.10-3
City of Upland Noise Ordinance Standards

Maximum time of Exposure	Noise Metric	Noise Levels Not to be Exceeded	
		7 a.m. to 11 p.m. Daytime	11 p.m. to 7 a.m. Nighttime
30 minutes/hour	L50	55 dBA	45 dBA
15 minutes/hour	L25	60 dBA	50 dBA
5 minutes/hour	L8.3	65 dBA	55 dBA
1 minute/hour	L1.7	70 dBA	60 dBA
Any period of Time	Lmax	75 dBA	65 dBA

Source: Mestre Greve, 2007
Note: the City of Upland Noise Ordinance excludes control of noise generated by construction activities between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday.

City of Claremont Noise Ordinance

The Claremont Noise Ordinance (Chapter 5 Part 3 of the Land Use and Development Code) establishes exterior and interior noise standards that protect residential areas from noise generated on adjacent properties. Table 4.10-4 presents the City of Claremont's Noise Ordinance standards.

The Noise Ordinance standards are in terms of the "A-weighted decibel," abbreviated dBA. The ordinance defines levels that cannot be exceeded for a certain period of time. In terms of a noise metric this represents the L(%) metric. The L(%) metric describes the noise level that is exceeded during a certain percentage of the measurement period. The lowest outdoor noise levels defined in the Noise Ordinance are the levels that cannot be exceeded for more than 15 minutes in an hour. This is equivalent to the L25 metric.

Table 4.10-4
City of Claremont Noise Ordinance Standards

Maximum Time of Exposure	Noise Metric	Noise Level Not To Be Exceeded	
		7 a.m. to 10 p.m. (Daytime)	10 p.m. to 7 a.m. (Nighttime)
EXTERIOR NOISE STANDARDS			
15 Minutes/Hour	L25	60 dBA	55 dBA
10 Minutes/Hour	L16.7	65 dBA	60 dBA
5 Minute/Hour	L8.3	74 dBA	69 dBA
Any period of time	Lmax	75 dBA	70 dBA
INTERIOR NOISE STNDARDS			
15 Minutes/Hour	L25	47 dBA	37 dBA
10 Minutes/Hour	L16.7	52 dBA	42 dBA
5 Minute/Hour	L8.3	61 dBA	51 dBA
Any period of time	Lmax	62 dBA	62 dBA

Source: Mestre Greve, 2007

The City of Claremont exempts construction activities from the noise level limits presented in Table 4.10-4 as long as:

1. The activities occur between 8 a.m. and 8 p.m. weekdays and Saturdays, excluding national holidays;

2. The noise levels measured on residential properties do not exceed 65 dBA for a cumulative period of more than 15 minutes in one hour; 70 dBA for a cumulative period of more than ten minutes in any one hour; 79 dBA for a cumulative period of more than five minutes in one hour or 80 dBA any time; and

3. Any vibration created does not endanger the public health, welfare and safety.

4.10.3 Impacts and Mitigation Measures

Thresholds of Significance

The proposed project would have a significant effect on the ambient noise environment if it would:

- Result in an increase in the existing ambient noise level over 3 dB**;** or,

- Result in exposing people to severe noise levels.

Impact Analysis

The Initial Study prepared for the proposed project found less than significant impacts related to exposure of persons to groundborne vibrations or groundborne noise; or exposure of persons

working on-site to excessive noise caused by either private or public airports. The remaining issue pertaining to the exposure of persons to noise levels in excess of standards established in the City General Plan or Noise Ordinance, and specifically to temporary or periodic increases in ambient noise in the vicinity of the project, is addressed herein.

Impact NOI-1

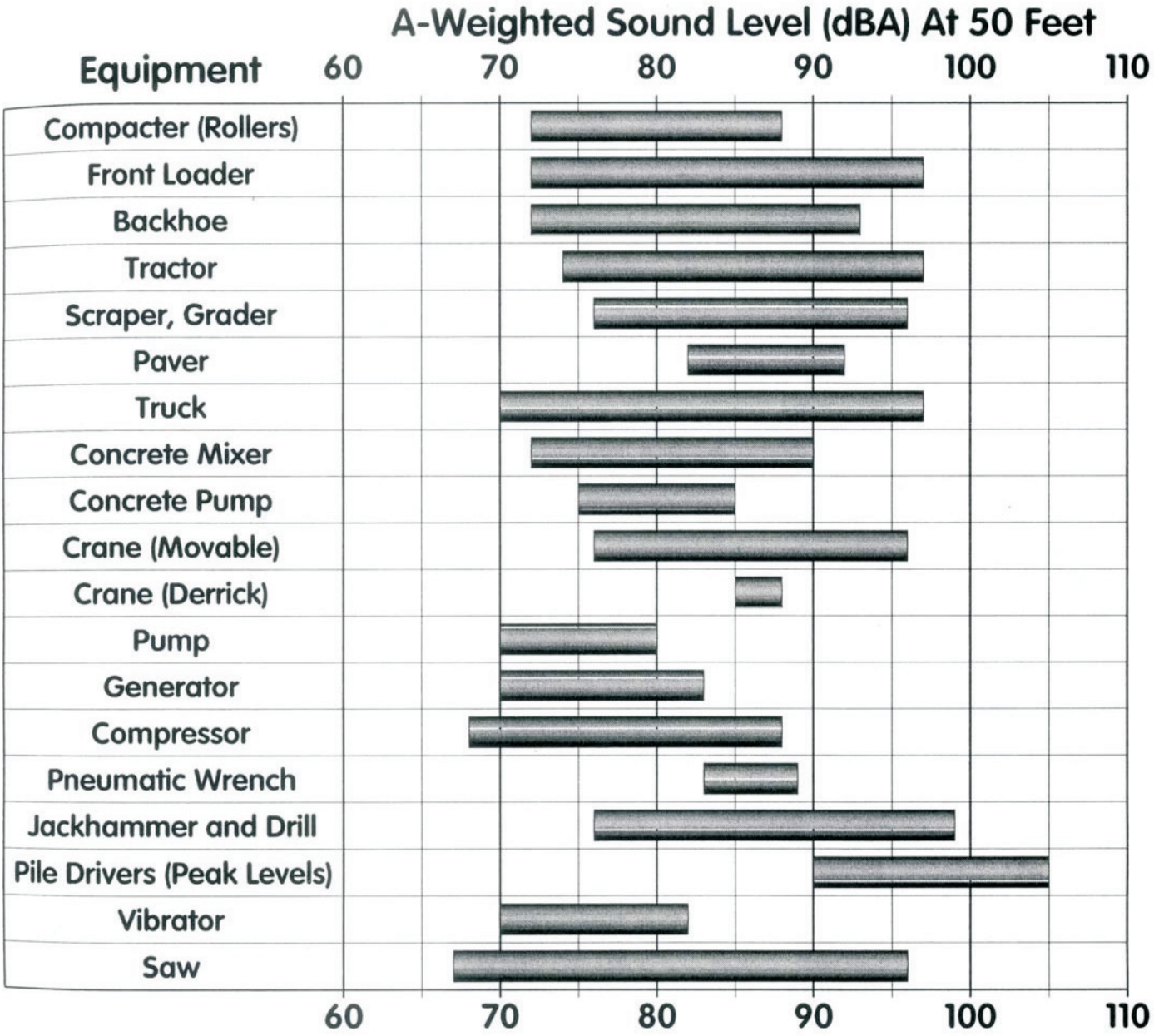
Construction noise represents a short-term impact on ambient noise levels. The primary source of construction noise is heavy equipment. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. Grading will generate the highest levels of noise during construction. This is a potentially significant impact.

Construction noise will occur as a result of the development of the proposed project. Grading and earthmoving will likely result in the greatest construction noise levels. At this time the duration of grading has not been determined. Development of the residential portion of the project is expected to begin soon after the project is approved and construction would begin in that time frame. It is not known when construction of the City Sports Park portion of the project would begin but it is not expected in the near future. The City Sports Park site is an idle sand and gravel pit and is below the grade of the surrounding area. The City Sports Park would be developed at this lower grade and the pit is not proposed to be filled in.

Construction noise, generally, represents a short-term impact on ambient noise levels. Noise generated by construction equipment and construction activities can reach high levels. Construction equipment noise comes under the control of the Environmental Protection Agency's Noise Control Program (Part 204 of Title 40, Code of Federal Regulations). Examples of construction noise at 50 feet are presented in Figure 4.10-4. Note that at twice the distance (i.e. 100 feet) the noise levels will be 6 dB lower than those shown in Figure 4.10-4. At 4 times the distance (i.e. 200 feet) the noise levels will be 12 dB lower. At 500 feet the noise levels are 20 dB lower than shown on Figure 4.10-4.

Note that noise measurements made by Mestre Greve Associates for other projects show that the noise levels generated by commonly used grading equipment (i.e. loaders, graders and trucks) generate noise levels that typically do not exceed the middle of the range shown in Figure 4.10-4.

The nearest residences to the portion of the project within the City of Claremont are located more than 1,000 feet from the project site to the west and northwest. At this distance, noise levels will be at least 26 dB lower than presented in Figure 4.10-4. Most of the project site is located more than 2,300 feet from these residences. At this, distance noise levels will be at least 33 dB lower than presented in Figure 4.10-4. Maximum noise levels are not projected to exceed 65 dBA at these residences and average noise levels are not projected to exceed 55 dBA. Noise levels resulting from construction activities will not exceed the City of Claremont daytime Noise Ordinance limits at any residences within the City of Claremont. Construction is not proposed to occur outside of the daytime hours as defined by the Noise Ordinance.



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

Source:
Mestre Greve Associates, 2007

Prepared By:
LILBURN CORPORATION

Construction Equipment Noise Levels

Baseline Road Master Plan
City of Upland, California

Figure 4.10-4

The nearest homes to the portion of the project within the City of Upland are located adjacent to the project site to the east. These homes are adjacent to the City Sports Park portion of the project. There is a block wall between the homes and the site and construction within the City Sports Park portion of the project would occur at a lower elevation than the homes. The elevation difference and block wall would be expected to reduce construction noise levels by 5 to 10 dB. Typically, maximum noise levels at the homes would not exceed 80 dBA but could be as high as 85 dBA at times. Maximum noise levels from equipment working at the top of the slope between the City Sports Park and the residences could be as high as 95 dBA as equipment passes by the homes. However, this would occur very infrequently and only for short periods of time at any one location. Most of the City Sports Park site is more than 500 feet from these residences and noise levels from equipment at this distance would not exceed 70 dBA at the homes. Average noise levels would not be expected to exceed 65 dBA.

The nearest homes to the residential portion of the project are located approximately 75 feet from the nearest point of grading. At this distance, noise levels will be approximately 3 dB lower than those presented in Figure 4.10-4. There is also a block wall located along the property line of the residences that will reduce noise levels at the homes by at least 5 dBA at the homes. Peak noise levels could be as high as 85 dBA at these homes during grading of the residential portion of the project. Most of the project is located more than 1,250 feet from these homes. At this distance, including the effect of the block wall, noise levels are 33 dB lower than the levels shown in Figure 4.10-4. Average noise levels would not be expected to exceed 60 dBA at the residences.

Construction of the project would result in noise levels at these residential areas in excess of the limits presented in the City of Upland Noise Ordinance. However, the Noise Ordinance excludes control of noise generated by construction activities between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday. Construction of the City Sports Park portion of the project will not occur outside of these hours and, and therefore, will not result in a significant noise impact. The project applicant currently proposes to perform construction activities within the Specific Plan Portion on Saturdays. Without mitigation, construction on Saturday will result in a significant noise impact.

A rock crusher may be required during site preparation to process excavated rocks to smaller sizes. Rock crushers generate substantial noise levels and often operate for long periods of time. The exemption of construction noise from the City's Noise Ordinance is intended to apply to typical construction activities. It is arguable that rock crushing is not a typical construction activity. Based on measurements performed by Mestre Greve Associates, a portable rock crusher generates a noise level of approximately 85 dBA at a distance of 75 feet. Constant noise levels in excess of 65 dBA interfere with face-to-face speech communication. If the rock crusher were to be located near residences it could substantially interfere with speech communication for substantial periods of time and result in a significant noise impact. The noise level from the rock crusher is less than 65 dBA at distances greater than 750 feet.

The following mitigation measures would reduce the above-described noise impacts to less than significant:

Mitigation Measure NOI-1

Noise generating construction activities near residential uses shall be restricted to the hours between 7:00 AM and 6:00 PM on weekdays and prohibited on Saturdays, Sundays and holidays.

Mitigation Measure NOI-2

The rock crusher required for the project shall be located on the site so that it is more than 750 feet from the nearest residence.

Level of Significance After Mitigation

Adherence to the above Measures would result in less than significant impacts.

Impact NOI-2

The surrounding land uses may be subject to noise levels in excess of the City Noise Standards during operation of the Park View Specific Plan developments both due to increased traffic and on-site activities. This is a potentially significant impact.

Traffic Noise

The proposed project will result in increased traffic on the roadways in the vicinity of the project. This increased traffic will increase noise levels along these roadways. Table 4.10-5 shows the incremental traffic CNEL noise level increases due to the project for roadways with noise levels affected by the project more than 0.5 dB or roadways projected to experience a cumulative noise level increase of 3 dB or more in the future over existing conditions. Noise level changes for all roadway segments in the vicinity of the project are presented in Appendix E.

Table 4.10-5 shows the CNEL traffic noise level increases due to the project for year 2008 (opening year) and 2025 (build-out). The first column of Table 4.10-5 lists the roadway segment. The next two columns show the increases in 2008. The first of these columns shows the increase in noise level over existing conditions. That is, how much traffic noise levels will increase (or decrease with negative numbers) over existing conditions in the year 2008. The next column shows the project's contribution to this increase. That is, how much higher the noise level would be in 2008 with the project compared to the no project conditions. The last two columns of Table 4.10-5 show the same information for the year 2025. The fourth column shows the increase in traffic noise levels in 2025 with the project, over existing conditions. The fifth, and last column shows the project's contribution to this increase. Noise level increases greater than 3 dB are shown in bold. The noise level increases were calculated using traffic volume data presented in the previously referenced traffic study prepared for the project. The traffic volumes used are presented in Appendix E.

Table 4.10.5
Traffic Noise CNEL Level Increases (dB)

Roadway Segment	2008		2025	
	Increase Over Existing	Project Contribution	Increase Over Existing	Project Contribution
21st Street				
West of Mountain Ave.	0.8	0.1	***3.7***	0.1
Baseline Rd.				
West of Indian Hill Blvd.	1.5	0.1	1.7	0.1
East of Indian Hill Blvd.	1.5	0.1	2.0	0.1
East of SR-210 Ramps	1.5	0.6	2.4	0.5
West of Benson Ave.	1.4	0.6	2.2	0.5
East of Benson Ave.	1.5	0.3	1.0	0.3
West of Mountain Ave.	1.5	0.3	1.7	0.3
East of Mountain Ave.	1.6	0.2	2.0	0.2
West of San Antonio Ave.	1.7	0.2	2.1	0.2
West of Euclid Ave.	1.4	0.2	2.0	0.2
13th Street				
West of Benson Ave.	1.8	1.7	***11.8***	0.1
Indian Hill Blvd.				
North of Baseline Rd.	0.4	0.1	1.5	0.1
Benson Ave.				
North of 18th St.	0.8	0.2	2.0	0.1
North of Baseline Rd./16th St.	0.7	0.2	2.6	0.1
South of Baseline Rd./16th St.	1.4	0.3	1.9	0.3
North of 13th Street	1.6	0.3	1.8	0.3
SRI-210				
Baseline Rd. to Mountain Ave.	0.3	0.0	***3.5***	0.0
Mountain Ave. to Campus Ave.	0.3	0.0	***3.8***	0.0
Campus Ave. to Carnelian Ave.	0.3	0.0	***3.8***	0.0

Table 4.10-5 shows that traffic noise CNEL levels are not projected to increase by more than 3 dB due to the project along any roadway segment in the 2008 scenario. The greatest increase is projected to be a project contribution of 1.7 dB along 13th Street West of Benson Avenue in the 2008 scenario. However, currently this is the entrance road to the Cable Airport. There are no existing noise sensitive uses along 13th Street West of Benson. Table 4.10-5 shows that along all other roadway segments, the project results in noise level increases of 0.6 dB or less. This is well below the substantial increase threshold of 3 dB and will not be noticeable to most residents. The project will not result in a significant noise impact.

Table 4.10-5 shows that six roadway segments are projected to experience traffic noise CNEL increases of 3 dB or more over existing conditions in 2025. These increases are caused by a combination of the project and all other growth in the project area. Table 4.10-5 shows that the project causes at most 0.5 dB of the total increase along these roadway segments. The increase due to the project is not discernable. There are homes along some of these roadway segments, specifically, 21st Street West of Mountain Ave, Benson Avenue North of Baseline Road/16th

Street and along SR-210. In general, there is also a block wall between these homes and these roads. Based on the data presented in Table 4.10-6 and an estimate of the noise reduction provided by the brick wall, noise levels in the rear yards of these homes should not exceed 65 CNEL. Therefore, the homes will not be significantly cumulatively impacted by traffic noise.

The distances to the future (2025) 60, 65 and 70 CNEL contours for the roadways in the vicinity of the proposed project site are given in Table 4.10-6. The values represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The contours do not take into account the effect of any noise barriers or topography that may affect ambient noise levels. The traffic data used to calculate these noise levels is presented in Appendix E. Note that only roadways with noise levels affected by the project by more than 0.5 dB or projected to experience noise level increases of 3 dB or greater over existing conditions are presented in Table 4.10-6. Future noise levels for all roads are presented in Appendix E.

Table 4.10-6
Distance to Future (2025) Traffic Noise Contours

Roadway Segment	CNEL @ 100' †	Distance To CNEL Contour† (feet) 70 CNEL	65 CNEL	60 CNEL
21st Street				
West of Mountain Ave.	61.9	RW	62	133
Baseline Rd.				
West of Indian Hill Blvd.	63.4	RW	78	168
East of Indian Hill Blvd.	65.4	50	107	230
East of SR-210 Ramps	66.5	58	125	269
West of Benson Ave.	66.6	60	128	276
East of Benson Ave.	64.3	42	89	193
West of Mountain Ave.	64.8	45	97	209
East of Mountain Ave.	64.7	45	96	207
West of San Antonio Ave.	64.2	41	89	192
West of Euclid Ave.	63.8	39	83	180
13th Street				
West of Benson Ave.	61.6	27	59	127
Indian Hill Blvd.				
North of Baseline Rd.	58.3	RW	RW	77
Benson Ave.				
North of 18th St.	61.6	RW	59	128
North of Baseline Rd./16th St.	64.6	43	94	202
South of Baseline Rd./16th St.	65.5	50	109	234
North of 13th Street	66.1	55	118	254
SR-210				
Baseline Rd. to Mountain Ave.	80.9	529	1,140	2,456
Mountain Ave. to Campus Ave.	81.0	537	1,158	2,494
Campus Ave. to Carnelian Ave.	81.0	538	1,160	2,498

† From roadway centerline
RW – Contour does not extend beyond right-of-way

On-Site Activities

Operation of the retail center could generate noise that may impact proposed nearby residents. For the retail center located in the southwest corner of the project site, the potentially affected future residences would be located northeast of a building which would be a major retail store of the commercial center. This will likely be a retail/grocery store, but the type or brand of store is not known at this time. Additional retail shops located southeast of the major retail store would also be located near the proposed residences. Noise issues associated with a retail store include loading dock activities, delivery truck noise, and mechanical equipment. Since the type of retail store and associated activities (e.g., number of truck deliveries) is not known, the potential impacts can only be discussed in a qualitative manner, and this discussion is presented below.

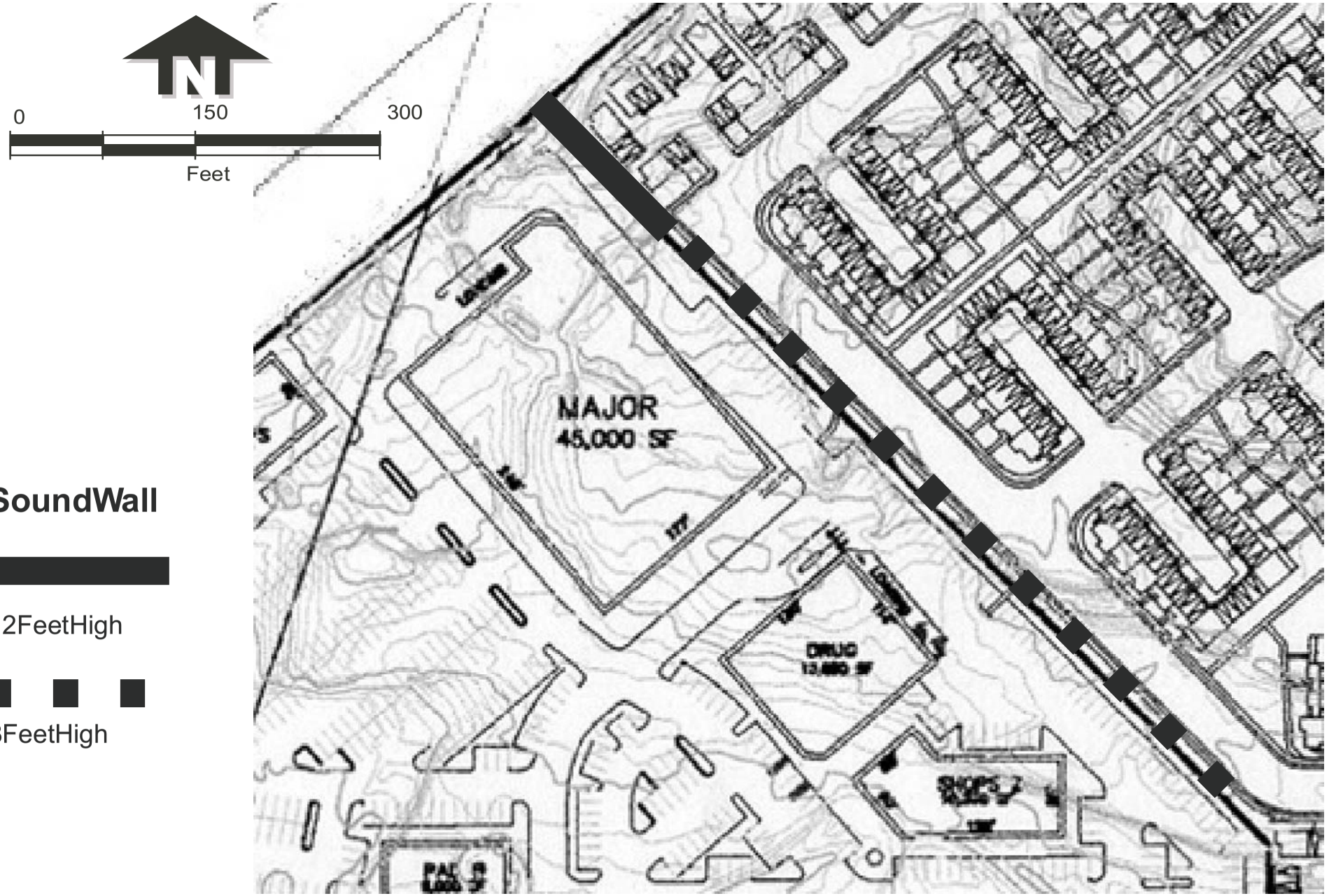
A partial site plan of the area around the major retail store is presented in Figure 4.10-5. There is a 65-foot buffer between the nearest residences and the major retail store building. Only two residential units are this close to the building, and they are closest to the northern corner of the retail building. There is a row of approximately 12 homes that parallel the retail center. These homes face towards the retail area and are between 125 and 150 feet from the rear of the retail buildings.

There are three sources of noise usually associated with retail stores. This would include loading dock noise where there will be movement of the goods into the store and possibly forklift operations, and truck delivery noise where the truck drives by either to or from the loading dock. Delivery trucks also could leave the truck idling during unloading operations, however, trucks are now prohibited from idling for more than 5 minutes per the South Coast Air Quality Management District regulations. The third source of noise is the mechanical equipment associated with the heating, ventilation, and air conditioning system (HVAC).

The loading dock for the major retail store building will be located on the northwest side of the building. This is an optimal location for this loading dock because the corner of the building acts as a large noise barrier that will shield the proposed residences from the loading dock noise. The drug store will have a loading dock along the rear of the building that would be directly facing the proposed residential area. The number of operations and the time of day that unloading would occur is not known. However, noise levels could be loud enough that they would be disturbing to the residences. Noise mitigation for loading dock noise/truck deliveries is discussed below.

For deliveries, the trucks will need to pass through the parking area at the rear of the major retail store and adjacent retail buildings. Again, it is not known how many trucks or what time of day this might occur. Nighttime operations can be particularly annoying to residences. Mitigation measures are discussed below.

HVAC equipment is sometimes located on the ground and sometimes located on the roof of the buildings. The type, size and number of mechanical equipment are not known at this time. If the equipment is located on the roof, often parapet walls are used to control the noise from the equipment. Similarly, sound walls can be located around HVAC equipment that is located on the ground. Without mitigation measures, impacts would be considered significant.



4.10-20

Partial Site Plan

Baseline Road Master Plan
City of Upland, California

Source: Mestre Greve Associates, 2007

Prepared By:
LILBURN CORPORATION

Figure 4.10-5

Long-Term On-Site Impacts

While the project site is located 3,500 feet north of the Cable Airport, the information presented in Section 4.10-2 (Aircraft Noise Levels) shows that the project site is not significantly impacted by aircraft noise in terms of the CNEL metric. Occasional aircraft over-flights would be audible on the project site but would not be intrusive nor substantially affect the CNEL levels on site. The source of noise impacting the project site is traffic noise.

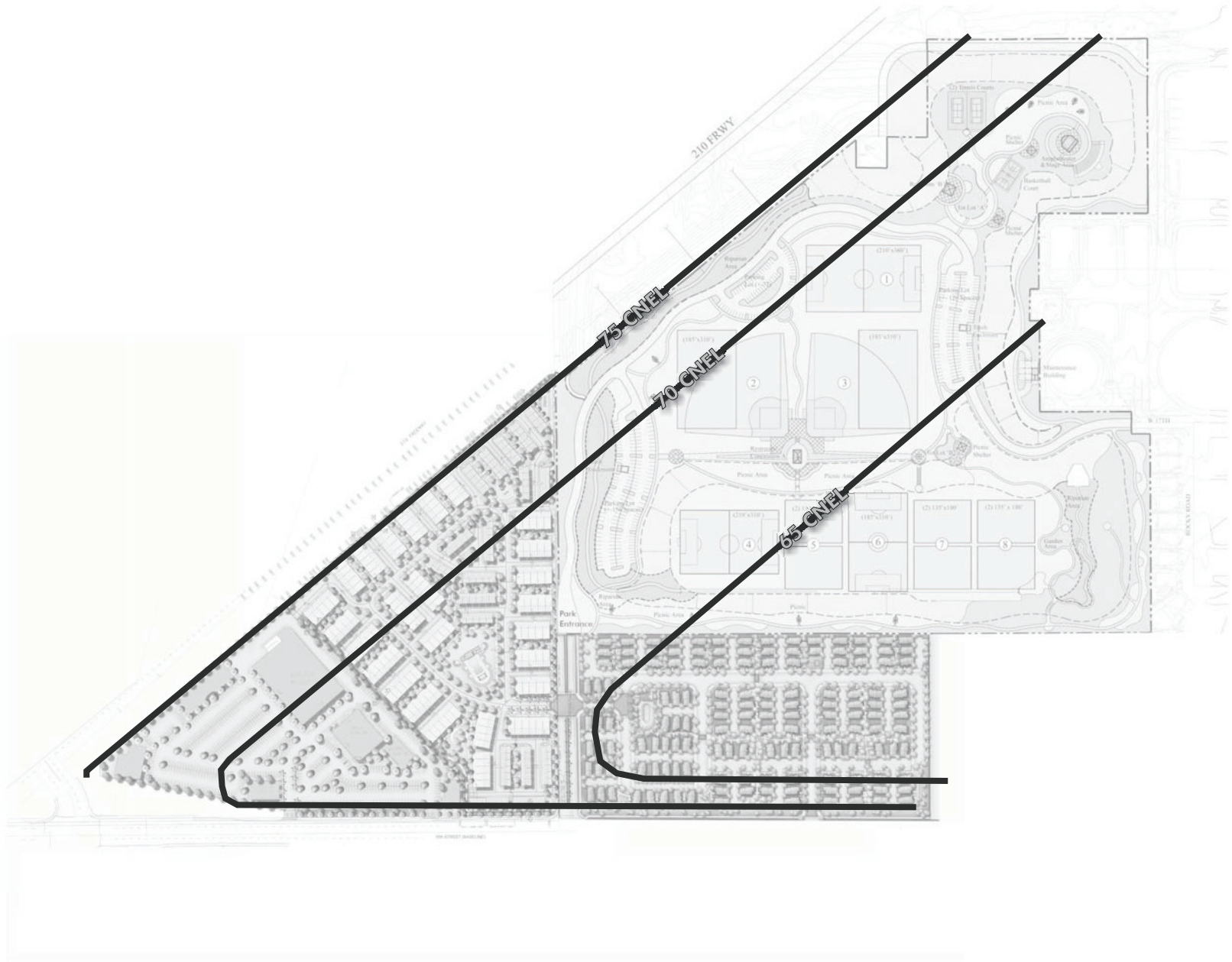
Table 4.10-7 presents distances to the future (2025) with project 60, 65 and 70 CNEL contours for the roadways segments along the proposed project site. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The contours do not take into account the effect of any noise barriers or topography that may reduce traffic noise levels. Traffic volumes, speeds and traffic mixes used to calculate the noise levels are presented in Appendix E.

Table 4.10-7
Future (2025) With Project Traffic Noise Levels

Roadway Segment	CNEL @ 100' †	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Baseline Rd.				
East of SR-210 Ramps	66.5	58	125	269
West of Benson Ave.	66.6	60	128	276
SR-210				
Baseline Rd. to Mountain Ave.	80.9	529	1,140	2,456

The noise contours presented in Table 4.10-7 are presented graphically in Figure 4.10-6. Figure 4.10-6 shows that the highest traffic noise level impacting a building in the retail portion of the project is 75 CNEL. This equates to an Leq(12) noise level of 73.6 dBA. Typical commercial construction complying with Title 24 energy requirements achieves at least 20 dBA of outdoor-to-indoor noise reduction. Therefore, the highest indoor noise levels in the retail portion of the project will be less than 53.6 dBA Leq(12). This is less than the City's 55 dBA Leq(12) interior noise standard. Therefore, the retail portion of the project is not significantly impacted by noise.

Figure 4.10-6 shows that the 75 CNEL contour encroaches upon the City Sports Park portion of the project by approximately 50 feet. This means that the closest 50 feet of the City Sports Park site is exposed to noise levels in excess of 75 CNEL. However, no designated City Sports Park uses are located within this area. As discussed previously, the land use compatibility figure from the City's Noise Element shows that noise levels up to 70 CNEL are normally acceptable and levels up to 75 CNEL are conditionally acceptable. Traffic noise levels in excess of 70 CNEL can begin to interfere with speech communication. Figure 4.10-6 shows that picnic areas and sports fields are exposed to noise levels exceeding 70 CNEL. Most of the City Sports Park site is projected to be exposed to noise levels in excess of 65 CNEL.



I-210 Traffic Noise CNEL Contours

Baseline Road Master Plan
Upland, California

Figure 4.10-6

Prepared By:
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Note that the contours presented in Figure 4.10-6 are worst case in that they do not account for topography that may reduce noise levels. In the case of the City Sports Park, much of the area is below the freeway grade. Where direct line of sight to the freeway is broken by the topography, noise levels will be reduced by at least 5 dBA. Therefore, noise levels in some areas of the City Sports Park site may be lower than shown in Figure 4.10-6. Without plans showing grading information, traffic noise levels at noise sensitive locations cannot be determined. To avoid being significantly impacted by traffic noise, areas expected to experience regular use in the City Sports Park should not be exposed to noise levels exceeding 70 CNEL and passive uses should not be exposed to noise levels exceeding 65 CNEL. Mitigation Measure NOI-8, to ensure this in the future design of the City Sports Park Portion is discussed below.

Residences are proposed along the SR-210 Freeway and along Baseline Road. Figure 4.10-6 shows that noise levels for residential areas along the SR-210 will be about 75 CNEL at the nearest building areas. Figure 10-1 of the Upland Noise Element indicates that unmitigated noise levels in the 70 to 75 CNEL range are classified as "Normally Unacceptable". This does not prohibit development, but does flag this area of development for additional analysis. The Noise Element states, "If new construction or development does proceed, a detailed analysis of the Noise Reduction Requirements must be made and needed noise insulation features included in the design." The City does not identify an outdoor noise standard in the Noise Element, but 65 CNEL is typically used by the City for first floor private patio and rear yard areas. A 45 CNEL indoor noise standard is required by the City and the State of California. Therefore, there will be an on-site noise impact along the SR-210 without mitigation. Mitigation measures are discussed below.

Noise levels for the proposed residences along Baseline Road will be just under 70 CNEL. These units will also need mitigation to meet the indoor standard of 45 CNEL and an outdoor noise level of 65 CNEL. Again, a significant impact will occur without mitigation. Mitigation measures are discussed below.

Mitigation Measure NOI-3

Deliveries to the major retail store area loading docks and operation of heavy trucks along the northeast boundary of the project between the retail stores and the residential areas shall be restricted to the hours between 7:00 a.m. and 11:00 p.m. Signs approved by the City of Upland shall be placed at the loading docks describing this restriction. If the nighttime restriction is not amenable to the tenants of the retail/grocery store and/or adjacent retail stores, then they have the option of having a noise assessment prepared showing that they can comply with the City of Upland Noise Ordinance. The noise assessment shall identify the number of truck deliveries, the types of trucks to be used, the hours of delivery and any measures necessary to insure that compliance with the ordinance will be obtained. The noise assessment shall be submitted to the City, and the City shall review and approve the assessment and proposed mitigation measures prior to the issuance of occupancy permits.

Mitigation Measure NOI-4

A sound wall shall be located at the property line between the residences and retail center as shown in Figure 4.10-5. The sound wall shall be 12 feet high near the westernmost residences and then decreases to 8 feet for the remaining residences (will vary depending upon the noise study requirements). (The sound wall also provides needed protection to the residences from traffic on SR-210) To be effective, noise barriers are required to have a surface density of at least 3.5 pounds per square foot, and have no openings or cracks. They may be a solid wall, an earthen berm, or a combination of the two. They may be constructed of wood studs with stucco exterior, ¼ inch plate glass, 5/8 inch plexiglass, any masonry material, or a combination of these materials. Caltrans Encroachment Permit (Temporary Encroachment Permit) shall be submitted to the City of Upland.

Mitigation Measure NOI-5

Prior to issuance of building permits for the project, a final noise assessment shall be prepared to determine the final noise mitigation required to reduce HVAC equipment associated with the major retail store and other adjacent retail stores, such that noise does not exceed Noise Ordinance levels during day and nighttime operations. The study shall be prepared by a qualified acoustical engineer and submitted to the City of Upland prior to issuance of building permits for the retail buildings. The study shall use detailed noise data for the specific mechanical equipment to be used and identify the necessary noise control requirements. Noise control can include, but is not limited to, sound walls, parapet walls, relocation of equipment, use of quieter equipment, and sound control enclosures. The recommendation of the acoustic engineer shall be implemented.

Mitigation Measure NOI-6

Prior to construction of any residential units whose outdoor ground floor areas are subject to noise in excess of 65 CNEL, a sound wall shall be constructed along SR-210 to reduce first floor outdoor areas to less than 65 CNEL. A preliminary calculation indicates that a sound wall of roughly 12 feet tall would need to be along the property line adjacent to SR-210. The wall would need to wrap at the south end of this residential area and extend past the first building. (This wrap would also protect the residences from the loading dock noise at the proposed major retail store site.) High performance windows and possibly attic baffle vents shall be utilized to achieve the 30 dB outside to inside noise reduction needed to achieve the 45 CNEL indoor noise standard. A final noise study shall be prepared to determine the exact soundwall and building insulation requirements.

Mitigation Measure NOI-7

Prior to the issuance of grading permits, a noise study shall be prepared for the residential portions of the project along Baseline Street and SR-210 by a qualified acoustical engineer. The noise study will examine the noise generated by these roadways and describe the measures required to ensure that the City's standards of 65 CNEL for outdoor areas and

45 CNEL indoor areas will be achieved for existing and future conditions. The recommendation of the acoustic engineer shall be implemented.

Level of Significance After Mitigation

Implementation of Mitigation Measures NOI-3 through NOI-7 for Impact NOI-2 would reduce potential significant impacts to a less than significant level.

Impact NOI-3

The residents within the vicinity of the proposed project may be subject to noise levels in excess of the City Noise Standards during operation of the City Sports Park. This is a potentially significant impact.

The City intends to design the City Sports Park to be compatible with existing water development and water conservation uses on-site. The proposed City Sports Park would be developed on approximately 57 (44 net) acres. Planned City Sports Park amenities include six soccer fields (two of which convert into softball fields), two tennis courts, a basketball court, a volleyball court, a "Tot lot", a small community amphitheater, and a concession stand.

Noise levels generated by activities at the City Sports Park are difficult to predict. The major source of noise at a City Sports Park would be the park users. Noise generated by people can be quite varied depending on the activity and the specific persons. Generally, passive recreation areas, treed fields, benches and picnic areas have the lowest potential of generating noise. Organized, marked sports fields have the greatest potential for generating noise. Any amplified noise, such as a Public Address system for sports activities or music performance has the potential to result in a noise impact.

Noise Ordinances typically exempt activities at public parks from the Noise Ordinance limits. The rational for this is that the public good provided by the park outweighs the noise impacts. However, the City of Upland Noise Ordinance does not exempt park activities. There is however, an exemption for events that have obtained a valid permit from the City. This would likely be applicable to any amplified music performance at the park.

Noise levels generated by a crowd at a sports field can be quite varied and depend on the number and veracity of the crowd. A crowd at critical game with a close score at the end of a game would be expected to generate more noise than one at a blowout at the end of a loosing season. A single person can generate a peak sustained noise level of approximately 80 dBA at distance of 3 feet. Assuming, all persons in a crowd are generating that peak noise level; a worst-case peak noise level can be estimated. Based on measurements of noise generated by crowds at sporting events performed by Mestre Greve Associates, average crowd noise levels are 5 to 15 dB lower than the peak levels.

There could be three soccer fields located along the southern portion of the City Sports Park. These would be the nearest sports fields to existing residences. The nearest part of the soccer field to the residences would be located approximately 190 feet from the residences. The soccer field elevations would be approximately 30 to 40 feet lower than the residences. In addition,

there is a block wall located along the residential property line. This block wall has a height of 6 feet and would act as a noise barrier reducing noise levels generated by the City Sports Park at the rear yards of the residences.

Assuming 100 spectators on each side of the three soccer fields nearest the residences (600 spectators total) all generating a peak sustained noise level of 80 dBA at 3 feet, the peak noise level at the residences is projected to be 58 dBA. This noise level could be generated for up to 30 minutes in an hour and not be a violation of the City ordinance. The noise level exceeded 30 minutes in an hour would be closer to the average noise level and be between 43 and 53 dBA. These levels are lower than the most stringent daytime Noise Ordinance criteria. While lighting would be provided for the sports fields, the lighting would not be operated beyond 10:00 p.m. Further, substantial levels of activity are not expected to occur before 7:00 a.m.

Even at the most extreme level of activity, 600 persons at the three soccer fields nearest the existing homes, noise generated by activities at the City Sports Park are not projected to generate noise levels in excess of the City's Noise Ordinance. All other activities are expected to generate lower noise levels than this. Therefore, activities at the City Sports Park are not projected to result in a significant noise impact. However, a portion of the City Sports Park site would be exposed to noise levels in excess of 75 CNEL. Noise levels within areas of the City Sports Park that are expected to be used regularly should not exceed 70 CNEL. Noise levels within passive use areas of the City Sports Park (e.g. picnic areas) should not exceed 65 CNEL.

At this time a grading plan for the City Sports Park is not available. These are required to determine noise levels within the City Sports Park as well as the location and height of any noise barriers required to reduce noise to an appropriate level. A wall or berm along the freeway with a height of less than 10 feet would likely reduce the traffic noise to appropriate levels.

Mitigation Measure NOI-8

Prior to issuance of grading permits, a noise study shall be prepared for the City Sports Park portion of the project by a qualified acoustical engineer. The noise study will examine the noise generated by SR-210 and describe the measures required to ensure that regular use areas of the City Sports Park are not exposed to noise levels in excess of 70 CNEL and passive use areas of the City Sports Park are not exposed to levels in excess of 65 CNEL.

Level of Significance After Mitigation

Implementation of Mitigation Measure NOI-8 for Impact NOI-3 would reduce potential significant impacts to a less than significant level.

4.11 TRAFFIC AND CIRCULATION

4.11.1 Introduction

This section of the EIR summarizes the results of a Traffic Impact Analysis entitled *Traffic Impact Analysis Addendum Baseline Road Master Plan, Upland, California,* prepared by Linscott Law & Greenspan Engineers, September 20, 2006. Included in this section is a description of the existing circulation system that would provide access to and from the project site; identification of standards of significance; impact analysis; and recommendation of mitigation measures to reduce any potentially significant impacts to less than significant levels. Due to the size of the Traffic Impact Analysis (TIA) modeling results, they are bound under separate cover and available for review at the City of Upland. The TIA is included as Appendix F in this EIR.

4.11.2 Environmental Setting

The project site consists of several parcels totaling approximately 99 acres (96.6 acres within the City of Upland, and 2.4 acres within the City of Claremont) that are generally located north of Baseline Road between Benson Avenue to the east and State Route 210 (SR-210) to the west. Approximately 42 acres of the project site is adjacent to and runs parallel with Baseline Road and the remaining 57 acres is located immediately north of the 42-acre site.

Existing Street System

Regional Access

SR-210 provides regional access to the project site. SR-210 borders the project site to the north. Regional access to the site is provided from/to SR-210, via an interchange at Baseline Road adjacent to the project site. This freeway, with high occupancy vehicle (HOV) lanes in the median, is a major highway, which extends through San Bernardino County and links the City of Upland with the neighboring communities of Ontario, Rancho Cucamonga, and Fontana, as well as Los Angeles County, cities of Claremont, Pomona and Glendora.

Local Access

A number or streets provide local access. These are:

Baseline Road is a four-lane, divided roadway oriented in an east-west direction, which borders the project site to the south. Baseline Road currently provides two lanes of travel in each direction. Within the project vicinity, parking is not permitted on either side of the roadway. Traffic signals control the study intersections of Baseline Road and Indian Hill Boulevard, Mills Avenue, Monte Vista Avenue, SR-210 on/off Ramps, Benson Avenue, Mountain Avenue, San Antonio Avenue, Euclid Avenue, Campus Avenue and Carnelian Avenue. The posted speed limit on Baseline Road in the vicinity of the project is 45 miles per hour (mph). Baseline Road would provide access to the Master Plan.

Foothill Boulevard is a four-lane, divided roadway oriented in an east-west direction. Within the project vicinity, parking is not permitted on either side of this roadway. Traffic signals control the study intersections of Foothill Boulevard and Towne Avenue, Indian Hills Boulevard, Mills Avenue, Benson Avenue and Mountain Avenue. The posted speed limit on Foothill Boulevard is 40 mph west of Mountain Avenue and 45 mph east of Mountain Avenue.

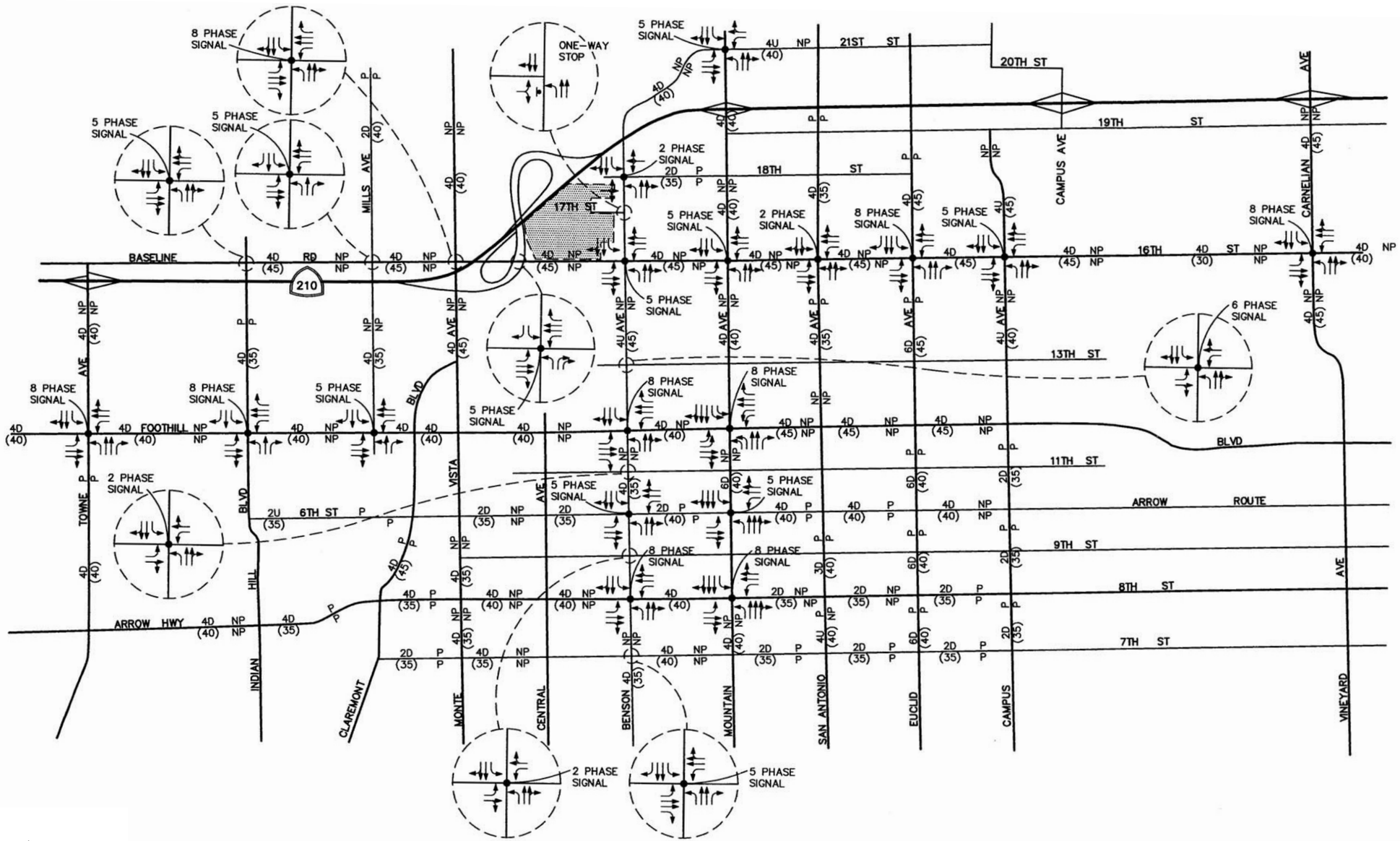
Arrow Route is a two-lane, undivided roadway west of Claremont Boulevard, a four-lane, divided roadway between Claremont Boulevard and Campus Avenue and a two-lane, undivided roadway east of Campus Avenue oriented in the east-west direction. Within the project vicinity, parking is generally permitted on either side of this roadway. Traffic signals control the study intersections of Arrow Route and Benson Avenue and Mountain Avenue. The posted speed limit on Arrow Route is 35 mph west of Claremont Boulevard, 45 mph between Claremont Boulevard and Central Avenue, 35 mph between Central Avenue and Benson Avenue, 40 mph between Benson Avenue and Euclid Avenue and 35 mph east of Euclid Avenue.

Arrow Highway is a four-lane divided roadway west of Mountain Avenue and a two-lane divided roadway east of Mountain Avenue oriented in an east-west direction. Within the project vicinity, parking is generally permitted on either side of this roadway. Traffic signals control the study intersections of Arrow Highway and Benson Avenue and Mountain Avenue. The posted speed limit on Arrow Highway is 40 mph west of Indian Hill Boulevard, 35 mph between Indian Hill Boulevard and Monte Vista Avenue, 40 mph between Monte Vista Avenue and Central Avenue, 45 mph between Central Avenue and Benson Avenue, 40 mph between Benson Avenue and Mountain Avenue and 35 mph east of Mountain Avenue.

Benson Avenue is generally a four-lane divided roadway oriented in a north-south direction, which borders the project site to the east. Within the project vicinity, parking is not permitted on either side of this roadway. Traffic signals control the study intersections of Benson Avenue and 7th Street, Arrow Highway/8th Street, Arrow Route, 11th Street, Foothill Boulevard, 13th Street, Baseline Road and 18th Street. The posted speed limit on Benson Avenue is 35 mph south of Foothill Boulevard and generally 45 mph north of Foothill Boulevard. Benson Avenue will provide emergency access to the City Sports Park portion of the proposed site via 17th Street.

Mountain Avenue is generally a six-lane divided roadway south of Foothill Boulevard and a four-lane divided roadway north of Foothill Boulevard oriented in a north-south direction. Within the project vicinity parking is not permitted on either side of this roadway. Traffic signals control the study intersections of Mountain Avenue, 21st Street, Baseline Road, Foothill Boulevard, Arrow Route and 8th Street. The posted speed limit on Mountain Avenue is 45 mph north of Foothill Boulevard and 40 mph south of Foothill Boulevard.

Figure 4.11-1 presents an inventory of the existing roadway conditions for the arterials and intersections evaluated for the proposed project. The number of travel lanes for key arterials, as well as intersection configurations and controls for the key area study intersections are identified.



Map Prepared By
Lilburn Corporation
Source
Linscott, Law & Greenspan Engineers, 2006.

Existing Roadway Conditions and Intersection Controls

Baseline Road Master Plan
Upland, California

Figure 4.11-1

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Existing Volumes

Twenty-five (25) key study intersections have been identified to evaluate existing and future traffic operating conditions. The existing AM peak hour and PM peak hour traffic counts were initially evaluated in September 2003 and December 2003. Turning movement counts with truck classifications were also calculated in January 2006 at three key study intersections. These three locations include the intersection of Baseline Road at SR-210 Ramps, the intersection of Baseline Road at Benson Avenue and the intersection of Baseline Road at Mountain Avenue.

The additional traffic counts were collected (per the lead agency) to develop an AM peak hour and PM peak hour growth factor between the prior Year 2003 traffic counts and the current Year 2006 traffic counts. The growth factors would be applied to the prior Year 2003 traffic counts to factor them to current conditions (Year 2006). The traffic count comparison indicated that AM peak hour traffic in the area has decreased by 2.3 percent per year and that PM peak hour traffic has increased by 3.7 percent per year. Therefore, no factor was applied to the prior (Year 2003) AM peak hour traffic counts and a factor of 3.7 percent per year was applied to the prior (Year 2003) PM peak hour traffic counts. Refer to the TIA for additional information.

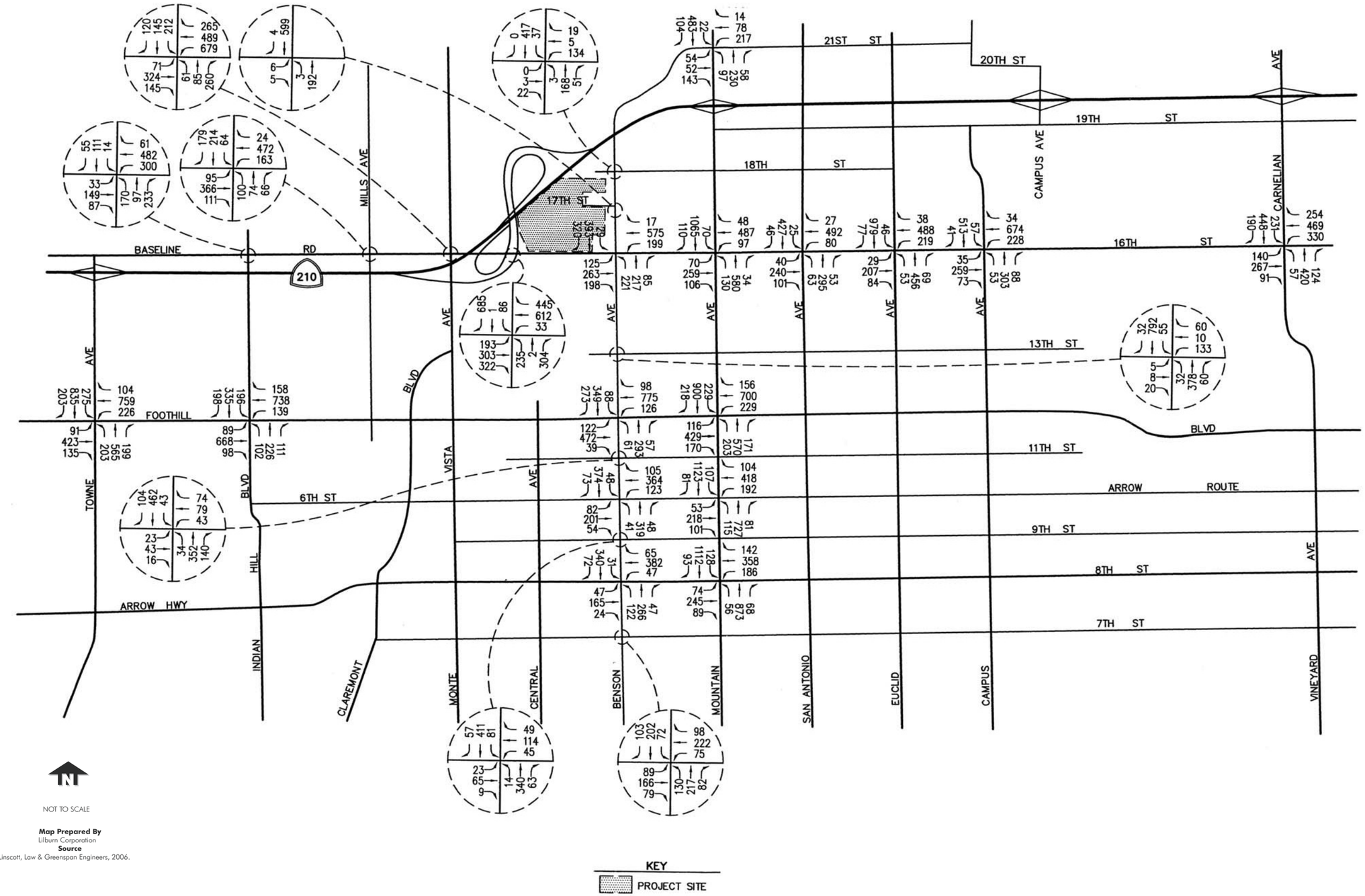
Figures 4.11-2 and 4.11-3 depict the existing AM and PM peak hour traffic volumes for the key study intersections within the project study area, respectively. These traffic volumes include the traffic count growth factors and are comprised of passenger vehicles, large 2-axle trucks, 3-axle trucks and 4+-axle trucks. The truck traffic turning movements were converted to passenger car equivalents (P.C.E.'s) using SANBAG approved factors. P.C.E. factors of 1.5, 2.0 and 3.0 were utilized for large 2-axle trucks, 3-axle trucks and 4+-axle trucks, respectively.

Existing Intersection Conditions

In conformance with the City of Upland requirements and San Bernardino County Congestion Management Plan (CMP) requirements, existing AM and PM peak hour operating conditions for the key signalized study intersections were evaluated using the Highway Capacity Manual 2000 (HCM 2000) methodology.

Highway Capacity Manual Method of Analysis (Signalized Intersections)

Based on the HCM method of analysis, level of service (LOS) for signalized intersection is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during ideal conditions: in the absence of traffic control, geometric delay, or any incidents, and when there are no vehicles on the road.



Map Prepared By
Lilburn Corporation
Source
Linscott, Law & Greenspan Engineers, 2006.

Existing AM Peak Hour Traffic Volumes

Baseline Road Master Plan
Upland, California

Figure 4.11-2

Prepared By:
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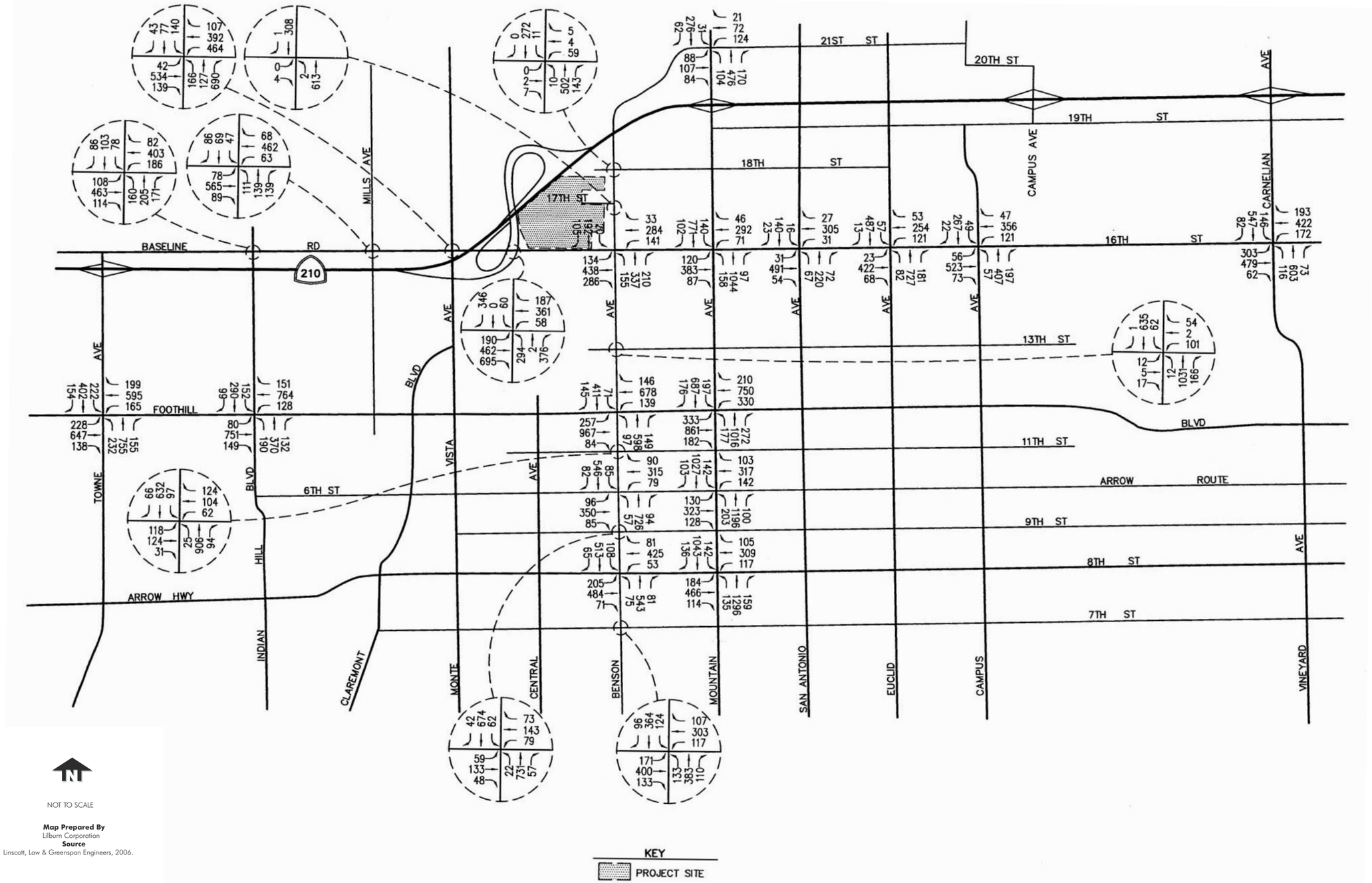

Map Prepared By
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Source
Linscott, Law & Greenspan Engineers, 2006.

Existing PM Peak Hour Traffic Volumes

Baseline Road Master Plan
Upland, California

Figure 4.11-3

Prepared By:
LILBURN CORPORATION

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Chapter 16 of the HCM indicates only the portion of total delay attributed to the control facility is quantified. This delay is called control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. LOS criteria for traffic signals are stated in terms of the average control delay per vehicle. LOS criteria for signalized intersections are shown in Table 4.11-1 for San Bernardino County.

Due to the project site's proximity to City of Claremont in Los Angeles County, the traffic study requirements contained in the 2004 CMP for Los Angeles County were also considered in this traffic study. Table 4.11-2 shows LOS per Los Angeles County standards.

According to City of Upland criteria, LOS "D" is the minimum acceptable condition that should be maintained during the peak commute hours. Any of the study intersections within the City of Upland's jurisdiction operating at LOS "E" or "F" are considered deficient/unsatisfactory. A project traffic impact is considered significant when an intersection currently operating or projected to operate at or below LOS D without the project is forecast to operate at LOS "E" or "F" with the project.

The County of San Bernardino CMP definition of deficiency is based on maintaining a LOS standard of LOS "E" or better, except where an existing LOS "F" condition is identified in the CMP document. The CMP for Los Angeles County also defines LOS "E" as the minimum acceptable service level that should be maintained at intersections that are part of the CMP network.

Highway Capacity Manual Method of Analysis (Unsignalized Intersection)

The 2000 HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the key intersections. This methodology estimates the average control delay for each of the subject movements and determines LOS for each movement. The overall average control delay measured in seconds per vehicle, and LOS is then calculated for the entire intersection. The HCM control delay value translates to a LOS estimate, which is a relative measure of the intersection performance. The six qualitative categories of LOS have been defined along with the corresponding HCM control delay value range, as shown in Table 4.11-3.

Table 4.11-1
Level of Service Criteria for Signalized Intersections
San Bernardino County

Level of Service (LOS)	Control Delay Per Vehicle (Seconds/vehicle)	Level of Service Description
A	≤ 10.0	This level of service occurs when progression is extremely favorable and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10.0 and ≤ 20.0	This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
C	> 20.0 and ≤ 35.0	Average traffic delays. These higher delays may result from fair progression, longer cycles lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	> 35.0 and ≤ 55.0	Long traffic delays At Level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and proportion of vehicles not stoping declines. Individual cycles failures are noticeable.
E	> 55.0 and ≤ 80.0	Very long traffic delays. This level is considered by many agencies (i.e. SANBAG) to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle failures are frequent occurrences.
F	≥ 80.0	Severe congestion This level, considered to be unacceptable to most divers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

Source: Highway Capacity Manual 2000, Chapter 16 (signalized Intersections).

Table 4.11-2
Level of Service Criteria for Signalized Intersections
Los Angeles County

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Definition
A	≤ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 – 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 – 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

Source: Los Angeles County CMP, 2002.

Table 4.11-3
Level of Service Criteria for Unsignalized Intersections

Level of Service (LOS)	Control Delay Per Vehicle (seconds/vehicles)	Level of Service Description
A	≤10.0	Little or no delay
B	>10.0 and ≤15.0	Short traffic delays
C	>15.0 and≤ 25.0	Average traffic delays
D	>25.0 and≤ 35.0	Long traffic delays
E	>35.0 and≤ 50.0	Very long traffic delays
F	50.0	Severe Congestion

Source: Highway Capacity Manual, Chapter 17 (Unsignalized Intersections), 2000.

Existing Level of Service

Table 4.11-4 summarizes the existing peak hour LOS for the 25 intersections based on existing traffic volumes and current street geometry. Under existing conditions, four of the intersections operate at an unacceptable LOS when compared to the LOS criteria identified in Table 4.11-4. The four locations operating at an adverse LOS are as follows:

Key Intersection		City/ Jurisdiction	AM Peak Hour			PM Peak Hour		
			Delay	V/C	LOS	Delay	V/C	LOS
4.	Monte Vista Ave at Baseline Rd	Claremont	95.7 s/v	0.85	F	68.9 s/v	0.84	E
5.	SR-210 Ramps at Baseline Rd	Claremont	--	--	--	60.2 s/v	1.00	F
13.	Mountain Ave at Foothill Blvd	Upland	--	--	--	68.9 s/v	1.02	F
22.	Towne Ave at Foothill Blvd	Claremont/ Pomona	--	--	--	64.3 s/v	0.96	E

The remaining 21 intersections currently operate at an acceptable level of service of D or better during AM and PM peak hours.

Method of Analysis per Los Angeles County

A significant project impact would occur when the proposed increased traffic demand on a CMP facility rises by two percent of capacity (change in V/C≥0.02), causing or worsening LOS F (V/C> 1.00).

The City of Claremont considers LOS D to be the minimum acceptable LOS. A project's impact is considered "significant" at non CMP study intersections if the addition of project traffic causes LOS E or F conditions or project increases traffic demand by 2.0 percent (V/C ratio increase≥ 0.020), causing or worsening LOS E or F (V/C › 0.900) conditions.

In conformance with Los Angeles County CMP requirements, peak hour operating conditions for the key signalized intersections located in the City of Claremont were also evaluated using the Intersection Capacity Utilization (ICU) method of analysis. The ICU technique estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. The ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

The ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and dual left turn capacity of 2,880 vph. A clearance adjustment factor of 0.10 (10 percent) was added to each LOS calculation. The ICU value translates to a LOS estimate, which is a relative measure of the intersection performance. The six qualitative categories, of LOS are defined with the corresponding ICU value range in Table 4.11-2.

Table 4.11-4
Existing Peak Hour Levels of Service Summary

Key Intersections		Time Period	City/Jurisdiction	Control Type	Delay (sec/veh)	V/C Ratio	LOS
1.	Benson Avenue at 17th Street	AM PM	City of Upland	One – Way Stop	0.20 s/v 0.05 s/v	-- --	A A
2.	Indian Hill Boulevard at Baseline Road	AM PM	City of Claremont	5∅ Traffic Signal	26.9 s/v 26.6 s/v	0.53 0.51	C C
3.	Mills Avenue at Baseline Road	AM PM	City of Claremont	5∅ Traffic Signal	26.1 s/v 24.7 s/v	0.43 0.42	C C
4.	Monte Vista Avenue at Baseline Road	AM PM	City of Claremont	8∅ Traffic Signal	**95.7 s/v** **68.9 s/v**	**0.85** **0.84**	**F** **E**
5.	SR-210 Ramps at Baseline Road	AM PM	City of Claremont	6∅ Traffic Signal	47.5 s/v **60.2 s/v**	0.98 **1.00**	D **F**
6.	Benson Avenue at 16th Street	AM PM	City of Upland	8∅ Traffic Signal	44.1 s/v 44.1 s/v	0.74 0.72	D D
7.	Mountain Avenue at 16th Street	AM PM	City of Upland	8∅ Traffic Signal	41.7 s/v 42.5 s/v	0.73 0.76	D D
8.	San Antonio Avenue at 16th Street	AM PM	City of Upland	2∅ Traffic Signal	15.5 s/v 15.8 s/v	0.33 0.32	B B
9.	Euclid Avenue at 16th Street	AM PM	City of Upland	8∅ Traffic Signal	38.7 s/v 32.0 s/v	0.74 0.65	D C
10.	Campus Avenue at 16th Street	AM PM	City of Upland	5∅ Traffic Signal	26.1 s/v 25.4 s/v	0.60 0.58	C C
11.	Carnelian Avenue at 16th Street	AM PM	City of Rancho Cucamonga	8∅ Traffic Signal	45.9 s/v 44.6 s/v	0.75 0.76	D D
12.	Benson Avenue at Foothill Boulevard	AM PM	City of Upland	8∅ Traffic Signal	33.6 s/v 52.6 s/v	0.66 0.85	C D
13.	Mountain Avenue at Foothill Boulevard	AM PM	City of Upland	8∅ Traffic Signal	35.7 s/v **68.9 s/v**	0.69 **1.02**	D **F**
14.	Benson Avenue at Arrow Route	AM PM	Upland/County of San Bernardino	5∅ Traffic Signal	22.8 s/v 24.0 s/v	0.40 0.55	C C
15.	Mountain Avenue at Arrow Route	AM PM	City of Upland	5∅ Traffic Signal	23.4 s/v 29.4 s/v	0.54 0.65	C C
16.	Benson Avenue at 8th Street	AM PM	City of Upland/Montclair	8∅ Traffic Signal	28.0 s/v 40.0 s/v	0.44 0.69	C D
17.	Mountain Avenue at 8th Street	AM PM	City of Upland	8∅ Traffic Signal	37.3 s/v 50.8 s/v	0.69 0.80	D D
18.	Benson Avenue at 7th Street	AM PM	City of Upland/Montclair	8∅ Traffic Signal	31.1 s/v 40.4 s/v	0.36 0.55	C D
19.	Mountain Avenue at 21st Street	AM PM	City of Upland	5∅ Traffic Signal	23.4 s/v 23.1 s/v	0.43 0.43	C C
20.	Benson Avenue at 18th Street	AM PM	City of Upland	2∅ Traffic Signal	11.7 s/v 10.6 s/v	0.24 0.28	B B
21.	Indian Hill Boulevard at Foothill Boulevard	AM PM	City of Claremont	8∅ Traffic Signal	42.1 s/v 48.7 s/v	0.74 0.88	D D
22.	Towne Avenue at Foothill Boulevard	AM PM	City of Claremont/Pomona	8∅ Traffic Signal	53.0 s/v **64.3 s/v**	0.87 **0.96**	D **E**
23.	Benson Avenue at 9th Street	AM PM	Upland/County of San Bernardino	2∅ Traffic Signal	13.3 s/v 13.7 s/v	0.26 0.43	B B
24.	Benson Avenue at 11th Street	AM PM	Upland/County of San Bernardino	2∅ Traffic Signal	13.3 s/v 14.0 s/v	0.28 0.52	B B
25.	Benson Avenue at 13th Street	AM PM	City of Upland	6∅ Traffic Signal	33.8 s/v 49.1 s/v	0.44 0.60	C D

Bold HCM/LOS values indicate adverse service levels based on City of Upland, City of Claremont, City of Montclair, City of Rancho Cucamonga, City of Pomona and County of San Bernardino LOS standards.

Traffic Project Methodology

A multi-step process has been utilized in order to estimate the traffic impact characteristics of the proposed Baseline Road Master Plan project. The first step is trip generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound project traffic. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignments allocate specific volumes forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the proposed project is isolated by comparing operational LOS conditions at selected key intersections using expected future volumes with and without forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the project's impacts identified.

Analysis Methodology

The relative impact of the added peak hour project traffic volumes generated by the Baseline Road Master Plan project were evaluated based on the analysis of future operating conditions at 25 key study intersections. Operating conditions were evaluated during the AM and PM peak hours for existing 2003 traffic conditions and future near-term (2009) and long-term (2025) traffic conditions without, then with the proposed project. The discussed capacity analysis procedures were utilized to investigate the future volume-to-capacity relationships and service level characteristics at each study intersection. The significance of the potential impacts of the project at each key intersection was then evaluated using the LOS standards and the impact criteria defined herein.

As required, the following scenarios are evaluated:

1. Existing Traffic Conditions;
2. Year 2009 Future Traffic Conditions;
3. Year 2009 Future Traffic Conditions plus the Baseline Road Master Plan Project;
4. Scenario (3) with Mitigation, if necessary;
5. Year 2025 Buildout Traffic Conditions;
6. Year 2025 Buildout Traffic Conditions plus the Baseline Road Master Plan Project;
7. Scenario (6) with Mitigation, if necessary.

Traffic generation is anticipated in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the site. Generation factors and equations used in this traffic forecasting procedure are found in the Seventh Edition of Trip Generation, published by the Institute of Transportation Engineers (ITE) [Washington, D.C., 2003].

Table 4.11-5 summarizes the trip generation rates equations used in forecasting the impact of the Baseline Road Master Plan project. As is the standard in the industry, trips generated by the retail component of the proposed project were estimated using ITE Land Use Code 820: Shopping Center, the trip generation potential for the residential portion of the proposed project was estimated using ITE Land Use Code 210: Single Family Detached Housing rates and ITE Land Use Code 230: Residential Condominium/Townhouse rates, and as directed by City of Upland staff, the trip generation potential for the recreation portion of the proposed project was estimated using ITE Land Use Code 488: Soccer Complex rates.

The ITE equations for shopping center assume a "blended" retail and commercial project use on-site. Given the proposed project development tabulation/description, the uses of the "blended" shopping center equations are considered conservative and appropriate.

Table 4.11-5
Project Traffic Generation Rates/Equations

ITE Land Use Code	Time Period	Rates/Equations	Percent Entering	Percent Exiting
▪ 210: Single Family Detached Housing (TE/DU)	Daily	T = 9.57 (X)	50%	50%
	AM Peak	T = 0.75 (X)	25%	75%
	PM Peak	T = 1.01 (X)	64%	36%
▪ 230: Residential Condominium/ Townhouse (TE/DU)	Daily	T = 5.86 (X)	50%	50%
	AM Peak	T = 0.44 (X)	16%	84%
	PM Peak	T = 0.52 (X)	67%	33%
▪ 820: Shopping Center (TE/1,000 SF)	Daily	LN (T) = 0.65 LN (X) + 5.83	50%	50%
	AM Peak	LN (T) = 0.60 LN (X) + 2.29	61%	39%
	PM Peak	LN (T) = 0.66 LN (X) + 3.40	48%	52%
▪ 488: Soccer Complex (TE/Field)	Daily	T = 71.33 (X)	50%	50%
	AM Peak	T = 1.40 (X)	50%	50%
	PM Peak	T = 20.67 (X)	69%	31%

Source: *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2003).
TE/DU = Trip ends per dwelling unit, TE/Field = Trip ends per field
TE/1,000 SF = Trip ends per 1,000 square feet of development

Table 4.11-6 summarizes the trip generation forecast for the proposed Baseline Road Master Plan project. As shown, the residential component of the Park View Specific Plan portion of the Master Plan project is anticipated to generate 2,647 daily trips, with 257 trips (59 inbound, 198 outbound) produced in the AM peak hour and 272 trips (178 inbound, 94 outbound) produced in the PM peak hour and the neighborhood retail center component of the Park View Specific Plan portion of the Master Plan project is anticipated to generate 4,583 daily trips, with

140 trips (85 inbound, 55 outbound) produced in the AM peak hour and 420 trips (205 inbound, 215 outbound) produced in the PM peak hour. The trip generation for the Baseline Road Master Plan includes adjustments for the internal trip capture within the project site as recommended by the Trip Generation Handbook, 2nd Edition, published by ITE, June 2004. The residential component internal capture consists of 680 daily trips and 66 PM peak hour trips (39 inbound, 27 outbound). The retail component internal capture consists of 680 daily trips and 66 PM peak hour trips (27 inbound, 39 outbound). The adjustments for pass-by trips accounts for trips that come directly from the everyday traffic stream on the adjoining streets (i.e. Baseline Road/16th Street). The recommended pass-by reduction factor of 39% for the PM peak hour was not used. A 25 percent reduction was used, as directed by City of Upland staff to provide a conservative analysis. This same factor (25%) was utilized for daily traffic and an estimated 10% pass-by rate was utilized for the AM peak hour.

Table 4.11-6
Project Traffic Generation Forecast

Project Description	Daily 2-Way	AM Peak Hour Enter	AM Peak Hour Exit	AM Peak Hour Total	PM Peak Hour Enter	PM Peak Hour Exit	PM Peak Hour Total
▪ Single Family Homes (265 DU)	2,536	50	148	198	170	98	268
▪ Condominiums/Townhomes (135 DU)	791	9	50	59	47	23	70
Subtotal	3,327	59	198	257	217	121	338
Internal Capture (ADT: 20%, PM: 20%)[1]	-680	--	--	--	-39	-27	-66
Subtotal	**2,647**	**59**	**198**	**257**	**178**	**94**	**272**
▪ Neighborhood Retail Center (100,000 SF)	6,791	95	61	156	300	326	626
Internal Capture (ADT: 10%, PM: 11%)[1]	-680	--	--	--	-27	-39	-66
Subtotal	6,111	95	61	156	273	287	560
Pass-By Reduction[2]	-1,528	-10	-6	-16	-68	-72	-140
Subtotal	**4,583**	**85**	**55**	**140**	**205**	**215**	**420**
▪ City Park/Soccer Complex (8 Fields)[3]	571	6	6	12	114	51	165
Baseline Road Master Plan Total Traffic Generation Forecast	**7,801**	**150**	**259**	**409**	**497**	**360**	**857**

TE/DU = Trip ends per dwelling unit
TE/1,000 SF = Trip ends per 1,000 square feet of development
TE/Field = Trip ends per field

[1] To account for the trip interaction between shopping center and residential uses, an internal capture reduction factor was applied to the trip generation forecast based on the ITE Internal Capture Summary calculation worksheets.

[2] Pass-by trips are trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on adjacent streets (i.e. Baseline Road/16th Street), which contain direct access to the generator. The *Trip Generation Handbook*, 2nd Edition (June 2004) recommends a pass-by reduction factor of 39% for the PM peak hour. The PM peak hour pass-by percentage (T) was calculated based on the following equation: Ln (T) = -0.29Ln (X) + 5.00, where X = gross leasable area. However, as directed by City of Upland staff and to provide a conservative analysis, a pass-by reduction factor of 25% was used for the PM peak hour. The same factor was used to estimate the daily pass-by percentage. The AM peak hour pass-by percentage was estimated to be 10%.

[3] The City Sports Park site totals approximately 57 acres, of which approximately 44 net acres will be utilized as recreational facilities and approximately 13 acres will be designated Flood Control/Open Space. Eight (8) fields will be provided within the net 44 acres.

The trip generation is based on 265 single family homes, 135 condominiums, a 100,000 SF neighborhood retail center and approximately net 44-acre City Sports Park (8 fields) serves as a trip budget maximum for the proposed project. The Baseline Road Master Plan project (residential component, retail component and recreation component) is anticipated to generate 7,801 daily trips, with 409 trips (150 inbound, 259 outbound) produced in the AM peak hour and 857 trips (497 inbound, 360 outbound) produced in the PM peak hour.

Project Trip Distribution and Assignment

Traffic distribution determines the directional orientation of traffic. It is based upon the location, intensity of use, accessibility of existing and planned residential areas, employment centers, and other commercial activities. Traffic assignment is the determination of specific trip routes, given the previously developed traffic distribution. Primary factors in route selection are the generalized travel direction, minimum time and minimum distance paths.

Per the CMP requirements, project generated traffic was distributed and assigned to the local roadway system based on a traffic distribution pattern determined from the SCAG "select zone" CMP model runs. The select zone model runs show only those trips generated by the designated or selected zone. The select zone model output (i.e., the model plots) show the origin of inbound project trips (i.e., trips entering a particular zone) and the designation of outbound project trips (i.e., trips leaving a particular zone).

The SCAG model runs for the project show the peak period traffic volumes based on the daily trip generation forecast. The AM peak period corresponds to a three-hour morning commute period while the PM peak period corresponds to a four-hour afternoon commute period. The distributed AM and PM peak hour project traffic volumes (i.e., the one hour peak project volumes) were determined by factoring the modeled peak period traffic volumes. In combining the factored peak hour trips of the select zone model run and comparing those volumes to the overall peak hour project trip generation, the project traffic distribution patterns (i.e., percentages) could be determined for each study location.

4.11.3 Impacts and Mitigation Measures

Thresholds of Significance

The proposed project would result in a significant impact to transportation/circulation if it would:

- 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);
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;
- 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;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access;
- Result in inadequate parking capacity; or

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

Definition of Deficiency and Significance Impact

The City of Upland, as well as the Cities of Claremont, Montclair, Rancho Cucamonga and Pomona, consider LOS "D" to be the minimum acceptable condition that should be maintained during the peak commute hours. Therefore, any intersection operating at LOS "E" or LOS "F" is considered deficient/unsatisfactory. The CMP definition of deficiency is based on maintaining a level of service standard of LOS "E" or better, except where an existing LOS "F" condition is identified in the CMP document. Further, per the CMP, an intersection must be designated as operating at LOS "F" when the volume-to-capacity (V/C) ratio of the critical movements is equal to or greater than 1.0. Any V/C ratio of 1.0 or greater is an indication of actual or potential breakdown, thereby requiring improvements in the overall intersection geometrics and signal operations. LOS "C" is the minimum acceptable intersection service level of the County of San Bernardino.

In the event that an intersection is operating at or is forecast to operate at a deficient LOS, the CMP guidelines have defined a series of steps to be completed to determine the project's contribution to the deficiency of intersections. The steps are as follows:

1. Determine the mitigation measures necessary to achieve an acceptable service level.
2. Calculate the project's share in the future traffic volume projections for the peak hours.
3. Estimate the cost to implement recommended mitigation measures.
4. Calculate the project's fair-share contribution to offset the project's traffic impacts

Impacts Determined to Have No Impact

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

The proposed project is not anticipated to create hazards due to design features (e.g., sharp curves, etc.) as the developer will be required to comply with conditions of approval from the City of Upland and Claremont Public Service Departments (e.g., Fire, Police, Public Works/Engineering etc.). The land use plan combines a pedestrian oriented commercial center with residential neighborhoods designed around parks and greenbelts. Residential areas are connected through pedestrian trails and greenbelts to the commercial center and to a proposed City Sports Park. Streets within Park View Specific Plan are designed to encourage walking and outdoor activity with sidewalks separated from the street by landscaped parkways.

Result in inadequate parking capacity?

Park View Specific Plan Portion

City of Upland

The proposed Baseline Road Master Plan includes development of adequate parking spaces/lots as new commercial businesses are occupied. Parking for the single-family detached and attached homes is proposed at minimum of 2 parking spaces per residence. Residences that would be clustered or stacked would also have guest parking of 0.25 spaces per dwelling unit. A total of approximately 1,066 (including garage and guest parking) parking spaces would be provided for the residential development. A total of 500 parking spaces would be provided in the commercial development (5 spaces per 1,000 square feet of Gross Building Area). No impacts would occur.

City Sports Park portion

For the proposed City Sports Park, parking capacity has not been determined. The City Sports Park would have to be designed so that that visitor parking could be accommodated on-site and not overflow onto the commercial site. There is no street parking allowed on Benson Avenue.

Subsequent to the distribution of the NOP, the City determined that vehicular access to the City Sports Park should be through the proposed Park View Promenade. Pedestrian and bicycle access as well as emergency access to the City Sports Park would be provided from Benison Avenue via 17th Street to reduce the potential for vehicle/pedestrian or bicycle conflicts.

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

Pedestrians and Bicycles.

The circulation of the Master Plan would allow pedestrian access throughout the site from Baseline Road. On-site access would be provided by a series of parking lots and storefront sidewalks. There is an existing bike lane on Baseline Road and bicycles would continue to be accommodated on Baseline Road and parking lots but would not intermingle with pedestrians internally.

Alternative Transportation

Bus turn-outs and shelters will be installed by the project proponent in a number of locations designated by OmniTrans unless the Transit Authority determines that there is no need for such facilities. If a bus shelter is required by OmniTrans, the design of the shelter shall be compatible with the architectural character established at the project entries to the Park View Specific Plan. Sites for bus shelters and bus stops shall provide an area adequate for the installation of benches, trash receptacles and shelters.

Rail, Waterborne or Air Traffic

No rail, waterborne or air traffic would be affected by the proposed project. However, Cable Airport is located approximately two miles south of the project site and a portion of the site is considered within the Cable Airport Safety Zone Area 2. Refer to the Hazards section (Section 4.6).

Impacts Determined to be Potentially Significant

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)?

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

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?

Result in inadequate emergency access?

Impact Analysis

For the purposes of the traffic analysis, both the Park View Specific Plan portion and the City Sports Park portion were evaluated as one project.

Impact TC-1

The proposed project would increase vehicle trips/traffic levels, and affect the level of service along arterial roadways and intersections. This would be a significant impact to existing road segments and intersections in the region.

The traffic generated by the project was determined by multiplying an appropriate trip generation rate by the quantity and type of uses proposed for the project. Trip generation rates were predicated based on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and life styles would remain similar to what exists today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily traffic and morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land uses. By multiplying the traffic generation rates by the land use quantities, the traffic volumes are determined.

The Master Plan would generate approximately 7,801 daily vehicle trips, 409 vehicles during the AM peak hour and 857 vehicle trips during the PM peak hour.

Future Traffic Conditions

Year 2009

Near-term background traffic estimates were calculated using an ambient growth factor of one percent per year to develop background traffic conditions. The one percent annual growth rate was determined based on a review of the computer transportation model data, prepared by SCAG staff. Specifically, the model run data associated with the year 2000 and 2025 conditions was reviewed on a "screenline", basis throughout the project area in order to determine the projected rate of growth. The method by which the annual growth rate was developed was previously reviewed and approved by SANBAG staff. With this estimate, the potential impact upon opening of the Baseline Road Master Plan can be evaluated within the context of the cumulative impact of the ongoing development. Refer to the TIA for the supporting documentation with respect to the determination of the annual traffic growth factor.

Year 2025

The Year 2025 traffic volumes forecast were obtained through utilization of the SCAG traffic model output. Specifically, from the peak period model runs (i.e., the model runs described in the "Project Trip Distribution" section of this report), the one-hour peak hour traffic volumes were determined. All of the analyzed traffic volumes were link traffic volumes (i.e., two-directional traffic volumes on each roadway segment in the study area). These future year 2025 link traffic volumes were post-processed based on the relationship of the base year validation model run output to the base year ground traffic counts. Copies of the model post-processing worksheets are found in the TIA. The post-processing methodology utilized in this report is consistent with SANBAG requirements.

Related Projects Location

The status of other known development projects (cumulative projects) in the area has been researched at the cities of Upland, Claremont, Montclair and Rancho Cucamonga to quantify an estimate of future on-street conditions prior to completion of the proposed project. With this information, the potential impact of the proposed project can be evaluated within the context of the cumulative impact of all ongoing development.

The list of future development projects within approximately 1½ to 2 mile radius of the project site for which traffic could have the potential to affect the selected study intersections was prepared in conjunction with the City of Upland and Lilburn Corporation. Information was provided by the City of Upland on cumulative projects in the City. City staff from the adjacent jurisdictions of the cities of Claremont, Montclair and Rancho Cucamonga were also contacted.

A total of 38 sites were identified (related or cumulative) and, 28 of 38 cumulative projects were included in this study. These cumulative projects are in some stage of the approval/entitlements process, ranging from projects that are under construction to projects that are proceeding through the planning process. Of the 28 planned and/or approved, cumulative projects that were considered in this traffic analysis, ten cumulative projects are located in the City of Claremont,

16 cumulative projects are located in the City of Upland and one cumulative project is located in each of the Cities of Rancho Cucamonga and Montclair. The ten cumulative projects that were excluded from this traffic analysis were either too small (part of the ambient growth factor) or ancillary uses to existing development.

Table 4.11-7 provides the location and a brief description for each of the 38 cumulative projects that were identified, as well as which cumulative projects were excluded and the reason for exclusion. The cumulative project's reference number, description (land use type), and size of development are presented in this table. Figure 4.11-4 presents the general location of the 38 cumulative projects with respect to the Baseline Master Plan project site.

Table 4.11-7
Location and Description of Cumulative Projects

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
City of Upland:					
(1)	Warehouse Buildings	1431 West 9th Street	10,400 SF Warehouse	**Yes**	---
(2)	Office Buildings	Southeast corner of Benson Ave and 16th St	15,412 SF Office	**Yes**	---
(3)	Jack in the Box	Northwest corner of Foothill Boulevard and Monte Vista Avenue	4,858 SF Fast Food Restaurant W/Drive-thru	**Yes**	---
(4)	Retail/Dental Office Building	East side of Euclid Ave and south of 9th Street	2,219 SF Retail and 2,457 SF Medical Office	**Yes**	---
(5)	The Colonies at San Antonio Mixed-Use Development[1]	South of 20th Street, north of 16th Street and generally east of Campus Avenue	350 Condominiums, 800 Single Family Homes, 814,000 SF Shopping Center, 3,800 Seat Movie Theater, 80,000 SF Office Building, 150 Room Hotel, 40,000 SF Health Club, 4,000 SF Day Care Center, 6,000 SF High Turnover Restaurant, 2-12 Pump Gas Stations with Convenience Markets/Car Washes, 80,000 SF Auto Dealership[2]	**Yes**	---
(6)	Upland Commercial/ Industrial Mixed-Use Master Plan[3]	Northwest corner of Benson Avenue and Foothill Boulevard	274,900 SF Industrial Park, 240,600 SF Office Uses, 402,700 SF Commercial Retail	**Yes**	---
(7)	College Park Mixed-Use Development[4]	Southwest corner of Monte Vista Avenue And Arrow Route	6,240 SF of Office Suites, 12,490 SF of Retail Shops, 12,480 SF of In-Line Food Uses and Restaurants, 9,225 SF of Fast-Food Restaurants, 16 pump Gas Station with Convenience Market, 97 Single Family Homes, 448 Apartments	**Yes**	---
(8)	Alexander Communities	Northeast corner of Campus Ave and 15th St	54-unit single family gated residential subdivision	**Yes**	---

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
(9)	Dry Dock Depot RV and Boat Storage Expansion	Southeast corner of Campus Ave and 15th St	Expansion includes addition of 11.4 acres with 900 spaces for RV and boat storage for a total of 22.7 acres with 1,720 spaces	**Yes**	---
(10)	Rancho Monte Vista Apartment Homes[5]	Located south of Arrow Route, west of Central Avenue	Potential development includes 280-unit of apartments to be developed in two phases	**Yes**	---
(11)	Office Building	460 N. Central Avenue	5,760 SF Office	**Yes**	---
(12)	Foothill Terrace	North of Foothill Blvd and east of Benson Ave	Townhomes – 47 DU	**Yes**	---
(13)	Foothill Walk	North of Foothill Blvd and east of Benson Ave	Townhomes – 72 DU	**Yes**	---
(14)	Emblem Development	525 West 18th Street	Single Family Homes – 24 DU	**Yes**	---
(15)	Upland Crossing	Southeast corner of Foothill Blvd and Monte Vista Ave	495 Single Family Homes and 45,000 SF of Commercial	**Yes**	---
(16)	Offices	North of 7th Street between First Avenue and Second Avenue	4,000 SF two story office building	**Yes**	---
---	J.E. Plount and Co.	20th St between Euclid Ave and Campus Ave	10 Single Family Detached	No	Too small (part of the ambient growth factor)
---	Upland Manors	Northwest corner of 20th Street and San Antonio Avenue	4 Single Family Detached	No	Too small (part of the ambient growth factor)
---	Condominiums	North of 9th Street and east of 11th Avenue	Condominiums – 5 DU	No	Too small (part of the ambient growth factor)
---	Dr. Fisher	406 Arrow Highway	2 Single Family Detached	No	Too small (part of the ambient growth factor)
---	Steve Macke	Northwest corner of Benson Avenue and Eureka Way	8 Single Family Detached	No	Too small (part of the ambient growth factor)

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
---	Hutton Development	Southeast corner of 20th Street and Mountain Avenue	9 Single Family Detached	No	Too small (part of the ambient growth factor)
---	John Plount	South of 20th Street and west of Euclid Avenue	15 Single Family Detached	No	Too small (part of the ambient growth factor)
---	John Plount	South of 20th Street and east of Euclid Avenue	10 Single Family Detached	No	Too small (part of the ambient growth factor)
City of Rancho Cucamonga:					
(17)	Foothill Boulevard Condominiums[6]	North of Foothill Boulevard and east of San Bernardino Rd	219-unit Gated Residential Condominiums/Townhomes	**Yes**	---
City of Claremont:					
(18)	Stone Canyon Preserve	Northeast corner of Padua Avenue and Mt. Baldy Road	95 Single Family Detached[7]	**Yes**	---
(19)	Mt. Baldy R.V. Park	Mt. Baldy Road and Glendora Ridge Road	227 R.V. Spaces	**Yes**	---
(20)	Padua Avenue Park	Padua Avenue between Mt. Baldy Road and Baseline Road	24 Acre Park	**Yes**	---
(21)	Olson/Village Walk	1st St/Indian Hill Blvd	75 Single Family Detached[8]	**Yes**	---
(22)	Citrus Height Packing House Adaptive Reuse	500 West 1st Street	108,000 SF of retail uses and 18 live-work lofts	**Yes**	---
(23)	Claremont Mckenna College	Northeast corner of 6th St and Amherst Ave	102 Bed Dormitory	**Yes**	---
(24)	Claremont Graduate School	North of 1300 North College Avenue	158 Apartments	**Yes**	---
(25)	Claremont Inn/Old School House S.P.	Northwest corner of Foothill Boulevard and Indian Hill Boulevard	Renovation of 194 hotel rooms, renovation/rehab of 107,000 SF of retail, 14,000 SF of new retail uses and 128 condominiums	**Yes**	---
(26)	Village Expansion[9]	West of Indian Hill Boulevard between the railroad and Bonita Ave	66,000 SF of retail, 41,000 SF of office, movie theatre (850 seats), 171 condominiums and 20 live-work lofts	**Yes**	---
(27)	Claremont Commons Project[10]	Northwest corner of Monte Vista Ave and Foothill Blvd	98,300 SF of retail uses	**Yes**	---

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
---	Shepherd Cove	Eastern Terminus of Shepherd Way	5 Single Family Detached	No	Too small (part of the ambient growth factor)
---	Pomona College	Northwest corner of 6th St and College Way	100,000 SF Academic Building	No	Ancillary use to college
City of Montclair:					
(28)	Montclair Downtown Specific Plan[10]	Area bounded by Huntington Row, Monte Vista Ave, Moreno St and Central Ave	230,500 SF retail and 3,200 condominiums	**Yes**	---

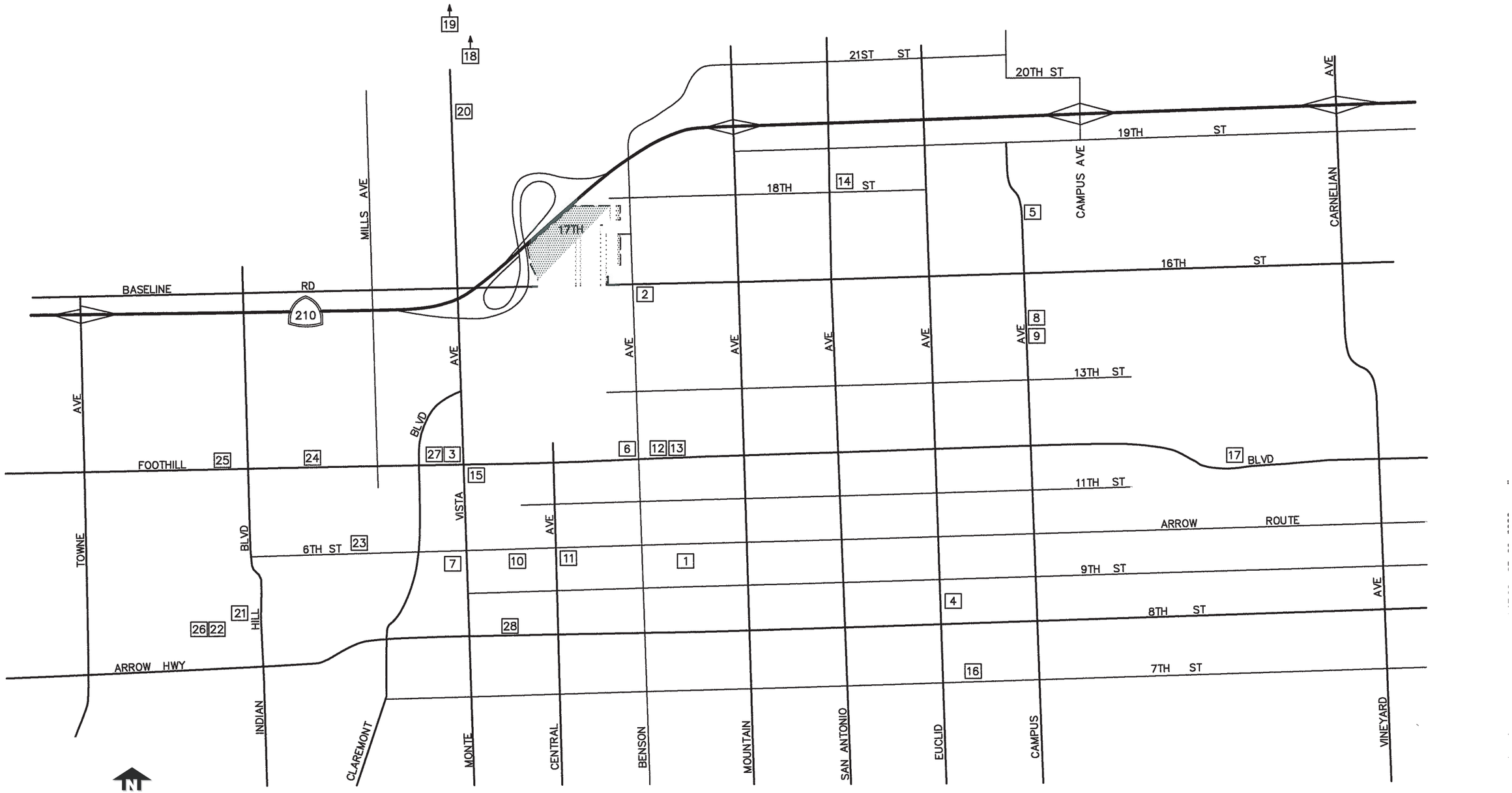
[1] Source: Traffic Impact Study for The Colonies at San Antonio Mixed-Use Development, prepared by Kimley-Horn and Associates, June 2002.
[2] Based on discussions with City of Upland Planning Department staff, 70% of the residential component and 60% of the commercial component of the Colonies project is completed and occupied.
[3] Source: Traffic Impact Study for Upland Commercial/Industrial Mixed-Use Master Plan, prepared by Urban Crossroads.
[4] Source: College Park Mixed-Use Development Traffic Impact Analysis Addendum, prepared by LLG Costa Mesa, March 2005.
[5] Source: Traffic Impact Study for Rancho Monte Vista Apartment Homes, prepared by LLG Costa Mesa, December 2003.
[6] Source: Traffic Impact Study for Foothill Boulevard Condominiums, prepared by LLG Costa Mesa, July 2003.
[7] The development total for the Stone Canyon Preserve project is 125 single family homes. Based on discussions with City of Claremont Planning Department staff, 30 dwelling units are currently occupied resulting in a development total of 95 single family homes.
[8] The development total for the Olson/Village Walk project is 178 single family homes. Based on discussions with City of Claremont Planning Department staff, 103 dwelling units are currently occupied resulting in a development total of 75 single family homes.
[9] Source: Traffic Impact Study for the Claremont Commons Project, prepared by LLG Pasadena
[10] Source: *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE) [Washington, D.C. (2003)].

Peak Hour Intersection Capacity

Near-Term (Year 2009) Traffic Evaluation

Table 4.11-8 summarizes the peak hour intersection capacity results at the twenty-five key study intersections for the Year 2009. Column (1) presents a summary of existing AM and PM peak hour traffic conditions. Column (2) lists forecast 2009 background conditions (existing traffic plus ambient growth traffic plus related projects traffic) based on existing intersection geometry, without any traffic generated from the proposed project.

Column (3) presents future forecast traffic conditions with the addition of traffic generated by the Baseline Road Master Plan project. Column (4) indicates whether the traffic associated with the project will have a significant impact based on the LOS standards and the impact criteria defined herein. Column (5) indicates the anticipated LOS with planned and/or recommended improvements.



NOT TO SCALE

Map Prepared By
Lilburn Corporation
Source
Linscott, Law & Greenspan Engineers, 2007.

KEY

[#] = RELATED PROJECT LOCATION

= PROJECT SITE

Location of Cumulative Projects

Baseline Road Master Plan
Upland, California

Figure 4.11-4

Prepared By:
LILBURN CORPORATION

Table 4.11-8
Year 2009 Peak Hour Intersection Capacity Analysis

Key Intersections	Time Period	(1) Existing Traffic Conditions			(2) Year 2009 Future Traffic Conditions			(3) Year 2009 Future Traffic Conditions Plus Project			(4) Significant Impact	(5) Year 2009 With Improvements		
		Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Yes/No	Delay	V/C	LOS
1. Benson Ave at 17th Street	AM	0.20 s/v	--	A	0.19 s/v	--	A	0.19 s/v	--	A	No	--	--	--
	PM	0.05 s/v	--	A	0.04 s/v	--	A	0.04 s/v	--	A	No	--	--	--
2. Indian Hill Blvd at Baseline Road	AM	26.9 s/v	0.53	C	28.6 s/v	0.64	C	28.9 s/v	0.65	C	No	--	--	--
	PM	26.6 s/v	0.51	C	31.8 s/v	0.69	C	32.8 s/v	0.70	C	No	--	--	--
3. Mills Avenue at Baseline Road	AM	26.1 s/v	0.43	C	27.6 s/v	0.51	C	28.0 s/v	0.54	C	No	--	--	--
	PM	24.7 s/v	0.42	C	28.7 s/v	0.54	C	29.8 s/v	0.56	C	No	--	--	--
4. Monte Vista Ave at Baseline Road	AM	**95.7 s/v**	**0.85**	**F**	**115.1 s/v**	**1.04**	**F**	**122.2 s/v**	**1.06**	**F**	**Yes**	43.8 s/v	0.71	D
	PM	**68.9 s/v**	**0.84**	**E**	**136.7 s/v**	**1.24**	**F**	**145.0 s/v**	**1.28**	**F**	**Yes**	54.5 s/v	0.97	D
5. SR-210 Ramps at Baseline Road	AM	47.5 s/v	0.98	D	**58.5 s/v**	**1.05**	**F**	**62.2 s/v**	**1.08**	**F**	**Yes**	36.1 s/v	0.81	D
	PM	**60.2 s/v**	**1.00**	**F**	**96.3 s/v**	**1.20**	**F**	**97.8 s/v**	**1.21**	**F**	**Yes**	36.1 s/v	0.94	D
6. Benson Avenue at 16th Street	AM	44.1 s/v	0.74	D	52.7 s/v	0.87	D	**56.8 s/v**	**0.94**	**E**	**Yes**	46.9 s/v	0.84	D
	PM	44.1 s/v	0.72	D	**65.8 s/v**	**0.92**	**E**	**91.6 s/v**	**1.02**	**F**	**Yes**	50.4 s/v	0.87	D
7. Mountain Ave at 16th Street	AM	41.7 s/v	0.73	D	46.2 s/v	0.81	D	47.3 s/v	0.83	D	No	--	--	--
	PM	42.5 s/v	0.76	D	50.5 s/v	0.91	D	52.6 s/v	0.93	D	No	--	--	--
8. San Antonio Ave at 16th Street	AM	15.5 s/v	0.33	B	16.0 s/v	0.38	B	16.1 s/v	0.38	B	No	--	--	--
	PM	15.8 s/v	0.32	B	17.2 s/v	0.41	B	17.5 s/v	0.42	B	No	--	--	--
9. Euclid Avenue at 16th Street	AM	38.7 s/v	0.74	D	42.3 s/v	0.81	D	42.3 s/v	0.82	D	No	--	--	--
	PM	32.0 s/v	0.65	C	35.0 s/v	0.77	C	36.4 s/v	0.79	D	No	--	--	--
10. Campus Avenue at 16th Street	AM	26.1 s/v	0.60	C	27.4 s/v	0.69	C	27.6 s/v	0.70	C	No	--	--	--
	PM	25.4 s/v	0.58	C	28.6 s/v	0.73	C	28.8 s/v	0.73	C	No	--	--	--
11. Carnelian Ave at 16th Street	AM	45.9 s/v	0.75	D	47.5 s/v	0.80	D	47.5 s/v	0.80	D	No	--	--	--
	PM	44.6 s/v	0.76	D	47.9 s/v	0.85	D	48.1 s/v	0.85	D	No	--	--	--
12. Benson Avenue at Foothill Boulevard	AM	33.6 s/v	0.66	C	49.5 s/v	0.95	D	50.4 s/v	0.96	D	No	41.7 s/v	0.74	D
	PM	52.6 s/v	0.85	D	**146.2 s/v**	**1.36**	**F**	**153.6 s/v**	**1.37**	**F**	**Yes**	51.0 s/v	0.93	D
13. Mountain Ave at Foothill Boulevard	AM	35.7 s/v	0.69	D	38.4 s/v	0.79	D	38.7 s/v	0.80	D	No	38.0 s/v	0.79	D
	PM	**68.9 s/v**	**1.02**	**F**	**112.4 s/v**	**1.23**	**F**	**116.5 s/v**	**1.25**	**F**	**Yes**	54.8 s/v	0.97	D
14. Benson Avenue at Arrow Route	AM	22.8 s/v	0.40	C	23.4 s/v	0.47	C	23.4 s/v	0.48	C	No	--	--	--
	PM	24.0 s/v	0.55	C	26.2 s/v	0.66	C	26.8 s/v	0.68	C	No	--	--	--
15. Mountain Ave at Arrow Route	AM	23.4 s/v	0.54	C	24.0 s/v	0.59	C	24.1 s/v	0.60	C	No	--	--	--
	PM	29.4 s/v	0.65	C	31.8 s/v	0.75	C	32.1 s/v	0.76	C	No	--	--	--
16. Benson Avenue at 8th Street	AM	28.0 s/v	0.44	C	30.9 s/v	0.59	C	30.9 s/v	0.60	C	No	--	--	--
	PM	40.0 s/v	0.69	D	51.7 s/v	0.91	D	53.5 s/v	0.93	D	No	--	--	--
17. Mountain Ave at 8th Street	AM	37.3 s/v	0.69	D	39.3 s/v	0.75	D	39.7 s/v	0.76	D	No	41.1 s/v	0.75	D
	PM	50.8 s/v	0.80	D	**66.2 s/v**	**0.96**	**E**	**68.6 s/v**	**0.97**	**E**	**Yes**	54.2 s/v	0.92	D
18. Benson Avenue at 7th Street	AM	31.1 s/v	0.36	C	31.0 s/v	0.40	C	31.0 s/v	0.41	C	No	--	--	--
	PM	40.4 s/v	0.55	D	41.2 s/v	0.63	D	41.4 s/v	0.64	D	No	--	--	--
19. Mountain Ave at 21st Street	AM	23.4 s/v	0.43	C	23.7 s/v	0.46	C	23.7 s/v	0.46	C	No	--	--	--
	PM	23.1 s/v	0.43	C	23.8 s/v	0.47	C	23.9 s/v	0.48	C	No	--	--	--

Key Intersections	Time Period	(1) Existing Traffic Conditions			(2) Year 2009 Future Traffic Conditions			(3) Year 2009 Future Traffic Conditions Plus Project			(4) Significant Impact	(5) Year 2009 With Improvements		
		Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Yes/No	Delay	V/C	LOS
20. Benson Avenue at 18th Street	AM	11.7 s/v	0.24	B	11.7 s/v	0.26	B	11.7 s/v	0.26	B	No	--	--	--
	PM	10.6 s/v	0.28	B	10.9 s/v	0.31	B	11.0 s/v	0.33	B	No	--	--	--
21. Indian Hill Blvd at Foothill Boulevard	AM	42.1 s/v	0.74	D	53.0 s/v	0.92	D	53.4 s/v	0.93	D	No	43.7 s/v	0.77	D
	PM	48.7 s/v	0.88	D	**108.9 s/v**	**1.19**	**F**	**110.5 s/v**	**1.20**	**F**	**Yes**	53.5 s/v	0.97	D
22. Towne Avenue at Foothill Boulevard	AM	53.0 s/v	0.87	D	**68.6 s/v**	**0.99**	**E**	**68.9 s/v**	**0.99**	**E**	**Yes**	52.0 s/v	0.89	D
	PM	**64.3 s/v**	**0.96**	**E**	**114.2 s/v**	**1.15**	**F**	**115.4 s/v**	**1.15**	**F**	**Yes**	52.3 s/v	0.95	D
23. Benson Avenue at 9th Street	AM	13.3 s/v	0.26	B	13.4 s/v	0.28	B	13.5 s/v	0.29	B	No	--	--	--
	PM	13.7 s/v	0.43	B	14.0 s/v	0.49	B	14.2 s/v	0.50	B	No	--	--	--
24. Benson Avenue at 11th Street	AM	13.3 s/v	0.28	B	13.6 s/v	0.31	B	13.7 s/v	0.32	B	No	--	--	--
	PM	14.0 s/v	0.52	B	14.8 s/v	0.59	B	15.1 s/v	0.61	B	No	--	--	--
25. Benson Avenue at 13th Street	AM	33.8 s/v	0.44	C	37.5 s/v	0.52	D	40.5 s/v	0.55	D	No	48.2 s/v	0.55	D
	PM	49.1 s/v	0.60	D	**118.6 s/v**	**0.75**	**F**	**133.9 s/v**	**0.80**	**F**	**Yes**	54.9 s/v	0.72	D

Bold HCM/LOS values indicate adverse service levels based on City of Upland, City of Claremont, City of Montclair, City of Rancho Cucamonga, City of Pomona and County of San Bernardino LOS standards.

s/v = seconds per vehicle (delay).

As presented in Table 4.11-8, four of the twenty-five key study intersections currently operate at an unacceptable LOS when compared to the LOS criteria identified in this report. The remaining twenty-one key study intersections currently operate at an acceptable LOS D or better during the AM and PM peak hours. The four locations operating at an adverse LOS are as follows:

Key Intersection		City/ Jurisdiction	AM Peak Hour			PM Peak Hour		
			Delay	V/C	LOS	Delay	V/C	LOS
4.	Monte Vista Ave at Baseline Rd	Claremont	95.7 s/v	0.85	F	68.9 s/v	0.84	F
5.	SR-210 Ramps at Baseline Rd	Claremont	--	--	--	60.2 s/v	1.00	F
13.	Mountain Ave at Foothill Blvd	Upland	--	--	--	68.9 s/v	1.02	F
22.	Towne Ave at Foothill Blvd	Claremont/ Pomona	--	--	--	64.3 s/v	0.96	E

Year 2009 Future Traffic Conditions

An analysis of future near-term (Year 2009) traffic conditions indicates that ambient traffic growth and related projects traffic will adversely impact nine of the 25 key study intersections. The remaining 16 key study intersections are forecast to continue to operate at an acceptable LOS. The locations projected to operate at an adverse LOS in the Year 2009 are as follows:

Key Intersection		City/ Jurisdiction	AM Peak Hour			PM Peak Hour		
			Delay	V/C	LOS	Delay	V/C	LOS
4.	Monte Vista Ave at Baseline Rd	Claremont	115.1 s/v	1.04	F	136.7 s/v	1.24	F
5.	SR-210 Ramps at Baseline Rd	Claremont	58.5 s/v	1.05	F	96.3 s/v	1.20	F
6.	Benson Avenue at 16th Street	Upland	--	--	--	65.8 s/v	0.92	E
12.	Benson Ave at Foothill Blvd	Upland	--	--	--	146.2 s/v	1.36	F
13.	Mountain Ave at Foothill Blvd	Upland	--	--	--	112.4 s/v	1.23	F
17.	Mountain Avenue at 8th Street	Upland	--	--	--	66.2 s/v	0.96	E
21.	Indian Hill Blvd at Foothill Blvd	Claremont	--	--	--	108.9 s/v	1.19	F
22.	Towne Ave at Foothill Blvd	Claremont/ Pomona	68.6 s/v	0.99	E	114.2 s/v	1.15	F
25.	Benson Avenue at 13th Street	Upland	--	--	--	118.6 s/v	0.75	F

Year 2009 Future Traffic Conditions Plus Project

Review of Columns 3 and 4 of Table 4.11-8 indicates that traffic associated with the proposed Baseline Road Master Plan project will cumulatively impact nine of the 25 key study intersections. The remaining sixteen key study intersections are forecast to continue to operate at an acceptable LOS with the addition of project generated traffic in the Year 2009.

As shown in Column (5) of Table 4.11-8, the implementation of recommended mitigation measures at the cumulatively impacted intersections mitigate the impact of the proposed project. The nine cumulatively impacted intersections are forecast to operate at acceptable LOS D or better during both the AM peak hour and PM peak hour.

Long-Term (Year 2025) Buildout Traffic Evaluation

Per the CMP requirements, additional capacity analyses have been completed for the Year 2025 buildout scenario. Table 4.11-9 presents a summary of the projected LOS at the 25 key study intersections for Year 2025 conditions.

Year 2025 Buildout Traffic Conditions

Review of Column (2) of Table 4.11-9 shows that projected Year 2025 buildout traffic without project traffic will adversely impact ten of the 25 key study intersections. The locations projected to operate at an adverse LOS in the Year 2025 are as follows:

Key Intersection		City/ Jurisdiction	AM Peak Hour			PM Peak Hour		
			Delay	V/C	LOS	Delay	V/C	LOS
4.	Monte Vista Ave at Baseline Rd	Claremont	98.2 s/v	1.01	F	123.9 s/v	1.16	F
5.	SR-210 Ramps at Baseline Rd	Claremont	223.3 s/v	1.69	F	294.1 s/v	2.03	F
6.	Benson Avenue at 16th Street	Upland	--	--	--	106.6 s/v	1.05	F
12.	Benson Ave at Foothill Blvd	Upland	--	--	--	58.4 s/v	0.99	E
13.	Mountain Ave at Foothill Blvd	Upland	--	--	--	92.9 s/v	1.17	F
16.	Benson Ave at 8th Street	Upland/ Montclair	--	--	--	64.4 s/v	1.00	F
17.	Mountain Avenue at 8th Street	Upland	--	--	--	104.5 s/v	1.16	F
21.	Indian Hill Blvd at Foothill Blvd	Claremont	--	--	--	100.8 s/v	1.13	F
22.	Towne Ave at Foothill Blvd	Claremont/ Pomona	74.1 s/v	0.94	E	120.4 s/v	1.24	F
25.	Benson Avenue at 13th Street	Upland	55.9 s/v	0.70	E	114.1 s/v	1.04	F

Table 4.11-9
Year 2025 Peak Hour Intersection Capacity Analysis

Key Intersections	Time Period	(1) Existing Traffic Conditions			(2) Year 2025 Buildout Traffic Conditions			(3) Year 2025 Buildout Traffic Conditions Plus Project			(4) Significant Impact	(5) Year 2025 With Improvements		
		Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Yes/No	Delay	V/C	LOS
Benson Ave at 17th Street	AM	0.20 s/v	--	A	0.18 s/v	--	A	0.18 s/v	--	A	No	--	--	--
	PM	0.05 s/v	--	A	0.06 s/v	--	A	0.05 s/v	--	A	No	--	--	--
Indian Hill Blvd at Baseline Road	AM	26.9 s/v	0.53	C	30.4 s/v	0.64	C	30.7 s/v	0.65	C	No	--	--	--
	PM	26.6 s/v	0.51	C	31.3 s/v	0.70	C	31.6 s/v	0.71	C	No	--	--	--
Mills Avenue at Baseline Road	AM	26.1 s/v	0.43	C	29.2 s/v	0.62	C	29.6 s/v	0.65	C	No	--	--	--
	PM	24.7 s/v	0.42	C	31.5 s/v	0.62	C	32.3 s/v	0.63	C	No	--	--	--
Monte Vista Ave at Baseline Road	AM	**95.7 s/v**	**0.85**	**F**	**98.2 s/v**	**1.01**	**F**	**103.5 s/v**	**1.04**	**F**	**Yes**	45.5 s/v	0.69	D
	PM	**68.9 s/v**	**0.84**	**E**	**123.9 s/v**	**1.16**	**F**	**134.0 s/v**	**1.19**	**F**	**Yes**	54.2 s/v	0.86	D
SR-210 Ramps at Baseline Road	AM	47.5 s/v	0.98	D	**223.3 s/v**	**1.69**	**F**	**224.9 s/v**	**1.72**	**F**	**Yes**	44.7 s/v	0.82	D
	PM	**60.2 s/v**	**1.00**	**F**	**294.1 s/v**	**2.03**	**F**	**295.7 s/v**	**2.09**	**F**	**Yes**	48.7 s/v	0.94	D
Benson Avenue at 16th Street	AM	44.1 s/v	0.74	D	54.9 s/v	0.89	D	**60.9 s/v**	**0.96**	**E**	**Yes**	43.2 s/v	0.79	D
	PM	44.1 s/v	0.72	D	**106.6 s/v**	**1.05**	**F**	**131.3 s/v**	**1.18**	**F**	**Yes**	50.6 s/v	0.77	D
Mountain Ave at 16th Street	AM	41.7 s/v	0.73	D	48.8 s/v	0.85	D	50.1 s/v	0.87	D	No	--	--	--
	PM	42.5 s/v	0.76	D	50.9 s/v	0.91	D	53.5 s/v	0.93	D	No	--	--	--
San Antonio Ave at 16th Street	AM	15.5 s/v	0.33	B	16.2 s/v	0.36	B	16.3 s/v	0.37	B	No	--	--	--
	PM	15.8 s/v	0.32	B	17.3 s/v	0.47	B	17.5 s/v	0.49	B	No	--	--	--
Euclid Avenue at 16th Street	AM	38.7 s/v	0.74	D	42.2 s/v	0.83	D	42.5 s/v	0.84	D	No	--	--	--
	PM	32.0 s/v	0.65	C	42.1 s/v	0.83	D	43.2 s/v	0.85	D	No	--	--	--
Campus Avenue at 16th Street	AM	26.1 s/v	0.60	C	26.2 s/v	0.64	C	26.2 s/v	0.65	C	No	--	--	--
	PM	25.4 s/v	0.58	C	28.5 s/v	0.76	C	28.6 s/v	0.76	C	No	--	--	--
Carnelian Ave at 16th Street	AM	45.9 s/v	0.75	D	45.6 s/v	0.77	D	45.7 s/v	0.77	D	No	--	--	--
	PM	44.6 s/v	0.76	D	54.1 s/v	0.87	D	54.3 s/v	0.87	D	No	--	--	--

Key Intersections	Time Period	(1) Existing Traffic Conditions			(2) Year 2025 Buildout Traffic Conditions			(3) Year 2025 Buildout Traffic Conditions Plus Project			(4) Significant Impact	(5) Year 2025 With Improvements		
		Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Yes/No	Delay	V/C	LOS
Benson Avenue at Foothill Boulevard	AM	33.6 s/v	0.66	C	37.1 s/v	0.72	D	37.5 s/v	0.74	D	No	39.9 s/v	0.62	D
	PM	52.6 s/v	0.85	D	**58.4 s/v**	**0.99**	**E**	**62.2 s/v**	**1.03**	**F**	**Yes**	47.6 s/v	0.90	D
Mountain Ave at Foothill Boulevard	AM	35.7 s/v	0.69	D	44.0 s/v	0.84	D	44.5 s/v	0.85	D	No	42.9 s/v	0.82	D
	PM	**68.9 s/v**	**1.02**	**F**	**92.9 s/v**	**1.17**	**F**	**96.7 s/v**	**1.18**	**F**	**Yes**	54.1 s/v	0.94	D
Benson Avenue at Arrow Route	AM	22.8 s/v	0.40	C	24.7 s/v	0.45	C	24.7 s/v	0.46	C	No	--	--	--
	PM	24.0 s/v	0.55	C	26.0 s/v	0.68	C	26.3 s/v	0.69	C	No	--	--	--
Mountain Ave at Arrow Route	AM	23.4 s/v	0.54	C	26.5 s/v	0.61	C	26.6 s/v	0.61	C	No	--	--	--
	PM	29.4 s/v	0.65	C	42.9 s/v	0.91	D	43.3 s/v	0.91	D	No	--	--	--
Benson Avenue at 8th Street	AM	28.0 s/v	0.44	C	37.0 s/v	0.65	D	37.0 s/v	0.66	D	No	37.4 s/v	0.66	D
	PM	40.0 s/v	0.69	D	**64.4 s/v**	**1.00**	**F**	**67.7 s/v**	**1.02**	**F**	**Yes**	53.2 s/v	0.94	D
Mountain Ave at 8th Street	AM	37.3 s/v	0.69	D	47.5 s/v	0.87	D	48.2 s/v	0.88	D	No	50.5 s/v	0.81	D
	PM	50.8 s/v	0.80	D	**104.5 s/v**	**1.16**	**F**	**107.8 s/v**	**1.17**	**F**	**Yes**	53.9 s/v	0.95	D
Benson Avenue at 7th Street	AM	31.1 s/v	0.36	C	32.7 s/v	0.47	C	32.7 s/v	0.48	C	No	--	--	--
	PM	40.4 s/v	0.55	D	40.1 s/v	0.66	D	40.4 s/v	0.67	D	No	--	--	--
Mountain Ave at 21st Street	AM	23.4 s/v	0.43	C	28.6 s/v	0.59	C	28.6 s/v	0.59	C	No	--	--	--
	PM	23.1 s/v	0.43	C	35.7 s/v	0.77	D	36.0 s/v	0.77	D	No	--	--	--
Benson Avenue at 18th Street	AM	11.7 s/v	0.24	B	12.4 s/v	0.35	B	12.4 s/v	0.36	B	No	--	--	--
	PM	10.6 s/v	0.28	B	11.6 s/v	0.39	B	11.8 s/v	0.40	B	No	--	--	--
Indian Hill Blvd at Foothill Boulevard	AM	42.1 s/v	0.74	D	49.0 s/v	0.91	D	49.4 s/v	0.91	D	No	37.3 s/v	0.75	D
	PM	48.7 s/v	0.88	D	**100.8 s/v**	**1.13**	**F**	**101.5 s/v**	**1.14**	**F**	**Yes**	54.7 s/v	0.97	D
Towne Avenue at Foothill Boulevard	AM	53.0 s/v	0.87	D	**74.1 s/v**	**0.94**	**E**	**74.8 s/v**	**0.94**	**E**	**Yes**	54.6 s/v	0.76	D
	PM	**64.3 s/v**	**0.96**	**E**	**120.4 s/v**	**1.24**	**F**	**122.9 s/v**	**1.25**	**F**	**Yes**	54.5 s/v	0.92	D
Benson Avenue at 9th Street	AM	13.3 s/v	0.26	B	13.3 s/v	0.27	B	13.3 s/v	0.27	B	No	--	--	--
	PM	13.7 s/v	0.43	B	13.9 s/v	0.48	B	14.1 s/v	0.50	B	No	--	--	--
Benson Avenue at 11th Street	AM	13.3 s/v	0.28	B	13.6 s/v	0.33	B	13.7 s/v	0.34	B	No	--	--	--
	PM	14.0 s/v	0.52	B	14.2 s/v	0.54	B	14.3 s/v	0.56	B	No	--	--	--
Benson Avenue at 13th Street	AM	33.8 s/v	0.44	C	**55.9 s/v**	**0.70**	**E**	**62.1 s/v**	**0.73**	**E**	**Yes**	36.5 s/v	0.49	D
	PM	49.1 s/v	0.60	D	**114.1 s/v**	**1.04**	**F**	**135.6 s/v**	**1.08**	**F**	**Yes**	52.5 s/v	0.76	D

Bold HCM/LOS values indicate adverse service levels based on City of Upland, City of Claremont, City of Montclair, City of Rancho Cucamonga, City of Pomona and County of San Bernardino LOS standards.
s/v = seconds per vehicle (delay).

Year 2025 Buildout Traffic Conditions with Project

Review of Columns (3) and (4) of Table 4.11-9 indicates that traffic associated with the proposed Baseline Road Master Plan project will cumulatively impact ten of the 25 key study intersections. The remaining 15 key study intersections are forecast to continue to operate at an acceptable LOS with the addition of project generated traffic in the Year 2025. As indicated above, ten key study intersections are projected to operate at an unsatisfactory service level in the Year 2025 during the AM and PM peak commuter hours without project traffic. The addition of project traffic will contribute to the degradation of the ten study intersections service levels, which will be cumulatively impacted by project-generated traffic.

However, as shown in Column (5), the implementation of recommended mitigation measures at the cumulatively impacted intersections mitigate the impact of the proposed project. The ten cumulatively impacted intersections are forecast to operate at acceptable LOS D or better during both the AM peak hour and PM peak hour.

Related Projects Trip Generation

Table 4.11-10 summarizes the land use and trip generation potential for the 28 cumulative projects on a daily and peak hour basis for a "typical" weekday that were considered in this traffic analysis. As shown, the cumulative projects are anticipated to generate 125,648 trips with 6,089 AM peak hour trips (2,584 inbound 3,505 outbound) and 10,058 PM peak hour trips (5,218 inbound 4,840 outbound).

Table 4.11-10
Related Projects Traffic Generation Forecast[1]

Related Projects Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
City of Upland Development:							
1. Warehouse Buildings	52	4	1	5	1	4	5
2. Office Buildings	316	37	5	42	16	80	96
3. Jack in the Box[2]	2,169	67	64	131	43	41	84
4. Retail/Dental Office Building[9]	174	6	2	8	5	9	14
5. The Colonies at San Antonio[3] Mixed-Use Development	18,221	421	396	817	939	926	1,865
6. Upland Commercial/Industrial[4] Mixed-Use Master Plan	19,093	681	208	889	782	1,176	1,958
7. College Park Mixed-Use Development	10,028	283	448	731	357	271	628
8. Alexander Communities	517	10	30	40	35	20	55
9. Dry Dock Depot R.V. & Boat Storage	364	11	10	21	19	20	39
10. Rancho Monte Vista Apartments[6]	1,882	28	115	143	112	62	174
11. Office Building	148	17	2	19	14	71	85
12. Foothill Terrace	275	3	17	20	16	8	24
13. Foothill Walk	422	5	27	32	25	12	37
14. Emblem Development	230	5	13	18	15	9	24
15. Upland Crossing [9]	6,476	122	295	417	371	241	612
16. Offices	112	13	2	15	14	69	83
City of Upland Related Projects No. 1 – No. 16 Trip Generation Subtotal	**60,479**	**1,713**	**1,635**	**3,348**	**2,764**	**3,019**	**5,783**
City of Rancho Cucamonga Development:							
17. Foothill Boulevard Condominiums[7]	1,283	15	81	96	77	37	114
City of Claremont Development:							
18. Stone Canyon Preserve	909	18	53	71	61	35	96
19. Mt. Baldy R.V. Park	16,884	31	30	61	45	44	89
20. Padua Avenue Park	1,200	72	48	120	48	48	96
21. Olson/Village Walk	718	14	42	56	48	28	76
22. Citrus Height Packing House Adaptive Reuse[8]	4,295	70	50	120	135	143	278
23. Claremont Mckenna College[9]	629	9	9	18	24	23	47
24. Claremont Graduate School	1,062	16	65	81	63	35	98
25. Claremont Inn/Old School House Specific Plan	1,291	18	53	71	62	40	102

Related Projects Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
26. Village Expansion[10]	5,986	143	125	268	236	253	489
27. Claremont Commons Project[10]	4,097	85	54	139	181	196	377
City of Claremont Related Projects No. 18 – No. 27 Trip Generation Subtotal	**37,071**	**476**	**529**	**1,005**	**903**	**845**	**1,748**
City of Montclair Development:							
28. Montclair Downtown Specific Plan	26,815	380	1,260	1,640	1,474	939	2,413
Total Related Projects No. 1 – No. 28 Trip Generation Potential	**125,648**	**2,584**	**3,505**	**6,089**	**5,218**	**4,840**	**10,058**

1 Source: *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE) [Washington, D.C. (2003)].

2 The trips above include adjustments for pass-by. Source: *Trip Generation Handbook*, 2nd Edition, ITE June 2004. The following pass-by reduction factors were utilized:
- Land Use 820: Shopping Center (Daily = assume 10% and PM = 34%)
- Land Use 934: Fast-Food Restaurant W/Drive-thru (Daily = assume 10%, AM = 49% and PM = 50%)

3 Source: Traffic Impact Study for The Colonies at San Antonio Mixed-Use Development, prepared by Kimley-Horn and Associates, June 2002. Based on discussions with City of Upland Planning Department staff, 70% of the residential component and 60% of the commercial component of the Colonies project is completed and occupied.

4 Source: Traffic Impact Study for Upland Commercial/Industrial Mixed-Use Master Plan, prepared by Urban Crossroads.

5 Source: College Park Mixed-Use Development Traffic Impact Analysis Addendum, prepared by LLG Costa Mesa, March 2005.

6 Source: Traffic Impact Study for Rancho Monte Vista Apartment Homes, prepared by LLG Costa Mesa, December 2003.

7 Source: Traffic Impact Study for Foothill Boulevard Condominiums, prepared by LLG Costa Mesa, July 2003.

8 The trips above include adjustments for pass-by. Source: *Trip Generation Handbook*, 2nd Edition, ITE June 2004. The following pass-by reduction factors were utilized:
- Land Use 820: Shopping Center (Daily = assume 10% and PM = 34%)

9 Trip generation based on rates developed by LLG Engineers for Chapman Universities dormitories.

10 Source: Traffic Impact Study for the Claremont Commons Project, prepared by LLG Pasadena.

Peak Hour Intersection Capacity for Year 2006 and 2025 per Los Angeles County

Tables 4.11-11 and 4.11-12 summarize the peak hour Intersection Capacity Utilization (ICU)/LOS results at the six study intersections within the City of Claremont for the Year 2009 and Year 2025 traffic conditions, respectively.

The first column of ICU/LOS values in Table 4.11-11 presents a summary of Year 2006 existing traffic conditions. The Column (2) presents Year 2009 background traffic conditions based on existing intersection geometry, but without any Baseline Road Master Plan project traffic. Column (3) presents future forecast traffic conditions with the addition of project traffic. Column (4) indicates whether the intersection will be adversely impacted by the proposed project based on the LA County CMP criteria. Column (5) indicates the forecast operating conditions with intersection improvements, if required, recommended to achieve an acceptable LOS.

Table 4.11-11
Year 2009 Peak Hour Intersection Capacity Analysis
ICU/LOS Method of Analysis

Key Intersections	Time Period	(1) Existing Traffic Conditions		(2) Year 2009 Background Traffic Conditions		(3) Year 2009 Plus Project Traffic Conditions		(4) Project Significant Impact		(5) Year 2009 With Improvements	
		ICU	LOS	ICU	LOS	ICU	LOS	ICU Increase	Yes/No	ICU	LOS
2. Indian Hill Boulevard at	AM	0.520	A	0.631	B	0.638	B	0.007	No	--	--
Baseline Road	PM	0.614	B	0.774	C	0.794	C	0.020	No	--	--
3. Mills Avenue at	AM	0.548	A	0.621	B	0.638	B	0.017	No	--	--
Baseline Road	PM	0.500	A	0.610	B	0.626	B	0.016	No	--	--
4. Monte Vista Avenue at	AM	0.811	D	**1.002**	**E**	**1.026**	**F**	**0.024**	**Yes**	0.732	C
Baseline Road	PM	0.862	D	**1.102**	**F**	**1.133**	**F**	**0.031**	**Yes**	**1.008**	**F**
5. SR-210 Ramps at	AM	**0.950**	**E**	**1.013**	**F**	**1.017**	**F**	0.004	No	0.798	C
Baseline Road	PM	0.700	B	0.894	D	**0.914**	**E**	**0.020**	**Yes**	0.761	C
21. Indian Hill Boulevard at	AM	0.699	B	0.890	D	0.894	D	0.004	No	0.771	C
Foothill Boulevard	PM	0.865	D	**1.118**	**F**	**1.127**	**F**	0.009	No	**0.935**	**E**
22. Towne Avenue at	AM	0.878	D	**0.985**	**E**	**0.987**	**E**	0.002	No	0.862	D
Foothill Boulevard	PM	**0.950**	**E**	**1.119**	**F**	**1.127**	**F**	0.008	No	**0.943**	**E**

Table 4.11-12
Year 2025 Peak Hour Intersection Capacity Analysis
ICU/LOS Method of Analysis

Key Intersections	Time Period	(1) Existing Traffic Conditions		(2) Year 2025 Background Traffic Conditions		(3) Year 2025 Plus Project Traffic Conditions		(4) Project Significant Impact		(5) Year 2025 With Improvements	
		ICU	LOS	ICU	LOS	ICU	LOS	ICU Increase	Yes/ No	ICU	LOS
2. Indian Hill Boulevard at	AM	0.520	A	0.584	A	0.590	A	0.006	No	--	--
Baseline Road	PM	0.614	B	0.868	D	0.886	D	0.018	No	--	--
3. Mills Avenue at	AM	0.548	A	0.729	C	0.745	C	0.016	No	--	--
Baseline Road	PM	0.500	A	0.718	C	0.728	C	0.010	No	--	--
4. Monte Vista Avenue at	AM	0.811	D	**1.000**	**E**	**1.024**	**F**	**0.024**	**Yes**	0.726	C
Baseline Road	PM	0.862	D	**1.162**	**F**	**1.193**	**F**	**0.031**	**Yes**	**0.917**	**E**
5. SR-210 Ramps at	AM	**0.950**	**E**	**1.333**	**F**	**1.337**	**F**	0.004	No	**1.059**	**F**
Baseline Road	PM	0.700	B	**1.221**	**F**	**1.227**	**F**	0.006	No	**1.049**	**F**
21. Indian Hill Boulevard at	AM	0.699	B	0.849	D	0.855	D	0.006	No	0.719	C
Foothill Boulevard	PM	0.865	D	**1.124**	**F**	**1.134**	**F**	0.010	No	**1.022**	**F**
22. Towne Avenue at	AM	0.878	D	**0.975**	**E**	**0.977**	**E**	0.002	No	0.822	D
Foothill Boulevard	PM	**0.950**	**E**	**1.260**	**F**	**1.268**	**F**	0.008	No	**1.001**	**E**

Review of Tables 4.11-11 and 4.11-12 indicate that the Baseline Road Master Plan project will significantly impact the intersections of Monte Vista Avenue at Baseline Road and the SR-210 Ramps at Baseline Road, which is consistent with the San Bernardino County CMP analyses presented in Tables 4.11-8 and 4.11-9. Implementation of the recommended mitigation measures at these two locations will offset the significant traffic impacts of the Baseline Road Master Plan project traffic. Refer to the mitigation improvements measures.

The TIA contains the LOS calculation sheets for the six key study intersections located within the City of Claremont, Los Angeles County that were evaluated using the ICU/LOS method of analysis.

Freeway Segment (CMP)

The San Bernardino County CMP requires that all freeway segments, within five miles of the project site must be analyzed using the 2000 HCM basic freeway segment analysis where over 100 project-generated trips (two-way) are added to existing and/or future conditions. The Los Angeles County CMP requires that all freeway segments, within five miles of the project site must be analyzed using the 2000 HCM basic freeway segment analysis where over 150 project-generated trips (directional) are added to existing and/or future conditions. Therefore, the following five (5) freeway segments along the SR-210 Freeway between Fruit Street and Carnelian Avenue were tested to determine if a detailed CMP freeway analysis was required.

1. SR-210 Freeway, between Fruit Street and Towne Avenue (Los Angeles County)
2. SR-210 Freeway, between Towne Avenue and Baseline Road (Los Angeles County)
3. SR-210 Freeway, between Baseline Road and Mountain Avenue (San Bernardino County)
4. SR-210 Freeway, between Mountain Avenue and Campus Avenue (San Bernardino County)
5. SR-210 Freeway, between Campus Avenue and Carnelian Avenue (San Bernardino County)

Table 4.11-13 presents a summary of the project traffic volumes on the five key CMP freeway segments that were tested to determine if a detailed CMP freeway analysis was required. Baseline Road Master Plan project traffic volumes on each of the five freeway segments were determined from the project select zone model plots and the project trip generation forecast. The weekday peak hour project generated trips on the five SR-210 segments in the adjacent area do not exceed thresholds.

Table 4.11-13
CMP Freeway Project Contribution Summary

CMP Freeway Segments	Jurisdiction	Trip Threshold	AM Peak Hour Project Freeway Volume (two-way)					PM Peak Hour Project Freeway Volume (two-way)				
			Retail Trips	Res. Trips	Park Trips	Total Trips	Exceed Thres. (Yes/No)	Retail Trips	Res. Trips	Park Trips	Total Trips	Exceed Thres. (Yes/No
SR-210 Freeway, between Fruit St and Towne Ave	LA County	150 trips (one-way)	25	26	2	53	No	68	26	19	113[1]	No
SR-210 Freeway, between Towne Ave and Baseline Rd	LA County	150 trips (one-way)	30	32	2	64	No	108	44	28	180[2]	No
SR-210 Freeway, between Baseline Rd and Mountain Ave	SB County	100 trips (two-way)	21	26	0	47	No	68	27	3	98	No
SR-210 Freeway, between Mountain Ave and Campus Ave	SB County	100 trips (two-way)	18	22	1	41	No	58	26	14	98	No
SR-210 Freeway, between Campus Ave and Carnelian Ave	SB County	100 trips (two-way)	16	22	1	39	No	51	23	13	87	No

[1]The 113 project trips on the SR-210 Freeway between Fruit Street and Towne Avenue consist of 62 eastbound project trips and 51 westbound project trips.
[2]The 180 project trips on the SR-210 Freeway between Towne Avenue and Baseline Road consist of 112 northbound project trips and 68 southbound project trips.

Improvement Costs

Table 4.11-14 presents the improvements and their respective costs to mitigate the near-term (Year 2009) traffic impacts. The improvements recommended at the intersections of Monte Vista Avenue/Baseline Road, SR-210 Ramps/Baseline Road, Benson Avenue/16th Street, Benson Avenue/Foothill Boulevard, Mountain Avenue/Foothill Boulevard, Mountain Avenue/8th Street, Indian Hill Boulevard/Foothill Boulevard, Towne Avenue/Foothill Boulevard and Benson Avenue/13th Street would cost approximately $2,165,000.

Table 4.11-15 presents the improvements and their respective costs to mitigate the long-term (Year 2025) traffic impacts. The improvements recommended at the intersections of Monte Vista Avenue/Baseline Road, SR-210 Ramps/Baseline Road, Benson Avenue/16th Street, Benson Avenue/Foothill Boulevard, Mountain Avenue/Foothill Boulevard, Benson Avenue/8th Street, Mountain Avenue/8th Street, Indian Hill Boulevard/Foothill Boulevard, Towne Avenue/Foothill Boulevard and Benson Avenue/13th Street would cost approximately $2,790,000.

Table 4.11-14
Year 2009 Summary of Recommended Intersection Mitigation Measures and Costs[1]

Key Intersections		Improvement Description	Improvement Cost
4.	Monte Vista Avenue at Baseline Road	- Construct 2nd SB left-turn lane. - Construct 2nd WB left-turn lane. - Modify existing traffic signal.	$50,000 $50,000 $75,000
		Total	$175,000
5.	SR-210 Ramps at Baseline Road	- Construct 2nd SB right-turn lane. - Modify existing traffic signal. Install NB, SB and EB right-turn overlap phases.	$50,000 $75,000
		Total	$125,000
6.	Benson Avenue at 16th Street	- Construct 2nd NB left-turn lane. - Construct NB right-turn lane. - Construct EB right-turn lane. - Modify existing traffic signal. Install NB right-turn overlap phase.	$50,000 $50,000 $50,000 $75,000
		Total	$225,000
12.	Benson Avenue at Foothill Boulevard	- Construct 2nd NB left-turn lane. - Construct SB right-turn lane. - Construct 2nd EB left-turn lane. - Construct 3rd EB through lane. - Construct 3rd WB through lane. - Modify existing traffic signal. Install SB right-turn overlap phase.	$50,000 $50,000 $50,000 $130,000 $130,000 $75,000
		Total	$485,000
13.	Mountain Avenue at Foothill Boulevard	- Construct 3rd NB through lane. - Construct EB right-turn lane. - Modify existing traffic signal. Install EB right-turn overlap phase.	$130,000 $50,000 $75,000
		Total	$255,000
17.	Mountain Avenue at 8th Street	- Construct NB right-turn lane. - Construct EB right-turn lane. - Modify existing traffic signal.	$50,000 $50,000 $75,000
		Total	$175,000
21.	Indian Hill Blvd at Foothill Boulevard	- Construct 2nd NB left-turn lane. - Construct 2nd SB left-turn lane. - Construct EB right-turn lane. - Construct 2nd WB left-turn lane. - Modify existing traffic signal.	$50,000 $50,000 $50,000 $50,000 $75,000
		Total	$275,000
22.	Towne Avenue at Foothill Boulevard	- Construct 2nd NB left-turn lane. - Construct 2nd SB left-turn lane. - Construct 2nd EB left-turn lane. - Construct EB right-turn lane. - Construct WB right-turn lane. - Modify existing traffic signal.	$50,000 $50,000 $50,000 $50,000 $50,000 $75,000
		Total	$325,000

Key Intersections		Improvement Description	Improvement Cost
25.	Benson Avenue at 13th Street	- Construct NB right-turn lane. - Modify existing traffic signal.	$50,000 $75,000
		Total	$125,000
TOTAL COSTS OF YEAR 2009 IMPROVEMENTS			**$2,165,000**

*The above costs do not include the cost of land acquisition for additional right-of-way.
[1] The improvement costs have been estimated using cost guidelines contained in Appendix G of the San Bernardino County CMP, 2005 Update.

Table 4.11-15
Year 2025 Improvements and Costs

Key Intersections		Improvement Description	Improvement Cost
4.	Monte Vista Avenue at Baseline Road	- Construct 2nd NB left-turn lane. - Construct 2nd NB right-turn lane. - Construct 2nd SB left-turn lane. - Construct 2nd WB left-turn lane. - Modify existing traffic signal.	$50,000 $50,000 $50,000 $50,000 $75,000
		Total	$275,000
5.	SR-210 Ramps at Baseline Road	- Construct 2nd SB right-turn lane. - Construct 2nd EB left-turn lane. - Modify existing traffic signal. Install NB, SB, EB and WB right-turn overlap phases.	$50,000 $50,000 $75,000
		Total	$175,000
6.	Benson Avenue at 16th Street	- Construct 2nd NB left-turn lane. - Construct NB right-turn lane. - Construct 2nd EB left-turn lane. - Construct EB right-turn lane. - Modify existing traffic signal. Install NB and EB right-turn overlap phases.	$50,000 $50,000 $50,000 $50,000 $75,000
		Total	$275,000
12.	Benson Avenue at Foothill Boulevard	- Construct 2nd NB left-turn lane. - Construct SB right-turn lane. - Construct 2nd EB left-turn lane. - Construct 3rd EB through lane. - Construct 3rd WB through lane. - Modify existing traffic signal. Install SB right-turn overlap phase.	$50,000 $50,000 $50,000 $130,000 $130,000 $75,000
		Total	$485,000
13.	Mountain Avenue at Foothill Boulevard	- Construct 3rd NB through lane. - Construct EB right-turn lane. - Modify existing traffic signal. Install EB right-turn overlap phase.	$130,000 $50,000 $75,000
		Total	$255,000
16.	Benson Avenue at 8th Street	- Construct 2nd EB left-turn lane. - Modify existing traffic signal.	$50,000 $75,000
		Total	$125,000

Key Intersections		Improvement Description	Improvement Cost
17.	Mountain Avenue at 8th Street	- Construct 2nd NB left-turn lane. - Construct NB right-turn lane. - Construct 2nd EB left-turn lane. - Construct EB right-turn lane. - Construct WB right-turn lane. - Modify existing traffic signal.	$50,000 $50,000 $50,000 $50,000 $50,000 $75,000
		Total	$325,000
21.	Indian Hill Blvd at Foothill Boulevard	- Construct 2nd NB left-turn lane. - Construct 2nd SB left-turn lane. - Construct EB right-turn lane. - Construct 2nd WB left-turn lane. - Modify existing traffic signal.	$50,000 $50,000 $50,000 $50,000 $75,000
		Total	$275,000
22.	Towne Avenue at Foothill Boulevard	- Construct 2nd NB left-turn lane. - Construct 2nd SB left-turn lane. - Construct 2nd EB left-turn lane. - Construct EB right-turn lane. - Construct WB right-turn lane. - Modify existing traffic signal. Install WB right-turn overlap phase.	$50,000 $50,000 $50,000 $50,000 $50,000 $75,000
		Total	$325,000
25.	Benson Avenue at 13th Street	- Construct 2nd NB left-turn lane. - Construct NB right-turn lane. - Construct SB right-turn lane. - Construct 2nd EB left-turn lane. - Modify existing traffic signal. Install SB right-turn overlap phase.	$50,000 $50,000 $50,000 $50,000 $75,000
		Total	$275,000
TOTAL COSTS OF YEAR 2025 IMPROVEMENTS			**$2,790,000**

* The above costs do not include the cost of land acquisition for additional right-of-way.

[1] The improvement costs have been estimated using cost guidelines contained *Appendix G of the San Bernardino County CMP, 2005 Update*.

Project-Related Fair Share Contribution

The transportation impacts associated with the development of the Baseline Road Master Plan project were determined based on the near-term (Year 2009) and long-term (Year 2025) analysis. As summarized in Tables 4.11-9 and 4.11-10, the development of the Baseline Road Master Plan project is anticipated to create nine incremental impacts in the near-term when added to background traffic growth and other traffic from cumulative projects, and ten incremental impacts in the long-term when added to background traffic growth and other traffic from cumulative projects. As such, the Baseline Road Master Plan project can be expected to pay a proportional "fair-share" of the improvement costs of the impacted intersections to mitigate the project's impacts.

Near-Term (Year 2009) Project Fair Share Contribution

Table 4.11-16 presents the AM peak hour and PM peak hour percentage of net traffic impact at the study intersections impacted by the Baseline Road Master Plan project for Year 2009 traffic conditions. These fair share calculations are based on the recommended methodology contained in the San Bernardino County CMP.

Column one presents a total of all intersection peak hour movements for existing conditions. The second column two presents future Year 2009 background traffic conditions. The third column three presents future Year 2009 traffic conditions with project traffic. The fourth column four represents what percentage of total intersection peak hour traffic is project-related traffic. Columns five and six present the cost of the recommended mitigation measures, and the project's fair-share contribution. The Baseline Road Master Plan project's fair share contribution to offset all near-term (Year 2009) intersection project impacts is $239,660.00.

Table 4.11-17 identifies the near-term (Year 2009) fair-share cost allocation for each component of the Baseline Road Master Plan project. The retail component fair share totals $106,732.30, the residential component fair share totals $84,647.40 and the City Sports Park component fair share totals $48,280.30.

Long-Term (Year 2025) Project Fair Share Contribution

Table 4.11-18 presents the AM peak hour and PM peak hour percentage of net traffic impact at the study intersections impacted by the Baseline Road Master Plan project for Year 2025 traffic conditions. The Baseline Road Master Plan project's fair share contribution to offset all long-term (Year 2025) intersection project impacts is $275,645.00. This total includes the project's fair share contribution towards recommended near-term (Year 2009) improvements as summarized in Table 4.11-16.

Table 4.11-19 identifies the long-term (Year 2025) fair-share cost allocation for each component of the Baseline Road Master Plan project. The retail component fair share totals $119,430.25, the residential component fair share totals $101,956.06 and the City Sports Park component fair share totals $54,258.69.

Table 4.11-16
Year 2009 Project Fair Share Cost Contribution

Key Intersections		Impacted Time Period	(1) Existing Traffic	(2) Year 2009 Background Traffic	(3) Year 2009 w/Project Traffic	(4) Net Project Percent Increase	(5) Total Improvement Cost	(6) Project Fair Share Contribution[1]
4.	Monte Vista Ave at Baseline Road	AM PM	2,856 3,247	3,786 4,669	3,884 4,803	9.5% 8.6%	$175,000.00	$16,625.00
5.	SR-210 Ramps at Baseline Road	AM PM	2,912 3,391	3,444 4,189	3,641 4,608	27.0% 34.4%	$125,000.00	$43,000.00
6.	Benson Avenue at 16th Street	AM PM	2,587 2,867	3,065 3,683	3,275 4,121	30.5% 34.9%	$225,000.00	$78,525.00
12.	Benson Avenue at Foothill Boulevard	PM	4,157	6,131	6,278	6.9%	$485,000.00	$33,465.00
13.	Mountain Avenue at Foothill Boulevard	PM	5,768	6,857	6,925	5.9%	$255,000.00	$15,045.00
17.	Mountain Avenue at 8th Street	PM	4,674	5,447	5,507	7.2%	$175,000.00	$12,600.00
21.	Indian Hill Blvd at Foothill Boulevard	PM	3,618	4,866	4,893	2.1%	$275,000.00	$5,775.00
22.	Towne Avenue at Foothill Boulevard	AM PM	4,018 4,324	4,657 5,273	4,669 5,302	1.8% 3.0%	$325,000.00	$9,750.00
25.	Benson Avenue at 13th Street	PM	2,329	3,140	3,341	19.9%	$125,000.00	$24,875.00
Year 2009 Total Project Fair Share Contribution								**$239,660.00**

Net Project Percent Increase (4) = [Column (3) – Column (2)] / [Column (3) – Column (1)].
[1] Project fair-share calculated on "worse-case" net project percent increase.

Table 4.11-17
Year 2009 Project Fair Share Cost Allocation Per Project Component

Key Intersections		Retail Component		Residential Component		Park Component		Total Project Fair Share Contribution	
		Trips	Cost	Trips	Cost	Trips	Cost	Trips	Cost
4.	Monte Vista Ave at Baseline Road	78	$9,677.24	39	$4,838.62	17	$2,109.14	134	$16,625.00
5.	SR-210 Ramps at Baseline Road	257	$26,374.70	114	$11,699.29	48	$4,926.01	419	$43,000.00
6.	Benson Avenue at 16th Street	164	$29,402.05	158	$28,326.37	116	$20,796.58	438	$78,525.00
12.	Benson Avenue at Foothill Boulevard	59	$13,431.53	61	$13,886.84	27	$6,146.63	147	$33,465.00
13.	Mountain Avenue at Foothill Boulevard	27	$5,973.75	27	$5,973.75	14	$3,097.50	68	$15,045.00
17.	Mountain Avenue at 8th Street	21	$4,410.00	25	$5,250.00	14	$2,940.00	60	$12,600.00
21.	Indian Hill Blvd at Foothill Boulevard	15	$3,208.33	8	$1,711.11	4	$855.56	27	$5,775.00
22.	Towne Avenue at Foothill Boulevard	17	$5,715.52	8	$2,689.65	4	$1,344.83	29	$9,750.00
25.	Benson Avenue at 13th Street	69	$8,539.18	83	$10,271.77	49	$6,064.05	201	$24,875.00
Year 2009 Total Project Fair Share Contribution		**$106,732.30**		**$84,647.40**		**$48,280.30**		**$239,660.00**	

Table 4.11-18
Year 2025 Project Fair Share Cost Contribution

Key Intersections		Impacted Time Period	(1) Existing Traffic	(2) Year 2025 Background Traffic	(3) Year 2025 w/Project Traffic	(4) Net Project Percent Increase	(5) Total Improvement Cost	(6) Project Fair Share Contribution[1]
4.	Monte Vista Ave at Baseline Road	AM PM	2,856 3,247	4,107 4,880	4,205 5,014	7.3% 7.6%	$275,000.00	$20,900.00
5.	SR-210 Ramps at Baseline Road	AM PM	2,912 3,391	4,286 5,624	4,483 6,043	12.5% 15.8%	$175,000.00	$27,650.00
6.	Benson Avenue at 16th Street	AM PM	2,587 2,867	3,430 4,487	3,640 4,925	19.9% 21.3%	$275,000.00	$58,575.00
12.	Benson Avenue at Foothill Boulevard	PM	4,157	4,848	4,995	17.5%	$485,000.00	$84,875.00
13.	Mountain Avenue at Foothill Boulevard	PM	5,768	7,091	7,159	4.9%	$255,000.00	$12,495.00
16.	Benson Avenue at 8th Street	PM	3,004	4,656	4,733	4.5%	$125,000.00	$5,625.00
17.	Mountain Avenue at 8th Street	PM	4,674	6,719	6,779	2.9%	$325,000.00	$9,425.00
21.	Indian Hill Blvd at Foothill Boulevard	PM	3,618	5,097	5,124	1.8%	$275,000.00	$4,950.00
22.	Towne Avenue at Foothill Boulevard	AM PM	4,018 4,324	4,562 4,955	4,574 4,984	2.2% 4.4%	$325,000.00	$14,300.00
25.	Benson Avenue at 13th Street	AM PM	1,585 2,329	2,349 3,629	2,457 3,830	12.4% 13.4%	$275,000.00	$36,850.00
Year 2025 Total Project Fair Share Contribution								**$275,645.00**

Net Project Percent Increase (4) = [Column (3) – Column (2)] / [Column (3) – Column (1)].
[1] Project fair-share calculated on "worse-case" net project percent increase.

Table 4.11-19
Year 2025 Project Fair Share Cost Allocation Per Project Component

Key Intersections		Retail Component		Residential Component		Park Component		Total Project Fair Share Contribution	
		Trips	Cost	Trips	Cost	Trips	Cost	Trips	Cost
4.	Monte Vista Ave at Baseline Road	78	$12,165.67	39	$6,082.84	17	$2,651.49	134	$20,900.00
5.	SR-210 Ramps at Baseline Road	257	$16,959.55	114	$7,522.91	48	$3,167.54	419	$27,650.00
6.	Benson Avenue at 16th Street	164	$21,932.19	158	$21,129.80	116	$15,513.01	438	$58,575.00
12.	Benson Avenue at Foothill Boulevard	59	$34,065.47	61	$35,220.24	27	$15,589.29	147	$84,875.00
13.	Mountain Avenue at Foothill Boulevard	27	$4,961.25	27	$4,961.25	14	$2,572.50	68	$12,495.00
16.	Benson Avenue at 8th Street	31	$2,264.61	34	$2,483.77	12	$876.62	77	$5,625.00
17.	Mountain Avenue at 8th Street	21	$3,298.75	25	$3,927.08	14	$2,199.17	60	$9,425.00
21.	Indian Hill Blvd at Foothill Boulevard	15	$2,750.00	8	$1,466.67	4	$733.33	27	$4,950.00
22.	Towne Avenue at Foothill Boulevard	17	$8,382.76	8	$3,944.83	4	$1,972.41	29	$14,300.00
25.	Benson Avenue at 13th Street	69	$12,650.00	83	$15,216.67	49	$8,983.33	201	$36,850.00
Year 2025 Total Project Fair Share Contribution		**$119,430.25**		**$101,956.06**		**$54,258.69**		**$275,645.00**	

Mitigation Measures

In addition to the fair share contribution of $275,645.00[1] to offset the project's near-term and long-term cumulative impacts at ten key study intersections (nine near-term intersections and ten long-term intersections), the Applicant will be required to construct the following improvements along the Specific Plan's frontage on Baseline Road:

Mitigation Measure TC-1

- ***Baseline Road, adjacent to the project site:*** *Widen and improve Baseline Road bordering the project site to ultimate half-section width per the City of Upland Circulation Element.*

- ***Baseline Road at Driveway #1:*** *It is recommended that Driveway #1 provide one inbound lane and two outbound lanes (one exclusive left-turn lane and one exclusive right-turn lane). It is recommended that a three-phase traffic signal be installed at this project driveway. This improvement will cost approximately $120,000.00 and is the sole responsibility of the proposed project.*

- ***Baseline Road at Driveway #2:*** *It is recommended that Driveway #2 provide one inbound lane and one outbound lane (one exclusive right-turn lane). It is recommended that a "STOP" sign and stop bar be installed at this project driveway.*

- ***Baseline Road at Park View Promenade:*** *It is recommended that Park View Promenade provide two inbound lanes and two outbound lanes (one exclusive left-turn lane and one shared through/right-turn lane). It is recommended that the existing traffic signal be modified for five-phase operation with protected eastbound and westbound left-turn phasing. This improvement will cost approximately $75,000.00 and is the sole responsibility of the proposed project.*

- ***Baseline Road at Driveway #4:*** *It is recommended that Driveway #4 provide one inbound lane and one outbound lane (one exclusive right-turn lane). It is recommended that a "STOP" sign and stop bar be installed at this project driveway.*

Level of Significance After Mitigation

Tables 4.11-8 and 4.11-9 show conditions with improvements for years 2009 and for 2025. With implementation of proposed improvements, LOS would be at or greater than the minimum standards set forth by City or County depending on location. Furthermore, refer to Tables 4.11-14 through 4.11-19, which summarizes the Recommended Intersection Mitigation Measures and Costs. Implementation of the herein mentioned Mitigation Measures and or Costs would determine this impact to be less than significant. If the traffic improvements are not implemented before the project opening, impacts would remain potentially significant.

[1] This fair share contribution includes $221,386 for the Park View Specific Plan Applicant and $54,255 for the City Sports Park Applicant towards mitigation of cumulative impacts to transportation which funds shall be used for the programs identified in Tables 4.11-16 and 4.11-18.

Impact TC-2

The proposed project could impact emergency access both during construction and operation. This would be a potentially significant impact.

Baseline Road would provide access to the Master Plan Site. The City Public Service Departments (Public Works, Police Department and Fire Department) will be required to approve emergency access. The proposed project proponent would be required to design, construct, and maintain structures, roadways, and facilities to comply with applicable local, regional, State and/or Federal requirements related to emergency access and evacuation plans. Construction activities, which may temporarily restrict vehicular traffic, would be required to implement standard procedures to facilitate the passage of persons and vehicles through or around any required road closures. Adherence to these standard procedures and the following mitigation measure would reduce potential impacts related to this issue to a less than significant level:

Mitigation Measure TC-2

Prior to issuance of any permits, the applicant shall submit a construction Traffic Management Plan to the City of Upland for review and approval. The plan shall be prepared by a registered civil engineer and traffic engineer and shall address traffic controls for any street closure, lane closure, detour, or any other disruption to traffic circulation. The plan shall identify routes that construction vehicles shall utilize to access the site, the hours of construction traffic, traffic controls and detours, off-site vehicle staging and parking, and proposed construction phasing plan for the Project. The plan shall require the applicant to keep all haul routes clean and free of debris including but not limited to gravel, dirt, as a result of its operations.

Level of Significance After Mitigation

Adherence to Mitigation Measures TC-1 and TC-2 would result in less than significant impact.

4.12 PUBLIC SERVICES

4.12.1 Introduction

Public services within the Baseline Road Master Plan area are provided by a number of agencies. Public services for the cities of Upland and Claremont include fire protection, law enforcement, schools, libraries, medical facilities, and parks. The evaluation of public services herein includes the potential impacts associated with adoption of the entire Baseline Road Master Plan area.

The discussion of each public service includes the existing conditions in the City of Upland planning area, any plans in place for long-range service to the City, impacts associated with adoption of the Baseline Road Master Plan, and mitigation measures required for any identified significant impacts. The City of Upland currently provides public services within the City limits and its Sphere of Influence There are currently ten elementary, two junior high and two high schools, one library, and one hospital within the city limits. The City also maintains 15 public parks, one of which is within one mile of the proposed project (Greenbelt Park).

For the environmental evaluation of public services, the threshold for determining the significance of an impact is as follows:

- Implementation of the Baseline Road Master Plan would have a significant effect on public services if it would result in a reduction in acceptable service ratios, response times or other performance objectives established by the City of Upland.

4.12.2 Environmental Setting, Impacts, and Mitigation Measures

Fire Protection

Environmental Setting

The Upland Fire Department provides fire protection for the City of Upland and participates with a variety of other fire agencies in mutual aid agreements. The Upland Fire Department also participates in an automatic response agreement with the neighboring fire departments to send the closest fire engine to a reported structure fire without regards to city boundaries. Departments within the automatic response agreement include Rancho Cucamonga Fire Department, Montclair Fire Department, Ontario Fire Department and Los Angeles County Fire Department. Dual response is provided for all fires. This policy is written into all of the West End fire agency response procedures and is an asset to all the local cities by not having to budget taxpayer funds for additional personnel and equipment.

Table 4.12-1 provides a break down of manpower and equipment available at each station.

Table 4.12-1
Upland Fire Department

Station	Firefighters	Equipment
Station #1 475 North 2nd Avenue	4 full-time firefighters per shift	-1 Type-1 Engine -1 Battalion Chief Vehicle -2 Type-1 Reserve Engines
Station #2 2046 North San Antonio	3 full-time firefighters per shift	-1 Type-1 Engine -1 Type-1 Reserve Engine
Station #3 1350 North Benson	3 full-time firefighters per shift	-1 Type-1 Engine -1 Reserve Type-1 Engine
Station #4 790 East 15th Street	3 full-time firefighters per shift	-1 Type-1 Engine

The Upland Fire Department would be responsible for providing fire protection services for the portion of the Baseline Road Master Plan project area in the City of Upland. Fire and rescue contract exists between the City and all fire agencies within the State of California. The Upland Fire Department currently has four fire stations, with a paramedic unit at each station. The Department currently employs 39 full-time firefighters, two Division Chiefs, one Fire Chief, one Deputy Fire Marshall, one Fire Inspector/Investigator, four Administrative Support, and an Emergency Services Coordinator that is responsible for overseeing the emergency medical services program and disaster preparedness. A Memorandum of Understanding (MOU) also exists between the Los Angeles County Fire and City of Upland Fire Department.

American Medical Response (AMR), a private ambulance service provides ambulance transportation for residents in the City of Upland. AMR is located at 7925 Center Avenue in Rancho Cucamonga, and services the communities of Montclair, Ontario, Upland, Rancho Cucamonga, Fontana, San Bernardino, Redlands, and the several cities and unincorporated areas with the High Desert Region.

The commercial portion of the Specific Plan located in the City of Claremont would receive services from Los Angeles County Fire Department in accordance with the existing contract between the County of Los Angeles and the City of Claremont.

Impact Analysis

For the purposes of this analysis, both the Park View Specific Plan portion and the City Sports Park portion were evaluated as one project.

Impact PS-1

The current demand for fire protection services would increase if the Baseline Road Master Plan were adopted. This may result in a need for additional staff and equipment. This is a potentially significant impact.

The Baseline Road Master Plan includes an approximately 42-acre Park View Specific Plan portion that would be developed with commercial and residential land uses. Approximately 100,000 square feet of commercial buildings would be developed within a 10-acre area located near the southwest corner of the site; and a maximum of 400 residential units with densities ranging from 10 to 20[1] dwelling units per acre would be constructed within the remaining 32 acres. Proposed commercial development would create approximately 200 new jobs, (based on one employee per 500 square feet), and the proposed residential development would generate an estimated 1,169 new residents (based on 400 units at 2.923 people per unit), for a total of approximately 1,369 people on-site.

The Upland Fire Department follows region-specific factors to determine the number of firefighters a Department would need. As of April 2006, the City of Upland had a population of 73,697 citizens and a total of 43 full-time firefighters; this corresponds to a firefighters/citizen ratio of 1:1,714. The project would result in an increase of approximately 1,329 people (1,169 from the proposed 400 housing units and 160 employees from the 80,000 square feet of commercial development on the Upland portion of the Specific Plan). This represents an approximately 1.80 percent increase in the City's current population of 73,697. The project-generated increase of 1,329 people (residents plus employees on-site) would require less than one (0.77) additional firefighter in order for the City to maintain its current firefighters/citizen ratio of 1:1,714. Development Impact Fees (DIF) to be collected at the time of project approval would offset impacts to fire services. The DIF is collected to support construction, installation, or purchase of "public facilities." Less than significant impacts are anticipated.

The project-related increase for the City of Claremont would be approximately 40 employees (calculated at 1 person per 500 square feet of commercial development for a total of 20,000 square feet). This is considered an incremental increase and is not anticipated to have a significant impact on the County's fire services. In addition, DIF to be collected at the time of project approval would offset impacts to fire services.

Mitigation Measure

No mitigation required.

Police/Law Enforcement

Environmental Setting

The Upland Police Department currently provides law enforcement services for the City of Upland and is located at 1499 West 13th Street. The Patrol Division is the largest division within the Operations Bureau of the Upland Police Department with the Uniform Patrol unit making up the largest unit. The Uniform Patrol unit is comprised of 55 sworn police officers assigned as initial responders for all calls for service within the City.

There are currently 82 sworn officers within the Upland Police Department including: 55 Police Officers; 10 Sergeants; 5 Lieutenants; 2 Captains and 1 Chief. The current national standard for a

[1] Density transfer in the residential development allows density of up to 20 dwelling units per acre.

full-time officer to citizen ratio is 2.5:1,000. The City of Upland currently has a deputy to citizen ratio of 1.33:1,000.

The Upland Police Department includes some 23 volunteers. Volunteers over the age of 55 are invited to join the Volunteers in Police Service (VIPS), a federally funded association that provides a variety of benefits to volunteer in public service. Volunteers perform primarily in administration and patrol. These units are brought together through a centralized dispatch center. The Dispatch Center is responsible for handing all 911 calls and all emergency line calls 24 hours per day. The Department utilizes Computer Aided Dispatch (CAD) software.

In the event of a site-specific emergency or demand for backup, the Department may call on the Special Weapons and Tactics Team (SWAT) for assistance. The SWAT was formed in 1990 in response to a growing number of potentially violent incidents that police officers were called to handle. With respect to the high-risk entries associated with narcotics search warrants, it was recognized that patrol officers were dealing with armed and barricaded suspects without having appropriate backup. SWAT officers are regular officers on special assignments.

Police services to the 2.4-acre parcel in the City of Claremont would be provided by the City of Claremont Police Department. The police department consists of seventeen officers, with 3 Lieutenants and 4 Sergeants, 4 Detectives, a Lieutenant, an Evidence Technician, an Administrative Assistant and one part-time Police Aide. The Claremont Police Department also has a Bicycle Enforcement Team that has 16 trained bike officers and 4 mountain bikes. All of the officers have other duties they are assigned and work on bike patrol only as needed. In addition, the police department also recruits volunteers, as Reserve Officers who are members of the community and assist with a variety of police officer duties

Impact Analysis

For the purposes of this analysis, both the Park View Specific Plan portion and the City Sports Park portion were evaluated as one project.

Impact PS-2

The current demand for police protection services would increase as commercial, residential and recreational uses are developed with adoption of the Baseline Road Master Plan. This would result in a need for additional staff and equipment. This is a potentially significant impact.

As portions of the Baseline Road Master Plan are developed, the Upland and Claremont Police Departments would be responsible for providing these areas with law enforcement services within their respective jurisdictions. The Master Plan would be developed with commercial, residential and recreational land uses. Approximately 80,000 square feet of commercial buildings would be developed within a 7.6-acre area located near the southwest corner of the site within the City of Upland; and a maximum of 400 residential units with densities ranging from 10 to 20 dwelling units per acre would be constructed within the remaining 32 acres, in the City of Upland. Proposed commercial development would create approximately 160 new jobs, (based on

one employee per 500 square feet), and the proposed residential development would generate an estimated 1,169 people (based on 400 units at 2.923 people per unit). A potential increase in population (residents plus employees on-site) from 73,697 to 75,026 would change the existing deputy to citizen ratio of 1.33:1,000 to approximately 1.30:1,000. The projected population increase associated with development of the Park View Specific Plan portion within the City of Upland would result in a less than two percent (1.8) increase in police service. The City will continue to seek funding from State and federal sources to augment law enforcement services. This assists in assuring the provision of the highest level of security and police protection to preserve and to protect the health, safety, welfare and property of community residents and businesses. This would be a less than significant impact.

The total number of employees that would be generated on the 2.4 acres located in Claremont will generate approximately 40 employees (calculated at 1 person per 500 square feet of commercial development for a total of 20,000 square feet). This increase is negligible and impact on police services is not anticipated. In addition, DIF to be collected at the time of project approval would offset impacts to police services.

Mitigation Measures

No mitigation required.

Schools

Environmental Setting

Public education for the City of Upland is provided by the Upland Unified School District, and includes educational services for students in kindergarten through senior high. The District maintains and operates 14 schools within the district including ten elementary schools, two middle schools, and two high schools. In 2006, the District provided services to approximately 12,257 students. As of April 2006, the District employed a certificated staff of 631 and classified staff of 400.

Table 4.12-2 shows the 2006 enrollment at each of the District's schools.

The most current projections indicate that the Upland Unified School District is experiencing relatively stable enrollment. In 2006, student teacher ratios for elementary grades K through 3rd was 20:1, and grades 4th through 6th was 29:1. The student teacher ratio for 7th grade through 12th grade was 27.5:1. The student teacher ratio for Hillside Continuation High school was 18:1.

Impact Analysis

Impact PS-3

Project implementation would contribute to an incremental increase in the number of students attending public schools within the Upland Unified School Districts. This is a potentially significant impact.

The Baseline Road Master Plan, would allow approximately 100,000 square feet of commercial buildings to be developed within a 10-acre area located near the southwest corner of the site; and a maximum of 400 residential units with densities ranging from 10 to 20 dwelling units per acre to be constructed within the remaining 32 acres. The proposed residential development would generate an estimated 204 students (based on 400 units at 0.51 students per unit).

Table 4.12-2
Upland Unified School District
Estimated 2006 Enrollment By School

School	Enrollment
Elementary Schools	
Baldy View*	750
Cabrillo	664
Citrus	739
Foothill Knolls	484
Magnolia	562
Pepper Tree	759
Sierra Vista	493
Sycamore	497
Upland	616
Valencia	687
Subtotal	**6,251**
Junior High Schools	
Pioneer*	1,042
Upland Junior High	1,034
Subtotal	**2,076**
High School	
Upland High*	3,674
Hillside High (Continuation)	201
Subtotal	**3,875**
Independent Study	
K-12	55
Subtotal	**55**
Total	**12,257**
* Schools likely to serve the proposed project	

Since annual operating costs of public schools are primarily covered by State Average Daily Attendance (ADA) payments, impacts from the creation of new residents and jobs in the area include the financing and construction of new facilities and the proposed student additions to existing facilities. Without knowing the exact demographic make-up, it is difficult for the District to estimate the actual number of students per grade level that would be generated.

The District receives approximately $26.37 dollars per student per day from ADA payments. Schools are only funded for students attending class on any given date. Funding is not based on enrollment projections. Thus, schools will not receive funding to make the necessary additions to

classrooms and staff in order to accommodate the future increase in students until students are actually enrolled.

The impacts of 204 additional students would be significant and mitigation is discussed below.

Mitigation Measures

Mitigation Measure PS-1

Proposed commercial and residential development shall be subject to Upland Unified School District's development impact fees which are currently $2.63 per square-foot of residential development and 0.42 per square-foot of commercial development, or the formation of a Community Facilities District or other means to the satisfaction of the School District, which would alleviate any impact to schools as a result of project implementation.

Level of Significance After Mitigation

The proposed mitigation measure would reduce any potential impacts to less than significant.

Libraries

Environmental Setting

City of Upland

Library services for the residents within the City are provided by the City of Upland. The Upland Public Library, located at 450 North Euclid Avenue, is 25,210 square feet in size and houses over 140,000 books. The library is currently staffed with three full-time librarians, three library assistants, nine library clerks, one secretary, one proctor and 27 hourly employees. Although the County of San Bernardino Library System does not provide library service within the City of Upland, there are several branches located within close proximity to the City. Branches in the area include Montclair, Chino and Chino Hills. All books within County libraries are accessible through a regional inter-library loan program. Currently, there are 27 branches within the San Bernardino County Library System.

Residents within the City of Upland may also utilize the California State Polytechnic University Pomona (Cal Poly Pomona) Library located on campus within the City of Pomona. This facility is approximately 205,000 square feet in size and houses 2.4 million items including 600,000 volumes, 2,000,000 microforms, 5,000 software packages, 12,000 maps, and 11,000 technical reports. The facility is currently staffed with 13 full-time librarians, two part-time librarians, 25 library assistants. Residents of the City of Upland that are not currently enrolled at the University may utilize the facility and check out books from the general collection (excludes periodicals, videos, etc.) with a purchased visitor library card at a cost of $50 dollars per year.

The City has adopted standards for the minimum square footage required to serve a given population. The City attempts to maintain approximately 200 to 400 square feet of library space

per 1,000 citizens. Based on a current population of 73,697 people, the City is providing 342 square feet of library space for every 1,000 people (25,210 square feet divided by [73,697/1,000]). Therefore, with respect to the adopted standards, the City's existing library system achieves the standard at this time.

Impact Analysis

For the purposes of this analysis, both the Park View Specific Plan portion and the City Sports Park portion were evaluated as one project.

Impact PS-4

Implementation of the proposed Baseline Road Master Plan would increase the demand on library services that are currently operating below established standards. New jobs and residents created by the proposed project may require additional library facilities or services. This would add to the existing shortage of library space within the City of Upland. This is a potentially significant impact.

The Baseline Road Master Plan includes approximately 100,000 square feet of commercial development which would create approximately 200 new jobs (based on one employee per 500 square feet and a maximum of 400 residential units which would generate an estimated 1,169 people (based on 400 units at 2.923 people per unit).

The creation of new jobs and residents could impact library services and require additional support items as reading tables, staff assistance, computers, and space. Libraries are important community assets, and a significant barometer of the social health of a community. These assets are also an important consideration for those moving to a community.

If all of the residents created by implementation of the Baseline Road Master Plan are new, then the City's current population would increase from 73,697 to 74,867. Based on the increase in population, the City's adopted library space standard would change from 342 square feet to approximately 336 square feet of library space per 1,000 population. Since the City would still maintain the adopted library standard of 200 to 400 square feet of library space per 1,000 population, implementation of the proposed project would have a less than significant impact on existing library services within the City.

Mitigation Measures

No mitigation measures are required.

Medical Facilities

Environmental Setting

The facilities providing medical care for the City of Upland and surrounding areas include the San Antonio Community Hospital, the Doctor's Hospital Medical Center of Montclair, and the

Pomona Valley Hospital Medical Center. The amount of medical facilities necessary for a given population is determined by the conditions of the market and not by adopted standards.

San Antonio Community Hospital, located at 999 San Bernardino Road in Upland, is a 283-bed facility with 2,000 professional, technical, and service staff. The hospital is typically filled to 80 percent of maximum capacity, with about 10 percent daily turnover of outpatients. The San Antonio Community Hospital includes a cancer center, diabetes treatment center, fertility center, heart center, surgical center, and also provides emergency services, patient support services, and maternal/child services.

The Doctor's Hospital Medical Center of Montclair, located at 5000 San Bernardino Street in Montclair, is a 102-bed facility and is typically filled to 60 to 70 percent of maximum capacity. The Medical Center includes medical and surgical facilities, an Intensive Care Unit, pediatric, obstetrics, and emergency room services, as well as ambulatory surgery services.

Pomona Valley Hospital Medical Center (PVHMC), located at 1798 North Garey Avenue in Pomona, is a 499-bed acute care, not-for-profit, teaching hospital serving Eastern Los Angeles and Western San Bernardino counties. The PVHMC is currently staffed with 600 physicians, 2,400 employees and approximately 800 volunteers. The hospital is typically filled to 60 percent of maximum capacity. Specialized services at PVHMC include: Regional Kidney Stone Center, Sleep Disorders Center, Magnetic Resonance Imaging Center, Family Health Center and Family Practice Residency Program, Central Avenue Urgent Care Center, Pain Management Program, Diabetes Management Program, Physical Therapy and Sports Medicine Program and the Women's Diagnostic Imaging Center.

The Upland Fire Department provides ambulance transportation for residents within the City. American Medical Response, a private ambulance service, also provides ambulance transportation for residents in the City of Upland.

Impact Analysis

Implementation of the Baseline Road Master Plan would result in new employees and residents in Upland. The number of additional medical facilities that would be required is not based on a threshold population.

All independent facilities are planning for regional growth to accommodate population growth. It can be expected that the San Antonio Community Hospital, Doctor's Hospital Medical Center of Montclair, the Pomona Valley Hospital Medical Center and American Medical Response would expand as needs are identified. Impacts to medical facilities are considered less than significant.

Mitigation Measures

No mitigation measures are required.

Public Parks

Environmental Setting

City of Upland

According to the City of Upland General Plan (1982), standards for estimating park acreage is based on standards developed by the National Recreation and Parks Association (RPA). The NRPA recommends 10 acres of local parks per 1,000 population. Application of this standard to Upland's current population of 73,697 results in a need for 736 acres of park area. According to the City of Upland, there are currently 15 city-maintained parks totaling approximately 131 acres and 80.4 acres of undeveloped parkland within the City. Table 4.12-3 lists the City's parks with their relative acreage. The nearest park to the proposed project site, excluding the project itself, is Greenbelt Park, located approximately one mile southwest of the project site.

Table 4.12-3
City of Upland Maintained Park Land

Park Name	Developed Acreage	Undeveloped Acreage
San Antonio	14.0	8.0
McCarthy	5.4	0.0
Greenbelt	12.0	5.0
Magnolia	6.9	0.0
Pioneer	0.0	10.2
Sierra Vista	6.8	0.0
13th Street Reservoir	2.1	0.0
Cabrillo	20.2	0.0
Baldy View	5.0	0.0
Citrus	5.8	0.0
Fern Reservoir	0.9	0.0
Olivedale	6.7	0.0
8th Street Reservoir	5.0	0.0
Memorial	40.2	0.0
City Sports Park portion	**0.0**	**55**
Total	**131.0**	**78.2**

The City has long been aware of the deficiency of parklands throughout its boundaries. In order to establish a direction for the provision of open space, particularly park and trail facilities, the City of Upland has adopted the following goals, objectives, and policies:

Goals

- To provide a sufficient range of recreation opportunities to meet the needs of all individuals (all ages), families, and groups who reside in the City of Upland.

- To protect and maintain natural resources in the City with emphasis on those scarce resources that require special control and management.

Objectives

- To reduce park deficiencies in terms of acreage and locational requirements.
- To program the acquisition and improvement of park sites enough in advance of need to ensure their availability.
- To translate recreation needs into space requirements in order to determine optimum standards for park development.
- To coordinate the development of parks and recreation with other elements in the community to insure the most logical location and, where possible, combine with other compatible facilities such as schools, flood control, or water conservation areas, etc.
- To develop and extract mineral resources with minimum disturbance to the environment and provide for the eventual reclamation of these areas to uses consistent with the open space needs of the population.
- To reserve open areas for groundwater recharge.

Policies

- Existing and projected park sites should be reassessed in terms of actual and potential use value in both social and economic terms.
- Down-sizing or disposing of those park sites which are not fulfilling intended needs relative to actual or projected costs should be considered.
- The City should update project revenues from bedroom tax and General Fund and reevaluate formulas to find ways to increase revenues from these sources.
- All possible avenues of State and Federal support for acquisition and development revenues should be explored.
- All possible avenues for support from within the community should be explored.
- The concept of user-fees, especially for lighted and active facilities, as a means to generate additional revenues should be investigated.
- Alternatives to traditional modes of park development to reduce maintenance costs should be created.
- Alternatives to traditional modes of maintenance to reduce costs to a manageable level should be explored.

- Ways by which the productivity of the maintenance department can be improved should be evaluated.

Impact Analysis

Impact PS-5

There is currently a shortage of park acreage in the City of Upland. The addition of employees and residents from the commercial and residential development of the Park View Specific Plan portion of the proposed project would increase the need for park acreage. This would cause a greater deficiency in the existing park acreage and is a potentially significant impact.

Approximately 3.5 net acres are provided within Park View Specific Plan as parks, open space, and greenbelt areas within easy walking distance to any residence. The 3.5 acres designated for parks, open space, and greenbelt areas exclude public and private streets, parkways, and sidewalks. Of the 3.5 acres, approximately 1.86 acres are provided as parks and recreation areas within the residential Planning Areas. A minimum of 0.46 acres of park are provided within Planning Areas 1 and 2 combined and a minimum of 1.4 acres of park are provided in Planning Area 3. Recreational facilities include the development of a minimum of one swimming pool to serve Planning Areas 1 and 2 and one swimming pool to serve Planning Area 3. Parks are located within walking or biking distance to any residence and are improved with barbecue and picnic facilities, tot lots, trails, and open play areas. Parks and recreational areas are connected by a network of pedestrian walkways and linear greenbelts developed adjacent to roadways within the Park View Specific Plan. The ultimate location, size, and configuration of each park or recreational facility developed within the Park View Specific Plan will be determined at the time of approval of tentative maps for residential development.

In addition, the Baseline Road Master Plan includes approximately 57 acres to be developed into a City Sports Park. Implementation of the Baseline Road Master Plan would create additional parks and recreational areas, and would assist the City in meeting its park acreage standard. No impacts would result.

Mitigation Measures

No mitigations measures are required.

4.13 PUBLIC UTILITIES AND INFRASTRUCTURE

4.13.1 Introduction

This section of the EIR discusses the potential impacts on the local utility systems associated with the proposed development of the Baseline Road Master Plan consisting of approximately 99 acres. The proposed Master Plan area is located on the north side of Baseline Road, between State Route 210 (SR-210) on the west and Benson Avenue on the east. Allied Retail Partners, LLC, is proposing to develop approximately 42 acres of land (Park View Specific Plan portion) with 10 acres for retail development with up to 100,000 square feet of commercial building area, and 32 acres for residential development with up to 400 housing units with densities ranging from 10 to 20[1] dwelling units per acre. The remaining 57-acre City Sports Park portion, would be developed to be compatible with existing water development and water conservation uses on-site. The Public Utilities discussed below would provide service to the entire 99-acre Master Plan area without regard to City or County boundaries.

The evaluation of utility systems herein includes the potential impacts on the following public and private utility systems and services:

Water Service	City of Upland West End Consolidated Water Company San Antonio Water District
Sewer Collection	City of Upland
Wastewater Treatment	Inland Empire Utilities Agency
Solid Waste Disposal	Burrtec Waste Industries, Inc.

The discussion of each utility system includes the existing conditions in the City of Upland, any specific plans in place for long-range service to the community, and the impacts associated with the development of the Master Plan. Mitigation measures are provided for impacts determined to be significant.

4.13.2 Environmental Setting

Water Service

Water service will be provided to the Park View Specific Plan area by the City of Upland. The following discussion is taken from the Specific Plan document. The City of Upland Water Department provides 6.99 billion gallons of water annually from three different sources. Approximately 59.7 percent of the City's water supply is pumped from groundwater and extracted from the Chino Basin, Claremont Heights, and Cucamonga Aquifers. Approximately 1.7 percent of the City's supply comes from the San Antonio Creek as gravity surface flow water and is treated at the City of Upland's San Antonio Canyon Water Treatment Plant. The

[1] Density transfer in the residential development allows density of up to 20 dwelling units per acre.

remaining 38.6 percent of the City's water is imported the State Water Project by the Inland Empire Utilities Agency.

Five different pressures zones supply water within the City of Upland. The pressure zones are served by above ground storage tanks located in the foothills in the northern portion of the City. The total storage capacity of the above ground reservoirs is approximately 52 million gallons. The City of Upland uses between 14 to 33 million gallons per day (MGD) depending on seasonal conditions.

The Park View Specific Plan area is located within "Zone 3" of the public utility system which is served by two above ground storage tanks with capacities of 4.3 million gallons 1.5 million gallons respectively.

The City of Upland Water Division conducts more than 1,500 tests on the water delivered to consumers each year, which includes sampling for over 150 different contaminants. As required by the Federal Safe Drinking Water Act, all public water suppliers in California must meet stringent water quality standards set by the State Department of Health Services Office of Drinking Water and the U.S. Environmental Protection Agency. According to the City's 2005 Consumer Confidence Report issued to their customers, the water received by the City from the Water Facility Authority-Joint Powers Agreement, San Antonio Canyon Water Treatment Plant, and the local groundwater wells is treated in accordance with state and federal regulations, and meets all drinking water standards.

Sewer Collection and Wastewater Treatment

Sewer service for the Specific Plan area is provided by the City of Upland. In 1972, the City of Upland entered into a Regional Sewerage Service Contract with the Inland Empire Utilities Agency (IEUA) formerly known as the Chino Basin Municipal Water District to provide treatment and disposal of sewage for the City. IEUA provides municipal and industrial wastewater collection and sewage treatment services to more than 700,000 people within a 242 square mile area in the western portion of San Bernardino County. The City of Upland owns and operates their own sewage collection systems that deliver sewage flows into regional sewer trunk lines that flow to the IEUA reclamation facilities. The IEUA currently has five regional treatment plants.

Majority of the Upland sewage (approximately 6 MGD from the eastern portion of the City) goes to the Regional Water Recycling Plant 1 (RWRP-1). Only the westside flows, currently less than 1 MGD goes to the Carbon Canyon Regional Water Recycling Plant (CCRWRP). The CCRWRP is located in the City of Chino. The daily capacity of the CCRWRP is 11 MGD and currently processes an average daily flow of 8 MGD (72 percent of capacity). When necessary, 2.5 MGD can be pumped to the RWRP-1 located in the City of Ontario. RWRP-1 has a current capacity of approximately 44 MGD. The facility presently handles 37 MGD on average (84 percent of capacity). The IEUA has plans to increase its capacity to 52 MGD by approximately 2020 and ultimately have a capacity of 60 MGD.

Unless there is a case of unusually high-volume or high-strength flow, sewage flows would generally be conveyed from the Montclair Diversion structure to either CCRWRP or RWRP-5. High strength commercial/industrial wastewater [High-strength wastewater is non-residential-strength wastewater containing high concentrations of one or more of the following: Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Fats Oil's and Grease (FOG) and/or Chemical Oxygen Demand (COD)] could require pretreatment by the generator under state and local regulations. High-salinity wastewater, like brines, could be discharged to the Non-Reclaimable Waste Line. It is also possible to bypass the flow from CCRWRP to RWRP-5 through the Chino Interceptor. Also, IEUA expects the RWRP-1/RWRP-5 Bypass, also called the Eastern Trunk Sewer, to be completed by the end of 2006, which will enable bypassing up to 6 MGD from RWRP-1 to RWRP-5 for treatment.

A small portion of the project lies outside of the City limits. An interagency sewer service agreement will be needed, with approvals from Claremont and LACSD, before the Claremont-areas can be served by sewers.

Solid Waste

The City of Upland includes residential and commercial, as well as industrial land uses. Solid waste generated in these communities includes construction/demolition waste, commercial waste, industrial waste, and municipal waste.

The City of Upland is responsible for solid waste collection and recycling; Burrtec Waste Industries Inc. (BWI), located at 9820 Cherry Avenue in Fontana, is the current franchise waste hauler for commercial and residential facilities in the city. BWI participates in waste recycling by providing customers with two separate recycling bins; one for greenwaste and one for general recyclable materials (i.e. newspaper, aluminum cans, and glass). Refuse, recyclables, and greenwaste are taken to and processed at BWI's West Valley Material Recovery Facility located at 13373 Napa Street in Fontana. Recyclables are sold to users, and transfer trucks take the refuse to the Olinda Alpha Landfill, located at 1942 North Valencia Avenue in Brea, California.

The West Valley Material Recovery Facility is permitted to accept up to 5,000 tons per day (TPD) and currently receives approximately 4,000 TPD. The Olinda Alpha Landfill is permitted to accept up to 8,000 TPD, and currently receives approximately 7,000 TPD. The landfill is scheduled to reach capacity in December 2013. The California Integrated Waste Management Board is looking to extend the life and disposal capacity of the landfill.

Storm Drains

Storm flows within the Specific Plan area flow from the north/northeast to the south/southwest. Numerous quarries that currently serve as retention/detention basins surround the Specific Plan area on the north, south, and east. The San Antonio Channel bisects the existing flood plain to the north and has numerous earthen berms on the west side that direct surface flow into San Antonio Channel. The surface flows that do not discharge into the San Antonio Channel are then discharged into the existing culverts that extend beneath the SR-210 into the Park View Specific Plan area. These surface flows then flow to existing culverts located beneath Baseline Road

eventually out-letting into gravel pits owned by Holliday Rock and Sand. Volumes from the peak surface flows are retained in Holliday's quarry pit and ultimately percolate into the ground.

An existing single 48-inch storm drain culvert and existing twin 48-inch storm drain culverts are located beneath the SR-210 within Los Angeles County. The twin 48-inch storm drain culverts will be extended into the Park View Specific Plan area and connected into the existing dual 48-inch culverts beneath Baseline Road which will remain within Los Angeles County. The existing single 48-inch culvert will be extended into the Park View Specific Plan area within Los Angeles County and San Bernardino County. An existing 36-inch culvert located beneath the SR-210 within San Bernardino County will also be extended and connect into an existing 36-inch culvert located beneath Baseline Road. The San Bernardino County Flood Control District is responsible for regional flood control facilities north and south of the Park View Specific Plan area, while the City of Upland maintains public-owned local facilities within and immediately adjacent to the Park View Specific Plan area.

The existing off-site peak surface flows generated within San Bernardino County tributary to the existing 36-inch storm drain culvert have been determined to be 27 cubic feet per second (cfs) with a Hydraulic Grade Line (HGL). These flows will be directed beneath finished grade with the construction of the proposed 36-inch storm drain culvert extension. The existing off-site peak surface flows generated within Los Angeles County tributary to the twin 48-inch storm drain culverts have been determined to be 125 cfs for a 50-year, 24-hour storm event and 156 cfs for a 100-year, 24-hour storm event. The single 48-inch culvert has 6 cfs and 7 cfs for the 50-year and 100-year, 24 hour storm event, respectively (Hall & Forman Inc. Hydrology/Hydraulics Report, June 2007).

4.13.3 Impacts and Mitigation Measures

Thresholds of Significance

The development of the Baseline Road Master Plan would have a significant impact on public utilities and infrastructure if it would:

- Exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board;

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

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

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

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

- Be served by a landfill(s) with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or

- Be in non-compliance with federal, state, and local statues and regulations related to solid waste.

Impact Analysis

Impacts Determined to be Potentially Significant

Impact PU-1

The proposed project would result in the development of more intense land uses than what currently exists on-site, resulting in additional demand on existing water resources. This is a potentially significant impact.

The proposed commercial development would have an estimated water demand of approximately 25 acre-feet per year for the maximum of 100,000 square feet of building space and landscape area, and the proposed residential development would have an estimated water demand of approximately 202 acre-feet per year (450 gpd per unit), for a total project demand of 227 acre-feet per year. Since the project would not exceed the threshold of: 1) a residential development of more than 500 dwelling units; or 2) a shopping center of business establishment that will employ more than 1,000 persons or have more than 500,000 square feet of floor space; as identified in CEQA Section 15083.5, a water supply assessment is not required. Water service would be provided by the City of Upland and West End Water Company. The 227 acre-feet increase in demand for groundwater from the Four Basins Area represents 4 percent of the 2003 total production right for the City and West End combined (5,705.7 acre-feet). This water demand is considered a less than significant impact because the Six Basin Area has continued to operate with carryover pumping rights and without supplemental water supplies.

The proposed development in the City Sports Park portion of the project site would have an estimated water demand of approximately 45 acre-feet annually. This demand would be less than that of the Park View Specific Plan portion and therefore also exempt from the CEQA Section 15083.5 requiring a water supply assessment. Combined, the two projects would be exempt from conducting a water supply assessment. Water service would be provided by San Antonio Water Company. The 45 acre-feet increase in demand for groundwater from the Four Basins Area represents 2.7 percent of the 2003 total production right for San Antonio Water Company (1,639.1 acre-feet). This water demand is considered a less than significant impact because the Six Basin Area has continued to operate with carryover pumping rights and without supplemental water supplies.

Development of the Park View Specific Plan area will require the construction of a new public 12-inch water main in Baseline Road connecting to an existing 10-inch water main located east of the Specific Plan area at the intersection of Baseline Road and Benson Avenue. The new 12-inch water main will be constructed along the frontage of the Specific Plan area adjacent to Baseline Road and extend north through the proposed Park View Promenade in the Specific Plan terminating at the entrance to the future City Sports Park. It is anticipated that the 12-inch water main located in Park View Promenade will be extended through the future City Sports Park and out to 17th Street connecting to an existing water main located in Benson Avenue.

The developer will extend the 12-inch water main in Park View Promenade and loop it through the north property to 17th Street and in 17th Street to Benson Avenue to provide two points of water supply to the development. Dual irrigation pipelines (backbone 8-inch and service lateral stubs to 2-foot back of curb at meter locations) will be provided to supply for future recycled water service to common landscaping areas to include parkways, medians and park grounds in accordance with State Department of Public Health guidelines. The system for recycled water will be extended to City Sport's Park for future use. All plans must be approved by the Public Works Director.

Existing water lines within the Specific Plan area extending westerly from the existing water well owned by Upland Gateway, LLC, located on the east side of the site, will be relocated or redirected as part of the project.

The City of Upland can provide water service to areas within Baseline Road Master Plan that are outside of the City of Upland sphere of influence, subject to securing governmental approvals and any associated agreements for providing water service within these areas. Implementation of the following mitigation measure would reduce any impacts to less than significant:

Mitigation Measure PU-1

Prior to the issuance of building permits, the Applicant shall ensure that required governmental approvals and any associated agreements are secured for providing water service by the City of Upland to the 2.4 acres in Claremont.

Level of Significance After Mitigation

Implementation of Mitigation Measure PU-1 would ensure that water impacts on the Claremont portion would be less than significant.

Impact PU-2

The proposed project would result in the development of more intense land uses than what currently exists on-site, and therefore would place additional demand on the existing sewer and wastewater treatment facilities. This is a potentially significant impact.

The Park View Specific Plan area is within of the City of Upland's wastewater collection system. All project wastewater will be conveyed to the Carbon Canyon Wastewater Reclamation Facility (CCWRF). The 19-acre Carbon Canyon facility is designed to meet a total inorganic nitrogen limit of 10 mg/L. The CCWRF treats an annual average flow of 9.5 million gallons per day (MGD). Solids removed from the waste flow are transported by underground pipes and treated at Regional Plant #2 located in the City of Chino. Solids are treated and removed for composting. Water discharged from the CCWRF reaches the Santa Ana River. Water quality of treated wastewater meets Title 22 requirements for non-restricted recreational use and the public health turbidity standard of 2 nephelometric turbidity units (NTU).

An existing City of Upland 8-inch sewer main located in Baseline Road services the Mountain Shadows residential development located east of the Park View Specific Plan. The existing 8-inch sewer main that serves Mountain Shadows receives 0.033 MGD of wastewater from the residential development. The combined wastewater generated from the Park View Specific Plan area, the Mountain Shadows development, and the future 57-acre City Sports Park, has been estimated to be approximately 0.126 MGD. The allowable flow through the existing 8 inch sewer main located in Baseline Road is 0.238 MGD.

As part of the development of the Park View Specific Plan, the 8-inch Baseline Road sewer main that currently terminates near the project site's eastern boundary, would be extended approximately 1,600 feet to the west in order to serve the Park View Specific Plan area. A new 10-inch sewer main will be constructed throughout the Specific Plan area and extended to the southern boundary of the future City Sports Park located north of the Park View Specific Plan. Due to the location and proposed grades for the commercial area of the Park View Specific Plan, an on-site, private sewer lift station will be constructed to serve this area. The Applicant will also be responsible for improving deficient sewer main segments on Benson Avenue from Foothill Boulevard south to Arrow Highway (approximately 2,700 linear feet) from an 8-inch to a 10-inch sewer main.

A small portion of the project lies outside of the City limits. An inter-agency sewer service agreement will be needed, with approvals from Claremont and Los Angeles County Service District (LACSD), before the Claremont-areas can be served by sewers.

The amount of wastewater that would be generated by the development of the City Sports Park is not known at this time. As design details of the City Sports Park are developed, the City would determine any need for facility improvements. Therefore, there are no known significant impacts at this time.

Mitigation Measures

No mitigation measures are required.

Impact PU-3

The proposed project would result in the development of more intense land uses than what currently exists on-site, which may require the construction of new storm water

drainage facilities or expansion of existing facilities. This is a potentially significant impact.

The proposed on-site peak surface flows have been determined to be approximately 173 cfs for a 100-year storm event, which represents an increase of 105% over the existing on-site peak surface flows of 84.20 cfs. All on-site surface water will be collected in an on-site storm drain system which will discharge into a proposed 54-inch storm drain pipe to be constructed beneath Park View Promenade, and subsequently will cross Baseline Road and flow easterly along the southerly Baseline Road right of way towards Benson Avenue discharging into the quarry pit owned and operated by Holliday Rock. The point of discharge has been estimated to be the mid-point between Benson Avenue and the main entry at Park View Promenade. The discharge into the quarry pit requires a storm drain culvert to descend from the top of the northerly slope of the Holliday quarry pit into a dissipater at the bottom of the quarry pit to avoid scouring or erosion. The amount of water discharging from the Park View Specific Plan area into the quarry pit has been estimated to be 1.5 acre-feet. The Holliday Rock quarry pit has a total holding capacity of approximately 200 acre-feet. The quarry pit will be able to accommodate all existing surface discharge generated both on-site and off-site.

The City of Upland retains the right to drain on-site and off-site waters into the Holliday Rock quarry via the Stormwater Easement Agreement executed between the City of Upland and Holliday Rock dated December 9, 2002. The Stormwater Easement Agreement permits acceptance of waters that the City of Upland would ordinarily accept to drain into the Holliday Rock quarry as well as other lands owned by Holliday Rock and Sand.

The Park View Specific Plan area will comply with all applicable federal, state, and municipal requirements for controlling pollutant impacts to storm water and urban runoff from construction and postconstruction activities and with requirements of the Santa Ana Regional Water Quality Board (RWQCB) and the City of Upland. These agencies regulate the discharge of storm water from construction activities on sites where more than one acre of soil is disturbed. During construction of Park View Specific Plan, the project will create the potential for contaminants to affect water quality, such as erosion and silt discharge during grading operations. The project will require a Notice of Intent (NOI) to be filed with the State of California Water Resources Control Board. The NOI is intended to identify project compliance with the requirements of the State National Pollutant Discharge Elimination System (NPDES) Construction Permit and implementation of a Storm Water Pollution Prevention Plan (SWPPP) prior to any earth-disturbing activities.

Post-development activities will also have the potential to discharge contaminants such as urban runoff into the municipal storm drain system of the City of Upland. In order to meet requirements of the Santa Ana RWQCB requirements, a Water Quality Management Plan (WQMP) has been submitted to the City of Upland for their review and approval. The Park View Specific Plan meets several of the regulatory criteria in determining the project as a project specific WQMP. The purpose of the WQMP is to specifically identify both the construction and post-construction methods to control potential pollutant runoff. The WQMP discusses site design concepts, routine source control BMPs, treatment control BMPs, and construction BMPs that have been incorporated into the project. The WQMP also specifies the assignment of

construction and post-construction operation, inspection, and maintenance responsibilities. The BMPs for post-development include the use of storm water clarifiers with infiltration capabilities on Holliday Rock and Sand's quarry pit to mitigate the anticipated pollutants from the project, as identified by the WQMP.

The amount of stormwater runoff from the proposed City Sports Park is unknown at this time. However, the proposed City Sports Park would include landscaped lawns and open spaces that would assist in percolation and reduce run-off. It is anticipated that the increased amount of run-off would not be significant than the existing situation. Moreover, drainage within the Baseline Road Master Plan area would be in conformance with the City of Upland's Drainage Master Plan, and would use a combination of surface drainage systems and storm drains. Implementation of the following mitigation measures would reduce impacts to less than significant:

Mitigation Measure PU-2

The project Applicant would be required to submit a Stormwater Drainage Plan to be approved by the City of Upland, prior to any earth-disturbing activities, for the Park View Specific Plan portion of the Master Plan. The Stormwater Drainage Plan shall describe necessary improvements and demonstrate that infrastructure to be developed will accommodate resulting flows in a 100 year storm event.

Mitigation Measure PU-3

The City of Upland would prepare a Stormwater Drainage Plan to be approved, prior to any earth-disturbing activities, for the City Sports Park portion of the Master Plan. The Stormwater Drainage Plan shall describe necessary improvements and demonstrate that infrastructure to be developed will accommodate resulting flows in a 100 year storm event.

Level of Significance After Mitigation

Implementation of Mitigation Measures PU-2 and PU-3 would ensure that impacts on the solid waste system would be less than significant.

Impact PU-4

The proposed project would result in the development of more intense land uses than what currently exists on-site, and therefore would increase the burden on the existing solid waste system resulting in a potentially significant impact.

Under the Baseline Road Master Plan, the 42-acre Park View Specific Plan portion would be developed with commercial and residential land uses. Approximately 100,000 square feet of commercial buildings would be developed within a 10-acre area located near the southwest corner of the site; and 400 residential units would be constructed within the remaining 32 acres. Proposed commercial development would create approximately 200 new jobs, and the proposed residential development would generate an estimated 1,170 people. According to the California

Integrated Waste Management Board's jurisdiction profile for the City of Upland, per capita residential disposal rate is estimated to be 2.8 pounds per resident per day, and the business disposal rate is estimated to be 5.8 pounds per employee per day. Appling these disposal rates to the project's projected employees and residences, proposed commercial development is expected to generate approximately 0.58 TPD (200 employees times 5.8 pounds per day), and proposed residential development is expected to generate approximately 1.6 TPD (1,170 residences times 2.8 pounds per day) for a total project waste generate of 2.2 TPD. The proposed commercial and residential development would not generate a significant amount of additional solid waste into the City's waste stream as West Valley Material Recovery Facility receives approximately 4,000 TPD and is permitted to receive 5,000 PTD. The solid waste collection system will not be affected by the development of the project site. Underground electrical and telephone conduits and service lines will be provided by the developer to commercial trash enclosures to facilitate disposal account tracking automation units.

The future development of a net 44-acre City Sports Park is not expected to generate a significant amount of additional solid waste into the City's waste stream. However, upon final design of the City Sports Park, an evaluation of projected solid waste generation and impacts to the solid waste collection system would be required.

The City of Upland can provide solid waste disposal service to areas within Baseline Road Master Plan that are outside of the City of Upland sphere of influence, subject to securing governmental approvals and any associated agreements for providing solid waste service within these areas. Implementation of the following mitigation measure would reduce any impacts to less than significant:

Mitigation Measure PU-4

Prior to the issuance of building permits, the Applicant shall ensure that required governmental approvals and any associated agreements, and methods to track quantity of waste and recycling, are secured for providing solid waste service by the City of Upland to the 2.4 acres in Claremont.

Level of Significance After Mitigation

Implementation of Mitigation Measure PU-4 would ensure that solid waste on the Claremont portion would be less than significant.

4.14 POPULATION, EMPLOYMENT AND HOUSING

4.14.1 Introduction

This section discusses existing and projected population, employment and housing characteristics in the City of Upland based on socioeconomic data provided by U.S. Census Bureau, Southern California Associated Governments (SCAG) and the California Department of Finance (DOF). Impacts associated with the proposed project are evaluated based on the City's goals for providing employment and housing for its citizens and SCAG's goals for balanced growth in the region. Given that only a small portion of the commercial area (approximately 20,000 square feet) is proposed in the City of Claremont, it is assumed that most of the employment would be absorbed from within the City of Claremont's current population; therefore, only the City of Upland's Housing Element has been used in developing this section.

4.14.2 Environmental Setting

United States 2000 Census

The United States Census Bureau provides population and housing data from the 2000 National Decennial Census (the "Census"). The Census occurs every 10 years for the purpose of counting the population and housing units for the entire United States. While the primary purpose of the census is to provide the population counts that determine how seats in the U.S. House of Representatives are apportioned, the census data is also the basis for most demographic projections. The census data, which was compiled using answers to surveys sent to all households within the United States, are provided for the nation, all states, and all counties, as well as each individual city.

Southern California Association of Governments

Upland is located within the planning area of SCAG, the lead planning agency for the Southern California region. SCAG consists of local governments from Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial Counties. To facilitate regional planning efforts, the planning area of SCAG is further divided into thirteen subregions. Upland is located in the San Bernardino Associated Governments (SANBAG) Subregion. One of SCAG's primary functions is to forecast population, housing, and employment growth for each region, subregion, and city. The latest forecast was completed in 2004 as part of the 2004 Regional Transportation Plan Update. The following population and housing analysis in this section addresses this forecast.

Population

According to the 1990 U.S. Census, the City's population was 63,374. In 2000 the City had a population of 68,393. This represents an average annual growth rate of approximately 0.8 percent or about 500 residents per year. In comparison, San Bernardino County grew by 291,054 people over the same period with an estimated average annual growth rate of 2.0 percent or about 29,100 people annually. Table 4.14-1 presents population characteristics from the Census for the City and the County.

Both the County and the City of Upland experienced faster growth in 2000-2005 as compared to the growth in 1990-2000. According to the 2005 population estimates by DOF, the annual growth rate for the City nearly doubled from 0.8 percent to 1.6 percent. In comparison, the County's average annual growth rate was approximately increased during the same periods from 2.0 percent to 3.0 percent.

Table 4.14-1
Population Characteristics, 1990, 2000 and 2005

Population	1990	2000	2005	Annual Percentage Change 1990-2000	Annual Percentage Change 2000-2005
City of Upland	63,374	68,393	73,876	0.8	1.6
San Bernardino County	1,418,380	1,709,434	1,950,806	2.0	3.0

Source: U.S. Census Bureau, Census 2000 Summary File 1, California Department of Finance E-1 City / County Population Estimates, 2006.

The SCAG 2004 Regional Growth Forecast estimate of the year 2005 population of Upland is 74,991 (greater than City estimate). Table 4.14-2 (SCAG Population Growth Projections, 2005–2020) contains the SCAG population projections for the City and the County. A population increase of 9,958 residents is projected between 2005 and 2020 for the City, representing an annual average growth rate of 0.9 percent which is slightly higher than the annual average growth rate experienced in the City between 1990 and 2000. In comparison, the County is projected to grow by 478,494 persons over this 15-year period, representing an annual average growth rate of 1.7 percent.

Table 4.14-2
SCAG Population Projections

	2005	2010	2015	2020
City of Upland	74,991	80,143	82,563	84,949
San Bernardino County	1,919,215	2,059,420	2,229,700	2,397,709

Source: Regional Transportation Plan Growth Forecast, Southern California Association of Governments, Adopted April 1, 2004.

Housing

Housing and household characteristics based on the Census are presented in Table 4.14-3 (Housing and Household Characteristics, 2000). In 2000, there were 25,467 housing units in the City of Upland, and approximately 601,369 housing units in San Bernardino County. In terms of housing ownership, both the City of Upland and the County had more owners than renters, with 58.9 percent of all occupied units in the City of Upland being owner-occupied units. In comparison, owner-occupied housing constituted 64.5 percent of all occupied housing units in the County. Based on the 2000 census data, there is a 1.6 percent homeowner vacancy rate and 3.9 percent rental vacancy rate within the City of Upland (Table 4.14-3). This is far below the rates for the County of San Bernardino (3.1% and 7.3%, respectively).

Table 4.14-3
2000 Housing Characteristics

	City of Upland		County of San Bernardino	
Total housing units	25,467	100.0%	601,369	100.0%
Occupied housing units	24,551	96.4%	528,594	87.9%
Vacant housing units	916	3.6%	72,775	12.1%
Homeowner vacancy rate	1.6%	na[1]	3.1%	na[1]
Rental vacancy rate	3.9%	na[1]	7.3%	na[1]

Notes: [1]na = Not applicable
Source: U.S. Census Bureau, Census 2000 Summary File 1.

Table 4.14-4 (Housing Changes, 1990–2000) indicates that 977 net housing units were constructed in the City between 1990 and 2000, an annual average rate of 0.39 percent. Approximately 59,000 housing units were constructed in the County during the same 10-year period, representing an annual average rate of 1.0 percent.

Table 4.14–4
Housing Changes, 1990–2000

	City of Upland		San Bernardino County	
	1990	**2000**	**1990**	**2000**
Housing Units	24,496	25,467	542,332	601,369
Occupied Housing Units	23,077	24,551	464,737	528,594
Vacancy Rate	5.8%	3.6%	14.3%	12.1%

Sources: U.S. 1990 Census; U.S. 2000 Census

As for future housing growth, SCAG forecasts the number of households projected for the City the County of San Bernardino. Households are a good indicator of projected housing units because, by definition, one household occupies one housing unit. As shown in Table 4.14-5 (SCAG Household Growth Projections, 2005–2020), the addition of 6,531 households is projected in Upland between 2005 and 2020, representing an annual average growth rate of 1.7 percent. In comparison, for the County, the projected growth over this 15-year period is an annual average growth rate of 2.1 percent.

Employment

Table 4.14-6 indicates that the unemployment rate for the City of Upland decreased steadily between 1995 and 2001, rose in 2001 through 2003, and resumed its downward trend in 20042006. The unemployment rates for the County of San Bernardino and the State of California have decreased also, but remain at a higher level. The unemployment rate for both the County and the State was 5.1 in 2006. With a total labor force of 42,026 within the City of Upland in 2006 and an unemployment rate of 3.4 percent, the number of unemployed was 1,429 persons.

Table 4.14-5
SCAG Household Growth Projections, 2005–2020

Area	2005	2010	2015	2020
City of Upland	25,955	28,713	30,553	32,486
San Bernardino County	567,172	618,782	686,584	756,640
Housing Growth Increments	**2005–2010**	**2010–2015**	**2015–2020**	**2005–2020**
City of Upland	2,758	1,840	1,933	6,531
San Bernardino County	51,610	67,802	70,056	189,468
Average Annual Growth Rates	**2005–2010**	**2010–2015**	**2015–2020**	**2005–2020**
City of Upland	2.1%	1.3%	1.3%	1.7%
San Bernardino County	1.8%	2.2%	2.0%	2.2%

Source: SCAG 2004 Growth Forecast

Table 4.14-6
Labor Force and Unemployment Rate for City of Upland, County of San Bernardino, and State of California

	City of Upland		County of San Bernardino		State of California	
Year	Labor Force	Unemployment Rate	Labor Force	Unemployment Rate	Labor Force	Unemployment Rate
1995	36,075	5.4	675,820	7.9	15,263,582	7.9
1996	36,631	5.0	685,105	7.4	15,435,896	7.3
1997	37,772	4.4	704,159	6.5	15,792,536	6.4
1998	38,777	3.8	720,876	5.7	16,166,912	6.0
1999	40,403	3.3	749,046	4.9	16,430,580	5.3
2000	35,330	3.2	739,650	4.8	16,869,744	5.0
2001	36,397	3.4	762,700	5.1	17,150,101	5.4
2002	37,505	4.1	788,556	6.0	17,326,895	6.7
2003	38,336	4.2	806,511	6.2	17,413,920	6.8
2004	39,877	3.8	837,260	5.6	17,552,240	6.2
2005	40,927	3.4	858,503	5.0	17,946,076	5.4
2006[1]	42,026	3.4	880,691	5.1	1,792,1275	5.1

Source: U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics.
1.Note: All labor data are annual except for 2006, which are data for the month of July 2006.

Table 4.14-7 (SCAG Population Growth Projections, 2005–2020) contains the 2004 SCAG employment projections for the City and the County. An employment increase of 9,399 jobs is projected between 2005 and 2020 for the City, representing an annual average growth rate of 1.6 percent or approximately 627 jobs per year. In comparison, the County is projected to have an increase of 303,215 jobs over this 15-year period, representing an annual average growth rate of 3.0 percent or about 20,214 jobs per year.

Table 4.14-7
SCAG Employment Projections

	2005	2010	2015	2020
City of Upland	38,437	42,307	45,043	47,836
San Bernardino County	669,028	770,877	2870,491	972,243

Source: Regional Transportation Plan Growth Forecast, Southern California Association of Governments, Adopted April 1, 2004.

Applicable Policies, Plans and Regulations

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

SCAG, which is the designated Metropolitan Planning Organization for six Southern California counties (Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles), is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. SCAG has prepared the RCPG in conjunction with its constituent members and other regional planning agencies. The RCPG is intended to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated in the region through the year 2015. The Plan consists of five core chapters that contain goals, policies, implementation strategies, and technical data that support three overarching objectives for the region, including (1) improving the standard of living for all, (2) improving the quality of life for all, and (3) enhancing equity and access to government. Local governments are required to use the RCPG as the basis for their own plans and are required to discuss the consistency of projects of "regional significance" with the RCPG.

The regional housing goals provide a planning framework for cities, counties, and subregions so that they can fashion housing strategies that are responsive to regional market needs related to growth and change during the next two decades. It is intended to be flexible, broad in scope, and a tool in relating housing concerns to a host of other issues identified in the RCPG. The goals of the Housing chapter promote the goals of the RCPG—a rising standard of living, a healthy and environmentally sound quality of life, and achievement of equity.

City of Upland General Plan.

The Housing Element of the City of Upland General Plan defines goals, strategies, and actions related to housing needs within the City of Upland. The Housing Element identifies and establishes policies of the City of Upland with respect to meeting the housing needs of existing and future residents. It establishes policies in furtherance of the statewide housing goal of "early attainment of decent housing and a suitable living environment for every California family," as well as a reflection of the concerns unique to the City of Upland. The goals, strategies, and actions of the Housing Element that are relevant to the proposed project are as follows:

Goal 1

To assist in the development of adequate housing to meet the City's fair share of the region's housing needs for all economic segments of the population, including low- and moderate-income households.

Strategy 1C: Continue the use of creative planning concepts such as specific plans and mixed-use development as a means of enhancing housing diversity and choice.

4.14.3 Impacts and Mitigation Measures

Thresholds of Significance

Implementation of the Master Plan would have a significant effect on population, employment and housing if it would:

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

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or

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

Impacts Determined to Have No Impact

Would the project displace existing housing or people, necessitating the construction of replacement housing elsewhere?

A portion of the project site is currently being used as a demolition, composting and recycling facility (Intravaia Rock and Sand, Inc.). The remainder is vacant or an inactive mine quarry. No houses will be displaced as a result of the proposed project.

Impacts Determined to be Potentially Significant

Impact HP-1

Implementation of the proposed project could induce substantial population and employment growth in the area. This is considered a potentially significant impact.

CEQA requires a discussion of ways in which the proposed project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it fosters economic or population growth, or the construction of additional housing either directly or indirectly in the surrounding environment (CEQA Guidelines Section 15126.2[d]).

New employees from commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area. A project could indirectly induce growth by reducing or removing barriers to growth, or by creating a condition that attracts additional population or new economic activity. A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with the increase in project population and thus reducing or removing the barriers to growth. This occurs in suburban or rural areas where population growth results in increased demand for service and commodity markets responding to the new population.

The proposed project would result in the development and occupation of new residential uses; therefore, it would directly induce growth in the City. With an average household size of 2.923 persons, the proposed 400 dwelling units would increase the City's population by up to 1,169 residents. This increase represents approximately 1.6 percent of the City's 2005 population as estimated by SCAG; and 1.5 and 1.4 percent, respectively, of the City of Upland 2010 and 2020 projected populations. Since the proposed project is a General Plan Amendment, the projected populations by SCAG did not take into account the change in land use. Therefore, the proposed project would generate population in addition to what is forecasted by SCAG.

A population increase (without the project) of 16,556 residents is projected between 2005 and 2020 for the City of Upland, representing an annual average growth rate of 1.6 percent or approximately 1,100 residents per year. The projected increase of 1,170 residents in the City resulting from the proposed Master Plan housing stock increase is incremental and is not considered significant when considering the total population increase projected for the City between 2005 and 2020. In comparison, the population of the County of San Bernardino is forecast to grow by an average of 1.7 percent per year during this same 15-year period. Due to the fact that the City's population is forecasted to grow at the same rate as that of the County, the forecasted population growth in the City is not considered substantial relative to the surrounding areas.

The development of the proposed project would not be anticipated to sustain a significant migration of new residents into the City. Any population increase that may result from the implementation of the proposed project would be consistent with the population increases previously projected by SCAG for the City and the County of San Bernardino; therefore, no significant growth inducing impacts would occur.

As for growth inducing impacts for housing, SCAG projections indicate (Table 4.14-5) that by 2020, the number of housing units in the City would grow to 32,486 units. This growth represents an increase of 6,531 units (or 25.6%) from the 25,955 units in 2005 as estimated by SCAG. The 400 housing units that would be developed with the proposed project represent an incremental increase of approximately 6 percent over the projected future (2020) housing stock.

The addition of 400 housing units is incremental and at the same annual rate as that has previously been anticipated by SCAG; therefore, no significant housing-related impact would occur.

The proposed project would result in the construction and operation of approximately 100,000 square feet of retail uses. The extent to which the new jobs created by a project are filled by existing residents is a factor which tends to reduce the growth inducing effect of a project. Because the project site is located within an urbanized area from which to draw contractors and tradespersons, the short-term construction jobs created as a result of the proposed project are anticipated to be filled by workers who, for the most part, would reside in the local area. Therefore, construction of the proposed project would not generate a permanent increase in population within the proposed Master Plan.

The commercial development envisioned as part of the proposed project is anticipated to accommodate smaller retail, service, and convenience uses that would serve residents of the project area and the surrounding areas. Utilizing an employment factor of one employee for every 500 square feet of retail space, the retail component of the proposed project would result in the creation of up to 160 new jobs in the City. These 160 jobs represent an incremental increase of approximately 0.4 and 0.30 percent over the total employment projected in the City in 2010 and 2020, respectively.

The proposed commercial uses are not anticipated to create a regional employment draw into the City of Upland. Because of the scale and type of the commercial uses proposed, it is likely that any new position created would be filled by the existing City residents.

The jobs-to-housing ratio measures the extent to which job opportunities in a given geographic area are sufficient to meet the employment needs of area residents. This ratio identifies the number of jobs available in a given region compared to the number of housing units in the same region. For example, a region with a jobs-to-housing factor of 1.5 would indicate that 1.5 jobs exist for every housing unit within that region. A city or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a “jobs poor” area, indicating that many of the residents must commute to places of employment outside the sub-area. The most current (2005) jobs-to-housing ratios for the City and County are 1.48 and 1.18, respectively. This ratio indicates that in the City, there are 1.48 jobs for every household. The future (2020) jobs-to-housing ratios for the City and County are 1.47 and 1.28, respectively. Under current and future conditions, the City provides employment for a greater percentage of its local residents, than the County. The new employment opportunities created by the operation of the proposed commercial uses would contribute to maintenance of the City’s current and future jobs-to-housing balance.

Because of the short-term nature of construction-related jobs, the incremental increase in employment, and in light of the City’s current jobs-to-housing balance, no significant employment impact would result from the development of the proposed project.

Development of the proposed project would have a negligible effect on local and regional population, housing, and employment forecasts and therefore would not result in impacts that are environmentally significant. The project site is located within an urban area to which all required public services and utilities can be provided. The incremental growth resulting from the proposed development is not anticipated to be significant.

Mitigation Measures

No mitigations measures are required.

5.0 CUMULATIVE IMPACTS

This Chapter of the EIR describes the potential cumulative impacts that may result from the implementation of the proposed Baseline Road Master Plan when evaluated in conjunction with other planned or reasonably foreseeable projects in the area. The proposed project's environmental impacts and required mitigation measures to incrementally reduce cumulative impacts have already been discussed in Sections 4.1 through 4.14.

5.1 INTRODUCTION

California Environmental Quality Act (CEQA) Guidelines Section 15355 defines a cumulative impact as one that is created as a result of a combination of the proposed project together with other projects causing related impacts. The guidelines provide guidance concerning the format and content of a cumulative impact analysis by stating that an EIR shall discuss cumulative impacts of a project when its incremental effect is cumulatively considerable. This section discusses the potential cumulative impacts to the environment that may result from the implementation of the proposed Master Plan when considered with other planned or reasonably foreseeable projects. CEQA Guidelines, Section 15130, provides the following guidance concerning the format and content of the cumulative impacts analysis:

(a) (1) …a cumulative impact consists of an impact, which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.

(2) When the combined cumulative impact associated with the project's incremental effect and the effect of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR.

When discussing cumulative impacts:

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness. The following elements are necessary to an adequate discussion of cumulative impacts:

(1) Either:

A. A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

B. A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified which described or evaluated regional or area-wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

To address potential cumulative impacts, a list of proposed/pending projects located in the vicinity of the Baseline Road Master Plan was compiled from an approximate 1½-to-2 mile radius of the project site. This radius encompasses lands within the cities of Claremont, Upland, Montclair and Rancho Cucamonga. A total of 38 sites were identified (related or cumulative) and 28 of these cumulative projects were included in this study. These cumulative projects are in some stage of the approval/entitlements process, ranging from projects that are under construction to projects that are proceeding through the planning process. Of the 28 planned and/or approved, cumulative projects that were considered in this analysis, ten cumulative projects are located in the City of Claremont, 16 cumulative projects are located in the City of Upland and one cumulative project is located in each of the cities of Rancho Cucamonga and Montclair. The ten cumulative projects that were excluded from this analysis were either too small (part of the ambient growth factor) or ancillary uses to existing development.

Figure 5-1 presents the general location of the 38 cumulative projects with respect to the Master Plan project site. Table 5.1 provides the location and a brief description for each of the 38 cumulative projects that were identified, as well as which cumulative projects were excluded and the reason for exclusion. The cumulative project's reference number, description (land use type), and size of development are presented in this table.

5.2 STANDARDS OF SIGNIFICANCE

CEQA Guidelines Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The Guidelines further state:

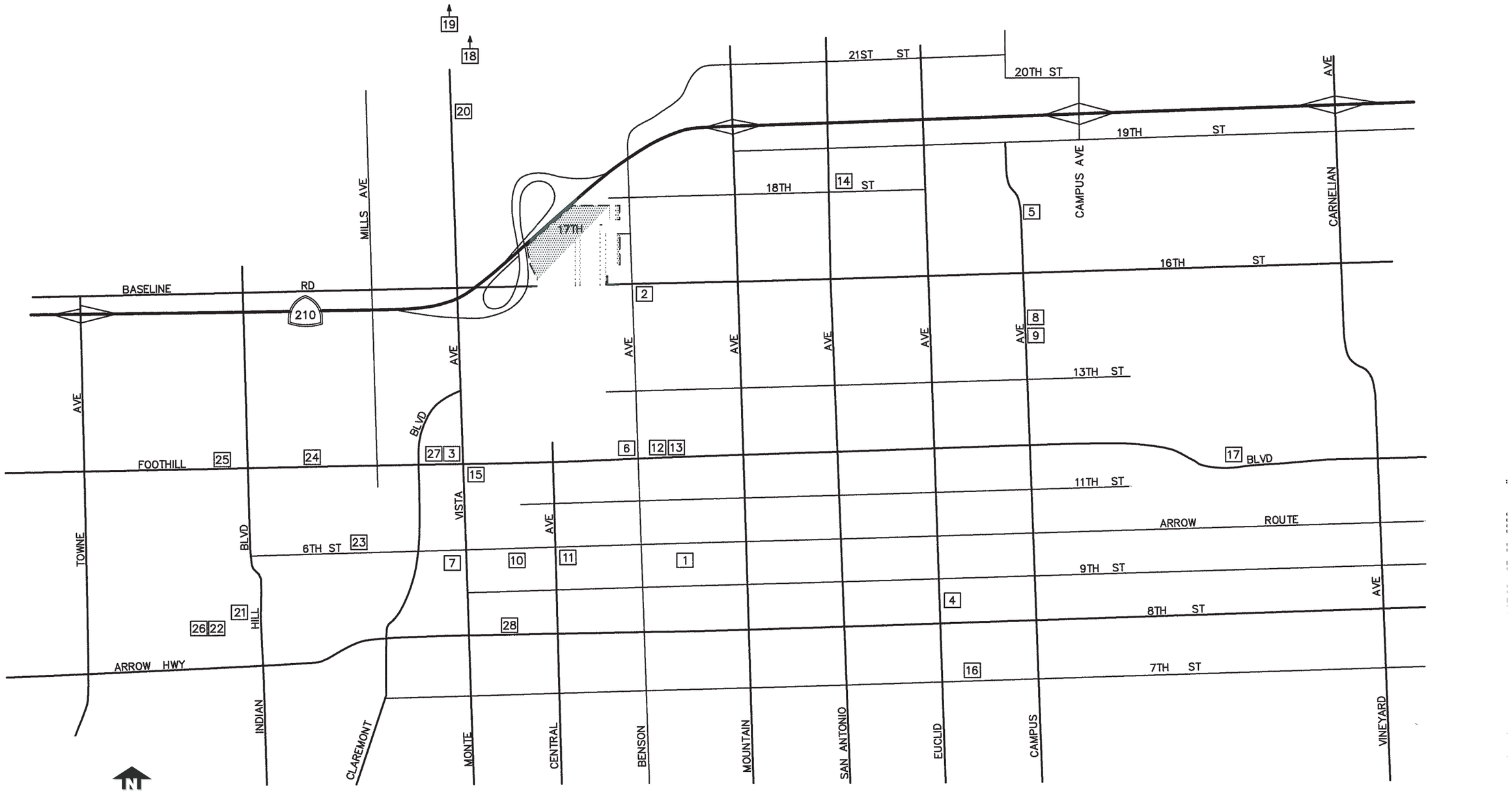
a. The individual effects may be changes resulting from a single project or a number of separate projects.
b. The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

A cumulative significant impact was identified for the following issue:

- Air Quality

Aesthetics – The proposed Master Plan would be developed in an area that is currently developed as an abandoned aggregate mine, and a recycling/demolition facility; the site is designated as Open Space within the City of Upland.

The proposed project in conjunction with the industrial, commercial and residential projects shown in Table 5-1 would continue to transform the City's skyline and urban character. However, any new development plan would be reviewed by the City for compatible design elements. The City of Upland has established design standards for various land uses in order to ensure orderly and consistent development that as a whole represents a pleasant place to live and work.



NOT TO SCALE

Map Prepared By
Lilburn Corporation
Source
Linscott, Law & Greenspan Engineers, 2006.

KEY

[#] = RELATED PROJECT LOCATION

= PROJECT SITE

Location of Cumulative Projects

Baseline Road Master Plan
Upland, California

Figure 5-1

Prepared By:
LILBURN CORPORATION

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Table 5-1
Location and Description of Cumulative Projects

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
City of Upland					
(1)	Warehouse Buildings	1431 West 9th Street	10,400 SF Warehouse	**Yes**	---
(2)	Office Buildings	Southeast corner of Benson Ave and 16th St	15,412 SF Office	**Yes**	---
(3)	Jack in the Box	Northwest corner of Foothill Boulevard and Monte Vista Avenue	4,858 SF Fast Food Restaurant W/Drive-thru	**Yes**	---
(4)	Retail/Dental Office Building	East side of Euclid Ave and south of 9th Street	2,219 SF Retail and 2,457 SF Medical Office	**Yes**	---
(5)	The Colonies at San Antonio Mixed-Use Development[1]	South of 20th Street, north of 16th Street and generally east of Campus Avenue	350 Condominiums, 800 Single-Family Homes, 814,000 SF Shopping Center, 3,800 Seat Movie Theater, 80,000 SF Office Building, 150 Room Hotel, 40,000 SF Health Club, 4,000 SF Day Care Center, 6,000 SF High Turnover Restaurant, 2-12 Pump Gas Stations with Convenience Markets/Car Washes, 80,000 SF Auto Dealership[2]	**Yes**	---
(6)	Upland Commercial/Industrial Mixed-Use Master Plan[3]	Northwest corner of Benson Avenue and Foothill Boulevard	274,900 SF Industrial Park, 240,600 SF Office Uses, 402,700 SF Commercial Retail	**Yes**	---
(7)	College Park Mixed-Use Development[4]	Southwest corner of Monte Vista Avenue And Arrow Route	6,240 SF of Office Suites, 12,490 SF of Retail Shops, 12,480 SF of In-Line Food Uses and Restaurants, 9,225 SF of Fast-Food Restaurants, 16 pump Gas Station with Convenience Market, 97 Single Family Homes, 448 Apartments	**Yes**	---
(8)	Alexander Communities	Northeast corner of Campus Ave and 15th St	54-unit single family gated residential subdivision	**Yes**	---
(9)	Dry Dock Depot RV and Boat Storage Expansion	Southeast corner of Campus Ave and 15th St	Expansion includes addition of 11.4 acres with 900 spaces for RV and boat storage for a total of 22.7 acres with 1,720 spaces	**Yes**	---
(10)	Rancho Monte Vista Apartment Homes[5]	Located south of Arrow Route, west of Central Avenue	Potential development includes 280-unit of apartments to be developed in two phases	**Yes**	---
(11)	Office Building	460 N. Central Avenue	5,760 SF Office	**Yes**	---

Table 5-1
Location and Description of Cumulative Projects

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
(12)	Foothill Terrace	North of Foothill Blvd and east of Benson Ave	Townhomes – 47 DU	**Yes**	---
(13)	Foothill Walk	North of Foothill Blvd and east of Benson Ave	Townhomes – 72 DU	**Yes**	---
(14)	Emblem Development	525 West 18th Street	Single Family Homes – 24 DU	**Yes**	---
(15)	Upland Crossing	Southeast corner of Foothill Blvd and Monte Vista Ave	495 Single Family Homes and 45,000 SF of Commercial	**Yes**	---
(16)	Offices	North of 7th Street between First Avenue and Second Avenue	4,000 SF two story office building	**Yes**	---
---	J.E. Plount and Co.	20th St between Euclid Ave and Campus Ave	10 Single Family Detached	No	Too small (part of the ambient growth factor)
---	Upland Manors	Northwest corner of 20th Street and San Antonio Avenue	4 Single Family Detached	No	Too small (part of the ambient growth factor)
---	Condominiums	North of 9th Street and east of 11th Avenue	Condominiums – 5 DU	No	Too small (part of the ambient growth factor)
---	Dr. Fisher	406 Arrow Highway	2 Single Family Detached	No	Too small (part of the ambient growth factor)
---	Steve Macke	Northwest corner of Benson Avenue and Eureka Way	8 Single Family Detached	No	Too small (part of the ambient growth factor)
---	Hutton Development	Southeast corner of 20th Street and Mountain Avenue	9 Single Family Detached	No	Too small (part of the ambient growth factor)
---	John Plount	South of 20th Street and west of Euclid Avenue	15 Single Family Detached	No	Too small (part of the ambient growth factor)
---	John Plount	South of 20th Street and east of Euclid Avenue	10 Single Family Detached	No	Too small (part of the ambient growth factor)
City of Rancho Cucamonga					
(17)	Foothill Boulevard Condominiums[6]	North of Foothill Boulevard and east of San Bernardino Rd	219-unit Gated Residential Condominiums/Townhomes	**Yes**	---
City of Claremont					
(18)	Stone Canyon Preserve	Northeast corner of Padua Avenue and Mt. Baldy Road	95 Single Family Detached[7]	**Yes**	---
(19)	Mt. Baldy R.V. Park	Mt. Baldy Road and Glendora Ridge Road	227 R.V. Spaces	**Yes**	---

Table 5-1
Location and Description of Cumulative Projects

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
(20)	Padua Avenue Park	Padua Avenue between Mt. Baldy Road and Baseline Road	24 Acre Park	**Yes**	---
(21)	Olson/Village Walk	1st St/Indian Hill Blvd	75 Single Family Detached[8]	**Yes**	---
(22)	Citrus Height Packing House Adaptive Reuse	500 West 1st Street	108,000 SF of retail uses and 18 live-work lofts	**Yes**	---
(23)	Claremont Mckenna College	Northeast corner of 6th St and Amherst Ave	102 Bed Dormitory	**Yes**	---
(24)	Claremont Graduate School	North of 1300 North College Avenue	158 Apartments	**Yes**	---
(25)	Claremont Inn/Old School House S.P.	Northwest corner of Foothill Boulevard and Indian Hill Boulevard	Renovation of 194 hotel rooms, renovation/rehab of 107,000 SF of retail, 14,000 SF of new retail uses and 128 condominiums	**Yes**	---
(26)	Village Expansion[9]	West of Indian Hill Boulevard between the railroad and Bonita Ave	66,000 SF of retail, 41,000 SF of office, movie theatre (850 seats), 171 condominiums and 20 live-work lofts	**Yes**	---
(27)	Claremont Commons Project[10]	Northwest corner of Monte Vista Ave and Foothill Blvd	98,300 SF of retail uses	**Yes**	---
---	Shepherd Cove	Eastern Terminus of Shepherd Way	5 Single Family Detached	No	Too small (part of the ambient growth factor)
---	Pomona College	Northwest corner of 6th St and College Way	100,000 SF Academic Building	No	Ancillary use to college
City of Montclair:					
(28)	Montclair Downtown Specific Plan[10]	Area bounded by Huntington Row, Monte Vista Ave, Moreno St and Central Ave	230,500 SF retail and 3,200 condominiums	**Yes**	---

[1] Source: Traffic Impact Study for The Colonies at San Antonio Mixed-Use Development, prepared by Kimley-Horn and Associates, June 2002.
[2] Based on discussions with City of Upland Planning Department staff, 70% of the residential component and 60% of the commercial component of the Colonies project is completed and occupied.
[3] Source: Traffic Impact Study for Upland Commercial/Industrial Mixed-Use Master Plan, prepared by Urban Crossroads.
[4] Source: College Park Mixed-Use Development Traffic Impact Analysis Addendum, prepared by LLG Costa Mesa, March 2005.
[5] Source: Traffic Impact Study for Rancho Monte Vista Apartment Homes, prepared by LLG Costa Mesa, December 2003.
[6] Source: Traffic Impact Study for Foothill Boulevard Condominiums, prepared by LLG Costa Mesa, July 2003.
[7] The development total for the Stone Canyon Preserve project is 125 single family homes. Based on discussions with City of Claremont Planning Department staff, 30 dwelling units are currently occupied resulting in a development total of 95 single family homes.
[8] The development total for the Olson/Village Walk project is 178 single family homes. Based on discussions with City of Claremont Planning Department staff, 103 dwelling units are currently occupied resulting in a development total of 75 single family homes.
[9] Source: Traffic Impact Study for the Claremont Commons Project, prepared by LLG Pasadena
[10] Source: *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE) [Washington, D.C. (2003)].

The development of the proposed project would create new residential and commercial uses that would meet the growing demand for both residential and retail services. The surrounding areas to the east and north are residential in character. With the implementation of Mitigation Measures AVQ-1 and AVQ-2 development of the project site would not substantially degrade the visual character or quality of the project site and its surrounding area. Therefore, cumulative impacts are anticipated to be less than significant.

Air Quality – Cumulative projects would generate emissions of criteria pollutants as listed in Table 5-2. Individually, many of these projects may not exceed SCAQMD thresholds of significance. However, vehicle trips associated with commercial and retail land uses in conjunction with trips for fast food restaurants, the vehicular trips associated with the proposed project, and other projects as listed in table 5-1, would result in significant cumulative impacts to air quality. Refer to Appendix G for modeling results of cumulative projects per URBEMIS 2007 Air Quality Model Results.

Impacts to air quality can only be minimized by compliance with SCAQMD rules and regulations, and implementation of measures recommended in the 2003 Air Quality Management Plan, project-related EIRs, and the county's and cities' General Plans. Some of these measures include the implementation of construction-related mitigation measures such as dust control and equipment and vehicle maintenance, and the implementation of best available control technology for industrial, mining, and manufacturing projects. With the implementation of Mitigation Measures AQ-1 thru AQ-5, cumulative impacts would continue to be significant.

Table 5-2
Cumulative Operational Emissions

Source	Emissions (lb/day)					
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Area Source Emissions	1,455.7	230.9	3,003.8	455.7	438.7	298,597.6
Mobile Source Emissions	1,890.1	2,880.2	19,758.3	2,826.73	559.8	1,543,476.5
Total	**3,345.9**	**3,111.1**	**22,762.0**	**3,282.4**	**998.4**	**1,842,074.1**
SCAQMD Threshold	55	55	550	150	55	None
Significant	**YES**	**YES**	**YES**	**YES**	**YES**	

Biological Resources – Continued development in the vicinity has impacted wildlife and wildlife habitat. Wildlife will have fewer resource areas to use, although most of these are already surrounded by development. Increased traffic may also result in increased mortality of native wildlife (road kills). Potentially significant impacts to biological resources associated with the proposed project are related to the potential for impacts to endangered or threatened species or their habitat. Construction of the Baseline Road Master Plan will impact costal sage scrub, however the biological assessment prepared for the project determined that the species is isolated and of generally poor quality and thus not a significant impact. With the implementation of Mitigation Measures BIO-1 thru BIO-4, project level impacts are anticipated to be less than significant.

The trend of urbanization is generally permitted pursuant to the General Plans of the cities in San Bernardino County. Growth and development occur on a permit-by-permit basis and parcel-by-parcel basis. Effective mitigation must provide large-scale sites that can be preserved in spite of the continued urbanization. Projects requiring mitigation will need to contribute proportionally to these open space areas. Until such time as a valley-wide multi-species Habitat Conservation Plan is implemented, each project must provide mitigation and compensation through individual Habitat Conservation Plans.

Prior to commencement of any other development projects in the area, developers are required to conduct surveys for listed or candidate species potential that would be potentially impacted. If determined necessary, agreements will be required or mitigation lands will be necessary to offset significant impacts to sensitive species and/or loss of habitat. Therefore, cumulative impacts to biological resources are anticipated to be less than significant.

Cultural Resources – A Cultural Resources Assessment (Appendix D) of the propose project site and a records search failed to indicate the presence of any previously recorded prehistoric or historic resources within the project site. The findings of the field study were also negative. A thorough investigation has failed to reveal the presence of any cultural resources within the study area. With the implementation of Mitigation Measures C-1 thru C-4, project level impacts are anticipated to be less than significant.

The preservation of cultural resources is important to maintaining accurate historic and prehistoric records, and to mitigating potentially significant impacts. Record searches, surveys, and excavation monitoring should be required prior to the issuance of grading permits for all listed cumulative projects. Mitigation typically requires preservation and/or relocation/cataloging of findings and artifacts. Therefore, the project's incremental impact on cultural resources would not be cumulatively significant.

Geology and Soils – Impacts resulting from grading and construction of development projects in the area, including cut and fill operations, would potentially alter the natural topography of the region.

The project site as well as all of southern California is located in a seismically active region. The proposed project would not increase the level of exposure of people to geologic or seismic hazards. With the implementation of Mitigation Measures G-1 thru G-5 impacts associated with the project are anticipated to be less than significant. Cumulatively, the projects proposed in the area will result in additional development in an area of seismic vulnerability. Permanent structures cannot be constructed in Alquist-Priolo Zones; geologic investigations will be required prior to the permitting of any development project. In addition, the Uniform Building Code addresses requirements for construction to withstand earthquakes and associated groundshaking, settlement, etc. Therefore, cumulative impacts are anticipated to be less than significant.

Hazards - The proposed Master Plan includes uses that would store, use and dispose of hazardous materials typical of motor vehicle related uses such as gas stations. With the implementation of Mitigation Measures H-1 thru H-4, project level impacts are anticipated to be less than significant. Cumulative projects include a number of new warehouse facilities, RV

sales lots and some other commercial uses that could potentially include service stations. The transport, use, storage and disposal of hazardous materials would increase incrementally as development continues in the area. However, the proposed project and related projects (other than residential) are regulated by local, state and federal agencies for hazardous materials, and must show proof of compliance with all applicable regulations. Therefore, impacts resulting from the storage, use, or transportation of hazardous materials are not anticipated to be cumulatively significant.

Hydrology and Water Quality- As development occurs, local water resources, surface and underground, would be incrementally impacted as soils are covered over, runoff is increased, and more urban pollutants are introduced into the local and regional storm drain systems. In addition, urban pollutants associated with parking lots, roads, and landscaping, combine with stormwater that ultimately ends up in the Santa Ana River. Stormwater and discharge requirements are primarily administered by the Santa Ana Regional Water Quality Control Board (RWQCB) and Army Corp of engineers (ACOE) that require individual projects to employ Best Management Practices (BMPs) to control urban runoff from each site during construction. The RWQCB is also responsible for reviewing each project's Water Quality Management Plan (WQMP) for long-term operation and issuing the Waste Discharge Requirements for each project. Project related impacts are anticipated to be less than significant with the implementation of Mitigation Measures HWQ-1 thru HWQ-7. Employing BMPs that reduce the potential for storm water discharges to affect water quality have been proven successful when implemented at construction projects. Therefore impacts to hydrology and water quality are anticipated to be cumulatively significant as mitigation measures are implemented on a project-by-project basis.

Land Use/Planning - The project site is located adjacent to single-family residences. The proposed Park View Specific Plan includes medium-density housing that would be developed adjacent to the existing residences to the east. The commercial and retail uses would be sited further away to the west from the existing residential development. Therefore, the proposed Master Plan would be compatible with adjacent existing uses with the implementation of Mitigation Measure LU-1. Cumulative projects include a variety of residential, commercial, industrial uses that could result in an incompatible development depending on the surrounding land uses. However, a City's General Plan and Zoning Ordinance ensures that land uses are compatible or that they can provide buffers between uses in order to reduce potential land use conflicts. Additionally, development standards would be incorporated in the proposed development to resolve any other potential land use conflicts. Therefore, this impact to land use/planning would not be cumulatively significant.

Mineral Resources – The Master Plan area lies within an area defined by the California Department of Conservation, and Division of Mines and Geology, as a resource Sector B because of its location near the San Antonio alluvial fan. The Department of Conservation concluded in 2005 that an estimated 1,350 million tons of aggregate resources exist in the Claremont-Upland Production-Consumption Region. Although these resources exist, the majority of the resources lack appropriate permits for extraction (mining). Consequently, currently permitted reserves are not adequate for supplying construction aggregate to the region for the next fifty years. Projections of needed aggregate equal approximately 245 million tons to supply the region until the year 2031. In 2005, only 55 million tons of permitted aggregate

reserves remained within the production-consumption region, which was estimated to deplete in 10 years. With implementation of the Master Plan, 3.25 million tons of resources would be lost. However, this loss is not considered regionally significant. Where feasible, consideration is given to the mineral resource potential of any properties before they are approved for urban development. Similarly, most of the City of Upland is builtout. Therefore, the cumulative loss of 3.25 million tons of resources, which is considered locally significant (refer to Section 4.8) is not anticipated to be significant on a regional level.

Noise - Noise sources associated with the proposed project are related to: 1) introduction of new uses to an existing underdeveloped area; and 2) vehicle trips that when combined with traffic generated by other related projects would increase the ambient noise levels in the vicinity.

The Baseline Road Master Plan is located in an area that is already exposed to noise from State Route-210 (SR-210) and Baseline Road. Continuing development in the area will result in further increases in noise levels. However, the City of Upland is mostly built out and the noise levels are practically established. Short-term construction impacts are mitigated by limiting the times of day construction activities can occur and they are temporary, ending when the construction schedule is completed. With the implementation of Mitigation Measures NOI-1 thru NOI-8, project level impacts are anticipated to be less than significant.

Long-term noise is associated with new commercial and residential uses and associated new vehicle trips. Area roadways are projected to experience significant noise impacts due to area-wide growth in general. Therefore, increases in ambient noise in the area would be cumulatively significant. However, the minimization of noise impacts can occur with appropriate project design; both to alleviate noise generation from the project and to alleviate noise impacts to sensitive receptors. Noise barriers should be constructed for all schools, residential areas, and parks that could be impacted by traffic noise. With the compliance of appropriate City and/or County noise standards cumulative impacts are anticipated to be less than significant.

Transportation and Traffic - The Traffic Impact Analysis prepared for the project included an analysis of future conditions in 2009 and 2025 that took into account ambient growth in the area. Mitigation measures, including fair-share payment of fees for roadway and freeway improvements, would ensure that future levels of service (LOS) in the area would remain at LOS D or better. Therefore, cumulative impacts associated with transportation and circulation are anticipated to be less than significant with the implementation of Mitigation Measures TC-1 thru TC-2.

Public Services – The creation of new residential, commercial and recreational uses from the development of the proposed Master Plan and other cumulative projects could increase the need for additional public services. The impacts on public services will be mitigated through each municipality’s development impact fees. The development impact fees are designed to meet the financial requirements of such service expansions and are based on approved development plans for service areas within the agencies' jurisdiction. New development would be subject to permitting and development fees. Therefore, cumulative impacts to public services are not anticipated to be significant.

Public Utilities and Infrastructure - These include water service, sewer service and wastewater treatment, and solid waste disposal. With the implementation of Mitigation Measures PU-1 thru PU-4, project level impacts are anticipated to be less than significant. Cumulative projects in the area, including the project, would add incrementally to the use of these systems. Long-range planning on the part of the various agencies responsible for maintaining and upgrading these systems take into account assumptions made by individual cities and counties about community growth and what will be required to maintain adequate utilities and infrastructure. Expansion of utility systems and infrastructure will be met by the payment of impact fees as new projects are approved and permitted on a project- by-project basis and therefore cumulative impacts to public utilities are anticipated to be less than significant.

Population and Housing – The estimated population growth from the Baseline Road Master Plan is consistent with SCAG's projections. The cumulative projects are listed in Table 5-1, and their locations are shown in Figure 5-1. Buildout of the projects listed on Table 5-1 would result in the addition of 6,713 residential units with an estimated population of nearly 18,530 residents in the area. The demands for services and utilities and other resources, resulting from this growth will be significant. The planning processes carried out by the cities and the County are expected to address SCAG's long range planning objectives and the demands associated with the growth that will result from buildout of the area. No significant cumulative impacts are anticipated.

5.3 SUMMARY

The proposed Master Plan, in conjunction with other proposed project identified in Table 5-1 would result in cumulative significant impacts to Air Quality.

6.0 ALTERNATIVES

6.1 INTRODUCTION

This chapter evaluates alternatives to the proposed project that would reduce or eliminate the significant environmental impacts that would occur with implementation of the Baseline Road Master Plan.

CEQA Guidelines Section 15126.6 describes the consideration and discussion of alternatives to a proposed project. The Guidelines state that an EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly obtain most of the basic objectives of the project but avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. An EIR does not need to consider every conceivable alternative to the project, but must consider a range of reasonable alternatives that would facilitate informed decision making and public participation.

The range of alternatives is governed by the "rule of reason", thus the EIR need only evaluate those alternatives necessary to permit a reasoned choice. Alternatives should be limited to only those that would avoid or substantially lessen any significant effects of the project. Also, an EIR should not consider alternatives with effects that cannot be reasonably ascertained and whose implementation is remote and speculative.

The EIR has focused on direct and indirect effects on the environment that would result from implementation of the proposed project. Direct environmental impacts of the project are expected related to air quality, biological resources, geologic hazards, hazardous waste and/or materials/risk of upset, hydrology and water quality, land use, noise, recreation, and traffic and circulation. All direct impacts can be mitigated to a level that is considered less than significant with the exception of those associated with traffic and circulation, and air quality.

The project alternatives evaluated in this section are the following:

- No-Project-No-Development Alternative
- Buildout Under the Existing General Plan Alternative (Flood Control/Mining[1])
- Park Access Alternative
- Development of the City Sports Park only, and Mining
- Development of the City Sports Park, and Major Commercial Tenant
- Development of the City Sports Park, and Single-family Residential

The Environmentally Superior Alternative will be selected from among these alternatives and the proposed project. An alternative that is environmentally superior would result in the fewest or least significant environmental impacts and still be able to achieve the objectives of the planning effort. Based on the evaluation of the five alternatives in this section, implementation of the No-Project-No Development Alternative would result in fewer impacts than the proposed project.

[1] The project site is designated as Open Space with an approved mine plan.

The analysis of alternatives includes the assumption that all applicable mitigation measures associated with the project will be implemented with the appropriate alternatives. However, applicable mitigation measures may be scaled to reduce or avoid the potential impacts of the alternative under consideration and may not precisely match those identified for the proposed project. Table 6-1 is a summary of the level of Alternative project impacts compared to the proposed project.

Table 6-1
Impact Comparison of Proposed and Alternative Projects

Environmental Issues/Effect	Proposed Project	No Project Alternative	Buildout Under the Existing General Plan Alternative	Park Access Alternative	City Sports Park, and Mining Alternative	City Sports Park, and Major Commercial Tenants Alternative	City Sports Park, and Single-family Residential Tract Alternative
Aesthetics and Visual Quality	Less Than Significant With Mitigation	Less Impact	Less Impact	Similar Impact	Less Impact	Similar Impact	Less Impact
Air Quality	Potentially Significant	Less Impact	Less Impact	Similar Impact	Less Impact	Similar Impact	Similar Impact
Biological Resources	Less Than Significant With Mitigation	Less Impact	Less Impact	Similar Impact	Less Impact	Similar Impact	Similar Impact
Cultural Resources	Less Than Significant With Mitigation	Greater Impacts	Similar Impact	Similar Impact	Similar Impact	Similar Impact	Similar Impact
Geology and Soils	Less Than Significant With Mitigation	Less Impact	Less Impact	Similar Impact	Less Impact	Similar Impact	Similar Impact
Hazards	Less Than Significant With Mitigation	Less Impact	Similar Impact	Similar Impact	Similar Impact	Similar Impact	Less Impact
Hydrology and Water Quality	Less Than Significant With Mitigation	Less Impact	Less Impact	Similar Impact	Less Impact	Similar Impact	Similar Impact
Land Use	Less Than Significant With Mitigation	Less Impact	Greater Impact	Similar Impact	Greater Impact	Greater Impact	Similar Impact
Mineral Resources	Potentially Significant	Less Impact	Less Impact	Similar Impact	Less Impact	Similar Impact	Similar Impact
Noise	Less Than Significant With Mitigation	Less Impact	Greater Impact	Similar Impact	Greater Impact	Greater Impact	Less Impact
Traffic and Circulation	Less Than Significant With Mitigation	Less Impact	Less Impact	Greater Impact	Less Impact	Greater Impact	Less Impact
Public Services	Less Than Significant With Mitigation	Less Impact	Less Impact	Similar Impact	Less Impact	Similar Impact	Less Impact
Public Utilities and Infrastructure	Less Than Significant	Less Impact	Less Impact	Similar Impact	Less Impact	Similar Impact	Less Impact
Population and Housing	Less Than Significant	Less Impact	Less Impact	Similar Impact	Less Impact	Less Impact	Less Impact
Environmental Findings	Potentially Significant	Less Impact	Less Impact	Similar Impact	Similar Impact	Greater Impact	Less Impact

6.1.1 Project Description

The Baseline Road Master Plan is a proposed mixed use project located on approximately 99 acres within the cities of Upland and Claremont that incorporates a 42-acre Specific Plan known as the Park View Specific Plan and a 57-acre City Sports Park. The Baseline Road Master Plan (Master Plan) is located on the north side of Baseline Road between Benson Avenue on the east and State Route –210 (SR-210) on the west. Approximately 96.6 acres of this land is located in the City of Upland, San Bernardino County and approximately 2.4 acres are located in the City of Claremont, Los Angeles County.

The Master Plan incorporates the proposed Park View Specific Plan to allow for approximately 32 acres of residential, and approximately 10 acres of commercial development. The City Sports Park is also incorporated in the Master Plan to allow recreational development on approximately 57 acres of property.

Allied Retail Partners, LLC, is proposing to develop the Park View Specific Plan Portion of the Master Plan area into distinct commercial and residential areas. Of the 42 acres, approximately 10 acres will be retail containing up to 100,000 square feet of commercial building area. The remaining approximately 32 acres will be residential containing densities of 10 to 20[2] units per acre, for up to 400 housing units.

The City Sports Park area encompasses approximately 57 acres and is located immediately north of the Park View Specific Plan portion, the City Sports Park portion of the Master Plan is owned by the City of Upland. The City intends to design a City Sports Park that would be compatible with the existing water development and water conservation uses on-site. The proposed City Sports Park amenities include six soccer fields (two of which convert into softball fields), two tennis courts, a basketball court, a volleyball court, a "Tot Lot", a small community amphitheater, and a concession stand.

6.1.2 Project Objectives

CEQA Guidelines Section 15124(b) requires that the project description include a statement of objectives sought by the proposed project. The intent is to aid the lead agency and decision makers in evaluating the project alternatives and in making findings or statements of overriding consideration, if necessary. The primary project objectives are.

City's General Land Development Project Objectives

- Provide a beneficial use for the underutilized mine pit. The development of the mining pit (City Sports Park portion) as a combined use park/flood control basin will allow for the multiple uses benefiting the City's residences and enhancing the visual character of the reclaimed mining pit.

[2] Density transfer in the residential development allows density of up to 20 dwelling units per acre.

- Provide for the highest and best use of the property while assisting in balancing the housing to jobs ratio of the City, and providing a long-term taxable revenue base for the City.

- Providing adequate buffers between proposed residential, commercial, and City Sports Park uses and adjacent residential uses, and mitigating all potentially significant environmental impacts of the proposed land uses.

City Sports Park Component Project Objectives

- Maximize public active and passive uses in conjunction with other complementary public uses such as water conservation and recharge and flood control.

- Provide opportunities for active and passive, parkland use.

- Increase in the quantity of parklands: The City of Upland contains approximately 2.2 acres of developed parkland per thousand residents. The City has determined the need for more developed park acreage.

Park View Specific Plan Project Objectives

- Combine residential land uses, recreational amenities, and commercial services to create a livable mixed use community.
- The circulation plan for the Specific Plan area should provide a comprehensive system of streets accommodating bicycle and pedestrian travel, while providing for the safe and efficient movement of automobiles.
- Provide for the development of adequate infrastructure and public facilities to serve the community as development is constructed.
- Develop new parks, bike trails, and pedestrian trail amenities to enhance outdoor recreational opportunities for residents.
- Provide for diverse and varied architecture combined with comprehensive site planning within the Specific Plan area to create a harmonious community aesthetically and functionally, preserving residents privacy, and encouraging neighborhood interaction.
- Provide for a Development Plan compatible with surrounding residential and non-residential land uses.

6.2 ALTERNATIVES CONSIDERED AND REJECTED

CEQA Guidelines 15126.6(c) requires that an EIR identify any alternatives that were considered and rejected as infeasible, and briefly explain the reasons for rejection.

Alternative Location for the Master Plan

The evaluation of an alternative location is difficult because the City of Upland is an older established City with few vacant developable parcels remaining in the City that are of similar size. A review of undeveloped properties in the City showed that the proposed project could not feasibly be developed at another site, not already being considered for development. The City of Upland owns approximately 60 percent of the Master Plan site. No alternative sites were considered because the proposed project represents the last available parcel of this size within the City limits. No site outside the City's corporate boundary was considered.

Alternative Development of the Park View Specific Plan

An alternative to develop high rise/high density multifamily apartment or townhouse development was also rejected because, such a project would be at a height and would violate the cable airport safety zone requirements for high density residential within the cable airport safety zone.

6.3 EVALUATION OF FEASIBLE ALTERNATIVES

The following alternatives to the proposed project were evaluated:

- No-Project-No-Development Alternative: Under this alternative the Master Plan would not be adopted. The existing approximately 99 acres would remain unchanged. The existing commercial business (Intravaia Rock and Sand, Inc.) would continue to operate. This alternative is similar to the discussion of existing conditions for each issue addressed in Chapter 4.0, Environmental Impact Evaluation (e.g., aesthetics, air quality, biological resources, etc.).

- Buildout Under the Existing General Plan Alternative (Flood Control/Mining): The Park View Specific Plan would not be developed with the mixed-use development. Instead, existing uses would continue as follows:

    - Approximately 42 acres in four parcels fronting Baseline Road would consist of:

        - Approximately 23 acres representing Basin 1 of the Holliday Rock Mine Reclamation Plan (adopted August 2003). It is designed to be offset approximately 165 feet north of Baseline Road, 117 feet from its eastern boundary, and 50 feet southeast from SR-210 right-of–way. Aggregate reserves are estimated at approximately 1.4 million cubic yards. Basin 1 will have a final floor elevation of 1,502 above sea level at the southern end of the quarry with a depth of 50 feet and a final floor elevation of 1,504 above sea level at the northern end of the quarry with a depth of about 100 feet due to natural ground elevation changes. All aggregate processing would occur off-site.

          The basin would be developed with a 2:1 (horizontal to vertical) slopes. Fences for safety and interceptor ditches for run-off control will be constructed around

the pit rims as it is developed. The finished basin floor will be graded to drain from north to south. The basin would ultimately be connected to the other basins in the Holliday Rock plan to allow the basins to drain into the lower basins.

- A 6.75-acre parcel owned by Upland Gateway, LLC, which currently contains a composting/demolition and recycling operation (Intravaia Rock and Sand, Inc.).

- A 9.50-acre parcel which contains a water well/access road currently owned and leased by Upland Gateway, LLC to the Southern California Water Company, a private water company.

- Approximately 2.4 acres within the City of Claremont.

- Approximately 57 acres that make up the City owned mine pit would remain as flood control, open space and groundwater percolation as currently occurs.

- Park Access Alternative: The Park View Specific Plan area would be developed into a mixed-use development consisting of approximately 100,000 square feet of commercial uses and up to 400 dwelling units. Approximately 57 acres of the Master Plan would be developed as a City Sports Park. Access to the City Sports Park would be from the northwest corner of Benson Avenue and 17th Street instead of through the Park View Specific Plan.

- Development of the City Sports Park only, no Park View Specific Plan Development but mining (as permitted under the General Plan) would occur: The mixed-use development would not be developed, no general plan amendment would occur and only the park site would be developed. The following scenario is assumed:

  Approximately 57-acre park site in a reclaimed mine pit would consist of:

  - 6 soccer fields (two could be converted to soft ball fields)
  - 2 tennis courts
  - 1 basketball court
  - "Tot lot"
  - Small community amphitheater
  - Concession stand
  - Access to the City Sports Park would be from 17th Street

  Approximately 42 acres in four parcels fronting Baseline Road would consist of:

  - Approximately 23 acres representing Basin 1 of the Holliday Rock Mine Reclamation Plan (adopted August 2003). It is designed to be offset approximately 165 feet north of Baseline Road, 117 feet from its eastern boundary, and 50 feet southeast from SR-210 right-of–way. Aggregate reserves are estimated at approximately 1.4 million cubic yards. Basin 1 will have a final floor elevation of 1,502 above sea level at the southern end of the quarry with a depth of 50 feet and a

final floor elevation of 1,504 above sea level at the northern end of the quarry with a depth of about 100 feet due to natural ground elevation changes. All aggregate processing would occur off-site.

The basin would be developed with a 2:1 (horizontal to vertical) slopes. Fences for safety and interceptor ditches for run-off control will be constructed around the pit rims as it is developed. The finished basin floor will be graded to drain from north to south. The basin would ultimately be connected to the other basins in the Holliday Rock plan to allow the basins to drain into the lower basins.

- A 6.75-acre parcel owned by Upland Gateway, LLC, which currently contains a composting/demolition and recycling operation (Intravaia Rock and Sand, Inc.).

- A 9.5-acre parcel which contains a water well/access road currently owned and leased by Upland Gateway, LLC to the Southern California Water Company, a private water company.

- Approximately 2.4 acres within the City of Claremont.

- Development of the City Sports Park, Major Commercial Tenants: The Park View Specific Plan mixed-use development would be replaced by a highway-commercial shopping center consisting of approximately 460,000 square feet of commercial building. The following scenario is assumed:

  Approximately 57-acre City Sports Park site in a reclaimed mine pit would consist of:

  - 6 soccer fields (two could be converted to soft ball fields)
  - 2 tennis courts
  - 1 basketball court
  - "Tot lot"
  - Small community amphitheater
  - Concession stand
  - Access to the City Sports Park would be from 17th Street

  Approximately 42 acres in four parcels fronting Baseline Road designated open space would consist of:

  - Two large retail stores of approximately 225,000 and 136,000 square feet each,
  - Eight small to mid-size retails establishments totaling approximately 59,000 square feet of development.
  - Approximately 21,000 square feet of development in two buildings located in Claremont

- Development of the City Sports Park and Single Family Residential Tract: The commercial uses, currently proposed on approximately 10 acres of the Park View Specific Plan portion would not be developed, and a single-family residential tract on the

entire 42 acre specific plan area, at a lower density than what is currently being proposed, would be developed. The following scenario is assumed:

Approximately 57-acre City Sports Park site in a reclaimed mine pit would consist of:

- 6 soccer fields (two could be converted to soft ball fields)
- 2 tennis courts
- 1 basketball court
- "Tot lot"
- Small community amphitheater
- Concession stand
- Access to the City Sports Park would be from 17th Street

- Approximately 42 acres in four parcels fronting Baseline Road designated Open Space would consist of:

  - 168 Single Family Residences (4 dwelling units per acre).
  - Approximately 7,200 square-feet (net after roads, sidewalks, etc.) per dwelling unit.

6.4 ALTERNATIVES CONSIDERED FOR EVALUATION

6.4.1 No-Project-No-Development Alternative

Under this alternative, the Baseline Road Master Plan would not be adopted. The existing approximately 99 acres would remain unchanged. The existing commercial business (Intravaia Rock and Sand, Inc.) would continue to operate. This alternative is similar to the discussion of existing conditions for each issue addressed in Chapter 4.0 Environmental Impact Evaluation (e.g., aesthetics, air quality, biological resources, etc.).

Aesthetics and Visual Quality

The No-Project-No-Development Alternative would not have an impact on aesthetics and visual quality in the sense that no development would (no changes in the characteristics of the property) occur and therefore no impacts to visual resources are anticipated. No new sources of light and glare would be created, resulting in fewer impacts as compared to the proposed project.

Air Quality

The No-Project-No-Development Alternative would not generate any new vehicle trips and therefore, impacts to Air Quality are not anticipated. Also, no short-term construction impacts would occur. Therefore, this alternative would have fewer impacts as compared to the proposed project.

Biological Resources

The No-Project-No-Development Alternative would not be anticipated to adversely impact sensitive plant or wildlife species, as no changes would occur. Existing, conditions would remain unchanged. Biological impacts under this alternative would be considered less than those associated with the proposed project.

Cultural Resources

A Cultural Resource Assessment prepared in February 2004 determined the Master Plan would not adversely impact prehistoric or historic archaeological sites or uncover any paleontological resources. The No-Project-No-Development Alternative is anticipated to have greater impacts than the proposed project.

Geology and Soils

Under the No-Project-No-Development Alternative, no additional land uses would be proposed and therefore, impacts to structures due to seismic activities would be less than those associated with the proposed Master Plan.

Hazards

Under the No-Project-No-Development Alternative, no new commercial uses would be developed and therefore impacts from hazardous materials would not be anticipated. Impacts would be less than those associated with the proposed project.

Hydrology and Water Quality

Under the No-Project-No-Development Alternative, stormwater runoff would remain unchanged, and no new sources of urban pollutants would be generated as no development would be proposed. Therefore, impacts to water quality would be less than those associated with the proposed project.

Land Use

The No-Project-No-Development Alternative would not have an impact on land use, as new development would not be proposed. No General Plan Amendment or a Zone Change would be required. Impacts would be less than those associated with the proposed project.

Mineral Resources

The No-Project-No-Development Alternative would not have an impact on mineral resources, as existing conditions would remain unchanged. No loss of potential mineral resources would occur as would result with the proposed project. Thus impacts would be less than those associated with the proposed project.

Noise

The No-Project-No-Development Alternative would not result in a new source of noise, as existing conditions would remain unchanged. This alternative would have fewer impacts than the proposed Master Plan.

Traffic and Circulation

Under the No-Project-No-Development Alternative, new land uses would not be proposed and therefore, additional vehicle trips would not be generated. Vehicle trips currently generated by the existing land uses would remain unchanged. Therefore, impacts to traffic would be less than those associated with the proposed project.

Public Services

The No-Project-No-Development Alternative would not generate a need for additional public services. Fewer impacts would occur under this alternative when compared to the proposed project.

Public Utilities and Infrastructure

The No-Project-No-Development Alternative would not generate a need for additional Public Utilities or Infrastructure, as new development would not be proposed. Fewer impacts would occur under this alternative when compared to the proposed project.

Population and Housing

The No-Project/No-Development Alternative would not result in any indirect or direct population growth. Fewer impacts would occur under this alternative when compared to the proposed project.

Ability to Meet Project Objectives

The No-Project/No-Development Alternative would not meet the project objective of providing a beneficial use for the underutilized mine pit (City Park portion). The City of Upland would loose a long-term taxable revenue base. Other project objectives are to increase the quantity of parklands and provide opportunities for active and passive parkland use, provide diversity and choice of housing types and opportunities to address a variety of lifestyles and economic segments of marketplace. In summary, the No Project Alternative would be environmentally superior as no development and related adverse impacts would occur, however, this alternative would not meet any of the project objectives.

6.4.2 Buildout Under the Existing General Plan Alternative (Flood Control and Mining)

Under this alternative, the Park View Specific Plan portion of the project site would not be developed as a mixed-use development. Instead, existing uses would continue as follows:

- Approximately 42 acres in four parcels fronting Baseline Road designated as Open Space will consist of:
- Approximately 23-acre PVPA property representing Basin 1 of the Holliday Rock Mine Reclamation Plan (adopted August 2003) allowing extraction/mining of approximately 3,240,000 cubic yards of aggregate material over a 20-year period to depth of 250 feet.
- A 6.75-acre parcel owned by Upland Gateway, LLC, which currently contains a composting/demolition and recycling facility (Intravaia Rock and Sand, Inc.).
- A 9.5-acre parcel which contains a water well/access road currently owned and leased by Upland Gateway, LLC to the Southern California Water Company, a private water company
- Approximately 2.4 vacant acres within the City of Claremont
- Approximately 57 acres that make up the City owned mine pit would remain as flood control, open space and groundwater percolation.

General Plan Land Use Designations and Zoning Designations are shown for the project site and surrounding area in Table 6-2.

Table 6-2
Existing Land Use and General Plan/Zoning Designations

Direction	Existing Land Use	General Plan Designation	Zoning Designation
Park View Specific Plan	Composting/demolition and recycling facility on center parcel, water well and access road on east parcel (39.6 acres)	City of Upland: Open Space	Open Space
Park View Specific Plan	Open Space/Mining (2.acres)	City of Claremont: Commercial	Open Space
City Sports Park	Undeveloped Land (reclaimed sand and gravel pit) (57-acres)	City of Upland: Open Space	Open Space
North	SR-210 Single Family (Lemon Heights) at 18th Street and Benson Avenue Undeveloped Land (idled sand and gravel pit)	City of Upland: Single Family Residential (4 to 6 units per acre)	RS 7.5
South	Holliday Rock Foothill Quarry Mine	City of Upland: Flood Control	Open Space
East	75-foot wide easement owned by the City of Upland[3] – further east Residential (Mountain Shadows) at Baseline Road and Benson Avenue Self Storage Facility at 17th Street and Benson Water Treatment Plant at 18th Street and Benson Avenue	City of Upland: Single-Family Residential (6 du/ac) Light Industrial	RS 7.5 Light Industrial
West	SR-210 and Vacant Land	Public Facility	Open Space

[3] This easement (approximately 75 feet by 595 feet wide) may possibly be used as a landscape buffer and/or pedestrian access to the City Sports Park in the future.

Under this alternative the 42–acre Specific Plan portion site would remain Open Space with a permitted mine plan. The City of Upland General Plan identifies the following as permitted uses within the Open Space Zoning Designation:

- Natural resources (e.g., plant and animal life, ecological areas, etc.)
- Managed production of resources (e.g., forests, agricultural lands, mineral deposits, etc.)
- Outdoor recreation (i.e., scenic, historic, cultural areas, park and recreation area, etc.)
- Public health and safety (e.g., earthquake fault zones, floodplains, etc.)

Aesthetics and Visual Quality

Under the Buildout Under the Existing General Plan Alternative, no structures are proposed. However, mining operations would be visible for up to 20 years. After reclamation the final views of the project site would be restored to its pre-project conditions. Therefore, impacts to aesthetics and visual quality are considered to be less than those associated with the proposed Master Plan.

Air Quality

Under the Buildout Under the Existing General Plan Alternative, impacts to air quality would be less than significant than that of the proposed project. According to the SCAQMD Off-Road Mobile Source Emission Factors and EMFAC 2007 Emission Tables, air quality emissions for criteria pollutants would not exceed the threshold values under the Buildout under the Existing General Plan Alternative. Portions of the Park View Specific Plan portion would be mined (approved land use General Plan 1982, and Reclamation Plan) at a projected rate of 162,000 tons of aggregate per year, over the estimated operation life of 20 years at a permitted depth of 250 feet. Approximately 33 trucks would haul material daily. Truck exhaust emissions were estimated for a speed of 15 MPH and a 0.50-mile distance utilizing Off-Road Mobile Source Emission Factors from SCAQMD emission factors for 2006. The operational emissions totals for criteria pollutants (ROG, NO_X, CO, and PM_{10}) do not exceed the CEQA thresholds of significance unlike the proposed project. All aggregate processing would occur off-site. Impacts would be less than those associated with the proposed project. A detailed air quality analysis for this alternative is included as Appendix H in this EIR.

No change to the proposed 57-acre City Sports Park site is anticipated, as the site will continue to be used as a flood control basin. This alternative would have fewer impacts to air quality as compared to the proposed project.

Biological Resources

Under the Buildout Under the Existing General Plan Alternative, impacts to biological resources would be similar to those addressed within the Master Plan, as approximately 25 acres of the Specific Plan Portion of the site would likely be disturbed for the duration of the mining operations. However, pursuant to reclamation of the project site after the mining operations terminate, the project site is to be restored to its pre-project conditions, and would have a

potential to recover some loss of biological resources. Therefore, impacts to biological resources are considered to be less than that of the proposed Master Plan.

Cultural Resources

Under the Buildout Under the Existing General Plan Alternative, impacts to cultural resources would be similar to those addressed within the Master Plan, as approximately 25 acres of the Specific Plan Portion of the site would likely be disturbed. Therefore the Buildout Under the Existing General Plan Alternative would have similar impacts to the proposed project.

Geology and Soils

Under the Buildout Under the Existing General Plan Alternative, no structures are proposed and therefore no impacts to geology and soils are anticipated compared to those of the proposed Master Plan.

Hazards

Under the Buildout Under the Existing General Plan Alternative, impacts associated with the transport, use, storage and disposal of hazardous materials would likely be similar to the proposed Master Plan as mining operations typically entail the on-site fueling and servicing of construction equipment entailing the transport, use storage and disposal of hazardous material. Therefore resulting impacts would be similar to those associated with the proposed project.

Hydrology and Water Quality

Under the Buildout Under the Existing General Plan Alternative, impacts associated with stormwater runoff and water quality will be less than those associated with the proposed project as no increase in impermeable surfaces will be created resulting in impacts associated with oil, grease, and other pollutants affecting water quality. All stormwater will be contained on-site. Fewer impacts would occur under this alternative as compared to the proposed project.

Land Use

According to the City of Upland General Plan, the project site is designated Open Space and Mining is a permitted land use. All mining operations are required to be a minimum of 750 feet from residences (communication with Rosalie Staudenmayer). Buildout under the Existing General Plan Alternative would be in compliance with the adopted General Plan and no General Plan Amendment would be required. However, mining could be considered incompatible with the surrounding residential uses by the local community. Therefore, impacts to land use would be greater as compared to the proposed project.

Mineral Resources

No impacts to Mineral Resources are anticipated with the adoption of the Buildout Under the Existing General Plan Alternative as mining operations would continue to develop a known

mineral resource. Impacts to mineral resources would be less than those associated with the proposed project which will eliminate the availability of the resource.

Noise

The primary source of noise related to aggregate mining and processing is heavy equipment. Noise generated by trucks, graders, bulldozers, and concrete mixers can reach high levels. Excavation would generate the highest levels of noise during the time when the site excavation is initially started and excavation would be closest to the existing surface. According to the City of Upland mining operation are required to be a minimum of 750 feet from residences. However, mining operations are anticipated to continue for 20 years and could have long-term noise impacts. Therefore, noise impacts would be greater than those of the proposed project.

Traffic and Circulation

Under the Buildout Under the Existing General Plan Alternative, traffic impacts are anticipated to be less compared to the proposed Master Plan. Based on the SCAQMD air quality model[4], traffic is anticipated to be 33 trucks daily, 5 days per week as compacted to 7,801 daily vehicle trips associated with the proposed Master Plan. Therefore, fewer traffic impacts would occur under this alternative compared to the proposed project.

Public Services

Under the Buildout Under the Existing General Plan Alternative, impacts to Public Services are not anticipated, as new development would not be proposed and demands on public services would not increase. Fewer impacts would occur under this alternative when compared to the proposed project.

Public Utilities and Infrastructure

Under the Buildout Under the Existing General Plan Alternative, impacts to Public Utilities and Infrastructure would not be anticipated, as new development would not be proposed and no infrastructure improvements will be required. Fewer impacts would occur under this alternative when compared to the proposed project.

Population and Housing

The Buildout Under the Existing General Plan Alternative would not result in any indirect or direct population growth as no development would occur. No impacts would occur under this alternative.

[4] SCAQMD Air Quality Model was used to estimate the number of operational vehicles necessary for the mining alternative.

Ability to Meet Project Objectives

Although the Buildout Under the Existing General Plan Alternative would comply with the existing General Plan and Zoning Ordinance, this alternative would not meet the City's objectives of providing a beneficial use for the underutilized mine pit. The development of a mining pit as a City Sports Park will allow for the multiple uses benefiting the City's residences and enhancing the visual character by reclaiming the mining pit.

Another goal of the City is to provide for the highest and best use of the property while assisting in balancing the housing to jobs ratio of the City, and providing a long-term taxable revenue base for the City. With the development of the proposed project, the City of Upland aims to promote exceptional architecture and site planning. However, these objectives would not be achieved under this Alternative. The City has determined the need for more developed park acreage. However, no new opportunities for recreation would be created for at least 20 years. The other objectives of providing a mixed land use of residential, commercial and recreational amenities, compatible Development plan with the surrounding residential and non-residential land uses, a harmonious community would not be achieved under this alternative This Alternative would not be considered as an Environmentally Superior Alternative.

6.4.3 Park Access Alternative

Park View Specific Plan

Under this alternative, the Park View Specific Plan portion of the project site would be developed into a mixed-use development consisting of 100,000 square feet of commercial uses and up to 400 dwelling units. However, there would be no City Sports Park Access from Baseline Road through the Park View Specific Plan.

City Sports Park portion

The proposed City Sports Park is an approximate 57-acre site owned by the City of Upland. Under this alternative, the Park component of the project would be essentially the same as the proposed project with the exception of the access. Under this alternative, public access to the City Sports Park would be via 17th Street off Benson Avenue. Currently, public access is being proposed from Baseline Road.

Aesthetics and Visual Quality

Under the Park Access Alternative, Aesthetics and Visual Quality would be similar to those addressed in the Master Plan, as the proposed land uses would remain unchanged and the entire site will be developed.

Air Quality

Under the Park Access Alternative, Air Quality would be similar to the Master Plan. Both the Master Plan and the Park Access Alternative proposed a mixed-use development consisting of 100,000 square feet of commercial uses and up to 400 dwelling units.

Biological Resources

Under the Park Access Alternative, biological resources would be similar to those addressed within the Master Plan, as the entire site would be disturbed.

Cultural Resources

Under the Park Access Alternative, the cultural resources would be similar to those addressed within the Master Plan, as the entire site would be disturbed.

Geology and Soils

Under the Park Access Alternative, geology and soils would be similar to those addressed within the Master Plan, as the entire site would be disturbed.

Hazards

Under the Park Access Alternative, impacts associated with the transport, use, storage and disposal of hazardous materials are anticipated to be similar to those addressed within the proposed Master Plan as land uses would remain unchanged.

Hydrology and Water Quality

Under the Park Access Alternative, impacts to hydrology and water quality would be similar to those addressed within the Master Plan, as the entire site would be disturbed.

Land Use

Under the Park Access Alternative, impacts to land use would be similar to those addressed within the Master Plan. The Park View Specific Plan portion of the Master Plan and the Park Access Alternative would require a General Plan Amendment and Zone Change. Therefore, land use issues would remain unchanged.

Mineral Resources

Under the Park Access Alternative, impacts to mineral resources would be similar to those addressed within the Master Plan. The loss of approximately 3.25 million tons of aggregate is considered a significant unavoidable impact similar to the proposed project.

Noise

Under the Park Access Alternative, impacts to sensitive receptors would be similar to those addressed within the Master Plan. The mixed-use development portion of both the Master Plan and the Park Access Alternative would be required to provide noise studies demonstrating compliance with the City of Upland's noise standards prior to issuance of development permits.

Traffic and Circulation

The Baseline Road Master Plan project (residential component, retail component and park component) is anticipated to generate 7,801 daily trips, with 409 trips (150 inbound, 259 outbound) in the AM peak hour and 857 trips (497 inbound, 360 outbound) in the PM peak hour.

Pursuant to the modified Master Plan, a public scoping meeting was held on February 15, 2006 inviting residents to voice their opinions and concerns regarding the proposed project. Residents voiced safety and traffic congestion concerns regarding access to the City Sports Park from 17th Street off Benson Avenue (single-family residents outline the area). The Park Access Alternative proposes that all access to the City Sports Park would be via 17th Street off Benson Avenue. This would create approximately 2,100 additional daily trips along 17th Street. The Master Plan is proposing access from within the residential and commercial development only. Therefore, the Park Access Alternative would create greater impacts than those associated with the proposed project.

Public Services

Under the Park Access Alternative, public services would be similar to those addressed within the Master Plan, as the land use would remain unchanged.

Public Utilities and Infrastructure

Under the Park Access Alternative, public utilities and infrastructure impacts would be similar to those addressed within the Master Plan, as the land use would remain unchanged.

Population and Housing

The Park Access Alternative would result in similar impacts to population and housing as that of the proposed project.

Ability to Meet Project Objectives

Although the majority of the environmental impacts discussed in the Park Access Alternative are similar to those addressed within the Master Plan, the alternative would not address the concerns of residents of Upland regarding park access. This Alternative would achieve all the goals and objectives of the proposed project, but it would not be considered an Environmentally Superior Alternative because it would have greater traffic impacts.

6.4.4 Development of the City Sports Park and Mining Alternative

Under this alternative, the commercial and residential uses identified in the Park View Specific Plan would not be developed. Instead pit mining of up to 3,240,000 cubic yard of aggregate material would occur over a 20-year period on portions of the Park View Specific Plan area. No general plan amendment would occur and only the City Sports Park portion would be developed. The following scenario is assumed under this alternative:

- Approximately 57-acre City Sports Park site in a reclaimed mine pit would consist of:
    - 6 soccer fields (two could be converted to soft ball fields)
    - 2 tennis courts
    - 1 basketball court
    - "Tot lot"
    - Small community amphitheater
    - Concession stand
    - Access to the City Sports Park would be from 17th Street
- Approximately 42 acres in four parcels fronting Baseline Road designated open space would consist of:
    - Approximately 23 acres representing Basin 1 of the Holliday Rock Mine Reclamation Plan (adopted August 2003). It is designed to be offset approximately 165 feet north of Baseline Road, 117 feet from its eastern boundary, and 50 feet southeast from SR-210 right-of–way. Aggregate reserves are estimated at approximately 1.4 million cubic yards. Basin 1 will have a final floor elevation of 1,502 above sea level at the southern end of the quarry with a depth of 50 feet and a final floor elevation of 1,504 above sea level at the northern end of the quarry with a depth of about 100 feet due to natural ground elevation changes. All aggregate processing would occur off-site.

      The basin would be developed with a 2:1 (horizontal to vertical) slopes. Fences for safety and interceptor ditches for run-off control will be constructed around the pit rims as it is developed. The finished basin floor will be graded to drain from north to south. The basin would ultimately be connected to the other basins in the Holliday Rock plan to allow the basins to drain into the lower basins.

    - A 6.75-acre parcel owned by Upland Gateway, LLC, which currently contains a composting/demolition and recycling operation (Intravaia Rock and Sand, Inc.).

    - A 9.5-acre parcel which contains a water well/access road currently owned and leased by Upland Gateway, LLC to the Southern California Water Company, a private water company.

    - Approximately 2.4 acres within the City of Claremont.

Aesthetics and Visual Quality

Under the Development of the City Sports Park, and Mining Alternative, impacts to the City Sports Park portion of the site would be similar to those addressed within the proposed Master Plan. On the Park View Specific Plan portion, mining operations would be visible for up to 20 years. After reclamation the final views of the project site would result in a revegetated open space. The proposed project would however, change the views of the project site permanently. Therefore, impacts to Aesthetics and Visual Quality are considered to be less than that of the proposed Master Plan.

Air Quality

Under the Development of the City Sports Park, and Mining Alternative, impacts to air quality would be less than significant as compared to the proposed project. According to the SCAQMD air quality model, air quality emissions for criteria pollutants would not exceed the threshold values under the Buildout under the Existing General Plan Alternative. The Park View Specific Plan portion be mined (approved land use General Plan 1982) and is projected to generate 162,000 tons of aggregate per year, over the estimated operation life of 20 years at a permitted depth of 250 feet. Approximately 33 trucks would haul material daily. Truck exhaust emissions were estimated for a speed of 15 MPH and a 0.50-mile distance utilizing Off-Road Mobile Source Emission Factors from SCAQMD emission factors for 2006. The operational emissions totals for criteria pollutants (ROG, NO_X, CO, and PM_{10}) do not exceed the CEQA thresholds of significance unlike the proposed project. Aggregate processing would occur off-site. Impacts would be less than that of the proposed project. A detailed air quality analysis for this alternative is included as Appendix H in this EIR.

Approximately 57 acres would be developed as a City Sports Park as proposed in the Baseline Road Master Plan. According to the Traffic Impact Analysis prepared by Linscott Law & Greenspan Engineers, September 20, 2006, the Park would generate approximately 571 daily trips. Utilizing the 570 daily trip estimate, the air quality emissions would not exceed the CEQA thresholds. Operational impacts would be less than significant. Overall, the Development of the City Sports Park, and Mining Alternative would have fewer air quality related impacts as compared to the proposed project.

Biological Resources

Under the Development of the City Sports Park, and Mining Alternative, impacts to biological resources would be similar to those addressed within the Master Plan, as the entire site would likely be disturbed. However, pursuant to the approved Mine Reclamation Plan, after the mining operations terminate, the project site is anticipated to be restored to its pre-project conditions, and would have a potential to recover loss of biological resources. Therefore, impacts to biological resources are considered to be less than that of the proposed Master Plan.

Cultural Resources

Under the Development of the City Sports Park, and Mining Alternative, impacts to cultural resources would be similar to those addressed within the Master Plan, as the entire site would likely be disturbed.

Geology and Soils

Under the Development of the City Sports Park, and Mining Alternative, no habitable structures are proposed and therefore, no impacts to geology and soils are anticipated. Therefore, impacts to structures due to seismic activities would be less than that of the proposed Master Plan.

Hazards

Under the Development of the City Sports Park, and Mining Alternative, impacts associated with the transport, use, storage and disposal of hazardous materials would likely be similar to the proposed Master Plan as mining operations typically entail the on-site fueling and servicing of construction equipment entailing the transport, use storage and disposal of hazardous material. Therefore resulting impacts would be similar to those associated with the proposed project.

Hydrology and Water Quality

Under the Development of the City Sports Park, and Mining Alternative, impacts associated with stormwater runoff and water quality will be less than those associated with the proposed project as no increase in impermeable surfaces will be created resulting in impacts associated with oil, grease, and other pollutants affecting water quality. All stormwater will be contained on-site. Fewer impacts would occur under this alternative as compared to the proposed project.

Land Use

According to the City of Upland General Plan, the project site is designated Open Space and Mining is a permitted land use. All mining operations are required to be a minimum of 750 feet from residences (communication with Rosalie Staudenmayer). The Development of the City Sports Park, and Mining Alternative would be in compliance with the adopted General Plan and no General Plan Amendment would be required. However, mining could be considered as an incompatible land use by the surrounding reside tents. Therefore, impacts to land use would be more significant than those associated with the proposed project.

Mineral Resources

Under the Development of the City Sports Park, and Mining Alternative no impacts to Mineral Resources are anticipated as mining operations would continue to develop a known mineral resource. Impacts to mineral resources would be less than significant as compared to the proposed project.

Noise

Primary sources of noise related to aggregate mining and processing is heavy equipment. Noise generated by this equipment, including trucks, graders, bulldozers, and concrete mixers can reach high levels. Excavation would generate the highest levels of noise. According to the City of Upland (communication with Rosalie Staudenmayer) mining operation are required to be a minimum of 750 feet from residences. However, mining operations are anticipated to continue for 20 years and would have long-term noise impacts. Therefore, noise impacts under the Development of the City Sports Park, and Mining Alternative would be greater than those associated with the proposed project.

Traffic and Circulation

Under the Development of the City Sports Park, and Mining Alternative, traffic impacts are anticipated to be less compared to the proposed Master Plan. Based on the SCAQMD air quality model[5], traffic is anticipated to be 33 trucks daily, 5 days per week as compacted to 7,801 daily vehicle trips associated with the proposed Master Plan. Therefore, fewer traffic impacts would occur under this alternative compared to the proposed project. Therefore, under this scenario traffic impacts would be less than that of the proposed project.

Public Services

Under the Development of the City Sports Park, and Mining Alternative, impacts to Public Services are not anticipated, as growth would not be proposed. Fewer impacts would occur under this alternative when compared to that of the proposed project.

Public Utilities and Infrastructure

The Development of the City Sports Park, and Mining Alternative would not generate a need for additional Public Utilities or Infrastructure, as new growth would not be proposed. Fewer impacts would occur under this alternative when compared to that of the proposed project.

Population and Housing

Under the Development of the City Sports Park, and Mining Alternative, no development would occur and no new population would generate. Impacts would be less as compared to that of the proposed project.

Ability to Meet Project Objectives

Under the Development of the City Sports Park, and Mining Alternative, the City would be able to provide new park and recreational facilities as the City Sports Park will be developed.

[5] SCAQMD Air Quality Model was used to estimate the number of operational vehicles necessary for the mining alternative.

However, this alternative would not meet the City's objectives of providing a beneficial use for the underutilized mine pit. The development of a mining pit as a City Sports Park will allow for the multiple uses benefiting the City's residences and enhancing the visual character by reclaiming the mining pit.

Another goal of the City is to provide for the highest and best use of the property while assisting in balancing the housing to jobs ratio of the City, and providing a long-term taxable revenue base for the City. With the development of the proposed project, the City of Upland aims to promote exceptional architecture and site planning. However, these objectives would not be achieved under this Alternative. The City has determined the need for more developed park acreage. However, no new opportunities for recreation would be created for at least 20 years under this alternative. The other objectives of providing a mixed land use of residential, commercial and recreational amenities, and a compatible development plan with the surrounding residential and non-residential land uses, or a harmonious community would not be achieved (resulting in a environmentally inferior project) under this alternative. This Alternative would not be considered as an Environmentally Superior Alternative.

6.4.5 Development of the City Sports Park and Major Commercial Tenants

Under this alternative, the 42-acre Park View Specific Plan mixed residential and commercial project would not be developed; instead a commercial retail shopping center encompassing approximately 460,000 square feet of regional retail stores would be developed. The following scenario is assumed under this alternative:

- Approximately 57-acre City Sports Park site in a reclaimed mine pit would consist of:
    - 6 soccer fields (two could be converted to soft ball fields)
    - 2 tennis courts
    - 1 basketball court
    - "Tot lot"
    - Small community amphitheater
    - Concession stand
    - Access to the City Sports Park would be from Baseline Road
- Approximately 42 acres in four parcels fronting Baseline Road, designated as open space, would consist of:
    - Two large retail stores of approximately 225,000 and 136,000 square feet each,
    - Eight small to mid-size retails establishments totaling approximately 59,000 square feet of development.
    - Approximately 21,000 square feet of development in two buildings located in Claremont.

Aesthetics and Visual Quality

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, the large retail stores are anticipated to be built further north on the project site away from the Baseline Road as compared to the proposed residential and commercial development in the proposed Master Plan, which is much closer to the Baseline Road. However, the large retail stores would have a larger building mass as compared to the smaller scale of the proposed residential and neighborhood commercial structures. Therefore, overall the impacts to Aesthetics and Visual Quality are anticipated to be similar to those addressed within the Master Plan.

Air Quality

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, the entire site would be developed, PM_{10} emissions would be similar to those addressed within the Master Plan. CO, NO_x and ROG emissions would continue to exceed the SCAQMD thresholds and be considered significant under this alternative because of increased operational emissions due to vehicles and larger commercial buildings. Impacts to air quality would be greater than those of the proposed project primarily as a result of increased traffic. However, both the proposed project and Development of the City Sports Park, and Major Commercial Tenants Alternative would exceed the thresholds of significance resulting in a significant impact.

Biological Resources

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, the entire site would be developed thus impacts to biological resources would be similar to those addressed within the Master Plan.

Cultural Resources

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, the entire site would be developed thus impacts to cultural resources would be similar to those addressed within the Master Plan.

Geology and Soils

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, the entire site would be developed, thus impacts to geology and soils would be similar to those addressed within the Master Plan.

Hazards

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, impacts associated with the transport, use, and disposal of hazardous materials would likely be similar to the proposed Master Plan as both uses would potentially transport, use, and dispose hazardous materials, thus impacts would be similar in nature.

Hydrology and Water Quality

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, impacts to hydrology and water quality would be similar to those addressed within the Master Plan, as the entire site would be developed.

Land Use

The Development of the City Sports Park, and Major Commercial Tenants Alternative would also require a General Plan Amendment and Zone Change similar to the Park View Specific Plan portion of the Master Plan. However, the large retail stores would be located adjacent to the existing residential development and would be less compatible than the neighborhood commercial development in the proposed Specific Plan. Therefore, impacts are anticipated to be more significant than those associated with the proposed project.

Mineral Resources

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, impacts to mineral resources would be similar to those addressed within the Master Plan. The entire site would be disturbed and the loss of approximately 3.25 million tons of aggregate will be considered a locally significant unavoidable impact. Similar impacts would occur as those associated with the proposed project.

Noise

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, the commercial and residential uses would be replaced by two Big Box retail stores (i.e., Costco, Sam's Club, Super Target, Super Wal-Mart, etc.) and other smaller retail uses. Impacts to adjacent sensitive receptors (single-family residents) would increase since commercial uses would typically generate more noise than the residential development. Potential noise impacts would be greater than those associated with the proposed project.

Traffic and Circulation

A Traffic Impact Analysis was conducted for the Development of the City Sports Park, and Major Commercial Tenants Alternative by Linscott Law & Greenspan Engineers, September 29, 2004. It is estimated that the 460,000 square feet shopping center and a net 44-acre City Sports Park is projected to generate approximately 15,740 daily trips, with 630 AM peak hour trips (355 inbound, 275 outbound) and 1,479 PM peak hour trips (714 inbound, 765 outbound) on a "typical" weekday. The Baseline Road Master Plan project (residential component, retail component and recreation component) is anticipated to generate 7,801 daily trips, with 409 trips (150 inbound, 259 outbound) produced in the AM peak hour and 857 trips (497 inbound, 360 outbound) produced in the PM peak hour. Under this alternative, traffic impacts would be greater than those associated with the proposed Master Plan.

Public Services

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, public services would be similar to those addressed within the Master Plan, as the entire site would be developed as commercial and recreational uses.

Public Utilities and Infrastructure

The Park View Specific Plan portion of the proposed project would generate a demand of approximately 227 acre-feet per year of water, 152,780 gallons per day of wastewater and 2.2 tons per day of solid waste. The Development of the City Sports Park, Major Commercial Tenants would generate demand for approximately 47 acre-feet of water, 90,820 gallons per day of wastewater and 5.6 tons per day of solid waste for the commercial development. The City Sports Park would have the same impacts under both the development scenarios. Therefore, impacts to public utilities would be less under the Development of the City Sports Park, and Major Commercial Tenants Alternative than those associated with the proposed project.

Population and Housing

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, indirect population growth might occur due to jobs created from commercial uses. However, since most of the employees are anticipated to be from the Cities of Upland and Claremont, impacts would be less than those associated with the proposed project.

Ability to Meet Project Objectives

Under the Development of the City Sports Park, and Major Commercial Tenants Alternative, the City would be able to generate tax revenue and provide new park and recreational facilities. However, the City would not be able to provide a diversity of housing choices. Also this Alternative would result greater impact on traffic and land use compatibility as compared to the proposed project. This Alternative would achieve only some of the goals and objectives of the proposed project and would not be considered an "Environmentally Superior Alternative."

6.4.6 Development of the City Sports Park and Single Family Residential Tract

Under this alternative the Park View Specific Plan portion of the mixed-use development would not be developed, and a single-family residential development over the entire 42 acres portion would replace it. Density would change from 10 to 20 dwelling units per acre allowing up to 400 dwelling units, to 4 to 6 dwelling units per acre allowing approximately 168 single family homes to be developed. The following scenario is assumed under this alternative:

- Approximately 57-acre City Sports Park site in a reclaimed mine pit would consist of:
    - 6 soccer fields (two could be converted to soft ball fields)
    - 2 tennis courts
    - 1 basketball court

- "Tot lot"
- Small community amphitheater
- Concession stand
- Access to the City Sports Park would be from 17th Street

- Approximately 42 acres in four parcels fronting Baseline Road designated open space would consist of:

  - 168 Single Family Residences (4-6 dwelling units per acre).
  - Approximate 7,200 square-foot lots per dwelling unit.

Aesthetics and Visual Quality

Under Development of the City Sports Park and Single Family Residential Tract Alternative, affects on Aesthetics and Visual Quality would be reduced compared to those addressed within the Master Plan, as light and glare concerns from the commercial development would no longer be an issue. Additionally, the scale of low-density single-family homes would be more compatible with the surrounding development.

Air Quality

Under Development of the City Sports Park and Single Family Residential Tract Alternative, a single-family residential tract would replace approximately 100,000-square-feet of commercial uses and approximately 400-dwelling units. Based on the URBEMIS 2007 air quality model, this alternative would exceed CEQA thresholds for ROG as compared to the proposed project that would exceed CEQA thresholds for all ROG, CO and NOX emissions. Therefore, air quality impacts under the Development of the City Sports Park and Single Family Residential Tract Alternative would be less than those associated with the proposed project but would still be considered significant.

Biological Resources

Under the Development of the City Sports Park and Single Family Residential Tract Alternative, the entire site would be developed, biological resources impacts would be similar to those associated with the Master Plan.

Cultural Resources

Under the Development of the City Sports Park and Single Family Residential Tract Alternative, the entire site would be developed, potential impacts to cultural resources would be similar to those associated with the Master Plan.

Geology and Soils

Under the Development of the City Sports Park and Single Family Residential Tract Alternative, the entire site would be developed, geology and soils impacts would be similar to those associated with the Master Plan.

Hazards

As residential developments are not typically associated with the transport, use, and disposal of hazardous materials impacts from hazardous materials are not anticipated. Impacts would be less than those associated with proposed project.

Hydrology and Water Quality

Under Development of the City Sports Park and Single Family Residential Tract Alternative, impacts to hydrology and water quality would be similar to those associated with the Master Plan, as the entire site would be developed/disturbed.

Land Use

Under Development of the City Sports Park and Single Family Residential Tract Alternative, impacts to land use would be similar to those addressed within the Master Plan, as the Park View Specific Plan portion would require a General Plan Amendment and Zone Change.

Mineral Resources

Under Development of the City Sports Park and Single Family Residential Tract Alternative, impacts to mineral resources would be similar to those addressed within the Master Plan. The entire site would be developed/disturbed and the loss of approximately 3.25 million tons of aggregate will be considered a locally significant unavoidable impact.

Noise

The Park View Specific Plan portion of the Master Plan is proposing a 100,000 square-feet of commercial uses and up to 400 dwelling units. Under Development of the City Sports Park and Single Family Residential Tract Alternative, the commercial and residential uses would be replaced with a much lower density 168 single-family homes. Impacts to adjacent sensitive receptors (single-family residences to the east) would be reduced as compared to the Master Plan, since no loading/unloading and other truck activities related to commercial uses would occur. Noise impacts would be less than those associated with the proposed project.

Traffic and Circulation

Based on the URBEMIS air quality trip factor, the Development of the City Sports Park and Single Family Residential Tract Alternative would generate approximately 2,049 daily trips. As compared to the approximate 7,801 daily trips generated from the proposed project, the

Development of the City Sports Park and Single Family Residential Tract Alternative would reduce the number of trips by approximately 75 percent. Therefore, traffic impacts would be reduced when compared to those addressed within the Master Plan.

Public Services

Under Development of the City Sports Park and Single Family Residential Tract Alternative, impact on public services would be less than those addressed within the Master Plan, as the development would be less dense and the total number of housing units would reduce by approximately 290.

Public Utilities and Infrastructure

Under Development of the City Sports Park and Single Family Residential Tract Alternative, impact on public utilities would be less than those addressed within the Master Plan, as the development would be at a lower density and the total number of housing units would reduce by approximately 290.

Population and Housing

Under Development of the City Sports Park and Single Family Residential Tract Alternative, direct population growth would occur. However, the number of residential dwellings would be less than that of the proposed project. Less impact would occur as compared to the proposed project.

Ability to Meet Project Objectives

Under Development of the City Sports Park and Single Family Residential Tract Alternative, the City would be able to provide housing and recreational facilities. Elimination of commercial uses would however, result in a potential loss in tax revenue. This Alternative would achieve most of the goals and objectives of the proposed project. It would also result in less significant environmental impacts on aesthetics, public services/utilities, and traffic as compared to that of the proposed project. This would be considered an Environmentally Superior Alternative.

6.5 SUMMARY OF ALTERNATIVES ANALYSIS

Table 6-1 shows the impact levels of each of the four alternatives evaluated as compared to those impacts of the proposed project. The alternative that has impact levels similar to or less than the proposed project, and no impact levels greater than the proposed project, is the Development of the City Sports Park and Single Family Residential Tract Alternative. Therefore this Alternative would be considered the “Environmentally Superior Alternative.”

7.0 OTHER CEQA-REQUIRED ANALYSIS

7.1 INTRODUCTION

This section evaluates the potential of the proposed project to cause or create significant amounts of additional growth in the surrounding communities. Significant amounts of growth could result in indirect effects to various community aspects such as public facilities and infrastructure.

CEQA Guidelines Section 15126.2(d) requires an evaluation of growth inducing impacts that may result from a project. A project that is growth inducing is defined as one that directly or indirectly fosters economic growth, population growth, or additional housing; when it removes obstacles to growth; when it taxes public facilities and services; or when it encourages or facilitates other activities that could significantly affect the environment. For example, the lack of existing utilities and services typically prevents growth. The provision of such services in a previously unserved or underserved area has the potential to induce growth by providing additional unused and available capacity.

7.2 GROWTH INDUCEMENT

Under the City's General Plan, there are provisions to construct infrastructure and other urban services to properly serve the proposed project simply due to the location along a primary thoroughfare and the proximity to other development. Development of the proposed project would have a negligible effect on local and regional population, housing, and employment forecasts and therefore would not result in impacts that are environmentally significant. The project site is located within an urban area to which all required public services and utilities can be provided. The growth resulting from the proposed development is consistent with that previously projected by regional planning agencies; therefore, no significant environmental effect resulting from this growth would occur.

7.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the CEQA Guidelines requires that any significant irreversible environmental changes that would occur should the proposed project be implemented, be discussed in the EIR. Of primary interest is the use of nonrenewable resources. If the project is implemented, the following irreversible environmental changes may occur:

- The development and maintenance of streets, storm drains, and other public facilities will require the irreversible consumption of natural resources including construction materials, water, and energy sources.

- Building materials, including forest and mineral products, will be permanently committed in construction projects related to the long-term implementation of the project.

- Loss of a regionally significant aggregate resource and a local resource extraction area.

Incorporation of recommended mitigation measures, City conditions of approval and adherence with the Uniform Building Code, will ensure that majority of the irreversible and/or unavoidable

environmental impacts as described above can be adequately mitigated to less than significant levels. However, the proposed project would still result in a loss of mineral resources and is considered as a significant irreversible impact.

7.4 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

Project impacts that cannot be avoided include those related to air quality and mineral resources.

When considering the project, the City must make findings in accordance with CEQA Guidelines Section 15091 which states that "No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of the significant effects accompanied by a brief explanation of the rationale for the findings."

Therefore, prior to taking action on the proposed project, the City Council would consider such findings.

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8.1 LIST OF PREPARERS

City of Upland

Jeff Bloom, Community Development Director
Rosalie Staudenmayer, Senior Planner
John Atwater, Senior Planner

Lilburn Corporation

Cheryl Tubbs, Principal
Mike Perry, Senior Project Manager
Natalie Patty, Environmental Analyst
Frank Amendola, Environmental Analyst
Tina Garg, Environmental Analyst
Troy Goodwalt, CADD Operator
Mary Jones, Word Processor

Mestre Greve Associates

Fred Greve, P.E.
Matthew B. Jones, P.E.
Tanya Moon

Archaeological Associates

Robert S. White
Laurie S. White

White & Leatherman BioServices

Scott White

Linscott Law & Greenspan, Engineers

Richard E. Barretto
Daniel A. Kloos

8.2 PERSONS AND ORGANIZATIONS CONSULTED

Mr. Alex Quista, City of Upland Traffic Engineer
Ms. Belinda Cantine, Upland Unified School District
Ms. Jackie Adams, County of San Bernardino, Division of Environmental Health Services
Ms. Judy Rooze, Upland Unified School District

Mr. Larry Ryan, RJM Design Group
Ms. LeAnne E. Hamilton, Inland Empire Utility Agency
Mr. Lou Steslicki, Upland Fire Department
Ms. Roseanne Crist-Danna, Upland Police Department
Ms. Sondra Elrod, Inland Empire Utility Agency
Mr. Steve Gapuzan, City of Upland
Ms. Susan Amirhosseini, Integrated Waste Management Department

San Antonio Community Hospital, Administration Department
Doctor's Hospital Medical Center, Main Line
Pomona Valley Hospital Medical Center, Bed Control

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